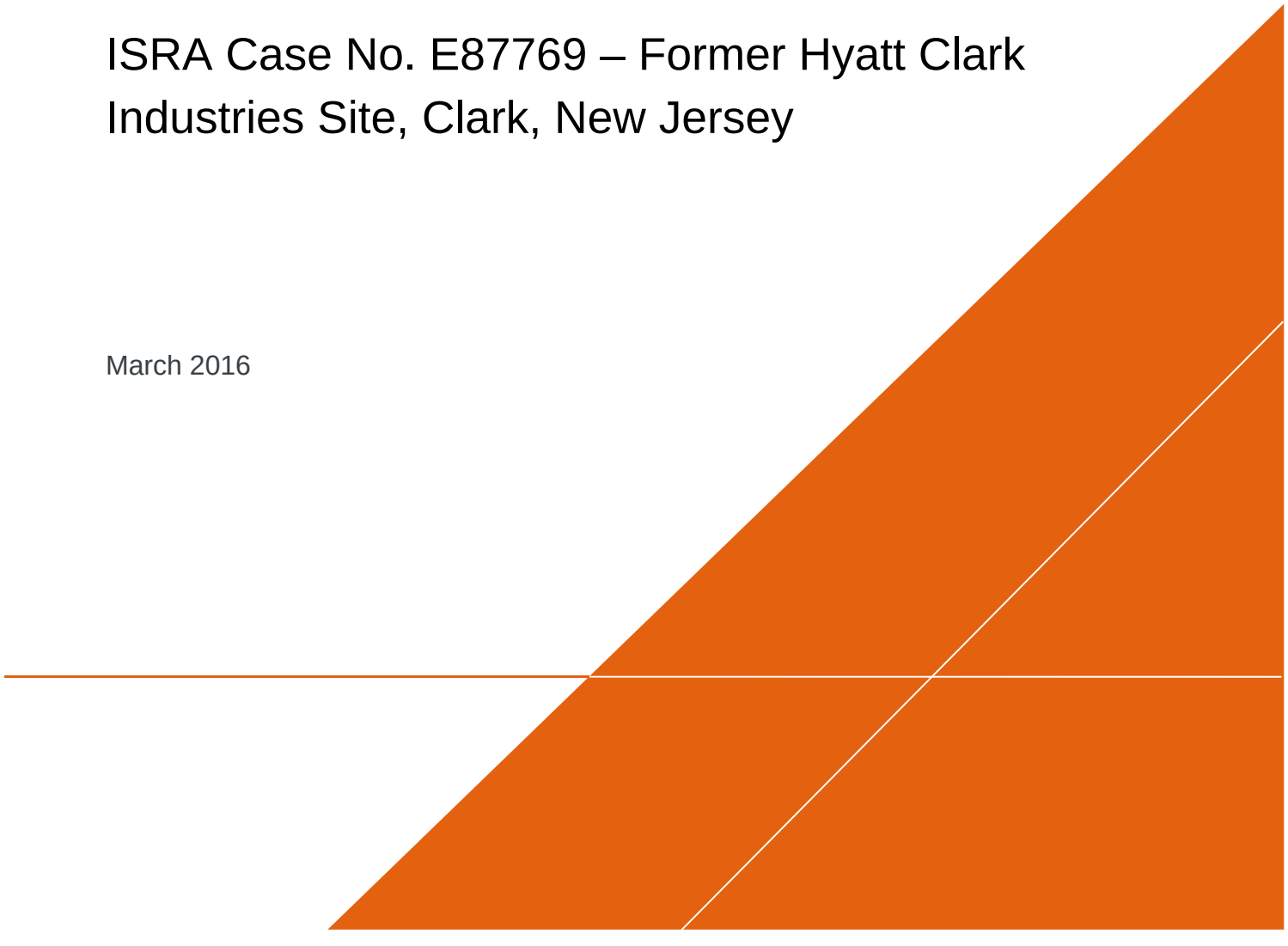
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RACER Trust

GROUNDWATER REMEDIAL INVESTIGATION REPORT

ISRA Case No. E87769 – Former Hyatt Clark Industries Site, Clark, New Jersey

March 2016



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ACRONYMS AND ABBREVIATIONS

ACO	Administrative Consent Order
bls	below land surface
CEA	Classification Exception Area
CFC-11	trichlorofluoromethane
CID	Case Inventory Report
cis-1,2-DCE	cis-1,2-dichloroethene
CSM	conceptual site model
DNAPL	dense non-aqueous phase liquid
1,1-DCA	1,1-dichloroethane
1,1-DCE	1,1-dichloroethene
ECRA	Environmental Cleanup and Responsibility Act
ELAP	Environmental Laboratory Accreditation Program
FPR	final product recovery
GM	General Motors
gpm	gallons per minute
GWQC	Groundwater Quality Criteria
GWSL	groundwater screening level
HCI	Hyatt Clark Industries
ISRA	Industrial Site Recovery Act
µg/L	micrograms per liter
MLC	Motors Liquid Corporation
msl	mean sea level
N.J.A.C.	New Jersey Administrative Code
NJDEP	New Jersey Department of Environmental Protection
PCB	polychlorinated biphenyl
PCE	tetrachloroethene
ppb	parts per billion
RACER	Revitalizing Auto Communities Environmental Trust
RAP	Remedial Action Plan

RAR	Remedial Action Report
RAWP	Remedial Action Work Plan
RCRA	Resource Conservation and Recovery Act
RE	Receptor Evaluation
RI	remedial investigation
RIR	Remedial Investigation Report
RIW	Remedial Investigation Workplan
SVOC	semi-volatile organic compound
1,1,1-TCA	1,1,1-trichloroethane
TCE	trichloroethene
TRSR	Technical Requirements for Site Remediation
USEPA	United States Environmental Protection Agency
UST	underground storage tank
VCC	Villa Construction Company
VI	vapor intrusion
VIRE	vapor intrusion receptor evaluation
VOC	volatile organic compound
WP	work plan

1 INTRODUCTION

On behalf of Revitalizing Auto Communities Environmental Response Trust (RACER Trust), Arcadis U.S., Inc. (Arcadis) has prepared this Groundwater Remedial Investigation Report (RIR) for the former Hyatt Clark Industries (HCI) Site, located in Clark, New Jersey (the Site). RACER is conducting investigation and remediation activities at the Site pursuant to an Administrative Consent Order (ACO) (Environmental Cleanup and Responsibility Act/Industrial Site Recovery Act [ECRA/ISRA] Case No. 87769) entered into in 1989 by General Motors Corporation (GM) with the New Jersey Department of Environmental Protection (NJDEP) and a bankruptcy settlement between MLC, the U.S. Environmental Protection Agency (EPA) and the State of New Jersey dated October 20, 2010. On March 31 2011, as stipulated in the Settlement Agreement the Site real property assets and cleanup funding were transferred to the RACER Trust. The bankruptcy settlement transferred the responsibility for remedial cleanup to RACER Trust.

The Site is under direct oversight of NJDEP because of its obligations under the Resource Conservation and Recovery Act (RCRA), however, NJDEP required RACER Trust to hire a Licensed Site Remediation Professional (LSRP) for the Site which was not accounted for in the Remediation Cost Estimate Summary ("RCES") for the Site. Accordingly, RACER Trust and NJDEP agreed that LSRP expenses would be funded through the Agency Oversight funding task established in the RCES since, over-all, oversight resources would be reduced since an LSRP is now assigned to the site remedial efforts.

The final Remedial Action Work Plan (RAWP) for Soil was submitted in October 1998 and approved by NJDEP in February 1999. The remedy for soil consisted of the excavation and off-site disposal of impacted soil, and a multi-layer cap system that was completed in April 2000. The Remedial Action Plan (RAP) for Free Product was submitted in February 2000. The Remedial Action Report (RAR) for Soil was submitted in November 2000. The RAP for Free Product documented the results of the investigation and recovery of free product, and proposed a product recovery system that was incorporated into the soil cap system for the Site.

A RAWP for Groundwater was submitted in May 2001. Because it believed additional investigation of groundwater was warranted, NJDEP did not approve the RAWP for Groundwater. Consequently, additional investigation of groundwater was conducted to further define the nature and extent of groundwater impacts at the Site. This RIR presents the groundwater remedial investigation (RI) results for the Site. The RI scope of work performed after submission of the RAWP for Groundwater is presented in this report. Routine groundwater monitoring results, reported regularly to NJDEP between 2001 and March 2009, are not included herein. Groundwater monitoring results collected between March 2009 and September 2014 are included in this report and form the basis for the findings and recommendations for the GW RI.

Arcadis has prepared this RIR in accordance with the NJDEP Technical Requirements for Site Remediation (TRSR), New Jersey Administrative Code (N.J.A.C.) 7:26E – Remedial Investigation Report, Section 4.9. A copy of the required Traditional Oversight Report Certification Form is provided **Appendix A**. A copy of the Case Inventory Document (CID) and CID Figure are provided in **Appendix B**.

1.1 Site Description

The Site is located at 1300 Raritan Road in Clark, Union County, New Jersey. A portion of the Site also extends into Cranford, New Jersey. The Site is bounded by Raritan Road to the south, commercial and industrial properties to the east, and the Conrail Corporation's Bloodgood Line to the north and west.

The Site is situated in a mixed commercial, light industrial, and residential area. Current land use is recreation. The Site operates as a nine-hole golf course. Land use to the north of the Site is primarily residential. To the east, south, and west of the Site, land use is mixed commercial and light industrial.

1.2 Site History

Historical operations at the former facility consisted of the manufacture of hard rubber products, such as steering wheels and door handles, and anti-friction roller bearings for the automotive and railroad industries. Raw materials included multiple grades of alloy steels and bronze alloy castings. Manufacturing processes included hot forming, machining, heat treating, quenching, drawing, tumbling, deburring, and assembly.

The original plant was constructed in 1938 by the Inland Manufacturing Division of GM, and consisted of a main building and supporting facilities. Subsequent expansion of the main manufacturing building by the Hyatt Bearings Division of GM occurred in 1944, 1950, 1952, and 1967. In 1981, ownership of the plant was transferred from GM to HCI, an employee-owned company. The former employee-owned HCI declared bankruptcy in 1987, and plant operations ceased in August 1987.

In 1989, site ownership reverted to GM. At that time, GM entered into an ACO with the NJDEP to conduct an RI under ECRA (Case No. 87769). Ongoing remediation activities at the Site are being conducted in accordance with the requirements of the ACO and ISRA. As discussed above, RACER Trust now has responsibility for remediation at the Site.

2 PHYSICAL SETTING

The following section describes the physical setting of the Site, including site improvements, topographic features of the Site and surrounding area, the underlying geologic features, and the hydrogeologic properties of the overburden and bedrock at the Site.

2.1 Site Improvements

Since 1989, the former manufacturing areas have been demolished, including the main manufacturing building, maintenance shed, a fire training area, aboveground storage tank farms, Resource Conservation and Recovery Act (RCRA) storage tanks, a solidification area, drum pads, and a chip tower.

The remedial action for soil included construction of a soil cap system, which was completed in 1999. Construction of the current golf course was completed in 2001. The Remedial Action Report for Soils (URS 2000) documented the NJDEP-approved remedial actions for soil at the Site. A Deed Notice was filed with Union County in November 2002. GM has also prepared and submitted Annual Post-Construction Site Inspection Reports and Biennial Certification Monitoring Reports, as required, for the Deed Notice. On March 7, 2014, NJDEP issued a Soil Remedial Action Permit for the Deed Notice and engineering control (cap system). The limits of the cap system, installed prior to golf course construction, are shown on **Figure 2**.

2.2 Topography and Drainage

The Site lies on a gently undulating, southeasterly sloping plain that stretches from the Watchung Mountains, 5 miles to the northwest, down to sea level the at the Arthur Kill, approximately 6 miles to the southeast. The area is drained by perennial streams that meander generally toward the southeast, discharging to the Arthur Kill. The Rahway River is the principal river in the vicinity of the Site (approximately 2,000 feet to the southeast). The Site lies between the Rahway River and Robinsons Branch, a tributary to the Rahway River. Robinsons Branch is dammed to form the Middlesex Reservoir, a former public water supply.

The Site itself lies at an elevation of approximately of 65 to 85 feet above mean sea level (msl). The land surface has been developed as a golf course, and includes artificial relief (e.g., mounds and bunkers) associated with the course design. There is also a man-made, lined pond located in the northwestern area of the Site. The surrounding area is fully developed, with a public storm-water sewer system that captures and conveys most surface runoff.

2.3 Site Geology

The Site is situated in the Piedmont Plateau Physiographic Province and the Newark Basin. The area was subject to glaciation, leaving deposits of till above bedrock. The generalized stratigraphy observed at the Site includes the following:

- Fill (10 to 20 feet thick). Mixed materials, generally unsaturated
- Rahway Till (typically 15 to 20 feet thick). Dense, generally silty fine sand, with gravel, occasional clay lenses

- Passaic Formation (more than 3,000 feet thick). Locally siltstone to silty sandstone facies. Shallow rock can exhibit weathering.

Each of these units is described in more detail below.

2.3.1 Fill

The uppermost overburden unit consists of heterogeneous fill that reaches a maximum thickness of 20 feet. Generally, the thickness of the fill is approximately 10 feet in the vicinity of the former main building. The composition of the fill varies considerably across the Site and ranges from silty clay to coarse gravel and cobbles. The fill represents decades of regrading, filling, and reworking of the subsurface soil during construction activities. Anthropogenic material (e.g., slag, bricks) is commonly found within the fill.

The fill encompasses some subgrade structures associated with the former plant, including a network of "tunnels" that were beneath the main building at depth of approximately 10 feet. The tunnels were filled in during plant demolition in the 1990s. Additional fill was brought in, also during this period, for construction of the golf course.

2.3.2 Till

The native soils underlying the fill are classified as the Rahway Till. The unit varies in thickness from only a few feet to almost 30 feet in the west corner of the Site (in the vicinity of Well MW-1B), but generally maintains a thickness of approximately 15 feet. The till is typically reddish-brown silty sand, sandy silt, or sand, with some pebbles or cobbles. The till can be very dense and can contain large rock clasts or pebbles of gneiss, quartzite, sandstone, and quartz.

2.3.3 Bedrock

The bedrock underlying the Site is classified as the Passaic Formation, a member of the Brunswick Group of rocks in the Newark Basin. The Passaic Formation is a regionally extensive unit, underlying a broad section of northern New Jersey. Regionally, published information indicates the unit occurs as an interbedded sequences of reddish-brown sandstone, siltstone, shaley siltstone, and mudstone. The unit has been observed to be shale or siltstone dominated.

The depth to bedrock ranges from approximately 20 to 50 feet below land surface (bls). The bedrock elevation is highest in the central portion of the Site. The upper surface of the bedrock tends to be weathered with clay-filled fractures alternating with seams of competent rock and silty clay.

Both at region scale and locally, the bedrock exhibits a generally uniform structure: striking southwest-to-northeast and dipping toward the northwest. Geophysical logging of multiple deep bedrock boreholes on site and off site has demonstrated uniform bedding orientation. The strike and dip measurements for each borehole are presented in **Table 2**. Published strike and dip measurements (with references) for the Passaic Formation are also presented in **Table 2**. These measurements are from outcrops located between 0.8 and 2.4 miles from the Site, and they show a similar trend. The average regional strike is N 48 E and the average dip of 12 degrees to the northwest. All strike and dip values show a similar trend: northeast-southwest strike and gentle northwest dip.

2.4 Hydrogeology

Three hydrostratigraphic units are present at (or beneath) the Site:

- Overburden, a low-permeability unit chiefly comprising till that limits infiltration to the rock beneath
- Shallow bedrock, a zone of weathered or partially weathered bedrock extending to approximately 75 feet bls. The shallow bedrock functions as transition a zone between the unconfined overburden above and the semi-confined deep bedrock system below
- Deep bedrock, a fracture-dominated aquifer of moderate transmissivity. Wells at the Site and vicinity have been used to investigate bedrock to approximately 500 feet bls.

Each of the zones is discussed in more detail below. Groundwater elevation contour maps and tabulated data for the overburden, shallow bedrock, and deep bedrock, developed from the 2013 and 2014 sampling rounds, are shown on figures provided in the Groundwater Monitoring Appendix (**Appendix C**). Additional discussion on the hydrostratigraphy and groundwater flow, particularly with respect to deep bedrock, is provided in **Appendix I**.

2.4.1 Overburden

The till materials that comprise the saturated overburden beneath the Site have poor to moderate water-transmitting properties, consistent with a silty-fine sand. Two long-term pumping tests were conducted in overburden wells as part of the product recovery analysis. The average of the transmissivity values calculated from these tests ranged from approximately 37 to 53 feet^2/day. The till is a low-permeability unit that limits infiltration to the rock beneath.

Groundwater elevation contour maps of the overburden illustrate the following observations about groundwater flow:

- A cone of depression is present within the interior of the Site, controlled by pumping wells for the final product recovery (FPR) system. This system operates continuously. Although its primary function is product recovery, the system also maintains hydraulic control within the overburden beneath a portion of the capped area.
- Outside of the pumping radius of influence, the hydraulic gradient is predominantly toward the southeast. This groundwater flow direction is consistent with the expected regional flow patterns, controlled by discharge to the Rahway River.

The horizontal hydraulic gradient (outside the pumping influences), based on water-level measurements, is approximately 0.014. Based on water levels measured in the well clusters, the overburden water table elevation is generally higher than the shallow and deep bedrock potentiometric surfaces.

2.4.2 Shallow Bedrock

The shallow bedrock is defined as the approximate upper 30 feet of the bedrock beneath the Site. Depth to competent bedrock beneath the Site ranges from 20 to 50 feet bls. Groundwater in the shallow bedrock occurs under semi-confined conditions. The water-level data indicate that the general shallow bedrock groundwater flow direction is to the southeast.

Groundwater elevation contour maps of the shallow bedrock illustrate the following observations about groundwater flow:

- Similar to the overburden, a cone of depression is present within the interior of the Site, controlled by pumping wells for the FPR system.
- Outside of the pumping radius of influence, the hydraulic gradient is predominantly toward the southeast. This groundwater flow direction is consistent with the expected regional flow patterns, controlled by discharge to the Rahway River.
- Although the overburden and shallow bedrock potentiometric surfaces are similar, shallow bedrock water levels are typically 5 feet or more lower in elevation. This reflects a strong downward gradient that extends from the overburden to deep bedrock.

The shallow bedrock is a non-homogeneous, non-isotropic aquifer, and the hydraulic conductivity varies with depth and from one area to another. The hydraulic conductivity of the shallow bedrock is dependent on the degree of weathering and upon the size, density, orientation, and interconnection of fractures. The average hydraulic conductivity value for the shallow bedrock (based on historical slug test data) is approximately 3.8 feet/day.

2.4.3 Deep Bedrock

Groundwater flow in deep bedrock at the Site occurs chiefly in fractures. Patterns of groundwater flow, therefore, are influenced by the locations and orientations of fractures. Consistent with the regional model of flow in the Passaic Formation, bedding plane fractures appear to be the dominant element in the permeability structure of the rock. Fractures oriented on bedding planes are both more frequent and more laterally extensive than fractures oriented traverse to bedding, such as joints. The dominance of bedding imparts anisotropy on the permeability of the rock, favoring flow in the plane of bedding over flow that crosses bedding (stair-stepping either up or down through the strata). Because the Passaic Formation is dipping, the structural anisotropy also affects lateral flow. Flow moving along strike is effectively able to stay within a bedding plane, and is favored. Flow moving perpendicular to strike must move across bedding, either up or down the stratigraphic section, and is less favored.

Patterns of groundwater flow in deep bedrock at and around the Site were historically controlled by operation of several high-capacity groundwater supply wells, most importantly the following:

- Three former supply wells, each approximately 500 feet deep, serviced the Hyatt Clark facility: these wells reportedly operated from the 1940s until 1988 at a cumulative flow rate of up to 1,500 gallons per minute (gpm). The wells were abandoned after plant closure.
- Two supply wells operated by U.S. Gypsum, completed to depths of 300 and 505 feet: these wells are reported to have operated from 1946 until 2009, at a cumulative rate of up to 500 gpm. The two wells were abandoned after plant closure.

Although the major pumping wells in the site vicinity have all ceased operation, significant pumping did occur throughout the majority of the past 60 years. During the period of operation, the pumping wells likely controlled flow patterns. Current groundwater flow patterns are not significantly influenced by pumping, and likely reflect natural conditions. Influences from the on-site FPR system, which creates a

significant cone of depression in the overburden and shallow bedrock, are not observed in deep bedrock monitoring wells.

Groundwater elevation contour maps were prepared for the 2013 and 2014 rounds of measurements. Two contour maps were prepared for each round. One map incudes wells from intermediate bedrock intervals, and the other map includes wells from deep intervals. The wells used to prepare each of these maps are as follows:

- Intermediate interval, encompassing wells with screen-top elevations in the range of -40 to -120 feet msl: MW-10B2, MW-31B2, MW-37B2, MW-87B3, and MW-88B3
- Deep interval, encompassing wells with screen-top elevations in the range of -200 to -300 feet msl feet msl: MW-10B3, MW-31B3, MW-37B3, MW-84B3, MW-85B3, MW-87B5, and MW-88B4.

Though the deep bedrock is effectively one hydrostratigraphic zone, segregating monitoring wells into elevation groups is necessary due to the slightness of the horizontal gradient and the existence of a vertical gradient (typically downward). The deep bedrock potentiometric surface maps illustrate several observations about groundwater flow:

- Both in the intermediate and deep intervals, the dominant gradient direction is to the south-southeast, consistent with expected natural flow conditions toward the Rahway River.
- The gradients are highly variable, but very gentle across the much of the investigated area, ranging from 0.001 to 0.004.

At nested or multi-port wells (e.g., MW-10B2/MW-10B3, MW-31B2/MW-31B3, and MW-37B2/MW-37B3) water levels in the shallower wells are generally higher than in the deeper wells, indicating a downward gradient. The range of vertical gradients for the deep bedrock is 0.002 to 0.006. The downward gradient is typically steepest in shallower bedrock, and dissipates with increasing depth.

Although the net hydraulic gradient is toward the south-southeast, it is important to note that the bedrock is highly anisotropic, and that groundwater flow is not necessarily aligned with the direction of maximum gradient. Though flow toward the southeast from the Site is perpendicular to the favored axis of anisotropy (i.e., bedding strike), the absence of any measurable gradient along bedding strike suggests southeastward flow occurs despite the anisotropy. The combination of horizontal and vertical gradients suggests that flow paths from the Site stair-step across bedding toward the southeast, moving downward via joints and horizontally along bedding to the southeast ultimately connecting to the Rahway River. Bedrock hydrostratigraphy and patterns of groundwater are discussed further in the CSM provided in **Appendix I**.

2.5 Surface Water Bodies (Lined Pond)

There is a man-made, lined pond located in the northwestern area of the Site, The Pond was constructed as part of and to service the golf course (current use). The pond is constructed with an impermeable liner and is not hydraulically connected to groundwater beneath the Site. The Rahway River is the principal river in the vicinity of the Site (approximately 2,000 feet to the southeast). The Site lies between the Rahway River and Robinsons Branch, a tributary to the Rahway River. Robinsons Branch is dammed to form the Middlesex Reservoir, a former public water supply.

3 TECHNICAL OVERVIEW

RI activities have been performed at the Site from 1988 to the present. A network of on-site and off-site monitoring wells has been installed in the overburden, shallow bedrock, and deep bedrock. The well locations are shown on **Figure 2**, and the well construction details are summarized in **Table 1**. During this period, multiple rounds of quarterly, semi-annual, and annual groundwater monitoring have been conducted. Data collected as part of the RI have been used to characterize the shallow (overburden and shallow bedrock) and deep bedrock geology, hydrogeology, groundwater quality, and the fate and transport of constituents of concern.

The scopes of work and results for previous RI activities have been reported in previous RIR submittals. Most recently, the annual groundwater sampling and product recovery results were reported in March 2009 (Arcadis 2009). The following sections provide a summary of the RI activities completed since the March 2009 submittal.

3.1 Previous Investigations

The scope of work for each investigation is presented in the following sections.

3.1.1 Initial Investigation

As part of the first phase of work, conducted in 1988 by URS, eight wells were installed and sampled. During the second phase of work conducted in 1991, 15 additional wells were installed and sampled (also by URS). Due to damage incurred during decommissioning of the facility and site investigations, five of the eight wells (MW-2, MW-5, MW-6, MW-7, and MW-8) installed during the initial investigation were abandoned and replaced during the second phase of work. Well construction details are summarized in **Table 1**. The initial investigation was focused primarily on defining the overburden groundwater quality and investigating the extent of free product.

In 1994 and 1995, GM removed the underground storage tanks (USTs), completed environmental investigations to delineate the horizontal and vertical extent of soil contamination beyond what had been done in the 1988 and 1991 investigations, and investigated the extent of the subsurface free product identified during these previous investigations. The 1994/1995 investigation consisted of monitoring well sampling, delineation of the free product, delineation soil sampling, and monitoring well abandonment and replacement. Monitoring Well MW-17 was replaced with MW-17A. Monitoring Well MW-16 was abandoned as part of work required to remove a UST.

The primary constituents detected in the overburden groundwater were chlorinated volatile organic compounds (VOCs). The highest concentrations of chlorinated VOCs were detected in the (project) western portion of the Site. The results of the initial investigation were presented in the Remedial Investigation Report dated March 1995 (URS 1995).

3.1.2 Groundwater Remedial Investigation

A groundwater remedial investigation (RI) was conducted from 1995 through 1996 by Arcadis Geraghty & Miller. The groundwater RI included installing and sampling three shallow bedrock wells (MW-1B, MW-9B, and MW-11B) to investigate shallow bedrock groundwater quality. In addition, 17 free product

observation wells were installed to further delineate product beneath the Site. Observation wells that did not contain free product were sampled for groundwater quality. Product observation wells with the greatest product thicknesses were in the (project) west central portion of the Site. The primary constituents detected in the overburden and the shallow bedrock were chlorinated VOCs. Consistent with the results of the initial investigation, the highest concentrations of chlorinated VOCs were detected in the (project) western portion of the Site. The investigation also included soil borings and bedrock coring to further define the geology of the Site. Slug tests were performed on nine overburden and three shallow bedrock wells. The results of the groundwater RI were presented in the Groundwater Remedial Investigation Report dated January 1997 (Arcadis 1997).

Free product samples were also collected and analyzed to evaluate (i) the potential for dense non-aqueous phase liquid (DNAPL) and (ii) if the product could be a source of dissolved phase chlorinated VOC impacts to groundwater. During the initial investigation, product samples collected from Wells MW-15 and MW-22. These product samples contained chlorinated VOCs. During the remedial investigation, additional product samples were collected from Wells OW-25M, OW-28S, OW-28D, and OW-29. These product samples did not contain chlorinated VOCs. In addition, monitoring wells were tested for the presence of DNAPL. However, none of the wells evidenced the presence of DNAPL. The product analytical results and the DNAPL monitoring results provided evidence that DNAPL is not present at the Site.

The results did not provide sufficient evidence to rule out the possibility that free product is a source of dissolved phase impacts to groundwater. However, the empirical data indicate that such a source is not significant considering the following site conditions:

- The free product sample from Well MW-15 contained the highest concentrations of chlorinated VOCs. Interim remedial measures successfully removed product from the well to the point where MW-15 is product free. Post-IRM sampling of MW-15 shows no VOC impacts.
- Wells located near MW-22 (OW-24, OW-26S, OW-25S, and OW-46) contain trace to non-detect concentrations of chlorinated VOCs.

Furthermore, free product and groundwater in the free product area is being recovered by the FPR System, which effectively removes, contains, and controls the product and any dissolved phase impacts to groundwater.

3.1.3 Supplemental Groundwater Remedial Investigation

Arcadis Geraghty & Miller conducted a supplemental groundwater RI in 1997. Most of the work conducted during this investigation was associated with delineating and recovering free product. The results of the free product investigation were summarized in the Free Product Summary and Work Plan dated November 1998 (Arcadis 1998a). The work included installation of four overburden and five shallow bedrock wells. The wells further delineated VOC-impacted groundwater in overburden and bedrock. To assess the natural attenuation potential in groundwater, samples from select wells were analyzed for biogeochemical parameters. The work also included sampling of the two U.S. Gypsum production wells. These wells, located southeast of the Site (across Raritan Road), were sampled to evaluate groundwater quality in the vicinity of the Site. The results of the supplemental groundwater RI were presented in the Supplemental Remedial Investigation and Interim Remedial Action Report for

Groundwater dated January 1998 (Arcadis 1998b). The investigation further delineated free product and VOC-impacted groundwater in overburden and shallow bedrock.

3.1.4 Groundwater Monitoring

Semi-annual groundwater monitoring was initiated in 1994 and was reduced to annual groundwater monitoring starting in September 2010. Results of semi-annual groundwater monitoring conducted at the Site prior to the work described in Section 3.2 were previously reported to the NJDEP. The results were from the groundwater monitoring conducted from October 1994 through March 2009. Groundwater monitoring results for September 2009 (semi-annual event) and September 2009 through September 2014 (annual events) are provided in **Appendix C**

3.1.5 Off-Site Overburden Monitoring Well Installation

In response to the results of a groundwater investigation conducted by Villa Construction Company (VCC) on its property located adjacent to and (project) west of the Site, which showed elevated concentrations of VOCs in samples collected from temporary monitoring wells, off-site wells were installed and sampled. The VCC property is located along Central Avenue in Clark, New Jersey. The scope of work included the installation and sampling of six wells.

Off-site wells MW-40 through MW-45 were installed in June 1998. Groundwater samples were collected from the off-site wells in July 1998 and August 1998. The samples were analyzed for the same parameters as those for the groundwater monitoring program. The results of the off-site overburden monitoring well installation were presented in the Groundwater Summary and Work Plan dated June 1999 (Arcadis 1999).

3.1.6 Deep Bedrock Investigation

A deep bedrock investigation was conducted to investigate the hydrogeology and groundwater quality of deeper portions of the bedrock. The investigation included tasks that characterized the bedrock structural framework (i.e., strike and dip of bedding) and evaluated its influence on groundwater flow. The results of the investigation were presented in the Groundwater Summary and Work Plan dated June 1999 (Arcadis 1999).

The investigation included installation of three pilot holes (PH-1, PH-2, and PH-3) near Wells MW-10, MW-37, and OW-31, respectively. Pilot holes were installed to 350 feet bls to accommodate bedrock coring, geophysical logging, selective-zone sampling, specific capacity testing, water level monitoring, and well installation in the deep bedrock.

Selective-zone sampling was conducted at 50-foot centers in Pilot Holes PH-1, PH-2, and PH-3. The selective-zone-sampling interval was 25 feet, which was based on the maximum screen length that would be used for a monitoring well.

Information collected from the pilot holes was used to select intervals for deep bedrock monitoring wells. The objectives of the wells were to characterize the groundwater quality and provide water-elevation data for the deep bedrock. The wells were installed with screen intervals that coincided with selective-zone-sampling intervals. Seven wells were installed as follows:

- Three wells (MW-10B, MW-10B2, and MW-10B3) were installed adjacent to Well MW-10.
- Two wells (MW-31B2 and MW-31B3) were installed adjacent to Well MW-31.
- Two wells (MW-37B2 and MW-37B3) were installed adjacent to Well MW-37.

To characterize groundwater quality and determine groundwater flow direction in the deep bedrock, groundwater samples and water-level measurements were collected from newly installed wells. The newly installed wells were included in the semi-annual groundwater monitoring program, and the results were reported in the semi-annual groundwater monitoring reports (March 1999 through September 2000).

3.1.7 Supplemental Deep Bedrock Investigation

The objective of the supplemental deep bedrock investigation was to provide additional groundwater quality and hydraulic data along strike and dip for the deep bedrock. The investigation included installation of three pilot holes (PH-4, PH-5, and PH-6). One pilot hole (PH-4) was installed near the former production well HCI-3. Pilot Hole PH-4 was drilled to 500 feet bls.

A second pilot hole (PH-5) was installed approximately 400 feet (project) north of Well MW-36B. This location was selected because it is approximately along strike relative to the MW-31 and MW-10 well clusters. Pilot Hole PH-5 was drilled to 350 feet bls.

A third pilot hole (PH-6) was installed in the (project) southwest corner of the Site approximately 200 feet (project) northeast of Well MW-14. This location was selected to investigate the deeper portions of the bedrock in this area of the Site. Pilot Hole PH-6 was drilled to approximately 385 feet bls.

Selective-zone sampling was conducted at 50-foot centers in Pilot Holes PH-4, PH-5, and PH-6. Consistent with the initial deep bedrock investigation, the selective-zone-sampling interval was 25 feet, which was based on the maximum screen length that would be used for a monitoring well. Additionally, downhole geophysical logging was completed at each of the pilot holes to identify and characterize hydraulically active fractures.

Information collected from the pilot holes was used to select intervals for monitoring wells. The objectives of the wells were to characterize the groundwater quality and provide water-elevation data for the deep bedrock. The wells were installed with screen intervals that coincide with selective-zone-sampling intervals. Three wells were installed as follows:

- Well MW-84B3 was installed in Pilot Hole PH-4.
- Well MW-85B3 was installed in Pilot Hole PH-5.
- Well MW-86B3 was installed in Pilot Hole PH-6.

These wells were used to further characterize groundwater quality and determine groundwater flow direction in deep bedrock.

3.2 Remedial Investigation Implementation

RI activities completed from March 2009 to date have focused on the investigation and delineation of free product and VOC impacts in groundwater. Additionally, a vapor intrusion receptor evaluation (VIRE) was

implemented in 2012 and 2013 in response to the presence of VOC impacts detected in shallow groundwater at the downgradient site boundary. The scope of work for each investigation is further described below.

3.2.1 Free Product

The scope of work to further delineate free product in groundwater was developed during a February 9, 2012 meeting between representatives of RACER and NJDEP. This scope was implemented in September 2012 and included installation of three overburden wells (OW-84, OW-85, and OW-86S) and one shallow bedrock well (OW-86D) to supplement the existing network of wells and borings used to delineate free product. In addition, an overburden well (OW-34R) was installed to complement existing well OW-34 because its screened interval does not straddle the water table. A summary of the September 2012 RI activities completed as part of this free product investigation is provided in **Appendix D**.

3.2.2 Groundwater Investigation

A semi-annual groundwater monitoring program was initiated in 1994, and the program was modified to annual frequency starting in September 2010. Semi-annual groundwater monitoring events conducted at the Site prior to the work described herein (from October 1994 through March 2009) have been previously reported to the NJDEP. This RIR presents the monitoring results for the September 2009 semi-annual event and the five annual monitoring events conducted from September 2009 through September 2014. A summary of the semi-annual monitoring scope, methodology, and results of the annual monitoring events conducted from September 2009 through September 2014 are provided in **Appendix C**.

Additional investigation of deep bedrock groundwater was proposed in the May 12, 2005 response to the NJDEP's April 8, 2005 comment letter and the NJDEP-approved April 2006 Remedial Investigation Workplan (RIW) (Arcadis 2006). The investigation scope of work included installation of two off-site deep bedrock monitoring wells. Results of this investigation are included in the off-site RI activities provided in **Appendix E**. This off-site deep bedrock groundwater investigation was conducted in accordance with the NJDEP-approved April 2006 RIW. Specifically, bedrock boreholes MW-87 and MW-88 were drilled to a depth of approximately 350 feet bls, followed by downhole geophysical logging, installation of a blank FLUTe® liner to prevent potential intra-borehole vertical migration of constituents, selective-zone packer testing, and installation of FLUTe® multi-port monitoring systems in the boreholes. A summary of the off-site deep bedrock RI activities, including the scope of work performed, is provided in **Appendix E**.

3.2.3 Vapor Intrusion

In January 2009, the NJDEP requested that GM conduct a vapor intrusion (VI) investigation. GM evaluated the potential for VI from shallow groundwater into the nearest building located downgradient of the Site. The VI RE showed that trichloroethene (TCE) concentrations at the site boundary exceeded the 2005 NJDEP VI groundwater screening level (GWSL) of 1 part per billion (ppb), and that the former U.S. Gypsum administration building was located within 100 feet downgradient (southeast) of the Site (**Figure** 1).

On April 30, 2009, GM submitted a final work plan (WP) for collection of sub-slab soil gas samples from the U.S. Gypsum administration building and a commercial building located southwest of the Site where a Rite Aid and a Bally Total Fitness center are located. The Rite Aid and a Bally Total Fitness center are also within 100 feet of TCE concentrations that exceed the GWSL. NJDEP approved the WP by letter dated June 23, 2009.

Subsequent to the off-site VI monitoring, the VI RE was expanded to include monitoring at the on-site building (Hyatt Hills Golf Complex clubhouse building). This on-site monitoring was conducted in January 2014.

A summary of the VIRE activities, including the scope of work, the sampling methodology, the results, and recommendations is provided in **Appendix F**.

3.3 Nature of Contamination

3.3.1 Free Product

The distribution of free product in groundwater is within the site boundaries, primarily limited to the west central portion of the Site where the FPR system operates. The locations of free product occurrence in groundwater, the free product delineation boundary, and the observation well network layout are shown on **Figure 1** of the Summary of Free Product Investigation Activities, provided in **Appendix D**.

Results of the most recent product measurements, collected during the September 2014 groundwater monitoring event, confirm the free product delineation presented in previous submittals to NJDEP.

3.3.2 Groundwater Investigation (Overburden and Bedrock)

The principal constituents of concern in groundwater are chlorinated VOCs, chiefly the compounds tetrachloroethene (PCE), TCE, 1,1,1-trichloroethane (1,1,1-TCA), and several daughter products formed from these compounds. The daughter products are frequently a major component of the VOC mixture detected at the Site. The compounds cis-1,2-dichloroethene (cis-1,2-DCE), vinyl chloride, 1,1-dichloroethene (1,1-DCE), and 1,1-dichloroethane (1,1-DCA) are also frequently present.

The apparent primary origin of chlorinated VOCs detected in shallow groundwater is the former maintenance building and drum storage area formerly located near the southwestern portion of the Site (see **Figure 2**). No significant unsaturated zone concentrations of chlorinated VOCs were found anywhere on the Site; however, the drum storage area and maintenance building were known to manage chlorinated VOC-containing materials, and this area corresponds with the highest concentrations of chlorinated VOCs detected in shallow groundwater.

Results of off-site RI activities indicate the presence of additional off-site sources of chlorinated VOCs to the shallow and deep bedrock aquifer, confirmed by off-site groundwater sampling results at bedrock monitoring wells MW-87 and MW-88. Multiple current and former industrial properties are in the vicinity of the Site, including the former AT&T Submarine Systems facility, a known source of background chlorinated VOC contamination to bedrock groundwater.

3.4 Reliability of Data

A Tier II data validation was performed on all groundwater analytical data reports received. TestAmerica in Edison, New Jersey (NJDEP Laboratory Certification 12028, under contract to RACER) performed all laboratory analyses. The Tier II validation included a review of the data precision, accuracy, method compliance, and completeness of the laboratory data packages. Results of the Tier II data validation confirmed all data as acceptable and reliable.

Data results associated with the VI sampling were not included in the Tier II data validation. However, the data were reviewed as required under the Data Quality Assurance/Quality control section of the Full Laboratory Data Deliverables Form. The VI sub-slab soil gas samples were submitted under routine chain-of-custody protocols to TestAmerica Laboratories of Burlington, VT for laboratory analysis in accordance with U.S. Environmental Protection Agency (USEPA) Method TO-15. Test America is an Environmental Laboratory Accreditation Program (ELAP) and NJDEP-accredited laboratory for this method and has provided full data deliverable packages in accordance with current NJDEP requirements. The full laboratory data packages and electronic data deliverables were previously provided in the full laboratory data deliverables (FLDD) to the NJDEP dated February 27, 2013 and February 12, 2014.

4 PREVIOUS REMEDIAL ACTION ACTIVITIES

GM began investigating the Site in 1986, prior to re-obtaining title to the Site. After GM re-acquired the Site from the previous owner in 1989, GM implemented a facility decommissioning program that removed all primary sources of contaminants. Decommissioning included removal and off-site disposal of all wastes; cleaning and inspection of all areas of concern; and subsequent demolition, removal, and disposal of aboveground structures. The buildings and all equipment therein were removed. All USTs and their contents were removed and disposed offsite.

4.1 Engineering and Institutional Controls (Cap System and Deed Notice)

The soil remedial investigation culminated with the installation of a 30-acre multi-layer cap system, which was complimented with the soil cover system installed as part of redevelopment of the Site into a golf course. These systems effectively mitigate the direct contact and IGW pathways by containing and stabilizing contaminants. Prior to installation of the cap system, several areas of the Site were remediated via direct excavation of soil and off-site disposal. Management and maintenance of the golf course, in combination with GM's obligations under the Deed Notice, ensures the integrity of the cap system and the cover system. The soil remedial action was documented in the RAR dated November 2000 (URS 2000).

4.2 Free Product Recovery

During investigation activities in 1991 when free product was first discovered, GM initiated product recovery from wells using a product skimming system. Subsequently, GM installed an interim product recovery system that used total fluids pumping from a network of recovery wells. The current FPR System replaced the interim system.

The FPR System uses pneumatic total-fluid pumps installed in 16 wells screened in the overburden or shallow bedrock located within the free phase product area. Within the zone of capture, the recovery system has effectively contained free phase product. Several wells located outside the direct influence of the recovery system contain minimal amounts of free product, which is managed using sorbent socks to recover product. Based on product recovery testing, the quantity and recoverability of free phase product from these wells is significantly less than wells within the zone of capture. The FPR System has been operating for approximately 16 years. To date, approximately 60,000 gallons of product have been recovered from the Site. The product recovery rate during the initial year of operation exceeded 15 gallon per day. The current product recovery rate is approximately 4 to 5 gallons per day.

4.3 Offsite Soil Remedial Action

In 2005, GM conducted a soil remedial action on the Conrail Bloodgood railroad track property located offsite near the southern corner of the Site. The remedial action consisted of excavation and offsite disposal of PCB impacts greater than 50 mg/kg (**Figure 3**). The remedial action was report to NJDEP in Progress Report No. 5, dated December 2005 (URS 2005).

The nature and extent of the PCB impacts that remain have been characterized through the use of extrapolation and application of the conceptual site model for the soil. The data show a significant concentration gradient (orders of magnitude) from the highest concentrations within the former excavated area to the concentrations at the perimeter. The horizontal extrapolation for each of the cardinal directions is described below.

- East: Sample location SL-23 is located in the eastern portion of the former excavation. The highest PCB concentration at SL-23 is 74 mg/kg. Samples located approximately 60 feet to the east (SL-30, SL-38, and SL-43) show a decreasing concentration gradient from SL-23. These locations contain PCB concentrations ranging from 0.021 to 4.8 mg/kg. The decreasing concentration gradient indicates that impacts do not extend much beyond sample locations SL-30, SL-38, and SL-43 located along Raritan Road.
- South: Sample locations SL-39 and SL-40 are located approximately 20 feet south of the former excavation. These locations contain PCB concentration of 1.15 and 0.99 mg/kg, respectively. These concentrations are orders-of-magnitude less than concentrations in the former excavation. The decreasing concentration gradient indicates that impacts do not extend much beyond sample locations SL-39 and SL-40 located along an adjacent paved parking lot.
- West: Sample location SL-11 is located in the western portion of the former excavation. The highest reported PCB concentration at SL-11 is 84 mg/kg. Samples located approximately 20 to 40 feet to the west (SL-14, SL-19, and SL-25) contain PCB concentrations ranging from 8.3 to 20.2 mg/kg. Further to the west (approximately 80 to 100 feet) sample locations SL-31, SL-33, and SL-42 contain PCB concentration ranging from 0.035 to 4.7 mg/kg. The decreasing concentration gradient indicates that impacts do not extend much beyond sample locations SL-42 located along the Conrail property.
- North: The Site is located directly north of the offsite PCB impacted area. The onsite soil impacts have been characterized as part of the soil remedial investigation. Furthermore, the onsite remedial action for soil, as described in Section 4.1, consists of an engineering control (cap system) and institutional control (Deed Notice) addressed PCB-impacted soil. Therefore, further onsite characterization is not warranted.

The soil quality data also show a significant vertical concentration gradient from within the former excavated area. The deepest sample locations (SL-2B and SL13) contain PCB concentration of 0.56 to 0.34 mg/kg (6.5 to 8 feet bls), respectively. These concentration are orders-of-magnitude less that the shallower samples at those locations. The decreasing concentration gradient indicates that impacts do not extend much beyond 8 feet bls.

The offsite limits of PCB impacted soil will be delineated to the NJDEP RDCSRS during the remedial action phase of work. The pre-design investigation will define the offsite area that will be subject to remedial action. The planned remedial action will be proposed to the NJDEP in a RAWP.

5 FINDINGS AND RECOMMENDATIONS

5.1 Free Product

Results of the multi-year free product delineation activities, which were completed in 2012, confirm that the distribution of free product in groundwater is localized to the west central area of the Site (see Section 3.3.1). Gauging events initiated in October 2012 through September 2014 show that free product has not been detected in newly installed Observation Wells OW-84, OW-85, and OW-86D. The limits of free product and the observation well network are shown on **Figure 1**, provided in **Appendix D**.

Based on the RI findings and the continued recovery of free product, further action for free product is warranted. RACER anticipates that the FPR system will be incorporated into the final remedial action for the Site. A free product recovery mobility evaluation may be conducted to support development of the final remedial action.

5.2 Groundwater

The Site has been subject to multiple phases of groundwater investigation. Results of previous groundwater investigations reported to the NJDEP have identified concentrations of dissolved phase chlorinated VOCs in the overburden, shallow bedrock, and deep bedrock.

5.2.1 Summary of Groundwater Sampling Events (Post-March 2009 to September 2014)

The complete results of groundwater monitoring conducted at the Site from September 2009 through September 2014, including results tables and groundwater elevation contour figures, are provided in **Appendix C**.

Groundwater sampling results collected for the 2009 through 2014 timeframe show similar to lower concentrations compared to groundwater samples collected prior to 2009, which include approximately 23 monitoring events conducted from October 1994 through March 2009.

5.2.1.1 Overburden

Overburden groundwater sampling results for the 2009 through 2014 timeframe show that VOCs were detected at concentrations greater than the Ground Water Quality Criteria (GWQC) in samples collected from monitoring wells: MW-8, MW-15, MW-18, MW-19, MW-20, MW-21, MW-37, MW-38, MW-39, MW-40, MW-41, MW-42, MW-43, MW-44, and MW-45.

The overburden groundwater samples that contained the highest concentrations of VOCs were collected from MW-8 and MW-20, located in the (project) western portion of the Site in the area of the former maintenance building and drum storage area. Samples collected from overburden wells MW-19, MW-21, and MW-38, located downgradient and outside the vicinity of the former maintenance building and drum storage area, exhibited similar VOCs, but at concentrations at least one order-of-magnitude less than those in MW-8 and MW-20.

In the (project) eastern portion of the Site, samples from overburden wells MW-12, MW-13, and MW-15 do not contain VOCs at concentrations greater than the GWQC with the exception of 1,1-DCA reported in the MW-15 samples collected from 2009 through 2011.

Although VOCs are present in groundwater samples collected at the downgradient property boundary, the nature and extent of groundwater impacts have been defined by samples collected from offsite wells. The offsite groundwater sampling results are presented in the April 2011 Remedial Investigation Report for the former United States Gypsum facility (Roux 2011), as shown on **Figure 4**, installed as part of the RI for the former US Gypsum facility.

The presence of site-related dissolved phase VOCs in overburden groundwater at concentrations greater than the NJDEP GWQC warrants consideration of remedial action for groundwater. The planned remedial action will be developed as part of the process to prepare the forthcoming Groundwater Remedial Action Work Plan.

Semi-volatile organic compounds (SVOCs) were not detected at concentrations greater than GWQC except for two samples collected from OW-46. Polychlorinated biphenyls (PCBs) were detected infrequently, but at concentrations greater than the GWQC in nine of 87 samples. The range of detected PCB concentrations is from 0.54 microgram per liter (µg/L) (MW-18) to 26 µg/L (OW-46). Because of their very low solubility, the detection of PCBs in groundwater is often associated with particulates in the sample and may not be representative of the dissolved phase concentrations. PCBs were not detected in overburden wells along the site boundary at concentrations greater than the GWQC.

Metals (aluminum, arsenic, beryllium, cadmium, chromium, iron, lead, manganese, nickel, zinc, and sodium) detected in overburden groundwater samples exceeded the GWQC. Results from previous sampling rounds and dissolved groundwater samples indicated that the majority of the metals concentrations exceeding the standards are the result of turbidity in the sample and are not representative of the dissolved phase concentrations. Furthermore, metal concentrations generally decreased when low-flow sampling methods were used.

Characterization of the nature and extent of metals in groundwater shows the highest concentrations in the (project) western portion of the Site in the area of the former maintenance building and drum storage area, where monitoring wells OW-24, OW-25S, OW-26S, and OW-46 are located. Concentrations of metals decrease significantly downgradient of this area where only aluminum, iron, and manganese were detected at concentrations greater than the GWQC, as evidenced by the results for samples from monitoring wells MW-15 and MW-20. Aluminum, iron, and manganese are not associated with past or current site operations and, furthermore, the detected concentrations in samples from downgradient monitoring wells MW-15 and MW-20 are within the published ranges of background groundwater concentrations found within the Passaic Formation (NJ Geological Survey, 2010). As such, the elevated concentrations of metals identified within the (project) western portion of the Site have been characterized and delineated, and are bound by downgradient locations MW-15 and MW-20. Additionally, aluminum, iron, and manganese are the only metals reported at concentrations greater than the GWQC at offsite, downgradient overburden monitoring well locations MW-2 US Gypsum, MW-5 US Gypsum, and MW-6 US Gypsum. Groundwater samples from these wells exhibited concentrations consistent with the published ranges background concentrations, as referenced above. These offsite data confirm that metal-impacted groundwater is limited to the western portion of the Site and does not extend offsite.

The presence of site-related dissolved phase constituents to overburden groundwater at concentrations greater than the NJDEP GWQC warrants consideration of remedial action for groundwater. The planned remedial action will be developed as part of the process to prepare the forthcoming Groundwater Remedial Action Work Plan.

5.2.1.2 Shallow Bedrock

Shallow bedrock groundwater sampling results for the 2009 through 2014 timeframe show that VOCs were detected at concentrations greater than the GWQC in samples collected from monitoring wells: MW-4, MW-9B, MW-37B, MW-38B, and MW-39B.

The shallow bedrock groundwater samples that contained the highest concentrations of VOCs were collected from MW-9B, located in the (project) western portion of the Site in the area of the former maintenance building and drum storage area.

Although VOCs are present in groundwater samples collected at the downgradient property boundary, the nature and extent of shallow bedrock groundwater impacts have been defined based on the fate-and-transport analysis (modeling). Fate-and-transport analysis (Appendix G) also demonstrates that Hyatt Clark-sourced impacts will naturally attenuate before reaching the River. As such, the presence of site-related dissolved phase VOCs in overburden groundwater at concentrations greater than the NJDEP GWQC warrants consideration of remedial action for groundwater. The planned remedial action will be developed as part of the process to prepare the forthcoming remedial action work plan.

SVOCs were not detected in OW-32D, the only shallow bedrock well sampled for SVOCs. PCBs were detected infrequently in MW-7 and OW-32D, but at concentrations greater than the standards in five of 98 samples; the range of detected concentrations is from 1.1 µg/L (OW-32D) to 39 µg/L (OW-32D). Because of their very low solubility, the detection of PCBs in groundwater is often associated with particulates in the sample and may not be representative of the dissolved phase concentrations. PCBs were not detected in bedrock wells along the site boundary at concentrations greater than the standards.

Similar to the overburden aquifer, metals (aluminum, arsenic, iron, lead, and manganese) detected in shallow bedrock groundwater samples exceeded the standards. Results from previous sampling rounds and dissolved groundwater samples indicate that the majority of the metals concentrations exceeding the standards are the result of turbidity in the sample and are not representative of the dissolved phase concentrations. Furthermore, metal concentrations generally decreased when low-flow sampling methods were used.

Concentrations of metals detected in shallow bedrock groundwater indicates the highest concentrations of metals are in the central portion of the Site by monitoring well OW-32D. Concentrations of metals are observed to significantly decrease in samples collected downgradient, as only aluminum, iron and manganese were detected at concentrations greater than the GWQC at site boundary monitoring well MW-37B, which is within the published range of background concentrations found within the Passaic Formation (NJ Geologic Survey, 2010). Based on these results, downgradient concentrations of detected metals aluminum, iron and manganese are considered naturally occurring and are not associated with past or current site operations. As such, the elevated concentrations of metals identified in the shallow bedrock aquifer within the western area of the site have been effectively characterized and delineated, and are bound by the downgradient site boundary monitoring well MW-37B.

The presence of site-related dissolved phase constituents to shallow bedrock groundwater at concentrations greater than the NJDEP GWQC warrants consideration of remedial action for groundwater. The planned remedial action will be developed as part of the process to prepare the forthcoming Groundwater Remedial Action Work Plan.

5.2.1.3 Deep Bedrock

Deep bedrock groundwater sampling results for the 2009 through 2014 timeframe show that chlorinated VOCs were detected at concentrations greater than the GWQC in samples collected from monitoring wells: MW-10B, MW-10B2, MW-10B3, MW-31B2, MW-31B3, MW-37B2, MW-37B3, MW-85B3, and MW-86B3; and multi-port monitoring wells MW-87 and MW-88.

The deep bedrock groundwater samples that contained the highest concentrations of chlorinated VOCs were collected from MW-10B, MW-10B2, MW-10B3, MW-31B2, MW-31B3, MW-37B2, MW-37B3, MW-85B3, MW-86B3, and multi-port monitoring wells MW-87, and MW-88, which are located off site and upgradient.

The suite of detected chlorinated VOCs at the Site, and at off-site monitoring wells MW-87 and MW-88, overlaps the suite detected at the AT&T facility (located upgradient), though there are some clear differences that distinguish each site's impacts. This comparison makes several distinctions apparent:

- Although TCE is present in groundwater at both sites, the maximum concentrations of TCE are much higher at the AT&T site, reflecting a more significant source.
- The ratio of PCE to TCE is higher in the Hyatt Clark samples than in AT&T samples.
- The Hyatt Clark chlorinated VOCs include a greater fraction of TCE daughter products (cis-1,2-DCE and vinyl chloride) than the AT&T chlorinated VOCs.
- The compound 1,1,1-TCA, and its breakdown products 1,1-DCE and 1,1-DCA, are a distinct component of Hyatt Clark chlorinated VOCs, but are not a significant component of AT&T chlorinated VOCs.
- The compound trichlorofluoromethane (CFC-11) is a clear marker of AT&T chlorinated VOCs. CFC-11 is present in AT&T chlorinated VOCs, but is not a significant component of Hyatt Clark chlorinated VOCs.

Although VOCs are present in groundwater samples collected at the downgradient property boundary, the nature and extent of deep bedrock groundwater impacts have been defined based on the fate-and-transport analysis (modeling). As such, site related dissolved VOCs in groundwater will be addressed in the pending remedial action phase. This remedial action phase will be developed as part of the process to prepare the forthcoming groundwater remedial action work plan.

Detailed discussion on groundwater quality, hydrostratigraphy, and groundwater flow, particularly with respect to deep bedrock, is presented in the Conceptual Site Model, which is provided in **Appendix I**.

5.2.2 CEA

A CEA/WRA Fact Sheet Form was prepared for the Site (Appendix G). The CEA/WRA will serve as an institutional control to protect potential receptors from exposure to constituents in groundwater at

concentrations greater than the GWQC. The CEA/WRA Fact Sheet Form and its attachments, along with the groundwater quality data, show that impacted groundwater extends offsite in the overburden and bedrock. The maximum extent of the impacts is based on the groundwater quality data, the understanding of the groundwater flow direction (as aided by the Conceptual Site Model provided in Appendix I), and a fate and transport model analysis for bedrock groundwater. The software, CRAFLUSH was used to model the maximum 30-year downgradient extent of the CEA boundary, which was applied to overburden and bedrock groundwater. TCE was used to establish the CEA boundary because it was detected most frequently and generally at the highest concentrations in the bedrock groundwater. In addition, the mobility and persistence of TCE make it appropriate for establishing the CEA boundary. The projected term of the CEA is indeterminate. The CEA contaminants are based on the dissolved phase constituents detected during the 2014 groundwater monitoring event at concentrations greater than the GWQC. These CEA contaminants are listed on the CEA/WRA Fact Sheet Form.

5.3 Receptor Evaluation

The initial receptor evaluation was conducted in 2011. A Receptor Evaluation (RE) Form was submitted to the NJDEP in June 2011. The receptor evaluation was updated as part of the recent RI activities. An updated RE Form is being submitted along with this RIR. A copy of the RE Form is provided in **Appendix** H. Land use, vapor intrusion, groundwater, and ecological receptors are discussed in this section.

5.3.1 Land Use

The Site is situated in a mixed commercial, light industrial, and residential setting. Current land use at the Site is recreational, considering the site's redevelopment into the Hyatt Hills Golf Complex. The land use within 200 feet of the Site includes residential and mixed commercial and industrial. The updated RE Form includes an updated land use map, which identifies block and lot, land use, landowner, and address for each property within 200 feet of the Site. Sensitive populations/uses (residential) are identified within 200 feet of the Site. However, there are no complete pathways for the site's constituents of concern to these receptors. The existing engineering control (multi-layer impermeable cap system) and institutional control (Deed Notice) are effective in protecting human health and the environment.

5.3.2 Vapor Intrusion

Three sub-slab soil gas samples were collected from beneath the former U.S. Gypsum administration building, which was located approximately 90 feet from the southeast property boundary, and seven sub-slab soil gas samples were collected from the commercial building, located approximately 95 feet from the southwestern property boundary. In addition, four sub-slab soil gas samples, four indoor air samples, and one ambient air sample were collected from the Hyatt Hills Golf Complex clubhouse building located on the Site. The VI sampling results showed that the majority of VOCs tested were not detected. The few detected VOCs were reported at concentrations less than the NJDEP non-Residential SGSLs. As such, the groundwater to sub-slab soil gas pathway is not complete in that groundwater is not impacting the quality of sub-slab soil gas, As such, the VI pathway is incomplete. Furthermore, the VI sampling results indicate that further evaluation is not warranted as part of the remedial investigation.

5.3.3 Groundwater

An updated well search was conducted as part of the updated receptor evaluation considering groundwater impacts associated with the Site. An NJDEP well search spreadsheet is attached to the RE Form, and an electronic copy of the spreadsheet has been submitted to NJDEP. No private potable, or irrigation wells are located within the 0.5-mile well search radius. In addition, sampling of potable or non-potable use wells was not conducted because wells are not present within the requisite distances for sampling. Empirical data from the remedial investigation and the fate-and-transport modeling characterize the nature and extent of groundwater impacts, which combined with results of the groundwater RE, show that the groundwater pathway is not complete. In addition, the GWRE indicates that further evaluation is not warranted as part of the remedial investigation.

5.3.4 Ecological

An ecological evaluation was completed and reported in the Ecological Evaluation Report dated May 1996 (URS 1996). The Ecological Evaluation Report was also included as part of the approved Remedial Action Workplan for Soil dated October 1998 (URS 1998). The evaluation did not indicate the need for an ecological investigation. There are no threatened or endangered species in the immediate vicinity of the Site, nor are there any significant populations of terrestrial game species. In addition, the soil remedial action (cap system) eliminates direct exposure pathways.

There is a man-made lined pond located in the northeastern area of the Site. The pond is constructed with an impermeable liner and is not hydraulically connected to groundwater or other surface water bodies. The pond was constructed as part of the Hyatt Hills Golf Complex to serve the golf course. The Rahway River is located approximately 2,000 feet to the southeast of the Site. The fate-and-transport analysis conducted for the Classification Exception Area (CEA) (**Appendix G**) demonstrates that Hyatt Clark-sourced impacts will naturally attenuate before reaching the Rahway River. Therefore, the groundwater to surface water pathway is incomplete and further evaluation is not warranted as part of the remedial investigation.

6 CONCEPTUAL SITE MODEL

The receptor evaluation, presented in the prior section, serves as a conceptual site model (CSM) for sources, pathways, and potential receptors. Only when all three components are present can receptors be exposed to t constituents of concern (COCs). As discussed in the prior section, either the pathway is incomplete or a receptor is not present, therefore, there is no exposure to the Site's COCs.

A conceptual model for groundwater (**Appendix I**) was developed based on the remedial investigation findings to facilitate a better understanding of groundwater flow, the fate and transport of the Site's COCs, and contributions to groundwater impacts from upgradient offsite sources. The CSM contains a comprehensive discussion on groundwater quality, hydrostratigraphy, and groundwater flow, particularly with respect to deep bedrock. A summary of the CSM is presented in this section. The full CSM is provided in **Appendix I**.

Dissolved chlorinated VOCs sourced from the former Hyatt Clark Site are present in a complex, commingled bedrock plume, to which the former AT&T Submarine Systems site is the most significant source. Historical industrial water-supply pumping, which largely contained the Hyatt Clark-sourced plume, contributed to spreading of the AT&T plume and explains the current broad distribution of chlorinated VOC impacts in bedrock in the site vicinity.

Although the extent of chlorinated VOC-impacted groundwater in the site vicinity has not been fully delineated, the nature and extent of the Hyatt Clark-sourced chlorinated VOCs in groundwater have been characterized. The bedrock groundwater impacts sourced from the Hyatt Clark Site have migrated southeast from the on-site source areas, drawn in that direction by the U.S. Gypsum supply wells (between 1988 and 2010) and more recently under the natural gradient toward the Rahway River. As discussed above, Hyatt Clark-sourced impacts will naturally attenuate before reaching the River. Based on the fate-and-transport analysis and the CSM presented here, the extent and future transport patterns of bedrock groundwater impacted by Hyatt Clark sources are understood sufficiently to conclude that there are no complete human health or ecological pathways.

7 CONCLUSIONS

The groundwater remedial investigation of the HCI Site has been conducted in several phases since 1988. Based on the findings and recommendations presented in this Groundwater RIR, the RI is complete. The hydrogeology is characterized, and the nature and extent of groundwater impacts are defined. Furthermore, sufficient information is available to evaluate remedial options for free product and dissolved phase impacts to groundwater at the Site. Given that remedial investigations are complete, RACER will proceed to evaluate remedial options for the Site and prepare and submit a Groundwater RAWP.

8 REFERENCES

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TABLES



Table 1. Well Construction Details, Groundwater Monitoring Report
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Well ID	Date Installed	Reference Elevation (feet msl)	Open Hole/ Screened Interval (feet bls)	Open Hole/ Screened Elevation (feet msl)	Length of Screened Interval (feet)	Total Depth of Boring (feet bls)	Casing Diameter (inches)/ Material	Screen Diameter (inches)/ Material	Bedrock Borehole Diameter (inches)
Overburden									
MW-1	8/29/1988	76.60	26.0 to 36.0	50.60 to 40.60	10	39.0	4/SS	4/SS	NA
MW-2	8/8/1991	76.68	17.7 to 27.7	59.00 to 49.00	10	29.2	4/SS	4/SS	NA
MW-3	9/7/1988	75.01	27.1 to 37.1	47.90 to 37.90	10	38.6	4/SS	4/SS	NA
MW-5	8/7/1991	78.87	29.1 to 39.1	49.80 to 39.80	10	41.1	4/SS	4/SS	NA
MW-8	8/8/1991	76.43	25.1 to 35.1	51.30 to 41.30	10	37.1	4/SS	4/SS	NA
MW-10	8/5/1991	70.77	20.1 to 30.1	50.70 to 40.70	10	35.6	4/SS	4/SS	NA
MW-11	7/29/1991	72.31	36.9 to 46.9	35.40 to 25.40	10	49.9	4/SS	4/SS	NA
MW-12	7/28/1991	66.86	31.8 to 41.8	35.10 to 25.10	10	43.8	4/SS	4/SS	NA
MW-13	8/2/1991	69.61	24.6 to 34.6	45.00 to 35.00	10	36.6	4/SS	4/SS	NA
MW-14	8/6/1991	75.17	26.1 to 36.1	49.10 to 39.10	10	39.1	4/SS	4/SS	NA
MW-15	7/31/1991	73.33	28.8 to 38.8	44.50 to 34.50	10	41.3	4/SS	4/SS	NA
MW-17A	7/31/1991	75.51	23.4 to 33.4	52.10 to 42.10	10	48.4	4/SS	4/SS	NA
MW-18	8/5/1991	77.58	22.0 to 32.0	55.60 to 45.60	10	34.0	4/SS	4/SS	NA
MW-19	8/6/1991	80.01	34.5 to 44.5	45.50 to 35.50	10	46.5	4/SS	4/SS	NA
MW-20	8/6/1991	76.54	23.0 to 33.0	53.50 to 43.50	10	36.0	4/SS	4/SS	NA
MW-21	8/2/1991	79.48	27.8 to 37.8	51.70 to 41.70	10	42.8	4/SS	4/SS	NA
OW-22	4/12/1996	77.20	16.4 to 36.4	60.80 to 40.80	20	36.4	4/SS	4/SS	NA
MW-23	8/6/1991	78.63	27.4 to 37.4	51.20 to 41.20	10	39.4	4/SS	4/SS	NA
OW-24	4/5/1996	77.63	11.9 to 21.9	65.70 to 55.70	10	21.9	4/SS	4/SS	NA
OW-25S	4/8/1996	78.22	13.7 to 23.7	64.50 to 54.50	10	23.7	4/SS	4/SS	NA
OW-25M	4/9/1996	78.22	30.7 to 40.7	47.50 to 37.50	10	40.7	4/SS	4/SS	NA
OW-26S	4/5/1996	78.15	11.6 to 21.6	66.60 to 56.60	10	21.6	4/SS	4/SS	NA
OW-26M	4/8/1996	78.21	25.9 to 35.9	52.30 to 42.30	10	35.9	4/SS	4/SS	NA
OW-27	4/9/1996	77.62	17.5 to 27.5	60.10 to 50.10	10	27.5	4/SS	4/SS	NA
OW-28S	4/4/1996	80.98	25.0 to 40.0	56.00 to 41.00	15	39.9	4/SS	4/SS	NA
OW-29	4/11/1996	80.92	29.3 to 39.3	51.60 to 41.60	10	39.3	4/SS	4/SS	NA
OW-30	4/2/1996	85.04	27.6 to 37.6	57.40 to 47.40	10	37.7	4/SS	4/SS	NA
OW-31	4/12/1996	83.50	27.8 to 37.8	55.70 to 45.70	10	37.8	4/SS	4/SS	NA
OW-32S	4/2/1996	77.89	16.3 to 26.3	61.60 to 51.60	10	26.2	4/SS	4/SS	NA
OW-33	4/3/1996	75.92	15.6 to 25.6	60.30 to 50.30	10	25.6	4/SS	4/SS	NA
OW-34	4/16/1996	81.70	31.7 to 41.7	50.00 to 40.00	10	41.7	4/SS	4/SS	NA
OW-34R	9/21/2012	82.20	20.0 to 35.0	62.20 to 47.20	15	35.0	2/PVC	2/PVC	NA
MW-35	4/28/1997	77.17	17.3 to 32.3	59.90 to 44.90	15	32.3	2/PVC	2/PVC	NA
MW-37	4/22/1997	69.65	15.7 to 40.7	54.00 to 29.00	25	40.7	2/PVC	2/PVC	NA
MW-38	4/30/1997	73.85	13.6 to 38.6	60.27 to 35.27	25	38.6	2/PVC	2/PVC	NA
MW-39	5/2/1997	69.95	9.5 to 29.5	60.44 to 40.44	20	29.5	2/PVC	2/PVC	NA
MW-40[1]	6/11/1998	66.90	12.0 to 37.0	54.90 to 29.90	25	42.0	4/PVC	4/PVC	NA
MW-41[1]	6/11/1998	67.70	7.0 to 32.0	60.70 to 35.70	25	44.0	4/PVC	4/PVC	NA
MW-42[1]	6/17/1998	67.50	7.0 to 32.0	60.50 to 35.50	25	38.0	4/PVC	4/PVC	NA
MW-43[1]	6/17/1998	66.10	6.5 to 31.5	59.60 to 34.60	25	31.8	4/PVC	4/PVC	NA
MW-44[1]	6/19/1998	64.00	6.0 to 31.0	58.00 to 33.00	25	32.0	4/PVC	4/PVC	NA
MW-45[1]	6/22/1998	67.70	8.0 to 33.0	59.70 to 34.70	25	37.0	4/PVC	4/PVC	NA
OW-46	5/17/1999	76.70	10.6 to 40.6	66.12 to 36.12	30	40.6	4/PVC	4/PVC	NA
OW-47R	8/30/1999	77.62	9.9 to 46.9	67.70 to 30.70	37	46.9	4/PVC	4/PVC	NA
OW-49	5/13/1999	78.03	11.2 to 40.2	66.79 to 37.79	29	40.2	4/PVC	4/PVC	NA
OW-58	6/21/1999	82.92	10.6 to 38.6	72.30 to 44.30	28	38.6	4/PVC	4/PVC	NA
OW-64	6/21/1999	76.51	7.6 to 32.6	68.89 to 43.89	25	33.1	4/PVC	4/PVC	NA
OW-65	6/25/1999	77.07	9.6 to 39.6	67.46 to 37.46	30	39.6	4/PVC	4/PVC	NA
OW-66	6/28/1999	75.84	9.9 to 42.9	65.95 to 32.95	33	42.9	4/PVC	4/PVC	NA
OW-73	7/1/1999	86.81	16.7 to 41.7	70.11 to 45.11	25	41.7	4/PVC	4/PVC	NA
OW-76	7/2/1999	76.89	6.1 to 34.1	70.82 to 42.82	28	34.1	4/PVC	4/PVC	NA
OW-81	7/14/1999	76.10	8.9 to 38.9	67.17 to 37.17	30	38.9	4/PVC	4/PVC	NA
OW-84	9/24/2012	82.10	20.0 to 35.0	62.10 to 47.10	15	35.0	2/PVC	2/PVC	NA
OW-85	9/20/2012	82.70	20.0 to 35.0	62.70 to 47.70	15	41.5	2/PVC	2/PVC	NA
OW-86S	9/20/2012	79.60	10.0 to 25.0	69.60 to 54.60	15	25.0	2/PVC	2/PVC	NA

Footnotes on last page

Table 1. Well Construction Details, Groundwater Monitoring Report
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Well ID	Date Installed	Reference Elevation (feet msl)	Open Hole/ Screened Interval (feet bls)	Open Hole/ Screened Elevation (feet msl)	Length of Screened Interval (feet)	Total Depth of Boring (feet bls)	Casing Diameter (inches)/ Material	Screen Diameter (inches)/ Material	Bedrock Borehole Diameter (inches)
Shallow Bedrock									
MW-1B	9/14/1995	76.40	52.5 to 72.5	23.90 to 3.90	20	72.5	2/SS	2/SS	6.0
OW-3D	11/23/2010	74.40	36.0 to 46.0	38.40 28.40	10	46.0	2/PVC	2/PVC	NA
MW-4	9/9/1988	69.76	34.0 to 44.0	35.80 to 25.80	10	45.0	4/SS	4/SS	8.0
MW-6	8/8/1991	74.76	37.0 to 47.0	37.80 to 27.80	10	49.5	4/SS	4/SS	8.5
MW-7	8/7/1991	73.05	30.8 to 40.8	42.30 to 32.30	10	42.8	4/SS	4/SS	8.5
MW-9	8/7/1991	76.52	37.1 to 47.1	39.40 to 29.40	10	51.1	4/SS	4/SS	8.5
MW-9B	9/11/1995	76.45	44.2 to 64.2	32.30 to 12.30	20	64.2	2/SS	2/SS	6.0
MW-11B	9/13/1995	72.30	58.4 to 78.4	13.90 to -6.10	20	78.4	2/SS	2/SS	6.0
OW-25D	4/6/1996	78.22	45.6 to 55.6	32.60 to 22.60	10	55.6	4/SS	4/SS	8.0
OW-28D	4/10/1996	81.08	43.1 to 53.1	38.00 to 28.00	10	53.1	4/SS	4/SS	8.0
OW-32D	4/9/1996	77.86	30.0 to 40.0	47.90 to 37.90	10	39.9	4/SS	4/SS	8.0
MW-35B	4/25/1997	76.92	42.4 to 62.4	34.50 to 14.50	20	62.4	2/PVC	2/PVC	6.0
MW-36B	4/24/1997	63.32	40.9 to 60.9	22.40 to 2.40	20	60.9	2/PVC	2/PVC	6.0
MW-37B	4/23/1997	69.32	59.4 to 79.4	9.90 to -10.10	20	79.4	2/PVC	2/PVC	6.0
MW-38B	4/30/1997	73.50	58.8 to 78.8	14.70 to -5.30	20	78.8	2/PVC	2/PVC	6.0
MW-39B	5/1/1997	69.71	43.3 to 63.3	26.38 to 6.38	20	63.3	2/PVC	2/PVC	6.0
OW-52D	5/12/1999	80.74	42.0 to 52.0	38.73 to 28.73	10	52.0	4/PVC	4/PVC	8.0
OW-53D	5/17/1999	82.26	43.1 to 53.1	39.18 to 29.18	10	53.1	4/PVC	4/PVC	8.0
OW-58D	6/10/1999	82.97	43.3 to 53.3	39.72 to 29.72	10	53.3	4/PVC	4/PVC	8.0
OW-59D	6/10/1999	80.85	39.8 to 49.8	41.10 to 31.10	10	49.8	4/PVC	4/PVC	8.0
OW-69D	6/23/1999	82.55	39.0 to 49.0	43.60 to 33.60	10	49.0	4/PVC	4/PVC	8.0
OW-70D	6/23/1999	86.05	46.0 to 56.0	40.02 to 30.02	10	56.0	4/PVC	4/PVC	8.0
OW-75D	7/9/1999	84.74	50.2 to 60.2	34.59 to 24.59	10	60.2	4/PVC	4/PVC	8.0
OW-77D	7/13/1999	79.43	46.4 to 56.4	33.02 to 23.02	10	56.4	4/PVC	4/PVC	8.0
OW-79D	7/13/1999	79.90	30.4 to 40.4	49.49 to 39.49	10	40.4	4/PVC	4/PVC	8.0
OW-82D	8/11/1999	77.62	46.3 to 56.3	31.34 to 21.34	10	56.3	4/PVC	4/PVC	8.0
OW-83D	8/11/1999	78.13	39.2 to 49.2	38.97 to 28.97	10	49.2	4/PVC	4/PVC	8.0
OW-86D	9/20/2012	79.60	35.0 to 45.0	44.60 to 34.60	10	45.0	2/PVC	2/PVC	8.0
Deep Bedrock									
MW-10B	12/9/1998	70.31	76.9 to 101.9	-6.62 to -31.62	25	102.9	2/PVC	2/PVC	6.0
MW-10B2	12/9/1998	72.91	159.6 to 184.6	-86.70 to -111.70	25	185.6	2/PVC	2/PVC	6.0
MW-10B3	12/3/1998	70.59	317.5 to 342.5	-246.90 to -271.90	25	352.5	2/PVC	2/PVC	6.0
MW-31B2	12/10/1998	81.91	130.5 to 155.5	-48.60 to -73.60	25	156.5	2/PVC	2/PVC	6.0
MW-31B3	11/30/1998	83.37	311.9 to 336.9	-228.51 to -253.51	25	361.9	2/PVC	2/PVC	6.0
MW-37B2	12/3/1998	70.04	185.9 to 210.9	-115.82 to -140.82	25	211.9	2/PVC	2/PVC	6.0
MW-37B3	11/30/1998	70.14	296.1 to 321.1	-225.95 to -250.95	25	351.1	2/PVC	2/PVC	6.0
MW-84B3	9/28/1999	81.62	436.2 to 461.2	-354.53 to -379.53	25	511.2	2/PVC	2/PVC	6.0
MW-85B3	6/28/1999	65.68	272.1 to 297.1	-206.44 to -231.44	25	347.1	2/PVC	2/PVC	6.0
MW-86B3	7/6/1999	72.68	366.3 to 391.3	-293.57 to -318.57	25	396.3	2/PVC	2/PVC	6.0
MW-87B1*	5/26/2006	67.20	69.7 to 89.7	-2.50 to -22.50	20	340.0	6/SS	NA	6.0
MW-87B2*	5/26/2006	67.20	94.7 to 119.7	-27.50 to -52.50	25	340.0	6/SS	NA	6.0
MW-87B3*	5/26/2006	67.20	144.7 to 169.7	-77.50 to -102.50	25	340.0	6/SS	NA	6.0
MW-87B4*	5/26/2006	67.20	264.7 to 289.7	-197.50 to -222.50	25	340.0	6/SS	NA	6.0
MW-87B5*	5/26/2006	67.20	314.7 to 339.7	-247.50 to -272.50	25	340.0	6/SS	NA	6.0
MW-88B1*	12/2/2012	60.00	82.0 to 102.0	-22.00 to -42.00	20	350.0	6/SS	NA	6.0
MW-88B2*	12/2/2012	60.00	119.0 to 139.0	-59.00 to -79.00	20	350.0	6/SS	NA	6.0
MW-88B3*	12/2/2012	60.00	201.0 to 221.0	-141.00 to -161.00	20	350.0	6/SS	NA	6.0
MW-88B4*	12/2/2012	60.00	330.0 to 350.0	-270.00 to -290.00	20	350.0	6/SS	NA	6.0

bls	Below land surface
msl	Mean sea level
NA	Not applicable
PVC	Polyvinyl chloride
SS	Stainless steel
1	Off-site monitoring well
*	Offsite multi-port FLUTe system monitoring well
**	Monitoring well has been abandoned

Table 2. Strike and Dip for the Passaic Formation, Former Hyatt Clark Industries, Inc. Clark, New Jersey.

Pliot Holes: Bedding Features

PH-1			PH-2			PH-3			MW-87			MW-88		
Strike	Dip	Dip Angle	Strike	Dip	Dip Angle	Strike	Dip	Dip Angle	Strike	Dip	Dip Angle	Strike	Dip	Dip Angle
N 85° E	N 5° W	15°	N 51° E	N 39° W	11°	N 55° E	N 35° W	14°	N 52° E	N 38° W	14°	N 45° E	N 45° W	14°

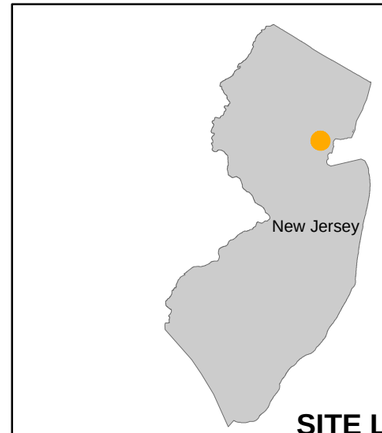
Literature				Pilot Holes: Gamma Logs		
Strike	Dip	Dip Angle		Strike	Dip	Dip Angle
N 50° E	N 40° W	11°	1	N 54° E	N 36° W	11°
N 46° E	N 44° W	13°	1	N 52° E	N 38° W	11°
N 50° E	N 40° W	9 - 12°	2			
Average: N 48° E	N 41° W	~ 12°		Average: N 53° E	N 37° W	11°

1. Bedrock Geology Map of Northern New Jersey Published by the U.S. Geological Survey, Drake, A. A. et al (1996)

2. Anderson, Henry R. 1968. Geology and Groundwater of The Rahway Area, New Jersey, State Department of Conservation and Economic Development, Division of Water Supply, Special Report No. 27, January 8, 1968.

FIGURES





SITE LOCATION

LEGEND:

- SITE LOCATION
- MUNICIPAL BOUNDARY

0 400 800 Feet

GRAPHIC SCALE

NOTE:

1. AUGUST 5, 2013 IMAGERY OBTAINED FROM ESRI IMAGE SERVICE.

FORMER HYATT CLARK INDUSTRIES SITE
CLARK, NEW JERSEY

REMEDIAL INVESTIGATION REPORT

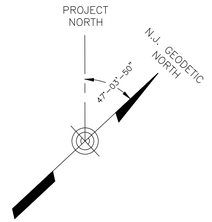
SITE LOCATION MAP

ARCADIS Design & Consultancy for natural and built assets

FIGURE 1

City: syr Div/Group: swg Created By: j.rapp Last Saved By: jrapp
Hyatt- Clark, NJ (NJ000298.0032.00006)
Q:\GeneralMotors\Clark\RIR\mxd\SiteLocationMap1.mxd 1/18/2016 9:04:10 PM





LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- TOWNSHIP BOUNDARY
- FENCE
- RAILROAD TRACKS
- LIMITS OF CAP SYSTEM
- MONITORING WELL
- OFFSITE MONITORING WELL
- PRODUCT OBSERVATION WELL

FORMER HYATT CLARK INDUSTRIES SITE
CLARK, NEW JERSEY
GROUNDWATER REMEDIAL INVESTIGATION REPORT

SITE PLAN

ARCADIS Design & Consultancy for natural and built assets

FIGURE
2

CITY:SYRACUSE-NY DIV/GROUP:ENV DB:A.SANCHEZ LD:ALS PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACTIVE\NJ000298\0033\000006\NJ298336B02.dwg LAYOUT: 2 SAVED: 3/7/2016 7:16 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: ----
XREFS: IMAGES: PROJECTNAME: ----
XBDR-DL

SL-42	
0-0.5	**4.7**
1.5-2	0.035

SL-31	
0-0.5	**4.3**
1.5-2	0.15

SL-25	
0-0.5	**8.3**
1.5-2	**20.2**

SL-19	
0-0.5	**19.4**
1.5-2	**9.6**

SL-11	
0-0.5	**84**
1.5-2	**40**
3.5-4	**4**

SL-14	
0-0.5	**11.6**
1.5-2	**16.7**

SL-1B	
1.5-2	**89**
3.5-4	**3.39**

SL-2B	
1.5-2	**92**
3.5-4	**116**
5.5-6	**0.8**
6.5-8	**0.56**

SL-4B	
1.5-2	**30.8**

SL-05	
0-0.5	**39**
1.5-2	**38**

SL-06	
0-0.5	**33**
1.5-2	**25**

SL-12	
0-0.5	**23**
1.5-2	**4.8**

SL-17	
0-0.5	**64**
1.5-2	**48**
3.5-4	**6**

SL-33	
0-0.5	**2.15**
1.5-2	**1.43**

SL-34

SL-32	
0-0.5	**3.6**
1.5-2	**4.09**

SL-26

SL-41	
0-0.5	**0.73**
1.5-2	**0.4**

S00604B
S00604A

SL-21	
0-0.5	**18**
1.5-2	**2.5**
3.5-4	**10.2**

SL-20	
0-0.5	**5.5**
1.5-2	**0.32**

SL-37

SL-22	
0-0.5	**6.6**
1.5-2	**0.69**

SL-15	
0-0.5	**22.5**
1.5-2	**0.8**

SL-27	
0-0.5	0.097
1.5-2	**4.4**

SL-10	
0-0.5	**205**
1.5-2	**86**
3.5-4	**10.1**

SL-28	
0-0.5	**2.03**
1.5-2	**1.48**

SL-09	
0-0.5	**29**
1.5-2	**49**
3.5-4	**0.81**

SL-3B	
1.5-2	**1070**
3.5-4	**30.7**

SL-38	
0-0.5	**0.51**
1.5-2	0.021

SL-07	
0-0.5	**22.8**
1.5-2	**13.3**
3.5-4	**4**

SL-16	
0-0.5	**1.25**
1.5-2	**5.3**

SL-30	
0-0.5	**4.8**
1.5-2	**1.34**

SL-40	
0-0.5	**0.99**
1.5-2	0.049

SL-35	
1.5-2	**0.48**
3.5-4	**3.4**

SL-36	
3.5-4	0.12

SL-29	
0-0.5	**4.5**
1.5-2	**5.4**

SL-13	
0-0.5	**107**
1.5-2	**840**
3.5-4	**79**
5.5-6	**0.92**
6.5-8	**0.34**

SL-18	
0-0.5	**630**
1.5-2	**29**
3.5-4	**102**
5.5-6	**0.48**

SL-39	
0-0.5	**1.15**
1.5-2	0.027
3.5-4	0.059

SL-23	
0-0.5	**28**
1.5-2	**74**
3.5-4	**16.5**

SL-24	
0-0.5	**8.2**
1.5-2	**2.8**

SL-43	
0-0.5	**1.32**
1.5-2	0.09

LEGEND:

- Soil Boring
- Soil Boring - PCBs Not Detected
- Property Line
- Current Features
- Former Features
- Former Tunnel
- Railroad
- Abandond Railroad
- Excavated Area
- Cap Area

NOTES:
1. Yellow Highlighted - Total PCB concentrations remaining after 2005 excavation.
2. Blue Highlighted - Total PCBs removed.
3. Aerial obtained from Google Earth Pro, June 2015.

0 30 60

SCALE IN FEET

FORMER HYATT CLARK INDUSTRIES
1300 RARITAN RD
CLARK, NJ

BORINGS AND TOTAL PCB CONCENTRATIONS

ARCADIS

FIGURE 3

CITY: SAN FRANCISCO DIV/GROUP: ENV/IM DB: sbell LD: PIC: PM: TM:
PROJECT PATH: Z:\GIS\PROJECTS_ENV\Hyatt Clark\MXDs\HyattClark_Borings.mxd DATE: 2/1/2016 3:41:24 PM

CITY:SYRACUSE-NY DIV/GROUP:ENV DB:A.SANCHEZ LD:ALS PIC:(Opt) PM:(Resp) TM:(Opt) LYR:(On)On=*;Off=*REF*
Z:\ENV\CAD\SYRACUSE\ACT\NJ000208\003\0000#N\239838C02.dwg LAYOUT: 4 SAVED: 3/16/2016 3:05 PM ACADVER: 19.1S (LMS TECH) PAGESETUP:---- PLOTSTYLETABLE:---- PLOTTED: 3/16/2016 3:06 PM BY: SANCHEZ, ADRIAN
XREFS: IMAGES: PROJECTNAME:----
XBDR-EL USG GW fig1.jpg
USG GW fig2.jpg

MW-1

DATE	9/14/2010	9/14/2011	9/25/2012	10/1/2013	10/1/2014
VOCs	NE	NE	NE	NE	NE

MW-1B

DATE	9/10/2009	9/14/2010	9/14/2011	9/25/2012	10/1/2013	10/7/2014
VOCs	NE	NE	NE	NE	NE	NE

MW-46

DATE	9/16/2009	9/19/2011
VOCs		
Trichloroethene	0.81 J	**5.8**
Vinyl chloride	0.74 J	**2.3**
SVOCs		
bis(2-Ethylhexyl)phthalate (DEHP)	**55**	**7.3 J**
Indeno(1,2,3-cd)pyrene	**0.22 J**	< 2.3 U
Phenolics	NA	NE
PCBs	**1.6**	**26**
Metals		
Aluminum	NA	**554**
Arsenic	**39.8**	**3.8 J**
Arsenic (dissolved)	< 5.0 U	< 5.0 U
Beryllium	**3.7**	< 2.0 U
Chromium	**1,480**	3.5
Iron	NA	**3,480**
Iron, (dissolved)	NA	**2,970**
Lead	**71.4**	< 5.0 U
Manganese	NA	**152**
Manganese (dissolved)	NA	**157**
Nickel	**779**	< 40.0 U
Zinc	**3,850**	476
Cyanide	NA	NE

MW-10

DATE	9/11/2009	9/15/2010	9/13/2011	9/26/2012	10/1/2013	9/30/2014
VOCs	NE	NE	NE	NE	NE	NE

MW-8

DATE	9/15/2009	9/20/2010	9/20/2011	9/25/2012	10/1/2013	10/7/2014
VOCs						
1,1,1-Trichloroethane	**570**	**800 D**	**470**	**450**	**390**	**440**
1,1-Dichloroethane	**610**	**800 D**	**460**	**560**	**410**	**410**
1,1-Dichloroethene	**92**	**140**	**49**	**56**	**55**	**63**
1,2-Dichloroethane	**9.2**	**11**	**6.7**	**6.2**	**5.9**	**6.4**
1,4-Dioxane	NA	NA	**24**	**45**	NA	NA
Benzene	**1.3 J**	**1.4**	0.76 J	0.92 J	< 2.0 U	0.87 J
cis-1,2-Dichloroethene	60	**77**	34	44	39	65
Tetrachloroethene	**39**	**69**	**33**	**35**	**33**	**52**
Trichloroethene	**25**	**41**	**17**	**22**	**18**	**32**
Vinyl chloride	**14**	**22**	**6.4**	**8**	**7.5**	**12**
PCBs	NE	NE	NE	NE	NE	NE

MW-9B

DATE	9/15/2009	9/20/2010	9/20/2011	9/25/2012	10/1/2013	10/7/2014
VOCs						
1,1-Dichloroethene	**110**	**140**	**80**	**110**	**89**	**77**
1,1-Dichloroethane	**23**	**38**	**15**	**17**	**15**	**9.8**
cis-1,2-Dichloroethene	**590**	**850 D**	**530**	**580**	**630**	**570**
Tetrachloroethene	**10**	**13**	**8.6**	**7.5**	**7.1**	**5.2**
trans-1,2-Dichloroethene	**430**	**540 D**	**420**	**490**	**540**	**440**
Trichloroethene	**100**	**130**	**59**	**49**	**51**	**41**
Vinyl chloride	**190**	**370**	**160**	**170**	**220**	**160**
PCBs	NE	NE	NE	NE	NE	NE

MW-40

DATE	9/9/2009	9/14/2010	9/15/2011	9/27/2012	10/3/2013	10/1/2014
VOCs						
Tetrachloroethene	**1.8**	**1.2**	**1.7**	**2.1**	**1.2/1.3**	**1.3**

MW-20

DATE	9/15/2009	9/21/2010	9/20/2011	9/25/2012	10/1/2013	10/7/2014
VOCs						
1,1-Dichloroethane	**89**	**99**	28	**82**	**70**	**53**
1,1-Dichloroethene	**21**	**26**	0.81 J	**5.9**	< 5.0 U	**4.9**
cis-1,2-Dichloroethene	**1,800**	**1,700**	**94**	**600 J**	**1,100**	**560**
Tetrachloroethene	**1.6 J**	< 5.0 U	**1.4**	< 2.0 U	< 5.0 U	0.72 J
trans-1,2-Dichloroethene	**270**	**220**	37	**240**	**230**	**150**
Trichloroethene	**97**	**100**	**6.5**	**19**	**53**	**14**
Vinyl chloride	**550**	**800**	**310**	**340**	**630**	**430**
1,4-Dioxane	NA	NA	**3.6**	**13**	NA	NA
SVOCs	NE	NE	NE	NE	NE	NE
Phenolics	NE	NE	NE	NE	NE	NE
PCBs	NE	NE	NE	NE	NE	NE
Metals						
Aluminum	NA	**626 BJ**	92.9 J	**596**	< 200 U	< 200 U
Chromium	6.8 J	7.3 J	**476**	9.2 J	< 10.0 U	< 10.0 U
Iron	NA	**795**	**2,670**	**890**	274	146 J
Iron, (dissolved)	NA	124 J	**594**	152	209	156
Lead	3.0 J	4.70 J	< 5.0 U	**8.4**	< 5.0 U	< 5.0 U
Manganese	NA	**3,680**	**3,560**	**4,310**	**4,490**	**3,990**
Manganese (dissolved)	NA	**3,780**	**3,380**	**4,550**	**4,480**	**4,200**
Nickel	25.9 J	25.4 J	**302**	27.5 J	22.3 J	17.8 J
Sodium (dissolved)	NA	49,800	38,900	**53,700**	49,800	46,900
Cyanide	NE	NE	NE	NE	NE	NE

MW-45

DATE	9/9/2009	9/14/2010	9/20/2011
VOCs			
Tetrachloroethene	**2.6**	**1.9**	**1.7 J/1.7 J**

MW-41

DATE	9/9/2009	9/14/2010	9/15/2011	9/27/2012	10/3/2013	10/6/2014
VOCs						
1,1-Dichloroethene	**3.1**	**2.4**	**1.4**	**2.9**	**2.4**	0.52 J
Tetrachloroethene	**33**	**29**	**20**	**40**	**31**	**11**
Trichloroethene	**1.2**	**1.2**	0.96 J	1	**1.2**	0.66 J

MW-21

DATE	9/15/2009	9/21/2010	9/20/2011	9/28/2012	10/2/2013	10/7/2014
VOCs						
1,1-Dichloroethene	**5.4**	**3.9**	**1.9**	0.76 J	**4.4**	**3**
Methylene chloride	< 1.0 U	**3.4**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	**14**	**10**	**8.3**	**9.6**	**14**	**15**
Trichloroethene	**4.3**	**2.6**	**1.6**	**3.7**	**3.9**	**2.9**
1,4-Dioxane	NA	NA	<2 U	**2.4**	NA	NA
PCBs	NE	NE	NE	NE	NE	NE

MW-38

DATE	9/11/2009	9/15/2010	9/14/2011	9/27/2012	9/28/2012	10/2/2013	9/30/2014
VOCs							
Tetrachloroethene	**26**	**28**	**25**	**37**	**36**	**26/26**	**22**
Trichloroethene	**11**	**13**	**8.6**	**11**	**10**	**11/11**	**8.3**
PCBs	NE	NE	NE	NA	NA	NE	NE

MW-38B

DATE	9/11/2009	9/15/2010	9/14/2011	9/27/2012	10/1/2012	10/2/2013	9/30/2014
VOCs							
1,1-Dichloroethane	45	37	32	27/29	35	27	
1,1-Dichloroethene	**62**	**50**	**28**	**41/44**	**34**	**31**	
cis-1,2-Dichloroethene	**74**	68	58	60/64	70	52	
Tetrachloroethene	**50**	**46**	**29**	**41/46**	**10**	**26**	
Trichloroethene	**19**	**16**	**13**	**17/19**	**12**	**15**	
Vinyl chloride	**20**	**20**	**15**	**14/15**	**24**	**12**	
PCBs	NE	NE	NE	NE	NE	NE	NE

MW-44

DATE	9/9/2009	9/14/2010	9/20/2011	9/27/2012	10/3/2013	10/8/2014
VOCs						
Tetrachloroethene	**2.7**	< 1.0 U	**1.6/1.6 J**	**1.6**	**2.1**	**2.1**

MW-19

DATE	9/15/2009	9/21/2010	9/21/2011	9/28/2012	10/1/2013	10/2/2014
VOCs						
1,1-Dichloroethane	**64**	39	37	25 J	39	26
1,1-Dichloroethene	**3.5**	**6.7**	**2.1**	**2.6**	**5.1**	**2.1**
1,2-Dichloroethane	**3.4**	1.2	2	0.53 J	< 1.0 U	0.66 J
1,4-Dioxane	NA	NA	**15**	**21**	NA	< 50 U
Tetrachloroethene	< 1.0 U	**1.4**	< 1.0 U	0.60 J	**2.2**	**0.49 J**
Trichloroethene	**8.8**	**3.1**	**2**	**3.9**	**6.2**	**3.7**
Vinyl chloride	**14**	**3.1**	**9.2**	**12**	**4.5**	**8.5**
SVOCs	NA	NE	NA	NA	NA	NA
PCBs	NE	NA	NE	NE	NE	NE

MW-43

DATE	9/9/2009	9/14/2010	9/15/2011	9/27/2012	10/3/2013	10/1/2014
VOCs						
Tetrachloroethene	< 1.0 U	**2.1**	< 1.0 U/< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U

MW-42

DATE	9/9/2009	9/14/2010	9/15/2011	9/27/2012	10/3/2013	10/6/2014
VOCs						
1,1-Dichloroethene	**2.3**	**2.1**	1 U	**1.7**	**2**	**1.3**
1,4-Dioxane	NA	NA	< 2.0 U	**30**	NA	NA

MW-18

DATE	9/10/2009	9/14/2010	9/14/2011	9/28/2012	10/2/2013	9/30/2014
VOCs						
1,1-Dichloroethene	**3.4**	**1.8**	**1.5**	**1.8**	**2.7**	**1.8**
PCBs	**3.1**	**1.89**	**1.8**	**0.54**	**1.5**	NE

MW-17A

DATE	9/9/2009	9/14/2010	9/16/2011	9/28/2012	10/3/2013	9/30/2014
VOCs	NE	NE	NE	NE	NE	NE
PCBs	NE	NE	NE	NE	NE	NE

MW-37

DATE	9/14/2009	9/17/2010	9/15/2011	9/26/2012	10/2/2013	10/1/2014
VOCs						
1,1-Dichloroethene	0.25 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon tetrachloride	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	<1.0 U	< 1.0 U
Trichloroethene	**3.6**	**2.8**	**2.9**	**2.9**	**2.9**	**3.2**
PCBs	NE	NE	NE	NE	NE	NE

MW-37B

DATE	9/14/2009	9/17/2010	9/15/2011	9/26/2012	10/2/2013	10/1/2014
VOCs						
1,1-Dichloroethene	**8.7**	**6.3**	**5.5**	**5.9**	**8**	**4.9**
Carbon tetrachloride	**2.5**	**2.1**	**2.8**	**2.6**	**3**	**1.2**
Trichloroethene	**16**	**12**	**13**	**13**	**15**	**13**
PCBs	NE	NE	NE	NE	NE	NE
Metals						
Aluminum	NA	120 J/167 J	**347/364**	**327**	118 J	57.0 J
Iron	NA	72.2 J/78.0 J	**1,060/983**	**310**	109 J	<150 U
Manganese	NA	4.2 J/4.5 J	**153/191**	17.5	11.1 J	< 10.0 U
Manganese (dissolved)	NA	< 15.0 U/< 15.0 U	**326 J/748 J**	< 15.0 U	< 15.0 U	< 10.0 U

OW-24

DATE	9/18/2009	9/21/2011
VOCs	NE	NE
SVOCs	NA	NE
Phenolics	NA	NE
PCBs	NE	NE
Metals		
Aluminum	NA	**67,900**
Arsenic	NA	**50.9**
Beryllium	NA	**3.9**
Cadmium	NA	**5.6**
Chromium	NA	**3,480**
Iron	NA	**122,000**
Iron (dissolved)	NA	**1,600**
Lead	NA	**201**
Manganese	NA	**1,810**
Manganese (dissolved)	NA	**1,180**
Nickel	NA	**2,000**
Cyanide	NA	NE

OW-26S

DATE	9/18/2009	9/19/2011
VOCs	NE	NE
SVOCs	NA	NE
Phenolics	NA	NE
PCBs	NE	NE
Metals		
Aluminum	NA	**870**
Arsenic	NA	**9.3**
Chromium	NA	**486**
Iron	NA	**19,400**
Iron (dissolved)	NA	**14,600**
Lead	NA	**7.5**
Manganese	NA	**2,050**
Manganese (dissolved)	NA	**2,270**
Nickel	NA	**245**
Cyanide	NA	NE

OW-25S

DATE	9/18/2009	9/19/2011	10/9/2014
VOCs	NE	NE	NE
SVOCs	NA	NE	NE
Phenolics	NA	NE	NA
PCBs	NE	NE	NA
Metals			
Arsenic	NA	**22**	NA
Arsenic (dissolved)	NA	**17.6**	NA
Iron	NA	**9,800**	NA
Iron (dissolved)	NA	**8,480**	NA
Lead	NA	**6.2**	NA
Manganese	NA	**1,320**	NA
Manganese (dissolved)	NA	**1,310**	NA
Sodium	NA	**84,100**	NA
Sodium (dissolved)	NA	**84,800**	NA
Cyanide	NA	NE	NA

OW-32D

DATE	9/16/2009	9/20/2010	9/16/2011	10/1/2012	10/2/2012	10/8/2013	10/8/2014
VOCs	NE	NE	NE	NE	NE	NE	NE
SVOCs	NE	NE	NE	NE	NA	NE	NE
Phenolics	NE	NE	NE	NE	NA	NE	NE
PCBs	**1.3**	**19**	NE	NE	NA	NE	**39**
Metals							
Aluminum	NA	**3,340 BJ**	**274**	NA	145 J	**2,160**	< 50.0 U
Aluminum (dissolved)	NA	**227 J**	168 J	NA	81.1 J	< 200 U	134
Arsenic	< 5.0 U	**6.7**	**4.5 J**	NA	< 5.0 U	**5.3**	2.3 J
Arsenic (dissolved)	< 5.0 U	< 5.0 U	**3.5 J**	NA	**6**	< 5.0 U	2.5
Iron	NA	**4,500**	**1,850**	NA	**1,880**	**3,780**	< 150 U
Iron (dissolved)	NA	270	**1,500**	NA	**682**	153	**486**
Lead	< 5.0 U	**12.5**	< 5.0 U	NA	< 5.0 U	**8.3**	< 1.5 U
Manganese	NA	**2,360**	**993**	NA	**3,240**	**3,600**	**3,040**
Manganese (dissolved)	NA	**2,210**	**940**	NA	**2,610**	**3,830**	**3,310**
Cyanide	NE	NE	NE	NE	NA	NE	NE

MW-15

DATE	9/14/2009	9/20/2010	9/16/2011	9/27/2012	10/9/2013	10/2/2014
VOCs						
1,1-Dichloroethene	**1.7**	**1.4/1.6**	**1.1**	0.70 J	0.90 J	0.73 J/0.66 J
1,4-Dioxane	NA	NA	**11**	**7.8**	< 50 U	< 50 U
SVOCs	NE	NE	NE	NE	NE	NE
Phenolics	NE	NE	NE	NE	NE	NE
PCBs	NE	**2.2/1.8**	NE	NE	NE	NE
Metals						
Aluminum	NA	< 200 UB/< 200 UB	187 J	**425**	119 J	**148 J/262 J**
Chromium	< 10.0 U	< 10.0 U/< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 5.0 U/< 5.0 U
Iron	NA	**302/308**	**351**	**2,850**	183	<150 U/192
Manganese	NA	**2,460/2,520**	**2,310**	**2,330**	**2,580**	**2,440/2,480**
Manganese (dissolved)	NA	**2,250/2,370**	**2,350**	**2,490**	**2,600**	**2,570/2,600**
Cyanide	NE	NE	NE	NE	NE	NE

MW-7

DATE	9/11/2009	9/17/2010	9/16/2011	9/27/2012
VOCs	NE	NE	NE	NE
PCBs	NE	NE	NE	**1.2**

MW-39

DATE	9/10/2009	9/16/2010	9/13/2011	8/27/2014
VOCs				
Trichloroethene	**4.1**	**3**	**2.5**	**2.1**
PCBs	NE	NE	NE	NE

MW-39B

DATE	9/10/2009	9/16/2010	9/13/2011	9/26/2012	10/3/2013	8/27/2014
VOCs						
Trichloroethene	**4.4**	**4.4**	**4.8**	**4.4**	**4.8**	**3.9**
PCBs	NE	NE	NE	NE	NE	NE

MW-13

DATE	9/17/2009	9/21/2011	10/2/2012	10/9/2013	10/9/2014
VOCs	NA	NE	NE	NE	NE
PCBs	NE	NE	NE	NE	NE

MW-4

DATE	9/10/2009	9/16/2010	9/13/2011	9/25/2012	10/3/2013	8/27/2014
VOCs						
Trichloroethene	**1.3**	**1.1**	**1.1**	**1.1**	1	**1.1/0.98 J**
PCBs	NE	NE	NE	NE	NE	NE

MW-12

DATE	9/10/2009	9/15/2010	9/15/2011	9/27/2012	10/4/2013	10/2/2014
VOCs	NE	NE	NE	NE	NE	NE
PCBs	NE	NE	NE	NE	NE	NE

MW-36B

DATE	9/10/2009	9/15/2010	9/15/2011	9/25/2012	10/4/2013	9/30/2014
VOCs	NE	NE	NE	NE	NE	NE
PCBs	NE	NE	NE	NE	NE	NE

MW-1 US GYPSUM

DATE	1/5/2011	2/9/2011	7/15/2011	9/13/2011
VOCs				
1,1-Dichloroethene	1 U	1 U	NA	NA
Trichloroethene	**3.4**	**4.6**	NA	NA
Metals				
Aluminum	**35,300**	**3,380**	NA	NA
Arsenic	**6 U**	3 U	3 U	3 U
Iron	**44,500**	**3,460**	NA	NA
Lead	**16.2**	3 U	NA	NA
Manganese	**1,470**	**106**	NA	NA
Sodium	**59,500**	**57,400**	NA	NA

MW-5 US GYPSUM

DATE	1/5/2011	2/9/2011
VOCs		
1,1-Dichloroethene	1 U	1 U
Trichloroethene	1 U	1 U
Metals		
Aluminum	**477**	**1,710**
Arsenic	3 U	3 U
Iron	**359**	**1,630**
Lead	3 U	3 U
Manganese	**86.5**	**160**
Sodium	42,000	38,200

MW-3 US GYPSUM

DATE	1/5/2011	2/9/2011	7/15/2011	9/13/2011
VOCs				
1,1-Dichloroethene	1 U	1 U	NA	NA
Trichloroethene	1 U	1 U	NA	NA
Metals				
Aluminum	**2,090**	**6,840**	NA	NA
Arsenic	3 U	**4.6**	**4**	3 U
Iron	**2,170**	**6,060**	NA	NA
Lead	3 U	3	NA	NA
Manganese	**59**	**116**	NA	NA
Sodium	**59,300**	**57,500**	NA	NA

MW-2 US GYPSUM

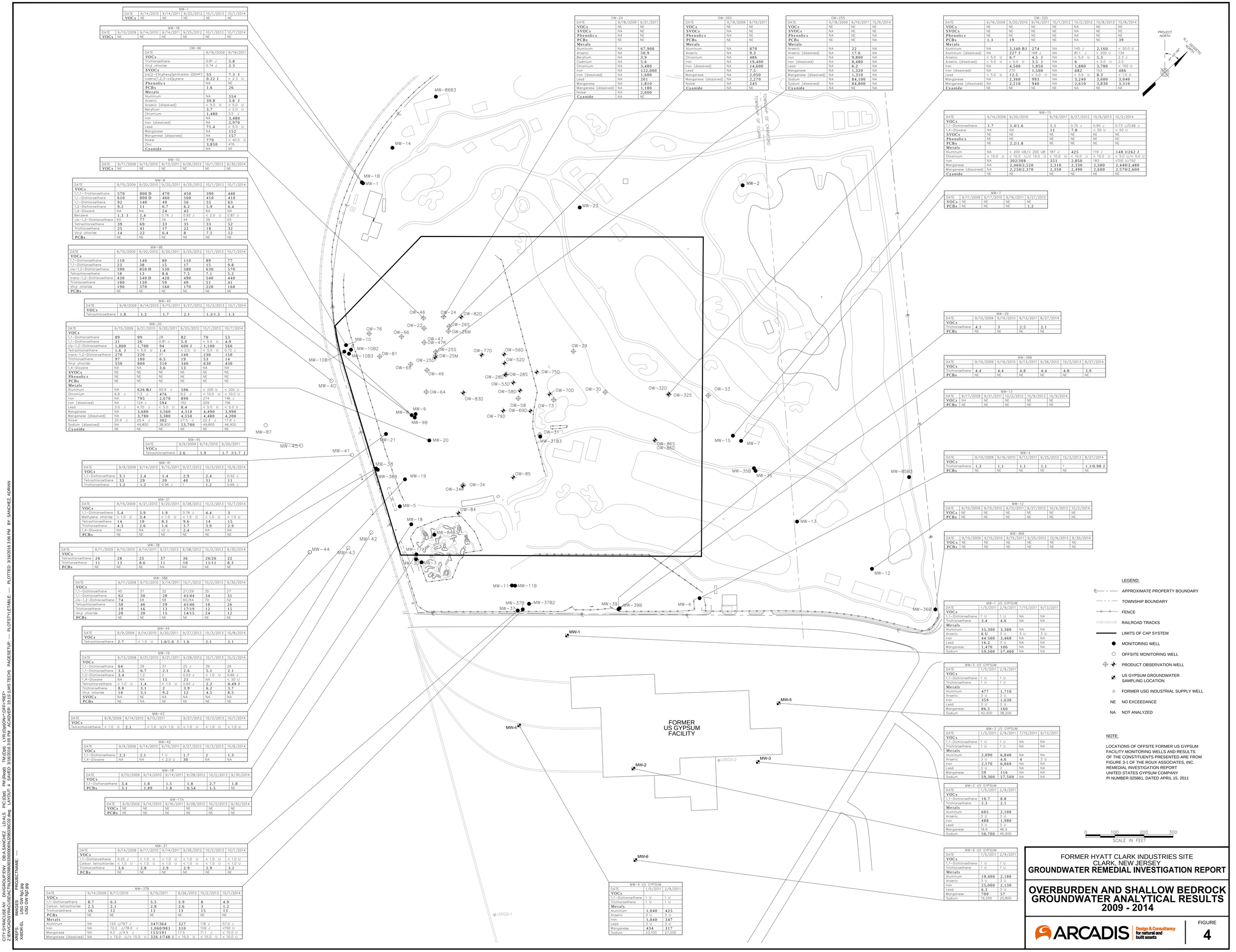
DATE	1/5/2011	2/9/2011
VOCs		
1,1-Dichloroethene	**10.7**	**8.8**
Trichloroethene	**2.3**	**2.1**
Metals		
Aluminum	**605**	**2,100**
Arsenic	3 U	3 U
Iron	**488**	**1,980**
Lead	3 U	3 U
Manganese	16.6	46.9
Sodium	**50,700**	45,900

MW-6 US GYPSUM

DATE	1/5/2011	2/9/2011
VOCs		
1,1-Dichloroethene	1 U	1 U
Trichloroethene	1 U	1 U
Metals		
Aluminum	**19,400**	**2,180**
Arsenic	3 U	3 U
Iron	**25,000**	**2,130**
Lead	**6.3**	3 U
Manganese	**700**	**57**
Sodium	19,200	20,800

MW-4 US GYPSUM

DATE	1/5/2011	2/9/2011
VOCs		
1,1-Dichloroethene	1 U	1 U
Trichloroethene	1 U	1 U
Metals		
Aluminum	**1,040**	**425**
Arsenic	3 U	3 U
Iron	**1,040**	**347**
Lead	3 U	3 U
Manganese	**434**	**317**
Sodium	23,100	27,000



LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- TOWNSHIP BOUNDARY
- FENCE
- RAILROAD TRACKS
- LIMITS OF CAP SYSTEM
- MONITORING WELL
- OFFSITE MONITORING WELL
- PRODUCT OBSERVATION WELL
- US GYPSUM GROUNDWATER SAMPLING LOCATION
- FORMER USG INDUSTRIAL SUPPLY WELL
- NE NO EXCEEDANCE
- NA NOT ANALYZED

NOTE:

LOCATIONS OF OFFSITE FORMER US GYPSUM FACILITY MONITORING WELLS AND RESULTS OF THE CONSTITUENTS PRESENTED ARE FROM FIGURE 3-1 OF THE ROUX ASSOCIATES, INC. REMEDIAL INVESTIGATION REPORT UNITED STATES GYPSUM COMPANY PI NUMBER 025861, DATED APRIL 15, 2011

0 100 200 300
SCALE IN FEET

FORMER HYATT CLARK INDUSTRIES SITE
CLARK, NEW JERSEY
GROUNDWATER REMEDIAL INVESTIGATION REPORT

OVERBURDEN AND SHALLOW BEDROCK GROUNDWATER ANALYTICAL RESULTS 2009 - 2014

ARCADIS Design & Consultancy for natural and built assets

FIGURE 4

APPENDIX A

Traditional Oversight Report Certification Form

New Jersey Department of Environmental Protection
Site Remediation Program

TRADITIONAL OVERSIGHT REPORT CERTIFICATION FORM

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Former Hyatt Clark Industries Site

List All AKAs:

Street Address: 1300 Raritan Road

Municipality: Clark (Township Borough or City)

County: Union Zip Code: 07066

Program Interest (PI) Number(s): 001205 Case Tracking Number(s): ISRA Case No E87769

SECTION B. REPORT INFORMATION

Report Name: Groundwater Remedial Investigation Report

Report Date: 03/31/2016

Federal Traditional Case Type :

☒ **RCRA GPRA 2020** ☐ **CERCLA/NPL** ☐ **USDOD** ☐ **USDOE**

☐ Other (explain):

SECTION C. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: See below.

Representative First Name: Robert Representative Last Name Hare

Title: Cleanup Manager (IL, IN, KS, MO, NJ, WI)

Phone Number: (313) 486-2908 Ext: Fax:

Mailing Address: 500 Woodward Avenue, Suite 2650

City/Town: Detroit State: MI Zip Code: 48226

Email Address: rhare@racertrust.com

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

Signature: Date: 3-30-16

Name/Title: Robert Hare/ Cleanup Manager

Full Legal Name of Person Responsible: REVITALIZATION AUTO COMMUNITIES ENVIRONMENTAL RESPONSE TRUST, A trust formed under the laws of the State of New York, by: EPLET, LLC, Administrative Trustee, Elliot P. Laws, Managing Member.

SECTION D. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT

LSRP ID Number: 575494

First Name: Christopher Last Name: Motta

Phone Number: (201) 398-4380 Ext: Fax:

Mailing Address: 17-17 Route 208 North

City/Town: Fair Lawn State: NJ Zip Code: 07410

Email Address: Christopher.Motta@arcadis.com

This statement shall be signed by the LSRP who is submitting this notification in accordance with SRRA Section 16 d. and Section 30 b.2.

I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. As the Licensed Site Remediation Professional of record for this remediation, I:

[SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICABLE]:

☐ *directly oversaw and supervised all of the referenced remediation, and\or*

☒ *personally reviewed and accepted all of the referenced remediation presented herein.*

I believe that the information contained herein, and including all attached documents, is true, accurate and complete.

It is my independent professional judgment and opinion that the remediation conducted at this site, as reflected in this submission to the Department, conforms to, and is consistent with, the remediation requirements in N.J.S.A. 58:10C-14.

My conduct and decisions in this matter were made upon the exercise of reasonable care and diligence, and by applying the knowledge and skill ordinarily exercised by licensed site remediation professionals practicing in good standing, in accordance with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I performed these professional services.

I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.

LSRP Signature: Date: 03/30/2016

LSRP Name/Title: Christopher J. Motta / Vice Presindent

Company Name: Arcadis U.S.,Inc.

Completed forms should be sent to:

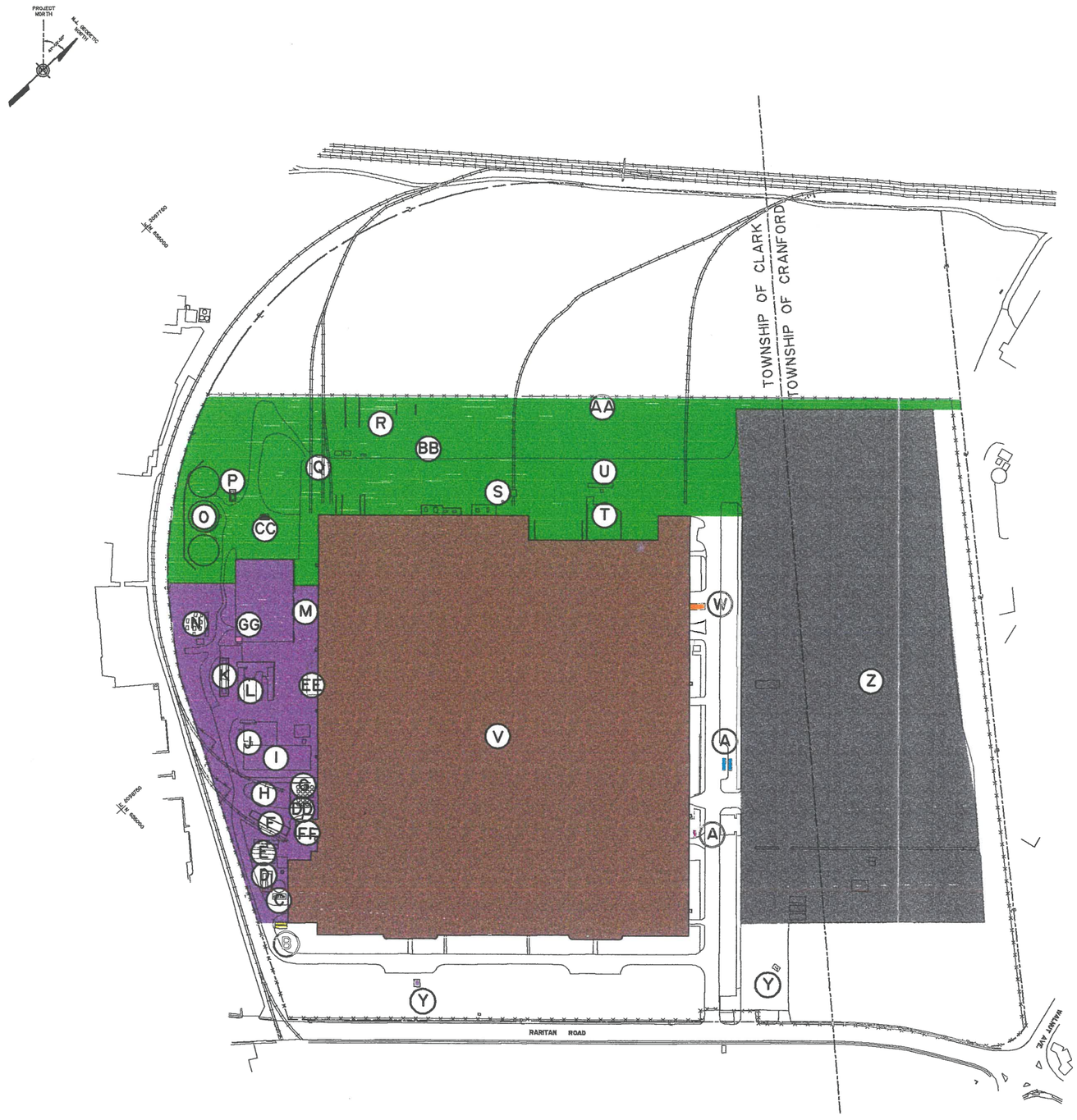
Assigned Case Manager
Bureau of Case Management
Site Remediation Program
NJ Department of Environmental Protection
401-05F
PO Box 420
Trenton, NJ 08625-0420

APPENDIX B

Copy of and Case Inventory Document and CID Figure

	A	B	D	E	F	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1	**Case Name:**	Former Hyatt Clark Industries Site																		
2	**PI #:**	001205																		
3	**IMPORTANT:** *Do not copy and paste into more than 1 cell at a time because it can disrupt hidden equations*																			
4	**Case Inventory Document Version 1.3 06/25/14**																			
5	**AOC ID**	**AOC Type**	**AOC Details**	**Confirmed Contamination**	**AOC Status**	**Status Date**	**Incident #**	**DEP AOC Number**	**Contaminated Media**	**Contaminants of Concern**	**Additional Contaminants of Concern**	**Additional Contaminants of Concern**	**Applicable Remediation Standard**	**Exposure Route**	**Additional Exposure Route**	**RA Type**	**Additional RA Type**	**Additional RA Type**	**Was an Order of Magnitude Evaluation Conducted?**	**Activity**
6	AOC-1	Storage tank and appurtenance - Federal Regulated Under ground storage tank	2x 5,500 gal Unleaded UST's (removed) 1x 1,000 gal Gasoline UST (removed)	Yes	NFA-A DEP Issued (Restricted Use)	3/12/2003			Soil	BN + PCBs	TPHC	Metals	Soil Cleanup Criteria (MUST have RAW approved for AOC prior to 12/2/2008)	Ingestion/Dermal	Inhalation	Capping	Excavation			09/94 - USTs excavated, contaminants of concern (COCs) found in post-excavation samples above applicable criteria. 04/00 - Cap installed. 09/02 - Deed Notice (DN) approved. 11/02 DN filed (recorded).
7	AOC-2	Storage tank and appurtenance - Federal Regulated Under ground storage tank	1x 1,000 gal Leaded Gasoline UST (removed)	No	NFA-A DEP Issued (Unrestricted Use)	12/15/1998			None				Soil Cleanup Criteria (MUST have RAW approved for AOC prior to 12/2/2008)			No Remedial Action				09/94 - UST excavated, no exceedances of applicable criteria in post-excavation samples. 12/98 - NFA granted
8	AOC-3	Storage tank and appurtenance - Federal Regulated Under ground storage tank	1x 1,000 gal Diesel UST (removed)	Yes	NFA-A DEP Issued (Restricted Use)	11/13/2002			Soil	Metals + PAHs	PCBs		Soil Cleanup Criteria (MUST have RAW approved for AOC prior to 12/2/2008)	Ingestion/Dermal	Inhalation	Capping	Excavation			9/94 - USTs excavated, contaminants of concern (COC) found in post-excavation samples and surrounding borings at concentrations above applicable criteria. Shallow contaminated soils were excavated and placed beneath capped area as per NJDEP approval. 04/00 - Cap installed. 09/02 - DN approved. 11/02 DN filed.
9	AOC-4	Other areas of concern - Electrical transformer and capacitor	Transformer Pad Station No. 5 (removed) 2x 3,000, 2x 30,000, 2x 12,500, 2x 10,000 gal No.6 Fuel Oil ASTs (removed) Chip Pit area 18x 5,800 gal. Oil ASTs (removed) Unpaved Scrap Pile Area Maintenace Storage Building (removed) Paved Drum Storage Area (RCRA Closure Area) 2x 20,000 gal Waste Oil ASTs (RCRA Closure Area) 3x 45,000 gal Settling AST's West Side Bldg. RCRA Waste Pile RCRA Cosure Area Primary Transformer Substation	Yes					Soil	TPHC	VO + BN	Metals + PCBs	Soil Cleanup Criteria (MUST have RAW approved for AOC prior to 12/2/2008)	Ingestion/Dermal	Inhalation	Capping	Excavation			10/94 - USTs removed. 10/05 - excavation completed to remove PCB at concentrations greater than 50 mg/kg. 04/00 - Cap installed. 09/02 - DN recorded. 11/02 DN filed. DN for Conrail property required after delineation is complete.
10	AOC-5	Storage and staging area - Storage pad and area	3x 750,000 gal Waste Water Treatment ASTs Waste Oil AST (removed) (RCRA Closure Area) West Rail Siding (removed) North of Road, Propane Storage Rail Siding and Chip Hopper New Drum Storage Pad Rear Access Road Drainage Swale Northern Use Area Parshall Flume	Yes	NFA-A DEP Issued (Restricted Use)	9/30/2002			Soil	TPHC	VO + BN	Metals + PCBs	Soil Cleanup Criteria (MUST have RAW approved for AOC prior to 12/2/2008)	Ingestion/Dermal	Inhalation	Capping	Excavation			ASTs removed. Excavation completed to remove soil with total petroleum hydrocarbons (TPH) greater than 10,000 parts per million (ppm). 04/00 - Cap installed. 09/02 - DN approved. 11/02 DN filed.
11	AOC-6	Other areas of concern - Any area suspected of containing contaminants	Area Under Building Slab Former Chip House (removed) Pang Born Room (removed)	Yes	NFA-A DEP Issued (Restricted Use)	3/1/2003			Soil	TPHC	Metals + PCBs	BN	Soil Cleanup Criteria (MUST have RAW approved for AOC prior to 12/2/2008)	Ingestion/Dermal	Inhalation	Capping				04/00 - Cap installed. 09/02 - DN approved. 11/02 DN filed.
12	AOC-7	Other areas of concern - Other discharge area	Compactor East Side of Building (removed)	No	NFA-A DEP Issued (Unrestricted Use)	4/15/1990			None				Soil Cleanup Criteria (MUST have RAW approved for AOC prior to 12/2/2008)			No Remedial Action				1988 - two samples collected and analyzed for TPHC. No exceedances of applicable criteria.
13	AOC-8	Other areas of concern - Any area suspected of containing contaminants	Skim Pits	Yes	NFA-A DEP Issued (Restricted Use)	3/1/2003			Soil	BN			Soil Cleanup Criteria (MUST have RAW approved for AOC prior to 12/2/2008)	Ingestion/Dermal	Inhalation	No Remedial Action				Polycylic aramotaic hydrocarbons (PAHs) detected at concentrations greater than the residential direct contact soil cleanup criteria (RDCSCC). 09/02 - DN approved. 11/02 DN filed.
14	AOC-9	Storage tank and appurtenance - Loading and unloading area	East Parking Lot	Yes	NFA-A DEP Issued (Restricted Use)	3/1/2003			Soil	Metals + PAHs	VO		Soil Cleanup Criteria (MUST have RAW approved for AOC prior to 12/2/2008)	Ingestion/Dermal	Inhalation	Capping	Excavation			Soil with beryllium, methylene chloride, and PAHs detected at concentrations greater than applicable criteria were excavated during golf course pond excavations and reused beneath cap. 04/00 - Cap installed. 09/02 - DN approved. 11/02 DN filed.
15	AOC-10	Drainage system and area - Building sump and pit	Butler Sump Area	No	NFA-A DEP Issued (Unrestricted Use)	3/1/2003			None				Soil Cleanup Criteria (MUST have RAW approved for AOC prior to 12/2/2008)							1988 - two samples collected and analyzed for TPHC, volatile organic compounds (VOCs), base neutrals (BNs), pesticides, metals, and polychlorinated biphenyls. No exceedances of applicable criteria.
16	AOC-11	Other areas of concern - Any area suspected of containing contaminants	MW-10 and MW-14	No	No Sampling Trigger	8/4/1993							Soil Cleanup Criteria (MUST have RAW approved for AOC prior to 12/2/2008)							This area of concern (AOC) was eliminated, per the 8/4/1993 NJDEP letter
17	AOC-12	Environmental media - Media Ground water	Groundwater	Yes	RI	11/1/2015			Ground Water	VO + EPH			Remediation Standards	Ground Water		Pump & Treat				Product recovery has been ongoing since 1992. 2000 - total-fluids pumping system installed and continues to operate. Discuss content for this cell
18	AOC-13	Environmental media - Media Air	Vapor Intrusion	Yes	RI	11/1/2015			Ground Water	VO			Remediation Standards	Inhalation		No Remedial Action				A total of 13 sub-slab soil gas samples were collected from three buildings. VOC concentrations did not exceed the soil gas screening levels. No further VI investigation of these buildings is warranted.

\35489.01\CAD 1=300 6/19/00-1 RAL



CURRENT AOC DESIGNATION	PREVIOUS AOC DESIGNATION	DESCRIPTION
AOC-1	AOC-A	2@ 5,500 gal. Unleaded UST's (Removed)
AOC-2	AOC-A	1@ 1,000 gal. Gasoline UST (Removed)
AOC-3	AOC-B AOC-B	1@ 1,000 gal. Gasoline UST (Removed) 1@ 1,000 gal. Diesel UST (Removed)
AOC-4	AOC-C AOC-D AOC-E AOC-F AOC-G AOC-H AOC-I AOC-J AOC-K AOC-L AOC-M AOC-EE(AOC-RCRA) AOC-N	Transformer Pad Substation No.5 (Removed) 2@ 3,000 gal. No.5 Fuel Oil AST's (Removed) Site of six UST's (Removed) Chip Pit Area 18@ 5,800 gal. Oil AST's (Removed) Unpaved Scrap Pile Area Maintenance Storage Building (Removed) Paved Drum Storage Area (RCRA Closure Area) 2@ 20,000 gal Waste Oil AST's (RCRA Closure Area) 3@ 45,000 gal Settling AST's West Side Bldg. RCRA Waste Pile RCRA Closure Area Primary Transformer Substation
AOC-5	AOC-O AOC-P AOC-Q AOC-R AOC-S AOC-T AOC-U AOC-AA AOC-BB AOC-CC	3@ 750,000 gal WWT AST's Waste Oil AST (Removed) (RCRA Closure Area) West Rail Siding (Removed) North of Road, Propane Storage Rail Siding and Chip Holder New Drum Storage Pad Rear Access Road Drainage Swale Northern Use Area Parshall Flume
AOC-6	AOC-V AOC-DD AOC-FF	Area Under Building Slab Former Chip House (Removed) Pang Born Room (Removed)
AOC-7	AOC-W	Compactor East Side Building (Removed)
AOC-8	AOC-Y	Skim Pits
AOC-9	AOC-Z	East Parking Lot
AOC-10	AOC-GG	Butler Sump Area

CURRENT AOC DESIGNATIONS

AOC-1
AOC-2
AOC-3
AOC-4
AOC-5
AOC-6
AOC-7
AOC-8
AOC-9
AOC-10

LEGEND

PROPERTY LINE

(A) PREVIOUS AOC DESIGNATION (AREA OF CONCERN) A

FENCE

RAILROAD TRACKS

(Removed) REMOVED DURING PLANT DEMOLITION OR 1994 TANK EXCAVATION PROGRAM

AREAS OF CONCERN (AOC) DESIGNATION MAP

URS Greiner Consultants, Inc.

FIGURE 2-1

CC-3336A

APPENDIX C

Groundwater Monitoring Report

ARCADIS
Infrastructure · Water · Environment · Buildings

Imagine the result

Appendix C

Groundwater Monitoring Report

Former Hyatt Clark Industries Site
Clark, New Jersey

ARCADIS

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Table 2 Interim Groundwater Sampling Plan, 2009-2013

Table 3 Groundwater Elevation Data – September 2009

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Table 9A Groundwater Analytical Results (September 2009 - October 2014): Volatile Organic Compounds

Table 9B Groundwater Analytical Results (September 2009 - October 2014): Semi-Volatile Organic Compounds

Table 9C Groundwater Analytical Results (September 2009 - October 2014): Metals

Table 9D Groundwater Analytical Results (September 2009 - October 2014): PCBs

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Figures

1 Site Plan

2 Groundwater Elevation Contour Map for Overburden September 30, 2013

3 Groundwater Elevation Contour Map for Shallow Bedrock September 30, 2013

4 Groundwater Elevation Contour Map for Intermediate and Deep Bedrock October 28, 2013

5 Groundwater Elevation Contour Map for Overburden September 20, 2014

6 Groundwater Elevation Contour Map for Shallow Bedrock September 29, 2014

7 Groundwater Elevation Contour Map for Intermedial and Deep Bedrock September 29, 2014

8 Overburden and Shallow Bedrock Groundwater Analytical Results 2009-2014

9 Deep Bedrock Groundwater Analytical Results 2009-2014

Attachments

Attachment 1 Groundwater Sampling Forms (2009 through 2014)

1. Introduction

This appendix presents the results of groundwater monitoring conducted at the Former Hyatt Clark Industries (Site), located in Clark, New Jersey. The results are being reported in support of the Groundwater Remedial Investigation Report (RIR). A Site plan is presented as Figure 1.

As part of the remedial investigation (RI), semi-annual groundwater monitoring was initiated in 1994 and was changed to annual groundwater monitoring starting in September 2010. Results of semi-annual groundwater monitoring conducted at the Site prior to the work described below were previously reported to the New Jersey Department of Environmental Protection (NJDEP) and included groundwater monitoring conducted from October 1994 through March 2009. This appendix presents groundwater monitoring results for September 2009 (semi-annual event) and September 2009 through October 2014 (annual events).

2. Scope of Work

Groundwater sampling methods were in accordance with the NJDEP (2005) Field Sampling Procedures Manual (FSPM). Monitoring well depths, construction details, and sampling interval summaries are presented in **Table 1**. The groundwater monitoring program for the sampling events conducted between September 2009 and October 2014 is presented in **Table 2**.

In addition to the onsite monitoring wells, off-site wells MW-40 through MW-45 and deep bedrock mulit-port monitoring wells MW-87 and MW-88 were included in the annual sampling events. The MW-87 and MW-88 monitoring wells are each a single bedrock well that is equipped with a FLUTe™ multi-port groundwater sampling system that is designed to collect water-level measurements and groundwater samples from discrete intervals.

During each monitoring event, groundwater samples were collected and analyzed for one or more of the following parameters:

- Target Compound List (TCL) VOCs plus trichlorofluoromethane and total xylenes
- TCL semivolatile organic compounds (SVOCs)
- Polychlorinated biphenyls (PCB)
- Cyanide

- Phenols
- Target analyte list (TAL) metals.

Seven onsite wells included in the groundwater monitoring program (MW-15, OW-24, OW-25S, OW-26S, OW-32D, OW-34 and OW-46) have historically contained product and were only sampled for VOCs when measurable product was not detected prior to each event. Specifically, due to the presence of product, OW-34 was not sampled during the September 2009, 2010, 2013, or 2014 monitoring events and OW-46 was not sampled during the 2010 monitoring event. In addition, groundwater samples were not collected from OW-46 during the 2012 through 2014 monitoring events due to the presence of a product recovery sock lodged at the bottom of the well.

Product was not detected in MW-15, MW-20, OW-24, OW-25S, OW-26S, or OW-32D during the 2009 through 2014 monitoring events.

3. Methods

The methods used to conduct groundwater monitoring are summarized in the following sections.

3.1 Water-Level and Product Thickness Measurements

Prior to the sampling events, water-level and product (light non-aqueous phase liquid) thickness measurements were collected. Water-level and product thickness measurements collected from 2009 through 2014 are summarized in **Table 3** through **Table 8**.

Specific gravity data for the product, collected during previous investigations, was used to calculate the corrected water-level elevation for wells containing product. The measurements were used to develop groundwater elevation contour maps for the overburden, shallow bedrock, and deep bedrock units. Overburden and bedrock groundwater elevation contour maps for the recent 2013 and 2014 monitoring event are shown on **Figure 2** through **Figure 7**.

3.2 Low-Flow Purging and Sampling

Low-flow sampling methods were used to collect samples for PCB analysis from each well where PCBs had been detected previously at concentrations greater than NJDEP Ground Water Quality Criteria (GWQC). Low-flow sampling methods were also used

to collect samples for metals analysis. During low-flow purging, temperature, pH, specific conductance, dissolved oxygen, and redox were recorded and monitored for stability. Purging and sampling was conducted in accordance with NJDEP technical guidance and included dedicated polyethylene tubing and pump decontamination prior to use at each well. Low-flow groundwater sampling forms are provided in **Attachment 1**.

For wells requiring additional analyses (beyond PCBs and metals), low-flow purging and sampling was followed by volume-averaged purging and sampling procedures.

3.3 Volume-Averaged Purging and Sampling

Prior to sample collection, monitoring wells were purged of approximately three times the volume of standing water in the wells. Purging was conducted using a 2-inch diameter submersible pump. Groundwater samples were collected using volume-averaged procedures and were collected directly from the pump dedicated tubing (as outlined in a January 30, 2008 letter from the NJDEP). All wells were sampled within 24 hours of purge completion. Purging and sampling was conducted in accordance with NJDEP technical guidance and included dedicated polyethylene tubing and pump decontamination prior to use at each well. The groundwater monitoring program for sampling events conducted between 2009 and 2014 is presented in **Table 2**. Volume-averaged groundwater sampling forms are provided in **Attachment 1**.

3.4 Multi-Port Purging and Sampling

Groundwater samples were collected via a dedicated water FLUTe™ sampling system installed in two bedrock boreholes (MW-87 and MW-88). The water FLUTe™ sampling system was developed and manufactured by Flexible Liner Underground Technologies, Ltd. Co. The sampling system was designed and installed to collect groundwater samples at five discrete depth intervals, MW-87B through MW-87B5. The system utilizes a series of valves, tubes, and sampling ports that are fabricated within an impermeable borehole liner. The system facilitates collection of groundwater samples from discrete intervals and prevents vertical migration of water within the borehole by establishing a continuous seal of the borehole wall. The use of the FLUTe™ system and the intervals were approved by NJDEP.

Prior to collection of groundwater samples, the sampling system was purged three times (i.e., three purge cycles) by applying nitrogen gas pressure to the system. After each purge cycle was completed, the nitrogen gas pressure was turned off to allow the

system to recharge with groundwater from the bedrock formation. During purging, temperature, pH, specific conductance, dissolved oxygen, and redox were measured for each purge volume at each depth interval.

Sample collection from the water FLUTe™ sampling system was conducted by employing a fourth purge cycle to the system. Nitrogen gas pressure applied to the system was reduced to achieve a slower flow rate during sample collection. Multi-port groundwater sampling forms are provided in **Attachment 1**.

3.5 Quality Assurance/Quality Control Sampling

Field replicates, field (equipment) blanks, and matrix spike (MS)/matrix spike duplicate (MSD) samples were collected and analyzed for the full suite of laboratory parameters. Trip blanks accompanied the sample bottle shipment to and from the laboratory and were submitted for VOC analyses. All samples were submitted to Test America, Inc. of Edison, New Jersey, a New Jersey-certified laboratory (No. 12028).

4. Results

Results for the annual groundwater sampling rounds for the period of September 2009 through October 2014 are presented in **Table 9A** through **Table 9F**. Groundwater quality results for the overburden and shallow bedrock are shown on **Figure 8** and the results for the deep bedrock are shown on **Figure 9**.

Overburden groundwater sampling results for the 2009 through 2014 timeframe show that VOCs were detected at concentrations greater than NJDEP GWQC in samples collected from monitoring wells MW-8, MW-15, MW-18, MW-19, MW-20, MW-21, MW-37, MW-38, MW-39, MW-40, MW-41, MW-42, MW-43, MW-44, and MW-45.

Shallow bedrock groundwater sampling results for the 2009 through 2014 timeframe show that VOCs were detected at concentrations greater than NJDEP GWQC in samples collected from monitoring wells MW-4, MW-9B, MW-37B, MW-38B, and MW-39B; and multi-port monitoring wells MW-87 and MW-88.

Deep bedrock groundwater sampling results for the 2009 through 2014 timeframe show that VOCs were detected at concentrations greater than NJDEP GWQC in samples collected from monitoring wells MW-10B, MW-10B2, MW-10B3, MW-31B2, MW-31B3, MW-37B2, MW-37B3, MW-85B3, MW-86B3; and multi-port monitoring wells MW-87 and MW-88.

The groundwater sampling results for the non-VOC parameters, which include SVOCs for well OW-46, and metals and PCBs for wells MW-7, MW-15, and MW-18, show less frequent detections of parameters at concentrations greater than the NJDEP GWQC,

Overall, groundwater sampling results collected for the September 2009 through 2014 timeframe demonstrate similar to lower concentrations compared to groundwater samples collected prior to 2009, which include 23 monitoring events conducted between October 1994 through March 2009 as reported to the NJDEP in several prior reports, work plans, and documents listed below:

5. Prior Groundwater Investigation Activities

The findings and recommendations for groundwater investigations conducted at the Site prior to the work described above have been previously reported to the NJDEP in the reports and work plans listed below. These investigations included the installation of 55 slotted auger borings, 24 overburden wells, and 14 shallow bedrock wells. In addition, documents have been prepared to address NJDEP comments regarding groundwater quality at the Site. The reports, work plans, and documents summarizing the previous work are as follows:

- Remedial Investigation Report prepared by URS, dated March 1995.
- Groundwater Remedial Investigation Report prepared by ARCADIS Geraghty & Miller, dated January 1997.
- Supplemental Remedial Investigation and Interim Remedial Action Report for Groundwater prepared by ARCADIS Geraghty & Miller, dated January 1998.
- Free Product Summary and Work Plan, prepared by ARCADIS Geraghty & Miller, dated November 1998.
- Groundwater Summary and Work Plan prepared by ARCADIS Geraghty & Miller, dated June 1999.
- Remedial Action Work Plan for Free Product, prepared by ARCADIS Geraghty & Miller, dated February 2000.
- Response to NJDEP Notice of Deficiency letter dated January 30, 2008, prepared by ARCADIS, dated April 16, 2008.
- Groundwater Monitoring Reports prepared by ARCADIS and URS, October 1994 through March 2009.

ARCADIS

Tables

Table 1. Well Construction Details, Groundwater Monitoring Report
Groundwater Monitoring Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Well ID	Date Installed	Reference Elevation (feet msl)	Open Hole/ Screened Interval (feet bls)	Open Hole/ Screened Elevation (feet msl)	Length of Screened Interval (feet)	Total Depth of Boring (feet bls)	Casing Diameter (inches)/ Material	Screen Diameter (inches)/ Material	Bedrock Borehole Diameter (inches)
Overburden									
MW-1	8/29/1988	76.60	26.0 to 36.0	50.60 to 40.60	10	39.0	4/SS	4/SS	NA
MW-2	8/8/1991	76.68	17.7 to 27.7	59.00 to 49.00	10	29.2	4/SS	4/SS	NA
MW-3	9/7/1988	75.01	27.1 to 37.1	47.90 to 37.90	10	38.6	4/SS	4/SS	NA
MW-5	8/7/1991	78.87	29.1 to 39.1	49.80 to 39.80	10	41.1	4/SS	4/SS	NA
MW-8	8/8/1991	76.43	25.1 to 35.1	51.30 to 41.30	10	37.1	4/SS	4/SS	NA
MW-10	8/5/1991	70.77	20.1 to 30.1	50.70 to 40.70	10	35.6	4/SS	4/SS	NA
MW-11	7/29/1991	72.31	36.9 to 46.9	35.40 to 25.40	10	49.9	4/SS	4/SS	NA
MW-12	7/28/1991	66.86	31.8 to 41.8	35.10 to 25.10	10	43.8	4/SS	4/SS	NA
MW-13	8/2/1991	69.61	24.6 to 34.6	45.00 to 35.00	10	36.6	4/SS	4/SS	NA
MW-14	8/6/1991	75.17	26.1 to 36.1	49.10 to 39.10	10	39.1	4/SS	4/SS	NA
MW-15	7/31/1991	73.33	28.8 to 38.8	44.50 to 34.50	10	41.3	4/SS	4/SS	NA
MW-17A	7/31/1991	75.51	23.4 to 33.4	52.10 to 42.10	10	48.4	4/SS	4/SS	NA
MW-18	8/5/1991	77.58	22.0 to 32.0	55.60 to 45.60	10	34.0	4/SS	4/SS	NA
MW-19	8/6/1991	80.01	34.5 to 44.5	45.50 to 35.50	10	46.5	4/SS	4/SS	NA
MW-20	8/6/1991	76.54	23.0 to 33.0	53.50 to 43.50	10	36.0	4/SS	4/SS	NA
MW-21	8/2/1991	79.48	27.8 to 37.8	51.70 to 41.70	10	42.8	4/SS	4/SS	NA
OW-22	4/12/1996	77.20	16.4 to 36.4	60.80 to 40.80	20	36.4	4/SS	4/SS	NA
MW-23	8/6/1991	78.63	27.4 to 37.4	51.20 to 41.20	10	39.4	4/SS	4/SS	NA
OW-24	4/5/1996	77.63	11.9 to 21.9	65.70 to 55.70	10	21.9	4/SS	4/SS	NA
OW-25S	4/8/1996	78.22	13.7 to 23.7	64.50 to 54.50	10	23.7	4/SS	4/SS	NA
OW-25M	4/9/1996	78.22	30.7 to 40.7	47.50 to 37.50	10	40.7	4/SS	4/SS	NA
OW-26S	4/5/1996	78.15	11.6 to 21.6	66.60 to 56.60	10	21.6	4/SS	4/SS	NA
OW-26M	4/8/1996	78.21	25.9 to 35.9	52.30 to 42.30	10	35.9	4/SS	4/SS	NA
OW-27	4/9/1996	77.62	17.5 to 27.5	60.10 to 50.10	10	27.5	4/SS	4/SS	NA
OW-28S	4/4/1996	80.98	25.0 to 40.0	56.00 to 41.00	15	39.9	4/SS	4/SS	NA
OW-29	4/11/1996	80.92	29.3 to 39.3	51.60 to 41.60	10	39.3	4/SS	4/SS	NA
OW-30	4/2/1996	85.04	27.6 to 37.6	57.40 to 47.40	10	37.7	4/SS	4/SS	NA
OW-31	4/12/1996	83.50	27.8 to 37.8	55.70 to 45.70	10	37.8	4/SS	4/SS	NA
OW-32S	4/2/1996	77.89	16.3 to 26.3	61.60 to 51.60	10	26.2	4/SS	4/SS	NA
OW-33	4/3/1996	75.92	15.6 to 25.6	60.30 to 50.30	10	25.6	4/SS	4/SS	NA
OW-34	4/16/1996	81.70	31.7 to 41.7	50.00 to 40.00	10	41.7	4/SS	4/SS	NA
OW-34R	9/21/2012	82.20	20.0 to 35.0	62.20 to 47.20	15	35.0	2/PVC	2/PVC	NA
MW-35	4/28/1997	77.17	17.3 to 32.3	59.90 to 44.90	15	32.3	2/PVC	2/PVC	NA
MW-37	4/22/1997	69.65	15.7 to 40.7	54.00 to 29.00	25	40.7	2/PVC	2/PVC	NA
MW-38	4/30/1997	73.85	13.6 to 38.6	60.27 to 35.27	25	38.6	2/PVC	2/PVC	NA
MW-39	5/2/1997	69.95	9.5 to 29.5	60.44 to 40.44	20	29.5	2/PVC	2/PVC	NA
MW-40[1]	6/11/1998	66.90	12.0 to 37.0	54.90 to 29.90	25	42.0	4/PVC	4/PVC	NA
MW-41[1]	6/11/1998	67.70	7.0 to 32.0	60.70 to 35.70	25	44.0	4/PVC	4/PVC	NA
MW-42[1]	6/17/1998	67.50	7.0 to 32.0	60.50 to 35.50	25	38.0	4/PVC	4/PVC	NA
MW-43[1]	6/17/1998	66.10	6.5 to 31.5	59.60 to 34.60	25	31.8	4/PVC	4/PVC	NA
MW-44[1]	6/19/1998	64.00	6.0 to 31.0	58.00 to 33.00	25	32.0	4/PVC	4/PVC	NA
MW-45[1]	6/22/1998	67.70	8.0 to 33.0	59.70 to 34.70	25	37.0	4/PVC	4/PVC	NA
OW-46	5/17/1999	76.70	10.6 to 40.6	66.12 to 36.12	30	40.6	4/PVC	4/PVC	NA
OW-47R	8/30/1999	77.62	9.9 to 46.9	67.70 to 30.70	37	46.9	4/PVC	4/PVC	NA
OW-49	5/13/1999	78.03	11.2 to 40.2	66.79 to 37.79	29	40.2	4/PVC	4/PVC	NA
OW-58	6/21/1999	82.92	10.6 to 38.6	72.30 to 44.30	28	38.6	4/PVC	4/PVC	NA
OW-64	6/21/1999	76.51	7.6 to 32.6	68.89 to 43.89	25	33.1	4/PVC	4/PVC	NA
OW-65	6/25/1999	77.07	9.6 to 39.6	67.46 to 37.46	30	39.6	4/PVC	4/PVC	NA
OW-66	6/28/1999	75.84	9.9 to 42.9	65.95 to 32.95	33	42.9	4/PVC	4/PVC	NA
OW-73	7/1/1999	86.81	16.7 to 41.7	70.11 to 45.11	25	41.7	4/PVC	4/PVC	NA
OW-76	7/2/1999	76.89	6.1 to 34.1	70.82 to 42.82	28	34.1	4/PVC	4/PVC	NA
OW-81	7/14/1999	76.10	8.9 to 38.9	67.17 to 37.17	30	38.9	4/PVC	4/PVC	NA
OW-84	9/24/2012	82.10	20.0 to 35.0	62.10 to 47.10	15	35.0	2/PVC	2/PVC	NA
OW-85	9/20/2012	82.70	20.0 to 35.0	62.70 to 47.70	15	41.5	2/PVC	2/PVC	NA
OW-86S	9/20/2012	79.60	10.0 to 25.0	69.60 to 54.60	15	25.0	2/PVC	2/PVC	NA

Footnotes on last page

Table 1. Well Construction Details, Groundwater Monitoring Report
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Well ID	Date Installed	Reference Elevation (feet msl)	Open Hole/ Screened Interval (feet bls)	Open Hole/ Screened Elevation (feet msl)	Length of Screened Interval (feet)	Total Depth of Boring (feet bls)	Casing Diameter (inches)/ Material	Screen Diameter (inches)/ Material	Bedrock Borehole Diameter (inches)
Shallow Bedrock									
MW-1B	9/14/1995	76.40	52.5 to 72.5	23.90 to 3.90	20	72.5	2/SS	2/SS	6.0
OW-3D	11/23/2010	74.40	36.0 to 46.0	38.40 28.40	10	46.0	2/PVC	2/PVC	NA
MW-4	9/9/1988	69.76	34.0 to 44.0	35.80 to 25.80	10	45.0	4/SS	4/SS	8.0
MW-6	8/8/1991	74.76	37.0 to 47.0	37.80 to 27.80	10	49.5	4/SS	4/SS	8.5
MW-7	8/7/1991	73.05	30.8 to 40.8	42.30 to 32.30	10	42.8	4/SS	4/SS	8.5
MW-9	8/7/1991	76.52	37.1 to 47.1	39.40 to 29.40	10	51.1	4/SS	4/SS	8.5
MW-9B	9/11/1995	76.45	44.2 to 64.2	32.30 to 12.30	20	64.2	2/SS	2/SS	6.0
MW-11B	9/13/1995	72.30	58.4 to 78.4	13.90 to -6.10	20	78.4	2/SS	2/SS	6.0
OW-25D	4/6/1996	78.22	45.6 to 55.6	32.60 to 22.60	10	55.6	4/SS	4/SS	8.0
OW-28D	4/10/1996	81.08	43.1 to 53.1	38.00 to 28.00	10	53.1	4/SS	4/SS	8.0
OW-32D	4/9/1996	77.86	30.0 to 40.0	47.90 to 37.90	10	39.9	4/SS	4/SS	8.0
MW-35B	4/25/1997	76.92	42.4 to 62.4	34.50 to 14.50	20	62.4	2/PVC	2/PVC	6.0
MW-36B	4/24/1997	63.32	40.9 to 60.9	22.40 to 2.40	20	60.9	2/PVC	2/PVC	6.0
MW-37B	4/23/1997	69.32	59.4 to 79.4	9.90 to -10.10	20	79.4	2/PVC	2/PVC	6.0
MW-38B	4/30/1997	73.50	58.8 to 78.8	14.70 to -5.30	20	78.8	2/PVC	2/PVC	6.0
MW-39B	5/1/1997	69.71	43.3 to 63.3	26.38 to 6.38	20	63.3	2/PVC	2/PVC	6.0
OW-52D	5/12/1999	80.74	42.0 to 52.0	38.73 to 28.73	10	52.0	4/PVC	4/PVC	8.0
OW-53D	5/17/1999	82.26	43.1 to 53.1	39.18 to 29.18	10	53.1	4/PVC	4/PVC	8.0
OW-58D	6/10/1999	82.97	43.3 to 53.3	39.72 to 29.72	10	53.3	4/PVC	4/PVC	8.0
OW-59D	6/10/1999	80.85	39.8 to 49.8	41.10 to 31.10	10	49.8	4/PVC	4/PVC	8.0
OW-69D	6/23/1999	82.55	39.0 to 49.0	43.60 to 33.60	10	49.0	4/PVC	4/PVC	8.0
OW-70D	6/23/1999	86.05	46.0 to 56.0	40.02 to 30.02	10	56.0	4/PVC	4/PVC	8.0
OW-75D	7/9/1999	84.74	50.2 to 60.2	34.59 to 24.59	10	60.2	4/PVC	4/PVC	8.0
OW-77D	7/13/1999	79.43	46.4 to 56.4	33.02 to 23.02	10	56.4	4/PVC	4/PVC	8.0
OW-79D	7/13/1999	79.90	30.4 to 40.4	49.49 to 39.49	10	40.4	4/PVC	4/PVC	8.0
OW-82D	8/11/1999	77.62	46.3 to 56.3	31.34 to 21.34	10	56.3	4/PVC	4/PVC	8.0
OW-83D	8/11/1999	78.13	39.2 to 49.2	38.97 to 28.97	10	49.2	4/PVC	4/PVC	8.0
OW-86D	9/20/2012	79.60	35.0 to 45.0	44.60 to 34.60	10	45.0	2/PVC	2/PVC	8.0
Deep Bedrock									
MW-10B	12/9/1998	70.31	76.9 to 101.9	-6.62 to -31.62	25	102.9	2/PVC	2/PVC	6.0
MW-10B2	12/9/1998	72.91	159.6 to 184.6	-86.70 to -111.70	25	185.6	2/PVC	2/PVC	6.0
MW-10B3	12/3/1998	70.59	317.5 to 342.5	-246.90 to -271.90	25	352.5	2/PVC	2/PVC	6.0
MW-31B2	12/10/1998	81.91	130.5 to 155.5	-48.60 to -73.60	25	156.5	2/PVC	2/PVC	6.0
MW-31B3	11/30/1998	83.37	311.9 to 336.9	-228.51 to -253.51	25	361.9	2/PVC	2/PVC	6.0
MW-37B2	12/3/1998	70.04	185.9 to 210.9	-115.82 to -140.82	25	211.9	2/PVC	2/PVC	6.0
MW-37B3	11/30/1998	70.14	296.1 to 321.1	-225.95 to -250.95	25	351.1	2/PVC	2/PVC	6.0
MW-84B3	9/28/1999	81.62	436.2 to 461.2	-354.53 to -379.53	25	511.2	2/PVC	2/PVC	6.0
MW-85B3	6/28/1999	65.68	272.1 to 297.1	-206.44 to -231.44	25	347.1	2/PVC	2/PVC	6.0
MW-86B3	7/6/1999	72.68	366.3 to 391.3	-293.57 to -318.57	25	396.3	2/PVC	2/PVC	6.0
MW-87B1*	5/26/2006	67.20	69.7 to 89.7	-2.50 to -22.50	20	340.0	6/SS	NA	6.0
MW-87B2*	5/26/2006	67.20	94.7 to 119.7	-27.50 to -52.50	25	340.0	6/SS	NA	6.0
MW-87B3*	5/26/2006	67.20	144.7 to 169.7	-77.50 to -102.50	25	340.0	6/SS	NA	6.0
MW-87B4*	5/26/2006	67.20	264.7 to 289.7	-197.50 to -222.50	25	340.0	6/SS	NA	6.0
MW-87B5*	5/26/2006	67.20	314.7 to 339.7	-247.50 to -272.50	25	340.0	6/SS	NA	6.0
MW-88B1*	12/2/2012	60.00	82.0 to 102.0	-22.00 to -42.00	20	350.0	6/SS	NA	6.0
MW-88B2*	12/2/2012	60.00	119.0 to 139.0	-59.00 to -79.00	20	350.0	6/SS	NA	6.0
MW-88B3*	12/2/2012	60.00	201.0 to 221.0	-141.00 to -161.00	20	350.0	6/SS	NA	6.0
MW-88B4*	12/2/2012	60.00	330.0 to 350.0	-270.00 to -290.00	20	350.0	6/SS	NA	6.0

bls	Below land surface
msl	Mean sea level
NA	Not applicable
PVC	Polyvinyl chloride
SS	Stainless steel
1	Off-site monitoring well
*	Offsite multi-port FLUTe system monitoring well
**	Monitoring well has been abandoned

Table 2. Groundwater Monitoring Program for September 2009 through October 2014,
Groundwater Monitoring Report
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Well Identification	Sampling Parameters: VAP VOCs	VAP SVOCs	VAP PCBs+	LF Metals*	VAP CN	VAP Phenols	Sampling Frequency	Comments
MW-1	X						Annual	Upgradient monitoring in overburden.
MW-1B	X						Annual	Upgradient monitoring in shallow bedrock.
MW-4*	X		X				Annual	Downgradient monitoring in overburden.
MW-7	X		X				Annual	Interior monitoring in shallow bedrock. Well will not be sampled if MW-15 is sampled.
MW-8	X		X				Annual	Interior monitoring in overburden.
MW-9B	X		X				Annual	Interior monitoring in shallow bedrock
MW-10	X						Annual	Upgradient monitoring in overburden.
MW-10B	X						Annual	Upgradient monitoring in deep bedrock.
MW-10B2	X						Annual	Upgradient monitoring in deep bedrock.
MW-10B3	X						Annual	Upgradient monitoring in deep bedrock.
MW-12	X		X				Annual	Downgradient monitoring in overburden.
MW-13	X		X				Annual	Downgradient monitoring in overburden.
MW-15**	X	X	X	X	X	X	Annual	Interior monitoring in overburden.
MW-17A	X		X				Annual	Downgradient monitoring in overburden.
MW-18	X		X				Annual	Downgradient monitoring in overburden.
MW-19	X		X				Annual	Interior monitoring in overburden.
MW-20**	X	X	X	X	X	X	Annual	Interior monitoring in overburden.
MW-21	X		X				Annual	Interior monitoring in overburden.
MW-31B2	X		X				Annual	Interior monitoring in deep bedrock.
MW-31B3	X		X				Annual	Interior monitoring in deep bedrock.
OW-32D**	X	X	X	X	X	X	Annual	Interior monitoring in shallow bedrock
MW-36B	X		X				Annual	Downgradient monitoring in shallow bedrock.
MW-37	X		X				Annual	Downgradient monitoring in overburden.
MW-37B	X		X	X			Annual	Downgradient monitoring in shallow bedrock.
MW-37B2	X		X				Annual	Downgradient monitoring in deep bedrock.
MW-37B3	X		X				Annual	Downgradient monitoring in deep bedrock.
MW-38	X		X				Annual	Downgradient monitoring in overburden.
MW-38B	X		X				Annual	Downgradient monitoring in shallow bedrock.
MW-39*	X		X				Annual	Downgradient monitoring in overburden.
MW-39B*	X		X				Annual	Downgradient monitoring in shallow bedrock.
MW-85B3	X		X				Annual	Downgradient monitoring in deep bedrock.
MW-86B3	X		X				Annual	Upgradient monitoring in deep bedrock.
MW-87	X						Annual	5-zone multiport - shallow to deep bedrock is screened.
MW-88***	X						Annual	4-zone multiport - shallow to deep bedrock is screened.
MW-40	X						Annual	Off-site monitoring in overburden
MW-41	X						Annual	Off-site monitoring in overburden
MW-42	X						Annual	Off-site monitoring in overburden
MW-43	X						Annual	Off-site monitoring in overburden
MW-44	X						Annual	Off-site monitoring in overburden
MW-45	X						Annual	Off-site monitoring in overburden
OW-24**	X	X	X	X	X	X	Annual	Interior monitoring in overburden
OW-25S**	X	X	X	X	X	X	Annual	Interior monitoring in overburden
OW-26S**	X	X	X	X	X	X	Annual	Interior monitoring in overburden
OW-34**	X	X	X	X	X	X	Annual	Interior monitoring in overburden
OW-46**	X	X	X	X	X	X	Annual	Interior monitoring in overburden

VOCs	Priority Pollutant (PP) volatile organic compounds.
SVOCs	Priority Pollutant (PP) semivolatile organic compounds.
PCBs	Polychlorinated biphenyls.
CN	Cyanide
VAP	Volume-averaged purging and sampling.
LF	Low-flow purging and sampling.
*	Includes filtered and unfiltered samples.
**	If wells do not contain product (free or sheen), groundwater samples will be collected.
***	Added to plan in 2013
+	The following wells were sampled for PCBs via LF and VAP purge methods during the 2009 sampling event: MW-4, MW-7, MW-8, MW-9B, MW-12, MW-13, MW-15, MW-17A, MW-18, MW-19, MW-20, MW-21, MW-31B2, MW-31B3, OW-32D, MW-36B, MW-37, MW-37B, MW-37B2, MW-37B3, MW-38, MW-38B, MW-39, MW-39B, MW-85B3, MW-86B3.

Well I.D.	Measuring Point Elevation (feet msl)	Depth to Groundwater[1] (feet)	Depth to LNAPL[1] (feet)	LNAPL Thickness (feet)	Groundwater Elevation^ (feet msl)	Top of Screen Elevation (feet msl)
MW-1	73.04	14.36	---	0.00	58.68	50.60
MW-1B	73.33	25.99	---	0.00	47.34	23.90
MW-2	75.19	12.73	---	0.00	62.46	59.00
MW-3	74.78	17.58	---	0.00	57.20	47.90
MW-4	69.38	26.63	---	0.00	42.75	35.80
MW-5	78.03	22.15	---	0.00	55.88	49.80
MW-7	72.71	22.43	---	0.00	50.28	42.30
MW-8	76.10	22.51	---	0.00	53.59	51.30
MW-9	76.22	29.17	---	0.00	47.05	39.40
MW-9B	76.10	30.12	---	0.00	45.98	32.30
MW-10	70.45	13.88	---	0.00	56.57	50.70
MW-10B	69.91	25.70	---	0.00	44.21	-6.62
MW-10B2	71.81	29.31	---	0.00	42.50	-86.70
MW-10B3	70.20	28.68	---	0.00	41.52	-246.90
MW-11	72.09	22.71	---	0.00	49.38	35.40
MW-11B	72.03	29.81	---	0.00	42.22	13.90
MW-12	66.60	23.08	---	0.00	43.52	35.10
MW-13	69.00	23.86	---	0.00	45.14	45.00
MW-14	74.43	20.62	---	0.00	53.81	49.10
MW-15	73.12	24.31	---	0.00	48.81	44.50
MW-17A	75.27	15.81	---	0.00	59.46	52.10
MW-18	77.02	18.23	---	0.00	58.79	55.60
MW-19	79.72	25.45	---	0.00	54.27	45.50
MW-20	76.10	22.95	---	0.00	53.15	53.50
MW-21	79.07	24.91	---	0.00	54.16	51.70
MW-23	78.37	18.18	---	0.00	60.19	51.20
MW-31B2	81.61	39.28	---	0.00	42.33	-48.60
MW-31B3	83.07	41.59	---	0.00	41.48	-228.51
MW-35	76.94	27.27	---	0.00	49.67	59.90
MW-35B	76.70	32.20	---	0.00	44.50	34.50
MW-36B	62.98	20.69	---	0.00	42.29	22.40
MW-37	69.21	21.21	---	0.00	48.00	54.00
MW-37B	68.99	26.87	---	0.00	42.12	9.90
MW-37B2	69.58	28.21	---	0.00	41.37	-115.82
MW-37B3	69.78	28.49	---	0.00	41.29	-225.95
MW-38	73.07	18.00	---	0.00	55.07	60.27
MW-38B	72.86	28.59	---	0.00	44.27	14.70
MW-39	72.57	23.02	---	0.00	49.55	60.44
MW-39B	72.33	25.62	---	0.00	46.71	26.38
MW-40	66.74	10.42	---	0.00	56.32	54.90
MW-41	67.36	12.31	---	0.00	55.05	60.70
MW-42	67.33	13.32	---	0.00	54.01	60.50
MW-43	66.21	13.12	---	0.00	53.09	59.60
MW-44	64.46	11.77	---	0.00	52.69	58.00
MW-45	68.14	12.60	---	0.00	55.54	59.70
MW-84B3	78.60	37.28	---	0.00	41.32	-354.53
MW-85B3	65.36	23.75	---	0.00	41.61	-206.44
MW-86B3	72.41	25.91	---	0.00	46.50	-293.57
MW-87B	67.15	17.38	---	0.00	49.77	-2.50
MW-87B2	67.18	24.16	---	0.00	43.02	-27.50
MW-87B3	67.16	25.00	---	0.00	42.16	-77.50
MW-87B4	67.17	25.44	---	0.00	41.73	-197.50
MW-87B5	67.15	25.51	---	0.00	41.64	-247.50

Well I.D.	Measuring Point Elevation (feet msl)	Depth to Groundwater[1] (feet)	Depth to LNAPL[1] (feet)	LNAPL Thickness (feet)	Groundwater Elevation^ (feet msl)	Top of Screen Elevation (feet msl)
OW-22*	76.89	NM	NM	NM	43.99	60.80
OW-24	76.98	18.21	---	0.00	58.77	65.70
OW-25S	77.84	19.01	---	0.00	58.83	64.50
OW-25M*	76.70	NM	NM	NM	41.04	47.50
OW-25D	77.89	36.25	36.24	0.01	41.65	32.60
OW-26S	77.96	16.76	---	0.00	61.20	66.60
OW-26M	77.99	25.41	25.39	0.02	52.60	52.30
OW-27*	77.92	NM	NM	NM	54.38	60.10
OW-28S*	80.82	NM	NM	NM	46.00	56.00
OW-28D*	78.29	NM	NM	NM	30.11	38.00
OW-29*	81.65	NM	NM	NM	49.03	51.60
OW-30	84.79	35.96	---	0.00	48.83	57.40
OW-31	83.21	32.97	---	0.00	50.24	55.70
OW-32S	77.05	21.68	---	0.00	55.37	61.60
OW-32D	77.15	25.53	---	0.00	51.62	47.90
OW-33	75.55	22.46	---	0.00	53.09	60.30
OW-34	81.55	28.99	28.92	0.07	52.62	50.00
OW-46	76.52	25.39	---	0.00	51.13	66.12
OW-47R*	78.13	NM	NM	NM	35.94	67.70
OW-49*	80.23	NM	NM	NM	42.19	66.79
OW-52D*	84.45	NM	NM	NM	31.45	38.73
OW-53D*	85.86	NM	NM	NM	33.32	39.18
OW-58*	86.09	NM	NM	NM	48.59	72.30
OW-58D*	86.59	NM	NM	NM	36.69	39.72
OW-59D*	84.43	NM	NM	NM	34.48	41.10
OW-64	76.13	22.70	---	0.00	53.43	68.89
OW-65	76.84	27.84	27.81	0.03	49.03	67.46
OW-66*	77.73	NM	NM	NM	36.27	65.95
OW-69D	82.18	35.87	---	0.00	46.31	43.60
OW-70D	85.67	41.10	---	0.00	44.57	40.02
OW-73	86.59	41.20	---	0.00	45.39	70.11
OW-75D*	84.48	NM	NM	0.00	30.40	34.59
OW-76	76.54	21.41	---	0.00	55.13	70.82
OW-77D*	82.98	NM	NM	NM	26.67	33.02
OW-79D	79.49	32.29	---	0.00	47.20	49.49
OW-81	75.15	22.45	---	0.00	52.70	67.17
OW-82D	77.39	28.52	---	0.00	48.87	31.34
OW-83D	77.74	26.50	---	0.00	51.24	38.97
MW-2R	62.68	23.52	---	0.00	39.16	30.00
MW-4	63.43	25.28	---	0.00	38.15	35.00
MW-5	62.93	24.81	---	0.00	38.12	35.00
MW-6R	62.63	23.95	---	0.00	38.68	32.00

1	Depth to product and water as measured from the measuring point (i.e., top of inner well casing).
---	No free product
msl	Mean sea level
LNAPL	Light non-aqueous phase liquid
^	Groundwater elevation was corrected for wells containing product based on a specific gravity of 0.9 for product.
*	Free product recovery well. Groundwater elevation represents the elevation of the pump intake.
NM	Not measured - free product recovery well

Well I.D.	Measuring Point Elevation (feet msl)	Depth to Groundwater[1] (feet)	Depth to LNAPL[1] (feet)	LNAPL Thickness (feet)	Groundwater Elevation^ (feet msl)	Top of Screen Elevation (feet msl)
MW-1	73.04	16.72	---	0.00	56.32	50.60
MW-1B	73.33	27.95	---	0.00	45.38	23.90
MW-2	75.19	14.32	---	0.00	60.87	59.00
MW-3	74.78	20.62	---	0.00	54.16	47.90
MW-4	69.38	27.78	---	0.00	41.60	35.80
MW-5	78.03	24.34	---	0.00	53.69	49.80
MW-7	72.71	23.21	---	0.00	49.50	42.30
MW-8	76.10	23.19	---	0.00	52.91	51.30
MW-9	76.22	29.89	---	0.00	46.33	39.40
MW-9B	76.10	31.03	---	0.00	45.07	32.30
MW-10	70.45	15.62	---	0.00	54.83	50.70
MW-10B	69.91	26.61	---	0.00	43.30	-6.62
MW-10B2	71.81	29.44	---	0.00	42.37	-86.70
MW-10B3	70.20	29.66	---	0.00	40.54	-246.90
MW-11	72.09	25.26	---	0.00	46.83	35.40
MW-11B	72.03	30.94	---	0.00	41.09	13.90
MW-12	66.60	25.21	---	0.00	41.39	35.10
MW-13	69.00	25.58	---	0.00	43.42	45.00
MW-14	74.43	22.68	---	0.00	51.75	49.10
MW-15	73.12	25.19	---	0.00	47.93	44.50
MW-17A	75.27	19.56	---	0.00	55.71	52.10
MW-18	77.02	21.71	---	0.00	55.31	55.60
MW-19	79.72	27.08	---	0.00	52.64	45.50
MW-20	76.10	22.97	---	0.00	53.13	53.50
MW-21	79.07	25.95	---	0.00	53.12	51.70
MW-23	78.37	20.44	---	0.00	57.93	51.20
MW-31B2	81.61	40.06	---	0.00	41.55	-48.60
MW-31B3	83.07	42.65	---	0.00	40.42	-228.51
MW-35	76.94	27.85	---	0.00	49.09	59.90
MW-35B	76.70	33.08	---	0.00	43.62	34.50
MW-36B	62.98	22.24	---	0.00	40.74	22.40
MW-37	69.21	23.85	---	0.00	45.36	54.00
MW-37B	68.99	26.21	---	0.00	42.78	9.90
MW-37B2	69.58	28.05	---	0.00	41.53	-115.82
MW-37B3	69.78	29.46	---	0.00	40.32	-225.95
MW-38	73.07	19.37	---	0.00	53.70	60.27
MW-38B	72.86	28.58	---	0.00	44.28	14.70
MW-39	72.57	29.25	---	0.00	43.32	60.44
MW-39B	72.33	27.20	---	0.00	45.13	26.38
MW-40	66.74	12.25	---	0.00	54.49	54.90
MW-41	67.36	13.73	---	0.00	53.63	60.70
MW-42	67.33	15.30	---	0.00	52.03	60.50
MW-43	66.21	14.91	---	0.00	51.30	59.60
MW-44	64.46	12.39	---	0.00	52.07	58.00
MW-45	68.14	14.17	---	0.00	53.97	59.70
MW-84B3	78.60	37.28	---	0.00	41.32	-354.53
MW-85B3	65.36	24.60	---	0.00	40.76	-206.44
MW-86B3	72.41	26.36	---	0.00	46.05	-293.57
MW-87B	67.15	19.58	---	0.00	47.57	-2.50
MW-87B2	67.18	25.95	---	0.00	41.23	-27.50
MW-87B3	67.16	26.75	---	0.00	40.41	-77.50
MW-87B4	67.17	26.55	---	0.00	40.62	-197.50
MW-87B5	67.15	26.58	---	0.00	40.57	-247.50

Well I.D.	Measuring Point Elevation (feet msl)	Depth to Groundwater[1] (feet)	Depth to LNAPL[1] (feet)	LNAPL Thickness (feet)	Groundwater Elevation^ (feet msl)	Top of Screen Elevation (feet msl)
OW-22*	76.89	NM	NM	NM	43.99	60.80
OW-24	76.98	20.74	---	0.00	56.24	65.70
OW-25S	77.84	19.38	---	0.00	58.46	64.50
OW-25M*	76.70	NM	NM	NM	41.04	47.50
OW-25D	77.89	34.57	---	0.00	43.32	32.60
OW-26S	77.96	20.78	---	0.00	57.18	66.60
OW-26M	77.99	27.03	26.78	0.25	51.19	52.30
OW-27*	77.92	NM	NM	NM	54.38	60.10
OW-28S*	80.82	NM	NM	NM	46.00	56.00
OW-28D*	78.29	NM	NM	NM	30.11	38.00
OW-29*	81.65	NM	NM	NM	49.03	51.60
OW-30	84.79	35.56	---	0.00	49.23	57.40
OW-31	83.21	32.64	---	0.00	50.57	55.70
OW-32S	77.05	22.71	---	0.00	54.34	61.60
OW-32D	77.15	26.11	---	0.00	51.04	47.90
OW-33	75.55	73.22	---	0.00	2.33	60.30
OW-34	81.55	31.61	31.51	0.10	50.03	50.00
OW-46	76.52	24.78	24.77	0.01	51.75	66.12
OW-47R*	78.13	NM	NM	NM	35.94	67.70
OW-49*	80.23	NM	NM	NM	42.19	66.79
OW-52D*	84.45	NM	NM	NM	31.45	38.73
OW-53D*	85.86	NM	NM	NM	33.32	39.18
OW-58*	86.09	NM	NM	NM	48.59	72.30
OW-58D*	86.59	NM	NM	NM	36.69	39.72
OW-59D*	84.43	NM	NM	NM	34.48	41.10
OW-64	76.13	23.07	---	0.00	53.06	68.89
OW-65	76.84	27.00	26.86	0.14	49.97	67.46
OW-66*	77.73	NM	NM	NM	36.27	65.95
OW-69D	82.18	26.50	---	0.00	55.68	43.60
OW-70D	85.67	39.16	---	0.00	46.51	40.02
OW-73	86.59	41.16	---	0.00	45.43	70.11
OW-75D*	84.48	NM	NM	0.00	30.40	34.59
OW-76	76.54	22.81	---	0.00	53.73	70.82
OW-77D*	82.98	NM	NM	NM	26.67	33.02
OW-79D	79.49	32.63	---	0.00	46.86	49.49
OW-81	75.15	23.71	---	0.00	51.44	67.17
OW-82D	77.39	30.21	30.05	0.16	47.32	31.34
OW-83D	77.74	26.14	---	0.00	51.60	38.97
MW-2R	62.68	24.86	---	0.00	37.82	30.00
MW-4	63.43	0.00	---	0.00	63.43	35.00
MW-5	62.93	25.86	---	0.00	37.07	35.00
MW-6R	62.63	25.07	---	0.00	37.56	32.00

1	Depth to product and water as measured from the measuring point (i.e. top of inner well casing).
---	No free product
msl	Mean sea level
LNAPL	Light non-aqueous phase liquid
^	Groundwater elevation was corrected for wells containing product based on a specific gravity of 0.9 for product.
*	Free product recovery well. Groundwater elevation represents the elevation of the pump intake.
NM	Not measured - free product recovery well

Well I.D.	Measuring Point Elevation (feet msl)	Depth to Groundwater[1] (feet)	Depth to LNAPL[1] (feet)	LNAPL Thickness (feet)	Groundwater Elevation^ (feet msl)	Top of Screen Elevation (feet msl)
MW-1	73.04	12.78	---	0.00	60.26	50.60
MW-1B	73.33	25.20	---	0.00	48.13	23.90
MW-2	75.19	10.27	---	0.00	64.92	59.00
MW-3	74.78	17.27	---	0.00	57.51	47.90
MW-4	69.38	25.02	---	0.00	44.36	35.80
MW-5	78.03	21.33	---	0.00	56.70	49.80
MW-7	72.71	22.66	---	0.00	50.05	42.30
MW-8	76.10	22.00	---	0.00	54.10	51.30
MW-9	76.22	27.90	---	0.00	48.32	39.40
MW-9B	76.10	28.67	---	0.00	47.43	32.30
MW-10	70.45	12.89	---	0.00	57.56	50.70
MW-10B	69.91	23.87	---	0.00	46.04	-6.62
MW-10B2	71.81	27.53	---	0.00	44.28	-86.70
MW-10B3	70.20	26.81	---	0.00	43.39	-246.90
MW-11	72.09	22.02	---	0.00	50.07	35.40
MW-11B	72.03	29.07	---	0.00	42.96	13.90
MW-12	66.60	21.70	---	0.00	44.90	35.10
MW-13	69.00	23.19	---	0.00	45.81	45.00
MW-14	74.43	19.05	---	0.00	55.38	49.10
MW-15	73.12	23.14	---	0.00	49.98	44.50
MW-17A	75.27	14.97	---	0.00	60.30	52.10
MW-18	77.02	17.36	---	0.00	59.66	55.60
MW-19	79.72	24.99	---	0.00	54.73	45.50
MW-20	76.10	23.52	---	0.00	52.58	53.50
MW-21	79.07	24.25	---	0.00	54.82	51.70
MW-23	78.37	17.20	---	0.00	61.17	51.20
MW-31B2	81.61	37.52	---	0.00	44.09	-48.60
MW-31B3	83.07	39.68	---	0.00	43.39	-228.51
MW-35	76.94	26.84	---	0.00	50.10	59.90
MW-35B	76.70	30.61	---	0.00	46.09	34.50
MW-36B	62.98	18.93	---	0.00	44.05	22.40
MW-37	69.21	20.52	---	0.00	48.69	54.00
MW-37B	68.99	25.17	---	0.00	43.82	9.90
MW-37B2	69.58	26.69	---	0.00	42.89	-115.82
MW-37B3	69.78	26.41	---	0.00	43.37	-225.95
MW-38	73.07	18.27	---	0.00	54.80	60.27
MW-38B	72.86	24.25	---	0.00	48.61	14.70
MW-39	72.57	19.71	---	0.00	52.86	60.44
MW-39B	72.33	22.28	---	0.00	50.05	26.38
MW-40	66.74	9.82	---	0.00	56.92	54.90
MW-41	67.36	11.49	---	0.00	55.87	60.70
MW-42	67.33	12.12	---	0.00	55.21	60.50
MW-43	66.21	12.29	---	0.00	53.92	59.60
MW-44	64.46	10.20	---	0.00	54.26	58.00
MW-45	68.14	13.97	---	0.00	54.17	59.70
MW-84B3	78.60	35.16	---	0.00	43.44	-354.53
MW-85B3	65.36	22.51	---	0.00	42.85	-206.44
MW-86B3	72.41	24.17	---	0.00	48.24	-293.57
MW-87B	67.15	18.93	---	0.00	48.22	-2.50
MW-87B2	67.18	26.21	---	0.00	40.97	-27.50
MW-87B3	67.16	26.17	---	0.00	40.99	-77.50
MW-87B4	67.17	25.93	---	0.00	41.24	-197.50
MW-87B5	67.15	25.92	---	0.00	41.23	-247.50

Well I.D.	Measuring Point Elevation (feet msl)	Depth to Groundwater[1] (feet)	Depth to LNAPL[1] (feet)	LNAPL Thickness (feet)	Groundwater Elevation^ (feet msl)	Top of Screen Elevation (feet msl)
OW-22*	76.89	NM	NM	NM	43.99	60.80
OW-24	76.98	13.72	---	0.00	63.26	65.70
OW-25S	77.84	16.87	---	0.00	60.97	64.50
OW-25M*	76.70	NM	NM	NM	41.04	47.50
OW-25D	77.89	29.04	---	0.00	48.85	32.60
OW-26S	77.96	13.85	---	0.00	64.11	66.60
OW-26M	77.99	21.19	---	0.00	56.80	52.30
OW-27*	77.92	NM	NM	NM	54.38	60.10
OW-28S*	80.82	NM	NM	NM	46.00	56.00
OW-28D*	78.29	NM	NM	NM	30.11	38.00
OW-29*	81.65	NM	NM	NM	49.03	51.60
OW-30	84.79	35.31	---	0.00	49.48	57.40
OW-31	83.21	32.36	---	0.00	50.85	55.70
OW-32S	77.05	17.85	---	0.00	59.20	61.60
OW-32D	77.15	24.48	---	0.00	52.67	47.90
OW-33	75.55	20.94	---	0.00	54.61	60.30
OW-34	81.55	28.41	---	0.00	53.14	50.00
OW-46	76.52	23.56	---	0.00	52.96	66.12
OW-47R*	78.13	NM	NM	NM	35.94	67.70
OW-49*	80.23	NM	NM	NM	42.19	66.79
OW-52D*	84.45	NM	NM	NM	31.45	38.73
OW-53D*	85.86	NM	NM	NM	33.32	39.18
OW-58*	86.09	NM	NM	NM	48.59	72.30
OW-58D*	86.59	NM	NM	NM	36.69	39.72
OW-59D*	84.43	NM	NM	NM	34.48	41.10
OW-64	76.13	21.40	---	0.00	54.73	68.89
OW-65	76.84	25.26	25.25	0.01	51.59	67.46
OW-66*	77.73	NM	NM	NM	36.27	65.95
OW-69D	82.18	34.65	34.43	0.22	47.73	43.60
OW-70D	85.67	39.95	---	0.00	45.72	40.02
OW-73	86.59	40.40	---	0.00	46.19	70.11
OW-75D*	84.48	NM	NM	0.00	30.40	34.59
OW-76	76.54	19.48	---	0.00	57.06	70.82
OW-77D*	82.98	NM	NM	NM	26.67	33.02
OW-79D	79.49	31.22	---	0.00	48.27	49.49
OW-81	75.15	20.78	---	0.00	54.37	67.17
OW-82D	77.39	26.63	26.50	0.13	50.88	31.34
OW-83D	77.74	25.37	---	0.00	52.37	38.97
MW-2R	62.68	22.17	---	0.00	40.51	30.00
MW-4	63.43	23.96	---	0.00	39.47	35.00
MW-5	62.93	23.50	---	0.00	39.43	35.00
MW-6R	62.63	22.42	---	0.00	40.21	32.00

1	Depth to product and water as measured from the measuring point (i.e. top of inner well casing).
---	No free product
msl	Mean sea level
LNAPL	Light non-aqueous phase liquid
^	Groundwater elevation was corrected for wells containing product based on a specific gravity of 0.9 for product.
*	Free product recovery well. Groundwater elevation represents the elevation of the pump intake.
NM	Not measured - free product recovery well

Well I.D.	Measuring Point Elevation (feet msl)	Depth to Groundwater[1] (feet)	Depth to LNAPL[1] (feet)	LNAPL Thickness (feet)	Groundwater Elevation^ (feet msl)	Top of Screen Elevation (feet msl)
MW-1	73.04	16.61	---	0.00	56.43	50.60
MW-1B	73.33	28.04	---	0.00	45.29	23.90
MW-2	75.19	14.45	---	0.00	60.74	59.00
MW-3	74.78	23.82	---	0.00	50.96	47.90
MW-4	69.38	27.27	---	0.00	42.11	35.80
MW-5	78.03	25.52	---	0.00	52.51	49.80
MW-7	72.71	23.70	---	0.00	49.01	42.30
MW-8	76.10	23.40	---	0.00	52.70	51.30
MW-9	76.22	30.00	---	0.00	46.22	39.40
MW-9B	76.10	31.05	---	0.00	45.05	32.30
MW-10	70.45	15.42	---	0.00	55.03	50.70
MW-10B	69.91	26.14	---	0.00	43.77	-6.62
MW-10B2	71.81	29.78	---	0.00	42.03	-86.70
MW-10B3	70.20	28.91	---	0.00	41.29	-246.90
MW-11	72.09	25.71	---	0.00	46.38	35.40
MW-11B	72.03	30.20	---	0.00	41.83	13.90
MW-12	66.60	25.02	---	0.00	41.58	35.10
MW-13	69.00	25.72	---	0.00	43.28	45.00
MW-14	74.43	22.42	---	0.00	52.01	49.10
MW-15	73.12	25.39	---	0.00	47.73	44.50
MW-17A	75.27	21.76	---	0.00	53.51	52.10
MW-18	77.02	23.55	---	0.00	53.47	55.60
MW-19	79.72	27.80	---	0.00	51.92	45.50
MW-20	76.10	23.75	---	0.00	52.35	53.50
MW-21	79.07	26.35	---	0.00	52.72	51.70
MW-23	78.37	20.53	---	0.00	57.84	51.20
MW-31B2	81.61	39.90	---	0.00	41.71	-48.60
MW-31B3	83.07	41.84	---	0.00	41.23	-228.51
MW-35	76.94	28.00	---	0.00	48.94	59.90
MW-35B	76.70	32.63	---	0.00	44.07	34.50
MW-36B	62.98	22.03	---	0.00	40.95	22.40
MW-37	69.21	23.92	---	0.00	45.29	54.00
MW-37B	68.99	27.44	---	0.00	41.55	9.90
MW-37B2	69.58	28.50	---	0.00	41.08	-115.82
MW-37B3	69.78	28.71	---	0.00	41.07	-225.95
MW-38	73.07	19.81	---	0.00	53.26	60.27
MW-38B	72.86	28.51	---	0.00	44.35	14.70
MW-39	72.57	25.40	---	0.00	47.17	60.44
MW-39B	72.33	26.45	---	0.00	45.88	26.38
MW-40	66.74	11.76	---	0.00	54.98	54.90
MW-41	67.36	17.84	---	0.00	49.52	60.70
MW-42	67.33	15.65	---	0.00	51.68	60.50
MW-43	66.21	17.58	---	0.00	48.63	59.60
MW-44	64.46	13.55	---	0.00	50.91	58.00
MW-45	68.14	NM	---	NM	NM	59.70
MW-84B3	78.60	37.17	---	0.00	41.43	-354.53
MW-85B3	65.36	24.13	---	0.00	41.23	-206.44
MW-86B3	72.41	25.67	---	0.00	46.74	-293.57
MW-87B	67.15	17.85	---	0.00	49.30	-2.50
MW-87B2	67.18	24.65	---	0.00	42.53	-27.50
MW-87B3	67.16	25.40	---	0.00	41.76	-77.50
MW-87B4	67.17	25.66	---	0.00	41.51	-197.50
MW-87B5	67.15	25.72	---	0.00	41.43	-247.50

Well I.D.	Measuring Point Elevation (feet msl)	Depth to Groundwater[1] (feet)	Depth to LNAPL[1] (feet)	LNAPL Thickness (feet)	Groundwater Elevation^ (feet msl)	Top of Screen Elevation (feet msl)
OW-22*	76.89	NM	NM	NM	43.99	60.80
OW-24	76.98	20.70	---	0.00	56.28	65.70
OW-25S	77.84	20.41	---	0.00	57.43	64.50
OW-25M*	76.70	NM	NM	NM	41.04	47.50
OW-25D	77.89	30.15	---	0.00	47.74	32.60
OW-26S	77.96	20.40	---	0.00	57.56	66.60
OW-26M	77.99	25.91	25.40	0.51	52.54	52.30
OW-27*	77.92	NM	NM	NM	54.38	60.10
OW-28S*	80.82	NM	NM	NM	46.00	56.00
OW-28D*	78.29	NM	NM	NM	30.11	38.00
OW-29*	81.65	NM	NM	NM	49.03	51.60
OW-30	84.79	35.07	---	0.00	49.72	57.40
OW-31	83.21	33.00	---	0.00	50.21	55.70
OW-32S	77.05	21.43	---	0.00	55.62	61.60
OW-32D	77.15	26.42	---	0.00	50.73	47.90
OW-33	75.55	23.80	---	0.00	51.75	60.30
OW-34	81.55	29.25	---	0.00	52.30	50.00
OW-46	76.52	24.90	---	0.00	51.62	66.12
OW-47R*	78.13	NM	NM	NM	35.94	67.70
OW-49*	80.23	NM	NM	NM	42.19	66.79
OW-52D*	84.45	NM	NM	NM	31.45	38.73
OW-53D*	85.86	NM	NM	NM	33.32	39.18
OW-58*	86.09	NM	NM	NM	48.59	72.30
OW-58D*	86.59	NM	NM	NM	36.69	39.72
OW-59D*	84.43	NM	NM	NM	34.48	41.10
OW-64	76.13	23.40	---	0.00	52.73	68.89
OW-65	76.84	35.70	---	0.00	41.14	67.46
OW-66*	77.73	NM	NM	NM	36.27	65.95
OW-69D	82.18	36.50	36.45	0.05	45.73	43.60
OW-70D	85.67	38.09	---	0.00	47.58	40.02
OW-73	86.59	39.05	---	0.00	47.54	70.11
OW-75D*	84.48	NM	NM	0.00	30.40	34.59
OW-76	76.54	22.50	---	0.00	54.04	70.82
OW-77D*	82.98	NM	NM	NM	26.67	33.02
OW-79D	79.49	32.38	---	0.00	47.11	49.49
OW-81	75.15	22.40	---	0.00	52.75	67.17
OW-82D	77.39	28.40	---	0.00	48.99	31.34
OW-83D	77.74	26.25	---	0.00	51.49	38.97
MW-2R	62.68	NM	NM	NM	NM	30.00
MW-4	63.43	NM	NM	NM	NM	35.00
MW-5	62.93	NM	NM	NM	NM	35.00
MW-6R	62.63	NM	NM	NM	NM	32.00

1	Depth to product and water as measured from the measuring point (i.e. top of inner well casing).
---	No product
msl	Mean sea level
LNAPL	Light non-aqueous phase liquid
^	Groundwater elevation was corrected for wells containing product based on a specific gravity of 0.9 for product.
*	Free product recovery well. Groundwater elevation represents the elevation of the pump intake.
NM	Not measured - free product recovery well

Well I.D.	Measuring Point Elevation (feet msl)	Depth to Groundwater[1] (feet)		Depth to LNAPL[1] (feet)	LNAPL Thickness (feet)	Groundwater Elevation^ (feet msl)	Top of Screen Elevation (feet msl)
MW-1	73.04	18.11		---	0.00	54.93	50.60
MW-1B	73.33	27.88		---	0.00	45.45	23.90
MW-2	75.19	14.65		---	0.00	60.54	59.00
MW-3	74.78	23.97		---	0.00	50.81	47.90
MW-4	69.38	27.01		---	0.00	42.37	35.80
MW-5	78.03	25.75		---	0.00	52.28	49.80
MW-7	72.71	23.20		---	0.00	49.51	42.30
MW-8	76.10	23.40		---	0.00	52.70	51.30
MW-9	76.22	29.92		---	0.00	46.30	39.40
MW-9B	76.10	30.95		---	0.00	45.15	32.30
MW-10	70.45	16.54	**	---	0.00	53.91	50.70
MW-10B	69.91	26.53	**	---	0.00	43.38	-6.62
MW-10B2	71.81	30.12	**	---	0.00	41.69	-86.70
MW-10B3	70.20	29.21	**	---	0.00	40.99	-246.90
MW-11	72.09	25.36		---	0.00	46.73	35.40
MW-11B	72.03	30.13		---	0.00	41.90	13.90
MW-12	66.60	24.55		---	0.00	42.05	35.10
MW-13	69.00	25.11		---	0.00	43.89	45.00
MW-14	74.43	22.11		---	0.00	52.32	49.10
MW-15	73.12	24.85		---	0.00	48.27	44.50
MW-17A	75.27	22.63		---	0.00	52.64	52.10
MW-18	77.02	24.40		---	0.00	52.62	55.60
MW-19	79.72	27.81		---	0.00	51.91	45.50
MW-20	76.10	23.70		---	0.00	52.40	53.50
MW-21	79.07	26.51		---	0.00	52.56	51.70
MW-23	78.37	19.81		---	0.00	58.56	51.20
MW-31B2	81.61	40.05	**	---	0.00	41.56	-48.60
MW-31B3	83.07	42.13	**	---	0.00	40.94	-228.51
MW-35	76.94	27.97	**	---	0.00	48.97	59.90
MW-35B	76.70	33.00	**	---	0.00	43.70	34.50
MW-36B	62.98	21.57		---	0.00	41.41	22.40
MW-37	69.21	24.48	**	---	0.00	44.73	54.00
MW-37B	68.99	27.70	**	---	0.00	41.29	9.90
MW-37B2	69.58	28.79	**	---	0.00	40.79	-115.82
MW-37B3	69.78	29.00	**	---	0.00	40.78	-225.95
MW-38	73.07	19.94		---	0.00	53.13	60.27
MW-38B	72.86	28.21		---	0.00	44.65	14.70
MW-39	72.57	24.82		---	0.00	47.75	60.44
MW-39B	72.33	25.95		---	0.00	46.38	26.38
MW-40	66.74	11.41		---	0.00	55.33	54.90
MW-41	67.36	14.27		---	0.00	53.09	60.70
MW-42	67.33	16.08		---	0.00	51.25	60.50
MW-43	66.21	15.73		---	0.00	50.48	59.60
MW-44	64.46	14.08		---	0.00	50.38	58.00
MW-45	68.14	NM		---	NM	NM	59.70
MW-84B3	78.60	37.48	**	---	0.00	41.12	-354.53
MW-85B3	65.36	24.39	**	---	0.00	40.97	-206.44
MW-86B3	72.41	26.27	**	---	0.00	46.14	-293.57
MW-87B	67.15	18.76	**	---	0.00	48.39	-2.50
MW-87B2	67.18	24.95	**	---	0.00	42.23	-27.50
MW-87B3	67.16	25.73	**	---	0.00	41.43	-77.50
MW-87B4	67.17	26.00	**	---	0.00	41.17	-197.50
MW-87B5	67.15	26.02	**	---	0.00	41.13	-247.50
MW-88B1	59.92	17.14	**	---	0.00	42.78	-22.00
MW-88B2	59.92	16.86	**	---	0.00	43.06	-59.00
MW-88B3	59.91	16.73	**	---	0.00	43.18	-141.00
MW-88B4	59.87	18.68	**	---	0.00	41.19	-270.00
OW-22*	76.89	NM		NM	NM	43.99	60.80
OW-24	76.98	20.80		---	0.00	56.18	65.70
OW-25S	77.84	18.85		---	0.00	58.99	64.50
OW-25M*	76.70	NM		NM	NM	41.04	47.50
OW-25D	77.89	37.05		---	0.00	40.84	32.60

Well I.D.	Measuring Point Elevation (feet msl)	Depth to Groundwater[1] (feet)		Depth to LNAPL[1] (feet)	LNAPL Thickness (feet)	Groundwater Elevation^ (feet msl)	Top of Screen Elevation (feet msl)
OW-26S	77.96	20.30		---	0.00	57.66	66.60
OW-26M	77.99	27.85		26.90	0.95	51.00	52.30
OW-27*	77.92	NM		NM	NM	54.38	60.10
OW-28S*	80.82	NM		NM	NM	46.00	56.00
OW-28D*	78.29	NM		NM	NM	30.11	38.00
OW-29*	81.65	NM		NM	NM	49.03	51.60
OW-30	84.79	36.32		---	0.00	48.47	57.40
OW-31	83.21	33.18	**	---	0.00	50.03	55.70
OW-32S	77.05	20.90		---	0.00	56.15	61.60
OW-32D	77.15	26.40		---	0.00	50.75	47.90
OW-33	75.55	23.05		---	0.00	52.50	60.30
OW-34	81.55	30.76		30.71	0.05	50.84	50.00
OW-34R	81.98	31.67		30.92	0.75	50.99	
OW-46	76.52			---	0.00	76.52	66.12
OW-47R*	78.13	NM		NM	NM	35.94	67.70
OW-49*	80.23	NM		NM	NM	42.19	66.79
OW-52D*	84.45	NM		NM	NM	31.45	38.73
OW-53D*	85.86	NM		NM	NM	33.32	39.18
OW-58*	86.09	NM		NM	NM	48.59	72.30
OW-58D*	86.59	NM		NM	NM	36.69	39.72
OW-59D*	84.43	NM		NM	NM	34.48	41.10
OW-64	76.13	23.31		---	0.00	52.82	68.89
OW-65	76.84	27.50		---	0.00	49.34	67.46
OW-66*	77.73	NM		NM	NM	36.27	65.95
OW-69D	82.18	36.45		36.45	0.00	45.73	43.60
OW-70D	85.67	41.05		---	0.00	44.62	40.02
OW-73	86.59	NM		---	0.00	--	70.11
OW-75D*	84.48	NM		NM	0.00	30.40	34.59
OW-76	76.54	23.70		---	0.00	52.84	70.82
OW-77D*	82.98	NM		NM	NM	26.67	33.02
OW-79D	79.49	36.46		---	0.00	43.03	49.49
OW-81	75.15	23.26		---	0.00	51.89	67.17
OW-82D	77.39	30.85		---	0.00	46.54	31.34
OW-83D	77.74	26.30		---	0.00	51.44	38.97
OW-84	81.85	29.52		--	0.00	52.33	
OW-85	82.44	31.28		--	0.00	51.16	
OW-86S	79.39	--		--	0.00	--	
OW-86D	79.36	31.30		--	0.00	48.06	
MW-2R	62.68	NM		NM	NM	NM	30.00
MW-4	63.43	NM		NM	NM	NM	35.00
MW-5	62.93	NM		NM	NM	NM	35.00
MW-6R	62.63	NM		NM	NM	NM	32.00

1	Depth to product and water as measured from the measuring point (i.e. top of inner well casing).
---	No free product
msl	Mean sea level
LNAPL	Light non-aqueous phase liquid
^	Groundwater elevation was corrected for wells containing product based on a specific gravity of 0.9 for product.
*	Free product recovery well. Groundwater elevation represents the elevation of the pump intake.
**	Groundwater elevations measured on 10/28/13
NM	Not measured - free product recovery well

Well I.D.	Measuring Point Elevation (feet msl)	Depth to Groundwater[1] (feet)		Depth to LNAPL[1] (feet)	LNAPL Thickness (feet)	Groundwater Elevation^ (feet msl)	Top of Screen Elevation (feet msl)
MW-1	73.04	17.10	**	---	0.00	55.94	50.60
MW-1B	73.33	27.85	**	---	0.00	45.48	23.90
MW-2	75.19	15.05		---	0.00	60.14	59.00
MW-3	74.78	23.44		---	0.00	51.34	47.90
MW-4	69.38	NM		---	0.00	NM	35.80
MW-5	78.03	26.14		---	0.00	51.89	49.80
MW-7	72.71	22.70		---	0.00	50.01	42.30
MW-8	76.10	23.69		---	0.00	52.41	51.30
MW-9	76.22	29.94		---	0.00	46.28	39.40
MW-9B	76.10	30.95		---	0.00	45.15	32.30
MW-10	70.45	16.65		---	0.00	53.80	50.70
MW-10B	69.91	26.27		---	0.00	43.64	-6.62
MW-10B2	71.81	29.92	**	---	0.00	41.89	-86.70
MW-10B3	70.20	28.74		---	0.00	41.46	-246.90
MW-11	72.09	25.59		---	0.00	46.50	35.40
MW-11B	72.03	30.19		---	0.00	41.84	13.90
MW-12	66.60	24.45		---	0.00	42.15	35.10
MW-13	69.00	24.82		---	0.00	44.18	45.00
MW-14	74.43	22.28		---	0.00	52.15	49.10
MW-15	73.12	24.55		---	0.00	48.57	44.50
MW-17A	75.27	23.08		---	0.00	52.19	52.10
MW-18	77.02	24.82		---	0.00	52.20	55.60
MW-19	79.72	28.07		---	0.00	51.65	45.50
MW-20	76.10	23.95		---	0.00	52.15	53.50
MW-21	79.07	26.83		---	0.00	52.24	51.70
MW-23	78.37	20.21		---	0.00	58.16	51.20
MW-31B2	81.61	39.70		---	0.00	41.91	-48.60
MW-31B3	83.07	41.69		---	0.00	41.38	-228.51
MW-35	76.94	27.40		---	0.00	49.54	59.90
MW-35B	76.70	32.31		---	0.00	44.39	34.50
MW-36B	62.98	21.50		---	0.00	41.48	22.40
MW-37	69.21	23.67		---	0.00	45.54	54.00
MW-37B	68.99	27.24		---	0.00	41.75	9.90
MW-37B2	69.58	28.34		---	0.00	41.24	-115.82
MW-37B3	69.78	28.51		---	0.00	41.27	-225.95
MW-38	73.07	22.40		---	0.00	50.67	60.27
MW-38B	72.86	28.31		---	0.00	44.55	14.70
MW-39	72.57	NM		---	0.00	NM	60.44
MW-39B	72.33	NM		---	0.00	NM	26.38
MW-40	66.74	12.65		---	0.00	54.09	54.90
MW-41	67.36	14.75		---	0.00	52.61	60.70
MW-42	67.33	16.58		---	0.00	50.75	60.50
MW-43	66.21	16.31		---	0.00	49.90	59.60
MW-44	64.46	14.50		---	0.00	49.96	58.00
MW-45	68.14	NM		---	NM	NM	59.70
MW-84B3	78.60	37.01		---	0.00	41.59	-354.53
MW-85B3	65.36	23.94		---	0.00	41.42	-206.44
MW-86B3	72.41	26.29		---	0.00	46.12	-293.57
MW-87B	67.15	18.43		---	0.00	48.72	-2.50
MW-87B2	67.18	24.56		---	0.00	42.62	-27.50
MW-87B3	67.16	25.36		---	0.00	41.80	-77.50
MW-87B4	67.17	25.68		---	0.00	41.49	-197.50
MW-87B5	67.15	25.74		---	0.00	41.41	-247.50
MW-88B1	59.92	16.94		---	0.00	42.98	-22.00
MW-88B2	59.92	16.33		---	0.00	43.59	-59.00
MW-88B3	59.91	16.14		---	0.00	43.77	-141.00
MW-88B4	59.87	18.33		---	0.00	41.54	-270.00
OW-22*	76.89	NM		NM	NM	43.99	60.80
OW-24	76.98	20.71		---	0.00	56.27	65.70
OW-25S	77.84	19.85		---	0.00	57.99	64.50
OW-25M*	76.70	NM		NM	NM	41.04	47.50
OW-25D	77.89	37.11		---	0.00	40.78	32.60

Well I.D.	Measuring Point Elevation (feet msl)	Depth to Groundwater[1] (feet)	Depth to LNAPL[1] (feet)	LNAPL Thickness (feet)	Groundwater Elevation^ (feet msl)	Top of Screen Elevation (feet msl)
OW-26S	77.96	20.71	---	0.00	57.25	66.60
OW-26M	77.99	28.38	28.35	0.03	49.64	52.30
OW-27*	77.92	NM	NM	NM	54.38	60.10
OW-28S*	80.82	NM	NM	NM	46.00	56.00
OW-28D*	78.29	NM	NM	NM	30.11	38.00
OW-29*	81.65	NM	NM	NM	49.03	51.60
OW-30	84.79	36.18	---	0.00	48.61	57.40
OW-31	83.21	32.86	---	0.00	50.35	55.70
OW-32S	77.05	21.97	---	0.00	55.08	61.60
OW-32D	77.15	26.02	---	0.00	51.13	47.90
OW-33	75.55	22.78	---	0.00	52.77	60.30
OW-34	81.55	30.40	---	0.00	51.15	50.00
OW-34R	81.98	30.25	---	0.00	51.73	62.20
OW-46	76.52	26.30	---	0.00	50.22	66.12
OW-47R*	78.13	NM	NM	NM	35.94	67.70
OW-49*	80.23	NM	NM	NM	42.19	66.79
OW-52D*	84.45	NM	NM	NM	31.45	38.73
OW-53D*	85.86	NM	NM	NM	33.32	39.18
OW-58*	86.09	NM	NM	NM	48.59	72.30
OW-58D*	86.59	NM	NM	NM	36.69	39.72
OW-59D*	84.43	NM	NM	NM	34.48	41.10
OW-64	76.13	23.59	---	0.00	52.54	68.89
OW-65	76.84	27.87	---	0.00	48.97	67.46
OW-66*	77.73	NM	NM	NM	36.27	65.95
OW-69D	82.18	36.52	36.42	0.10	45.75	43.60
OW-70D	85.67	40.69	---	0.00	44.98	40.02
OW-73	86.59	41.25	---	0.00	45.34	70.11
OW-75D*	84.48	NM	NM	0.00	30.40	34.59
OW-76	76.54	24.34	---	0.00	52.20	70.82
OW-77D*	82.98	NM	NM	NM	26.67	33.02
OW-79D	79.49	32.80	---	0.00	46.69	49.49
OW-81	75.15	23.92	---	0.00	51.23	67.17
OW-82D	77.39	31.34	---	0.00	46.05	31.34
OW-83D	77.74	26.40	---	0.00	51.34	38.97
OW-84	81.85	29.65	---	0.00	52.20	62.10
OW-85	82.44	31.21	---	0.00	51.23	62.70
OW-86S	79.39	dry	---	0.00	dry	69.60
OW-86D	79.36	31.22	---	0.00	48.14	44.60
MW-2R	62.68	NM	NM	NM	NM	30.00
MW-4	63.43	NM	NM	NM	NM	35.00
MW-5	62.93	NM	NM	NM	NM	35.00
MW-6R	62.63	NM	NM	NM	NM	32.00

1	Depth to product and water as measured from the measuring point (i.e. top of inner well casing).
---	No free product
msl	Mean sea level
LNAPL	Light non-aqueous phase liquid
^	Groundwater elevation was corrected for wells containing product based on a specific gravity of 0.9 for product.
*	Free product recovery well. Groundwater elevation represents the elevation of the pump intake.
**	Groundwater elevations measured on 10/6/2014
NM	Not measured - free product recovery well

Table 9A. Groundwater Analytical Results (September 2009-October 2014), Volatile Organic Compounds
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID: / Sample Date: / Sample Name:	MW-1 9/14/2010 MW-1PB(091410)	MW-1 9/14/2011 MW-1PB(091411)	MW-1 9/25/2012 MW-1PB(092512)	MW-1 10/1/2013 MW-1PB (100113)	MW-1 10/7/2014 MW-1PB (100714)	MW-10 9/11/2009 MW-10PB (091109)	MW-10 9/15/2010 MW-10PB (091510)	MW-10 9/13/2011 MW-10PB (091311)	MW-10 9/26/2012 MW-10PB(092612)	MW-10 10/1/2013 MW-10PB (100113)	MW-10 9/30/2014 MW-10PB(093014)	MW-10B 9/11/2009 MW-10BPB (091109)	MW-10B 9/15/2010 MW-10BPB (091510)	MW-10B 9/13/2011 MW-10BPB (091311)	MW-10B 10/2/2012 MW-10BPB(100212)	MW-10B 10/3/2013 MW-10BPB(100313)	MW-10B 9/30/2014 MW-10BPB(093014)
1,1,1-Trichloroethane	**30**	2.5	0.95 J	1.1	< 1.0 U	0.96 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	8.1	6.1	4.5	5.9	4.3	3.3
1,1,2,2-Tetrachloroethane	1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	0.90 J	0.89 J	0.93 J	0.85 J	< 1.0 U
1,1-Dichloroethane	**50**	3.3	1.4	2.4	1.1	0.98 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**120**	**97**	**90**	**94**	**110**	**94**
1,1-Dichloroethene	**1**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**100**	**82**	**69**	**110**	**110**	**73**
1,2,3-Trichlorobenzene	----	--	< 1.0 U	< 1.0 U	--	--	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U
1,2,4-Trichlorobenzene	9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	0.02	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U
1,2-Dibromoethane	0.03	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U
1,2-Dichlorobenzene	600	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloroethane	**2**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.6**	**6**	**6.3**	**7**	**6.8**	**7.3**
1,2-Dichloropropane	1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichlorobenzene	600	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dichlorobenzene	75	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dioxane	**0.4**	--	< 50 U	< 2.0 U	--	--	--	--	< 50 U	< 2.0 U	--	--	--	--	--	**46 J**	**51**	--	--
2-Butanone	300	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U
2-Chloroethyl vinyl ether	----	--	--	--	--	--	< 1.0 R	--	--	--	--	--	--	< 1.0 R	--	--	--	--	--
2-Hexanone	----	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U
4-Methyl-2-pentanone	----	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U
Acetone	6000	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U
Acrolein	5	--	--	--	--	--	< 4.0 U	--	--	--	--	--	--	< 4.0 U	--	--	--	--	--
Acrylonitrile	2	--	--	--	--	--	< 2.0 U	--	--	--	--	--	--	< 2.0 U	--	--	--	--	--
Benzene	**1**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.35 J	0.31 J	0.28 J	0.29 J	0.29 J	0.31 J
Bromodichloromethane	1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromoform	4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromomethane (Methyl bromide)	10	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon disulfide	700	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon tetrachloride	**1**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorobenzene	50	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.25 J	0.26 J	0.24 J	0.30 J	< 1.0 U	< 1.0 U
Chloroethane	----	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroform (Trichloromethane)	70	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.48 J	0.40 J	< 1.0 UB	< 1.0 U	0.42 J	0.40 J
Chloromethane (Methyl chloride)	3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	**70**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	44	40	35	44	46	38
cis-1,3-Dichloropropene	1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Cyclohexane	----	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dibromochloromethane	1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dichlorodifluoromethane (CFC-12)	1000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	700	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Isopropyl benzene	700	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
m&p-Xylene	----	--	< 2.0 U	< 2.0 U	--	--	--	--	< 2.0 U	< 2.0 U	< 2.0 U	--	< 1.0 U	--	--	< 2.0 U	< 2.0 U	--	< 1.0 U
Methyl acetate	7000	< 2.0 U	< 2.0 U	< 1.0 U	< 5.0 U	< 5.0 U	--	< 2.0 U	< 2.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 2.0 U	< 2.0 U	< 1.0 U	< 5.0 U	< 5.0 U
Methyl cyclohexane	----	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Methyl tert butyl ether (MTBE)	70	0.23 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	1.3	1.2	1.4	1.7	1.4
Methylene chloride	**3**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
o-Xylene	----	--	< 1.0 U	< 1.0 U	--	--	--	--	< 1.0 U	< 1.0 U	--	--	--	--	--	< 1.0 U	< 1.0 U	--	--
Styrene	100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	**1**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**66**	**69**	**62**	**85**	**66**	**58**
Toluene	600	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	**100**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	7.3	7.6	7.3	11	13	10
trans-1,3-Dichloropropene	1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	**1**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**63**	**52**	**48**	**62**	**56**	**50**
Trichlorofluoromethane (CFC-11)	2000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trifluorotrichloroethane (Freon 113)	----	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl chloride	**1**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**17**	**19**	**11**	**17**	**15**	**13**
Xylene (total)	1000	< 3.0 U	--	--	< 2.0 U	< 2.0 U	< 3.0 U	< 3.0 U	--	--	< 2.0 U	< 2.0 U	< 3.0 U	< 3.0 U	--	--	< 2.0 U	< 2.0 U	

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
B indicates compound detected in blank
J indicates an estimated value
R Indicates original laboratory result rejected during data validation
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
---- GWQS not published

Table 9A. Groundwater Analytical Results (September 2009-October 2014), Volatile Organic Compounds
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID:	MW-10B2	MW-10B2	MW-10B2	MW-10B2	MW-10B2	MW-10B2	MW-10B2	MW-10B3	MW-10B3	MW-10B3	MW-10B3	MW-10B3	MW-10B3	MW-12	MW-12
		Sample Date:	9/11/2009	9/11/2009	9/15/2010	9/13/2011	9/26/2012	10/3/2013	10/6/2014	9/11/2009	9/15/2010	9/13/2011	10/1/2012	10/1/2013	10/2/2014	9/10/2009	9/15/2010
		Sample Name:	DUPPB (091109)	MW-10B2PB (091109)	MW-10B2PB (091510)	MW-10B2PB (091311)	MW-10B2PB(092612)	MW-10B2PB(100313)	MW-10B2PB (100614)	MW-10B3PB (091109)	MW-10B3PB (091510)	MW-10B3PB (091311)	MW-10B3PB(100112)	MW-10B3PB (100113)	MW-10B3PB(100214)	MW-12PB (091009)	MW-12PB (091510)
1,1,1-Trichloroethane	**30**		1.9	1.9	1.8	1.3	1.8	2	1.3	0.28 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2,2-Tetrachloroethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	3		0.51 J	0.49 J	0.46 J	0.36 J	0.57 J	0.52 J	< 1.0 U	0.23 J	0.20 J	0.16 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	**50**		21	20	21	19	32	33	28	3.2	2.5	2.5	2.1	3.1	2.3	0.64 J	0.49 J
1,1-Dichloroethene	**1**		**13**	**12**	**12**	**8.8**	**12**	**20**	**14**	**7.6**	**5.6**	**4.5**	**6.2**	**6.2**	**4.6**	< 1.0 U	< 1.0 U
1,2,3-Trichlorobenzene	----		--	--	--	< 1.0 U	< 1.0 U	--	--	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	--
1,2,4-Trichlorobenzene	9		--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	0.02		--	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U
1,2-Dibromoethane	0.03		--	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U
1,2-Dichlorobenzene	600		--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U
1,2-Dichloroethane	**2**		0.60 J	0.60 J	0.47 J	0.60 J	0.94 J	0.86 J	0.96 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloropropane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichlorobenzene	600		--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U
1,4-Dichlorobenzene	75		--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U
1,4-Dioxane	**0.4**		--	--	--	< 50 U	**27**	--	--	--	--	< 50 U	**7**	--	< 50 U	--	--
2-Butanone	300		--	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U
2-Chloroethyl vinyl ether	----		< 1.0 R	< 1.0 R	--	--	--	--	--	< 1.0 R	--	--	--	--	--	< 1.0 R	--
2-Hexanone	----		--	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 UJ	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U
4-Methyl-2-pentanone	----		--	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U
Acetone	6000		--	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U
Acrolein	5		< 4.0 U	< 4.0 U	--	--	--	--	--	< 4.0 U	--	--	--	--	--	< 4.0 U	--
Acrylonitrile	2		< 2.0 U	< 2.0 U	--	--	--	--	--	< 2.0 U	--	--	--	--	--	< 2.0 U	--
Benzene	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.14 J	0.15 J	0.12 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromodichloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromoform	4		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromomethane (Methyl bromide)	10		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon disulfide	700		--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U
Carbon tetrachloride	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorobenzene	50		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.17 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroform (Trichloromethane)	70		0.38 J	0.32 J	0.32 J	< 1.0 UB	0.44 J	0.42 J	0.34 J	0.95 J	0.79 J	< 1.0 UB	0.81 J	1.3	0.86 J	< 1.0 U	< 1.0 U
Chloromethane (Methyl chloride)	3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	**70**		16	14	15	12	13	18	13	7.2	6.3 J	5.8	6.1	7.2	6.2	< 1.0 U	< 1.0 U
cis-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Cyclohexane	----		--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U
Dibromochloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dichlorodifluoromethane (CFC-12)	1000		--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U
Ethylbenzene	700		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Isopropyl benzene	700		--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U
m&p-Xylene	----		--	--	--	< 2.0 U	< 2.0 U	--	--	--	--	< 2.0 U	< 2.0 U	--	< 1.0 U	--	--
Methyl acetate	7000		--	--	< 2.0 U	< 2.0 U	< 1.0 U	< 5.0 U	< 5.0 U	--	< 2.0 U	< 2.0 U	< 1.0 U	< 5.0 U	< 5.0 U	--	< 2.0 U
Methyl cyclohexane	----		--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U
Methyl tert butyl ether (MTBE)	70		--	--	6.4	4.6	4.9	5	3	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U
Methylene chloride	**3**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
o-Xylene	----		--	--	--	< 1.0 U	< 1.0 U	--	--	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	--
Styrene	100		--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U
Tetrachloroethene	**1**		**24**	**22**	**23**	**18**	**20**	**22**	**17**	**6.7**	**6.6**	**5.6**	**7.6**	**7**	**5.9**	< 1.0 U	< 1.0 U
Toluene	600		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	**100**		2.7	2.5	3.2	2.9	4.6	5.7	3.8	< 1.0 U	0.21 J	< 1.0 U	< 1.0 U	< 1.0 U	0.22 J	< 1.0 U	< 1.0 U
trans-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	**1**		**340**	**310**	**280**	**230**	**270**	**310**	**240**	**220**	**190**	**170**	**190**	**210**	**190**	< 1.0 U	< 1.0 U
Trichlorofluoromethane (CFC-11)	2000		5.8	5.4	6.1	3.3	4.3	5.9	5.1	21	21 J	13	22	20	17	< 1.0 U	< 1.0 U
Trifluorotrichloroethane (Freon 113)	----		--	--	0.51 J	< 1.0 U	0.50 J	0.45 J	0.35 J	--	0.91 J	< 1.0 U	< 1.0 U	< 1.0 U	0.84 J	--	< 1.0 U
Vinyl chloride	**1**		**1.8**	**1.7**	**2.7**	**1.4**	**2.7**	**3.2**	**2.4**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene (total)	1000		< 3.0 U	< 3.0 U	< 3.0 U	--	--	< 2.0 U	< 2.0 U	< 3.0 U	< 3.0 U	--	--	< 2.0 U	--	< 3.0 U	< 3.0 U

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
B indicates compound detected in blank
J indicates an estimated value
R Indicates original laboratory result rejected during data validation
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
---- GWQS not published

Table 9A. Groundwater Analytical Results (September 2009-October 2014), Volatile Organic Compounds
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID:	MW-12	MW-12	MW-12	MW-12	MW-13	MW-13	MW-13	MW-13	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-17A
		Sample Date:	9/15/2011	9/27/2012	10/4/2013	10/2/2014	9/21/2011	10/2/2012	10/9/2013	10/9/2014	9/14/2009	9/20/2010	9/20/2010	9/16/2011	9/27/2012	10/9/2013	10/2/2014	10/2/2014	9/9/2009
		Sample Name:	MW-12PB (091511)	MW-12PB(092712)	MW-12PB(100413)	MW-12PB(100214)	MW- 13PB (092111)	MW-13PB(100212)	MW-13PB(100913)	MW-13(100914)	MW-15PB (091409)	DUP(092010)	MW-15PB(092010)	MW-15PB (091611)	MW-15PB(092712)	MW-15PB(100913)	MW-15PB(100214)	DUP-100214	MW-17APB (090909)
1,1,1-Trichloroethane	**30**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.34 J
1,1,2,2-Tetrachloroethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	**50**		0.26 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	25	6.4	7.9	22	8.9	4.9	13	14	< 1.0 U
1,1-Dichloroethene	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	**1.7**	**1.4**	**1.6**	**1.1**	0.70 J	0.90 J	0.73 J	0.66 J	< 1.0 U
1,2,3-Trichlorobenzene	----		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
1,2,4-Trichlorobenzene	9		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
1,2-Dibromo-3-chloropropane (DBCP)	0.02		< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 5.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	--
1,2-Dibromoethane	0.03		< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 5.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	--
1,2-Dichlorobenzene	600		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
1,2-Dichloroethane	**2**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	0.86 J	0.46 J	0.57 J	0.76 J	< 1.0 U	0.25 J	0.24 J	0.25 J	< 1.0 U
1,2-Dichloropropane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichlorobenzene	600		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
1,4-Dichlorobenzene	75		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
1,4-Dioxane	**0.4**		< 2 U	< 2 U	--	< 50 U	< 2 U	< 2 U	< 250 U	< 50 U	--	--	--	**11**	**7.8**	< 50 U	< 50 U	< 50 U	--
2-Butanone	300		< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 10 U	< 25 U	< 25 U	< 5.0 U	--	< 10 U	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--
2-Chloroethyl vinyl ether	----		--	--	--	--	--	--	--	--	< 1.0 R	--	--	--	--	--	--	--	< 1.0 R
2-Hexanone	----		< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 10 U	< 25 U	< 25 U	< 5.0 U	--	< 10 U	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--
4-Methyl-2-pentanone	----		< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 10 U	< 25 U	< 25 U	< 5.0 U	--	< 10 U	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--
Acetone	6000		< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 10 U	< 25 U	< 25 U	< 5.0 U	--	< 10 U	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--
Acrolein	5		--	--	--	--	--	--	--	--	< 4.0 U	--	--	--	--	--	--	--	< 4.0 U
Acrylonitrile	2		--	--	--	--	--	--	--	--	< 2.0 U	--	--	--	--	--	--	--	< 2.0 U
Benzene	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromodichloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromoform	4		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromomethane (Methyl bromide)	10		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon disulfide	700		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	--	0.39 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
Carbon tetrachloride	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorobenzene	50		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	6.5	20	22	12	7.6	9.8	< 1.0 U	< 1.0 U	< 1.0 U
Chloroform (Trichloromethane)	70		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloromethane (Methyl chloride)	3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	**70**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Cyclohexane	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
Dibromochloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dichlorodifluoromethane (CFC-12)	1000		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
Ethylbenzene	700		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	0.28 J	0.27 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Isopropyl benzene	700		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
m&p-Xylene	----		< 2.0 U	< 2.0 U	--	< 1.0 U	< 2.0 U	< 10 U	< 10 U	< 1.0 U	--	--	--	--	--	< 2.0 U	< 1.0 U	< 1.0 U	--
Methyl acetate	7000		< 2.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 2.0 U	< 5.0 U	< 25 U	< 5.0 U	--	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--
Methyl cyclohexane	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
Methyl tert butyl ether (MTBE)	70		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	--	0.37 J	0.38 J	0.51 J	0.48 J	0.62 J	0.57 J	0.55 J	--
Methylene chloride	**3**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
o-Xylene	----		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
Styrene	100		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
Tetrachloroethene	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	600		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.63 J	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	**100**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.27 J	0.25 J	< 1.0 U
trans-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichlorofluoromethane (CFC-11)	2000		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trifluorotrichloroethane (Freon 113)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
Vinyl chloride	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene (total)	1000		--	--	< 2.0 U	--	--	--	--	--	< 3.0 U	0.63 J	0.84 J	--	--	--	--	--	< 3.0 U

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
B indicates compound detected in blank
J indicates an estimated value
R Indicates original laboratory result rejected during data validation
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
---- GWQS not published

Table 9A. Groundwater Analytical Results (September 2009-October 2014), Volatile Organic Compounds
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID:	MW-17A	MW-17A	MW-17A	MW-17A	MW-17A	MW-18	MW-18	MW-18	MW-18	MW-18	MW-18	MW-19	MW-19	MW-19	MW-19	MW-19
		Sample Date:	9/14/2010	9/16/2011	9/28/2012	10/3/2013	9/30/2014	9/10/2009	9/14/2010	9/14/2011	9/28/2012	10/2/2013	9/30/2014	9/15/2009	9/21/2010	9/21/2011	9/28/2012	10/1/2013
		Sample Name:	MW-17APB(091410)	MW-17APB (091611)	MW-17APB(092812)	MW-17APB(100313)	MW-17APB(093014)	MW-18PB (091009)	MW-18PB(091410)	MW-18PB(091411)	MW-18PB(092812)	MW-18PB (100213)	MW-18PB(093014)	MW-19PB (091509)	MW-19PB(092110)	MW-19PB (092111)	MW-19PB(092812)	MW-19PB (100113)
1,1,1-Trichloroethane	**30**		< 1.0 U	0.60 J	0.36 J	0.35 J	0.29 J	2	0.64 J	3	0.80 J	0.95 J	2.7	0.29 J	0.65 J	< 1.0 U	0.57 J	< 1.0 U
1,1,2,2-Tetrachloroethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	**50**		< 1.0 U	0.58 J	< 1.0 U	< 1.0 U	< 1.0 U	4.1	3.4	3.9	4.5	4.7	4.2	**64**	39	37	25 J	39
1,1-Dichloroethene	**1**		< 1.0 U	1	< 1.0 U	< 1.0 U	< 1.0 U	**3.4**	**1.8**	**1.5**	**1.8**	**2.7**	**1.8**	**3.5**	**6.7**	**2.1**	**2.6**	**5.1**
1,2,3-Trichlorobenzene	----		--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	--
1,2,4-Trichlorobenzene	9		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	0.02		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U
1,2-Dibromoethane	0.03		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U
1,2-Dichlorobenzene	600		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloroethane	**2**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**3.4**	1.2	2	0.53 J	< 1.0 U
1,2-Dichloropropane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichlorobenzene	600		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dichlorobenzene	75		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dioxane	**0.4**		--	< 2 U	< 2 U	--	--	--	--	< 2 U	< 2 U	--	--	--	--	**15**	**21**	--
2-Butanone	300		< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U
2-Chloroethyl vinyl ether	----		--	--	--	--	--	< 1.0 R	--	--	--	--	--	< 1.0 R	--	--	--	--
2-Hexanone	----		< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U
4-Methyl-2-pentanone	----		< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 UJ	< 5.0 U
Acetone	6000		< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U
Acrolein	5		--	--	--	--	--	< 4.0 U	--	--	--	--	--	< 4.0 U	--	--	--	--
Acrylonitrile	2		--	--	--	--	--	< 2.0 U	--	--	--	--	--	< 2.0 U	--	--	--	--
Benzene	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.31 J	< 1.0 U	0.23 J	0.13 J	< 1.0 U
Bromodichloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromoform	4		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromomethane (Methyl bromide)	10		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon disulfide	700		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	0.72 J	< 1.0 U	< 1.0 U	< 1.0 U
Carbon tetrachloride	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorobenzene	50		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.83 J	< 1.0 U	0.63 J	< 1.0 U	< 1.0 U
Chloroform (Trichloromethane)	70		< 1.0 U	< 1.0 U	0.27 J	0.31 J	0.30 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.13 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloromethane (Methyl chloride)	3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	**70**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	33	16	9.3	13 J	23
cis-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dibromochloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dichlorodifluoromethane (CFC-12)	1000		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	700		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Isopropyl benzene	700		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
m&p-Xylene	----		--	< 2.0 U	< 2.0 U	--	< 1.0 U	--	--	< 2.0 U	< 2.0 U	--	< 1.0 U	--	--	< 2.0 U	< 2.0 U	--
Methyl acetate	7000		< 2.0 U	< 2.0 U	< 1.0 U	< 5.0 U	< 5.0 U	--	< 2.0 U	< 2.0 U	< 1.0 U	< 5.0 U	< 5.0 U	--	< 2.0 U	< 2.0 U	< 1.0 U	< 5.0 U
Methyl cyclohexane	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Methyl tert butyl ether (MTBE)	70		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	0.50 J	0.34 J	< 1.0 U	< 1.0 U
Methylene chloride	**3**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.7	< 1.0 U	< 1.0 U	< 1.0 U
o-Xylene	----		--	< 1.0 U	< 1.0 U	--	--	--	--	< 1.0 U	< 1.0 U	--	--	--	--	< 1.0 U	< 1.0 U	--
Styrene	100		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.25 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.18 J	< 1.0 U	**1.4**	< 1.0 U	0.60 J	**2.2**
Toluene	600		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	**100**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.58 J	25	0.71 J	9.2	14	2.9
trans-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.37 J	0.32 J	0.19 J	0.31 J	0.31 J	0.14 J	**8.8**	**3.1**	**2**	**3.9**	**6.2**
Trichlorofluoromethane (CFC-11)	2000		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trifluorotrichloroethane (Freon 113)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl chloride	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**14**	**3.1**	**9.2**	**12**	**4.5**
Xylene (total)	1000		< 3.0 U	--	--	< 2.0 U	< 2.0 U	< 3.0 U	< 3.0 U	--	--	< 2.0 U	< 2.0 U	< 3.0 U	< 3.0 U	--	--	< 2.0 U

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
B indicates compound detected in blank
J indicates an estimated value
R Indicates original laboratory result rejected during data validation
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
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Table 9A. Groundwater Analytical Results (September 2009-October 2014), Volatile Organic Compounds
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID: / Sample Date: / Sample Name:	MW-19 10/2/2014 MW-19PB(100314)	MW-1B 9/10/2009 MW-1PB (091009)	MW-1B 9/10/2009 MW-1BPB (091009)	MW-1B 9/14/2010 DUP(091410)	MW-1B 9/14/2010 MW-1BPB(091410)	MW-1B 9/14/2011 MW-1BPB(091411)	MW-1B 9/25/2012 MW-1BPB(092512)	MW-1B 10/1/2013 DUP (100113)	MW-1B 10/1/2013 MW-1BPB (100113)	MW-1B 10/7/2014 MW-1BPB (100714)	MW-20 9/15/2009 MW-20BP (091509)	MW-20 9/21/2010 MW-20PB(092110)	MW-20 9/20/2011 MW-20PB (092011)	MW-20 9/25/2012 MW-20PB(092512)	MW-20 10/1/2013 MW-20PB (100113)	MW-20 10/7/2014 MW-20PB (100714)	MW-21 9/15/2009 MW-21PB (091509)
1,1,1-Trichloroethane	**30**		0.27 J	1.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	6.7	8.2	1.9	2.8	< 5.0 U	0.92 J	5.9
1,1,2,2-Tetrachloroethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	< 1.0 U
1,1,2-Trichloroethane	3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	< 1.0 U
1,1-Dichloroethane	**50**		26	1.8	0.14 J	< 1.0 U	< 1.0 U	0.12 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**89**	**99**	28	**82**	**70**	**53**	8
1,1-Dichloroethene	**1**		**2.1**	0.15 J	0.30 J	< 1.0 U	< 1.0 U	0.18 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**21**	**26**	0.81 J	**5.9**	< 5.0 U	**4.9**	**5.4**
1,2,3-Trichlorobenzene	----		< 1.0 U	--	--	--	--	< 1.0 U	< 1.0 U	--	--	--	--	--	< 1.0 U	< 2.0 U	--	--	--
1,2,4-Trichlorobenzene	9		< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	--
1,2-Dibromo-3-chloropropane (DBCP)	0.02		< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 5.0 U	< 1.0 U	--	< 5.0 U	< 2.0 U	--
1,2-Dibromoethane	0.03		< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 5.0 U	< 1.0 U	--	< 5.0 U	< 2.0 U	--
1,2-Dichlorobenzene	600		< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	--
1,2-Dichloroethane	**2**		0.66 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	< 1.0 U
1,2-Dichloropropane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	< 1.0 U
1,3-Dichlorobenzene	600		< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	--
1,4-Dichlorobenzene	75		< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	--
1,4-Dioxane	**0.4**		< 50 U	--	--	--	--	< 2 U	< 2 U	--	--	--	--	--	**3.6**	**13**	--	--	--
2-Butanone	300		< 5.0 U	--	--	< 10 U	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 50 U	< 10 U	< 10 U	< 25 U	< 10 U	--
2-Chloroethyl vinyl ether	----		--	< 1.0 R	< 1.0 R	--	--	--	--	--	--	--	< 5.0 R	--	--	--	--	--	< 1.0 R
2-Hexanone	----		< 5.0 U	--	--	< 10 U	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 50 U	< 10 U	< 10 U	< 25 U	< 10 U	--
4-Methyl-2-pentanone	----		< 5.0 U	--	--	< 10 U	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 50 U	< 10 U	< 10 U	< 25 U	< 10 U	--
Acetone	6000		< 5.0 U	--	--	< 10 U	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 50 U	< 10 U	< 10 U	< 25 U	< 10 U	--
Acrolein	5		--	< 4.0 U	< 4.0 U	--	--	--	--	--	--	--	< 20 U	--	--	--	--	--	< 4.0 U
Acrylonitrile	2		--	< 2.0 U	< 2.0 U	--	--	--	--	--	--	--	< 10 U	--	--	--	--	--	< 2.0 U
Benzene	**1**		0.17 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	0.36 J	< 5.0 U	0.19 J	< 1.0 U
Bromodichloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	< 1.0 U
Bromoform	4		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	< 1.0 U
Bromomethane (Methyl bromide)	10		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	< 1.0 U
Carbon disulfide	700		< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 5.0 U	1	< 2.0 U	< 5.0 U	< 2.0 U	--
Carbon tetrachloride	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	< 1.0 U
Chlorobenzene	50		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	< 1.0 U
Chloroethane	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	< 1.0 U
Chloroform (Trichloromethane)	70		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	< 1.0 U
Chloromethane (Methyl chloride)	3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	< 1.0 U
cis-1,2-Dichloroethene	**70**		13	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**1800**	**1700**	**94**	**600 J**	**1100**	**560**	3.8
cis-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	< 1.0 U
Cyclohexane	----		< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	--
Dibromochloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	< 1.0 U
Dichlorodifluoromethane (CFC-12)	1000		< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	--
Ethylbenzene	700		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	< 1.0 U
Isopropyl benzene	700		< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	--
m&p-Xylene	----		< 1.0 U	--	--	--	--	< 2.0 U	< 2.0 U	--	--	--	--	--	< 2.0 U	< 4.0 U	--	--	--
Methyl acetate	7000		< 5.0 U	--	--	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 2.0 U	< 2.0 U	< 25 U	< 10 U	--
Methyl cyclohexane	----		< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	--
Methyl tert butyl ether (MTBE)	70		0.23 J	--	--	0.33 J	0.33 J	0.27 J	0.35 J	< 1.0 U	< 1.0 U	0.31 J	--	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	--
Methylene chloride	**3**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	< 1.0 U
o-Xylene	----		< 1.0 U	--	--	--	--	< 1.0 U	< 1.0 U	--	--	--	--	--	< 1.0 U	< 2.0 U	--	--	--
Styrene	100		< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	--
Tetrachloroethene	**1**		0.49 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**1.6 J**	< 5.0 U	**1.4**	< 2.0 U	< 5.0 U	0.72 J	**14**
Toluene	600		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	0.16 J	< 2.0 U	< 5.0 U	< 2.0 U	< 1.0 U
trans-1,2-Dichloroethene	**100**		6.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**270**	**220**	37	**240**	**230**	**150**	0.36 J
trans-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	< 1.0 U
Trichloroethene	**1**		**3.7**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**97**	**100**	**6.5**	**19**	**53**	**14**	**4.3**
Trichlorofluoromethane (CFC-11)	2000		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	< 1.0 U
Trifluorotrichloroethane (Freon 113)	----		< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 5.0 U	< 1.0 U	< 2.0 U	< 5.0 U	< 2.0 U	--
Vinyl chloride	**1**		**8.5**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**550**	**800**	**310**	**340**	**630**	**430**	0.61 J
Xylene (total)	1000		--	< 3.0 U	< 3.0 U	< 3.0 U	< 3.0 U	--	--	< 2.0 U	< 2.0 U	< 2.0 U	< 15 U	< 15 U	--	--	< 10 U	< 4.0 U	< 3.0 U

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
B indicates compound detected in blank
J indicates an estimated value
R Indicates original laboratory result rejected during data validation
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
---- GWQS not published

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Constituent (ug/L)	NJDEP Groundwater Standards	Location ID: / Sample Date: / Sample Name:	MW-21 9/21/2010 MW-21PB(092110)	MW-21 9/20/2011 MW-21PB (092011)	MW-21 9/28/2012 MW-21PB(092812)	MW-21 10/2/2013 MW-21PB (100213)	MW-21 10/7/2014 MW-21PB (100714)	MW-31B2 9/15/2009 MW-31B2PB (091509)	MW-31B2 9/21/2010 MW-31B2PB(092110)	MW-31B2 9/20/2011 MW-31B2PB (092011)	MW-31B2 9/25/2012 MW-31B2PB(092512)	MW-31B2 10/8/2013 MW-31B2PB(100813)	MW-31B2 10/7/2014 MW-31B2PB (100714)	MW-31B3 9/16/2009 MW-31B3PB (091609)	MW-31B3 9/16/2010 MW-31B3PB (091610)	MW-31B3 9/21/2011 MW-31B 3PB (092111)	MW-31B3 10/1/2012 MW-31B3BP(100112)
1,1,1-Trichloroethane	**30**	4	3.8	4.3	5.2	5.8	1.5 J	1.7	1.2	1.3	1.2	0.99 J	0.81 J	0.62 J	0.38 J	0.56 J
1,1,2,2-Tetrachloroethane	1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.1 J	0.87 J	0.75 J	1	0.72 J	2	0.51 J	0.40 J	0.31 J	0.30 J
1,1-Dichloroethane	**50**	4.8	3.8	4.2	5.6	5.5	39	45	33	46	40	35	15	12	9.5	9.2
1,1-Dichloroethene	**1**	**3.9**	**1.9**	0.76 J	**4.4**	**3**	**57**	**83**	**45**	**49**	**75**	**51**	**32**	**24**	**17**	**24**
1,2,3-Trichlorobenzene	----	--	< 1.0 U	< 1.0 U	--	--	--	--	< 1.0 U	< 1.0 U	< 1.0 UJ	--	--	--	< 1.0 U	< 1.0 U
1,2,4-Trichlorobenzene	9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	0.02	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--
1,2-Dibromoethane	0.03	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--
1,2-Dichlorobenzene	600	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloroethane	**2**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**2.2**	**2.3**	1.6	1.9	1.9	2	0.66 J	0.54 J	0.41 J	0.44 J
1,2-Dichloropropane	1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichlorobenzene	600	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dichlorobenzene	75	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dioxane	**0.4**	--	< 2 U	**2.4**	--	--	--	--	**31**	**41 J**	--	--	--	--	**11**	**14**
2-Butanone	300	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U
2-Chloroethyl vinyl ether	----	--	--	--	--	--	< 2.0 R	--	--	--	--	--	< 1.0 R	--	--	--
2-Hexanone	----	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U
4-Methyl-2-pentanone	----	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U
Acetone	6000	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U
Acrolein	5	--	--	--	--	--	< 8.0 U	--	--	--	--	--	< 4.0 U	--	--	--
Acrylonitrile	2	--	--	--	--	--	< 4.0 U	--	--	--	--	--	< 2.0 U	--	--	--
Benzene	**1**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	0.20 J	0.17 J	0.26 J	< 1.0 U	0.20 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromodichloromethane	1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromoform	4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromomethane (Methyl bromide)	10	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon disulfide	700	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
Carbon tetrachloride	**1**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorobenzene	50	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	----	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroform (Trichloromethane)	70	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.56 J	0.66 J	0.54 J	0.58 J	0.58 J	0.50 J	2.2	2	1.7	2.2
Chloromethane (Methyl chloride)	3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	**70**	3.2	1.9	2.3	2.9	2.3	39	42	33	36	44	38	16	14	11	13
cis-1,3-Dichloropropene	1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dibromochloromethane	1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dichlorodifluoromethane (CFC-12)	1000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	700	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Isopropyl benzene	700	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
m&p-Xylene	----	--	< 2.0 U	< 2.0 U	--	--	--	--	< 2.0 U	< 2.0 U	< 2.0 U	--	--	--	< 2.0 U	< 2.0 U
Methyl acetate	7000	< 2.0 U	< 2.0 U	< 1.0 UJ	< 5.0 U	< 5.0 U	--	< 2.0 U	< 2.0 U	< 1.0 U	< 5.0 U	< 5.0 U	--	< 2.0 U	< 2.0 U	< 1.0 U
Methyl cyclohexane	----	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
Methyl tert butyl ether (MTBE)	70	< 1.0 U	< 1.0 U	< 1.0 U	0.33 J	0.19 J	--	2	1.5	1.6	1.5	1.1	--	0.63 J	0.43 J	0.50 J
Methylene chloride	**3**	**3.4**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
o-Xylene	----	--	< 1.0 U	< 1.0 U	--	--	--	--	< 1.0 U	< 1.0 U	--	--	--	--	< 1.0 U	< 1.0 U
Styrene	100	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	**1**	**10**	**8.3**	**9.6**	**14**	**15**	**59**	**77**	**71**	**62**	**72 J**	**62**	**29**	**25**	**16**	**27**
Toluene	600	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	**100**	0.29 J	< 1.0 U	0.20 J	< 1.0 U	< 1.0 U	5.1	6.8	5.1	8.1	9.3	7.7	0.95 J	0.60 J	0.45 J	0.60 J
trans-1,3-Dichloropropene	1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	**1**	**2.6**	**1.6**	**3.7**	**3.9**	**2.9**	**420**	**380 D**	**380**	**380**	**390**	**320**	**280**	**210**	**190**	**250**
Trichlorofluoromethane (CFC-11)	2000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.1	6.4	3	2.9	4.1	3.1	13	12	11	21
Trifluorotrichloroethane (Freon 113)	----	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	0.43 J	0.34 J	< 1.0 U	0.31 J	--	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl chloride	**1**	< 1.0 U	< 1.0 U	0.31 J	0.39 J	0.21 J	**6.8**	**9.3**	**5.5**	**5.8**	**8.4**	**7**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene (total)	1000	< 3.0 U	--	--	< 2.0 U	< 2.0 U	< 6.0 U	< 3.0 U	--	--	< 2.0 U	< 2.0 U	< 3.0 U	< 3.0 U	--	--

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
B indicates compound detected in blank
J indicates an estimated value
R Indicates original laboratory result rejected during data validation
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
---- GWQS not published

Table 9A. Groundwater Analytical Results (September 2009-October 2014), Volatile Organic Compounds
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID:	MW-31B3	MW-31B3	MW-31B3	MW-36B	MW-36B	MW-36B	MW-36B	MW-36B	MW-36B	MW-37	MW-37	MW-37	MW-37	MW-37	MW-37	MW-37B
		Sample Date:	10/4/2013	10/8/2014	10/8/2014	9/10/2009	9/15/2010	9/15/2011	9/25/2012	10/4/2013	9/30/2014	9/14/2009	9/17/2010	9/14/2011	9/26/2012	10/2/2013	10/1/2014	9/14/2009
		Sample Name:	MW-31B3PB(100413)	DUP(100814)	MW-31B3(100814)	MW-36BPB (091009)	MW-36BPB (091510)	MW-36BPB (091511)	MW-36BPB(092512)	MW-36BPB(100413)	MW-36BPB(093014)	MW-37PB (091409)	MW-37PB (091710)	MW-37PB(091411)	MW-37PB(092612)	MW-37PB (100213)	MW-37PB(1001114)	MW-37BPB (091409)
1,1,1-Trichloroethane	**30**		< 1.0 U	0.23 J	0.20 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.72 J
1,1,2,2-Tetrachloroethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	**50**		9.1	7.2	6.6	0.30 J	0.86 J	0.43 J	1	< 1.0 U	0.59 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.62 J
1,1-Dichloroethene	**1**		**17**	**12**	**12**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.25 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**8.7**
1,2,3-Trichlorobenzene	----		--	< 1.0 U	< 1.0 U	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--
1,2,4-Trichlorobenzene	9		< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
1,2-Dibromo-3-chloropropane (DBCP)	0.02		< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--
1,2-Dibromoethane	0.03		< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--
1,2-Dichlorobenzene	600		< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
1,2-Dichloroethane	**2**		< 1.0 U	0.32 J	0.30 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloropropane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichlorobenzene	600		< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
1,4-Dichlorobenzene	75		< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
1,4-Dioxane	**0.4**		--	< 50 U	< 50 U	--	--	< 2 U	**2**	--	--	--	--	< 2 U	< 2 U	--	< 50 U	--
2-Butanone	300		< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--
2-Chloroethyl vinyl ether	----		--	--	--	< 1.0 R	--	--	--	--	--	< 1.0 R	--	--	--	--	--	< 1.0 R
2-Hexanone	----		< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--
4-Methyl-2-pentanone	----		< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--
Acetone	6000		< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--
Acrolein	5		--	--	--	< 4.0 U	--	--	--	--	--	< 4.0 U	--	--	--	--	--	< 4.0 U
Acrylonitrile	2		--	--	--	< 2.0 U	--	--	--	--	--	< 2.0 U	--	--	--	--	--	< 2.0 U
Benzene	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromodichloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromoform	4		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromomethane (Methyl bromide)	10		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon disulfide	700		< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
Carbon tetrachloride	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**2.5**
Chlorobenzene	50		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroform (Trichloromethane)	70		2.2	1.7	1.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.12 J	0.12 J	1.9
Chloromethane (Methyl chloride)	3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	**70**		12	9.6	8.8	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Cyclohexane	----		< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
Dibromochloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dichlorodifluoromethane (CFC-12)	1000		< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
Ethylbenzene	700		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Isopropyl benzene	700		< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
m&p-Xylene	----		--	< 1.0 U	< 1.0 U	--	--	< 2.0 U	< 2.0 U	--	< 1.0 U	--	--	< 2.0 U	< 2.0 U	--	< 1.0 U	--
Methyl acetate	7000		< 5.0 U	< 5.0 U	< 5.0 U	--	< 2.0 U	< 2.0 U	< 1.0 U	< 5.0 U	< 5.0 U	--	< 2.0 U	< 2.0 U	< 1.0 U	< 5.0 U	< 5.0 U	--
Methyl cyclohexane	----		< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
Methyl tert butyl ether (MTBE)	70		< 1.0 U	0.32 J	0.34 J	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
Methylene chloride	**3**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
o-Xylene	----		--	< 1.0 U	< 1.0 U	--	--	< 1.0 U	< 1.0 U	--	--	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--
Styrene	100		< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
Tetrachloroethene	**1**		**17**	**13**	**12**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	600		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	**100**		< 1.0 U	0.30 J	0.38 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	**1**		**240**	**200**	**190**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**3.6**	**2.8**	**2.9**	**2.9**	**2.9**	**3.2**	**16**
Trichlorofluoromethane (CFC-11)	2000		20	15	14	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trifluorotrichloroethane (Freon 113)	----		< 1.0 U	0.81 J	0.74 J	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
Vinyl chloride	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene (total)	1000		< 2.0 U	--	--	< 3.0 U	< 3.0 U	--	--	< 2.0 U	< 2.0 U	< 3.0 U	< 3.0 U	--	--	< 2.0 U	--	< 3.0 U

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
B indicates compound detected in blank
J indicates an estimated value
R Indicates original laboratory result rejected during data validation
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
---- GWQS not published

Table 9A. Groundwater Analytical Results (September 2009-October 2014), Volatile Organic Compounds
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID:	MW-37B	MW-37B	MW-37B	MW-37B	MW-37B	MW-37B2	MW-37B2	MW-37B2	MW-37B2	MW-37B2	MW-37B2	MW-37B3	MW-37B3	MW-37B3	MW-37B3
		Sample Date:	9/17/2010	9/15/2011	9/26/2012	10/2/2013	10/1/2014	9/14/2009	9/17/2010	9/14/2011	9/26/2012	10/2/2013	10/1/2014	9/14/2009	9/17/2010	9/14/2011	9/26/2012
		Sample Name:	MW-37BPB (091710)	MW-37BPB (091511)	MW-37BPB(092612)	MW-37BPB (100213)	MW-37BPB(1001114)	MW-37B2PB (091409)	MW-37B2PB (091710)	MW-37B2PB(091411)	MW-37B2PB(092612)	MW-37B2PB (100213)	MW-37B2PB(1001114)	MW-37B3PB (091409)	MW-37B3PB (091710)	MW-37B3PB(091411)	MW-37B3PB(092612)
1,1,1-Trichloroethane	**30**		0.46 J	0.33 J	0.39 J	< 1.0 U	0.35 J	0.68 J	0.55 J	0.32 J	0.34 J	0.26 J	0.17 J	0.80 J	0.75 J	0.50 J	0.56 J
1,1,2,2-Tetrachloroethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.44 J	< 1.0 U	< 1.0 U	< 1.0 U	0.28 J	< 1.0 U	0.61 J	0.36 J	< 1.0 U	0.56 J
1,1-Dichloroethane	**50**		0.43 J	0.50 J	0.54 J	0.45 J	< 1.0 U	11	9.4	7	9.9	8	8	15	11	9.3	11
1,1-Dichloroethene	**1**		**6.3**	**5.5**	**5.9**	**8**	**4.9**	**38**	**34**	**19**	**23**	**32**	**23**	**40**	**31**	**21**	**16**
1,2,3-Trichlorobenzene	----		--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U
1,2,4-Trichlorobenzene	9		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	0.02		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--
1,2-Dibromoethane	0.03		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--
1,2-Dichlorobenzene	600		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloroethane	**2**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.52 J	0.38 J	0.33 J	0.49 J	0.32 J	0.36 J	0.51 J	0.36 J	0.33 J	< 1.0 U
1,2-Dichloropropane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichlorobenzene	600		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dichlorobenzene	75		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dioxane	**0.4**		--	**12**	**13**	--	< 50 U	--	--	**14**	**21**	--	< 50 U	--	--	**11**	**13**
2-Butanone	300		< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U
2-Chloroethyl vinyl ether	----		--	--	--	--	--	< 1.0 R	--	--	--	--	--	< 1.0 R	--	--	--
2-Hexanone	----		< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U
4-Methyl-2-pentanone	----		< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U
Acetone	6000		< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U
Acrolein	5		--	--	--	--	--	< 4.0 U	--	--	--	--	--	< 4.0 U	--	--	--
Acrylonitrile	2		--	--	--	--	--	< 2.0 U	--	--	--	--	--	< 2.0 U	--	--	--
Benzene	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromodichloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromoform	4		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromomethane (Methyl bromide)	10		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon disulfide	700		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
Carbon tetrachloride	**1**		**2.1**	**2.8**	**2.6**	**3**	**1.2**	**2.3**	**1.9**	**1.6**	**1.3**	**1.2**	0.97 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorobenzene	50		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroform (Trichloromethane)	70		1.6	< 2.2 UB	2.1	2.1	0.90 J	1.7	1.5	< 1.2 UB	1.5	1.3	1.2	2.1	1.7	< 1.6 UB	1.7
Chloromethane (Methyl chloride)	3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	**70**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	11	9.6	7.2	7.6	9.8	8.3	13	11	9.2	8.2
cis-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Cyclohexane	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
Dibromochloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dichlorodifluoromethane (CFC-12)	1000		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	700		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Isopropyl benzene	700		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
m&p-Xylene	----		--	< 2.0 U	< 2.0 U	--	< 1.0 U	--	--	< 2.0 U	< 2.0 U	--	< 1.0 U	--	--	< 2.0 U	< 2.0 U
Methyl acetate	7000		< 2.0 U	< 2.0 U	< 1.0 U	< 5.0 U	< 5.0 U	--	< 2.0 U	< 2.0 U	< 1.0 U	< 5.0 U	< 5.0 U	--	< 2.0 U	< 2.0 U	< 1.0 U
Methyl cyclohexane	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
Methyl tert butyl ether (MTBE)	70		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	3.7	1.9	3.7	3.7	3.1	--	1	0.59 J	0.48 J
Methylene chloride	**3**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
o-Xylene	----		--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U
Styrene	100		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**59**	**55**	**43**	**41**	**42**	**38**	**48**	**38**	**33**	**26**
Toluene	600		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	**100**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.36 J	0.30 J	0.22 J	< 1.0 U	0.24 J	0.27 J	0.40 J	0.24 J	0.27 J	< 1.0 U
trans-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	**1**		**12**	**13**	**13**	**15**	**13**	**150**	**130**	**120**	**140**	**150**	**130**	**250**	**210**	**200**	**200**
Trichlorofluoromethane (CFC-11)	2000		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	6.1	5.4	5.2	5.6	9	7.1	11	9.4	8.4	8
Trifluorotrichloroethane (Freon 113)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	0.31 J	< 1.0 U	< 1.0 U	0.37 J	--	< 1.0 U	0.49 J	0.49 J
Vinyl chloride	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene (total)	1000		< 3.0 U	--	--	< 2.0 U	--	< 3.0 U	< 3.0 U	--	--	< 2.0 U	--	< 3.0 U	< 3.0 U	--	--

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
B indicates compound detected in blank
J indicates an estimated value
R Indicates original laboratory result rejected during data validation
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
---- GWQS not published

Table 9A. Groundwater Analytical Results (September 2009-October 2014), Volatile Organic Compounds
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID:	MW-37B3	MW-37B3	MW-38	MW-38	MW-38	MW-38	MW-38	MW-38	MW-38	MW-38	MW-38B	MW-38B	MW-38B	MW-38B	MW-38B	MW-38B	MW-38B
		Sample Date:	10/2/2013	10/1/2014	9/11/2009	9/15/2010	9/14/2011	9/27/2012	9/28/2012	10/2/2013	10/2/2013	9/30/2014	9/11/2009	9/15/2010	9/14/2011	10/1/2012	10/1/2012	10/2/2013	9/30/2014
		Sample Name:	MW-37B3PB (100213)	MW-37B3PB(1001114)	MW-38PB (091109)	MW-38PB (091510)	MW-38PB(091411)	MW-38PB(092712)	DUP (092712)	DUP (100213)	MW-38PB (100213)	MW-38PB(093014)	MW-38BPB (091109)	MW-38BPB (091510)	MW-38BPB(091411)	DUP(100112)	MW-38BPB(100112)	MW-38BPB (100213)	MW-38BPB(093014)
1,1,1-Trichloroethane	**30**		0.43 J	0.32 J	2.6	2.6	1.9	2.2	2.2	1.9	1.8	1.1	2.2	1.9	0.97 J	1.5	1.4	0.70 J	< 1.0 U
1,1,2,2-Tetrachloroethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	3		0.39 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.65 J	0.39 J	< 1.0 U	< 1.0 U	< 1.0 U	0.32 J	< 1.0 U
1,1-Dichloroethane	**50**		9	7.3	2.5	2.4	1.5	1.6	1.6	1.9	1.9	1.3	45	37	32	29	27	35	27
1,1-Dichloroethene	**1**		**28**	**17**	0.59 J	0.65 J	< 1.0 U	0.74 J	0.70 J	< 1.0 U	0.42 J	0.14 J	**62**	**50**	**28**	**44**	**41**	**34**	**31**
1,2,3-Trichlorobenzene	----		--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	< 1.0 U	--	--	< 1.0 UJ	< 1.0 U	< 1.0 U	--	< 1.0 U
1,2,4-Trichlorobenzene	9		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	0.02		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 UJ	--	--	< 1.0 U	< 1.0 U
1,2-Dibromoethane	0.03		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	--	< 1.0 U	< 1.0 U
1,2-Dichlorobenzene	600		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloroethane	**2**		0.35 J	0.29 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	0.89 J	0.60 J	0.77 J	0.75 J	0.62 J	0.61 J
1,2-Dichloropropane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichlorobenzene	600		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dichlorobenzene	75		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dioxane	**0.4**		--	< 50 U	--	--	< 2 U	< 2 U	< 2 U	--	--	--	--	--	**44 J**	**79**	**69**	--	--
2-Butanone	300		< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2-Chloroethyl vinyl ether	----		--	--	< 1.0 R	--	--	--	--	--	--	--	< 1.0 R	--	--	--	--	--	--
2-Hexanone	----		< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
4-Methyl-2-pentanone	----		< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Acetone	6000		< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Acrolein	5		--	--	< 4.0 U	--	--	--	--	--	--	--	< 4.0 U	--	--	--	--	--	--
Acrylonitrile	2		--	--	< 2.0 U	--	--	--	--	--	--	--	< 2.0 U	--	--	--	--	--	--
Benzene	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.33 J	0.25 J	0.29 J	0.20 J	0.22 J	0.30 J	0.29 J
Bromodichloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromoform	4		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromomethane (Methyl bromide)	10		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon disulfide	700		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon tetrachloride	**1**		0.15 J	0.14 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorobenzene	50		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroform (Trichloromethane)	70		1.8	1.5	0.43 J	0.22 J	< 1.0 U	< 1.0 U	< 1.0 U	0.12 J	0.11 J	< 1.0 U	0.23 J	< 1.0 U	< 1.0 UB	< 1.0 U	< 1.0 U	0.12 J	0.15 J
Chloromethane (Methyl chloride)	3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	**70**		11	8.1	5.3	7.4	4	6.7	6.2	6.9	7.1	4.2	**74**	68	58	64	60	70	52
cis-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Cyclohexane	----		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dibromochloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dichlorodifluoromethane (CFC-12)	1000		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	700		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.22 J	0.11 J	< 1.0 U	0.12 J
Isopropyl benzene	700		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
m&p-Xylene	----		--	< 1.0 U	--	--	< 2.0 U	< 2.0 U	< 2.0 U	--	--	< 1.0 U	--	--	< 2.0 U	0.42 J	0.35 J	--	0.50 J
Methyl acetate	7000		< 5.0 U	< 5.0 U	--	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U
Methyl cyclohexane	----		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Methyl tert butyl ether (MTBE)	70		0.58 J	0.41 J	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	0.36 J	0.26 J	0.32 J	0.33 J	0.38 J	0.33 J
Methylene chloride	**3**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
o-Xylene	----		--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	--	--	< 1.0 U	0.17 J	< 1.0 U	--	--
Styrene	100		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	**1**		**25**	**20**	**26**	**28**	**25**	**37**	**36**	**26**	**26**	**22**	**50**	**46**	**29**	**46**	**41**	**10**	**26**
Toluene	600		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J
trans-1,2-Dichloroethene	**100**		0.17 J	< 1.0 U	< 1.0 U	0.16 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.4	2.8	3	4.3	4.4	15	4.2
trans-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	**1**		**220**	**190**	**11**	**13**	**8.6**	**11**	**10**	**11**	**11**	**8.3**	**19**	**16**	**13**	**19**	**17**	**12**	**15**
Trichlorofluoromethane (CFC-11)	2000		15	12	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trifluorotrichloroethane (Freon 113)	----		< 1.0 U	0.51 J	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl chloride	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**20**	**20**	**15**	**15**	**14**	**24**	**12**
Xylene (total)	1000		< 2.0 U	--	< 3.0 U	< 3.0 U	--	--	--	< 2.0 U	< 2.0 U	< 2.0 U	< 3.0 U	< 3.0 U	--	--	--	< 2.0 U	0.75 J

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
B indicates compound detected in blank
J indicates an estimated value
R Indicates original laboratory result rejected during data validation
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
---- GWQS not published

Table 9A. Groundwater Analytical Results (September 2009-October 2014), Volatile Organic Compounds
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID:	MW-39	MW-39	MW-39	MW-39	MW-39B	MW-39B	MW-39B	MW-39B	MW-39B	MW-39B	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4
		Sample Date:	9/10/2009	9/16/2010	9/13/2011	8/27/2014	9/10/2009	9/16/2010	9/13/2011	9/26/2012	10/3/2013	8/27/2014	9/10/2009	9/16/2010	9/13/2011	9/25/2012	10/3/2013	8/27/2014	8/27/2014
		Sample Name:	MW-39PB (091009)	MW-39PB (091610)	MW-39PB (091311)	MW-39PB (082714)	MW-39BPB (091009)	MW-39BPB (091610)	MW-39BPB (091311)	MW-39BPB(092612)	MW-39B(100313)	MW-39BPB (082714)	MW-4PB (091009)	MW-4PB (091610)	MW-4PB (091311)	MW-4PB(092512)	MW-4PB(100313)	DUP082714	MW-4PB (082714)
1,1,1-Trichloroethane	**30**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.27 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2,2-Tetrachloroethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	**50**		0.21 J	< 1.0 U	< 1.0 U	0.13 J	0.36 J	0.28 J	0.24 J	< 1.0 U	0.22 J	< 1.0 U	1.4	1.1	0.95 J	1.2	< 1.0 U	0.48 J	0.65 J
1,1-Dichloroethene	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.39 J	< 1.0 U	< 1.0 U	< 1.0 U	0.31 J	< 1.0 U	0.74 J	0.62 J	0.41 J	0.39 J	< 1.0 U	0.45 J	0.45 J
1,2,3-Trichlorobenzene	----		--	--	< 1.0 U	< 1.0 U	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U
1,2,4-Trichlorobenzene	9		--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	0.02		--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromoethane	0.03		--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichlorobenzene	600		--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloroethane	**2**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloropropane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichlorobenzene	600		--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dichlorobenzene	75		--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dioxane	**0.4**		--	--	< 2 U	--	--	--	< 2 U	< 2 U	--	--	--	--	< 2 U	< 2 U	--	--	--
2-Butanone	300		--	< 10 U	< 10 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2-Chloroethyl vinyl ether	----		< 1.0 R	--	--	--	< 1.0 R	--	--	--	--	--	< 1.0 R	--	--	--	--	--	--
2-Hexanone	----		--	< 10 U	< 10 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
4-Methyl-2-pentanone	----		--	< 10 U	< 10 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Acetone	6000		--	< 10 U	< 10 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Acrolein	5		< 4.0 U	--	--	--	< 4.0 U	--	--	--	--	--	< 4.0 U	--	--	--	--	--	--
Acrylonitrile	2		< 2.0 U	--	--	--	< 2.0 U	--	--	--	--	--	< 2.0 U	--	--	--	--	--	--
Benzene	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromodichloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromoform	4		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromomethane (Methyl bromide)	10		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon disulfide	700		--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon tetrachloride	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorobenzene	50		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroform (Trichloromethane)	70		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.14 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloromethane (Methyl chloride)	3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	**70**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Cyclohexane	----		--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dibromochloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dichlorodifluoromethane (CFC-12)	1000		--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	700		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Isopropyl benzene	700		--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
m&p-Xylene	----		--	--	< 2.0 U	< 1.0 U	--	--	< 2.0 U	< 2.0 U	--	< 1.0 U	--	--	< 2.0 U	0.27 J	--	< 1.0 U	< 1.0 U
Methyl acetate	7000		--	< 2.0 U	< 2.0 U	< 5.0 U	--	< 2.0 U	< 2.0 U	< 1.0 U	< 5.0 U	< 5.0 U	--	< 2.0 U	< 2.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Methyl cyclohexane	----		--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Methyl tert butyl ether (MTBE)	70		--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Methylene chloride	**3**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
o-Xylene	----		--	--	< 1.0 U	--	--	--	< 1.0 U	< 1.0 U	--	--	--	--	< 1.0 U	< 1.0 U	--	--	--
Styrene	100		--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	600		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.16 J	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	**100**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	**1**		**4.1**	**3**	**2.5**	**2.1**	**4.4**	**4.4**	**4.8**	**4.4**	**4.8**	**3.9**	**1.3**	**1.1**	**1.1**	**1.1**	1	**1.1**	0.98 J
Trichlorofluoromethane (CFC-11)	2000		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trifluorotrichloroethane (Freon 113)	----		--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl chloride	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene (total)	1000		< 3.0 U	< 3.0 U	--	< 2.0 U	< 3.0 U	< 3.0 U	--	--	< 2.0 U	< 2.0 U	< 3.0 U	< 3.0 U	--	--	< 2.0 U	< 2.0 U	< 2.0 U

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
B indicates compound detected in blank
J indicates an estimated value
R Indicates original laboratory result rejected during data validation
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
---- GWQS not published

Table 9A. Groundwater Analytical Results (September 2009-October 2014), Volatile Organic Compounds
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID: / Sample Date: / Sample Name:	MW-40 9/9/2009 MW-40PB (090909)	MW-40 9/14/2010 MW-40PB(091410)	MW-40 9/15/2011 MW-40PB (091511)	MW-40 9/27/2012 MW-40PB(092712)	MW-40 10/3/2013 DUP(100313)	MW-40 10/3/2013 MW-40PB(100313)	MW-40 10/1/2014 MW-40PB(100114)	MW-41 9/9/2009 MW-41PB (090909)	MW-41 9/14/2010 MW-41PB(091410)	MW-41 9/15/2011 MW-41PB (091511)	MW-41 9/27/2012 MW-41PB(092712)	MW-41 10/3/2013 MW-41PB(100313)	MW-41 10/6/2014 MW-41PB (100614)	MW-42 9/9/2009 MW-42PB (090909)	MW-42 9/14/2010 MW-42PB(091410)	MW-42 9/15/2011 MW-42PB (091511)	MW-42 9/27/2012 MW-42PB(092712)
1,1,1-Trichloroethane	**30**		0.37 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.21 J	< 1.0 U	0.55 J	0.55 J	0.38 J	0.45 J	0.44 J	0.18 J	1.4	1.5	< 1.0 U	0.87 J
1,1,2,2-Tetrachloroethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	**50**		0.23 J	0.29 J	0.31 J	< 1.0 U	0.26 J	< 1.0 U	< 1.0 U	0.93 J	0.79 J	0.53 J	0.56 J	0.64 J	< 1.0 U	10	15	1.3	15
1,1-Dichloroethene	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**3.1**	**2.4**	**1.4**	**2.9**	**2.4**	0.52 J	**2.3**	**2.1**	< 1.0 U	**1.7**
1,2,3-Trichlorobenzene	----		--	--	< 1.0 U	< 1.0 U	--	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	--	--	--	--	< 1.0 U	< 1.0 U
1,2,4-Trichlorobenzene	9		--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	0.02		--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--
1,2-Dibromoethane	0.03		--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--
1,2-Dichlorobenzene	600		--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloroethane	**2**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloropropane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichlorobenzene	600		--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dichlorobenzene	75		--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dioxane	**0.4**		--	--	< 2 U	< 2 U	--	--	< 50 U	--	--	< 2 U	< 2 U	--	--	--	--	< 2 U	**20**
2-Butanone	300		--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U
2-Chloroethyl vinyl ether	----		< 1.0 R	--	--	--	--	--	--	< 1.0 R	--	--	--	--	--	< 1.0 R	--	--	--
2-Hexanone	----		--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U
4-Methyl-2-pentanone	----		--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U
Acetone	6000		--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U
Acrolein	5		< 4.0 U	--	--	--	--	--	--	< 4.0 U	--	--	--	--	--	< 4.0 U	--	--	--
Acrylonitrile	2		< 2.0 U	--	--	--	--	--	--	< 2.0 U	--	--	--	--	--	< 2.0 U	--	--	--
Benzene	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromodichloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromoform	4		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromomethane (Methyl bromide)	10		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon disulfide	700		--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
Carbon tetrachloride	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorobenzene	50		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroform (Trichloromethane)	70		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.46 J	0.44 J	< 1.0 U	0.16 J
Chloromethane (Methyl chloride)	3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	**70**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.6	1.6	1.2	1.4	1.4	0.68 J	0.69 J	0.55 J	< 1.0 U	< 1.0 U
cis-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dibromochloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dichlorodifluoromethane (CFC-12)	1000		--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	700		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.46 J
Isopropyl benzene	700		--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
m&p-Xylene	----		--	--	< 2.0 U	< 2.0 U	--	--	< 1.0 U	--	--	< 2.0 U	< 2.0 U	--	--	--	--	< 2.0 U	1.3 J
Methyl acetate	7000		--	< 2.0 U	< 2.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 2.0 U	< 2.0 U	< 1.0 U	< 5.0 U	< 5.0 U	--	< 2.0 U	< 2.0 U	< 1.0 U
Methyl cyclohexane	----		--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
Methyl tert butyl ether (MTBE)	70		--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
Methylene chloride	**3**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
o-Xylene	----		--	--	< 1.0 U	< 1.0 U	--	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	--	--	--	--	< 1.0 U	0.40 J
Styrene	100		--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	**1**		**1.8**	**1.2**	**1.7**	**2.1**	**1.2**	**1.3**	**1.3**	**33**	**29**	**20**	**40**	**31**	**11**	0.56 J	0.64 J	< 1.0 U	< 1.0 U
Toluene	600		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.23 J
trans-1,2-Dichloroethene	**100**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	**1**		0.93 J	0.38 J	0.57 J	0.56 J	0.59 J	0.53 J	0.65 J	**1.2**	**1.2**	0.96 J	1	**1.2**	0.66 J	0.87 J	0.69 J	< 1.0 U	0.41 J
Trichlorofluoromethane (CFC-11)	2000		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trifluorotrichloroethane (Freon 113)	----		--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl chloride	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene (total)	1000		< 3.0 U	< 3.0 U	--	--	< 2.0 U	< 2.0 U	--	< 3.0 U	< 3.0 U	--	--	< 2.0 U	< 2.0 U	< 3.0 U	< 3.0 U	--	--

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
B indicates compound detected in blank
J indicates an estimated value
R Indicates original laboratory result rejected during data validation
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
---- GWQS not published

Table 9A. Groundwater Analytical Results (September 2009-October 2014), Volatile Organic Compounds
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID:	MW-42	MW-42	MW-43	MW-43	MW-43	MW-43	MW-43	MW-43	MW-43	MW-44	MW-44	MW-44	MW-44	MW-44	MW-44	MW-44	MW-45
		Sample Date:	10/3/2013	10/6/2014	9/9/2009	9/14/2010	9/15/2011	9/15/2011	9/27/2012	10/3/2013	10/1/2014	9/9/2009	9/14/2010	9/20/2011	9/20/2011	9/27/2012	10/3/2013	10/8/2014	9/9/2009
		Sample Name:	MW-42PB(100313)	MW-42PB (100614)	MW-43PB (090909)	MW-43PB(091410)	DUPPB (091511)	MW-43PB (091511)	MW-43PB(092712)	MW-43PB(100313)	MW-43PB(100114)	MW-44PB (090909)	MW-44PB(091410)	DUP02 (092011)	MW-44PB (092011)	MW-44PB(092712)	MW-44PB(100313)	MW-44(100814)	MW-45PB (090909)
1,1,1-Trichloroethane	**30**		0.91 J	0.81 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.31 J	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	0.32 J	< 1.0 U
1,1,2,2-Tetrachloroethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	**50**		21	13	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethene	**1**		**2**	**1.3**	< 1.0 U	0.75 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.67 J	< 1.0 U	0.33 J	0.39 J	< 1.0 U	0.55 J	0.41 J	0.68 J
1,2,3-Trichlorobenzene	----		--	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	--	--	< 1.0 UJ	< 1.0 UJ	< 1.0 U	--	< 1.0 U	--
1,2,4-Trichlorobenzene	9		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
1,2-Dibromo-3-chloropropane (DBCP)	0.02		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 UJ	< 1.0 U	--	< 1.0 U	< 1.0 U	--
1,2-Dibromoethane	0.03		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 UJ	< 1.0 U	--	< 1.0 U	< 1.0 U	--
1,2-Dichlorobenzene	600		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
1,2-Dichloroethane	**2**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloropropane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichlorobenzene	600		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
1,4-Dichlorobenzene	75		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
1,4-Dioxane	**0.4**		--	--	--	--	< 50 U	< 50 U	< 2 U	--	< 50 U	--	--	< 2 U	< 2 U	< 2 U	--	< 50 U	--
2-Butanone	300		< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 UJ	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--
2-Chloroethyl vinyl ether	----		--	--	< 1.0 R	--	--	--	--	--	--	< 1.0 R	--	--	--	--	--	--	< 1.0 R
2-Hexanone	----		< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 UJ	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--
4-Methyl-2-pentanone	----		< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 UJ	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--
Acetone	6000		< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 UJ	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--
Acrolein	5		--	--	< 4.0 U	--	--	--	--	--	--	< 4.0 U	--	--	--	--	--	--	< 4.0 U
Acrylonitrile	2		--	--	< 2.0 U	--	--	--	--	--	--	< 2.0 U	--	--	--	--	--	--	< 2.0 U
Benzene	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromodichloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromoform	4		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromomethane (Methyl bromide)	10		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon disulfide	700		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	--
Carbon tetrachloride	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorobenzene	50		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroform (Trichloromethane)	70		0.21 J	0.13 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloromethane (Methyl chloride)	3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	**70**		0.42 J	0.24 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Cyclohexane	----		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
Dibromochloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dichlorodifluoromethane (CFC-12)	1000		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
Ethylbenzene	700		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Isopropyl benzene	700		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
m&p-Xylene	----		--	--	--	--	< 2.0 U	< 2.0 U	< 2.0 U	--	< 1.0 U	--	--	< 2.0 UJ	< 2.0 U	< 2.0 U	--	< 1.0 U	--
Methyl acetate	7000		< 5.0 U	< 5.0 U	--	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 5.0 U	< 5.0 U	--	< 2.0 U	< 2.0 UJ	< 2.0 U	< 1.0 U	< 5.0 U	< 5.0 U	--
Methyl cyclohexane	----		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
Methyl tert butyl ether (MTBE)	70		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	0.20 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
Methylene chloride	**3**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
o-Xylene	----		--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	--	--	< 1.0 UJ	< 1.0 U	< 1.0 U	--	< 1.0 U	--
Styrene	100		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
Tetrachloroethene	**1**		0.40 J	0.32 J	< 1.0 U	**2.1**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**2.7**	< 1.0 U	**1.6 J**	**1.6**	**1.6**	**2.1**	**2.1**	**2.6**
Toluene	600		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	**100**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	**1**		0.47 J	0.36 J	< 1.0 U	0.21 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	0.19 J	< 1.0 U	0.23 J	0.31 J	< 1.0 U
Trichlorofluoromethane (CFC-11)	2000		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trifluorotrichloroethane (Freon 113)	----		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--
Vinyl chloride	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene (total)	1000		< 2.0 U	< 2.0 U	< 3.0 U	< 3.0 U	--	--	--	< 2.0 U	--	< 3.0 U	< 3.0 U	--	--	--	< 2.0 U	--	< 3.0 U

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
B indicates compound detected in blank
J indicates an estimated value
R Indicates original laboratory result rejected during data validation
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
---- GWQS not published

Table 9A. Groundwater Analytical Results (September 2009-October 2014), Volatile Organic Compounds
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID: / Sample Date: / Sample Name:	MW-45 9/14/2010 MW-45PB(091410)	MW-45 9/20/2011 DUP (092011)	MW-45 9/20/2011 MW-45PB (092011)	MW-7 9/11/2009 MW-7PB (091109)	MW-7 9/17/2010 MW-7PB (091710)	MW-7 9/16/2011 MW-7PB (091611)	MW-7 9/27/2012 MW-7PB(092712)	MW-8 9/15/2009 MW-8BP (091509)	MW-8 9/20/2010 MW-8PB(092010)	MW-8 9/20/2011 MW-8PB (092011)	MW-8 9/25/2012 MW-8PB(092512)	MW-8 10/1/2013 MW-8PB (100113)	MW-8 10/7/2014 MW-8PB (100714)	MW-85B3 9/14/2009 MW-85B3PB (091409)	MW-85B3 9/16/2010 MW-85B3PB (091610)	MW-85B3 9/19/2011 MW-85B3PB(091911)	MW-85B3 10/2/2012 DUP(100212)
1,1,1-Trichloroethane	**30**		< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**570**	**800 D**	**470**	**450**	**390**	**440**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2,2-Tetrachloroethane	1		< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	3		< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.99 J	1.6	2.2	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	**50**		< 1.0 U	< 1.0 UJ	< 1.0 UJ	13	15	13	5.9	**610**	**800 D**	**460**	**560**	**410**	**410**	4	2.6	0.32 J	2
1,1-Dichloroethene	**1**		0.48 J	< 1.0 UJ	< 1.0 UJ	0.85 J	0.75 J	0.73 J	0.71 J	**92**	**140**	**49**	**56**	**55**	**63**	**14**	**9.5**	0.98 J	**6.2**
1,2,3-Trichlorobenzene	----		--	< 1.0 UJ	< 1.0 UJ	--	--	< 1.0 U	< 1.0 U	--	--	< 2.0 U	< 2.0 U	--	--	--	--	< 1.0 U	< 1.0 U
1,2,4-Trichlorobenzene	9		< 1.0 U	< 1.0 UJ	< 1.0 UJ	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	0.02		< 1.0 U	< 1.0 UJ	< 1.0 UJ	--	< 1.0 U	< 1.0 U	--	--	< 1.0 U	< 2.0 U	--	< 2.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--
1,2-Dibromoethane	0.03		< 1.0 U	< 1.0 UJ	< 1.0 UJ	--	< 1.0 U	< 1.0 U	--	--	< 1.0 U	< 2.0 U	--	< 2.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--
1,2-Dichlorobenzene	600		< 1.0 U	< 1.0 UJ	< 1.0 UJ	--	< 1.0 U	< 1.0 U	< 1.0 U	--	0.80 J	0.66 J	< 2.0 U	0.78 J	0.52 J	--	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloroethane	**2**		< 1.0 U	< 1.0 UJ	< 1.0 UJ	0.26 J	0.47 J	0.46 J	< 1.0 U	**9.2**	**11**	**6.7**	**6.2**	**5.9**	**6.4**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloropropane	1		< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichlorobenzene	600		< 1.0 U	< 1.0 UJ	< 1.0 UJ	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dichlorobenzene	75		< 1.0 U	< 1.0 UJ	< 1.0 UJ	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dioxane	**0.4**		--	< 2 UJ	< 2 UJ	--	--	< 2 U	**2.2**	--	--	**24 J**	**45**	--	--	--	--	< 2 U	**11**
2-Butanone	300		< 10 U	< 10 UJ	< 10 UJ	--	< 10 U	< 10 U	< 5.0 U	--	< 10 U	< 20 U	< 10 U	< 10 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U
2-Chloroethyl vinyl ether	----		--	--	--	< 1.0 R	--	--	--	< 2.0 R	--	--	--	--	--	< 1.0 R	--	--	--
2-Hexanone	----		< 10 U	< 10 UJ	< 10 UJ	--	< 10 U	< 10 U	< 5.0 U	--	< 10 U	< 20 U	< 10 U	< 10 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U
4-Methyl-2-pentanone	----		< 10 U	< 10 UJ	< 10 UJ	--	< 10 U	< 10 U	< 5.0 U	--	< 10 U	< 20 U	< 10 U	< 10 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U
Acetone	6000		< 10 U	< 10 UJ	< 10 UJ	--	< 10 U	< 10 U	< 5.0 U	--	< 10 U	< 20 U	< 10 U	< 10 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U
Acrolein	5		--	--	--	< 4.0 U	--	--	--	< 8.0 U	--	--	--	--	--	< 4.0 U	--	--	--
Acrylonitrile	2		--	--	--	< 2.0 U	--	--	--	< 4.0 U	--	--	--	--	--	< 2.0 U	--	--	--
Benzene	**1**		< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**1.3 J**	**1.4**	0.76 J	0.92 J	< 2.0 U	0.87 J	< 1.0 U	< 1.0 U	< 1.0 U	0.093 J
Bromodichloromethane	1		< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromoform	4		< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromomethane (Methyl bromide)	10		< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon disulfide	700		< 1.0 U	< 1.0 UJ	< 1.0 UJ	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
Carbon tetrachloride	**1**		< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorobenzene	50		< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.5 J	1.8	1.3 J	1.3 J	1.2 J	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	----		< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	44	78	20	22	18	24	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroform (Trichloromethane)	70		< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.67 J	0.85 J	0.59 J	0.55 J	< 2.0 U	0.32 J	16	11	0.81 J	9
Chloromethane (Methyl chloride)	3		< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	**70**		< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	60	**77**	34	44	39	65	3.8	3.1	0.36 J	2.4
cis-1,3-Dichloropropene	1		< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Cyclohexane	----		< 1.0 U	< 1.0 UJ	< 1.0 UJ	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
Dibromochloromethane	1		< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dichlorodifluoromethane (CFC-12)	1000		< 1.0 U	< 1.0 UJ	< 1.0 UJ	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	700		< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Isopropyl benzene	700		< 1.0 U	< 1.0 UJ	< 1.0 UJ	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
m&p-Xylene	----		--	< 2.0 UJ	< 2.0 UJ	--	--	< 2.0 U	< 2.0 U	--	--	< 4.0 U	< 4.0 U	--	--	--	--	< 2.0 U	< 2.0 U
Methyl acetate	7000		< 2.0 U	< 2.0 UJ	< 2.0 UJ	--	< 2.0 U	< 2.0 U	< 1.0 U	--	< 2.0 U	< 4.0 U	< 2.0 U	< 10 U	< 5.0 U	--	< 2.0 U	< 2.0 U	< 1.0 U
Methyl cyclohexane	----		< 1.0 U	< 1.0 UJ	< 1.0 UJ	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
Methyl tert butyl ether (MTBE)	70		< 1.0 U	< 1.0 UJ	< 1.0 UJ	--	0.27 J	< 1.0 U	0.62 J	--	0.36 J	< 2.0 U	0.32 J	< 2.0 U	0.15 J	--	< 1.0 U	< 1.0 U	< 1.0 U
Methylene chloride	**3**		< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 UB	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
o-Xylene	----		--	< 1.0 UJ	< 1.0 UJ	--	--	< 1.0 U	< 1.0 U	--	--	< 2.0 U	< 2.0 U	--	--	--	--	< 1.0 U	< 1.0 U
Styrene	100		< 1.0 U	< 1.0 UJ	< 1.0 UJ	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	**1**		**1.9**	**1.7 J**	**1.7 J**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**39**	**69**	**33**	**35**	**33**	**52**	**2.1**	**1.4**	< 1.0 U	**1.1**
Toluene	600		< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	**100**		< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.67 J	1.1	0.62 J	0.62 J	< 2.0 U	0.57 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,3-Dichloropropene	1		< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	**1**		< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**25**	**41**	**17**	**22**	**18**	**32**	**57**	**39**	**4.3**	**33**
Trichlorofluoromethane (CFC-11)	2000		< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	7.9	4	< 1.0 U	4.2
Trifluorotrichloroethane (Freon 113)	----		< 1.0 U	< 1.0 UJ	< 1.0 UJ	--	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	0.23 J
Vinyl chloride	**1**		< 1.0 U	< 1.0 UJ	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**14**	**22**	**6.4**	**8**	**7.5**	**12**	0.40 J	0.78 J	< 1.0 U	0.61 J
Xylene (total)	1000		< 3.0 U	--	--	< 3.0 U	< 3.0 U	--	--	< 6.0 U	< 3.0 U	--	--	< 4.0 U	< 2.0 U	< 3.0 U	< 3.0 U	--	--

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
B indicates compound detected in blank
J indicates an estimated value
R Indicates original laboratory result rejected during data validation
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
---- GWQS not published

Table 9A. Groundwater Analytical Results (September 2009-October 2014), Volatile Organic Compounds
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID: / Sample Date: / Sample Name:	MW-85B3 10/2/2012 MW-85B3PB(100212)	MW-85B3 10/8/2013 MW-85B3PB (100813)	MW-85B3 10/3/2014 MW-85B3PB(100314)	MW-86B3 9/16/2009 MW-86B2PB (091609)	MW-86B3 9/20/2010 MW-86B3PB(092010)	MW-86B3 9/19/2011 MW-86B3PB(091911)	MW-86B3 10/2/2012 DUP01(100212)	MW-86B3 10/2/2012 MW-86B3(100212)	MW-86B3 10/7/2013 MW-86B3PB(100713)	MW-86B3 10/7/2014 MW-86B3 (100714)	MW-87B 9/9/2009 MW-87B (090909)	MW-87B 9/15/2010 MW-87B (091510)	MW-87B 9/22/2011 MW- 87B (092211)	MW-87B 10/3/2012 MW-87B(100312)	MW-87B 10/2/2013 MW-87B (100213)	MW-87B 10/1/2014 MW-87-1(10012014)
1,1,1-Trichloroethane	**30**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2,2-Tetrachloroethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	**50**		2	2.1	1.8	2.2	2.2	1.7	1.9	1.9	1.8	1.4	< 1.0 U	0.15 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethene	**1**		**6.1**	**9**	**5.6**	**5.6**	**5.9**	**3.2**	**3.4**	**3.4**	**5.1**	**3.2**	< 1.0 U	0.23 J	0.57 J	**1.4**	< 1.0 U	< 1.0 U
1,2,3-Trichlorobenzene	----		< 1.0 U	< 1.0 U	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	--	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U
1,2,4-Trichlorobenzene	9		< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	0.02		--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U
1,2-Dibromoethane	0.03		--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U
1,2-Dichlorobenzene	600		< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloroethane	**2**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloropropane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichlorobenzene	600		< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dichlorobenzene	75		< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dioxane	**0.4**		**9.9**	< 50 U	< 50 U	--	--	**2.4**	**4.2**	**4.8**	--	--	--	--	< 2 U	< 2 U	--	< 50 U
2-Butanone	300		< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U
2-Chloroethyl vinyl ether	----		--	--	--	< 1.0 R	--	--	--	--	--	--	< 1.0 R	--	--	--	--	--
2-Hexanone	----		< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U
4-Methyl-2-pentanone	----		< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U
Acetone	6000		< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U
Acrolein	5		--	--	--	< 4.0 U	--	--	--	--	--	--	< 4.0 U	--	--	--	--	--
Acrylonitrile	2		--	--	--	< 2.0 U	--	--	--	--	--	--	< 2.0 U	--	--	--	--	--
Benzene	**1**		0.082 J	< 1.0 U	0.083 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromodichloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromoform	4		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromomethane (Methyl bromide)	10		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ
Carbon disulfide	700		< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon tetrachloride	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorobenzene	50		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroform (Trichloromethane)	70		8.8	9.8	9.6	0.96 J	0.92 J	0.81 J	0.85 J	0.95 J	0.89 J	0.79 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloromethane (Methyl chloride)	3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	**70**		2.5	3.6	3.4	7.5	6.3	6.5	7.1	7	8.3	7	< 1.0 U	< 1.0 U	1.3	1.1	1.4	0.47 J
cis-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Cyclohexane	----		< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dibromochloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dichlorodifluoromethane (CFC-12)	1000		< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	700		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Isopropyl benzene	700		< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
m&p-Xylene	----		< 2.0 U	< 2.0 U	< 1.0 U	--	--	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	--	--	--	< 2.0 U	< 2.0 U	--	< 1.0 U
Methyl acetate	7000		< 1.0 U	< 5.0 U	< 5.0 U	--	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	--	< 2.0 U	< 2.0 U	< 1.0 U	< 5.0 U	< 5.0 U
Methyl cyclohexane	----		< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Methyl tert butyl ether (MTBE)	70		< 1.0 U	< 1.0 U	< 1.0 U	--	0.30 J	< 1.0 U	0.27 J	< 1.0 U	0.31 J	0.23 J	--	0.49 J	0.45 J	0.55 J	0.64 J	0.46 J
Methylene chloride	**3**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
o-Xylene	----		< 1.0 U	< 1.0 U	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U
Styrene	100		< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	**1**		**1.1**	**1.5**	**1.5**	**5.1**	**5**	**4.7**	**5**	**5.2**	**6**	**4.8**	< 1.0 U	< 1.0 U	0.76 J	**1.2**	0.52 J	< 1.0 U
Toluene	600		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.21 J	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	**100**		< 1.0 U	< 1.0 U	0.18 J	0.21 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.20 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	**1**		**34**	**45**	**45**	**120**	**120**	**99**	**100**	**100**	**110**	**110**	0.42 J	0.57 J	**2.5**	**14**	**6.5**	0.60 J
Trichlorofluoromethane (CFC-11)	2000		4.1	5.7	5.1	17	21	10	14	13	15	12	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trifluorotrichloroethane (Freon 113)	----		0.22 J	< 1.0 U	0.35 J	--	0.95 J	0.76 J	0.75 J	0.85 J	1.1	0.80 J	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl chloride	**1**		0.60 J	**1.1**	1	0.24 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.1**	**5.5**	< 1.0 U
Xylene (total)	1000		--	--	--	< 3.0 U	< 3.0 U	--	--	--	< 2.0 U	< 2.0 U	< 3.0 U	< 3.0 U	--	--	< 2.0 U	--

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
B indicates compound detected in blank
J indicates an estimated value
R Indicates original laboratory result rejected during data validation
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
---- GWQS not published

Table 9A. Groundwater Analytical Results (September 2009-October 2014), Volatile Organic Compounds
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID: / Sample Date: / Sample Name:	MW-87B2 9/9/2009 MW-87B2 (090909)	MW-87B2 9/15/2010 MW-87B2 (091510)	MW-87B2 9/22/2011 MW- 87B2 (092211)	MW-87B2 10/3/2012 MW-87B2(100312)	MW-87B2 10/2/2013 MW-87B2 (100213)	MW-87B2 10/1/2014 MW-87-2(10012014)	MW-87B3 9/9/2009 MW-87B3 (090909)	MW-87B3 9/15/2010 MW-87B3 (091510)	MW-87B3 9/22/2011 MW- 87B3 (092211)	MW-87B3 10/3/2012 MW-87B3(100312)	MW-87B3 10/2/2013 MW-87B3 (100213)	MW-87B3 10/1/2014 MW-87-3(10012014)	MW-87B4 9/9/2009 MW-87B4 (090909)	MW-87B4 9/15/2010 MW-87B4 (091510)	MW-87B4 9/22/2011 MW- 87B4 (092211)	MW-87B4 10/3/2012 MW-87B4(100312)
1,1,1-Trichloroethane	**30**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.27 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2,2-Tetrachloroethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	3		< 1.0 U	0.19 J	0.20 J	0.26 J	0.21 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.21 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	**50**		1.8	1.6	1.1	1.1	1.4	1.4	2.3	2.5	0.68 J	1.7	2.3	2.1	1.2	2.7	2.1	2.4
1,1-Dichloroethene	**1**		**13**	**9.4**	**4.1**	**2.7**	**10**	**7.4**	**9.2**	**8.5**	**2.3**	**5.1**	**7.9**	**3.6**	**2.7**	**5.7**	**6.2**	**4.1**
1,2,3-Trichlorobenzene	----		--	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U
1,2,4-Trichlorobenzene	9		--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	0.02		--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--
1,2-Dibromoethane	0.03		--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--
1,2-Dichlorobenzene	600		--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloroethane	**2**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloropropane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichlorobenzene	600		--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dichlorobenzene	75		--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dioxane	**0.4**		--	--	**3.6**	**7.2**	--	< 50 U	--	--	< 2 U	**7.4**	--	< 50 U	--	--	**3.9**	**7.3**
2-Butanone	300		--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U
2-Chloroethyl vinyl ether	----		< 1.0 R	--	--	--	--	--	< 1.0 R	--	--	--	--	--	< 1.0 R	--	--	--
2-Hexanone	----		--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U
4-Methyl-2-pentanone	----		--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U
Acetone	6000		--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U
Acrolein	5		< 4.0 U	--	--	--	--	--	< 4.0 U	--	--	--	--	--	< 4.0 U	--	--	--
Acrylonitrile	2		< 2.0 U	--	--	--	--	--	< 2.0 U	--	--	--	--	--	< 2.0 U	--	--	--
Benzene	**1**		< 1.0 U	< 1.0 U	< 1.0 U	0.082 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromodichloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromoform	4		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromomethane (Methyl bromide)	10		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon disulfide	700		--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
Carbon tetrachloride	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorobenzene	50		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroform (Trichloromethane)	70		1	1	0.57 J	0.70 J	1	0.99 J	0.87 J	0.82 J	0.23 J	0.60 J	0.61 J	0.56 J	0.33 J	0.77 J	0.61 J	0.64 J
Chloromethane (Methyl chloride)	3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	**70**		4.3	3.8	1.9	3.2	4.5	5.2	6.3	6.3	1.2	12	31	49	2.6	5.4	3.7	7.4
cis-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Cyclohexane	----		--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
Dibromochloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dichlorodifluoromethane (CFC-12)	1000		--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	700		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Isopropyl benzene	700		--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
m&p-Xylene	----		--	--	< 2.0 U	< 2.0 U	--	< 1.0 U	--	--	< 2.0 U	< 2.0 U	--	< 1.0 U	--	--	< 2.0 U	< 2.0 U
Methyl acetate	7000		--	< 2.0 U	< 2.0 U	< 1.0 U	< 5.0 U	< 5.0 U	--	< 2.0 U	< 2.0 U	< 1.0 U	< 5.0 U	< 5.0 U	--	< 2.0 U	< 2.0 U	< 1.0 U
Methyl cyclohexane	----		--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
Methyl tert butyl ether (MTBE)	70		--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.14 J	--	< 1.0 U	< 1.0 U	< 1.0 U	0.23 J	0.24 J	--	< 1.0 U	< 1.0 U	< 1.0 U
Methylene chloride	**3**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
o-Xylene	----		--	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U
Styrene	100		--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	**1**		**71**	**73**	**11**	**8.9**	**78**	**74**	**19**	**17**	**3.1**	**5.5**	**14**	**9.3**	**2.7**	**5.5**	**4.9**	**2.5**
Toluene	600		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.5	< 1.0 UB	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.2 UB
trans-1,2-Dichloroethene	**100**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.15 J	0.27 J	0.27 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	**1**		**260**	**200**	**69**	**75**	**210**	**220**	**220**	**200**	**41**	**110**	**150**	**79**	**76**	**150**	**110**	**95**
Trichlorofluoromethane (CFC-11)	2000		4.1	3.3	1.3	< 1.0 U	2.9	3.4	18	18	3.1	7.3	14	10	6.5	15	5.8	6.1
Trifluorotrichloroethane (Freon 113)	----		--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.23 J	--	0.79 J	< 1.0 U	< 1.0 U	0.79 J	0.43 J	--	0.65 J	< 1.0 U	< 1.0 U
Vinyl chloride	**1**		< 1.0 U	< 1.0 U	< 1.0 U	0.19 J	**1.1**	0.52 J	< 1.0 U	< 1.0 U	< 1.0 U	**7.2**	**12**	**19**	< 1.0 U	< 1.0 U	< 1.0 U	**1.4**
Xylene (total)	1000		< 3.0 U	< 3.0 U	--	--	< 2.0 U	--	< 3.0 U	< 3.0 U	--	--	< 2.0 U	--	< 3.0 U	< 3.0 U	--	--

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
B indicates compound detected in blank
J indicates an estimated value
R Indicates original laboratory result rejected during data validation
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
---- GWQS not published

Table 9A. Groundwater Analytical Results (September 2009-October 2014), Volatile Organic Compounds
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID: / Sample Date: / Sample Name:	MW-87B4 10/2/2013 MW-87B4 (100213)	MW-87B4 10/1/2014 MW-87-4(10012014)	MW-87B5 9/9/2009 MW-87B5 (090909)	MW-87B5 9/15/2010 MW-87B5 (091510)	MW-87B5 9/22/2011 MW- 87B5 (092211)	MW-87B5 10/3/2012 MW-87B5(100312)	MW-87B5 10/2/2013 MW-87B5 (100213)	MW-87B5 10/1/2014 MW-87-5(10012014)	MW-88 3/5/2013 MW-88 (62-82)_20130305	MW-88 3/5/2013 MW-88 (82-102)_20130305	MW-88 3/5/2013 MW-88 (119-139)_20130305	MW-88 3/5/2013 MW-88 (140-160)_20130305	MW-88 3/6/2013 MW-88 (173-193)_20130306	MW-88 3/6/2013 MW-88 (201-221)_20130306
1,1,1-Trichloroethane	**30**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	3		< 1.0 U	< 1.0 U	0.15 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0	0.22	0.37	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	**50**		3	2.4	2.8	2.1	1.7	1.7	2.4	2.2	0.71	2	1.9	1.7	1.9	1.7
1,1-Dichloroethene	**1**		**6.6**	**3.9**	**6.3**	**4.9**	**6.2**	**2.7**	**5.2**	**3.3**	**1.1**	**3.9**	**3.6**	**4.4**	**4.3**	**4.1**
1,2,3-Trichlorobenzene	----		--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	--	--	--	--	--
1,2,4-Trichlorobenzene	9		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromo-3-chloropropane (DBCP)	0.02		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromoethane	0.03		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	600		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	**2**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	600		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	75		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dioxane	**0.4**		--	< 50 U	--	--	< 2 U	**7.1**	--	< 50 U	--	--	--	--	--	--
2-Butanone	300		< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
2-Chloroethyl vinyl ether	----		--	--	< 1.0 R	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	----		< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-pentanone	----		< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone	6000		< 5.0 U	< 5.0 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acrolein	5		--	--	< 4.0 U	--	--	--	--	--	--	--	--	--	--	--
Acrylonitrile	2		--	--	< 2.0 U	--	--	--	--	--	--	--	--	--	--	--
Benzene	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.14 J	0.081 J	< 1.0 U	< 1.0 U	0.54	0.14	0.31	0.14	0.12	< 1.0
Bromodichloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	4		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane (Methyl bromide)	10		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Carbon disulfide	700		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Carbon tetrachloride	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	50		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.16	< 1.0	0.11	< 1.0	< 1.0	< 1.0
Chloroethane	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform (Trichloromethane)	70		0.68 J	0.70 J	0.77 J	0.75 J	0.61 J	0.54 J	0.51 J	0.62 J	0.55	0.99	0.84	1	1	0.73
Chloromethane (Methyl chloride)	3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	**70**		33	30	5.4	5.2	4.3	4.7	**150**	56	9.5	9.9	11	8.5	8.1	7
cis-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dichlorodifluoromethane (CFC-12)	1000		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	700		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.11	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Isopropyl benzene	700		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m&p-Xylene	----		--	< 1.0 U	--	--	< 2.0 U	< 2.0 U	--	< 1.0 U	--	--	--	--	--	--
Methyl acetate	7000		< 5.0 U	< 5.0 U	--	< 2.0 U	< 2.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl cyclohexane	----		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl tert butyl ether (MTBE)	70		< 1.0 U	0.15 J	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.6	2.4	1.9	1.5	0.98	0.63
Methylene chloride	**3**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	----		--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	--	--	--	--	--
Styrene	100		< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	**1**		**4.6**	**3.8**	**5.2**	**5**	**2.8**	**1.2**	**1.3**	**1.4**	**14**	**14**	**14**	**7.8**	**5.9**	**4.7**
Toluene	600		< 1.0 U	< 1.0 U	0.12 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	20	7.9	9.3	8.5	4.2	2.2
trans-1,2-Dichloroethene	**100**		< 1.0 U	0.21 J	< 1.0 U	< 1.0 U	0.18 J	< 1.0 U	0.46 J	0.27 J	0.92	0.49	0.74	0.41	< 1.0	< 1.0
trans-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	**1**		**160**	**130**	**180**	**140**	**110**	**78**	**32**	**58**	**160**	**250**	**250**	**140**	**130**	**100**
Trichlorofluoromethane (CFC-11)	2000		16	12	14	14	6	2.4	6.9	9.8	1.5	15	13	15	17	15
Trifluorotrichloroethane (Freon 113)	----		0.81 J	0.65 J	--	< 1.0 U	< 1.0 U	< 1.0 U	0.46 J	0.48 J	< 1.0	1	0.98	1.1	1.2	0.89
Vinyl chloride	**1**		**6.6**	**8.2**	< 1.0 U	< 1.0 U	< 1.0 U	0.20 J	**6.8**	**14**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylene (total)	1000		< 2.0 U	--	< 3.0 U	< 3.0 U	--	--	< 2.0 U	--	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
B indicates compound detected in blank
J indicates an estimated value
R Indicates original laboratory result rejected during data validation
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
---- GWQS not published

Table 9A. Groundwater Analytical Results (September 2009-October 2014), Volatile Organic Compounds
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID: / Sample Date: / Sample Name:	MW-88 3/7/2013 MW-88 (284-304)_20130307	MW-88 3/7/2013 MW-88 (330-350)_20130307	MW-88-1 10/9/2013 MW-88-1 (100913)	MW-88-1 9/30/2014 MW-88-1(093014)	MW-88-2 10/9/2013 MW-88-2 (100913)	MW-88-2 9/30/2014 BD09302014	MW-88-2 9/30/2014 MW-88-2(093014)	MW-88-3 10/9/2013 MW-88-3 (100913)	MW-88-3 9/30/2014 MW-88-3(093014)	MW-88-4 10/9/2013 MW-88-4 (100913)	MW-88-4 9/30/2014 MW-88-4(093014)	MW-9B 9/15/2009 MW-9BPB (091509)	MW-9B 9/20/2010 MW-9BPB(092010)	MW-9B 9/20/2011 MW-9PB (092011)	MW-9B 9/25/2012 MW-9BPB(092512)	MW-9B 10/1/2013 MW-9BPB (100113)	MW-9B 10/7/2014 MW-9B (100714)
1,1,1-Trichloroethane	**30**		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	14	22	12	13	10	7
1,1,2,2-Tetrachloroethane	1		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
1,1,2-Trichloroethane	3		< 1.0	< 1.0	0.86 J	< 1.0 U	0.24 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
1,1-Dichloroethane	**50**		1.9	1.6	1.4 J	0.61 J	2.1	1.8	1.9	1.8	1.5	0.94 J	0.82 J	**110**	**140**	**80**	**110**	**89**	**77**
1,1-Dichloroethene	**1**		**3.6**	**3.8**	**4.1**	**1.3**	**6.4**	**4.2**	**4.3**	**4.9**	**3.5**	**2.6**	**1.8**	**23**	**38**	**15**	**17**	**15**	**9.8**
1,2,3-Trichlorobenzene	----		--	--	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	< 2.0 U	< 2.0 U	--	--
1,2,4-Trichlorobenzene	9		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
1,2-Dibromo-3-chloropropane (DBCP)	0.02		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 2.0 U	--	< 2.0 U	< 2.0 U
1,2-Dibromoethane	0.03		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 2.0 U	--	< 2.0 U	< 2.0 U
1,2-Dichlorobenzene	600		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
1,2-Dichloroethane	**2**		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	0.99 J	0.68 J	1.0 J	< 2.0 U	0.49 J
1,2-Dichloropropane	1		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
1,3-Dichlorobenzene	600		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
1,4-Dichlorobenzene	75		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
1,4-Dioxane	**0.4**		--	--	< 100 U	--	< 50 U	--	--	< 50 U	--	< 50 U	--	--	--	**17**	**28**	--	--
2-Butanone	300		< 5.0	< 5.0	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 20 U	< 10 U	< 10 U	< 10 U
2-Chloroethyl vinyl ether	----		--	--	--	--	--	--	--	--	--	--	--	< 5.0 R	--	--	--	--	--
2-Hexanone	----		< 5.0	< 5.0	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 20 U	< 10 U	< 10 U	< 10 U
4-Methyl-2-pentanone	----		< 5.0	< 5.0	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 20 U	< 10 U	< 10 U	< 10 U
Acetone	6000		< 5.0	< 5.0	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U	< 20 U	< 10 U	< 10 U	< 10 U
Acrolein	5		--	--	--	--	--	--	--	--	--	--	--	< 20 U	--	--	--	--	--
Acrylonitrile	2		--	--	--	--	--	--	--	--	--	--	--	< 10 U	--	--	--	--	--
Benzene	**1**		0.16	0.18	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	0.42 J	0.26 J	0.42 J	< 2.0 U	0.29 J
Bromodichloromethane	1		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Bromoform	4		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Bromomethane (Methyl bromide)	10		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Carbon disulfide	700		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Carbon tetrachloride	**1**		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Chlorobenzene	50		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Chloroethane	----		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	1.3	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Chloroform (Trichloromethane)	70		0.6	0.8	0.49 J	0.22 J	0.96 J	0.77 J	0.85 J	0.90 J	0.88 J	0.40 J	0.36 J	< 5.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Chloromethane (Methyl chloride)	3		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
cis-1,2-Dichloroethene	**70**		4.4	7.5	21	8	15	12	13	9	7.3	3.3	4.9	**590**	**850 D**	**530**	**580**	**630**	**570**
cis-1,3-Dichloropropene	1		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Cyclohexane	----		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Dibromochloromethane	1		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Dichlorodifluoromethane (CFC-12)	1000		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Ethylbenzene	700		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Isopropyl benzene	700		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
m&p-Xylene	----		--	--	< 4.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 1.0 U	--	--	< 4.0 U	< 4.0 U	--	--
Methyl acetate	7000		< 1.0	< 1.0	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 2.0 U	< 4.0 U	< 2.0 U	< 10 U	< 10 U
Methyl cyclohexane	----		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Methyl tert butyl ether (MTBE)	70		0.37	0.63	0.95 J	0.37 J	0.32 J	0.22 J	0.22 J	0.29 J	0.27 J	< 1.0 U	< 1.0 U	--	0.34 J	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Methylene chloride	**3**		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
o-Xylene	----		--	--	< 2.0 U	--	< 1.0 U	--	--	< 1.0 U	--	< 1.0 U	--	--	--	< 2.0 U	< 2.0 U	--	--
Styrene	100		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Tetrachloroethene	**1**		**2.3**	**4.9**	**19**	**7.9**	**6.8**	**6.8**	**7.4**	**6.3**	**6.2**	0.58 J	0.26 J	**10**	**13**	**8.6**	**7.5**	**7.1**	**5.2**
Toluene	600		6.5	13	1.4 J	< 1.0 U	0.80 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.1	< 1.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	0.41 J
trans-1,2-Dichloroethene	**100**		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	0.14 J	< 1.0 U	< 1.0 U	0.14 J	< 1.0 U	< 1.0 U	**430**	**540 D**	**420**	**490**	**540**	**440**
trans-1,3-Dichloropropene	1		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Trichloroethene	**1**		**56**	**100**	**620**	**220**	**200**	**160**	**170**	**130**	**110**	**20**	**16**	**100**	**130**	**59**	**49**	**51**	**41**
Trichlorofluoromethane (CFC-11)	2000		9.4	12	6.4	1.9	19	15	15	18	14	6.7	5.3	< 5.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Trifluorotrichloroethane (Freon 113)	----		0.59	0.68	< 2.0 U	0.26 J	< 1.0 U	0.88 J	0.95 J	1.1	0.91 J	< 1.0 U	< 1.0 U	--	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Vinyl chloride	**1**		< 1.0	< 1.0	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**190**	**370**	**160**	**170**	**220**	**160**
Xylene (total)	1000		< 3.0	< 3.0	--	< 2.0 U	--	< 2.0 U	< 2.0 U	--	< 2.0 U	--	< 2.0 U	< 15 U	< 3.0 U	--	--	< 4.0 U	< 4.0 U

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
B indicates compound detected in blank
J indicates an estimated value
R Indicates original laboratory result rejected during data validation
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
---- GWQS not published

Table 9A. Groundwater Analytical Results (September 2009-October 2014), Volatile Organic Compounds
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID:	OW-24	OW-24	OW-25S	OW-25S	OW-25S	OW-26S	OW-26S	OW-32D	OW-32D	OW-32D	OW-32D	OW-32D	OW-32D	OW-46	OW-46
		Sample Date:	9/18/2009	9/21/2011	9/18/2009	9/19/2011	10/9/2014	9/18/2009	9/19/2011	9/16/2009	9/20/2010	9/16/2011	10/1/2012	10/8/2013	10/8/2014	9/16/2009	9/19/2011
		Sample Name:	OW-24PB(091809)	OW-24PB (092111)	OW-25SPB(091809)	OW-25SPB(091911)	OW-25S(100914)	OW-26SPB(091809)	OW-26SPB(091911)	OW-32DPB (091609)	OW-32DPB(092010)	MW-32DPB (091611)	GW-32DPB(100212)	OW-32DPB (100813)	OW-32DPB(100814)	OW-46PB (091609)	OW-46PB(091911)
1,1,1-Trichloroethane	**30**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.86 J
1,1,2,2-Tetrachloroethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	**50**		1.2	< 1.0 U	0.38 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	5.5	3.9
1,1-Dichloroethene	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.20 J	< 1.0 U
1,2,3-Trichlorobenzene	----		--	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U
1,2,4-Trichlorobenzene	9		--	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	0.02		--	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U
1,2-Dibromoethane	0.03		--	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U
1,2-Dichlorobenzene	600		--	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U
1,2-Dichloroethane	**2**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.45 J	< 1.0 U
1,2-Dichloropropane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichlorobenzene	600		--	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U
1,4-Dichlorobenzene	75		--	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U
1,4-Dioxane	**0.4**		--	< 2 U	--	< 2 U	< 50 U	--	< 2 U	--	--	< 2 U	< 2 U	< 50 U	< 50 U	--	< 2 U
2-Butanone	300		--	< 10 U	--	< 10 U	2.4 J	--	2.2 J	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	3.3 J
2-Chloroethyl vinyl ether	----		< 1.0 R	--	< 1.0 R	--	--	< 1.0 R	--	< 1.0 R	--	--	--	--	--	< 1.0 R	--
2-Hexanone	----		--	< 10 U	--	< 10 U	< 5.0 U	--	< 10 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U
4-Methyl-2-pentanone	----		--	< 10 U	--	< 10 U	< 5.0 U	--	< 10 U	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	< 10 U
Acetone	6000		--	< 10 U	--	8.0 J	12	--	22	--	< 10 U	< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	--	10
Acrolein	5		< 4.0 U	--	< 4.0 U	--	--	< 4.0 U	--	< 4.0 U	--	--	--	--	--	< 4.0 U	--
Acrylonitrile	2		< 2.0 U	--	< 2.0 U	--	--	< 2.0 U	--	< 2.0 U	--	--	--	--	--	< 2.0 U	--
Benzene	**1**		< 1.0 U	< 1.0 U	0.28 J	0.31 J	0.13 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.94 J	< 1.0 U
Bromodichloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromoform	4		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromomethane (Methyl bromide)	10		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon disulfide	700		--	< 1.0 U	--	< 1.0 U	< 1.0 U	--	0.60 J	--	1.4	< 1.0 U	0.52 J	< 1.0 U	< 1.0 U	--	0.46 J
Carbon tetrachloride	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorobenzene	50		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.19 J
Chloroethane	----		1.5	< 1.0 U	15	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	58	< 1.0 U
Chloroform (Trichloromethane)	70		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloromethane (Methyl chloride)	3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	**70**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.83 J	2.7
cis-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Cyclohexane	----		--	< 1.0 U	--	< 1.0 U	0.18 J	--	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U
Dibromochloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dichlorodifluoromethane (CFC-12)	1000		--	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U
Ethylbenzene	700		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Isopropyl benzene	700		--	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U
m&p-Xylene	----		--	< 2.0 U	--	< 2.0 U	< 1.0 U	--	< 2.0 U	--	--	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	--	< 2.0 U
Methyl acetate	7000		--	< 2.0 U	--	< 2.0 U	< 5.0 U	--	< 2.0 U	--	< 2.0 U	< 2.0 U	< 1.0 U	< 5.0 U	< 5.0 U	--	< 2.0 U
Methyl cyclohexane	----		--	< 1.0 U	--	< 1.0 U	0.43 J	--	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	--	< 1.0 U
Methyl tert butyl ether (MTBE)	70		--	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U
Methylene chloride	**3**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.93 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
o-Xylene	----		--	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U
Styrene	100		--	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U
Tetrachloroethene	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.33 J
Toluene	600		< 1.0 U	< 1.0 U	< 1.0 U	0.12 J	< 1.0 U	< 1.0 U	88	< 1.0 U	< 1.0 U	0.13 J	0.40 J	0.39 J	< 1.0 U	< 1.0 U	0.12 J
trans-1,2-Dichloroethene	**100**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.81 J	**5.8**
Trichlorofluoromethane (CFC-11)	2000		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trifluorotrichloroethane (Freon 113)	----		--	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.0 U
Vinyl chloride	**1**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.74 J	**2.3**
Xylene (total)	1000		< 3.0 U	--	< 3.0 U	--	--	< 3.0 U	--	< 3.0 U	< 3.0 U	--	--	--	--	0.68 J	--

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
B indicates compound detected in blank
J indicates an estimated value
R Indicates original laboratory result rejected during data validation
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
---- GWQS not published

Table 9B. Groundwater Analytical Results (September 2009-October 2014), Semi-Volatile Organic Compounds
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID: / Sample Date: / Sample Name:	MW-15 9/14/2009 MW-15PB (091409)	MW-15 9/20/2010 DUP(092010)	MW-15 9/20/2010 MW-15PB(092010)	MW-15 9/16/2011 MW-15PB (091611)	MW-15 9/27/2012 MW-15PB(092712)	MW-15 10/9/2013 MW-15PB(100913)	MW-15 10/2/2014 MW-15PB(100214)	MW-15 10/2/2014 DUP-100214	MW-19 9/21/2010 MW-19PB(092110)	MW-20 9/15/2009 MW-20BP (091509)	MW-20 9/21/2010 MW-20PB(092110)	MW-20 9/20/2011 MW-20PB (092011)	MW-20 9/25/2012 MW-20PB(092512)	MW-20 10/1/2013 MW-20PB (100113)	MW-20 10/7/2014 MW-20PB (100714)	OW-24 9/21/2011 OW-24PB (092111)	OW-25S 9/19/2011 OW-25SPB(091911)
1,2,4-Trichlorobenzene	9		< 1.0 U	--	--	--	--	--	--	--	--	< 1.1 U	--	--	--	< 1.0 U	< 1.1 U	--	--
1,2-Dichlorobenzene	600		< 10 U	--	--	--	--	--	--	--	--	< 11 U	--	--	--	< 10 U	< 11 U	--	--
1,2-Diphenylhydrazine	20		< 10 U	--	--	--	--	--	--	--	--	< 11 U	--	--	--	--	--	--	--
1,3-Dichlorobenzene	600		< 10 U	--	--	--	--	--	--	--	--	< 11 U	--	--	--	< 10 U	< 11 U	--	--
1,4-Dichlorobenzene	75		< 10 U	--	--	--	--	--	--	--	--	< 11 U	--	--	--	< 10 U	< 11 U	--	--
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	300		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
2,4,5-Trichlorophenol	700		--	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	--	< 11 U	< 10 U	< 10 U	< 10 UJ	< 11 U	< 10 U	< 10 U
2,4,6-Trichlorophenol	20		--	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	--	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
2,4-Dichlorophenol	20		--	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	--	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
2,4-Dimethylphenol	100		--	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	--	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
2,4-Dinitrophenol	40		--	< 31 U	< 31 U	< 31 U	< 32 U	< 33 U	< 33 U	< 34 U	< 34 U	--	< 34 U	< 30 U	< 30 U	< 31 UJ	< 33 U	< 31 U	< 30 U
2,4-Dinitrotoluene	10		< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.1 U	< 2.2 U	< 2.2 U	< 2.3 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.2 U	< 2.0 U	< 2.0 U
2,6-Dinitrotoluene	10		< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.1 U	< 2.2 U	< 2.2 U	< 2.3 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.2 U	< 2.0 U	< 2.0 U
2-Chloronaphthalene	600		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
2-Chlorophenol	40		--	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	--	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
2-Methylnaphthalene	----		--	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	--	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
2-Methylphenol	----		--	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	--	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
2-Nitroaniline	----		--	< 20 U	< 20 U	< 20 U	< 21 U	< 22 U	< 22 U	< 23 U	< 22 U	--	< 22 U	< 20 U	< 20 U	< 20 U	< 22 U	< 20 U	< 20 U
2-Nitrophenol	----		--	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	--	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
3,3'-Dichlorobenzidine	30		< 20 U	< 20 U	< 20 U	< 20 U	< 21 U	< 22 U	< 22 U	< 23 U	< 22 U	< 22 U	< 22 U	< 20 U	< 20 U	< 20 U	< 22 U	< 20 U	< 20 U
3-Nitroaniline	----		--	< 20 U	< 20 U	< 20 U	< 21 U	< 22 U	< 22 U	< 23 U	< 22 U	--	< 22 U	< 20 U	< 20 U	< 20 U	< 22 U	< 20 U	< 20 U
4,6-Dinitro-2-methylphenol	----		--	< 31 U	< 31 U	< 31 U	< 32 U	< 33 U	< 33 U	< 34 U	< 34 U	--	< 34 U	< 30 U	< 30 U	< 31 UJ	< 33 U	< 31 U	< 30 U
4-Bromophenyl phenyl ether	----		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
4-Chloro-3-methylphenol	----		--	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	--	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
4-Chloroaniline	30		--	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	--	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
4-Chlorophenyl phenyl ether	----		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
4-Methylphenol	----		--	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	--	< 11 U	6.3 J	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
4-Nitroaniline	----		--	< 20 U	< 20 U	< 20 U	< 21 U	< 22 U	< 22 U	< 23 U	< 22 U	--	< 22 U	< 20 U	< 20 U	< 20 U	< 22 U	< 20 U	< 20 U
4-Nitrophenol	----		--	< 31 U	< 31 U	< 31 U	< 32 U	< 33 U	< 33 U	< 34 U	< 34 U	--	< 34 U	< 30 U	< 30 U	< 31 U	< 33 UJ	< 31 U	< 30 U
Acenaphthene	400		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
Acenaphthylene	----		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
Acetophenone	700		--	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	--	< 11 U	< 10 U	< 10 U	--	--	< 10 U	< 10 U
Anthracene	2000		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
Atrazine	3		--	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	--	< 11 U	< 10 U	< 10 U	--	--	< 10 U	< 10 U
Benzaldehyde	----		--	< 10 U	< 10 UJ	< 10 U	< 11 UJ	< 11 U	< 11 U	< 11 U	< 11 UJ	--	< 11 UJ	< 10 U	< 10 UJ	--	--	< 10 U	< 10 U
Benzidine	20		< 10 UJ	--	--	--	--	--	--	--	--	< 11 UJ	--	--	--	--	--	--	--
Benzo(a)anthracene	0.1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U
Benzo(a)pyrene	0.1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U
Benzo(b)fluoranthene	0.2		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U
Benzo(g,h,i)perylene	---		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
Benzo(k)fluoranthene	0.5		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U
Biphenyl (1,1-Biphenyl)	400		--	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	--	< 11 U	< 10 U	< 10 U	--	--	< 10 U	< 10 U
bis(2-Chloroethoxy)methane	----		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
bis(2-Chloroethyl)ether	7		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U
bis(2-Ethylhexyl)phthalate (DEHP)	**3**		< 10 U	2.4 J	2.9 J	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
Butyl benzylphthalate (BBP)	100		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
Caprolactam	----		--	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	--	< 11 U	< 10 U	< 10 U	--	--	< 10 U	< 10 U
Carbazole	----		--	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	--	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
Chrysene	5		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
Dibenz(a,h)anthracene	0.3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U
Dibenzofuran	----		--	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	--	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
Diethyl phthalate	6000		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
Dimethyl phthalate	----		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
Di-n-butylphthalate (DBP)	700		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 UB	< 11 UB	< 11 U	< 11 U	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
Di-n-octyl phthalate (DnOP)	100		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
Fluoranthene	300		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
Fluorene	300		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
Hexachlorobenzene	0.02		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U
Hexachlorobutadiene	1		< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.1 U	< 2.2 U	< 2.2 U	< 2.3 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.2 U	< 2.0 U	< 2.0 U
Hexachlorocyclopentadiene	40		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
Hexachloroethane	7		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U
Indeno(1,2,3-cd)pyrene	**0.2**		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U
Isophorone	40		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
Naphthalene	300		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
Nitrobenzene	6		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U
N-Nitrosodimethylamine	0.8		< 10 UJ	--	--	--	--	--	--	--	--	< 11 UJ	--	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	10		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U
N-Nitrosodiphenylamine	10		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
Pentachlorophenol	0.3		--	< 31 U	< 31 U	< 31 U	< 32 U	< 33 U	< 33 U	< 34 U	< 34 U	--	< 34 U	< 30 U	< 30 U	< 31 U	< 33 U	< 31 U	< 30 U
Phenanthrene	----		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
Phenol	2000		--	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	--	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U
Pyrene	200		< 10 U	< 10 U	< 10 U	< 10 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
B indicates analyte detected in blank
J indicates an estimated value.
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
---- GWQS not published.

Table 9B. Groundwater Analytical Results (September 2009-October 2014), Semi-Volatile Organic Compounds
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID:	OW-26S	OW-32D	OW-32D	OW-32D	OW-32D	OW-32D	OW-32D	OW-46	OW-46
		Sample Date:	9/19/2011	9/16/2009	9/20/2010	9/16/2011	10/1/2012	10/8/2013	10/8/2014	9/16/2009	9/19/2011
		Sample Name:	OW-26SPB(091911)	OW-32DPB (091609)	OW-32DPB(092010)	MW-32DPB (091611)	GW-32DPB(100212)	OW-32DPB (100813)	OW-32DPB(100814)	OW-46PB (091609)	OW-46PB(091911)
1,2,4-Trichlorobenzene	9		--	< 1.0 U	--	--	--	--	--	< 1.0 U	--
1,2-Dichlorobenzene	600		--	< 10 U	--	--	--	--	--	< 10 U	--
1,2-Diphenylhydrazine	20		--	< 10 U	--	--	--	--	--	< 10 U	--
1,3-Dichlorobenzene	600		--	< 10 U	--	--	--	--	--	< 10 U	--
1,4-Dichlorobenzene	75		--	< 10 U	--	--	--	--	--	< 10 U	--
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	300		< 12 U	< 10 U	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	< 10 U	< 23 U
2,4,5-Trichlorophenol	700		< 12 U	--	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	--	< 23 U
2,4,6-Trichlorophenol	20		< 12 U	--	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	--	< 23 U
2,4-Dichlorophenol	20		< 12 U	--	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	--	< 23 U
2,4-Dimethylphenol	100		< 12 U	--	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	--	< 23 U
2,4-Dinitrophenol	40		< 36 U	--	< 33 U	< 35 U	< 31 U	< 33 U	< 65 U	--	< 69 U
2,4-Dinitrotoluene	10		< 2.4 U	< 2.0 U	< 2.2 U	< 2.4 U	< 2.0 U	< 2.2 U	< 4.3 U	< 2.0 U	< 4.6 U
2,6-Dinitrotoluene	10		< 2.4 U	< 2.0 U	< 2.2 U	< 2.4 U	< 2.0 U	< 2.2 U	< 4.3 U	< 2.0 U	< 4.6 U
2-Chloronaphthalene	600		< 12 U	< 10 U	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	< 10 U	< 23 U
2-Chlorophenol	40		< 12 U	--	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	--	< 23 U
2-Methylnaphthalene	----		< 12 U	--	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	--	< 23 U
2-Methylphenol	----		< 12 U	--	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	--	< 23 U
2-Nitroaniline	----		< 24 U	--	< 22 U	< 24 U	< 20 U	< 22 U	< 43 U	--	< 46 U
2-Nitrophenol	----		< 12 U	--	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	--	< 23 U
3,3'-Dichlorobenzidine	30		< 24 U	< 20 U	< 22 U	< 24 U	< 20 U	< 22 U	< 43 U	< 20 U	< 46 U
3-Nitroaniline	----		< 24 U	--	< 22 U	< 24 U	< 20 U	< 22 U	< 43 U	--	< 46 U
4,6-Dinitro-2-methylphenol	----		< 36 U	--	< 33 U	< 35 U	< 31 U	< 33 U	< 65 U	--	< 69 U
4-Bromophenyl phenyl ether	----		< 12 U	< 10 U	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	< 10 U	< 23 U
4-Chloro-3-methylphenol	----		< 12 U	--	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	--	< 23 U
4-Chloroaniline	30		< 12 U	--	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	--	< 23 U
4-Chlorophenyl phenyl ether	----		< 12 U	< 10 U	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	< 10 U	< 23 U
4-Methylphenol	----		< 12 U	--	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	--	< 23 U
4-Nitroaniline	----		< 24 U	--	< 22 U	< 24 U	< 20 U	< 22 U	< 43 U	--	< 46 U
4-Nitrophenol	----		< 36 U	--	< 33 U	< 35 U	< 31 U	< 33 U	< 65 U	--	< 69 U
Acenaphthene	400		< 12 U	< 10 U	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	< 10 U	< 23 U
Acenaphthylene	----		< 12 U	< 10 U	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	< 10 U	< 23 U
Acetophenone	700		< 12 U	--	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	--	< 23 U
Anthracene	2000		< 12 U	< 10 U	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	< 10 U	< 23 U
Atrazine	3		< 12 U	--	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	--	< 23 U
Benzaldehyde	----		< 12 U	--	< 11 UJ	< 12 U	< 10 UJ	< 11 U	< 22 U	--	< 23 U
Benzidine	20		--	< 10 R	--	--	--	--	--	< 10 UJ	--
Benzo(a)anthracene	0.1		< 1.2 U	< 1.0 U	< 1.1 U	< 1.2 U	< 1.0 U	< 1.1 U	< 2.2 U	< 1.0 U	< 2.3 U
Benzo(a)pyrene	0.1		< 1.2 U	< 1.0 U	< 1.1 U	< 1.2 U	< 1.0 U	< 1.1 U	< 2.2 U	< 1.0 U	< 2.3 U
Benzo(b)fluoranthene	0.2		< 1.2 U	< 1.0 U	< 1.1 U	< 1.2 U	< 1.0 U	< 1.1 U	< 2.2 U	< 1.0 U	< 2.3 U
Benzo(g,h,i)perylene	---		< 12 U	< 10 U	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	< 10 U	< 23 U
Benzo(k)fluoranthene	0.5		< 1.2 U	< 1.0 U	< 1.1 U	< 1.2 U	< 1.0 U	< 1.1 U	< 2.2 U	< 1.0 U	< 2.3 U
Biphenyl (1,1-Biphenyl)	400		< 12 U	--	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	--	< 23 U
bis(2-Chloroethoxy)methane	----		< 12 U	< 10 U	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	< 10 U	< 23 U
bis(2-Chloroethyl)ether	7		< 1.2 U	< 1.0 U	< 1.1 U	< 1.2 U	< 1.0 U	< 1.1 U	< 2.2 U	< 1.0 U	< 2.3 U
bis(2-Ethylhexyl)phthalate (DEHP)	**3**		< 12 U	< 10 U	3.0 J	< 12 U	< 10 U	< 11 U	< 22 U	**55**	**7.3 J**
Butyl benzylphthalate (BBP)	100		< 12 U	< 10 U	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	< 10 U	< 23 U
Caprolactam	----		< 12 U	--	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	--	< 23 U
Carbazole	----		< 12 U	--	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	--	< 23 U
Chrysene	5		< 12 U	< 10 U	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	< 10 U	< 23 U
Dibenz(a,h)anthracene	0.3		< 1.2 U	< 1.0 U	< 1.1 U	< 1.2 U	< 1.0 U	< 1.1 U	< 2.2 U	< 1.0 U	< 2.3 U
Dibenzofuran	----		< 12 U	--	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	--	< 23 U
Diethyl phthalate	6000		< 12 U	< 10 U	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	< 10 U	< 23 U
Dimethyl phthalate	----		< 12 U	< 10 U	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	< 10 U	< 23 U
Di-n-butylphthalate (DBP)	700		< 12 U	< 10 U	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	< 10 U	< 23 U
Di-n-octyl phthalate (DnOP)	100		< 12 U	< 10 U	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	< 10 U	< 23 U
Fluoranthene	300		< 12 U	< 10 U	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	< 10 U	< 23 U
Fluorene	300		< 12 U	< 10 U	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	3.4 J	< 23 U
Hexachlorobenzene	0.02		< 1.2 U	< 1.0 U	< 1.1 U	< 1.2 U	< 1.0 U	< 1.1 U	< 2.2 U	< 1.0 U	< 2.3 U
Hexachlorobutadiene	1		< 2.4 U	< 2.0 U	< 2.2 U	< 2.4 U	< 2.0 U	< 2.2 U	< 4.3 U	< 2.0 U	< 4.6 U
Hexachlorocyclopentadiene	40		< 12 U	< 10 UJ	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	< 10 UJ	< 23 U
Hexachloroethane	7		< 1.2 U	< 1.0 U	< 1.1 U	< 1.2 U	< 1.0 U	< 1.1 U	< 2.2 U	< 1.0 U	< 2.3 U
Indeno(1,2,3-cd)pyrene	**0.2**		< 1.2 U	< 1.0 U	< 1.1 U	< 1.2 U	< 1.0 U	< 1.1 U	< 2.2 U	**0.22 J**	< 2.3 U
Isophorone	40		< 12 U	< 10 U	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	< 10 U	< 23 U
Naphthalene	300		< 12 U	< 10 U	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	< 10 U	< 23 U
Nitrobenzene	6		< 1.2 U	< 1.0 U	< 1.1 U	< 1.2 U	< 1.0 U	< 1.1 U	< 2.2 U	< 1.0 U	< 2.3 U
N-Nitrosodimethylamine	0.8		--	< 10 UJ	--	--	--	--	--	< 10 UJ	--
N-Nitrosodi-n-propylamine	10		< 1.2 U	< 1.0 U	< 1.1 U	< 1.2 U	< 1.0 U	< 1.1 U	< 2.2 U	< 1.0 U	< 2.3 U
N-Nitrosodiphenylamine	10		< 12 U	< 10 U	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	< 10 U	< 23 U
Pentachlorophenol	0.3		< 36 U	--	< 33 U	< 35 U	< 31 U	< 33 U	< 65 U	--	< 69 U
Phenanthrene	----		< 12 U	< 10 U	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	9.8 J	< 23 U
Phenol	2000		< 12 U	--	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	--	< 23 U
Pyrene	200		< 12 U	< 10 U	< 11 U	< 12 U	< 10 U	< 11 U	< 22 U	< 10 U	< 23 U

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
B indicates analyte detected in blank
J indicates an estimated value.
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
---- GWQS not published.

Table 9C. Groundwater Analytical Results (September 2009-October 2014), Metals
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID: / Sample Date: / Sample Name:	MW-15 9/14/2009 MW-15LF (091409)	MW-15 9/20/2010 DUP(092010)	MW-15 9/20/2010 MW-15LF(092010)	MW-15 9/16/2011 MW-15LF (091611)	MW-15 9/27/2012 MW-15LF(092712)	MW-15 10/9/2013 MW-15LF(100913)	MW-15 10/2/2014 MW-15LF(100214)	MW-15 10/2/2014 DUP-100214	MW-20 9/15/2009 MW-20LF (091509)	MW-20 9/21/2010 MW-20LF(092110)	MW-20 9/20/2011 MW-20PB (092011)	MW-20 9/25/2012 MW-20LF(092512)
Aluminum	**200**		--	< 200 UB	< 200 UB	187 J	**425**	119 J	148 J	**262 J**	--	**626 BJ**	92.9 J	**596**
Antimony	6		< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 2.5 U	< 2.5 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U
Arsenic	**3**		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 2.5 U	< 2.5 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Barium	6000		--	363	367	344	359	371	319	323	--	289	270	405
Beryllium	**1**		< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Cadmium	**4**		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 2.5 U	< 2.5 U	< 5.0 U	1.5 J	< 5.0 U	< 5.0 U
Calcium	**10**		--	**90700 B**	**94900 B**	**88100**	**78600 J**	**84700**	**73900**	**75300**	--	**126000 B**	**117000**	**133000**
Chromium	**70**		< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 5.0 U	< 5.0 U	6.8 J	7.3 J	**476**	9.2 J
Cobalt	----		--	< 50.0 U	< 50.0 U	< 50.0 U	< 50.0 U	< 50.0 U	< 5.0 U	< 5.0 U	--	< 50.0 U	5.1 J	< 50.0 U
Copper	1300		< 25.0 U	< 25.0 UB	< 25.0 UB	< 25.0 U	< 25.0 U	< 25.0 U	< 5.0 U	< 5.0 U	4.5 J	< 25.0 UB	15.4 J	< 25.0 U
Iron	**300**		--	**308**	**302**	**351**	**2850**	183	< 150 U	192	--	**795**	**2670**	**890**
Lead	**5**		< 5.0 U	3.9 J	< 5.0 U	3.2 J	4.9 J	< 5.0 U	< 1.5 U	< 1.5 U	3.0 J	4.70 J	< 5.0 U	**8.4**
Magnesium	----		--	14900	15000	13600	12400	13300	12900	13200	--	16300	13600	16100
Manganese	**50**		--	**2460**	**2520**	**2310**	**2330**	**2580**	**2440**	**2480**	--	**3680**	**3560**	**4310**
Mercury	2		< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
Nickel	**100**		19.8 J	21.2 J	21.5 J	17.9 J	18.9 J	17.4 J	14.9	14.9	25.9 J	25.4 J	**302**	27.5 J
Potassium	----		--	1200 J	1340 J	1320 J	988 J	1030 J	811	867	--	1160 J	2300 J	1430 J
Selenium	40		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	4.3 J	< 5.0 U	< 2.5 U	< 2.5 U	< 5.0 U	< 5.0 U	< 5.0 U	4.1 J
Silver	40		< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	1.0 J	< 10.0 U	< 5.0 U	< 5.0 U	1.3 J	< 10.0 U	< 10.0 U	0.91 J
Sodium	**50000**		--	27800	29500	25500	28700	28700	26900	27400	--	46700	41000	50000
Thallium	2		< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 1.0 U	< 1.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U
Vanadium	----		--	< 50.0 U	< 50.0 U	< 50.0 U	< 50.0 U	< 50.0 U	< 5.0 U	< 5.0 U	--	3.80 J	2.8 J	< 50.0 U
Zinc	**2000**		30.5	81.1	92.8	38.2	113	34	< 20.0 U	< 20.0 U	25.0 J	9.1 J	< 30.0 U	32.7
Aluminum (dissolved)	**200**		--	< 200 UJ	83.8 J	< 200 U	< 200 U	< 200 U	< 50.0 U	< 50.0 U	--	83.4 J	< 200 U	< 200 U
Antimony (dissolved)	6		< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 2.5 U	< 2.5 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U
Arsenic (dissolved)	**3**		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 2.5 U	< 2.5 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Barium (dissolved)	6000		--	334	348	341	378	367	343	348	--	288	255	420
Beryllium (dissolved)	1		< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Cadmium (dissolved)	4		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 2.5 U	< 2.5 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Calcium (dissolved)	**10**		--	**82400**	**89100**	**88800**	**92100 J**	**84800**	**79700**	**79800**	--	**134000**	**111000**	**142000**
Chromium Total (dissolved)	70		< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 5.0 U	< 5.0 U	< 10.0 U	< 10.0 U	14.5	< 10.0 U
Cobalt (dissolved)	----		--	< 50.0 U	< 50.0 U	< 50.0 U	< 50.0 U	< 50.0 U	< 5.0 U	< 5.0 U	--	< 50.0 U	< 50.0 U	< 50.0 U
Copper (dissolved)	1300		< 25.0 U	< 25.0 U	< 25.0 U	< 25.0 U	< 25.0 U	< 25.0 U	< 5.0 U	< 5.0 U	< 25.0 U	< 25.0 U	< 25.0 U	< 25.0 U
Iron (dissolved)	**300**		--	< 150 U	< 150 U	78.4 J	< 150 U	< 150 U	< 150 U	< 150 U	--	124 J	**594**	152
Lead (dissolved)	5		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 1.5 U	< 1.5 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Magnesium (dissolved)	----		--	13700	14500	13900	14000	13400	13500	13500	--	16400	13300	17200
Manganese (dissolved)	**50**		--	**2250**	**2370**	**2350**	**2490**	**2600**	**2570**	**2600**	--	**3780**	**3380**	**4550**
Mercury (dissolved)	2		< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
Nickel (dissolved)	100		20.9 J	19.0 J	20.2 J	17.8 J	16.1 J	17.7 J	15	15.4	22.8 J	21.5 J	22.6 J	22.8 J
Potassium (dissolved)	----		--	949 J	1000 J	1500 J	1210 J	934 J	899	900	--	1060 J	2250 J	1500 J
Selenium (dissolved)	40		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 2.5 U	< 2.5 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Silver (dissolved)	40		< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	0.71 J	< 10.0 U	< 5.0 U	< 5.0 U	< 10.0 U	< 10.0 U	0.81 J	< 10.0 U
Sodium (dissolved)	**50000**		--	25200	27400	25900	32900	29300	28300	28400	--	49800	38900	**53700**
Thallium (dissolved)	2		< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 1.0 U	< 1.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U
Vanadium (dissolved)	----		--	< 50.0 U	< 50.0 U	< 50.0 U	< 50.0 U	< 50.0 U	< 5.0 U	< 5.0 U	--	2.7 J	< 50.0 U	< 50.0 U
Zinc (dissolved)	2000		< 30.0 U	< 30.0 U	< 30.0 U	< 30.0 U	9.8 J	< 30.0 U	< 20.0 U	< 20.0 U	< 30.0 U	< 30.0 U	< 30.0 U	< 30.0 U

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
B indicates analyte detected in blank
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Exceedences **BOLD** and boxed
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Table 9C. Groundwater Analytical Results (September 2009-October 2014), Metals
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID:	MW-20	MW-20	MW-37B	MW-37B	MW-37B	MW-37B	MW-37B	MW-37B	MW-37B	MW-37B	MW-37B
		Sample Date:	10/1/2013	10/7/2014	9/14/2009	9/14/2009	9/17/2010	9/17/2010	9/15/2011	9/15/2011	9/26/2012	10/2/2013	10/1/2014
		Sample Name:	MW-20LF (100113)	MW-20LF (100714)	DUPLF (091409)	MW-37BLF (091409)	DUPLF (091710)	MW-37BLF (091710)	DUPLF (091511)	MW-37BLF (091511)	MW-37BLF(092612)	MW-37BLF (100213)	MW-37BLF(1001114)
Aluminum	**200**		< 200 U	< 200 U	--	--	167 J	120 J	**347**	**364**	**327**	118 J	57.0 J
Antimony	6		< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 2.5 U
Arsenic	**3**		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 2.5 U
Barium	6000		346	334	--	--	132 J	130 J	85.9 J	86.8 J	130 J	148 J	125
Beryllium	**1**		< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U
Cadmium	**4**		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 2.5 U
Calcium	**10**		**143000**	**126000**	--	--	**118000**	**118000**	**74400**	**74100**	**109000**	**127000**	**112000**
Chromium	**70**		< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	3.9 J	4.8 J	10.9	< 10.0 U	< 5.0 U
Cobalt	----		< 50.0 U	< 50.0 U	--	--	< 50.0 U	< 50.0 U	< 50.0 U	< 50.0 U	< 50.0 U	< 50.0 U	< 5.0 U
Copper	1300		< 25.0 U	< 25.0 U	< 25.0 U	< 25.0 U	< 25.0 U	< 25.0 U	8.7 J	11.9 J	< 25.0 U	< 25.0 U	< 5.0 U
Iron	**300**		274	146 J	--	--	72.2 J	78.0 J	**983**	**1060**	**310**	109 J	< 150 U
Lead	**5**		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	4.7 J	3.3 J	3.3 J	< 5.0 U	< 5.0 U	< 5.0 U	< 1.5 U
Magnesium	----		17500	15300	--	--	13000	13100	9030	9030	12300	13900	13400
Manganese	**50**		**4490**	**3990**	--	--	4.2 J	4.5 J	**153**	**191**	17.5	11.1 J	< 10.0 U
Mercury	2		0.16 J	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
Nickel	**100**		22.3 J	17.8 J	< 40.0 U	< 40.0 U	< 40.0 U	< 40.0 U	4.8 J	5.5 J	7.4 J	< 40.0 U	< 5.0 U
Potassium	----		1410 J	1250 J	--	--	1260 J	1220 J	1130 J	1320 J	1330 J	1280 J	1160
Selenium	40		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	4.2 J	< 5.0 U	< 2.5 U
Silver	40		< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 5.0 U
Sodium	**50000**		49600	46200	--	--	19200	19100	26900	27800	18600	20000	19700
Thallium	2		< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 1.0 U
Vanadium	----		< 50.0 U	< 50.0 U	--	--	4.6 J	4.5 J	6.5 J	6.2 J	< 50.0 U	5.2 J	4.8 J
Zinc	**2000**		6.5 J	< 30.0 U	< 30.0 U	< 30.0 U	< 30.0 U	< 30.0 U	170	180	6.4 J	5.6 J	< 20.0 U
Aluminum (dissolved)	**200**		< 200 U	< 200 U	--	--	< 200 U	< 200 U	< 200 U	< 200 U	< 200 U	< 200 U	< 50.0 U
Antimony (dissolved)	6		< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 2.5 U
Arsenic (dissolved)	**3**		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 2.5 U
Barium (dissolved)	6000		344	334	--	--	134 J	132 J	86.5 J	85.6 J	137 J	140 J	133
Beryllium (dissolved)	1		< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U
Cadmium (dissolved)	4		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 2.5 U
Calcium (dissolved)	**10**		**141000**	**132000**	--	--	**125000**	**123000**	**72400**	**77300**	**124000**	**125000**	**115000**
Chromium Total (dissolved)	70		< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 5.0 U
Cobalt (dissolved)	----		< 50.0 U	< 50.0 U	--	--	< 50.0 U	< 50.0 U	< 50.0 U	< 50.0 U	< 50.0 U	< 50.0 U	< 5.0 U
Copper (dissolved)	1300		< 25.0 U	< 25.0 U	< 25.0 U	< 25.0 U	< 25.0 U	28.2	5.8 J	< 25.0 U	< 25.0 U	< 25.0 U	< 5.0 U
Iron (dissolved)	**300**		209	156	--	--	< 150 U	< 150 U	< 150 U	< 150 U	< 150 U	< 150 U	< 150 U
Lead (dissolved)	5		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 1.5 U
Magnesium (dissolved)	----		17400	16100	--	--	13400	13300	9200	9510	13900	13800	13500
Manganese (dissolved)	**50**		**4480**	**4200**	--	--	< 15.0 U	< 15.0 U	**748 J**	**326 J**	< 15.0 U	< 15.0 U	< 10.0 U
Mercury (dissolved)	2		< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
Nickel (dissolved)	100		20.5 J	18.0 J	< 40.0 U	< 40.0 U	< 40.0 U	< 40.0 U	< 40.0 U	< 40.0 U	< 40.0 U	< 40.0 U	< 5.0 U
Potassium (dissolved)	----		1420 J	1290 J	--	--	1220 J	1190 J	1280 J	1450 J	1350 J	1260 J	1300
Selenium (dissolved)	40		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	4.6 J	< 5.0 U	< 2.5 U
Silver (dissolved)	40		< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 5.0 U
Sodium (dissolved)	**50000**		49800	46900	--	--	18400	18600	29600	30500	21100	19800	19600
Thallium (dissolved)	2		< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 1.0 U
Vanadium (dissolved)	----		< 50.0 U	< 50.0 U	--	--	4.3 J	4.5 J	5.0 J	5.5 J	< 50.0 U	5.4 J	4.6 J
Zinc (dissolved)	2000		< 30.0 U	< 30.0 U	< 30.0 U	< 30.0 U	< 30.0 U	< 30.0 U	114	130	< 30.0 U	< 30.0 U	< 20.0 U

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
B indicates analyte detected in blank
J indicates an estimated value.
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
---- GWQS not published.

Table 9C. Groundwater Analytical Results (September 2009-October 2014), Metals
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID:	OW-24	OW-25S	OW-26S	OW-32D	OW-32D	OW-32D	OW-32D	OW-32D	OW-32D	OW-46	OW-46
		Sample Date:	9/21/2011	9/19/2011	9/19/2011	9/16/2009	9/20/2010	9/16/2011	10/2/2012	10/8/2013	10/8/2014	9/16/2009	9/19/2011
		Sample Name:	OW-24LF (092111)	OW-25SLF(091911)	OW-26SLF(091911)	OW-32DLF (091609)	OW-32DLF(092010)	MW-32DLF (091611)	OW-32DPB(100212)	OW-32DLF (100813)	OW-32DLF(100814)	OW-46PB (091609)	OW-46LF(091911)
Aluminum	**200**		**67900**	< 200 U	**870**	--	**3340 BJ**	**274**	145 J	**2160**	< 50.0 U	--	**554**
Antimony	6		< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 2.5 U	< 10.0 U	< 10.0 U
Arsenic	**3**		**50.9**	**22**	**9.3**	< 5.0 U	**6.7**	**4.5 J**	< 5.0 U	**5.3**	2.3 J	**39.8**	**3.8 J**
Barium	6000		968	227	63.1 J	--	130 J	34.5 J	106 J	154 J	103	--	40.3 J
Beryllium	**1**		**3.9**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	**3.7**	< 2.0 U
Cadmium	**4**		**5.6**	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 2.5 U	3.3 J	< 5.0 U
Calcium	**10**		**126000**	**141000**	**38100**	--	**68100 B**	**24900**	**64500**	**73600**	**71400**	--	**22600**
Chromium	**70**		**3480**	< 10.0 U	**486**	10.3	19.6	7.2 J	27.6	20.7	< 5.0 U	**1480**	3.5 J
Cobalt	----		158	< 50.0 U	9.1 J	--	5.10 J	< 50.0 U	< 50.0 U	< 50.0 U	< 5.0 U	--	< 50.0 U
Copper	1300		1100	27.1	44.2	32.6 JB	62.7 B	7.4 J	< 25.0 U	32.9	< 5.0 U	250	17.3 J
Iron	**300**		**122000**	**9800**	**19400**	--	**4500**	**1850**	**1880**	**3780**	< 150 U	--	**3480**
Lead	**5**		**201**	**6.2**	**7.5**	< 5.0 U	**12.5**	< 5.0 U	< 5.0 U	**8.3**	< 1.5 U	**71.4**	< 5.0 U
Magnesium	----		46100	37400	9480	--	26600	8680	13300	12600	13600	--	1910 J
Manganese	**50**		**1810**	**1320**	**2050**	--	**2360**	**993**	**3240**	**3600**	**3040**	--	**152**
Mercury	2		0.78	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	0.48	< 0.20 U
Nickel	**100**		**2000**	< 40.0 U	**245**	8.4 J	16 J	7.0 J	12.1 J	16.6 J	6.4	**779**	< 40.0 U
Potassium	----		13300	20400	6500	--	21000	11200	13000	7830	9210	--	7060
Selenium	40		10.8	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 2.5 U	< 5.0 U	< 5.0 U
Silver	40		< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	1.1 J	< 10.0 U	< 5.0 U	< 10.0 U	< 10.0 U
Sodium	**50000**		17300	**84100**	12400	--	31600	13600	22900	21700	21900	--	10700
Thallium	2		< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 1.0 U	< 10.0 U	< 10.0 U
Vanadium	----		146	< 50.0 U	5.3 J	--	10.4 J	3.1 J	< 50.0 U	7.5 J	< 5.0 U	--	< 50.0 U
Zinc	**2000**		1260	16.0 J	397	29.6 J	355	16.8 J	12.4 J	292	< 20.0 U	**3850**	476
Aluminum (dissolved)	**200**		< 200 U	< 200 U	< 200 U	--	**227 J**	168 J	81.1 J	< 200 U	134	--	< 200 U
Antimony (dissolved)	6		< 10.0 U	< 10.0 U	< 10.0 U	3.5 J	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 2.5 U	< 10.0 U	< 10.0 U
Arsenic (dissolved)	**3**		< 5.0 U	**17.6**	< 5.0 U	< 5.0 U	< 5.0 U	**3.5 J**	**6**	< 5.0 U	2.5	< 5.0 U	< 5.0 U
Barium (dissolved)	6000		307	219	49.2 J	--	83.8 J	30.5 J	81.9 J	125 J	125	--	37.0 J
Beryllium (dissolved)	1		< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U
Cadmium (dissolved)	4		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 2.5 U	< 5.0 U	< 5.0 U
Calcium (dissolved)	**10**		**124000**	**141000**	**41700**	--	**70200**	**22000**	**61000**	**79700**	**71600**	--	**23400**
Chromium Total (dissolved)	70		< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	4.5 J	< 10.0 U	< 10.0 U	< 5.0 U	3.2 J	< 10.0 U
Cobalt (dissolved)	----		< 50.0 U	< 50.0 U	< 50.0 U	--	< 50.0 U	< 50.0 U	< 50.0 U	< 50.0 U	< 5.0 U	--	< 50.0 U
Copper (dissolved)	1300		< 25.0 U	< 25.0 U	< 25.0 U	7.8 B	< 25.0 U	4.3 J	< 25.0 U	< 25.0 U	< 5.0 U	< 25.0 U	< 25.0 U
Iron (dissolved)	**300**		**1600**	**8480**	**14600**	--	270	**1500**	**682**	153	**486**	--	**2970**
Lead (dissolved)	5		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 1.5 U	< 5.0 U	< 5.0 U
Magnesium (dissolved)	----		29000	37700	10000	--	26100	8400	13200	13300	13000	--	1880 J
Manganese (dissolved)	**50**		**1180**	**1310**	**2270**	--	**2210**	**940**	**2610**	**3830**	**3310**	--	**157**
Mercury (dissolved)	2		< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
Nickel (dissolved)	100		15.0 J	< 40.0 U	< 40.0 U	6.5 J	5.8 J	6.4 J	5.1 J	7.6 J	7.3	15.5 J	< 40.0 U
Potassium (dissolved)	----		9130	20400	6520	--	21000	9990	12400	8160	8930	--	7060
Selenium (dissolved)	40		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 2.5 U	< 5.0 U	< 5.0 U
Silver (dissolved)	40		< 10.0 U	< 10.0 U	0.71 J	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 5.0 U	< 10.0 U	< 10.0 U
Sodium (dissolved)	**50000**		20500	**84800**	13500	--	32000	12200	21500	23900	20300	--	12100
Thallium (dissolved)	2		< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 1.0 U	< 10.0 U	< 10.0 U
Vanadium (dissolved)	----		< 50.0 U	< 50.0 U	< 50.0 U	--	3.4 J	< 50.0 U	< 50.0 U	< 50.0 U	< 5.0 U	--	< 50.0 U
Zinc (dissolved)	2000		24.7 J	45	10.2 J	9.7 J	12.2 J	14.1 J	10.5 J	< 30.0 U	19.9 J	< 30.0 U	< 30.0 U

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
B indicates analyte detected in blank
J indicates an estimated value.
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
---- GWQS not published.

Table 9D. Groundwater Analytical Results (September 2009-October 2014), PCBs
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID: / Sample Date: / Sample Name:	MW-12 9/10/2009 MW-12LF (091009)	MW-12 9/10/2009 MW-12PB (091009)	MW-12 9/15/2010 MW-12PB (091510)	MW-12 9/15/2011 MW-12PB (091511)	MW-12 9/27/2012 MW-12PB(092712)	MW-12 10/4/2013 MW-12PB(100413)	MW-12 10/2/2014 MW-12PB(100214)	MW-13 9/17/2009 MW-13LF (091709)	MW-13 9/21/2011 MW- 13PB (092111)	MW-13 10/2/2012 MW-13PB(100212)	MW-13 10/9/2013 MW-13PB(100913)	MW-13 10/9/2014 MW-13(100914)	MW-15 9/14/2009 MW-15PB (091409)	MW-15 9/14/2009 MW-15LF (091409)
Aroclor-1016 (PCB-1016)	----		< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U *	< 1.0 U	< 1.1 U	< 1.2 U*	< 1.1 U*	< 1.1 U *	< 1.0 U	< 1.0 U *	< 1.0 U *
Aroclor-1221 (PCB-1221)	----		< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1232 (PCB-1232)	----		< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1242 (PCB-1242)	----		< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1248 (PCB-1248)	----		< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1254 (PCB-1254)	----		< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1260 (PCB-1260)	----		< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.2 U*	< 1.1 U*	< 1.1 U	< 1.0 U	< 1.0 U *	< 1.0 U *
Aroclor-1262 (PCB-1262)	----		--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.2 U	< 1.1 U	< 1.1 U	< 1.0 U	--	--
Aroclor-1268 (PCB-1268)	----		--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	< 1.2 U	< 1.1 U	< 1.1 U	< 1.0 U	--	--
Total PCBs	**0.5**		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID: / Sample Date: / Sample Name:	MW-15 9/20/2010 DUP(092010)	MW-15 9/20/2010 MW-15PB(092010)	MW-15 9/16/2011 MW-15PB (091611)	MW-15 9/27/2012 MW-15PB(092712)	MW-15 10/9/2013 MW-15PB(100913)	MW-15 10/2/2014 DUP-100214	MW-15 10/2/2014 MW-15PB(100214)	MW-17A 9/9/2009 MW-17APB (090909)	MW-17A 9/9/2009 MW-17ALF (090909)	MW-17A 9/14/2010 MW-17APB(091410)	MW-17A 9/16/2011 MW-17APB (091611)	MW-17A 9/28/2012 MW-17APB(092812)	MW-17A 10/3/2013 MW-17APB(100313)	MW-17A 9/30/2014 MW-17APB(093014)
Aroclor-1016 (PCB-1016)	----		< 1.1 U *	< 1.1 U *	< 1.0 U*	< 1.0 U	< 1.1 U *	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U*	< 1.0 U	< 1.0 U*	< 1.1 U	< 1.0 U
Aroclor-1221 (PCB-1221)	----		< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U
Aroclor-1232 (PCB-1232)	----		< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U
Aroclor-1242 (PCB-1242)	----		< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U
Aroclor-1248 (PCB-1248)	----		2.2	1.8	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U
Aroclor-1254 (PCB-1254)	----		< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U
Aroclor-1260 (PCB-1260)	----		< 1.1 U *	< 1.1 U *	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U*	< 1.1 U	< 1.0 U
Aroclor-1262 (PCB-1262)	----		--	--	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	--	--	--	< 1.0 U	< 1.0 U	< 1.1 U	--
Aroclor-1268 (PCB-1268)	----		--	--	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	--	--	--	< 1.0 U	< 1.0 U	< 1.1 U	--
Total PCBs	**0.5**		**2.2**	**1.8**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID: / Sample Date: / Sample Name:	MW-18 9/10/2009 MW-18LF (091009)	MW-18 9/10/2009 MW-18PB (091009)	MW-18 9/14/2010 MW-18PB(091410)	MW-18 9/14/2011 MW-18PB(091411)	MW-18 9/28/2012 MW-18PB(092812)	MW-18 10/2/2013 MW-18PB (100213)	MW-18 9/30/2014 MW-18PB(093014)	MW-19 9/15/2009 MW-19LF (091509)	MW-19 9/15/2009 MW-19PB (091509)	MW-19 9/21/2011 MW-19PB (092111)	MW-19 9/28/2012 MW-19PB(092812)	MW-19 10/1/2013 MW-19PB (100113)	MW-19 10/2/2014 MW-19PB(100314)	MW-20 9/15/2009 MW-20LF (091509)
Aroclor-1016 (PCB-1016)	----		< 1.0 U	< 1.0 U	< 1.0 U*	< 1.0 U	< 1.0 U*	< 1.0 U	< 1.0 U	< 1.0 U *	< 1.0 U *	< 1.0 U*	< 1.1 U	< 1.3 U	< 1.0 U	< 1.1 U
Aroclor-1221 (PCB-1221)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.3 U	< 1.0 U	< 1.1 U
Aroclor-1232 (PCB-1232)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.3 U	< 1.0 U	< 1.1 U
Aroclor-1242 (PCB-1242)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.3 U	< 1.0 U	< 1.1 U
Aroclor-1248 (PCB-1248)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.3 U	< 1.0 U	< 1.1 U
Aroclor-1254 (PCB-1254)	----		< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.3 U	< 1.0 U	< 1.1 U
Aroclor-1260 (PCB-1260)	----		3.1	1.7	0.49 Jp	1.8	0.54 J*	1.5	< 1.0 U	< 1.0 U *	< 1.0 U *	< 1.0 U*	< 1.1 U	< 1.3 U	< 1.0 U	< 1.1 U
Aroclor-1262 (PCB-1262)	----		--	--	--	--	< 1.0 U	< 1.0 U	--	--	--	< 1.0 U	< 1.1 U	< 1.3 U	< 1.0 U	--
Aroclor-1268 (PCB-1268)	----		--	--	--	--	< 1.0 U	< 1.0 U	--	--	--	< 1.0 U	< 1.1 U	< 1.3 U	< 1.0 U	--
Total PCBs	**0.5**		**3.1**	**1.7**	**1.89**	**1.8**	**0.54**	**1.5**	ND	ND	ND	ND	ND	ND	ND	ND

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
* indicates duplicate analysis was not within control limits
D indicates that the reported result is from a dilution.
H indicates that the sample was run outside of its hold time.
J indicates an estimated value
p indicates the percent difference for the detected mean concentrations between the two gas chromatograph columns were not within 25 percent.
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
---- GWQS not published

Table 9D. Groundwater Analytical Results (September 2009-October 2014), PCBs
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID: / Sample Date: / Sample Name:	MW-20 9/15/2009 MW-20BP (091509)	MW-20 9/21/2010 MW-20PB(092110)	MW-20 9/20/2011 MW-20PB (092011)	MW-20 9/25/2012 MW-20PB(092512)	MW-20 10/1/2013 MW-20PB (100113)	MW-20 10/7/2014 MW-20PB (100714)	MW-21 9/15/2009 MW-21LF (091509)	MW-21 9/15/2009 MW-21PB (091509)	MW-21 9/21/2010 MW-21PB(092110)	MW-21 9/20/2011 MW-21PB (092011)	MW-21 9/28/2012 MW-21PB(092812)	MW-21 10/2/2013 MW-21PB (100213)	MW-21 10/7/2014 MW-21PB (100714)	MW-31B2 9/15/2009 MW-31B2LF (091509)
Aroclor-1016 (PCB-1016)	----		< 1.1 U	< 1.1 U *	< 1.3 U*	< 1.0 U*	< 1.1 U	< 1.1 U	< 1.0 U *	< 1.0 U *	< 1.1 U*	< 1.1 U*	< 1.0 U*	< 1.0 U	< 1.0 U	< 1.0 U *
Aroclor-1221 (PCB-1221)	----		< 1.1 U	< 1.1 U	< 1.3 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1232 (PCB-1232)	----		< 1.1 U	< 1.1 U	< 1.3 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1242 (PCB-1242)	----		< 1.1 U	< 1.1 U	< 1.3 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1248 (PCB-1248)	----		< 1.1 U	< 1.1 U	< 1.3 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1254 (PCB-1254)	----		< 1.1 U	< 1.1 U	< 1.3 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1260 (PCB-1260)	----		< 1.1 U	< 1.1 U *	< 1.3 U*	< 1.0 U	< 1.1 U	< 1.1 U	< 1.0 U *	< 1.0 U *	< 1.1 U *	< 1.1 U*	< 1.0 U*	< 1.0 U	< 1.0 U	< 1.0 U *
Aroclor-1262 (PCB-1262)	----		--	--	< 1.3 U	< 1.0 U	< 1.1 U	--	--	--	--	< 1.1 U	< 1.0 U	< 1.0 U	--	--
Aroclor-1268 (PCB-1268)	----		--	--	< 1.3 U	< 1.0 U	< 1.1 U	--	--	--	--	< 1.1 U	< 1.0 U	< 1.0 U	--	--
Total PCBs	**0.5**		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID: / Sample Date: / Sample Name:	MW-31B2 9/15/2009 MW-31B2PB (091509)	MW-31B2 9/21/2010 MW-31B2PB(092110)	MW-31B2 9/20/2011 MW-31B2PB (092011)	MW-31B2 9/25/2012 MW-31B2PB(092512)	MW-31B2 10/8/2013 MW-31B2PB(100813)	MW-31B2 10/7/2014 MW-31B2PB (100714)	MW-31B3 9/16/2009 MW-31B3LF (091609)	MW-31B3 9/16/2009 MW-31B3PB (091609)	MW-31B3 9/16/2010 MW-31B3PB (091610)	MW-31B3 9/21/2011 MW-31B 3PB (092111)	MW-31B3 10/1/2012 MW-31B3BP(100112)	MW-31B3 10/4/2013 MW-31B3PB(100413)	MW-31B3 10/8/2014 DUP(100814)	MW-31B3 10/8/2014 MW-31B3(100814)
Aroclor-1016 (PCB-1016)	----		< 1.0 U *	< 1.0 U *	< 1.0 U*	< 1.0 U*	< 1.0 U *	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U*	< 1.0 U*	< 1.0 U*	< 1.0 U *	< 1.0 U	< 1.0 U
Aroclor-1221 (PCB-1221)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1232 (PCB-1232)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1242 (PCB-1242)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1248 (PCB-1248)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1254 (PCB-1254)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1260 (PCB-1260)	----		< 1.0 U *	< 1.0 U *	< 1.0 U*	< 1.0 U	< 1.0 U *	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U*	< 1.0 U*	< 1.0 U*	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1262 (PCB-1262)	----		--	--	< 1.0 U	< 1.0 U	--	--	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1268 (PCB-1268)	----		--	--	< 1.0 U	< 1.0 U	--	--	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Total PCBs	**0.5**		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID: / Sample Date: / Sample Name:	MW-36B 9/10/2009 MW-36BLF (091009)	MW-36B 9/10/2009 MW-36BPB (091009)	MW-36B 9/15/2010 MW-36BPB (091510)	MW-36B 9/15/2011 MW-36BPB (091511)	MW-36B 9/25/2012 MW-36BPB(092512)	MW-36B 10/4/2013 MW-36BPB(100413)	MW-36B 9/30/2014 MW-36BPB(093014)	MW-37 9/14/2009 MW-37LF (091409)	MW-37 9/14/2009 MW-37PB (091409)	MW-37 9/17/2010 MW-37PB (091710)	MW-37 9/14/2011 MW-37PB(091411)	MW-37 9/26/2012 MW-37PB(092612)	MW-37 10/2/2013 MW-37PB (100213)	MW-37 10/1/2014 MW-37PB(1001114)
Aroclor-1016 (PCB-1016)	----		< 1.0 U	< 1.0 U	< 1.2 U	< 1.0 U*	< 1.0 U*	< 1.1 U *	< 1.0 U	< 1.0 U *	< 1.0 U *	< 1.1 U*	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U
Aroclor-1221 (PCB-1221)	----		< 1.0 U	< 1.0 U	< 1.2 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U
Aroclor-1232 (PCB-1232)	----		< 1.0 U	< 1.0 U	< 1.2 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U
Aroclor-1242 (PCB-1242)	----		< 1.0 U	< 1.0 U	< 1.2 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U
Aroclor-1248 (PCB-1248)	----		< 1.0 U	< 1.0 U	< 1.2 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U
Aroclor-1254 (PCB-1254)	----		< 1.0 U	< 1.0 U	< 1.2 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U
Aroclor-1260 (PCB-1260)	----		< 1.0 U	< 1.0 U	< 1.2 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U *	< 1.0 U *	< 1.1 U*	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U
Aroclor-1262 (PCB-1262)	----		--	--	--	< 1.0 U	< 1.0 U	< 1.1 U	--	--	--	--	--	< 1.0 U	< 1.1 U	< 1.0 U
Aroclor-1268 (PCB-1268)	----		--	--	--	< 1.0 U	< 1.0 U	< 1.1 U	--	--	--	--	--	< 1.0 U	< 1.1 U	< 1.0 U
Total PCBs	**0.5**		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
* indicates duplicate analysis was not within control limits
D indicates that the reported result is from a dilution.
H indicates that the sample was run outside of its hold time.
J indicates an estimated value
p indicates the percent difference for the detected mean concentrations between the two gas chromatograph columns were not within 25 percent.
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
---- GWQS not published

Table 9D. Groundwater Analytical Results (September 2009-October 2014), PCBs
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID: Sample Date: Sample Name:	MW-37B 9/14/2009 DUPLF (091409)	MW-37B 9/14/2009 MW-37BLF (091409)	MW-37B 9/14/2009 MW-37BPB (091409)	MW-37B 9/17/2010 MW-37BPB (091710)	MW-37B 9/15/2011 MW-37BPB (091511)	MW-37B 9/26/2012 MW-37BPB(092612)	MW-37B 10/2/2013 MW-37BPB (100213)	MW-37B 10/1/2014 MW-37BPB(1001114)	MW-37B2 9/14/2009 MW-37B2LF (091409)	MW-37B2 9/14/2009 MW-37B2PB (091409)	MW-37B2 9/17/2010 MW-37B2PB (091710)	MW-37B2 9/14/2011 MW-37B2PB(091411)	MW-37B2 9/26/2012 MW-37B2PB(092612)	MW-37B2 10/2/2013 MW-37B2PB (100213)	MW-37B2 10/1/2014 MW-37B2PB(1001114)
Aroclor-1016 (PCB-1016)	----		< 1.0 U *	< 1.0 U *	< 1.0 U *	< 1.0 U*	< 1.0 U*	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U *	< 1.0 U *	< 1.0 U*	< 1.0 U	< 1.2 U	< 1.2 U	< 1.0 U
Aroclor-1221 (PCB-1221)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.2 U	< 1.2 U	< 1.0 U
Aroclor-1232 (PCB-1232)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.2 U	< 1.2 U	< 1.0 U
Aroclor-1242 (PCB-1242)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.2 U	< 1.2 U	< 1.0 U
Aroclor-1248 (PCB-1248)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.2 U	< 1.2 U	< 1.0 U
Aroclor-1254 (PCB-1254)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.2 U	< 1.2 U	< 1.0 U
Aroclor-1260 (PCB-1260)	----		< 1.0 U *	< 1.0 U *	< 1.0 U *	< 1.0 U*	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U *	< 1.0 U *	< 1.0 U*	< 1.0 U	< 1.2 U	< 1.2 U	< 1.0 U
Aroclor-1262 (PCB-1262)	----		--	--	--	--	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	--	--	--	--	< 1.2 U	< 1.2 U	< 1.0 U
Aroclor-1268 (PCB-1268)	----		--	--	--	--	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	--	--	--	--	< 1.2 U	< 1.2 U	< 1.0 U
Total PCBs	**0.5**		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID: Sample Date: Sample Name:	MW-37B3 9/14/2009 MW-37B3LF (091409)	MW-37B3 9/14/2009 MW-37B3PB (091409)	MW-37B3 9/17/2010 MW-37B3PB (091710)	MW-37B3 9/14/2011 MW-37B3PB(091411)	MW-37B3 9/26/2012 MW-37B3PB(092612)	MW-37B3 10/2/2013 MW-37B3PB (100213)	MW-37B3 10/1/2014 MW-37B3PB(1001114)	MW-38 9/11/2009 MW-38LF (091109)	MW-38 9/11/2009 MW-38PB (091109)	MW-38 9/15/2010 MW-38PB (091510)	MW-38 9/14/2011 MW-38PB(091411)	MW-38 10/2/2013 DUP (100213)	MW-38 10/2/2013 MW-38PB (100213)	MW-38 9/30/2014 MW-38PB(093014)	MW-38B 9/11/2009 MW-38BLF (091109)
Aroclor-1016 (PCB-1016)	----		< 1.1 U *	< 1.0 U *	< 1.2 U*	< 1.0 U	< 1.0 U*	< 1.1 U	< 1.0 U	< 1.0 U *	< 1.0 U *	< 1.0 U	< 1.0 U	< 1.3 U	< 1.2 U	< 1.0 U	< 1.0 U *
Aroclor-1221 (PCB-1221)	----		< 1.1 U	< 1.0 U	< 1.2 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.3 U	< 1.2 U	< 1.0 U	< 1.0 U
Aroclor-1232 (PCB-1232)	----		< 1.1 U	< 1.0 U	< 1.2 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.3 U	< 1.2 U	< 1.0 U	< 1.0 U
Aroclor-1242 (PCB-1242)	----		< 1.1 U	< 1.0 U	< 1.2 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.3 U	< 1.2 U	< 1.0 U	< 1.0 U
Aroclor-1248 (PCB-1248)	----		< 1.1 U	< 1.0 U	< 1.2 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.3 U	< 1.2 U	< 1.0 U	< 1.0 U
Aroclor-1254 (PCB-1254)	----		< 1.1 U	< 1.0 U	< 1.2 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.3 U	< 1.2 U	< 1.0 U	< 1.0 U
Aroclor-1260 (PCB-1260)	----		< 1.1 U *	< 1.0 U *	< 1.2 U*	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U *	< 1.0 U *	< 1.0 U	< 1.0 U	< 1.3 U	< 1.2 U	< 1.0 U	< 1.0 U *
Aroclor-1262 (PCB-1262)	----		--	--	--	--	< 1.0 U	< 1.1 U	< 1.0 U	--	--	--	--	< 1.3 U	< 1.2 U	--	--
Aroclor-1268 (PCB-1268)	----		--	--	--	--	< 1.0 U	< 1.1 U	< 1.0 U	--	--	--	--	< 1.3 U	< 1.2 U	--	--
Total PCBs	**0.5**		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID: Sample Date: Sample Name:	MW-38B 9/11/2009 MW-38BPB (091109)	MW-38B 9/15/2010 MW-38BPB (091510)	MW-38B 9/14/2011 MW-38BPB(091411)	MW-38B 10/1/2012 DUP(100112)	MW-38B 10/1/2012 MW-38BPB(100112)	MW-38B 10/2/2013 MW-38BPB (100213)	MW-38B 9/30/2014 MW-38BPB(093014)	MW-39 9/10/2009 DUPLF (091009)	MW-39 9/10/2009 MW-39LF (091009)	MW-39 9/10/2009 MW-39PB (091009)	MW-39 9/16/2010 MW-39PB (091610)	MW-39 9/13/2011 MW-39PB (091311)	MW-39 8/27/2014 MW-39PB (082714)	MW-39B 9/10/2009 MW-39BLF (091009)	MW-39B 9/10/2009 MW-39BPB (091009)
Aroclor-1016 (PCB-1016)	----		< 1.0 U *	< 1.0 U	< 1.0 U	< 1.0 U*	< 1.0 U*	< 1.1 U	< 1.0 U	< 1.0 U *	< 1.0 U	< 1.0 U	< 1.1 U*	< 1.0 U*	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1221 (PCB-1221)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1232 (PCB-1232)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1242 (PCB-1242)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1248 (PCB-1248)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1254 (PCB-1254)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1260 (PCB-1260)	----		< 1.0 U *	< 1.0 U	< 1.0 U	< 1.0 U*	< 1.0 U*	< 1.1 U	< 1.0 U	< 1.0 U *	< 1.0 U	< 1.0 U	< 1.1 U*	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1262 (PCB-1262)	----		--	--	--	< 1.0 U	< 1.0 U	< 1.1 U	--	--	--	--	--	< 1.0 U	--	--	--
Aroclor-1268 (PCB-1268)	----		--	--	--	< 1.0 U	< 1.0 U	< 1.1 U	--	--	--	--	--	< 1.0 U	--	--	--
Total PCBs	**0.5**		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
* indicates duplicate analysis was not within control limits
D indicates that the reported result is from a dilution.
H indicates that the sample was run outside of its hold time.
J indicates an estimated value
p indicates the percent difference for the detected mean concentrations between the two gas chromatograph columns were not within 25 percent.
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
---- GWQS not published

Table 9D. Groundwater Analytical Results (September 2009-October 2014), PCBs
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID:	MW-39B	MW-39B	MW-39B	MW-39B	MW-39B	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-7
		Sample Date:	9/16/2010	9/13/2011	9/26/2012	10/3/2013	8/27/2014	9/10/2009	9/10/2009	9/16/2010	9/13/2011	9/25/2012	10/3/2013	8/27/2014	8/27/2014	9/11/2009
		Sample Name:	MW-39BPB (091610)	MW-39BPB (091311)	MW-39BPB(092612)	MW-39B(100313)	MW-39BPB (082714)	MW-4LF (091009)	MW-4PB (091009)	MW-4PB (091610)	MW-4PB (091311)	MW-4PB(092512)	MW-4PB(100313)	DUP082714	MW-4PB (082714)	MW-7LF (091109)
Aroclor-1016 (PCB-1016)	----		< 1.1 U*	< 1.0 U*	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U*	< 1.0 U*	< 1.0 U*	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U *
Aroclor-1221 (PCB-1221)	----		< 1.1 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1232 (PCB-1232)	----		< 1.1 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1242 (PCB-1242)	----		< 1.1 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1248 (PCB-1248)	----		< 1.1 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1254 (PCB-1254)	----		< 1.1 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1260 (PCB-1260)	----		< 1.1 U*	< 1.0 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U*	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U *
Aroclor-1262 (PCB-1262)	----		--	< 1.0 U	< 1.1 U	< 1.1 U	--	--	--	--	< 1.0 U	< 1.0 U	< 1.1 U	--	--	--
Aroclor-1268 (PCB-1268)	----		--	< 1.0 U	< 1.1 U	< 1.1 U	--	--	--	--	< 1.0 U	< 1.0 U	< 1.1 U	--	--	--
Total PCBs	**0.5**		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID:	MW-7	MW-7	MW-7	MW-7	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-85B3	MW-85B3	MW-85B3
		Sample Date:	9/11/2009	9/17/2010	9/16/2011	9/27/2012	9/15/2009	9/15/2009	9/20/2010	9/20/2011	9/25/2012	10/1/2013	10/7/2014	9/14/2009	9/14/2009	9/16/2010
		Sample Name:	MW-7PB (091109)	MW-7PB (091710)	MW-7PB (091611)	MW-7PB(092712)	MW-8LF (091509)	MW-8BP (091509)	MW-8PB(092010)	MW-8PB (092011)	MW-8PB(092512)	MW-8PB (100113)	MW-8PB (100714)	MW-85B3LF (091409)	MW-85B3PB (091409)	MW-85B3PB (091610)
Aroclor-1016 (PCB-1016)	----		< 1.0 U *	< 1.1 UH	< 1.0 U*	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U *	< 1.3 U*	< 1.0 U*	< 1.3 U	< 1.0 U	< 1.0 U *	< 1.0 U *	< 1.0 U*
Aroclor-1221 (PCB-1221)	----		< 1.0 U	< 1.1 UH	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.3 U	< 1.0 U	< 1.3 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1232 (PCB-1232)	----		< 1.0 U	< 1.1 UH	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.3 U	< 1.0 U	< 1.3 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1242 (PCB-1242)	----		< 1.0 U	< 1.1 UH	< 1.0 U	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.3 U	< 1.0 U	< 1.3 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1248 (PCB-1248)	----		< 1.0 U	< 1.1 UH	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.3 U	< 1.0 U	< 1.3 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1254 (PCB-1254)	----		< 1.0 U	< 1.1 UH	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.3 U	< 1.0 U	< 1.3 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1260 (PCB-1260)	----		< 1.0 U *	< 1.1 UH	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U *	< 1.3 U*	< 1.0 U	< 1.3 U	< 1.0 U	< 1.0 U *	< 1.0 U *	< 1.0 U*
Aroclor-1262 (PCB-1262)	----		--	--	< 1.0 U	< 1.0 U	--	--	--	< 1.3 U	< 1.0 U	< 1.3 U	--	--	--	--
Aroclor-1268 (PCB-1268)	----		--	--	< 1.0 U	< 1.0 U	--	--	--	< 1.3 U	< 1.0 U	< 1.3 U	--	--	--	--
Total PCBs	**0.5**		ND	ND	ND	**1.2**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID:	MW-85B3	MW-85B3	MW-85B3	MW-85B3	MW-85B3	MW-86B3	MW-86B3	MW-86B3	MW-86B3	MW-86B3	MW-86B3	MW-86B3	MW-86B3	MW-9B
		Sample Date:	9/19/2011	10/2/2012	10/2/2012	10/8/2013	10/3/2014	9/16/2009	9/16/2009	9/20/2010	9/19/2011	10/2/2012	10/2/2012	10/7/2013	10/7/2014	9/15/2009
		Sample Name:	MW-85B3PB(091911)	DUP(100212)	MW-85B3PB(100212)	MW-85B3PB (100813)	MW-85B3PB(100314)	MW-86B3LF (091609)	MW-86B2PB (091609)	MW-86B3PB(092010)	IW-86B3PB(09191:	DUP01(100212)	MW-86B3(100212)	MW-86B3PB(100713)	MW-86B3 (100714)	MW-9BLF (091509)
Aroclor-1016 (PCB-1016)	----		< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U *	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U *	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U *	< 1.0 U	< 1.0 U
Aroclor-1221 (PCB-1221)	----		< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1232 (PCB-1232)	----		< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1242 (PCB-1242)	----		< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1248 (PCB-1248)	----		< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1254 (PCB-1254)	----		< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1260 (PCB-1260)	----		< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U *	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U *	< 1.0 U	< 1.0 U
Aroclor-1262 (PCB-1262)	----		< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--
Aroclor-1268 (PCB-1268)	----		< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--
Total PCBs	**0.5**		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
* indicates duplicate analysis was not within control limits
D indicates that the reported result is from a dilution.
H indicates that the sample was run outside of its hold time.
J indicates an estimated value
p indicates the percent difference for the detected mean concentrations between the two gas chromatograph columns were not within 25 percent.
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
---- GWQS not published

Table 9D. Groundwater Analytical Results (September 2009-October 2014), PCBs
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID: / Sample Date: / Sample Name:	MW-9B 9/15/2009 MW-9BPB (091509)	MW-9B 9/20/2010 MW-9BPB(092010)	MW-9B 9/20/2011 MW-9BPB (092011)	MW-9B 9/25/2012 MW-9BPB(092512)	MW-9B 10/1/2013 MW-9BPB (100113)	MW-9B 10/7/2014 MW-9B (100714)	OW-24 9/18/2009 OW-24PB(091809)
Aroclor-1016 (PCB-1016)	----		< 1.0 U	< 1.0 U *	< 1.0 U*	< 1.0 U*	< 1.3 U	< 1.0 U	< 1.1 U
Aroclor-1221 (PCB-1221)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.3 U	< 1.0 U	< 1.1 U
Aroclor-1232 (PCB-1232)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.3 U	< 1.0 U	< 1.1 U
Aroclor-1242 (PCB-1242)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.3 U	< 1.0 U	< 1.1 U
Aroclor-1248 (PCB-1248)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.3 U	< 1.0 U	< 1.1 U
Aroclor-1254 (PCB-1254)	----		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.3 U	< 1.0 U	< 1.1 U
Aroclor-1260 (PCB-1260)	----		< 1.0 U	< 1.0 U *	< 1.0 U*	< 1.0 U	< 1.3 U	< 1.0 U	< 1.1 U
Aroclor-1262 (PCB-1262)	----		--	--	< 1.0 U	< 1.0 U	< 1.3 U	--	--
Aroclor-1268 (PCB-1268)	----		--	--	< 1.0 U	< 1.0 U	< 1.3 U	--	--
Total PCBs	**0.5**		ND	ND	ND	ND	ND	ND	ND

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID: / Sample Date: / Sample Name:	OW-24 9/21/2011 OW-24PB (092111)	OW-25S 9/18/2009 OW-25SPB(091809)	OW-25S 9/19/2011 OW-25SPB(091911)	OW-26S 9/18/2009 OW-26SPB(091809)	OW-26S 9/19/2011 OW-26SPB(091911)	OW-32D 9/16/2009 OW-32DLF (091609)	OW-32D 9/16/2009 OW-32DPB (091609)
Aroclor-1016 (PCB-1016)	----		< 1.1 U*	< 1.1 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1221 (PCB-1221)	----		< 1.1 U	< 1.1 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1232 (PCB-1232)	----		< 1.1 U	< 1.1 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1242 (PCB-1242)	----		< 1.1 U	< 1.1 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1248 (PCB-1248)	----		< 1.1 U	< 1.1 U	< 1.0 U	< 1.1 U	< 1.0 U	1.3	1.1
Aroclor-1254 (PCB-1254)	----		< 1.1 U	< 1.1 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1260 (PCB-1260)	----		< 1.1 U*	< 1.1 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1262 (PCB-1262)	----		< 1.1 U	--	< 1.0 U	--	< 1.0 U	--	--
Aroclor-1268 (PCB-1268)	----		< 1.1 U	--	< 1.0 U	--	< 1.0 U	--	--
Total PCBs	**0.5**		ND	ND	ND	ND	ND	**1.3**	**1.1**

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID: / Sample Date: / Sample Name:	OW-32D 9/20/2010 OW-32DPB(092010)	OW-32D 9/16/2011 MW-32DPB (091611)	OW-32D 10/1/2012 GW-32DPB(100212)	OW-32D 10/8/2013 OW-32DPB (100813)	OW-32D 10/8/2014 OW-32DPB(100814)	OW-46 9/16/2009 OW-46PB (091609)	OW-46 9/19/2011 OW-46PB(091911)
Aroclor-1016 (PCB-1016)	----		< 2.1 U *	< 1.0 U*	< 1.0 U*	< 1.1 U *	< 5.0 U	< 1.0 U	< 5.0 U
Aroclor-1221 (PCB-1221)	----		< 2.1 U	< 1.0 U	< 1.0 U	< 1.1 U	< 5.0 U	< 1.0 U	< 5.0 U
Aroclor-1232 (PCB-1232)	----		< 2.1 U	< 1.0 U	< 1.0 U	< 1.1 U	< 5.0 UJ	1.6	26
Aroclor-1242 (PCB-1242)	----		19	< 1.0 U	< 1.0 U	< 1.1 U	39 DJ	< 1.0 U	< 5.0 U
Aroclor-1248 (PCB-1248)	----		< 2.1 U	< 1.0 U	< 1.0 U	< 1.1 U	< 5.0 UJ	< 1.0 U	< 5.0 U
Aroclor-1254 (PCB-1254)	----		< 2.1 U *	< 1.0 U	< 1.0 U*	< 1.1 U	< 5.0 UJ	< 1.0 U	< 5.0 U
Aroclor-1260 (PCB-1260)	----		--	< 1.0 U	< 1.0 U	< 1.1 U	< 5.0 UJ	--	< 5.0 U
Aroclor-1262 (PCB-1262)	----		--	< 1.0 U	< 1.0 U	< 1.1 U	< 5.0 UJ	--	< 5.0 U
Aroclor-1268 (PCB-1268)	----		**19**	ND	ND	ND	**39**	**1.6**	**26**
Total PCBs	**0.5**								

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
* indicates duplicate analysis was not within control limits
D indicates that the reported result is from a dilution.
H indicates that the sample was run outside of its hold time.
J indicates an estimated value
p indicates the percent difference for the detected mean concentrations between the two gas chromatograph columns were not within 25 percent.
Exceedences **BOLD** and boxed
-- Not sampled/result not reported
---- GWQS not published

Table 9E. Groundwater Analytical Results (September 2009-October 2014), Cyanide and Phenolics
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID:	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15
		Sample Date:	09/14/09	09/20/10	09/20/10	09/16/11	09/27/12	10/09/13	10/02/14	10/02/14
		Sample Name:	MW-15PB (091409)	DUP(092010)	MW-15PB(092010)	MW-15PB (091611)	MW-15PB(092712)	MW-15PB(100913)	MW-15PB(100214)	DUP-100214
Cyanide (total)	100		< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 UJ	< 10 UJ
Phenolics (total)	----		< 50 U	< 50 U	< 50 U	< 500 U	< 50 U	< 250 UB	< 50 U	< 50 U

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID:	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	OW-24	OW-25S
		Sample Date:	09/15/09	09/21/10	09/20/11	09/25/12	10/01/13	10/07/14	09/21/11	09/19/11
		Sample Name:	MW-20BP (091509)	MW-20PB(092110)	MW-20PB (092011)	MW-20PB(092512)	MW-20PB (100113)	MW-20PB (100714)	OW-24PB (092111)	OW-25SPB(091911)
Cyanide (total)	100		< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Phenolics (total)	----		< 50 U	< 50 U	< 500 U	< 500 U	< 50 UB	1000	< 50 U	< 50 U

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID:	OW-26S	OW-32D	OW-32D	OW-32D	OW-32D	OW-32D	OW-32D	OW-46
		Sample Date:	09/19/11	09/16/09	09/20/10	09/16/11	10/01/12	10/08/13	10/08/14	09/19/11
		Sample Name:	OW-26SPB(091911)	OW-32DPB (091609)	OW-32DPB(092010)	MW-32DPB (091611)	GW-32DPB(100212)	OW-32DPB (100813)	OW-32DPB(100814)	OW-46PB(091911)
Cyanide (total)	100		< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 UJ	< 10 U
Phenolics (total)	----		< 500 U	< 50 U	< 50 U	< 50 U	< 2500 U	< 50 UB	7300	< 500 U

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit
B indicates analyte found in blank
J Indicates an estimated value
Exceedences **BOLD** and boxed
---- GWQS not published

Cyanide and Phenolics

Table 9F. Groundwater Analytical Results (September 2009-October 2014), Tentatively Identified Compounds
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Location ID:	MW-10B	MW-10B	MW-10B2	MW-10B2	MW-12	MW-15	MW-15	MW-15	MW-15	MW-17A	MW-19	MW-20	MW-20	MW-20
Sample Date:	9/11/2009	10/02/12	09/11/09	09/11/09	09/15/11	09/20/10	09/16/11	09/27/12	10/09/13	09/16/11	09/21/10	09/21/10	09/20/11	10/01/13
Constituent (ug/L) Sample Name:	MW-10BPB (091109)	MW-10BPB(100212)	DUPPB (091109)	MW-10B2PB (091109)	MW-12PB (091511)	DUP(092010)	MW-15PB (091611)	MW-15PB(092712)	MW-15PB(100913)	MW-17APB (091611)	MW-19PB(092110)	MW-20PB(092110)	MW-20PB (092011)	MW-20PB (100113)
Semi-Volatile Tentatively Identified Compounds														
2-Butanone (Methyl ethyl ketone) (MEK) A	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Phenylbutane (sec-Butylbenzene)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone A	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromochlorodifluoromethane (Halon 1211) A	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C13H28 Alkane with the highest concentration	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyclohexanol, 5-methyl-2-(1-methylethyl)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Eucalyptol	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isobutane A	5.0 NJ	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert butyl ether (MTBE) A	--	--	9.0 NJ	8.5 NJ	--	--	--	--	--	--	--	--	--	--
tert-Butyl alcohol	--	--	--	--	--	--	--	--	--	--	--	--	--	--
tert-Butyl alcohol A	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown A	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown Silanol with the highest concentration	--	--	--	--	-- R	--	--	--	--	-- R	--	--	--	--
Unknown VOA Alkane	--	9.5 J	--	--	--	--	--	--	--	--	--	--	--	--
Unknown with the 2nd highest concentration	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown with the 3rd highest concentration	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKVOA1	--	--	--	--	--	--	--	26 J	--	--	--	--	--	--
Total Semi-Volatile TICS	5.0 NJ	9.5J	9.0 NJ	8.5 NJ	--	--	--	26 J	--	--	--	--	--	--
Volatile Tentatively Identified Compounds														
2-Toluidine	--	--	--	--	--	3.1 J	--	--	--	--	3.9 J	--	--	1.8 J
3-Methylindolizine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Butanoic acid	--	--	--	--	--	--	--	--	--	--	--	--	33 JN	--
Cyclic octaatomic sulfur	--	--	--	--	--	27 JN	--	--	--	--	--	43 JN	--	--
Hexadecanoic acid A	--	--	--	--	--	--	--	--	11 JN	--	--	--	--	--
Octadecanoic acid A	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetramethylnaphthalene isomer with the 2nd highest concentration	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetramethylnaphthalene isomer with the highest concentration	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Triadimenol Isomer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	11 JN	--	--
Trichloroethene A	--	--	--	--	--	--	--	--	--	--	--	--	--	8.7 JN
Tridecanoic acid	--	--	--	--	--	--	9.4 JN	--	--	--	--	--	--	--
UNKAldehyde1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKAlkane1	--	--	--	--	--	--	--	--	--	--	--	15 JN	--	--
UNKAlkane2	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKAlkane3	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKAlkane4	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKAlkane5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKC15H12PAH1	--	--	--	--	--	--	--	--	--	--	--	12 JN	--	--
UNKC16H14PAH1	--	--	--	--	--	--	--	--	--	--	--	20 JN	--	--
Unknown 1	--	--	--	--	--	--	--	--	--	--	--	--	--	-- R
Unknown 2	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown Alkane with the 2nd highest concentration	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown Alkane with the 3rd highest concentration	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown Alkane with the highest concentration	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown Organic Acid with the highest concentration	--	--	--	--	--	--	--	--	--	--	--	--	13 J	--
Unknown Sterol with the highest concentration	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKSEMIVOA1	--	--	--	--	--	--	--	170 J	--	--	--	28 JN	--	--
UNKSEMIVOA10	--	--	--	--	--	--	--	--	--	--	--	14 JN	--	--
UNKSEMIVOA11	--	--	--	--	--	--	--	--	--	--	--	13 JN	--	--
UNKSEMIVOA12	--	--	--	--	--	--	--	--	--	--	--	13 JN	--	--
UNKSEMIVOA13	--	--	--	--	--	--	--	--	--	--	--	13 JN	--	--
UNKSEMIVOA14	--	--	--	--	--	--	--	--	--	--	--	12 JN	--	--
UNKSEMIVOA15	--	--	--	--	--	--	--	--	--	--	--	12 JN	--	--
UNKSEMIVOA16	--	--	--	--	--	--	--	--	--	--	--	11 JN	--	--
UNKSEMIVOA17	--	--	--	--	--	--	--	--	--	--	--	11 JN	--	--
UNKSEMIVOA18	--	--	--	--	--	--	--	--	--	--	--	10 JN	--	--
UNKSEMIVOA19	--	--	--	--	--	--	--	--	--	--	--	9.5 JN	--	--
UNKSEMIVOA2	--	--	--	--	--	--	--	--	--	--	--	27 JN	--	--
UNKSEMIVOA20	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKSEMIVOA3	--	--	--	--	--	--	--	--	--	--	--	21 JN	--	--
UNKSEMIVOA4	--	--	--	--	--	--	--	--	--	--	--	21 JN	--	--
UNKSEMIVOA5	--	--	--	--	--	--	--	--	--	--	--	21 JN	--	--
UNKSEMIVOA6	--	--	--	--	--	--	--	--	--	--	--	17 JN	--	--
UNKSEMIVOA7	--	--	--	--	--	--	--	--	--	--	--	16 JN	--	--
UNKSEMIVOA8	--	--	--	--	--	--	--	--	--	--	--	16 JN	--	--
UNKSEMIVOA9	--	--	--	--	--	--	--	--	--	--	--	14 JN	--	--
Total Volatile TICs	--	--	--	--	--	30.1 JN	9.4 JN	170J	11 JN	--	3.9J	400.5 JN	46 JN	10.5 JN

All units are in micrograms per liter (ug/L)
J indicates an estimated value below the reporting limit
N indicates presumptive evidence of this compound
R indicates orignal laboratory result rejected during data validation
-- Analyte was not tentatively identified
Exceedences **BOLD** and boxed

Location ID:	MW-20	MW-37B2	MW-38B	MW-38B	MW-38B	MW-39B	MW-45	MW-8	MW-8	MW-87B	MW-87B	MW-87B2	MW-87B3	MW-87B4	MW-87B5	MW-88-1
Sample Date:	10/07/14	03/04/09	03/03/09	03/03/09	10/01/12	09/13/11	09/20/11	09/20/10	09/20/11	09/22/11	10/03/12	09/22/11	09/22/11	09/22/11	09/22/11	10/09/13
Constituent (ug/L) Sample Name:	MW-20PB (100714)	MW-37B2PB_030409	DUPPB_030309	MW-38BPB_030309	DUP(100112)	MW-39BPB (091311)	MW-45PB (092011)	MW-8PB(092010)	MW-8PB (092011)	MW- 87B (092211)	MW-87B(100312)	MW- 87B2 (092211)	MW- 87B3 (092211)	MW- 87B4 (092211)	MW- 87B5 (092211)	MW-88-1 (100913)
Semi-Volatile Tentatively Identified Compounds																
2-Butanone (Methyl ethyl ketone) (MEK) A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Phenylbutane (sec-Butylbenzene)	--	--	--	--	--	--	--	--	0.53 J	--	--	--	--	--	--	--
Acetone A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromochlorodifluoromethane (Halon 1211) A	--	--	--	--	--	--	--	--	--	11 JN	--	13 JN	11 JN	15 JN	14 JN	--
C13H28 Alkane with the highest concentration	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyclohexanol, 5-methyl-2-(1-methylethyl)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	30 JN
Eucalyptol	--	--	--	--	--	--	--	--	--	--	--	--	7.0 JN	--	--	--
Isobutane A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert butyl ether (MTBE) A	--	7.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--
tert-Butyl alcohol	--	--	--	--	--	--	--	--	8.4 J	--	--	--	--	--	--	--
tert-Butyl alcohol A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown A	--	--	4.4	3.4	--	--	--	--	--	--	--	--	--	--	--	--
Unknown Silanol with the highest concentration	--	--	--	--	--	-- R	5.3 J	--	--	--	--	--	--	--	--	--
Unknown VOA Alkane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown with the 2nd highest concentration	--	--	--	--	--	--	--	--	--	--	5.1 J	31 J	14 J	--	--	--
Unknown with the 3rd highest concentration	--	--	--	--	--	--	--	--	--	--	--	6.8 J	5.6 J	--	--	--
UNKVOA1	--	--	--	--	5.5 J	--	--	5.3 JN	--	7.5 J	26 J	--	22 J	18 J	24 J	--
Total Semi-Volatile TICS	--	7.8	4.4	3.4	5.5 J	--	5.3 J	5.3 JN	8.93 J	18.5 JN	31.1 J	50.8 JN	59.6 JN	33 J	35 J	30 JN
Volatile Tentatively Identified Compounds	--															
2-Toluidine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Methylindolizine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Butanoic acid	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyclic octaatomic sulfur	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexadecanoic acid A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octadecanoic acid A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetramethylnaphthalene isomer with the 2nd highest concentration	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetramethylnaphthalene isomer with the highest concentration	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Triadimenol Isomer	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene A	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tridecanoic acid	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKAldehyde1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKAlkane1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKAlkane2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKAlkane3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKAlkane4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKAlkane5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKC15H12PAH1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKC16H14PAH1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown 1	9.9 JN	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown 2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown Alkane with the 2nd highest concentration	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown Alkane with the 3rd highest concentration	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown Alkane with the highest concentration	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown Organic Acid with the highest concentration	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unknown Sterol with the highest concentration	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKSEMIVOA1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKSEMIVOA10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKSEMIVOA11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKSEMIVOA12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKSEMIVOA13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKSEMIVOA14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKSEMIVOA15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKSEMIVOA16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKSEMIVOA17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKSEMIVOA18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKSEMIVOA19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKSEMIVOA2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKSEMIVOA20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKSEMIVOA3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKSEMIVOA4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKSEMIVOA5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKSEMIVOA6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKSEMIVOA7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKSEMIVOA8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
UNKSEMIVOA9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Volatile TICs	9.9 JN	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

All units are in micrograms per liter (ug/L)
J indicates an estimated value below the reporting limit
N indicates presumptive evidence of this compound
R indicates orignal laboratory result rejected during data validation
-- Analyte was not tentatively identified
Exceedences **BOLD** and boxed

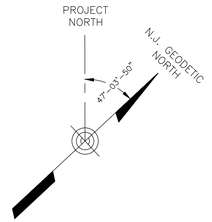
Location ID:	MW-9B	OW-25S	OW-25S	OW-26S	OW-26S	OW-32D	OW-32D	OW-32D	OW-32D	OW-46
Sample Date:	09/20/10	09/18/09	09/19/11	09/18/09	09/19/11	09/20/10	09/16/11	10/01/12	10/08/13	40805.61458
Constituent (ug/L) Sample Name:	MW-9BPB(092010)	OW-25SPB(091809)	OW-25SPB(091911)	OW-26SPB(091809)	OW-26SPB(091911)	OW-32DPB(092010)	MW-32DPB (091611)	GW-32DPB(100212)	OW-32DPB (100813)	OW-46PB(091911)
Semi-Volatile Tentatively Identified Compounds										
2-Butanone (Methyl ethyl ketone) (MEK) A	--	9.0 NJ	--	32 NJ	--	--	--	--	--	--
2-Phenylbutane (sec-Butylbenzene)	--	--	--	--	--	--	--	--	--	--
Acetone A	--	36 NJ	--	140 NJ	--	--	--	--	--	--
Bromochlorodifluoromethane (Halon 1211) A	--	--	--	--	--	--	--	--	--	--
C13H28 Alkane with the highest concentration	--	--	--	--	8.0 J	--	--	--	--	--
Cyclohexanol, 5-methyl-2-(1-methylethyl)	--	--	--	--	--	--	--	--	--	--
Eucalyptol	--	--	--	--	--	--	--	--	--	--
Isobutane A	--	--	--	--	--	--	--	--	--	--
Methyl tert butyl ether (MTBE) A	--	--	--	--	--	--	--	--	--	--
tert-Butyl alcohol	--	--	--	--	--	--	--	--	--	--
tert-Butyl alcohol A	--	--	--	5.8 NJ	--	--	--	--	--	--
Unknown A	--	--	--	--	--	--	--	--	--	--
Unknown Silanol with the highest concentration	--	--	--	--	--	--	-- R	--	--	--
Unknown VOA Alkane	--	--	--	--	--	--	--	--	--	--
Unknown with the 2nd highest concentration	--	--	--	--	--	--	--	--	--	--
Unknown with the 3rd highest concentration	--	--	--	--	--	--	--	--	--	--
UNKVOA1	6.1 JN	--	--	--	--	--	--	--	--	--
Total Semi-Volatile TICS	6.1JN	55 JN	--	177.8 JN	8J	--	--	--	--	--
Volatile Tentatively Identified Compounds										
2-Toluidine	--	--	--	--	--	--	--	--	--	--
3-Methylindolizine	--	--	--	--	11 JN	--	--	--	--	--
Butanoic acid	--	--	--	--	--	--	--	--	--	--
Cyclic octaatomic sulfur	--	--	--	--	--	--	--	--	--	--
Hexadecanoic acid A	--	--	--	--	39 JN	--	--	--	19 JN	--
Octadecanoic acid A	--	--	--	--	37 JN	--	--	--	13 JN	--
Tetramethylnaphthalene isomer with the 2nd highest concentration	--	--	--	--	--	--	--	--	--	29 J
Tetramethylnaphthalene isomer with the highest concentration	--	--	--	--	--	--	--	--	--	29 J
Toluene	--	--	--	--	58 JN	--	--	--	--	--
Triadimenol Isomer	--	--	--	--	--	--	--	28 JN14 JN	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--
Trichloroethene A	--	--	--	--	--	--	--	--	--	--
Tridecanoic acid	--	--	--	--	--	--	--	--	--	--
UNKAldehyde1	--	--	--	--	--	73 JN	--	--	--	--
UNKAlkane1	--	--	--	--	--	33 JN	--	--	--	--
UNKAlkane2	--	--	--	--	--	26 JN	--	--	--	--
UNKAlkane3	--	--	--	--	--	16 JN	--	--	--	--
UNKAlkane4	--	--	--	--	--	14 JN	--	--	--	--
UNKAlkane5	--	--	--	--	--	13 JN	--	--	--	--
UNKC15H12PAH1	--	--	--	--	--	--	--	--	--	--
UNKC16H14PAH1	--	--	--	--	--	--	--	--	--	--
Unknown 1	--	--	--	--	--	--	--	--	12 JN	--
Unknown 2	--	--	--	--	--	--	--	--	21 JN	--
Unknown Alkane with the 2nd highest concentration	--	--	--	--	--	--	--	--	--	22 J
Unknown Alkane with the 3rd highest concentration	--	--	--	--	--	--	--	--	--	19 J
Unknown Alkane with the highest concentration	--	--	--	--	--	--	--	--	--	28 J
Unknown Organic Acid with the highest concentration	--	--	--	--	--	--	--	--	--	--
Unknown Sterol with the highest concentration	--	--	--	--	14 J	--	--	--	--	--
UNKSEMIVOA1	--	--	30 J	--	22 J	35 JN	14 J	11 J	--	110 J
UNKSEMIVOA10	--	--	11 J	--	--	13 JN	--	--	--	32 J
UNKSEMIVOA11	--	--	10 J	--	--	13 JN	--	--	--	32 J
UNKSEMIVOA12	--	--	9.3 J	--	--	13 JN	--	--	--	32 J
UNKSEMIVOA13	--	--	--	--	--	13 JN	--	--	--	31 J
UNKSEMIVOA14	--	--	--	--	--	13 JN	--	--	--	26 J
UNKSEMIVOA15	--	--	--	--	--	12 JN	--	--	--	26 J
UNKSEMIVOA16	--	--	--	--	--	11 JN	--	--	--	24 J
UNKSEMIVOA17	--	--	--	--	--	11 JN	--	--	--	23 J
UNKSEMIVOA18	--	--	--	--	--	11 JN	--	--	--	23 J
UNKSEMIVOA19	--	--	--	--	--	10 JN	--	--	--	22 J
UNKSEMIVOA2	--	--	20 J	--	--	33 JN	13 J	--	--	56 J
UNKSEMIVOA20	--	--	--	--	--	--	--	--	--	19 J
UNKSEMIVOA3	--	--	20 J	--	--	26 JN	--	--	--	53 J
UNKSEMIVOA4	--	--	18 J	--	--	24 JN	--	--	--	51 J
UNKSEMIVOA5	--	--	14 J	--	--	23 JN	--	--	--	47 J
UNKSEMIVOA6	--	--	14 J	--	--	22 JN	--	--	--	41 J
UNKSEMIVOA7	--	--	13 J	--	--	16 JN	--	--	--	36 J
UNKSEMIVOA8	--	--	12 J	--	--	16 JN	--	--	--	35 J
UNKSEMIVOA9	--	--	12 J	--	--	14 JN	--	--	--	33 J
Total Volatile TICs	--	--	183.3 J	--	180 JN	504 JN	27 J	36 JN	65 JN	879 J

All units are in micrograms per liter (ug/L)
J indicates an estimated value below the reporting limit
N indicates presumptive evidence of this compound
R indicates orignal laboratory result rejected during data validation
-- Analyte was not tentatively identified
Exceedences **BOLD** and boxed

ARCADIS

Figures





LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- TOWNSHIP BOUNDARY
- FENCE
- RAILROAD TRACKS
- LIMITS OF CAP SYSTEM
- MONITORING WELL
- OFFSITE MONITORING WELL
- PRODUCT OBSERVATION WELL

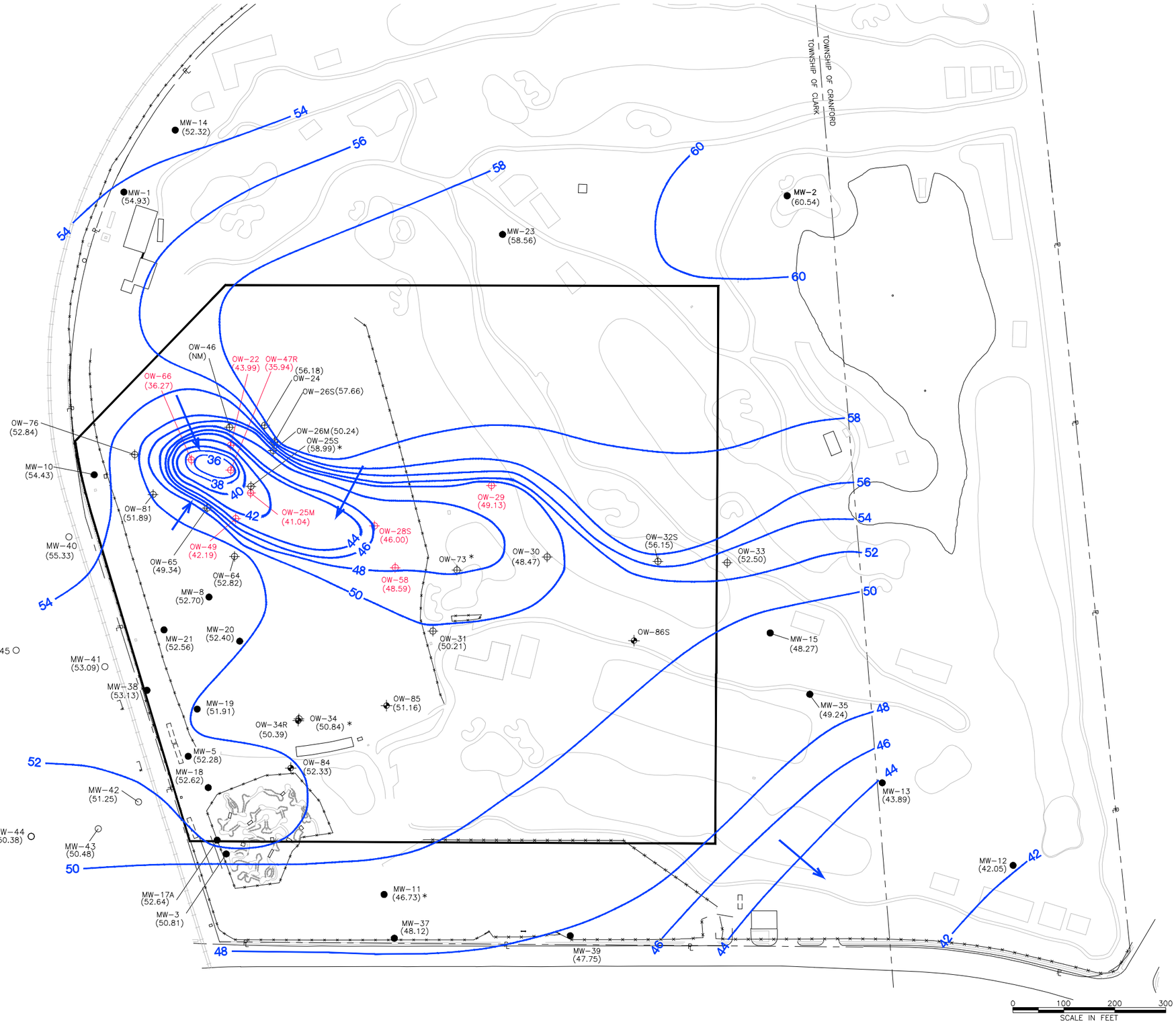
FORMER HYATT CLARK INDUSTRIES SITE
CLARK, NEW JERSEY
GROUNDWATER REMEDIAL INVESTIGATION REPORT

SITE PLAN

ARCADIS Design & Consultancy for natural and built assets

FIGURE
1

CITY:SYRACUSE-NY DIV/GROUP:ENV DB:A.SANCHEZ LD:ALS PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
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XrefDrawingList: XrefDrawingPath: XrefDrawingType: XrefDrawingSize:



NOTE:

GROUNDWATER ELEVATIONS DENOTED WITH AN ASTERISK (*) FOR MW-11, OW-34, OW-25S AND OW-73 ARE INCLUDED ON THE FIGURE BUT WERE NOT USED FOR CONTOURING.

FORMER HYATT CLARK INDUSTRIES SITE
CLARK, NEW JERSEY
GROUNDWATER REMEDIAL INVESTIGATION REPORT

GROUNDWATER ELEVATION CONTOUR MAP FOR OVERBURDEN SEPTEMBER 30, 2013

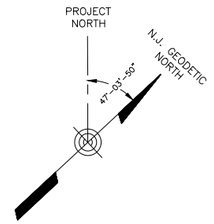
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FIGURE 2

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XREFS: IMAGES: PROJECTNAME: ----
XBDR-DL Hyatt Clark GW Contours_Page_2.tiff





LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- TOWNSHIP BOUNDARY
- FENCE
- RAILROAD TRACKS
- LIMITS OF CAP SYSTEM
- SHALLOW BEDROCK WELL (RED INDICATES PUMPING WELL)
- (43.03) WATER-LEVEL ELEVATION, FT. MSL (SEPTEMBER 2013)
- 42 GROUNDWATER ELEVATION CONTOUR (FT. MSL) DASHED WHERE INFERRED (CONTOUR INTERVAL: 1 FOOT)
- INFERRED GENERAL DIRECTION OF GROUNDWATER FLOW

NOTE:

GROUNDWATER ELEVATIONS DENOTED WITH AN ASTERISK (*) FOR MW-7, MW-9, MW-39B AND OW-83D ARE INCLUDED ON THE FIGURE BUT WERE NOT USED FOR CONTOURING.

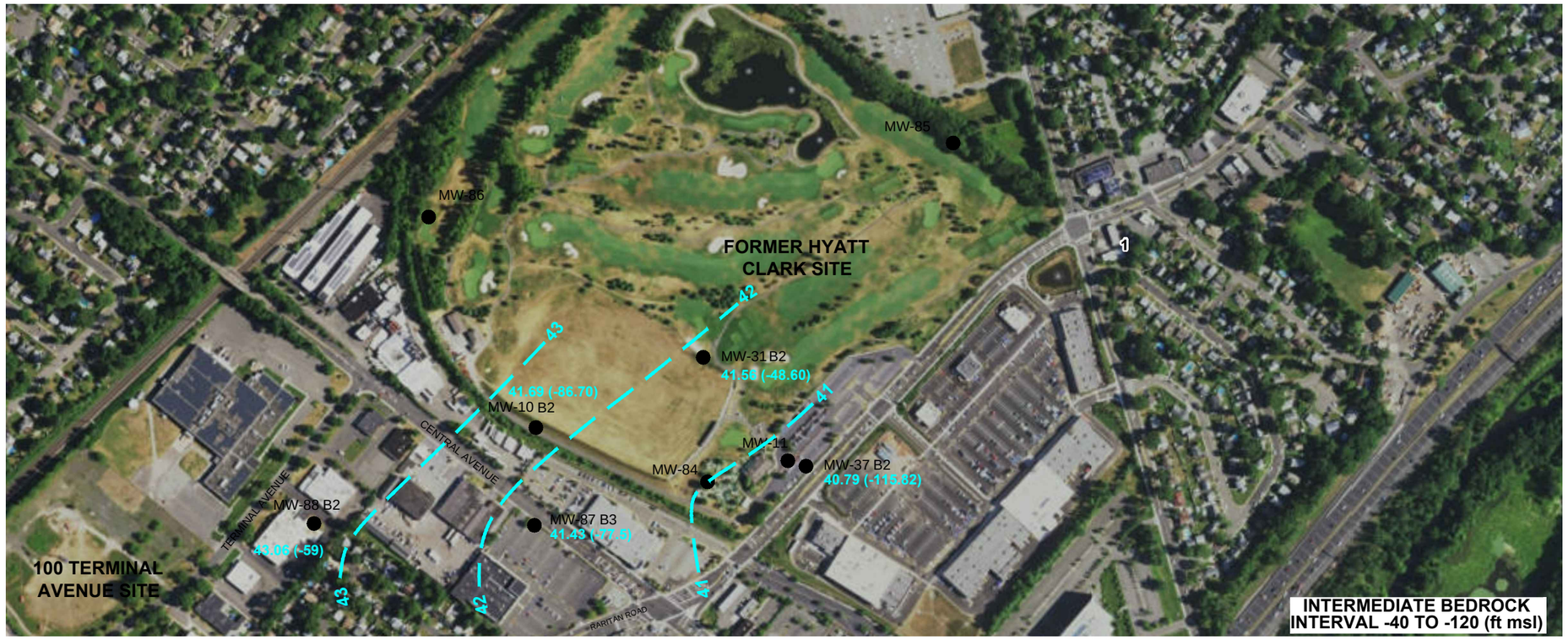
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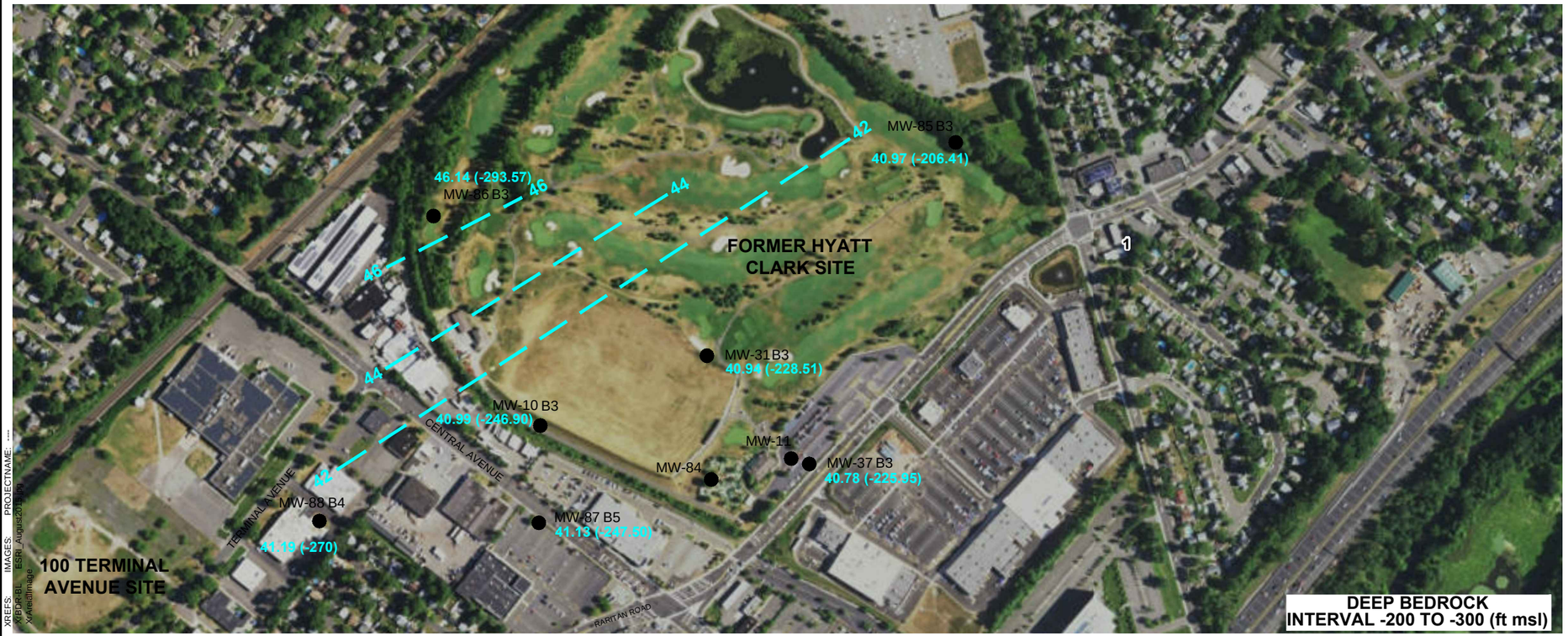
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GROUNDWATER REMEDIAL INVESTIGATION REPORT

GROUNDWATER ELEVATION CONTOUR MAP FOR SHALLOW BEDROCK SEPTEMBER 30, 2013

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FIGURE 3





LEGEND:

- DEEP BEDROCK WELL
- 42 — POTENTIOMETRIC CONTOUR (ft msl)
- 41.14 (-238) GROUNDWATER ELEVATION WITH TOP OF SCREEN ELEVATION (ft msl)

0 500' 1000'

GRAPHIC SCALE

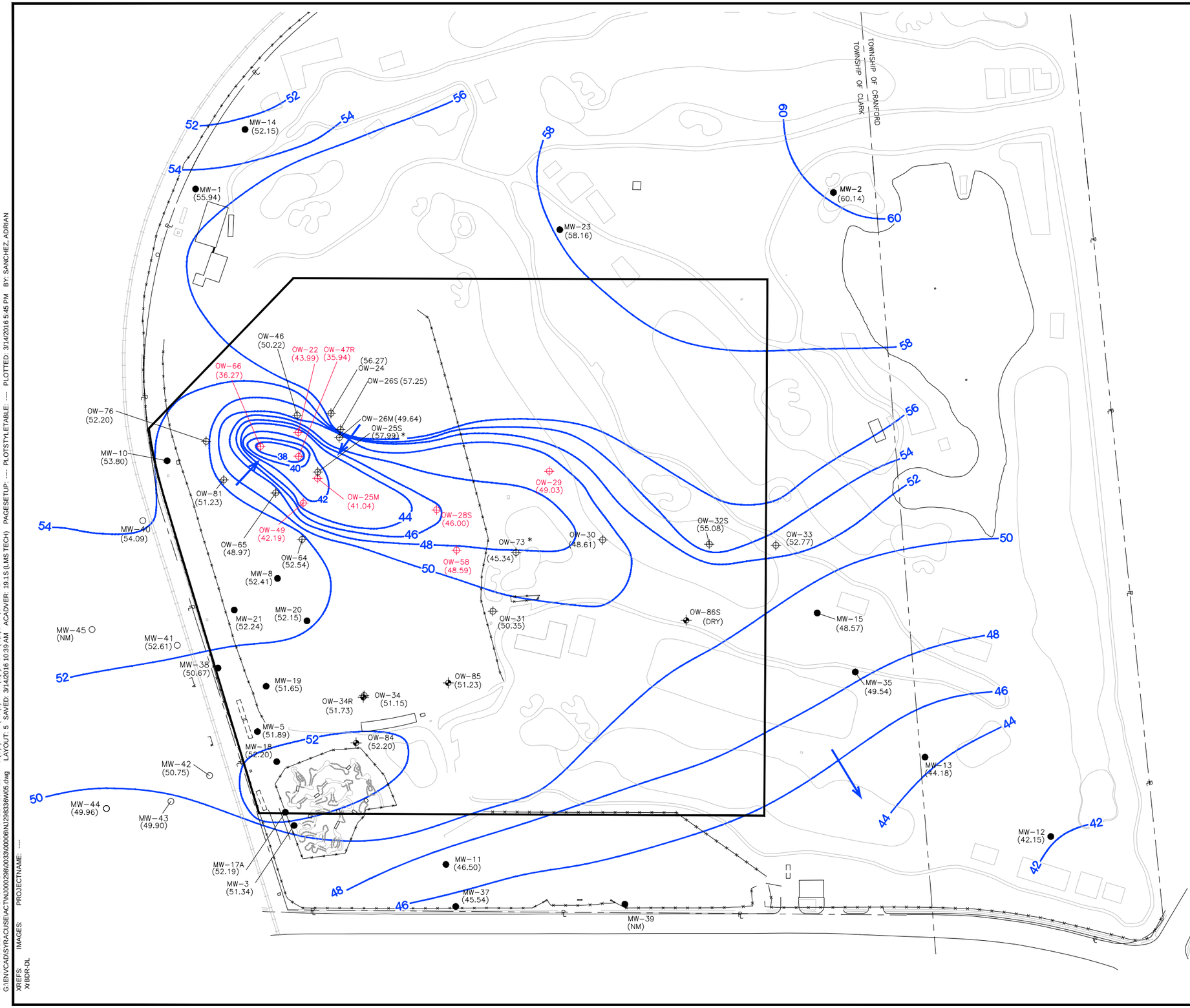
FORMER HYATT CLARK INDUSTRIES SITE
CLARK, NEW JERSEY
GROUNDWATER REMEDIAL INVESTIGATION REPORT

GROUNDWATER ELEVATION CONTOUR MAP FOR INTERMEDIATE AND DEEP BEDROCK OCTOBER 28, 2013

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FIGURE 4

CITY:SYRACUSE-NY DIV/GROUP:ENV DB:A.SANCHEZ LD:ALS PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
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XrAeltdImage



LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- TOWNSHIP BOUNDARY
- FENCE
- RAILROAD TRACKS
- LIMITS OF CAP SYSTEM
- OVERBURDEN WELL (RED INDICATES PUMPING WELL)
- OFF-SITE OVERBURDEN WELL
- (49.17) WATER-LEVEL ELEVATION, FT. MSL (SEPTEMBER 2014)
- (NM) NOT MEASURED
- 50 GROUNDWATER ELEVATION CONTOUR (FT. MSL) DASHED WHERE INFERRED (CONTOUR INTERVAL: 1 FOOT)
- INFERRED GENERAL DIRECTION OF GROUNDWATER FLOW

NOTE:

GROUNDWATER ELEVATIONS DENOTED WITH AN ASTERISK (*) ARE INCLUDED ON THE FIGURE BUT WERE NOT USED FOR CONTOURING.

0 100 200 300
SCALE IN FEET

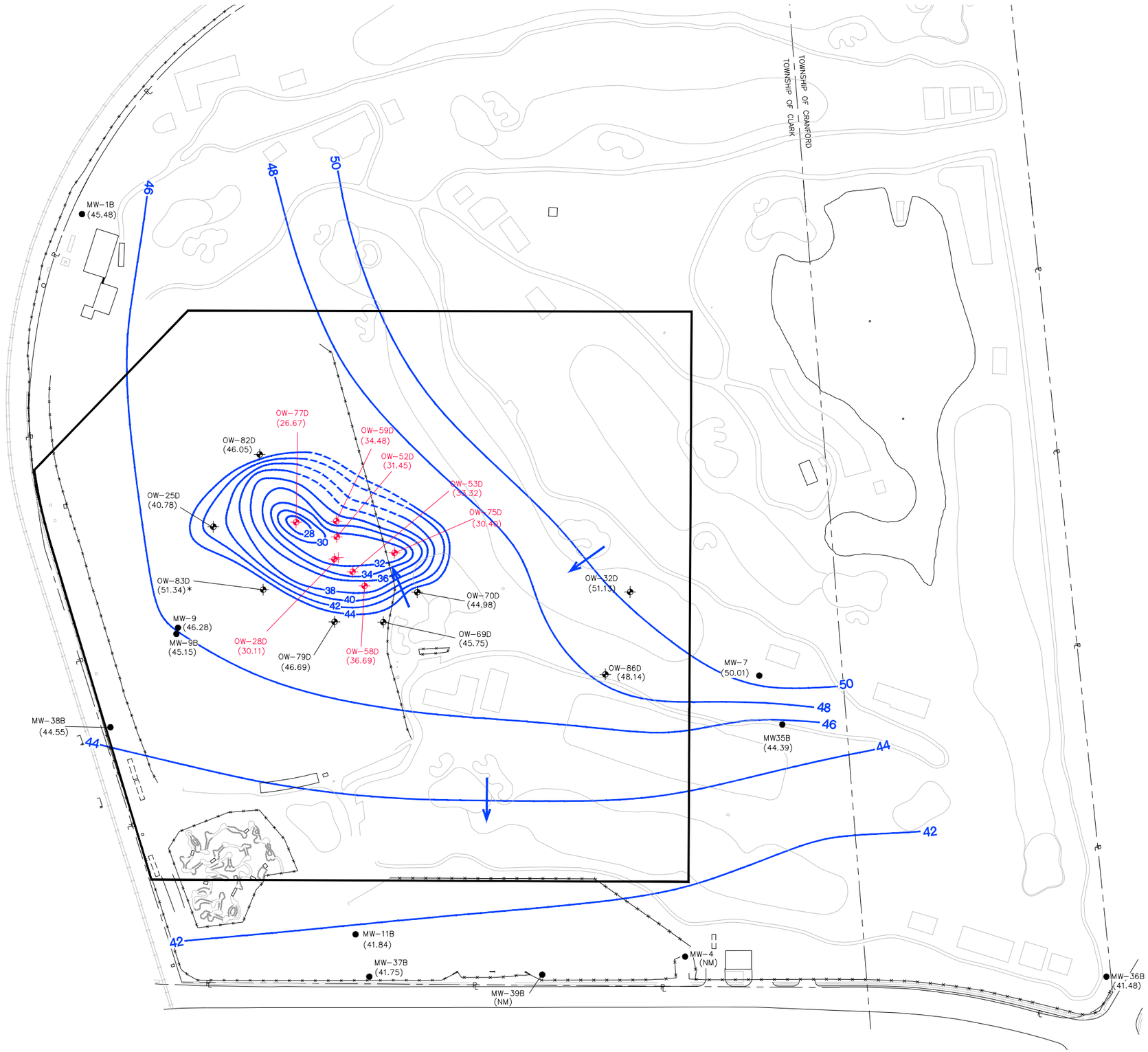
FORMER HYATT CLARK INDUSTRIES SITE
CLARK, NEW JERSEY
GROUNDWATER REMEDIAL INVESTIGATION REPORT

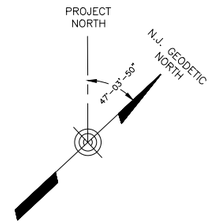
GROUNDWATER ELEVATION CONTOUR MAP FOR OVERBURDEN SEPTEMBER 20, 2014

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FIGURE 5

CITY:SYRACUSE-NY DIV/GROUP:ENV DB:A.SANCHEZ LD:ALS PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
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XREFS:
IMAGES:
PROJECTNAME: ----
XBDR-DL





LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- TOWNSHIP BOUNDARY
- FENCE
- RAILROAD TRACKS
- LIMITS OF CAP SYSTEM
- SHALLOW BEDROCK WELL (RED INDICATES PUMPING WELL)
- (40.03) WATER-LEVEL ELEVATION, FT. MSL (SEPTEMBER 2013)
- (NM) NOT MEASURED
- 50 GROUNDWATER ELEVATION CONTOUR (FT. MSL) DASHED WHERE INFERRED (CONTOUR INTERVAL: 1 FOOT)
- INFERRED GENERAL DIRECTION OF GROUNDWATER FLOW

NOTE:

GROUNDWATER ELEVATIONS DENOTED WITH AN ASTERISK (*) ARE INCLUDED ON THE FIGURE BUT WERE NOT USED FOR CONTOURING.

0 100 200 300
SCALE IN FEET

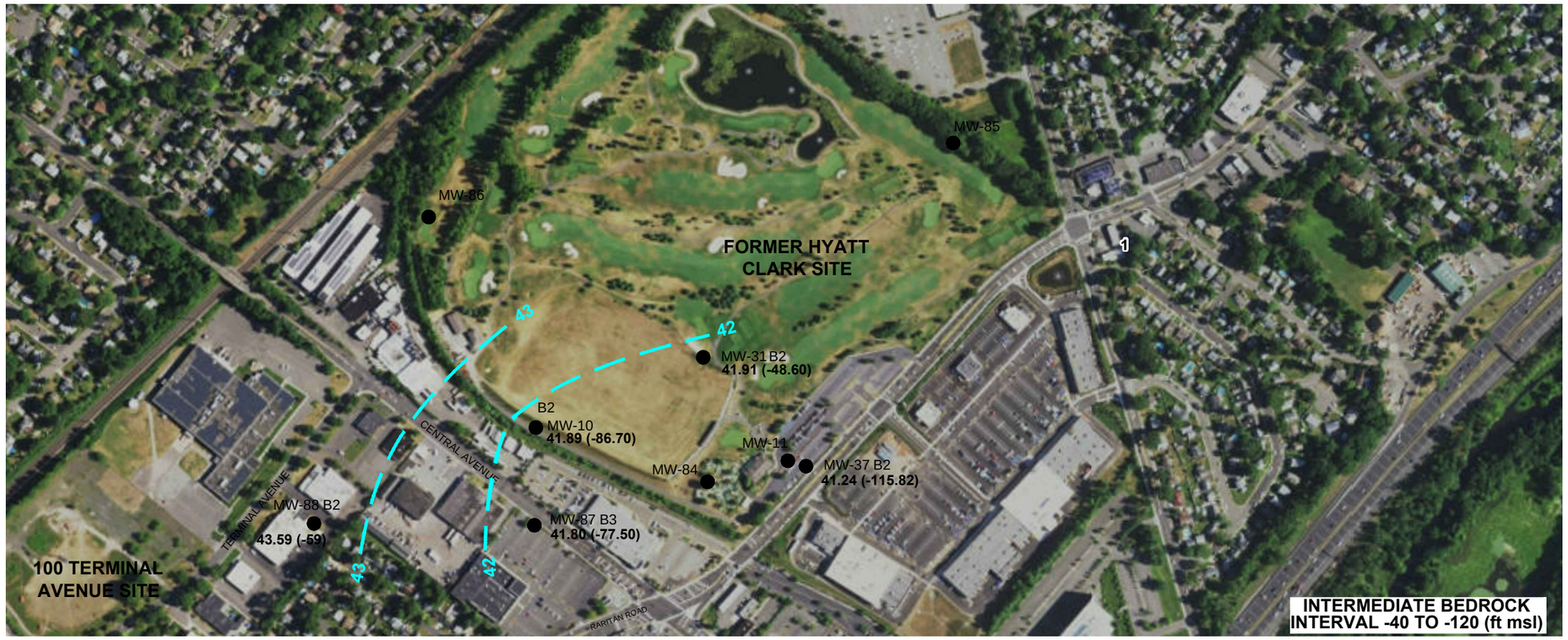
FORMER HYATT CLARK INDUSTRIES SITE
CLARK, NEW JERSEY
GROUNDWATER REMEDIAL INVESTIGATION REPORT

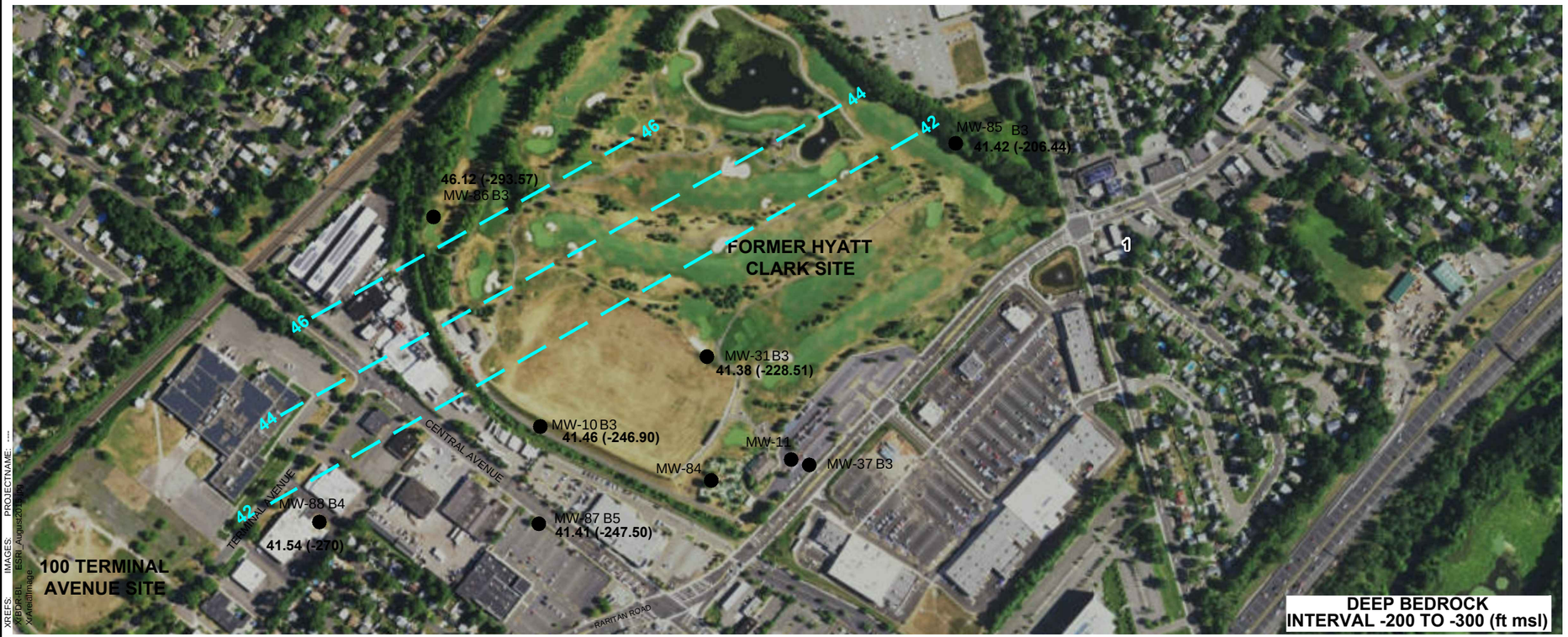
GROUNDWATER ELEVATION CONTOUR MAP FOR SHALLOW BEDROCK SEPTEMBER 29, 2014

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FIGURE 6

CITY:SYRACUSE-NY DIV/GROUP:ENV DB:A.SANCHEZ LD:ALS PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
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XREFS: IMAGES: PROJECTNAME: ----
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LEGEND:

- DEEP BEDROCK WELL
- 42 — POTENTIOMETRIC CONTOUR (ft msl)
- 41.27 (-128) GROUNDWATER ELEVATION WITH TOP OF SCREEN ELEVATION (ft msl)

0 500’ 1000’

GRAPHIC SCALE

FORMER HYATT CLARK INDUSTRIES SITE
CLARK, NEW JERSEY
GROUNDWATER REMEDIAL INVESTIGATION REPORT

GROUNDWATER ELEVATION CONTOUR MAP FOR INTERMEDIATE AND DEEP BEDROCK SEPTEMBER 29, 2014

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FIGURE 7

CITY:SYRACUSE-NY DIV/GROUP:ENV DB:A.SANCHEZ LD:ALS PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
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MW-1

DATE	9/14/2010	9/14/2011	9/25/2012	10/1/2013	10/1/2014
VOCs	NE	NE	NE	NE	NE

MW-1B

DATE	9/10/2009	9/14/2010	9/14/2011	9/25/2012	10/1/2013	10/7/2014
VOCs	NE	NE	NE	NE	NE	NE

MW-46

DATE	9/16/2009	9/19/2011
VOCs		
Trichloroethene	0.81 J	**5.8**
Vinyl chloride	0.74 J	**2.3**
SVOCs		
bis(2-Ethylhexyl)phthalate (DEHP)	**55**	**7.3 J**
Indeno(1,2,3-cd)pyrene	**0.22 J**	< 2.3 U
Phenolics	NA	NE
PCBs	**1.6**	**26**
Metals		
Aluminum	NA	**554**
Arsenic	**39.8**	**3.8 J**
Arsenic (dissolved)	< 5.0 U	< 5.0 U
Beryllium	**3.7**	< 2.0 U
Chromium	**1,480**	3.5
Iron	NA	**3,480**
Iron, (dissolved)	NA	**2,970**
Lead	**71.4**	< 5.0 U
Manganese	NA	**152**
Manganese (dissolved)	NA	**157**
Nickel	**779**	< 40.0 U
Zinc	**3,850**	476
Cyanide	NA	NE

MW-10

DATE	9/11/2009	9/15/2010	9/13/2011	9/26/2012	10/1/2013	9/30/2014
VOCs	NE	NE	NE	NE	NE	NE

MW-8

DATE	9/15/2009	9/20/2010	9/20/2011	9/25/2012	10/1/2013	10/7/2014
VOCs						
1,1,1-Trichloroethane	**570**	**800 D**	**470**	**450**	**390**	**440**
1,1-Dichloroethane	**610**	**800 D**	**460**	**560**	**410**	**410**
1,1-Dichloroethene	**92**	**140**	**49**	**56**	**55**	**63**
1,2-Dichloroethane	**9.2**	**11**	**6.7**	**6.2**	**5.9**	**6.4**
1,4-Dioxane	NA	NA	**24**	**45**	NA	NA
Benzene	**1.3 J**	**1.4**	0.76 J	0.92 J	< 2.0 U	0.87 J
cis-1,2-Dichloroethene	60	**77**	34	44	39	65
Tetrachloroethene	**39**	**69**	**33**	**35**	**33**	**52**
Trichloroethene	**25**	**41**	**17**	**22**	**18**	**32**
Vinyl chloride	**14**	**22**	**6.4**	**8**	**7.5**	**12**
PCBs	NE	NE	NE	NE	NE	NE

MW-9B

DATE	9/15/2009	9/20/2010	9/20/2011	9/25/2012	10/1/2013	10/7/2014
VOCs						
1,1-Dichloroethene	**110**	**140**	**80**	**110**	**89**	**77**
1,1-Dichloroethane	**23**	**38**	**15**	**17**	**15**	**9.8**
cis-1,2-Dichloroethene	**590**	**850 D**	**530**	**580**	**630**	**570**
Tetrachloroethene	**10**	**13**	**8.6**	**7.5**	**7.1**	**5.2**
trans-1,2-Dichloroethene	**430**	**540 D**	**420**	**490**	**540**	**440**
Trichloroethene	**100**	**130**	**59**	**49**	**51**	**41**
Vinyl chloride	**190**	**370**	**160**	**170**	**220**	**160**
PCBs	NE	NE	NE	NE	NE	NE

MW-40

DATE	9/9/2009	9/14/2010	9/15/2011	9/27/2012	10/3/2013	10/1/2014
VOCs						
Tetrachloroethene	**1.8**	**1.2**	**1.7**	**2.1**	**1.2/1.3**	**1.3**

MW-20

DATE	9/15/2009	9/21/2010	9/20/2011	9/25/2012	10/1/2013	10/7/2014
VOCs						
1,1-Dichloroethane	**89**	**99**	28	**82**	**70**	**53**
1,1-Dichloroethene	**21**	**26**	0.81 J	**5.9**	< 5.0 U	**4.9**
cis-1,2-Dichloroethene	**1,800**	**1,700**	**94**	**600 J**	**1,100**	**560**
Tetrachloroethene	**1.6 J**	< 5.0 U	**1.4**	< 2.0 U	< 5.0 U	0.72 J
trans-1,2-Dichloroethene	**270**	**220**	37	**240**	**230**	**150**
Trichloroethene	**97**	**100**	**6.5**	**19**	**53**	**14**
Vinyl chloride	**550**	**800**	**310**	**340**	**630**	**430**
1,4-Dioxane	NA	NA	**3.6**	**13**	NA	NA
SVOCs	NE	NE	NE	NE	NE	NE
Phenolics	NE	NE	NE	NE	NE	NE
PCBs	NE	NE	NE	NE	NE	NE
Metals						
Aluminum	NA	**626 BJ**	92.9 J	**596**	< 200 U	< 200 U
Chromium	6.8 J	7.3 J	**476**	9.2 J	< 10.0 U	< 10.0 U
Iron	NA	**795**	**2,670**	**890**	274	146 J
Iron, (dissolved)	NA	124 J	**594**	152	209	156
Lead	3.0 J	4.70 J	< 5.0 U	**8.4**	< 5.0 U	< 5.0 U
Manganese	NA	**3,680**	**3,560**	**4,310**	**4,490**	**3,990**
Manganese (dissolved)	NA	**3,780**	**3,380**	**4,550**	**4,480**	**4,200**
Nickel	25.9 J	25.4 J	**302**	27.5 J	22.3 J	17.8 J
Sodium (dissolved)	NA	49,800	38,900	**53,700**	49,800	46,900
Cyanide	NE	NE	NE	NE	NE	NE

MW-45

DATE	9/9/2009	9/14/2010	9/20/2011
VOCs			
Tetrachloroethene	**2.6**	**1.9**	**1.7 J/1.7 J**

MW-41

DATE	9/9/2009	9/14/2010	9/15/2011	9/27/2012	10/3/2013	10/6/2014
VOCs						
1,1-Dichloroethene	**3.1**	**2.4**	**1.4**	**2.9**	**2.4**	0.52 J
Tetrachloroethene	**33**	**29**	**20**	**40**	**31**	**11**
Trichloroethene	**1.2**	**1.2**	0.96 J	1	**1.2**	0.66 J

MW-21

DATE	9/15/2009	9/21/2010	9/20/2011	9/28/2012	10/2/2013	10/7/2014
VOCs						
1,1-Dichloroethene	**5.4**	**3.9**	**1.9**	0.76 J	**4.4**	**3**
Methylene chloride	< 1.0 U	**3.4**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	**14**	**10**	**8.3**	**9.6**	**14**	**15**
Trichloroethene	**4.3**	**2.6**	**1.6**	**3.7**	**3.9**	**2.9**
1,4-Dioxane	NA	NA	<2 U	**2.4**	NA	NA
PCBs	NE	NE	NE	NE	NE	NE

MW-38

DATE	9/11/2009	9/15/2010	9/14/2011	9/27/2012	9/28/2012	10/2/2013	9/30/2014
VOCs							
Tetrachloroethene	**26**	**28**	**25**	**37**	**36**	**26/26**	**22**
Trichloroethene	**11**	**13**	**8.6**	**11**	**10**	**11/11**	**8.3**
PCBs	NE	NE	NE	NA	NA	NE	NE

MW-38B

DATE	9/11/2009	9/15/2010	9/14/2011	10/1/2012	10/2/2013	9/30/2014
VOCs						
1,1-Dichloroethane	45	37	32	27/29	35	27
1,1-Dichloroethene	**62**	**50**	**28**	**41/44**	**34**	**31**
cis-1,2-Dichloroethene	**74**	68	58	60/64	70	52
Tetrachloroethene	**50**	**46**	**29**	**41/46**	**10**	**26**
Trichloroethene	**19**	**16**	**13**	**17/19**	**12**	**15**
Vinyl chloride	**20**	**20**	**15**	**14/15**	**24**	**12**
PCBs	NE	NE	NE	NE	NE	NE

MW-44

DATE	9/9/2009	9/14/2010	9/20/2011	9/27/2012	10/3/2013	10/8/2014
VOCs						
Tetrachloroethene	**2.7**	< 1.0 U	**1.6/1.6 J**	**1.6**	**2.1**	**2.1**

MW-19

DATE	9/15/2009	9/21/2010	9/21/2011	9/28/2012	10/1/2013	10/2/2014
VOCs						
1,1-Dichloroethane	**64**	39	37	25 J	39	26
1,1-Dichloroethene	**3.5**	**6.7**	**2.1**	**2.6**	**5.1**	**2.1**
1,2-Dichloroethane	**3.4**	1.2	2	0.53 J	< 1.0 U	0.66 J
1,4-Dioxane	NA	NA	**15**	**21**	NA	< 50 U
Tetrachloroethene	< 1.0 U	**1.4**	< 1.0 U	0.60 J	**2.2**	**0.49 J**
Trichloroethene	**8.8**	**3.1**	**2**	**3.9**	**6.2**	**3.7**
Vinyl chloride	**14**	**3.1**	**9.2**	**12**	**4.5**	**8.5**
SVOCs	NA	NE	NA	NA	NA	NA
PCBs	NE	NA	NE	NE	NE	NE

MW-43

DATE	9/9/2009	9/14/2010	9/15/2011	9/27/2012	10/3/2013	10/1/2014
VOCs						
Tetrachloroethene	< 1.0 U	**2.1**	< 1.0 U/< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U

MW-42

DATE	9/9/2009	9/14/2010	9/15/2011	9/27/2012	10/3/2013	10/6/2014
VOCs						
1,1-Dichloroethene	**2.3**	**2.1**	1 U	**1.7**	**2**	**1.3**
1,4-Dioxane	NA	NA	< 2.0 U	**30**	NA	NA

MW-18

DATE	9/10/2009	9/14/2010	9/14/2011	9/28/2012	10/2/2013	9/30/2014
VOCs						
1,1-Dichloroethene	**3.4**	**1.8**	**1.5**	**1.8**	**2.7**	**1.8**
PCBs	**3.1**	**1.89**	**1.8**	**0.54**	**1.5**	NE

MW-17A

DATE	9/9/2009	9/14/2010	9/16/2011	9/28/2012	10/3/2013	9/30/2014
VOCs	NE	NE	NE	NE	NE	NE
PCBs	NE	NE	NE	NE	NE	NE

MW-37

DATE	9/14/2009	9/17/2010	9/15/2011	9/26/2012	10/2/2013	10/1/2014
VOCs						
1,1-Dichloroethene	0.25 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon tetrachloride	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	<1.0 U	< 1.0 U
Trichloroethene	**3.6**	**2.8**	**2.9**	**2.9**	**2.9**	**3.2**
PCBs	NE	NE	NE	NE	NE	NE

MW-37B

DATE	9/14/2009	9/17/2010	9/15/2011	9/26/2012	10/2/2013	10/1/2014
VOCs						
1,1-Dichloroethene	**8.7**	**6.3**	**5.5**	**5.9**	**8**	**4.9**
Carbon tetrachloride	**2.5**	**2.1**	**2.8**	**2.6**	**3**	**1.2**
Trichloroethene	**16**	**12**	**13**	**13**	**15**	**13**
PCBs	NE	NE	NE	NE	NE	NE
Metals						
Aluminum	NA	120 J/167 J	**347/364**	**327**	118 J	57.0 J
Iron	NA	72.2 J/78.0 J	**1,060/983**	**310**	109 J	<150 U
Manganese	NA	4.2 J/4.5 J	**153/191**	17.5	11.1 J	< 10.0 U
Manganese (dissolved)	NA	< 15.0 U/< 15.0 U	**326 J/748 J**	< 15.0 U	< 15.0 U	< 10.0 U

OW-24

DATE	9/18/2009	9/21/2011
VOCs	NE	NE
SVOCs	NA	NE
Phenolics	NA	NE
PCBs	NE	NE
Metals		
Aluminum	NA	**67,900**
Arsenic	NA	**50.9**
Beryllium	NA	**3.9**
Cadmium	NA	**5.6**
Chromium	NA	**3,480**
Iron	NA	**122,000**
Iron (dissolved)	NA	**1,600**
Lead	NA	**201**
Manganese	NA	**1,810**
Manganese (dissolved)	NA	**1,180**
Nickel	NA	**2,000**
Cyanide	NA	NE

OW-26S

DATE	9/18/2009	9/19/2011
VOCs	NE	NE
SVOCs	NA	NE
Phenolics	NA	NE
PCBs	NE	NE
Metals		
Aluminum	NA	**870**
Arsenic	NA	**9.3**
Chromium	NA	**486**
Iron	NA	**19,400**
Iron (dissolved)	NA	**14,600**
Lead	NA	**7.5**
Manganese	NA	**2,050**
Manganese (dissolved)	NA	**2,270**
Nickel	NA	**245**
Cyanide	NA	NE

OW-25S

DATE	9/18/2009	9/19/2011	10/9/2014
VOCs	NE	NE	NE
SVOCs	NA	NE	NE
Phenolics	NA	NE	NA
PCBs	NE	NE	NA
Metals			
Arsenic	NA	**22**	NA
Arsenic (dissolved)	NA	**17.6**	NA
Iron	NA	**9,800**	NA
Iron (dissolved)	NA	**8,480**	NA
Lead	NA	**6.2**	NA
Manganese	NA	**1,320**	NA
Manganese (dissolved)	NA	**1,310**	NA
Sodium	NA	**84,100**	NA
Sodium (dissolved)	NA	**84,800**	NA
Cyanide	NA	NE	NA

OW-32D

DATE	9/16/2009	9/20/2010	9/16/2011	10/1/2012	10/2/2012	10/8/2013	10/8/2014
VOCs	NE	NE	NE	NE	NE	NE	NE
SVOCs	NE	NE	NE	NE	NA	NE	NE
Phenolics	NE	NE	NE	NE	NA	NE	NE
PCBs	**1.3**	**19**	NE	NE	NA	NE	**39**
Metals							
Aluminum	NA	**3,340 BJ**	**274**	NA	145 J	**2,160**	< 50.0 U
Aluminum (dissolved)	NA	**227 J**	168 J	NA	81.1 J	< 200 U	134
Arsenic	< 5.0 U	**6.7**	**4.5 J**	NA	< 5.0 U	**5.3**	2.3 J
Arsenic (dissolved)	< 5.0 U	< 5.0 U	**3.5 J**	NA	**6**	< 5.0 U	2.5
Iron	NA	**4,500**	**1,850**	NA	**1,880**	**3,780**	< 150 U
Iron (dissolved)	NA	270	**1,500**	NA	**682**	153	**486**
Lead	< 5.0 U	**12.5**	< 5.0 U	NA	< 5.0 U	**8.3**	< 1.5 U
Manganese	NA	**2,360**	**993**	NA	**3,240**	**3,600**	**3,040**
Manganese (dissolved)	NA	**2,210**	**940**	NA	**2,610**	**3,830**	**3,310**
Cyanide	NE	NE	NE	NE	NA	NE	NE

MW-15

DATE	9/14/2009	9/20/2010	9/16/2011	9/27/2012	10/9/2013	10/2/2014
VOCs						
1,1-Dichloroethene	**1.7**	**1.4/1.6**	**1.1**	0.70 J	0.90 J	0.73 J/0.66 J
1,4-Dioxane	NA	NA	**11**	**7.8**	< 50 U	< 50 U
SVOCs	NE	NE	NE	NE	NE	NE
Phenolics	NE	NE	NE	NE	NE	NE
PCBs	NE	**2.2/1.8**	NE	NE	NE	NE
Metals						
Aluminum	NA	< 200 UB/< 200 UB	187 J	**425**	119 J	**148 J/262 J**
Chromium	< 10.0 U	< 10.0 U/< 10.0 U	< 10.0 U	< 10.0 U	< 10.0 U	< 5.0 U/< 5.0 U
Iron	NA	**302/308**	**351**	**2,850**	183	<150 U/192
Manganese	NA	**2,460/2,520**	**2,310**	**2,330**	**2,580**	**2,440/2,480**
Manganese (dissolved)	NA	**2,250/2,370**	**2,350**	**2,490**	**2,600**	**2,570/2,600**
Cyanide	NE	NE	NE	NE	NE	NE

MW-7

DATE	9/11/2009	9/17/2010	9/16/2011	9/27/2012
VOCs	NE	NE	NE	NE
PCBs	NE	NE	NE	**1.2**

MW-39

DATE	9/10/2009	9/16/2010	9/13/2011	8/27/2014
VOCs				
Trichloroethene	**4.1**	**3**	**2.5**	**2.1**
PCBs	NE	NE	NE	NE

MW-39B

DATE	9/10/2009	9/16/2010	9/13/2011	9/26/2012	10/3/2013	8/27/2014
VOCs						
Trichloroethene	**4.4**	**4.4**	**4.8**	**4.4**	**4.8**	**3.9**
PCBs	NE	NE	NE	NE	NE	NE

MW-13

DATE	9/17/2009	9/21/2011	10/2/2012	10/9/2013	10/9/2014
VOCs	NA	NE	NE	NE	NE
PCBs	NE	NE	NE	NE	NE

MW-4

DATE	9/10/2009	9/16/2010	9/13/2011	9/25/2012	10/3/2013	8/27/2014
VOCs						
Trichloroethene	**1.3**	**1.1**	**1.1**	**1.1**	1	**1.1/0.98 J**
PCBs	NE	NE	NE	NE	NE	NE

MW-12

DATE	9/10/2009	9/15/2010	9/15/2011	9/27/2012	10/4/2013	10/2/2014
VOCs	NE	NE	NE	NE	NE	NE
PCBs	NE	NE	NE	NE	NE	NE

MW-36B

DATE	9/10/2009	9/15/2010	9/15/2011	9/25/2012	10/4/2013	9/30/2014
VOCs	NE	NE	NE	NE	NE	NE
PCBs	NE	NE	NE	NE	NE	NE

MW-1 US GYPSUM

DATE	1/5/2011	2/9/2011	7/15/2011	9/13/2011
VOCs				
1,1-Dichloroethene	1 U	1 U	NA	NA
Trichloroethene	**3.4**	**4.6**	NA	NA
Metals				
Aluminum	**35,300**	**3,380**	NA	NA
Arsenic	**6 U**	3 U	3 U	3 U
Iron	**44,500**	**3,460**	NA	NA
Lead	**16.2**	3 U	NA	NA
Manganese	**1,470**	**106**	NA	NA
Sodium	**59,500**	**57,400**	NA	NA

MW-5 US GYPSUM

DATE	1/5/2011	2/9/2011
VOCs		
1,1-Dichloroethene	1 U	1 U
Trichloroethene	1 U	1 U
Metals		
Aluminum	**477**	**1,710**
Arsenic	3 U	3 U
Iron	**359**	**1,630**
Lead	3 U	3 U
Manganese	**86.5**	**160**
Sodium	42,000	38,200

MW-3 US GYPSUM

DATE	1/5/2011	2/9/2011	7/15/2011	9/13/2011
VOCs				
1,1-Dichloroethene	1 U	1 U	NA	NA
Trichloroethene	1 U	1 U	NA	NA
Metals				
Aluminum	**2,090**	**6,840**	NA	NA
Arsenic	3 U	**4.6**	**4**	3 U
Iron	**2,170**	**6,060**	NA	NA
Lead	3 U	3	NA	NA
Manganese	**59**	**116**	NA	NA
Sodium	**59,300**	**57,500**	NA	NA

MW-2 US GYPSUM

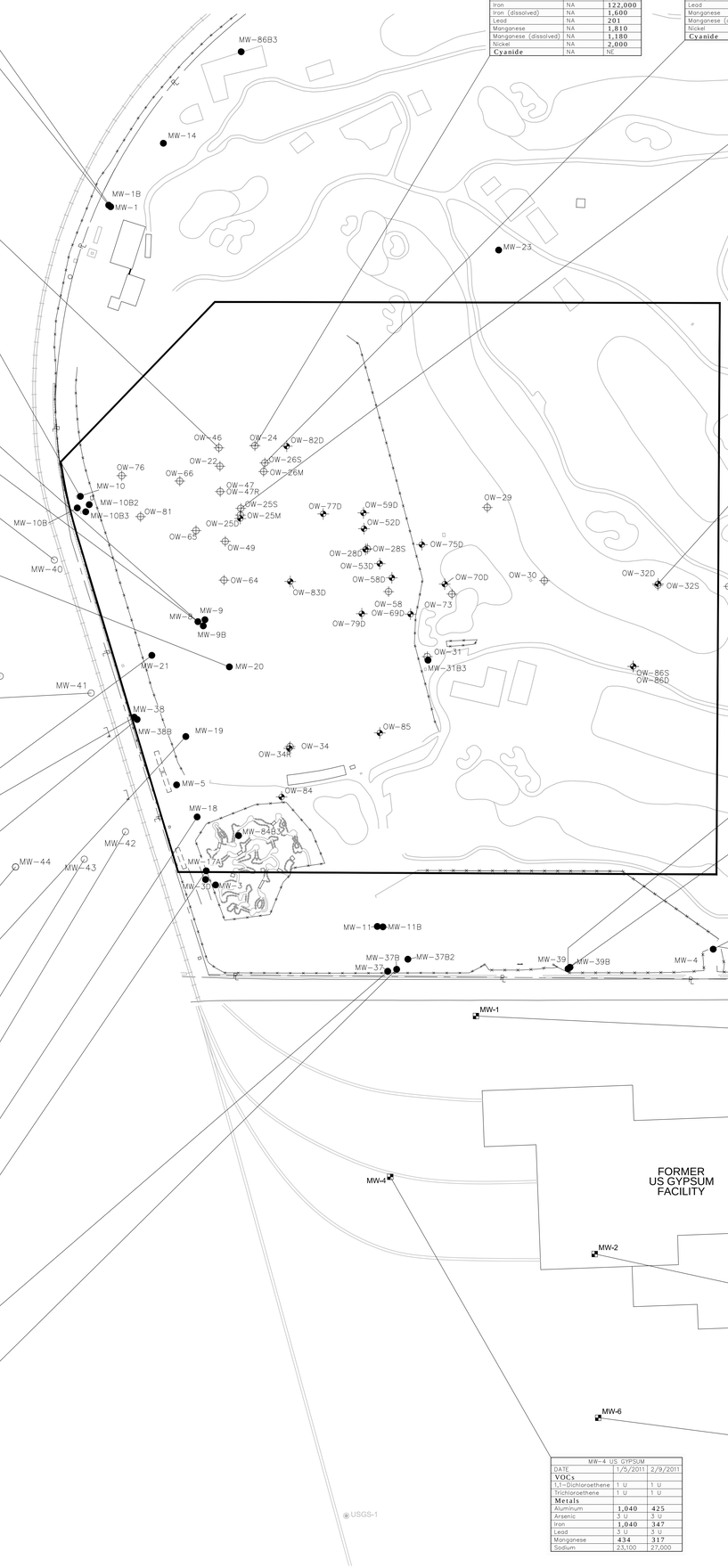
DATE	1/5/2011	2/9/2011
VOCs		
1,1-Dichloroethene	**10.7**	**8.8**
Trichloroethene	**2.3**	**2.1**
Metals		
Aluminum	**605**	**2,100**
Arsenic	3 U	3 U
Iron	**488**	**1,980**
Lead	3 U	3 U
Manganese	16.6	46.9
Sodium	**50,700**	45,900

MW-6 US GYPSUM

DATE	1/5/2011	2/9/2011
VOCs		
1,1-Dichloroethene	1 U	1 U
Trichloroethene	1 U	1 U
Metals		
Aluminum	**19,400**	**2,180**
Arsenic	3 U	3 U
Iron	**25,000**	**2,130**
Lead	**6.3**	3 U
Manganese	**700**	**57**
Sodium	19,200	20,800

MW-4 US GYPSUM

DATE	1/5/2011	2/9/2011
VOCs		
1,1-Dichloroethene	1 U	1 U
Trichloroethene	1 U	1 U
Metals		
Aluminum	**1,040**	**425**
Arsenic	3 U	3 U
Iron	**1,040**	**347**
Lead	3 U	3 U
Manganese	**434**	**317**
Sodium	23,100	27,000



PROJECT NORTH

N.J. GEODETIC NORTH

47° 27' 30"

LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- TOWNSHIP BOUNDARY
- FENCE
- RAILROAD TRACKS
- LIMITS OF CAP SYSTEM
- MONITORING WELL
- OFFSITE MONITORING WELL
- PRODUCT OBSERVATION WELL
- US GYPSUM GROUNDWATER SAMPLING LOCATION
- FORMER USG INDUSTRIAL SUPPLY WELL
- NE NO EXCEEDANCE
- NA NOT ANALYZED

NOTE:

LOCATIONS OF OFFSITE FORMER US GYPSUM FACILITY MONITORING WELLS AND RESULTS OF THE CONSTITUENTS PRESENTED ARE FROM FIGURE 3-1 OF THE ROUX ASSOCIATES, INC. REMEDIAL INVESTIGATION REPORT UNITED STATES GYPSUM COMPANY PI NUMBER 025861, DATED APRIL 15, 2011

0 100 200 300

SCALE IN FEET

FORMER HYATT CLARK INDUSTRIES SITE
CLARK, NEW JERSEY

GROUNDWATER REMEDIAL INVESTIGATION REPORT

OVERBURDEN AND SHALLOW BEDROCK GROUNDWATER ANALYTICAL RESULTS 2009 - 2014

ARCADIS Design & Consultancy for natural and built assets

FIGURE 8



MW-86B3

DATE	9/16/2009	9/20/2010	9/19/2011	10/2/2012	10/7/2013	10/7/2014
VOCs						
1,1-Dichloroethene	5.6	5.9	3.2	3.4/3.4	5.1	3.2
1,4-Dioxane	NA	NA	2.4	4.8/4.2	NA	NA
Tetrachloroethene	5.1	5	4.7	5.0/5.2	6	4.8
Trichloroethene	120	120	99	100/100	110	110
PCBs	NE	NE	NE	NE	NE	NE

MW-87B

DATE	9/9/2009	9/15/2010	9/22/2011	10/3/2012	10/2/2013	10/1/2014
VOCs						
1,1-Dichloroethene	< 1.0 U	0.23 J	0.57 J	1.4	< 1.0 U	< 1.0 U
Tetrachloroethene	< 1.0 U	< 1.0 U	0.76 J	1.2	0.52 J	< 1.0 U
Trichloroethene	0.42 J	0.57 J	2.5	14	6.5	0.6 J
Vinyl chloride	< 1.0 U	< 1.0 U	< 1.0 U	7.1	5.5	< 1.0 U

MW-87B2

DATE	9/9/2009	9/15/2010	9/22/2011	10/3/2012	10/2/2013	10/1/2014
VOCs						
1,1-Dichloroethene	13	9.4	4.1	2.7	10	7.4
1,4-Dioxane	NA	NA	3.6	7.2	NA	< 50 U
Tetrachloroethene	71	73	11	8.9	78	74
Trichloroethene	260	200	69	75	210	220
Vinyl chloride	< 1.0 U	< 1.0 U	< 1.0 U	0.19 J	1.1	0.52 J

MW-87B3

DATE	9/9/2009	9/15/2010	9/22/2011	10/3/2012	10/2/2013	10/1/2014
VOCs						
1,1-Dichloroethene	9.2	8.5	2.3	5.1	7.9	3.6
1,4-Dioxane	NA	NA	< 2 U	7.4	NA	< 50 U
Tetrachloroethene	19	17	3.1	5.5	14	9.3
Trichloroethene	220	200	41	110	150	79
Vinyl chloride	< 1.0 U	< 1.0 U	< 1.0 U	7.2	12	19

MW-87B4

DATE	9/9/2009	9/15/2010	9/22/2011	10/3/2012	10/2/2013	10/1/2014
VOCs						
1,1-Dichloroethene	2.7	5.7	6.2	4.1	6.6	3.9
1,4-Dioxane	NA	NA	3.9	7.3	NA	< 50 U
Tetrachloroethene	2.7	5.5	4.9	2.5	4.6	3.8
Trichloroethene	76	150	110	95	160	130
Vinyl chloride	< 1.0 U	< 1.0 U	< 1.0 U	1.4	6.6	8.2

MW-87B5

DATE	9/9/2009	9/15/2010	9/22/2011	10/3/2012	10/2/2013	10/1/2014
VOCs						
1,1-Dichloroethene	6.3	4.9	6.2	2.7	5.2	3.3
1,4-Dioxane	NA	NA	< 2 U	7.1	NA	< 50 U
cis-1,2-Dichloroethene	5.4	5.2	4.3	4.7	150	56
Tetrachloroethene	5.2	5	2.8	1.2	1.3	1.4
Trichloroethene	180	140	110	78	32	58
Vinyl chloride	< 1.0 U	< 1.0 U	< 1.0 U	0.20 J	6.8	14

MW-88-1

DATE	10/9/2013	9/30/2014
VOCs		
1,1-Dichloroethene	4.1	1.3
Tetrachloroethene	19	7.9
Trichloroethene	620	220

MW-88-2

DATE	10/9/2013	9/30/2014
VOCs		
1,1-Dichloroethene	6.4	4.2/4.3
Tetrachloroethene	6.8	7.4/6.8
Trichloroethene	200	170/160

MW-88-3

DATE	10/9/2013	9/30/2014
VOCs		
1,1-Dichloroethene	4.9	3.5
Tetrachloroethene	6.3	6.2
Trichloroethene	130	110

MW-88-4

DATE	10/9/2013	9/30/2014
VOCs		
1,1-Dichloroethene	2.6	1.8
Trichloroethene	20	16

MW-10B

DATE	9/11/2009	9/15/2010	9/13/2011	10/2/2012	10/3/2013	9/30/2014
VOCs						
1,1-Dichloroethane	120	97	90	94	110	94
1,1-Dichloroethene	100	82	69	110	110	73
1,2-Dichloroethane	7.6	6	6.3	7	6.8	7.3
1,4-Dioxane	NA	NA	46 J	51	NA	NA
Tetrachloroethene	66	69	62	85	66	58
Trichloroethene	63	52	48	62	56	50
Vinyl chloride	17	19	11	17	15	13

MW-10B2

DATE	9/11/2009	9/15/2010	9/13/2011	9/26/2012	10/3/2013	10/6/2014
VOCs						
1,1-Dichloroethene	12/13	12	8.8	12	20	14
1,4-Dioxane	NA/NA	NA	14	27	NA	NA
Tetrachloroethene	22/24	23	18	20	22	17
Trichloroethene	310/340	280	230	270	310	240
Vinyl chloride	1.7/1.8	2.7	1.4	2.7	3.2	2.4

MW-10B3

DATE	9/11/2009	9/15/2010	9/13/2011	10/1/2012	10/1/2013	10/2/2014
VOCs						
1,1-Dichloroethene	7.6	5.6	4.5	6.2	6.2	4.6
1,4-Dioxane	NA	NA	9.7	7	NE	< 50 U
Tetrachloroethene	6.7	6.6	5.6	7.6	7	5.9
Trichloroethene	220	190	170	190	210	190

MW-85B3

DATE	9/14/2009	9/16/2010	9/19/2011	10/2/2012	10/8/2013	10/3/2014
VOCs						
1,1-Dichloroethene	14	9.5	0.98 J	6.1/6.2	9	5.6
1,4-Dioxane	NA	NA	< 2 U	9.9/11	< 50 U	< 50 U
Tetrachloroethene	2.1	1.4	< 1.0 U	1.1/1.1	1.5	1.5
Trichloroethene	57	39	4.3	33/34	45	45
Vinyl chloride	0.40 J	0.78 J	< 1.0 U	0.60 J/0.61 J	1.1	1
PCBs	NE	NE	NE	NE	NE	NE

MW-31B2

DATE	9/15/2009	9/21/2010	9/20/2011	9/25/2012	10/8/2013	10/8/2014
VOCs						
1,1-Dichloroethene	57	83	45	49	75	51
1,2-Dichloroethane	2.2	2.3	1.6	1.9	1.9	2
1,4-Dioxane	NA	NA	31	41 J	NA	NA
Tetrachloroethene	59	77	71	62	72 J	62
Trichloroethene	420	380 D	380	380	390	320
Vinyl chloride	6.8	9.3	5.5	5.8	8.4	7
PCBs	NE	NE	NE	NE	NE	NE

MW-31B3

DATE	9/16/2009	9/16/2010	9/21/2011	10/1/2012	10/4/2013	10/8/2014
VOCs						
1,1-Dichloroethene	32	24	17	24	17	12/12
1,4-Dioxane	NA	NA	11	14	NA	< 50 U/< 50 U
Tetrachloroethene	29	25	16	27	17	13/12
Trichloroethene	280	210	190	250	240	200/190
PCBs	NE	NE	NE	NE	NE	NE

MW-37B2

DATE	9/14/2009	9/17/2010	9/14/2011	9/26/2012	10/2/2013	10/1/2014
VOCs						
1,1-Dichloroethene	38	34	19	23	32	23
1,4-Dioxane	NA	NA	14	21	NA	< 50 U
Carbon tetrachloride	2.3	1.9	1.6	1.3	1.2	0.97 J
Tetrachloroethene	59	55	43	41	42	38
Trichloroethene	150	130	120	140	150	130
PCBs	NE	NE	NE	NE	NE	NE

MW-37B3

DATE	9/14/2009	9/17/2010	9/14/2011	9/26/2012	10/2/2013	10/1/2014
VOCs						
1,1-Dichloroethene	40	31	21	16	28	17
1,4-Dioxane	NA	NA	11	13	NA	< 50 U
Tetrachloroethene	48	38	33	26	25	20
Trichloroethene	250	210	200	200	220	190
PCBs	NE	NE	NE	NE	NE	NE

LEGEND:

- ● DEEP BEDROCK WELL
- NE NO EXCEEDANCES
- NA NOT ANALYZED

0 300' 600'

GRAPHIC SCALE

FORMER HYATT CLARK INDUSTRIES SITE
CLARK, NEW JERSEY
GROUNDWATER REMEDIAL INVESTIGATION REPORT

DEEP BEDROCK GROUNDWATER ANALYTICAL RESULTS 2009 - 2014

ARCADIS Design & Consultancy for natural and built assets

FIGURE 9

CITY:SYRACUSE-NY DV/GROUP:ENV DB:A.SANCHEZ LD:ALS PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
Z:\ENVCAD\SYRACUSE\ACTIN\300029806\003300006\N1298336C09.dwg LAYOUT: 9 SAVED: 3/17/2016 3:02 AM ACADVER: 19.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ---- PLOTTED: 3/18/2016 5:58 AM BY: SANCHEZ, ADRIAN
XREFS: IMAGES: PROJECTNAME: ----
XrBDR-BL ESRI_August2015.jpg
XrAreialImage

ARCADIS

Attachment 1

Groundwater Sampling Forms (2009 - 2014)

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-1
Date:	9/10/2009	Sampled By:	JO	Sample ID:	MW-1PB(091009)
Sampling Time:	8:55	Recorded By:	JO	SSOW Ref:	R005011
Weather:	70's Partly cloudy	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volume to be Purged:	36.36 gallons
Total Depth:	33.04	Total Volume Purged:	36.4 gallons
Depth to Water:	14.48	Pump on: 8:10	off: 8:55
Water Column:	18.56		
Gallons/Foot:	0.6530		
Gallons in Well:	12.12		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:12	2	--	25.90	180.0	6.42	0.673	14.60	17.73	2.70	Initial
8:26	16	0.76	13.30	24.6	6.77	0.600	13.99	18.71	3.34	1st Volume
8:38	28	1.01	5.24	7.8	6.84	0.656	13.97	18.35	3.56	2nd Volume
8:52	42	0.87	2.26	25.7	6.87	0.666	13.99	18.10	5.13	3rd Volume
8:55	45	--	2.02	23.8	6.83	0.681	14.41	18.12	1.19	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-1B
Date:	9/10/2009	Sampled By:	JO	Sample ID:	MW-1BPB(091009)
Sampling Time:	9:58	Recorded By:	JO	SSOW Ref:	R005011
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volume to be Purged:	21.08 gallons
Total Depth:	69.85	Total Volume Purged:	21.1 gallons
Depth to Water:	26.8	Pump on: 9:30	off: 10:00
Water Column:	43.05		
Gallons/Foot:	0.1632		
Gallons in Well:	7.03		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:32	2	--	11.20	-16.1	7.44	0.393	14.75	32.05	2.09	Initial
9:40	10	0.70	7.12	-11.3	7.91	0.343	14.58	38.60	2.83	1st Volume
9:47	17	1.00	2.14	-54.7	8.33	0.361	14.66	39.58	3.53	2nd Volume
9:55	25	0.88	0.79	-18.9	7.92	0.376	14.82	39.45	2.11	3rd Volume
9:58	28	--	0.72	-18.5	8.05	0.378	14.87	39.54	2.27	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-4
Date:	9/10/2009	Sampled By:	XX/CC	Sample ID:	MW-4LF(091009)
Sampling Time:	12:42	Recorded By:	XX/CC	SSOW Ref:	R005011
Weather:	Cloudy 60's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Low Flow Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Pump Intake Setting	Midpont of screen		
Total Depth:	45.65	Pump on:	12:07	off:	12:45
Depth to Water:	26.53				
Water Column:	19.12				
Gallons/Foot:	0.6530				
Gallons in Well:	12.49				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:07	0	200	3.73	124.9	8.30	0.329	17.87	26.96	9.84	
12:12	5	200	1.66	160.2	8.23	0.307	16.79	27.58	8.49	
12:17	10	200	1.48	170.4	7.94	0.320	16.93	28.18	8.12	
12:22	15	200	0.22	176.7	7.81	0.327	17.19	28.69	7.97	
12:27	20	200	1.70	177.5	7.75	0.333	17.29	29.00	7.87	
12:32	25	200	0.68	176.2	7.69	0.335	17.10	29.44	7.77	
12:37	30	200	0.41	174.2	7.66	0.338	17.31	29.80	7.74	
12:42	35	200	0.65	174.7	7.62	0.345	17.70	29.97	7.60	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-4
Date:	9/10/2009	Sampled By:	DK/XX	Sample ID:	MW-4PB(091009)
Sampling Time:	14:31	Recorded By:	DK/XX	SSOW Ref:	R005011
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	28.8 gallons
Total Depth:	45.65	Total Volume Purged:	28.8 gallons
Depth to Water:	30.95	Pump on: 12:52	off: 14:32
Water Column:	14.70		
Gallons/Foot:	0.6530		
Gallons in Well:	9.60		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:52	0	--	0.00	174.5	7.53	0.341	16.45	30.95	7.53	Initial
13:29	37	0.26	0.65	174.4	7.24	0.469	16.89	36.48	5.27	1st Volume
14:05	73	0.27	2.22	178.8	7.29	0.516	16.83	39.52	5.82	2nd Volume
14:29	97	0.40	1.31	178.1	7.21	0.543	16.93	40.63	4.75	3rd Volume
14:31	99	--	2.41	178.1	7.16	0.559	16.99	-	4.82	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-7
Date:	9/11/2009	Sampled By:	DK/CC	Sample ID:	MW-7LF(091109)
Sampling Time:	9:07	Recorded By:	DK/CC	SSOW Ref:	R005011
Weather:	Rain, 60	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Low Flow Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Pump Intake Setting	Midpoint of screen		
Total Depth:	40.37	Pump on:	8:35	off:	9:13
Depth to Water:	22.20				
Water Column:	18.17				
Gallons/Foot:	0.6530				
Gallons in Well:	11.87				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:40	5	150	3.06	101.7	6.07	0.440	13.79	22.70	0.47	
8:45	10	150	2.61	94.1	6.11	0.440	13.77	22.75	0.33	
8:50	15	150	2.78	84.0	6.17	0.439	13.66	22.85	0.24	
8:55	20	150	1.84	79.0	6.20	0.439	13.68	22.86	0.21	
9:00	25	150	1.18	77.3	6.22	0.439	13.67	22.89	0.21	
9:05	30	150	1.84	73.1	6.23	0.439	13.68	22.86	0.20	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-7
Date:	9/11/2009	Sampled By:	DK/CC	Sample ID:	MW-7PB(091109)
Sampling Time:	10:07	Recorded By:	DK/CC	SSOW Ref:	R005011
Weather:	Rain, 60	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	34.65 gallons
Total Depth:	40.37	Total Volume Purged:	34.7 gallons
Depth to Water:	22.68	Pump on: 9:14	off: 10:11
Water Column:	17.69		
Gallons/Foot:	0.6530		
Gallons in Well:	11.55		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:14	0	--	0.64	70.3	6.29	0.437	13.49	22.68	0.24	Initial
9:37	23	0.50	1.36	57.0	6.30	0.434	13.32	22.74	0.16	1st Volume
9:51	37	0.83	0.84	49.2	6.81	0.435	13.30	22.87	0.15	2nd Volume
10:07	53	0.72	0.63	48.4	6.32	0.435	13.29	22.80	0.16	3rd Volume
10:10	56	--	0.23	52.6	6.32	0.439	13.53	-	0.32	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-8
Date:	9/15/2009	Sampled By:	CC	Sample ID:	MW-8FL(091509)
Sampling Time:	9:35	Recorded By:	CC	SSOW Ref:	R005011
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Low Flow Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Pump Intake Setting	Midpoint of screen		
Total Depth:	35.70	Pump on:	8:45	off:	9:40
Depth to Water:	22.55				
Water Column:	13.15				
Gallons/Foot:	0.6530				
Gallons in Well:	8.59				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:50	5	250	0.98	2.8	6.32	0.828	14.73	27.93	1.52	
8:55	10	250	0.98	2.2	6.35	0.831	14.73	23.04	1.25	
9:00	15	250	1.23	3.8	6.35	0.832	14.73	23.10	1.24	
9:05	20	250	1.12	0.1	6.35	0.835	14.40	23.11	0.97	
9:10	25	250	1.01	-5.3	6.37	0.826	14.45	23.20	0.85	
9:15	30	250	1.09	-8.9	6.39	0.827	14.49	23.20	0.77	
9:20	35	250	1.26	-14.2	6.41	0.827	14.46	23.18	0.63	
9:25	40	250	0.82	-15.8	6.40	0.823	14.28	23.34	0.56	
9:30	45	250	0.72	-19.1	6.41	0.823	14.30	23.34	0.51	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-8
Date:	9/15/2009	Sampled By:	CC	Sample ID:	MW-8PB(091509)
Sampling Time:	11:00	Recorded By:	CC	SSOW Ref:	R005011
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	24.19 gallons		
Total Depth:	35.70	Total Volume Purged:	24.2 gallons		
Depth to Water:	23.35	Pump on:	9:37	off:	11:10
Water Column:	12.35				
Gallons/Foot:	0.6530				
Gallons in Well:	8.06				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:39	2	--	0.72	-17.4	6.47	0.831	14.35	23.41	0.50	Initial
10:04	27	0.30	0.27	-35.0	6.46	0.802	13.85	24.32	0.23	1st Volume
10:29	52	0.32	0.15	-28.3	6.45	0.790	13.91	24.43	0.25	2nd Volume
10:52	75	0.35	0.28	-30.5	6.47	0.781	13.88	24.65	0.26	3rd Volume
11:08	91	--	0.20	-18.5	6.47	0.780	14.00	-	0.29	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.
- Not measured

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-9B
Date:	9/15/2009	Sampled By:	DK	Sample ID:	MW-9BPB(091809)
Sampling Time:	9:42	Recorded By:	DK	SSOW Ref:	R005011
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	16.0 gallons
Total Depth:	64.20	Total Volume Purged:	16.4 gallons
Depth to Water:	31.55	Pump on: 9:11	off: 9:45
Water Column:	32.65		
Gallons/Foot:	0.1632		
Gallons in Well:	5.33		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:12	1	--	1.71	9.3	6.82	0.914	15.81	31.8	1.54	Initial
9:21	10	0.53	0.00	69.5	6.84	0.912	15.00	32.8	1.79	1st Volume
9:30	19	0.59	0.00	-19.3	6.85	0.917	15.07	33.06	1.76	2nd Volume
9:40	29	0.53	0.00	-38.0	6.86	0.929	15.64	33.15	1.06	3rd Volume
9:42	31	--	0.00	-44.7	6.88	0.917	14.59	-	1.96	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-9B
Date:	9/15/2009	Sampled By:	DK	Sample ID:	MW-9BLF(091509)
Sampling Time:	9:07	Recorded By:	DK	SSOW Ref:	R005011
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Low Flow Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Pump Intake Setting	Midpoint of screen		
Total Depth:	64.20	Pump on:	8:35	off:	9:09
Depth to Water:	29.96				
Water Column:	34.24				
Gallons/Foot:	0.1632				
Gallons in Well:	5.59				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:40	5	200	0.31	12.0	6.73	0.850	14.36	31.11	0.66	
8:45	10	200	1.17	-45.8	6.77	0.856	14.40	31.05	0.42	
8:50	15	200	0.59	-61.1	6.78	0.874	14.50	31.05	0.38	
8:55	20	200	0.00	-72.6	6.80	0.881	14.52	31.05	0.32	
9:00	25	200	0.00	-73.7	6.79	0.890	14.57	31.05	0.30	
9:05	30	200	0.00	-79.0	6.79	0.894	14.52	31.05	0.30	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-10
Date:	9/11/2009	Sampled By:	DK/CC	Sample ID:	MW-10PB(091109)
Sampling Time:	11:58	Recorded By:	DK/CC	SSOW Ref:	R005011
Weather:	Rain, 60's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	25.51 gallons
Total Depth:	26.96	Total Volume Purged:	25.51 gallons
Depth to Water:	13.94	Pump on: 11:04	off: 12:00
Water Column:	13.02		
Gallons/Foot:	0.6530		
Gallons in Well:	8.50		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:05	1	--	4.00	1.0	6.54	0.368	14.12	14.45	0.77	Initial
11:23	19	0.45	3.10	-22.0	6.66	0.358	14.16	17.90	0.15	1st Volume
11:45	41	0.39	9.07	-12.7	6.69	0.367	14.04	18.48	0.16	2nd Volume
11:55	51	0.85	15.80	-11.7	6.70	0.369	13.99	18.52	0.15	3rd Volume
11:58	54	--	11.40	-10.3	6.70	0.370	14.03	-	0.22	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-10B
Date:	9/11/2009	Sampled By:	JO/XX	Sample ID:	MW-10BPB(091109)
Sampling Time:	11:59	Recorded By:	JO/XX	SSOW Ref:	R005011
Weather:	Rain, 60's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	37.61 gallons
Total Depth:	103.44	Total Volume Purged:	37.61 gallons
Depth to Water:	26.62	Pump on: 11:23	off: 12:02
Water Column:	76.82		
Gallons/Foot:	0.1632		
Gallons in Well:	12.54		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:23	0	--	6.81	167.0	7.19	0.642	14.31	26.62	3.28	Initial
11:35	12	1.04	2.23	154.0	7.09	0.709	14.42	40.01	2.45	1st Volume
11:47	24	1.04	2.33	142.8	7.05	0.756	14.54	34.32	4.02	2nd Volume
11:59	36	1.04	1.92	144.5	7.05	0.907	14.49	34.82	1.39	3rd Volume
12:02	39	--	1.04	140.4	7.01	0.931	14.44	34.82	1.09	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-10B2
Date:	9/11/2009	Sampled By:	JO/XX	Sample ID:	MW-10B2PB(091109)
Sampling Time:	11:53	Recorded By:	JO/XX	SSOW Ref:	R005011
Weather:	Rain, 60's	Coded Replicate No.:	DUP(091109)		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	77.3 gallons
Total Depth:	186.93	Total Volume Purged:	77.3 gallons
Depth to Water:	29.05	Pump on: 10:38	off: 11:59
Water Column:	157.88		
Gallons/Foot:	0.1632		
Gallons in Well:	25.77		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:38	0	--	3.10	158.7	7.34	0.493	14.48	29.05	6.12	Initial
11:03	25	1.03	1.86	158.4	7.29	0.500	14.88	32.31	4.34	1st Volume
11:28	50	1.03	1.79	165.1	7.27	0.562	14.86	32.30	3.99	2nd Volume
11:53	75	1.03	0.33	126.7	7.18	0.581	14.61	31.07	2.21	3rd Volume
11:57	79	--	1.49	134.3	7.31	0.564	14.57	31.07	6.29	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-10B3
Date:	9/11/2009	Sampled By:	JO/XX	Sample ID:	MW-10B3PB(091109)
Sampling Time:	10:40	Recorded By:	JO/XX	SSOW Ref:	R005011
Weather:	Rain, 60's	Coded Replicate No.:	MS/MSD		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	156.1 gallons
Total Depth:	347.42	Total Volume Purged:	156 gallons
Depth to Water:	28.50	Pump on: 8:51	off: 10:42
Water Column:	318.92		
Gallons/Foot:	0.1632		
Gallons in Well:	52.05		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:51	0	--	10.78	156.9	6.49	0.536	14.65	28.50	4.05	Initial
9:26	35	1.49	1.23	158.2	7.19	0.565	14.13	28.99	4.05	1st Volume
10:01	70	1.49	0.16	152.5	7.40	0.735	14.12	29.00	5.78	2nd Volume
10:36	105	1.49	1.76	154.6	7.49	0.417	14.05	29.07	4.25	3rd Volume
10:42	111	--	1.25	153.2	7.49	0.512	14.02	29.08	4.25	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-12
Date:	9/10/2009	Sampled By:	DK	Sample ID:	MW-12PB(091009)
Sampling Time:	10:59	Recorded By:	DK	SSOW Ref:	R005011
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	35.44 gallons		
Total Depth:	41.40	Total Volume Purged:	35.4 gallons		
Depth to Water:	23.31	Pump on:	9:28	off:	11:02
Water Column:	18.09				
Gallons/Foot:	0.6530				
Gallons in Well:	11.81277				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:28	0	--	0.7	223.6	6.03	0.407	13.70	23.31	0.71	Initial
10:04	36	0.33	1.25	223.7	6.02	0.411	13.39	23.40	0.60	1st Volume
10:31	63	0.44	0.45	220.9	6.07	0.434	13.38	23.45	0.61	2nd Volume
10:58	90	0.44	0.31	218.1	6.10	0.444	13.31	23.47	0.62	3rd Volume
10:59	92	--	0.33	218.1	6.11	0.449	13.44	23.47	0.67	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-12
Date:	9/10/2009	Sampled By:	DK	Sample ID:	MW-12LF(091009)
Sampling Time:	9:17	Recorded By:	DK	SSOW Ref:	R005011
Weather:	Sun, 70's	Coded Replicate No.:	MW-12LFMS(0941009)		
			MW-12LFMSD(0941009)		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Low Flow Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Pump Intake Setting	Midpoint of screen		
Total Depth:	41.40	Pump on:	8:45	off:	9:27
Depth to Water:	23.20				
Water Column:	18.20				
Gallons/Foot:	0.6530				
Gallons in Well:	11.88				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:50	5	150	1.52	218.1	6.37	0.490	13.71	23.31	0.75	
8:55	10	150	1.00	218.8	6.25	0.463	13.64	23.31	0.62	
9:00	15	150	0.51	219.8	6.18	0.447	13.72	23.31	0.61	
9:05	20	150	0.88	221.0	6.12	0.432	13.68	23.31	0.61	
9:10	25	150	0.72	221.3	6.11	0.430	13.72	23.31	0.62	
9:15	30	150	0.68	222.0	6.10	0.434	13.73	23.31	0.62	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-13
Date:	9/17/2009	Sampled By:	CC/DK	Sample ID:	MW-13LF(091709)
Sampling Time:	9:48	Recorded By:	CC/DK	SSOW Ref:	R005011
Weather:	Cloudy, 60's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Low Flow Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Pump Intake Setting	Midpoint of screen		
Total Depth:	33.57	Pump on:	9:12	off:	9:52
Depth to Water:	24.03				
Water Column:	9.54				
Gallons/Foot:	0.6530				
Gallons in Well:	6.23				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:17	5	250	7.77	-76.4	6.19	0.559	14.02	24.20	1.14	
9:22	10	250	7.77	-84.3	6.19	0.556	13.81	24.31	0.54	
9:27	15	250	8.67	-90.0	6.21	0.554	13.70	24.52	0.38	
9:32	20	250	7.48	-103.5	6.23	0.555	13.61	24.63	0.35	
9:37	25	250	6.05	-122.5	6.25	0.556	13.69	24.81	0.30	
9:42	30	250	6.05	-128.9	6.26	0.557	13.78	24.90	0.27	
9:47	35	250	5.68	-135.8	6.28	0.559	13.85	24.96	0.26	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-15
Date:	9/14/2009	Sampled By:	JO/XX	Sample ID:	MW-15(091409)
Sampling Time:	9:28	Recorded By:	JO/XX	SSOW Ref:	R005011
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	29.35 gallons
Total Depth:	39.33	Total Volume Purged:	29.35 gallons
Depth to Water:	24.35	Pump on: 8:53	off: 9:40
Water Column:	14.98		
Gallons/Foot:	0.6530		
Gallons in Well:	9.78		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:53	0	--	9.93	-56.1	6.60	0.602	15.09	25.27	2.74	Initial
9:07	10	0.98	3.56	-87.8	7.16	0.324	14.89	26.07	3.04	1st Volume
9:17	20	0.98	3.01	-117.7	7.14	0.315	15.12	27.35	0.61	2nd Volume
9:27	30	0.98	5.55	-120.5	7.26	0.606	15.49	28.40	1.60	3rd Volume
9:28	31	--	8.10	-132.1	7.20	0.598	15.01	29.89	1.01	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-15
Date:	9/14/2009	Sampled By:	JO/XX	Sample ID:	MW-15LF(091409)
Sampling Time:	10:21	Recorded By:	JO/XX	SSOW Ref:	R005011
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Low Flow Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Pump Intake Setting	Midpoint of screen		
Total Depth:	39.33	Pump on:	9:50	off:	10:25
Depth to Water:	28.5				
Water Column:	10.83				
Gallons/Foot:	0.653				
Gallons in Well:	7.07199				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:55	5	500	6.50	-119.2	7.19	0.614	15.72	29.68	0.62	
10:00	10	500	6.21	-129.5	7.13	0.599	15.34	29.85	0.16	
10:05	15	500	8.20	-130.2	7.12	0.599	15.39	30.07	0.15	
10:10	20	500	10.57	-131.4	7.12	0.599	15.44	30.17	0.13	
10:15	25	500	10.52	-132.8	7.11	0.602	15.00	30.20	0.13	
10:20	30	500	10.31	-132.7	7.10	0.604	15.02	30.29	0.13	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-17A
Date:	9/9/2009	Sampled By:	DK	Sample ID:	MW-17ALF(090909)
Sampling Time:	12:57	Recorded By:	DK	SSOW Ref:	R005011
Weather:	Overcast, 70s	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Low Flow Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Pump Intake Setting	Midpoint of screen		
Total Depth:	33.58	Pump on:	12:25	off:	12:59
Depth to Water:	15.98				
Water Column:	17.60				
Gallons/Foot:	0.653				
Gallons in Well:	11.49				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:30	5	150	15.80	165.5	7.23	0.472	15.79	20.82	0.90	
12:35	10	150	13.80	165.5	7.22	0.393	15.62	20.82	0.84	
12:40	15	150	10.22	167.2	7.23	0.400	15.95	20.82	0.75	
12:45	20	150	9.10	170.1	7.23	0.402	15.89	20.81	0.69	
12:50	25	150	6.85	172.3	7.22	0.404	15.81	20.81	0.68	
12:55	30	150	5.41	172.6	7.22	0.405	15.82	20.81	0.67	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-17A
Date:	9/9/2009	Sampled By:	DK	Sample ID:	MW-17APB(090909)
Sampling Time:	12:20	Recorded By:	DK	SSOW Ref:	R005011
Weather:	Overcast, 70s	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	34.48 gallons		
Total Depth:	33.58	Total Volume Purged:	34.5 gallons		
Depth to Water:	15.98	Pump on:	11:08	off:	12:27
Water Column:	17.60				
Gallons/Foot:	0.653				
Gallons in Well:	11.49				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:08	0	--	5.20	142.7	7.38	0.508	16.92	15.98	3.75	Initial
11:25	17	0.68	6.40	154.6	7.34	0.407	16.34	19.72	3.58	1st Volume
11:53	45	0.41	5.19	152.2	7.24	0.418	17.02	20.55	2.34	2nd Volume
12:19	70	0.46	6.43	154.8	7.25	0.403	16.75	22.40	2.29	3rd Volume
12:20	71	--	15.40	165.4	7.31	0.386	16.07	-	5.19	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-18
Date:	9/10/2009	Sampled By:	JO	Sample ID:	MW-18LF(091009)
Sampling Time:	11:45	Recorded By:	JO	SSOW Ref:	R005011
Weather:	Partly cloudy, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Low Flow Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Pump Intake Setting	Midpoint of screen		
Total Depth:	32.28	Pump on:	10:55	off:	11:49
Depth to Water:	18.60				
Water Column:	13.68				
Gallons/Foot:	0.6530				
Gallons in Well:	8.93				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:00	5	200	1.46	52.3	7.42	0.579	15.45	19.55	0.30	
11:05	10	200	5.37	34.0	7.35	0.582	15.62	20.10	0.23	
11:10	15	200	10.30	26.8	7.31	0.582	15.54	21.01	0.19	
11:15	20	200	11.20	30.2	7.27	0.570	15.18	22.56	0.19	
11:20	25	200	11.40	47.9	7.19	0.562	15.61	23.12	0.58	
11:25	30	200	11.60	51.6	7.16	0.583	16.73	24.02	0.72	
11:30	35	200	12.10	50.0	7.15	0.579	16.02	24.05	0.85	
11:35	40	200	12.50	52.9	7.14	0.585	15.78	24.27	0.82	
11:40	45	200	14.80	57.4	7.12	0.587	15.66	24.52	0.95	
11:45	50	200	13.9	53.4	7.11	0.590	16.01	27.68	0.97	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-18
Date:	9/10/2009	Sampled By:	JO	Sample ID:	MW-18PB(091009)
Sampling Time:	12:20	Recorded By:	JO	SSOW Ref:	R005011
Weather:	Cloudy, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	13.87 gallons
Total Depth:	32.28	Total Volume Purged:	13.9 gallons
Depth to Water:	25.2	Pump on: 11:52	off: 12:20
Water Column:	7.08		
Gallons/Foot:	0.6530		
Gallons in Well:	4.62		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:54	2	--	3.72	-6.3	7.20	0.578	16.48	25.91	0.83	Initial
12:00	8	0.58	3.08	-6.9	7.20	0.577	15.45	25.82	0.81	1st Volume
12:07	15	0.66	3.17	-16.8	7.21	0.578	15.48	26.52	0.81	2nd Volume
12:16	23	0.58	3.47	-51.1	7.25	0.575	15.66	26.61	0.76	3rd Volume
12:18	25	--	3.01	-52.3	7.26	0.575	15.67	27.25	0.75	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-19
Date:	9/15/2009	Sampled By:	JO/XX	Sample ID:	MW-19LF(0915909)
Sampling Time:	10:50	Recorded By:	JO/XX	SSOW Ref:	R005011
Weather:	Sun, 80	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Low Flow Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Pump Intake Setting	Midpoint of screen		
Total Depth:	44.50	Pump on:	10:19	off:	10:52
Depth to Water:	25.41				
Water Column:	19.09				
Gallons/Foot:	0.6530				
Gallons in Well:	12.47				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:19	0	300	1.37	-17.5	6.94	0.745	14.89	25.41	1.59	
10:24	5	300	1.12	-14.1	6.74	0.749	14.82	26.00	0.20	
10:29	10	300	0.90	-14.6	6.75	0.747	14.67	26.00	0.16	
10:34	15	300	0.97	-15.4	6.78	0.746	14.63	26.04	0.14	
10:39	20	300	0.82	-17.8	6.79	0.744	14.54	26.05	0.12	
10:44	25	300	0.78	-18.6	6.81	0.748	14.82	26.16	0.11	
10:49	30	300	-	-18.9	6.81	0.745	14.72	26.10	0.11	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.
- Not measured

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-19
Date:	9/15/2009	Sampled By:	JO/XX	Sample ID:	MW-19PB(091509)
Sampling Time:	11:30	Recorded By:	JO/XX	SSOW Ref:	R005011
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	36.0 gallons
Total Depth:	44.50	Total Volume Purged:	36.05 gallons
Depth to Water:	26.10	Pump on: 10:53	off: 11:33
Water Column:	18.40		
Gallons/Foot:	0.6530		
Gallons in Well:	12.02		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:53	0	--	0.76	-18.1	6.82	0.734	14.30	26.75	0.22	Initial
11:05	12	1.00	0.58	-22.3	6.81	0.727	14.20	27.40	0.28	1st Volume
11:17	24	1.00	0.30	-26.5	6.83	0.724	14.24	27.62	0.04	2nd Volume
11:29	36	1.00	0.28	-26.9	6.83	0.722	14.20	27.69	0.09	3rd Volume
11:30	37	--	0.32	-22.3	6.92	0.726	14.42	27.20	0.39	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-20
Date:	9/15/2009	Sampled By:	DK/CC	Sample ID:	MW-20LF(091509)
Sampling Time:	12:15	Recorded By:	DK/CC	SSOW Ref:	R005011
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	Horiba U-22

Low Flow Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Pump Intake Setting	Midpoint of screen		
Total Depth:	35.35	Pump on:	11:15	off:	12:17
Depth to Water:	23.03				
Water Column:	12.32				
Gallons/Foot:	0.6530				
Gallons in Well:	8.04				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:20	5	150	35.00	-174.5	6.75	0.808	15.25	24.00	0.34	
11:25	10	150	27.20	-178.0	6.76	0.804	15.21	24.43	0.20	
11:30	15	150	19.00	-175.5	6.78	0.818	16.14	24.61	0.33	
11:35	20	150	17.90	-176.6	6.78	0.821	16.10	24.67	0.33	
11:40	25	150	14.20	-179.4	6.79	0.823	16.29	24.69	0.28	
11:45	30	150	13.90	-184.5	6.78	0.805	15.41	24.93	0.35	
11:50	35	150	11.40	-182.6	6.79	0.807	15.55	25.10	0.42	
11:55	40	150	10.23	-181.9	6.80	0.812	15.91	25.16	0.47	
12:00	45	150	6.95	-185.7	6.80	0.816	15.97	25.23	0.52	
12:05	50	150	5.93	-188.0	6.80	0.817	15.73	25.28	0.56	
12:10	55	150	5.06	-189.1	6.80	0.818	15.98	25.28	0.62	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-20
Date:	9/15/2009	Sampled By:	CC/DK	Sample ID:	MW-20PB(091509)
Sampling Time:	13:30	Recorded By:	CC/DK	SSOW Ref:	R005011
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	Horiba U-22

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	20.78 gallons		
Total Depth:	35.35	Total Volume Purged:	20.8 gallons		
Depth to Water:	24.74	Pump on:	12:24	off:	13:35
Water Column:	10.61				
Gallons/Foot:	0.6530				
Gallons in Well:	6.93				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:26	2	--	3.95	-192.9	6.81	0.806	14.50	26.01	0.82	Initial
12:40	14	0.49	2.61	-181.4	6.79	0.767	14.31	28.73	0.75	1st Volume
13:01	35	0.33	1.30	-185.2	6.80	0.817	14.39	30.30	0.78	2nd Volume
13:25	60	0.28	0.66	-171.2	6.82	0.834	14.59	31.11	0.85	3rd Volume
13:38	68	--	1.71	-151.0	6.80	0.858	14.91	-	1.01	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-21
Date:	9/15/2009	Sampled By:	JO/XX	Sample ID:	MW-21LF(091509)
Sampling Time:	9:12	Recorded By:	JO/XX	SSOW Ref:	R005011
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Low Flow Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Pump Intake Setting	Midpoint of screen		
Total Depth:	37.80	Pump on:	8:32	off:	9:13
Depth to Water:	25.92				
Water Column:	11.88				
Gallons/Foot:	0.6530				
Gallons in Well:	7.76				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:32	0	300	0.48	-26.7	6.32	0.863	14.09	26.60	4.73	
8:40	8	300	0.47	-43.0	6.55	0.886	15.41	26.92	2.87	
8:45	13	300	0.53	-42.3	6.54	0.898	15.80	27.31	1.68	
8:50	18	300	0.41	-42.3	6.53	0.909	15.88	27.92	0.74	
8:55	23	300	0.49	-38.6	6.51	0.898	15.19	27.99	0.25	
9:00	28	300	0.53	-34.9	6.42	0.890	14.98	28.20	0.19	
9:05	33	300	0.87	-34.0	6.50	0.899	15.06	28.75	0.02	
9:10	38	300	0.71	-32.0	6.51	0.903	15.02	29.00	0.13	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-21
Date:	9/15/2009	Sampled By:	JO/XX	Sample ID:	MW-21PB(091509)
Sampling Time:	9:46	Recorded By:	JO/XX	SSOW Ref:	R005011
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	17.24 gallons
Total Depth:	37.80	Total Volume Purged:	17.2 gallons
Depth to Water:	29.00	Pump on: 9:13	off: 9:52
Water Column:	8.80		
Gallons/Foot:	0.6530		
Gallons in Well:	5.75		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:13	0	--	0.46	-27.0	6.54	0.896	14.40	30.35	0.21	Initial
9:24	11	0.52	1.83	-28.8	6.59	0.946	14.24	31.70	0.15	1st Volume
9:25	22	0.52	1.83	-19.0	6.62	1.031	16.28	31.70	0.38	2nd Volume
9:46	33	0.52	1.38	-6.0	6.62	1.060	15.70	31.70	0.48	3rd Volume
9:52	39	--	1.26	-3.1	6.63	1.043	15.70	-	0.75	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.
- Not measured

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	OW-24
Date:	9/17/2009	Sampled By:	JO/XX	Sample ID:	OW-24PB(091809)
Sampling Time:	9:13 (09/18/09)	Recorded By:	JO/XX	SSOW Ref:	R005011
Weather:	Cloudy, 60's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer		
Casing Diameter:	4"	Volumes to be Purged:	3.291 gallons		
Total Depth:	21.12	Total Volume Purged:	2.18 gallons		
Depth to Water:	19.44	Pump on:	8:56	off:	9:15
Water Column:	1.68	Pump on:	9:13	off:	9:15 on 9/18/2009
Gallons/Foot:	0.6530				
Gallons in Well:	1.10				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:56	0	0.2	-	-56.2	5.89	0.764	15.34	19.75	2.62	Initial
9:00	4	0.2	34.5	-23.2	6.18	0.017	15.80	20.38	1.36	1st Volume
9:15	19	0.06	60.0	-13.6	6.38	0.126	17.07	-	2.81	2nd Volume
										3rd Volume
	Note: Well dried out at 9:15. Allowed to recharge to 20.27' and sampled on 9/18/2009.									Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	OW-25S
Date:	9/17/2009	Sampled By:	JO/XX	Sample ID:	OW-25SPB(091809)
Sampling Time:	10:17 (9/18/09)	Recorded By:	JO/XX	SSOW Ref:	R005011
Weather:	Rain, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer		
Casing Diameter:	4"	Volumes to be Purged:	7.934 gallons		
Total Depth:	23.28	Total Volume Purged:	5.28 gallons		
Depth to Water:	19.23	Pump on:	10:57	off:	11:35
Water Column:	4.05	Pump on:	10:15	off:	10:20:00 AM on 9/18/2009
Gallons/Foot:	0.6530				
Gallons in Well:	2.64465				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:57	0	0.1	19.30	60.4	6.60	1.318	13.89	19.03	4.42	Initial
11:25	28	0.1	18.60	64.4	6.66	1.322	13.99	21.40	3.58	1st Volume
11:34	37	0.1	14.70	-69.1	6.70	1.332	14.07	-	3.78	2nd Volume
										3rd Volume
	Note: Well dried out at 11:34. Allowed to recharge and sampled on 9/18/2009.									Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	OW-26S
Date:	9/17/2009	Sampled By:	JO/XX	Sample ID:	OW-26SPB(091809)
Sampling Time:	9:49 (9/18/09)	Recorded By:	JO/XX	SSOW Ref:	R005011
Weather:	Cloudy, 60's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer		
Casing Diameter:	4"	Volumes to be Purged:	7.91 gallons		
Total Depth:	21.14	Total Volume Purged:	5.28 gallons		
Depth to Water:	17.10	Pump on:	9:34	off:	10:22
Water Column:	4.04	Pump on:	9:30	off:	9:55:00 AM On 9/18/2009
Gallons/Foot:	0.6530				
Gallons in Well:	2.64				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:36	2	0.32	>500.00	-77.6	6.06	0.744	14.36	17.45	3.94	Initial
10:01	26	0.32	20.30	-66.7	6.08	0.018	14.85	19.21	3.49	1st Volume
10:20	45	0.32	6.19	-64.3	6.18	0.660	14.65	20.55	4.93	2nd Volume
										3rd Volume
	Note: Well dried out at 10:22. Allowed to recharge to 20.08' on 9/18/2009 and sampled.									Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-31B2
Date:	9/15/2009	Sampled By:	JO/XX	Sample ID:	MW-31B2LF(091509)
Sampling Time:	12:50	Recorded By:	JO/XX	SSOW Ref:	R005011
Weather:	Sun. 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Low Flow Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Pump Intake Setting	Midpoint of screen		
Total Depth:	153.00	Pump on:	12:12	off:	12:52
Depth to Water:	39.29				
Water Column:	113.71				
Gallons/Foot:	0.1632				
Gallons in Well:	18.56				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:12	0	200	0.88	7.5	7.36	0.614	18.55	39.29	5.91	
12:17	5	200	0.28	37.4	7.22	0.580	16.09	39.25	5.23	
12:22	10	200	0.28	67.7	7.15	0.577	15.86	39.26	5.16	
12:27	15	200	0.28	70.4	7.13	0.576	15.86	39.27	5.13	
12:32	20	200	0.21	83.9	7.12	0.579	16.03	39.28	4.89	
12:37	25	200	0.19	94.8	7.09	0.583	15.89	39.28	3.62	
12:42	30	200	0.16	101.1	7.10	0.591	16.01	39.28	2.54	
12:47	35	200	0.15	104.9	7.09	0.597	16.12	39.28	1.59	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-31B2
Date:	9/15/2009	Sampled By:	JO/XX	Sample ID:	MW-31B2PB(091509)
Sampling Time:	13:32	Recorded By:	JO/XX	SSOW Ref:	R005011
Weather:	Sun. 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	55.67 gallons
Total Depth:	153.00	Total Volume Purged:	55.7 gallons
Depth to Water:	39.29	Pump on: 12:52	off: 13:36
Water Column:	113.71		
Gallons/Foot:	0.1632		
Gallons in Well:	18.56		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:52	0	--	0.00	120.4	7.02	0.616	15.57	40.85	0.71	Initial
13:05	18	1.03	0.00	128.8	7.02	0.667	15.63	40.91	0.22	1st Volume
13:17	30	1.55	0.00	133.7	7.03	0.669	15.62	40.15	0.13	2nd Volume
13:31	44	1.33	0.00	139.8	6.99	0.669	15.59	41.05	0.09	3rd Volume
13:32	45	--	0.00	130.1	7.08	0.668	15.58	40.30	0.16	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-31B3
Date:	9/16/2009	Sampled By:	CC/DK	Sample ID:	MW-31B3LF(091609)
Sampling Time:	14:47	Recorded By:	CC/DK	SSOW Ref:	R005011
Weather:	Cloudy, 60s	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Low Flow Purge

Casing Material:	PVC	Purge Method: (in boldface)	Submersible	Centrifugal	**Marshak Bladder** Bailer
Casing Diameter:	2"	Pump Intake Setting	Midpoint of screen		
Total Depth:	342.00	Pump on:	14:10	off:	14:53
Depth to Water:	41.65				
Water Column:	300.35				
Gallons/Foot:	0.1630				
Gallons in Well:	48.96				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
14:15	5	200	0.68	114.9	7.33	0.550	16.15	41.75	8.18	
14:20	10	200	4.49	127.6	7.40	0.534	15.58	41.83	1.60	
14:25	15	200	2.86	129.7	7.42	0.536	15.52	41.83	1.25	
14:30	20	200	1.62	132.1	7.44	0.543	15.54	41.83	1.16	
14:35	25	200	1.14	134.3	7.45	0.551	15.52	41.83	0.92	
14:40	30	200	1.00	135.3	7.44	0.555	15.50	41.83	0.91	
14:45	35	200	1.24	136.3	7.45	0.558	15.50	41.83	0.91	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-31B3
Date:	9/16/2009	Sampled By:	CC/DK	Sample ID:	MW-31B3PB(091609)
Sampling Time:	17:39	Recorded By:	CC/DK	SSOW Ref:	R05011
Weather:	Cloudy, 60s	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	147.1 gallons
Total Depth:	342.00	Total Volume Purged:	147 gallons
Depth to Water:	41.62	Pump on: 15:09	off: 17:47
Water Column:	300.38		
Gallons/Foot:	0.1630		
Gallons in Well:	49.02		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
15.11	2	--	9.73	163.2	7.32	0.546	15.94	43.73	5.09	Initial
15:59	50	0.98	2.28	166.4	7.42	0.593	15.97	45.51	2.51	1st Volume
16:47	98	1.02	1.09	105.7	7.45	0.673	15.68	45.58	2.52	2nd Volume
17:35	146	1.02	0.00	97.2	7.45	0.670	15.59	45.51	1.98	3rd Volume
17:45	156	--	0.07	95.8	7.45	0.671	15.29	-	1.88	Sample

Observations During Sampling

Well Condition: _____ Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.
- Not measured

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	OW-32D
Date:	9/16/2009	Sampled By:	JO/XX	Sample ID:	OW-32DLF(091609)
Sampling Time:	8:46	Recorded By:	JO/XX	SSOW Ref:	R005011
Weather:	Cloudy, 60s	Coded Replicate No.:	MS/MSD metals		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Low Flow Purge

Casing Material:	SS	Purge Method: (in boldface)	Submersible	Centrifugal	**Marshak Bladder** Bailer
Casing Diameter:	4"	Pump Intake Setting	Midpoint of screen		
Total Depth:	39.28	Pump on:	8:10	off:	8:49
Depth to Water:	25.48				
Water Column:	13.80				
Gallons/Foot:	0.6530				
Gallons in Well:	9.01				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:15	5	400	25.8	-42.9	6.00	0.373	14.25	25.98	0.31	
8:20	10	400	22.7	-47.0	6.04	0.375	14.66	26.17	0.27	
8:25	15	400	20.6	-50.7	6.05	0.376	14.68	27.45	0.23	
8:30	20	400	30.3	-56.8	6.13	0.377	14.80	27.94	0.19	
8:35	25	400	23.7	-64.7	6.21	0.379	14.86	28.75	0.14	
8:40	30	400	22.5	-68.7	6.24	0.378	14.76	28.95	0.12	
8:45	35	400	22.0	-70.8	6.25	0.378	14.82	29.01	0.11	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	OW-32D
Date:	9/16/2009	Sampled By:	JO/XX	Sample ID:	OW-32DPBF(091609)
Sampling Time:	10:02	Recorded By:	JO/XX	SSOW Ref:	R005011
Weather:	Cloudy, 60s	Coded Replicate No.:	MS/MSD		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	16.32 gallons
Total Depth:	39.28	Total Volume Purged:	23.5 gallons
Depth to Water:	30.95	Pump on: 8:54	off: 10:29
Water Column:	8.33		
Gallons/Foot:	0.6530		
Gallons in Well:	5.44		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:55	1	--	26.5	-76.2	6.32	0.383	14.64	31.40	0.17	Initial
9:16	21	0.26	20.2	-92.7	6.42	0.398	14.86	32.25	0.20	1st Volume
9:37	42	0.26	15.1	-112.2	6.53	0.442	15.02	32.28	0.49	2nd Volume
9:59	64	0.25	7.68	-120.1	6.61	0.479	15.13	32.28	0.65	3rd Volume
10:02	67	--	6.28	-88.0	6.91	0.522	14.82	34.12	4.59	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-36B
Date:	9/10/2009	Sampled By:	DK	Sample ID:	MW-36BLF(091009)
Sampling Time:	12:07	Recorded By:	DK	SSOW Ref:	R005011
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Low Flow Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Pump Intake Setting	Midpoint of screen		
Total Depth:	57.25	Pump on:	11:30	off:	12:09
Depth to Water:	20.47				
Water Column:	36.78				
Gallons/Foot:	0.1632				
Gallons in Well:	6.00				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:35	5	150	124	187.3	6.20	0.431	14.26	21.48	1.96	
11:40	10	150	27.5	188.3	6.22	0.438	13.59	21.66	1.08	
11:45	15	150	13.5	190.3	6.22	0.438	13.65	21.66	0.79	
11:50	20	150	7.22	191.3	6.22	0.437	13.65	21.66	0.69	
11:55	25	150	4.19	192.3	6.22	0.437	13.66	21.67	0.66	
12:00	30	150	3.93	192.9	6.22	0.437	13.67	21.67	0.66	
12:05	35	150	3.89	193.4	6.22	0.439	13.67	21.67	0.66	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-36B
Date:	9/10/2009	Sampled By:	DK	Sample ID:	MW-36BPB(091009)
Sampling Time:	12:35	Recorded By:	DK	SSOW Ref:	R005011
Weather:	Sun, 70s	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	16.0 gallons
Total Depth:	57.25	Total Volume Purged:	17.4 gallons
Depth to Water:	24.59	Pump on: 12:11	off: 12:37
Water Column:	32.66		
Gallons/Foot:	0.1632		
Gallons in Well:	5.33		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:11	0	--	18.6	194.3	6.22	0.431	13.15	24.59	0.61	Initial
12:18	7	0.76	14.0	192.3	6.21	0.432	13.03	27.14	0.56	1st Volume
12:26	15	0.67	6.47	193.4	6.22	0.436	12.98	27.20	0.54	2nd Volume
12:34	23	0.67	5.31	193.7	6.23	0.438	12.97	27.29	0.54	3rd Volume
12:35	24	--	5.35	196.4	6.23	0.441	13.22	-	0.55	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-37
Date:	9/14/2009	Sampled By:	JO/XX	Sample ID:	MW-37LF(091409)
Sampling Time:	12:02	Recorded By:	JO/XX	SSOW Ref:	R005011
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI 600xl

Low Flow Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Pump Intake Setting	Midpoint of screen		
Total Depth:	42.00	Pump on:	11:31	off:	12:02
Depth to Water:	21.31				
Water Column:	20.69				
Gallons/Foot:	0.1632				
Gallons in Well:	3.38				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:31	0	500	140.0	32.0	7.02	0.671	17.19	21.31	1.40	
11:36	5	500	68.1	59.4	6.92	0.665	17.04	21.60	1.08	
11:41	10	500	51.8	70.1	6.91	0.672	16.85	21.64	0.91	
11:46	15	500	13.5	76.5	6.92	0.677	16.95	21.64	0.81	
11:51	20	500	26.0	78.1	6.93	0.680	17.03	21.64	0.72	
11:56	25	500	27.3	81.9	6.92	0.683	16.96	21.63	0.68	
12:01	30	500	27.2	84.4	6.93	0.686	17.05	21.60	0.64	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-37
Date:	9/14/2009	Sampled By:	XX	Sample ID:	MW-37PB(091409)
Sampling Time:	12:19	Recorded By:	XX	SSOW Ref:	R005011
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	Horiba U-22 Certified

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	10.13 gallons		
Total Depth:	42.00	Total Volume Purged:	15.0 gallons		
Depth to Water:	21.31	Pump on:	12:06	off:	12:21
Water Column:	20.69				
Gallons/Foot:	0.1632				
Gallons in Well:	3.38				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:06	0	--	69.6	96.6	6.85	0.009	16.76	22.46	2.84	Initial
12:10	4	0.84	34.4	99.2	6.89	0.690	16.34	22.52	2.60	1st Volume
12:14	8	0.84	23.0	106.9	6.94	0.691	16.18	22.58	2.56	2nd Volume
12:18	16	0.42	17.8	114.7	6.86	0.691	16.18	22.59	2.52	3rd Volume
12:21	21	--	10.4	120.7	6.90	0.692	16.25	22.59	2.47	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-37B
Date:	9/14/2009	Sampled By:	CC	Sample ID:	MW-37BLF(091409)
Sampling Time:	12:00	Recorded By:	CC	SSOW Ref:	R005011
Weather:	Sun, 70's	Coded Replicate No.:	DUPLF(091409)		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	Horiba U-22 certified

Low Flow Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Pump Intake Setting	Midpoint of screen		
Total Depth:	80.00	Pump on:	10:35	off:	12:02
Depth to Water:	27.09				
Water Column:	52.91				
Gallons/Foot:	0.1632				
Gallons in Well:	8.63				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:40	5	300	>1000	150.0	6.39	0.755	16.57	27.21	3.41	
10:45	10	300	>1000	144.0	6.47	0.732	16.48	27.15	3.10	
10:50	15	300	>1000	140.0	6.57	0.732	16.60	27.15	2.98	
10:55	20	300	510.0	138.0	6.69	0.741	16.71	27.15	3.06	
11:00	25	300	184.0	129.0	6.85	0.748	16.42	27.15	3.22	
11:05	30	300	116.0	123.0	6.96	0.746	16.50	27.15	3.05	
11:10	35	300	79.3	117.0	7.11	0.743	16.85	27.15	4.19	
11:15	40	300	80.8	115.0	7.12	0.747	16.83	27.15	3.11	
11:20	45	300	72.9	113.0	7.12	0.748	16.75	27.15	3.02	
11:25	50	300	61.6	111.0	7.15	0.748	16.75	27.15	3.03	
11:30	55	300	58.7	111.0	7.16	0.745	17.04	27.13	3.20	
11:35	60	300	53.1	110.0	7.17	0.744	16.76	27.14	3.00	
11:40	65	300	49.4	109.0	7.23	0.745	16.63	27.15	3.10	
11:45	70	300	46.40	107.0	7.27	0.745	16.84	27.15	3.07	*
11:50	75	300	7.43	107.0	7.23	0.745	16.87	27.15	3.08	
11:55	80	300	5.73	106.0	7.29	0.741	16.93	27.15	3.12	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

* Switched to Lamotte for turbidity confirmation. At 65th min, Horiba: 46.4, Lamote: 9.75

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-37B
Date:	9/14/2009	Sampled By:	CC	Sample ID:	MW-37BPBF(091409)
Sampling Time:	13:46	Recorded By:	CC	SSOW Ref:	R005011
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	Horiba U-22 Certified

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	25.88 gallons
Total Depth:	80.00	Total Volume Purged:	25.9 gallons
Depth to Water:	27.15	Pump on: 12:18	off: 13:49
Water Column:	52.85		
Gallons/Foot:	0.1632		
Gallons in Well:	8.62512		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:19	1	--	20.7	92.0	7.50	0.271	17.72	27.15	4.98	Initial
12:45	27	0.32	61.5	106.0	7.21	0.737	16.52	27.19	2.99	1st Volume
13:15	57	0.29	10.1	102.0	7.33	0.737	16.88	27.19	3.21	2nd Volume
13:45	87	0.29	5.8	102.0	7.33	0.737	16.58	27.19	3.30	3rd Volume
13:49	91	--	2.6	101.0	7.31	0.737	17.38	27.19	3.41	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-37B2
Date:	9/14/009	Sampled By:	DK	Sample ID:	MW-37B2LF(091409)
Sampling Time:	12:47	Recorded By:	DK	SSOW Ref:	R005011
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Low Flow Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Pump Intake Setting	Midpoint of screen		
Total Depth:	213.53	Pump on:	12:15	off:	12:50
Depth to Water:	28.41				
Water Column:	185.12				
Gallons/Foot:	0.1632				
Gallons in Well:	30.21				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:20	5	200	0.00	171.7	7.26	0.622	16.81	28.52	2.19	
12:25	10	200	0.00	181.8	7.25	0.614	16.46	28.52	1.03	
12:30	15	200	0.00	187.3	7.24	0.612	16.30	28.54	0.79	
12:35	20	200	0.00	192.4	7.24	0.610	16.32	28.54	0.69	
12:40	25	200	0.00	194.4	7.25	0.609	16.16	28.54	0.67	
12:45	30	200	0.00	196.3	7.25	0.610	16.24	28.54	0.66	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-37B2
Date:	9/14/2009	Sampled By:	XX/DK	Sample ID:	MW-37B2PB(091409)
Sampling Time:	14:32	Recorded By:	XX/DK	SSOW Ref:	R005011
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	90.57 gallons
Total Depth:	213.53	Total Volume Purged:	90.6 gallons
Depth to Water:	28.54	Pump on: 12:58	off: 14:37
Water Column:	184.99		
Gallons/Foot:	0.1632		
Gallons in Well:	30.19		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:00	2	--	5.18	119.6	7.00	0.640	17.36	29.09	5.05	Initial
13:30	32	0.94	2.54	110.2	7.32	0.611	16.19	29.08	3.17	1st Volume
14:00	62	1.01	0.00	99.6	7.50	0.611	16.08	29.02	3.37	2nd Volume
14:30	92	1.01	0.00	18.4	7.52	0.604	15.84	29.00	2.89	3rd Volume
14:32	94	--	0.00	38.1	7.32	0.595	15.46	-	1.77	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-37B3
Date:	9/14/2009	Sampled By:	DK	Sample ID:	MW-37B3LF(091409)
Sampling Time:	11:07	Recorded By:	DK	SSOW Ref:	R005011
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 500 ft.	YSI- 600XL

Low Flow Purge

Casing Material:	PVC	Purge Method: (in boldface)	Submersible	Centrifugal	**Marshak Bladder** Bailer
Casing Diameter:	2"	Pump Intake Setting	Midpoint of screen		
Total Depth:	325.63	Pump on:	10:20	off:	11:10
Depth to Water:	28.77				
Water Column:	296.86				
Gallons/Foot:	0.1632				
Gallons in Well:	48.45				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:35	5	200	0.00	215.4	7.19	0.618	16.18	30.01	8.21	*
10:40	10	200	0.00	213.9	7.25	0.624	16.62	29.73	7.39	*
10:45	15	200	0.00	214.0	7.29	0.621	16.48	29.73	6.44	*
10:50	20	200	0.00	213.8	7.31	0.624	16.54	29.73	0.74	
10:55	25	200	0.00	213.7	7.32	0.624	16.53	29.73	0.49	
11:00	30	200	0.00	213.1	7.32	0.624	16.54	29.73	0.48	
11:05	35	200	0.00	212.9	7.31	0.625	16.54	29.73	0.45	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

* Air bubble on DO probe

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-37B3
Date:	9/14/2009	Sampled By:	JO	Sample ID:	MW-37B3PB(091409)
Sampling Time:	13:55	Recorded By:	JO	SSOW Ref:	
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	140 gallons		
Total Depth:	325.63	Total Volume Purged:	140 gallons		
Depth to Water:	40.20	Pump on:	12:22	off:	13:57
Water Column:	285.43				
Gallons/Foot:	0.1632				
Gallons in Well:	46.58				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:24	2	--	4.87	208.4	6.44	0.627	18.26	40.40	3.70	Initial
12:52	30	1.55	3.21	174.7	7.60	0.659	17.22	46.62	3.08	1st Volume
13:22	60	1.55	1.72	149.3	7.74	0.671	17.45	45.51	2.48	2nd Volume
13:52	90	1.55	0.16	147.5	7.77	0.672	17.04	44.69	2.66	3rd Volume
13:55	93	--	0.10	145.0	7.64	0.665	16.62	42.07	1.41	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-38
Date:	9/11/2009	Sampled By:	DK	Sample ID:	MW-38LF(091109)
Sampling Time:	13:43	Recorded By:	DK	SSOW Ref:	R005011
Weather:	Rain, 60's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Low Flow Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Pump Intake Setting	Midpoint of screen		
Total Depth:	36.82	Pump on:	12:50	off:	13:45
Depth to Water:	18.06				
Water Column:	18.76				
Gallons/Foot:	0.1630				
Gallons in Well:	3.06				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:55	5	300	351.0	102.5	6.56	0.878	15.14	18.42	0.39	
13:00	10	300	108.9	82.8	6.50	0.885	15.35	18.48	0.91	
13:05	15	300	40.3	38.0	6.45	0.949	15.40	18.53	0.22	
13:10	20	300	22.6	48.6	6.45	1.013	15.38	18.54	0.20	
13:15	25	300	67.3	61.9	6.49	1.067	15.35	18.56	0.38	*
13:20	30	300	59.1	63.9	6.49	1.073	15.36	18.54	0.23	
13:25	35	300	41.5	68.2	6.48	1.046	15.36	18.57	0.20	
13:30	40	300	23.7	71.2	6.49	1.103	15.37	18.57	0.20	
13:35	45	300	16.2	77.7	6.50	1.128	15.32	18.57	0.20	
13:40	50	300	9.3	83.7	6.51	1.129	15.23	18.57	0.21	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

* Pump fell to bottom of well. Cause spike in turbidity.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-38
Date:	9/11/2009	Sampled By:	DK	Sample ID:	MW-38PB(091109)
Sampling Time:	14:07	Recorded By:	DK	SSOW Ref:	R005011
Weather:	Rain, 60's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	8.935 gallons		
Total Depth:	36.82	Total Volume Purged:	8.94 gallons		
Depth to Water:	18.57	Pump on:	13:44	off:	14:12
Water Column:	18.25				
Gallons/Foot:	0.1632				
Gallons in Well:	2.9784				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:44	0	--	24.2	79.8	6.53	1.118	15.06	18.57	0.24	Initial
13:51	7	0.43	65.3	90.7	6.50	1.166	15.01	20.11	0.18	1st Volume
13:58	14	0.43	40.3	103.1	6.58	1.256	14.97	20.13	0.17	2nd Volume
14:05	21	0.43	22.5	113.8	6.61	1.237	14.89	20.21	0.24	3rd Volume
14:07	23	--	37.5	115.6	6.63	1.215	14.97	-	0.33	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-38B
Date:	9/11/2009	Sampled By:	CC	Sample ID:	MW-38BLF(091109)
Sampling Time:	13:55	Recorded By:	CC	SSOW Ref:	R005011
Weather:	Cloudy, Rain, 60's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Low Flow Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Pump Intake Setting	Midpoint of screen		
Total Depth:	78.90	Pump on:	12:45	off:	13:58
Depth to Water:	27.33				
Water Column:	51.57				
Gallons/Foot:	0.1632				
Gallons in Well:	8.42				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:50	5	150	239	-31.3	6.95	0.764	15.23	28.90	1.18	
12:55	10	150	224	-41.4	7.00	0.767	15.31	30.10	0.84	
13:00	15	150	143	-48.6	7.10	0.768	15.18	33.20	1.78	
13:05	20	150	109	-53.1	7.08	0.766	15.41	33.72	0.36	
13:10	25	150	107	-56.6	7.08	0.766	15.48	34.34	0.33	
13:15	30	150	83.4	-61.6	7.08	0.766	15.50	34.55	0.30	
13:20	35	150	75.6	-56.6	7.09	0.762	15.49	35.00	0.28	
13:25	40	150	47.7	-62.2	7.09	0.764	15.63	35.00	0.27	
13:30	45	150	36.3	-62.2	7.09	0.761	15.53	35.01	0.28	
13:35	50	150	29.0	-62.9	7.09	0.759	15.52	35.04	0.28	
13:40	55	150	21.7	-62.9	7.09	0.759	15.52	35.54	0.26	
13:45	60	150	20.0	-62.1	7.09	0.762	15.52	35.50	0.25	
13:50	65	150	18.4	-62.0	7.09	0.762	15.67	35.45	0.25	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-38B
Date:	9/11/2009	Sampled By:	CC	Sample ID:	MW-38BPB(091109)
Sampling Time:	15:37	Recorded By:	CC	SSOW Ref:	R005011
Weather:	Cloudy, rain, 60's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	21.0 galllons
Total Depth:	78.90	Total Volume Purged:	21.0 gallons
Depth to Water:	35.95	Pump on: 14:00	off: 15:44
Water Column:	42.95		
Gallons/Foot:	0.1632		
Gallons in Well:	7.01		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
14:07	7	--	12.10	-54.9	7.10	0.764	15.50	38.00	0.32	Initial
14:36	36	0.19	13.90	-45.2	7.10	0.755	15.76	53.93	0.20	1st Volume
15:03	60	0.29	9.56	-44.0	7.10	0.782	15.88	58.45	0.21	2nd Volume
15:34	91	0.23	63.6	-45.5	7.09	0.889	15.98	64.25	0.34	3rd Volume
15:42	99	--	36.9	-48.0	7.10	0.889	16.21	65.05	0.23	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-39
Date:	9/10/2009	Sampled By:	CC	Sample ID:	MW-39LF(091009)
Sampling Time:	9:20	Recorded By:	CC	SSOW Ref:	R005011
Weather:	Cloudy, 60's	Coded Replicate No.:	DUPLF(091009)		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Low Flow Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Pump Intake Setting	Midpoint of screen		
Total Depth:	29.05	Pump on:	8:38	off:	9:23
Depth to Water:	23.11				
Water Column:	5.94				
Gallons/Foot:	0.1632				
Gallons in Well:	0.97				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:48	10	200	4.66	185.7	6.73	0.574	17.19	23.22	3.87	
8:53	15	200	1.60	188.0	6.76	0.614	16.82	23.25	2.43	
8:58	20	200	0.60	187.4	6.79	0.627	16.78	23.25	1.72	
9:03	25	200	0.37	186.0	6.81	0.629	16.79	23.25	1.60	
9:08	30	200	0.27	185.1	6.82	0.628	16.70	23.26	1.56	
9:13	35	200	0.27	183.3	6.83	0.627	16.61	23.27	1.50	
9:18	40	200	0.20	181.5	6.83	0.626	16.56	23.27	1.47	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-39
Date:	9/10/2009	Sampled By:	CC	Sample ID:	MW-39PB(091009)
Sampling Time:	10:02	Recorded By:	CC	SSOW Ref:	R005011
Weather:	Cloudy, 60's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	2.83 gallons		
Total Depth:	29.05	Total Volume Purged:	2.83 gallons		
Depth to Water:	23.27	Pump on:	9:37	off:	10:11
Water Column:	5.78				
Gallons/Foot:	0.1632				
Gallons in Well:	0.94				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:43	6	--	0.30	161.9	6.90	0.690	16.56	23.31	1.46	Initial
9:50	13	0.07	0.28	163.5	6.89	0.617	16.46	23.31	1.41	1st Volume
9:54	17	0.24	0.18	164.0	6.88	0.615	16.37	23.33	1.20	2nd Volume
10:00	23	0.16	0.18	162.3	6.91	0.617	16.69	23.33	1.13	3rd Volume
10:10	33	--	0.29	165.5	7.02	0.628	16.79	23.33	2.18	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-39B
Date:	9/10/2009	Sampled By:	XX	Sample ID:	MW-39BLF(091009)
Sampling Time:	9:15	Recorded By:	XX	SSOW Ref:	R005011
Weather:	Cloudy, 60's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Low Flow Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Pump Intake Setting	Midpoint of screen		
Total Depth:	62.22	Pump on:	8:30	off:	9:15
Depth to Water:	26.45				
Water Column:	35.77				
Gallons/Foot:	0.1632				
Gallons in Well:	5.84				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:30	0	250	286	160.1	6.72	0.799	16.52	26.45	5.17	
8:35	5	300	239	171.2	6.81	0.973	16.24	26.45	2.81	
8:40	10	300	185	172.4	6.90	0.812	16.36	26.46	2.81	
8:45	15	300	110	176.0	6.98	0.818	16.41	26.51	2.75	
8:50	20	300	78.0	178.3	7.01	0.818	16.41	26.60	2.66	
8:55	25	300	50.5	180.0	7.04	0.817	16.43	26.63	2.51	
9:00	30	300	33.9	181.1	7.05	0.818	16.38	26.81	2.43	
9:05	35	300	19.8	181.9	7.06	0.818	16.34	26.85	2.37	
9:10	40	300	12.6	181.8	7.07	0.817	16.33	26.88	2.38	
9:15	45	300	9.73	181.6	7.08	0.818	16.33	26.88	2.38	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-39B
Date:	9/10/2009	Sampled By:	XX	Sample ID:	MW-39BPB(091009)
Sampling Time:	11:25	Recorded By:	XX	SSOW Ref:	R005011
Weather:	Cloudy, 60's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	17.91 gallons
Total Depth:	62.22	Total Volume Purged:	12.6 gallons
Depth to Water:	25.63	Pump on: 10:26	off: 11:30
Water Column:	36.59		
Gallons/Foot:	0.1632		
Gallons in Well:	5.97		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:26	0	--	21.0	142.2	7.57	0.700	18.22	27.42	6.84	Initial
10:49	23	0.26	87.7	182.8	7.12	0.835	16.23	28.85	2.43	1st Volume
11:08	42	0.31	45.2	178.6	7.12	0.830	15.78	31.13	2.18	2nd Volume
11:24	58	0.37	19.3	175.3	7.12	0.832	15.86	30.75	2.14	3rd Volume
11:30	64	--	9.71	174.5	7.12	0.837	15.90	30.77	2.16	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-40
Date:	9/9/2009	Sampled By:	J. Oertling	Sample ID:	MW-40PB(090909)
Sampling Time:	14:45	Recorded By:	J. Oertling	SSOW Ref:	R005011
Weather:	Cloudy, 70	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	51.09 gallons		
Total Depth:	36.62	Total Volume Purged:	52.0 gallons		
Depth to Water:	10.53	Pump on:	11:20	off:	14:50
Water Column:	26.09				
Gallons/Foot:	0.6528				
Gallons in Well:	17.03				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:25	5	--	31.2	121.6	7.42	0.574	17.46	13.14	2.12	Initial
12:28	68	0.25	6.1	190.1	6.83	0.588	18.53	13.85	2.11	1st Volume
13:36	136	0.25	27.6	236.7	6.79	0.751	19.06	18.90	2.62	2nd Volume
14:10	170	0.50	256	229.6	6.80	0.587	18.62	21.75	3.31	3rd Volume
14:45	205	--	238	228.7	6.82	0.586	18.61	21.72	3.33	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-41
Date:	9/9/2009	Sampled By:	DK	Sample ID:	MW-41PB(090909)
Sampling Time:	15:09	Recorded By:	DK	SSOW Ref:	R005011
Weather:	Overcast, 70s	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	36.62 gallons		
Total Depth:	30.71	Total Volume Purged:	36.7 gallons		
Depth to Water:	12.01	Pump on:	13:38	off:	15:10
Water Column:	18.70				
Gallons/Foot:	0.6528				
Gallons in Well:	12.21				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:38	0	--	3.71	153.7	6.61	2.357	18.08	12.01	2.26	Initial
14:18	40	0.31	1.90	178.9	6.63	2.325	17.03	13.80	0.64	1st Volume
14:45	67	0.45	1.43	178.4	6.63	2.322	16.80	13.83	0.53	2nd Volume
15:03	85	0.68	1.28	178.3	6.64	2.312	16.64	13.84	0.52	3rd Volume
15:09	91	--	1.21	178.6	6.64	2.328	16.82	-	0.58	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-42
Date:	9/9/2009	Sampled By:	CC	Sample ID:	MW-42PB(090909)
Sampling Time:	11:10	Recorded By:	CC	SSOW Ref:	R005011
Weather:	Cloudy, 60s	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	35.45 gallons		
Total Depth:	31.42	Total Volume Purged:	37.0 gallons		
Depth to Water:	13.32	Pump on:	8:37	off:	11:17
Water Column:	18.10				
Gallons/Foot:	0.6528				
Gallons in Well:	11.81568				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:39	2	--	0.92	122.8	6.88	0.845	18.20	14.15	3.97	Initial
9:12	35	0.34	17.2	138.8	6.87	0.713	18.29	19.89	3.58	1st Volume
10:05	88	0.22	9.80	135.4	6.83	0.705	18.24	21.65	3.64	2nd Volume
11:06	147	0.20	7.78	130.7	6.86	0.702	18.19	23.83	4.44	3rd Volume
11:10	151	--	6.52	134.6	6.97	0.713	18.68	23.21	3.99	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-43
Date:	9/9/2009	Sampled By:	Xuan Xu	Sample ID:	MW-43PB(090909)
Sampling Time:	10:24	Recorded By:	Xuan Xu	SSOW Ref:	R005011
Weather:	Cloudy, 70s	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	34.86 gallons
Total Depth:	30.94	Total Volume Purged:	35.0 gallons
Depth to Water:	13.14	Pump on: 8:15	off: 10:30
Water Column:	17.80		
Gallons/Foot:	0.6528		
Gallons in Well:	11.62		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:15	0	--	0.82	-64.9	6.81	4.707	21.04	13.14	0.76	Initial
8:55	40	0.29	0.61	-71.6	6.44	4.650	20.11	14.76	0.41	1st Volume
9:35	80	0.29	0.39	-75.8	6.47	4.649	19.75	14.79	1.52	2nd Volume
10:23	128	0.24	0.29	-75.1	6.50	4.622	19.64	14.76	0.44	3rd Volume
10:29	134	--	0.36	-63.2	6.53	4.633	19.84	-	0.75	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-44
Date:	9/9/2009	Sampled By:	X. Xu	Sample ID:	MW-44PB(090909)
Sampling Time:	12:24	Recorded By:	X. Xu	SSOW Ref:	R005011
Weather:	Cloudy 70s	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	38.09
Total Depth:	30.63	Total Volume Purged:	38.1 gallons
Depth to Water:	11.18	Pump on: 10:53	off: 12:30
Water Column:	19.45		
Gallons/Foot:	0.6528		
Gallons in Well:	12.70		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:53	0	--	3.63	100.2	6.69	4.690	18.86	11.18	0.80	Initial
11:20	27	0.47	3.28	122.6	6.64	4.462	18.67	14.60	0.49	1st Volume
12:02	39	1.06	3.35	136.6	6.68	4.217	18.20	15.66	0.39	2nd Volume
12:22	59	0.63	3.29	139.4	6.75	3.740	17.91	16.72	0.37	3rd Volume
12:24	61	--	7.41	124.2	6.83	3.571	19.21	-	0.83	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-45
Date:	9/9/2009	Sampled By:	X. Xu	Sample ID:	MW-45PB(090909)
Sampling Time:	13:59	Recorded By:	X. Xu	SSOW Ref:	R005011
Weather:	Cloudy, 70s	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	33.61 gallons
Total Depth:	29.80	Total Volume Purged:	34.5 gallons
Depth to Water:	12.64	Pump on: 12:27	off: 14:01
Water Column:	17.16		
Gallons/Foot:	0.6528		
Gallons in Well:	11.20		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:27	0	--	2.18	111.1	6.75	2.669	17.27	14.11	1.20	Initial
13:08	41	0.27	3.08	133.0	6.40	2.754	17.01	15.28	0.69	1st Volume
13:34	67	0.43	4.13	131.6	6.43	3.158	16.27	19.58	1.22	2nd Volume
13:58	91	0.47	2.77	130.2	6.48	3.201	16.29	19.58	1.19	3rd Volume
14:00	93	--	3.02	126.1	6.57	3.241	16.50	19.58	1.00	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	OW-46
Date:	9/16/2009	Sampled By:	JO/XX	Sample ID:	OW-46PBF(091609)
Sampling Time:	15:05	Recorded By:	JO/XX	SSOW Ref:	R005011
Weather:	Cloudy, 60s	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	29.0 gallons
Total Depth:	40.20	Total Volume Purged:	26.0 gallons
Depth to Water:	25.38	Pump on: 12:05	off: 15:07
Water Column:	14.82		
Gallons/Foot:	0.6530		
Gallons in Well:	9.68		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:05	0	--	820	-156.2	6.81	0.420	15.56	26.45	4.66	Initial
12:55	50	0.19	14.90	-187.6	6.82	0.415	14.48	30.59	0.70	1st Volume
13:45	100	0.19	39.7	-204.5	6.89	0.829	15.25	35.70	0.90	2nd Volume
15:05	180	0.12	28.1	-196.2	6.87	0.628	15.24	35.90	0.82	3rd Volume
-	-	--	-	-	-	-	-	-	-	Sample

Observations During Sampling

Well Condition: _____ Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-85B3
Date:	9/14/2009	Sampled By:	DK/CC	Sample ID:	MW-85B3LF(091409)
Sampling Time:	16:12	Recorded By:	DK/CC	SSOW Ref:	R005011
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Low Flow Purge

Casing Material:	PVC	Purge Method: (in boldface)	Submersible	Centrifugal	**Marshak Bladder** Bailer
Casing Diameter:	2"	Pump Intake Setting	Midpoint of screen		
Total Depth:	298.90	Pump on:	15:35	off:	16:14
Depth to Water:	23.88				
Water Column:	275.02				
Gallons/Foot:	0.1632				
Gallons in Well:	44.88				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
15:40	5	200	9.01	-50.8	6.45	0.220	17.34	24.02	3.15	
15:45	10	200	7.58	-51.0	6.37	0.225	17.26	24.03	1.66	
15:50	15	200	12.40	-52.8	6.37	0.231	17.01	24.03	1.13	
15:55	20	200	9.60	-54.2	6.31	0.234	16.82	24.03	0.75	
16:00	25	200	6.72	-54.3	6.25	0.235	16.85	24.03	0.55	
16:05	30	200	5.69	-55.0	6.28	0.236	16.95	24.03	0.47	
16:10	35	200	-	-58.3	6.30	0.236	16.90	24.03	0.46	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.
- Not measured

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-85B3
Date:	9/14/2009	Sampled By:	DK/CC	Sample ID:	MW-85B3PB(091409)
Sampling Time:	18:22	Recorded By:	DK/CC	SSOW Ref:	R005011
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	134.6 gallons
Total Depth:	298.90	Total Volume Purged:	135.7 gallons
Depth to Water:	23.88	Pump on: 16:27	off: 18:28
Water Column:	275.02		
Gallons/Foot:	0.1632		
Gallons in Well:	44.88		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
16:37	10	--	20.40	-92.1	6.45	0.219	17.17	29.90	1.98	Initial
17:09	42	1.07	9.20	-78.4	7.30	0.408	16.37	31.18	3.73	1st Volume
17:43	76	1.32	1.46	-86.6	7.48	0.449	15.16	31.35	2.07	2nd Volume
18:17	110	1.32	0.69	-88.3	7.63	0.471	15.68	31.43	3.43	3rd Volume
18:27	120	--	0.04	-96.9	7.47	0.447	14.72	-	2.46	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-86B3
Date:	9/16/2009	Sampled By:	CC/DK	Sample ID:	MW-86B3LF(091609)
Sampling Time:	9:22	Recorded By:	CC/DK	SSOW Ref:	R005011
Weather:	Cloudy, 60s	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Low Flow Purge

Casing Material:	PVC	Purge Method: (in boldface)	Submersible	Centrifugal	**Marshak Bladder** Bailer
Casing Diameter:	2"	Pump Intake Setting	Midpoint of screen		
Total Depth:	394.70	Pump on:	8:46	off:	9:27
Depth to Water:	25.32				
Water Column:	369.38				
Gallons/Foot:	0.163				
Gallons in Well:	60.21				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:50	4	200	0.00	201.9	7.58	0.725	13.50	25.56	2.48	
8:55	9	200	0.48	199.8	7.54	0.723	13.36	25.56	1.04	
9:00	14	200	1.50	196.8	7.59	0.722	13.18	25.60	0.59	
9:05	19	200	0.18	195.1	7.62	0.721	13.12	25.60	0.59	
9:10	24	200	0.00	193.2	7.64	0.720	13.06	25.60	0.48	
9:15	29	200	0.76	191.6	7.65	0.720	13.04	25.60	0.43	
9:20	34	200	0.39	189.3	7.66	0.719	13.03	25.60	0.42	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-86B3
Date:	9/16/2009	Sampled By:	CC/DK	Sample ID:	MW-86B3PB(091609)
Sampling Time:	12:53	Recorded By:	CC/DK	SSOW Ref:	R005011
Weather:	Cloudy, 60s	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	181 gallons
Total Depth:	394.70	Total Volume Purged:	181 gallons
Depth to Water:	25.46	Pump on: 9:53	off: 12:55
Water Column:	369.24		
Gallons/Foot:	0.1630		
Gallons in Well:	60.19		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:56	3	--	2.76	224.3	7.93	0.742	14.41	26.82	5.53	Initial
10:54	61	0.99	1.02	208.6	7.75	0.775	14.46	27.29	2.27	1st Volume
11:52	119	1.04	1.00	187.2	7.58	0.458	14.20	27.35	2.50	2nd Volume
12:50	177	1.04	0.16	174.1	7.57	0.775	14.57	27.40	2.95	3rd Volume
12:53	180	--	0.00	167.8	7.56	0.756	14.45	-	2.53	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-87B
Date:	9/9/2009	Sampled By:	D. Kirschner	Sample ID:	MW-87B(090909)
Sampling Time:	10:10	Recorded By:	J. Oertling	SSOW Ref:	R005011
Weather:	Overcast, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Slope Indicator	YSI- 600XL

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	3
Volume Purged Per Stroke:	2.5 gal.
Purge Stroke Duration:	15 min
Total Volume Purged:	7.5 gal.
Total Purge Duration:	122

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:20	12	<0.5	0.07	143.2	7.34	1.545	17.45	-	4.41	Initial/1 vol
9:14	66	<0.5	0.32	61.4	7.31	1.504	17.75	-	5.17	2 vol
10:10	122	<0.5	0.00	109.0	7.37	1.496	17.34	-	5.84	3 vol/sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Notes: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-87B2
Date:	9/9/2009	Sampled By:	D. Kirschner	Sample ID:	MW-87B2(090909)
Sampling Time:	10:10	Recorded By:	J. Oertling	SSOW Ref:	R005011
Weather:	Overcast, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Slope Indicator	YSI- 600XL

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	3
Volume Purged Per Stroke:	2.5 gal.
Purge Stroke Duration:	15 min
Total Volume Purged:	7.5 gal.
Total Purge Duration:	122

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:20	12	<0.5	0.08	141.6	7.60	0.723	16.86	-	4.87	Initial/1 vol
9:14	66	<0.5	1.21	47.5	7.77	0.722	17.31	-	5.33	2 vol
10:10	122	<0.5	0.50	107.3	7.55	0.722	17.38	-	3.78	3 vol/sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-87B3
Date:	9/9/2009	Sampled By:	D. Kirschner	Sample ID:	MW-87B3(090909)
Sampling Time:	10:10	Recorded By:	J. Oertling	SSOW Ref:	R005011
Weather:	Overcast, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Slope Indicator	YSI- 600XL

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	3
Volume Purged Per Stroke:	2.5 gal.
Purge Stroke Duration:	15 min.
Total Volume Purged:	7.5 gal.
Total Purge Duration:	122

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:20	12	<0.5	0.21	145.9	7.64	0.476	16.74	-	5.13	Initial/1 vol
9:14	66	<0.5	0.07	56.9	7.79	0.478	17.08	-	4.39	2 vol
10:10	122	<0.5	0.23	91.6	7.68	0.484	17.03	-	4.64	3 vol/sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-87B4
Date:	9/9/2009	Sampled By:	D. Kirschner	Sample ID:	MW-87B4(090909)
Sampling Time:	10:10	Recorded By:	J. Oertling	SSOW Ref:	R005011
Weather:	Overcast, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Slope Indicator	YSI- 600XL

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	3
Volume Purged Per Stroke:	2.5 gal.
Purge Stroke Duration:	15 min.
Total Volume Purged:	7.5 gal.
Total Purge Duration:	122

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:20	12	<0.5	0.21	157.0	7.60	0.488	16.71	-	5.08	Initial/1 vol
9:14	66	<0.5	0.27	55.2	7.70	0.492	17.38	-	4.16	2 vol
10:10	122	<0.5	0.09	92.6	7.66	0.485	16.89	-	5.57	3 vol/sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0027	Task:	00002	Well ID:	MW-87B5
Date:	9/9/2009	Sampled By:	D. Kirschner	Sample ID:	MW-87B5(090909)
Sampling Time:	10:10	Recorded By:	J. Oertling	SSOW Ref:	R005011
Weather:	Overcast, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Slope Indicator	YSI- 600XL

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	3
Volume Purged Per Stroke:	2.5 gal.
Purge Stroke Duration:	15 min.
Total Volume Purged:	7.5 gal.
Total Purge Duration:	122

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:20	12	<0.5	2.41	165.6	7.55	0.656	17.41	-	4.70	Initial/1 vol
9:14	66	<0.5	0.20	54.7	7.67	0.593	17.90	-	5.13	2 vol
10:10	122	<0.5	0.20	88.4	7.66	0.545	17.36	-	5.92	3 vol/sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-1
Date:	9/14/2010	Sampled By:	C. Laprus	Sample ID:	MW-1PB(091410)
Sampling Time:	14:48	Recorded By:	C. Laprus	SSOW Ref:	MLC100803
Weather:	70's, Sun	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 00543	Water Quality Meter(s) LaMotte 2020 Pine No. 6479
Solinst - 300 ft.	YSI- 600XL Pine No. 5737/12134

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volume to be Purged:	32.0 gallons
Total Depth:	33.04	Total Volume Purged:	34.6 gallons
Depth to Water:	16.7	Pump on: 13:46	off: 14:50
Water Column:	16.34		
Gallons/Foot:	0.6530		
Gallons in Well:	10.67		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:47	1	--	180.0	-74.2	6.65	301	18.26	17.95	1.97	Initial
14:11	25	0.43	6.30	-5.5	6.54	523	17.88	21.25	2.03	1st Volume
14:28	42	0.63	6.60	111.0	6.13	637	17.92	21.87	1.92	2nd Volume
14:45	59	0.63	6.20	121.3	6.07	644	17.89	21.87	1.90	3rd Volume
14:48	62	--	6.30	121.4	6.07	648	17.87	21.87	1.93	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-1B
Date:	9/14/2010	Sampled By:	D. Kirschner	Sample ID:	MW-1BPB(091410)
Sampling Time:	14:28	Recorded By:	D. Kirschner	SSOW Ref:	MLC100803
Weather:	80's, Sun	Coded Replicate No.:	DUP(091410)		

Instrument Identification

Water Level Meter Pine No. 6204	Water Quality Meter(s) LaMotte 2020 Pine No. 6075
Solinst - 300 ft.	YSI- 600XL Pine No. 2635/3525

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	21.36 gallons
Total Depth:	69.85	Total Volume Purged:	21.66 gallons
Depth to Water:	26.22	Pump on: 13:50	off: 14:32
Water Column:	43.63		
Gallons/Foot:	0.1632		
Gallons in Well:	7.12		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:51	1	--	34.00	146.9	6.75	534	21.10	30.50	1.59	Initial
14:02	12	0.59	15.00	395.8	6.21	361	17.87	38.31	2.15	1st Volume
14:14	24	0.59	6.80	423.7	6.48	352	16.73	38.63	3.90	2nd Volume
14:26	36	0.59	7.10	434.1	6.43	347	16.68	38.68	2.04	3rd Volume
14:28	38	--	6.90	435.9	6.44	347	16.69	38.68	2.60	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-4
Date:	9/16/2010	Sampled By:	C. Laprus	Sample ID:	MW-4PB(091610)
Sampling Time:	12:23	Recorded By:	C. Laprus	SSOW Ref:	MLC100803
Weather:	70's, clear	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 00543	Water Quality Meter(s) LaMotte 2020 Pine No. 6479
Solinst - 300 ft.	YSI- 600XL Pine No. 5737/12134

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	35.46 gallons
Total Depth:	45.65	Total Volume Purged:	35.5 gallons
Depth to Water:	27.55	Pump on: 9:50	off: 12:35
Water Column:	18.10		
Gallons/Foot:	0.6530		
Gallons in Well:	11.82		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:51	1	--	11.00	302.4	7.54	500	17.15	27.95	4.62	Initial
10:38	48	0.25	4.60	245.1	7.21	359	17.84	36.68	6.68	1st Volume
11:22	92	0.27	4.90	242.3	7.43	403	18.87	39.29	6.21	2nd Volume
12:21	151	0.20	4.30	300.1	7.35	498	19.85	40.92	5.43	3rd Volume
12:23	153	--	4.30	306.7	7.34	500	19.80	40.94	5.47	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-7
Date:	9/17/2010	Sampled By:	D. Kirschner	Sample ID:	MW-7PB(091710)
Sampling Time:	13:35	Recorded By:	C. Laprus	SSOW Ref:	MLC100803
Weather:	70's, Sun	Coded Replicate No.:	MS & MSD		MW-7PB(091710)MS
					MW-7PB(091710)MSD

Instrument Identification

Water Level Meter Pine No. 6204	Water Quality Meter(s) LaMotte 2020 Pine No. 6075
Solinst - 300 ft.	YSI- 600XL Pine No. 2635/3525

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	33.42 gallons		
Total Depth:	40.37	Total Volume Purged:	33.8 gallons		
Depth to Water:	23.31	Pump on:	12:05	off: 13:38	
Water Column:	17.06				
Gallons/Foot:	0.6530				
Gallons in Well:	11.14				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:05	0	--	12.00	189.0	7.01	398	15.75	24.02	4.71	Initial
12:33	28	0.40	3.50	165.5	6.58	392	15.01	24.03	3.91	1st Volume
13:00	55	0.41	1.60	159.8	6.52	399	15.22	25.29	3.96	2nd Volume
13:34	89	0.33	1.00	187.2	6.54	405	15.77	24.45	4.02	3rd Volume
13:35	90	--	0.70	189.3	6.54	409	15.64	24.45	4.00	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-8
Date:	9/20/2010	Sampled By:	V. Myers	Sample ID:	MW-8PB(092010)
Sampling Time:	15:18	Recorded By:	V. Myers	SSOW Ref:	MLC100803
Weather:	80's, Sun	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 12157	Water Quality Meter(s) LaMotte 2020 Pine No. 02403
Solinst - 300 ft.	YSI- 600XL Pine No. 1620/5201

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	26.45 gallons
Total Depth:	35.70	Total Volume Purged:	35.1 gallons
Depth to Water:	22.20	Pump on: 14:22	off: 16:23
Water Column:	13.50		
Gallons/Foot:	0.6530		
Gallons in Well:	8.82		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
14:23	1	--	0.10	290.4	6.46	863	15.38	24.50	5.99	Initial
14:41	19	0.46	0.00	398.7	6.35	901	15.48	25.30	6.25	1st Volume
14:59	27	1.10	0.00	401.2	6.44	847	15.88	25.10	6.37	2nd Volume
15:17	45	0.49	0.00	357.4	6.57	830	15.75	25.10	5.41	3rd Volume
15:20	48	--	0.00	359.0	6.60	853	15.75	25.20	5.36	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.
- Not measured

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-9B
Date:	9/20/2010	Sampled By:	D.Kirschner	Sample ID:	MW-9BPB(091809)
Sampling Time:	14:53	Recorded By:	D.Kirschner	SSOW Ref:	MLC100803
Weather:	80's, Sun	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 6204	Water Quality Meter(s) LaMotte 2020 Pine No. 6075
Solinst - 300 ft.	YSI- 600XL Pine No. 2635/3525

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	16.18 gallons
Total Depth:	64.20	Total Volume Purged:	16.36 gallons
Depth to Water:	31.15	Pump on: 14:20	off: 14:57
Water Column:	33.05		
Gallons/Foot:	0.1632		
Gallons in Well:	5.39		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
14:21	1	--	0.70	139.0	7.01	763	16.25	35.10	2.19	Initial
14:30	11	0.49	0.30	373.2	6.29	763	14.24	35.10	2.21	1st Volume
14:41	22	0.49	0.79	397.2	6.33	762	14.75	35.10	2.03	2nd Volume
14:51	33	0.49	0.10	403.4	6.45	775	15.38	35.10	2.07	3rd Volume
14:53	35	--	0.00	405.3	6.93	770	15.03	35.10	2.10	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-10
Date:	9/15/2010	Sampled By:	V. Myers	Sample ID:	MW-10PB(091510)
Sampling Time:	10:52	Recorded By:	V. Myers	SSOW Ref:	MLC100803
Weather:	70's, Sun	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 12157	Water Quality Meter(s) LaMotte 2020 Pine No. 02403
Solinst - 300 ft.	YSI- 600XL Pine No. 1620/5201

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	22.0 gallons
Total Depth:	26.96	Total Volume Purged:	22.67 gallons
Depth to Water:	15.77	Pump on: 9:08	off: 10:56
Water Column:	11.24		
Gallons/Foot:	0.6530		
Gallons in Well:	7.34		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:09	1	--	28.80	16.2	7.17	331	17.47	16.42	5.69	Initial
9:47	39	0.19	13.10	12.0	6.80	318	15.78	17.39	4.37	1st Volume
10:23	75	0.20	8.52	12.9	6.71	323	16.17	17.46	2.89	2nd Volume
10:51	103	0.26	6.65	41.6	6.36	350	18.23	17.66	3.27	3rd Volume
10:54	106	--	6.63	41.8	6.36	351	18.24	17.66	3.29	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-10B
Date:	9/15/2010	Sampled By:	V. Myers	Sample ID:	MW-10BPB(091510)
Sampling Time:	13:20	Recorded By:	V. Myers	SSOW Ref:	MLC100803
Weather:	70's, Sun	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 12157	Water Quality Meter(s) LaMotte 2020 Pine No. 02403
Solinst - 300 ft.	YSI- 600XL Pine No. 1620/5201

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	35.93 gallons
Total Depth:	103.44	Total Volume Purged:	40.29 gallons
Depth to Water:	30.06	Pump on: 11:21	off: 13:25
Water Column:	73.38		
Gallons/Foot:	0.1632		
Gallons in Well:	11.98		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:23	2	--	4.81	296.7	6.11	441	18.32	30.80	5.19	Initial
12:00	39	0.31	1.47	384.6	7.36	442	17.11	31.19	2.97	1st Volume
12:40	129	0.13	1.83	335.0	7.74	486	16.00	31.35	3.92	2nd Volume
13:18	137	1.50	0.81	404.7	7.13	508	16.06	31.44	4.25	3rd Volume
13:21	140	--	0.68	428.6	7.19	508	16.09	31.44	4.26	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-10B2
Date:	9/15/2010	Sampled By:	V. Myers	Sample ID:	MW-10B2PB(091510)
Sampling Time:	15:36	Recorded By:	V. Myers	SSOW Ref:	MLC100803
Weather:	70's, Sun	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 12157	Water Quality Meter(s) LaMotte 2020 Pine No. 02403
Solinst - 300 ft.	YSI- 600XL Pine No. 1620/5201

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	78.49 gallons
Total Depth:	186.93	Total Volume Purged:	92.26 gallons
Depth to Water:	26.61	Pump on: 14:15	off: 15:38
Water Column:	160.32		
Gallons/Foot:	0.1632		
Gallons in Well:	26.16		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
14:16	1	--	31.90	493.1	5.70	646	20.07	28.88	2.65	Initial
14:42	27	0.97	0.00	514.5	5.92	752	18.47	28.98	2.70	1st Volume
15:06	43	1.64	2.36	405.2	6.89	779	15.34	29.80	2.08	2nd Volume
15:32	79	0.73	0.00	472.5	6.13	976	17.87	29.81	3.06	3rd Volume
15:35	82	--	0.00	470.1	6.15	979	17.88	29.81	3.02	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-10B3
Date:	9/15/2010	Sampled By:	B. Monroe	Sample ID:	MW-10B3PB(091410)
Sampling Time:	11:01	Recorded By:	B. Monroe	SSOW Ref:	MLC100803
Weather:	80's, Sun	Coded Replicate No.:	MW-10B3PB(091410)MS MW-10B3PB(091410)MSD		

Instrument Identification

Water Level Meter Pine No. 2189	Water Quality Meter(s) LaMotte 2020 Pine No. 3349
Solinst - 300 ft.	YSI- 600XL Pine No. 3652/3630

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer		
Casing Diameter:	2"	Volumes to be Purged:	155.7 gallons		
Total Depth:	347.42	Total Volume Purged:	156 gallons		
Depth to Water:	29.41	Pump on:	8:47	off:	11:07
Water Column:	318.01				
Gallons/Foot:	0.1632				
Gallons in Well:	51.90				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:48	1	--	7.6	101.7	6.30	640	13.79	29.55	2.85	Initial
9:31	44	1.18	2.6	119.8	6.75	589	14.76	30.03	2.39	1st Volume
10:15	88	1.18	1.2	150.7	6.86	380	14.98	30.00	1.83	2nd Volume
10:59	132	1.18	1.6	123.3	6.84	355	14.76	30.00	0.89	3rd Volume
11:01	134	--	1.3	123.1	6.84	354	14.88	30.00	0.86	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-12
Date:	9/15/2010	Sampled By:	D. Kirschner	Sample ID:	MW-12PB(091510)
Sampling Time:	14:15	Recorded By:	D. Kirschner	SSOW Ref:	MLC100803
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 6204	Water Quality Meter(s) LaMotte 2020 Pine No. 6075
Solinst - 300 ft.	YSI- 600XL Pine No. 2635/3525

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	31.58 gallons		
Total Depth:	41.40	Total Volume Purged:	33.3 gallons		
Depth to Water:	25.28	Pump on:	13:20	off:	14:17
Water Column:	16.12				
Gallons/Foot:	0.6530				
Gallons in Well:	10.5				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:21	1	--	34.6	121.2	6.63	613	13.91	25.55	5.80	Initial
13:42	22	0.48	11.2	168.2	6.42	396	13.74	25.62	3.37	1st volume
14:00	40	0.58	11.6	246.6	6.09	403	13.72	25.69	3.96	2nd volume
14:13	53	0.81	28.6	248.9	6.16	423	14.29	25.70	5.73	3rd volume
14:15	55	--	29.1	247.3	6.14	423	14.27	25.70	5.65	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-15
Date:	9/20/2010	Sampled By:	B. Monroe, R. Alonso	Sample ID:	MW-15PB(092010)
Sampling Time:	10:02	Recorded By:	B. Monroe, R. Alonso	SSOW Ref:	MLC100803
Weather:	Sun, 80's	Coded Replicate No.:	DUP(092010)		

Instrument Identification

Water Level Meter Pine No. 2189	Water Quality Meter(s) LaMotte 2020 Pine No. 3349
Solinst - 300 ft.	YSI- 600XL Pine No. 3652/3630

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer		
Casing Diameter:	4"	Volumes to be Purged:	27.74 gallons		
Total Depth:	39.33	Total Volume Purged:	28.56 gallons		
Depth to Water:	25.17	Pump on:	10:35	off:	11:50
Water Column:	14.16				
Gallons/Foot:	0.6530				
Gallons in Well:	9.25				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:35	0	--	7.80	-170.3	6.75	632	15.08	26.71	1.33	Initial
10:53	18	0.51	6.30	-176.5	6.80	621	15.08	28.36	1.09	1st Volume
11:11	36	0.51	30.60	-171.7	6.84	626	16.06	30.83	0.83	2nd Volume
11:29	54	0.51	24.50	-203.9	7.04	629	16.39	32.07	0.78	3rd Volume
11:31	56	--	25.60	-204.7	7.08	629	16.48	32.13	1.08	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-15
Date:	9/20/2010	Sampled By:	B. Monroe, R. Alonso	Sample ID:	MW-15LF(092010)
Sampling Time:	10:02	Recorded By:	B. Monroe, R. Alonso	SSOW Ref:	MLC100803
Weather:	Sun, 80's	Coded Replicate No.:	DUP(092010)		

Instrument Identification

Water Level Meter Pine No. 2189	Water Quality Meter(s) LaMotte 2020 Pine No. 3349
Solinst - 300 ft.	YSI- 600XL Pine No. 3652/3630

Low Flow

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer		
Casing Diameter:	4"				
Total Depth:	39.33	Pump Intake Setting	Midpoint of screen		
Depth to Water:	35.17	Pump on:	9:25	off:	10:05
Water Column:	4.16				
Gallons/Foot:	0.6530				
Gallons in Well:	9.25				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:30	5	300	19.00	-129.9	7.17	625	15.10	25.91	0.38	
9:35	10	300	14.80	-136.1	7.07	623	15.60	26.02	0.34	
9:40	15	300	11.60	-140.7	7.01	623	15.80	26.25	0.29	
9:45	20	300	9.42	-146.5	6.91	625	15.24	26.41	0.19	
9:50	25	300	7.76	-151.4	6.87	625	15.49	26.51	0.19	
9:55	30	300	6.60	-150.7	6.84	627	14.97	26.86	0.15	
10:00	35	300	5.16	-162.6	6.80	625	15.21	27.11	0.14	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-17A
Date:	9/14/2010	Sampled By:	B. Monroe	Sample ID:	MW-17APB(091410)
Sampling Time:	15:41	Recorded By:	B. Monroe	SSOW Ref:	MLC100803
Weather:	Sun. 80	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 2189	Water Quality Meter(s) LaMotte 2020 Pine No. 3349
Solinst - 300 ft.	YSI- 600XL Pine No. 3652/3630

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	27.41 gallons		
Total Depth:	33.58	Total Volume Purged:	28.5 gallons		
Depth to Water:	19.59	Pump on:	14:29	off:	15:43
Water Column:	13.99				
Gallons/Foot:	0.653				
Gallons in Well:	9.14				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
14:29	0	--	550	-81.0	6.18	663	16.23	20.18	1.38	Initial
14:49	20	0.46	130	.35.5	6.34	524	15.67	22.81	1.21	1st Volume
15:19	40	0.46	50	-26.4	6.38	528	13.52	23.61	1.53	2nd Volume
15:39	60	0.46	18	-16.5	6.41	531	13.69	24.83	1.28	3rd Volume
15:41	62	--	17	-16.3	6.41	532	13.58	24.83	1.36	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-18
Date:	9/14/2010	Sampled By:	V. Myers	Sample ID:	MW-18PB(091410)
Sampling Time:	16:14	Recorded By:	V. Myers	SSOW Ref:	MLC100803
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 12157	Water Quality Meter(s) LaMotte 2020 Pine No. 02403
Solinst - 300 ft.	YSI- 600XL Pine No. 1620/5201

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	20.55 gallons
Total Depth:	32.28	Total Volume Purged:	21.8 gallons
Depth to Water:	21.79	Pump on: 14:34	off: 16:15
Water Column:	10.49		
Gallons/Foot:	0.6530		
Gallons in Well:	6.85		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
14:35	1	--	27	-19.1	6.53	546	22.41	22.36	2.00	Initial
15:15	41	0.17	40	-4.1	6.36	513	18.41	26.03	2.69	1st Volume
15:53	79	0.18	16	-76.2	6.66	492	17.17	27.45	4.53	2nd Volume
16:14	100	0.33	7.3	-80.5	6.98	400	15.96	28.28	4.74	3rd Volume
16:18	104	--	5.4	-92.4	6.98	416	15.81	28.28	3.94	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-19
Date:	9/21/2010	Sampled By:	V. Myers	Sample ID:	MW-19PB(092110)
Sampling Time:	9:49	Recorded By:	V. Myers	SSOW Ref:	MLC100803
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 12157	Water Quality Meter(s) LaMotte 2020 Pine No. 02403
Solinst - 300 ft.	YSI- 600XL Pine No. 1620/5201

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	33.83 gallons
Total Depth:	44.50	Total Volume Purged:	37.63 gallons
Depth to Water:	27.23	Pump on: 9:10	off: 9:52
Water Column:	17.27		
Gallons/Foot:	0.6530		
Gallons in Well:	11.28		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:11	1	--	14.3	64.8	8.69	324	15.17	27.45	7.13	Initial
9:23	13	0.87	7.8	93.8	8.78	374	14.88	27.55	7.32	1st Volume
9:35	25	0.94	6.6	89.4	7.81	496	15.76	27.73	5.62	2nd Volume
9:47	37	0.94	14.0	48.3	7.42	561	15.46	28.02	6.76	3rd Volume
9:51	41	--	8.7	42.4	7.40	532	15.43	28.02	5.90	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-20
Date:	9/21/2010	Sampled By:	B. Monroe	Sample ID:	MW-20LF(092110)
Sampling Time:	10:47	Recorded By:	B. Monroe	SSOW Ref:	MLC100803
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 2189	Water Quality Meter(s) Horbia U-22 Pine No. 07517
Solinst - 300 ft.	

Low Flow Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"				
Total Depth:	35.35	Pump Intake Setting	Midpoint of screen		
Depth to Water:	24.38	Pump on:	9:15	off:	10:50
Water Column:	10.97				
Gallons/Foot:	0.6530				
Gallons in Well:	7.16				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:20	5	400	NM	-137.0	6.73	920	14.27	27.12	0.24	
9:25	10	400	NM	-136.8	6.72	920	14.38	27.63	0.22	
9:30	15	400	593	-137.0	6.71	917	14.62	27.70	0.21	
9:35	20	400	3219	-138.0	6.94	905	14.70	27.75	0.23	
9:40	25	400	83.4	-102.8	6.73	878	14.83	27.80	0.30	
9:45	30	400	57.9	-109.2	6.62	893	14.78	27.88	1.20	
9:50	35	400	55.8	-110.0	6.55	890	14.91	27.90	1.15	
9:55	40	400	64.6	-108.1	6.56	890	15.13	28.21	0.97	
10:00	45	400	60.0	-106.4	6.57	891	15.04	28.58	0.87	
10:05	50	400	57.4	-105.4	6.59	896	15.07	28.78	0.90	
10:10	55	400	51.4	-110.3	6.68	901	15.63	28.90	0.79	
10:15	60	400	53.3	-109.5	6.68	909	15.10	28.90	0.76	
10:20	65	400	38.6	-105.7	6.65	906	15.54	29.40	0.82	
10:25	70	400	26.8	-102.4	6.67	909	16.06	29.56	0.86	
10:30	75	400	19.3	-100.8	6.69	910	16.32	29.71	0.90	
10:35	80	400	22.4	-96.5	6.68	909	16.39	29.83	0.92	
10:40	85	400	20.8	-93.6	6.68	909	16.91	29.94	0.93	
10:45	90	400	21.3	-91.4	6.68	910	16.43	30.05	0.95	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-20
Date:	9/21/2010	Sampled By:	B. Monroe	Sample ID:	MW-20PB(092110)
Sampling Time:	12:44	Recorded By:	B. Monroe	SSOW Ref:	MLC100803
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 2189	Water Quality Meter(s) Horbia U-22 Pine No. 07517
Solinst - 300 ft.	

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	21.49 gallons
Total Depth:	35.35	Total Volume Purged:	23.16 gallons
Depth to Water:	24.38	Pump on: 11:30	off: 12:47
Water Column:	10.97		
Gallons/Foot:	0.6530		
Gallons in Well:	7.16		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:31	1	--	31.6	-96.7	6.71	910	16.78	25.56	1.95	Initial
11:54	24	0.30	23.5	-86.4	6.69	908	17.04	27.03	1.39	1st Volume
12:18	48	0.30	18.5	-81.2	6.67	906	16.89	28.96	1.63	2nd Volume
12:42	72	0.30	24.8	-79.6	6.67	903	16.74	30.30	1.06	3rd Volume
12:44	74	--	27.3	-80.1	6.67	903	17.09	30.14	0.98	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-21
Date:	9/21/2010	Sampled By:	V. Myers	Sample ID:	MW-21PB(092110)
Sampling Time:	11:30	Recorded By:	V. Myers	SSOW Ref:	MLC100803
Weather:	Sun. 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 12157	Water Quality Meter(s) LaMotte 2020 Pine No. 02403
Solinst - 300 ft.	YSI- 600XL Pine No. 1620/5201

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	22.94 gallons
Total Depth:	37.80	Total Volume Purged:	24.84 gallons
Depth to Water:	26.09	Pump on: 10:35	off: 11:35
Water Column:	11.71		
Gallons/Foot:	0.6530		
Gallons in Well:	7.65		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:36	1	--	65.0	30.6	7.24	707	15.24	26.84	4.06	Initial
10:54	18	0.42	6.4	23.3	7.04	715	15.21	31.70	4.15	1st Volume
11:10	35	0.45	7.4	21.2	7.05	743	15.47	32.89	4.69	2nd Volume
11:28	52	0.45	14.0	83.1	7.05	772	16.17	32.89	6.42	3rd Volume
11:32	56	--	8.4	84.7	7.04	770	16.19	32.89	6.58	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.
- Not measured

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	OW-24
Date:		Sampled By:		Sample ID:	
Sampling Time:		Recorded By:		SSOW Ref:	MLC100803
Weather:		Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	3
Total Depth:	21.12	Total Volume Purged:	
Depth to Water:	20.74	Pump on:	off:
Water Column:			
Gallons/Foot:	0.6530	**Note: Not sampled due to lack of water in well**	
Gallons in Well:			

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
										Initial
										1st Volume
										2nd Volume
										3rd Volume
										Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Not sampled

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	OW-24
Date:		Sampled By:		Sample ID:	
Sampling Time:		Recorded By:		SSOW Ref:	MLC100803
Weather:		Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Low Flow

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Screened Interval:	
Total Depth:	21.12	Depth of Pump Intake:	
Depth to Water:		Pump on:	off:
Water Column:			
Gallons/Foot:	0.6530		
Gallons in Well:			

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Not sampled

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	OW-25S
Date:	9/21/2010	Sampled By:	D. Kirschner	Sample ID:	NS
Sampling Time:	NS	Recorded By:	D. Kirschner	SSOW Ref:	MLC100803
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 6204	Water Quality Meter(s) LaMotte 2020 Pine No. 6075
Solinst - 300 ft.	YSI- 600XL Pine No. 2635/3525

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"		
Total Depth:	23.28	Pump Intake Setting	Midpoint of screen
Depth to Water:	20.89	Pump on: 10:50	off: 11:06
Water Column:	2.39		
Gallons/Foot:	0.6530		
Gallons in Well:	1.56		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:55	5	100	999.00	-58.1	6.96	1132	15.55	20.89	3.10	Initial
11:00	10	100	999.00	-62.9	6.89	1165	15.56	20.89	3.99	1st Volume
11:05	15	100	999.00	-60.5	6.67	1146	15.60	20.89	1.75	2nd Volume
										3rd Volume
										Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

NS- not sampled

* Well dried out duringAverage volume purge. Was not sampled.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	OW-26S
Date:		Sampled By:		Sample ID:	
Sampling Time:		Recorded By:		SSOW Ref:	MLC100803
Weather:		Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Solinst - 300 ft.	YSI- 600XL

Low flow

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Screened Interval:	
Total Depth:	21.14	Depth of Pump Intake:	
Depth to Water:		Pump on:	off:
Water Column:			
Gallons/Foot:	0.6530		
Gallons in Well:			

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-31B2
Date:	9/21/2010	Sampled By:	D. Kirschner	Sample ID:	MW-31B2PB(092110)
Sampling Time:	10:02	Recorded By:	D. Kirschner	SSOW Ref:	MLC100803
Weather:	Sun. 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 6204	Water Quality Meter(s) LaMotte 2020 Pine No. 6075
Solinst - 300 ft.	YSI- 600XL Pine No. 2635/3525

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	55.22 gallons		
Total Depth:	153.00	Total Volume Purged:	63.7 gallons		
Depth to Water:	40.21	Pump on:	9:09	off:	10:06
Water Column:	112.79				
Gallons/Foot:	0.1632				
Gallons in Well:	18.41				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:10	1	--	101	117.4	7.31	531	15.60	40.97	1.30	Initial
9:26	17	1.08	101	176.3	7.06	528	15.61	40.97	0.97	1st Volume
9:43	34	1.08	0.65	439.4	6.23	616	16.30	40.97	0.86	2nd Volume
10:00	51	1.08	0.00	184.9	6.88	631	16.11	40.97	0.64	3rd Volume
10:02	59	--	0.00	187.6	6.83	631	16.15	40.97	0.63	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-31B3
Date:	9/16/2010	Sampled By:	B. Monroe, V. Myers	Sample ID:	MW-31B3PB(091610)
Sampling Time:	15:35	Recorded By:	B. Monroe, V. Myers	SSOW Ref:	MLC100803
Weather:	Cloudy, 70s	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 12157	Water Quality Meter(s) LaMotte 2020 Pine No. 02403
Solinst - 300 ft.	YSI- 600XL Pine No. 1620/5201

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	146.6 gallons
Total Depth:	342.00	Total Volume Purged:	147.3 gallons
Depth to Water:	42.25	Pump on: 13:15	off: 15:40
Water Column:	299.75		
Gallons/Foot:	0.1630		
Gallons in Well:	48.86		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:15	0	--	6.90	297.9	7.01	820	17.89	43.29	4.25	Initial
14:01	46	1.06	3.20	249.8	6.80	520	16.77	44.42	5.33	1st Volume
14:47	91	1.09	2.70	446.3	7.04	634	17.25	46.65	4.07	2nd Volume
15:33	137	1.06	0.40	381.4	7.18	588	16.49	45.61	5.34	3rd Volume
15:35	139	--	0.38	392.3	7.17	584	16.53	45.61	5.16	Sample

Observations During Sampling

Well Condition: _____ Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.
- Not measured

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	OW-32D
Date:	9/20/2010	Sampled By:	B.Monroe	Sample ID:	OW-32DLF(092010)
Sampling Time:	14:42	Recorded By:	B.Monroe	SSOW Ref:	MLC100803
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 2189	Water Quality Meter(s) LaMotte 2020 Pine No. 3349
Solinst - 300 ft.	YSI- 600XL Pine No. 3652/3630

Low Flow Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Marshak Bladder Bailer
Casing Diameter:	4"				
Total Depth:	39.28	Pump Intake Setting	Midpoint of screen		
Depth to Water:	26.21	Pump on:	13:20	off:	14:35
Water Column:	13.07				
Gallons/Foot:	0.6530				
Gallons in Well:	8.53				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:25	5	300	NM	-103.8	6.01	803	16.12	26.83	0.99	
13:30	10	300	353.0	-85.0	5.82	804	16.10	27.40	0.81	
13:35	15	300	239.0	-61.0	5.59	806	16.00	28.50	0.60	
13:40	20	300	218.0	-56.6	5.54	813	15.72	29.12	0.39	
13:45	25	300	210.0	-56.6	5.56	804	15.50	29.98	0.40	
13:50	30	300	212.0	-48.0	5.46	799	15.63	30.30	0.41	
13:55	35	300	206.0	-56.3	5.61	799	16.03	31.06	0.46	
14:00	40	300	210.0	-60.8	5.72	798	16.10	31.83	0.58	
14:05	45	300	213.0	-78.4	5.80	798	16.12	37.65	0.63	
14:10	50	300	210.0	-79.6	5.86	793	16.18	33.08	0.69	
14:15	55	300	206.0	-82.3	5.88	791	16.20	33.52	0.68	
14:20	60	300	214.0	-83.7	5.88	790	16.25	33.98	0.68	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	OW-32D
Date:	9/20/2010	Sampled By:	B.Monroe	Sample ID:	OW-32DPB(092010)
Sampling Time:	16:32	Recorded By:	B.Monroe	SSOW Ref:	MLC100803
Weather:	Sun, 80's	Coded Replicate No.:	OW-32DPB(092010)MS		
			OW-32DPB(092010)MDS		

Instrument Identification

Water Level Meter Pine No. 2189	Water Quality Meter(s) LaMotte 2020 Pine No. 3349
Solinst - 300 ft.	YSI- 600XL Pine No. 3652/3630

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	25.6 gallons		
Total Depth:	39.28	Total Volume Purged:	25.8 gallons		
Depth to Water:	26.21	Pump on:	15:00	off:	16:35
Water Column:	13.07				
Gallons/Foot:	0.6530				
Gallons in Well:	8.53				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
15:01	1	--	226	-89.6	5.96	767	16.89	28.38	0.88	Initial
15:30	30	0.28	200	-96.7	6.03	734	17.08	30.41	0.96	1st Volume
16:00	60	0.28	189	-122.7	6.09	656	16.96	32.68	0.78	2nd Volume
16:30	90	0.28	175	-130.8	6.15	656	17.24	34.51	0.99	3rd Volume
16:32	92	--	175	-131.6	6.14	658	16.89	34.58	0.84	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-36B
Date:	9/15/2010	Sampled By:	C. Laprus, D. Kirschner	Sample ID:	MW-36BPB(091510)
Sampling Time:	13:00	Recorded By:	C. Laprus, D. Kirschner	SSOW Ref:	MLC100803
Weather:	Clear, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 6204	Water Quality Meter(s) LaMotte 2020 Pine No. 6075
Solinst - 300 ft.	YSI- 600XL Pine No. 2635/3525

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	17.11 gallons
Total Depth:	57.25	Total Volume Purged:	18.9 gallons
Depth to Water:	22.30	Pump on: 12:31	off: 13:03
Water Column:	34.95		
Gallons/Foot:	0.1632		
Gallons in Well:	5.70		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:33	2	--	NM	212.3	6.70	520	15.16	27.40	1.76	Initial
12:40	9	0.63	NM	211.7	6.59	510	15.22	27.71	1.68	1st Volume
12:52	21	0.48	25.00	327.9	6.23	458	13.93	29.68	3.01	2nd Volume
12:58	27	0.95	27.00	346.7	6.23	460	13.78	30.56	3.64	3rd Volume
13:00	29	--	20.00	359.1	6.23	461	13.83	30.59	3.37	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-37
Date:	9/17/2010	Sampled By:	B. Monroe	Sample ID:	MW-37PB(091710)
Sampling Time:	9:19	Recorded By:	B. Monroe	SSOW Ref:	MLC100803
Weather:	Cloudy, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 2189	Water Quality Meter(s) LaMotte 2020 Pine No. 3349
Solinst - 300 ft.	YSI- 600XL Pine No. 3652/3630

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	8.965 gallons
Total Depth:	42.00	Total Volume Purged:	10.32 gallons
Depth to Water:	23.69	Pump on: 8:56	off: 9:20
Water Column:	18.31		
Gallons/Foot:	0.1632		
Gallons in Well:	2.99		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:57	1	--	80.0	49.7	6.98	717	18.08	23.85	1.89	Initial
9:03	7	0.43	15.0	113.6	6.90	693	17.38	24.29	1.36	1st Volume
9:10	14	0.43	13.0	140.4	6.85	702	17.26	24.38	1.48	2nd Volume
9:17	22	0.37	6.8	152.6	6.89	712	16.99	24.38	1.32	3rd Volume
9:19	24	--	5.6	154.2	6.88	710	17.08	24.38	1.26	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-37B
Date:	9/17/2010	Sampled By:	B. Monroe	Sample ID:	MW-37BPB(091710)
Sampling Time:	10:57	Recorded By:	B. Monroe	SSOW Ref:	MLC100803
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 2189	Water Quality Meter(s) LaMotte 2020 Pine No. 3349
Solinst - 300 ft.	YSI- 600XL Pine No. 3652/3630

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	25.47 gallons
Total Depth:	80.00	Total Volume Purged:	27.0 gallons
Depth to Water:	27.97	Pump on: 10:03	off: 11:00
Water Column:	52.03		
Gallons/Foot:	0.1632		
Gallons in Well:	8.49		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:04	1	--	NM	119.0	6.92	670	16.80	28.21	3.29	Initial
10:21	18	0.47	90.60	106.0	7.18	598	16.46	28.25	3.68	1st Volume
10:38	35	0.50	37.30	106.0	7.16	620	16.69	28.25	4.02	2nd Volume
10:55	52	0.50	5.50	105.0	7.31	599	16.91	28.25	3.48	3rd Volume
10:57	54	--	5.20	105.0	7.30	601	16.88	28.25	3.53	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-37B
Date:	9/17/2010	Sampled By:	B. Monroe	Sample ID:	MW-37BLF(091710)
Sampling Time:	11:47	Recorded By:	B. Monroe	SSOW Ref:	MLC100803
Weather:	Sun, 80's	Coded Replicate No.:	DUP(091710)		

Instrument Identification

Water Level Meter Pine No. 2189	Water Quality Meter(s) Horbia U-22 Pine No. 07517
Solinst - 300 ft.	

Low Flow Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"		
Total Depth:	80.00	Pump Intake Setting	Midpoint of screen
Depth to Water:	28.01	Pump on: 11:10	off: 11:50
Water Column:	51.99		
Gallons/Foot:	0.1632		
Gallons in Well:	8.48		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:15	5	300	13.6	103.0	7.40	595	17.25	28.01	2.94	
11:20	10	300	16.8	101.0	7.37	592	16.88	28.01	2.80	
11:25	15	300	8.3	93.0	7.35	589	17.35	28.01	2.55	
11:30	20	300	5.2	92.0	7.35	591	16.52	28.01	2.47	
11:35	25	300	3.6	89.0	7.34	590	16.27	28.01	2.56	
11:40	30	300	3.8	89.0	7.34	590	16.22	28.01	2.57	
11:45	35	300	3.4	88.0	7.34	588	16.15	28.01	2.55	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-37B2
Date:	9/17/2010	Sampled By:	C. Laprus	Sample ID:	MW-37B2PB(091710)
Sampling Time:	10:18	Recorded By:	C. Laprus	SSOW Ref:	MLC100803
Weather:	Clear, 60's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 00543	Water Quality Meter(s) LaMotte 2020 Pine No. 6479
Solinst - 300 ft.	YSI- 600XL Pine No. 5737/12134

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	90.3 gallons
Total Depth:	213.53	Total Volume Purged:	91.0 gallons
Depth to Water:	29.09	Pump on: 8:55	off: 10:00
Water Column:	184.44		
Gallons/Foot:	0.1632		
Gallons in Well:	30.10		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:57	2	--	0.60	210.1	7.39	506	17.52	29.49	7.37	Initial
9:35	40	0.75	0.20	211.3	7.45	500	16.16	29.90	2.61	1st Volume
9:58	63	1.31	0.00	275.1	6.41	506	16.70	30.65	2.61	2nd Volume
10:16	81	1.67	0.00	286.3	6.40	503	16.64	30.73	2.57	3rd Volume
10:18	83	--	0.00	282.4	6.39	500	16.72	30.73	2.54	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-37B3
Date:	9/17/2010	Sampled By:	V. Myers	Sample ID:	MW-37B3PB(091710)
Sampling Time:	12:06	Recorded By:	V. Myers	SSOW Ref:	MLC100803
Weather:	Cloudy, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 12157	Water Quality Meter(s) LaMotte 2020 Pine No. 02403
Solinst - 300 ft.	YSI- 600XL Pine No. 1620/5201

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	145 gallons
Total Depth:	325.63	Total Volume Purged:	199 gallons
Depth to Water:	29.30	Pump on: 8:50	off: 12:08
Water Column:	296.33		
Gallons/Foot:	0.1632		
Gallons in Well:	48.36		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:51	1	--	1.54	54.3	7.46	566	18.39	31.00	7.40	Initial*
10:29	99	0.49	0.88	92.8	7.54	590	18.95	34.23	2.51	1st Volume
11:17	147	1.01	0.18	321.5	7.31	598	17.77	37.61	2.28	2nd Volume
12:05	195	1.01	1.08	268.6	7.14	603	17.20	37.06	6.91	3rd Volume
12:07	197	--	0.97	269.1	7.14	603	17.20	37.07	6.90	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

* Pump had to be removed from well due to malfunction.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-38
Date:	9/15/2010	Sampled By:	B. Monroe	Sample ID:	MW-38PB(091510)
Sampling Time:	14:57	Recorded By:	B. Monroe	SSOW Ref:	MLC100803
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 2189	Water Quality Meter(s) LaMotte 2020 Pine No. 3349
Solinst - 300 ft.	YSI- 600XL Pine No. 3652/3630

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	8.5 gallons		
Total Depth:	36.82	Total Volume Purged:	9.0 gallons		
Depth to Water:	19.44	Pump on:	14:25	off:	15:05
Water Column:	17.38				
Gallons/Foot:	0.1632				
Gallons in Well:	2.84				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
14:26	1	--	700	12.3	6.28	1422	14.28	20.18	2.29	Initial
14:35	10	0.28	89.0	50.3	6.07	1397	12.30	20.69	1.97	1st Volume
14:45	20	0.28	25.0	68.4	6.10	1116	11.84	21.03	1.39	2nd Volume
14:55	30	0.28	28.0	76.6	6.19	1118	11.99	21.20	1.28	3rd Volume
14:57	32	--	28.0	77.8	6.19	1118	12.08	21.23	1.36	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-38B
Date:	9/15/2010	Sampled By:	B. Monroe	Sample ID:	MW-38B(091510)
Sampling Time:	13:57	Recorded By:	B. Monroe	SSOW Ref:	MLC100803
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 2189	Water Quality Meter(s) LaMotte 2020 Pine No. 3349
Solinst - 300 ft.	YSI- 600XL Pine No. 3652/3630

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	24.68 gallons
Total Depth:	78.90	Total Volume Purged:	25.5 gallons
Depth to Water:	28.49	Pump on: 12:29	off: 14:05
Water Column:	50.41		
Gallons/Foot:	0.1632		
Gallons in Well:	8.23		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:30	1	--	360	-69.5	6.34	869	14.13	38.78	2.38	Initial
12:58	29	0.28	50.0	-59.6	6.31	809	12.87	45.64	1.94	1st Volume
13:26	57	0.29	15.0	-43.7	6.34	797	13.12	57.29	1.56	2nd Volume
13:55	86	0.28	12.0	-60.6	6.43	812	13.26	65.12	1.29	3rd Volume
13:57	88	--	13.0	-61.8	6.43	813	13.53	65.32	1.36	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-39
Date:	9/16/2010	Sampled By:	V. Myers	Sample ID:	MW-39PB(091610)
Sampling Time:	10:15	Recorded By:	V. Myers	SSOW Ref:	MLC100803
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 12157	Water Quality Meter(s) LaMotte 2020 Pine No. 02403
Solinst - 300 ft.	YSI- 600XL Pine No. 1620/5201

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	1.836 gallons
Total Depth:	29.05	Total Volume Purged:	2.18 gallons
Depth to Water:	25.3	Pump on: 9:58	off: 10:21
Water Column:	3.75		
Gallons/Foot:	0.1632		
Gallons in Well:	0.612		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:59	1	--	280	147.7	7.42	662	14.14	NM	6.55	Initial
10:02	4	0.15	110	143.1	6.54	192	14.14	NM	0.26	1st Volume
10:05	7	0.20	38.0	211.0	5.09	205	14.14	NM	0.24	2nd Volume
10:14	16	0.07	34.0	177.4	4.65	192	14.14	NM	0.38	3rd Volume
10:19	21	--	30.1	162.6	4.60	174	14.14	NM	0.27	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-39B
Date:	9/16/2010	Sampled By:	D. Kirschner	Sample ID:	MW-39BPB(091610)
Sampling Time:	10:39	Recorded By:	D. Kirschner	SSOW Ref:	MLC100803
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 6204	Water Quality Meter(s) LaMotte 2020 Pine No. 6075
Solinst - 300 ft.	YSI- 600XL Pine No. 2635/3525

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	17.26 gallons
Total Depth:	62.22	Total Volume Purged:	17.9 gallons
Depth to Water:	26.97	Pump on: 9:58	off: 10:42
Water Column:	35.25		
Gallons/Foot:	0.1632		
Gallons in Well:	5.75		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:58	0	--	999	99.6	7.34	770	17.61	30.21	5.54	Initial
10:13	15	0.38	100	228.0	7.15	741	17.14	33.35	4.57	1st Volume
10:23	25	0.58	39.0	282.0	7.12	768	17.48	33.35	5.87	2nd Volume
10:38	40	0.38	70.0	312.8	7.14	788	18.06	33.35	4.03	3rd Volume
10:40	42	--	60.0	327.4	7.14	799	18.91	35.35	3.95	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-40
Date:	9/14/2010	Sampled By:	C. Laprus	Sample ID:	MW-40PB(091410)
Sampling Time:	10:58	Recorded By:	C. Laprus	SSOW Ref:	MLC100803
Weather:	Clear, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 00543	Water Quality Meter(s) LaMotte 2020 Pine No. 6479
Solinst - 300 ft.	YSI- 600XL Pine No. 5737/12134

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	47.9 gallons
Total Depth:	36.62	Total Volume Purged:	47.9 gallons
Depth to Water:	12.16	Pump on: 8:53	off: 11:00
Water Column:	24.46		
Gallons/Foot:	0.6528		
Gallons in Well:	15.97		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:54	1	--	110	-16.2	7.42	581	17.29	17.44	2.42	Initial
9:49	56	0.29	4.0	55.3	6.83	545	17.38	17.81	2.27	1st Volume
10:26	93	0.43	250	163.7	6.42	557	17.39	22.95	2.45	2nd Volume
10:56	123	0.53	58.0	247.3	6.45	577	18.64	28.52	4.37	3rd Volume
10:58	125	--	43.0	247.9	6.45	574	18.51	27.53	4.13	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-41
Date:	9/16/2010	Sampled By:	B. Monroe	Sample ID:	MW-41PB(091610)
Sampling Time:	12:14	Recorded By:	B. Monroe	SSOW Ref:	MLC100803
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 2189	Water Quality Meter(s) LaMotte 2020 Pine No. 3349
Solinst - 300 ft.	YSI- 600XL Pine No. 3652/3630

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	33.21 gallons		
Total Depth:	30.71	Total Volume Purged:	33.2 gallons		
Depth to Water:	13.75	Pump on:	10:42	off:	12:17
Water Column:	16.96				
Gallons/Foot:	0.6528				
Gallons in Well:	11.07				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:43	1	--	850	171.1	5.76	3232	15.02	14.18	1.29	Initial
11:12	30	0.37	80.0	196.8	5.76	3233	15.38	15.36	1.36	1st Volume
11:42	60	0.37	39.0	197.2	5.73	3237	15.44	16.55	1.43	2nd Volume
12:12	90	0.37	19.0	193.8	5.75	3230	15.56	16.78	1.29	3rd Volume
12:14	92	--	18.0	192.7	5.75	3230	15.83	16.78	1.36	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-42
Date:	9/14/2010	Sampled By:	V. Myers	Sample ID:	MW-42PB(091410)
Sampling Time:	13:43	Recorded By:	V. Myers	SSOW Ref:	MLC100803
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 12157	Water Quality Meter(s) LaMotte 2020 Pine No. 02403
Solinst - 300 ft.	YSI- 600XL Pine No. 1620/5201

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	31.77 gallons
Total Depth:	31.42	Total Volume Purged:	33.39 gallons
Depth to Water:	15.2	Pump on: 11:10	off: 13:46
Water Column:	16.22		
Gallons/Foot:	0.6528		
Gallons in Well:	10.59		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:11	1	--	110	218.5	6.48	731	25.86	15.51	4.66	Initial
12:16	65	0.16	110	404.2	6.62	807	23.84	20.03	4.97	1st Volume
13:03	112	0.23	40.0	484.7	6.02	706	23.79	22.63	3.96	2nd Volume
13:40	149	0.29	29.0	444.6	6.28	736	21.79	23.74	6.29	3rd Volume
13:44	154	--	27.8	316.9	6.91	717	23.27	23.74	5.24	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-43
Date:	9/14/2010	Sampled By:	C. Laprus	Sample ID:	MW-43PB(091410)
Sampling Time:	12:39	Recorded By:	C. Laprus	SSOW Ref:	MLC100803
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 00543	Water Quality Meter(s) LaMotte 2020 Pine No. 6479
Solinst - 300 ft.	YSI- 600XL Pine No. 5737/12134

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	40.93 gallons
Total Depth:	30.94	Total Volume Purged:	42.25 gallons
Depth to Water:	10.04	Pump on: 11:23	off: 12:45
Water Column:	20.90		
Gallons/Foot:	0.6528		
Gallons in Well:	13.64		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:24	1	--	29.0	173.9	6.67	4844	20.47	10.80	2.11	Initial
11:54	37	0.37	18.0	252.9	6.61	4539	20.02	10.67	3.29	1st Volume
12:17	54	0.80	8.40	269.9	6.64	4491	19.70	10.91	1.89	2nd Volume
12:37	74	0.68	6.80	272.9	6.62	4266	19.85	10.91	2.67	3rd Volume
12:39	76	--	7.20	273.9	6.62	4301	19.91	10.91	2.33	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-44
Date:	9/14/2010	Sampled By:	C. Laprus	Sample ID:	MW-44PB(091410)
Sampling Time:	12:10	Recorded By:	C. Laprus	SSOW Ref:	MLC100803
Weather:	Clear, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 00543	Water Quality Meter(s) LaMotte 2020 Pine No. 6479
Solinst - 300 ft.	YSI- 600XL Pine No. 5737/12134

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	30.81 gallons
Total Depth:	30.63	Total Volume Purged:	33.0 gallons
Depth to Water:	14.9	Pump on: 11:20	off: 12:11
Water Column:	15.73		
Gallons/Foot:	0.6528		
Gallons in Well:	10.27		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:22	2	--	60.0	-3.4	6.32	3596	22.50	15.15	1.62	Initial
11:40	20	0.51	5.30	-12.2	6.18	3361	21.58	18.00	1.79	1st Volume
11:53	33	0.79	1.60	-11.3	6.19	3904	21.58	19.60	1.73	2nd Volume
12:07	47	0.73	1.10	-12.1	6.19	4031	20.45	21.45	1.74	3rd Volume
12:10	50	--	1.10	-12.3	6.20	4033	20.59	21.49	1.79	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-45
Date:	9/14/2010	Sampled By:	B. Monroe	Sample ID:	MW-45PB(091410)
Sampling Time:	10:27	Recorded By:	B. Monroe	SSOW Ref:	MLC100803
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 2189	Water Quality Meter(s) LaMotte 2020 Pine No. 3349
Solinst - 300 ft.	YSI- 600XL Pine No. 3652/3630

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	30.61 gallons		
Total Depth:	29.80	Total Volume Purged:	31.36 gallons		
Depth to Water:	14.17	Pump on:	8:49	off:	10:30
Water Column:	15.63				
Gallons/Foot:	0.6528				
Gallons in Well:	10.20				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:50	1	--	4.60	151.3	5.83	2295	14.07	14.89	1.48	Initial
9:21	32	0.32	3.10	225.2	5.81	2613	14.33	16.96	0.89	1st Volume
9:52	63	0.33	2.80	210.5	5.82	2842	14.38	18.53	0.81	2nd Volume
10:25	96	0.31	2.50	195.0	5.84	2831	13.44	19.36	0.83	3rd Volume
10:27	98	--	2.50	193.8	5.84	2829	13.38	19.36	0.89	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-85B3
Date:	9/16/2010	Sampled By:	C.Laprus, D. Kirschner	Sample ID:	MW-85B3PB(091610)
Sampling Time:	15:18	Recorded By:	C.Laprus, D. Kirschner	SSOW Ref:	MLC100803
Weather:	Cloudy, 60's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 6204	Water Quality Meter(s) LaMotte 2020 Pine No. 6075
Solinst - 300 ft.	YSI- 600XL Pine No. 2635/3525

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	134.4 gallons
Total Depth:	298.90	Total Volume Purged:	111.1 gallons
Depth to Water:	24.42	Pump on: 13:26	off: 15:20
Water Column:	274.48		
Gallons/Foot:	0.1632		
Gallons in Well:	44.80		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:30	4	--	29.00	-118.9	7.04	225	15.32	28.15	3.09	Initial
14:08	42	1.07	14.00	-139.9	6.79	204	15.05	29.01	5.42	1st Volume
14:52	76	1.32	15.60	-168.3	7.16	331	15.81	29.08	2.30	2nd Volume
15:16	110	1.32	5.52	-144.4	7.42	360	15.53	29.09	3.58	3rd Volume
15:18	112	--	5.50	-143.7	7.42	358	15.53	29.09	3.55	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-86B3
Date:	9/20/2010	Sampled By:	D. Kirschner, V. Myers	Sample ID:	MW-86B3PB(092010)
Sampling Time:	12:33	Recorded By:	D. Kirschner, V. Myers	SSOW Ref:	MLC100803
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 12157	Water Quality Meter(s) LaMotte 2020 Pine No. 02403
Solinst - 300 ft.	YSI- 600XL Pine No. 1620/5201

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	180 gallons
Total Depth:	394.70	Total Volume Purged:	181.4 gallons
Depth to Water:	27.12	Pump on: 9:25	off: 12:35
Water Column:	367.58		
Gallons/Foot:	0.1630		
Gallons in Well:	59.92		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:31	6	--	3.95	192.7	7.23	561	14.48	28.00	7.49	Initial
10:31	66	0.91	0.28	244.8	7.23	664	16.25	28.35	3.85	1st Volume
11:31	126	1.00	0.09	175.9	7.07	692	15.95	28.35	6.93	2nd Volume
12:31	186	1.00	0.08	307.1	5.90	722	16.02	28.35	6.75	3rd Volume
12:33	188	--	0.07	321.3	6.05	788	16.05	28.35	7.03	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-87B
Date:	9/15/2010	Sampled By:	D. Kirschner, C. Laprus	Sample ID:	MW-87B(091510)
Sampling Time:	10:38	Recorded By:	D. Kirschner, C. Laprus	SSOW Ref:	MLC100803
Weather:	Clear, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 00543	Water Quality Meter(s) LaMotte 2020 Pine No. 6479
Solinst - 300 ft.	YSI- 600XL Pine No. 5737/12134

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	3
Volume Purged Per Stroke:	2.5 gal.
Purge Stroke Duration:	15 min
Total Volume Purged:	7.5 gal.
Total Purge Duration:	76 min.

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:41	0	0.5	2.10	54.4	7.30	1451	15.80	19.72	6.05	Initial/1 vol
9:20	41	0.5	1.30	251.4	7.06	1429	15.22	21.56	4.89	2 vol
9:56	34	0.5	1.60	276.1	7.03	1436	15.46	22.65	5.07	3 vol
10:38	76	0.5	1.70	288.2	7.10	1466	16.31	NM	6.64	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Notes: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-87B2
Date:	9/15/2010	Sampled By:	D. Kirschner, C. Laprus	Sample ID:	MW87B2(091510)
Sampling Time:	10:36	Recorded By:	D. Kirschner, C. Laprus	SSOW Ref:	MLC100803
Weather:	Clear, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 00543	Water Quality Meter(s) LaMotte 2020 Pine No. 6479
Solinst - 300 ft.	YSI- 600XL Pine No. 5737/12134

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	3
Volume Purged Per Stroke:	2.5 gal.
Purge Stroke Duration:	15 min
Total Volume Purged:	7.5 gal.
Total Purge Duration:	76 min.

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:41	0	0.5	1.70	61.1	7.61	726	15.45	26.77	5.94	Initial/1 vol
9:20	41	0.5	1.20	234.4	7.44	1601	15.15	26.55	5.46	2 vol
9:56	34	0.5	1.20	257.5	7.33	650	15.31	26.28	5.47	3 vol
10:36	76	0.5	1.40	271.9	7.49	690	16.44	NM	4.24	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-87B3
Date:	9/15/2010	Sampled By:	D. Kirschner, C. Laprus	Sample ID:	MW87B3(091510)
Sampling Time:	10:39	Recorded By:	D. Kirschner, C. Laprus	SSOW Ref:	MLC100803
Weather:	Clear, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 00543	Water Quality Meter(s) LaMotte 2020 Pine No. 6479
Solinst - 300 ft.	YSI- 600XL Pine No. 5737/12134

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	3
Volume Purged Per Stroke:	2.5 gal.
Purge Stroke Duration:	15 min
Total Volume Purged:	7.5 gal.
Total Purge Duration:	74 min.

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:41	0	0.5	1.8	66.1	7.72	457	15.44	27.26	5.54	Initial/1 vol
9:20	41	0.5	1.1	222.6	7.58	437	15.12	27.83	5.29	2 vol
9:56	34	0.5	1.2	243.4	7.57	432	15.22	26.36	5.32	3 vol
10:34	74	0.5	14.0	271.0	7.42	712	16.74	NM	5.05	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-87B4
Date:	9/15/2010	Sampled By:	D. Kirschner, C. Laprus	Sample ID:	MW-87B4(091510)
Sampling Time:	10:32	Recorded By:	D. Kirschner, C. Laprus	SSOW Ref:	MLC100803
Weather:	Clear, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 00543	Water Quality Meter(s) LaMotte 2020 Pine No. 6479
Solinst - 300 ft.	YSI- 600XL Pine No. 5737/12134

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	3
Volume Purged Per Stroke:	2.5 gal.
Purge Stroke Duration:	15 min
Total Volume Purged:	7.5 gal.
Total Purge Duration:	72 min.

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:41	0	0.5	1.80	84.0	7.68	455	15.50	26.33	4.73	Initial/1 vol
9:20	41	0.5	1.20	219.8	7.57	452	15.03	26.48	4.61	2 vol
9:56	34	0.5	1.10	237.2	7.57	461	15.14	26.3	5.43	3 vol
10:32	72	0.5	1.00	258.7	7.57	473	15.76	NM	4.84	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-87B5
Date:	9/15/2010	Sampled By:	D. Kirschner, C. Laprus	Sample ID:	MW-87B5(091510)
Sampling Time:	10:30	Recorded By:	D. Kirschner, C. Laprus	SSOW Ref:	MLC100803
Weather:	Clear, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 00543	Water Quality Meter(s) LaMotte 2020 Pine No. 6479
Solinst - 300 ft.	YSI- 600XL Pine No. 5737/12134

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	3
Volume Purged Per Stroke:	2.5 gal.
Purge Stroke Duration:	15 min.
Total Volume Purged:	7.5 gal.
Total Purge Duration:	70 min.

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (µS/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:41	0	0.5	1.5	103.6	7.58	618	15.65	26.39	4.77	Initial/1 vol
9:20	41	0.5	1.2	215.9	7.56	549	15.35	26.58	4.73	2 vol
9:56	34	0.5	1.6	233.8	7.40	599	15.39	26.44	5.01	3 vol
10:30	70	0.5	1.10	258.3	7.50	635	16.67	NM	4.49	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-1
Date:	9/14/2011	Sampled By:	R. Alonso	Sample ID:	MW-1PB (091411)
Sampling Time:	10:55	Recorded By:	R. Alonso		
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 3242
Solinst - 300 ft.	YSI- 600XL Pine No. 3178

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	39.61 gallons
Total Depth:	33.04	Total Volume Purged:	41.3 gallons
Depth to Water:	12.82	Pump on: 9:53	off: 10:55
Water Column:	20.22		
Gallons/Foot:	0.6530		
Gallons in Well:	13.20		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:31	0	--	90.00	20.8	6.66	0.720	18.14	16.62	2.99	Initial
10:18	25	0.53	18.00	10.3	6.22	0.769	17.40	18.23	2.44	1st Volume
10:37	44	0.69	4.30	42.6	6.37	0.843	17.58	18.25	2.22	2nd Volume
10:53	60	0.83	3.70	116.9	6.19	0.857	17.67	18.25	2.62	3rd Volume
10:55	62	--	2.90	112.1	6.17	0.861	17.71	18.26	2.58	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-1B
Date:	9/14/2011	Sampled By:	A. Barrio	Sample ID:	MW-1BPB(091411)
Sampling Time:	11:10	Recorded By:	A. Barrio		
Weather:	Sun 78°F	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) 9967 LaM LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine Pine No. 1607

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	21.5 gallons		
Total Depth:	69.85	Total Volume Purged:	24.0 gallons		
Depth to Water:	25.93	Pump on:	10:15	off:	11:15
Water Column:	43.92				
Gallons/Foot:	0.1632				
Gallons in Well:	7.17				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:20	5	--	16.20	230.1	6.57	0.439	18.43	39.90	2.34	Initial
10:35	20	0.36	15.20	80.1	6.54	0.495	16.99	40.00	1.81	1st Volume
10:50	35	0.48	10.32	163.1	6.53	0.496	16.58	39.88	3.10	2nd Volume
11:05	50	0.48	9.11	239.1	6.56	0.471	17.53	39.88	2.26	3rd Volume
11:10	55	--	8.85	249.2	6.86	0.475	20.03	39.88	1.99	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-4
Date:	9/13/2011	Sampled By:	A. Barrio	Sample ID:	MW-4PB(091311)
Sampling Time:	11:15	Recorded By:	A. Barrio		
Weather:	Sun, 86°F	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) 9967 LaM LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine Pine No. 1607

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	32.0 gallons		
Total Depth:	45.65	Total Volume Purged:	42.2 gallons		
Depth to Water:	29.29	Pump on:	10:00	off:	11:17
Water Column:	16.36				
Gallons/Foot:	0.6530				
Gallons in Well:	10.68				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:05	5	--	5.10	197.1	6.69	0.580	16.55	36.89	6.50	Initial
10:27	16	0.67	3.09	170.3	7.87	0.397	16.91	36.89	8.03	1st Volume
10:49	27	0.97	2.95	159.3	7.81	0.436	16.83	36.89	7.19	2nd Volume
11:11	38	0.97	2.92	135.6	7.31	0.596	17.76	36.89	5.13	3rd Volume
11:15	42	--	1.85	136.1	7.30	0.381	17.73	36.89	5.04	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-7
Date:	9/16/2011	Sampled By:	V. Myers	Sample ID:	MW-7PB (091811)
Sampling Time:	11:58	Recorded By:	V, Myers		
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 3312
Solinst - 300 ft.	YSI- 600XL Pine Pine No. 2132

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	37.2 gallons		
Total Depth:	40.37	Total Volume Purged:	38.0 gallons		
Depth to Water:	21.4	Pump on:	10:18	off:	12:00
Water Column:	18.97				
Gallons/Foot:	0.6530				
Gallons in Well:	12.39				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:18	0	--	2.58	92.4	7.00	0.326	15.19	23.41	0.07	Initial
10:48	30	0.41	2.95	109.7	6.71	0.435	15.88	23.41	0.18	1st Volume
11:28	60	0.41	1.39	90.7	6.58	0.427	14.34	23.41	0.09	2nd Volume
11:58	120	0.21	1.21	89.9	6.46	0.431	14.52	23.41	0.10	3rd Volume
11:59	121	--	1.18	89.9	6.46	0.434	14.55	23.41	0.09	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-8
Date:	9/20/2011	Sampled By:	A. Barrio	Sample ID:	MW-8PB(092011)
Sampling Time:	13:05	Recorded By:	A. Barrio		
Weather:	Rain, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) 9967 LaM LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine Pine No. 1607

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	13.2 gallons
Total Depth:	35.70	Total Volume Purged:	14.4 gallons
Depth to Water:	28.97	Pump on: 12:00	off: 13:10
Water Column:	6.73		
Gallons/Foot:	0.6530		
Gallons in Well:	4.39		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:05	5	--	8.20	40.0	7.36	0.991	15.82	29.91	1.56	Initial
12:27	23	0.19	2.50	55.0	7.37	0.569	16.62	29.91	1.65	1st Volume
12:41	41	0.24	0.60	32.0	6.94	0.574	15.15	29.91	1.51	2nd Volume
12:59	59	0.24	0.20	26.0	6.97	0.571	15.20	29.91	1.52	3rd Volume
13:05	65	--	0.10	26.0	6.94	0.572	15.05	29.91	1.50	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-9B
Date:	9/20/2011	Sampled By:	A. Barrio	Sample ID:	MW-9BPB(092011)
Sampling Time:	10:50	Recorded By:	A. Barrio		
Weather:	Rain, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) 9967 LaM LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine Pine No. 1607

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	17.2 gallons		
Total Depth:	64.20	Total Volume Purged:	19.2 gallons		
Depth to Water:	28.97	Pump on:	9:30	off:	10:52
Water Column:	35.23				
Gallons/Foot:	0.1632				
Gallons in Well:	5.75				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:35	5	--	8.20	40.0	7.36	0.991	15.82	30.00	1.56	Initial
9:59	29	0.20	1.10	30.0	7.22	0.682	15.22	30.00	1.57	1st Volume
10:23	53	0.24	1.70	26.0	7.23	0.695	14.98	30.00	1.49	2nd Volume
10:47	77	0.24	0.00	20.0	7.19	0.703	15.32	30.00	1.50	3rd Volume
10:50	80	--	0.00	16.0	7.19	0.703	14.98	30.00	1.50	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-10
Date:	9/13/2011	Sampled By:	R. Alonso	Sample ID:	MW-10PB(091311)
Sampling Time:	13:07	Recorded By:	R. Alonso		
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 3312
Solinst - 300 ft.	YSI- 600XL Pine No. 2132

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	27.6 gallons
Total Depth:	26.96	Total Volume Purged:	26.52 gallons
Depth to Water:	12.87	Pump on: 11:24	off: 13:08
Water Column:	14.09		
Gallons/Foot:	0.6530		
Gallons in Well:	9.20		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:24	0	--	17.00	174.0	6.80	0.410	19.82	16.42	2.87	Initial
11:59	35	0.26	4.80	55.5	NM	0.430	19.79	16.38	1.72	1st Volime
12:36	72	0.25	6.90	97.6	6.92	0.464	19.09	16.31	1.91	2nd Volume
13:04	100	0.33	5.80	95.7	6.92	0.463	21.24	14.72	1.98	3rd Volume
13:07	103	--	5.60	95.3	6.49	0.424	17.97	14.7	1.35	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-10B
Date:	9/13/2011	Sampled By:	V. Myers, G. Giannuario	Sample ID:	MW-10BPB(091311)
Sampling Time:	15:59	Recorded By:	V. Myers, G. Giannuario		
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 9967
Solinst - 300 ft.	YSI- 600XL Pine Pine No. 3178

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	38.9 gallons		
Total Depth:	103.44	Total Volume Purged:	40.3 gallons		
Depth to Water:	23.90	Pump on:	14:36	off:	16:01
Water Column:	79.54				
Gallons/Foot:	0.1632				
Gallons in Well:	12.98				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
14:37	1	--	3.80	63.5	7.11	0.78	21.70	25.85	5.14	Initial
15:09	28	0.46	3.30	90.9	6.88	0.036	18.10	29.64	2.63	1st Volume
15:31	55	0.48	1.10	32.6	6.91	1.149	18.93	29.75	2.84	2nd Volume
15:58	82	0.48	0.80	85.5	6.75	1.180	18.56	28.70	1.67	3rd Volume
16:00	84	--	0.75	91.9	6.61	1.119	17.25	28.70	2.39	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-10B2
Date:	9/13/2011	Sampled By:	V. Myers, G. Giannuario	Sample ID:	MW-10B2PB(091311)
Sampling Time:	14:07	Recorded By:	V. Myers, G. Giannuario		
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 9967
Solinst - 300 ft. 3515	YSI- 600XL Pine Pine No. SN:01F0883 AC

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	78.0 gallons		
Total Depth:	186.93	Total Volume Purged:	83.1 gallons		
Depth to Water:	27.56	Pump on:	12:41	off:	14:09
Water Column:	159.37				
Gallons/Foot:	0.1632				
Gallons in Well:	26.01				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:42	1	--	1.90	104.5	7.04	0.526	16.22	NM	6.05	Initial
13:09	28	0.93	1.20	99.3	7.04	0.545	18.43	NM	3.95	1st Volume
13:26	44	1.63	1.30	97.5	6.72	0.605	18.46	NM	2.31	2nd Volume
14:03	71	0.96	1.30	84.9	6.64	0.629	10.16	NM	2.21	3rd Volume
14:08	76	--	1.30	89.6	6.43	0.574	16.34	NM	2.95	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-10B3
Date:	9/13/2011	Sampled By:	V. Myers, G. Giannuario	Sample ID:	MW-10B3PB(091311)
Sampling Time:	12:03	Recorded By:	V. Myers, G. Giannuario		
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 9967
Solinst - 300 ft. 3515	YSI- 600XL Pine Pine No. SN:01F0883 AC

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	157.0 gallons		
Total Depth:	347.42	Total Volume Purged:	162.1 gallons		
Depth to Water:	26.80	Pump on:	9:47	off:	12:04
Water Column:	320.62				
Gallons/Foot:	0.1632				
Gallons in Well:	52.33				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:49	2	--	2.2	211.90	6.93	0.673	18.20	27.05	2.76	Initial
10:33	44	1.19	1.5	205.50	7.21	0.607	16.51	27.10	4.00	1st Volume
11:17	88	1.19	1.3	153.40	7.29	0.788	16.70	27.11	3.18	2nd Volume
12:01	132	1.19	0.9	77.50	7.39	0.804	16.62	27.11	3.70	3rd Volume
12:03	134	--	0.85	82.60	7.43	0.793	15.31	27.11	4.10	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-12
Date:	9/15/2011	Sampled By:	G. Giannuario	Sample ID:	MW-12PB(091511)
Sampling Time:	13:26	Recorded By:	G. Giannuario		MW-12PB(091511)MS
Weather:	70's, Cloudy	Coded Replicate No.:	MS & MSD		MW-12PB(091511)MSD

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 9967
Solinst - 300 ft. 3515	YSI- 600XL Pine Pine No. SN:01F0883 AC

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	38.69 gallons		
Total Depth:	41.40	Total Volume Purged:	40.3 gallons		
Depth to Water:	21.65	Pump on:	12:21	off:	13:42
Water Column:	19.75				
Gallons/Foot:	0.6530				
Gallons in Well:	12.90				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:21	0	--	18.50	15.6	7.42	0.215	17.49	21.79	11.74	Initial
12:42	21	0.61	15.60	175.2	6.58	0.145	15.89	21.75	8.16	1st volume
13:03	42	0.61	3.64	318.6	6.35	0.408	15.71	21.74	5.90	2nd volume
13:24	63	0.61	1.60	124.8	6.39	0.447	15.43	21.78	3.99	3rd volume
13:26	65	--	1.60	124.8	6.39	0.447	15.43	21.78	3.99	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-13
Date:	9/21/2011	Sampled By:	G. Giannuario	Sample ID:	MW-13PB(092111)
Sampling Time:	12:35	Recorded By:	G. Giannuario		
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 9967
Solinst - 300 ft. 3515	YSI- 600XL Pine Pine No. SN:01F0883 AC

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	20.86 gallons
Total Depth:	34.60	Total Volume Purged:	21.0 gallons
Depth to Water:	23.95	Pump on: 10:12	off: 12:31
Water Column:	10.65		
Gallons/Foot:	0.6530		
Gallons in Well:	6.95		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:13	1	--	5.5	-97.2	6.28	0.327	16.95	24.24	4.79	Initial
10:55	46	0.15	3.4	-74.8	6.08	0.307	17.07	25.17	5.61	1st Volume
11:44	92	0.15	0	-51.4	6.2	0.362	16.87	25.87	3.04	2nd Volume
12:30	138	0.15	0	-37.3	6.22	0.380	16.67	26.01	2.32	3rd Volume
12:35	143	--	9.5	-16.7	6.03	0.401	15.56	26.11	2.15	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.
Note:Obstruction in well needs to be purged with small pump

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-15
Date:	9/16/2011	Sampled By:	G. Giannuario	Sample ID:	MW-15PB(091611)
Sampling Time:	10:57	Recorded By:	G. Giannuario		
Weather:	Sun, 60's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter		Water Quality Meter(s)	
Pine No.		LaMotte 2020 Pine No.	9967
Solinst - 300 ft.	3515	YSI- 600XL Pine Pine No.	SN:01F0883 AC

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer		
Casing Diameter:	4"	Volumes to be Purged:	31.2 gallons		
Total Depth:	39.33	Total Volume Purged:	33.06 gallons		
Depth to Water:	23.41	Pump on:	10:01	off:	11:00
Water Column:	15.92				
Gallons/Foot:	0.6530				
Gallons in Well:	10.40				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:01	0	--	100.0	-51.6	7.26	0.569	14.51	25.91	5.82	Initial
10:19	18	0.58	35.0	126.5	7.34	0.559	14.29	25.97	5.02	1st Volume
10:37	36	0.58	14.0	131.0	7.40	0.552	14.78	25.6	5.34	2nd Volume
10:55	54	0.58	11.0	-132.8	7.43	0.552	15.12	25.68	5.44	3rd Volume
10:57	56	--	11.0	-132.8	7.43	0.552	15.12	25.68	5.44	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-15
Date:	9/16/2011	Sampled By:	G. Giannuario	Sample ID:	MW-15LF(091611)
Sampling Time:	12:06	Recorded By:	G. Giannuario		
Weather:	Sun, 60's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter		Water Quality Meter(s)	
Pine No.		LaMotte 2020 Pine No.	9967
Solinst - 300 ft.	3515	YSI- 600XL Pine | Pine No.	SN:01F0883 AC

Low Flow

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"		
Total Depth:	39.33	Pump Intake Setting	Midpoint of screen
Depth to Water:	25.53	Pump on: 11:33	off: 12:07
Water Column:	13.80	Total Gallons Purged:	2.37 gallons
Gallons/Foot:	0.6530		
Gallons in Well:	9.01		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:58	5	300	13.00	-137.7	7.39	0.555	14.57	27.10	4.86	
11:43	10	300	9.40	131.4	7.40	0.556	15.06	27.25	7.53	
11:48	15	300	9.30	130.2	7.38	0.556	15.79	27.38	5.47	
11:53	20	300	8.60	-129.8	7.38	0.557	15.30	27.56	5.43	
11:58	25	300	8.40	-130.4	7.39	0.558	15.57	27.56	5.59	
12:03	30	300	8.10	-129.9	7.40	0.559	15.59	27.54	5.53	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-17A
Date:	9/16/2011	Sampled By:	V. Myers, G. Giannuario	Sample ID:	MW-17APB(091611)
Sampling Time:	14:22	Recorded By:	V. Myers, G. Giannuario		
Weather:	Sun, 60's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter		Water Quality Meter(s)	
Pine No.		LaMotte 2020 Pine No.	9967
Solinst - 300 ft.	3515	YSI- 600XL Pine	Pine No. SN:01F0883 AC

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	26.76 gallons		
Total Depth:	33.58	Total Volume Purged:	27.9 gallons		
Depth to Water:	19.92	Pump on:	13:20	off:	14:25
Water Column:	13.66				
Gallons/Foot:	0.653				
Gallons in Well:	8.92				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:20	0	--	4.50	-42.4	7.35	0.522	16.54	20.32	4.36	Initial
13:40	20	0.45	4.60	24.9	7.01	0.542	17.65	20.34	3.66	1st volume
14:00	40	0.45	3.70	17.7	7.27	0.545	16.17	20.41	4.75	2nd volume
14:20	60	0.45	7.10	22.4	7.30	0.540	15.91	20.39	4.32	3rd volume
14:22	62	--	7.10	22.4	7.30	0.540	15.91	20.39	4.32	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-18
Date:	9/14/2011	Sampled By:	R. Alonso	Sample ID:	MW-18PB(091411)
Sampling Time:	16:05	Recorded By:	R. Alonso		
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 3312
Solinst - 300 ft.	YSI- 600XL Pine No. 2132

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	29.27 gallons
Total Depth:	32.28	Total Volume Purged:	29.4 gallons
Depth to Water:	17.34	Pump on: 15:02	off: 16:10
Water Column:	14.94		
Gallons/Foot:	0.6530		
Gallons in Well:	9.76		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
15:05	3	--	60.0	20.4	7.34	0.683	19.99	18.09	21.7	Initial
15:22	20	0.49	17.0	68.7	7.14	0.66	19.77	21.78	2.04	1st volume
15:42	40	0.49	7.20	15.9	7.11	0.626	19.16	25.00	2.17	2nd volume
16:02	60	0.49	6.41	43.0	6.81	0.536	21.26	27.25	2.19	3rd volume
16:05	63	--	3.80	46.1	6.86	0.541	21.00	27.47	2.22	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-19
Date:	9/21/2011	Sampled By:	A. Barrio	Sample ID:	MW-19PB(092111)
Sampling Time:	11:55	Recorded By:	A. Barrio		MW-19PB(092111)MS
Weather:	Sun, 70's	Coded Replicate No.:	MS & MSD		MW-19PB(092111)MSD

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) 9967 LaM LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine Pine No. 1607

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	38.3 gallons		
Total Depth:	44.50	Total Volume Purged:	41.51 gallons		
Depth to Water:	24.95	Pump on:	10:10	off:	12:00
Water Column:	19.55				
Gallons/Foot:	0.6530				
Gallons in Well:	12.77				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:15	5	--	66.10	1.0	7.34	0.521	15.61	22.85	1.55	Initial
10:41	32	0.40	9.50	-46.1	7.37	0.503	18.00	22.85	1.56	1st Volume
11:27	57	0.51	4.20	-49.1	7.34	0.497	18.00	22.85	1.56	2nd Volume
11:53	83	0.49	2.50	-63.1	7.32	0.493	18.62	22.85	1.51	3rd Volume
11:55	85	--	1.50	-61.0	7.29	0.501	17.63	22.85	1.51	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-20
Date:	9/20/2011	Sampled By:	V. Myers	Sample ID:	MW-20LF(092011)
Sampling Time:	15:19	Recorded By:	V. Myers		
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 3312
Solinst - 300 ft.	YSI- 600XL Pine Pine No. 2132

Low Flow Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"		
Total Depth:	35.35	Pump Intake Setting	Midpoint of screen
Depth to Water:	27.10	Pump on: 13:42	off: 15:22
Water Column:	8.25		
Gallons/Foot:	0.6530		
Gallons in Well:	5.26		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:47	5	300	310.00	-140.6	6.74	0.698	17.70	26.40	13.34	
13:52	10	300	270.00	-106.6	6.77	0.712	16.91	26.40	16.06	
13:57	15	300	230.00	-119.7	6.84	0.695	17.13	26.24	16.32	
14:02	20	300	130.00	-82.2	6.94	0.663	17.45	26.01	16.59	
14:07	25	300	110.00	-84.0	6.96	0.689	17.61	26.39	16.90	
14:12	30	300	210.00	-16.7	7.00	0.687	18.33	26.54	14.36	
14:17	35	300	210.00	-105.5	6.92	0.780	15.86	27.44	14.38	
14:22	40	300	140.00	-135.1	6.87	0.760	15.88	28.10	14.99	
14:27	45	300	95.00	-88.3	6.92	0.780	15.90	28.88	16.73	
14:32	50	300	60.00	-114.8	6.84	0.792	16.03	29.26	16.06	
14:37	55	300	36.00	-114.8	6.90	0.810	16.29	29.55	16.92	
14:42	60	300	34.00	-122.8	6.89	0.804	16.30	29.74	16.31	
14:47	65	300	22.00	-119.2	6.89	0.802	16.38	29.87	13.62	
14:52	70	300	18.00	-114.6	6.90	0.811	16.96	29.79	12.92	
14:57	75	300	23.00	-116.9	6.90	0.820	17.10	29.62	10.37	
15:02	80	300	15.00	-102.3	6.87	0.832	17.04	29.54	8.03	
15:07	85	300	14.30	-107.4	6.89	0.824	17.16	29.46	11.85	
15:12	90	300	14.80	-102.4	6.90	0.826	17.18	29.55	11.95	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-20
Date:	9/20/2011	Sampled By:	V. Myers	Sample ID:	MW-20PB(092011)
Sampling Time:	13:01	Recorded By:	V. Myers		
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 3312
Solinst - 300 ft.	YSI- 600XL Pine Pine No. 2132

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	23.59 gallons
Total Depth:	35.35	Total Volume Purged:	27.39 gallons
Depth to Water:	23.31	Pump on: 11:35	off: 13:09
Water Column:	12.04		
Gallons/Foot:	0.6530		
Gallons in Well:	7.86		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:35	0	--	14.00	-159.0	6.79	0.635	16.10	23.61	11.46	Initial
11:59	24	0.33	11.00	-148.5	6.79	0.631	16.63	24.67	9.80	1st Volume
12:23	48	0.33	13.00	-146.1	6.81	0.618	18.55	24.53	9.87	2nd Volume
12:57	72	0.33	20.00	-144.1	6.79	0.626	19.31	23.13	12.45	3rd Volume
13:08	83	--	20.00	-143.2	6.79	0.619	19.45	23.15	12.37	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-21
Date:	9/20/2011	Sampled By:	V. Myers/ D. Kirschner	Sample ID:	MW-21PB(092011)
Sampling Time:	10:49	Recorded By:	V. Myers/ D. Kirschner		MW-21PB(092011)MS
Weather:	Rain, 70's	Coded Replicate No.:	MS & MSD		MW-21PB(092011)MSD

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 3312
Solinst - 300 ft.	YSI- 600XL Pine Pine No. 2132

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	46.23 gallons
Total Depth:	37.80	Total Volume Purged:	47.0 gallons
Depth to Water:	14.20	Pump on: 9:47	off: 10:52
Water Column:	23.60		
Gallons/Foot:	0.6530		
Gallons in Well:	15.41		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:47	0	--	11.00	142.3	7.08	0.780	15.37	25.04	7.08	Initial
10:07	20	0.77	9.30	43.3	7.12	0.714	15.51	26.39	7.97	1st Volume
10:27	40	0.77	7.40	10.6	7.03	0.581	15.50	30.06	7.07	2nd Volume
10:47	60	0.77	7.90	16.8	6.90	6.430	15.60	31.06	7.66	3rd Volume
10:51	64	--	7.40	16.0	6.60	6.410	15.60	31.06	6.64	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.
- Not measured

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	OW-24
Date:	9/21/2011	Sampled By:	V. Myers	Sample ID:	OW-24PB(092111)
Sampling Time:	10:41	Recorded By:	V. Myers		
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 3312
Solinst - 300 ft.	YSI- 600XL Pine Pine No. 2132

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	5.877 gallons
Total Depth:	21.12	Total Volume Purged:	6.83 gallons
Depth to Water:	18.12	Pump on: 10:27	off: 10:44
Water Column:	3.00		
Gallons/Foot:	0.6530		
Gallons in Well:	1.96		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:27	0	--	NM	-61.7	6.57	0.622	25.22	18.74	1.45	Initial
10:31	4	0.49	763.00	-30.0	6.81	0.554	19.77	18.96	1.42	1st Volume
10:35	8	0.49	166.00	-28.6	6.60	0.538	18.87	19.36	1.26	2nd Volume
10:39	12	0.49	241.60	-39.3	6.70	0.529	18.24	19397	1.21	3rd Volume
10:41	14	--	220.00	-48.2	6.73	0.527	18.24	19.99	1.19	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	OW-24
Date:	9/21/2011	Sampled By:	V. Myers	Sample ID:	OW-24LF(092111)
Sampling Time:	11:41	Recorded By:	V. Myers		
Weather:	Sun. 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 3312
Solinst - 300 ft.	YSI- 600XL Pine Pine No. 2132

Low Flow

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"		
Total Depth:	21.12	Depth of Pump Intake:	Midpoint of screen
Depth to Water:	20.66	Pump on: 11:07	off: 12:59
Water Column:	0.46		
Gallons/Foot:	0.6530		
Gallons in Well:	0.30		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:12	5	100	213.00	-32.6	6.69	0.536	21.37	21.12	2.12	
11:19										DRY

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	OW-25S
Date:	9/19/2011	Sampled By:	G. Giannuario	Sample ID:	OW-25SPB(091911)
Sampling Time:	11:50/13:03	Recorded By:	G. Giannuario		
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 9967
Solinst - 300 ft. 3515	YSI- 600XL Pine Pine No. SN:01F0883 AC

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer		
Casing Diameter:	4"	Volumes to be Purged:	11.95 gallons		
Total Depth:	23.28	Total Volumes Purged:	12.0 gallons		
Depth to Water:	17.18	Pump on:	10:37	Pump off:	13:16
Water Column:	6.10				
Gallons/Foot:	0.6530				
Gallons in Well:	3.98				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:42	5	0.8	8.80	-123.9	6.85	1.381	16.18	18.34	7.71	Initial
10:52	10	0.8	9.10	-120.4	6.89	1.373	16.37	19.12	6.94	1st Volume
11:02	20	0.4	NM	-111.8	6.99	1.382	18.55	23.27	6.16	2nd Volume
11:04	DRY									3rd Volume
										Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

* Well dried out duringAverage volume purge. Was not sampled.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	OW-25S
Date:	9/19/2011	Sampled By:	G. Giannuario	Sample ID:	OW-25SLF(091911)
Sampling Time:	14:34	Recorded By:	G. Giannuario		
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 9967
Solinst - 300 ft. 3515	YSI- 600XL Pine Pine No. SN:01F0883 AC

Low Flow

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"		
Total Depth:	23.28	Pump Intake Setting	Midpoint of screen
Depth to Water:	20	Pump on: 13:50	off: 14:41
Water Column:	3.28		
Gallons/Foot:	0.6530		
Gallons in Well:	2.14		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:50	0	100	15.00	-88.9	6.93	1.444	15.35	20.00	3.17	Initial
13:55	5	100	14.00	-78.1	6.78	1.414	16.19	20.63	5.09	1st Volume
14:00	10	100	NM	-78.7	6.72	1.411	16.75	NM	5.61	2nd Volume
14:02	DRY									3rd Volume
										Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

* Well dried out during low flow purge. Was not sampled.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	OW-26S
Date:	9/19/2011	Sampled By:	A. Barrio	Sample ID:	OW-26SPB(091911)
Sampling Time:	11:11	Recorded By:	A. Barrio		
Weather:	Sun, 75	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) 9967 LaM LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine Pine No. 1607

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	13.2 gallons		
Total Depth:	21.14	Total Volume Purged:	8.8 gallons		
Depth to Water:	14.40	Pump on:	10:35	off:	11:20
Water Column:	6.74				
Gallons/Foot:	0.6530				
Gallons in Well:	4.40				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:40	5	0.44	10.31	26.4	5.99	0.309	15.98	17.50	0.98	Initial
10:50	15	0.44	7.30	19.5	5.98	0.309	17.58	17.50	0.62	1st Volume
11:00	25	0.44	5.11	10.1	5.86	0.330	15.14	17.50	1.32	2nd Volume
11:10	35	0.44	5.08	23.7	5.92	0.389	15.17	17.50	1.10	3rd Volume
11:15	40	0.44	4.11	18.7	5.96	0.391	15.18	17.50	1.08	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

* Not enough water in water colume to pump. Was not sampled.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	OW-26S
Date:	9/19/2011	Sampled By:	A. Barrio	Sample ID:	OW-26SLF(091911)
Sampling Time:	11:35	Recorded By:	A. Barrio		
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) 9967 LaM LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine Pine No. 1607

Low flow

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Pump Intake Setting	Midpoint of screen		
Total Depth:	21.14	Pump on:	11:15	off:	11:40
Depth to Water:	14.40				
Water Column:	6.74				
Gallons/Foot:	0.6530				
Gallons in Well:	4.40122				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:20	5	0.25	3.85	9.6	6.13	0.481	17.07	16.18	0.35	
11:25	10	0.25	7.11	9.7	6.13	0.488	17.03	16.16	0.32	
11:27	12	0.25	7.01	10.2	6.12	0.499	17.02	16.10	0.31	
11:30	15	0.25	6.21	10.3	6.12	0.516	17.01	16.10	0.29	
11:32	17	0.25	6.08	10.3	6.12	0.518	17.01	16.10	0.25	
11:35	20	0.25	6.00	10.5	6.11	0.519	17.00	16.10	0.22	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-31B2
Date:	9/20/2011	Sampled By:	G. Giannuario	Sample ID:	MW-31B2LF(091911)
Sampling Time:	9:53	Recorded By:	G. Giannuario		
Weather:	Rain, 60's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 9967
Solinst - 300 ft.	YSI- 600XL Pine Pine No. SN:01F0883 AC

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	57.31 gallons
Total Depth:	153.00	Total Volume Purged:	59.49 gallons
Depth to Water:	35.95	Pump on: 14:09	off: 10:05
Water Column:	117.05		
Gallons/Foot:	0.1632		
Gallons in Well:	19.10		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:00	1	--	2.55	109.7	6.46	0.695	15.00	38.44	9.48	Initial
9:16	17	1.12	2.08	99.0	6.92	0.759	15.48	39.03	6.63	1st Volume
9:34	34	1.12	1.63	100.1	7.10	0.789	15.51	39.11	6.51	2nd Volume
9:51	51	1.12	1.38	92.3	7.17	0.792	15.47	39.12	5.54	3rd Volume
9:53	53	--	1.38	92.3	7.17	0.792	15.47	39.12	5.04	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-31B3
Date:	9/21/2011	Sampled By:	D. Kirschner	Sample ID:	MW-31B3PB(092111)
Sampling Time:	12:18	Recorded By:	D. Kirschner		
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 3242
Solinst - 300 ft.	YSI- 600XL Pine No. 3178

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	##### gallons
Total Depth:	342.00	Total Volume Purged:	##### gallons
Depth to Water:	40.17	Pump on: 10:00	off: 12:22
Water Column:	301.83		
Gallons/Foot:	0.1630		
Gallons in Well:	49.20		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:00	0	--	293.00	102.7	7.50	0.551	16.31	40.63	4.11	Initial
10:46	46	1.07	3.25	13.1	7.50	0.531	16.88	48.71	3.90	1st volume
11:31	91	1.09	1.19	-25.7	7.50	0.520	16.51	43.75	3.92	2nd volume
12:16	137	1.07	0.65	-42.8	7.50	0.512	16.24	42.8	3.92	3rd volume
12:18	139	--	0.60	-41.1	7.49	0.512	16.25	39.81	3.47	Sample

Observations During Sampling

Well Condition: _____ Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	OW-32D
Date:	9/16/2011	Sampled By:	C. Cifelli	Sample ID:	OW-32DLF(091611)
Sampling Time:	10:45	Recorded By:	C. Cifelli		
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 3242
Solinst - 300 ft.	YSI- 600XL Pine No. 3178

Low Flow Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Marshak Bladder Bailer
Casing Diameter:	4"		
Total Depth:	39.28	Pump Intake Setting	Midpoint of screen
Depth to Water:	24.71	Pump on: 9:53	off: 10:50
Water Column:	14.57		
Gallons/Foot:	0.6530		
Gallons in Well:	9.51		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:00	8	250	2.31	-7.2	6.57	0.352	14.81	25.56	1.79	
10:05	13	250	2.31	-75.0	6.56	0.245	15.00	25.79	1.76	
10:10	18	250	2.31	-80.6	6.52	0.248	15.29	25.95	1.82	
10:15	23	250	NM	NM	NM	NM	NM	NM	NM	
10:20	28	250	2.31	-91.6	6.42	0.247	15.86	26.10	1.42	
10:25	33	250	6.44	-98.4	6.40	0.250	15.77	26.20	1.36	
10:30	38	250	6.44	-111.4	6.32	0.249	15.61	26.45	1.22	
10:35	43	250	6.44	-114.6	6.32	0.250	15.50	26.08	1.20	
10:40	48	250	6.44	-118.0	6.25	0.252	14.95	27.12	1.12	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	OW-32D
Date:	9/16/2011	Sampled By:	C. Cifelli	Sample ID:	OW-32DPB(091611)
Sampling Time:	13:30	Recorded By:	C. Cifelli		
Weather:	Sun, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 3242
Solinst - 300 ft.	YSI- 600XL Pine No. 3178

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	31.0 gallons
Total Depth:	39.28	Total Volume Purged:	31.0 gallons
Depth to Water:	23.45	Pump on: 10:55	off: 14:02
Water Column:	15.83		
Gallons/Foot:	0.6530		
Gallons in Well:	10.34		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:10	10	--	644	-115.6	6.17	0.269	14.84	28.33	1.55	Initial
11:55	60	0.17	644	-115.7	6.51	0.339	14.62	31.90	1.67	1st volume
12:43	108	0.22	644	-67.1	6.59	0.420	14.54	33.75	3.09	2nd volume
13:28	153	0.23	644	-10.1	6.60	0.448	14.77	35.07	4.57	3rd volume
14:00	185	--	644	15.1	6.95	0.473	15.51	36.10	4.88	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-36B
Date:	9/15/2011	Sampled By:	V.Myers	Sample ID:	MW-36BPB(091511)
Sampling Time:	14:05	Recorded By:	V. Myers		
Weather:	Cloudy, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 9967
Solinst - 300 ft.	YSI- 600XL Pine | Pine No. 3178

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	18.83 gallons
Total Depth:	57.25	Total Volume Purged:	20.0 gallons
Depth to Water:	18.78	Pump on: 13:34	off: 14:07
Water Column:	38.47		
Gallons/Foot:	0.1632		
Gallons in Well:	6.28		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:34	0	--	0.0	114.0	7.21	0.529	18.28	23.94	16.59	Initial
13:43	9	0.70	0.0	120.0	7.09	0.532	18.18	23.94	16.04	1st volume
13:57	18	0.70	0.00	143.0	6.84	0.540	17.84	23.94	15.76	2nd volume
14:01	27	0.70	0.00	155.0	6.63	0.547	17.64	23.94	14.93	3rd volume
14:03	29	--	0.00	157.0	6.61	0.547	17.62	23.94	14.92	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-37
Date:	9/14/2011	Sampled By:	V. Myers, G. Giannuario	Sample ID:	MW-37PB(091411)
Sampling Time:	11:43	Recorded By:	V. Myers, G. Giannuario		
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 9967
Solinst - 300 ft.	YSI- 600XL Pine Pine No. 3178

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	10.5 gallons
Total Depth:	42.00	Total Volume Purged:	11.0 gallons
Depth to Water:	20.46	Pump on: 10:05	off: 11:45
Water Column:	21.54		
Gallons/Foot:	0.1632		
Gallons in Well:	3.52		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:08	3	--		203.1	6.89	0.869	20.22	21.10	3.28	Initial
10:52	47	0.07	9.7	175.5	6.89	0.745	19.63	21.92	3.52	1st Volume
11:00	55	0.44	7.7	151.9	6.93	0.698	18.13	21.11	4.91	2nd Volume
11:16	71	--	Pump stopped working at 11:07							
11:34	89	0.22	340	122.0	6.88	0.395	18.96	23.96	4.50	3rd Volume
11:42	96	--	45	120.5	6.97	0.729	17.71	24.38	5.47	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-37B
Date:	9/15/2011	Sampled By:	V. Myers	Sample ID:	MW-37BLF(091511)
Sampling Time:	11:44	Recorded By:	V. Myers		
Weather:	Sun, 80's	Coded Replicate No.:	DUPLF(091511)		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	Pine No.

Low Flow Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"		
Total Depth:	80.00	Pump Intake Setting	Midpoint of screen
Depth to Water:	25.55	Pump on: 11:12	off: 11:55
Water Column:	54.45		
Gallons/Foot:	0.1632		
Gallons in Well:	8.89		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:17	5	300	0.70	33.0	7.72	0.784	18.77	25.55	7.05	
11:22	10	300	0.40	39.0	7.66	0.802	19.09	25.55	7.44	
11:27	15	300	0.00	51.0	7.62	0.790	17.89	25.55	7.49	
11:32	20	300	0.20	47.0	7.64	0.801	18.49	25.55	7.32	
11:37	25	300	0.30	30.0	7.72	0.803	19.02	25.55	6.88	
11:42	30	300	0.00	44.0	7.64	0.801	19.32	25.55	6.63	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-37B
Date:	9/15/2011	Sampled By:	V. Myers	Sample ID:	MW-37BPB(091511)
Sampling Time:	11:01	Recorded By:	V. Myers		
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 13845	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	Horiba Pine No. 018101

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	26.81 gallons		
Total Depth:	80.00	Total Volume Purged:	30.0 gallons		
Depth to Water:	25.25	Pump on:	10:06	off:	11:03
Water Column:	54.75				
Gallons/Foot:	0.1632				
Gallons in Well:	8.94				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:06	0	--	0.9	75.0	7.86	0.294	20.99	25.45	15.26	Initial
10:24	18	0.50	0.4	118.0	7.45	0.744	19.67	25.55	15.16	1st Volume
10:42	36	0.50	0.4	37.0	7.63	0.773	18.75	25.55	15.06	2nd Volume
11:00	54	0.50	0.7	64.0	7.60	0.793	18.45	25.55	13.00	3rd Volume
11:02	56	--	0.6	64.0	7.60	0.792	18.45	25.55	12.96	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-37B2
Date:	9/14/2011	Sampled By:	V. Myers	Sample ID:	MW-32B2PB(091411)
Sampling Time:	14:10	Recorded By:	V. Myers		
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	91.6 gallons
Total Depth:	213.53	Total Volume Purged:	92.0 gallons
Depth to Water:	26.49	Pump on: 12:02	off: 14:12
Water Column:	187.04		
Gallons/Foot:	0.1632		
Gallons in Well:	30.52		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:02	0	--	5.0	156.0	6.72	0.352	22.16	26.94	11.32	Initial
12:43	41	0.74	0.0	114.0	7.84	0.401	23.33	26.90	15.73	1st Volume
13:25	82	0.74	0.0	49.0	7.71	0.637	23.37	26.90	16.23	2nd Volume
14:09	123	0.74	0.0	89.0	7.89	0.604	24.12	26.90	15.57	3rd Volume
14:11	125	--	0.0	89.0	7.89	0.604	24.12	26.90	15.57	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-37B3
Date:	9/14/2011	Sampled By:	V. Myers, G. Giannuario	Sample ID:	MW-37B3PB(091411)
Sampling Time:	17:14	Recorded By:	V. Myers, G. Giannuario		
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine | Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	146 gallons		
Total Depth:	325.63	Total Volume Purged:	150 gallons		
Depth to Water:	26.71	Pump on:	14:59	off:	17:15
Water Column:	298.92				
Gallons/Foot:	0.1632				
Gallons in Well:	48.78				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
14:59	0	--	0.00	81	7.88	0.689	22.94	31.43	6.24	Initial*
15:45	44	1.11	0.00	99	7.86	0.691	22.58	35.16	5.64	1st volume
16:19	88	1.11	0.00	100	7.87	0.708	22.26	35.22	2.10	2nd volume
17:13	132	1.11	0.00	106	7.75	0.728	21.20	35.22	2.19	3rd volume
17:14	133	--	0.00	106	7.75	0.728	21.20	35.22	2.19	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

* Pump had to be removed from well due to malfunction.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-38
Date:	9/14/2011	Sampled By:	R. Alonso	Sample ID:	MW-38PB(091411)
Sampling Time:	12:27	Recorded By:	R. Alonso		
Weather:	Sunny, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine | Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	9.542 gallons
Total Depth:	36.82	Total Volume Purged:	10.00 gallons
Depth to Water:	17.33	Pump on: 11:55	off: 12:32
Water Column:	19.49		
Gallons/Foot:	0.1632		
Gallons in Well:	3.18		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:55	0	--	650	109.9	6.66	0.910	19.64	18.22	3.43	Initial
12:05	10	0.32	45	185.1	6.52	1.061	18.76	18.91	3.25	1st Volume
12:15	20	0.32	25	199.5	6.56	1.089	18.51	19.23	3.42	2nd Volume
12:25	30	0.32	14	205.2	6.65	1.096	19.22	19.42	3.44	3rd Volume
12:27	32	--	12	207.8	6.62	1.111	19.89	19.48	3.47	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-38B
Date:	9/14/2011	Sampled By:	R. Alonso	Sample ID:	MW-38B(091411)
Sampling Time:	14:36	Recorded By:	R. Alonso		
Weather:	Sunny, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine | Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	25.9 gallons		
Total Depth:	78.90	Total Volume Purged:	26.0 gallons		
Depth to Water:	26.00	Pump on:	13:06	off:	14:38
Water Column:	52.90				
Gallons/Foot:	0.1632				
Gallons in Well:	8.63				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:06	0	--	21	76.7	7.08	0.870	19.00	34.62	2.09	Initial
13:36	30	0.29	23	-7.5	7.04	0.900	19.21	39.81	2.12	1st Volume
14:01	55	0.35	19	-4.3	7.07	0.965	22.91	49.79	2.15	2nd Volume
14:33	87	0.27	21	5.8	7.04	1.039	20.38	56.72	2.32	3rd Volume
14:36	90	--	20	2.3	7.03	1.045	21.11	57.02	2.28	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-39
Date:	9/13/2011	Sampled By:	A. Barrio	Sample ID:	MW-39PB(091311)
Sampling Time:	11:51	Recorded By:	A. Barrio		
Weather:	Sunny, 86	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 4776	Water Quality Meter(s) LaMotte 2020 Pine No.
Heron	YSI- 600XL Pine Pine No. 1607

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	3.344 gallons
Total Depth:	29.05	Total Volume Purged:	5.25 gallons
Depth to Water:	22.22	Pump on: 11:30	off: 11:58
Water Column:	6.83		
Gallons/Foot:	0.1632		
Gallons in Well:	1.11		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:35	5	--	310	176.6	7.22	0.595	20.84	22.35	5.75	Initial
11:40	10	0.11	180	199.3	6.83	0.684	20.10	22.35	4.78	1st Volume
11:45	15	0.22	151	195.1	6.79	0.721	20.00	22.35	3.75	2nd Volume
11:50	20	0.22	35.1	167.1	6.75	0.731	19.63	22.35	3.02	3rd Volume
11:58	28	--	25.1	173.1	6.72	0.741	19.69	22.35	3.01	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-39B
Date:	9/13/2011	Sampled By:	A. Barrio	Sample ID:	MW-39BPB(091311)
Sampling Time:	13:00	Recorded By:	A. Barrio		
Weather:	Sunny, 86	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No. 4776	LaMo LaMotte 2020 Pine No. 6075
Heron	YSI- 600XL Pine Pine No. 1607

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	18.55 gallons
Total Depth:	62.22	Total Volume Purged:	22.5 gallons
Depth to Water:	24.33	Pump on: 12:15	off: 13:05
Water Column:	37.89		
Gallons/Foot:	0.1632		
Gallons in Well:	6.18		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:20	5	--	325	245	6.76	0.954	16.97	29.90	2.01	Initial
12:32	17	0.36	55.1	260	6.86	0.975	17.01	29.90	2.02	1st Volume
12:44	29	0.52	32.1	263	6.89	0.982	16.95	29.90	2.04	2nd Volume
12:56	41	0.52	15.3	267	6.89	0.986	16.85	29.90	2.05	3rd Volume
13:00	45	--	12.1	267	6.88	0.988	16.92	29.90	2.07	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-40
Date:	9/15/2011	Sampled By:	R. Alonso	Sample ID:	MW-40PB(091511)
Sampling Time:	13:58	Recorded By:	R. Alonso		
Weather:	Rainy, 60's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	50.74 gallons
Total Depth:	36.62	Total Volume Purged:	51 gallons
Depth to Water:	10.71	Pump on: 12:02	off: 14:00
Water Column:	25.91		
Gallons/Foot:	0.6528		
Gallons in Well:	16.91		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:02	0	--	190	179.5	6.42	0.658	17.68	11.02	2.04	Initial
12:40	38	0.45	110	180.9	6.44	0.672	17.75	14.37	1.91	1st volume
13:18	76	0.45	120	183.4	6.56	0.775	17.67	19.99	3.18	2nd volume
13:56	114	0.45	180	181.5	6.63	0.720	17.97	27.84	4.15	3rd Volume
13:58	116	--	170	182.1	6.65	0.716	18.01	27.91	4.09	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-41
Date:	9/15/2011	Sampled By:	A. Barrio	Sample ID:	MW-41PB(091511)
Sampling Time:	13:50	Recorded By:	A. Barrio		
Weather:	Rain	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine | Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	37.66 gallons
Total Depth:	30.71	Total Volume Purged:	41.50 gallons
Depth to Water:	11.48	Pump on: 12:25	off: 13:50
Water Column:	19.23		
Gallons/Foot:	0.6528		
Gallons in Well:	12.55		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:30	5	--	23.50	93.7	6.47	2.969	17.97	13.50	2.97	Initial
12:56	31	0.40	167.4	64.2	6.51	2.973	17.37	13.50	2.66	1st Volume
13:22	57	0.48	350.1	12.2	6.55	2.986	19.46	13.50	2.01	2nd Volume
13:48	83	0.48	275.1	74.5	6.53	2.983	17.95	13.50	2.54	3rd Volume
13:50	85	--	295.0	91.4	6.52	2.987	17.65	13.50	2.44	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-42
Date:	9/15/2011	Sampled By:	R. Alonso	Sample ID:	MW-42PB(091511)
Sampling Time:	11:30	Recorded By:	R. Alonso		
Weather:	Sunny, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine | Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	37.9 gallons		
Total Depth:	31.42	Total Volume Purged:	38.0 gallons		
Depth to Water:	12.07	Pump on:	10:18	off:	11:32
Water Column:	19.35				
Gallons/Foot:	0.6528				
Gallons in Well:	12.63				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:20	2	--	450	205.6	6.87	0.740	22.54	12.21	3.87	Initial
10:38	20	0.63	600	199.1	6.63	0.525	21.39	23.31	2.95	1st Volume
11:02	44	0.53	850	181	6.74	0.259	22.10	23.91	4.98	2nd Volume
11:28	70	0.49	330	170.7	6.83	0.238	21.19	23.40	6.24	3rd Volume
11:30	72	--	300	166.2	6.80	0.236	21.32	23.37	6.11	Sample

Observations During Sampling

Well Condition: Need to replace well cap

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-43
Date:	9/15/2011	Sampled By:	A. Barrio	Sample ID:	MW-43PB(091511)
Sampling Time:	11:25	Recorded By:	A. Barrio		
Weather:	Overcast	Coded Replicate No.:	DUPPB(091511)AAB		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	37 gallons
Total Depth:	30.94	Total Volume Purged:	53.4 gallons
Depth to Water:	12.15	Pump on: 10:44	off: 11:30
Water Column:	18.79		
Gallons/Foot:	0.6528		
Gallons in Well:	12.27		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:45	1	--	6.11	55.5	6.12	3.993	22.18	12.65	7.24	Initial
10:57	13	0.94	2.30	-65.5	6.14	3.997	22.85	13.09	5.68	1st Volume
11:09	25	1.02	1.50	-14	6.19	4.007	22.62	13.39	4.76	2nd Volume
11:21	37	1.02	1.30	-76.4	6.21	4.015	22.92	13.39	4.31	3rd Volume
11:25	41	--	1.40	-75.1	6.22	4.013	22.86	13.39	4.11	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-44
Date:	9/20/2011	Sampled By:	D. Kirschner	Sample ID:	MW-44PB(092011)
Sampling Time:	15:44	Recorded By:	D. Kirschner		
Weather:	Rain, 70's	Coded Replicate No.:	MS/MSD/DUP(092011)		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	39.7 gallons
Total Depth:	30.62	Total Volume Purged:	40.0 gallons
Depth to Water:	10.35	Pump on: 14:48	off: 15:42
Water Column:	20.27		
Gallons/Foot:	0.6528		
Gallons in Well:	13.23		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
14:48	0	--	65	234.5	6.38	4.624	18.58	11.03	1.36	Initial
15:06	18	0.74	35	247.5	6.54	4.476	18.78	12.02	1.14	1st Volume
15:24	36	0.74	16	239.6	6.52	4.206	18.84	13.01	1.08	2nd Volume
15:42	54	0.74	6.9	173.4	6.55	4.049	19.01	14.03	0.93	3rd Volume
15:44	56	--	3.7	155.8	6.60	4.038	19.08	14.29	0.94	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-45
Date:	9/20/2011	Sampled By:	D. Kirschner	Sample ID:	MW-45PB(092011)
Sampling Time:	13:50	Recorded By:	D. Kirschner		
Weather:	Rain, 70's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine | Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	28.8 gallons		
Total Depth:	29.80	Total Volume Purged:	29.0 gallons		
Depth to Water:	15.10	Pump on:	12:33	off:	13:52
Water Column:	14.70				
Gallons/Foot:	0.6528				
Gallons in Well:	9.60				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:33	0	--	37.0	83.2	6.91	2.001	17.63	15.32	1.13	Initial
12:58	25	0.38	21.0	104.9	6.91	2.137	17.41	15.32	0.22	1st volume
13:23	50	0.38	19.0	131.7	6.92	2.219	17.39	15.32	0.69	2nd Volume
13:48	75	0.38	3.17	149.3	6.92	2.319	17.40	15.32	0.53	3rd Volume
13:50	77	--	3.17	150.1	6.92	2.319	17.40	15.32	0.53	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	OW-46
Date:	9/19/2011	Sampled By:	A. Barrio	Sample ID:	OW-46PB(091911)
Sampling Time:	14:45	Recorded By:	A. Barrio		
Weather:	Sunny, 70	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	32.81 gallons
Total Depth:	40.20	Total Volume Purged:	33.0 gallons
Depth to Water:	23.45	Pump on: 12:30	off: 14:50
Water Column:	16.75		
Gallons/Foot:	0.6530		
Gallons in Well:	10.94		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:35	5	--	250	1.1	5.85	0.194	22.22	18.20	1.28	Initial
13:14	44	0.25	16.0	-33.2	6.05	0.212	18.98	18.20	1.11	1st volume
13:55	88	0.25	10.1	-26.1	6.06	0.229	18.91	18.20	1.08	2nd volume
14:42	132	0.25	8.81	-36.1	6.04	0.235	16.66	18.19	0.98	3rd volume
14:45	135	--	8.97	-40.5	6.05	0.227	16.31	18.22	1.01	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	OW-46LF
Date:	9/19/2011	Sampled By:	A. Barrio	Sample ID:	OW-46LF(091911)
Sampling Time:	15:30	Recorded By:	A. Barrio		
Weather:	Sunny, 75	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

LOW FLOW

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Screened Interval:	
Total Depth:	40.20	Depth of Pump Intake:	
Depth to Water:	23.45	Pump on: 14:50	off: 15:35
Water Column:	16.75		
Gallons/Foot:	0.6530		
Gallons in Well:	10.93		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
14:55	5	0.25	5.11	-44.0	5.89	0.236	16.24	18.22	0.72	
15:00	10	0.25	4.23	-57.0	5.99	0.247	16.02	18.22	0.58	
15:05	15	0.25	4.10	-32.0	5.91	0.275	15.75	18.22	0.47	
15:10	20	0.25	4.35	-66.9	6.11	0.281	15.81	18.22	0.41	
15:15	25	0.25	4.17	-78.1	6.23	0.311	15.75	18.22	0.37	
15:20	30	0.25	3.88	-79.2	6.31	0.306	15.71	18.22	0.37	
15:25	35	0.25	3.85	-80.2	6.32	0.310	15.70	18.22	0.32	
15:30	40	0.25	2.95	-82.3	6.35	0.311	15.69	18.22	0.31	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-85B3
Date:	9/19/2011	Sampled By:	V. Myers	Sample ID:	MW-85B3PB(091911)
Sampling Time:	12:36	Recorded By:	V. Myers		
Weather:	Cloudy, Drizzle	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine | Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	135.4 gallons
Total Depth:	298.90	Total Volume Purged:	137 gallons
Depth to Water:	22.33	Pump on: 10:24	off: 12:39
Water Column:	276.57		
Gallons/Foot:	0.1632		
Gallons in Well:	45.14		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:26	2	--	39.80	-98	7.30	0.185	13.03	24.56	17.35	Initial
11:09	45	1.00	10.70	-70	7.05	0.152	13.95	24.70	17.23	1st Volume
11:52	90	1.00	6.30	-50	6.77	0.138	18.15	24.73	11.65	2nd Volume
12:35	135	1.00	4.90	-56	6.76	0.129	20.81	25.12	10.46	3rd Volume
12:38	138	--	4.80	-54	6.76	0.125	20.80	25.12	10.39	Sample

Observations During Sampling

Well Condition: Good/ Sheen observed
Strong sulfur smell / yellow

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-86B3
Date:	9/19/2011	Sampled By:	V. Myers	Sample ID:	MW-86B3PB(091911)
Sampling Time:	16:47	Recorded By:	V. Myers		
Weather:	Sun, 80's	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine | Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	181 gallons		
Total Depth:	394.70	Total Volume Purged:	182 gallons		
Depth to Water:	24.17	Pump on:	13:47	off:	16:49
Water Column:	370.53				
Gallons/Foot:	0.1630				
Gallons in Well:	60.40				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:47	0	--	0.0	-41	6.60	0.844	16.35	24.87	5.17	Initial
14:47	60	1.01	0.0	-50	7.85	0.795	20.36	25.13	5.08	1st Volume
15:47	120	1.01	0.0	-49	7.85	0.513	20.74	25.16	4.16	2nd Volume
16:47	180	1.01	0.0	-58	7.88	0.556	16.84	25.19	4.56	3rd Volume
16:49	182	--	0.0	-45	7.77	0.570	16.45	25.19	4.35	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-87B
Date:	9/22/2011	Sampled By:	DK/VM	Sample ID:	MW-87B(092211)
Sampling Time:	16:20	Recorded By:	DK/VM		
Weather:	Rain, 70s	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 3312
Solinst - 300 ft.	YSI- 600XL Pine No. 2132

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	3
Volume Purged Per Stroke:	2.5 gal.
Purge Stroke Duration:	15 min
Total Volume Purged:	7.5 gal.
Total Purge Duration:	113

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
14:30	0	0.50	2.41	247.6	7.04	1.448	15.72	NM	5.98	Initial/1 vol
15:35	65	0.50	1.64	256.2	7.13	142.7	15.69	NM	6.07	2 vol
16:20	110	0.50	1.36	274.1	7.07	143.7	15.68	NM	5.79	3 vol
16:23	113	0.50	1.28	279.1	7.07	143.7	15.69	NM	5.75	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate. Water levels not measured due to probe not entering into bladder top.
Having difficulty with accurate readings.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-87B2
Date:	9/22/2011	Sampled By:	DK/VM	Sample ID:	MW-87B2(092211)
Sampling Time:	16:00	Recorded By:	DK/VM		
Weather:	Rain, 70s	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 3312
Solinst - 300 ft.	YSI- 600XL Pine No. 2132

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	3
Volume Purged Per Stroke:	2.5 gal.
Purge Stroke Duration:	15 min
Total Volume Purged:	7.5 gal.
Total Purge Duration:	91

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
14:30	0	0.50	1.64	232.6	7.52	0.826	15.62	NM	5.46	Initial/1 vol
15:15	45	0.50	1.38	241.9	7.47	0.942	15.58	NM	5.41	2 vol
16:00	90	0.50	1.36	251.2	7.36	0.674	15.58	NM	5.23	3 vol
16:01	91	0.50	1.38	267.7	7.31	0.683	15.58	NM	4.98	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate. Water levels not measured due to probe not entering into bladder top.
Having difficulty with accurate readings.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-87B3
Date:	9/22/2011	Sampled By:	DK/VM	Sample ID:	MW-87B3(092211)
Sampling Time:	15:40	Recorded By:	DK/VM		
Weather:	Rain, 70s	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 3312
Solinst - 300 ft.	YSI- 600XL Pine No. 2132

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	3
Volume Purged Per Stroke:	2.5 gal.
Purge Stroke Duration:	15 min
Total Volume Purged:	7.5 gal.
Total Purge Duration:	122

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:40	0	0.50	1.97	194.6	7.45	0.466	15.47	NM	5.32	Initial/1 vol
14:55	75	0.50	1.84	202.9	7.42	0.472	15.52	NM	5.24	2 vol
15:40	120	0.50	1.62	212.7	7.39	0.519	15.36	NM	5.09	3 vol
15:42	122	0.50	1.31	227.4	7.4	0.52	15.36	NM	5.17	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate. Water levels not measured due to probe not entering into bladder top.
Having difficulty with accurate readings.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-87B4
Date:	9/22/2011	Sampled By:	DK/VM	Sample ID:	MW-87B4(092211)
Sampling Time:	15:20	Recorded By:	DK/VM		
Weather:	Rain, 70s	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 3312
Solinst - 300 ft.	YSI- 600XL Pine No. 2132

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	3
Volume Purged Per Stroke:	2.5 gal.
Purge Stroke Duration:	15 min
Total Volume Purged:	7.5 gal.
Total Purge Duration:	91

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:50	0	0.50	1.79	214.6	7.64	0.469	15.49	NM	4.66	Initial/1 vol
14:35	45	0.50	1.64	226.9	7.52	0.451	15.32	NM	4.74	2 vol
15:20	90	0.50	1.32	237.1	7.54	0.463	15.35	NM	4.59	3 vol
15:21	91	0.50	1.02	230.1	7.52	0.468	15.35	NM	4.63	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate. Water levels not measured due to probe not entering into bladder top.
Having difficulty with accurate readings.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-87B5
Date:	9/22/2011	Sampled By:	DK/VM	Sample ID:	MW-87B5(092211)
Sampling Time:	15:00	Recorded By:	DK/VM		
Weather:	Rain, 70s	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 3312
Solinst - 300 ft.	YSI- 600XL Pine No. 2132

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	3
Volume Purged Per Stroke:	2.5 gal.
Purge Stroke Duration:	15 min.
Total Volume Purged:	7.5 gal.
Total Purge Duration:	92

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:30	0	0.50	1.26	114.9	7.44	0.598	15.52	NM	4.88	Initial/1 vol
14:15	45	0.50	1.34	201.6	7.52	0.620	15.47	NM	4.80	2 vol
15:00	90	0.50	1.00	227.4	7.47	0.587	15.49	NM	4.72	3 vol
15:02	92	0.50	1.00	241.6	7.47	0.610	15.49	NM	4.74	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate. Water levels not measured due to probe not entering into bladder top.
Having difficulty with accurate readings.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-1
Date:	9/25/2012	Sampled By:	Ruben Alonso	Sample ID:	MW-1PB (092512)
Sampling Time:	12:50	Recorded By:	Ruben Alonso		
Weather:	Sunny 60	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) Horiba U-52
Solinst - 300 ft.	Pine No. B0F28R45

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	32.21 gallons
Total Depth:	32.86	Total Volume Purged:	33.0 gallons
Depth to Water:	16.42	Pump on: 11:45	off: 12:51
Water Column:	16.44		
Gallons/Foot:	0.6530		
Gallons in Well:	10.74		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:46	1	--	86.30	132.0	6.98	0.787	14.73	16.66	4.13	Initial
12:07	22	0.49	22.90	32.0	6.76	0.710	14.71	21.07	0.41	1st volume
12:29	44	0.49	11.00	8.0	6.76	0.781	14.60	21.48	0.64	2nd volume
12:47	62	0.60	4.70	5.0	6.76	0.825	14.52	21.39	0.65	3rd volume
12:50	65	--	7.50	11.0	6.80	0.828	14.55	21.48	0.82	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-1B
Date:	9/25/2012	Sampled By:	Ruben Alonso	Sample ID:	MW-1BPB (092512)
Sampling Time:	11:32	Recorded By:	Ruben Alonso		
Weather:	Sunny 60	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s)
Solinst - 300 ft.	Horida U-52 Pine No. SN:B0F28R4J

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	20.2 gallons
Total Depth:	69.25	Total Volume Purged:	21.0 gallons
Depth to Water:	28.00	Pump on: 10:23	off: 11:35
Water Column:	41.25		
Gallons/Foot:	0.1632		
Gallons in Well:	6.73		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:25	2	--	28.80	33.0	10.26	0.428	14.64	30.50	1.43	Initial
10:43	20	0.34	6.80	97.0	7.72	0.474	14.65	34.90	0.53	1st volume
11:07	44	0.28	2.20	98.0	7.43	0.492	14.61	35.68	0.81	2nd volume
11:30	67	0.29	1.30	91.0	7.43	0.499	14.64	36.00	0.83	3rd volume
11:34	71	--	2.50	116.0	7.45	0.492	14.66	36.11	0.73	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-4
Date:	9/25/2012	Sampled By:	GG	Sample ID:	MW-4PB (092512)
Sampling Time:	12:25	Recorded By:	GG		
Weather:	70 Sunny	Coded Replicate No.:	none		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	36.14 gallons
Total Depth:	45.65	Total Volume Purged:	40.0 gallons
Depth to Water:	27.2	Pump on: 11:15	off: 12:27
Water Column:	18.45		
Gallons/Foot:	0.6530		
Gallons in Well:	12.05		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:15	0	--	21.90	8.0	8.29	0.650	17.38	28.75	6.67	Initial
11:28	13	0.93	5.60	64.0	7.85	0.581	16.68	31.91	5.72	1st Volume
11:45	15	6.02	4.00	76.0	7.92	0.526	17.07	33.65	6.12	2nd Volume
12:20	52	0.33	3.00	79.0	7.84	0.558	17.58	36.82	7.09	3rd Volume
12:25	57	--	2.70	61.0	7.84	0.565	17.64	36.93	5.96	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

Note: Pump slowed down after second well volume. Unable to increase amp on SS Monsoon pump beyond 13 amp on control box

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-7
Date:	9/27/2012	Sampled By:		Sample ID:	MW-7PB (092712)
Sampling Time:	10:10	Recorded By:			
Weather:	70 rain	Coded Replicate No.:			

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) Horida U-52
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	31.83 gallons
Total Depth:	40.37	Total Volume Purged:	32.0 gallons
Depth to Water:	24.12	Pump on: 9:29	off: 10:10
Water Column:	16.25		
Gallons/Foot:	0.6530		
Gallons in Well:	10.61		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:29	0	--	0.00	95.0	5.73	0.656	14.22	24.12	5.14	Initial
9:42	13	0.82	0.00	68.0	6.11	0.669	13.74	28.10	1.02	1st Volume
9:55	26	0.82	0.00	59.0	6.23	0.684	13.75	26.27	0.72	2nd Volume
10:08	39	0.82	0.00	51.0	6.29	0.691	13.77	26.40	1.18	3rd Volume
10:10	52	--	0.00	51.0	6.30	0.691	13.75	26.43	0.99	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-8
Date:	9/25/2012	Sampled By:	Colin	Sample ID:	MW-8PB (092512)
Sampling Time:	9:37	Recorded By:	Colin		
Weather:	Sunny 60	Coded Replicate No.:			

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	24.1 gallons
Total Depth:	35.70	Total Volume Purged:	27.0 gallons
Depth to Water:	23.40	Pump on: 8:49	off: 9:45
Water Column:	12.30		
Gallons/Foot:	0.6530		
Gallons in Well:	8.03		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:59	10	--	5.10	116.0	6.77	0.928	13.93	24.57	5.34	Initial
9:05	16	0.50	4.60	102.0	6.75	0.962	13.37	24.95	4.33	1st Volume
9:21	32	0.50	4.50	53.0	6.69	0.959	13.86	25.11	3.37	2nd Volume
9:37	48	0.50	4.50	31.0	6.72	0.956	13.82	25.36	2.09	3rd Volume
9:45	56	--	7.10	20.0	6.92	0.947	13.84	25.39	1.31	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-9B
Date:	9/25/2012	Sampled By:	A.Barrio	Sample ID:	MW-9BPB (092512)
Sampling Time:	9:25	Recorded By:	A.Barrio		
Weather:	Sunny	Coded Replicate No.:	none		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	16.2 gallons
Total Depth:	64.20	Total Volume Purged:	40.0 gallons
Depth to Water:	31.02	Pump on: 8:50	off: 9:30
Water Column:	33.18		
Gallons/Foot:	0.1632		
Gallons in Well:	5.41		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:51	1	--	0.00	20.0	7.42	1.000	14.43	34.05	12.70	Initial
8:56	6	0.90	0.00	-5.0	7.85	0.678	14.46	34.45	4.65	1st Volume
9:02	12	0.90	0.00	-6.0	7.95	0.683	14.47	34.65	3.68	2nd Volume
9:08	18	0.90	0.00	-6.0	7.89	0.684	14.50	34.65	2.55	3rd Volume
9:14	24	--	0.00	-7.0	7.45	0.687	14.51	34.25	2.19	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-10
Date:	9/26/2012	Sampled By:	R Alonso	Sample ID:	MW-10PB (092612)
Sampling Time:	11:57	Recorded By:	R Alonso		
Weather:	Sunny ,70	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	22.5 gallons
Total Depth:	26.96	Total Volume Purged:	23.0 gallons
Depth to Water:	15.46	Pump on: 10:50	off: 11:59
Water Column:	11.50		
Gallons/Foot:	0.6530		
Gallons in Well:	7.51		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:50	0	--	0.00	-45.0	5.95	0.478	15.80	15.35	1.57	Initial
11:12	22	0.34	0.00	-42.0	5.55	0.473	15.58	17.88	0.49	1st Volume
11:38	48	0.29	0.00	-39.0	5.69	0.476	15.49	17.88	0.48	2nd Volume
11:54	64	0.47	0.00	-38.0	5.67	0.476	15.43	19.10	0.44	3rd Volume
11:57	67	--	0.00	-32.0	5.60	0.476	15.56	19.22	0.46	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-10B
Date:	10/2/2012	Sampled By:	RA/GG	Sample ID:	MW-10BPB (100212)
Sampling Time:	10:25	Recorded By:	RA/GG		MW-10BPBMS(100212)
Weather:	Cloudy 60	Coded Replicate No.:	MS/MSD		MW-10BPBMSD(100212)

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) Horida U-52
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	37.83 gallons		
Total Depth:	103.44	Total Volume Purged:	38.0 gallons		
Depth to Water:	26.18	Pump on:	9:03	off:	10:30
Water Column:	77.26				
Gallons/Foot:	0.1632				
Gallons in Well:	12.61				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:05	2	--	0.00	207.0	6.58	0.892	14.33	29.70	2.39	Initial
9:23	20	0.63	0.00	167.0	6.84	1.02	14.41	31.78	0.69	1st Volume
9:48	45	0.50	0.00	114.0	7.02	1.29	14.44	31.78	0.55	2nd Volume
10:20	77	0.39	0.00	149.0	6.97	1.26	14.40	31.78	0.55	3rd Volume
10:25	82	--	0.00	151.0	6.98	1.26	14.41	31.78	0.52	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-10B2
Date:	9/26/2012	Sampled By:	R.Alonso	Sample ID:	MW-10B2PB (092612)
Sampling Time:	14:22	Recorded By:	R.Alonso		
Weather:	Sunny,70	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	76.95 gallons
Total Depth:	186.93	Total Volume Purged:	77.0 gallons
Depth to Water:	29.77	Pump on: 12:22	off: 14:25
Water Column:	157.16		
Gallons/Foot:	0.1632		
Gallons in Well:	25.65		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:22	0	--	0.00	69.0	5.69	0.648	15.80	31.06	2.67	Initial
13:33	71	0.36	0.00	-16.0	6.84	0.070	14.49	32.48	0.78	1st Volume
13:56	94	1.12	0.00	-13.0	6.45	0.701	14.32	34.35	0.76	2nd Volume
14:20	118	1.07	0.00	16.0	6.18	0.701	14.28	35.21	0.48	3rd Volume
14:22	120	--	0.00	18.0	6.20	0.701	14.26	35.22	0.39	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-10B3
Date:	10/1/2012	Sampled By:	Colin	Sample ID:	MW-10B3PB (100112)
Sampling Time:	11:08	Recorded By:	Colin		
Weather:	Sunny	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	155.9 gallons
Total Depth:	347.42	Total Volume Purged:	156.0 gallons
Depth to Water:	28.91	Pump on: 8:35	off: 11:11
Water Column:	318.51		
Gallons/Foot:	0.1632		
Gallons in Well:	51.98		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:35	0	--	0.00	132.00	6.11	0.777	14.62	28.91	21.51	Initial
9:26	51	1.02	0.00	69.00	6.46	0.780	15.05	29.25	2.51	1st Volume
10:17	102	1.02	0.00	15.00	7.33	0.826	15.16	29.20	2.35	2nd Volume
11:08	153	1.02	0.00	17.00	7.25	0.705	14.95	29.21	2.20	3rd Volume
11:10	155	--	0.00	18.00	6.64	0.692	16.33	29.10	3.00	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-12
Date:	9/27/2012	Sampled By:	RA/GG	Sample ID:	MW-12PB (092712)
Sampling Time:	13:10	Recorded By:	RA/GG		
Weather:	70 Sunny	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	32.13 gallons
Total Depth:	41.40	Total Volume Purged:	33.0 gallons
Depth to Water:	25.00	Pump on: 12:25	off: 13:12
Water Column:	16.40		
Gallons/Foot:	0.6530		
Gallons in Well:	10.71		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:23	0	--	0.00	-47.0	6.80	0.542	13.67	25.56	1.31	Initial
12:38	15	0.71	0.00	28.0	5.81	0.546	13.32	25.55	0.52	1st volume
12:53	30	0.71	0.00	38.0	6.07	0.592	13.28	25.55	0.54	2nd volume
13:08	45	0.71	0.00	47.0	6.17	0.616	13.29	25.55	0.41	3rd volume
13:10	47	--	0.00	49.0	6.19	0.618	13.30	25.55	0.39	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-13
Date:	10/2/2012	Sampled By:	CC	Sample ID:	MW-13PB (100212)
Sampling Time:	10:30	Recorded By:	CC		
Weather:	70 Cloudy	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	17.3 gallons
Total Depth:	34.60	Total Volume Purged:	7.0 gallons
Depth to Water:		Pumpon: 9:00	off: 10:30
Water Column:			
Gallons/Foot:	0.6530		
Gallons in Well:			

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:00	0	--	800	-26.0	6.350	0.509	18.39	25.85	2.82	Initial
9:25	25	0.00	725	-37.0	6.420	0.500	19.26	25.85	1.24	1st Volume
9:40	40	0.00	600	-40.0	6.400	0.476	17.46	25.85	0.98	2nd Volume
10:20	80	0.00	525	-36.0	6.450	0.465	18.46	25.85	0.86	3rd Volume
10:30	90	--	520	-30.0	6.440	0.460	18.57	25.85	1.00	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

Note:Obstruction in well needs to be purged with small pump

Note: Due to water table below 22.00 ft , peristaltic pump was not able to lift water to graded; therefore, well could not be purged with pump. Well was purge with bailor. Sample collected after one well volume removed

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-15
Date:	9/27/2012	Sampled By:		Sample ID:	MW-15PB (092712)
Sampling Time:	11:22	Recorded By:			
Weather:	70 Cloudy	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	27.1 gallons		
Total Depth:	39.33	Total Volume Purged:	28.0 gallons		
Depth to Water:	25.49	Pump on:	10:24	off:	11:25
Water Column:	13.84				
Gallons/Foot:	0.6530				
Gallons in Well:	9.04				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:24	0	--	266.0	-167.0	7.00	0.745	13.77	28.10	0.56	Initial
10:39	15	0.60	174.0	-125.0	7.31	0.718	15.24	28.60	3.71	1st Volume
10:59	20	1.81	32.9	-234.0	7.28	0.731	14.07	32.32	0.48	2nd Volume
11:19	55	0.26	142.0	-265.0	7.33	0.740	14.23	35.68	1.84	3rd Volume
11:22	58	--	135.0	-264.0	7.33	0.741	14.24	35.70	0.64	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate. Start low flow sampling at the end of 3 volume purge

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-15
Date:	9/27/2012	Sampled By:		Sample ID:	MW-15LF (092712)
Sampling Time:	12:05	Recorded By:			
Weather:	70 Sunny	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

Low Flow

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"		
Total Depth:	39.33	Pump Intake Setting	Midpoint of screen
Depth to Water:	36.07	Pump on: 11:25	off: 12:10
Water Column:	3.26		
Gallons/Foot:	0.6530		
Gallons in Well:	2.13		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:25	0	0.33	122	-267.0	7.30	0.741	15.89	36.07	0.60	
11:30	5	0.33	111	-268.0	7.30	0.695	20.52	36.55	0.59	
11:35	10	0.33	110	-250.0	7.30	0.726	20.48	36.63	0.55	
11:40	15	0.33	95.5	-285.0	7.35	0.719	17.02	36.78	0.46	
11:45	20	0.33	55.5	-300.0	7.34	0.744	15.49	36.85	0.39	
11:50	25	0.33	33.6	-303.0	7.34	0.748	15.45	37.34	0.38	
11:55	30	0.33	17.2	-305.0	7.35	0.748	15.45	37.56	0.38	
12:00	35	0.33	16.8	-304.0	7.35	0.749	15.59	38.21	0.40	
12:05	40	0.33	16.4	-303.0	7.35	0.749	15.58	38.70	0.40	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-17A
Date:	9/28/2012	Sampled By:	GG	Sample ID:	MW-17APB (092812)
Sampling Time:	9:13	Recorded By:	GG		
Weather:	Rain, 70s	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	22.9 gallons
Total Depth:	33.58	Total Volume Purged:	27.0 gallons
Depth to Water:	21.90	Pump on: 8:25	off: 9:15
Water Column:	11.68		
Gallons/Foot:	0.6530		
Gallons in Well:	7.63		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:25	0	--	43.7	157.0	6.64	0.641	15.83	22.55	5.48	Initial
8:40	15	0.51	28.6	136.0	7.04	0.618	15.77	22.90	1.34	1st Volume
8:55	30	0.51	10.6	171.0	7.15	0.602	15.64	23.45	0.89	2nd Volume
9:10	45	0.51	0.0	174.0	7.19	0.601	15.60	23.69	1.52	3rd Volume
9:13	48	--	0.0	174.0	7.19	0.600	15.71	23.70	1.70	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-18
Date:	9/28/2012	Sampled By:	R Alonso	Sample ID:	MW-18PB (092812)
Sampling Time:	9:30	Recorded By:	R Alonso		
Weather:	Rain 60	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	17.57 gallons
Total Depth:	32.28	Total Volume Purged:	20.0 gallons
Depth to Water:	23.31	Pump on: 8:37	off: 9:35
Water Column:	8.97		
Gallons/Foot:	0.6530		
Gallons in Well:	5.86		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:39	2	--	479	120.0	6.37	0.697	15.91	23.31	4.41	Initial
8:52	15	0.39	0.0	67.0	6.51	0.674	16.00	27.40	0.76	1st volume
9:10	33	0.33	0.0	-56.0	6.77	0.665	16.67	28.50	0.56	2nd volume
9:28	51	0.33	0.0	-87.0	6.82	0.668	16.53	29.95	0.48	3rd volume
9:30	53	--	0.0	-89.0	6.83	0.669	16.50	29.98	0.47	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-19
Date:	9/28/2012	Sampled By:	Colin	Sample ID:	MW-19PB (092812)
Sampling Time:	9:17	Recorded By:	Colin		MW-19PBMS(092812)
Weather:	rain	Coded Replicate No.:	MS & MSD		MW-19PBMSD(092812)

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	33.0 gallons		
Total Depth:	44.50	Total Volume Purged:	50.0 gallons		
Depth to Water:	27.65	Pump on:	8:27	off:	9:17
Water Column:	16.85				
Gallons/Foot:	0.6530				
Gallons in Well:	11.00				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:27	0	--	0.00	57.0	6.45	0.173	15.10	28.70	2.78	Initial
8:38	11	1.00	0.00	-33.0	5.90	0.900	15.00	29.20	0.89	1st Volume
8:49	22	1.00	0.00	-45.0	5.79	0.097	15.04	29.45	0.74	2nd Volume
9:00	33	1.00	0.00	-74.0	6.49	0.983	14.93	29.63	1.27	3rd Volume
9:17	50	--	0.00	-82.0	6.48	0.987	14.92	29.86	0.93	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-20
Date:	9/25/2012	Sampled By:	A.Barrio	Sample ID:	MW-20LF (092512)
Sampling Time:	13:35	Recorded By:	A.Barrio		
Weather:	Sunny	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

Low Flow Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"		
Total Depth:	35.35	Pump Intake Setting	Midpoint of screen
Depth to Water:	23.80	Pump on: 13:00	off: 13:37
Water Column:	11.55		
Gallons/Foot:	0.6530		
Gallons in Well:	7.27		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:05	5	250	136.0	-61.0	8.27	0.619	23.35	29.20	2.52	
13:10	10	250	125.0	-62.0	8.10	0.755	22.95	30.10	2.95	
13:15	15	250	120.0	-68.0	7.60	0.801	22.35	31.80	3.25	
13:20	20	250	113.0	-80.0	7.56	0.889	21.89	31.80	3.33	
13:25	25	250	111.0	-81.0	7.55	0.891	21.85	31.80	3.31	
13:30	30	250	110.0	-82.0	7.54	0.897	21.83	31.80	3.33	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-21
Date:	9/28/2012	Sampled By:	A.Barrio	Sample ID:	MW-21PB(092812)
Sampling Time:	9:45	Recorded By:	A.Barrio		MW-21PB(092812)MS
Weather:	Overcast	Coded Replicate No.:	MS & MSD		MW-21PB(092812)MSD

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	22.45 gallons		
Total Depth:	37.80	Total Volume Purged:	23.0 gallons		
Depth to Water:	26.34	Pump on:	8:50	off:	9:47
Water Column:	11.46				
Gallons/Foot:	0.6530				
Gallons in Well:	7.48				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:52	2	--	0.0	16.0	6.08	0.885	16.03	29.40	1.35	Initial
9:07	15	0.50	0.0	-30.0	6.55	0.583	15.42	30.70	0.73	1st Volume
9:22	30	0.50	10.1	-54.0	6.68	0.594	16.41	31.71	3.11	2nd Volume
9:37	45	0.50	380.0	-64.0	6.67	0.589	15.86	32.50	4.95	3rd Volume
9:40	50	--	41.1	-30.0	6.67	0.593	16.51	32.10	5.85	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.
- Not measured

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	OW-24
Date:	9/25/2012	Sampled By:	Ruben Alonso	Sample ID:	Well not sampled
Sampling Time:	Not sampled	Recorded By:	Ruben Alonso		
Weather:	Sunny 60	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s)
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	
Total Depth:	21.05	Total Volume Purged:	gallons
Depth to Water:	20.55	Pump on:	off:
Water Column:	0.50		
Gallons/Foot:	0.6530	Note: Well was dry and was not sampled	
Gallons in Well:	0.33		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
										Initial
										1st Volume
										2nd Volume
										3rd Volume
										Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	OW-24
Date:	9/25/2012	Sampled By:	Ruben Alonso	Sample ID:	Well not sampled
Sampling Time:	Not sampled	Recorded By:	Ruben Alonso		
Weather:	Sunny 60	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s)
Solinst - 300 ft.	Pine No.

Low Flow

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"		
Total Depth:	21.05	Depth of Pump Intake:	Midpoint of screen
Depth to Water:	20.55	Pump on:	off:
Water Column:	0.50		
Gallons/Foot:	0.6530	Note: Well was dry and was not sampled	
Gallons in Well:	0.33		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
										DRY

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	OW-25S
Date:	9/25/2012	Sampled By:	GG	Sample ID:	Not sampled
Sampling Time:	Not sampled	Recorded By:	GG		
Weather:	60 Sunny	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-22
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	5.6 gallons
Total Depth:	23.28	Total Volume Purged:	gallons
Depth to Water:	20.42	Pump on: 9:27	off: 9:46
Water Column:	2.86		
Gallons/Foot:	0.6530		
Gallons in Well:	1.87		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:27	0	0.75	0.00	-146	7.01	1.68	14.42	20.85	2.14	Initial
9:36	10	0.75	800	-154.0	6.89	1.64	14.47	21.60	1.29	1st Volume
9:46	20	0.75	420	-147	6.88	1.65	14.75	22.59	0.95	2nd Volume
9:53	well	went	dry		well	never	recharged			3rd Volume
										Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate. Well dried out during average volume purge. Was not sampled.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	OW-25S
Date:	9/25/2012	Sampled By:	GG	Sample ID:	Not sampled
Sampling Time:	Not sampled	Recorded By:	GG		
Weather:	60 Sunny	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-22
Solinst - 300 ft.	Pine No.

Low Flow

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"		
Total Depth:	23.28	Pump Intake Setting	Midpoint of screen
Depth to Water:	20.42	Pump on:	off:
Water Column:	2.86		
Gallons/Foot:	0.6530	Note: Well went dry during three well volume purge and never recharged	
Gallons in Well:	1.87		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
										Initial
										1st Volume
										2nd Volume
										3rd Volume
										Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

* Well dried out during low flow purge. Was not sampled.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	OW-26S
Date:	9/27/2012	Sampled By:	RA/GG	Sample ID:	Not sampled
Sampling Time:	Not sampled	Recorded By:	RA/GG		
Weather:	Sunny	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) Horiba U-22
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	
Total Depth:	21.14	Total Volume Purged:	
Depth to Water:	20.60	Pump on:	off:
Water Column:	0.54		
Gallons/Foot:	0.6530	Note: To little water in well to sample. Did not attempt to sample	
Gallons in Well:	0.35		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
										Initial
										1st Volume
										2nd Volume
										3rd Volume
										Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	OW-26S
Date:	9/27/2012	Sampled By:	RA/GG	Sample ID:	Not sampled
Sampling Time:	Not sampled	Recorded By:	RA/GG		
Weather:	Sunny	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) Horiba U-22
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	
Total Depth:	21.14	Total Volume Purged:	
Depth to Water:	20.60	Pump on:	off:
Water Column:	0.54		
Gallons/Foot:	0.6530	Note: To little water in well to sample. Did not attempt to sample	
Gallons in Well:	0.35		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-20
Date:	9/25/2012	Sampled By:	A.Barrio	Sample ID:	MW-20PB (092512)
Sampling Time:	13:00	Recorded By:	A.Barrio		
Weather:	Sunny	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	22.63 gallons
Total Depth:	35.35	Total Volume Purged:	31.0 gallons
Depth to Water:	23.80	Pump on: 11:45	off: 13:05
Water Column:	11.55		
Gallons/Foot:	0.6530		
Gallons in Well:	7.54		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:46	1	--	0.0	-147.0	7.11	0.660	14.97	23.95	3.14	Initial
12:16	30	0.25	212.0	-211.0	7.01	0.663	14.35	25.11	4.14	1st Volume
12:24	38	0.94	150.0	-161.0	7.25	0.613	17.62	28.22	6.00	2nd Volume
12:32	46	0.94	87.0	-107.0	7.65	0.616	17.47	31.80	7.65	3rd Volume
12:35	49	--	55.0	-101.0	7.15	0.969	17.43	32.11	5.36	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate. Low flow sampling started immediately after 3 volume purge.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-31B2
Date:	9/25/2012	Sampled By:	Colin	Sample ID:	MW-31B2PB(092512)
Sampling Time:	11:42	Recorded By:	Colin		
Weather:	Sunny 60	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	55.15 gallons
Total Depth:	153.00	Total Volume Purged:	80.0 gallons
Depth to Water:	40.35	Pump on: 10:30	off: 11:50
Water Column:	112.65		
Gallons/Foot:	0.1632		
Gallons in Well:	18.38		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:45	15	--	4.90	67.0	7.21	0.844	16.27	41.69	12.34	Initial
11:04	34	0.54	0.30	27.0	7.65	0.900	16.39	41.46	4.00	1st Volume
11:23	53	0.97	15.60	45.0	7.35	0.904	16.47	41.32	4.41	2nd Volume
11:42	72	0.97	15.80	12.0	7.64	0.907	16.58	41.25	1.28	3rd Volume
11:49	79	--	26.20	37.0	7.27	0.907	16.63	41.17	8.33	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-31B3
Date:	10/1/2012	Sampled By:	Colin	Sample ID:	MW-31B3PB (100112)
Sampling Time:	14:50	Recorded By:	Colin		
Weather:	Sunny	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-22
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder	Bailer	
Casing Diameter:	2"	Volumes to be Purged:	146.73	gallons			
Total Depth:	342.00	Total Volume Purged:	160.00	gallons			
Depth to Water:	41.93	Pump on:	12:10	off:	14:50		
Water Column:	300.07						
Gallons/Foot:	0.1630						
Gallons in Well:	48.91						

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:17	2	--	0.00	111.0	6.08	0.155	17.23	41.90	5.23	Initial
13:00	50	0.98	0.00	-20.0	7.25	0.705	17.57	44.05	2.60	1st volume
13:50	100	0.98	0.00	-35.0	6.86	0.522	16.96	43.60	0.75	2nd volume
14:40	150	0.98	0.00	-43.0	7.48	0.541	17.19	44.05	3.21	3rd volume
14:50	160	--	0.00	-85.0	6.68	0.860	17.14	44.24	7.29	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	OW-32D
Date:	10/1/2012	Sampled By:	GG	Sample ID:	OW-32DPB(100112)
Sampling Time:	12:37	Recorded By:	GG		
Weather:	60 Sunny	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s)
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	25.33 gallons
Total Depth:	39.28	Total Volume Purged:	29.0 gallons
Depth to Water:	26.35	Pump on: 10:20	off: 12:37
Water Column:	12.93		
Gallons/Foot:	0.6530	Note: Well went dry at 12:40 before low flow purge could start.	
Gallons in Well:	8.44		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:20	0	--	22.98	-109	6.43	0.500	15.32	27.42	1.98	Initial
11:05	45	0.19	9.50	-183	6.57	0.498	18.87	28.41	1.65	1st volume
11:50	90	0.19	0.60	-211	6.64	0.505	18.77	29.72	1.25	2nd volume
12:35	135	0.19	1.00	-208	6.59	0.513	17.79	31.26	0.35	3rd volume
12:37	137	--	1.60	-208	6.59	0.513	17.84	32.61	0.39	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	OW-32D
Date:	10/2/2012	Sampled By:	GG	Sample ID:	OW-32DPB(100212)
Sampling Time:	11:30	Recorded By:	GG		
Weather:	60 Sunny	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Low Flow Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Marshak Bladder Bailer
Casing Diameter:	4"		
Total Depth:	39.28	Pump Intake Setting	Midpoint of screen
Depth to Water:	28.30	Pump on: 13:25	off: 13:40
Water Column:	10.98		
Gallons/Foot:	0.6530	Note: Sample was bailed after well dried at 13:37	
Gallons in Well:	7.17	Note: Unable to obtain water level due to golfers	

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:25	0		41.7	-109.0	6.91	0.547	19.68		3.32	
13:30	5		40.1	-113.0	6.91	0.554	18.64		2.78	
13:35	10		8.3	-131.0	6.71	0.532	18.04		0.71	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-36B
Date:	9/25/2012	Sampled By:	RA/GG	Sample ID:	MW-36BPB(092512)
Sampling Time:	14:15	Recorded By:	RA/GG		
Weather:	Sunny 70	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	22.18 gallons
Total Depth:	57.25	Total Volume Purged:	23.0 gallons
Depth to Water:	11.95	Pump on: 13:45	off: 14:20
Water Column:	45.30		
Gallons/Foot:	0.1632		
Gallons in Well:	7.39		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:45	0	--	8.8	94.0	7.17	0.559	14.18	12.42	13.96	Initial
13:54	9	0.82	2.2	121.0	6.52	0.644	13.70	24.41	1.45	1st volume
14:03	18	0.82	1.0	121.0	6.39	0.647	13.70	24.41	0.89	2nd volume
14:12	27	0.82	1.6	123.0	6.34	0.645	13.64	24.40	0.72	3rd volume
14:15	30	--	1.7	122.0	6.35	0.645	13.68	24.40	0.71	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-37
Date:	9/26/2012	Sampled By:	Colin	Sample ID:	MW-37PB (092612)
Sampling Time:	10:35	Recorded By:	Colin		
Weather:	cloudy with rain	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	8.8 gallons
Total Depth:	42.00	Total Volume Purged:	9.0 gallons
Depth to Water:	24.00	Pump on: 10:15	off: 10:40
Water Column:	18.00		
Gallons/Foot:	0.1632		
Gallons in Well:	2.94		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:15	0	--	170.0	39.0	7.29	0.857	17.58	24.60	5.69	Initial
10:21	6	0.49	28.5	36.0	7.34	0.776	16.59	25.00	1.08	1st Volume
10:27	12	0.49	19.0	38.0	7.31	0.800	16.51	24.66	0.80	2nd Volume
10:35	18	0.49	13.7	37.0	7.32	0.814	16.51	24.80	0.70	3rd Volume
10:40	25	--	0.0	47.0	7.39	0.811	16.54	24.97	0.81	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-37B
Date:	9/26/2012	Sampled By:	Colin	Sample ID:	MW-37BPB (092612)
Sampling Time:	11:24	Recorded By:	Colin		
Weather:	Cloudy Rain	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	25.72 gallons
Total Depth:	80.00	Total Volume Purged:	26.0 gallons
Depth to Water:	27.47	Pump on: 11:57	off: 11:33
Water Column:	52.53		
Gallons/Foot:	0.1632		
Gallons in Well:	8.57		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:57	0	--	0.0	78.0	7.74	0.133	16.96	27.80	6.90	Initial
11:06	9	0.95	0.0	97.0	7.44	0.828	16.18	27.88	2.26	1st Volume
11:15	18	0.95	0.0	80.0	7.53	0.850	15.93	27.90	2.36	2nd Volume
11:24	27	0.95	0.0	81.0	7.57	0.848	15.98	27.97	2.32	3rd Volume
11:33	36	--	0.0	81.0	7.57	0.847	15.94	28.01	2.29	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate. Low flow sampling started right after 3 volume purge.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-37B
Date:	9/26/2012	Sampled By:	Colin	Sample ID:	MW-37BLF (092612)
Sampling Time:	12:40	Recorded By:	Colin		
Weather:	Cloudy with Rain	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

Low Flow Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"		
Total Depth:	80.00	Pump Intake Setting	Midpoint of screen
Depth to Water:	27.65	Pump on: 11:35	off: 14:45
Water Column:	52.35		
Gallons/Foot:	0.1632		
Gallons in Well:	8.54		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:35	0	250	670.0	85.0	7.69	0.860	16.32	27.65	2.45	
11:40	5	250	680.0	94.0	7.69	0.860	16.28	27.63	2.40	
11:45	10	250	617.0	103.0	7.64	0.856	16.53	27.60	2.54	
11:50	15	250	457.0	107.0	7.64	0.850	16.60	27.60	2.24	
11:55	20	250	350.0	109.0	7.64	0.850	16.59	27.60	2.21	
12:00	25	250	259.0	110.0	7.64	0.867	16.71	27.60	2.21	
12:05	30	250	234.0	109.0	7.64	0.845	16.80	27.60	2.14	
12:10	35	250	144.0	106.0	7.64	0.842	17.09	27.60	2.13	
12:15	40	250	103.0	96.0	7.64	0.841	17.19	27.60	2.14	
12:20	45	250	110.0	98.0	7.67	0.851	17.13	27.60	2.13	
12:25	50	250	47.5	87.0	7.65	0.852	17.10	27.60	2.13	
12:30	55	250	30.1	78.0	7.65	0.848	17.10	27.60	2.13	
12:35	60	250	26.8	74.0	7.66	0.848	17.16	27.60	2.14	
12:40	65	250	23.70	74.0	7.65	0.847	17.09	27.60	2.14	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-37B2
Date:	9/26/2012	Sampled By:	Colin	Sample ID:	MW-37B2PB (09262012)
Sampling Time:	14:30	Recorded By:	Colin		
Weather:	Rain	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horibia U-52
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	90.6 gallons
Total Depth:	213.53	Total Volume Purged:	100 gallons
Depth to Water:	28.54	Pump on: 13:00	off: 14:40
Water Column:	184.99		
Gallons/Foot:	0.1632		
Gallons in Well:	30.19		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:00	0	--	0.0	48.0	9.29	0.513	17.04	29.80	9.34	Initial
13:30	30	1.01	0.0	61.0	7.71	0.727	15.26	29.85	3.58	1st Volume
14:00	60	1.01	0.0	58.0	7.70	0.742	15.07	29.90	1.73	2nd Volume
14:30	90	1.01	0.0	70.0	7.68	0.749	15.06	29.75	0.71	3rd Volume
14:40	100	--	0.0	70.0	7.70	0.751	17.94	29.75	1.23	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-37B3
Date:	9/26/2012	Sampled By:	A.Barrio	Sample ID:	MW-37B3PB (09/26/2012)
Sampling Time:	15:10	Recorded By:	A.Barrio		
Weather:	Sunny	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-22
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	145 gallons
Total Depth:	325.63	Total Volume Purged:	155 gallons
Depth to Water:	28.75	Pump on: 12:30	off: 15:15
Water Column:	296.88		
Gallons/Foot:	0.1632		
Gallons in Well:	48.45		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:35	5	--	0.00	155	7.81	0.539	15.86	40.40	1.96	Initial*
13:20	50	0.97	92.30	77	7.74	0.849	15.18	40.41	1.04	1st volume
14:10	100	0.97	0.00	137	7.34	0.540	15.63	40.42	0.76	2nd volume
15:00	150	0.97	0.00	85	7.40	0.547	15.04	40.43	0.56	3rd volume
15:05	155	--	0.00	77	7.40	0.546	15.04	40.42	0.46	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

* Pump had to be removed from well due to malfunction.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-38
Date:	9/27/2012	Sampled By:	RA/GG	Sample ID:	MW-38PB (092712)
Sampling Time:	14:17	Recorded By:	RA/GG		
Weather:	Sunny	Coded Replicate No.:	Dup(092712)		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-22
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	8.2 gallons
Total Depth:	36.82	Total Volume Purged:	10.0 gallons
Depth to Water:	20.05	Pump on: 13:44	off: 14:17
Water Column:	16.77		
Gallons/Foot:	0.1632		
Gallons in Well:	2.74		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:44	0	--	611.0	24.0	6.62	3.93	17.49	20.05	1.61	Initial
13:55	11	0.25	567.0	45.0	6.79	4.00	15.85	20.25	1.68	1st Volume
14:05	21	0.27	144.0	47.0	6.77	3.69	15.78	20.85	0.99	2nd Volume
14:15	31	0.27	34.0	47.0	6.79	3.99	15.76	21.24	0.95	3rd Volume
14:17	33	--	31.9	47.0	6.79	4.00	15.76	21.76	1.02	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-38B
Date:	10/1/2012	Sampled By:	R.Alonso	Sample ID:	MW-38BPB (100112)
Sampling Time:	12:25	Recorded By:	R.Alonso		
Weather:	Sunny	Coded Replicate No.:	Dup(100112)		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-22
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	24.7 gallons
Total Depth:	78.90	Total Volume Purged:	25.0 gallons
Depth to Water:	28.45	Pump on: 10:22	off: 12:35
Water Column:	50.45		
Gallons/Foot:	0.1632		
Gallons in Well:	8.23		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:23	1	--	800.0	-18.0	6.87	1.070	14.64	28.50	2.41	Initial
10:54	32	0.26	373.0	-64.0	7.53	0.947	15.21	58.20	1.28	1st Volume
11:36	74	0.20	57.6	-58.0	7.50	1.060	15.74	61.41	1.49	2nd Volume
12:22	120	0.18	278.0	-39.0	7.49	1.190	16.02	66.46	1.23	3rd Volume
12:25	123	--	256.0	-36.0	7.48	1.200	16.06	66.50	1.20	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-39
Date:	9/26/2012	Sampled By:	Ruben Alonso	Sample ID:	MW-39PB (092612)
Sampling Time:	Not sampled	Recorded By:	Ruben Alonso		
Weather:	Sunny 60	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter Pine No. 4776	Water Quality Meter(s) Horiba U-22
Heron	Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	1.71 gallons
Total Depth:	28.82	Total Volume Purged:	gallons
Depth to Water:	25.34	Pump on: 9:09	off: 9:09
Water Column:	3.48		
Gallons/Foot:	0.1632	Note :Not sampled due to lack of water in well	
Gallons in Well:	0.57		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
										Initial
										1st Volume
										2nd Volume
										3rd Volume
										Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-39B
Date:	9/26/2012	Sampled By:	GG	Sample ID:	MW-39BPB (092612)
Sampling Time:	9:47	Recorded By:	GG		
Weather:	70 Cloudy	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Heron	Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	17.92 gallons
Total Depth:	58.21	Total Volume Purged:	20.0 gallons
Depth to Water:	21.6	Pump on: 9:10	off: 9:47
Water Column:	36.61		
Gallons/Foot:	0.1632		
Gallons in Well:	5.97		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:10	0	--	0.0	198	5.02	0.968	18.04	29.20	3.61	Initial
9:24	14	0.43	0.0	151	5.40	0.971	16.16	39.99	1.78	1st Volume
9:36	26	0.50	0.0	130	5.65	0.961	16.23	34.89	2.20	2nd Volume
9:45	35	0.66	0.0	113	5.71	0.984	16.19	34.80	1.89	3rd Volume
9:47	37	--	0.0	113	5.70	0.985	16.20	34.80	1.87	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-40
Date:	9/27/2012	Sampled By:	Colin	Sample ID:	MW-40PB (092712)
Sampling Time:	10:48	Recorded By:	Colin		
Weather:	Rain	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-22
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	48.29 gallons
Total Depth:	36.62	Total Volume Purged:	53.0 gallons
Depth to Water:	11.96	Pump on: 10:00	off: 10:53
Water Column:	24.66		
Gallons/Foot:	0.6528		
Gallons in Well:	16.10		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:00	0	--	4	216	6.07	0.695	18.06	11.88	7.72	Initial
10:16	16	1.01	8	184	6.31	0.699	16.98	17.13	7.62	1st volume
10:32	32	1.01	67	174	6.45	0.701	17.81	20.17	4.92	2nd volume
10:48	48	1.01	104	163	6.56	0.737	16.47	21.40	4.17	3rd Volume
10:53	53	--	79	164	6.59	0.733	17.39	21.65	4.08	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-41
Date:	9/27/2012	Sampled By:	Colin	Sample ID:	MW-41PB (092712)
Sampling Time:	9:20	Recorded By:	Colin		
Weather:	rain	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-22
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	33.10 gallons
Total Depth:	30.71	Total Volume Purged:	58.00 gallons
Depth to Water:	13.81	Pump on: 8:28	off: 9:20
Water Column:	16.90		
Gallons/Foot:	0.6528		
Gallons in Well:	11.03		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:28	0	--	22.50	250.0	5.38	3.410	19.15	13.90	8.51	Initial
8:39	11	1.00	0.20	181.0	6.51	3.600	18.04	17.50	4.14	1st Volume
8:50	22	1.00	9.6	167.0	6.43	3.630	17.30	16.90	5.04	2nd Volume
9:01	33	1.00	4.9	116.0	6.42	3.630	17.14	17.24	3.65	3rd Volume
9:20	52	--	4	124.0	6.43	3.630	17.27	17.42	21.81	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-42
Date:	9/27/2012	Sampled By:	Colin	Sample ID:	MW-42PB (092712)
Sampling Time:	12:28	Recorded By:	Colin		
Weather:	Rain	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-22
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	31.67 gallons
Total Depth:	31.42	Total Volume Purged:	36.5 gallons
Depth to Water:	15.25	Pump on: 11:20	off: 12:33
Water Column:	16.17		
Gallons/Foot:	0.6528		
Gallons in Well:	10.56		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:22	2	--	230	192	6.30	0.264	21.78	18.25	10.41	Initial
11:44	22	0.48	397	146	6.64	1.028	20.26	21.64	9.03	1st Volume
12:06	44	0.48	65	147	6.25	1.077	20.56	24.45	1.23	2nd Volume
12:28	66	0.48	77	140	7.00	0.904	21.20	26.60	4.44	3rd Volume
12:33	71	--	220	139	6.91	0.979	21.36	27.51	4.05	Sample

Observations During Sampling

Well Condition: Need to replace well cap

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-43
Date:	9/27/2012	Sampled By:	A.Barrio	Sample ID:	MW-43PB (092712)
Sampling Time:	13:10	Recorded By:	A.Barrio		
Weather:	Sunny	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-22
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	30.24 gallons
Total Depth:	30.94	Total Volume Purged:	31 gallons
Depth to Water:	15.5	Pump on: 12:00	off: 13:15
Water Column:	15.44		
Gallons/Foot:	0.6528		
Gallons in Well:	10.08		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:02	2	--	0.00	-136	6.40	2.980	21.16	17.20	0.46	Initial
12:20	20	0.50	0.00	-125	6.43	2.260	20.14	18.50	0.96	1st Volume
12:40	40	0.50	0.00	-118	6.45	2.300	20.07	18.80	0.77	2nd Volume
13:00	60	0.50	0.00	-118	6.47	2.330	19.79	18.90	0.75	3rd Volume
13:10	70	--	0.00	-101	6.76	3.070	18.69	18.85	3.90	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-44
Date:	9/27/2012	Sampled By:	Colin	Sample ID:	MW-44PB (092712)
Sampling Time:	13:39	Recorded By:	Colin		
Weather:	Cloudy	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-22
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	33.33 gallons
Total Depth:	30.62	Total Volume Purged:	39.0 gallons
Depth to Water:	13.6	Pump on: 13:06	off: 13:45
Water Column:	17.02		
Gallons/Foot:	0.6528		
Gallons in Well:	11.11		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:06	0	--	13.0	202.0	6.30	6.040	21.58	13.55	3.06	Initial
13:17	11	1.01	15.6	179.0	6.12	3.960	21.55	16.29	1.12	1st Volume
13:28	22	1.01	8.8	153.0	6.25	6.020	20.45	17.20	0.60	2nd Volume
13:39	33	1.01	6.7	126.0	6.38	5.520	19.82	18.10	0.42	3rd Volume
13:45	39	--	6.1	121.0	6.39	5.480	19.85	18.31	0.40	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-85B3
Date:	10/2/2012	Sampled By:	A.Barrio	Sample ID:	MW-85B3PB (100212)
Sampling Time:	10:50	Recorded By:	A.Barrio		
Weather:	overcast	Coded Replicate No.:	Dup(100212)		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	134.5 gallons
Total Depth:	298.90	Total Volume Purged:	135 gallons
Depth to Water:	24.20	Pump on: 8:35	off: 10:55
Water Column:	274.70		
Gallons/Foot:	0.1632		
Gallons in Well:	44.83		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:36	1	--	0.00	-110	6.70	0.276	14.46	29.55	5.60	Initial
9:20	45	1.00	0.00	-183	6.80	0.346	14.50	29.55	1.20	1st Volume
10:05	90	1.00	0.00	-237	7.00	0.516	14.87	29.50	1.09	2nd Volume
10:50	135	1.00	0.00	-234	7.53	0.325	14.68	29.50	0.85	3rd Volume
10:55	140	--	0.00	-164	6.50	0.325	15.50	29.40	0.93	Sample

Observations During Sampling

Well Condition: Good/ Sheen observed
Strong sulfur smell

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-86B3
Date:	10/2/2012	Sampled By:	A.Barrio	Sample ID:	MW-86B3 (100212)
Sampling Time:	14:35	Recorded By:	A.Barrio		
Weather:	Overcast with Rain	Coded Replicate No.:	Dup01(100212)		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-22
Solinst - 300 ft.	Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	180 gallons
Total Depth:	394.70	Total Volume Purged:	181 gallons
Depth to Water:	25.79	Pump on: 11:30	off: 14:40
Water Column:	368.91		
Gallons/Foot:	0.1630		
Gallons in Well:	60.13		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:35	5	--	0.0	4.0	6.80	0.522	14.83	27.00	0.53	Initial
12:31	61	0.99	0.0	-82.0	7.50	0.887	14.21	27.01	1.61	1st Volume
13:32	122	0.99	0.0	-74.0	7.94	0.589	14.21	27.01	1.66	2nd Volume
14:33	183	0.99	0.0	-38.0	7.55	0.928	14.22	27.05	1.06	3rd Volume
14:35	185	--	0.0	46.0	6.94	0.597	14.27	26.95	8.34	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-87B
Date:	10/3/2012	Sampled By:	AB\VM\CC	Sample ID:	MW-87B(100312)
Sampling Time:	12:00	Recorded By:	AB\VM\CC		
Weather:	Rainy 70	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	2
Volume Purged Per Stroke:	2.5 gal.
Purge Stroke Duration:	3 min
Total Volume Purged:	5.0 gal.
Total Purge Duration:	6 min.

Note: Static water was purged out of system before field parameter measurements and samples were taken

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:39	3		0.00	240.0	6.20	2.300	18.11	17.85	3.21	Initial/1 vol
										2 vol
										3 vol
										Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Notes: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-87B2
Date:	10/3/2012	Sampled By:	AB\VM\CC	Sample ID:	MW-87B2(100312)
Sampling Time:	12:05	Recorded By:	AB\VM\CC		
Weather:	Rainy 70	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	2
Volume Purged Per Stroke:	2.5 gal.
Purge Stroke Duration:	8 min
Total Volume Purged:	5.0 gal.
Total Purge Duration:	16 min.

Note: Static water was purged out of system before field parameter measurements and samples were taken

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:42	8		0.00	78	7.16	1.06	12.96	24.65	3.15	Initial/1 vol
										2 vol
										3 vol
										Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-87B3
Date:	10/3/2012	Sampled By:	AB\VM\CC	Sample ID:	MW-87B3(100312)
Sampling Time:	12:10	Recorded By:	AB\VM\CC		
Weather:	Rainy 70	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	2
Volume Purged Per Stroke:	2.5 gal.
Purge Stroke Duration:	15 min
Total Volume Purged:	5.0 gal.
Total Purge Duration:	30 min.

Note: Static water was purged out of system before field parameter measurements and samples were taken

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:42	8		0.00	51.0	7.34	6.77	17.75	25.40	2.41	Initial/1 vol
										2 vol
										3 vol
										Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-87B4
Date:	10/3/2012	Sampled By:	AB\VM\CC	Sample ID:	MW-87B4 (100312)
Sampling Time:	12:15	Recorded By:	AB\VM\CC		
Weather:	Rainy 70	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	2
Volume Purged Per Stroke:	2.5 gal.
Purge Stroke Duration:	15 min
Total Volume Purged:	5.0 gal.
Total Purge Duration:	30min.

Note: Static water was purged out of system before field parameter measurements and samples were taken

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:42	8		0.00	49	7.42	0.682	18.17	25.66	1.64	Initial/1 vol
										2 vol
										3 vol
										Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-87B5
Date:	10/3/2012	Sampled By:	AB\VM\CC	Sample ID:	MW-87B5 (100312)
Sampling Time:	11:55	Recorded By:	AB\VM\CC		
Weather:	Rainy 70	Coded Replicate No.:	None		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	Horiba U-52
Solinst - 300 ft.	Pine No.

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	3
Volume Purged Per Stroke:	2.5 gal.
Purge Stroke Duration:	15 min.
Total Volume Purged:	7.5 gal.
Total Purge Duration:	30 min.

Note: Static water was purged out of system before field parameter measurements and samples were taken

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:42	8		0.00	45	7.46	0.996	17.64	25.72	0.96	Initial/1 vol
										2 vol
										3 vol
										Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-1
Date:	10/1/2013	Sampled By:	Ruben Alonso	Sample ID:	MW-1PB (100113)
Sampling Time:	12:35	Recorded By:	Ruben Alonso		
Weather:	Sunny, 70s	Coded Replicate No.:	-		

Instrument Identification

Water Level Meter Pine No. 58971	Water Quality Meter(s) LaMotte 2020 Pine No. 22089
Solinst - 100 ft.	YSI- 600XL Pine No. 8999

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	33.8 gallons
Total Depth:	33.25	Total Volume Purged:	35.0 gallons
Depth to Water:	16.00	Pump on: 11:33	off: 12:40
Water Column:	17.25		
Gallons/Foot:	0.6530		
Gallons in Well:	11.26		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:33	0	--	21.4	155.6	6.62	0.763	18.07	16.00	2.22	Initial
11:53	20	0.56	19.7	160.4	6.61	0.713	16.08	21.78	2.82	1st Volume
12:14	40	0.56	7.22	71.1	6.61	0.802	17.70	21.82	2.02	2nd Volume
12:34	60	0.56	2.11	126.4	6.59	0.808	16.27	21.88	3.76	3rd Volume
12:35	-	-	1.68	129.2	6.67	0.811	15.88	-	3.31	Sample

Observations During Sampling

Well Condition: Fair

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-1B
Date:	10/1/2013	Sampled By:	Ruben Alonso	Sample ID:	MW-1BPB (100113)
Sampling Time:	11:15	Recorded By:	Ruben Alonso		
Weather:	Sunny, 70s	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No. 58971	Water Quality Meter(s) LaMotte 2020 Pine No. 22089
Solinst - 100 ft.	YSI- 600XL Pine No. 8999

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	18.96 gallons
Total Depth:	66.70	Total Volume Purged:	22.00 gallons
Depth to Water:	27.97	Pump on: 9:59	off: 11:20
Water Column:	38.73		
Gallons/Foot:	0.1632		
Gallons in Well:	6.32		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:00	1	--	11.51	251.2	6.94	0.478	17.74	35.30	2.75	Initial
10:23	24	0.26	1.37	189.7	7.10	0.461	16.67	33.30	3.35	1st Volume
10:43	44	0.32	2.01	168.4	7.26	0.459	16.44	36.00	2.78	2nd Volume
11:13	74	0.21	1.68	170.8	7.29	0.459	16.03	36.72	1.43	3rd Volume
11:19	-	--	1.99	164.3	7.17	0.459	15.96	37.83	1.50	Sample

Observations During Sampling

Well Condition: Fair

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-4
Date:	10/3/2013	Sampled By:	RA	Sample ID:	MW-4PB (100313)
Sampling Time:	13:05	Recorded By:	RA		
Weather:	sunny, 70s	Coded Replicate No.:	-		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 22089
Solinst - 300 ft.	YSI- 600XL Pine No. 8999

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	37.91 gallons
Total Depth:	46.00	Total Volume Purged:	38.00 gallons
Depth to Water:	26.65	Pump on: 11:30	off: 13:10
Water Column:	19.35		
Gallons/Foot:	0.6530		
Gallons in Well:	12.64		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:32	2	-	2.01	138.8	8.16	0.344	20.24	28.10	8.02	Initial
12:15	45	0.28	28.8	111.8	7.57	0.633	19.97	37.58	4.62	1st Volume
12:35	65	0.63	11.70	215.8	7.62	0.572	20.21	42.00	3.54	2nd Volume
13:00	90	0.51	12.01	206.1	7.56	0.617	21.00	49.98	7.20	3rd Volume
13:05	-	-	11.61	213.7	7.51	0.614	21.28	-	7.35	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-8
Date:	10/1/2013	Sampled By:	GG	Sample ID:	MW-8PB (100113)
Sampling Time:	12:00	Recorded By:	GG		
Weather:	Sunny, 70s	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	23.53 gallons
Total Depth:	35.41	Total Volume Purged:	25.00 gallons
Depth to Water:	23.40	Pump on: 11:30	off: 12:05
Water Column:	12.01		
Gallons/Foot:	0.6530		
Gallons in Well:	7.84		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:30	0	--	9.95	45.6	8.80	0.816	17.60	23.72	5.43	Initial
11:40	10	0.78	12.5	42.9	6.60	0.808	17.39	24.30	4.16	1st Volume
11:50	20	0.78	9.41	40.7	6.61	0.810	17.11	24.31	4.08	2nd Volume
12:00	30	0.78	7.04	31.0	6.58	0.797	18.00	24.50	2.40	3rd Volume
12:02	32	--	6.55	33.4	6.65	0.801	18.04	24.50	2.43	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-9B
Date:	10/1/2013	Sampled By:	GG	Sample ID:	MW-9PB (100113)
Sampling Time:	11:15	Recorded By:	GG		
Weather:	Sunny, 60s	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	16.28 gallons
Total Depth:	64.20	Total Volume Purged:	17.00 gallons
Depth to Water:	30.95	Pump on: 10:55	off: 11:20
Water Column:	33.25		
Gallons/Foot:	0.1632		
Gallons in Well:	5.4264		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:55	0	--	19.70	51.1	6.84	0.872	19.74	3.35	7.77	Initial
11:01	6	0.90	70.10	68.4	6.79	0.872	18.08	31.65	3.20	1st Volume
11:07	12	0.90	10.23	84.8	6.79	0.873	17.83	31.67	4.13	2nd Volume
11:13	18	0.90	4.10	88.0	6.80	0.136	18.00	31.70	2.16	3rd Volume
11:19	24	--	3.71	83.4	6.76	0.889	17.37	31.70	2.50	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-10
Date:	10/1/2013	Sampled By:	N. Krasnecky	Sample ID:	MW-10PB (100113)
Sampling Time:	17:13	Recorded By:	N.Krasnecky		
Weather:	clear, 80	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No. 21881	Water Quality Meter(s) LaMotte 2020 Pine No. 17994
Solinst - 100 ft.	YSI- 600XL Pine No. 05K2340

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	27.33 gallons
Total Depth:	30.00	Total Volume Purged:	27.50 gallons
Depth to Water:	16.05	Pump on: 15:18	off: 17:13
Water Column:	13.95		
Gallons/Foot:	0.653		
Gallons in Well:	9.11		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
15:19	1	--	66.7	121.5	5.90	0.455	19.65	16.55	2.04	Initial
16:05	46	0.20	11.35	68.5	6.26	0.451	18.83	17.87	1.83	1st Volime
16:40	81	0.26	5.92	80.5	6.31	0.455	16.84	19.17	1.56	2nd Volume
17:10	111	0.30	20.8	77.0	6.40	0.453	16.90	20.42	2.04	3rd Volume
17:13	114	--	15.1	99.0	6.15	0.452	16.15	20.46	1.95	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-10B
Date:	10/3/2013	Sampled By:	RA	Sample ID:	MW-10BPB (100313)
Sampling Time:	10:40	Recorded By:	RA		MW-10BPB (100313) MS
Weather:	sunny, 70s	Coded Replicate No.:	MS/MSD		MW-10BPB (100313) MSD

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 22089
Solinst - 300 ft.	YSI- 600XL Pine No. 8999

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	37.19 gallons
Total Depth:	102.40	Total Volume Purged:	38.00 gallons
Depth to Water:	26.43	Pump on: 9:19	off: 10:45
Water Column:	75.97		
Gallons/Foot:	0.1632		
Gallons in Well:	12.40		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:19	0	--	40.0	109.0	8.06	0.904	15.37	26.43	3.13	Initial
9:48	29	0.43	9.05	251.8	6.85	1.401	16.22	31.62	3.49	1st Volume
10:13	54	0.50	3.54	230.9	7.17	1.348	16.48	31.70	2.20	2nd Volume
10:35	76	0.56	1.01	207.8	7.10	1.359	16.76	32.00	2.12	3rd Volume
10:40	-	-	1.62	198.2	7.08	1.358	17.30	-	1.67	Sample

Observations During Sampling

Well Condition: _____ Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-10B2
Date:	10/3/2013	Sampled By:	RA	Sample ID:	MW-10B2PB (100313)
Sampling Time:	17:10	Recorded By:	RA		
Weather:	sunny, 70	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	76.92 gallons
Total Depth:	187.00	Total Volume Purged:	77.00 gallons
Depth to Water:	29.90	Pump on: 14:40	off: 17:15
Water Column:	157.10		
Gallons/Foot:	0.1632		
Gallons in Well:	25.64		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water (ft.)	Dissolved Oxygen (mg/L)	Comments
14:40	0	-	5.98	125.1	7.68	0.633	18.61	33.50	4.55	Initial
16:00	80	0.32	0.34	121.8	7.58	0.672	18.02	32.80	2.37	1st vol
16:27	107	0.95	1.12	126.1	7.56	0.676	16.80	33.07	2.11	2nd Vol
17:05	145	0.67	0.35	125.4	7.55	0.675	16.40	33.68	1.95	3rd Vol
17:10	150	-	0.55	129.1	7.60	0.683	16.46	-	1.98	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-10B3
Date:	10/1/2013	Sampled By:	GG	Sample ID:	MW-10B3PB (100113)
Sampling Time:	16:45	Recorded By:	GG		
Weather:	sunny, 70s	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	155.5 gallons
Total Depth:	347.42	Total Volume Purged:	156.0 gallons
Depth to Water:	29.75	Pump on: 13:10	off: 16:50
Water Column:	317.67		
Gallons/Foot:	0.1632		
Gallons in Well:	51.84		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:10	0	--	1.86	127.2	7.14	0.697	20.78	28.78	5.58	Initial
14:00	50	1.04	1.27	120.8	7.23	0.682	17.50	28.90	3.67	1st Volume
15:00	100	1.04	1.10	118.6	7.25	0.675	18.32	29.05	4.27	2nd Volume
16:35	150	1.04	1.21	115.3	7.36	0.905	17.83	28.84	3.13	3rd Volume
16:50	153	--	1.21	115.3	7.36	0.905	17.83	28.84	3.13	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-12
Date:	10/4/2013	Sampled By:	Ruben Alonso	Sample ID:	MW-12PB (100413)
Sampling Time:	13:10	Recorded By:	Ruben Alonso		
Weather:	Sunny, 60s	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	33.38 gallons
Total Depth:	41.70	Total Volume Purged:	34.00 gallons
Depth to Water:	24.66	Pump on: 12:15	off: 13:15
Water Column:	17.04		
Gallons/Foot:	0.6530		
Gallons in Well:	11.13		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:16	1	--	48.0	197.1	6.04	0.393	18.56	24.80	4.38	Initial
12:35	20	0.56	2.66	202.8	5.71	0.440	15.85	25.23	1.91	1st Volume
12:50	35	0.74	1.90	204.4	5.80	0.480	14.94	25.25	3.22	2nd Volume
13:05	50	0.74	1.45	194.0	5.88	0.500	15.32	25.28	2.41	3rd Volume
13:10	55	--	1.15	146.8	5.86	0.501	14.59	-	2.46	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-13
Date:	10/9/2013	Sampled By:	NK	Sample ID:	MW-13PB (100913)
Sampling Time:	14:20	Recorded By:	NK		
Weather:	overcast, 55	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	Submersible	Centrifugal	**Bladder** Bailer
Casing Diameter:	4"	Volumes to be Purged:	16.85 gallons		
Total Depth:	34.00	Total Volume Purged:	5.0 gallons		
Depth to Water:	25.40	Pump on:	10:15	off:	14:20
Water Column:	8.60				
Gallons/Foot:	0.6530				
Gallons in Well:	5.62				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mLpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:30	15	100	6.93	21.1	5.20	0.422	14.90	25.60	4.57	Initial
11:30	75	100	7.56	6.1	5.19	0.385	15.27	26.17	4.46	~1.75 gallons
12:30	135	100	5.94	-10.5	5.40	0.402	15.88	26.65	4.69	~3.00 gallons
14:15	240	100	2.79	-48.0	5.83	0.439	16.06	27.22	5.75	~5.00 gallons
14:20	245	-	High	-62.6	5.83	0.424	14.47	27.80	5.08	Sample

Observations During Sampling

Well Condition: Poor

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate. Sample was yellow and had sulfur odor and was bailed.
Note:Obstruction in well needs to be purged with small pump (3/4" QED Bladder Pump)

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-15
Date:	10/9/2013	Sampled By:	RA	Sample ID:	MW-15PB (100913)
Sampling Time:	15:00	Recorded By:	RA		
Weather:	cloudy, 50s	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	27.76 gallons
Total Depth:	39.42	Total Volume Purged:	28.00 gallons
Depth to Water:	25.25	Pump on: 11:12	off: -
Water Column:	14.17		
Gallons/Foot:	# 0.6530		
Gallons in Well:	9.25		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:13	1	--	34.30	-74.8	7.52	0.622	14.30	25.25	4.74	Initial
12:13	61	0.15	36.40	-109.7	7.45	0.636	15.08	30.25	2.78	1st Volume
13:13	121	0.15	14.80	-117.2	7.41	0.641	15.65	32.28	2.64	2nd Volume
14:48	216	0.10	10.58	-109.0	7.41	0.663	16.40	35.05	3.49	3rd Volume
15:00	--	--	7.93	-96.3	7.59	0.666	15.66	35.42	4.11	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-15
Date:	10/9/2013	Sampled By:	RA/NK	Sample ID:	MW-15LF (100913)
Sampling Time:	15:40	Recorded By:	RA/NK		
Weather:	cloudy, 60s	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Low Flow

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"		
Total Depth:	39.42	Pump Intake Setting	Midpoint of screen
Depth to Water:	35.42	Pump on: 15:08	off: 15:45
Water Column:	4.00		
Gallons/Foot:	0.6530		
Gallons in Well:	2.61		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
15:08	0	250	7.85	-96.3	7.59	0.666	15.66	35.42	4.11	
15:13	5	250	7.93	-102.0	7.34	0.661	15.29	35.47	2.29	
15:18	10	250	7.68	-116.8	7.31	0.661	15.42	35.46	1.27	
15:23	15	250	7.00	-119.2	7.30	0.661	15.32	35.54	0.72	
15:28	20	250	6.85	-121.4	7.28	0.662	15.28	35.63	0.43	
15:33	25	250	6.72	-122.6	7.25	0.662	15.27	35.80	0.42	
15:38	30	250	6.75	-126.1	7.25	0.662	15.26	35.91	0.43	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-17A
Date:	10/3/2013	Sampled By:	NK	Sample ID:	MW-17APB (100313)
Sampling Time:	10:50	Recorded By:	NK		
Weather:	clear, 65	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	21.45 gallons		
Total Depth:	33.80	Total Volume Purged:	21.50 gallons		
Depth to Water:	22.85	Pump on:	9:05	off:	10:52
Water Column:	10.95				
Gallons/Foot:	0.653				
Gallons in Well:	7.15				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:07	2	-	21.9	270	6.82	0.683	18.43	23.58	1.47	Initial
9:30	25	0.29	13.2	326	7.01	0.628	18.57	25.33	2.37	1st Volume
10:10	65	0.18	9.34	381	7.05	0.627	18.75	27.00	2.51	2nd Volume
10:45	100	0.20	8.61	393	6.98	0.626	18.47	28.83	4.50	3rd Volume
10:50	105	-	8.73	407	6.85	0.623	17.00	29.16	4.90	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate. Redox probe may be giving errant readings.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-18
Date:	10/2/2013	Sampled By:	N. Krasnecky	Sample ID:	MW-18PB (100213)
Sampling Time:	17:05	Recorded By:	N.Krasnecky		
Weather:	clear, 80	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.		Water Quality Meter(s) LaMotte 2020 Pine No.	17994
Solinst - 300 ft.	17560	YSI- 600XL Pine No.	05K2340

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	15.67 gallons
Total Depth:	32.50	Total Volume Purged:	16.00 gallons
Depth to Water:	24.50	Pump on: 15:00	off: 17:10
Water Column:	8.00		
Gallons/Foot:	0.6530		
Gallons in Well:	5.22		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
15:02	2	-	11.17	30.0	6.76	0.686	19.09	24.85	2.54	Initial
15:26	26	0.20	4.11	25.0	6.62	0.676	18.04	26.75	2.19	1st Volume
16:10	70	0.12	1.47	70.0	6.96	0.68	19.75	28.91	2.24	2nd Volume
17:00	120	0.10	3.89	70.0	7.03	0.687	20.40	31.10	2.80	3rd Volume
17:05	125	-	3.50	70.0	7.00	0.886	20.45	31.50	2.51	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-19
Date:	10/1/2013	Sampled By:	GG	Sample ID:	MW-19PB (100113)
Sampling Time:	10:30	Recorded By:	GG		
Weather:	Sunny	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	33.21 gallons
Total Depth:	44.75	Total Volume Purged:	35.00 gallons
Depth to Water:	27.80	Pump on: 9:55	off: 10:30
Water Column:	16.95		
Gallons/Foot:	0.6530		
Gallons in Well:	11.07		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:55	0	-	3.13	67.6	6.83	0.867	16.75	28.12	4.95	Initial
10:06	11	1.01	4.80	5.50	6.79	0.784	16.55	28.25	2.17	1st Volume
10:17	22	1.01	1.79	4.15	7.05	0.778	16.80	28.30	2.45	2nd Volume
10:28	33	1.01	1.72	2.12	6.90	0.792	17.25	28.31	0.00	3rd Volume
10:30	35	-	1.56	3.29	6.77	0.800	17.31	28.31	0.00	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-20
Date:	10/1/2013	Sampled By:	N. Krasnecky	Sample ID:	MW-20PB (100113)
Sampling Time:	12:30	Recorded By:	N. Krasnecky		
Weather:	clear, 70	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No. 21881	Water Quality Meter(s) LaMotte 2020 Pine No. 17994
Solinst - 100 ft.	YSI- 600XL Pine No. 05K2340

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	18.71 gallons
Total Depth:	33.25	Total Volume Purged:	19.00 gallons
Depth to Water:	23.70	Pump on: 9:52	off: 12:32
Water Column:	9.55		
Gallons/Foot:	0.6530		
Gallons in Well:	6.24		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:53	1	-	7.72	-45.1	6.49	0.880	16.17	24.71	2.49	Initial
10:31	39	0.16	9.04	-74.8	6.68	0.887	17.60	27.77	1.92	1st Volume
11:20	88	0.13	3.65	-42.4	6.71	0.926	16.11	29.79	2.69	2nd Volume
12:12	140	0.12	1.34	63.4	6.33	0.948	17.85	30.35	1.92	3rd Volume
12:30	158	-	1.33	66.1	6.39	0.932	17.83	30.05	1.34	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-20
Date:	10/1/2013	Sampled By:	N. Krasnecky	Sample ID:	MW-20LF (100113)
Sampling Time:	12:55	Recorded By:	N. Krasnecky		
Weather:	clear 75	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Low Flow Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"				
Total Depth:	33.25	Pump Intake Setting	Midpoint of screen		
Depth to Water:	23.70	Pump on:	12:35	off:	12:57
Water Column:	9.55				
Gallons/Foot:	0.6530				
Gallons in Well:	6.24				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:40	5	150	2.74	56.4	6.40	0.928	17.19	29.50	1.88	
12:45	10	150	2.54	66.8	6.24	0.928	16.64	29.35	0.91	
12:50	15	150	2.50	65.3	6.22	0.925	16.78	29.30	0.71	
12:55	20	150	2.45	84.0	6.20	0.923	16.80	29.25	0.65	
13:00	25	150	--	--	--	--	--	--	--	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate. Product globules on pump upon retrieval.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-21
Date:	10/2/2013	Sampled By:	N. Krasnecky	Sample ID:	MW-21PB (100213)
Sampling Time:	11:45	Recorded By:	N. Krasnecky		
Weather:	Clear, 75	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No. 17560	Water Quality Meter(s) LaMotte 2020 Pine No. 17994
Solinst - 100 ft.	YSI- 600XL Pine No. 05K2340

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	22.23 gallons
Total Depth:	37.90	Total Volume Purged:	22.25 gallons
Depth to Water:	26.55	Pump on: 9:19	off: 11:53
Water Column:	11.35		
Gallons/Foot:	0.6530		
Gallons in Well:	7.41		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:20	1	-	9.90	188.0	6.49	1.119	16.49	28.02	2.44	Initial
9:40	21	0.35	6.19	25.0	6.65	1.113	16.70	31.90	2.27	1st Volume
10:40	81	0.12	2.73	107.5	6.60	1.153	17.83	33.30	2.24	2nd Volume
11:40	141	0.12	2.21	266.5	6.42	1.131	19.51	33.00	2.26	3rd Volume
11:45	146	-	1.94	291.3	6.28	1.142	16.75	33.33	2.07	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	OW-24
Date:		Sampled By:		Sample ID:	
Sampling Time:		Recorded By:			
Weather:		Coded Replicate No.:			

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	
Total Depth:		Total Volume Purged:	gallons
Depth to Water:		Pump on:	off:
Water Column:			
Gallons/Foot:	0.6530	**Note: not enough water in well to purge/sample**	
Gallons in Well:			

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
										Initial
										1st Volume
										2nd Volume
										3rd Volume
										Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	OW-24
Date:		Sampled By:		Sample ID:	
Sampling Time:		Recorded By:			
Weather:		Coded Replicate No.:			

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Low Flow

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"		
Total Depth:		Depth of Pump Intake:	Midpoint of screen
Depth to Water:		Pump on:	off:
Water Column:			
Gallons/Foot:	0.6530	**Note: not enough water in well to purge/sample**	
Gallons in Well:			

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
										DRY

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	OW-25S
Date:		Sampled By:		Sample ID:	
Sampling Time:		Recorded By:			
Weather:		Coded Replicate No.:			

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	
Total Depth:		Total Volumes Purged:	
Depth to Water:		Pump on:	
Water Column:			
Gallons/Foot:	0.6530	**Lack of water - will not attempt to purge/sample**	
Gallons in Well:			

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
										Initial
										1st Volume
										2nd Volume
										3rd Volume
										Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.
NS- not sampled

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	OW-25S
Date:		Sampled By:		Sample ID:	
Sampling Time:		Recorded By:			
Weather:		Coded Replicate No.:			

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Low Flow

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"		
Total Depth:		Pump Intake Setting	Midpoint of screen
Depth to Water:		Pump on:	off:
Water Column:			
Gallons/Foot:	0.6530	**Lack of water - will not attempt to purge/sample**	
Gallons in Well:			

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
										Initial
										1st Volume
										2nd Volume
										3rd Volume
										Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

* Well dried out during low flow purge. Was not sampled.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	OW-26S
Date:		Sampled By:		Sample ID:	
Sampling Time:		Recorded By:			
Weather:		Coded Replicate No.:			

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	
Total Depth:	21.00	Total Volume Purged:	
Depth to Water:	20.30	Pump on:	off:
Water Column:			
Gallons/Foot:	0.6530	Note: Not enough water in well	
Gallons in Well:			

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
										Initial
										1st Volume
										2nd Volume
										3rd Volume
										Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number: NJ000298.0031 Task: 00003 Well ID: OW-26S

Date: Sampled By: Sample ID:

Sampling Time: Recorded By:

Weather: Coded Replicate No.:

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Low flow

Casing Material: SS

Casing Diameter: 4"

Total Depth:

Depth to Water:

Water Column:

Gallons/Foot: 0.6530

Gallons in Well:

Purge Method: (in boldface) **Submersible** Centrifugal Bladder Bailer

Pump Intake Setting Midpoint of screen

Pump on: off:

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-31B2
Date:	10/8/2013	Sampled By:	GG/TM	Sample ID:	MW-31B2PB (100813)
Sampling Time:	9:50	Recorded By:	GG/TM		MW-31B2PB (100813)MS
Weather:	clear, 60	Coded Replicate No.:	MS/MSD		MW-31B2PB (100813)MSD

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	55.42 gallons
Total Depth:	153.00	Total Volume Purged:	60.00 gallons
Depth to Water:	39.80	Pump on: 8:30	off: 9:55
Water Column:	113.20		
Gallons/Foot:	0.1632		
Gallons in Well:	18.47		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:32	2	--	0.98	244.0	6.62	0.869	14.50	40.70	2.94	Initial
9:00	30	0.62	0.48	245.3	7.15	0.925	14.98	40.75	5.89	1st Volume
9:20	50	0.92	0.21	214.0	7.19	0.931	15.15	40.80	5.09	2nd Volume
9:40	70	0.92	0.22	198.2	7.23	0.929	15.10	40.80	5.99	3rd Volume
9:55	85	--	0.29	180.9	7.20	0.932	15.14	40.78	3.94	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-31B3
Date:	10/4/2013	Sampled By:	N.Krasnecky	Sample ID:	MW-31B3PB (100413)
Sampling Time:	11:13	Recorded By:	N.Krasnecky		
Weather:	clear, 70	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No. **17590**	Water Quality Meter(s) 17994 LaMotte 2020 Pine No.
Solinst - 100 ft.	YSI- 600XL Pine No. 12785

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	147 gallons
Total Depth:	342	Total Volume Purged:	150 gallons
Depth to Water:	41.84	Pump on: 8:45	off: 11:15
Water Column:	300.16		
Gallons/Foot:	0.1630		
Gallons in Well:	48.93		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:47	2	--	0.77	232.9	6.80	0.767	16.38	45.68	2.64	Initial
9:25	40	1.22	0.00	219.5	7.36	0.773	15.79	46.25	3.31	1st Volume
10:25	100	0.82	0.00	41.5	7.39	0.853	16.62	45.79	3.10	2nd Volume
11:10	145	1.09	0.12	23.1	7.42	0.863	16.21	48.80	2.47	3rd Volume
11:13	148	--	0.00	23.5	7.43	0.864	18.25	43.96	2.47	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	OW-32D
Date:	10/8/2013	Sampled By:	NK/RA	Sample ID:	OW-32DPB (100713)
Sampling Time:	12:10	Recorded By:	NK/RA		
Weather:	cloudy, 60s	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	24.59 gallons
Total Depth:	39.10	Total Volume Purged:	25.00 gallons
Depth to Water:	26.55	Pump on: 8:05	off: 12:20
Water Column:	12.55		
Gallons/Foot:	0.6530		
Gallons in Well:	8.20		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:06	1	--	72.6	-27.0	6.33	0.414	13.97	26.88	1.82	Initial
9:15	70	0.12	22.2	-41.6	6.66	0.403	14.86	33.81	1.32	1st Volume
10:25	140	0.12	15.7	2.1	6.95	0.519	15.44	36.00	1.84	2nd Volume
12:00	235	0.09	44.2	40.2	7.03	0.569	13.43	37.03	1.44	3rd Volume
12:20	255	--	20.9	37.1	7.02	0.576	16.75	37.15	1.60	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate. Sheen observed; product sheen on pump.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	OW-32D
Date:	10/8/2013	Sampled By:	NK	Sample ID:	OW-32DLF (100813)
Sampling Time:	12:47	Recorded By:	NK		
Weather:	clear, 65	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Low Flow Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"				
Total Depth:	39.40	Pump Intake Setting	Midpoint of screen		
Depth to Water:	37.15	Pump on:	12:24	off:	12:50
Water Column:	2.25				
Gallons/Foot:	0.6530				
Gallons in Well:	1.47				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:29	5	300	40.10	37.1	6.99	0.574	15.99	37.25	1.12	
12:34	10	300	17.00	40.6	6.98	0.570	16.07	37.15	1.10	
12:39	15	300	14.00	47.1	6.97	0.572	16.17	37.10	1.10	
12:44	20	300	14.00	52.9	6.97	0.572	15.91	37.20	--	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate. Product on pump.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-36B
Date:	10/4/2013	Sampled By:	Ruben Alonso	Sample ID:	MW-36PB (100413)
Sampling Time:	9:30	Recorded By:	Ruben Alonso		
Weather:	Sunny, 60s	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	17.26 gallons
Total Depth:	57.00	Total Volume Purged:	18.00 gallons
Depth to Water:	21.74	Pump on: 8:36	off: 9:35
Water Column:	35.26		
Gallons/Foot:	0.1632		
Gallons in Well:	5.75		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:37	1	--	1.53	242.8	6.23	1.098	15.57	21.74	3.66	Initial
8:56	20	0.29	0.60	236.3	6.10	0.530	14.56	25.86	3.69	1st Volume
9:15	39	0.30	1.01	222.4	6.02	0.520	14.46	25.98	3.37	2nd Volume
9:25	49	0.58	0.32	223.1	6.02	0.522	14.33	26.04	3.29	3rd Volume
9:30	54	-	0.58	221.9	6.01	0.531	14.40	-	3.32	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-37
Date:	10/2/2013	Sampled By:	GG	Sample ID:	MW-37PB (100213)
Sampling Time:	9:14	Recorded By:	GG		
Weather:	70s, sunny	Coded Replicate No.:	-		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	9.087 gallons		
Total Depth:	42.00	Total Volume Purged:	9.10 gallons		
Depth to Water:	23.44	Pump on:	8:56	off:	9:16
Water Column:	18.56				
Gallons/Foot:	0.1632				
Gallons in Well:	3.03				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
8:56	0	--	2748	190.1	6.45	0.828	18.22	24.21	3.68	Initial
9:02	6	0.50	783	79.7	6.64	0.848	17.63	24.23	3.44	1st Volume
9:08	12	0.50	86.0	196.1	6.86	0.872	17.74	24.35	5.18	2nd Volume
9:14	18	0.50	77.4	200.8	6.93	0.876	17.34	24.36	3.15	3rd Volume
9:16	20	-	60.1	189.8	7.00	0.881	17.16	24.35	6.98	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-37B
Date:	10/2/2013	Sampled By:	N.Krasnecky	Sample ID:	MW-37PB (100213)
Sampling Time:	13:32	Recorded By:	N.Krasnecky		
Weather:	clear, 80	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No. 17560	Water Quality Meter(s) LaMotte 2020 Pine No. 17994
Solinst - 100 ft.	YSI- 600XL Pine No. 05K2340

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	25.36 gallons
Total Depth:	79.10	Total Volume Purged:	27.00 gallons
Depth to Water:	27.30	Pump on: 12:48	off: 13:25
Water Column:	51.80		
Gallons/Foot:	0.1632		
Gallons in Well:	8.45		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:50	2	--	25.6	228.0	6.63	0.830	18.00	27.61	3.74	Initial
13:00	12	0.70	14.78	390.0	6.69	0.817	17.56	27.72	3.76	1st Volume
13:08	20	1.06	4.80	408.0	6.73	0.811	17.20	27.73	3.83	2nd Volume
13:16	28	1.06	3.87	418.0	6.76	0.810	17.00	27.75	3.63	3rd Volume
13:22	34	-	2.47	429.0	6.75	0.803	17.46	27.48	3.60	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-37B
Date:	10/2/2013	Sampled By:	N. Krasnecky	Sample ID:	MW-37BLF (100213)
Sampling Time:	14:15	Recorded By:	N.Krasnecky		
Weather:	clear, 80	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No. 17560	Water Quality Meter(s) LaMotte 2020 Pine No. 17994
Solinst - 300 ft.	YSI- 600XL Pine No. 05K2340

Low Flow Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"				
Total Depth:	79.10	Pump Intake Setting	Midpoint of screen		
Depth to Water:	27.30	Pump on:	13:28	off:	14:20
Water Column:	51.80				
Gallons/Foot:	0.1632				
Gallons in Well:	8.45				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mL/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:33	5	300	1.92	447.4	6.57	0.809	17.84	27.38	2.97	
13:38	10	300	11.1	457.9	6.48	0.803	18.27	27.38	2.80	
13:43	15	300	48.3	473.3	6.26	0.786	18.05	27.38	2.82	
13:48	20	300	32.2	486.1	6.23	0.795	18.71	27.35	2.63	
13:53	25	300	20.0	486.7	6.30	0.799	19.21	27.35	2.52	
13:58	30	300	14.31	486.1	6.42	0.809	19.72	27.35	2.48	
14:03	35	300	6.43	497.2	6.30	0.817	18.34	27.35	2.49	
14:08	40	300	3.48	498.4	6.35	0.812	18.25	27.35	2.41	
14:13	45	300	2.87	495.0	6.41	0.814	18.04	27.35	2.40	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-37B2
Date:	10/2/2013	Sampled By:	GG	Sample ID:	MW-37B2PB (100213)
Sampling Time:	12:00	Recorded By:	GG		
Weather:	Sunny, 70s	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	90.64 gallons
Total Depth:	213.53	Total Volume Purged:	91.00 gallons
Depth to Water:	28.39	Pump on: 9:35	off: 12:05
Water Column:	185.14		
Gallons/Foot:	0.1632		
Gallons in Well:	30.21		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:35	0	--	35.2	177.6	7.72	0.630	18.89	28.95	5.98	Initial
10:20	45	0.67	6.99	158.9	7.67	0.707	16.96	28.93	4.94	1st Volume
11:05	90	0.67	5.60	150.0	7.48	0.687	18.00	28.95	3.32	2nd Volume
12:00	135	0.67	1.73	148.0	7.55	0.730	17.59	28.95	6.31	3rd Volume
12:05	140	-	1.29	146.5	7.55	0.728	17.93	28.95	6.54	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-37B3
Date:	10/2/2013	Sampled By:	GG	Sample ID:	MW-37B3PB (100213)
Sampling Time:	16:10	Recorded By:	GG		
Weather:	Sunny, 70s	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	145 gallons
Total Depth:	325.63	Total Volume Purged:	170 gallons
Depth to Water:	28.60	Pump on: 12:35	off: 16:20
Water Column:	297.03		
Gallons/Foot:	0.1632		
Gallons in Well:	48.48		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:35	0	--	3.65	119.0	8.42	0.433	18.88	36.60	6.13	Initial*
14:15	100	0.48	2.33	132.6	7.43	0.835	17.93	36.20	2.14	1st Volume
15:25	170	0.69	1.45	102.6	7.59	0.862	18.01	42.90	3.33	2nd Volume
16:10	215	1.08	0.86	93.6	7.36	0.850	18.21	43.00	3.34	3rd Volume
16:15	-	-	0.88	94.5	7.33	0.854	18.07	43.00	3.33	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-38
Date:	10/2/2013	Sampled By:	Ruben Alonso	Sample ID:	MW-38PB (100213)
Sampling Time:	16:30	Recorded By:	Ruben Alonso		
Weather:	sunny, 70	Coded Replicate No.:	DUP(100213)		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	8.338 gallons
Total Depth:	37.00	Total Volume Purged:	9.00 gallons
Depth to Water:	19.97	Pump on: 15:59	off: 16:35
Water Column:	17.03		
Gallons/Foot:	0.1632		
Gallons in Well:	2.78		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
16:00	1	--	74	59.2	6.94	3.397	20.39	19.97	2.04	Initial
16:08	9	0.31	>999	86.8	7.16	3.405	17.37	22.05	2.11	1st Volume
16:15	16	0.40	741	110.5	6.93	3.543	17.73	22.71	1.27	2nd Volume
16:25	24	0.35	72	115.1	7.07	3.442	16.73	23.65	1.29	3rd Volume
16:30	-	-	61	118.0	7.02	3.451	16.61	-	1.34	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-38B
Date:	10/2/2013	Sampled By:	Ruben Alonso	Sample ID:	MW-38BPB (100213)
Sampling Time:	15:45	Recorded By:	Ruben Alonso		
Weather:	sunny, 70s	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	24.36 gallons
Total Depth:	78.00	Total Volume Purged:	25.00 gallons
Depth to Water:	28.25	Pump on: 13:02	off: 15:50
Water Column:	49.75		
Gallons/Foot:	0.1632		
Gallons in Well:	8.12		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:03	1	--	high	-41.2	7.43	0.932	19.57	28.25	2.17	Initial
13:55	53	0.15	47.9	-8.2	7.53	0.908	18.55	60.60	2.32	1st Volume
15:00	118	0.12	56.2	-9.6	7.64	1.004	18.96	60.60	2.48	2nd Volume
15:40	158	0.20	60.2	-14.4	7.48	0.983	19.38	71.82	4.04	3rd Volume
15:45		-	58.5	-29.6	7.80	0.981	18.34	-	3.94	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-39
Date:		Sampled By:		Sample ID:	MW-39PB ( )
Sampling Time:		Recorded By:			
Weather:		Coded Replicate No.:			

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	gallons
Total Depth:	29.25	Total Volume Purged:	gallons
Depth to Water:	24.82	Pump on:	off:
Water Column:			
Gallons/Foot:	0.1632	**Lack of water - will not attempt to purge/sample**	
Gallons in Well:			

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
										Initial
										1st Volume
										2nd Volume
										3rd Volume
										Sample

Observations During Sampling

Well Condition: _____ Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-39B
Date:	10/3/2013	Sampled By:	N. Kiasnecky	Sample ID:	MW-39BPB (100313)
Sampling Time:	12:30	Recorded By:	N. Kiasnecky		
Weather:	Clear, 75	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	17.40 gallons
Total Depth:	62.00	Total Volume Purged:	18.00 gallons
Depth to Water:	26.47	Pump on: 11:29	off: 12:32
Water Column:	35.53		
Gallons/Foot:	0.1632		
Gallons in Well:	5.80		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
11:31	2	--	2144	240	6.98	0.959	19.13	27.20	3.17	Initial
11:50	21	0.28	48.7	445	6.66	0.958	18.18	31.32	2.63	1st Volume
12:10	41	0.29	11.4	506	6.11	0.977	18.22	32.05	2.71	2nd Volume
12:28	59	0.32	8.3	530	5.84	0.990	18.47	32.78	2.46	3rd Volume
12:30	61	-	7.6	540	5.67	0.985	17.17	33.00	2.43	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate. Redox probe not working properly.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-40
Date:	10/3/2013	Sampled By:	TM	Sample ID:	MW-40PB (100313)
Sampling Time:	10:06	Recorded By:	TM		
Weather:	sunny, 75	Coded Replicate No.:	DUP(100313)		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	49.16 gallons
Total Depth:	37.00	Total Volume Purged:	50.0 gallons
Depth to Water:	11.90	Pump on: 9:15	off: 10:08
Water Column:	25.10		
Gallons/Foot:	0.6528		
Gallons in Well:	16.39		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:15	0	--	2.93	231.6	6.35	0.597	18.50	15.50	2.70	Initial
9:31	16	1.02	2.26	241.2	6.50	0.597	17.98	16.30	3.29	1st Volume
9:47	32	1.02	15.80	227.6	6.55	0.615	18.18	17.90	3.02	2nd Volume
10:03	48	1.02	69.0	219.9	6.62	0.586	17.71	22.60	4.60	3rd Volume
10:06	51	-	37.7	221.4	6.72	0.615	18.07	22.40	5.42	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-41
Date:	10/3/2013	Sampled By:	N.Krasnecky	Sample ID:	MW-41PB (100313)
Sampling Time:	14:40	Recorded By:	N.Krasnecky		
Weather:	Mostly Cloudy, 75	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	32.55 gallons
Total Depth:	31.00	Total Volume Purged:	34.50 gallons
Depth to Water:	14.38	Pump on: 13:15	off: 14:40
Water Column:	16.62		
Gallons/Foot:	0.6528		
Gallons in Well:	10.85		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
13:16	1	--	56.0	353.0	5.72	3.448	19.75	15.11	2.44	Initial
13:50	35	0.31	30.9	516.0	5.98	3.504	19.80	16.36	2.39	1st Volume
14:16	61	0.42	8.71	522.0	6.00	3.490	19.30	16.79	1.82	2nd Volume
14:38	83	0.49	2.77	528.0	6.10	3.517	21.00	17.32	1.51	3rd Volume
14:40	85	-	2.70	528.0	6.10	3.517	21.02	16.90	1.50	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate. Redox probe not working properly.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-42
Date:	10/3/2013	Sampled By:	TM	Sample ID:	MW-42PB (100313)
Sampling Time:	15:25	Recorded By:	TM		
Weather:	cloudy, 75	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	29.87 gallons
Total Depth:	31.50	Total Volume Purged:	31.00 gallons
Depth to Water:	16.25	Pump on: 14:00	off: 15:30
Water Column:	15.25		
Gallons/Foot:	0.6528		
Gallons in Well:	9.96		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
14:02	2	--	11.7	-6.0	7.13	1.049	19.50	17.10	6.26	Initial
14:22	22	0.45	69.5	55.7	7.00	0.953	20.50	24.50	6.20	1st Volume
14:50	50	0.36	62.8	77.5	6.90	1.037	20.00	27.85	7.75	2nd Volume
15:20	80	0.33	44.4	96.5	6.85	1.025	21.10	29.20	7.95	3rd Volume
15:25	85	-	40.1	101.4	6.88	1.014	20.51	29.10	7.93	Sample

Observations During Sampling

Well Condition: Need to replace well cap

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-43
Date:	10/3/2013	Sampled By:	TM	Sample ID:	MW-43PB (100313)
Sampling Time:	13:10	Recorded By:	TM		
Weather:	sunny, 75	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	29.67 gallons
Total Depth:	31.10	Total Volume Purged:	33.50 gallons
Depth to Water:	15.95	Pump on: 12:08	off: 13:15
Water Column:	15.15		
Gallons/Foot:	0.6528		
Gallons in Well:	9.89		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
12:10	2	--	4.19	-67.7	6.81	3.198	19.98	16.85	3.13	Initial
12:30	22	0.45	2.10	-73.4	6.79	3.398	20.88	19.25	3.95	1st Volume
12:50	42	0.49	1.86	-73.1	6.85	3.516	20.62	19.25	3.43	2nd Volume
13:10	62	0.49	1.74	-82.1	6.88	3.589	20.87	19.90	3.57	3rd Volume
13:15	67	-	2.00	-77.3	6.87	3.588	20.60	19.91	3.77	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-44
Date:	10/3/2013	Sampled By:	TM	Sample ID:	MW-44PB (100313)
Sampling Time:	11:25	Recorded By:	TM		
Weather:	sunny, 75	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	32.31 gallons
Total Depth:	30.80	Total Volume Purged:	37.00 gallons
Depth to Water:	14.30	Pump on: 10:50	off: 11:30
Water Column:	16.50		
Gallons/Foot:	0.6528		
Gallons in Well:	10.77		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
10:52	2	--	24.9	233.0	6.60	4.36	19.00	15.35	7.40	Initial
11:03	13	0.83	9.6	225.0	6.68	4.18	19.50	18.10	6.77	1st Volume
11:14	24	0.98	10.4	188.4	6.68	4.27	19.50	19.80	5.87	2nd Volume
11:25	35	0.98	12.3	167.4	6.70	4.13	18.49	22.00	5.20	3rd Volume
11:30	50	-	11.8	161.2	6.71	3.95	19.17	22.30	5.70	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-85B3
Date:	10/8/2013	Sampled By:	NK	Sample ID:	MW-85B3PB (100813)
Sampling Time:	16:30	Recorded By:	NK		
Weather:	clear, 70	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	122.7 gallons
Total Depth:	274.70	Total Volume Purged:	123.0 gallons
Depth to Water:	24.07	Pump on: 14:26	off: 16:30
Water Column:	250.63		
Gallons/Foot:	0.1632		
Gallons in Well:	40.90		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
14:28	2	--	26.0	-43.1	6.75	0.273	16.13	29.83	0.57	Initial
15:15	49	0.83	6.21	-87.8	7.08	0.413	16.44	32.11	0.39	1st Volume
15:51	85	1.14	3.10	-67.5	7.43	0.450	14.73	32.23	0.15	2nd Volume
16:26	120	1.17	2.86	-47.7	7.57	0.458	14.22	33.53	0.09	3rd Volume
16:30	124	-	2.12	-47.2	7.61	0.456	13.89	26.00	0.13	Sample

Observations During Sampling

Well Condition: Good/ Sheen observed
Strong sulfur smell / yellow

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-86B3
Date:	10/7/2013	Sampled By:	TM/NK	Sample ID:	MW-86B3PB (100713)
Sampling Time:	12:45	Recorded By:	TM/NK		MW-86B3PB (100713)MS
Weather:	Overcast, 70	Coded Replicate No.:	MS/MSD		MW-86B3PB (100713)MSD

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	180.3 gallons
Total Depth:	394.70	Total Volume Purged:	181.0 gallons
Depth to Water:	25.94	Pump on: 9:33	off: 12:50
Water Column:	368.76		
Gallons/Foot:	0.1630		
Gallons in Well:	60.11		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:34	1	--	5.84	203.0	6.66	0.905	14.75	27.49	3.74	Initial
10:28	55	1.09	0.62	199.4	7.55	0.933	14.70	27.88	3.58	1st Volume
11:25	112	1.05	0.55	196.4	7.62	0.949	14.78	27.75	2.93	2nd Volume
12:40	187	0.80	0.16	178.6	7.54	0.950	16.10	27.79	2.61	3rd Volume
12:45	192	-	1.82	174.2	7.49	0.948	14.80	27.25	3.23	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-87B1
Date:	10/2/2013	Sampled By:	RA/RPK	Sample ID:	MW-87B1(100213)
Sampling Time:	10:40	Recorded By:	RA/RPK		
Weather:	Sunny, 70s	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 22089
Solinst - 300 ft.	YSI- 600XL Pine No. 8999

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	3
Volume Purged Per Stroke:	--
Purge Stroke Duration:	--
Total Volume Purged:	--
Total Purge Duration:	70

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:30	--	--	0.74	257.1	6.84	2.335	17.49	--	3.10	Initial/1 vol
--	--	--	--	--	--	--	--	--	--	2 vol
--	--	--	--	--	--	--	--	--	--	3 vol
10:40	70	--	0.15	84.5	7.53	2.172	20.58	--	5.51	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Notes: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-87B2
Date:	10/2/2013	Sampled By:	RA/RPK	Sample ID:	MW-87B2(100213)
Sampling Time:	10:45	Recorded By:	RA/RPK		
Weather:	Sunny, 70s	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 22089
Solinst - 300 ft.	YSI- 600XL Pine No. 8999

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	3
Volume Purged Per Stroke:	--
Purge Stroke Duration:	--
Total Volume Purged:	--
Total Purge Duration:	75

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:30	0	--	0.37	194.2	7.71	1	24.07	--	6.68	Initial/1 vol
--	--	--	--	--	--	--	--	--	--	2 vol
--	--	--	--	--	--	--	--	--	--	3 vol
10:45	75	--	3.62	106.5	7.86	1	20.36	--	5.80	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-87B3
Date:	10/2/2013	Sampled By:	RA/RPK	Sample ID:	MW-87B3(100213)
Sampling Time:	10:50	Recorded By:	RA/RPK		
Weather:	Sunny, 70s	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 22089
Solinst - 300 ft.	YSI- 600XL Pine No. 8999

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	3
Volume Purged Per Stroke:	--
Purge Stroke Duration:	--
Total Volume Purged:	--
Total Purge Duration:	80

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:30	0	--	3.93	174.1	7.91	0.589	20.61	--	6.00	Initial/1 vol
--	--	--	--	--	--	--	--	--	--	2 vol
--	--	--	--	--	--	--	--	--	--	3 vol
10:50	80	--	1.95	83.4	7.99	0.583	18.01	--	6.10	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-87B4
Date:	10/2/2013	Sampled By:	RA/RPK	Sample ID:	MW-87B4 (100213)
Sampling Time:	10:55	Recorded By:	RA/RPK		
Weather:	Sunny, 70s	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 22089
Solinst - 300 ft.	YSI- 600XL Pine No. 8999

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	3
Volume Purged Per Stroke:	--
Purge Stroke Duration:	--
Total Volume Purged:	--
Total Purge Duration:	85

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:30	0	--	7.21	160.8	7.88	0.576	20.89	--	7.25	Initial/1 vol
--	--	--	--	--	--	--	--	--	--	2 vol
--	--	--	--	--	--	--	--	--	--	3 vol
10:55	85	--	0.59	88.6	7.99	0.570	19.54	--	4.88	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-87B5
Date:	10/2/2013	Sampled By:	RA/RPK	Sample ID:	MW-87B5(100213)
Sampling Time:	11:00	Recorded By:	RA/RPK		
Weather:	Sunny, 70s	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 22089
Solinst - 300 ft.	YSI- 600XL Pine No. 8999

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	3
Volume Purged Per Stroke:	--
Purge Stroke Duration:	--
Total Volume Purged:	--
Total Purge Duration:	90

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
9:30	0	--	0.51	155.5	7.77	0.779	21.83	--	5.64	Initial/1 vol
--	--	--	--	--	--	--	--	--	--	2 vol
--	--	--	--	--	--	--	--	--	--	3 vol
11:00	90	--	3.53	91.9	7.94	0.77	19.41	--	4.03	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-88B1
Date:	10/9/2013	Sampled By:	RA/RPK	Sample ID:	MW-88B1(100913)
Sampling Time:	9:05	Recorded By:	RA/RPK		
Weather:	Cloudy, 50s	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 22089
Solinst - 300 ft.	YSI- 600XL Pine No. 8999

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	3
Volume Purged Per Stroke:	--
Purge Stroke Duration:	--
Total Volume Purged:	--
Total Purge Duration:	75

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
7:50	0	--	5.23	-42.0	6.56	0.626	15.58	18.20	3.11	Initial/1 vol
--	--	--	--	--	--	--	--	--	--	2 vol
--	--	--	--	--	--	--	--	--	--	3 vol
9:05	75	--	0.74	12.4	7.46	0.67	14.92	--	3.85	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Notes: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-88B2
Date:	10/9/2013	Sampled By:	RA/RPK	Sample ID:	MW-88B2(100913)
Sampling Time:	9:10	Recorded By:	RA/RPK		
Weather:	Cloudy, 50s	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 22089
Solinst - 300 ft.	YSI- 600XL Pine No. 8999

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	3
Volume Purged Per Stroke:	--
Purge Stroke Duration:	--
Total Volume Purged:	--
Total Purge Duration:	77

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
7:53	0	--	1.10	-75.0	6.86	0.569	15.64	16.85	3.77	Initial/1 vol
--	--	--	--	--	--	--	--	--	--	2 vol
--	--	--	--	--	--	--	--	--	--	3 vol
9:10	77	--	0.61	6.80	7.68	0.499	14.83	--	3.77	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Notes: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-88B3
Date:	10/9/2013	Sampled By:	RA/RPK	Sample ID:	MW-88B3(100913)
Sampling Time:	9:15	Recorded By:	RA/RPK		
Weather:	Cloudy, 50s	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 22089
Solinst - 300 ft.	YSI- 600XL Pine No. 8999

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	3
Volume Purged Per Stroke:	--
Purge Stroke Duration:	--
Total Volume Purged:	--
Total Purge Duration:	80

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
7:55	0	--	0.73	-67.1	6.97	0.715	15.48	16.50	3.22	Initial/1 vol
--	--	--	--	--	--	--	--	--	--	2 vol
--	--	--	--	--	--	--	--	--	--	3 vol
9:15	80	--	0.74	29.7	7.66	0.636	15.22	--	4.78	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Notes: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0031	Task:	00003	Well ID:	MW-88B4
Date:	10/9/2013	Sampled By:	RA/RPK	Sample ID:	MW-88B4(100913)
Sampling Time:	9:20	Recorded By:	RA/RPK		
Weather:	Cloudy, 50s	Coded Replicate No.:	--		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 22089
Solinst - 300 ft.	YSI- 600XL Pine No. 8999

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	3
Volume Purged Per Stroke:	--
Purge Stroke Duration:	--
Total Volume Purged:	--
Total Purge Duration:	85

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Dissolved Oxygen (mg/L)	Comments
7:55	0	--	0.90	-26.8	7.16	2.229	14.51	14.66	2.24	Initial/1 vol
--	--	--	--	--	--	--	--	--	--	2 vol
--	--	--	--	--	--	--	--	--	--	3 vol
9:20	85	--	0.68	46.9	7.49	2.070	14.88	--	3.75	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site treatment

Notes: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-1
Date:	10/7/2014	Sampled By:	MDR	Sample ID:	MW-1PB (100714)
Sampling Time:	14:50	Recorded By:	MDR		
Weather:	Overcast 70's	Coded Replicate No.:	MDR		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	30 gallons
Total Depth:	33.04	Total Volume Purged:	30.00 gallons
Depth to Water:	17.11	Pump on: 13:41	off: 14:51
Water Column:	15.93		
Gallons/Foot:	0.6530		
Gallons in Well:	10		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
13:41	-	-	495.00	114.0	6.86	0.568	20.42	18.60	8.25	Initial
14:08	27	0.37	80.20	141.0	6.93	0.588	17.69	20.13	1.36	1st volume
14:28	47	0.5	44.10	162.0	7.12	0.598	16.78	20.18	5.95	2nd volume
14:48	67	0.5	46.80	160.0	6.53	0.618	16.23	-	4.93	3rd volume
										Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-1B
Date:	10/7/2014	Sampled By:	N. Comrie	Sample ID:	MW-1PB (100714)
Sampling Time:	15:10	Recorded By:	N. Comrie		
Weather:	70's overcast	Coded Replicate No.:	n/a		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaM LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine I Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	20.52 gallons
Total Depth:	69.85	Total Volume Purged:	21.00 gallons
Depth to Water:	20.8	Pump on: 13:11	off: 13:11
Water Column:	41.97		
Gallons/Foot:	0.1632		
Gallons in Well:	6.84		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
13:42	2	0.3	11.80	75	8.22	1.2	19.70	33.74	10.00	Initial
14:15	33	0.3	9.60	90.0	9.00	1.14	18.23	33.90	4.82	1st volume
14:44	62	0.3	2.10	91	9.47	1.17	17.54	39.20	4.83	2nd volume
15:01	77	0.3	0.00	87.0	9.27	1.180	16.27	40.51	4.50	3rd volume
15:10	86	0.3	0.00	87.0	8.94	1.180	13.68	40.62	4.40	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-8
Date:	10/7/2014	Sampled By:	MDR	Sample ID:	MW-1PB (100714)
Sampling Time:	9:05	Recorded By:	MDR		
Weather:	70's overcast	Coded Replicate No.:	N/a		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaM LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	19.08	gallons	
Total Depth:	35.70	Total Volume Purged:	20.00	gallons	
Depth to Water:	23.95	Pump on:	8:30	off:	9:11
Water Column:	9.75				
Gallons/Foot:	0.6530				
Gallons in Well:	6.36				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
8:30	-	-	66.50	-19.0	7.79	2.020	16.41	23.95	7.35	Initial
8:42	12	0.60	10.40	-7.0	7.78	2.000	14.90	26.60	6.63	1st Volume
8:52	22	0.75	13.80	10.0	7.79	2.040	14.77	27.30	5.85	2nd Volume
9:02	32	0.75	5.80	0.4	7.79	2.060	14.09	27.70	8.67	3rd Volume
9:10	40	-	3.70	3.0	7.81	2.070	14.66	26.30	12.28	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.
- Not measured

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-9B
Date:	10/7/2014	Sampled By:	N.Comrie	Sample ID:	MW-1PB (100714)
Sampling Time:	8:55	Recorded By:	N.Comrie		
Weather:	Sunny	Coded Replicate No.:	n/a		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMı LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine ı Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder	Bailer
Casing Diameter:	2"	Volumes to be Purged:	16.00	gallons		
Total Depth:	64.20	Total Volume Purged:	16	gallons		
Depth to Water:	31.12	Pump on:	8:25	off:	8:56	
Water Column:	33.08					
Gallons/Foot:	0.1632					
Gallons in Well:	5.39					

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
8:30	2	0.75	255.00	161.0	6.68	0.708	16.90	33.50	7.64	Initial
8:38	8	0.75	31.20	70.0	6.74	0.739	15.65	34.00	5.42	1st Volume
8:46	16	0.75	25.30	62.0	6.67	0.748	15.18	34.03	5.09	2nd Volume
8:53	24	0.75	25.20	41.0	6.58	0.756	15.10	34.05	5.00	3rd Volume
8:55	26	0.75	24.70	39.0	6.59	0.760	15.22	34.05	5.00	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-10
Date:	9/30/2014	Sampled By:	MDR	Sample ID:	MW-1PB (093014)
Sampling Time:	16:45	Recorded By:	MDR		
Weather:	Sunny	Coded Replicate No.:	n/a		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	20.00	gallons	
Total Depth:	26.96	Total Volume Purged:	20	gallons	
Depth to Water:	16.76	Pump on:	15:05	off:	16:51
Water Column:	13.09				
Gallons/Foot:	10.2000				
Gallons in Well:	6.50				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
15:05	0	-	69.80	65.0	6.80	0.416	18.38	16.76	1.77	Initial
15:35	30	0.2	36.80	35.0	6.77	0.404	17.13	18.62	11.58	1st Volime
16:05	60	0.25	28.10	53.0	6.75	0.405	16.83	18.65	14.73	2nd Volume
16:35	90	0.22	12.50	69.0	6.84	0.410	17.26	18.72	11.00	3rd Volume
16:50	105	-	5.20	67.0	6.52	0.400	17.47	18.52	11.38	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-10B
Date:	9/30/2014	Sampled By:	DJM	Sample ID:	MW-1PB (093014)
Sampling Time:	16:15	Recorded By:	DJM		
Weather:	Overcast	Coded Replicate No.:	n/a		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 21412
Solinst - 300 ft.	YSI- 600XL Pine | Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	37 gallons		
Total Depth:	103.44	Total Volume Purged:	gallons		
Depth to Water:	26.35	Pump on:	15:05	off:	16:20
Water Column:	77.09				
Gallons/Foot:	0.1632				
Gallons in Well:	12.56				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
15:05	-	0.50	6.20	108.0	8.54	0.863	20.24	26.35	17.40	Initial
15:29	24	0.50	10.00	32.0	6.84	1.06	17.50	29.13	26.34	1st Volume
15:53	48	0.50	6.50	39.0	7.11	1.3	16.80	28.10	19.57	2nd Volume
16:12	72	0.50	7.00	32.0	10.48	1.23	17.36	29.00	19.33	3rd Volume
16:15	75	0.50	5.10	29.0	6.43	1.25	16.15	29.27	20.08	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-10B2
Date:	10/6/2014	Sampled By:	TM/NC	Sample ID:	MW-1PB (100614)
Sampling Time:	0:00	Recorded By:	TM/NC		
Weather:	Sunny 70's	Coded Replicate No.:	n/a		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine I Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	77 gallons
Total Depth:	186.93	Total Volume Purged:	80 gallons
Depth to Water:	29.80	Pump on: 13:25	off: 15:46
Water Column:	157.13		
Gallons/Foot:	0.1632		
Gallons in Well:	25.60		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
13:27	2	-	26.60	154	6.97	1.620	20.26	31.70	6.35	Initial
14:00	33	0.78	7.30	111	7.84	1.530	18.64	31.79	4.81	1st vol
14:50	85	0.5	1.20	99	7.47	1.540	18.31	31.79	10.90	2nd Vol
15:40	135	0.51	0.00	113	7.54	1.520	17.93	32.43	10.1	3rd Vol
15:45	140	-	0.00	112	8.06	1.55	17.95	32.35	10.15	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-10B3
Date:	10/2/2014	Sampled By:	TM/NK	Sample ID:	MW-1PB (100214)
Sampling Time:	13:20	Recorded By:	NK		
Weather:	Overcast 70's	Coded Replicate No.:	n/a		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No. **10489**	LaMotte 2020 Pine No.
Solinst - 150 ft.	YSI- 600XL Pine I Pine No. 21247

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	158 gallons
Total Depth:	347.42	Total Volume Purged:	162.0 gallons
Depth to Water:	29.00	Pump on: 11:09	off: 13:21
Water Column:	318.42		
Gallons/Foot:	0.1632		
Gallons in Well:	52.00		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
11:11	2	-	4.4	283	6.79	0.515	16.67	29.11	9.44	Initial
12:00	49	1.06	1	156	7.18	0.71	15.92	29.50	16.90	1st Volume
12:40	40	1.3	1.8	155	7.56	0.675	17.54	29.50	15.66	2nd Volume
13:15	45	1.15	0.8	130	7.69	0.694	16.20	29.50	10.89	3rd Volume
13:21	6	1.15	0	133	7.59	0.703	15.92	29.10	11.10	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-12
Date:	10/2/2014	Sampled By:	MDR	Sample ID:	MW-1PB (100214)
Sampling Time:	11:00	Recorded By:	MDR		
Weather:	cloudy 70's	Coded Replicate No.:	n/a		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine I Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	33 gallons
Total Depth:	41.40	Total Volume Purged:	35 gallons
Depth to Water:	24.58	Pump on: 10:10	off: 11:05
Water Column:	16.82		
Gallons/Foot:	0.6530		
Gallons in Well:	11		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
10:10	-	0.5	418	150	8.41	0.365	15.84	24.58	7.28	Initial
10:26	16	0.67	35.7	102.0	8.28	0.284	14.35	25.00	5.69	1st volume
10:42	32	0.67	9	114	8.14	0.291	15.85	25.03	5.92	2nd volume
10:55	45	0.67	6.7	120.0	8.25	0.316	14.66	25.10	5.92	3rd volume
11:05	55	-	4.7	116.0	8.27	0.323	14.12	24.75	5.78	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-13
Date:	10/9/2014	Sampled By:	MDR/TM/NC	Sample ID:	MW-13PB (100914)
Sampling Time:	14:35	Recorded By:	MDR/TM/NC		
Weather:	Sunny, 70s	Coded Replicate No	n/a		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No. 25675	LaMotte 2020 Pine No. 21247
Solinst - 300 ft.	YSI- 600XL Pi Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	18 gallons
Total Depth:	34.60	Total Volume Purged:	6 gallons
Depth to Water:	25.15	Pump on: 10:10	off:
Water Column:	9.45		
Gallons/Foot:	0.6530		
Gallons in Well:	6.00		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
10:26	16	-	48.4	-3	5.62	0.268	18.80	25.30	10.05	Initial
11:53	103	0.020	47.2	15	5.57	0.273	17.47	26.32	10.77	1st Volume
13:04	174	0.018	33.7	3	5.72	0.285	18.24	26.50	6.80	2nd Volume
14:30	248	0.018	27.7	-17	5.82	0.288	17.46	26.80	6.06	3rd Volume
14:35	-	0.018	28.9	-18	5.86	0.288	19.45	26.85	6.00	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

Note:Obstruction in well needs to be purged with small pump

Note: Previous day (10-8-14) well was purged 1.5 gallons

Note: Contact J. Cucinni about low flow rate and high amount to purge, sampling after purging 1 well volume

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-15
Date:	12/2/2014	Sampled By:	DJM	Sample ID:	MW-15PB (100214
Sampling Time:	12:37	Recorded By:	DJM		
Weather:	overcast	Coded Replicate No.:	Dup-100214		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No. 23587	LaMotte 2020 Pine No. 21283
Solinst - 300 ft.	YSI- 600XL Pi Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	28.65 gallons
Total Depth:	39.33	Total Volume Purged:	12:40 gallons
Depth to Water:	24.70	Pump on: 22:13	off: continued to low flow
Water Column:	14.63		
Gallons/Foot:	0.6530		
Gallons in Well:	9.55		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
9:26	-	0.25	25.30	-113.0	6.86	0.597	15.66	25.55	4.57	Initial
10:29	63	0.15	4.70	-162.0	7.52	0.576	16.05	28.05	9.21	1st Volume
11:32	129	0.15	7.90	-170.0	7.56	0.579	15.91	28.75	3.16	2nd Volume
12:35	192	0.15	8.20	-131.0	7.68	0.584	15.88	29.35	3.31	3rd Volume
12:40	197	0.15	6.60	-156.0	7.38	0.584	15.96	30.07	3.30	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-15
Date:	10/2/2014	Sampled By:	DJM	Sample ID:	MW-15LF (100214
Sampling Time:	13:30	Recorded By:	DJM		
Weather:	Overcasr	Coded Replicate No.:	Dup 100214		

Instrument Identification

Water Level Meter Pine No. 23587	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pi Pine No. 21283

Low Flow

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"		
Total Depth:	39.33	Pump Intake Setting	Midpoint of screen
Depth to Water:	30.02	Pump on: 12:55	off: 13:30
Water Column:	9.31	Total Gallons Purged:	gallons
Gallons/Foot:	0.6530		
Gallons in Well:			

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
12:55	0	200	9.30	-177.0	7.18	0.591	15.42	38.02	1.04	
13:00	5	200	8.20	-191.0	7.14	0.590	14.11	30.08	1.40	
13:05	10	200	7.60	-207.0	7.11	0.588	13.20	30.07	1.62	
13:10	15	200	7.60	-210.0	7.11	0.588	13.21	30.06	0.99	
13:15	20	200	7.60	-218.0	7.11	0.588	15.23	30.05	0.73	
13:20	25	200	7.88	-221	7.1	0.588	15.29	30.04	0.64	
13:25	30	200	7.7	-220	7.10	0.588	15.35	30.05	0.58	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-17A
Date:	9/30/2014	Sampled By:	MDR	Sample ID:	MW-17APB (093014)
Sampling Time:	13:05	Recorded By:	MDR		
Weather:	overcast	Coded Replicate No.:	n/a		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine Pine No.

Volume Average Purge

Casing Material:	Steel	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	21.00 gallons
Total Depth:	33.58	Total Volume Purged:	gallons
Depth to Water:	23.13	Pump on: 11:40	off: 13:10
Water Column:	10.45		
Gallons/Foot:	0.653		
Gallons in Well:	6.82		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
11:40	-	0.25	117.00	46	7.36	0.594	17.14	24.22	1.44	Initial
12:07	27	0.25	15.30	105	7.46	0.569	17.77	25.95	11.60	1st volume
12:35	55	0.28	6.70	117	7.50	0.548	21.03	27.66	12.24	2nd volume
13:05	85	0.2	8.60	128.0	7.42	0.555	18.29	27.88	3.47	3rd volume
13:10	90	-	7.30	127.0	7.32	0.554	19.03	27.75	2.23	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-18
Date:	9/30/2014	Sampled By:	NK	Sample ID:	MW-18PB (093014)
Sampling Time:	13:00	Recorded By:	NK		
Weather:	Partly cloudy, 75	Coded Replicate No.:	-		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No. 10489	LaMotte 2020 Pine No. 21247
Solinst - 150 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	14.42 gallons
Total Depth:	32.28	Total Volume Purged:	14.50 gallons
Depth to Water:	24.92	Pump on: 10:12	off: 13:02
Water Column:	7.36		
Gallons/Foot:	0.6530		
Gallons in Well:	4.81		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
10:15	3	-	7.10	288	6.74	0.614	19.25	25.41	8.07	Initial
10:55	43	0.11	0.20	205	7.22	0.585	19.37	27.12	17.76	1st volume
11:55	103	0.08	0.00	143	7.27	0.589	20.42	28.80	7.44	2nd volume
12:55	163	0.08	2.90	194.0	7.29	0.576	20.02	30.52	9.64	3rd volume
13:02	170	-	0.00	202.0	7.16	0.587	18.51	30.61	10.04	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-19
Date:	10/3/2014	Sampled By:	MR	Sample ID:	MW-19PB (100314)
Sampling Time:	14:45	Recorded By:	MR		
Weather:	Clear, 70s	Coded Replicate No.:	-		

Instrument Identification

Water Level Meter		Water Quality Meter(s)	
Pine No.	A00231	LaMo LaMotte 2020 Pine No.	212412
Solinst - 200 ft.		YSI- 600XL Pine Pine No.	

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	32.1	gallons	
Total Depth:	44.50	Total Volume Purged:		gallons	
Depth to Water:	28.11	Pump on:	13:58	off: 14:46	
Water Column:	16.39				
Gallons/Foot:	0.6530				
Gallons in Well:	10.70				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
13:59	1	-	67.10	32.0	7.58	0.776	19.91	28.75	5.25	Initial
14:14	16	0.67	8.00	-100.0	7.82	0.792	16.75	29.73	5.53	1st Volume
14:28	30	0.67	6.50	-110.0	8.70	0.834	15.92	29.92	5.60	2nd Volume
14:42	44	0.67	3.00	-113.0	8.07	0.807	15.70	29.71	5.38	3rd Volume
14:46	48	0.67	5.10	-108.0	7.87	0.87	15.25	29.81	5.44	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-20
Date:	10/7/2014	Sampled By:	MDR	Sample ID:	MW-20LF (100714)
Sampling Time:	11:20	Recorded By:	MDR		
Weather:	overcast 70s	Coded Replicate No.:	n/a		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pin Pine No.

Low Flow Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"		
Total Depth:	35.35	Pump Intake Setting	Midpoint of screen
Depth to Water:	24.10	Pump on: 11:25	off: 11:55
Water Column:	11.25		
Gallons/Foot:	0.6530		
Gallons in Well:	6.00		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mlpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (°C)	Depth to Water	Diss. Oxygen	Comments
11:25	0	300	20.10	-85.0	7.50	0.658	16.82	30.05	6.85	
11:30	5	300	19.20	-83.0	7.05	0.658	16.85	30.06	6.83	
11:35	10	300	19.50	-79.0	7.05	0.658	16.84	30.09	6.82	
11:40	15	300	19.20	-65.0	7.06	0.658	16.83	30.08	6.79	
11:45	20	300	18.20	-65.0	7.06	0.658	16.82	30.10	6.75	
11:50	25	300	17.50	-47.0	7.07	0.659	16.82	31.12	6.73	
11:55	30	300	16.30	-45.0	7.07	0.659	16.81	31.13	6.72	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-20
Date:	10/7/2014	Sampled By:	MDR	Sample ID:	MW-20PB (100714)
Sampling Time:	11:20	Recorded By:	MDR		
Weather:	Overcast 70s	Coded Replicate No.:	n/a		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	18 gallons		
Total Depth:	35.35	Total Volume Purged:	20.00 gallons		
Depth to Water:	24.10	Pump on:	9:33	off:	11:20
Water Column:	11.25				
Gallons/Foot:	0.6530				
Gallons in Well:	6.00				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
9:33	-	-	138.00	-137.0	6.85	0.595	15.25	24.10	9.71	Initial
10:07	34	0.18	44.90	-98.0	7.23	0.551	15.93	28.90	11.99	1st Volume
10:41	68	0.18	26.20	-118.0	7.13	0.633	16.58	31.00	6.28	2nd Volume
11:15	102	0.18	26.50	-112.0	7.04	0.653	17.53	31.50	5.79	3rd Volume
11:20	107	-	24.90	-90.0	7.05	0.658	16.87	30.05	10.85	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-21
Date:	10/7/2014	Sampled By:	N. Comrie	Sample ID:	MW-21PB (100714)
Sampling Time:	11:25	Recorded By:	N. Comrie		
Weather:	sunny	Coded Replicate No.:	n/a		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine I Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	21.00 gallons
Total Depth:	37.80	Total Volume Purged:	21.00 gallons
Depth to Water:	27.15	Pump on: 9:30	off: 11:25
Water Column:	10.65		
Gallons/Foot:	0.6530		
Gallons in Well:	6.95		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
9:40	2	0.3	27.20	54.0	7.91	2.540	15.87	29.00	7.13	Initial
10:10	30	0.2	12.50	21.0	7.90	2.510	16.08	31.50	5.92	1st Volume
10:45	67	0.2	3.20	15.0	8.47	2.570	16.56	33.40	5.70	2nd Volume
11:20	102	0.2	4.00	20.0	8.47	2.570	17.15	33.90	4.01	3rd Volume
11:25	107	0.2	4.20	20.0	8.45	2.570	17.15	33.9	4.00	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.
- Not measured

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	OW-24
Date:		Sampled By:		Sample ID:	MW-1PB (
Sampling Time:		Recorded By:			
Weather:		Coded Replicate No.:			

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine I Pine No.

Volume Average Purge

Casing Material:	Steel	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	
Total Depth:	21.12	Total Volume Purged:	gallons
Depth to Water:	21.02	Pump on:	off:
Water Column:	0.10		
Gallons/Foot:	0.6530		
Gallons in Well:	0.07		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
										Initial
			Not enough water to sample							1st Volume
										2nd Volume
										3rd Volume
										Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number: NJ000298.0030 Task: 00003 Well ID: OW-24

Date: Sampled By: Sample ID: MW-1PB ( )

Sampling Time: Recorded By:

Weather: Coded Replicate No.:

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine Pine No.

Low Flow

Casing Material: Steel

Casing Diameter: 4"

Total Depth: 21.12

Depth to Water:

Water Column:

Gallons/Foot: 0.6530

Gallons in Well:

Purge Method: (in boldface) **Submersible** Centrifugal Bladder Bailer

Depth of Pump Intake: Midpoint of screen

Pump on: off:

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
										DRY

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	OW-25S
Date:	10/9/2014	Sampled By:	MDR	Sample ID:	OW-25SPB (100914)
Sampling Time:	13:00	Recorded By:	MDR		
Weather:		Coded Replicate No.:	n/a		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine I Pine No.

Volume Average Purge

Casing Material:	Steel	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	6 Gallons		
Total Depth:	23.28	Total Volumes Purged:	3 gallons		
Depth to Water:	20.09	Pump on:	8:58		
Water Column:	3.20				
Gallons/Foot:	0.6530				
Gallons in Well:	2				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
9:00	-	-	386.00	-29	6.38	1.02	15.46	20.61	5.40	Initial
9:12	12	0.17	80.50	-105.0	6.62	1.07	14.99	22.07	2.03	1st Volume
9:20	20	Dry								2nd Volume
										3rd Volume
										Sample
			09:20- well is dry 3 gallons purged							
			1300: sampled for VOCs, not enough volume for other analyses							
			Well only recovered .4' in 4 hours							

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.
NS- not sampled

ARCADIS

Groundwater Sampling Form

Project Number: NJ000298.0030 Task: 00003 Well ID: OW-25S

Date: Sampled By: Sample ID: MW-1PB ( )

Sampling Time: Recorded By:

Weather: Coded Replicate No.:

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No.	LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine I Pine No.

Low Flow

Casing Material: Steel

Casing Diameter: 4"

Total Depth: 23.28

Depth to Water: 20

Water Column:

Gallons/Foot: 0.6530

Gallons in Well:

Purge Method: (in boldface) **Submersible** Centrifugal Bladder Bailer

Pump Intake Setting Midpoint of screen

Pump on: off:

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
										Initial
										1st Volume
										2nd Volume
										3rd Volume
										Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

* Well dried out during low flow purge. Was not sampled.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	OW-26S
Date:		Sampled By:		Sample ID:	MW-1PB ( )
Sampling Time:		Recorded By:			
Weather:		Coded Replicate No.:			

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) 9967 LaM LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine I Pine No.

Volume Average Purge

Casing Material:	Steel	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	
Total Depth:	21.14	Total Volume Purged:	
Depth to Water:		Pump on:	off:
Water Column:			
Gallons/Foot:	0.6530		
Gallons in Well:			

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
										Initial
										1st Volume
										2nd Volume
										3rd Volume
										Sample
			Not enough water to sample .20'							

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-31B2
Date:	10/7/2014	Sampled By:	DJM	Sample ID:	MW-31B2PB (100714)
Sampling Time:	9:30	Recorded By:	DJM		
Weather:	Overcast 70s	Coded Replicate No.:	n/a		

Instrument Identification

Water Level Meter Pine No. A00296	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine I Pine No. 21105

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	55 gallons
Total Depth:	153.00	Total Volume Purged:	gallons
Depth to Water:	39.81	Pump on: 8:30	off:
Water Column:	113.19		
Gallons/Foot:	0.1632		
Gallons in Well:	18.44		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
8:30	-	0.98	17.20	211.0	6.65	0.647	15.85	10.70	1.82	Initial
8:49	19	0.98	0.00	165.0	7.18	0.654	15.66	40.71	1.84	1st Volume
9:07	47	0.98	0.00	155.0	7.27	0.657	15.49	40.94	2.36	2nd Volume
9:25	65	0.98	0.00	150.0	7.21	0.652	15.77	40.81	1.98	3rd Volume
9:30	70	-	0.00	151.0	7.19	0.656	15.62	40.81	1.90	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-31B3
Date:	10/8/2014	Sampled By:	DJM, TM	Sample ID:	MW-31B3PB (100814)
Sampling Time:	13:50	Recorded By:	DJM, TM		
Weather:	Partly cloudy 70's	Coded Replicate No.:	Dup (100814)		

Instrument Identification

Water Level Meter Pine No. 253587	Water Quality Meter(s) LaMotte 2020 Pine No. 21412
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	146.70 gallons
Total Depth:	342.00	Total Volume Purged:	158.00 gallons
Depth to Water:	41.81	Pump on: 10:35	off: 13:54
Water Column:	300.19		
Gallons/Foot:	0.1630		
Gallons in Well:	48.93		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
10:37	2	-	1.30	204	7.48	1.160	18.34	43.10	13.11	Initial
11:45	68	0.74	1.00	-85	8.48	1.330	16.90	45.75	15.21	1st volume
12:45	113	1.00	0.00	8	8.80	1.330	17.24	45.84	15.28	2nd volume
13:45	150	1.00	0.00	47	9.02	1.330	17.08	45/85	5.67	3rd volume
13:50	163	1.00	0.00	-2.0	8.96	1.340	16.34	45.81	5.62	Sample

Observations During Sampling

Well Condition: _____ Purge Water Disposal: On-site containment

Note: Purge rates are approximate.
- Not measured

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	OW-32D
Date:	10/8/2014	Sampled By:	N. Comrie	Sample ID:	MW-32DLF (100814)
Sampling Time:	15:50	Recorded By:	N. Comrie		
Weather:	Sunny, Windy	Coded Replicate No.:	MS/MSD		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Low Flow Purge

Casing Material:	SS
Casing Diameter:	4"
Total Depth:	39.28
Depth to Water:	38.10
Water Column:	1.18
Gallons/Foot:	0.6530
Gallons in Well:	0.77

Purge Method: (in boldface) **Submersible** Centrifugal Marshak Bladder Bailer

Pump Intake Setting: Midpoint of screen

Pump on: 15:10 off: 15:50

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mlpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
15:15	5	75	101.00	64.0	7.18	0.476	20.39	38.10	5.58	
15:20	10	75	100.00	56.0	7.22	0.466	20.02	38.10	5.91	
15:25	15	75	85.00	50.0	7.24	0.456	19.81	38.10	5.52	
15:30	20	75	50.00	52.0	7.24	0.455	19.76	38.10	4.29	
15:35	25	75	43.00	51.0	7.24	0.455	19.75	38.10	3.84	
15:40	30	75	20.00	51.0	7.24	0.455	19.60	38.10	2.22	
15:45	35	75	19.00	51.0	7.25	0.455	19.60	38.10	2.07	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	OW-32D
Date:	10/8/2014	Sampled By:	N. Comrie	Sample ID:	MW-32DPB (100814)
Sampling Time:	15:00	Recorded By:	N. Comrie		
Weather:	overcast 70s	Coded Replicate No.:	Ms/Msd		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	SS	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	25.5 gallons
Total Depth:	39.28	Total Volume Purged:	26.00 gallons
Depth to Water:	26.21	Pump on:	10:18 off: 15:00
Water Column:	13.07		
Gallons/Foot:	0.6530		
Gallons in Well:	8.50		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
10:20	2	0.25	>1000	-96	6.91	0.606	17.32	26.54	0.84	Initial
11:31	73	0.20	33.60	-62	6.84	0.468	18.58	35.02	1.11	1st volume
13:18	183	0.20	31.00	48	6.95	0.471	20.02	37.30	1.12	2nd volume
14:50	263	0.20	30.00	92	7.33	0.566	22.81	37.30	1.12	3rd volume
15:00	268	0.20	28.80	92	7.33	0.566	22.84	37.30	1.13	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-36B
Date:	9/30/2014	Sampled By:	NK	Sample ID:	MW-36BPB (093014)
Sampling Time:	16:25	Recorded By:	NK		
Weather:	Overcast, 70s	Coded Replicate No.:	ms/msd		

Instrument Identification

Water Level Meter	Water Quality Meter(s)
Pine No. 10489	LaMotte 2020 Pine No. 21247
Solinst - 150 ft.	YSI- 600XL Pine I Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	17.44 gallons
Total Depth:	57.25	Total Volume Purged:	17.50 gallons
Depth to Water:	21.63	Pump on: 15:03	off: 16:27
Water Column:	35.42		
Gallons/Foot:	0.1632		
Gallons in Well:	5.81		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
15:05	2	-	>1000	266.0	8.29	0.525	17.45	22.90	6.54	Initial
15:35	33	0.175	77.9	249.0	6.28	0.467	16.17	23.60	19.81	1st volume
16:00	58	0.23	13.30	260.0	6.13	0.473	15.76	24.63	6.30	2nd volume
16:17	75	0.23	3.10	247.0	6.03	0.477	15.20	25.03	6.63	3rd volume
16:27	85	-	2.20	245.0	5.86	0.482	14.89	23.88	6.46	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-37
Date:	10/1/2014	Sampled By:	DJM	Sample ID:	MW-37PB (100114)
Sampling Time:	0:00	Recorded By:	DJM		
Weather:	Overcast	Coded Replicate No.:	n/a		

Instrument Identification

Water Level Meter Pine No. 235887	Water Quality Meter(s) LaMotte 2020 Pine No. 21412
Solinst - 300 ft.	YSI- 600XL Pine Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	8.9 gallons
Total Depth:	42.00	Total Volume Purged:	9.00 gallons
Depth to Water:	23.77	Pump on: 9:32	off: 10:01
Water Column:	18.23		
Gallons/Foot:	0.1632		
Gallons in Well:	2.971		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
9:34	-	0.5	0.0	135.0	7.45	0.264	20.26	24.55	18.94	Initial
9:40	6	0.5	416.0	222.0	9.12	0.607	17.28	24.78	19.42	1st Volume
9:49	15	0.5	144.0	153.0	8.65	0.633	17.94	24.78	18.07	2nd Volume
9:56	23	0.5	49.6	123.0	8.77	0.665	17.03	24.75	18.72	3rd Volume
10:00	27	0.5	54	115.0	8.43	0.677	16.78	24.70	18.75	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-37B
Date:	10/1/2014	Sampled By:	DJM	Sample ID:	MW-37BLF (100114)
Sampling Time:	11:00	Recorded By:	DJM		
Weather:	Overcast	Coded Replicate No.:			

Instrument Identification

Water Level Meter		Water Quality Meter(s)	
Pine No.	235887	LaMotte 2020 Pine No.	
Solinst - 300 ft.		Pine No.	212412

Low Flow Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"				
Total Depth:	80.00	Pump Intake Setting	Midpoint of screen		
Depth to Water:	27.45	Pump on:	11:05	off:	11:42
Water Column:	52.88				
Gallons/Foot:	0.1632				
Gallons in Well:	8.5				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (mlpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
11:05	0	400	70.2	83.0	8.51	0.672	16.30	27.51	3.10	
11:10	5	400	38.2	75.0	8.58	0.67	16.40	27.51	6.69	
11:15	10	400	12.7	70.0	8.59	0.669	16.36	27.51	6.72	
11:20	15	400	8.0	52.0	8.66	0.678	16.23	27.51	6.84	
11:25	20	400	8.0	52.0	8.67	0.669	16.20	27.51	6.75	
11:30	25	400	5.8	49.0	8.15	0.669	16.22	27.51	6.76	
11:35	30	400	6.0	50.0	9.11	1	16.25	27.51	6.92	

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-37B
Date:	10/1/2014	Sampled By:	DJM	Sample ID:	MW-37BPB (100114)
Sampling Time:	11:00	Recorded By:	DJM		
Weather:	Overcast	Coded Replicate No.:	N/A		

Instrument Identification

Water Level Meter Pine No. 235887	Water Quality Meter(s) LaMotte Pine No.
Solinst - 300 ft.	Horiba Pine No. C 21412

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	25.5 Gallons
Total Depth:	80.00	Total Volume Purged:	26 Gallons
Depth to Water:	27.45	Pump on: 11:01	off: Continued to low flo
Water Column:	52.88		
Gallons/Foot:	0.1632		
Gallons in Well:	8.5		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
10:27	-	0.50	15.2	100.0	8.57	0.409	17.09	27.56	19.23	Initial
10:37	10	1.00	231.0	124.0	8.22	0.649	16.54	27.75	18.62	1st Volume
10:47	20	1.00	44.0	101.0	8.45	0.662	16.33	27.76	18.36	2nd Volume
10:59	32	1.00	17.8	91.0	8.59	0.661	16.26	27.77	18.51	3rd Volume
11:01	34	1.00	16.8	84.0	8.52	0.666	16.18	27.77	18.32	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-37B2
Date:	10/1/2014	Sampled By:	NK	Sample ID:	MW-1PB ( )
Sampling Time:	15:35	Recorded By:	NK		
Weather:	Overcast	Coded Replicate No.:			

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	90.0 gallons
Total Depth:	213.53	Total Volume Purged:	92 gallons
Depth to Water:	28.55	Pump on:	13:35 off: 15:35
Water Column:	185.00		
Gallons/Foot:	0.1632		
Gallons in Well:	30.20		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
13:35	-	-	14.5	134.0	7.99	0.521	18.37	28.90	3.50	Initial
14:25	50	0.6	0.0	152.0	7.38	0.593	16.31	29.52	2.65	1st Volume
15:05	100	0.75	0.2	142.0	7.64	0.597	15.87	29.91	5.03	2nd Volume
15:30	130	1.2	0.0	141.0	7.41	0.600	15.77	29.90	2.28	3rd Volume
15:35	135	-		141.0	7.43	0.605	16.02	29.90	2.35	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-37B3
Date:	10/1/2014	Sampled By:	MDR, TM	Sample ID:	MW-37B3PB (100114)
Sampling Time:	13:00	Recorded By:	MDR, TM		
Weather:	Overcast 60's	Coded Replicate No.:	n/a		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine ID Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	150 gallons		
Total Depth:	325.63	Total Volume Purged:	gallons		
Depth to Water:	28.75	Pump on:	9:42	off:	13:05
Water Column:	296.00				
Gallons/Foot:	0.1632				
Gallons in Well:	50.00				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
9:42	-	-	32.80	182	6.90	0.656	16.67	36.91	11.85	Initial*
10:55	67	0.68	6.80	161	7.36	0.687	15.71	38.48	12.38	1st volume
11:48	120	0.94	5.80	171	7.58	0.702	15.72	39.91	2.36	2nd volume
12:55	187	0.75	0.00	108	7.69	0.699	16.23	39.90	3.15	3rd volume
13:05	-		0.00	115	7.65	0.702	16.08	39.90	3.17	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

* Pump had to be removed from well due to malfunction.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-38
Date:	9/30/2014	Sampled By:	MDR	Sample ID:	MW-38PB (093014)
Sampling Time:	10:45	Recorded By:	MDR		
Weather:	Cloudy 60s	Coded Replicate No.:	n/a		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	8 gallons
Total Depth:	36.82	Total Volume Purged:	8.00 gallons
Depth to Water:	20.44	Pump on: 10:04	off: 10:45
Water Column:	16.38		
Gallons/Foot:	0.1632		
Gallons in Well:	2.67		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
10:04	-	1000	>1000	219.0	6.95	1.470	17.82	20.44	11.86	Initial
10:14	10	1000	>1000	192	6.94	1.440	16.84	21.87	2.42	1st Volume
10:24	20	1000	566	155.0	7.17	1.520	16.04	21.67	30.70	2nd Volume
10:36	32	1000	305	232.0	6.48	0.630	18.57	22.03	10.45	3rd Volume
10:45	41	1000	281	155	6.99	1.500	17.20	21.95	3.11	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-38B
Date:	9/30/2014	Sampled By:	DJM	Sample ID:	MW-38BPB (093014)
Sampling Time:	13:20	Recorded By:	DJM		
Weather:	overcast	Coded Replicate No.:	n/a		

Instrument Identification

Water Level Meter		Water Quality Meter(s)	
Pine No.	25675	LaMotte 2020 Pine No.	21412
Solinst - 300 ft.		YSI- 600XL Pine Pine No.	

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	24.5	gallons	
Total Depth:	78.90	Total Volume Purged:	25.00	gallons	
Depth to Water:	28.34	Pump on:	10:04	off:	13:22
Water Column:	50.56				
Gallons/Foot:	0.1632				
Gallons in Well:	8.241				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
10:04	-	-	0.0	-46.0	9.28	0.895	18.23	38.21	22.33	Initial
11:08	64	0.125	32.3	4.0	9.15	0.905	18.90	44.15	24.04	1st Volume
12:12	128	0.125	16.9	-28.0	9.08	0.937	19.55	47.35	22.86	2nd Volume
13:16	192	0.125	15.1	-32.0	9.39	0.958	19.66	47.01	21.28	3rd Volume
13:21	197	-	6.8	-32.0	8.95	0.975	18.16	47.80	20.96	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-40
Date:	10/1/2014	Sampled By:	NK	Sample ID:	MW-40PB (100114)
Sampling Time:	15:55	Recorded By:	NK		
Weather:	Overcast, drizzle	Coded Replicate No.:	-		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No. 21247
Solinst - 150 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	46.50 gallons
Total Depth:	36.62	Total Volume Purged:	47 gallons
Depth to Water:	12.88	Pump on: 13:42	off: 15:50
Water Column:	23.76		
Gallons/Foot:	0.6528		
Gallons in Well:	15.5		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
13:44	2	-	220	74	6.44	0.659	17.03	13.45	8.47	Initial
14:36	54	0.29	41	114	6.5	0.631	17.70	19.60	8.37	1st volume
15:20	44	0.35	44	143	6.7	0.616	16.93	26.65	8.74	2nd volume
15:50	74	0.35	83	139	6.81	0.618	16.64	31.22	8.64	3rd Volume
15:56	80	-	70	135	6.76	0.622	16.49	31.21	8.71	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-41
Date:	10/6/2014	Sampled By:	MDR	Sample ID:	MW-41PB (100614)
Sampling Time:	14:25	Recorded By:	MDR		
Weather:	Sunny 70s	Coded Replicate No.:	MS/MSD		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine | Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	30.00 gallons		
Total Depth:	30.71	Total Volume Purged:	35 gallons		
Depth to Water:	14.92	Pump on:	13:33	off:	14:30
Water Column:	15.79				
Gallons/Foot:	0.6528				
Gallons in Well:	10				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
13:34	1	-	>1000	186.0	6.77	2.240	20.13	14.92	1.61	Initial
13:52	19	0.55	381.00	130.0	7.14	2.340	18.40	17.56	1.91	1st Volume
14:08	35	0.63	31.9	120.0	6.75	2.330	18.68	17.70	1.65	2nd Volume
14:24	51	0.63	920.3	116.0	6.79	2.390	19.22	17.85	1.05	3rd Volume
14:30	57	-	10		6.76	2.400	18.42	-	1.10	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-42
Date:	10/6/2014	Sampled By:	DJM	Sample ID:	MW-42PB (100614)
Sampling Time:	15:08	Recorded By:	DJM		
Weather:	70s Sunny	Coded Replicate No.:	n/a		

Instrument Identification

Water Level Meter		Water Quality Meter(s)	
Pine No.		LaMotte 2020 Pine No.	21247
Solinst - 300 ft.	211122	YSI- 600XL Pine	Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	28.2	gallons	
Total Depth:	31.42	Total Volume Purged:	29	gallons	
Depth to Water:	17	Pump on:	13:43	off:	15:10
Water Column:	14.42				
Gallons/Foot:	0.6528				
Gallons in Well:	9.41				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
13:43	0	0.3	601	174	6.21	0.769	21.15	18.35	7.12	Initial
14:14	29	0.3	323	135	7.28	0.629	21.54	23.00	8.26	1st Volume
14:33	48	0.3	353	151	7.12	0.655	21.76	22.75	10.33	2nd Volume
15:06	81	0.3	203	183.0	7.23	0.677	22.04	25.08	11.18	3rd Volume
15:10	85	0.3	204	147	7.02	0.682	20.84	25.07	7.26	Sample

Observations During Sampling

Well Condition: Need to replace well cap

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-43
Date:	10/1/2014	Sampled By:	DJM	Sample ID:	MW-43PB 100114)
Sampling Time:	15:00	Recorded By:	DJM		
Weather:	Overcast	Coded Replicate No.:	n/a		

Instrument Identification

Water Level Meter		Water Quality Meter(s)	
Pine No.	A00231	LaMotte 2020 Pine No.	21412
Solinst - 300 ft.		YSI- 600XL Pine No.	

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	3	gallons	
Total Depth:	30.94	Total Volume Purged:	28.2	gallons	
Depth to Water:	16.53	Pump on:	14:00	off:	15:02
Water Column:	14.41				
Gallons/Foot:	0.6528				
Gallons in Well:	9.40				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
14:00	0	-	462.00	-77	1.27	3.060	18.62	16.99	12.31	Initial
14:19	19	0.5	39.70	-62	9.89	2.930	18.38	18.75	5.98	1st Volume
14:38	38	0.5	15.60	-74	10.18	2.860	19.41	19.00	7.09	2nd Volume
14:57	57	0.5	9.90	-78	10.15	2.810	19.47	19.72	10.88	3rd Volume
15:01	61	0.5	8.40	-77	10.15	2.810	19.46	19.72	10.91	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-44
Date:	10/8/2014	Sampled By:	MDR	Sample ID:	MW-44PB (100814)
Sampling Time:	14:30	Recorded By:	MDR		
Weather:	Overcast	Coded Replicate No.:	n/a		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	4"	Volumes to be Purged:	30 gallons
Total Depth:	30.62	Total Volume Purged:	30 gallons
Depth to Water:	14.77	Pump on: 13:55	off: 14:35
Water Column:	15.80		
Gallons/Foot:	0.6528		
Gallons in Well:	10		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
13:55	0	-	91	74.0	6.72	2.380	21.81	14.77	6.98	Initial
14:05	10	1	142	85.0	6.79	2.440	21.34	20.83	5.11	1st Volume
14:15	20	1	100	65.0	6.90	2.410	20.30	20.97	5.34	2nd Volume
14:25	30	1	130.0	94.0	6.83	2.400	19.92	21.03	5.10	3rd Volume
14:35	40	-	516.0	92.0	6.72	2.380	19.50	-	5.14	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-85B3
Date:	10/3/2014	Sampled By:	NK	Sample ID:	MW-85B3PB (100314)
Sampling Time:	12:15	Recorded By:	NK		
Weather:	Mostly sunny, 60s	Coded Replicate No.:	-		

Instrument Identification

Water Level Meter Pine No. A00231	Water Quality Meter(s) LaMotte 2020 Pine No. 21412
Solinst - 150 ft.	YSI- 600XL Pine Pine No.

Standard Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible** Centrifugal Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	135.0 gallons
Total Depth:	298.90	Total Volume Purged:	135 gallons
Depth to Water:	24.11	Pump on: 9:27	off: 12:17
Water Column:	274.79		
Gallons/Foot:	0.1632		
Gallons in Well:	~45		

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
9:28	1	-	41.00	-77	8.43	0.343	16.37	25.42	10.43	Initial
10:33	65	0.75	30.153.5	-130	9.00	0.438	15.39	32.50	18.15	1st Volume
11:25	117	0.87	0.00	-80	8.57	0.431	16.50	32.10	7.63	2nd Volume
12:12	164	0.95	0.00	-94	8.01	0.442	16.18	32.97	7.55	3rd Volume
12:17	169	-	0.90	-98	8.57	0.447	15.38	26.50	7.56	Sample

Observations During Sampling

Well Condition: Good/ Sheen observed
Strong sulfur smell / yellow

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0030	Task:	00003	Well ID:	MW-86B3
Date:	10/7/2014	Sampled By:	DJM	Sample ID:	MW-86B3PB (100714)
Sampling Time:	14:10	Recorded By:	DJM		
Weather:	Partly Cloudy	Coded Replicate No.:	n/a		

Instrument Identification

Water Level Meter Pine No.	Water Quality Meter(s) LaMotte 2020 Pine No.
Solinst - 300 ft.	YSI- 600XL Pine ID Pine No.

Volume Average Purge

Casing Material:	PVC	Purge Method: (in boldface)	**Submersible**	Centrifugal	Bladder Bailer
Casing Diameter:	2"	Volumes to be Purged:	180 gallons		
Total Depth:	394.70	Total Volume Purged:	180 gallons		
Depth to Water:	26.45	Pump on:	10:55	off:	14:06
Water Column:	368.25				
Gallons/Foot:	0.1630				
Gallons in Well:	60.02				

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
11:00	-	1.0	0.0	177	7.93	0.582	15.96	26.45	3.49	Initial
12:02	62	1.0	0.0	169	7.96	0.62	16.04	27.78	3.41	1st Volume
13:04	124	1.0	0.8	147	7.66	0.604	16.82	27.84	3.93	2nd Volume
14:06	186	1.0	10.3	151	7.62	0.622	16.38	27.98	3.88	3rd Volume
14:06	-	1.0	0.0	149	7.61	0.632	14.98	27.95	2.26	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

ARCADIS

Groundwater Sampling Form

Project Number:	NJ000298.0029	Task:	00003	Well ID:	MW-87B
Date:	10/1/2014	Sampled By:	RPK	Sample ID:	MW-87-1(10012014)
Sampling Time:	12:35	Recorded By:	RPK		
Weather:	Cloudy 60's	Coded Replicate No.:	n/a		

Instrument Identification

Water Level Meter		Water Quality Meter(s)	
Pine No.	19874	LaMotte 2020 Pine No.	
Heron Skinny Dipper		YSI- 600XL Pine No.	21283

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes:	1 sample stroke		
Volume Purged Per Stroke:	2.5 gal.	DTW (Pre-purge):	18.53
Purge Stroke Duration:	10 min	DTW (post purge):	18.59
Total Volume Purged:	8 gal.		
Total Purge Duration:	40 min.	TAG:	9.03

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed*	Rate (ml/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
19:15	8	~1000	0.00	136.0	7.59	2.04	16.88	n/a	5.86	Initial/1 vol
10:20	8	~1000	0.00	99.0	7.38	2.02	15.95	n/a	2.22	2 vol
11:19	8	~1000	0.00	135.0	7.16	2.00	15.66	n/a	3.03	3 vol
12:28	8	~1000	0.00	198.0	7.14	2.00	15.87	n/a	2.62	Sample

Observations During Sampling

Well Condition: Good

Purge Water Disposal: On-site containment

Notes: Purge rates are approximate.

* - Minutes into each purge that readings are collected

ARCADIS

Groundwater Sampling Form

Project Number: NJ000298.0029 Task: 00003 Well ID: MW-87B2

Date: 10/1/2014 Sampled By: RPK Sample ID: MW-87-2(10012014)

Sampling Time: 12:55 Recorded By: RPK

Weather: Cloudy 60's Coded Replicate No.: n/a

Instrument Identification

Water Level Meter		Water Quality Meter(s)	
Pine No.	19874	LaMotte 2020 Pine No.	
Deron 19874 Skinny Dipper		Horiba U-52 Pine No.	21283

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes: 1 sample stroke

Volume Purged Per Stroke: 2 gal. DTW (pre-purge): 24.66

Purge Stroke Duration: 11 min

Total Volume Purged: 8 gal. DTW (post-purge) 24.72

Total Purge Duration: 40 min.

TAG: 9.03

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed*	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
9:28	8	~600	0.00	61.0	8.06	0.902	16.22	N/A	8.69	Initial/1 vol
10:31	8	~600	0.00	118.0	7.82	0.920	15.74	N/A	2.87	2 vol
11:36	8	~600	0.00	134.0	7.73	0.905	15.64	N/A	2.68	3 vol
12:50	8	~600	0.00	182	7.68	0.903	15.83	N/A	3.10	Sample

Observations During Sampling

Well Condition: Good Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

*- Minutes into each purge that readings are collected

ARCADIS

Groundwater Sampling Form

Project Number: NJ000298.0029 Task: 00003 Well ID: MW-87B3

Date: 10/1/2014 Sampled By: RPK Sample ID: MW-87-3 (10012014

Sampling Time: 13:13 Recorded By: RPK

Weather: Cloudy 60s Coded Replicate No.: n/a

Instrument Identification

Water Level Meter Pine No. 19874	Water Quality Meter(s) LaMotte 2020 Pine No.
Heron Skinny Dipper	Horiba U-52 Pine No. 21283

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes: 3 +1 Sample stroke

Volume Purged Per Stroke: 2 gal. DTW (pre-purge): 25.48

Purge Stroke Duration: 10 min

Total Volume Purged: 8 gal. DTW (Post-purge) 25.5

Total Purge Duration: 40 min.

TAG: 9.03

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed*	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
9:41	8	~800	0.0	58.0	7.84	0.559	16.04	n/a	2.90	Initial/1 vol
10:43	8	~800	0.0	130.0	7.62	0.569	15.61	n/a	2.16	2 vol
11:48	8	~800	0.0	156.0	7.63	0.578	15.73	n/a	2.10	3 vol
13:05	8	~800	0.00	157.0	7.79	0.571	16.23	n/a	3.49	Sample

Observations During Sampling

Well Condition: Good Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

*- Minutes into each purge that readings are taken

ARCADIS

Groundwater Sampling Form

Project Number: NJ000298.0029 Task: 00003 Well ID: MW-87B4

Date: 10/1/2014 Sampled By: RPK Sample ID: MW-87-4(10012014)

Sampling Time: 13:25 Recorded By: RPK

Weather: Cloudy 60's Coded Replic None

Instrument Identification

Water Level Meter Pine No. 19874	Water Quality Meter(s) LaMotte 2020 Pine No. 21283
Heron Skinny Dipper	Horiba U-52 Pine No.

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes: 3 +1 sample stroke

Volume Purged Per Stroke: 2 gal. DTW (pre-purge): 25.74

Purge Stroke Duration: 11 min

Total Volume Purged: 8 gal. DTW (post-purge): 25.81

Total Purge Duration: 40 min.

TAG: 9.03

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed*	Rate (ml/min)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
9:54	8	~700	0.0	71.0	7.47	0.877	16.13	n/a	2.91	Initial/1 vol
10:55	8	~700	0.0	126.0	7.64	0.569	15.52	n/a	4.42	2 vol
12:00	8	~700	0.0	162.0	7.71	0.582	15.78	n/a	4.93	3 vol
13:19	8	~700	0.00	174	7.75	0.584	16.03	n/a	3.22	Sample

Observations During Sampling

Well Condition: Good Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

*- Minutes into each purge that readings were taken

ARCADIS

Groundwater Sampling Form

Project Number: NJ000298.0029 Task: 00003 Well ID: MW-87B5

Date: 10/1/2014 Sampled By: RPK Sample ID: MW-87-5 (10012014)

Sampling Time: 13:40 Recorded By: RPK

Weather: Cloudy 60s Coded Replicate No.: n/a

Instrument Identification

Water Level Meter Pine No. 19874	Water Quality Meter(s) LaMotte 2020 Pine No.
Heron skinny dipper	Horiba U-52 Pine No. 21283

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes: 1 sample stroke

Volume Purged Per Stroke: 2 gal. DTW (pre-purge): 25.76

Purge Stroke Duration: 10 min.

Total Volume Purged: 8 gal. DTW (post-purge): 25.89

Total Purge Duration: 40 min.

TAG: 9.03

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed*	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
10:05	8	~700	0.00	81.0	7.54	1.200	16.07	n/a	3.63	Initial/1 vol
11:07	8	~700	0.00	106.0	7.69	0.784	15.89	n/a	3.46	2 vol
12:13	8	~700	0.00	173.0	7.64	0.766	16.02	n/a	2.96	3 vol
13:35	8	~700	0.00	165	7.87	0.772	16.04	n/a	2.40	Sample

Observations During Sampling

Well Condition: Good Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

*- Minutes into each purge that readings were taken

ARCADIS

Groundwater Sampling Form

Project Number: NJ000298.0029 Task: 00003 Well ID: MW-87B5

Date: 10/1/2014 Sampled By: RPK Sample ID: MW-88-1 (09302014)

Sampling Time: 12:40 Recorded By: RPK

Weather: Cloudy 60s Coded Replicate No.: n/a

Instrument Identification

Water Level Meter Pine No. 19874	Water Quality Meter(s) LaMotte 2020 Pine No.
Heron skinny dipper	Horiba U-52 Pine No. 21283

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes: 3 +1 sample stroke

Volume Purged Per Stroke: .75 gal. DTW (pre-purge): 17.12

Purge Stroke Duration: 8 min.

Total Volume Purged: 3 gal. DTW (post-purge): 19.55

Total Purge Duration: 30 min.

TAG: 0.8

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed*	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
10:00	5	400	0.00	99.0	6.13	0.547	17.98	n/a	12.26	Initial/1 vol
10:40	5	400	0.00	-54.0	7.79	0.537	17.51	n/a	2.72	2 vol
11:25	5	400	0.00	15.0	7.80	0.595	17.07	n/a	2.50	3 vol
12:30	5	400	0.00	56	7.98	0.588	17.42	n/a	2.19	Sample

Observations During Sampling

Well Condition: Good Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

*- Minutes into each purge that readings were taken

ARCADIS

Groundwater Sampling Form

Project Number: NJ000298.0029 Task: 00003 Well ID: MW-88B2

Date: 9/30/2014 Sampled By: RPK Sample ID: MW-88-2 (09302014)

Sampling Time: 12:55 Recorded By: RPK

Weather: Cloudy 60s Coded Replicate No.: n/a

Instrument Identification

Water Level Meter Pine No. 19874	Water Quality Meter(s) LaMotte 2020 Pine No.
Heron skinny dipper	Horiba U-52 Pine No. 21283

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes: 3 +1 sample stroke

Volume Purged Per Stroke: .75 gal. DTW (pre-purge): 1635

Purge Stroke Duration: 7 min.

Total Volume Purged: 3 gal. DTW (post-purge): 21.62

Total Purge Duration: 30 min.

TAG: 0.8

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed*	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
10:12	5	400	0.00	-167.0	7.32	0.450	18.28	n/a	12.22	Initial/1 vol
10:52	5	400	0.00	-56.0	7.79	0.455	17.25	n/a	11.76	2 vol
11:35	5	400	0.00	43.0	7.84	0.449	17.27	n/a	2.16	3 vol
12:50	5	400	0.00	73	7.91	0.436	17.16	n/a	2.03	Sample

Observations During Sampling

Well Condition: Good Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

*- Minutes into each purge that readings were taken

ARCADIS

Groundwater Sampling Form

Project Number: NJ000298.0029 Task: 00003 Well ID: MW-88B3

Date: 10/1/2014 Sampled By: RPK Sample ID: MW-88-3 (09302014)

Sampling Time: 13:05 Recorded By: RPK

Weather: Cloudy 60s Coded Replicate No.: n/a

Instrument Identification

Water Level Meter Pine No. 19874	Water Quality Meter(s) LaMotte 2020 Pine No.
Heron skinny dipper	Horiba U-52 Pine No. 21283

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes: 1 sample stroke

Volume Purged Per Stroke: .75 gal. DTW (pre-purge): 16.19

Purge Stroke Duration: 8 min.

Total Volume Purged: 3 gal. DTW (post-purge): 22.45

Total Purge Duration: 30 min.

TAG: 0.8

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed*	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
10:20	5	400	0.00	-172.0	7.51	0.568	17.36	n/a	5.36	Initial/1 vol
11:00	5	400	0.00	-95.0	7.60	0.577	16.91	n/a	2.90	2 vol
11:48	5	400	0.00	51.0	7.65	0.576	17.22	n/a	2.60	3 vol
13:00	5	400	0.00	55	7.67	0.573	16.99	n/a	2.21	Sample

Observations During Sampling

Well Condition: Good Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

*- minutes into each purge that readings were taken

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Groundwater Sampling Form

Project Number: NJ000298.0029 Task: 00003 Well ID: MW-88B4

Date: 9/30/2014 Sampled By: RPK Sample ID: MW-88-4 (09302014)

Sampling Time: 13:20 Recorded By: RPK

Weather: Cloudy 60s Coded Replicate No.: n/a

Instrument Identification

Water Level Meter Pine No. 19874	Water Quality Meter(s) LaMotte 2020 Pine No.
Heron skinny dipper	Horiba U-52 Pine No. 21283

FLUTe Purge

Purge Method: Nitrogen gas pressure - water displacement evacuation

Purge Strokes: 3 +1 sample stroke

Volume Purged Per Stroke: 1 gal. DTW (pre-purge): 18.44

Purge Stroke Duration: 8 min.

Total Volume Purged: 4 gal. DTW (post-purge): 24.31

Total Purge Duration: 30 min.

TAG: 0.8

Field Parameter Measurements Collected During Purging

Time	Minutes Elapsed*	Rate (gpm)	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (ms/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
10:30	5	500	0.00	-199.0	7.42	1.950	17.54	n/a	12.06	Initial/1 vol
11:10	5	500	0.00	-102.0	7.45	1.97	17.79	n/a	11.49	2 vol
12:00	5	500	0.00	69.0	7.56	1.66	17.18	n/a	1.30	3 vol
13:15	5	500	0.00	49	7.63	1.65	16.94	n/a	1.73	Sample

Observations During Sampling

Well Condition: Good Purge Water Disposal: On-site containment

Note: Purge rates are approximate.

*- minutes into each purge that readings were taken

APPENDIX D

Summary of Free Product Investigation Activities

ARCADIS
Infrastructure · Water · Environment · Buildings

Imagine the result

Former Hyatt Clark Industries Site

Appendix D

Summary of the Free Product Investigation

ARCADIS

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1. Introduction **1**

2. Scope of Work **1**

3. Results **2**

4. Prior Free Product Investigation Activities **2**

Figures

Figure 1 Product Delineation Detail

Attachments

A Well Construction Logs

B Surveyor Form Bs

1. Introduction

This appendix presents the results of recent free product investigation activities conducted at the Former Hyatt Clark Industries Site (Site) located in Clark and Cranford, New Jersey. The results are being reported in support of the Groundwater Remedial Investigation Report (RIR), which presents the findings and recommendations for the groundwater remedial investigation for the Site.

The recent activities included installation of three overburden wells (OW-84, OW-85, and OW-86S) and one shallow bedrock well (OW-86D) to supplement the existing network of wells and borings used to delineate free product. In addition, an overburden well (OW-34R) was installed to complement existing well OW-34 because OW-34's screened interval does not straddle the water table. The well locations and scope-of-work were reviewed and approved by the NJDEP during a February 9, 2012 meeting among representatives of RACER Trust and ARCADIS. The wells were installed in September 2012.

2. Scope of Work

Observation wells OW-84, OW-85, OW-86S, OW-86D, and OW-34R were installed within the limits of the cap system that was constructed as part of the soil remedial action. The locations of the wells and the limits of the cap system are shown on **Figure 1**. The wells were installed by initially installing a 12-inch diameter PVC well casing through the cap system and overlying fill material to create a conduit for installation of the wells. The PVC well casings were installed by exposing and cutting the 40 mil HDPE liner to allow the casing to be set on the former building floor slab, which is approximately 2 to 3 feet below the HDPE liner. HDPE boots were then secured to the PVC casing. The 40 mil HDPE liner was restored (by welding) and secured to each casing. The drainage layer and barrier protection sand were then reestablished over the liner. The remainder of the area was then backfilled and compacted to surface grade.

Because the well installations required drilling through the former building slab, sonic drilling methods were used to drill well boreholes. Observation Wells OW-84, OW-85, and OW-34R were installed to a depth of approximately 35 feet below land surface (bls) with a screened interval from 20 to 35 feet bls.

Observation wells OW-86S and OW-86D were installed as a nested pair within the same borehole. Depth to groundwater was estimated to be approximately 15 feet bls

based on saturation of the soil core as observed by the field geologist. Based on the estimated depth to groundwater, observation well OW-86S was installed to a depth of approximately 25 feet bls with a screen interval from 10 to 25 feet bls. However, the depth to groundwater at this location is apparently deeper that 25 feet bls because observation well OW-86S is dry.

OW-86D was installed to a depth of approximately 45 feet with a screen interval from 35 to 45 feet bls. Bedrock was encountered at approximately 32 feet bls at OW-86. Groundwater equilibrated to 31.3 feet bls based on the September 2013 groundwater elevation gauging event.

All wells were constructed with 2-inch diameter PVC well materials. Soil was continuously logged and field screened utilizing a combination of visual and olfactory observations and soil cores were screened with a photoionization detector (PID). Evidence of product was not observed in any of the cores. Sample/core logs and well construction logs are provided in **Attachment A**.

3. Results

Results from 12 gauging events conducted from October 2012 through October 2014 show that free product is not present in newly installed Observation Wells OW-84, OW-85, and OW-86D. These results confirm the free product delineation findings presented in previous submittals to NJDEP. The extent of free product and the observation well network are shown on **Figure 1**.

The screened interval for observation well OW-34R straddles the water table. Consistent with measurements from observation well OW-34, free product was measured in observation well OW-34R. Both wells are equipped with absorbent socks and monitored monthly.

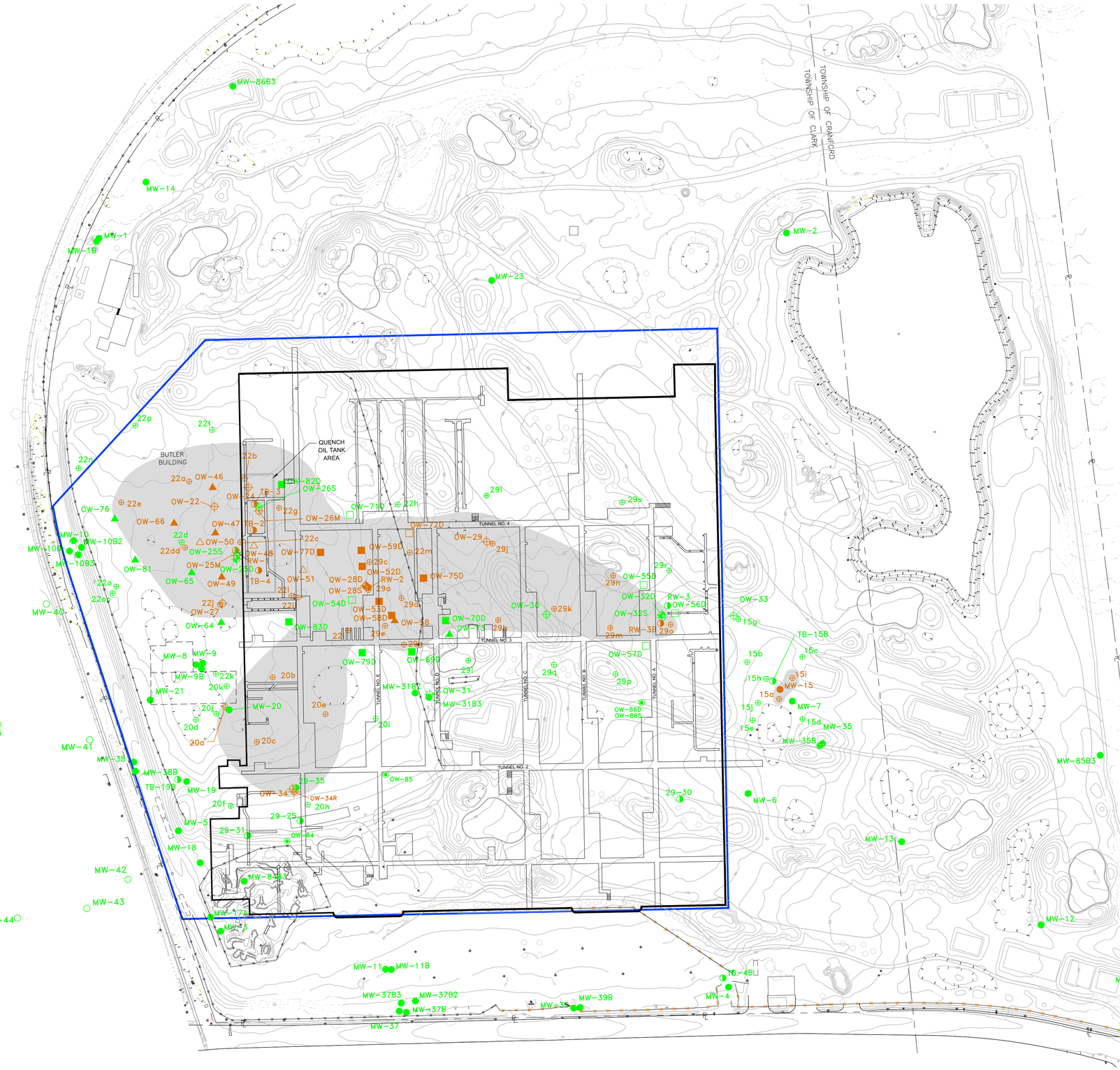
4. Prior Free Product Investigation Activities

The findings and recommendations for free product investigations conducted at the Site prior to the work described above have been previously reported to the NJDEP in the reports and work plans listed below. These investigations included the installation of 55 slotted auger borings, 24 overburden wells, and 14 shallow bedrock wells. In addition, documents have been prepared to address NJDEP comments regarding free product delineation at the Site. The reports, work plans, and documents summarizing the previous work are as follows:

- Remedial Investigation Report prepared by URS, dated March 1995.
- Groundwater Remedial Investigation Report prepared by ARCADIS Geraghty & Miller, dated January 1997.
- Supplemental Remedial Investigation and Interim Remedial Action Report for Groundwater prepared by ARCADIS Geraghty & Miller, dated January 1998.
- Free Product Summary and Work Plan, prepared by ARCADIS Geraghty & Miller, dated November 1998.
- Groundwater Summary and Work Plan prepared by ARCADIS Geraghty & Miller, dated June 1999.
- Remedial Action Work Plan for Free Product, prepared by ARCADIS Geraghty & Miller, dated February 2000.
- Response to NJDEP Notice of Deficiency letter dated January 30, 2008, prepared by ARCADIS, dated April 16, 2008.
- Groundwater Monitoring Reports prepared by ARCADIS and URS, October 1994 through March 2009.

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Figures



LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- TOWNSHIP BOUNDARY
- FENCE
- RAILROAD TRACKS
- LIMITS OF CAP SYSTEM
- FORMER BUILDING LIMIT
- LIMITS OF CONCRETE SLAB
- SLOTTED AUGER BORING
- SOIL BORING
- OFF-SITE MONITORING WELL
- MONITORING WELL
- LNAPL DELINEATION MONITORING WELLS (2012)
- OVERBURDEN OBSERVATION WELL
- BEDROCK OBSERVATION WELL
- ABANDONED OVERBURDEN WELL
- ABANDONED BEDROCK WELL
- GREEN — NO PRODUCT IN SOIL OR GROUNDWATER
- BROWN — PRODUCT IN SOIL OR GROUNDWATER
- PRODUCT AREA

FORMER HYATT CLARK INDUSTRIES SITE
CLARK, NEW JERSEY
GROUNDWATER REMEDIAL INVESTIGATION REPORT

PRODUCT DELINEATION DETAIL

ARCADIS Design & Consultancy for natural and built assets

FIGURE
1

CITY:SYRACUSE-NY DIV/GROUP:ENV DB:A.SANCHEZ LD:ALS PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACTIVE\NJ000298\0033\000006\NJ298336B01.dwg LAYOUT: 1 SAVED: 3/1/2016 10:44 AM ACADVER: 19.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ---- PLOTTED: 3/1/2016 3:45 PM BY: SANCHEZ, ADRIAN
XREFS: IMAGES: PROJECTNAME: ----
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GOLF_OVERLAY-1-03_NAD83
XrBDR-DL

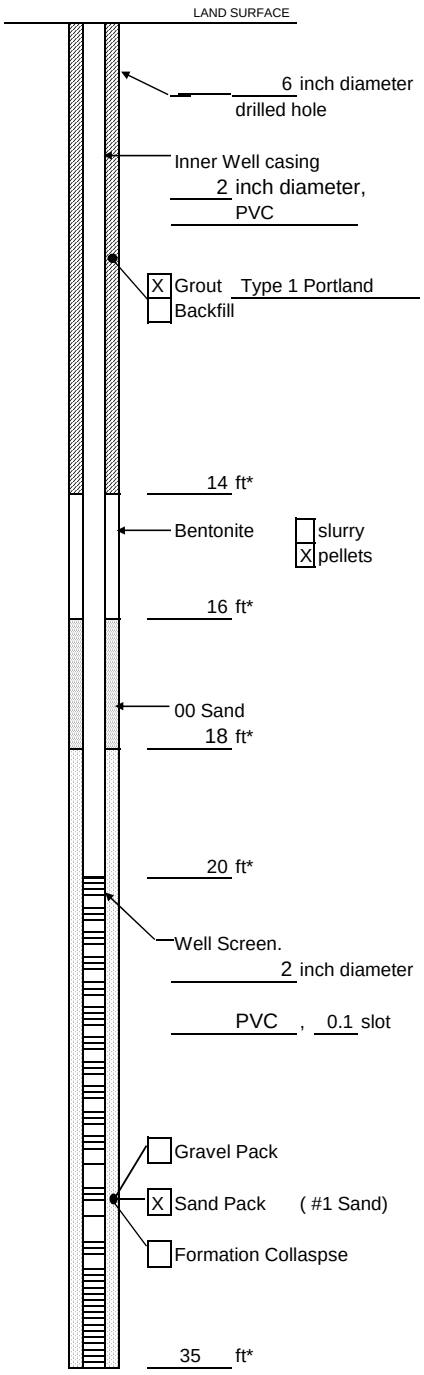
ARCADIS

Appendix A

Well Construction Logs

ARCADIS G&M

Well Construction Log



Measuring Point is
Top of Well Casing
Unless Otherwise Noted.

* Depth Below Land Surface

Project NJ000298.0030.0004 Well OW-84

Town/City Clark

County Union State N.J

Permit No.

Land-Surface Elevation and Datum:

82.10 feet [X] Surveyed

[ ] Estimated

Installation Date(s) 9/24/2012

Drilling Method Roto-Sonic

Drilling Contractor Summit

Drilling Fluid Water

Development Technique(s) and Date(s)

Pump and Surge with Submersible Pump removed 25 gal

Fluid Loss During Drilling _____ gallons

Water Removed During Development _____ gallons

Static Depth to Water _____ feet below M.P.

Pumping Depth to Water _____ feet below M.P.

Pumping Duration _____ hours

Yield _____ gpm Date _____

Specific Capacity _____ gpm/ft

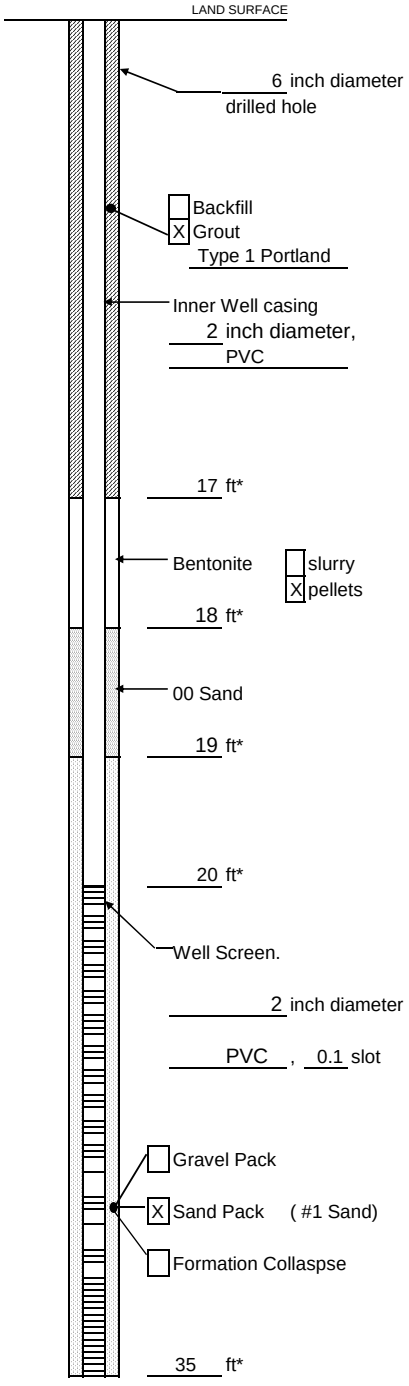
Well Purpose Monitoring Well

Remarks

Prepared by Veroncia Myers

ARCADIS G&M

Well Construction Log



Project NJ000298.0030.0004 Well OW-34R

Town/City Clark

County Union State N.J

Permit No.

Land-Surface Elevation and Datum:

82.20 feet [X] Surveyed [ ] Estimated

Installation Date(s) 9/21/2012

Drilling Method Roto-Sonic

Drilling Contractor Summit

Drilling Fluid Water

Development Technique(s) and Date(s)

Submersible Pump

Fluid Loss During Drilling gallons

Water Removed During Development gallons

Static Depth to Water feet below M.P.

Pumping Depth to Water feet below M.P.

Pumping Duration hours

Yield gpm Date

Specific Capacity gpm/ft

Well Purpose Monitoring Well

Remarks

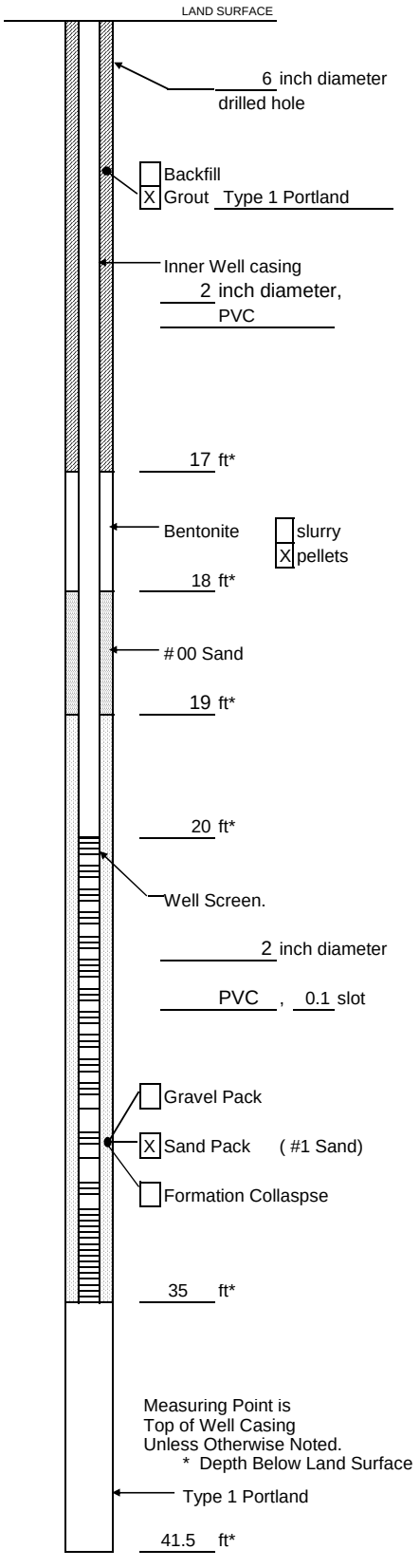
Measuring Point is
Top of Well Casing
Unless Otherwise Noted.

* Depth Below Land Surface

Prepared by Brian McCain

ARCADIS G&M

Well Construction Log



Project NJ000298.0030.0004 Well OW-85

Town/City Clark

County Union State N.J

Permit No.

Land-Surface Elevation and Datum:

82.70 feet [X] Surveyed

[ ] Estimated

Installation Date(s) 9/20/2012

Drilling Method Roto-Sonic

Drilling Contractor Summit

Drilling Fluid Water

Development Technique(s) and Date(s)

9/21/12 Pump and Surge with Submersible Pump

Fluid Loss During Drilling gallons

Water Removed During Development gallons

Static Depth to Water feet below M.P.

Pumping Depth to Water feet below M.P.

Pumping Duration hours

Yield gpm Date

Specific Capacity gpm/ft

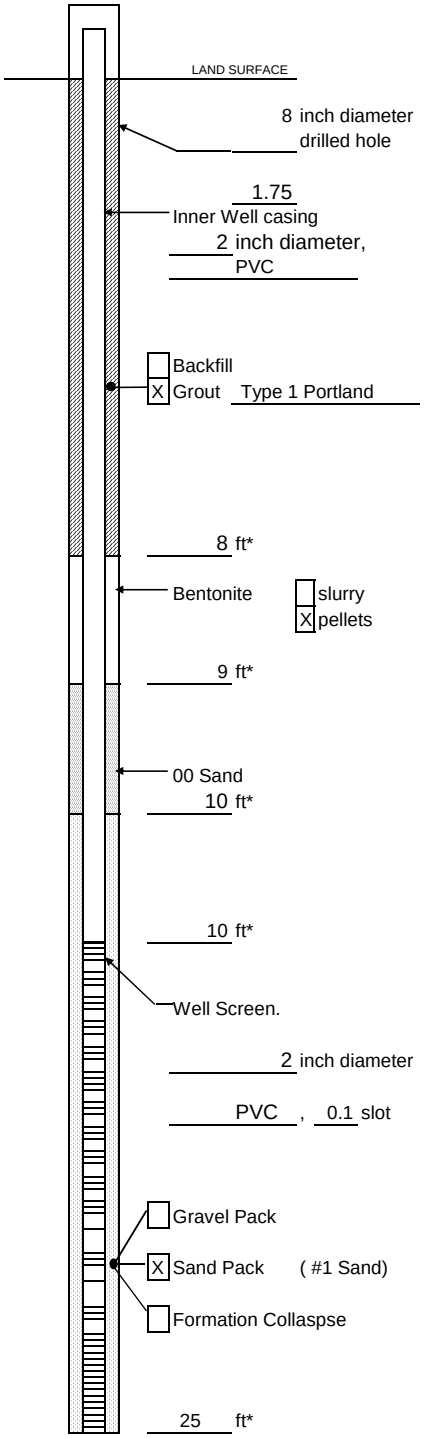
Well Purpose Monitoring Well

Remarks Logging began at 11.44 feet (Depth to concrete)

Prepared by Brian McCain

ARCADIS G&M

Well Construction Log



Project NJ000298.0030.0004 Well OW-86

Town/City Clark

County Union State N.J

Permit No.

Land-Surface Elevation and Datum:

79.60 feet [X] Surveyed

[ ] Estimated

Installation Date(s) 9/20/2012

Drilling Method Roto-Sonic

Drilling Contractor Summit

Drilling Fluid Water

Development Technique(s) and Date(s)

Fluid Loss During Drilling gallons

Water Removed During Development gallons

Static Depth to Water 24 feet below M.P.

Pumping Depth to Water feet below M.P.

Pumping Duration hours

Yield gpm Date

Specific Capacity gpm/ft

Well Purpose Monitoring Well

Remarks OW-86D is adjacent to OW-86, nested pair within same borehole.

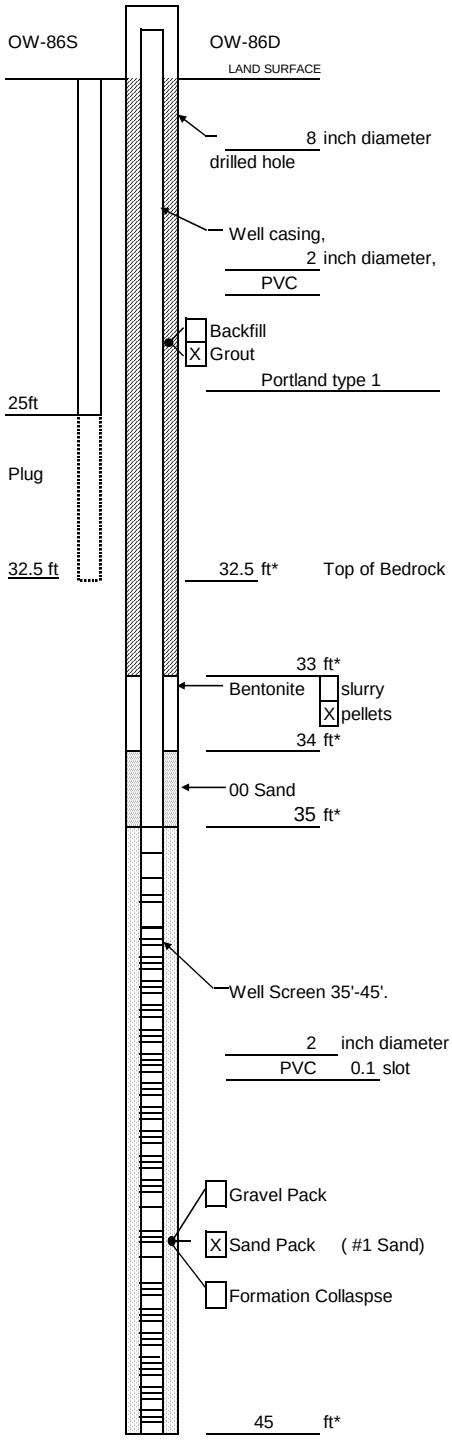
Measuring Point is
Top of Well Casing
Unless Otherwise Noted.

* Depth Below Land Surface

Prepared by Brian McCain

ARCADIS

Well Construction Log



Project Name and No. NJ000298.0030.0004

Well OW-86D Town/City Clark

County Union State New Jersey

Permit No.

Land-Surface Elevation and Datum:

79.60 feet [X] Surveyed [ ] Estimated

Installation Date(s) 9/20/2012

Drilling Method Sonic

Drilling Contractor Summit

Drilling Fluid Water

Development Technique(s) and Date(s)

9/20/2012 Pump and Surge

Fluid Loss During Drilling gallons

Water Removed During Development 20 gallons

Static Depth to Water 14.75 feet below M.P.**

Pumping Depth to Water NA feet below M.P.**

Pumping Duration 0.5 hours

Yield <1.0 gpm Date 9/20/2012

Specific Capacity gpm/ft

Well Purpose Monitoring Well

Remarks/Fracture Zones OW-86D is adjacent to OW-86, nested pair within same borehole.

** Measuring Point is Top of Well Casing Unless Otherwise Noted.

* Depth Below Land Surface

Prepared by Brian McCain

ARCADIS GERAGHTY & MILLER

Sample/Core Log

Boring/Well OW-84 Project/No. NJ000298.0030.0004 Page 1 of 2

Site

Location Clark , N.J.

Drilling Started 9/24/2012 Drilling Completed 9/24/2012

Total Depth Drilled 35 Feet Hole Diameter 6 inches Type of Sample/ Coring Device Sonic Sleeve

Length and Diameter of Coring Device 4 inch by 5 ft Sampling Interval 5 feet

Land-Surface Elev. feet ☐ Surveyed ☐ Estimated Datum

Drilling Fluid Used Water Drilling Method Sonic

Drilling Contractor Summit Drilling Driller John Helper Danny

Prepared By Veronica Myers Hammer Weight NA Hammer Drop NA ins.

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	PID Reading with depth interval (ppm)	Sample/Core Description
0	14.5	2	No PID	14.5' Grey sand , fine , large gravel brown red silty-clay with some
				coarse sand . No odor
16.5	20	4	No PID	16.5' Red silt, fine sand, compact
20	25	5	No PID	(20-25)' Red silt , compact, with large grains, wet (24)
25	30	4	No PID	(25-30)' Same as above
30	35	4.5	No PID	(30-35)' Same as above

ARCADIS GERAGHTY & MILLER

Sample/Core Log

ARCADIS GERAGHTY & MILLER

Sample/Core Log

Boring/Well OW-85 Project/No. NJ000298.0030.0004 Page 1 of 2

Site

Location Clark , N.J. Drilling Started 9/20/2012 Drilling Completed 9/21/2012

Total Depth Drilled 41.5 Feet Hole Diameter 6 inches Type of Sample/ Coring Device Sonic Sleeve

Length and Diameter of Coring Device 4 inch by 5 ft Sampling Interval 5 feet

Land-Surface Elev. feet ☐ Surveyed ☐ Estimated Datum

Drilling Fluid Used Water Drilling Method Sonic

Drilling Contractor Summit Drilling Driller John Helper Danny

Prepared By Brian McCain Hammer Weight NA Hammer Drop NA ins.

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	PID Reading with depth interval (ppm)	Sample/Core Description
0	11.44	0	0/0	Fill Material (excavated)
11.44	14	2.21	0/0/0/0/0	Gravel and concrete (not through concrete pad yet)
14	19	4.5	0.9/1.3/1.4/1.4	(0.0-4.5) Red Brown ,SANDY SILT, non plastic little Pebbles,
			1.6/1.9/2.0/2.1	sub rounded, moist
			2.2/3.3	
19	24	3.6	0.5/0.0/0.5/0.9	(0.0-3.6) Same as above ,gravel,sub angular to angular, layer @ 2.0-2.2
			2.2/2.5/2.0/3.8	
			6.9/11.4	
24	29	4.4	1.2/4.5/2.5/3.1	(0.0-3.2)Red brown SANDY SILT , non plastic ,some small to large
			3.2/4.1/4.9/4.4	pebbles, angular, damp-moist
			7.7	(3.2-4.4) Red brown, SILT STONE, dry
29	34	5.0	No PID	(0.0-5.0) Red brown SANDY SILT, non plastic, some small to large
				pebbles, sub rounded to sub angular, damp wet

ARCADIS GERAGHTY & MILLER

Sample/Core Log

Boring/Well OW-85 Project/No. NJ000298.0030.0004

Prepared By Brian McCain

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	PID Reading with depth interval (ppm)	Sample/Core Description
34	39	5	No PID	(0.0-3.2) Red brown SANDY SILT, non plastic, some small to large
				pebbles, sub rounded to sub angular, damp-wet
				(3.2-5.0) Mud stone , Silt stone , weathered bed rock, and Silt, some
				Sand, non plastic,some med to large Pebbles, angular to sub rounded,
				red brown
39	41.5	2.2	No PID	(0.0-2.2) Same as above Bedrock at 41.5 feet

ARCADIS GERAGHTY & MILLER

Sample/Core Log

Boring/Well OW-34R Project/No. NJ000298.0030.0004 Page 1 of 1

Site

Location Clark , N.J. Drilling Started 9/21/2012 Drilling Completed

Total Depth Drilled 35 Feet Hole Diamet 6 inches Type of Sample/ Coring Device Sonic Sleeve

Length and Diameter of Coring Device 4 inch by 5 ft Sampling Interval 5 feet

Land-Surface Elev. feet ☐ Surveyed ☐ Estimated Datum

Drilling Fluid Used Water Drilling Method Sonic

Drilling Contractor Summit Drilling Driller John Helper Danny

Prepared By Brian McCain Hammer Weight NA Hammer Drop NA ins.

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	PID Reading with depth interval (ppm)	Sample/Core Description
0	11.25	0	No PID	Fill Material- Material was excavated
11.25	14	1	No PID	(0.0-1.0)Concrete
14	19	0	No PID	No Recovery , Large COBBLES in shoe, sub angular, up to 3 inch in dia
19	24	3.7	No PID	(0.0-0.7) Concrete
				(0.7-1.0) Cobbles , sub angular, loose, 2 inch dia
				(1.0-3.1) Concrete
				(3.1-3.7) Red Brown SAND, non plastic, dry
24	29	5.2	No PID	(0.0-5.2) Red Brown SANDY SILT, non plastic, little small to medium
				Pebbles, sub round, wet
29	34	5.4	No PID	(0.0-3.4) Same as above
				(3.4-5.4) Red brown SANDY SILT, little small to large Pebbles,
				sub angular to sub rounded, dry
34	35	0	No PID	No recovery

ARCADIS GERAGHTY & MILLER

Sample/Core Log

ARCADIS GERAGHTY & MILLER

Sample/Core Log

Boring/Well OW-86/ OW-86D Project/No. NJ000298.0030.0004 Page 1 of 2

Site

Location Clark , N.J.

Drilling Started 9/19/2012 Drilling Completed 9/19/2012

Total Depth Drilled 45 Feet Hole Diamete 8 inches Type of Sample/ Coring Device Sonic Sleeve

Length and Diameter of Coring Device 4 inch by 5 ft Sampling Interval 5 feet

Land-Surface Elev. feet ☐ Surveyed ☐ Estimated Datum

Drilling Fluid Used Water Drilling Method Sonic

Drilling Contractor Summit Drilling Driller John Helper Danny

Prepared By Brian McCain Hammer Weight NA Hammer Drop NA ins.

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	PID Reading with depth interval (ppm)	Sample/Core Description
0	7.75	0		Fill Material
7.75	14.00	3.5	0/0/0/0	(0.0 -1.0) Grey brown wet SAND , loose, sorted , sub rounded Pebbles
				fill material
			0/0	(1.0-1.8) Concrete
			0/0/0/0/0/0	(1.8-3.5) Red Brown SANDY SILT, non-plastic, dry
14	19	4.5	0/0/0/0	(0.0-1.5) Brownish yellow moist SANDY SILT,some Fine Sand
				slight plastic, moist
				(1.5-4.5) Red Brown, SANDY SILT , some Fine Sand, slight plastic
				wet, low density
19	24	4.8	0/0/0/0/0/0	(0.0-2.6) Same As Above
			0/0/0	(2.6-4.8) Red Brown, SANDY SILT , some Fine Sand, non plastic
				dry, some small pebbles, sub rounded to sub angular
24	29	4.6	0/0/0/0/0/0	(0.0-2.4) Red brown , SILTY SAND, non plastic, poorly sorted ,
				small Pebbles , sub rounded to sub angular, moist
				(2.4-3.6) Red brown, SILT, slight plastic, moist, low density,

ARCADIS GERAGHTY & MILLER

Sample/Core Log

Prepared By Brian McCain

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	PID Reading with depth interval (ppm)	Sample/Core Description
				Continue from page 1
			0/0/0/0	(3.6-4.6) Red brown SILTY SAND, nonplastic, poorly
				sorted, small to large pebbles , sub angular to sub rounded, saturated
29	34	5	0/0/0/0	(0.0-2.4) Red brown SILTY SAND, nonplastic, moist to wet ,
				poorly sorted, small to large pebbles, sub rounded to sub angular
				(2.4-3.4) Red brown, SANDY SILT , gravelly, very dense, dry ,
				non plastic , small to large pebbles, sub angular to angular, weathered
				(3.4-5.0) Red brown SILT STONE pulverised
34	44	0		Note: used roller because of bit bed rock at 32 ft. Will drill 12 ft into
				bedrock to set screen

Appendix B

Surveyor Form Bs

BORBAS SURVEYING & MAPPING

Environmental Site Mapping • Hazardous Materials and Waste Surveys
Aerial Control and GPS Surveys • Topographic and Existing Condition Surveys
Remote Sensing and GIS • Hydrographic/Bathymetric Surveys • ALTA/ACSM Certified Surveys
Transportation and Right of Way Surveys • Deformation and Structure Monitoring Surveys

Serving New Jersey, New York, Pennsylvania, Delaware and Maryland

Monitoring Well Report
Former Hyatt Clark Industries, Inc.
1300 Raritan Road
Township of Clark, Union County, New Jersey
November 27, 2012

Well ID	N.J.S.P. Coordinate Northing	N.J.S.P. Coordinate Easting	Latitude North	Longitude West	Inner Casing Elevation	Outer Casing Elevation	Ground Elevation
MW-3D	654931.6	545231.5	40°37'52.63"	74°18'31.15"	74.09	74.42	74.4
OW-34R	655220.4	545157.2	40°37'55.49"	74°18'32.10"	81.98	82.21	82.2
OW-84	655146.1	545215.2	40°37'54.75"	74°18'31.35"	81.85	82.15	82.1
OW-85	655367.4	545253.9	40°37'56.94"	74°18'30.84"	82.44	82.71	82.7
OW-86S	655809.7	545491.9	40°38'01.31"	74°18'27.74"	79.39	79.61	79.6
OW-86D	655809.7	545491.9	40°38'01.31"	74°18'27.74"	79.36	79.61	79.6

Notes:
1. The horizontal datum is the New Jersey State Plane Coordinate System (NAD83)
2. The vertical datum is the existing Site Datum as determined by Borbas Surveying & Mapping, LLC on October 12, 2006 and November 16, 2006, as shown on "Well Report" dated November 17, 2006
3. All coordinates and elevations shown hereon are in U.S. Survey Feet.

J. Peter Borbas, P.L.S.
NJGS 24GS03165300
November 27, 2012

P:\LP\2006\10\061003\Documents\061003_WR_2012-11-27.doc

New Jersey Department of Environmental Protection
Site Remediation Program

Monitoring Well Certification Form B – Location Certification

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Former Hyatt Clark Industries, Inc.
List all AKAs:
Street Address: 1300 Raritan Road
Municipality: Township of Clark (Township, Borough, City, Town or Village)
County: Union Zip Code: 07066
Program Interest (PI) Number(s): Case Tracking Number(s):

SECTION B. WELL OWNER AND LOCATION

1. Name of Well Owner
2. Well Location (Street Address)
3. Well Location (Municipal Block and Lot) Block # Lot #

SECTION C. WELL LOCATION SPECIFICS

1. Well Permit Number (This number must be permanently affixed to the well casing):
2. Site Well Number (As shown on application or plans): MW-3D
3. Geographic Coordinate NAD 83 to nearest 1/10 of a second:
   Latitude: North 40 ° 37 ' 52.63 " Longitude : West 74 ° 18 ' 31.15 "
4. New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:
   North 654931.6 East 545231.5
5. Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): 74.09
   Elevation of Top of Outer Casing: 74.42
   Elevation of Ground:..... 74.4
   Check One: NAVD '88 ____ NGVD '29 ____ **On Site Datum** **X** Assumed Datum ____ Other ____
6. Source of elevation datum (benchmark, number/description/and elevation/datum. If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation.)
   The vertical datum is the existing Site Datum as determined by Borbas Surveying & Mapping, LLC on October 12, 2006 and November 16, 2006, as shown on "Well Report" dated November 17, 2006
7. Significant observations and notes:

SECTION D. LAND SURVEYOR'S CERTIFICATION

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SEAL

Professional Land Surveyor's Signature: Date: Nov. 27, 2012

Surveyor's Name: J. Peter Borbas License Number: 24GS03165300
Firm Name: Borbas Surveying & Mapping, LLC Certificate of Authorization #: 24GA28056200
Mailing Address: 402 Main Street
City/Town: Boonton State: New Jersey Zip Code: 07005
Phone Number: 973-316-8743 Ext: n/a Fax: 973-402-6627

New Jersey Department of Environmental Protection
Site Remediation Program

Monitoring Well Certification Form B – Location Certification

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Former Hyatt Clark Industries, Inc.
List all AKAs:
Street Address: 1300 Raritan Road
Municipality: Township of Clark (Township, Borough, City, Town or Village)
County: Union Zip Code: 07066
Program Interest (PI) Number(s): Case Tracking Number(s):

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3. Well Location (Municipal Block and Lot) Block # Lot #

SECTION C. WELL LOCATION SPECIFICS

1. Well Permit Number (This number must be permanently affixed to the well casing):
2. Site Well Number (As shown on application or plans): OW-34R
3. Geographic Coordinate NAD 83 to nearest 1/10 of a second:
   Latitude: North 40 ° 37 ' 55.49 " Longitude : West 74 ° 18 ' 32.10 "
4. New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:
   North 655220.4 East 545157.2
5. Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): 81.98
   Elevation of Top of Outer Casing: 82.21
   Elevation of Ground:..... 82.2
   Check One: NAVD '88 ____ NGVD '29 ____ **On Site Datum** **X** Assumed Datum ____ Other ____
6. Source of elevation datum (benchmark, number/description/and elevation/datum. If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation.)
   The vertical datum is the existing Site Datum as determined by Borbas Surveying & Mapping, LLC on October 12, 2006 and November 16, 2006, as shown on "Well Report" dated November 17, 2006
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1. Name of Well Owner
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3. Well Location (Municipal Block and Lot) Block # Lot #

SECTION C. WELL LOCATION SPECIFICS

1. Well Permit Number (This number must be permanently affixed to the well casing):
2. Site Well Number (As shown on application or plans): OW-84
3. Geographic Coordinate NAD 83 to nearest 1/10 of a second:
   Latitude: North 40 ° 37 ' 54.75 " Longitude : West 74 ° 18 ' 31.35 "
4. New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:
   North 655146.1 East 545215.2
5. Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): 81.85
   Elevation of Top of Outer Casing: 82.15
   Elevation of Ground:..... 82.1
   Check One: NAVD '88 ____ NGVD '29 ____ **On Site Datum** **X** Assumed Datum ____ Other ____
6. Source of elevation datum (benchmark, number/description/and elevation/datum. If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation.)
   The vertical datum is the existing Site Datum as determined by Borbas Surveying & Mapping, LLC on October 12, 2006 and November 16, 2006, as shown on "Well Report" dated November 17, 2006
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Program Interest (PI) Number(s): Case Tracking Number(s):

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3. Well Location (Municipal Block and Lot) Block # Lot #

SECTION C. WELL LOCATION SPECIFICS

1. Well Permit Number (This number must be permanently affixed to the well casing):
2. Site Well Number (As shown on application or plans): OW-85
3. Geographic Coordinate NAD 83 to nearest 1/10 of a second:
   Latitude: North 40 ° 37 ' 56.94 " Longitude : West 74 ° 18 ' 30.84 "
4. New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:
   North 655367.4 East 545253.9
5. Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): 82.44
   Elevation of Top of Outer Casing: 82.71
   Elevation of Ground:..... 82.7
   Check One: NAVD '88 ____ NGVD '29 ____ **On Site Datum** X Assumed Datum ____ Other ____
6. Source of elevation datum (benchmark, number/description/and elevation/datum. If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation.)
   The vertical datum is the existing Site Datum as determined by Borbas Surveying & Mapping, LLC on October 12, 2006 and November 16, 2006, as shown on "Well Report" dated November 17, 2006
7. Significant observations and notes:

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SECTION B. WELL OWNER AND LOCATION

1. Name of Well Owner
2. Well Location (Street Address)
3. Well Location (Municipal Block and Lot) Block # Lot #

SECTION C. WELL LOCATION SPECIFICS

1. Well Permit Number (This number must be permanently affixed to the well casing):
2. Site Well Number (As shown on application or plans): OW-86S
3. Geographic Coordinate NAD 83 to nearest 1/10 of a second:
   Latitude: North 40 ° 38 ' 01.31 " Longitude : West 74 ° 18 ' 27.74 "
4. New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:
   North 655809.7 East 545491.9
5. Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): 79.39
   Elevation of Top of Outer Casing: 79.61
   Elevation of Ground:..... 79.6
   Check One: NAVD '88 ____ NGVD '29 ____ **On Site Datum** **X** Assumed Datum ____ Other ____
6. Source of elevation datum (benchmark, number/description/and elevation/datum. If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation.)
   The vertical datum is the existing Site Datum as determined by Borbas Surveying & Mapping, LLC on October 12, 2006 and November 16, 2006, as shown on "Well Report" dated November 17, 2006
7. Significant observations and notes:
   OW-86S and OW-86D are both 2" diameter PVC inner casings within the same Groundwater Observation Well Manhole

SECTION D. LAND SURVEYOR'S CERTIFICATION

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New Jersey Department of Environmental Protection
Site Remediation Program

Monitoring Well Certification Form B – Location Certification

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SECTION C. WELL LOCATION SPECIFICS

1. Well Permit Number (This number must be permanently affixed to the well casing):
2. Site Well Number (As shown on application or plans): OW-86D
3. Geographic Coordinate NAD 83 to nearest 1/10 of a second:
   Latitude: North 40 ° 38 ' 01.31 " Longitude : West 74 ° 18 ' 27.74 "
4. New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:
   North 655809.7 East 545491.9
5. Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): 79.36
   Elevation of Top of Outer Casing: 79.61
   Elevation of Ground:..... 79.6
   Check One: NAVD '88 ____ NGVD '29 ____ **On Site Datum** X Assumed Datum ____ Other ____
6. Source of elevation datum (benchmark, number/description/and elevation/datum. If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation.)
   The vertical datum is the existing Site Datum as determined by Borbas Surveying & Mapping, LLC on October 12, 2006 and November 16, 2006, as shown on "Well Report" dated November 17, 2006
7. Significant observations and notes:
   OW-86S and OW-86D are both 2" diameter PVC inner casings within the same Groundwater Observation Well Manhole

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Mailing Address: 402 Main Street
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Phone Number: 973-316-8743 Ext: n/a Fax: 973-402-6627

APPENDIX E

Off-Site Bedrock Groundwater Investigation

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Appendix E

Offsite Bedrock Groundwater Investigation

Former Hyatt Clark Facility, Clark, New Jersey

ARCADIS

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1 Soil Boring and Monitoring Well Construction Logs

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1. Introduction

This appendix presents the results of the offsite deep bedrock groundwater investigation conducted at the Former Hyatt Clark Industries Site (Site) located in Clark and Cranford, New Jersey. The results are being reported in support of the Groundwater Remedial Investigation Report (RIR), which presents the findings and recommendations for the groundwater remedial investigation conducted at the Site.

The RI for groundwater was initiated in 1988 and included installation of overburden, shallow bedrock, and deep bedrock monitoring wells, and subsequent groundwater sampling events. The data collected during the RI were used to characterize the overburden, shallow bedrock, and deep bedrock geology, hydrogeology, groundwater quality, and the fate and transport of constituents of concern.

The offsite investigation was proposed in the 12 May 2005 response to the NJDEP 8 April 2005 comment letter and the NJDEP-approved April 2006 Remedial Investigation Workplan (RIW). The offsite deep bedrock groundwater investigation was conducted in accordance with the NJDEP-approved April 2006 RIW.

2. Scope of Work

The scope-of-work included installation of two offsite deep bedrock monitoring wells at the locations shown on **Figure 1**. Specifically, bedrock boreholes for MW-87 and MW-88 were drilled to a depth of approximately 350 feet below land surface (bls), followed by downhole geophysical logging, installation of a blank FLUTe® liner to prevent intra-borehole flow and potential vertical migration of constituents, selective-zone packer testing, and installation of FLUTe® multi-port systems in the boreholes.

Overburden materials were continuously logged at each location to the top of weathered bedrock, or refusal. The soil boring logs for MW-87 and MW-88 are provided in **Attachment 1**. During the bedrock borehole installations, competent bedrock was encountered at approximately 24 feet bls and 40 feet bls at MW 87 and MW-88, respectively. It should be noted at the time of installation, the bedrock borehole associated with MW-87 was identified as PH-7.

Downhole geophysical logging was completed by Geophysical Applications Inc., and included the following tools:

- Caliper

- Fluid temperature (FTemp)
- Natural gamma (FRes)
- Fluid resistivity
- Heat pulse resistance
- Single point resistance
- Spontaneous potential
- Acoustic televiewer (ATV)
- Optical televiewer (OTV)

Immediately following completion of the downhole geophysical logging, a blank FLUTe® liner was installed in each borehole. A transmissivity profile test was completed at MW-88 during installation of the liner in an attempt to identify zones of measurable transmissivity within bedrock fractures. The transmissivity profile test methodology was not yet developed at the time of the PH-7/MW-87 borehole installation.

The results of the downhole geophysical logging and transmissivity profile test were used to identify intervals within the boreholes for selective-zone packer testing, groundwater sampling, and the multilevel (multi-port) monitoring well design. Results of the downhole geophysical surveys and transmissivity profile for MW-88 are provided in **Attachment 2**.

2.1 Selective Zone Packer Testing

Results of the geophysical logging and transmissivity profile test (performed at MW-88 only) were used to select specific intervals for selective-zone packer testing and groundwater sampling. Intervals were selected to ensure adequate interval separation and the presence of fractures, which potentially transmit groundwater.

The packer assembly consisted of two inflatable packers spanning a 25-foot zone at PH-7/MW-87, and a 20-foot zone at MW-88. A submersible pump was secured between the packers. The assembly was lowered to the appropriate selected sample interval depth (beginning with the deepest zone) and the packers were inflated with compressed nitrogen gas.

After inflating the packers, a minimum of three interval-volumes of groundwater was purged and a groundwater sample was collected. Water level measurements were also collected from the isolated interval to calculate the specific capacity for each interval. A summary of groundwater purge data collected at each zone during the selective zone sampling at MW-87 and MW-88, respectively, are presented in **Table 1** and **Table 2**. Following purging of the sample interval, groundwater samples were collected for volatile organic compound (VOC) analysis. .

2.2 Multiport Monitoring Well Construction

Based on the results of the downhole geophysics, transmissivity profile, selective-zone packer testing, groundwater sampling, and the specific capacity, the following intervals were selected for the final multi-port sampling systems:

Monitoring Well	MW-87 (PH-7)	MW-88
Multi-Port Screened Interval (feet bls)	69.7 to 89.7	22 to 42
	94.7 to 119.7	59 to 79
	144.7 to 169.7	141 to 161
	264.7 to 289.7	270 to 290
	314.7 to 339.7	

Monitoring well construction logs are provided in **Attachment 1**. Form B certifications, completed by a New Jersey licensed surveyor, are provided in **Attachment 3**.

3. Results

The following section provides a summary of results from the selective-zone sampling conducted at offsite monitoring wells MW-87 and MW-88.

3.1 Selective Zone Groundwater Sampling Results

Results of the selective-zone groundwater sampling show VOCs detected at concentrations greater than the NJDEP Ground Water Quality Standards (GWQS) in

samples collected from each borehole. Specifically, trichloroethene (TCE), tetrachloroethene (PCE), and 1,1-Dichloroethene (1,1-DCE) were detected at concentrations greater than their respective GWQS at all of the zones sampled at MW-87 and MW-88. Additionally, trichlorofluoromethane was detected in all samples collected from the targeted zones at MW-87 and MW-88, with the exception of the 45 to 70 foot bls interval at MW-87. All trichlorofluoromethane concentrations were less than the GWQS.

No additional VOCs were detected at concentrations greater than their respective GWQS. Results of the selective-zone groundwater sampling are presented in **Table 3** and **Table 4**.

4. Prior Groundwater Investigations

The findings and recommendations for groundwater investigations conducted at the Site prior to the work described above have been previously reported to the NJDEP in the documents listed below. These investigations included the installation and monitoring of onsite overburden, shallow bedrock, and deep bedrock monitoring wells, and offsite overburden monitoring wells. The reports, work plans, and documents summarizing the previous work are as follows:

- Remedial Investigation Report prepared by URS, dated March 1995.
- Groundwater Remedial Investigation Report prepared by ARCADIS Geraghty & Miller, dated January 1997.
- Supplemental Remedial Investigation and Interim Remedial Action Report for Groundwater prepared by ARCADIS Geraghty & Miller, dated January 1998.
- Groundwater Summary and Work Plan prepared by ARCADIS Geraghty & Miller, dated June 1999.
- Remedial Action Work Plan for Groundwater prepared by ARCADIS Geraghty & Miller, dated 25 May 2001.
- Remedial Investigation Work Plan prepared by ARCADIS Geraghty & Miller, dated 12 April 2006.

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Tables

Table 1. Summary of Purge Data for Selective Zone Sampling, Pilot Hole PH7*
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Packer Interval	Static Water Level[1] (ft bmp)	Total Minutes Purged[2]	Purge Rate (gpm)	Water Level after Purging (ft bmp)	Max Drawdown (ft)	Total Gallons Purged	Specific Capacity (gpm/ft)	Max Drawdown Upper (ft)	Max Drawdown Lower (ft)
PH7 (45-70')	23.36	51	2 - 6	>41.36	>18	137	0.13	0.25	0.36
PH7 (95-120')	25.44	44	2 - 6	33.14	7.7	143	1.05	0.82	0.43
PH7 (145-170')	26.95	25	4 - 8	37.55	10.6	137	0.75	0.40	0.50
PH7 (178-203')	26.95	24	4 - 6	>172.95	>146	111	0.06	0.07	0.57
PH7 (206-231')	26.95	68	2 - 4	>199.95	>173	127	0.01	0.47	0.18
PH7 (265-290')	26.95	25	2 - 12	30.75	3.8	203	3.27	0.11	0.25
PH7 (315-340')	26.95	18	4 - 12	27.38	0.43	200	27.91	0.14	0.36

gpm Gallons per minute.
gpm/ft Gallons per minute per foot of drawdown.
ft bmp Feet below measuring point. Measuring point was the top of casing prior to lowering packer assembly into borehole.
* Pilot Hole PH-7 was converted to MW-87 following the borehole packer testing
1 Static water level was inferred by comparing the manual depth to water measurement taken prior to lowering the packer assembly into the borehole to the difference in hydraulic head measured by the packed interval pressure transducer before and after packer inflation.
2 Purge time is from start of pumping to start of sample collection.
3 Purge rate is the rate most consistently pumped during purging period.
4 Specific Capacity calculated with purge rate divided by max drawdown.

Table 2. Summary of Purge Data for Selective Zone Sampling, MW-88
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Packer Interval	Static Water Level[1] (ft bmp)	Total Minutes Purged[2]	Purge Rate (gpm)[3]	Water Level after Purging (ft bmp)		Max Drawdown (ft)	Total Gallons Purged	Specific Capacity (gpm/ft)[4]
MW-88 (62-82)	16.75	54	1	76.8		60.05	65	0.02
MW-88 (82 -102)	19.07	42	4	23.26		4.19	120	0.95
MW-88 (119-139)	19.18	43	4.5	38.74		19.56	135	0.23
MW-88 (140-160)	18.25	51	4	59.40		41.15	150	0.10
MW-88 (173-193)	18.42	40	2.5	168.20	*	149.78	90	0.02
MW-88 (201-221)	17.45	29	5	24.30		6.85	120	0.73
MW-88 (284-304)	15.70	71	0.8	184.01	*	168.31	75	0.00
MW-88 (330-350)	17.75	100	1.7	117.55		99.8	150	0.02

gpm Gallons per minute.
gpm/ft Gallons per minute per foot of drawdown.
ft bmp Feet below measuring point. Measuring point was the top of casing prior to lowering packer assembly into borehole.
[1] Static water level was taken in the standpipe with a water level meter after packer inflation of the corresponding zone.
[2] Purge time is from time pump was turned on; through when pump was turned off.
[3] Purge rate is the rate most consistently pumped during purging period.
[4] Specific Capacity calculated with purge rate divided by max drawdown.
* Water level meter stuck in standpipe/tubing. Last water level value recorded used.

Table 3. Summary of Groundwater Selective-Zone Sampling Analytical Results: Volatile Organic Compounds, PH-7/MW-87
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID:	PH-7/MW-87	PH-7/MW-87*	PH-7/MW-87	PH-7/MW-87	PH-7/MW-87	PH-7/MW-87	PH-7/MW-87	PH-7/MW-87
		Sample Date:	5/24/2006	5/24/2006	5/24/2006	5/24/2006	5/24/2006	5/24/2006	5/24/2006	5/24/2006
		Start Depth	45	45	95	145	178	206	265	315
		End Depth	70	70	120	170	203	231	290	340
1,1,1-Trichloroethane	30		0.7	0.8	< 0.7 U	< 0.7 U	0.6	< 0.3 U	< 0.7 U	< 0.7 U
1,1,2,2-Tetrachloroethane	1		< 0.3 U	< 0.3 U	< 0.7 U	< 0.7 U	< 0.3 U	< 0.3 U	< 0.7 U	< 0.7 U
1,1,2-Trichloroethane	3		< 0.3 U	< 0.3 U	< 0.7 U	< 0.7 U	< 0.3 U	< 0.3 U	< 0.7 U	< 0.7 U
1,1-Dichloroethane	50		1.2	1.7	4.2	3.5	4	2.9	3.6	3.2
1,1-Dichloroethene	**1**		**6.8**	**8.7**	**16**	**11**	**9**	**5.9**	**10**	**13**
1,2-Dichloroethane	2		< 0.3 U	< 0.3 U	< 0.6 U	< 0.6 U	< 0.3 U	< 0.3 U	< 0.6 U	< 0.6 U
1,2-Dichloropropane	1		< 0.3 U	< 0.3 U	< 0.6 U	< 0.6 U	< 0.3 U	< 0.3 U	< 0.6 U	< 0.6 U
2-Chloroethyl vinyl ether	---		< 0.4 U	< 0.4 U	< 0.8 U	< 0.8 U	< 0.4 U	< 0.4 U	< 0.8 U	< 0.8 U
Benzene	1		< 0.3 U	< 0.3 U	< 0.7 U	< 0.7 U	< 0.3 U	< 0.3 U	< 0.7 U	< 0.7 U
Bromodichloromethane	1		< 0.3 U	< 0.3 U	< 0.6 U	< 0.6 U	< 0.3 U	< 0.3 U	< 0.6 U	< 0.6 U
Bromoform	4		< 0.2 U	< 0.2 U	< 0.4 U	< 0.4 U	< 0.2 U	< 0.2 U	< 0.4 U	< 0.4 U
Bromomethane (Methyl bromide)	10		< 0.3 U	< 0.3 U	< 0.6 U	< 0.6 U	< 0.3 U	< 0.3 U	< 0.6 U	< 0.6 U
Carbon tetrachloride	1		< 0.3 U	< 0.3 U	< 0.6 U	< 0.6 U	< 0.3 U	< 0.3 U	< 0.6 U	< 0.6 U
Chlorobenzene	50		< 0.4 U	< 0.4 U	< 0.9 U	< 0.9 U	< 0.4 U	< 0.4 U	< 0.9 U	< 0.9 U
Chloroethane	---		< 0.2 U	< 0.2 U	< 0.5 U	< 0.5 U	< 0.2 U	< 0.2 U	< 0.5 U	< 0.5 U
Chloroform (Trichloromethane)	70		0.6	0.8	< 1.0 U	< 1.0 U	1.1	0.8	< 1.0 U	< 1.0 U
Chloromethane (Methyl chloride)	3		< 0.3 U	< 0.3 U	< 0.6 U	< 0.6 U	< 0.3 U	< 0.3 U	< 0.6 U	< 0.6 U
cis-1,2-Dichloroethene	70		2.4	3.3	6.8	7.5	8	5.3	5.7	5.9
cis-1,3-Dichloropropene	1		< 0.2 U	< 0.2 U	< 0.5 U	< 0.5 U	< 0.2 U	< 0.2 U	< 0.5 U	< 0.5 U
Dibromochloromethane	1		< 0.3 U	< 0.3 U	< 0.5 U	< 0.5 U	< 0.3 U	< 0.3 U	< 0.5 U	< 0.5 U
Ethylbenzene	700		< 0.5 U	< 0.5 U	< 0.9 U	< 0.9 U	< 0.5 U	< 0.5 U	< 0.9 U	< 0.9 U
Methylene chloride	3		< 0.5 U	< 0.5 U	< 1.0 U	< 1.0 U	< 0.5 U	< 0.5 U	< 1.0 U	< 1.0 U
Tetrachloroethene	**1**		**140**	**160**	**75**	**17**	**9.2**	**13**	**30**	**55**
Toluene	600		1.5	1.2	< 0.8 U	< 0.8 U	0.4	3.2	< 0.8 U	2.4
trans-1,2-Dichloroethene	100		< 0.4 U	< 0.4 U	< 0.9 U	< 0.9 U	< 0.4 U	5	< 0.9 U	< 0.9 U
trans-1,3-Dichloropropene	1		< 0.2 U	< 0.2 U	< 0.5 U	< 0.5 U	< 0.2 U	< 0.2 U	< 0.5 U	< 0.5 U
Trichloroethene	**1**		**35**	**39**	**320**	**220**	**190**	**180**	**170**	**180**
Trichlorofluoromethane (CFC-11)	2000		< 0.2 U	< 0.2 U	6	20	28	15	11	11
Vinyl chloride	1		< 0.3 U	< 0.3 U	< 0.6 U	< 0.6 U	< 0.3 U	< 0.3 U	< 0.6 U	< 0.6 U
Xylene (total)	1000		< 0.4 U	< 0.4 U	< 0.8 U	< 0.8 U	< 0.4 U	< 0.4 U	< 0.8 U	< 0.8 U

All units are in micrograms per liter (ug/L)
* Duplicate sample
< Consituent not detected above the method detection limit.
J Indicates an estimated value.
--- GWQS no published.
Exceedences **BOLD** and boxed

Table 4. Summary of Groundwater Selective-Zone Sampling Analytical Results: Volatile Organic Compounds, MW-88
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc.Site, Clark, New Jersey

Constituent (ug/L)	NJDEP Groundwater Standards	Location ID: / Start Depth / End Depth	MW-88 3/5/2013 62 82	MW-88 3/5/2013 82 102	MW-88 3/5/2013 119 139	MW-88 3/5/2013 140 160	MW-88 3/6/2013 173 193	MW-88 3/6/2013 201 221	MW-88 3/7/2013 284 304	MW-88 3/7/2013 330 350
1,1,1-Trichloroethane	30		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2,2-Tetrachloroethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	3		< 1.0 U	0.22 J	0.37 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	50		0.71 J	2	1.9	1.7	1.9	1.7	1.9	1.6
1,1-Dichloroethene	**1**		**1.1**	**3.9**	**3.6**	**4.4**	**4.3**	**4.1**	**3.6**	**3.8**
1,2,4-Trichlorobenzene	9		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	0.02		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dibromoethane (Ethylene dibromide)	0.03		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichlorobenzene	600		0.30 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloroethane	2		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloropropane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,3-Dichlorobenzene	600		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,4-Dichlorobenzene	75		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	300		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2-Hexanone	NS		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	NS		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Acetone	6000		< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Benzene	1		0.54 J	0.14 J	0.31 J	0.14 J	0.12 J	< 1.0 U	0.16 J	0.18 J
Bromodichloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromoform	4		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromomethane (Methyl bromide)	10		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon disulfide	700		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon tetrachloride	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorobenzene	50		0.16 J	< 1.0 U	0.11 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	NS		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroform (Trichloromethane)	70		0.55 J	0.99 J	0.84 J	1	1	0.73 J	0.60 J	0.80 J
Chloromethane (Methyl chloride)	3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	70		9.5	9.9	11	8.5	8.1	7	4.4	7.5
cis-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Cyclohexane	NS		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dibromochloromethane	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dichlorodifluoromethane (CFC-12)	1000		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	700		0.11 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Isopropyl benzene	700		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Methyl acetate	7000		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Methyl cyclohexane	NS		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Methyl tert butyl ether (MTBE)	70		3.6	2.4	1.9	1.5	0.98 J	0.63 J	0.37 J	0.63 J
Methylene chloride	3		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Styrene	100		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	**1**		**14**	**14**	**14**	**7.8**	**5.9**	**4.7**	**2.3**	**4.9**
Toluene	600		20	7.9	9.3	8.5	4.2	2.2	6.5	13
trans-1,2-Dichloroethene	100		0.92 J	0.49 J	0.74 J	0.41 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,3-Dichloropropene	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	**1**		**160**	**250**	**250**	**140**	**130**	**100**	**56**	**100**
Trichlorofluoromethane (CFC-11)	2000		1.5	15	13	15	17	15	9.4	12
Trifluorotrichloroethane (Freon 113)	NS		< 1.0 U	1	0.98 J	1.1	1.2	0.89 J	0.59 J	0.68 J
Vinyl chloride	1		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene (total)	1000		< 3.0 U	< 3.0 U	< 3.0 U	< 3.0 U	< 3.0 U	< 3.0 U	< 3.0 U	< 3.0 U

All units are in micrograms per liter (ug/L)
< Consituent not detected above the method detection limit.
J Indicates an estimated value.

Exceedences **BOLD** and boxed

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Figures



LEGEND:

- OFFSITE DEEP BEDROCK MONITORING WELL

0 300' 600'

GRAPHIC SCALE

FORMER HYATT CLARK INDUSTRIES SITE
CLARK, NEW JERSEY
GROUNDWATER REMEDIAL INVESTIGATION REPORT

OFF-SITE DEEP BEDROCK MONITORING WELL NETWORK

ARCADIS Design & Consultancy for natural and built assets

FIGURE
1

CITY:SYRACUSE-NY DIV/GROUP:ENV DB:A.SANCHEZ LD:ALS PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
Z:\ENVCAD\SYRACUSE\ACTIN\30029\80033\00006\N29833F01.dwg LAYOUT: 1 SAVED: 3/23/2016 1:49 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ---- PLOTTED: 3/23/2016 2:05 PM BY: SANCHEZ, ADRIAN
XREFS: IMAGES: PROJECTNAME: ----
XrBDR-BL ESRI_August2015.jpg
XrArealImage

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Attachment 1

Soil Boring and Monitoring Well Construction Logs

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Sample/Core Log

Boring/Well PH7/MW-87 Project/No. NJ000298.0027.0002 Page 1 of 1

Site Location Clark, New Jersey Drilling Started 5/26/2006 Drilling Completed 5/26/2006

Total Depth Drilled 24 Feet Hole Diameter 2 inches Type of Sample/ Coring Device Geoprobe

Length and Diameter of Coring Device 5' x 2" Sampling Interval continuous

Land-Surface Elev. _____ feet ☐ Surveyed ☐ Estimated Datum _____

Drilling Fluid Used NA Drilling Method Direct Push

Drilling Contractor Summit Driller Rob Helper Joe

Prepared By D. Heuer

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Core Interval (feet)	Sample/Core Description	PID
0	5	4	0 - 0.5	Asphalt; SAND, Black	0.3
			0.5 - 4	SILT; trace SAND and GRAVEL; Reddish Brown	0
5	10	4	0 - 2	Clayey SILT; trace SAND; Reddish Brown	0
			2 - 3.5	Clayey SILT interlayered with COBBLES and Large GRAVEL; Reddish Brown	0
			3.5 - 4	Clayey SILT; trace SAND and Fine GRAVEL; Reddish Brown	0
10	15	4	0 - 2	Clayey SILT; trace SAND and Large GRAVEL; Reddish Brown, Saturated	0.1
			2 - 4	SAND, Fine to Medium; trace GRAVEL and SILT; Reddish Brown	0.1
15	20	3.5	0 - 3.5	SAND, Fine to Medium; trace GRAVEL and COBBLE; Reddish Brown	0.1
20	25	2.5	0 - 2.25	Same as above	0.1
			2.25 - 2.5	GRAVEL; Subangular to Subrounded, Assorted Mineralogy	0.1
				Refusal at 24' below ground surface.	

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Sample/Core Log

Boring/Well MW-88 Project/No. NJ000298.0030 Page 1 of 1

Site Location Clark, New Jersey

Drilling Started 11/28/2012 Drilling Completed 11/28/2012

Total Depth Drilled 350 Feet Hole Diameter 6 inches Type of Sample/ Coring Device Geoprobe/Air Rotary

Length and Diameter of Coring Device 5' x 2" Sampling Interval continuous

Land-Surface Elev. _____ feet ☐ Surveyed ☐ Estimated Datum _____

Drilling Fluid Used NA Drilling Method Direct Push

Drilling Contractor Summit Driller Fred Helper _____

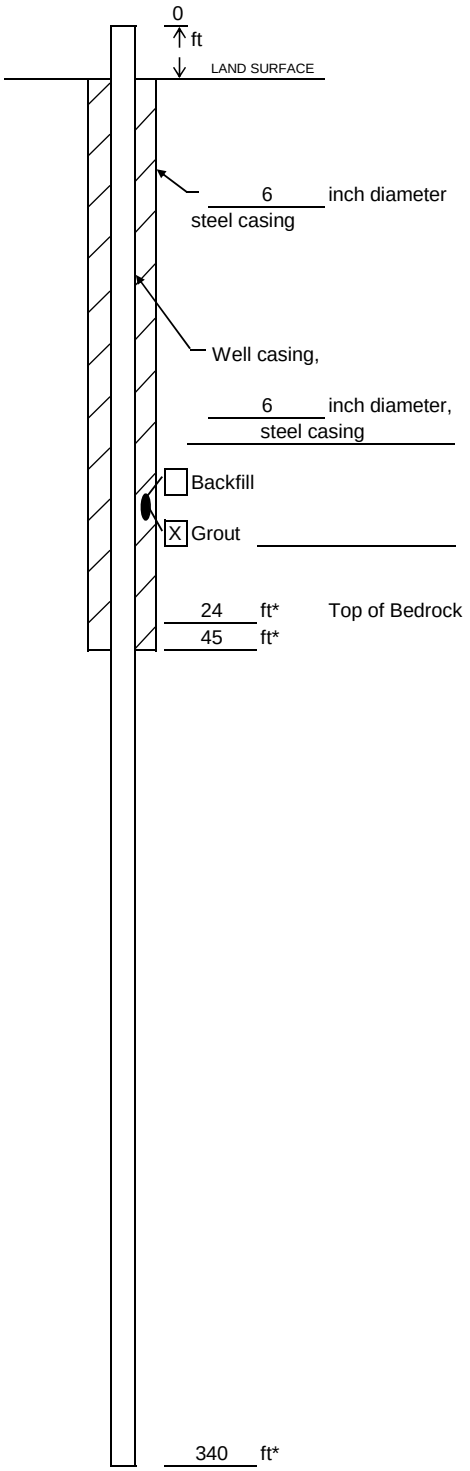
Prepared By R. Kelly

Sample/Core Depth (feet below land surface) From	To	Core Recovery (feet)	Core Interval (feet)	Sample/Core Description	PID
0	5	5	0.0 - 1.0	Topsoil, organics, moist, brown	0.0
			1.0 - 2.0	SILT, some fine SAND, red-brown, moist	0.0
			2.0 - 3.0	SILT, some fine SAND, crumbly, red-brown, moist, gravel pieces	0.0
			3.0 - 4.0	SILT and fine SAND crumbly, red-brown, moist	0.0
			4.0 - 5.0	SILT and fine to medium SAND, red-brown, wet	2.4
5	10	5	0.0 - 2.0	Fine SAND and SILT, red-brown, moist, few gravel	14.6
					33.2
			2.0 - 3.0	Weathered bedrock, crumbly, dry, red-brown	12.1
			3.0 - 4.0	Clayey SILT, low plasticity, trace fine SAND, red-brown, moist	8.4
			4.0 - 5.0	Fine SAND and SILT, red-brown	8.3
10	15	5	0.0 - 1.0	Clayey SILT, low plasticity, trace f-SAND, red-brown, moist	7.5
			1.0 - 2.0	Weathered bedrock and SILT, red-brown, moist	17.2
			2.0 - 4.0	Fine to medium SAND, SILT, red-brown, wet	12.3
					10.7
			4. 0 - 5.0	SILT and fine to medium SAND, small pebbles throughout, dense,	14.6
				red-brown, moist	
15	20	4	0.0 - 3.0	SILT and finr to medium SAND, small pebbles throughout, dense,	17.1
				red-brown, moist	16.3
					10.1
			3.0 - 4.0	Fine SAND and SILT, red-brown, moist, scattered pebbles/gravel, dense	7.2
					NA
				Refusal at 19' below ground surface.	

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Well Construction Log

(Bedrock)



Measuring Point is
Top of Well Casing
Unless Otherwise Noted.

* Depth Below Land Surface

Project Former Hyatt Clark Well MW-87

Town/City Clark

County Union State NJ

Permit No.

Land-Surface Elevation and Datum:

67.2 feet [X] Surveyed

[ ] Estimated

Installation Date(s) 5/26/2006

Drilling Method Air Rotary

Drilling Contractor Summit Drilling

Drilling Fluid

Development Technique(s) and Date(s)

Fluid Loss During Drilling -- gallons

Water Removed During Development -- gallons

Static Depth to Water -- feet below M.P.

Pumping Depth to Water -- feet below M.P.

Pumping Duration -- hours

Yield -- gpm Date --

Specific Capacity -- gpm/ft

Well Purpose Contains FLUTe

Fracture Zones The following fracture zones have discrete intervals screened (feet below land surface):

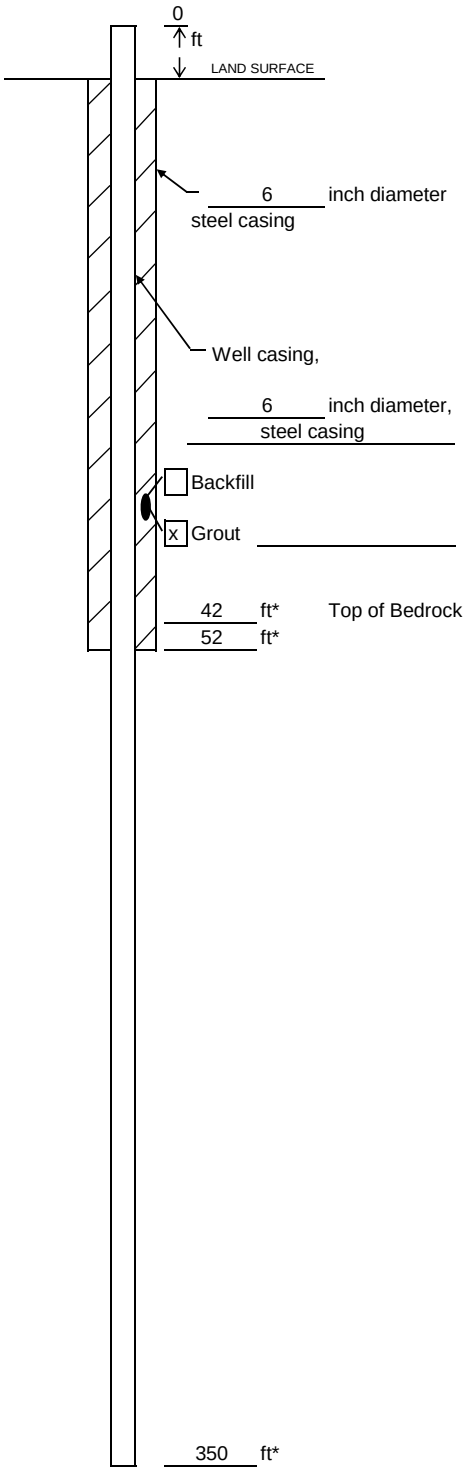
69.7 - 89.7; 94.7 - 119.7; 144.7 - 169.7; 264.7 - 289.7; and 314.7 - 339.7

Prepared by R. Alonso

ARCADIS

Well Construction Log

(Bedrock)



Project Former Hyatt Clark Well MW-88

Town/City Clark

County Union State NJ

Permit No.

Land-Surface Elevation and Datum:

60 feet [X] Surveyed

[ ] Estimated

Installation Date(s) 11/28/2012 - 12/2/2012

Drilling Method Air Rotary

Drilling Contractor Summit Drilling

Drilling Fluid

Development Technique(s) and Date(s)

Geoprobe from 0 to 19 feet bgs; 10" air rotary from 19 to 52 feet bgs; 6" air rotary from 52 to 143 feet bgs; 6" water rotary from 143 to 350 feet bgs.

Fluid Loss During Drilling -- gallons

Water Removed During Development -- gallons

Static Depth to Water -- feet below M.P.

Pumping Depth to Water -- feet below M.P.

Pumping Duration -- hours

Yield -- gpm Date --

Specific Capacity -- gpm/ft

Well Purpose Contains FLUTe

Fracture Zones The following fracture zones have discrete intervals screened (feet below land surface):

22 - 42; 59 - 79; 141 - 161; and 270 - 290

Measuring Point is
Top of Well Casing
Unless Otherwise Noted.

* Depth Below Land Surface

Prepared by R. Alonso

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Attachment 2

Down Hole Geophysical Reports and
MW-88 Transmissivity Profile

Borehole Geophysics Logging Report
Racer Trust Site – Well MW-88
51 Terminal Avenue
Clark, New Jersey

Prepared for
ARCADIS US, INC.
January 2013

GEOPHYSICAL APPLICATIONS INCORPORATED

January 7, 2013

Mr. Jeremy Cuccuini
ARCADIS US, INC.
8 South River Road
Cranbury, NJ 08512

phone: 609-860-0590
email: jeremy.cuccuini@arcadis-us.com

Subject: Borehole Geophysics Logging Report
Racer Trust Site – Well MW-88
51 Terminal Avenue
Clark, New Jersey

Dear Mr. Cuccuini:

This report describes borehole geophysics logging performed by Geophysical Applications, Inc. at the above-noted site, to help identify and characterize hydraulically-active bedrock fractures encountered by an uncased bedrock borehole.

The contracted logging suite included fluid temperature (FTemp), fluid resistivity (FRes), caliper, natural gamma, single-point resistance (SPR), spontaneous potential (SP), acoustic and optical televiewer, and heat-pulse flowmeter testing, as described below.

METHODS OF INVESTIGATION

Survey Control

All borehole logs were referenced to depth below ground surface. The geophysical logging winch contains an optical depth encoder, to maintain depth measurements accurate within approximately ± 0.2 feet throughout a borehole.

Borehole Geophysics Logging

A Mount Sopris model 4MXB logging winch equipped with a Mount Sopris model MGX-II electronics console recorded most log data during this project. FTemp, FRes, caliper, natural gamma, SPR, and SP logs were recorded at 0.1-foot depth increments, as determined by the logging winch's digital depth encoder.

FTemp and FRes logs were recorded during the first downward logging run using a Mount Sopris caliper probe with a fluid temperature and fluid resistivity subassembly. These fluid logs were obtained using a downward logging speed of approximately five feet per minute. Caliper data were subsequently recorded while pulling the same probe upward at approximately 12 feet per minute.

Natural gamma data were recorded while lowering a Mount Sopris polygamma probe at approximately nine feet per minute. SPR and SP logs were recorded while retrieving the polygamma probe, logging upward at approximately 20 feet per minute.

Flowmeter data were obtained with a Mount Sopris heat-pulse flowmeter probe, at specific depths inferred from field plots of the caliper, FRes, FTemp and acoustic televiewer logs. Flowmeter data were initially recorded under ambient conditions. The same test depths were subsequently repeated while pumping the well with a variable-speed Fultz pump. Fluids pumped from this borehole were contained in five-gallon pails that were subsequently emptied into a nearby frac tank.

Acoustic televiewer (ABI) data were obtained using an Advanced Logic Technologies (ALT) model ABI40 acoustic televiewer probe, with the Mount Sopris winch and an ALT model Abox electronics console. ABI data were recorded at 0.01-foot depth intervals, with 288 pixels for each 360-degree scan around the borehole wall. The logging speed was approximately 3.3 feet per minute with this probe, while logging downward.

Optical televiewer (OBI) imaging was performed using an ALT model OBI40 MK-4 optical televiewer probe, also with the Mount Sopris winch and ALT Abox logging console. The OBI log was recorded at 0.007-foot depth increments, with pixels at one-degree arc segments for each 360-degree scan around the borehole wall, while logging downward at a speed of approximately four feet per minute.

A pair of centralizer assemblies positioned each televiewer probe near the middle of the borehole. Each centralizer contains four stainless-steel bow springs, clamped to the probe housing with brass compression fittings, at positions recommended by the probe manufacturer to minimize the risk of interference with the probe's internal three-component magnetometers.

All geophysical log data were recorded on a laptop computer's hard drive, and copied to CD-ROM as a backup precaution.

Post-survey plot scales were adjusted to display as much detail as possible. All conventional logs, flowmeter data, and tadpoles representing planar-feature dip angles and down-dip azimuths (inferred from the acoustic televiewer image) were merged onto one plot, to aid data correlation. Acoustic and optical televiewer images are shown on a separate plot at an expanded vertical scale.

Equipment Decontamination Procedures

Decontamination consisted of an Alconox scrub and tap water rinse of the logging cable and probes after each logging run.

SURVEY LIMITATIONS

Measured geophysical-log depths are estimated to be accurate within $\pm$ 0.2 feet at this site, allowing for some slippage of the winch's depth-measurement wheel.

Caliper-probe arms can measure borehole diameters up to approximately 17 inches. Caliper logs can most-confidently detect fractures that cross a borehole at moderate angles, e.g. less than approximately 70 degrees from horizontal. Caliper logs may not accurately detect near-vertical fractures.

The heat-pulse flowmeter probe can measure water flow rates between 0.02 and approximately 1.2 gallons per minute (gpm). Higher flow rates may be erroneously characterized as zero flow by this probe.

Hydraulically-active fracture zones were inferred by correlating numerous geophysical logs. These interpretations are a subjective judgment based upon available data.

The acoustic and optical televiewer probes rely on three-component magnetometers to orient the recorded images with respect to magnetic north. Dip orientations of televiewer-inferred features within four to six feet of a steel casing are therefore approximate.

Calculated down-dip compass azimuths of nearly-horizontal planar features have larger uncertainties than azimuths of steeper-dipping features.

RESULTS

Geophysical log data and generalized log interpretations are described below. Specific interpretations regarding hydraulically-active planar-feature depths are listed in the "comments" column on the conventional log plot.

All geophysical logs described in this report are presented in Appendix A. Summary televiewer interpretations are provided in Appendix B. This televiewer-interpretation table is an Excel spreadsheet listing observed planar-feature depths, down-dip compass directions for each inferred feature (note that this is perpendicular to the strike direction), feature dip angles with respect to horizontal, and whether an inferred feature was judged to be relatively open or less-open.

Caliper logs are presented in the left-most conventional log-plot column. Inflections to the right indicate borehole enlargements, for example where the drill bit passed through a fracture zone.

Fluid temperature (FTemp) and fluid resistivity (FRes) logs are presented in the next panel of the conventional-log plot. Localized inflections or changes in slope of FTemp or FRes logs typically represent water entering or exiting a borehole. Large inflections at the very bottom of a borehole may represent only accumulated sediments with temperature or electrical properties that contrast with the water column.

Heat-pulse flowmeter data are presented in the caliper panel (ambient flow measurements) and in the FTemp/FRes panel (flow measurements while pumping). Shaded boxes to the left of centerline on either panel would represent downward water flow, with the box length indicating the flow magnitude in gpm (note that downward flow was not observed at this well). Shaded boxes to the right of a panel's centerline represent upward water flow. Filled circles represent depths where "zero" flow was observed (i.e., flow less than the probe's minimum detectable rate, approximately 0.02 gpm).

Flowmeter test depths were selected on-site using field plots of the caliper, fluid temperature, fluid resistivity, and acoustic televiewer logs. Note that the plotted flow magnitudes reported by the vendor's data-acquisition software were normalized using a multiple of 2.0 to help adjust for the flowmeter's performance in this borehole. The probe-manufacturer's calibrations are provided for 4-inch diameter wells; this normalization is required for the scaling adjustment of flow rates recorded within a 6-inch well.

Acoustic televiewer data are presented via two columns (ABI40 "traveltime" and "amplitude"), where each column represents a cylindrical image sliced down the north edge and laid flat on the

printed page. For each column, magnetic north is at the left edge, and the plot progresses through east, south, west, and back to north at the right-hand edge.

Acoustic televiewer logs were evaluated using WellCAD's image-processing module, to measure planar-feature dip angles and down-dip azimuths. All interpreted down-dip azimuths are referenced to magnetic north. Measured feature orientations are indicated by tadpole plots, where each filled-circle indicates a feature's dip angle from horizontal (plotted on a graph that ranges between 0 and 90 degrees from left to right). Each tadpole tail points in the down-dip azimuth; magnetic north is oriented straight up on the printed page. Note that the down-dip azimuth indicated by each tadpole tail is perpendicular to the feature's strike direction.

Features represented on both the ABI travel-time and amplitude plots are denoted as "open". Features represented only on the ABI amplitude plots are likely to have smaller apertures (or possibly represent bedding planes or thin, mineral-filled joints), and are therefore judged relatively "less open". Red tadpoles, and red sine-curve lines superimposed on the ABI plots, represent inferred "open" fractures. Black tadpoles and black sine curves on the ABI plots represent interpreted "less-open" planar features.

Televiewer interpretations are also summarized using rose diagrams, to indicate the predominant down-dip azimuths of planar features observed in each well. These rose diagrams are presented with magnetic north oriented straight up on the printed page. The red rose diagram represents inferred open planes, and the black rose diagram represents inferred less-open features.

A stereoplot also summarizes the open and less-open feature orientations inferred from the acoustic televiewer log. The stereoplot was prepared using an equal-area (Schmidt) projection of the lower hemisphere.

Annotations on the conventional log plot describe interpreted hydraulically-active depths, based on correlations between all of the available log data. Selected observations that may be of particular interest are described below.

Well MW-88

This borehole's caliper log shows numerous enlargements between the casing bottom (approximately 52 feet deep) and 100 feet deep. Additional enlargements are visible near 126 to 128 feet, and between 336 feet to the bottom of the borehole.

FTemp and/or FRes variations judged to possibly represent hydraulically-active zones were observed near the following depths: 52, 67, 75, 78, 80, 84, 86, 94 to 95, 100, 126 to 130, 142, possibly 170, 184, 212 to 213, 220, 228, 278, 286 to 292, 296, 304, and possibly 311 feet.

Weak ambient-upward inflow may have originated between 216 to 236 feet deep, but most ambient-upward flow entered between 197 to 216 feet. Additional ambient upward inflow entered between the following depth ranges: 177 to 197, 136 to 157, and 124 to 136 feet.

Some upward ambient flow may have exited at zones of lower hydraulic head between 157 to 177 and 93 to 106 feet deep. Most upward ambient flow exited at one or more zones of lower head between 71.5 to 93 feet. The remaining weak upward ambient flow exited at a zone of lower head between the casing bottom and 58 feet deep.

Measurable inflow while pumping originated between 197 to 216 feet deep, and flowed upward. Increases in upward flow while pumping were observed between the following depths: 157 to 177,

136 to 157, 124 to 136, 93 to 106, 58 to 71.5, and 52 to 58 feet deep (i.e. immediately below the casing bottom).

Some upward flow while pumping exited at zones of lower hydraulic head between 106 to 124, and 83 to 93 feet deep. The remaining upward flow while pumping exited via the pump, located a few feet below the water level.

The step-wise increases in SP data values between 122 to 126 feet, and also near 290 feet, may represent geologic contacts between generally dissimilar types of bedrock.

Localized increases in natural gamma data values (black line) may represent depth ranges with greater clay-mineral content, particularly where those variations correspond to decreases in SPR data values (blue line). Examples are visible between 54 to 57, 75 to 78, and 330 to 336 feet.

Localized increases in SPR data values (blue line) that correlate with decreases in natural gamma values (black line) may represent depth ranges that have less clay-mineral content and more sand. Examples of this anomaly pattern occur between 235 to 244 and 287 to 291 feet.

Most less-open planar features (black rose diagram) dip down toward the northwest and north-northwest. A few additional less-open planar features also dip down towards the north-northeast, southeast, and south-southeast.

Relatively few open planar features were observed in this borehole; furthermore, all but one inferred open plane were less than 140 feet deep. These open planes dip down in numerous directions, including the northwest, north-northwest, northeast, southeast, south-southeast, and west-southwest.

The stereoplot diagram shows several possible clusters of common feature-pole orientations. The dense group of mostly-black poles located slightly below and right of the stereoplot's center represents less-open planes (and a few open planes) that dip down toward the northwest, north-northwest, and north-northeast; dip angles of most features in this cluster are less than 40 degrees from horizontal. A few black poles located near the stereoplot's lower-right edge represent less-open planes that dip down primarily toward the north-northwest, between 45 to 85 degrees from horizontal.

The cluster of mostly black poles near the stereoplot's upper left edge represents less-open planes (and at least three open planes) that dip down toward the south-southeast and southeast between 40 to 85 degrees from horizontal.

A group of mostly black poles (and a few red poles) located slightly above and right of the stereoplot's center represent less-open and open planes that dip down toward the west-southwest and southwest, at dip angles less than 30 degrees from horizontal.

Black and red poles scattered across the stereoplot's upper-left quadrant, but close to the stereoplot's center, represent less-open and open planes that dip down toward the south-southeast, southeast, and east-southeast, at dip angles less than approximately 40 degrees from horizontal.

* * * * *

We appreciate this opportunity to provide geophysical services, and we welcome questions concerning this report. Please call the undersigned at 508/429-2430 if we may provide additional information that would benefit Arcadis' project.

Sincerely,

GEOPHYSICAL APPLICATIONS, INC.

Lars Andresen
Geophysicist

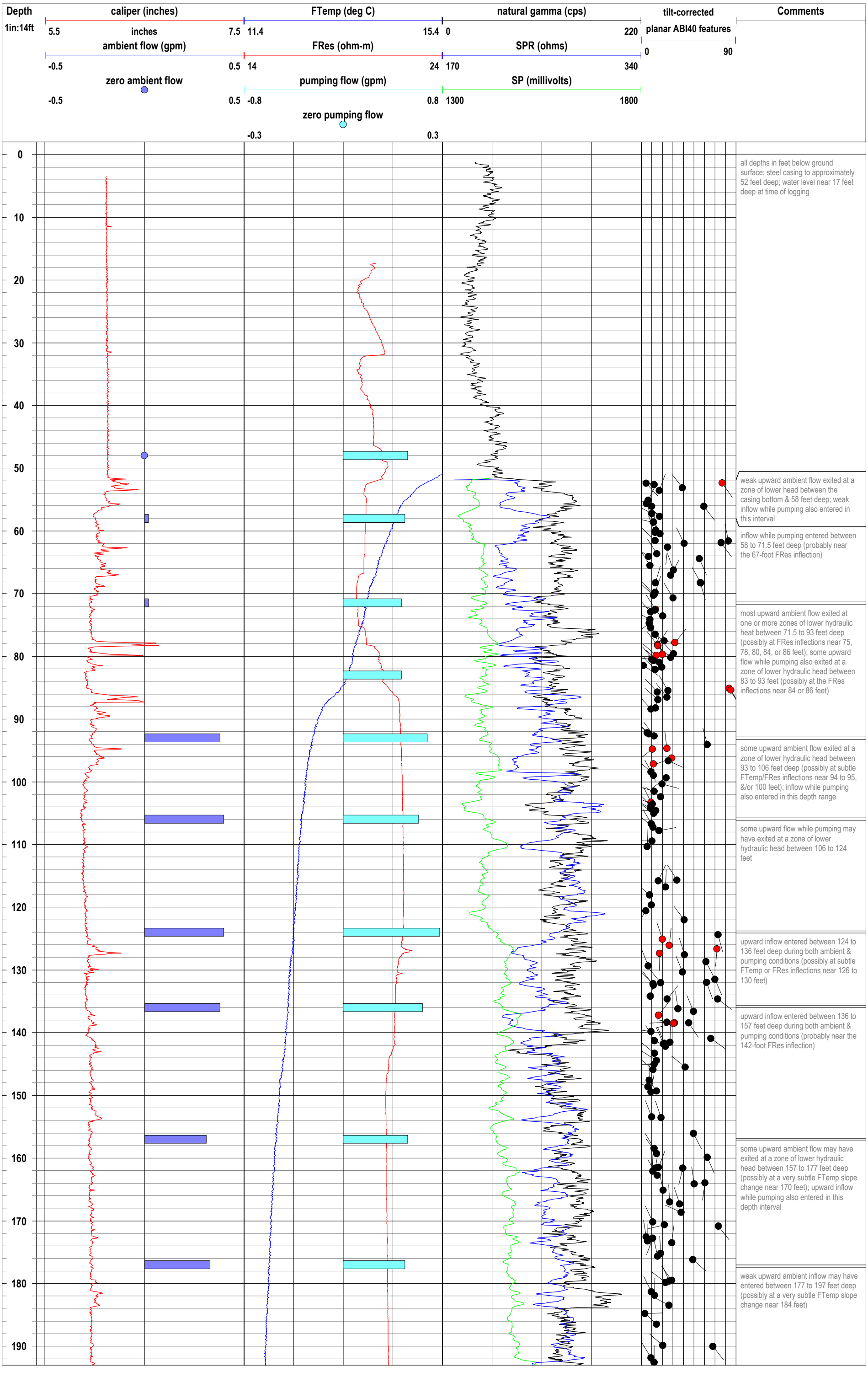
Mark E. Blackey
Principal and Geophysicist

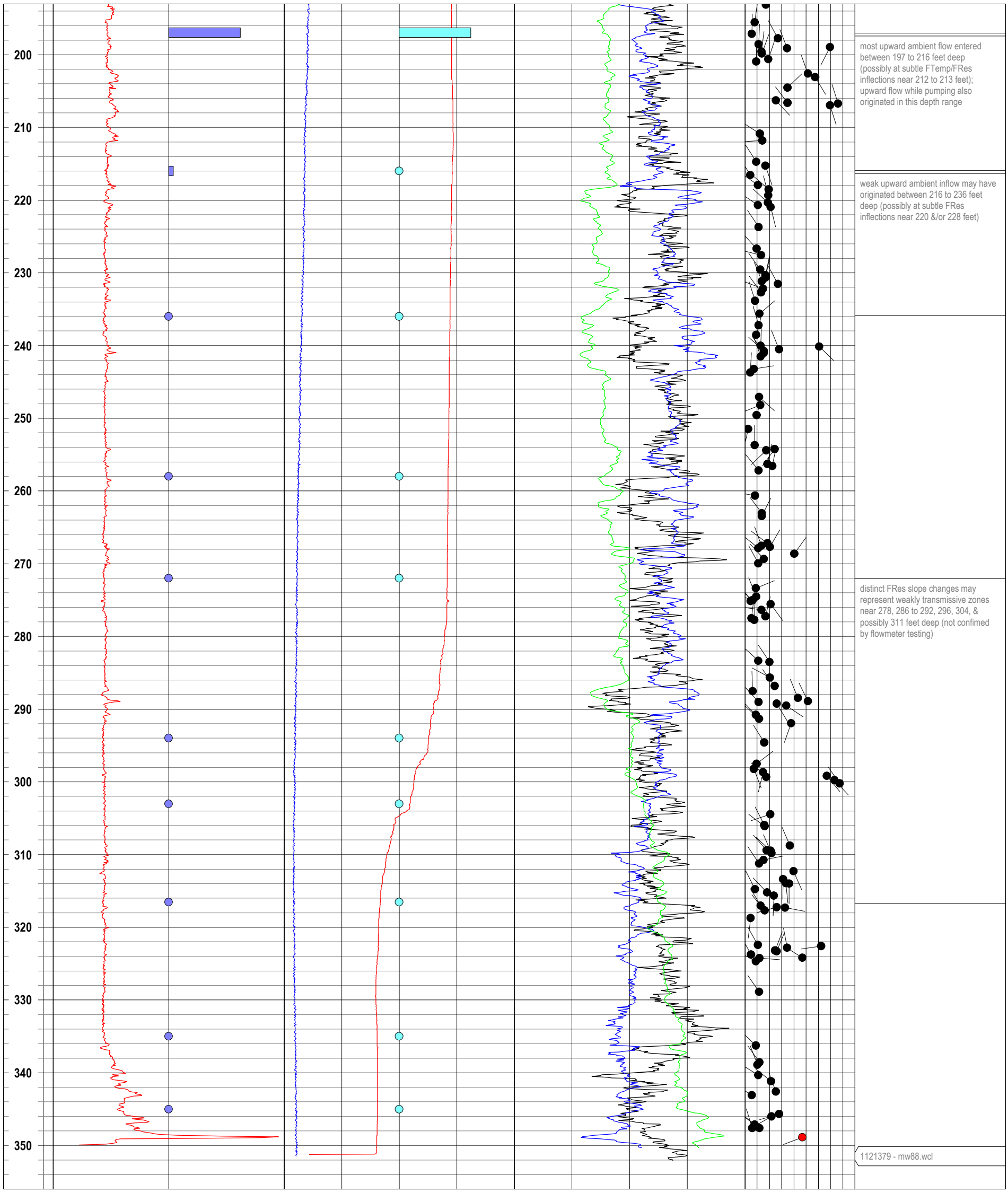
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Appendix A

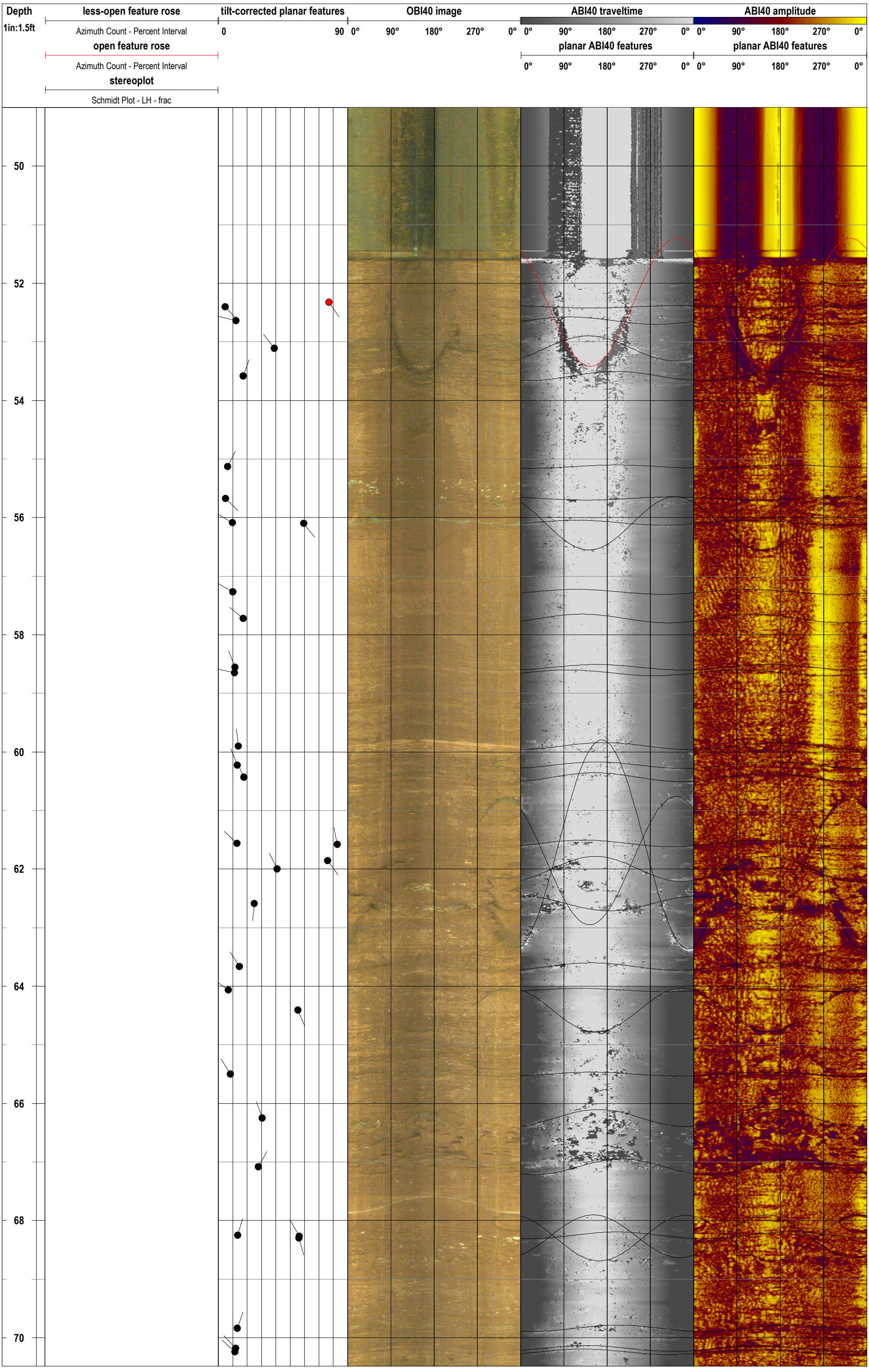
Borehole Geophysics Log Plots

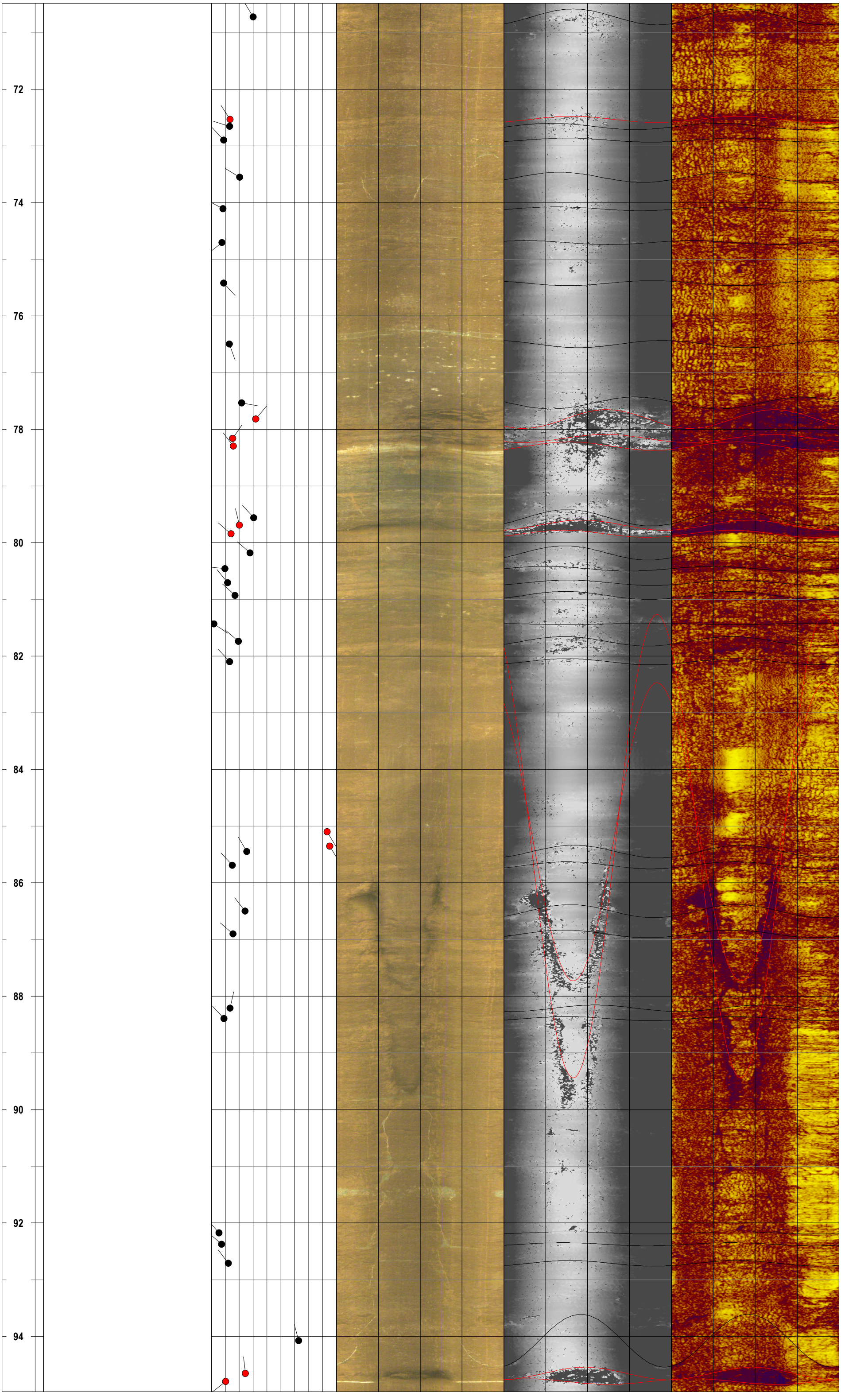
ARCADIS / Clark, NJ - MW-88 conventional log plot

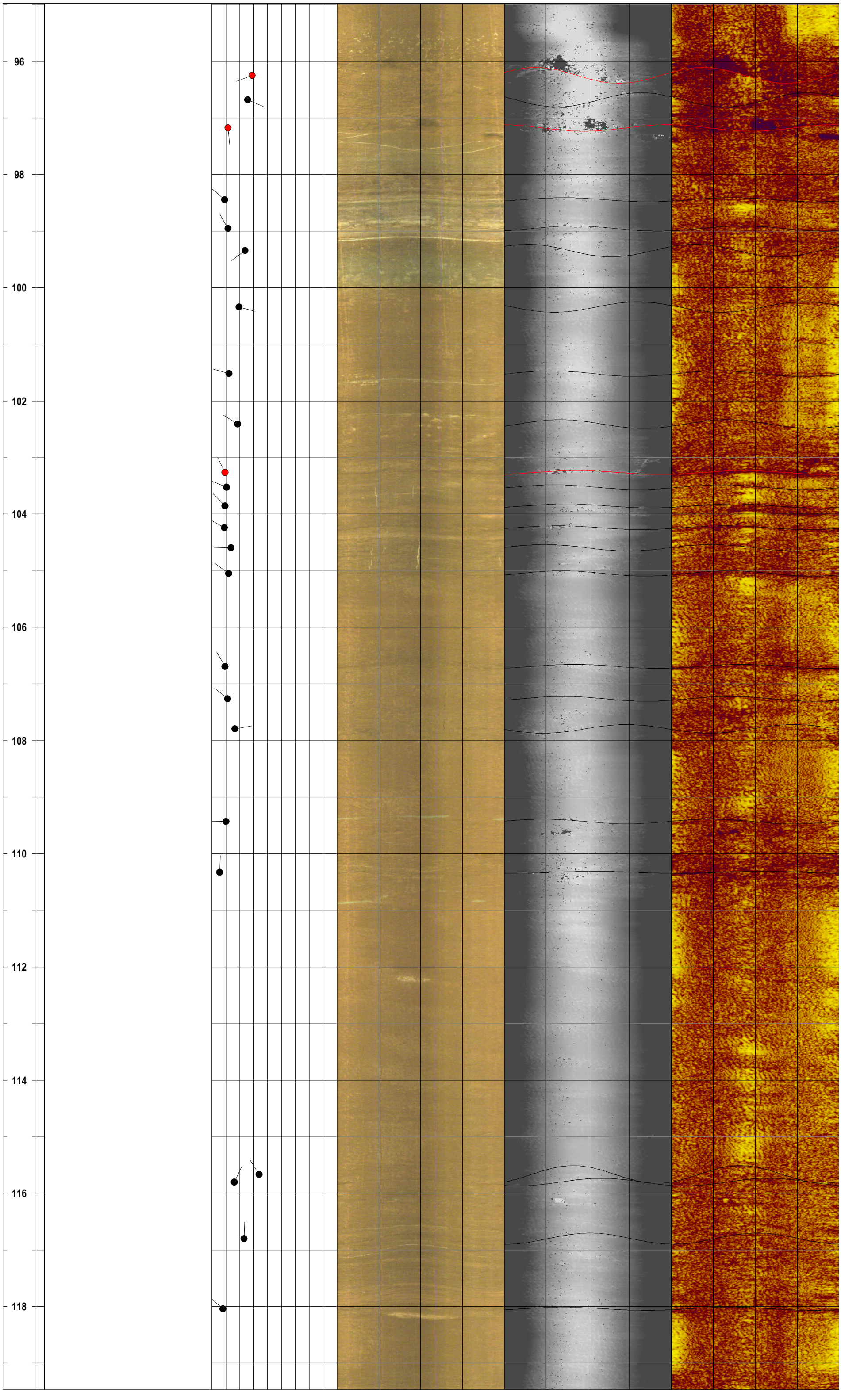


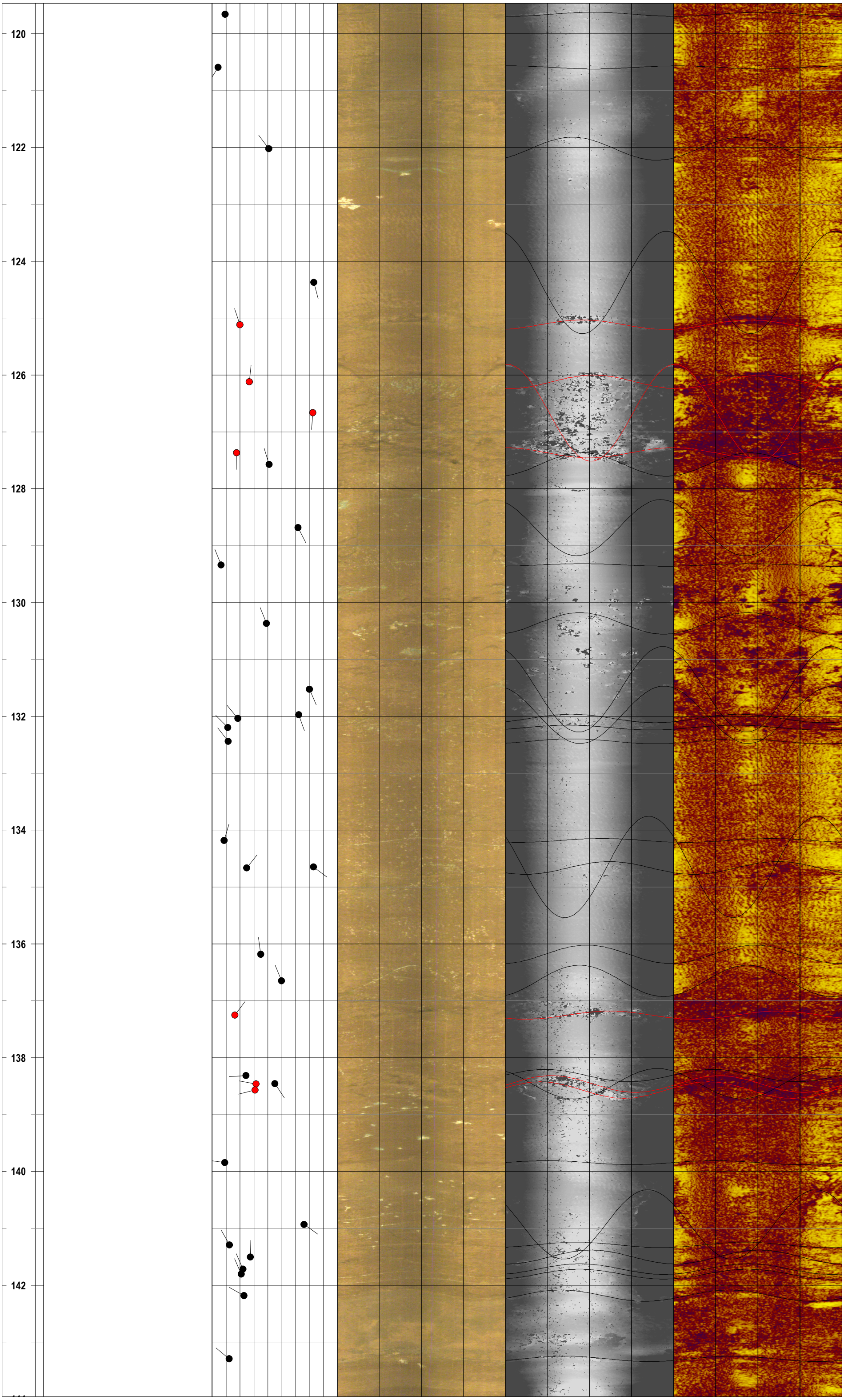

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most upward ambient flow entered between 197 to 216 feet deep (possibly at subtle FTemp/FRes inflections near 212 to 213 feet); upward flow while pumping also originated in this depth range
weak upward ambient inflow may have originated between 216 to 236 feet deep (possibly at subtle FRes inflections near 220 &/or 228 feet)
distinct FRes slope changes may represent weakly transmissive zones near 278, 286 to 292, 296, 304, & possibly 311 feet deep (not confimed by flowmeter testing)
1121379 - mw88.wcl

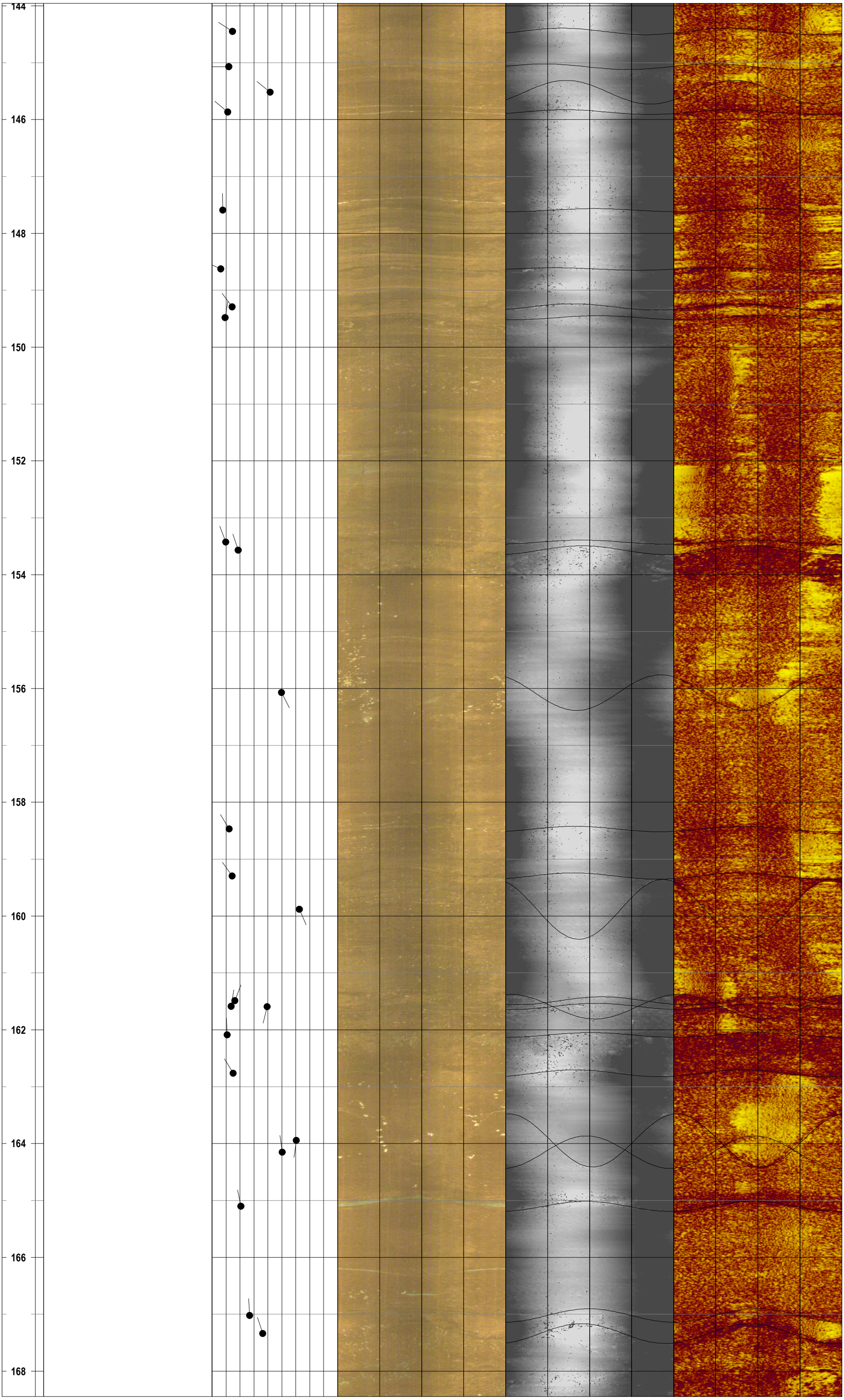
ARCADIS / Clark, NJ - MW-88 optical & acoustic televiewer log plot

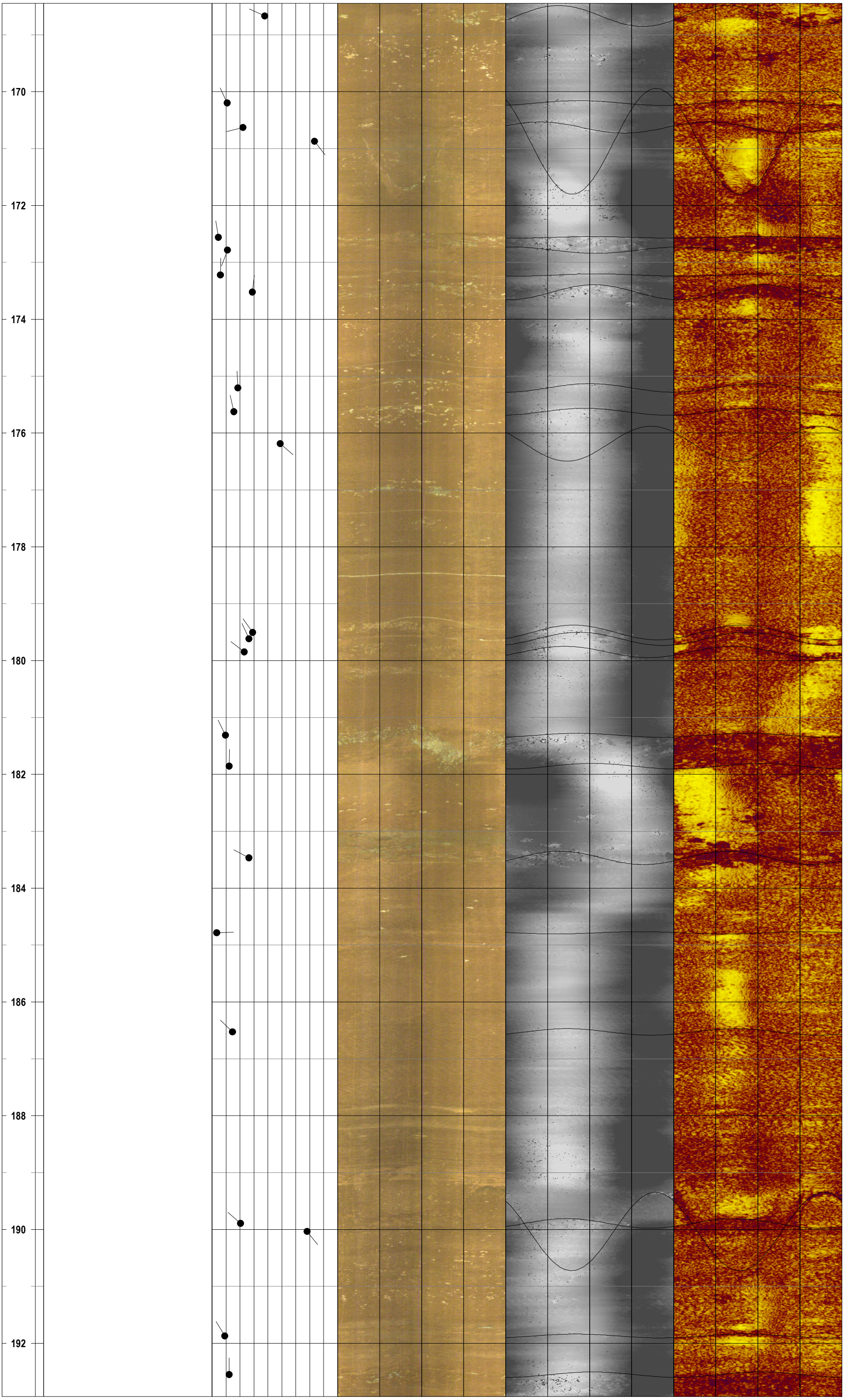


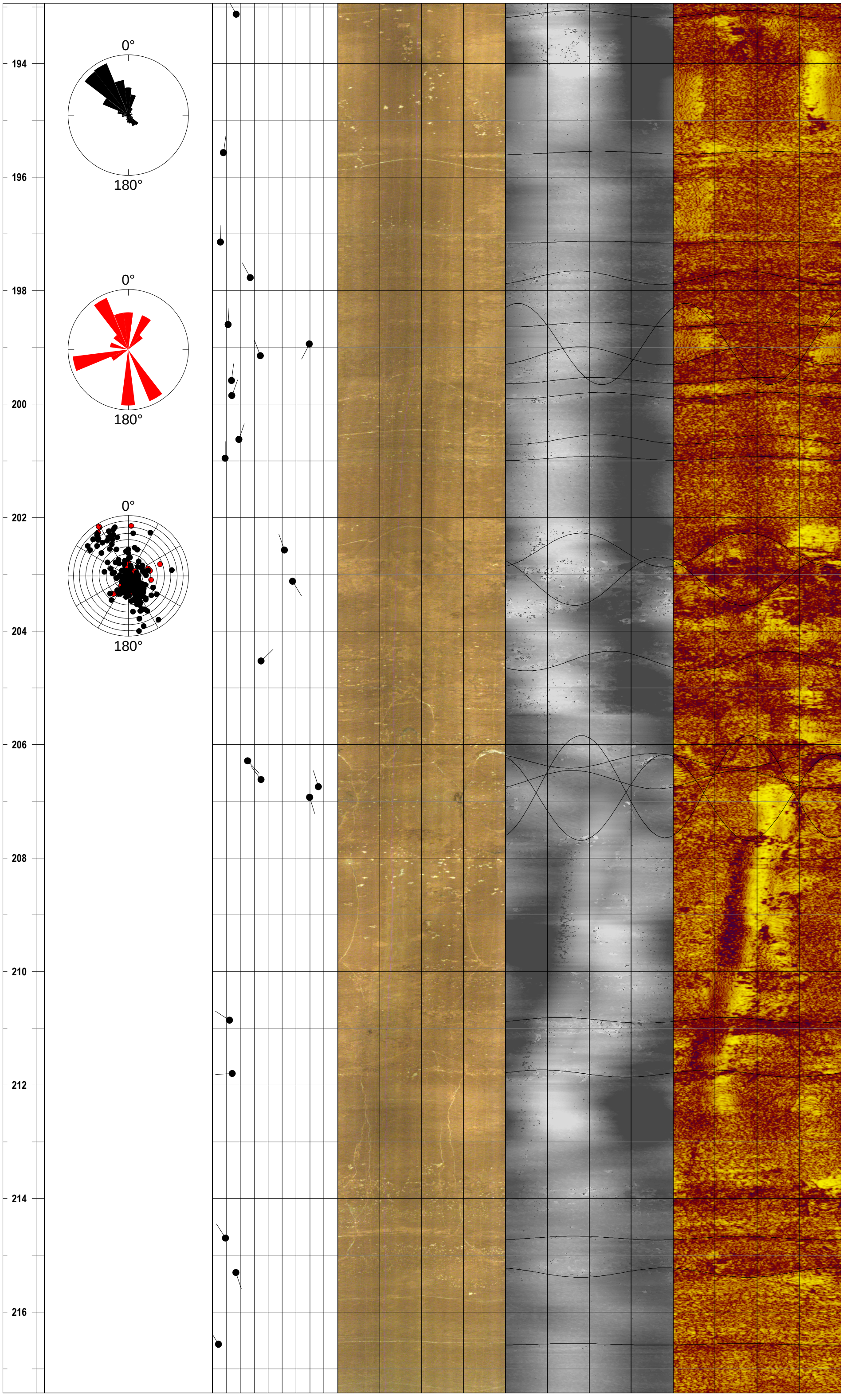

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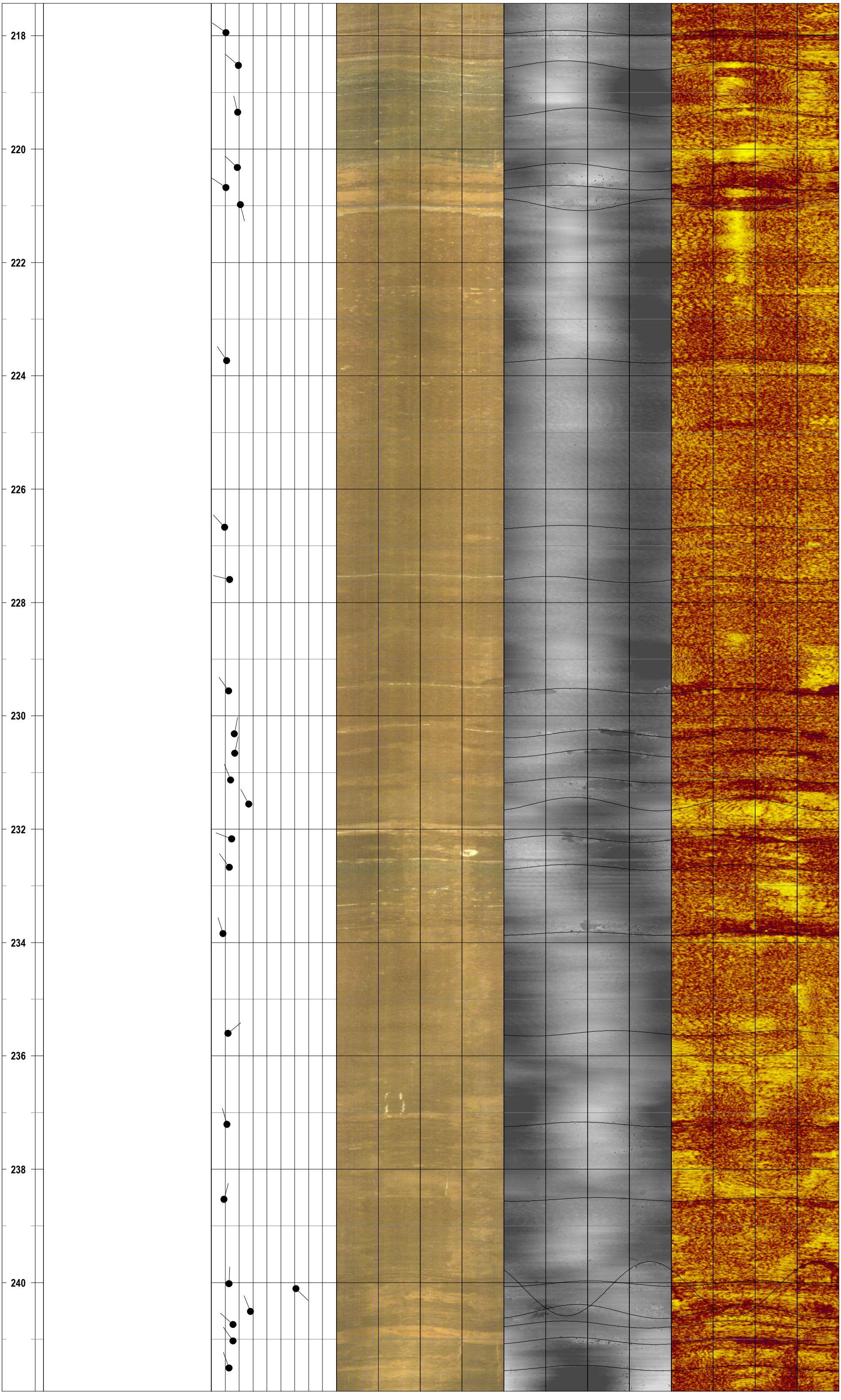

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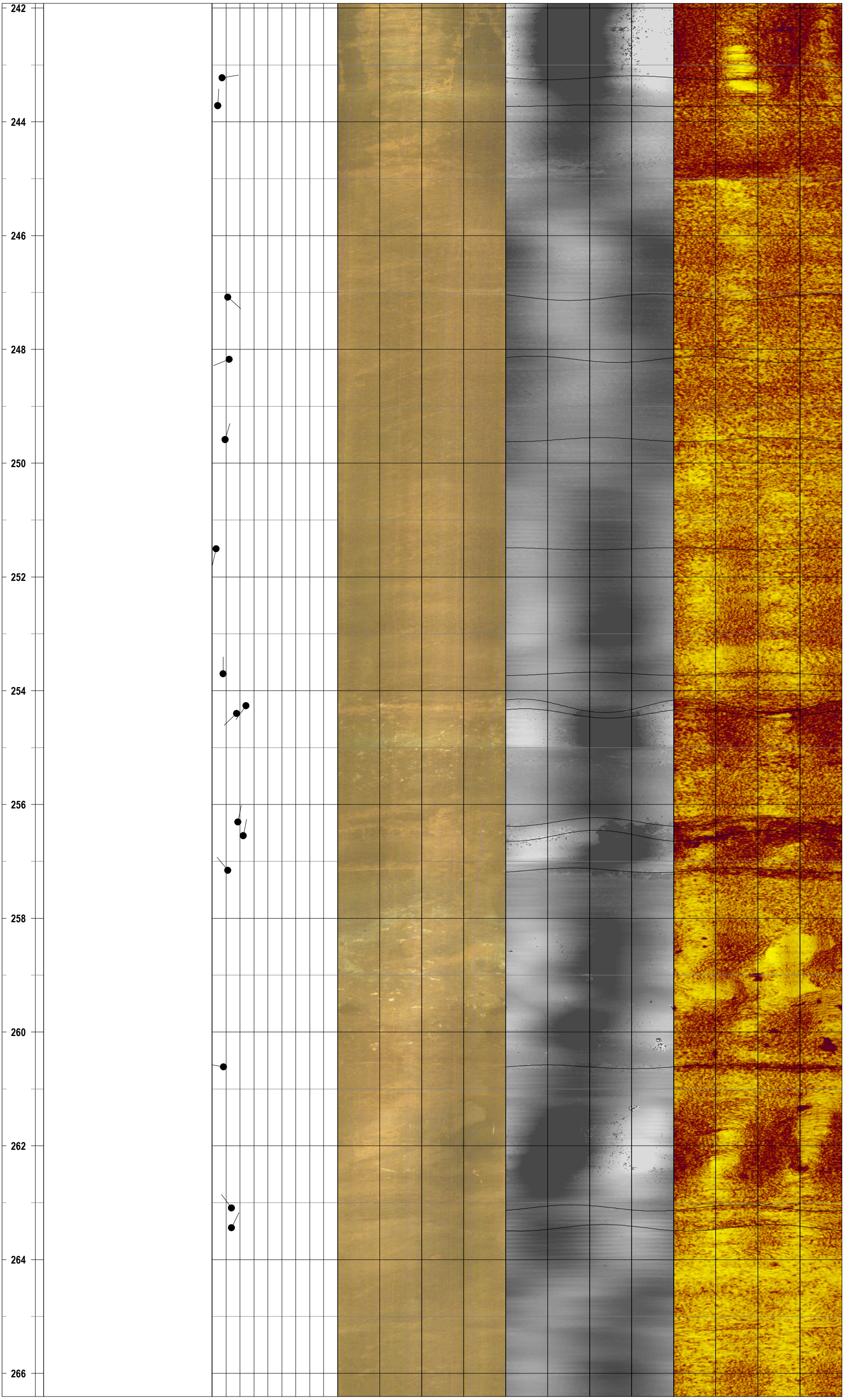

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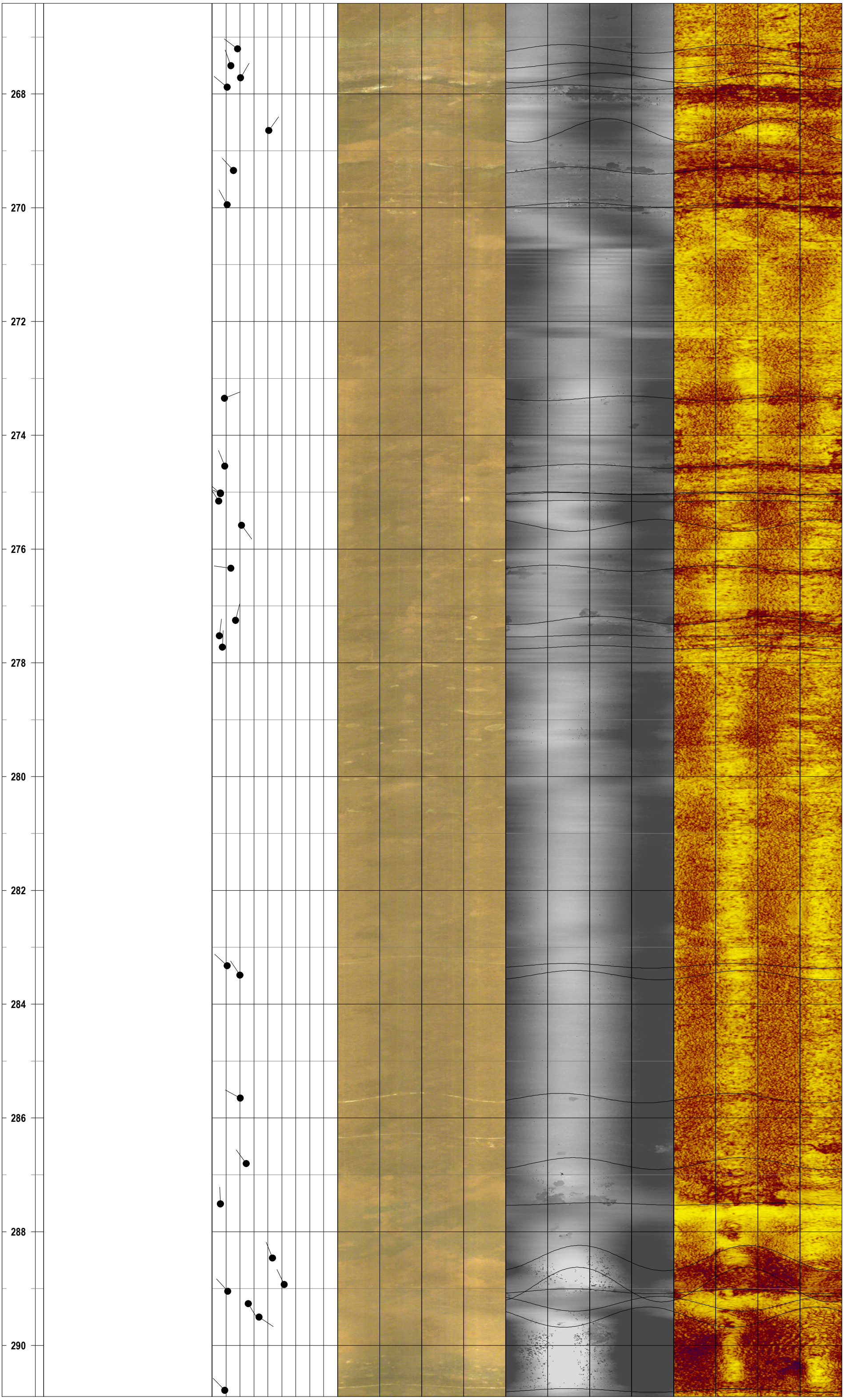

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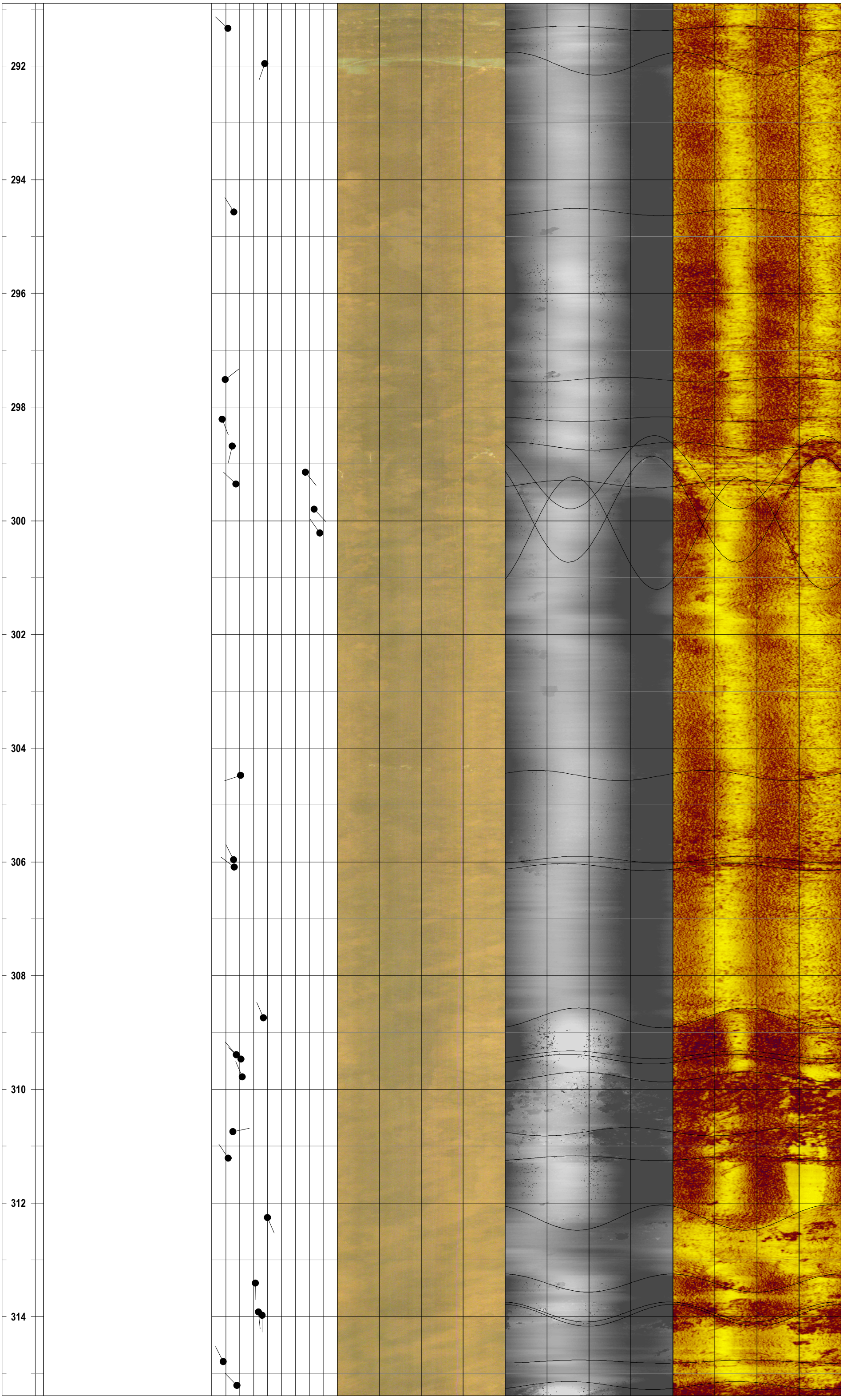

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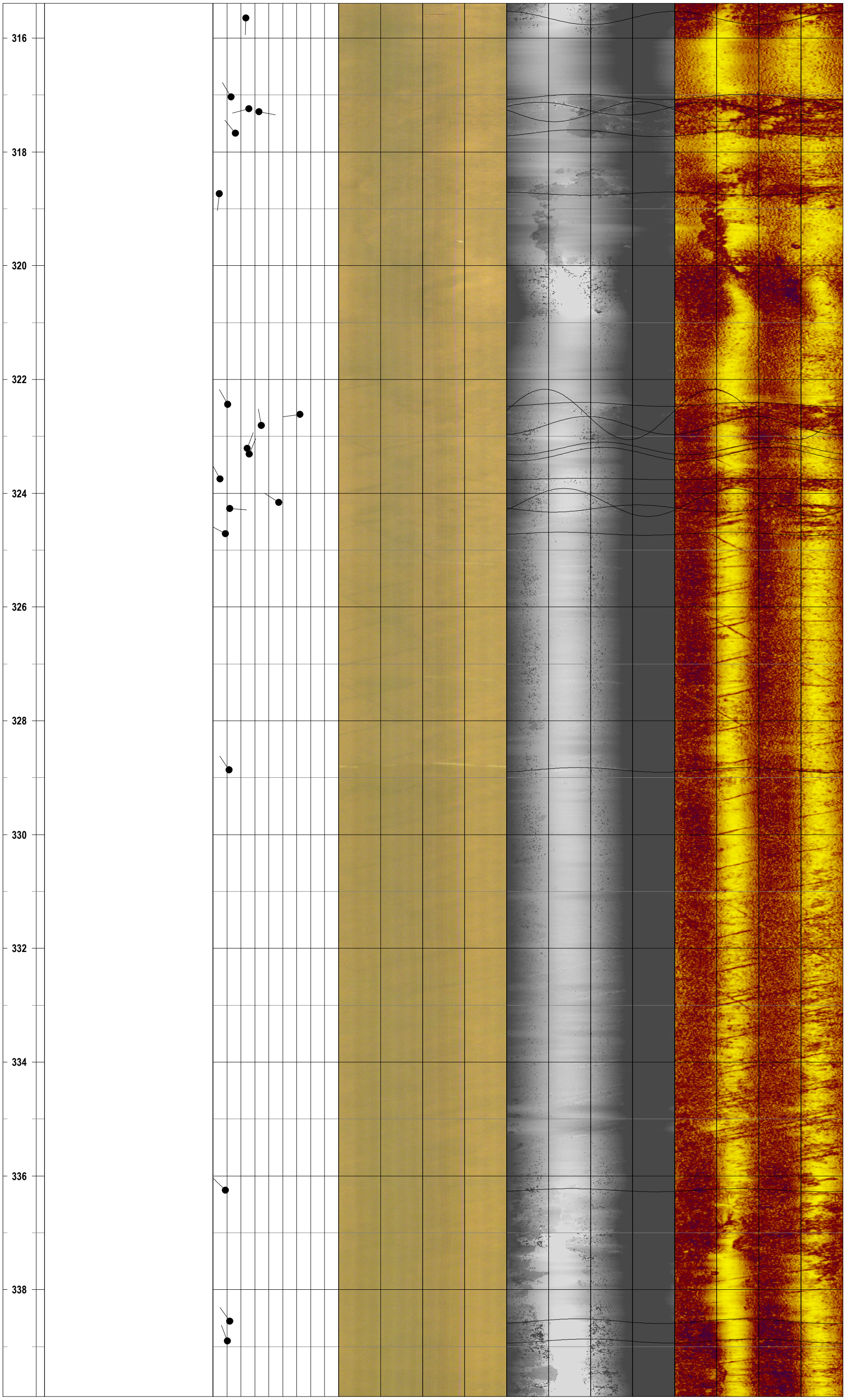

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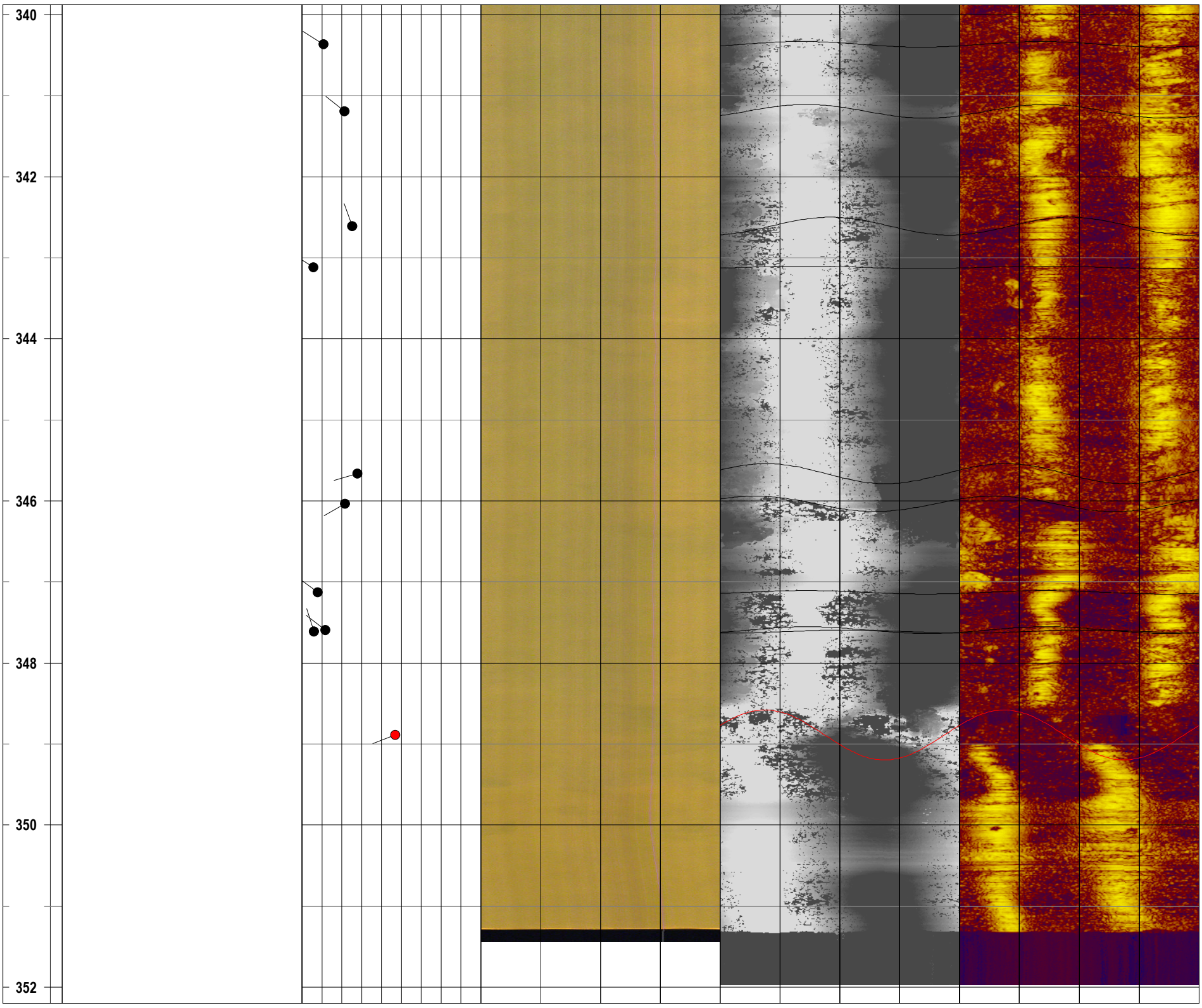

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Appendix B

Planar Features Interpreted from the Acoustic Televiewer Image

Planar-feature Orientations Interpreted from the MW-88 Acoustic Televiewer Log
Racer Trust Site
Clark, New Jersey
Prepared for: ARCADIS U.S., Inc.
1121379 - mw88i.xls

depth (feet)	down-dip compass azimuth (degrees)	dip angle (degrees)	interpreted planar feature category
52.33	145.1	77.0	open
52.40	136.9	4.8	less-open
52.64	283.5	12.5	less-open
53.11	322.26	39.12	less-open
53.58	19.59	17.34	less-open
55.13	26.0	6.7	less-open
55.67	134.1	5.1	less-open
56.09	299.99	9.91	less-open
56.1	142.08	59.66	less-open
57.27	299.89	10.11	less-open
57.72	309.46	17.45	less-open
58.56	339.27	11.69	less-open
58.65	282.32	11.5	less-open
59.90	353.6	14.1	less-open
60.23	338.6	13.3	less-open
60.43	335.3	17.8	less-open
61.56	313.8	13.1	less-open
61.58	348.7	82.8	less-open
61.86	143.3	76.1	less-open
62.00	335.1	41.0	less-open
62.59	185.4	25.1	less-open
63.67	327.6	14.8	less-open
64.06	305.98	7.05	less-open
64.41	156.5	55.45	less-open
65.5	328.29	8.48	less-open
66.25	341.33	30.66	less-open
67.08	28.4	28.1	less-open
68.25	16.6	13.6	less-open
68.27	331.3	56.5	less-open
68.30	163.8	56.2	less-open
69.84	18.9	13.3	less-open
70.18	317.6	12.2	less-open
70.24	312.5	11.7	less-open
70.73	329.4	30.3	less-open
72.53	327.4	13.5	open
72.66	287.7	13.3	less-open
72.90	318.0	9.1	less-open
73.55	301.0	20.5	less-open
74.11	298.4	8.5	less-open
74.71	233.1	7.8	less-open
75.42	137.3	9.0	less-open
76.50	160.7	13.2	less-open
77.54	99.3	22.0	less-open
77.82	39.5	32.0	open
78.16	34.3	15.6	open

Note that down-dip compass azimuth is perpendicular to the strike direction.

Note that interpreted down-dip compass azimuths are with respect to magnetic north.

Down-dip azimuths & dip angles were corrected for borehole deviation from vertical.

Planar-feature Orientations Interpreted from the MW-88 Acoustic Televiewer Log
Racer Trust Site
Clark, New Jersey
Prepared for: ARCADIS U.S., Inc.
1121379 - mw88i.xls

depth (feet)	down-dip compass azimuth (degrees)	dip angle (degrees)	interpreted planar feature category
78.30	322.7	16.0	open
79.56	317.3	30.7	less-open
79.69	346.4	20.4	open
79.84	310.9	14.3	open
80.18	311.6	28.0	less-open
80.46	275.9	10.0	less-open
80.70	320.8	12.0	less-open
80.93	313.5	17.1	less-open
81.43	123.9	2.04	less-open
81.74	310.73	19.56	less-open
82.10	317.2	13.4	less-open
85.10	149.2	83.5	open
85.35	149.01	85.32	open
85.45	330.39	25.6	less-open
85.69	318.3	15.3	less-open
86.50	322.9	24.4	less-open
86.90	311.4	15.9	less-open
88.21	12.3	13.7	less-open
88.40	317.6	9.3	less-open
92.17	320.0	5.7	less-open
92.37	311.2	7.5	less-open
92.71	323.4	12.5	less-open
94.07	345.4	63.0	less-open
94.66	353.23	24.59	open
94.8	232.55	10.53	open
96.25	249.04	28.97	open
96.68	112.63	25.75	less-open
97.18	174.7	11.7	open
98.45	311.0	9.3	less-open
98.95	330.5	11.6	less-open
99.35	233.6	23.9	less-open
100.34	104.5	19.7	less-open
101.52	285.9	12.3	less-open
102.41	302.5	18.6	less-open
103.26	334.7	9.5	open
103.53	292.92	10.67	less-open
103.85	316.1	9.49	less-open
104.24	300.51	8.98	less-open
104.6	271.3	13.88	less-open
105.05	306.23	12.14	less-open
106.69	330.35	9.58	less-open
107.26	309.5	11.4	less-open
107.8	79.2	16.8	less-open
109.43	270.9	10.3	less-open
110.33	2.3	5.6	less-open

Planar-feature Orientations Interpreted from the MW-88 Acoustic Televiewer Log
Racer Trust Site
Clark, New Jersey
Prepared for: ARCADIS U.S., Inc.
1121379 - mw88i.xls

depth (feet)	down-dip compass azimuth (degrees)	dip angle (degrees)	interpreted planar feature category
115.66	328.6	34.0	less-open
115.8	24.8	16.2	less-open
116.8	2.3	23.2	less-open
118.04	311.6	8.0	less-open
119.66	0.4	9.6	less-open
120.59	211.4	4.5	less-open
122.02	323.4	40.8	less-open
124.37	164.4	72.9	less-open
125.12	342.5	20.1	open
126.12	5.8	26.8	open
126.66	183.5	72.2	open
127.37	181.1	17.7	open
127.57	342.9	41.1	less-open
128.69	152.7	61.6	less-open
129.34	338.5	6.7	less-open
130.36	338.7	39.1	less-open
131.52	156.5	70.0	less-open
131.97	159.8	62.2	less-open
132.04	321.2	18.6	less-open
132.2	315.4	11.4	less-open
132.44	322.2	11.8	less-open
134.18	16.0	8.8	less-open
134.65	126.2	72.7	less-open
134.66	38.15	24.95	less-open
136.18	353.05	34.9	less-open
136.65	338.0	49.9	less-open
137.25	36.5	16.5	open
138.32	267.7	24.4	less-open
138.46	145.4	45.0	less-open
138.46	280.0	31.6	open
138.57	256.6	30.8	open
139.85	278.1	9.4	less-open
140.93	124.11	66.07	less-open
141.29	330.83	12.61	less-open
141.5	1.1	27.5	less-open
141.71	337.6	22.2	less-open
141.8	337.64	21.06	less-open
142.18	300.22	23.1	less-open
143.29	309.2	12.5	less-open
144.45	303.3	14.8	less-open
145.07	270.4	12.3	less-open
145.52	310.3	41.8	less-open
145.87	309.4	11.3	less-open
147.59	358.9	7.9	less-open
148.62	295.2	6.5	less-open

Planar-feature Orientations Interpreted from the MW-88 Acoustic Televiewer Log
Racer Trust Site
Clark, New Jersey
Prepared for: ARCADIS U.S., Inc.
1121379 - mw88i.xls

depth (feet)	down-dip compass azimuth (degrees)	dip angle (degrees)	interpreted planar feature category
149.3	323.4	14.6	less-open
149.48	9.5	9.5	less-open
153.43	339.9	10.1	less-open
153.57	342.3	18.9	less-open
156.07	152.3	49.8	less-open
158.47	329.9	12.5	less-open
159.3	325.0	14.6	less-open
159.88	156.9	62.8	less-open
161.49	21.2	16.5	less-open
161.59	8.9	13.8	less-open
161.59	192.83	39.65	less-open
162.09	357.74	10.95	less-open
162.76	329.4	15.3	less-open
163.94	187.1	60.6	less-open
164.15	352.6	50.4	less-open
165.1	348.7	20.8	less-open
167.02	357.4	27.15	less-open
167.34	342.16	36.55	less-open
168.67	295.1	37.9	less-open
170.2	335.2	11.0	less-open
170.63	257.3	22.3	less-open
170.87	142.3	73.4	less-open
172.56	351.3	4.8	less-open
172.78	200.8	11.2	less-open
173.22	1.1	6.1	less-open
173.52	6.8	29.1	less-open
175.21	357.1	18.6	less-open
175.62	347.4	15.7	less-open
176.18	130.7	49.0	less-open
179.5	325.9	29.2	less-open
179.62	336.4	26.7	less-open
179.85	307.96	23.2	less-open
181.31	333.99	9.81	less-open
181.86	0.9	12.5	less-open
183.47	298.2	26.5	less-open
184.79	88.2	3.4	less-open
186.53	314.2	14.8	less-open
189.89	311.9	20.6	less-open
190.04	141.3	68.2	less-open
191.87	328.7	9.3	less-open
192.55	0.4	12.3	less-open
193.13	331.2	17.1	less-open
195.57	8.0	8.0	less-open
197.15	1.4	5.9	less-open
197.77	332.2	27.2	less-open

Planar-feature Orientations Interpreted from the MW-88 Acoustic Televiewer Log
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depth (feet)	down-dip compass azimuth (degrees)	dip angle (degrees)	interpreted planar feature category
198.6	2.0	11.4	less-open
198.94	207.3	69.7	less-open
199.15	339.9	34.6	less-open
199.58	6.6	13.8	less-open
199.85	20.0	14.0	less-open
200.63	18.7	19.2	less-open
200.95	0.4	9.2	less-open
202.57	341.1	51.9	less-open
203.12	148.9	57.6	less-open
204.53	45.3	35.1	less-open
206.29	136.7	25.4	less-open
206.62	323.8	35.0	less-open
206.74	342.8	76.2	less-open
206.93	162.0	69.9	less-open
210.86	303.33	12.32	less-open
211.8	266.56	14.22	less-open
214.7	327.6	9.5	less-open
215.3	161.3	16.9	less-open
216.57	329.2	4.5	less-open
217.94	306.06	10.66	less-open
218.52	311.58	19.69	less-open
219.35	346.5	19.2	less-open
220.32	313.4	18.8	less-open
220.68	303.7	10.8	less-open
220.98	166.6	21.0	less-open
223.73	326.9	11.3	less-open
226.67	317.9	9.8	less-open
227.59	283.6	13.4	less-open
229.56	324.8	12.5	less-open
230.32	11.3	16.8	less-open
230.66	12.1	17.1	less-open
231.13	338.8	14.0	less-open
231.56	331.8	27.0	less-open
232.17	291.1	14.8	less-open
232.67	324.1	13.2	less-open
233.84	343.7	8.5	less-open
235.6	49.6	12.1	less-open
237.21	344.2	11.3	less-open
238.53	15.4	9.4	less-open
240.02	1.7	13.0	less-open
240.11	133.6	61.0	less-open
240.51	338.9	28.2	less-open
240.74	312.2	15.7	less-open
241.03	325.8	15.7	less-open
241.51	341.2	12.9	less-open

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depth (feet)	down-dip compass azimuth (degrees)	dip angle (degrees)	interpreted planar feature category
243.23	81.1	7.3	less-open
243.72	3.1	4.3	less-open
247.08	131.4	11.5	less-open
248.18	247.8	12.5	less-open
249.59	16.2	9.6	less-open
251.5	192.2	2.9	less-open
253.7	0.0	8.0	less-open
254.26	216.0	24.4	less-open
254.4	226.2	17.7	less-open
256.3	12.0	18.6	less-open
256.55	11.2	22.5	less-open
257.16	321.6	11.3	less-open
260.61	280.9	8.3	less-open
263.09	324.0	14.0	less-open
263.44	25.6	14.1	less-open
267.21	307.1	18.5	less-open
267.5	340.5	13.5	less-open
267.72	30.3	20.6	less-open
267.88	309.3	10.9	less-open
268.65	34.89	40.71	less-open
269.35	317.63	15.57	less-open
269.95	332.5	11.0	less-open
273.35	67.7	9.1	less-open
274.54	338.4	9.4	less-open
275.01	291.5	6.1	less-open
275.03	310.8	6.3	less-open
275.16	327.7	4.9	less-open
275.58	143.6	21.3	less-open
276.34	278.3	13.6	less-open
277.26	13.5	17.0	less-open
277.53	6.52	5.44	less-open
277.73	2.81	7.57	less-open
283.32	312.9	11.04	less-open
283.49	326.43	20.05	less-open
285.65	299.31	20.44	less-open
286.8	324.29	24.56	less-open
287.51	358.14	6.26	less-open
288.46	338.61	43.4	less-open
288.93	334.49	51.84	less-open
289.05	318.38	11.48	less-open
289.26	148.55	26.02	less-open
289.5	122.81	33.89	less-open
290.79	316.29	9.19	less-open
291.34	312.55	11.57	less-open
291.96	199.01	38.03	less-open

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depth (feet)	down-dip compass azimuth (degrees)	dip angle (degrees)	interpreted planar feature category
294.57	328.52	15.95	less-open
297.51	52.28	9.64	less-open
298.21	159.26	7.53	less-open
298.68	193.38	14.84	less-open
299.14	139.9	67.16	less-open
299.35	313.89	17.41	less-open
299.8	136.2	73.51	less-open
300.21	325.62	77.64	less-open
304.48	252.06	20.92	less-open
305.96	333.06	15.81	less-open
306.09	307.1	16.3	less-open
308.74	336.52	37.08	less-open
309.39	319.61	17.79	less-open
309.47	312.63	21.02	less-open
309.78	337.48	21.9	less-open
310.74	78.66	15.36	less-open
311.21	326.52	11.8	less-open
312.26	155.97	39.98	less-open
313.41	180.7	31.31	less-open
313.92	174.41	33.67	less-open
313.98	179.59	36.17	less-open
314.79	333.61	8.32	less-open
315.21	315.64	18.23	less-open
315.65	182.12	23.78	less-open
317.04	328.74	13.1	less-open
317.24	254.95	25.97	less-open
317.29	100.27	33.14	less-open
317.67	321.04	16.12	less-open
318.74	186.83	4.81	less-open
322.44	330.74	10.63	less-open
322.61	262.47	62.42	less-open
322.81	349.64	34.69	less-open
323.21	20.68	24.66	less-open
323.31	22.85	26.08	less-open
323.75	332.1	5.07	less-open
324.16	302.88	47.3	less-open
324.27	94.52	12.06	less-open
324.71	299.09	8.92	less-open
328.86	326.08	11.78	less-open
336.25	314.15	9.14	less-open
338.55	325.5	12.13	less-open
338.9	339.96	10.43	less-open
340.37	302.58	10.93	less-open
341.19	308.81	21.5	less-open
342.61	341.01	25.47	less-open

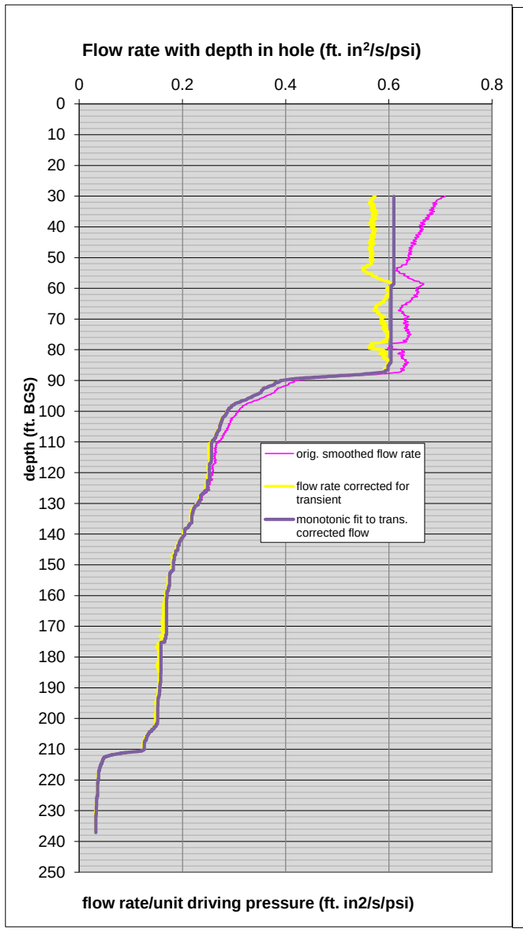
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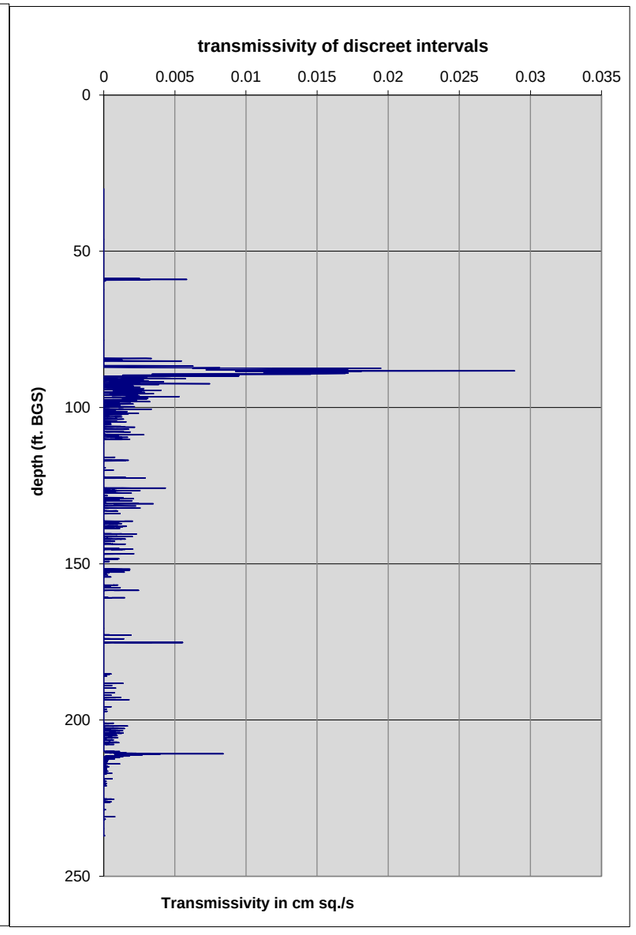
depth (feet)	down-dip compass azimuth (degrees)	dip angle (degrees)	interpreted planar feature category
343.12	303.23	5.81	less-open
345.66	254.28	27.94	less-open
346.04	240.3	21.79	less-open
347.13	306.18	8.02	less-open
347.59	308.17	11.83	less-open
347.61	342.74	6.19	less-open
348.89	249.73	47.02	open

Note: the flow rate curve is the liner velocity multiplied by the borehole cross section

A drop in flow rate is usually associated with loss into the hole wall.
The magnitude of the drop in velocity is a direct measure of the loss into the hole wall.
The agreement between the black monotonic fit and the yellow smoothed flow/velocity curve of the first graph is an indication of the data reliability.
The transmissivity curve of the second graph is calculated from the monotonic flow rate curve.

Monotonic curve (black over yellow) is corrected for the transient





Results of FLUTe profiling for hole

no. MW-88 for *Arcadis - 51 Terminal Ave, Clark, NJ*

Water Table depth	17.19	ft BGS
Hole depth	351	ft BGS
liner length	350	ft
casing depth	52	ft BGS
hole diameter	6	inches
liner diameter	6.5	inches
date of measurement	12/5/2012	

The profile was measured to a depth of 237.084 ft

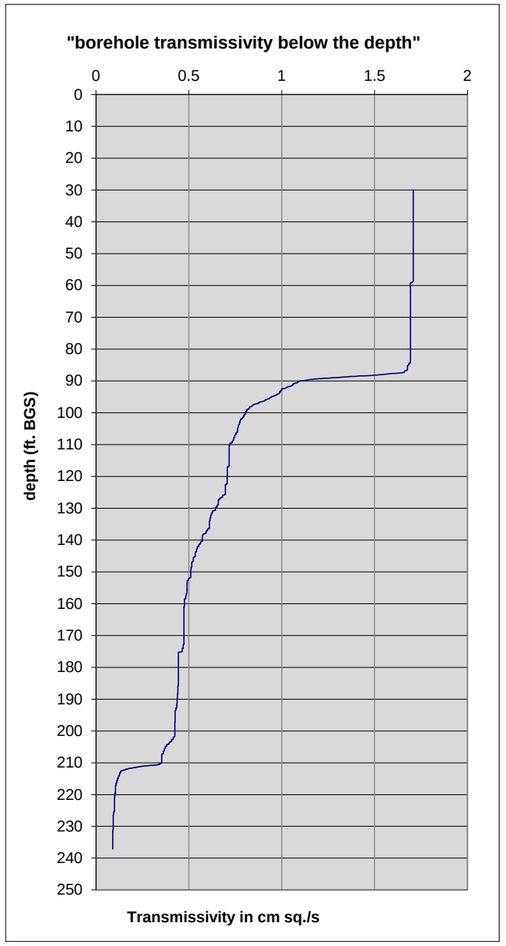
The flow rate per unit driving pressure was 0.032233 **ft in2/sec/psi**

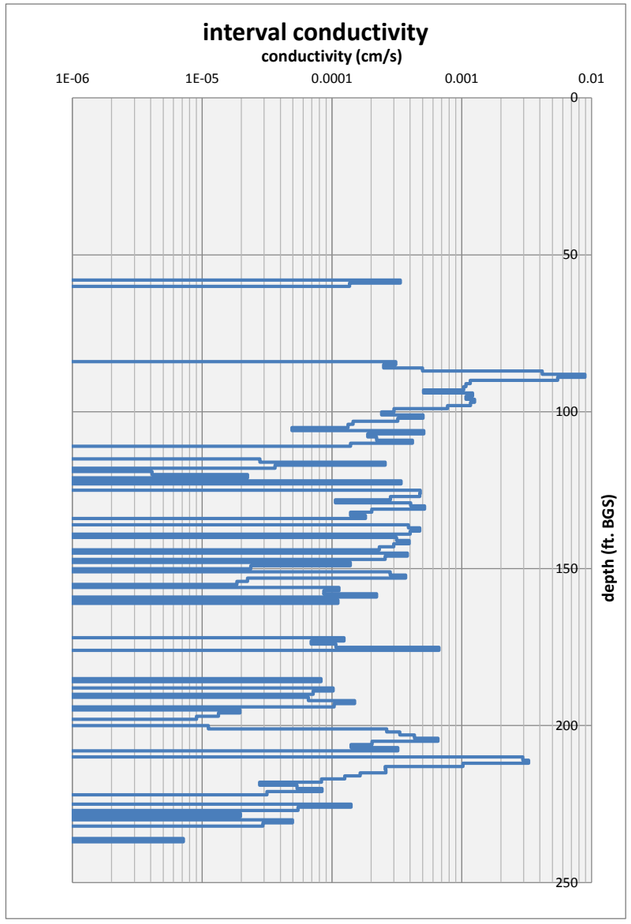
The transmissivity for the remainder of the hole is: 0.0903144 cm sq./sec

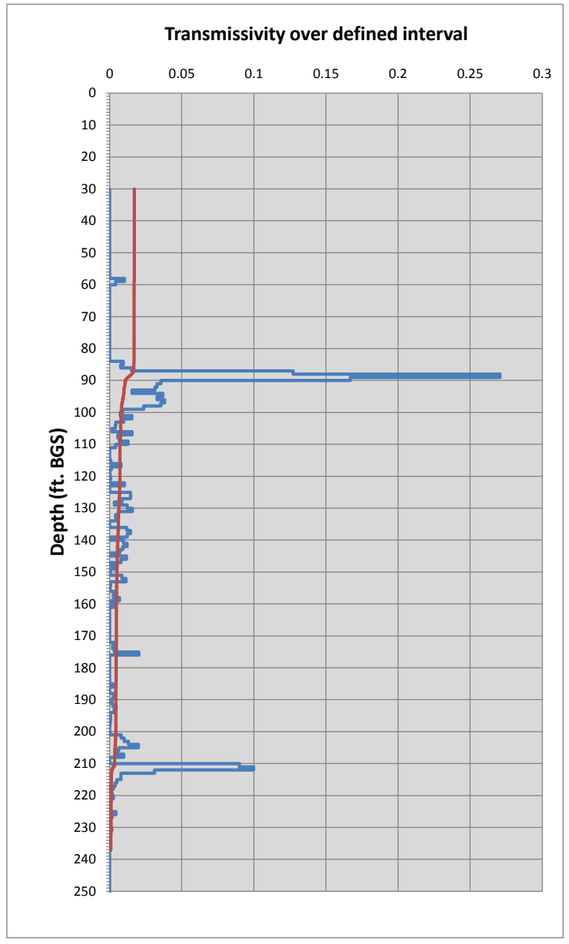
The average conductivity for the remaining 113.916 ft of the hole is 2.60E-05 cm/sec

Comments:

small enlargement at bottom of casing with vel. Increase at 55 ft for smaller hole?
Very good data set.







On this sheet are plots of the results in different forms. The transmissivity plot shows the total transmissivity below each depth. The interval transmissivity plot integrates the above transmissivity profile with variable resolution over a constant set of intervals (much like a straddle packer result). The conductivity plot is the conductivity calculated from each interval of the constant interval plot.
The flow rate plot and constant interval plot are the easiest visualization of the conductivity distribution in the hole.

Contact for questions about data or reduction

carl Keller	
Phone:	505-455-1300

Multiply **ft. in^2/s/psi** by **3.125** to get **gal/min/psi**

depth ft.	flow rate/dH ft. in2/s/psi	corrected Monotonic flow rate/dl ft. in2/s/psi	transmissivity cm2/s	flow rate corrected	integral transmissivity below the	sum over interval			initial depth 30.02884113 interval conductivity	defined increment 1 resolution limit
30.02884	0.709095289	0.6095414	0	0.572697	1.707903	0	30.02884113	31.0288411	0.00000001	1.71E-02
30.10723	0.707363214	0.6095414	0	0.571499	1.707903	0	31.02884113		0.00000001	1.71E-02
30.18832	0.708139827	0.6095414	0	0.572804	1.707903	0	31.02884113	32.0288411	0.00000001	1.71E-02
30.26671	0.707652905	0.6095414	0	0.572842	1.707903	0	32.02884113		0.00000001	1.71E-02
30.3478	0.705868861	0.6095414	0	0.571576	1.707903	0	32.02884113	33.0288411	0.00000001	1.71E-02
30.42619	0.703696999	0.6095414	0	0.569799	1.707903	0	33.02884113		0.00000001	1.71E-02
30.50728	0.701065971	0.6095414	0	0.567558	1.707903	0	33.02884113	34.0288411	0.00000001	1.71E-02
30.58567	0.700701331	0.6095414	0	0.567698	1.707903	0	34.02884113		0.00000001	1.71E-02
30.66135	0.701093124	0.6095414	0	0.568592	1.707903	0	34.02884113	35.0288411	0.00000001	1.71E-02
30.74244	0.701932548	0.6095414	0	0.569929	1.707903	0	35.02884113		0.00000001	1.71E-02
30.82353	0.700719697	0.6095414	0	0.569209	1.707903	0	35.02884113	36.0288411	0.00000001	1.71E-02
30.90462	0.698903014	0.6095414	0	0.567881	1.707903	0	36.02884113		0.00000001	1.71E-02
30.98842	0.697568991	0.6095414	0	0.567031	1.707903	0	36.02884113	37.0288411	0.00000001	1.71E-02
31.06951	0.696720768	0.6095414	0	0.566551	1.707903	0	37.02884113		0.00000001	1.71E-02
31.1506	0.69551661	0.6095414	0	0.565713	1.707903	0	37.02884113	38.0288411	0.00000001	1.71E-02
31.23439	0.694643703	0.6095414	0	0.565313	1.707903	0	38.02884113		0.00000001	1.71E-02
31.31549	0.692903257	0.6095414	0	0.56404	1.707903	0	38.02884113	39.0288411	0.00000001	1.71E-02
31.39387	0.692519334	0.6095414	0	0.564117	1.707903	0	39.02884113		0.00000001	1.71E-02
31.46685	0.691978695	0.6095414	0	0.564035	1.707903	0	39.02884113	40.0288411	0.00000001	1.71E-02
31.54254	0.691338399	0.6095414	0	0.563851	1.707903	0	40.02884113		0.00000001	1.71E-02
31.62363	0.692355019	0.6095414	0	0.56532	1.707903	0	40.02884113	41.0288411	0.00000001	1.71E-02
31.70472	0.693261419	0.6095414	0	0.56657	1.707903	0	41.02884113		0.00000001	1.71E-02
31.78311	0.692519957	0.6095414	0	0.56617	1.707903	0	41.02884113	42.0288411	0.00000001	1.71E-02
31.8615	0.691018532	0.6095414	0	0.56511	1.707903	0	42.02884113		0.00000001	1.71E-02
31.93989	0.690366879	0.6095414	0	0.564898	1.707903	0	42.02884113	43.0288411	0.00000001	1.71E-02
32.02098	0.689208291	0.6095414	0	0.564172	1.707903	0	43.02884113		0.00000001	1.71E-02
32.09666	0.688080954	0.6095414	0	0.563476	1.707903	0	43.02884113	44.0288411	0.00000001	1.71E-02
32.17505	0.686227867	0.6095414	0	0.562049	1.707903	0	44.02884113		0.00000001	1.71E-02
32.25073	0.685149508	0.6095414	0	0.561394	1.707903	0	44.02884113	45.0288411	0.00000001	1.71E-02
32.32912	0.685114735	0.6095414	0	0.561682	1.707903	0	45.02884113		0.00000001	1.71E-02
32.40751	0.688711767	0.6095414	0	0.5656	1.707903	0	45.02884113	46.0288411	0.00000001	1.71E-02
32.4859	0.693036576	0.6095414	0	0.57034	1.707903	0	46.02884113		0.00000001	1.71E-02
32.56429	0.6935474	0.6095414	0	0.571263	1.707903	0	46.02884113	47.0288411	0.00000001	1.71E-02
32.64267	0.692046187	0.6095414	0	0.570172	1.707903	0	47.02884113		0.00000001	1.71E-02
32.72647	0.690633891	0.6095414	0	0.569164	1.707903	0	47.02884113	48.0288411	0.00000001	1.71E-02
32.80215	0.688539912	0.6095414	0	0.567473	1.707903	0	48.02884113		0.00000001	1.71E-02
32.88324	0.686729103	0.6095414	0	0.566061	1.707903	0	48.02884113	49.0288411	0.00000001	1.71E-02
32.96163	0.686696294	0.6095414	0	0.566332	1.707903	0	49.02884113		0.00000001	1.71E-02
33.03732	0.685624953	0.6095414	0	0.565562	1.707903	0	49.02884113	50.0288411	0.00000001	1.71E-02
33.1103	0.686879242	0.6095414	0	0.567207	1.707903	0	50.02884113		0.00000001	1.71E-02
33.18869	0.688490559	0.6095414	0	0.569206	1.707903	0	50.02884113	51.0288411	0.00000001	1.71E-02
33.26437	0.689999727	0.6095414	0	0.5711	1.707903	0	51.02884113		0.00000001	1.71E-02
33.34276	0.689394664	0.6095414	0	0.57088	1.707903	0	51.02884113	52.0288411	0.00000001	1.71E-02
33.42655	0.689523477	0.6095414	0	0.57139	1.707903	0	52.02884113		0.00000001	1.71E-02
33.51035	0.687745182	0.6095414	0	0.56999	1.707903	0	52.02884113	53.0288411	0.00000001	1.71E-02
33.59144	0.686928864	0.6095414	0	0.569462	1.707903	0	53.02884113		0.00000001	1.71E-02
33.66983	0.684927737	0.6095414	0	0.567746	1.707903	0	53.02884113	54.0288411	0.00000001	1.71E-02
33.74551	0.682375285	0.6095414	0	0.565562	1.707903	0	54.02884113		0.00000001	1.71E-02
33.81849	0.681834612	0.6095414	0	0.565387	1.707903	0	54.02884113	55.0288411	0.00000001	1.71E-02
33.89418	0.682195887	0.6095414	0	0.566114	1.707903	0	55.02884113		0.00000001	1.71E-02
33.97527	0.683053409	0.6095414	0	0.567331	1.707903	0	55.02884113	56.0288411	0.00000001	1.71E-02
34.04555	0.684878253	0.6095414	0	0.569517	1.707903	0	56.02884113		0.00000001	1.71E-02
34.12934	0.687104498	0.6095414	0	0.572101	1.707903	0	56.02884113	57.0288411	0.00000001	1.71E-02
34.21043	0.687148275	0.6095414	0	0.572419	1.707903	0	57.02884113		0.00000001	1.71E-02
34.29152	0.687642601	0.6095414	0	0.573185	1.707903	0	57.02884113	58.0288411	0.00000001	1.71E-02
34.36991	0.68602382	0.6095414	0	0.571918	1.707903	0	58.02884113		0.00000001	1.71E-02
34.451	0.682798661	0.6095414	0	0.569039	1.707903	0.010241	58.02884113	59.0288411	0.000335976	1.71E-02
34.52399	0.679471504	0.6095414	0	0.566059	1.707903	0.010241	59.02884113		0.000335976	1.71E-02
34.60508	0.678709235	0.6095414	0	0.565638	1.707903	0.004154	59.02884113	60.0288411	0.000136286	1.71E-02
34.67806	0.68115716	0.6095414	0	0.568426	1.707903	0.004154	60.02884113		0.000136286	1.71E-02
34.75104	0.683562295	0.6095414	0	0.57117	1.707903	0	60.02884113	61.0288411	0.00000001	1.71E-02
34.82943	0.68587679	0.6095414	0	0.573744	1.707903	0	61.02884113		0.00000001	1.71E-02
34.90782	0.68687685	0.6095414	0	0.575002	1.707903	0	61.02884113	62.0288411	0.00000001	1.71E-02

34.9862	0.688238994	0.6095414	0	0.576698	1.707903	0	62.02884113		0.00000001	1.71E-02	
35.0673	0.687224136	0.6095414	0	0.576016	1.707903	0	62.02884113	63.0288411	0.00000001	1.71E-02	
35.15109	0.685493684	0.6095414	0	0.574615	1.707903	0	63.02884113		0.00000001	1.71E-02	
35.22948	0.68398215	0.6095414	0	0.573432	1.707903	0	63.02884113	64.0288411	0.00000001	1.71E-02	
35.31327	0.681569959	0.6095414	0	0.571345	1.707903	0	64.02884113		0.00000001	1.71E-02	
35.39436	0.679114158	0.6095414	0	0.569211	1.707903	0	64.02884113	65.0288411	0.00000001	1.71E-02	
35.47005	0.679870026	0.6095414	0	0.570211	1.707903	0	65.02884113		0.00000001	1.71E-02	
35.54033	0.680874785	0.6095414	0	0.571462	1.707903	0	65.02884113	66.0288411	0.00000001	1.71E-02	
35.61871	0.68026667	0.6095414	0	0.571172	1.707903	0	66.02884113		0.00000001	1.71E-02	
35.69981	0.682748431	0.6095414	0	0.573969	1.707903	0	66.02884113	67.0288411	0.00000001	1.71E-02	
35.77819	0.685645983	0.6095414	0	0.577181	1.707903	0	67.02884113		0.00000001	1.71E-02	
35.85928	0.683769865	0.6095414	0	0.575618	1.707903	0	67.02884113	68.0288411	0.00000001	1.71E-02	
35.94308	0.682479876	0.6095414	0	0.574637	1.707903	0	68.02884113		0.00000001	1.71E-02	
36.01876	0.680324014	0.6095414	0	0.572789	1.707903	0	68.02884113	69.0288411	0.00000001	1.71E-02	
36.09985	0.676552158	0.6095414	0	0.569254	1.707903	0	69.02884113		0.00000001	1.71E-02	
36.18095	0.674019973	0.6095414	0	0.566956	1.707903	0	69.02884113	70.0288411	0.00000001	1.71E-02	
36.25663	0.674021461	0.6095414	0	0.567259	1.707903	0	70.02884113		0.00000001	1.71E-02	
36.32961	0.674183629	0.6095414	0	0.56772	1.707903	0	70.02884113	71.0288411	0.00000001	1.71E-02	
36.40259	0.674645039	0.6095414	0	0.56848	1.707903	0	71.02884113		0.00000001	1.71E-02	
36.48098	0.676711592	0.6095414	0	0.570844	1.707903	0	71.02884113	72.0288411	0.00000001	1.71E-02	
36.55937	0.679222356	0.6095414	0	0.573648	1.707903	0	72.02884113		0.00000001	1.71E-02	
36.62965	0.678731011	0.6095414	0	0.573453	1.707903	0	72.02884113	73.0288411	0.00000001	1.71E-02	
36.71615	0.6782934	0.6095414	0	0.57324	1.707903	0	73.02884113		0.00000001	1.71E-02	
36.79183	0.676779706	0.6095414	0	0.571952	1.707903	0	73.02884113	74.0288411	0.00000001	1.71E-02	
36.87292	0.674641342	0.6095414	0	0.570102	1.707903	0	74.02884113		0.00000001	1.71E-02	
36.94861	0.67234785	0.6095414	0	0.568096	1.707903	0	74.02884113	75.0288411	0.00000001	1.71E-02	
37.02699	0.671584635	0.6095414	0	0.567617	1.707903	0	75.02884113		0.00000001	1.71E-02	
37.09998	0.670689672	0.6095414	0	0.567005	1.707903	0	75.02884113	76.0288411	0.00000001	1.71E-02	
37.17296	0.670689672	0.6095414	0	0.567286	1.707903	0	76.02884113		0.00000001	1.71E-02	
37.24594	0.671489909	0.6095414	0	0.568368	1.707903	0	76.02884113	77.0288411	0.00000001	1.71E-02	
37.32703	0.673603793	0.6095414	0	0.570697	1.707903	0	77.02884113		0.00000001	1.71E-02	
37.40272	0.677463968	0.6095414	0	0.574772	1.707903	0	77.02884113	78.0288411	0.00000001	1.71E-02	
37.4811	0.676754487	0.6095414	0	0.574341	1.707903	0	78.02884113		0.00000001	1.71E-02	
37.5622	0.676276854	0.6095414	0	0.57414	1.707903	0	78.02884113	79.0288411	0.00000001	1.71E-02	
37.64329	0.674251442	0.6095414	0	0.572388	1.707903	0	79.02884113		0.00000001	1.71E-02	
37.72167	0.669689778	0.6095414	0	0.568099	1.707903	0	79.02884113	80.0288411	0.00000001	1.71E-02	
37.80006	0.66654199	0.6095414	0	0.565222	1.707903	0	80.02884113		0.00000001	1.71E-02	
37.87845	0.665966456	0.6095414	0	0.564914	1.707903	0	80.02884113	81.0288411	0.00000001	1.71E-02	
37.95143	0.666962861	0.6095414	0	0.566117	1.707903	0	81.02884113		0.00000001	1.71E-02	
38.02712	0.667329347	0.6095414	0	0.566688	1.707903	0	81.02884113	82.0288411	0.00000001	1.71E-02	
38.0974	0.668058705	0.6095414	0	0.567684	1.707903	0	82.02884113		0.00000001	1.71E-02	
38.18119	0.670756164	0.6095414	0	0.570644	1.707903	0	82.02884113	83.0288411	0.00000001	1.71E-02	
38.25417	0.669686382	0.6095414	0	0.569839	1.707903	0	83.02884113		0.00000001	1.71E-02	
38.33797	0.66877129	0.6095414	0	0.569186	1.707903	0	83.02884113	84.0288411	0.00000001	1.71E-02	
38.41906	0.668347471	0.6095414	0	0.569022	1.707903	0	84.02884113		0.00000001	1.71E-02	
38.49744	0.66566979	0.6095414	0	0.566603	1.707903	0.009454	84.02884113	85.0288411	0.000310183	1.71E-02	
38.57313	0.662988083	0.6095414	0	0.56412	1.707903	0.009454	85.02884113		0.000310183	1.71E-02	
38.65152	0.66135786	0.6095414	0	0.562686	1.707903	0.007606	85.02884113	86.0288411	0.000249544	1.71E-02	
38.7218	0.661685716	0.6095414	0	0.563266	1.707903	0.007606	86.02884113		0.000249544	1.71E-02	
38.79208	0.662841399	0.6095414	0	0.564675	1.707903	0.01522	86.02884113	87.0288411	0.000499337	1.71E-02	
38.86776	0.662915234	0.6095414	0	0.565001	1.707903	0.01522	87.02884113		0.000499337	1.71E-02	
38.94615	0.666608608	0.6095414	0	0.568944	1.707903	0.127206	87.02884113	88.0288411	0.00417341	1.71E-02	
39.01913	0.667415352	0.6095414	0	0.57	1.707903	0.127206	88.02884113		0.00417341	1.71E-02	
39.09481	0.669603937	0.6095414	0	0.572437	1.707903	0.270646	88.02884113	89.0288411	0.008879476	1.71E-02	
39.1732	0.668418192	0.6095414	0	0.571444	1.707903	0.270646	89.02884113		0.008879476	1.71E-02	
39.25429	0.666249691	0.6095414	0	0.569466	1.707903	0.166925	89.02884113	90.0288411	0.005476556	1.71E-02	
39.33268	0.665333094	0.6095414	0	0.568795	1.707903	0.166925	90.02884113		0.005476556	1.71E-02	
39.41107	0.659560042	0.6095414	0	0.563265	1.707903	0.035474	90.02884113	91.0288411	0.001163839	1.71E-02	
39.48675	0.659125989	0.6095414	0	0.563073	1.707903	0.035474	91.02884113		0.001163839	1.71E-02	
39.56244	0.660599917	0.6095414	0	0.564787	1.707903	0.032861	91.02884113	92.0288411	0.001078107	1.71E-02	
39.63542	0.660867273	0.6095414	0	0.565293	1.707903	0.032861	92.02884113		0.001078107	1.71E-02	
39.7084	0.662023323	0.6095414	0	0.566689	1.707903	0.031559	92.02884113	93.0288411	0.001035384	1.71E-02	
39.78679	0.664744747	0.6095414	0	0.569594	1.707903	0.031559	93.02884113		0.001035384	1.71E-02	
39.86248	0.664937055	0.6095414	0	0.56997	1.707903	0.015465	93.02884113	94.0288411	0.00050738	1.71E-02	
39.94086	0.665746124	0.6095414	0	0.571017	1.707903	0.015465	94.02884113		0.00050738	1.71E-02	
40.02466	0.665877495	0.6095414	0	0.571384	1.707903	0.036833	94.02884113	95.0288411	0.00120843	1.71E-02	
40.10305	0.663992433	0.6095414	0	0.569733	1.707903	0.036833	95.02884113		0.00120843	1.71E-02	
40.18143	0.661191645	0.6095414	0	0.567165	1.707903	0.032874	95.02884113	96.0288411	0.001078542	1.71E-02	
40.25982	0.660222569	0.6095414	0	0.566426	1.707903	0.032874	96.02884113		0.001078542	1.71E-02	
40.3328	0.660148137	0.6095414	0	0.566579	1.707903	0.038177	96.02884113	97.0288411	0.001252521	1.71E-02	
40.40308	0.660788645	0.6095414	0	0.567396	1.707903	0.038177	97.02884113		0.001252521	1.71E-02	
40.47606	0.661531225	0.6095414	0	0.568316	1.707903	0.035588	97.02884113	98.0288411	0.001167602	1.71E-02	
40.55445	0.662768246	0.6095414	0	0.56978	1.707903	0.035588	98.02884113		0.001167602	1.71E-02	
40.63014	0.664622224	0.6095414	0	0.57186	1.707903	0.023683	98.02884113	99.0288411	0.000776988	1.71E-02	

40.70582	0.666066756	0.6095414	0	0.573529	1.707903	0.023683	99.02884113		0.000776988	1.71E-02
40.7788	0.666689626	0.6095414	0	0.574375	1.707903	0.009157	99.02884113	100.028841	0.000300416	1.71E-02
40.85449	0.665609489	0.6095414	0	0.573517	1.707903	0.009157	100.0288411		0.000300416	1.71E-02
40.92747	0.665182958	0.6095414	0	0.573314	1.707903	0.00735	100.0288411	101.028841	0.000241157	1.71E-02
41.00856	0.661929438	0.6095414	0	0.57023	1.707903	0.00735	101.0288411		0.000241157	1.71E-02
41.08154	0.661224645	0.6095414	0	0.569695	1.707903	0.015342	101.0288411	102.028841	0.000503345	1.71E-02
41.15453	0.660521511	0.6095414	0	0.56921	1.707903	0.015342	102.0288411		0.000503345	1.71E-02
41.22481	0.660231396	0.6095414	0	0.569137	1.707903	0.009776	102.0288411	103.028841	0.000320744	1.71E-02
41.29779	0.660781266	0.6095414	0	0.569903	1.707903	0.009776	103.0288411		0.000320744	1.71E-02
41.37077	0.662850899	0.6095414	0	0.572188	1.707903	0.004424	103.0288411	104.028841	0.000145139	1.71E-02
41.44645	0.664694684	0.6095414	0	0.574246	1.707903	0.004424	104.0288411		0.000145139	1.71E-02
41.51944	0.664181986	0.6095414	0	0.573948	1.707903	0.004044	104.0288411	105.028841	0.000132671	1.71E-02
41.59512	0.662998414	0.6095414	0	0.57293	1.707903	0.004044	105.0288411		0.000132671	1.71E-02
41.67081	0.662064927	0.6095414	0	0.572162	1.707903	0.001495	105.0288411	106.028841	4.90375E-05	1.71E-02
41.74919	0.659014998	0.6095414	0	0.569324	1.707903	0.001495	106.0288411		4.90375E-05	1.71E-02
41.82758	0.657585405	0.6095414	0	0.568105	1.707903	0.015522	106.0288411	107.028841	0.000509239	1.71E-02
41.90327	0.657499667	0.6095414	0	0.568229	1.707903	0.015522	107.0288411		0.000509239	1.71E-02
41.97895	0.657166361	0.6095414	0	0.568105	1.707903	0.005756	107.0288411	108.028841	0.00018883	1.71E-02
42.05464	0.658239414	0.6095414	0	0.569386	1.707903	0.005756	108.0288411		0.00018883	1.71E-02
42.13302	0.658821251	0.6095414	0	0.570174	1.707903	0.006728	108.0288411	109.028841	0.000220728	1.71E-02
42.20601	0.660685725	0.6095414	0	0.572199	1.707903	0.006728	109.0288411		0.000220728	1.71E-02
42.28439	0.661302705	0.6095414	0	0.572976	1.707903	0.012701	109.0288411	110.028841	0.000416709	1.71E-02
42.36008	0.660507335	0.6095414	0	0.572387	1.707903	0.012701	110.0288411		0.000416709	1.71E-02
42.44117	0.65981431	0.6095414	0	0.571898	1.707903	0.004241	110.0288411	111.028841	0.000139153	1.71E-02
42.51956	0.656804882	0.6095414	0	0.569091	1.707903	0.004241	111.0288411		0.000139153	1.71E-02
42.59524	0.654190307	0.6095414	0	0.566679	1.707903	0	111.0288411	112.028841	0.00000001	1.71E-02
42.67093	0.652019896	0.6095414	0	0.564709	1.707903	0	112.0288411		0.00000001	1.71E-02
42.74391	0.652617508	0.6095414	0	0.565505	1.707903	0	112.0288411	113.028841	0.00000001	1.71E-02
42.81419	0.652824678	0.6095414	0	0.565867	1.707903	0	113.0288411		0.00000001	1.71E-02
42.88987	0.653769443	0.6095414	0	0.566965	1.707903	0	113.0288411	114.028841	0.00000001	1.71E-02
42.96286	0.654601329	0.6095414	0	0.567997	1.707903	0	114.0288411		0.00000001	1.71E-02
43.04395	0.656425533	0.6095414	0	0.570018	1.707903	0	114.0288411	115.028841	0.00000001	1.71E-02
43.11963	0.656910725	0.6095414	0	0.5707	1.707903	0	115.0288411		0.00000001	1.71E-02
43.19532	0.65751075	0.6095414	0	0.571496	1.707903	0.000846	115.0288411	116.028841	2.77623E-05	1.71E-02
43.2737	0.657856465	0.6095414	0	0.572036	1.707903	0.000846	116.0288411		2.77623E-05	1.71E-02
43.34939	0.656179028	0.6095414	0	0.570553	1.707903	0.007833	116.0288411	117.028841	0.000256984	1.71E-02
43.42507	0.653343116	0.6095414	0	0.567867	1.707903	0.007833	117.0288411		0.000256984	1.71E-02
43.50076	0.650131493	0.6095414	0	0.564803	1.707903	0.001108	117.0288411	118.028841	3.6358E-05	1.71E-02
43.57104	0.650280174	0.6095414	0	0.565142	1.707903	0.001108	118.0288411		3.6358E-05	1.71E-02
43.64132	0.651069618	0.6095414	0	0.566121	1.707903	0	118.0288411	119.028841	0.00000001	1.71E-02
43.7116	0.651712781	0.6095414	0	0.566955	1.707903	0	119.0288411		0.00000001	1.71E-02
43.78728	0.653142515	0.6095414	0	0.568575	1.707903	0.000125	119.0288411	120.028841	4.10088E-06	1.71E-02
43.86567	0.654400936	0.6095414	0	0.570022	1.707903	0.000125	120.0288411		4.10088E-06	1.71E-02
43.94135	0.653739995	0.6095414	0	0.569549	1.707903	0.000682	120.0288411	121.028841	2.23829E-05	1.71E-02
44.01974	0.653254546	0.6095414	0	0.569211	1.707903	0.000682	121.0288411		2.23829E-05	1.71E-02
44.10083	0.651210991	0.6095414	0	0.567313	1.707903	0	121.0288411	122.028841	0.00000001	1.71E-02
44.17922	0.65096408	0.6095414	0	0.567253	1.707903	0	122.0288411		0.00000001	1.71E-02
44.25761	0.648791267	0.6095414	0	0.565265	1.707903	0.010378	122.0288411	123.028841	0.000340488	1.71E-02
44.33329	0.646617157	0.6095414	0	0.563275	1.707903	0.010378	123.0288411		0.000340488	1.71E-02
44.40628	0.647176158	0.6095414	0	0.564016	1.707903	0	123.0288411	124.028841	0.00000001	1.71E-02
44.47385	0.648070293	0.6095414	0	0.565092	1.707903	0	124.0288411		0.00000001	1.71E-02
44.54683	0.649024036	0.6095414	0	0.566229	1.707903	0	124.0288411	125.028841	0.00000001	1.71E-02
44.62522	0.650573034	0.6095414	0	0.567919	1.707903	0	125.0288411		0.00000001	1.71E-02
44.70091	0.653018085	0.6095414	0	0.570505	1.707903	0.014581	125.0288411	126.028841	0.000478387	1.71E-02
44.77659	0.652510213	0.6095414	0	0.570178	1.707903	0.014581	126.0288411		0.000478387	1.71E-02
44.85498	0.651064481	0.6095414	0	0.568912	1.707903	0.014478	126.0288411	127.028841	0.000474999	1.71E-02
44.93066	0.649001756	0.6095414	0	0.567028	1.707903	0.014478	127.0288411		0.000474999	1.71E-02
45.00635	0.647700562	0.6095414	0	0.565906	1.707903	0.00859	127.0288411	128.028841	0.000281826	1.71E-02
45.08474	0.644983333	0.6095414	0	0.563366	1.707903	0.00859	128.0288411		0.000281826	1.71E-02
45.15772	0.642825737	0.6095414	0	0.561385	1.707903	0.003233	128.0288411	129.028841	0.000106068	1.71E-02
45.2334	0.643131408	0.6095414	0	0.561826	1.707903	0.003233	129.0288411		0.000106068	1.71E-02
45.30098	0.645138632	0.6095414	0	0.563969	1.707903	0.012297	129.0288411	130.028841	0.000403431	1.71E-02
45.37396	0.647404722	0.6095414	0	0.566411	1.707903	0.012297	130.0288411		0.000403431	1.71E-02
45.44965	0.649647916	0.6095414	0	0.568829	1.707903	0.015746	130.0288411	131.028841	0.000516605	1.71E-02
45.52803	0.652432227	0.6095414	0	0.571786	1.707903	0.015746	131.0288411		0.000516605	1.71E-02
45.59831	0.651706959	0.6095414	0	0.571234	1.707903	0.006163	131.0288411	132.028841	0.000202196	1.71E-02
45.6767	0.650498188	0.6095414	0	0.570199	1.707903	0.006163	132.0288411		0.000202196	1.71E-02
45.75509	0.648472337	0.6095414	0	0.568345	1.707903	0.004245	132.0288411	133.028841	0.000139283	1.71E-02
45.83077	0.646469781	0.6095414	0	0.566476	1.707903	0.004245	133.0288411		0.000139283	1.71E-02
45.90646	0.644233154	0.6095414	0	0.564371	1.707903	0.005524	133.0288411	134.028841	0.000181233	1.71E-02
45.97944	0.643462585	0.6095414	0	0.563771	1.707903	0.005524	134.0288411		0.000181233	1.71E-02
46.05513	0.642992825	0.6095414	0	0.563469	1.707903	0	134.0288411	135.028841	0.00000001	1.71E-02
46.1254	0.643361854	0.6095414	0	0.564007	1.707903	0	135.0288411		0.00000001	1.71E-02
46.19839	0.643398649	0.6095414	0	0.564213	1.707903	0	135.0288411	136.028841	0.00000001	1.71E-02

46.27948	0.644404046	0.6095414	0	0.565388	1.707903	0	136.0288411		0.00000001	1.71E-02
46.36057	0.646418165	0.6095414	0	0.567569	1.707903	0.011839	136.0288411	137.028841	0.000388429	1.71E-02
46.43896	0.646437409	0.6095414	0	0.567719	1.707903	0.011839	137.0288411		0.000388429	1.71E-02
46.51734	0.644732174	0.6095414	0	0.566144	1.707903	0.014456	137.0288411	138.028841	0.000474271	1.71E-02
46.59573	0.644111504	0.6095414	0	0.565689	1.707903	0.014456	138.0288411		0.000474271	1.71E-02
46.67142	0.642083089	0.6095414	0	0.563825	1.707903	0.012213	138.0288411	139.028841	0.000400678	1.71E-02
46.7471	0.639822932	0.6095414	0	0.561728	1.707903	0.012213	139.0288411		0.000400678	1.71E-02
46.81738	0.639252344	0.6095414	0	0.56132	1.707903	0	139.0288411	140.028841	0.00000001	1.71E-02
46.89036	0.639521981	0.6095414	0	0.561752	1.707903	0	140.0288411		0.00000001	1.71E-02
46.96064	0.641214172	0.6095414	0	0.563606	1.707903	0.009563	140.0288411	141.028841	0.000313742	1.71E-02
47.03633	0.642873225	0.6095414	0	0.565392	1.707903	0.009563	141.0288411		0.000313742	1.71E-02
47.11201	0.64415093	0.6095414	0	0.566795	1.707903	0.011993	141.0288411	142.028841	0.000393467	1.71E-02
47.1877	0.644926544	0.6095414	0	0.567731	1.707903	0.011993	142.0288411		0.000393467	1.71E-02
47.26068	0.644463445	0.6095414	0	0.567429	1.707903	0.009136	142.0288411	143.028841	0.000299753	1.71E-02
47.33636	0.641681213	0.6095414	0	0.564807	1.707903	0.009136	143.0288411		0.000299753	1.71E-02
47.41475	0.64009039	0.6095414	0	0.563375	1.707903	0.007051	143.0288411	144.028841	0.000231339	1.71E-02
47.49044	0.639588378	0.6095414	0	0.563032	1.707903	0.007051	144.0288411		0.000231339	1.71E-02
47.56612	0.639146858	0.6095414	0	0.562747	1.707903	0	144.0288411	145.028841	0.00000001	1.71E-02
47.6364	0.639229165	0.6095414	0	0.562951	1.707903	0	145.0288411		0.00000001	1.71E-02
47.70668	0.639704373	0.6095414	0	0.563548	1.707903	0.011636	145.0288411	146.028841	0.000381761	1.71E-02
47.77966	0.640977719	0.6095414	0	0.564978	1.707903	0.011636	146.0288411		0.000381761	1.71E-02
47.85264	0.642013891	0.6095414	0	0.56617	1.707903	0.007841	146.0288411	147.028841	0.000257239	1.71E-02
47.92833	0.644234138	0.6095414	0	0.568547	1.707903	0.007841	147.0288411		0.000257239	1.71E-02
48.00672	0.644513701	0.6095414	0	0.568982	1.707903	0	147.0288411	148.028841	0.00000001	1.71E-02
48.0851	0.64444909	0.6095414	0	0.569072	1.707903	0	148.0288411		0.00000001	1.71E-02
48.16079	0.644175097	0.6095414	0	0.568952	1.707903	0.004215	148.0288411	149.028841	0.000138296	1.71E-02
48.23647	0.642339141	0.6095414	0	0.567237	1.707903	0.004215	149.0288411		0.000138296	1.71E-02
48.31486	0.640368272	0.6095414	0	0.565384	1.707903	0.000722	149.0288411	150.028841	2.36982E-05	1.71E-02
48.38514	0.638816507	0.6095414	0	0.563985	1.707903	0.000722	150.0288411		2.36982E-05	1.71E-02
48.46083	0.638343921	0.6095414	0	0.563664	1.707903	0	150.0288411	151.028841	0.00000001	1.71E-02
48.53381	0.638341542	0.6095414	0	0.563813	1.707903	0	151.0288411		0.00000001	1.71E-02
48.60949	0.63865127	0.6095414	0	0.564273	1.707903	0.008552	151.0288411	152.028841	0.000280561	1.71E-02
48.68247	0.640074808	0.6095414	0	0.565847	1.707903	0.008552	152.0288411		0.000280561	1.71E-02
48.75816	0.64258982	0.6095414	0	0.568511	1.707903	0.011267	152.0288411	153.028841	0.000369637	1.71E-02
48.82844	0.643850837	0.6095414	0	0.569889	1.707903	0.011267	153.0288411		0.000369637	1.71E-02
48.90412	0.643450749	0.6095414	0	0.569605	1.707903	0.00068	153.0288411	154.028841	2.23197E-05	1.71E-02
48.97981	0.641872025	0.6095414	0	0.568175	1.707903	0.00068	154.0288411		2.23197E-05	1.71E-02
49.05279	0.638347052	0.6095414	0	0.564799	1.707903	0.000565	154.0288411	155.028841	1.85311E-05	1.71E-02
49.13118	0.63774601	0.6095414	0	0.564345	1.707903	0.000565	155.0288411		1.85311E-05	1.71E-02
49.20416	0.637585836	0.6095414	0	0.56433	1.707903	0	155.0288411	156.028841	0.00000001	1.71E-02
49.27174	0.636823852	0.6095414	0	0.563713	1.707903	0	156.0288411		0.00000001	1.71E-02
49.33931	0.63748535	0.6095414	0	0.56452	1.707903	0.003449	156.0288411	157.028841	0.00011314	1.71E-02
49.41229	0.637856937	0.6095414	0	0.565004	1.707903	0.003449	157.0288411		0.00011314	1.71E-02
49.48257	0.637958149	0.6095414	0	0.565218	1.707903	0.002638	157.0288411	158.028841	8.65421E-05	1.71E-02
49.55555	0.638294359	0.6095414	0	0.565698	1.707903	0.002638	158.0288411		8.65421E-05	1.71E-02
49.62313	0.638511175	0.6095414	0	0.566058	1.707903	0.006733	158.0288411	159.028841	0.000220901	1.71E-02
49.69611	0.638517438	0.6095414	0	0.566209	1.707903	0.006733	159.0288411		0.000220901	1.71E-02
49.7745	0.639532236	0.6095414	0	0.567367	1.707903	0	159.0288411	160.028841	0.00000001	1.71E-02
49.84748	0.640331893	0.6095414	0	0.56831	1.707903	0	160.0288411		0.00000001	1.71E-02
49.92317	0.638097244	0.6095414	0	0.566217	1.707903	0.00338	160.0288411	161.028841	0.000110893	1.71E-02
49.99345	0.638046717	0.6095414	0	0.566276	1.707903	0.00338	161.0288411		0.000110893	1.71E-02
50.06102	0.636069457	0.6095414	0	0.564409	1.707903	0	161.0288411	162.028841	0.00000001	1.71E-02
50.13671	0.635331336	0.6095414	0	0.563811	1.707903	0	162.0288411		0.00000001	1.71E-02
50.20698	0.637207564	0.6095414	0	0.565829	1.707903	0	162.0288411	163.028841	0.00000001	1.71E-02
50.28267	0.638207704	0.6095414	0	0.566969	1.707903	0	163.0288411		0.00000001	1.71E-02
50.35565	0.639641316	0.6095414	0	0.568542	1.707903	0	163.0288411	164.028841	0.00000001	1.71E-02
50.42863	0.640069961	0.6095414	0	0.56911	1.707903	0	164.0288411		0.00000001	1.71E-02
50.50162	0.640784599	0.6095414	0	0.569964	1.707903	0	164.0288411	165.028841	0.00000001	1.71E-02
50.5773	0.641082776	0.6095414	0	0.57037	1.707903	0	165.0288411		0.00000001	1.71E-02
50.65028	0.640585232	0.6095414	0	0.569981	1.707903	0	165.0288411	166.028841	0.00000001	1.71E-02
50.72597	0.637711625	0.6095414	0	0.567246	1.707903	0	166.0288411		0.00000001	1.71E-02
50.80436	0.635285079	0.6095414	0	0.564956	1.707903	0	166.0288411	167.028841	0.00000001	1.71E-02
50.87734	0.633964137	0.6095414	0	0.563771	1.707903	0	167.0288411		0.00000001	1.71E-02
50.94762	0.633770287	0.6095414	0	0.563714	1.707903	0	167.0288411	168.028841	0.00000001	1.71E-02
51.0233	0.637198692	0.6095414	0	0.567276	1.707903	0	168.0288411		0.00000001	1.71E-02
51.08547	0.637083503	0.6095414	0	0.567297	1.707903	0	168.0288411	169.028841	0.00000001	1.71E-02
51.16386	0.635698919	0.6095414	0	0.566017	1.707903	0	169.0288411		0.00000001	1.71E-02
51.23143	0.63549887	0.6095414	0	0.565922	1.707903	0	169.0288411	170.028841	0.00000001	1.71E-02
51.30171	0.635432842	0.6095414	0	0.56599	1.707903	0	170.0288411		0.00000001	1.71E-02
51.3774	0.635630393	0.6095414	0	0.566322	1.707903	0	170.0288411	171.028841	0.00000001	1.71E-02
51.45038	0.636115917	0.6095414	0	0.566941	1.707903	0	171.0288411		0.00000001	1.71E-02
51.52607	0.636023288	0.6095414	0	0.566982	1.707903	0	171.0288411	172.028841	0.00000001	1.71E-02
51.59905	0.635107894	0.6095414	0	0.566198	1.707903	0	172.0288411		0.00000001	1.71E-02
51.66933	0.63458456	0.6095414	0	0.565807	1.707903	0.003772	172.0288411	173.028841	0.000123747	1.71E-02

51.7396	0.633780769	0.6095414	0	0.565105	1.707903	0.003772	173.0288411		0.000123747	1.71E-02
51.80718	0.633879619	0.6095414	0	0.565306	1.707903	0.002106	173.0288411	174.028841	6.91007E-05	1.71E-02
51.87746	0.634746237	0.6095414	0	0.566303	1.707903	0.002106	174.0288411		6.91007E-05	1.71E-02
51.94774	0.634339204	0.6095414	0	0.566028	1.707903	0.003261	174.0288411	175.028841	0.000106975	1.71E-02
52.02613	0.634913773	0.6095414	0	0.566732	1.707903	0.003261	175.0288411		0.000106975	1.71E-02
52.0937	0.634721368	0.6095414	0	0.566668	1.707903	0.020297	175.0288411	176.028841	0.000665912	1.71E-02
52.16128	0.634039244	0.6095414	0	0.566115	1.707903	0.020297	176.0288411		0.000665912	1.71E-02
52.23426	0.633971141	0.6095414	0	0.566177	1.707903	0	176.0288411	177.028841	0.00000001	1.71E-02
52.30724	0.631265556	0.6095414	0	0.563572	1.707903	0	177.0288411		0.00000001	1.71E-02
52.38022	0.628613312	0.6095414	0	0.561021	1.707903	0	177.0288411	178.028841	0.00000001	1.71E-02
52.45591	0.626290692	0.6095414	0	0.558826	1.707903	0	178.0288411		0.00000001	1.71E-02
52.52889	0.624599574	0.6095414	0	0.557263	1.707903	0	178.0288411	179.028841	0.00000001	1.71E-02
52.60187	0.624069653	0.6095414	0	0.55686	1.707903	0	179.0288411		0.00000001	1.71E-02
52.67485	0.624877661	0.6095414	0	0.557795	1.707903	0	179.0288411	180.028841	0.00000001	1.71E-02
52.74784	0.625678325	0.6095414	0	0.558724	1.707903	0	180.0288411		0.00000001	1.71E-02
52.82622	0.62461406	0.6095414	0	0.557785	1.707903	0	180.0288411	181.028841	0.00000001	1.71E-02
52.8965	0.624536769	0.6095414	0	0.557807	1.707903	0	181.0288411		0.00000001	1.71E-02
52.96949	0.62409144	0.6095414	0	0.55746	1.707903	0	181.0288411	182.028841	0.00000001	1.71E-02
53.04247	0.624519388	0.6095414	0	0.558013	1.707903	0	182.0288411		0.00000001	1.71E-02
53.11545	0.622984034	0.6095414	0	0.556603	1.707903	0	182.0288411	183.028841	0.00000001	1.71E-02
53.19113	0.620423695	0.6095414	0	0.554167	1.707903	0	183.0288411		0.00000001	1.71E-02
53.26412	0.617726595	0.6095414	0	0.551593	1.707903	0	183.0288411	184.028841	0.00000001	1.71E-02
53.33169	0.615448747	0.6095414	0	0.549439	1.707903	0	184.0288411		0.00000001	1.71E-02
53.40197	0.614623164	0.6095414	0	0.548736	1.707903	0	184.0288411	185.028841	0.00000001	1.71E-02
53.46955	0.614721926	0.6095414	0	0.54893	1.707903	0	185.0288411		0.00000001	1.71E-02
53.53983	0.6154194	0.6095414	0	0.549723	1.707903	0.002502	185.0288411	186.028841	8.21007E-05	1.71E-02
53.6101	0.615945205	0.6095414	0	0.550372	1.707903	0.002502	186.0288411		8.21007E-05	1.71E-02
53.68309	0.616912882	0.6095414	0	0.551461	1.707903	0	186.0288411	187.028841	0.00000001	1.71E-02
53.75336	0.616286428	0.6095414	0	0.550955	1.707903	0	187.0288411		0.00000001	1.71E-02
53.82094	0.616286428	0.6095414	0	0.551076	1.707903	0	187.0288411	188.028841	0.00000001	1.71E-02
53.88852	0.615683651	0.6095414	0	0.550594	1.707903	0	188.0288411		0.00000001	1.71E-02
53.9615	0.615656447	0.6095414	0	0.550689	1.707903	0.003114	188.0288411	189.028841	0.00010215	1.71E-02
54.03989	0.615815026	0.6095414	0	0.550941	1.707903	0.003114	189.0288411		0.00010215	1.71E-02
54.11017	0.615281952	0.6095414	0	0.550501	1.707903	0.002187	189.0288411	190.028841	7.17631E-05	1.71E-02
54.17504	0.614698168	0.6095414	0	0.550036	1.707903	0.002187	190.0288411		7.17631E-05	1.71E-02
54.24261	0.613678285	0.6095414	0	0.549134	1.707903	0	190.0288411	191.028841	0.00000001	1.71E-02
54.31019	0.615404296	0.6095414	0	0.550978	1.707903	0	191.0288411		0.00000001	1.71E-02
54.37777	0.616767402	0.6095414	0	0.552461	1.707903	0.002006	191.0288411	192.028841	6.58295E-05	1.71E-02
54.45345	0.618389387	0.6095414	0	0.554202	1.707903	0.002006	192.0288411		6.58295E-05	1.71E-02
54.52643	0.619997788	0.6095414	0	0.555928	1.707903	0.004558	192.0288411	193.028841	0.000149556	1.71E-02
54.59941	0.620219358	0.6095414	0	0.556243	1.707903	0.004558	193.0288411		0.000149556	1.71E-02
54.6751	0.619891562	0.6095414	0	0.556008	1.707903	0.003166	193.0288411	194.028841	0.000103874	1.71E-02
54.75078	0.619154649	0.6095414	0	0.555389	1.707903	0.003166	194.0288411		0.000103874	1.71E-02
54.82647	0.620156576	0.6095414	0	0.556507	1.707903	0	194.0288411	195.028841	0.00000001	1.71E-02
54.89404	0.620907118	0.6095414	0	0.557375	1.707903	0	195.0288411		0.00000001	1.71E-02
54.96973	0.619998296	0.6095414	0	0.556582	1.707903	0.000594	195.0288411	196.028841	1.94813E-05	1.71E-02
55.04001	0.619679856	0.6095414	0	0.556379	1.707903	0.000594	196.0288411		1.94813E-05	1.71E-02
55.11029	0.622502672	0.6095414	0	0.559316	1.707903	0.000407	196.0288411	197.028841	1.33678E-05	1.71E-02
55.17786	0.624707459	0.6095414	0	0.561611	1.707903	0.000407	197.0288411		1.33678E-05	1.71E-02
55.24814	0.627576254	0.6095414	0	0.56457	1.707903	0.000276	197.0288411	198.028841	9.05279E-06	1.71E-02
55.32112	0.630935281	0.6095414	0	0.568044	1.707903	0.000276	198.0288411		9.05279E-06	1.71E-02
55.3914	0.63092145	0.6095414	0	0.568144	1.707903	0	198.0288411	199.028841	0.00000001	1.71E-02
55.46438	0.630861976	0.6095414	0	0.568199	1.707903	0	199.0288411		0.00000001	1.71E-02
55.53466	0.630712715	0.6095414	0	0.568163	1.707903	0	199.0288411	200.028841	0.00000001	1.71E-02
55.60765	0.630473469	0.6095414	0	0.568037	1.707903	0	200.0288411		0.00000001	1.71E-02
55.67522	0.629277009	0.6095414	0	0.566953	1.707903	0.00034	200.0288411	201.028841	1.11586E-05	1.71E-02
55.7455	0.628739639	0.6095414	0	0.566503	1.707903	0.00034	201.0288411		1.11586E-05	1.71E-02
55.81308	0.628736662	0.6095414	0	0.566588	1.707903	0.008026	201.0288411	202.028841	0.000263312	1.71E-02
55.88335	0.629925967	0.6095414	0	0.56789	1.707903	0.008026	202.0288411		0.000263312	1.71E-02
55.95634	0.631447706	0.6095414	0	0.569524	1.707903	0.010159	202.0288411	203.028841	0.000333302	1.71E-02
56.02662	0.633184604	0.6095414	0	0.571373	1.707903	0.010159	203.0288411		0.000333302	1.71E-02
56.0996	0.634895895	0.6095414	0	0.573195	1.707903	0.013166	203.0288411	204.028841	0.000431943	1.71E-02
56.16988	0.636810023	0.6095414	0	0.57522	1.707903	0.013166	204.0288411		0.000431943	1.71E-02
56.24016	0.638981372	0.6095414	0	0.577503	1.707903	0.019991	204.0288411	205.028841	0.000655882	1.71E-02
56.31584	0.63840708	0.6095414	0	0.577016	1.707903	0.019991	205.0288411		0.000655882	1.71E-02
56.39153	0.637435196	0.6095414	0	0.576132	1.707903	0.006188	205.0288411	206.028841	0.000203015	1.71E-02
56.46721	0.635923843	0.6095414	0	0.574731	1.707903	0.006188	206.0288411		0.000203015	1.71E-02
56.54019	0.636632897	0.6095414	0	0.57555	1.707903	0.004284	206.0288411	207.028841	0.000140543	1.71E-02
56.61317	0.636740418	0.6095414	0	0.575767	1.707903	0.004284	207.0288411		0.000140543	1.71E-02
56.68616	0.638510687	0.6095414	0	0.577646	1.707903	0.009797	207.0288411	208.028841	0.000321417	1.71E-02
56.75643	0.640504431	0.6095414	0	0.57975	1.707903	0.009797	208.0288411		0.000321417	1.71E-02
56.83212	0.641522629	0.6095414	0	0.580877	1.707903	0	208.0288411	209.028841	0.00000001	1.71E-02
56.9051	0.642318993	0.6095414	0	0.58176	1.707903	0	209.0288411		0.00000001	1.71E-02
56.98349	0.643742487	0.6095414	0	0.583268	1.707903	0	209.0288411	210.028841	0.00000001	1.71E-02

57.05647	0.644273329	0.6095414	0	0.583908	1.707903	0	210.0288411		0.00000001	1.71E-02
57.13486	0.64481303	0.6095414	0	0.584556	1.707903	0.089934	210.0288411	211.028841	0.002950604	1.71E-02
57.21054	0.646839744	0.6095414	0	0.586692	1.707903	0.089934	211.0288411		0.002950604	1.71E-02
57.28893	0.648135478	0.6095414	0	0.588094	1.707903	0.099791	211.0288411	212.028841	0.003273977	1.71E-02
57.35921	0.6480865	0.6095414	0	0.588152	1.707903	0.099791	212.0288411		0.003273977	1.71E-02
57.42949	0.647525847	0.6095414	0	0.587697	1.707903	0.03108	212.0288411	213.028841	0.001019697	1.71E-02
57.49977	0.649507959	0.6095414	0	0.589763	1.707903	0.03108	213.0288411		0.001019697	1.71E-02
57.57275	0.652569968	0.6095414	0	0.592908	1.707903	0.007834	213.0288411	214.028841	0.000257014	1.71E-02
57.64303	0.654235046	0.6095414	0	0.594679	1.707903	0.007834	214.0288411		0.000257014	1.71E-02
57.71871	0.656997222	0.6095414	0	0.597547	1.707903	0.007922	214.0288411	215.028841	0.000259915	1.71E-02
57.7917	0.658614441	0.6095414	0	0.59927	1.707903	0.007922	215.0288411		0.000259915	1.71E-02
57.86198	0.659064949	0.6095414	0	0.599826	1.707903	0.005033	215.0288411	216.028841	0.000165125	1.71E-02
57.94036	0.659631009	0.6095414	0	0.600497	1.707903	0.005033	216.0288411		0.000165125	1.71E-02
58.01335	0.660044284	0.6095414	0	0.601015	1.707903	0.003825	216.0288411	217.028841	0.000125479	1.71E-02
58.08633	0.660204626	0.6095414	0	0.601258	1.707903	0.003825	217.0288411		0.000125479	1.71E-02
58.15931	0.660020213	0.6095414	0	0.601155	1.707903	0.002531	217.0288411	218.028841	8.3043E-05	1.71E-02
58.23229	0.659684063	0.6095414	0	0.600924	1.707903	0.002531	218.0288411		8.3043E-05	1.71E-02
58.31068	0.661186404	0.6095414	0	0.602529	1.707903	0.000843	218.0288411	219.028841	2.766E-05	1.71E-02
58.38096	0.663702475	0.6095414	0	0.605149	1.707903	0.000843	219.0288411		2.766E-05	1.71E-02
58.45394	0.66565937	0.6095414	0	0.60721	1.707903	0.001636	219.0288411	220.028841	5.36649E-05	1.71E-02
58.53233	0.667217361	0.6095414	0	0.608872	1.707903	0.001636	220.0288411		5.36649E-05	1.71E-02
58.61072	0.667783986	0.6095414	0	0.609541	1.707903	0.00255	220.0288411	221.028841	8.36486E-05	1.71E-02
58.6837	0.666803054	0.6086426	0.002518563	0.608643	1.707903	0.00255	221.0288411		8.36486E-05	1.71E-02
58.76479	0.666688832	0.6086092	9.35776E-05	0.608609	1.705385	0.000963	221.0288411	222.028841	3.15839E-05	1.71E-02
58.84047	0.666559791	0.6085827	7.42927E-05	0.608583	1.705291	0.000963	222.0288411		3.15839E-05	1.71E-02
58.91616	0.665843294	0.607969	0.001719541	0.607969	1.705217	0	222.0288411	223.028841	0.00000001	1.71E-02
58.99455	0.663658956	0.6058866	0.005834582	0.605887	1.703497	0	223.0288411		0.00000001	1.70E-02
59.07023	0.66266124	0.6055949	0.000817521	0.604991	1.697663	0	223.0288411	224.028841	0.00000001	1.70E-02
59.14592	0.663163942	0.6055949	0	0.605595	1.696845	0	224.0288411		0.00000001	1.70E-02
59.2216	0.661348497	0.604446	0.003219069	0.603881	1.696845	0	224.0288411	225.028841	0.00000001	1.70E-02
59.29729	0.659632108	0.604446	0	0.602244	1.693626	0	225.0288411		0.00000001	1.69E-02
59.37297	0.659896874	0.604446	0	0.602588	1.693626	0.004269	225.0288411	226.028841	0.000140043	1.69E-02
59.44866	0.661654416	0.604446	0	0.604446	1.693626	0.004269	226.0288411		0.000140043	1.69E-02
59.52434	0.660797431	0.6044041	0.000117415	0.60369	1.693626	0.001671	226.0288411	227.028841	5.48211E-05	1.69E-02
59.60273	0.657780925	0.6044041	0	0.600773	1.693509	0.001671	227.0288411		5.48211E-05	1.69E-02
59.67571	0.656883332	0.6044041	0	0.599975	1.693509	0	227.0288411	228.028841	0.00000001	1.69E-02
59.74869	0.654482303	0.6044041	0	0.597673	1.693509	0	228.0288411		0.00000001	1.69E-02
59.82438	0.653014132	0.6044041	0	0.596304	1.693509	0.0006	228.0288411	229.028841	1.96971E-05	1.69E-02
59.89736	0.653052529	0.6044041	0	0.59642	1.693509	0.0006	229.0288411		1.96971E-05	1.69E-02
59.97034	0.652608224	0.6044041	0	0.596052	1.693509	0	229.0288411	230.028841	0.00000001	1.69E-02
60.03792	0.652017706	0.6044041	0	0.595559	1.693509	0	230.0288411		0.00000001	1.69E-02
60.1109	0.65374908	0.6044041	0	0.597389	1.693509	0.001511	230.0288411	231.028841	4.95721E-05	1.69E-02
60.18658	0.655954268	0.6044041	0	0.599691	1.693509	0.001511	231.0288411		4.95721E-05	1.69E-02
60.25416	0.657034218	0.6044041	0	0.600869	1.693509	0.000895	231.0288411	232.028841	2.93738E-05	1.69E-02
60.32984	0.657391151	0.6044041	0	0.601324	1.693509	0.000895	232.0288411		2.93738E-05	1.69E-02
60.40553	0.656092065	0.6044041	0	0.600123	1.693509	0	232.0288411	233.028841	0.00000001	1.69E-02
60.48392	0.655619422	0.6044041	0	0.599726	1.693509	0	233.0288411		0.00000001	1.69E-02
60.5569	0.653733479	0.6044041	0	0.597916	1.693509	0	233.0288411	234.028841	0.00000001	1.69E-02
60.62988	0.652246882	0.6044041	0	0.596526	1.693509	0	234.0288411		0.00000001	1.69E-02
60.70286	0.652334779	0.6044041	0	0.59671	1.693509	0	234.0288411	235.028841	0.00000001	1.69E-02
60.77314	0.652408185	0.6044041	0	0.596879	1.693509	0	235.0288411		0.00000001	1.69E-02
60.84612	0.653508777	0.6044041	0	0.598075	1.693509	0	235.0288411	236.028841	0.00000001	1.69E-02
60.91911	0.654269601	0.6044041	0	0.598932	1.693509	0	236.0288411		0.00000001	1.69E-02
60.99209	0.656383044	0.6044041	0	0.60114	1.693509	0.000218	236.0288411	237.028841	7.16092E-06	1.69E-02
61.06507	0.657427539	0.6044041	0	0.602261	1.693509	0.000218	237.0288411		7.16092E-06	1.69E-02
61.14346	0.657095259	0.6044041	0	0.602004	1.693509	2.78E-05	237.0288411	238.028841	9.10678E-07	1.69E-02
61.22185	0.65843277	0.6044041	0	0.603437	1.693509	2.78E-05	238.0288411		9.10678E-07	1.69E-02
61.30023	0.657643928	0.6044041	0	0.602743	1.693509	0	238.0288411	239.028841	0.00000001	1.69E-02
61.37592	0.655946128	0.6044041	0	0.60114	1.693509	0	239.0288411		0.00000001	1.69E-02
61.4489	0.654509796	0.6044041	0	0.599797	1.693509	0	239.0288411	240.028841	0.00000001	1.69E-02
61.52188	0.653540422	0.6044041	0	0.598921	1.693509	0	240.0288411		0.00000001	1.69E-02
61.59216	0.654164379	0.6044041	0	0.599638	1.693509	0	240.0288411	241.028841	0.00000001	1.69E-02
61.65974	0.654660721	0.6044041	0	0.600208	1.693509	0	241.0288411		0.00000001	1.69E-02
61.73272	0.65542041	0.6044041	0	0.601041	1.693509	0	241.0288411	242.028841	0.00000001	1.69E-02
61.8057	0.654904924	0.6044041	0	0.600618	1.693509	0	242.0288411		0.00000001	1.69E-02
61.87868	0.654940088	0.6044041	0	0.600746	1.693509	0	242.0288411	243.028841	0.00000001	1.69E-02
61.95166	0.655523952	0.6044041	0	0.601423	1.693509	0	243.0288411		0.00000001	1.69E-02
62.02735	0.65538469	0.6044041	0	0.601375	1.693509	0	243.0288411	244.028841	0.00000001	1.69E-02
62.09763	0.653599514	0.6044041	0	0.599683	1.693509	0	244.0288411		0.00000001	1.69E-02
62.17602	0.650396377	0.6044041	0	0.596572	1.693509	0	244.0288411	245.028841	0.00000001	1.69E-02
62.2463	0.648092971	0.6044041	0	0.594339	1.693509	0	245.0288411		0.00000001	1.69E-02
62.31387	0.648526713	0.6044041	0	0.594845	1.693509	0	245.0288411	246.028841	0.00000001	1.69E-02
62.38685	0.650326739	0.6044041	0	0.596736	1.693509	0	246.0288411		0.00000001	1.69E-02
62.45713	0.651159868	0.6044041	0	0.59766	1.693509	0	246.0288411	247.028841	0.00000001	1.69E-02

62.52741	0.650926075	0.6044041	0	0.597517	1.693509	0	247.0288411		0.00000001	1.69E-02	
62.60039	0.654217331	0.6044041	0	0.600898	1.693509	0	247.0288411	248.028841	0.00000001	1.69E-02	
62.67067	0.655475613	0.6044041	0	0.602247	1.693509	0	248.0288411		0.00000001	1.69E-02	
62.74095	0.653765411	0.6044041	0	0.600626	1.693509	0	248.0288411	249.028841	0.00000001	1.69E-02	
62.81123	0.652521628	0.6044041	0	0.599454	1.693509	0	249.0288411		0.00000001	1.69E-02	
62.88691	0.650442448	0.6044041	0	0.597446	1.693509	0	249.0288411	250.028841	0.00000001	1.69E-02	
62.9626	0.647182627	0.6044041	0	0.594276	1.693509	0	250.0288411		0.00000001	1.69E-02	
63.03558	0.64636102	0.6044041	0	0.593544	1.693509	0	250.0288411	251.028841	0.00000001	1.69E-02	
63.10856	0.645025817	0.6044041	0	0.592297	1.693509	0	251.0288411		0.00000001	1.69E-02	
63.17614	0.643643467	0.6044041	0	0.591004	1.693509	0	251.0288411	252.028841	0.00000001	1.69E-02	
63.24912	0.644527964	0.6044041	0	0.591978	1.693509	0	252.0288411		0.00000001	1.69E-02	
63.32751	0.644473025	0.6044041	0	0.592013	1.693509	0	252.0288411	253.028841	0.00000001	1.69E-02	
63.4059	0.644349076	0.6044041	0	0.591959	1.693509	0	253.0288411		0.00000001	1.69E-02	
63.47888	0.644962418	0.6044041	0	0.592642	1.693509	0	253.0288411	254.028841	0.00000001	1.69E-02	
63.55186	0.645930848	0.6044041	0	0.593701	1.693509	0	254.0288411		0.00000001	1.69E-02	
63.63565	0.645580687	0.6044041	0	0.593438	1.693509	0	254.0288411	255.028841	0.00000001	1.69E-02	
63.70864	0.644879954	0.6044041	0	0.592826	1.693509	0	255.0288411		0.00000001	1.69E-02	
63.78432	0.643681326	0.6044041	0	0.591715	1.693509	0	255.0288411	256.028841	0.00000001	1.69E-02	
63.8573	0.642568282	0.6044041	0	0.590689	1.693509	0	256.0288411		0.00000001	1.69E-02	
63.92758	0.641754221	0.6044041	0	0.589962	1.693509	0	256.0288411	257.028841	0.00000001	1.69E-02	
63.99786	0.64114131	0.6044041	0	0.589418	1.693509	0	257.0288411		0.00000001	1.69E-02	
64.07355	0.641052331	0.6044041	0	0.589397	1.693509	0	257.0288411	258.028841	0.00000001	1.69E-02	
64.14382	0.640882994	0.6044041	0	0.589315	1.693509	0	258.0288411		0.00000001	1.69E-02	
64.21951	0.641674836	0.6044041	0	0.590193	1.693509	0	258.0288411	259.028841	0.00000001	1.69E-02	
64.29249	0.642480186	0.6044041	0	0.591084	1.693509	0	259.0288411		0.00000001	1.69E-02	
64.36277	0.641980848	0.6044041	0	0.590671	1.693509	0	259.0288411	260.028841	0.00000001	1.69E-02	
64.43846	0.640309634	0.6044041	0	0.589087	1.693509	0	260.0288411		0.00000001	1.69E-02	
64.51414	0.64005118	0.6044041	0	0.588915	1.693509	0	260.0288411	261.028841	0.00000001	1.69E-02	
64.59253	0.636554243	0.6044041	0	0.585485	1.693509	0	261.0288411		0.00000001	1.69E-02	
64.66551	0.634103735	0.6044041	0	0.583102	1.693509	0	261.0288411	262.028841	0.00000001	1.69E-02	
64.73849	0.634251697	0.6044041	0	0.583335	1.693509	0	262.0288411		0.00000001	1.69E-02	
64.80607	0.633786492	0.6044041	0	0.582955	1.693509	0	262.0288411	263.028841	0.00000001	1.69E-02	
64.88175	0.63394574	0.6044041	0	0.583199	1.693509	0	263.0288411		0.00000001	1.69E-02	
64.95473	0.633225388	0.6044041	0	0.582564	1.693509	0	263.0288411	264.028841	0.00000001	1.69E-02	
65.03042	0.632318679	0.6044041	0	0.581742	1.693509	0	264.0288411		0.00000001	1.69E-02	
65.1034	0.633460721	0.6044041	0	0.582968	1.693509	0	264.0288411	265.028841	0.00000001	1.69E-02	
65.17368	0.635026999	0.6044041	0	0.584601	1.693509	0	265.0288411		0.00000001	1.69E-02	
65.25207	0.634749536	0.6044041	0	0.584392	1.693509	0	265.0288411	266.028841	0.00000001	1.69E-02	
65.33586	0.633378396	0.6044041	0	0.583105	1.693509	0	266.0288411		0.00000001	1.69E-02	
65.41155	0.628617679	0.6044041	0	0.578428	1.693509	0	266.0288411	267.028841	0.00000001	1.69E-02	
65.48723	0.627573885	0.6044041	0	0.577468	1.693509	0	267.0288411		0.00000001	1.69E-02	
65.56021	0.625231059	0.6044041	0	0.575208	1.693509	0	267.0288411	268.028841	0.00000001	1.69E-02	
65.63049	0.624594179	0.6044041	0	0.574654	1.693509	0	268.0288411		0.00000001	1.69E-02	
65.70348	0.62417006	0.6044041	0	0.574313	1.693509	0	268.0288411	269.028841	0.00000001	1.69E-02	
65.77646	0.624488034	0.6044041	0	0.574696	1.693509	0	269.0288411		0.00000001	1.69E-02	
65.84944	0.625412208	0.6044041	0	0.575685	1.693509	0	269.0288411	270.028841	0.00000001	1.69E-02	
65.91972	0.625941453	0.6044041	0	0.576296	1.693509	0	270.0288411		0.00000001	1.69E-02	
65.98459	0.626627355	0.6044041	0	0.577064	1.693509	0	270.0288411	271.028841	0.00000001	1.69E-02	
66.05757	0.626761479	0.6044041	0	0.577281	1.693509	0	271.0288411		0.00000001	1.69E-02	
66.13326	0.626800711	0.6044041	0	0.577402	1.693509	0	271.0288411	272.028841	0.00000001	1.69E-02	
66.20894	0.625624816	0.6044041	0	0.576308	1.693509	0	272.0288411		0.00000001	1.69E-02	
66.27922	0.622599454	0.6044041	0	0.573363	1.693509	0	272.0288411	273.028841	0.00000001	1.69E-02	
66.3468	0.622098541	0.6044041	0	0.572924	1.693509	0	273.0288411		0.00000001	1.69E-02	
66.40897	0.621802659	0.6044041	0	0.572692	1.693509	0	273.0288411	274.028841	0.00000001	1.69E-02	
66.47925	0.621719877	0.6044041	0	0.57269	1.693509	0	274.0288411		0.00000001	1.69E-02	
66.54952	0.622822027	0.6044041	0	0.573872	1.693509	0	274.0288411	275.028841	0.00000001	1.69E-02	
66.6171	0.623538764	0.6044041	0	0.57467	1.693509	0	275.0288411		0.00000001	1.69E-02	
66.69008	0.623843743	0.6044041	0	0.575054	1.693509	0	275.0288411	276.028841	0.00000001	1.69E-02	
66.75496	0.623651028	0.6044041	0	0.574941	1.693509	0	276.0288411		0.00000001	1.69E-02	
66.82253	0.622681493	0.6044041	0	0.574052	1.693509	0	276.0288411	277.028841	0.00000001	1.69E-02	
66.89551	0.621744313	0.6044041	0	0.573178	1.693509	0	277.0288411		0.00000001	1.69E-02	
66.96849	0.622446393	0.6044041	0	0.573943	1.693509	0	277.0288411	278.028841	0.00000001	1.69E-02	
67.04418	0.621162502	0.6044041	0	0.572739	1.693509	0	278.0288411		0.00000001	1.69E-02	
67.11716	0.619830727	0.6044041	0	0.571487	1.693509	0	278.0288411	279.028841	0.00000001	1.69E-02	
67.18744	0.618594361	0.6044041	0	0.570329	1.693509	0	279.0288411		0.00000001	1.69E-02	
67.25502	0.618951651	0.6044041	0	0.570766	1.693509	0	279.0288411	280.028841	0.00000001	1.69E-02	
67.3307	0.620390823	0.6044041	0	0.572284	1.693509	0	280.0288411		0.00000001	1.69E-02	
67.40368	0.622453985	0.6044041	0	0.574426	1.693509	0	280.0288411	281.028841	0.00000001	1.69E-02	
67.47126	0.624659198	0.6044041	0	0.576693	1.693509	0	281.0288411		0.00000001	1.69E-02	
67.54424	0.625850062	0.6044041	0	0.577946	1.693509	0	281.0288411	282.028841	0.00000001	1.69E-02	
67.61722	0.627315721	0.6044041	0	0.57949	1.693509	0	282.0288411		0.00000001	1.69E-02	
67.6902	0.628228162	0.6044041	0	0.580481	1.693509	0	282.0288411	283.028841	0.00000001	1.69E-02	
67.76048	0.62882156	0.6044041	0	0.581152	1.693509	0	283.0288411		0.00000001	1.69E-02	
67.83076	0.628112826	0.6044041	0	0.58052	1.693509	0	283.0288411	284.028841	0.00000001	1.69E-02	

67.89834	0.626555451	0.6044041	0	0.579041	1.693509	0	284.0288411		0.00000001	1.69E-02
67.96862	0.625422863	0.6044041	0	0.577985	1.693509	0	284.0288411	285.028841	0.00000001	1.69E-02
68.03619	0.625767272	0.6044041	0	0.57839	1.693509	0	285.0288411		0.00000001	1.69E-02
68.10377	0.625268591	0.6044041	0	0.577952	1.693509	0	285.0288411	286.028841	0.00000001	1.69E-02
68.17405	0.626408206	0.6044041	0	0.579168	1.693509	0	286.0288411		0.00000001	1.69E-02
68.24433	0.627553744	0.6044041	0	0.58039	1.693509	0	286.0288411	287.028841	0.00000001	1.69E-02
68.31461	0.628624853	0.6044041	0	0.581538	1.693509	0	287.0288411		0.00000001	1.69E-02
68.38488	0.629412498	0.6044041	0	0.582402	1.693509	0	287.0288411	288.028841	0.00000001	1.69E-02
68.45246	0.62973117	0.6044041	0	0.582797	1.693509	0	288.0288411		0.00000001	1.69E-02
68.52274	0.630729196	0.6044041	0	0.583871	1.693509	0	288.0288411	289.028841	0.00000001	1.69E-02
68.59572	0.629952762	0.6044041	0	0.583155	1.693509	0	289.0288411		0.00000001	1.69E-02
68.6687	0.629833333	0.6044041	0	0.583096	1.693509	0	289.0288411	290.028841	0.00000001	1.69E-02
68.73898	0.629277609	0.6044041	0	0.582615	1.693509	0	290.0288411		0.00000001	1.69E-02
68.80656	0.629336271	0.6044041	0	0.582749	1.693509	0	290.0288411	291.028841	0.00000001	1.69E-02
68.87684	0.630201168	0.6044041	0	0.583689	1.693509	0	291.0288411		0.00000001	1.69E-02
68.94441	0.632984147	0.6044041	0	0.586547	1.693509	0	291.0288411	292.028841	0.00000001	1.69E-02
69.01199	0.635089637	0.6044041	0	0.588727	1.693509	0	292.0288411		0.00000001	1.69E-02
69.07956	0.636040495	0.6044041	0	0.589753	1.693509	0	292.0288411	293.028841	0.00000001	1.69E-02
69.14984	0.637980967	0.6044041	0	0.591753	1.693509	0	293.0288411		0.00000001	1.69E-02
69.22012	0.638902018	0.6044041	0	0.592732	1.693509	0	293.0288411	294.028841	0.00000001	1.69E-02
69.2877	0.638338643	0.6044041	0	0.592244	1.693509	0	294.0288411		0.00000001	1.69E-02
69.36338	0.637313568	0.6044041	0	0.591294	1.693509	0	294.0288411	295.028841	0.00000001	1.69E-02
69.43366	0.636565596	0.6044041	0	0.59062	1.693509	0	295.0288411		0.00000001	1.69E-02
69.50394	0.635941919	0.6044041	0	0.590071	1.693509	0	295.0288411	296.028841	0.00000001	1.69E-02
69.57692	0.634457508	0.6044041	0	0.58866	1.693509	0	296.0288411		0.00000001	1.69E-02
69.6445	0.632441829	0.6044041	0	0.586718	1.693509	0	296.0288411	297.028841	0.00000001	1.69E-02
69.71478	0.63102771	0.6044041	0	0.585361	1.693509	0	297.0288411		0.00000001	1.69E-02
69.77965	0.631024691	0.6044041	0	0.585416	1.693509	0	297.0288411	298.028841	0.00000001	1.69E-02
69.84723	0.629788155	0.6044041	0	0.584252	1.693509	0	298.0288411		0.00000001	1.69E-02
69.9148	0.629831347	0.6044041	0	0.584369	1.693509	0	298.0288411	299.028841	0.00000001	1.69E-02
69.99049	0.631144537	0.6044041	0	0.585755	1.693509	0	299.0288411		0.00000001	1.69E-02
70.05806	0.632114868	0.6044041	0	0.586798	1.693509	0	299.0288411	300.028841	0.00000001	1.69E-02
70.12564	0.632772169	0.6044041	0	0.58753	1.693509	0	300.0288411		0.00000001	1.69E-02
70.20403	0.632765516	0.6044041	0	0.587596	1.693509	0	300.0288411	301.028841	0.00000001	1.69E-02
70.27701	0.632052761	0.6044041	0	0.586941	1.693509	0	301.0288411		0.00000001	1.69E-02
70.34729	0.630977729	0.6044041	0	0.585922	1.693509	0	301.0288411	302.028841	0.00000001	1.69E-02
70.41486	0.629526583	0.6044041	0	0.584544	1.693509	0	302.0288411		0.00000001	1.69E-02
70.48514	0.630093393	0.6044041	0	0.585183	1.693509	0	302.0288411	303.028841	0.00000001	1.69E-02
70.55542	0.630697531	0.6044041	0	0.585859	1.693509	0	303.0288411		0.00000001	1.69E-02
70.6257	0.632073986	0.6044041	0	0.587306	1.693509	0	303.0288411	304.028841	0.00000001	1.69E-02
70.68787	0.632009027	0.6044041	0	0.587313	1.693509	0	304.0288411		0.00000001	1.69E-02
70.75815	0.634667136	0.6044041	0	0.590042	1.693509	0	304.0288411	305.028841	0.00000001	1.69E-02
70.82302	0.635948975	0.6044041	0	0.591379	1.693509	0	305.0288411		0.00000001	1.69E-02
70.8906	0.637744333	0.6044041	0	0.593231	1.693509	0	305.0288411	306.028841	0.00000001	1.69E-02
70.96087	0.635638459	0.6044041	0	0.591197	1.693509	0	306.0288411		0.00000001	1.69E-02
71.03656	0.634598355	0.6044041	0	0.590229	1.693509	0	306.0288411	307.028841	0.00000001	1.69E-02
71.10954	0.633593444	0.6044041	0	0.589296	1.693509	0	307.0288411		0.00000001	1.69E-02
71.18523	0.629875033	0.6044041	0	0.585648	1.693509	0	307.0288411	308.028841	0.00000001	1.69E-02
71.25551	0.628178924	0.6044041	0	0.584023	1.693509	0	308.0288411		0.00000001	1.69E-02
71.32578	0.628341214	0.6044041	0	0.584256	1.693509	0	308.0288411	309.028841	0.00000001	1.69E-02
71.39606	0.629207861	0.6044041	0	0.585178	1.693509	0	309.0288411		0.00000001	1.69E-02
71.46634	0.63002829	0.6044041	0	0.586054	1.693509	0	309.0288411	310.028841	0.00000001	1.69E-02
71.53662	0.629544369	0.6044041	0	0.585641	1.693509	0	310.0288411		0.00000001	1.69E-02
71.61231	0.631997088	0.6044041	0	0.588164	1.693509	0	310.0288411	311.028841	0.00000001	1.69E-02
71.68258	0.635003776	0.6044041	0	0.59124	1.693509	0	311.0288411		0.00000001	1.69E-02
71.75016	0.63657872	0.6044041	0	0.592886	1.693509	0	311.0288411	312.028841	0.00000001	1.69E-02
71.83125	0.637992444	0.6044041	0	0.594369	1.693509	0	312.0288411		0.00000001	1.69E-02
71.89883	0.637907756	0.6044041	0	0.594355	1.693509	0	312.0288411	313.028841	0.00000001	1.69E-02
71.97181	0.636162495	0.6044041	0	0.592664	1.693509	0	313.0288411		0.00000001	1.69E-02
72.04209	0.634341787	0.6044041	0	0.590898	1.693509	0	313.0288411	314.028841	0.00000001	1.69E-02
72.10966	0.632725648	0.6044041	0	0.58935	1.693509	0	314.0288411		0.00000001	1.69E-02
72.17724	0.632941123	0.6044041	0	0.589635	1.693509	0	314.0288411	315.028841	0.00000001	1.69E-02
72.24482	0.632297823	0.6044041	0	0.58906	1.693509	0	315.0288411		0.00000001	1.69E-02
72.31509	0.632191747	0.6044041	0	0.589023	1.693509	0	315.0288411	316.028841	0.00000001	1.69E-02
72.38537	0.633861283	0.6044041	0	0.590761	1.693509	0	316.0288411		0.00000001	1.69E-02
72.45565	0.635190177	0.6044041	0	0.592158	1.693509	0	316.0288411	317.028841	0.00000001	1.69E-02
72.52323	0.636352395	0.6044041	0	0.593374	1.693509	0	317.0288411		0.00000001	1.69E-02
72.5908	0.635271648	0.6044041	0	0.592348	1.693509	0	317.0288411	318.028841	0.00000001	1.69E-02
72.66919	0.634800795	0.6044041	0	0.591946	1.693509	0	318.0288411		0.00000001	1.69E-02
72.74217	0.63493301	0.6044041	0	0.592146	1.693509	0	318.0288411	319.028841	0.00000001	1.69E-02
72.81245	0.63175847	0.6044041	0	0.589039	1.693509	0	319.0288411		0.00000001	1.69E-02
72.88003	0.629683692	0.6044041	0	0.587032	1.693509	0	319.0288411	320.028841	0.00000001	1.69E-02
72.95031	0.631398123	0.6044041	0	0.588814	1.693509	0	320.0288411		0.00000001	1.69E-02
73.01788	0.63147313	0.6044041	0	0.588957	1.693509	0	320.0288411	321.028841	0.00000001	1.69E-02

73.08816	0.631744441	0.6044041	0	0.589281	1.693509	0	321.0288411		0.00000001	1.69E-02	
73.15574	0.632324854	0.6044041	0	0.589915	1.693509	0	321.0288411	322.028841	0.00000001	1.69E-02	
73.22872	0.634597423	0.6044041	0	0.592254	1.693509	0	322.0288411		0.00000001	1.69E-02	
73.2963	0.636323339	0.6044041	0	0.594047	1.693509	0	322.0288411	323.028841	0.00000001	1.69E-02	
73.36387	0.637328212	0.6044041	0	0.59512	1.693509	0	323.0288411		0.00000001	1.69E-02	
73.44226	0.638270645	0.6044041	0	0.596129	1.693509	0	323.0288411	324.028841	0.00000001	1.69E-02	
73.51254	0.637577174	0.6044041	0	0.595504	1.693509	0	324.0288411		0.00000001	1.69E-02	
73.59363	0.63511879	0.6044041	0	0.593112	1.693509	0	324.0288411	325.028841	0.00000001	1.69E-02	
73.66391	0.634285645	0.6044041	0	0.592332	1.693509	0	325.0288411		0.00000001	1.69E-02	
73.73419	0.632897581	0.6044041	0	0.590996	1.693509	0	325.0288411	326.028841	0.00000001	1.69E-02	
73.80447	0.632348873	0.6044041	0	0.590513	1.693509	0	326.0288411		0.00000001	1.69E-02	
73.86934	0.633837582	0.6044041	0	0.592068	1.693509	0	326.0288411	327.028841	0.00000001	1.69E-02	
73.93962	0.634517764	0.6044041	0	0.592814	1.693509	0	327.0288411		0.00000001	1.69E-02	
74.0126	0.635766356	0.6044041	0	0.594128	1.693509	0	327.0288411	328.028841	0.00000001	1.69E-02	
74.08018	0.638479591	0.6044041	0	0.596906	1.693509	0	328.0288411		0.00000001	1.69E-02	
74.14505	0.640141827	0.6044041	0	0.598634	1.693509	0	328.0288411	329.028841	0.00000001	1.69E-02	
74.21533	0.639924635	0.6044041	0	0.598469	1.693509	0	329.0288411		0.00000001	1.69E-02	
74.28831	0.640249189	0.6044041	0	0.598846	1.693509	0	329.0288411	330.028841	0.00000001	1.69E-02	
74.36129	0.640623356	0.6044041	0	0.599286	1.693509	0	330.0288411		0.00000001	1.69E-02	
74.43698	0.639355151	0.6044041	0	0.598083	1.693509	0	330.0288411	331.028841	0.00000001	1.69E-02	
74.50725	0.637721096	0.6044041	0	0.596514	1.693509	0	331.0288411		0.00000001	1.69E-02	
74.57483	0.636189342	0.6044041	0	0.595046	1.693509	0	331.0288411	332.028841	0.00000001	1.69E-02	
74.6397	0.63550836	0.6044041	0	0.59443	1.693509	0	332.0288411		0.00000001	1.69E-02	
74.70728	0.636690922	0.6044041	0	0.595677	1.693509	0	332.0288411	333.028841	0.00000001	1.69E-02	
74.77756	0.638912977	0.6044041	0	0.59795	1.693509	0	333.0288411		0.00000001	1.69E-02	
74.84513	0.640651415	0.6044041	0	0.59974	1.693509	0	333.0288411	334.028841	0.00000001	1.69E-02	
74.91812	0.642592257	0.6044041	0	0.601744	1.693509	0	334.0288411		0.00000001	1.69E-02	
74.98569	0.642704899	0.6044041	0	0.601922	1.693509	0	334.0288411	335.028841	0.00000001	1.69E-02	
75.05867	0.642840671	0.6044041	0	0.602123	1.693509	0	335.0288411		0.00000001	1.69E-02	
75.13706	0.641614089	0.6044041	0	0.60096	1.693509	0	335.0288411	336.028841	0.00000001	1.69E-02	
75.20734	0.641091272	0.6044041	0	0.600502	1.693509	0	336.0288411		0.00000001	1.69E-02	
75.27762	0.639268345	0.6044041	0	0.598743	1.693509	0	336.0288411	337.028841	0.00000001	1.69E-02	
75.3506	0.637031708	0.6044041	0	0.596556	1.693509	0	337.0288411		0.00000001	1.69E-02	
75.41818	0.636276623	0.6044041	0	0.595852	1.693509	0	337.0288411	338.028841	0.00000001	1.69E-02	
75.49116	0.635607114	0.6044041	0	0.595245	1.693509	0	338.0288411		0.00000001	1.69E-02	
75.55603	0.63632269	0.6044041	0	0.596024	1.693509	0	338.0288411	339.028841	0.00000001	1.69E-02	
75.62901	0.637439539	0.6044041	0	0.597205	1.693509	0	339.0288411		0.00000001	1.69E-02	
75.69929	0.63910027	0.6044041	0	0.598929	1.693509	0	339.0288411	340.028841	0.00000001	1.69E-02	
75.76957	0.639464223	0.6044041	0	0.599356	1.693509	0	340.0288411		0.00000001	1.69E-02	
75.84526	0.638815323	0.6044041	0	0.598771	1.693509	0	340.0288411	341.028841	0.00000001	1.69E-02	
75.91824	0.638534478	0.6044041	0	0.59854	1.693509	0	341.0288411		0.00000001	1.69E-02	
75.99392	0.637790987	0.6044041	0	0.597847	1.693509	0	341.0288411	342.028841	0.00000001	1.69E-02	
76.0642	0.63600356	0.6044041	0	0.596121	1.693509	0	342.0288411		0.00000001	1.69E-02	
76.13178	0.636212357	0.6044041	0	0.596392	1.693509	0	342.0288411	343.028841	0.00000001	1.69E-02	
76.19935	0.635650165	0.6044041	0	0.595892	1.693509	0	343.0288411		0.00000001	1.69E-02	
76.26693	0.635270516	0.6044041	0	0.595575	1.693509	0	343.0288411	344.028841	0.00000001	1.69E-02	
76.33451	0.634572313	0.6044041	0	0.594938	1.693509	0	344.0288411		0.00000001	1.69E-02	
76.39938	0.634554113	0.6044041	0	0.594982	1.693509	0	344.0288411	345.028841	0.00000001	1.69E-02	
76.46966	0.633889216	0.6044041	0	0.594365	1.693509	0	345.0288411		0.00000001	1.69E-02	
76.53723	0.634816354	0.6044041	0	0.595341	1.693509	0	345.0288411	346.028841	0.00000001	1.69E-02	
76.60481	0.636419411	0.6044041	0	0.597006	1.693509	0	346.0288411		0.00000001	1.69E-02	
76.67238	0.636795461	0.6044041	0	0.597444	1.693509	0	346.0288411	347.028841	0.00000001	1.69E-02	
76.74537	0.635948387	0.6044041	0	0.596658	1.693509	0	347.0288411		0.00000001	1.69E-02	
76.81294	0.632712352	0.6044041	0	0.593483	1.693509	0	347.0288411	348.028841	0.00000001	1.69E-02	
76.88322	0.631619588	0.6044041	0	0.592452	1.693509	0	348.0288411		0.00000001	1.69E-02	
76.9508	0.629814006	0.6044041	0	0.590707	1.693509	0	348.0288411	349.028841	0.00000001	1.69E-02	
77.02108	0.627917029	0.6044041	0	0.588859	1.693509	0	349.0288411		0.00000001	1.69E-02	
77.09135	0.627912863	0.6044041	0	0.588903	1.693509	0	349.0288411	350.028841	0.00000001	1.69E-02	
77.16163	0.62902896	0.6044041	0	0.59008	1.693509	0	350.0288411		0.00000001	1.69E-02	
77.23191	0.630862973	0.6044041	0	0.591974	1.693509	0	350.0288411	351.028841	0.00000001	1.69E-02	
77.29949	0.63214089	0.6044041	0	0.593313	1.693509	0	351.0288411		0.00000001	1.69E-02	
77.36706	0.634564128	0.6044041	0	0.595796	1.693509	0	351.0288411	352.028841	0.00000001	1.69E-02	
77.43464	0.634386051	0.6044041	0	0.595678	1.693509	0	352.0288411		0.00000001	1.69E-02	
77.50222	0.632836679	0.6044041	0	0.59419	1.693509	0	352.0288411	353.028841	0.00000001	1.69E-02	
77.5752	0.630026322	0.6044041	0	0.591428	1.693509	0	353.0288411		0.00000001	1.69E-02	
77.64818	0.623229085	0.6044041	0	0.584678	1.693509	0	353.0288411	354.028841	0.00000001	1.69E-02	
77.72116	0.619171626	0.6044041	0	0.58068	1.693509	0	354.0288411		0.00000001	1.69E-02	
77.78603	0.615638893	0.6044041	0	0.577207	1.693509	0	354.0288411	355.028841	0.00000001	1.69E-02	
77.85091	0.612438081	0.6044041	0	0.574066	1.693509	0	355.0288411		0.00000001	1.69E-02	
77.92119	0.608978413	0.6044041	0	0.570665	1.693509	0	355.0288411	356.028841	0.00000001	1.69E-02	
77.98336	0.605884682	0.6044041	0	0.56763	1.693509	0	356.0288411		0.00000001	1.69E-02	
78.04823	0.602668805	0.6044041	0	0.564473	1.693509	0	356.0288411	357.028841	0.00000001	1.69E-02	
78.1104	0.602745433	0.6044041	0	0.564596	1.693509	0	357.0288411		0.00000001	1.69E-02	
78.17797	0.603594178	0.6044041	0	0.565492	1.693509	0	357.0288411	358.028841	0.00000001	1.69E-02	

78.24555	0.604436598	0.6044041	0	0.566393	1.693509	0	358.0288411		0.00000001	1.69E-02
78.31313	0.604573519	0.6044041	0	0.56659	1.693509	0	358.0288411	359.028841	0.00000001	1.69E-02
78.38611	0.604304296	0.6044041	0	0.566379	1.693509	0	359.0288411		0.00000001	1.69E-02
78.45368	0.605093879	0.6044041	0	0.567227	1.693509	0	359.0288411	360.028841	0.00000001	1.69E-02
78.51856	0.604086096	0.6044041	0	0.566277	1.693509	0	360.0288411		0.00000001	1.69E-02
78.57802	0.601579537	0.6044041	0	0.563828	1.693509	0	360.0288411	361.028841	0.00000001	1.69E-02
78.63749	0.601793352	0.6044041	0	0.564087	1.693509	0	361.0288411		0.00000001	1.69E-02
78.69696	0.600725975	0.6044041	0	0.563065	1.693509	0	361.0288411	362.028841	0.00000001	1.69E-02
78.75913	0.600146077	0.6044041	0	0.562542	1.693509	0	362.0288411		0.00000001	1.69E-02
78.8213	0.601433509	0.6044041	0	0.563887	1.693509	0	362.0288411	363.028841	0.00000001	1.69E-02
78.88076	0.599849847	0.6044041	0	0.56236	1.693509	0	363.0288411		0.00000001	1.69E-02
78.94293	0.602163814	0.6044041	0	0.564731	1.693509	0	363.0288411	364.028841	0.00000001	1.69E-02
79.0024	0.60760322	0.6044041	0	0.570228	1.693509	0	364.0288411		0.00000001	1.69E-02
79.06727	0.607182459	0.6044041	0	0.569866	1.693509	0	364.0288411	365.028841	0.00000001	1.69E-02
79.14296	0.607177339	0.6044041	0	0.569907	1.693509	0	365.0288411		0.00000001	1.69E-02
79.21594	0.606464815	0.6044041	0	0.56924	1.693509	0	365.0288411	366.028841	0.00000001	1.69E-02
79.28622	0.604873982	0.6044041	0	0.567707	1.693509	0	366.0288411		0.00000001	1.69E-02
79.35379	0.601482082	0.6044041	0	0.564373	1.693509	0	366.0288411	367.028841	0.00000001	1.69E-02
79.42407	0.598510198	0.6044041	0	0.561459	1.693509	0	367.0288411		0.00000001	1.69E-02
79.49435	0.597939206	0.6044041	0	0.560945	1.693509	0	367.0288411	368.028841	0.00000001	1.69E-02
79.56193	0.598640878	0.6044041	0	0.561703	1.693509	0	368.0288411		0.00000001	1.69E-02
79.6268	0.600756131	0.6044041	0	0.563876	1.693509	0	368.0288411	369.028841	0.00000001	1.69E-02
79.69438	0.603734766	0.6044041	0	0.5669	1.693509	0	369.0288411		0.00000001	1.69E-02
79.76465	0.609693134	0.6044041	0	0.572902	1.693509	0	369.0288411	370.028841	0.00000001	1.69E-02
79.82682	0.614046027	0.6044041	0	0.577311	1.693509	0	370.0288411		0.00000001	1.69E-02
79.88899	0.618041936	0.6044041	0	0.581365	1.693509	0	370.0288411	371.028841	0.00000001	1.69E-02
79.96468	0.622914003	0.6044041	0	0.586294	1.693509	0	371.0288411		0.00000001	1.69E-02
80.04036	0.62675931	0.6044041	0	0.590196	1.693509	0	371.0288411	372.028841	0.00000001	1.69E-02
80.10524	0.626416488	0.6044041	0	0.58991	1.693509	0	372.0288411		0.00000001	1.69E-02
80.18092	0.62607587	0.6044041	0	0.589626	1.693509	0	372.0288411	373.028841	0.00000001	1.69E-02
80.2485	0.625468864	0.6044041	0	0.589063	1.693509	0	373.0288411		0.00000001	1.69E-02
80.31607	0.625223808	0.6044041	0	0.588862	1.693509	0	373.0288411	374.028841	0.00000001	1.69E-02
80.37824	0.62489354	0.6044041	0	0.588587	1.693509	0	374.0288411		0.00000001	1.69E-02
80.44041	0.625426345	0.6044041	0	0.589175	1.693509	0	374.0288411	375.028841	0.00000001	1.69E-02
80.50529	0.626912138	0.6044041	0	0.590716	1.693509	0	375.0288411		0.00000001	1.69E-02
80.56746	0.629503542	0.6044041	0	0.593363	1.693509	0	375.0288411	376.028841	0.00000001	1.69E-02
80.63233	0.63019478	0.6044041	0	0.59411	1.693509	0	376.0288411		0.00000001	1.69E-02
80.6999	0.629299266	0.6044041	0	0.593271	1.693509	0	376.0288411	377.028841	0.00000001	1.69E-02
80.77289	0.629405932	0.6044041	0	0.593421	1.693509	0	377.0288411		0.00000001	1.69E-02
80.84046	0.62978431	0.6044041	0	0.593844	1.693509	0	377.0288411	378.028841	0.00000001	1.69E-02
80.91074	0.62610544	0.6044041	0	0.590221	1.693509	0	378.0288411		0.00000001	1.69E-02
80.98372	0.620937352	0.6044041	0	0.585108	1.693509	0	378.0288411	379.028841	0.00000001	1.69E-02
81.0513	0.619864263	0.6044041	0	0.58409	1.693509	0	379.0288411		0.00000001	1.69E-02
81.12158	0.619199552	0.6044041	0	0.583481	1.693509	0	379.0288411	380.028841	0.00000001	1.69E-02
81.19456	0.61788789	0.6044041	0	0.582225	1.693509	0	380.0288411		0.00000001	1.69E-02
81.26213	0.617255065	0.6044041	0	0.581647	1.693509	0	380.0288411	381.028841	0.00000001	1.69E-02
81.32971	0.618535058	0.6044041	0	0.58297	1.693509	0	381.0288411		0.00000001	1.69E-02
81.39999	0.62213285	0.6044041	0	0.586612	1.693509	0	381.0288411	382.028841	0.00000001	1.69E-02
81.47297	0.625506279	0.6044041	0	0.590041	1.693509	0	382.0288411		0.00000001	1.69E-02
81.54866	0.627392898	0.6044041	0	0.591983	1.693509	0	382.0288411	383.028841	0.00000001	1.69E-02
81.62434	0.62866366	0.6044041	0	0.593309	1.693509	0	383.0288411		0.00000001	1.69E-02
81.69462	0.629688169	0.6044041	0	0.594388	1.693509	0	383.0288411	384.028841	0.00000001	1.69E-02
81.7649	0.628480515	0.6044041	0	0.593235	1.693509	0	384.0288411		0.00000001	1.69E-02
81.83788	0.627008792	0.6044041	0	0.591817	1.693509	0	384.0288411	385.028841	0.00000001	1.69E-02
81.90275	0.626251174	0.6044041	0	0.591103	1.693509	0	385.0288411		0.00000001	1.69E-02
81.97033	0.624473662	0.6044041	0	0.589368	1.693509	0	385.0288411	386.028841	0.00000001	1.69E-02
82.03791	0.623554713	0.6044041	0	0.588502	1.693509	0	386.0288411		0.00000001	1.69E-02
82.10008	0.623547481	0.6044041	0	0.588549	1.693509	0	386.0288411	387.028841	0.00000001	1.69E-02
82.17035	0.623199834	0.6044041	0	0.588254	1.693509	0	387.0288411		0.00000001	1.69E-02
82.23252	0.624235126	0.6044041	0	0.589343	1.693509	0	387.0288411	388.028841	0.00000001	1.69E-02
82.3001	0.625660655	0.6044041	0	0.590822	1.693509	0	388.0288411		0.00000001	1.69E-02
82.36497	0.627126271	0.6044041	0	0.592342	1.693509	0	388.0288411	389.028841	0.00000001	1.69E-02
82.44066	0.627565774	0.6044041	0	0.592825	1.693509	0	389.0288411		0.00000001	1.69E-02
82.51364	0.626713798	0.6044041	0	0.592015	1.693509	0	389.0288411	390.028841	0.00000001	1.69E-02
82.58122	0.624992044	0.6044041	0	0.590347	1.693509	0	390.0288411		0.00000001	1.69E-02
82.65149	0.625615809	0.6044041	0	0.591024	1.693509	0	390.0288411	391.028841	0.00000001	1.69E-02
82.72448	0.626132385	0.6044041	0	0.591594	1.693509	0	391.0288411		0.00000001	1.69E-02
82.79205	0.624423461	0.6044041	0	0.589938	1.693509	0	391.0288411	392.028841	0.00000001	1.69E-02
82.86233	0.625514382	0.6044041	0	0.591082	1.693509	0	392.0288411		0.00000001	1.69E-02
82.92991	0.62754281	0.6044041	0	0.593164	1.693509	0	392.0288411	393.028841	0.00000001	1.69E-02
83.00019	0.627494876	0.6044041	0	0.593158	1.693509	0	393.0288411		0.00000001	1.69E-02
83.07046	0.629570544	0.6044041	0	0.595276	1.693509	0	393.0288411	394.028841	0.00000001	1.69E-02
83.14074	0.630749112	0.6044041	0	0.596507	1.693509	0	394.0288411		0.00000001	1.69E-02
83.21373	0.633256569	0.6044041	0	0.599068	1.693509	0	394.0288411	395.028841	0.00000001	1.69E-02

83.28941	0.63342588	0.6044041	0	0.599291	1.693509	0	395.0288411		0.00000001	1.69E-02
83.36239	0.634139027	0.6044041	0	0.600057	1.693509	0	395.0288411	396.028841	0.00000001	1.69E-02
83.43808	0.63331765	0.6044041	0	0.599289	1.693509	0	396.0288411		0.00000001	1.69E-02
83.51106	0.631293249	0.6044041	0	0.597318	1.693509	0	396.0288411	397.028841	0.00000001	1.69E-02
83.58674	0.631926107	0.6044041	0	0.597992	1.693509	0	397.0288411		0.00000001	1.69E-02
83.65973	0.631460792	0.6044041	0	0.597568	1.693509	0	397.0288411	398.028841	0.00000001	1.69E-02
83.7273	0.631775886	0.6044041	0	0.597935	1.693509	0	398.0288411		0.00000001	1.69E-02
83.79217	0.632381239	0.6044041	0	0.598593	1.693509	0	398.0288411	399.028841	0.00000001	1.69E-02
83.86516	0.633956926	0.6044041	0	0.600221	1.693509	0	399.0288411		0.00000001	1.69E-02
83.93543	0.635575803	0.6044041	0	0.601891	1.693509	0	399.0288411	400.028841	0.00000001	1.69E-02
84.00031	0.635969735	0.6044041	0	0.602337	1.693509	0	400.0288411		0.00000001	1.69E-02
84.07329	0.636913698	0.6044041	0	0.603332	1.693509	0	400.0288411	401.028841	0.00000001	1.69E-02
84.13816	0.637944255	0.6044041	0	0.604404	1.693509	0	401.0288411		0.00000001	1.69E-02
84.21114	0.637297483	0.603798	0.001698316	0.603798	1.693509	0	401.0288411	402.028841	0.00000001	1.69E-02
84.27872	0.636193436	0.6027445	0.002951641	0.602745	1.69181	0	402.0288411		0.00000001	1.69E-02
84.34089	0.634945848	0.6015485	0.003351214	0.601549	1.688859	0	402.0288411	403.028841	0.00000001	1.69E-02
84.41117	0.633630733	0.6014912	0.000160702	0.600285	1.685508	0	403.0288411		0.00000001	1.69E-02
84.47874	0.630977192	0.6014912	0	0.597682	1.685347	0	403.0288411	404.028841	0.00000001	1.69E-02
84.54632	0.629735253	0.6014912	0	0.596491	1.685347	0	404.0288411		0.00000001	1.69E-02
84.6139	0.629787011	0.6014912	0	0.596594	1.685347	0	404.0288411	405.028841	0.00000001	1.69E-02
84.68147	0.631407651	0.6014912	0	0.598255	1.685347	0	405.0288411		0.00000001	1.69E-02
84.74905	0.634603719	0.6014912	0	0.601491	1.685347	0	405.0288411	406.028841	0.00000001	1.69E-02
84.81933	0.634061052	0.6010299	0.00129251	0.601	1.685347	0	406.0288411		0.00000001	1.69E-02
84.88961	0.633297245	0.6010299	0	0.600287	1.684054	0	406.0288411	407.028841	0.00000001	1.68E-02
84.95988	0.633989624	0.6010299	0	0.60103	1.684054	0	407.0288411		0.00000001	1.68E-02
85.03016	0.633173681	0.6002647	0.00214397	0.600265	1.684054	0	407.0288411	408.028841	0.00000001	1.68E-02
85.10044	0.631029644	0.5983153	0.005462131	0.598172	1.68191	0	408.0288411		0.00000001	1.68E-02
85.17613	0.629915704	0.5983153	0	0.597108	1.676448	0	408.0288411	409.028841	0.00000001	1.68E-02
85.2437	0.627259512	0.5983153	0	0.594492	1.676448	0	409.0288411		0.00000001	1.68E-02
85.31398	0.629182107	0.5983153	0	0.596455	1.676448	0	409.0288411	410.028841	0.00000001	1.68E-02
85.38156	0.628990221	0.5983153	0	0.596313	1.676448	0	410.0288411		0.00000001	1.68E-02
85.44913	0.62902064	0.5983153	0	0.596392	1.676448	0	410.0288411	411.028841	0.00000001	1.68E-02
85.5113	0.630452628	0.5983153	0	0.597874	1.676448	0	411.0288411		0.00000001	1.68E-02
85.57888	0.630596978	0.5983153	0	0.598069	1.676448	0	411.0288411	412.028841	0.00000001	1.68E-02
85.65186	0.629767743	0.5983153	0	0.597291	1.676448	0	412.0288411		0.00000001	1.68E-02
85.73025	0.629808325	0.5983153	0	0.597382	1.676448	0	412.0288411	413.028841	0.00000001	1.68E-02
85.80053	0.629596761	0.5983153	0	0.597209	1.676448	0	413.0288411		0.00000001	1.68E-02
85.8681	0.628471358	0.5983153	0	0.596123	1.676448	0	413.0288411	414.028841	0.00000001	1.68E-02
85.93838	0.626712949	0.5983153	0	0.594415	1.676448	0	414.0288411		0.00000001	1.68E-02
86.00866	0.626113825	0.5983153	0	0.593865	1.676448	0	414.0288411	415.028841	0.00000001	1.68E-02
86.07353	0.624494352	0.5983153	0	0.592294	1.676448	0	415.0288411		0.00000001	1.68E-02
86.13841	0.623249121	0.5983153	0	0.591098	1.676448	0	415.0288411	416.028841	0.00000001	1.68E-02
86.20058	0.622999658	0.5983153	0	0.590897	1.676448	0	416.0288411		0.00000001	1.68E-02
86.26545	0.624354221	0.5983153	0	0.592301	1.676448	0	416.0288411	417.028841	0.00000001	1.68E-02
86.33573	0.625227626	0.5983153	0	0.593213	1.676448	0	417.0288411		0.00000001	1.68E-02
86.4033	0.62659149	0.5983153	0	0.594616	1.676448	0	417.0288411	418.028841	0.00000001	1.68E-02
86.47358	0.629135177	0.5983153	0	0.597209	1.676448	0	418.0288411		0.00000001	1.68E-02
86.54657	0.630192288	0.5983153	0	0.598315	1.676448	0	418.0288411	419.028841	0.00000001	1.68E-02
86.61414	0.629417518	0.5975893	0.002034325	0.597589	1.676448	0	419.0288411		0.00000001	1.68E-02
86.68172	0.627569804	0.5957905	0.00503996	0.595791	1.674414	0	419.0288411	420.028841	0.00000001	1.67E-02
86.752	0.62528067	0.5935503	0.006277013	0.59355	1.669374	0	420.0288411		0.00000001	1.67E-02
86.82227	0.624771229	0.5930897	0.00129062	0.59309	1.663097	0	420.0288411	421.028841	0.00000001	1.66E-02
86.89255	0.624331191	0.5928834	0.00057786	0.592688	1.661806	0	421.0288411		0.00000001	1.66E-02
86.96013	0.622915999	0.5928834	0	0.591311	1.661228	0	421.0288411	422.028841	0.00000001	1.66E-02
87.02771	0.623069398	0.5928834	0	0.591513	1.661228	0	422.0288411		0.00000001	1.66E-02
87.09528	0.624248675	0.5928834	0	0.59274	1.661228	0	422.0288411	423.028841	0.00000001	1.66E-02
87.16286	0.624343321	0.5928834	0	0.592883	1.661228	0	423.0288411		0.00000001	1.66E-02
87.23314	0.623561662	0.5921505	0.002053645	0.59215	1.661228	0	423.0288411	424.028841	0.00000001	1.66E-02
87.30612	0.620602951	0.5892401	0.008154741	0.58924	1.659175	0	424.0288411		0.00000001	1.66E-02
87.3764	0.618331456	0.5870175	0.006227611	0.587018	1.65102	0	424.0288411	425.028841	0.00000001	1.65E-02
87.45208	0.611334268	0.5800589	0.019497751	0.580059	1.644792	0	425.0288411		0.00000001	1.64E-02
87.52506	0.607015579	0.5757784	0.011993771	0.575778	1.625295	0	425.0288411	426.028841	0.00000001	1.63E-02
87.59534	0.602738536	0.5715494	0.011849396	0.571549	1.613301	0	426.0288411		0.00000001	1.61E-02
87.66562	0.596939479	0.565798	0.016115106	0.565798	1.601452	0	426.0288411	427.028841	0.00000001	1.60E-02
87.7332	0.592634052	0.5615398	0.011931132	0.56154	1.585336	0	427.0288411		0.00000001	1.59E-02
87.79807	0.587997419	0.5569507	0.012858467	0.556951	1.573405	0	427.0288411	428.028841	0.00000001	1.57E-02
87.86565	0.58399231	0.5529927	0.011090065	0.552993	1.560547	0	428.0288411		0.00000001	1.56E-02
87.93052	0.580998785	0.5500463	0.008255863	0.550046	1.549457	0	428.0288411	429.028841	0.00000001	1.55E-02
87.99539	0.578399528	0.5474845	0.007178	0.547484	1.541201	0	429.0288411		0.00000001	1.54E-02
88.06297	0.572228261	0.5413506	0.017186719	0.541351	1.534023	0	429.0288411	430.028841	0.00000001	1.53E-02
88.13054	0.567379701	0.5365489	0.013454097	0.536549	1.516836	0	430.0288411		0.00000001	1.52E-02
88.19542	0.561521364	0.5307371	0.016284526	0.530737	1.503382	0	430.0288411	431.028841	0.00000001	1.50E-02
88.25759	0.553995093	0.5232572	0.020958191	0.523257	1.487098	0	431.0288411		0.00000001	1.49E-02
88.31975	0.543640528	0.512949	0.02888312	0.512949	1.466139	0	431.0288411	432.028841	0.00000001	1.47E-02

88.38192	0.53695704	0.5063111	0.018598916	0.506311	1.437256	0	432.0288411		0.00000001	1.44E-02
88.43869	0.533605901	0.5030055	0.009262043	0.503006	1.418657	0	432.0288411	433.028841	0.00000001	1.42E-02
88.49545	0.527110312	0.4965457	0.018100038	0.496546	1.409395	0	433.0288411		0.00000001	1.41E-02
88.55222	0.52142953	0.4909004	0.015817997	0.4909	1.391295	0	433.0288411	434.028841	0.00000001	1.39E-02
88.60628	0.516216315	0.4857322	0.014480854	0.485732	1.375477	0	434.0288411		0.00000001	1.38E-02
88.66034	0.512041269	0.4816025	0.011571267	0.481603	1.360996	0	434.0288411	435.028841	0.00000001	1.36E-02
88.7171	0.507984509	0.4775904	0.011241781	0.47759	1.349425	0	435.0288411		0.00000001	1.35E-02
88.76846	0.50279839	0.4724491	0.014405497	0.472449	1.338183	0	435.0288411	436.028841	0.00000001	1.34E-02
88.82252	0.497496428	0.4671923	0.014729395	0.467192	1.323778	0	436.0288411		0.00000001	1.32E-02
88.87928	0.492258323	0.4619996	0.014549782	0.462	1.309048	0	436.0288411	437.028841	0.00000001	1.31E-02
88.93875	0.487248084	0.457025	0.013938409	0.457025	1.294499	0	437.0288411		0.00000001	1.29E-02
88.99822	0.481080256	0.4508922	0.017183787	0.450892	1.28056	0	437.0288411	438.028841	0.00000001	1.28E-02
89.05228	0.476828164	0.4466853	0.011787513	0.446685	1.263377	0	438.0288411		0.00000001	1.26E-02
89.11174	0.470718202	0.4406196	0.016995972	0.44062	1.251589	0	438.0288411	439.028841	0.00000001	1.25E-02
89.1631	0.465092592	0.4350381	0.015639022	0.435038	1.234593	0	439.0288411		0.00000001	1.23E-02
89.21446	0.461118866	0.4311081	0.011011582	0.431108	1.218954	0	439.0288411	440.028841	0.00000001	1.22E-02
89.26311	0.456982308	0.4270152	0.011468009	0.427015	1.207942	0	440.0288411		0.00000001	1.21E-02
89.31177	0.455733017	0.4258096	0.003378215	0.42581	1.196474	0	440.0288411	441.028841	0.00000001	1.20E-02
89.36042	0.450505534	0.4206161	0.014551681	0.420616	1.193096	0	441.0288411		0.00000001	1.19E-02
89.40908	0.447264566	0.4174092	0.008985682	0.417409	1.178545	0	441.0288411	442.028841	0.00000001	1.18E-02
89.45773	0.444737599	0.414926	0.00695779	0.414926	1.169559	0	442.0288411		0.00000001	1.17E-02
89.50909	0.44173958	0.4119714	0.008278698	0.411971	1.162601	0	442.0288411	443.028841	0.00000001	1.16E-02
89.55774	0.439333651	0.4096094	0.006618145	0.409609	1.154322	0	443.0288411		0.00000001	1.15E-02
89.6118	0.43727664	0.4075954	0.005643256	0.407595	1.147704	0	443.0288411	444.028841	0.00000001	1.15E-02
89.65776	0.436758097	0.4071209	0.001329289	0.407121	1.142061	0	444.0288411		0.00000001	1.14E-02
89.71452	0.433317184	0.4037235	0.009519513	0.403723	1.140732	0	444.0288411	445.028841	0.00000001	1.14E-02
89.76588	0.43186107	0.4023008	0.003986403	0.402301	1.131212	0	445.0288411		0.00000001	1.13E-02
89.81183	0.430509833	0.4009832	0.003691801	0.400983	1.127226	0	445.0288411	446.028841	0.00000001	1.13E-02
89.86048	0.428205047	0.3987214	0.00633745	0.398721	1.123534	0	446.0288411		0.00000001	1.12E-02
89.90914	0.425762787	0.3963214	0.00672453	0.396321	1.117196	0	446.0288411	447.028841	0.00000001	1.12E-02
89.95239	0.422340486	0.3929417	0.009469873	0.392942	1.110472	0	447.0288411		0.00000001	1.11E-02
89.99834	0.420303659	0.3913175	0.00455099	0.390947	1.101002	0	447.0288411	448.028841	0.00000001	1.10E-02
90.04429	0.420631335	0.3913175	0	0.391317	1.096451	0	448.0288411		0.00000001	1.10E-02
90.09024	0.418911533	0.3896394	0.004701772	0.389639	1.096451	0	448.0288411	449.028841	0.00000001	1.10E-02
90.13079	0.417345018	0.3881402	0.004200772	0.388106	1.091749	0	449.0288411		0.00000001	1.09E-02
90.17674	0.41674858	0.3881402	0	0.387542	1.087549	0	449.0288411	450.028841	0.00000001	1.09E-02
90.22269	0.416476897	0.3881402	0	0.387313	1.087549	0	450.0288411		0.00000001	1.09E-02
90.26594	0.415725903	0.3881402	0	0.386604	1.087549	0	450.0288411	451.028841	0.00000001	1.09E-02
90.31189	0.415994846	0.3881402	0	0.386915	1.087549	0	451.0288411		0.00000001	1.09E-02
90.35514	0.417178677	0.3881402	0	0.38814	1.087549	0	451.0288411	452.028841	0.00000001	1.09E-02
90.39839	0.416798558	0.387802	0.000947454	0.387802	1.087549	0	452.0288411		0.00000001	1.09E-02
90.44434	0.416748386	0.3877935	2.39702E-05	0.387793	1.086601	0	452.0288411	453.028841	0.00000001	1.09E-02
90.48759	0.415716478	0.3867943	0.002799794	0.386794	1.086577	0	453.0288411		0.00000001	1.09E-02
90.53354	0.415149495	0.3862596	0.00149805	0.38626	1.083777	0	453.0288411	454.028841	0.00000001	1.08E-02
90.57679	0.414050895	0.3852028	0.002961195	0.385203	1.082279	0	454.0288411		0.00000001	1.08E-02
90.62274	0.413203222	0.3843965	0.002259113	0.384397	1.079318	0	454.0288411	455.028841	0.00000001	1.08E-02
90.66599	0.412065767	0.3833004	0.003071233	0.3833	1.077059	0	455.0288411		0.00000001	1.08E-02
90.70924	0.411575555	0.3828518	0.001257019	0.382852	1.073988	0	455.0288411	456.028841	0.00000001	1.07E-02
90.75519	0.409484059	0.3808021	0.005743064	0.380802	1.072731	0	456.0288411		0.00000001	1.07E-02
90.80384	0.408676063	0.3800353	0.0021486	0.380035	1.066988	0	456.0288411	457.028841	0.00000001	1.07E-02
90.84709	0.407948381	0.3793399	0.00194834	0.37934	1.064839	0	457.0288411		0.00000001	1.06E-02
90.89304	0.405863408	0.378657	0.001913448	0.377287	1.062891	0	457.0288411	458.028841	0.00000001	1.06E-02
90.93899	0.405869654	0.378657	0	0.377334	1.060977	0	458.0288411		0.00000001	1.06E-02
90.97954	0.405848392	0.378657	0	0.377354	1.060977	0	458.0288411	459.028841	0.00000001	1.06E-02
91.02549	0.40540141	0.378657	0	0.376948	1.060977	0	459.0288411		0.00000001	1.06E-02
91.07144	0.405323169	0.378657	0	0.376911	1.060977	0	459.0288411	460.028841	0.00000001	1.06E-02
91.11739	0.405942243	0.378657	0	0.377571	1.060977	0	460.0288411		0.00000001	1.06E-02
91.16064	0.406987025	0.378657	0	0.378657	1.060977	0	460.0288411	461.028841	0.00000001	1.06E-02
91.20659	0.406871366	0.3785734	0.000234442	0.378573	1.060977	0	461.0288411		0.00000001	1.06E-02
91.25255	0.406461107	0.3781948	0.001060826	0.378195	1.060743	0	461.0288411	462.028841	0.00000001	1.06E-02
91.29579	0.405420894	0.377196	0.002798421	0.377196	1.059682	0	462.0288411		0.00000001	1.06E-02
91.34715	0.405032963	0.3769764	0.000615255	0.37685	1.056884	0	462.0288411	463.028841	0.00000001	1.06E-02
91.39851	0.405119133	0.3769764	0	0.376976	1.056268	0	463.0288411		0.00000001	1.06E-02
91.44446	0.404564111	0.3764621	0.001441075	0.376462	1.056268	0	463.0288411	464.028841	0.00000001	1.06E-02
91.49041	0.403995703	0.3759347	0.001477923	0.375935	1.054827	0	464.0288411		0.00000001	1.05E-02
91.53907	0.402841584	0.3748211	0.003120034	0.374821	1.053349	0	464.0288411	465.028841	0.00000001	1.05E-02
91.58502	0.40168137	0.3736926	0.003162176	0.373693	1.050229	0	465.0288411		0.00000001	1.05E-02
91.63097	0.400982717	0.3730255	0.00186901	0.373026	1.047067	0	465.0288411	466.028841	0.00000001	1.05E-02
91.67692	0.400215436	0.3722984	0.002037357	0.372298	1.045198	0	466.0288411		0.00000001	1.05E-02
91.72017	0.399127856	0.3712509	0.002934973	0.371251	1.043161	0	466.0288411	467.028841	0.00000001	1.04E-02
91.76342	0.397588615	0.3697517	0.004200662	0.369752	1.040226	0	467.0288411		0.00000001	1.04E-02
91.80667	0.39617472	0.3683776	0.003850413	0.368378	1.036025	0	467.0288411	468.028841	0.00000001	1.04E-02
91.84721	0.395458107	0.3677006	0.001896823	0.367701	1.032175	0	468.0288411		0.00000001	1.03E-02
91.88776	0.395282351	0.3675644	0.000381519	0.367564	1.030278	0	468.0288411	469.028841	0.00000001	1.03E-02

91.9283	0.394433793	0.3669292	0.001779783	0.366747	1.029896	0	469.0288411		0.00000001	1.03E-02	
91.97426	0.394508765	0.3669292	0	0.366853	1.028117	0	469.0288411	470.028841	0.00000001	1.03E-02	
92.0148	0.394545095	0.3669292	0	0.366929	1.028117	0	470.0288411		0.00000001	1.03E-02	
92.06075	0.393599372	0.3660232	0.002538665	0.366023	1.028117	0	470.0288411	471.028841	0.00000001	1.03E-02	
92.104	0.392700921	0.365165	0.002404753	0.365165	1.025578	0	471.0288411		0.00000001	1.03E-02	
92.15266	0.392414081	0.3649183	0.000691208	0.364918	1.023173	0	471.0288411	472.028841	0.00000001	1.02E-02	
92.20131	0.392047925	0.3645919	0.000914409	0.364592	1.022482	0	472.0288411		0.00000001	1.02E-02	
92.24726	0.391466742	0.3640502	0.001517861	0.36405	1.021568	0	472.0288411	473.028841	0.00000001	1.02E-02	
92.29051	0.391067043	0.3636809	0.001034688	0.363681	1.02005	0	473.0288411		0.00000001	1.02E-02	
92.33106	0.389591141	0.3622363	0.004047844	0.362236	1.019015	0	473.0288411	474.028841	0.00000001	1.02E-02	
92.37971	0.386889142	0.3595736	0.007460667	0.359574	1.014967	0	474.0288411		0.00000001	1.01E-02	
92.42296	0.38585658	0.3585806	0.002782339	0.358581	1.007506	0	474.0288411	475.028841	0.00000001	1.01E-02	
92.46891	0.385272529	0.358064	0.001447415	0.358036	1.004724	0	475.0288411		0.00000001	1.00E-02	
92.51216	0.385261903	0.358064	0	0.358064	1.003277	0	475.0288411	476.028841	0.00000001	1.00E-02	
92.55271	0.384928553	0.3580512	3.59951E-05	0.35777	1.003277	0	476.0288411		0.00000001	1.00E-02	
92.59595	0.385170884	0.3580512	0	0.358051	1.003241	0	476.0288411	477.028841	0.00000001	1.00E-02	
92.6392	0.383759578	0.35667	0.003870034	0.35667	1.003241	0	477.0288411		0.00000001	1.00E-02	
92.67975	0.383186711	0.3565574	0.00031539	0.356127	0.999371	0	477.0288411	478.028841	0.00000001	9.99E-03	
92.723	0.38294781	0.3565574	0	0.355927	0.999055	0	478.0288411		0.00000001	9.99E-03	
92.76354	0.382735774	0.3565574	0	0.355754	0.999055	0	478.0288411	479.028841	0.00000001	9.99E-03	
92.80679	0.382992977	0.3565574	0	0.35605	0.999055	0	479.0288411		0.00000001	9.99E-03	
92.85004	0.383268745	0.3565574	0	0.356365	0.999055	0	479.0288411	480.028841	0.00000001	9.99E-03	
92.89329	0.383422848	0.3565574	0	0.356557	0.999055	0	480.0288411		0.00000001	9.99E-03	
92.93654	0.382837817	0.3560113	0.001530115	0.356011	0.999055	0	480.0288411	481.028841	0.00000001	9.99E-03	
92.98249	0.382610052	0.3558139	0.000553105	0.355814	0.997525	0	481.0288411		0.00000001	9.98E-03	
93.02844	0.38243224	0.3556662	0.00041402	0.355666	0.996972	0	481.0288411	482.028841	0.00000001	9.97E-03	
93.07169	0.382081131	0.3553536	0.000875844	0.355354	0.996558	0	482.0288411		0.00000001	9.97E-03	
93.11494	0.381312781	0.354624	0.002044292	0.354624	0.995682	0	482.0288411	483.028841	0.00000001	9.96E-03	
93.16089	0.380395446	0.3538877	0.002062926	0.353745	0.993638	0	483.0288411		0.00000001	9.94E-03	
93.20414	0.380038388	0.3538877	0	0.353427	0.991575	0	483.0288411	484.028841	0.00000001	9.92E-03	
93.25009	0.380112634	0.3538877	0	0.353539	0.991575	0	484.0288411		0.00000001	9.92E-03	
93.29334	0.380323705	0.3538877	0	0.353789	0.991575	0	484.0288411	485.028841	0.00000001	9.92E-03	
93.33658	0.380393385	0.3538877	0	0.353888	0.991575	0	485.0288411		0.00000001	9.92E-03	
93.37713	0.380266636	0.3537907	0.000271799	0.353791	0.991575	0	485.0288411	486.028841	0.00000001	9.92E-03	
93.42038	0.379066689	0.3528824	0.002545099	0.352629	0.991303	0	486.0288411		0.00000001	9.91E-03	
93.46092	0.378691867	0.3528824	0	0.352292	0.988758	0	486.0288411	487.028841	0.00000001	9.89E-03	
93.50417	0.378173873	0.3528824	0	0.351813	0.988758	0	487.0288411		0.00000001	9.89E-03	
93.55283	0.378289563	0.3528824	0	0.351966	0.988758	0	487.0288411	488.028841	0.00000001	9.89E-03	
93.59608	0.378056152	0.3528824	0	0.35177	0.988758	0	488.0288411		0.00000001	9.89E-03	
93.63662	0.378167481	0.3528824	0	0.351919	0.988758	0	488.0288411	489.028841	0.00000001	9.89E-03	
93.67717	0.378725567	0.3528824	0	0.352507	0.988758	0	489.0288411		0.00000001	9.89E-03	
93.72042	0.378746706	0.3528824	0	0.352557	0.988758	0	489.0288411	490.028841	0.00000001	9.89E-03	
93.76096	0.378803087	0.3528824	0	0.352651	0.988758	0	490.0288411		0.00000001	9.89E-03	
93.80421	0.378996455	0.3528824	0	0.352882	0.988758	0	490.0288411	491.028841	0.00000001	9.89E-03	
93.84746	0.378803025	0.3527266	0.000436497	0.352727	0.988758	0	491.0288411		0.00000001	9.89E-03	
93.89071	0.378599406	0.3525603	0.000465951	0.35256	0.988322	0	491.0288411	492.028841	0.00000001	9.88E-03	
93.93125	0.378104016	0.3521025	0.001282852	0.352102	0.987856	0	492.0288411		0.00000001	9.88E-03	
93.9745	0.377061568	0.3510973	0.002816586	0.351097	0.986573	0	492.0288411	493.028841	0.00000001	9.87E-03	
94.01505	0.376081945	0.3501468	0.002663086	0.350147	0.983756	0	493.0288411		0.00000001	9.84E-03	
94.05829	0.375621183	0.3497152	0.001209354	0.349715	0.981093	0	493.0288411	494.028841	0.00000001	9.81E-03	
94.10154	0.374969858	0.349101	0.001721034	0.349101	0.979884	0	494.0288411		0.00000001	9.80E-03	
94.14209	0.37424443	0.3484131	0.00192728	0.348413	0.978163	0	494.0288411	495.028841	0.00000001	9.78E-03	
94.18804	0.373469189	0.3476752	0.002067755	0.347675	0.976235	0	495.0288411		0.00000001	9.76E-03	
94.23129	0.372979795	0.347223	0.001266967	0.347223	0.974168	0	495.0288411	496.028841	0.00000001	9.74E-03	
94.27454	0.372774011	0.3471243	0.000276525	0.347054	0.972901	0	496.0288411		0.00000001	9.73E-03	
94.31508	0.372806812	0.3471243	0	0.347124	0.972624	0	496.0288411	497.028841	0.00000001	9.73E-03	
94.36103	0.372630719	0.3469766	0.000413966	0.346977	0.972624	0	497.0288411		0.00000001	9.73E-03	
94.39888	0.372167664	0.3465421	0.00121735	0.346542	0.97221	0	497.0288411	498.028841	0.00000001	9.72E-03	
94.43942	0.371890399	0.3463016	0.000673973	0.346302	0.970993	0	498.0288411		0.00000001	9.71E-03	
94.47997	0.371510816	0.3459587	0.0009608	0.345959	0.970319	0	498.0288411	499.028841	0.00000001	9.70E-03	
94.52051	0.370040446	0.3445249	0.004017263	0.344525	0.969358	0	499.0288411		0.00000001	9.69E-03	
94.56106	0.368640919	0.3431622	0.003818148	0.343162	0.965341	0	499.0288411	500.028841	0.00000001	9.65E-03	
94.60431	0.368257205	0.3428153	0.000972027	0.342815	0.961523	0	500.0288411		0.00000001	9.62E-03	
94.64756	0.367983106	0.342578	0.000665027	0.342578	0.960551	0	500.0288411	501.028841	0.00000001	9.61E-03	
94.6908	0.36712157	0.3417448	0.002334578	0.341745	0.959886	0	501.0288411		0.00000001	9.60E-03	
94.73135	0.366754445	0.3414062	0.000948604	0.341406	0.957551	0	501.0288411	502.028841	0.00000001	9.58E-03	
94.7746	0.366075086	0.3407635	0.00180089	0.340764	0.956602	0	502.0288411		0.00000001	9.57E-03	
94.81785	0.365249289	0.3399743	0.00221134	0.339974	0.954802	0	502.0288411	503.028841	0.00000001	9.55E-03	
94.8611	0.364310723	0.3390723	0.002527444	0.339072	0.95259	0	503.0288411		0.00000001	9.53E-03	
94.90434	0.36333285	0.3381306	0.002638463	0.338131	0.950063	0	503.0288411	504.028841	0.00000001	9.50E-03	
94.94489	0.362637746	0.3374717	0.001846291	0.337472	0.947424	0	504.0288411		0.00000001	9.47E-03	
94.98544	0.362265859	0.3371362	0.000940044	0.337136	0.945578	0	504.0288411	505.028841	0.00000001	9.46E-03	
95.02868	0.362102954	0.3370013	0.000377832	0.337001	0.944638	0	505.0288411		0.00000001	9.45E-03	
95.06923	0.361738099	0.3367616	0.000671684	0.336665	0.94426	0	505.0288411	506.028841	0.00000001	9.44E-03	

95.10977	0.361799201	0.3367616	0	0.336762	0.943589	0	506.0288411		0.00000001	9.44E-03
95.15032	0.361300217	0.3362986	0.001297373	0.336299	0.943589	0	506.0288411	507.028841	0.00000001	9.44E-03
95.19087	0.360238287	0.3352728	0.00287411	0.335273	0.942291	0	507.0288411		0.00000001	9.42E-03
95.23411	0.359708758	0.3347794	0.001382485	0.334779	0.939417	0	507.0288411	508.028841	0.00000001	9.39E-03
95.27736	0.359641681	0.3347484	8.68473E-05	0.334748	0.938035	0	508.0288411		0.00000001	9.38E-03
95.32061	0.359026729	0.3341693	0.001622835	0.334169	0.937948	0	508.0288411	509.028841	0.00000001	9.38E-03
95.36116	0.358354188	0.3335324	0.001784528	0.333525	0.936325	0	509.0288411		0.00000001	9.36E-03
95.4017	0.358334042	0.3335324	0	0.333532	0.93454	0	509.0288411	510.028841	0.00000001	9.35E-03
95.44495	0.358021414	0.3332554	0.00077607	0.333255	0.93454	0	510.0288411		0.00000001	9.35E-03
95.4855	0.357826394	0.333096	0.00044667	0.333096	0.933764	0	510.0288411	511.028841	0.00000001	9.34E-03
95.52604	0.357607828	0.332913	0.000512772	0.332913	0.933318	0	511.0288411		0.00000001	9.33E-03
95.56659	0.35631928	0.3316599	0.003510935	0.33166	0.932805	0	511.0288411	512.028841	0.00000001	9.33E-03
95.60713	0.355180937	0.3305571	0.003090195	0.330557	0.929294	0	512.0288411		0.00000001	9.29E-03
95.64768	0.35426754	0.3296791	0.002460039	0.329679	0.926204	0	512.0288411	513.028841	0.00000001	9.26E-03
95.68822	0.353792841	0.3292319	0.001252991	0.329232	0.923744	0	513.0288411		0.00000001	9.24E-03
95.72877	0.352908136	0.3283747	0.002401889	0.328375	0.922491	0	513.0288411	514.028841	0.00000001	9.22E-03
95.76931	0.352271179	0.3277728	0.00168652	0.327773	0.920089	0	514.0288411		0.00000001	9.20E-03
95.80716	0.351921051	0.3274579	0.00088224	0.327458	0.918402	0	514.0288411	515.028841	0.00000001	9.18E-03
95.8477	0.35118386	0.3267554	0.001968348	0.326755	0.91752	0	515.0288411		0.00000001	9.18E-03
95.88284	0.350432776	0.3260393	0.002006675	0.326039	0.915552	0	515.0288411	516.028841	0.00000001	9.16E-03
95.92068	0.349960941	0.3256023	0.001224357	0.325602	0.913545	0	516.0288411		0.00000001	9.14E-03
95.95853	0.349532818	0.3252688	0.000934395	0.325209	0.912321	0	516.0288411	517.028841	0.00000001	9.12E-03
95.99907	0.349276433	0.3252688	0	0.32498	0.911386	0	517.0288411		0.00000001	9.11E-03
96.03962	0.34925994	0.3252688	0	0.324991	0.911386	0	517.0288411	518.028841	0.00000001	9.11E-03
96.08016	0.349502685	0.3252688	0	0.325269	0.911386	0	518.0288411		0.00000001	9.11E-03
96.12341	0.349035632	0.3248367	0.001210809	0.324837	0.911386	0	518.0288411	519.028841	0.00000001	9.11E-03
96.16396	0.348793426	0.3246291	0.000581643	0.324629	0.910175	0	519.0288411		0.00000001	9.10E-03
96.2018	0.348358819	0.3242296	0.001119428	0.32423	0.909594	0	519.0288411	520.028841	0.00000001	9.10E-03
96.24505	0.347434058	0.3233396	0.002493655	0.32334	0.908474	0	520.0288411		0.00000001	9.08E-03
96.28559	0.346615671	0.322556	0.002195727	0.322556	0.905981	0	520.0288411	521.028841	0.00000001	9.06E-03
96.32614	0.345881235	0.3218483	0.00198295	0.321848	0.903785	0	521.0288411		0.00000001	9.04E-03
96.36398	0.345160532	0.3211545	0.001943838	0.321155	0.901802	0	521.0288411	522.028841	0.00000001	9.02E-03
96.40453	0.344256793	0.3202854	0.002435193	0.320285	0.899858	0	522.0288411		0.00000001	9.00E-03
96.44507	0.343503416	0.3195666	0.002014012	0.319567	0.897423	0	522.0288411	523.028841	0.00000001	8.97E-03
96.48562	0.342634082	0.3187318	0.002339041	0.318732	0.895409	0	523.0288411		0.00000001	8.95E-03
96.52616	0.340713942	0.3168459	0.005284177	0.316846	0.89307	0	523.0288411	524.028841	0.00000001	8.93E-03
96.56401	0.340040527	0.3162067	0.001791038	0.316207	0.887786	0	524.0288411		0.00000001	8.88E-03
96.60185	0.33944495	0.3156453	0.001573063	0.315645	0.885995	0	524.0288411	525.028841	0.00000001	8.86E-03
96.63969	0.33872083	0.3149479	0.001954051	0.314948	0.884422	0	525.0288411		0.00000001	8.84E-03
96.68024	0.337914598	0.3141679	0.002185619	0.314168	0.882468	0	525.0288411	526.028841	0.00000001	8.82E-03
96.71538	0.337266964	0.3135543	0.00171923	0.313554	0.880282	0	526.0288411		0.00000001	8.80E-03
96.75322	0.336774678	0.3130963	0.001283367	0.313096	0.878563	0	526.0288411	527.028841	0.00000001	8.79E-03
96.79376	0.336605078	0.3129691	0.000356172	0.312961	0.877279	0	527.0288411		0.00000001	8.77E-03
96.83431	0.336141876	0.3129691	0	0.312532	0.876923	0	527.0288411	528.028841	0.00000001	8.77E-03
96.87215	0.336178978	0.3129691	0	0.312603	0.876923	0	528.0288411		0.00000001	8.77E-03
96.9127	0.336511458	0.3129691	0	0.312969	0.876923	0	528.0288411	529.028841	0.00000001	8.77E-03
96.95054	0.33617634	0.3126602	0.000865501	0.31266	0.876923	0	529.0288411		0.00000001	8.77E-03
96.98838	0.335133091	0.3116437	0.002848319	0.311644	0.876058	0	529.0288411	530.028841	0.00000001	8.76E-03
97.03163	0.334357704	0.3109023	0.002077392	0.310902	0.873209	0	530.0288411		0.00000001	8.73E-03
97.07218	0.333217963	0.3097967	0.003097712	0.309797	0.871132	0	530.0288411	531.028841	0.00000001	8.71E-03
97.11543	0.332353116	0.3089653	0.00232969	0.308965	0.868034	0	531.0288411		0.00000001	8.68E-03
97.15056	0.331435666	0.3080819	0.002475105	0.308082	0.865705	0	531.0288411	532.028841	0.00000001	8.66E-03
97.19381	0.330752501	0.3074323	0.001820164	0.307432	0.86323	0	532.0288411		0.00000001	8.63E-03
97.23166	0.329787449	0.306501	0.002609417	0.306501	0.861409	0	532.0288411	533.028841	0.00000001	8.61E-03
97.2722	0.328683039	0.3054226	0.003021709	0.305423	0.8588	0	533.0288411		0.00000001	8.59E-03
97.31004	0.327933101	0.3046986	0.002028574	0.304699	0.855778	0	533.0288411	534.028841	0.00000001	8.56E-03
97.34789	0.327371246	0.3041699	0.00148137	0.30417	0.85375	0	534.0288411		0.00000001	8.54E-03
97.38303	0.326879846	0.3037119	0.001283377	0.303712	0.852268	0	534.0288411	535.028841	0.00000001	8.52E-03
97.42087	0.326180875	0.303046	0.001865792	0.303046	0.850985	0	535.0288411		0.00000001	8.51E-03
97.45601	0.325711458	0.3026096	0.001222706	0.30261	0.849119	0	535.0288411	536.028841	0.00000001	8.49E-03
97.49115	0.325188305	0.3021192	0.001374074	0.302119	0.847896	0	536.0288411		0.00000001	8.48E-03
97.52358	0.324938465	0.3019023	0.000607688	0.301902	0.846522	0	536.0288411	537.028841	0.00000001	8.47E-03
97.55872	0.324523554	0.3016073	0.000826705	0.301513	0.845915	0	537.0288411		0.00000001	8.46E-03
97.59386	0.324312388	0.3016073	0	0.301327	0.845088	0	537.0288411	538.028841	0.00000001	8.45E-03
97.629	0.324559606	0.3016073	0	0.301607	0.845088	0	538.0288411		0.00000001	8.45E-03
97.66414	0.324444551	0.3015251	0.000230428	0.301525	0.845088	0	538.0288411	539.028841	0.00000001	8.45E-03
97.69928	0.324052166	0.3012381	0.000804126	0.301165	0.844857	0	539.0288411		0.00000001	8.45E-03
97.73442	0.324091808	0.3012381	0	0.301238	0.844053	0	539.0288411	540.028841	0.00000001	8.44E-03
97.77226	0.323770042	0.3009492	0.000809279	0.300949	0.844053	0	540.0288411		0.00000001	8.44E-03
97.81011	0.32291237	0.3001242	0.002311656	0.300124	0.843244	0	540.0288411	541.028841	0.00000001	8.43E-03
97.84524	0.322492601	0.2997302	0.001104043	0.29973	0.840932	0	541.0288411		0.00000001	8.41E-03
97.88579	0.321951601	0.2992147	0.001444483	0.299215	0.839828	0	541.0288411	542.028841	0.00000001	8.40E-03
97.92363	0.321547164	0.2992026	3.37107E-05	0.298843	0.838384	0	542.0288411		0.00000001	8.38E-03
97.95877	0.321874505	0.2992026	0	0.299203	0.83835	0	542.0288411	543.028841	0.00000001	8.38E-03

97.99391	0.321581509	0.2989424	0.000729294	0.298942	0.83835	0	543.0288411		0.00000001	8.38E-03
98.03175	0.320487547	0.2979398	0.002809115	0.297881	0.837621	0	543.0288411	544.028841	0.00000001	8.38E-03
98.06689	0.320513883	0.2979398	0	0.29794	0.834812	0	544.0288411		0.00000001	8.35E-03
98.10474	0.319323254	0.2967818	0.003244752	0.296782	0.834812	0	544.0288411	545.028841	0.00000001	8.35E-03
98.14258	0.318386396	0.2958699	0.002554914	0.29587	0.831567	0	545.0288411		0.00000001	8.32E-03
98.17772	0.317990013	0.2954985	0.001040604	0.295499	0.829012	0	545.0288411	546.028841	0.00000001	8.29E-03
98.21286	0.317075975	0.2948207	0.001899167	0.294617	0.827972	0	546.0288411		0.00000001	8.28E-03
98.248	0.316320301	0.2948207	0	0.293893	0.826072	0	546.0288411	547.028841	0.00000001	8.26E-03
98.28314	0.315934213	0.2948207	0	0.293539	0.826072	0	547.0288411		0.00000001	8.26E-03
98.31828	0.315746848	0.2948207	0	0.293384	0.826072	0	547.0288411	548.028841	0.00000001	8.26E-03
98.35341	0.316012114	0.2948207	0	0.293682	0.826072	0	548.0288411		0.00000001	8.26E-03
98.38855	0.315944427	0.2948207	0	0.293646	0.826072	0	548.0288411	549.028841	0.00000001	8.26E-03
98.42369	0.315385548	0.2948207	0	0.293112	0.826072	0	549.0288411		0.00000001	8.26E-03
98.46154	0.315582255	0.2948207	0	0.293334	0.826072	0	549.0288411	550.028841	0.00000001	8.26E-03
98.49668	0.316070881	0.2948207	0	0.293854	0.826072	0	550.0288411		0.00000001	8.26E-03
98.53181	0.316547583	0.2948207	0	0.294363	0.826072	0	550.0288411	551.028841	0.00000001	8.26E-03
98.56695	0.316902365	0.2948207	0	0.294749	0.826072	0	551.0288411		0.00000001	8.26E-03
98.60209	0.316941392	0.2948207	0	0.294821	0.826072	0	551.0288411	552.028841	0.00000001	8.26E-03
98.64264	0.316392234	0.2944274	0.001102039	0.294303	0.826072	0	552.0288411		0.00000001	8.26E-03
98.67778	0.316484508	0.2944274	0	0.294427	0.82497	0	552.0288411	553.028841	0.00000001	8.25E-03
98.71292	0.316323598	0.2942913	0.00038136	0.294291	0.82497	0	553.0288411		0.00000001	8.25E-03
98.75076	0.315873749	0.293866	0.001191685	0.293866	0.824589	0	553.0288411	554.028841	0.00000001	8.25E-03
98.7859	0.315377443	0.2934014	0.001301887	0.293401	0.823397	0	554.0288411		0.00000001	8.23E-03
98.82104	0.31489321	0.2929488	0.001268167	0.292949	0.822095	0	554.0288411	555.028841	0.00000001	8.22E-03
98.85618	0.314248944	0.2923361	0.001716679	0.292336	0.820827	0	555.0288411		0.00000001	8.21E-03
98.89132	0.313479556	0.2915985	0.002066708	0.291599	0.819111	0	555.0288411	556.028841	0.00000001	8.19E-03
98.92916	0.312988405	0.2911393	0.001286558	0.291139	0.817044	0	556.0288411		0.00000001	8.17E-03
98.96971	0.312717551	0.2909002	0.000670062	0.2909	0.815757	0	556.0288411	557.028841	0.00000001	8.16E-03
99.00755	0.312283173	0.2904902	0.001148889	0.29049	0.815087	0	557.0288411		0.00000001	8.15E-03
99.04269	0.312177176	0.2904087	0.000228199	0.290409	0.813938	0	557.0288411	558.028841	0.00000001	8.14E-03
99.08053	0.312030239	0.2902929	0.00032443	0.290293	0.81371	0	558.0288411		0.00000001	8.14E-03
99.11297	0.311628731	0.2899228	0.001037177	0.289923	0.813386	0	558.0288411	559.028841	0.00000001	8.13E-03
99.14811	0.311451444	0.289777	0.000408375	0.289777	0.812349	0	559.0288411		0.00000001	8.12E-03
99.18595	0.311258846	0.2897139	0.000176909	0.289615	0.81194	0	559.0288411	560.028841	0.00000001	8.12E-03
99.21568	0.311174658	0.2897139	0	0.289562	0.811763	0	560.0288411		0.00000001	8.12E-03
99.25082	0.310982696	0.2897139	0	0.289402	0.811763	0	560.0288411	561.028841	0.00000001	8.12E-03
99.28596	0.311217374	0.2897139	0	0.28966	0.811763	0	561.0288411		0.00000001	8.12E-03
99.3211	0.311246611	0.2897139	0	0.289714	0.811763	0	561.0288411	562.028841	0.00000001	8.12E-03
99.35894	0.31110085	0.2897051	2.46655E-05	0.289599	0.811763	0	562.0288411		0.00000001	8.12E-03
99.39138	0.311176103	0.2897051	0	0.289705	0.811739	0	562.0288411	563.028841	0.00000001	8.12E-03
99.42382	0.310840938	0.2894951	0.00058841	0.289401	0.811739	0	563.0288411		0.00000001	8.12E-03
99.45896	0.310903853	0.2894951	0	0.289495	0.81115	0	563.0288411	564.028841	0.00000001	8.11E-03
99.4968	0.310679135	0.2893013	0.000542917	0.289301	0.81115	0	564.0288411		0.00000001	8.11E-03
99.53194	0.31048435	0.2891377	0.000458504	0.289138	0.810607	0	564.0288411	565.028841	0.00000001	8.11E-03
99.56978	0.3103562	0.2890332	0.00029272	0.289033	0.810149	0	565.0288411		0.00000001	8.10E-03
99.60222	0.310135204	0.2888359	0.000552932	0.288836	0.809856	0	565.0288411	566.028841	0.00000001	8.10E-03
99.63465	0.310047238	0.2887787	0.000160108	0.288779	0.809303	0	566.0288411		0.00000001	8.09E-03
99.66979	0.30956199	0.2883643	0.001161165	0.288324	0.809143	0	566.0288411	567.028841	0.00000001	8.09E-03
99.70493	0.309571512	0.2883643	0	0.288364	0.807982	0	567.0288411		0.00000001	8.08E-03
99.73737	0.308771641	0.2875952	0.002155135	0.287595	0.807982	0	567.0288411	568.028841	0.00000001	8.08E-03
99.77251	0.308015113	0.2874665	0.00360643	0.286869	0.805827	0	568.0288411		0.00000001	8.06E-03
99.80494	0.308312099	0.2874665	0	0.287196	0.805466	0	568.0288411	569.028841	0.00000001	8.05E-03
99.83738	0.308211433	0.2874665	0	0.287119	0.805466	0	569.0288411		0.00000001	8.05E-03
99.86982	0.308535142	0.2874665	0	0.287466	0.805466	0	569.0288411	570.028841	0.00000001	8.05E-03
99.90225	0.308408565	0.2873702	0.00026969	0.28737	0.805466	0	570.0288411		0.00000001	8.05E-03
99.93469	0.307509466	0.2872222	0.000414702	0.286501	0.805196	0	570.0288411	571.028841	0.00000001	8.05E-03
99.96713	0.307414086	0.2872222	0	0.286436	0.804782	0	571.0288411		0.00000001	8.05E-03
99.99956	0.306903375	0.2872222	0	0.285956	0.804782	0	571.0288411	572.028841	0.00000001	8.05E-03
100.032	0.306851128	0.2872222	0	0.285934	0.804782	0	572.0288411		0.00000001	8.05E-03
100.0671	0.306642269	0.2872222	0	0.285755	0.804782	0	572.0288411	573.028841	0.00000001	8.05E-03
100.0996	0.306815324	0.2872222	0	0.285952	0.804782	0	573.0288411		0.00000001	8.05E-03
100.1347	0.307493473	0.2872222	0	0.286653	0.804782	0	573.0288411	574.028841	0.00000001	8.05E-03
100.1672	0.307128722	0.2872222	0	0.286318	0.804782	0	574.0288411		0.00000001	8.05E-03
100.1996	0.307273418	0.2872222	0	0.286493	0.804782	0	574.0288411	575.028841	0.00000001	8.05E-03
100.232	0.307414513	0.2872222	0	0.286664	0.804782	0	575.0288411		0.00000001	8.05E-03
100.2645	0.307380813	0.2872222	0	0.286661	0.804782	0	575.0288411	576.028841	0.00000001	8.05E-03
100.3023	0.30727755	0.2872222	0	0.286587	0.804782	0	576.0288411		0.00000001	8.05E-03
100.332	0.307075055	0.2872222	0	0.286415	0.804782	0	576.0288411	577.028841	0.00000001	8.05E-03
100.3699	0.307248953	0.2872222	0	0.286612	0.804782	0	577.0288411		0.00000001	8.05E-03
100.4023	0.307802697	0.2872222	0	0.287189	0.804782	0	577.0288411	578.028841	0.00000001	8.05E-03
100.4375	0.307805879	0.2872222	0	0.287222	0.804782	0	578.0288411		0.00000001	8.05E-03
100.4699	0.307285573	0.2867319	0.001373853	0.286732	0.804782	0	578.0288411	579.028841	0.00000001	8.05E-03
100.505	0.306883048	0.2863591	0.001044559	0.286359	0.803408	0	579.0288411		0.00000001	8.03E-03
100.5375	0.306288049	0.285794	0.001583335	0.285794	0.802363	0	579.0288411	580.028841	0.00000001	8.02E-03

100.5726	0.304606291	0.2845989	0.003348722	0.284142	0.80078	0	580.0288411		0.00000001	8.01E-03
100.6077	0.30446547	0.2845989	0	0.284031	0.797431	0	580.0288411	581.028841	0.00000001	7.97E-03
100.6402	0.304289876	0.2845989	0	0.283878	0.797431	0	581.0288411		0.00000001	7.97E-03
100.6753	0.30387646	0.2845989	0	0.283488	0.797431	0	581.0288411	582.028841	0.00000001	7.97E-03
100.7078	0.303884733	0.2845989	0	0.283525	0.797431	0	582.0288411		0.00000001	7.97E-03
100.7375	0.303803757	0.2845989	0	0.283474	0.797431	0	582.0288411	583.028841	0.00000001	7.97E-03
100.7672	0.30346041	0.2845989	0	0.28316	0.797431	0	583.0288411		0.00000001	7.97E-03
100.8024	0.303171048	0.2845989	0	0.2829	0.797431	0	583.0288411	584.028841	0.00000001	7.97E-03
100.8375	0.303392859	0.2845989	0	0.283152	0.797431	0	584.0288411		0.00000001	7.97E-03
100.8726	0.303741996	0.2845989	0	0.28353	0.797431	0	584.0288411	585.028841	0.00000001	7.97E-03
100.9051	0.304050977	0.2845989	0	0.283862	0.797431	0	585.0288411		0.00000001	7.97E-03
100.9375	0.304223298	0.2845989	0	0.284057	0.797431	0	585.0288411	586.028841	0.00000001	7.97E-03
100.9727	0.304425617	0.2845989	0	0.284289	0.797431	0	586.0288411		0.00000001	7.97E-03
101.0051	0.304546712	0.2845989	0	0.284439	0.797431	0	586.0288411	587.028841	0.00000001	7.97E-03
101.0402	0.304677067	0.2845989	0	0.284599	0.797431	0	587.0288411		0.00000001	7.97E-03
101.0727	0.304600658	0.2845519	0.000131719	0.284552	0.797431	0	587.0288411	588.028841	0.00000001	7.97E-03
101.1078	0.303961007	0.2842548	0.000832376	0.283942	0.797299	0	588.0288411		0.00000001	7.97E-03
101.1429	0.303817207	0.2842548	0	0.283827	0.796467	0	588.0288411	589.028841	0.00000001	7.96E-03
101.1754	0.304069054	0.2842548	0	0.284101	0.796467	0	589.0288411		0.00000001	7.96E-03
101.2078	0.304200202	0.2842548	0	0.284255	0.796467	0	589.0288411	590.028841	0.00000001	7.96E-03
101.2403	0.303981184	0.284065	0.000531728	0.284065	0.796467	0	590.0288411		0.00000001	7.96E-03
101.2754	0.303362802	0.2834756	0.001651426	0.283476	0.795935	0	590.0288411	591.028841	0.00000001	7.96E-03
101.3078	0.30297977	0.2831218	0.000991477	0.283122	0.794284	0	591.0288411		0.00000001	7.94E-03
101.343	0.302445026	0.2826162	0.001416659	0.282616	0.793292	0	591.0288411	592.028841	0.00000001	7.93E-03
101.3781	0.302022067	0.2823017	0.00088113	0.282222	0.791876	0	592.0288411		0.00000001	7.92E-03
101.4132	0.301954495	0.2823017	0	0.282184	0.790995	0	592.0288411	593.028841	0.00000001	7.91E-03
101.4457	0.302050308	0.2823017	0	0.282302	0.790995	0	593.0288411		0.00000001	7.91E-03
101.4781	0.301705204	0.2819788	0.000904622	0.281979	0.790995	0	593.0288411	594.028841	0.00000001	7.91E-03
101.5106	0.301475932	0.2818865	0.000258856	0.281778	0.79009	0	594.0288411		0.00000001	7.90E-03
101.543	0.3015038	0.2818865	0	0.281835	0.789831	0	594.0288411	595.028841	0.00000001	7.90E-03
101.57	0.301527424	0.2818865	0	0.281886	0.789831	0	595.0288411		0.00000001	7.90E-03
101.5971	0.301012121	0.2815077	0.001061145	0.2814	0.789831	0	595.0288411	596.028841	0.00000001	7.90E-03
101.6295	0.301021122	0.2815077	0	0.281437	0.78877	0	596.0288411		0.00000001	7.89E-03
101.6592	0.300847738	0.2815077	0	0.281292	0.78877	0	596.0288411	597.028841	0.00000001	7.89E-03
101.689	0.300685505	0.2815077	0	0.281152	0.78877	0	597.0288411		0.00000001	7.89E-03
101.7214	0.300678942	0.2815077	0	0.281167	0.78877	0	597.0288411	598.028841	0.00000001	7.89E-03
101.7511	0.300990916	0.2815077	0	0.281508	0.78877	0	598.0288411		0.00000001	7.89E-03
101.7809	0.300710209	0.2812553	0.000707244	0.281255	0.78877	0	598.0288411	599.028841	0.00000001	7.89E-03
101.8106	0.300105769	0.2806794	0.001613822	0.280679	0.788063	0	599.0288411		0.00000001	7.88E-03
101.843	0.29961593	0.280218	0.001292806	0.280218	0.786449	0	599.0288411	600.028841	0.00000001	7.86E-03
101.8755	0.29871383	0.2793443	0.002448031	0.279344	0.785156	0	600.0288411		0.00000001	7.85E-03
101.9079	0.298468869	0.2792157	0.000360332	0.279128	0.782708	0	600.0288411	601.028841	0.00000001	7.83E-03
101.9403	0.298520374	0.2792157	0	0.279201	0.782348	0	601.0288411		0.00000001	7.82E-03
101.9728	0.298513084	0.2792157	0	0.279216	0.782348	0	601.0288411	602.028841	0.00000001	7.82E-03
102.0052	0.298392294	0.2791234	0.000258569	0.279123	0.782348	0	602.0288411		0.00000001	7.82E-03
102.0404	0.297878683	0.2786381	0.001359911	0.278638	0.782089	0	602.0288411	603.028841	0.00000001	7.82E-03
102.0728	0.297526354	0.2784156	0.00062318	0.278314	0.780729	0	603.0288411		0.00000001	7.81E-03
102.1025	0.297600045	0.2784156	0	0.278416	0.780106	0	603.0288411	604.028841	0.00000001	7.80E-03
102.135	0.296875097	0.2778061	0.001707998	0.277719	0.780106	0	604.0288411		0.00000001	7.80E-03
102.1674	0.296615616	0.2778061	0	0.277488	0.778398	0	604.0288411	605.028841	0.00000001	7.78E-03
102.2025	0.296565403	0.2778061	0	0.277459	0.778398	0	605.0288411		0.00000001	7.78E-03
102.235	0.296890762	0.2778061	0	0.277806	0.778398	0	605.0288411	606.028841	0.00000001	7.78E-03
102.2647	0.296414213	0.2773576	0.001256643	0.277358	0.778398	0	606.0288411		0.00000001	7.78E-03
102.2971	0.295590252	0.277093	0.000741478	0.276561	0.777141	0	606.0288411	607.028841	0.00000001	7.77E-03
102.3269	0.294844327	0.277093	0	0.275843	0.7764	0	607.0288411		0.00000001	7.76E-03
102.3566	0.294410063	0.277093	0	0.275437	0.7764	0	607.0288411	608.028841	0.00000001	7.76E-03
102.389	0.294189443	0.277093	0	0.275244	0.7764	0	608.0288411		0.00000001	7.76E-03
102.4215	0.293996812	0.277093	0	0.27508	0.7764	0	608.0288411	609.028841	0.00000001	7.76E-03
102.4566	0.29375164	0.277093	0	0.274856	0.7764	0	609.0288411		0.00000001	7.76E-03
102.4836	0.293467951	0.277093	0	0.274594	0.7764	0	609.0288411	610.028841	0.00000001	7.76E-03
102.5188	0.293409585	0.277093	0	0.274563	0.7764	0	610.0288411		0.00000001	7.76E-03
102.5512	0.293944342	0.277093	0	0.275126	0.7764	0	610.0288411	611.028841	0.00000001	7.76E-03
102.5837	0.295169293	0.277093	0	0.276378	0.7764	0	611.0288411		0.00000001	7.76E-03
102.6161	0.295374904	0.277093	0	0.276612	0.7764	0	611.0288411	612.028841	0.00000001	7.76E-03
102.6485	0.295086241	0.277093	0	0.276351	0.7764	0	612.0288411		0.00000001	7.76E-03
102.681	0.295186315	0.277093	0	0.276479	0.7764	0	612.0288411	613.028841	0.00000001	7.76E-03
102.7134	0.294816048	0.277093	0	0.276129	0.7764	0	613.0288411		0.00000001	7.76E-03
102.7431	0.294529262	0.277093	0	0.275864	0.7764	0	613.0288411	614.028841	0.00000001	7.76E-03
102.7783	0.295164284	0.277093	0	0.276527	0.7764	0	614.0288411		0.00000001	7.76E-03
102.808	0.295702821	0.277093	0	0.277093	0.7764	0	614.0288411	615.028841	0.00000001	7.76E-03
102.8432	0.295386716	0.2769653	0.000357749	0.276804	0.7764	0	615.0288411		0.00000001	7.76E-03
102.8729	0.295520513	0.2769653	0	0.276965	0.776042	0	615.0288411	616.028841	0.00000001	7.76E-03
102.9026	0.295303939	0.2767762	0.000529855	0.276776	0.776042	0	616.0288411		0.00000001	7.76E-03
102.9351	0.294875993	0.2763759	0.001121626	0.276376	0.775512	0	616.0288411	617.028841	0.00000001	7.76E-03

102.9702	0.29456901	0.2760901	0.000800844	0.27609	0.774391	0	617.0288411		0.00000001	7.74E-03
103.0026	0.293937837	0.2756343	0.001276989	0.27548	0.77359	0	617.0288411	618.028841	0.00000001	7.74E-03
103.0351	0.293421959	0.2756343	0	0.274991	0.772313	0	618.0288411		0.00000001	7.72E-03
103.0648	0.292877915	0.2756343	0	0.274475	0.772313	0	618.0288411	619.028841	0.00000001	7.72E-03
103.0972	0.292438789	0.2756343	0	0.274063	0.772313	0	619.0288411		0.00000001	7.72E-03
103.1297	0.292180236	0.2756343	0	0.273831	0.772313	0	619.0288411	620.028841	0.00000001	7.72E-03
103.1594	0.29227807	0.2756343	0	0.273956	0.772313	0	620.0288411		0.00000001	7.72E-03
103.1918	0.292497525	0.2756343	0	0.274203	0.772313	0	620.0288411	621.028841	0.00000001	7.72E-03
103.2243	0.292396689	0.2756343	0	0.274123	0.772313	0	621.0288411		0.00000001	7.72E-03
103.2594	0.292712667	0.2756343	0	0.27446	0.772313	0	621.0288411	622.028841	0.00000001	7.72E-03
103.2865	0.292914036	0.2756343	0	0.274688	0.772313	0	622.0288411		0.00000001	7.72E-03
103.3135	0.292895252	0.2756343	0	0.274696	0.772313	0	622.0288411	623.028841	0.00000001	7.72E-03
103.3432	0.293098219	0.2756343	0	0.274926	0.772313	0	623.0288411		0.00000001	7.72E-03
103.3757	0.293255725	0.2756343	0	0.275111	0.772313	0	623.0288411	624.028841	0.00000001	7.72E-03
103.4081	0.293279951	0.2756343	0	0.275162	0.772313	0	624.0288411		0.00000001	7.72E-03
103.4378	0.292850512	0.2756343	0	0.274759	0.772313	0	624.0288411	625.028841	0.00000001	7.72E-03
103.4676	0.293446909	0.2756343	0	0.275376	0.772313	0	625.0288411		0.00000001	7.72E-03
103.4973	0.293684398	0.2756343	0	0.275634	0.772313	0	625.0288411	626.028841	0.00000001	7.72E-03
103.527	0.293330882	0.2753079	0.000914563	0.275308	0.772313	0	626.0288411		0.00000001	7.72E-03
103.5622	0.293220982	0.2752249	0.000232596	0.275225	0.771398	0	626.0288411	627.028841	0.00000001	7.71E-03
103.5946	0.293100448	0.275131	0.000263026	0.275131	0.771166	0	627.0288411		0.00000001	7.71E-03
103.6243	0.292859046	0.2751187	3.44325E-05	0.274916	0.770903	0	627.0288411	628.028841	0.00000001	7.71E-03
103.6541	0.292862585	0.2751187	0	0.274947	0.770868	0	628.0288411		0.00000001	7.71E-03
103.6865	0.292897989	0.2751187	0	0.275008	0.770868	0	628.0288411	629.028841	0.00000001	7.71E-03
103.7135	0.292987701	0.2751187	0	0.275119	0.770868	0	629.0288411		0.00000001	7.71E-03
103.746	0.292467385	0.2746192	0.001399553	0.274619	0.770868	0	629.0288411	630.028841	0.00000001	7.71E-03
103.7811	0.2920918	0.2742703	0.000977567	0.27427	0.769469	0	630.0288411		0.00000001	7.69E-03
103.8135	0.291781069	0.2740555	0.000602104	0.273986	0.768491	0	630.0288411	631.028841	0.00000001	7.68E-03
103.846	0.29148172	0.2740555	0	0.273714	0.767889	0	631.0288411		0.00000001	7.68E-03
103.8784	0.291466737	0.2740555	0	0.273725	0.767889	0	631.0288411	632.028841	0.00000001	7.68E-03
103.9081	0.291441339	0.2740555	0	0.273726	0.767889	0	632.0288411		0.00000001	7.68E-03
103.9406	0.291008517	0.2740555	0	0.27332	0.767889	0	632.0288411	633.028841	0.00000001	7.68E-03
103.9703	0.290458274	0.2740555	0	0.27279	0.767889	0	633.0288411		0.00000001	7.68E-03
104.0001	0.290329712	0.2740555	0	0.272681	0.767889	0	633.0288411	634.028841	0.00000001	7.68E-03
104.0298	0.290213712	0.2740555	0	0.272592	0.767889	0	634.0288411		0.00000001	7.68E-03
104.0595	0.290213415	0.2740555	0	0.272618	0.767889	0	634.0288411	635.028841	0.00000001	7.68E-03
104.0865	0.289939257	0.2740555	0	0.272369	0.767889	0	635.0288411		0.00000001	7.68E-03
104.1136	0.289727734	0.2740555	0	0.272184	0.767889	0	635.0288411	636.028841	0.00000001	7.68E-03
104.1433	0.289862711	0.2740555	0	0.272346	0.767889	0	636.0288411		0.00000001	7.68E-03
104.1785	0.289961777	0.2740555	0	0.272471	0.767889	0	636.0288411	637.028841	0.00000001	7.68E-03
104.2109	0.289812681	0.2740555	0	0.272342	0.767889	0	637.0288411		0.00000001	7.68E-03
104.2433	0.289415606	0.2740555	0	0.271965	0.767889	0	637.0288411	638.028841	0.00000001	7.68E-03
104.2758	0.289745266	0.2740555	0	0.272321	0.767889	0	638.0288411		0.00000001	7.68E-03
104.3082	0.290417642	0.2740555	0	0.27302	0.767889	0	638.0288411	639.028841	0.00000001	7.68E-03
104.3379	0.291172158	0.2740555	0	0.273801	0.767889	0	639.0288411		0.00000001	7.68E-03
104.3704	0.291400904	0.2740555	0	0.274055	0.767889	0	639.0288411	640.028841	0.00000001	7.68E-03
104.4028	0.291242255	0.2739647	0.000254175	0.273923	0.767889	0	640.0288411		0.00000001	7.68E-03
104.4379	0.291257533	0.2739647	0	0.273965	0.767635	0	640.0288411	641.028841	0.00000001	7.68E-03
104.4731	0.290908203	0.2736356	0.000922359	0.273636	0.767635	0	641.0288411		0.00000001	7.68E-03
104.5055	0.290807528	0.273555	0.000225696	0.273555	0.766713	0	641.0288411	642.028841	0.00000001	7.67E-03
104.538	0.290562127	0.2733357	0.0006146	0.273336	0.766487	0	642.0288411		0.00000001	7.66E-03
104.5704	0.289972124	0.2727717	0.001580239	0.272772	0.765872	0	642.0288411	643.028841	0.00000001	7.66E-03
104.6028	0.289920391	0.272746	7.21085E-05	0.272746	0.764292	0	643.0288411		0.00000001	7.64E-03
104.6353	0.289400426	0.2726122	0.000374647	0.272252	0.76422	0	643.0288411	644.028841	0.00000001	7.64E-03
104.6704	0.289249628	0.2726122	0	0.272127	0.763845	0	644.0288411		0.00000001	7.64E-03
104.7028	0.289343616	0.2726122	0	0.272247	0.763845	0	644.0288411	645.028841	0.00000001	7.64E-03
104.7353	0.28943025	0.2726122	0	0.272353	0.763845	0	645.0288411		0.00000001	7.64E-03
104.7623	0.288817094	0.2726122	0	0.27176	0.763845	0	645.0288411	646.028841	0.00000001	7.64E-03
104.7947	0.288509723	0.2726122	0	0.271479	0.763845	0	646.0288411		0.00000001	7.64E-03
104.8245	0.28829739	0.2726122	0	0.271292	0.763845	0	646.0288411	647.028841	0.00000001	7.64E-03
104.8542	0.288167815	0.2726122	0	0.271188	0.763845	0	647.0288411		0.00000001	7.64E-03
104.8839	0.288160015	0.2726122	0	0.271206	0.763845	0	647.0288411	648.028841	0.00000001	7.64E-03
104.9164	0.288105429	0.2726122	0	0.271177	0.763845	0	648.0288411		0.00000001	7.64E-03
104.9461	0.288121446	0.2726122	0	0.271218	0.763845	0	648.0288411	649.028841	0.00000001	7.64E-03
104.9758	0.288646569	0.2726122	0	0.271763	0.763845	0	649.0288411		0.00000001	7.64E-03
105.0083	0.288863923	0.2726122	0	0.272	0.763845	0	649.0288411	650.028841	0.00000001	7.64E-03
105.0407	0.289061554	0.2726122	0	0.272223	0.763845	0	650.0288411		0.00000001	7.64E-03
105.0705	0.289326727	0.2726122	0	0.272514	0.763845	0	650.0288411	651.028841	0.00000001	7.64E-03
105.1002	0.289399303	0.2726122	0	0.272612	0.763845	0	651.0288411		0.00000001	7.64E-03
105.1326	0.289318169	0.2725565	0.000156242	0.272556	0.763845	0	651.0288411	652.028841	0.00000001	7.64E-03
105.1624	0.288650393	0.27238	0.000494405	0.271914	0.763689	0	652.0288411		0.00000001	7.64E-03
105.1948	0.287901232	0.27238	0	0.27119	0.763195	0	652.0288411	653.028841	0.00000001	7.63E-03
105.2245	0.288037745	0.27238	0	0.271347	0.763195	0	653.0288411		0.00000001	7.63E-03
105.257	0.288335571	0.27238	0	0.271664	0.763195	0	653.0288411	654.028841	0.00000001	7.63E-03

105.2894	0.288717638	0.27238	0	0.272072	0.763195	0	654.0288411		0.00000001	7.63E-03
105.3218	0.289000547	0.27238	0	0.27238	0.763195	0	654.0288411	655.028841	0.00000001	7.63E-03
105.357	0.288961223	0.2723661	3.90723E-05	0.272366	0.763195	0	655.0288411		0.00000001	7.63E-03
105.3894	0.28875611	0.2721863	0.000503681	0.272186	0.763156	0	655.0288411	656.028841	0.00000001	7.63E-03
105.4218	0.288478093	0.2720788	0.000301262	0.271933	0.762652	0	656.0288411		0.00000001	7.63E-03
105.4516	0.287695514	0.2720788	0	0.271176	0.762351	0	656.0288411	657.028841	0.00000001	7.62E-03
105.4786	0.28731056	0.2720788	0	0.27081	0.762351	0	657.0288411		0.00000001	7.62E-03
105.511	0.286934329	0.2720788	0	0.270453	0.762351	0	657.0288411	658.028841	0.00000001	7.62E-03
105.5408	0.286348212	0.2720788	0	0.269893	0.762351	0	658.0288411		0.00000001	7.62E-03
105.5732	0.286100722	0.2720788	0	0.26967	0.762351	0	658.0288411	659.028841	0.00000001	7.62E-03
105.603	0.286007322	0.2720788	0	0.269601	0.762351	0	659.0288411		0.00000001	7.62E-03
105.63	0.285815433	0.2720788	0	0.269435	0.762351	0	659.0288411	660.028841	0.00000001	7.62E-03
105.6597	0.285394935	0.2720788	0	0.269039	0.762351	0	660.0288411		0.00000001	7.62E-03
105.6894	0.285410122	0.2720788	0	0.269079	0.762351	0	660.0288411	661.028841	0.00000001	7.62E-03
105.7192	0.285402246	0.2720788	0	0.26909	0.762351	0	661.0288411		0.00000001	7.62E-03
105.7489	0.285737525	0.2720788	0	0.269445	0.762351	0	661.0288411	662.028841	0.00000001	7.62E-03
105.7786	0.285989275	0.2720788	0	0.269722	0.762351	0	662.0288411		0.00000001	7.62E-03
105.8111	0.28650635	0.2720788	0	0.270264	0.762351	0	662.0288411	663.028841	0.00000001	7.62E-03
105.8408	0.287099158	0.2720788	0	0.270881	0.762351	0	663.0288411		0.00000001	7.62E-03
105.8733	0.287620559	0.2720788	0	0.271428	0.762351	0	663.0288411	664.028841	0.00000001	7.62E-03
105.903	0.287672566	0.2720788	0	0.271504	0.762351	0	664.0288411		0.00000001	7.62E-03
105.9327	0.287634582	0.2720788	0	0.271491	0.762351	0	664.0288411	665.028841	0.00000001	7.62E-03
105.9652	0.288068549	0.2720788	0	0.271944	0.762351	0	665.0288411		0.00000001	7.62E-03
105.9976	0.288183835	0.2720788	0	0.272079	0.762351	0	665.0288411	666.028841	0.00000001	7.62E-03
106.03	0.287728081	0.2716479	0.001207408	0.271648	0.762351	0	666.0288411		0.00000001	7.62E-03
106.0625	0.287506426	0.2714509	0.000552046	0.271451	0.761143	0	666.0288411	667.028841	0.00000001	7.61E-03
106.0922	0.287455731	0.2714246	7.35916E-05	0.271425	0.760591	0	667.0288411		0.00000001	7.61E-03
106.1192	0.287207535	0.271201	0.000626556	0.271201	0.760518	0	667.0288411	668.028841	0.00000001	7.61E-03
106.149	0.286897044	0.2709149	0.000801666	0.270915	0.759891	0	668.0288411		0.00000001	7.60E-03
106.176	0.286345576	0.2703881	0.001475953	0.270388	0.759089	0	668.0288411	669.028841	0.00000001	7.59E-03
106.2084	0.285983031	0.2700448	0.000961982	0.270045	0.757613	0	669.0288411		0.00000001	7.58E-03
106.2436	0.285652681	0.2697336	0.000871822	0.269734	0.756651	0	669.0288411	670.028841	0.00000001	7.57E-03
106.2787	0.284851523	0.2689575	0.002174773	0.268957	0.75578	0	670.0288411		0.00000001	7.56E-03
106.3166	0.284400186	0.2688714	0.000241164	0.268531	0.753605	0	670.0288411	671.028841	0.00000001	7.54E-03
106.349	0.283760929	0.2688714	0	0.267916	0.753364	0	671.0288411		0.00000001	7.53E-03
106.3814	0.283451927	0.2688714	0	0.267632	0.753364	0	671.0288411	672.028841	0.00000001	7.53E-03
106.4139	0.28334691	0.2688714	0	0.267551	0.753364	0	672.0288411		0.00000001	7.53E-03
106.4463	0.283249342	0.2688714	0	0.267478	0.753364	0	672.0288411	673.028841	0.00000001	7.53E-03
106.476	0.283439432	0.2688714	0	0.267687	0.753364	0	673.0288411		0.00000001	7.53E-03
106.5085	0.283283367	0.2688714	0	0.267549	0.753364	0	673.0288411	674.028841	0.00000001	7.53E-03
106.5355	0.283263394	0.2688714	0	0.267554	0.753364	0	674.0288411		0.00000001	7.53E-03
106.5652	0.282983048	0.2688714	0	0.267298	0.753364	0	674.0288411	675.028841	0.00000001	7.53E-03
106.595	0.282784526	0.2688714	0	0.267123	0.753364	0	675.0288411		0.00000001	7.53E-03
106.6274	0.283372592	0.2688714	0	0.267736	0.753364	0	675.0288411	676.028841	0.00000001	7.53E-03
106.6544	0.28380355	0.2688714	0	0.268191	0.753364	0	676.0288411		0.00000001	7.53E-03
106.6869	0.283782479	0.2688714	0	0.268194	0.753364	0	676.0288411	677.028841	0.00000001	7.53E-03
106.7193	0.283753693	0.2688714	0	0.268184	0.753364	0	677.0288411		0.00000001	7.53E-03
106.749	0.28428675	0.2688714	0	0.268736	0.753364	0	677.0288411	678.028841	0.00000001	7.53E-03
106.7815	0.284398036	0.2688714	0	0.268871	0.753364	0	678.0288411		0.00000001	7.53E-03
106.8166	0.284164742	0.2686623	0.000585776	0.268662	0.753364	0	678.0288411	679.028841	0.00000001	7.53E-03
106.849	0.283823843	0.2683458	0.00088687	0.268346	0.752778	0	679.0288411		0.00000001	7.53E-03
106.8842	0.283516	0.268062	0.000795279	0.268062	0.751891	0	679.0288411	680.028841	0.00000001	7.52E-03
106.9139	0.283473966	0.2680441	5.00878E-05	0.268044	0.751096	0	680.0288411		0.00000001	7.51E-03
106.9464	0.283052649	0.2676471	0.001112407	0.267647	0.751046	0	680.0288411	681.028841	0.00000001	7.51E-03
106.9815	0.28240682	0.2670197	0.001757954	0.26702	0.749933	0	681.0288411		0.00000001	7.50E-03
107.0112	0.281907932	0.2665392	0.001346275	0.266539	0.748175	0	681.0288411	682.028841	0.00000001	7.48E-03
107.041	0.281526824	0.2665182	5.87917E-05	0.266182	0.746829	0	682.0288411		0.00000001	7.47E-03
107.0707	0.281304403	0.2665182	0	0.265983	0.74677	0	682.0288411	683.028841	0.00000001	7.47E-03
107.1004	0.281286067	0.2665182	0	0.265989	0.74677	0	683.0288411		0.00000001	7.47E-03
107.1302	0.281304858	0.2665182	0	0.266032	0.74677	0	683.0288411	684.028841	0.00000001	7.47E-03
107.1599	0.280993416	0.2665182	0	0.265744	0.74677	0	684.0288411		0.00000001	7.47E-03
107.1869	0.281041751	0.2665182	0	0.265816	0.74677	0	684.0288411	685.028841	0.00000001	7.47E-03
107.2167	0.280686691	0.2665182	0	0.265479	0.74677	0	685.0288411		0.00000001	7.47E-03
107.2464	0.28016648	0.2665182	0	0.264977	0.74677	0	685.0288411	686.028841	0.00000001	7.47E-03
107.2761	0.280543428	0.2665182	0	0.265378	0.74677	0	686.0288411		0.00000001	7.47E-03
107.3032	0.279993206	0.2665182	0	0.264851	0.74677	0	686.0288411	687.028841	0.00000001	7.47E-03
107.3329	0.279470594	0.2665182	0	0.264352	0.74677	0	687.0288411		0.00000001	7.47E-03
107.3626	0.279440217	0.2665182	0	0.264346	0.74677	0	687.0288411	688.028841	0.00000001	7.47E-03
107.3951	0.27938802	0.2665182	0	0.264317	0.74677	0	688.0288411		0.00000001	7.47E-03
107.4248	0.279084671	0.2665182	0	0.264037	0.74677	0	688.0288411	689.028841	0.00000001	7.47E-03
107.4545	0.279403497	0.2665182	0	0.264374	0.74677	0	689.0288411		0.00000001	7.47E-03
107.4843	0.279798302	0.2665182	0	0.264787	0.74677	0	689.0288411	690.028841	0.00000001	7.47E-03
107.514	0.280180747	0.2665182	0	0.265193	0.74677	0	690.0288411		0.00000001	7.47E-03
107.5464	0.28075403	0.2665182	0	0.26579	0.74677	0	690.0288411	691.028841	0.00000001	7.47E-03

107.5735	0.280942698	0.2665182	0	0.266002	0.74677	0	691.0288411		0.00000001	7.47E-03
107.6059	0.280960279	0.2665182	0	0.266044	0.74677	0	691.0288411	692.028841	0.00000001	7.47E-03
107.6383	0.281325372	0.2665182	0	0.266432	0.74677	0	692.0288411		0.00000001	7.47E-03
107.6708	0.281387954	0.2665182	0	0.266518	0.74677	0	692.0288411	693.028841	0.00000001	7.47E-03
107.7005	0.28087653	0.266025	0.001382079	0.266025	0.74677	0	693.0288411		0.00000001	7.47E-03
107.7329	0.280797706	0.2659646	0.000169076	0.265965	0.745388	0	693.0288411	694.028841	0.00000001	7.45E-03
107.7708	0.280516002	0.2657063	0.000723877	0.265706	0.745219	0	694.0288411		0.00000001	7.45E-03
107.8005	0.279931631	0.2651454	0.001571539	0.265145	0.744495	0	694.0288411	695.028841	0.00000001	7.44E-03
107.833	0.279172905	0.2644851	0.001850184	0.26441	0.742924	0	695.0288411		0.00000001	7.43E-03
107.8627	0.27863766	0.2644851	0	0.263898	0.741073	0	695.0288411	696.028841	0.00000001	7.41E-03
107.8951	0.278266885	0.2644851	0	0.263551	0.741073	0	696.0288411		0.00000001	7.41E-03
107.9249	0.277914032	0.2644851	0	0.263221	0.741073	0	696.0288411	697.028841	0.00000001	7.41E-03
107.9546	0.277239654	0.2644851	0	0.262565	0.741073	0	697.0288411		0.00000001	7.41E-03
107.9843	0.276715775	0.2644851	0	0.262059	0.741073	0	697.0288411	698.028841	0.00000001	7.41E-03
108.0141	0.276957619	0.2644851	0	0.262324	0.741073	0	698.0288411		0.00000001	7.41E-03
108.0438	0.277200859	0.2644851	0	0.26259	0.741073	0	698.0288411	699.028841	0.00000001	7.41E-03
108.0735	0.277231807	0.2644851	0	0.262644	0.741073	0	699.0288411		0.00000001	7.41E-03
108.1006	0.277212445	0.2644851	0	0.262648	0.741073	0	699.0288411	700.028841	0.00000001	7.41E-03
108.1303	0.277026527	0.2644851	0	0.262485	0.741073	0	700.0288411		0.00000001	7.41E-03
108.1573	0.276945492	0.2644851	0	0.262427	0.741073	0	700.0288411	701.028841	0.00000001	7.41E-03
108.187	0.277472803	0.2644851	0	0.262972	0.741073	0	701.0288411		0.00000001	7.41E-03
108.2195	0.277418926	0.2644851	0	0.262936	0.741073	0	701.0288411	702.028841	0.00000001	7.41E-03
108.2492	0.277521165	0.2644851	0	0.263061	0.741073	0	702.0288411		0.00000001	7.41E-03
108.2844	0.278223208	0.2644851	0	0.263786	0.741073	0	702.0288411	703.028841	0.00000001	7.41E-03
108.3141	0.27870228	0.2644851	0	0.264288	0.741073	0	703.0288411		0.00000001	7.41E-03
108.3438	0.278870056	0.2644851	0	0.264479	0.741073	0	703.0288411	704.028841	0.00000001	7.41E-03
108.3763	0.27862644	0.2644851	0	0.264258	0.741073	0	704.0288411		0.00000001	7.41E-03
108.406	0.278480804	0.2644851	0	0.264136	0.741073	0	704.0288411	705.028841	0.00000001	7.41E-03
108.4357	0.278434245	0.2644851	0	0.264107	0.741073	0	705.0288411		0.00000001	7.41E-03
108.4709	0.278513869	0.2644851	0	0.264204	0.741073	0	705.0288411	706.028841	0.00000001	7.41E-03
108.5033	0.278771524	0.2644851	0	0.264485	0.741073	0	706.0288411		0.00000001	7.41E-03
108.5357	0.278665416	0.2644402	0.000125804	0.264402	0.741073	0	706.0288411	707.028841	0.00000001	7.41E-03
108.5682	0.278667269	0.2644402	0	0.264427	0.740948	0	707.0288411		0.00000001	7.41E-03
108.6006	0.278657793	0.2644402	0	0.26444	0.740948	0	707.0288411	708.028841	0.00000001	7.41E-03
108.6331	0.278358567	0.264164	0.000773813	0.264164	0.740948	0	708.0288411		0.00000001	7.41E-03
108.6682	0.2779188	0.263747	0.001168554	0.263747	0.740174	0	708.0288411	709.028841	0.00000001	7.40E-03
108.6979	0.277598581	0.2634444	0.000847879	0.263444	0.739005	0	709.0288411		0.00000001	7.39E-03
108.7304	0.277259404	0.2631228	0.000901042	0.263123	0.738157	0	709.0288411	710.028841	0.00000001	7.38E-03
108.7628	0.276228538	0.2621146	0.002824943	0.262115	0.737256	0	710.0288411		0.00000001	7.37E-03
108.7925	0.275382396	0.262084	8.57441E-05	0.261291	0.734431	0	710.0288411	711.028841	0.00000001	7.34E-03
108.825	0.2749848	0.262084	0	0.260916	0.734346	0	711.0288411		0.00000001	7.34E-03
108.852	0.274635039	0.262084	0	0.260589	0.734346	0	711.0288411	712.028841	0.00000001	7.34E-03
108.8844	0.274668419	0.262084	0	0.260645	0.734346	0	712.0288411		0.00000001	7.34E-03
108.9115	0.274863442	0.262084	0	0.260862	0.734346	0	712.0288411	713.028841	0.00000001	7.34E-03
108.9412	0.275001286	0.262084	0	0.261017	0.734346	0	713.0288411		0.00000001	7.34E-03
108.9682	0.274933285	0.262084	0	0.260967	0.734346	0	713.0288411	714.028841	0.00000001	7.34E-03
108.998	0.27486458	0.262084	0	0.260921	0.734346	0	714.0288411		0.00000001	7.34E-03
109.0304	0.274862575	0.262084	0	0.260941	0.734346	0	714.0288411	715.028841	0.00000001	7.34E-03
109.0601	0.275063542	0.262084	0	0.261165	0.734346	0	715.0288411		0.00000001	7.34E-03
109.0899	0.275282067	0.262084	0	0.261406	0.734346	0	715.0288411	716.028841	0.00000001	7.34E-03
109.1196	0.275545565	0.262084	0	0.261691	0.734346	0	716.0288411		0.00000001	7.34E-03
109.1466	0.275847923	0.262084	0	0.262016	0.734346	0	716.0288411	717.028841	0.00000001	7.34E-03
109.1791	0.275898544	0.262084	0	0.262084	0.734346	0	717.0288411		0.00000001	7.34E-03
109.2088	0.275670767	0.2618734	0.000590079	0.261873	0.734346	0	717.0288411	718.028841	0.00000001	7.34E-03
109.2385	0.27529887	0.261524	0.000979058	0.261524	0.733756	0	718.0288411		0.00000001	7.34E-03
109.271	0.274897532	0.2611452	0.00106118	0.261145	0.732777	0	718.0288411	719.028841	0.00000001	7.33E-03
109.3061	0.274590246	0.2608604	0.000798149	0.26086	0.731715	0	719.0288411		0.00000001	7.32E-03
109.3385	0.274470372	0.2607629	0.00027309	0.260763	0.730917	0	719.0288411	720.028841	0.00000001	7.31E-03
109.371	0.274152952	0.2604677	0.000827097	0.260468	0.730644	0	720.0288411		0.00000001	7.31E-03
109.4007	0.273696609	0.2600338	0.001215983	0.260034	0.729817	0	720.0288411	721.028841	0.00000001	7.30E-03
109.4331	0.273471302	0.2598255	0.000583483	0.259826	0.728601	0	721.0288411		0.00000001	7.29E-03
109.4629	0.273026436	0.2593979	0.001198288	0.259398	0.728018	0	721.0288411	722.028841	0.00000001	7.28E-03
109.4953	0.272812074	0.2592058	0.000538126	0.259206	0.726819	0	722.0288411		0.00000001	7.27E-03
109.5278	0.27262264	0.2590387	0.000468338	0.259039	0.726281	0	722.0288411	723.028841	0.00000001	7.26E-03
109.5602	0.272000113	0.2584382	0.001682332	0.258438	0.725813	0	723.0288411		0.00000001	7.26E-03
109.5899	0.271687606	0.258148	0.000813308	0.258148	0.72413	0	723.0288411	724.028841	0.00000001	7.24E-03
109.6224	0.271211162	0.2576938	0.001272712	0.257694	0.723317	0	724.0288411		0.00000001	7.23E-03
109.6548	0.270389458	0.257551	0.000400064	0.256894	0.722044	0	724.0288411	725.028841	0.00000001	7.22E-03
109.6845	0.270247871	0.257551	0	0.256769	0.721644	0	725.0288411		0.00000001	7.22E-03
109.7143	0.270027167	0.257551	0	0.256566	0.721644	0	725.0288411	726.028841	0.00000001	7.22E-03
109.744	0.269503312	0.257551	0	0.256064	0.721644	0	726.0288411		0.00000001	7.22E-03
109.771	0.269570715	0.257551	0	0.256153	0.721644	0	726.0288411	727.028841	0.00000001	7.22E-03
109.8008	0.269374122	0.257551	0	0.255978	0.721644	0	727.0288411		0.00000001	7.22E-03
109.8278	0.269401411	0.257551	0	0.256027	0.721644	0	727.0288411	728.028841	0.00000001	7.22E-03

109.8575	0.269502787	0.257551	0	0.256151	0.721644	0	728.0288411		0.00000001	7.22E-03
109.89	0.269476735	0.257551	0	0.256147	0.721644	0	728.0288411	729.028841	0.00000001	7.22E-03
109.9224	0.269932253	0.257551	0	0.256619	0.721644	0	729.0288411		0.00000001	7.22E-03
109.9521	0.270475518	0.257551	0	0.257179	0.721644	0	729.0288411	730.028841	0.00000001	7.22E-03
109.9819	0.270603642	0.257551	0	0.257329	0.721644	0	730.0288411		0.00000001	7.22E-03
110.0116	0.270601102	0.257551	0	0.257349	0.721644	0	730.0288411	731.028841	0.00000001	7.22E-03
110.044	0.270692696	0.257551	0	0.257462	0.721644	0	731.0288411		0.00000001	7.22E-03
110.0765	0.270583177	0.257551	0	0.257374	0.721644	0	731.0288411	732.028841	0.00000001	7.22E-03
110.1062	0.270439197	0.257551	0	0.257252	0.721644	0	732.0288411		0.00000001	7.22E-03
110.1413	0.270715986	0.257551	0	0.257551	0.721644	0	732.0288411	733.028841	0.00000001	7.22E-03
110.1711	0.270556624	0.2574084	0.00039936	0.257408	0.721644	0	733.0288411		0.00000001	7.22E-03
110.2035	0.269886447	0.2567551	0.001830677	0.256755	0.721245	0	733.0288411	734.028841	0.00000001	7.21E-03
110.2359	0.269437719	0.256328	0.001196597	0.256328	0.719414	0	734.0288411		0.00000001	7.19E-03
110.2657	0.268867945	0.2560372	0.000814757	0.25578	0.718218	0	734.0288411	735.028841	0.00000001	7.18E-03
110.3008	0.267899318	0.2560372	0	0.254833	0.717403	0	735.0288411		0.00000001	7.17E-03
110.3306	0.267300703	0.2560372	0	0.254256	0.717403	0	735.0288411	736.028841	0.00000001	7.17E-03
110.363	0.266706512	0.2560372	0	0.253684	0.717403	0	736.0288411		0.00000001	7.17E-03
110.3927	0.26630116	0.2560372	0	0.2533	0.717403	0	736.0288411	737.028841	0.00000001	7.17E-03
110.4225	0.266034267	0.2560372	0	0.25305	0.717403	0	737.0288411		0.00000001	7.17E-03
110.4522	0.265884443	0.2560372	0	0.252916	0.717403	0	737.0288411	738.028841	0.00000001	7.17E-03
110.4846	0.265443803	0.2560372	0	0.252498	0.717403	0	738.0288411		0.00000001	7.17E-03
110.5198	0.264824822	0.2560372	0	0.2519	0.717403	0	738.0288411	739.028841	0.00000001	7.17E-03
110.5495	0.264496922	0.2560372	0	0.251594	0.717403	0	739.0288411		0.00000001	7.17E-03
110.5792	0.264381889	0.2560372	0	0.2515	0.717403	0	739.0288411	740.028841	0.00000001	7.17E-03
110.6117	0.26439237	0.2560372	0	0.251532	0.717403	0	740.0288411		0.00000001	7.17E-03
110.6387	0.26451301	0.2560372	0	0.251674	0.717403	0	740.0288411	741.028841	0.00000001	7.17E-03
110.6684	0.264399506	0.2560372	0	0.251577	0.717403	0	741.0288411		0.00000001	7.17E-03
110.7009	0.264703227	0.2560372	0	0.251897	0.717403	0	741.0288411	742.028841	0.00000001	7.17E-03
110.7279	0.264793186	0.2560372	0	0.252008	0.717403	0	742.0288411		0.00000001	7.17E-03
110.7576	0.265279025	0.2560372	0	0.252516	0.717403	0	742.0288411	743.028841	0.00000001	7.17E-03
110.7901	0.265772751	0.2560372	0	0.253031	0.717403	0	743.0288411		0.00000001	7.17E-03
110.8171	0.266030652	0.2560372	0	0.25331	0.717403	0	743.0288411	744.028841	0.00000001	7.17E-03
110.8495	0.266429648	0.2560372	0	0.25373	0.717403	0	744.0288411		0.00000001	7.17E-03
110.8793	0.266586984	0.2560372	0	0.253909	0.717403	0	744.0288411	745.028841	0.00000001	7.17E-03
110.909	0.266334277	0.2560372	0	0.253673	0.717403	0	745.0288411		0.00000001	7.17E-03
110.9441	0.266356838	0.2560372	0	0.253712	0.717403	0	745.0288411	746.028841	0.00000001	7.17E-03
110.9766	0.266583077	0.2560372	0	0.253959	0.717403	0	746.0288411		0.00000001	7.17E-03
111.0063	0.266688961	0.2560372	0	0.254087	0.717403	0	746.0288411	747.028841	0.00000001	7.17E-03
111.0415	0.26646744	0.2560372	0	0.253886	0.717403	0	747.0288411		0.00000001	7.17E-03
111.0739	0.266049668	0.2560372	0	0.25349	0.717403	0	747.0288411	748.028841	0.00000001	7.17E-03
111.1036	0.265873938	0.2560372	0	0.253335	0.717403	0	748.0288411		0.00000001	7.17E-03
111.1361	0.26537001	0.2560372	0	0.252853	0.717403	0	748.0288411	749.028841	0.00000001	7.17E-03
111.1685	0.264932209	0.2560372	0	0.252431	0.717403	0	749.0288411		0.00000001	7.17E-03
111.1982	0.264676151	0.2560372	0	0.252191	0.717403	0	749.0288411	750.028841	0.00000001	7.17E-03
111.2253	0.26414885	0.2560372	0	0.251685	0.717403	0	750.0288411		0.00000001	7.17E-03
111.255	0.263637808	0.2560372	0	0.251194	0.717403	0	750.0288411	751.028841	0.00000001	7.17E-03
111.282	0.263361067	0.2560372	0	0.250939	0.717403	0	751.0288411		0.00000001	7.17E-03
111.3118	0.263446561	0.2560372	0	0.251045	0.717403	0	751.0288411	752.028841	0.00000001	7.17E-03
111.3415	0.263693076	0.2560372	0	0.251313	0.717403	0	752.0288411		0.00000001	7.17E-03
111.3685	0.263791333	0.2560372	0	0.251432	0.717403	0	752.0288411	753.028841	0.00000001	7.17E-03
111.3983	0.264087305	0.2560372	0	0.251744	0.717403	0	753.0288411		0.00000001	7.17E-03
111.428	0.264549889	0.2560372	0	0.252222	0.717403	0	753.0288411	754.028841	0.00000001	7.17E-03
111.4577	0.264486118	0.2560372	0	0.252179	0.717403	0	754.0288411		0.00000001	7.17E-03
111.4848	0.264038684	0.2560372	0	0.251753	0.717403	0	754.0288411	755.028841	0.00000001	7.17E-03
111.5145	0.264350387	0.2560372	0	0.252085	0.717403	0	755.0288411		0.00000001	7.17E-03
111.5442	0.264122413	0.2560372	0	0.251878	0.717403	0	755.0288411	756.028841	0.00000001	7.17E-03
111.574	0.26459699	0.2560372	0	0.252374	0.717403	0	756.0288411		0.00000001	7.17E-03
111.6037	0.264693595	0.2560372	0	0.252491	0.717403	0	756.0288411	757.028841	0.00000001	7.17E-03
111.6361	0.264983191	0.2560372	0	0.252797	0.717403	0	757.0288411		0.00000001	7.17E-03
111.6686	0.265370581	0.2560372	0	0.2532	0.717403	0	757.0288411	758.028841	0.00000001	7.17E-03
111.6983	0.265421328	0.2560372	0	0.253272	0.717403	0	758.0288411		0.00000001	7.17E-03
111.7307	0.265801514	0.2560372	0	0.253673	0.717403	0	758.0288411	759.028841	0.00000001	7.17E-03
111.7632	0.265677451	0.2560372	0	0.25357	0.717403	0	759.0288411		0.00000001	7.17E-03
111.7956	0.26579182	0.2560372	0	0.253705	0.717403	0	759.0288411	760.028841	0.00000001	7.17E-03
111.8253	0.265662803	0.2560372	0	0.253597	0.717403	0	760.0288411		0.00000001	7.17E-03
111.8605	0.2653354	0.2560372	0	0.25329	0.717403	0	760.0288411	761.028841	0.00000001	7.17E-03
111.8929	0.264918085	0.2560372	0	0.252889	0.717403	0	761.0288411		0.00000001	7.17E-03
111.9253	0.264148768	0.2560372	0	0.252135	0.717403	0	761.0288411	762.028841	0.00000001	7.17E-03
111.9578	0.263247704	0.2560372	0	0.251255	0.717403	0	762.0288411		0.00000001	7.17E-03
111.9902	0.263049819	0.2560372	0	0.251078	0.717403	0	762.0288411	763.028841	0.00000001	7.17E-03
112.0227	0.26261399	0.2560372	0	0.250663	0.717403	0	763.0288411		0.00000001	7.17E-03
112.0524	0.262044285	0.2560372	0	0.250114	0.717403	0	763.0288411	764.028841	0.00000001	7.17E-03
112.0848	0.262095702	0.2560372	0	0.250185	0.717403	0	764.0288411		0.00000001	7.17E-03
112.1146	0.26195221	0.2560372	0	0.250062	0.717403	0	764.0288411	765.028841	0.00000001	7.17E-03

112.1443	0.26179068	0.2560372	0	0.249917	0.717403	0	765.0288411		0.00000001	7.17E-03
112.174	0.262025993	0.2560372	0	0.250168	0.717403	0	765.0288411	766.028841	0.00000001	7.17E-03
112.2038	0.262455157	0.2560372	0	0.250617	0.717403	0	766.0288411		0.00000001	7.17E-03
112.2308	0.262863428	0.2560372	0	0.251046	0.717403	0	766.0288411	767.028841	0.00000001	7.17E-03
112.2578	0.263225379	0.2560372	0	0.251428	0.717403	0	767.0288411		0.00000001	7.17E-03
112.2903	0.26355095	0.2560372	0	0.251774	0.717403	0	767.0288411	768.028841	0.00000001	7.17E-03
112.3227	0.263666686	0.2560372	0	0.251911	0.717403	0	768.0288411		0.00000001	7.17E-03
112.3551	0.264023658	0.2560372	0	0.252288	0.717403	0	768.0288411	769.028841	0.00000001	7.17E-03
112.3849	0.264294783	0.2560372	0	0.252575	0.717403	0	769.0288411		0.00000001	7.17E-03
112.4173	0.264748841	0.2560372	0	0.253045	0.717403	0	769.0288411	770.028841	0.00000001	7.17E-03
112.4497	0.26515212	0.2560372	0	0.253468	0.717403	0	770.0288411		0.00000001	7.17E-03
112.4795	0.265281647	0.2560372	0	0.253618	0.717403	0	770.0288411	771.028841	0.00000001	7.17E-03
112.5119	0.265637407	0.2560372	0	0.253994	0.717403	0	771.0288411		0.00000001	7.17E-03
112.547	0.265597613	0.2560372	0	0.253975	0.717403	0	771.0288411	772.028841	0.00000001	7.17E-03
112.5795	0.265394989	0.2560372	0	0.253793	0.717403	0	772.0288411		0.00000001	7.17E-03
112.6119	0.265189896	0.2560372	0	0.253608	0.717403	0	772.0288411	773.028841	0.00000001	7.17E-03
112.6444	0.264771417	0.2560372	0	0.253205	0.717403	0	773.0288411		0.00000001	7.17E-03
112.6768	0.264609598	0.2560372	0	0.253059	0.717403	0	773.0288411	774.028841	0.00000001	7.17E-03
112.7092	0.264318325	0.2560372	0	0.252788	0.717403	0	774.0288411		0.00000001	7.17E-03
112.739	0.26368925	0.2560372	0	0.252179	0.717403	0	774.0288411	775.028841	0.00000001	7.17E-03
112.7714	0.262958815	0.2560372	0	0.251469	0.717403	0	775.0288411		0.00000001	7.17E-03
112.8011	0.262828814	0.2560372	0	0.251359	0.717403	0	775.0288411	776.028841	0.00000001	7.17E-03
112.8309	0.262683581	0.2560372	0	0.251234	0.717403	0	776.0288411		0.00000001	7.17E-03
112.8606	0.262599248	0.2560372	0	0.251169	0.717403	0	776.0288411	777.028841	0.00000001	7.17E-03
112.8903	0.262822268	0.2560372	0	0.251408	0.717403	0	777.0288411		0.00000001	7.17E-03
112.9174	0.262664092	0.2560372	0	0.251265	0.717403	0	777.0288411	778.028841	0.00000001	7.17E-03
112.9444	0.262933527	0.2560372	0	0.251554	0.717403	0	778.0288411		0.00000001	7.17E-03
112.9714	0.262943292	0.2560372	0	0.251584	0.717403	0	778.0288411	779.028841	0.00000001	7.17E-03
113.0012	0.263047461	0.2560372	0	0.251708	0.717403	0	779.0288411		0.00000001	7.17E-03
113.0282	0.263089172	0.2560372	0	0.251769	0.717403	0	779.0288411	780.028841	0.00000001	7.17E-03
113.0579	0.263165335	0.2560372	0	0.251865	0.717403	0	780.0288411		0.00000001	7.17E-03
113.0876	0.263378669	0.2560372	0	0.252099	0.717403	0	780.0288411	781.028841	0.00000001	7.17E-03
113.1147	0.263553749	0.2560372	0	0.252289	0.717403	0	781.0288411		0.00000001	7.17E-03
113.1471	0.264081777	0.2560372	0	0.252832	0.717403	0	781.0288411	782.028841	0.00000001	7.17E-03
113.1768	0.264593262	0.2560372	0	0.253364	0.717403	0	782.0288411		0.00000001	7.17E-03
113.2066	0.265034736	0.2560372	0	0.253825	0.717403	0	782.0288411	783.028841	0.00000001	7.17E-03
113.2363	0.265795615	0.2560372	0	0.254606	0.717403	0	783.0288411		0.00000001	7.17E-03
113.266	0.266025027	0.2560372	0	0.254855	0.717403	0	783.0288411	784.028841	0.00000001	7.17E-03
113.2958	0.265786568	0.2560372	0	0.254636	0.717403	0	784.0288411		0.00000001	7.17E-03
113.3255	0.265720095	0.2560372	0	0.25459	0.717403	0	784.0288411	785.028841	0.00000001	7.17E-03
113.3552	0.265804294	0.2560372	0	0.254689	0.717403	0	785.0288411		0.00000001	7.17E-03
113.385	0.265788316	0.2560372	0	0.254688	0.717403	0	785.0288411	786.028841	0.00000001	7.17E-03
113.4201	0.265248276	0.2560372	0	0.254168	0.717403	0	786.0288411		0.00000001	7.17E-03
113.4499	0.2648344	0.2560372	0	0.253774	0.717403	0	786.0288411	787.028841	0.00000001	7.17E-03
113.4796	0.264140046	0.2560372	0	0.253099	0.717403	0	787.0288411		0.00000001	7.17E-03
113.512	0.263860613	0.2560372	0	0.25284	0.717403	0	787.0288411	788.028841	0.00000001	7.17E-03
113.5418	0.263898186	0.2560372	0	0.252897	0.717403	0	788.0288411		0.00000001	7.17E-03
113.5688	0.263560582	0.2560372	0	0.252579	0.717403	0	788.0288411	789.028841	0.00000001	7.17E-03
113.5985	0.263331464	0.2560372	0	0.252365	0.717403	0	789.0288411		0.00000001	7.17E-03
113.6283	0.262442108	0.2560372	0	0.25149	0.717403	0	789.0288411	790.028841	0.00000001	7.17E-03
113.658	0.261711895	0.2560372	0	0.25078	0.717403	0	790.0288411		0.00000001	7.17E-03
113.6877	0.261283925	0.2560372	0	0.250371	0.717403	0	790.0288411	791.028841	0.00000001	7.17E-03
113.7148	0.261310344	0.2560372	0	0.250417	0.717403	0	791.0288411		0.00000001	7.17E-03
113.7418	0.261135187	0.2560372	0	0.250261	0.717403	0	791.0288411	792.028841	0.00000001	7.17E-03
113.7688	0.261011129	0.2560372	0	0.250157	0.717403	0	792.0288411		0.00000001	7.17E-03
113.7985	0.26104192	0.2560372	0	0.250207	0.717403	0	792.0288411	793.028841	0.00000001	7.17E-03
113.8256	0.2610452	0.2560372	0	0.250225	0.717403	0	793.0288411		0.00000001	7.17E-03
113.858	0.261177687	0.2560372	0	0.250373	0.717403	0	793.0288411	794.028841	0.00000001	7.17E-03
113.8877	0.261364196	0.2560372	0	0.250579	0.717403	0	794.0288411		0.00000001	7.17E-03
113.9202	0.261962225	0.2560372	0	0.251197	0.717403	0	794.0288411	795.028841	0.00000001	7.17E-03
113.9526	0.262671481	0.2560372	0	0.251925	0.717403	0	795.0288411		0.00000001	7.17E-03
113.9824	0.263021087	0.2560372	0	0.252294	0.717403	0	795.0288411	796.028841	0.00000001	7.17E-03
114.0148	0.263014788	0.2560372	0	0.252307	0.717403	0	796.0288411		0.00000001	7.17E-03
114.0418	0.263463189	0.2560372	0	0.252775	0.717403	0	796.0288411	797.028841	0.00000001	7.17E-03
114.0743	0.263776369	0.2560372	0	0.253103	0.717403	0	797.0288411		0.00000001	7.17E-03
114.104	0.264032392	0.2560372	0	0.253374	0.717403	0	797.0288411	798.028841	0.00000001	7.17E-03
114.1337	0.264130829	0.2560372	0	0.253492	0.717403	0	798.0288411		0.00000001	7.17E-03
114.1689	0.264033857	0.2560372	0	0.253414	0.717403	0	798.0288411	799.028841	0.00000001	7.17E-03
114.1986	0.263966862	0.2560372	0	0.253367	0.717403	0	799.0288411		0.00000001	7.17E-03
114.231	0.263865475	0.2560372	0	0.253285	0.717403	0	799.0288411	800.028841	0.00000001	7.17E-03
114.2635	0.263742761	0.2560372	0	0.253181	0.717403	0	800.0288411		0.00000001	7.17E-03
114.2959	0.263838748	0.2560372	0	0.253297	0.717403	0	800.0288411	801.028841	0.00000001	7.17E-03
114.3283	0.263710116	0.2560372	0	0.253183	0.717403	0	801.0288411		0.00000001	7.17E-03
114.3608	0.263275326	0.2560372	0	0.252763	0.717403	0	801.0288411	802.028841	0.00000001	7.17E-03

114.3932	0.262457837	0.2560372	0	0.251965	0.717403	0	802.0288411		0.00000001	7.17E-03
114.4202	0.261935021	0.2560372	0	0.251461	0.717403	0	802.0288411	803.028841	0.00000001	7.17E-03
114.45	0.26187086	0.2560372	0	0.251416	0.717403	0	803.0288411		0.00000001	7.17E-03
114.477	0.261513999	0.2560372	0	0.251078	0.717403	0	803.0288411	804.028841	0.00000001	7.17E-03
114.5067	0.261094899	0.2560372	0	0.250678	0.717403	0	804.0288411		0.00000001	7.17E-03
114.5392	0.26087005	0.2560372	0	0.250473	0.717403	0	804.0288411	805.028841	0.00000001	7.17E-03
114.5689	0.261320127	0.2560372	0	0.250937	0.717403	0	805.0288411		0.00000001	7.17E-03
114.5986	0.261587929	0.2560372	0	0.25122	0.717403	0	805.0288411	806.028841	0.00000001	7.17E-03
114.6257	0.26164082	0.2560372	0	0.251291	0.717403	0	806.0288411		0.00000001	7.17E-03
114.6527	0.261517554	0.2560372	0	0.251187	0.717403	0	806.0288411	807.028841	0.00000001	7.17E-03
114.677	0.261467413	0.2560372	0	0.251156	0.717403	0	807.0288411		0.00000001	7.17E-03
114.7068	0.261763575	0.2560372	0	0.251471	0.717403	0	807.0288411	808.028841	0.00000001	7.17E-03
114.7365	0.262163331	0.2560372	0	0.25189	0.717403	0	808.0288411		0.00000001	7.17E-03
114.7635	0.262545178	0.2560372	0	0.25229	0.717403	0	808.0288411	809.028841	0.00000001	7.17E-03
114.7933	0.262725909	0.2560372	0	0.252486	0.717403	0	809.0288411		0.00000001	7.17E-03
114.823	0.262838315	0.2560372	0	0.252612	0.717403	0	809.0288411	810.028841	0.00000001	7.17E-03
114.85	0.26302917	0.2560372	0	0.252822	0.717403	0	810.0288411		0.00000001	7.17E-03
114.8798	0.262938809	0.2560372	0	0.252751	0.717403	0	810.0288411	811.028841	0.00000001	7.17E-03
114.9095	0.262878253	0.2560372	0	0.252709	0.717403	0	811.0288411		0.00000001	7.17E-03
114.9365	0.262577204	0.2560372	0	0.252427	0.717403	0	811.0288411	812.028841	0.00000001	7.17E-03
114.9717	0.262487102	0.2560372	0	0.252356	0.717403	0	812.0288411		0.00000001	7.17E-03
114.9987	0.262631043	0.2560372	0	0.252518	0.717403	0	812.0288411	813.028841	0.00000001	7.17E-03
115.0284	0.262923583	0.2560372	0	0.252826	0.717403	0	813.0288411		0.00000001	7.17E-03
115.0609	0.263186164	0.2560372	0	0.253103	0.717403	0	813.0288411	814.028841	0.00000001	7.17E-03
115.0933	0.263423653	0.2560372	0	0.253359	0.717403	0	814.0288411		0.00000001	7.17E-03
115.123	0.26379974	0.2560372	0	0.253754	0.717403	0	814.0288411	815.028841	0.00000001	7.17E-03
115.1555	0.263659957	0.2560372	0	0.253633	0.717403	0	815.0288411		0.00000001	7.17E-03
115.1852	0.263357653	0.2560372	0	0.253349	0.717403	0	815.0288411	816.028841	0.00000001	7.17E-03
115.2149	0.263032642	0.2560372	0	0.253043	0.717403	0	816.0288411		0.00000001	7.17E-03
115.2447	0.2623883	0.2560372	0	0.252417	0.717403	0	816.0288411	817.028841	0.00000001	7.17E-03
115.2744	0.261923294	0.2560372	0	0.251967	0.717403	0	817.0288411		0.00000001	7.17E-03
115.3068	0.261440771	0.2560372	0	0.251499	0.717403	0	817.0288411	818.028841	0.00000001	7.17E-03
115.3339	0.261034181	0.2560372	0	0.25111	0.717403	0	818.0288411		0.00000001	7.17E-03
115.3609	0.261017369	0.2560372	0	0.251112	0.717403	0	818.0288411	819.028841	0.00000001	7.17E-03
115.3906	0.261358393	0.2560372	0	0.251472	0.717403	0	819.0288411		0.00000001	7.17E-03
115.4177	0.261542426	0.2560372	0	0.251675	0.717403	0	819.0288411	820.028841	0.00000001	7.17E-03
115.4474	0.261602072	0.2560372	0	0.251753	0.717403	0	820.0288411		0.00000001	7.17E-03
115.4744	0.261899234	0.2560372	0	0.252068	0.717403	0	820.0288411	821.028841	0.00000001	7.17E-03
115.5015	0.262197547	0.2560372	0	0.252381	0.717403	0	821.0288411		0.00000001	7.17E-03
115.5285	0.262087374	0.2560372	0	0.252285	0.717403	0	821.0288411	822.028841	0.00000001	7.17E-03
115.5582	0.262033138	0.2560372	0	0.252249	0.717403	0	822.0288411		0.00000001	7.17E-03
115.588	0.261909678	0.2560372	0	0.252144	0.717403	0	822.0288411	823.028841	0.00000001	7.17E-03
115.6204	0.262175923	0.2560372	0	0.252429	0.717403	0	823.0288411		0.00000001	7.17E-03
115.6474	0.262959459	0.2560372	0	0.253231	0.717403	0	823.0288411	824.028841	0.00000001	7.17E-03
115.6772	0.264352171	0.2560372	0	0.254642	0.717403	0	824.0288411		0.00000001	7.17E-03
115.7069	0.264580889	0.2560372	0	0.254889	0.717403	0	824.0288411	825.028841	0.00000001	7.17E-03
115.7366	0.264795895	0.2560372	0	0.255118	0.717403	0	825.0288411		0.00000001	7.17E-03
115.7664	0.265001826	0.2560372	0	0.255338	0.717403	0	825.0288411	826.028841	0.00000001	7.17E-03
115.7961	0.2650262	0.2560372	0	0.255381	0.717403	0	826.0288411		0.00000001	7.17E-03
115.8258	0.265341504	0.2560372	0	0.255715	0.717403	0	826.0288411	827.028841	0.00000001	7.17E-03
115.8583	0.26563166	0.2560372	0	0.256024	0.717403	0	827.0288411		0.00000001	7.17E-03
115.888	0.265626897	0.2560372	0	0.256037	0.717403	0	827.0288411	828.028841	0.00000001	7.17E-03
115.9204	0.265584802	0.2560135	6.65554E-05	0.256013	0.717403	0	828.0288411		0.00000001	7.17E-03
115.9502	0.26516803	0.2557352	0.00077964	0.255615	0.717336	0	828.0288411	829.028841	0.00000001	7.17E-03
115.9826	0.264848399	0.2557352	0	0.25531	0.716557	0	829.0288411		0.00000001	7.17E-03
116.015	0.264753558	0.2557352	0	0.255229	0.716557	0	829.0288411	830.028841	0.00000001	7.17E-03
116.0475	0.264050476	0.2557352	0	0.254544	0.716557	0	830.0288411		0.00000001	7.17E-03
116.0799	0.263453013	0.2557352	0	0.253965	0.716557	0	830.0288411	831.028841	0.00000001	7.17E-03
116.115	0.262694117	0.2557352	0	0.253225	0.716557	0	831.0288411		0.00000001	7.17E-03
116.1475	0.262254356	0.2557352	0	0.252803	0.716557	0	831.0288411	832.028841	0.00000001	7.17E-03
116.1799	0.261986166	0.2557352	0	0.252553	0.716557	0	832.0288411		0.00000001	7.17E-03
116.2097	0.262209533	0.2557352	0	0.252795	0.716557	0	832.0288411	833.028841	0.00000001	7.17E-03
116.2394	0.262357515	0.2557352	0	0.252957	0.716557	0	833.0288411		0.00000001	7.17E-03
116.2664	0.262272277	0.2557352	0	0.252885	0.716557	0	833.0288411	834.028841	0.00000001	7.17E-03
116.2961	0.262176763	0.2557352	0	0.252808	0.716557	0	834.0288411		0.00000001	7.17E-03
116.3232	0.262068046	0.2557352	0	0.252717	0.716557	0	834.0288411	835.028841	0.00000001	7.17E-03
116.3529	0.262115627	0.2557352	0	0.252783	0.716557	0	835.0288411		0.00000001	7.17E-03
116.3854	0.262267905	0.2557352	0	0.252954	0.716557	0	835.0288411	836.028841	0.00000001	7.17E-03
116.4178	0.262833671	0.2557352	0	0.253537	0.716557	0	836.0288411		0.00000001	7.17E-03
116.4448	0.262858513	0.2557352	0	0.25358	0.716557	0	836.0288411	837.028841	0.00000001	7.17E-03
116.4746	0.26324693	0.2557352	0	0.253983	0.716557	0	837.0288411		0.00000001	7.17E-03
116.5043	0.263765587	0.2557352	0	0.254515	0.716557	0	837.0288411	838.028841	0.00000001	7.17E-03
116.534	0.264228331	0.2557352	0	0.254996	0.716557	0	838.0288411		0.00000001	7.17E-03
116.5638	0.264524135	0.2557352	0	0.25531	0.716557	0	838.0288411	839.028841	0.00000001	7.17E-03

116.5908	0.264764006	0.2557352	0	0.255568	0.716557	0	839.0288411		0.00000001	7.17E-03
116.6232	0.264827348	0.2557352	0	0.255649	0.716557	0	839.0288411	840.028841	0.00000001	7.17E-03
116.6557	0.26486233	0.2557352	0	0.255702	0.716557	0	840.0288411		0.00000001	7.17E-03
116.6908	0.264877434	0.2557352	0	0.255735	0.716557	0	840.0288411	841.028841	0.00000001	7.17E-03
116.7205	0.264683643	0.2555553	0.000504186	0.255555	0.716557	0	841.0288411		0.00000001	7.17E-03
116.753	0.264567264	0.2554527	0.000287604	0.255453	0.716053	0	841.0288411	842.028841	0.00000001	7.16E-03
116.7827	0.264387605	0.255291	0.000452911	0.255291	0.715765	0	842.0288411		0.00000001	7.16E-03
116.8151	0.264284493	0.2552059	0.000238479	0.255206	0.715312	0	842.0288411	843.028841	0.00000001	7.15E-03
116.8476	0.263799254	0.2547386	0.001309222	0.254739	0.715074	0	843.0288411		0.00000001	7.15E-03
116.88	0.263161667	0.2541189	0.001736432	0.254119	0.713764	0	843.0288411	844.028841	0.00000001	7.14E-03
116.9097	0.262971385	0.2539566	0.000454969	0.253946	0.712028	0	844.0288411		0.00000001	7.12E-03
116.9395	0.262963611	0.2539566	0	0.253957	0.711573	0	844.0288411	845.028841	0.00000001	7.12E-03
116.9692	0.262551297	0.2535579	0.001117038	0.253558	0.711573	0	845.0288411		0.00000001	7.12E-03
116.9989	0.26199582	0.2530159	0.00151849	0.253016	0.710456	0	845.0288411	846.028841	0.00000001	7.10E-03
117.026	0.261838376	0.2529397	0.000213551	0.252876	0.708937	0	846.0288411		0.00000001	7.09E-03
117.053	0.261884142	0.2529397	0	0.25294	0.708724	0	846.0288411	847.028841	0.00000001	7.09E-03
117.0827	0.261380082	0.2525442	0.001108193	0.252453	0.708724	0	847.0288411		0.00000001	7.09E-03
117.1098	0.261157718	0.2525442	0	0.252249	0.707616	0	847.0288411	848.028841	0.00000001	7.08E-03
117.1368	0.260770536	0.2525442	0	0.251879	0.707616	0	848.0288411		0.00000001	7.08E-03
117.1638	0.260294389	0.2525442	0	0.251421	0.707616	0	848.0288411	849.028841	0.00000001	7.08E-03
117.1936	0.260039445	0.2525442	0	0.251179	0.707616	0	849.0288411		0.00000001	7.08E-03
117.226	0.260214321	0.2525442	0	0.251368	0.707616	0	849.0288411	850.028841	0.00000001	7.08E-03
117.253	0.260351463	0.2525442	0	0.251522	0.707616	0	850.0288411		0.00000001	7.08E-03
117.2828	0.26025814	0.2525442	0	0.251447	0.707616	0	850.0288411	851.028841	0.00000001	7.08E-03
117.3125	0.260547611	0.2525442	0	0.251754	0.707616	0	851.0288411		0.00000001	7.08E-03
117.3395	0.260741091	0.2525442	0	0.251965	0.707616	0	851.0288411	852.028841	0.00000001	7.08E-03
117.3666	0.260250334	0.2525442	0	0.251492	0.707616	0	852.0288411		0.00000001	7.08E-03
117.3963	0.259948388	0.2525442	0	0.251207	0.707616	0	852.0288411	853.028841	0.00000001	7.08E-03
117.4287	0.260040377	0.2525442	0	0.251313	0.707616	0	853.0288411		0.00000001	7.08E-03
117.4558	0.260123605	0.2525442	0	0.251409	0.707616	0	853.0288411	854.028841	0.00000001	7.08E-03
117.4855	0.260200435	0.2525442	0	0.251504	0.707616	0	854.0288411		0.00000001	7.08E-03
117.5179	0.260094975	0.2525442	0	0.251416	0.707616	0	854.0288411	855.028841	0.00000001	7.08E-03
117.5504	0.259811331	0.2525442	0	0.25115	0.707616	0	855.0288411		0.00000001	7.08E-03
117.5828	0.259149875	0.2525442	0	0.250506	0.707616	0	855.0288411	856.028841	0.00000001	7.08E-03
117.6179	0.25880019	0.2525442	0	0.250174	0.707616	0	856.0288411		0.00000001	7.08E-03
117.645	0.258289797	0.2525442	0	0.249681	0.707616	0	856.0288411	857.028841	0.00000001	7.08E-03
117.6774	0.257996388	0.2525442	0	0.249401	0.707616	0	857.0288411		0.00000001	7.08E-03
117.7071	0.25794445	0.2525442	0	0.249363	0.707616	0	857.0288411	858.028841	0.00000001	7.08E-03
117.7369	0.258021266	0.2525442	0	0.249457	0.707616	0	858.0288411		0.00000001	7.08E-03
117.7666	0.257946573	0.2525442	0	0.2494	0.707616	0	858.0288411	859.028841	0.00000001	7.08E-03
117.7963	0.257841933	0.2525442	0	0.249312	0.707616	0	859.0288411		0.00000001	7.08E-03
117.8261	0.257987024	0.2525442	0	0.249475	0.707616	0	859.0288411	860.028841	0.00000001	7.08E-03
117.8531	0.258074638	0.2525442	0	0.24958	0.707616	0	860.0288411		0.00000001	7.08E-03
117.8801	0.257745543	0.2525442	0	0.249268	0.707616	0	860.0288411	861.028841	0.00000001	7.08E-03
117.9126	0.25809635	0.2525442	0	0.249632	0.707616	0	861.0288411		0.00000001	7.08E-03
117.9423	0.258006422	0.2525442	0	0.249555	0.707616	0	861.0288411	862.028841	0.00000001	7.08E-03
117.9693	0.257103778	0.2525442	0	0.24867	0.707616	0	862.0288411		0.00000001	7.08E-03
117.9991	0.257166194	0.2525442	0	0.24875	0.707616	0	862.0288411	863.028841	0.00000001	7.08E-03
118.0315	0.257328501	0.2525442	0	0.24893	0.707616	0	863.0288411		0.00000001	7.08E-03
118.0639	0.257425314	0.2525442	0	0.249044	0.707616	0	863.0288411	864.028841	0.00000001	7.08E-03
118.091	0.257694967	0.2525442	0	0.24933	0.707616	0	864.0288411		0.00000001	7.08E-03
118.1207	0.258376601	0.2525442	0	0.250029	0.707616	0	864.0288411	865.028841	0.00000001	7.08E-03
118.1504	0.258662907	0.2525442	0	0.250329	0.707616	0	865.0288411		0.00000001	7.08E-03
118.1775	0.258849464	0.2525442	0	0.250528	0.707616	0	865.0288411	866.028841	0.00000001	7.08E-03
118.2072	0.258486134	0.2525442	0	0.250182	0.707616	0	866.0288411		0.00000001	7.08E-03
118.2369	0.258271251	0.2525442	0	0.249985	0.707616	0	866.0288411	867.028841	0.00000001	7.08E-03
118.264	0.258650176	0.2525442	0	0.250381	0.707616	0	867.0288411		0.00000001	7.08E-03
118.291	0.258788807	0.2525442	0	0.250536	0.707616	0	867.0288411	868.028841	0.00000001	7.08E-03
118.3234	0.259104938	0.2525442	0	0.25087	0.707616	0	868.0288411		0.00000001	7.08E-03
118.3505	0.259611827	0.2525442	0	0.251394	0.707616	0	868.0288411	869.028841	0.00000001	7.08E-03
118.3775	0.25966804	0.2525442	0	0.251463	0.707616	0	869.0288411		0.00000001	7.08E-03
118.4099	0.259442688	0.2525442	0	0.251251	0.707616	0	869.0288411	870.028841	0.00000001	7.08E-03
118.437	0.259324114	0.2525442	0	0.251149	0.707616	0	870.0288411		0.00000001	7.08E-03
118.4667	0.259408006	0.2525442	0	0.25125	0.707616	0	870.0288411	871.028841	0.00000001	7.08E-03
118.4964	0.259108557	0.2525442	0	0.250968	0.707616	0	871.0288411		0.00000001	7.08E-03
118.5234	0.258350014	0.2525442	0	0.250226	0.707616	0	871.0288411	872.028841	0.00000001	7.08E-03
118.5505	0.257626465	0.2525442	0	0.249519	0.707616	0	872.0288411		0.00000001	7.08E-03
118.5748	0.257739433	0.2525442	0	0.249649	0.707616	0	872.0288411	873.028841	0.00000001	7.08E-03
118.6018	0.257201634	0.2525442	0	0.249124	0.707616	0	873.0288411		0.00000001	7.08E-03
118.6262	0.256971715	0.2525442	0	0.248907	0.707616	0	873.0288411	874.028841	0.00000001	7.08E-03
118.6559	0.257195543	0.2525442	0	0.249148	0.707616	0	874.0288411		0.00000001	7.08E-03
118.6856	0.257185873	0.2525442	0	0.249155	0.707616	0	874.0288411	875.028841	0.00000001	7.08E-03
118.7154	0.257087462	0.2525442	0	0.249074	0.707616	0	875.0288411		0.00000001	7.08E-03
118.7451	0.25719052	0.2525442	0	0.249194	0.707616	0	875.0288411	876.028841	0.00000001	7.08E-03

118.7721	0.257443064	0.2525442	0	0.249463	0.707616	0	876.0288411		0.00000001	7.08E-03
118.8019	0.257662156	0.2525442	0	0.249699	0.707616	0	876.0288411	877.028841	0.00000001	7.08E-03
118.8343	0.257804263	0.2525442	0	0.249854	0.707616	0	877.0288411		0.00000001	7.08E-03
118.864	0.258342421	0.2525442	0	0.250405	0.707616	0	877.0288411	878.028841	0.00000001	7.08E-03
118.8884	0.258656325	0.2525442	0	0.250736	0.707616	0	878.0288411		0.00000001	7.08E-03
118.9235	0.258611304	0.2525442	0	0.250708	0.707616	0	878.0288411	879.028841	0.00000001	7.08E-03
118.9424	0.259329244	0.2525442	0	0.251442	0.707616	0	879.0288411		0.00000001	7.08E-03
118.9667	0.259329244	0.2525442	0	0.251459	0.707616	0	879.0288411	880.028841	0.00000001	7.08E-03
118.9965	0.259877983	0.2525442	0	0.252025	0.707616	0	880.0288411		0.00000001	7.08E-03
119.0208	0.259911478	0.2525442	0	0.252075	0.707616	0	880.0288411	881.028841	0.00000001	7.08E-03
119.0478	0.259523927	0.2525442	0	0.2517	0.707616	0	881.0288411		0.00000001	7.08E-03
119.0749	0.259445391	0.2525442	0	0.251634	0.707616	0	881.0288411	882.028841	0.00000001	7.08E-03
119.1046	0.259712574	0.2525442	0	0.251918	0.707616	0	882.0288411		0.00000001	7.08E-03
119.1343	0.259883357	0.2525442	0	0.252106	0.707616	0	882.0288411	883.028841	0.00000001	7.08E-03
119.1614	0.260272454	0.2525442	0	0.252511	0.707616	0	883.0288411		0.00000001	7.08E-03
119.1911	0.260243311	0.2525442	0	0.252499	0.707616	0	883.0288411	884.028841	0.00000001	7.08E-03
119.2154	0.260055595	0.2525442	0	0.252328	0.707616	0	884.0288411		0.00000001	7.08E-03
119.2452	0.260150968	0.2525442	0	0.25244	0.707616	0	884.0288411	885.028841	0.00000001	7.08E-03
119.2749	0.260242598	0.2525442	0	0.252544	0.707616	0	885.0288411		0.00000001	7.08E-03
119.3046	0.260028032	0.2524996	0.000124995	0.252342	0.707616	0	885.0288411	886.028841	0.00000001	7.08E-03
119.3344	0.259831472	0.2524996	0	0.252162	0.707491	0	886.0288411		0.00000001	7.07E-03
119.3641	0.259633148	0.2524996	0	0.251981	0.707491	0	886.0288411	887.028841	0.00000001	7.07E-03
119.3911	0.259137164	0.2524996	0	0.251501	0.707491	0	887.0288411		0.00000001	7.07E-03
119.4209	0.258680734	0.2524996	0	0.251061	0.707491	0	887.0288411	888.028841	0.00000001	7.07E-03
119.4479	0.258621634	0.2524996	0	0.251019	0.707491	0	888.0288411		0.00000001	7.07E-03
119.4776	0.25852991	0.2524996	0	0.250944	0.707491	0	888.0288411	889.028841	0.00000001	7.07E-03
119.5047	0.258651343	0.2524996	0	0.251078	0.707491	0	889.0288411		0.00000001	7.07E-03
119.529	0.258850862	0.2524996	0	0.25129	0.707491	0	889.0288411	890.028841	0.00000001	7.07E-03
119.556	0.259114035	0.2524996	0	0.251569	0.707491	0	890.0288411		0.00000001	7.07E-03
119.5857	0.25935583	0.2524996	0	0.251828	0.707491	0	890.0288411	891.028841	0.00000001	7.07E-03
119.6128	0.259558759	0.2524996	0	0.252047	0.707491	0	891.0288411		0.00000001	7.07E-03
119.6398	0.259561317	0.2524996	0	0.252066	0.707491	0	891.0288411	892.028841	0.00000001	7.07E-03
119.6722	0.259195393	0.2524996	0	0.251717	0.707491	0	892.0288411		0.00000001	7.07E-03
119.6993	0.258898355	0.2524996	0	0.251436	0.707491	0	892.0288411	893.028841	0.00000001	7.07E-03
119.7263	0.258612678	0.2524996	0	0.251163	0.707491	0	893.0288411		0.00000001	7.07E-03
119.756	0.258696296	0.2524996	0	0.251259	0.707491	0	893.0288411	894.028841	0.00000001	7.07E-03
119.7858	0.25874608	0.2524996	0	0.251325	0.707491	0	894.0288411		0.00000001	7.07E-03
119.8155	0.258138647	0.2524996	0	0.250734	0.707491	0	894.0288411	895.028841	0.00000001	7.07E-03
119.8425	0.257919833	0.2524996	0	0.250532	0.707491	0	895.0288411		0.00000001	7.07E-03
119.875	0.258334597	0.2524996	0	0.250963	0.707491	0	895.0288411	896.028841	0.00000001	7.07E-03
119.9047	0.258519553	0.2524996	0	0.251164	0.707491	0	896.0288411		0.00000001	7.07E-03
119.9344	0.258824151	0.2524996	0	0.251485	0.707491	0	896.0288411	897.028841	0.00000001	7.07E-03
119.9696	0.259687958	0.2524996	0	0.252362	0.707491	0	897.0288411		0.00000001	7.07E-03
119.9993	0.259641787	0.2524996	0	0.252328	0.707491	0	897.0288411	898.028841	0.00000001	7.07E-03
120.0317	0.259796974	0.2524996	0	0.2525	0.707491	0	898.0288411		0.00000001	7.07E-03
120.0588	0.259517541	0.2522561	0.000682229	0.252236	0.707491	0	898.0288411	899.028841	0.00000001	7.07E-03
120.0885	0.259140344	0.2522561	0	0.251876	0.706809	0	899.0288411		0.00000001	7.07E-03
120.1182	0.258725285	0.2522561	0	0.251477	0.706809	0	899.0288411	900.028841	0.00000001	7.07E-03
120.1507	0.258659748	0.2522561	0	0.251428	0.706809	0	900.0288411		0.00000001	7.07E-03
120.1804	0.2586022	0.2522561	0	0.251386	0.706809	0	900.0288411	901.028841	0.00000001	7.07E-03
120.2074	0.258367256	0.2522561	0	0.251164	0.706809	0	901.0288411		0.00000001	7.07E-03
120.2372	0.25824053	0.2522561	0	0.251049	0.706809	0	901.0288411	902.028841	0.00000001	7.07E-03
120.2669	0.257691388	0.2522561	0	0.250516	0.706809	0	902.0288411		0.00000001	7.07E-03
120.2939	0.257284239	0.2522561	0	0.250125	0.706809	0	902.0288411	903.028841	0.00000001	7.07E-03
120.3237	0.257384695	0.2522561	0	0.250242	0.706809	0	903.0288411		0.00000001	7.07E-03
120.3507	0.257423693	0.2522561	0	0.250297	0.706809	0	903.0288411	904.028841	0.00000001	7.07E-03
120.375	0.257286216	0.2522561	0	0.250176	0.706809	0	904.0288411		0.00000001	7.07E-03
120.4021	0.257142097	0.2522561	0	0.250048	0.706809	0	904.0288411	905.028841	0.00000001	7.07E-03
120.4264	0.257239522	0.2522561	0	0.250157	0.706809	0	905.0288411		0.00000001	7.07E-03
120.4561	0.257071119	0.2522561	0	0.250001	0.706809	0	905.0288411	906.028841	0.00000001	7.07E-03
120.4831	0.256795521	0.2522561	0	0.249742	0.706809	0	906.0288411		0.00000001	7.07E-03
120.5129	0.257240187	0.2522561	0	0.250202	0.706809	0	906.0288411	907.028841	0.00000001	7.07E-03
120.5399	0.257677289	0.2522561	0	0.250655	0.706809	0	907.0288411		0.00000001	7.07E-03
120.5669	0.25784614	0.2522561	0	0.25084	0.706809	0	907.0288411	908.028841	0.00000001	7.07E-03
120.594	0.258361613	0.2522561	0	0.251372	0.706809	0	908.0288411		0.00000001	7.07E-03
120.621	0.258434339	0.2522561	0	0.25146	0.706809	0	908.0288411	909.028841	0.00000001	7.07E-03
120.648	0.258630572	0.2522561	0	0.251669	0.706809	0	909.0288411		0.00000001	7.07E-03
120.6751	0.258590077	0.2522561	0	0.25164	0.706809	0	909.0288411	910.028841	0.00000001	7.07E-03
120.7021	0.25888982	0.2522561	0	0.251956	0.706809	0	910.0288411		0.00000001	7.07E-03
120.7291	0.258755083	0.2522561	0	0.251837	0.706809	0	910.0288411	911.028841	0.00000001	7.07E-03
120.7589	0.258678527	0.2522561	0	0.251777	0.706809	0	911.0288411		0.00000001	7.07E-03
120.7859	0.258497366	0.2522561	0	0.251611	0.706809	0	911.0288411	912.028841	0.00000001	7.07E-03
120.8129	0.258375636	0.2522561	0	0.251506	0.706809	0	912.0288411		0.00000001	7.07E-03
120.8399	0.258471318	0.2522561	0	0.251617	0.706809	0	912.0288411	913.028841	0.00000001	7.07E-03

120.8697	0.258328423	0.2522561	0	0.251487	0.706809	0	913.0288411		0.00000001	7.07E-03
120.8994	0.258100214	0.2522561	0	0.251271	0.706809	0	913.0288411	914.028841	0.00000001	7.07E-03
120.9319	0.257691717	0.2522561	0	0.250878	0.706809	0	914.0288411		0.00000001	7.07E-03
120.9589	0.256585367	0.2522561	0	0.249787	0.706809	0	914.0288411	915.028841	0.00000001	7.07E-03
120.9859	0.255820424	0.2522561	0	0.249038	0.706809	0	915.0288411		0.00000001	7.07E-03
121.0129	0.255424957	0.2522561	0	0.248659	0.706809	0	915.0288411	916.028841	0.00000001	7.07E-03
121.04	0.255233507	0.2522561	0	0.248483	0.706809	0	916.0288411		0.00000001	7.07E-03
121.0643	0.254958556	0.2522561	0	0.248224	0.706809	0	916.0288411	917.028841	0.00000001	7.07E-03
121.0913	0.254620684	0.2522561	0	0.247898	0.706809	0	917.0288411		0.00000001	7.07E-03
121.1184	0.254303662	0.2522561	0	0.247593	0.706809	0	917.0288411	918.028841	0.00000001	7.07E-03
121.1454	0.254293106	0.2522561	0	0.247598	0.706809	0	918.0288411		0.00000001	7.07E-03
121.1751	0.253817786	0.2522561	0	0.247138	0.706809	0	918.0288411	919.028841	0.00000001	7.07E-03
121.2022	0.253737728	0.2522561	0	0.247074	0.706809	0	919.0288411		0.00000001	7.07E-03
121.2265	0.253634255	0.2522561	0	0.246986	0.706809	0	919.0288411	920.028841	0.00000001	7.07E-03
121.2535	0.253156959	0.2522561	0	0.246524	0.706809	0	920.0288411		0.00000001	7.07E-03
121.2778	0.253273857	0.2522561	0	0.246657	0.706809	0	920.0288411	921.028841	0.00000001	7.07E-03
121.3049	0.25309959	0.2522561	0	0.246495	0.706809	0	921.0288411		0.00000001	7.07E-03
121.3373	0.253294974	0.2522561	0	0.246702	0.706809	0	921.0288411	922.028841	0.00000001	7.07E-03
121.3643	0.253571165	0.2522561	0	0.246994	0.706809	0	922.0288411		0.00000001	7.07E-03
121.3914	0.254213351	0.2522561	0	0.247652	0.706809	0	922.0288411	923.028841	0.00000001	7.07E-03
121.4184	0.25491171	0.2522561	0	0.248366	0.706809	0	923.0288411		0.00000001	7.07E-03
121.4481	0.254843742	0.2522561	0	0.248313	0.706809	0	923.0288411	924.028841	0.00000001	7.07E-03
121.4725	0.255181182	0.2522561	0	0.248666	0.706809	0	924.0288411		0.00000001	7.07E-03
121.4995	0.25511118	0.2522561	0	0.248612	0.706809	0	924.0288411	925.028841	0.00000001	7.07E-03
121.5292	0.255775633	0.2522561	0	0.249288	0.706809	0	925.0288411		0.00000001	7.07E-03
121.5563	0.255933358	0.2522561	0	0.249458	0.706809	0	925.0288411	926.028841	0.00000001	7.07E-03
121.5887	0.255776237	0.2522561	0	0.249317	0.706809	0	926.0288411		0.00000001	7.07E-03
121.6211	0.255696149	0.2522561	0	0.249252	0.706809	0	926.0288411	927.028841	0.00000001	7.07E-03
121.6509	0.255647658	0.2522561	0	0.249219	0.706809	0	927.0288411		0.00000001	7.07E-03
121.6806	0.255362372	0.2522561	0	0.248949	0.706809	0	927.0288411	928.028841	0.00000001	7.07E-03
121.7103	0.255291323	0.2522561	0	0.248894	0.706809	0	928.0288411		0.00000001	7.07E-03
121.7374	0.255127803	0.2522561	0	0.248746	0.706809	0	928.0288411	929.028841	0.00000001	7.07E-03
121.7698	0.25472414	0.2522561	0	0.248354	0.706809	0	929.0288411		0.00000001	7.07E-03
121.7968	0.254839481	0.2522561	0	0.248481	0.706809	0	929.0288411	930.028841	0.00000001	7.07E-03
121.8266	0.254863485	0.2522561	0	0.248521	0.706809	0	930.0288411		0.00000001	7.07E-03
121.8563	0.254512644	0.2522561	0	0.248185	0.706809	0	930.0288411	931.028841	0.00000001	7.07E-03
121.886	0.25450657	0.2522561	0	0.248195	0.706809	0	931.0288411		0.00000001	7.07E-03
121.9158	0.254806554	0.2522561	0	0.24851	0.706809	0	931.0288411	932.028841	0.00000001	7.07E-03
121.9401	0.255390676	0.2522561	0	0.24911	0.706809	0	932.0288411		0.00000001	7.07E-03
121.9644	0.255455596	0.2522561	0	0.24919	0.706809	0	932.0288411	933.028841	0.00000001	7.07E-03
121.9914	0.256213231	0.2522561	0	0.249959	0.706809	0	933.0288411		0.00000001	7.07E-03
122.0185	0.256776036	0.2522561	0	0.250534	0.706809	0	933.0288411	934.028841	0.00000001	7.07E-03
122.0455	0.257400599	0.2522561	0	0.251174	0.706809	0	934.0288411		0.00000001	7.07E-03
122.0698	0.257620799	0.2522561	0	0.251409	0.706809	0	934.0288411	935.028841	0.00000001	7.07E-03
122.0969	0.257464063	0.2522561	0	0.251268	0.706809	0	935.0288411		0.00000001	7.07E-03
122.1239	0.257511926	0.2522561	0	0.251331	0.706809	0	935.0288411	936.028841	0.00000001	7.07E-03
122.1509	0.25749837	0.2522561	0	0.251332	0.706809	0	936.0288411		0.00000001	7.07E-03
122.1752	0.257760893	0.2522561	0	0.25161	0.706809	0	936.0288411	937.028841	0.00000001	7.07E-03
122.2023	0.258110535	0.2522561	0	0.251971	0.706809	0	937.0288411		0.00000001	7.07E-03
122.2266	0.258383627	0.2522561	0	0.252256	0.706809	0	937.0288411	938.028841	0.00000001	7.07E-03
122.2509	0.258162342	0.2522205	9.96973E-05	0.25205	0.706809	0	938.0288411		0.00000001	7.07E-03
122.278	0.258317649	0.2522205	0	0.252221	0.706709	0	938.0288411	939.028841	0.00000001	7.07E-03
122.3023	0.258029964	0.2519481	0.000763443	0.251948	0.706709	0	939.0288411		0.00000001	7.07E-03
122.3293	0.257469904	0.2514032	0.001526661	0.251403	0.705945	0	939.0288411	940.028841	0.00000001	7.06E-03
122.3564	0.257139064	0.2510979	0.000855517	0.251087	0.704419	0	940.0288411		0.00000001	7.04E-03
122.3807	0.257134135	0.2510979	0	0.251098	0.703563	0	940.0288411	941.028841	0.00000001	7.04E-03
122.4131	0.257009489	0.2509848	0.000316877	0.250985	0.703563	0	941.0288411		0.00000001	7.04E-03
122.4401	0.256747182	0.250734	0.000702821	0.250734	0.703246	0	941.0288411	942.028841	0.00000001	7.03E-03
122.4645	0.256658204	0.2506603	0.000206276	0.25066	0.702544	0	942.0288411		0.00000001	7.03E-03
122.4996	0.256615381	0.2506327	7.73894E-05	0.250633	0.702337	0	942.0288411	943.028841	0.00000001	7.02E-03
122.5293	0.256118319	0.2501508	0.001350373	0.250151	0.70226	0	943.0288411		0.00000001	7.02E-03
122.5564	0.255063647	0.2491112	0.002912806	0.249111	0.700909	0	943.0288411	944.028841	0.00000001	7.01E-03
122.5834	0.254787803	0.2488504	0.0007308	0.24885	0.697997	0	944.0288411		0.00000001	6.98E-03
122.6077	0.253955745	0.2485522	0.000835415	0.248033	0.697266	0	944.0288411	945.028841	0.00000001	6.97E-03
122.6348	0.253281231	0.2485522	0	0.24737	0.69643	0	945.0288411		0.00000001	6.96E-03
122.6591	0.252868456	0.2485522	0	0.246969	0.69643	0	945.0288411	946.028841	0.00000001	6.96E-03
122.6834	0.252637326	0.2485522	0	0.246753	0.69643	0	946.0288411		0.00000001	6.96E-03
122.7077	0.252636323	0.2485522	0	0.246767	0.69643	0	946.0288411	947.028841	0.00000001	6.96E-03
122.7375	0.252570889	0.2485522	0	0.246716	0.69643	0	947.0288411		0.00000001	6.96E-03
122.7618	0.252854108	0.2485522	0	0.247015	0.69643	0	947.0288411	948.028841	0.00000001	6.96E-03
122.7861	0.252604253	0.2485522	0	0.24678	0.69643	0	948.0288411		0.00000001	6.96E-03
122.8159	0.252427967	0.2485522	0	0.246618	0.69643	0	948.0288411	949.028841	0.00000001	6.96E-03
122.8402	0.252038626	0.2485522	0	0.246241	0.69643	0	949.0288411		0.00000001	6.96E-03
122.8672	0.251531917	0.2485522	0	0.245745	0.69643	0	949.0288411	950.028841	0.00000001	6.96E-03

122.897	0.251202917	0.2485522	0	0.245431	0.69643	0	950.0288411		0.00000001	6.96E-03
122.9321	0.251431926	0.2485522	0	0.245676	0.69643	0	950.0288411	951.028841	0.00000001	6.96E-03
122.9645	0.252439455	0.2485522	0	0.246698	0.69643	0	951.0288411		0.00000001	6.96E-03
122.997	0.252978507	0.2485522	0	0.247252	0.69643	0	951.0288411	952.028841	0.00000001	6.96E-03
123.0294	0.253300035	0.2485522	0	0.247589	0.69643	0	952.0288411		0.00000001	6.96E-03
123.0591	0.253439387	0.2485522	0	0.247743	0.69643	0	952.0288411	953.028841	0.00000001	6.96E-03
123.0862	0.253508951	0.2485522	0	0.247824	0.69643	0	953.0288411		0.00000001	6.96E-03
123.1132	0.253423909	0.2485522	0	0.24775	0.69643	0	953.0288411	954.028841	0.00000001	6.96E-03
123.1429	0.253337554	0.2485522	0	0.247679	0.69643	0	954.0288411		0.00000001	6.96E-03
123.1727	0.253288828	0.2485522	0	0.247645	0.69643	0	954.0288411	955.028841	0.00000001	6.96E-03
123.2051	0.253333401	0.2485522	0	0.247704	0.69643	0	955.0288411		0.00000001	6.96E-03
123.2321	0.253572394	0.2485522	0	0.247958	0.69643	0	955.0288411	956.028841	0.00000001	6.96E-03
123.2592	0.253650476	0.2485522	0	0.248051	0.69643	0	956.0288411		0.00000001	6.96E-03
123.2862	0.253668205	0.2485522	0	0.248084	0.69643	0	956.0288411	957.028841	0.00000001	6.96E-03
123.3132	0.253718493	0.2485522	0	0.248145	0.69643	0	957.0288411		0.00000001	6.96E-03
123.3403	0.253730999	0.2485522	0	0.248169	0.69643	0	957.0288411	958.028841	0.00000001	6.96E-03
123.37	0.253799519	0.2485522	0	0.248252	0.69643	0	958.0288411		0.00000001	6.96E-03
123.397	0.253078485	0.2485522	0	0.247546	0.69643	0	958.0288411	959.028841	0.00000001	6.96E-03
123.424	0.252671567	0.2485522	0	0.247154	0.69643	0	959.0288411		0.00000001	6.96E-03
123.4511	0.252942498	0.2485522	0	0.24744	0.69643	0	959.0288411	960.028841	0.00000001	6.96E-03
123.4781	0.252331167	0.2485522	0	0.246843	0.69643	0	960.0288411		0.00000001	6.96E-03
123.5051	0.251375988	0.2485522	0	0.245902	0.69643	0	960.0288411	961.028841	0.00000001	6.96E-03
123.5295	0.251504387	0.2485522	0	0.246042	0.69643	0	961.0288411		0.00000001	6.96E-03
123.5538	0.251504387	0.2485522	0	0.246053	0.69643	0	961.0288411	962.028841	0.00000001	6.96E-03
123.5808	0.251630107	0.2485522	0	0.246194	0.69643	0	962.0288411		0.00000001	6.96E-03
123.6052	0.251766389	0.2485522	0	0.246344	0.69643	0	962.0288411	963.028841	0.00000001	6.96E-03
123.6322	0.251704497	0.2485522	0	0.246297	0.69643	0	963.0288411		0.00000001	6.96E-03
123.6565	0.251655289	0.2485522	0	0.246263	0.69643	0	963.0288411	964.028841	0.00000001	6.96E-03
123.6835	0.251958248	0.2485522	0	0.24658	0.69643	0	964.0288411		0.00000001	6.96E-03
123.7106	0.251764357	0.2485522	0	0.246401	0.69643	0	964.0288411	965.028841	0.00000001	6.96E-03
123.7403	0.252044002	0.2485522	0	0.246692	0.69643	0	965.0288411		0.00000001	6.96E-03
123.77	0.252989574	0.2485522	0	0.247648	0.69643	0	965.0288411	966.028841	0.00000001	6.96E-03
123.7944	0.252932898	0.2485522	0	0.247606	0.69643	0	966.0288411		0.00000001	6.96E-03
123.8214	0.253274821	0.2485522	0	0.247963	0.69643	0	966.0288411	967.028841	0.00000001	6.96E-03
123.8457	0.253686007	0.2485522	0	0.248388	0.69643	0	967.0288411		0.00000001	6.96E-03
123.87	0.253784179	0.2485522	0	0.248501	0.69643	0	967.0288411	968.028841	0.00000001	6.96E-03
123.8971	0.253124123	0.2485522	0	0.247856	0.69643	0	968.0288411		0.00000001	6.96E-03
123.9241	0.253262493	0.2485522	0	0.248009	0.69643	0	968.0288411	969.028841	0.00000001	6.96E-03
123.9538	0.252441985	0.2485522	0	0.247199	0.69643	0	969.0288411		0.00000001	6.96E-03
123.9836	0.251847049	0.2485522	0	0.246615	0.69643	0	969.0288411	970.028841	0.00000001	6.96E-03
124.016	0.251166231	0.2485522	0	0.245949	0.69643	0	970.0288411		0.00000001	6.96E-03
124.043	0.250621781	0.2485522	0	0.245419	0.69643	0	970.0288411	971.028841	0.00000001	6.96E-03
124.0701	0.250526954	0.2485522	0	0.245339	0.69643	0	971.0288411		0.00000001	6.96E-03
124.0971	0.250478773	0.2485522	0	0.245305	0.69643	0	971.0288411	972.028841	0.00000001	6.96E-03
124.1241	0.250209378	0.2485522	0	0.24505	0.69643	0	972.0288411		0.00000001	6.96E-03
124.1512	0.249960705	0.2485522	0	0.244816	0.69643	0	972.0288411	973.028841	0.00000001	6.96E-03
124.1755	0.249491307	0.2485522	0	0.244357	0.69643	0	973.0288411		0.00000001	6.96E-03
124.2025	0.249446665	0.2485522	0	0.244324	0.69643	0	973.0288411	974.028841	0.00000001	6.96E-03
124.2296	0.249244915	0.2485522	0	0.244136	0.69643	0	974.0288411		0.00000001	6.96E-03
124.2566	0.2493176	0.2485522	0	0.244224	0.69643	0	974.0288411	975.028841	0.00000001	6.96E-03
124.2836	0.249436322	0.2485522	0	0.244357	0.69643	0	975.0288411		0.00000001	6.96E-03
124.3106	0.249582281	0.2485522	0	0.244517	0.69643	0	975.0288411	976.028841	0.00000001	6.96E-03
124.3377	0.249739419	0.2485522	0	0.244689	0.69643	0	976.0288411		0.00000001	6.96E-03
124.3674	0.249676681	0.2485522	0	0.24464	0.69643	0	976.0288411	977.028841	0.00000001	6.96E-03
124.3917	0.24976145	0.2485522	0	0.244736	0.69643	0	977.0288411		0.00000001	6.96E-03
124.4161	0.249904555	0.2485522	0	0.24489	0.69643	0	977.0288411	978.028841	0.00000001	6.96E-03
124.4458	0.249839381	0.2485522	0	0.244839	0.69643	0	978.0288411		0.00000001	6.96E-03
124.4728	0.249676562	0.2485522	0	0.24469	0.69643	0	978.0288411	979.028841	0.00000001	6.96E-03
124.4972	0.249689643	0.2485522	0	0.244718	0.69643	0	979.0288411		0.00000001	6.96E-03
124.5242	0.250052949	0.2485522	0	0.245095	0.69643	0	979.0288411	980.028841	0.00000001	6.96E-03
124.5539	0.250491442	0.2485522	0	0.245548	0.69643	0	980.0288411		0.00000001	6.96E-03
124.5809	0.250604143	0.2485522	0	0.245675	0.69643	0	980.0288411	981.028841	0.00000001	6.96E-03
124.608	0.251049974	0.2485522	0	0.246132	0.69643	0	981.0288411		0.00000001	6.96E-03
124.6323	0.251600595	0.2485522	0	0.246693	0.69643	0	981.0288411	982.028841	0.00000001	6.96E-03
124.6593	0.251730635	0.2485522	0	0.246837	0.69643	0	982.0288411		0.00000001	6.96E-03
124.6837	0.251684235	0.2485522	0	0.246805	0.69643	0	982.0288411	983.028841	0.00000001	6.96E-03
124.7107	0.251446016	0.2485522	0	0.246581	0.69643	0	983.0288411		0.00000001	6.96E-03
124.7377	0.251471903	0.2485522	0	0.246621	0.69643	0	983.0288411	984.028841	0.00000001	6.96E-03
124.7675	0.251583529	0.2485522	0	0.246747	0.69643	0	984.0288411		0.00000001	6.96E-03
124.7999	0.252087686	0.2485522	0	0.247266	0.69643	0	984.0288411	985.028841	0.00000001	6.96E-03
124.8269	0.251959116	0.2485522	0	0.247148	0.69643	0	985.0288411		0.00000001	6.96E-03
124.8594	0.251749346	0.2485522	0	0.246949	0.69643	0	985.0288411	986.028841	0.00000001	6.96E-03
124.8891	0.251802155	0.2485522	0	0.247016	0.69643	0	986.0288411		0.00000001	6.96E-03
124.9188	0.251696293	0.2485522	0	0.246924	0.69643	0	986.0288411	987.028841	0.00000001	6.96E-03

124.9486	0.251668477	0.2485522	0	0.246911	0.69643	0	987.0288411		0.00000001	6.96E-03
124.9756	0.251238641	0.2485522	0	0.246495	0.69643	0	987.0288411	988.028841	0.00000001	6.96E-03
125.0053	0.250496236	0.2485522	0	0.245767	0.69643	0	988.0288411		0.00000001	6.96E-03
125.0297	0.249986634	0.2485522	0	0.245271	0.69643	0	988.0288411	989.028841	0.00000001	6.96E-03
125.0567	0.249812978	0.2485522	0	0.245108	0.69643	0	989.0288411		0.00000001	6.96E-03
125.0837	0.249852372	0.2485522	0	0.245158	0.69643	0	989.0288411	990.028841	0.00000001	6.96E-03
125.108	0.249935361	0.2485522	0	0.245255	0.69643	0	990.0288411		0.00000001	6.96E-03
125.1351	0.249840429	0.2485522	0	0.245174	0.69643	0	990.0288411	991.028841	0.00000001	6.96E-03
125.1621	0.250011676	0.2485522	0	0.24536	0.69643	0	991.0288411		0.00000001	6.96E-03
125.1891	0.250475983	0.2485522	0	0.245838	0.69643	0	991.0288411	992.028841	0.00000001	6.96E-03
125.2162	0.250534584	0.2485522	0	0.245911	0.69643	0	992.0288411		0.00000001	6.96E-03
125.2432	0.250607174	0.2485522	0	0.245997	0.69643	0	992.0288411	993.028841	0.00000001	6.96E-03
125.2702	0.250849775	0.2485522	0	0.24625	0.69643	0	993.0288411		0.00000001	6.96E-03
125.2973	0.2509856	0.2485522	0	0.246397	0.69643	0	993.0288411	994.028841	0.00000001	6.96E-03
125.3243	0.250979322	0.2485522	0	0.246405	0.69643	0	994.0288411		0.00000001	6.96E-03
125.3513	0.250900369	0.2485522	0	0.24634	0.69643	0	994.0288411	995.028841	0.00000001	6.96E-03
125.3783	0.25122986	0.2485522	0	0.246683	0.69643	0	995.0288411		0.00000001	6.96E-03
125.4054	0.251719208	0.2485522	0	0.247186	0.69643	0	995.0288411	996.028841	0.00000001	6.96E-03
125.4324	0.251667734	0.2485522	0	0.247149	0.69643	0	996.0288411		0.00000001	6.96E-03
125.4567	0.251524778	0.2485522	0	0.24702	0.69643	0	996.0288411	997.028841	0.00000001	6.96E-03
125.4811	0.25169316	0.2485522	0	0.247199	0.69643	0	997.0288411		0.00000001	6.96E-03
125.5081	0.251960966	0.2485522	0	0.247477	0.69643	0	997.0288411	998.028841	0.00000001	6.96E-03
125.5351	0.251789042	0.2485522	0	0.247319	0.69643	0	998.0288411		0.00000001	6.96E-03
125.5594	0.251911028	0.2485522	0	0.247455	0.69643	0	998.0288411	999.028841	0.00000001	6.96E-03
125.5865	0.252126474	0.2485522	0	0.247684	0.69643	0	999.0288411		0.00000001	6.96E-03
125.6162	0.25247034	0.2485522	0	0.248042	0.69643	0	999.0288411	1000.02884	0.00000001	6.96E-03
125.6459	0.252741592	0.2485522	0	0.248327	0.69643	0	1000.028841		0.00000001	6.96E-03
125.6703	0.252952949	0.2485522	0	0.248552	0.69643	0	1000.028841	1001.02884	0.00000001	6.96E-03
125.7	0.252879863	0.2484896	0.000175504	0.24849	0.69643	0	1001.028841		0.00000001	6.96E-03
125.7243	0.252475017	0.2480953	0.001104801	0.248095	0.696255	0	1001.028841	1002.02884	0.00000001	6.96E-03
125.7541	0.25175706	0.2473912	0.001972841	0.247391	0.69515	0	1002.028841		0.00000001	6.95E-03
125.7838	0.250196706	0.2458447	0.00433337	0.245845	0.693177	0	1002.028841	1003.02884	0.00000001	6.93E-03
125.8108	0.24972799	0.2453896	0.00127498	0.24539	0.688844	0	1003.028841		0.00000001	6.89E-03
125.8325	0.249352491	0.2450279	0.001013675	0.245028	0.687569	0	1003.028841	1004.02884	0.00000001	6.88E-03
125.8568	0.248948131	0.2446373	0.001094428	0.244637	0.686555	0	1004.028841		0.00000001	6.87E-03
125.8838	0.24835576	0.2440586	0.001621401	0.244059	0.685461	0	1004.028841	1005.02884	0.00000001	6.85E-03
125.9081	0.248259617	0.2439729	0.000240141	0.243973	0.683839	0	1005.028841		0.00000001	6.84E-03
125.9352	0.247948444	0.2436721	0.000842668	0.243672	0.683599	0	1005.028841	1006.02884	0.00000001	6.84E-03
125.9622	0.247602374	0.2433483	0.000907415	0.24334	0.682757	0	1006.028841		0.00000001	6.83E-03
125.9865	0.247352532	0.2433483	0	0.243104	0.681849	0	1006.028841	1007.02884	0.00000001	6.82E-03
126.0109	0.247411686	0.2433483	0	0.243176	0.681849	0	1007.028841		0.00000001	6.82E-03
126.0352	0.247567447	0.2433483	0	0.243346	0.681849	0	1007.028841	1008.02884	0.00000001	6.82E-03
126.0595	0.247556275	0.2433483	0	0.243348	0.681849	0	1008.028841		0.00000001	6.82E-03
126.0865	0.247233645	0.2432172	0.000367316	0.243039	0.681849	0	1008.028841	1009.02884	0.00000001	6.82E-03
126.1109	0.247193341	0.2432172	0	0.243009	0.681482	0	1009.028841		0.00000001	6.81E-03
126.1352	0.246815705	0.2432172	0	0.242642	0.681482	0	1009.028841	1010.02884	0.00000001	6.81E-03
126.1595	0.246638842	0.2432172	0	0.242479	0.681482	0	1010.028841		0.00000001	6.81E-03
126.1865	0.246625875	0.2432172	0	0.242479	0.681482	0	1010.028841	1011.02884	0.00000001	6.81E-03
126.2136	0.246636011	0.2432172	0	0.242503	0.681482	0	1011.028841		0.00000001	6.81E-03
126.2379	0.246746209	0.2432172	0	0.242627	0.681482	0	1011.028841	1012.02884	0.00000001	6.81E-03
126.2649	0.246855551	0.2432172	0	0.24275	0.681482	0	1012.028841		0.00000001	6.81E-03
126.292	0.246901461	0.2432172	0	0.242809	0.681482	0	1012.028841	1013.02884	0.00000001	6.81E-03
126.319	0.246915368	0.2432172	0	0.242834	0.681482	0	1013.028841		0.00000001	6.81E-03
126.3433	0.247006092	0.2432172	0	0.242935	0.681482	0	1013.028841	1014.02884	0.00000001	6.81E-03
126.3731	0.24727505	0.2432172	0	0.243217	0.681482	0	1014.028841		0.00000001	6.81E-03
126.4028	0.247109318	0.243065	0.000426403	0.243065	0.681482	0	1014.028841	1015.02884	0.00000001	6.81E-03
126.4298	0.246881928	0.2430318	9.31447E-05	0.242851	0.681055	0	1015.028841		0.00000001	6.81E-03
126.4569	0.247049005	0.2430318	0	0.243032	0.680962	0	1015.028841	1016.02884	0.00000001	6.81E-03
126.4839	0.246822551	0.2428188	0.000596632	0.242819	0.680962	0	1016.028841		0.00000001	6.81E-03
126.5109	0.246534762	0.2425446	0.000768521	0.242545	0.680366	0	1016.028841	1017.02884	0.00000001	6.80E-03
126.5379	0.246320068	0.2423402	0.000572724	0.24234	0.679597	0	1017.028841		0.00000001	6.80E-03
126.5677	0.245791276	0.2418216	0.001452963	0.241822	0.679024	0	1017.028841	1018.02884	0.00000001	6.79E-03
126.5947	0.245092581	0.2411364	0.001919803	0.241136	0.677572	0	1018.028841		0.00000001	6.78E-03
126.6244	0.244170746	0.2402281	0.002545194	0.240228	0.675652	0	1018.028841	1019.02884	0.00000001	6.76E-03
126.6515	0.243887571	0.2399584	0.000755597	0.239958	0.673107	0	1019.028841		0.00000001	6.73E-03
126.6812	0.243419945	0.2395042	0.001272717	0.239504	0.672351	0	1019.028841	1020.02884	0.00000001	6.72E-03
126.7055	0.242979366	0.239077	0.001196827	0.239077	0.671078	0	1020.028841		0.00000001	6.71E-03
126.7326	0.242674107	0.2387851	0.000817962	0.238785	0.669881	0	1020.028841	1021.02884	0.00000001	6.70E-03
126.7542	0.242022899	0.2387508	9.60153E-05	0.238144	0.669063	0	1021.028841		0.00000001	6.69E-03
126.7785	0.241954744	0.2387508	0	0.238086	0.668967	0	1021.028841	1022.02884	0.00000001	6.69E-03
126.8028	0.241753706	0.2387508	0	0.237898	0.668967	0	1022.028841		0.00000001	6.69E-03
126.8299	0.242256341	0.2387508	0	0.238414	0.668967	0	1022.028841	1023.02884	0.00000001	6.69E-03
126.8542	0.242579549	0.2387508	0	0.238751	0.668967	0	1023.028841		0.00000001	6.69E-03
126.8758	0.242547057	0.2387317	5.35824E-05	0.238732	0.668967	0	1023.028841	1024.02884	0.00000001	6.69E-03

126.9029	0.242502821	0.2387008	8.65179E-05	0.238701	0.668914	0	1024.028841		0.00000001	6.69E-03
126.9299	0.242402264	0.2386136	0.000244485	0.238614	0.668827	0	1024.028841	1025.02884	0.00000001	6.69E-03
126.9542	0.242113315	0.2383347	0.000781399	0.238335	0.668583	0	1025.028841		0.00000001	6.69E-03
126.9785	0.241903227	0.2381812	0.000430152	0.238135	0.667801	0	1025.028841	1026.02884	0.00000001	6.68E-03
127.0056	0.241819491	0.2381812	0	0.238064	0.667371	0	1026.028841		0.00000001	6.67E-03
127.0326	0.241902559	0.2381812	0	0.238161	0.667371	0	1026.028841	1027.02884	0.00000001	6.67E-03
127.0596	0.2419098	0.2381812	0	0.238181	0.667371	0	1027.028841		0.00000001	6.67E-03
127.084	0.241735998	0.2380206	0.000449873	0.238021	0.667371	0	1027.028841	1028.02884	0.00000001	6.67E-03
127.1083	0.241473915	0.2377718	0.00069726	0.237772	0.666921	0	1028.028841		0.00000001	6.67E-03
127.1326	0.241353324	0.2376644	0.000300964	0.237664	0.666224	0	1028.028841	1029.02884	0.00000001	6.66E-03
127.1542	0.241297389	0.2376185	0.000128551	0.237618	0.665923	0	1029.028841		0.00000001	6.66E-03
127.1813	0.24108271	0.2374138	0.000573485	0.237414	0.665795	0	1029.028841	1030.02884	0.00000001	6.66E-03
127.2056	0.240918324	0.2372627	0.0004235	0.237263	0.665221	0	1030.028841		0.00000001	6.65E-03
127.2326	0.240843056	0.2372006	0.000173821	0.237201	0.664798	0	1030.028841	1031.02884	0.00000001	6.65E-03
127.2597	0.240539502	0.2369103	0.0008135	0.23691	0.664624	0	1031.028841		0.00000001	6.65E-03
127.2867	0.24017048	0.2365545	0.000996962	0.236554	0.66381	0	1031.028841	1032.02884	0.00000001	6.64E-03
127.3137	0.240079284	0.2364765	0.000218541	0.236476	0.662813	0	1032.028841		0.00000001	6.63E-03
127.3407	0.239972333	0.2363828	0.000262593	0.236383	0.662595	0	1032.028841	1033.02884	0.00000001	6.63E-03
127.3705	0.239580869	0.2360013	0.00106874	0.236001	0.662332	0	1033.028841		0.00000001	6.62E-03
127.4002	0.238879925	0.2353103	0.001936146	0.23531	0.661263	0	1033.028841	1034.02884	0.00000001	6.61E-03
127.4245	0.238548952	0.2351154	0.000546118	0.234993	0.659327	0	1034.028841		0.00000001	6.59E-03
127.4516	0.238387321	0.2351154	0	0.234844	0.658781	0	1034.028841	1035.02884	0.00000001	6.59E-03
127.4759	0.238060922	0.2351154	0	0.234531	0.658781	0	1035.028841		0.00000001	6.59E-03
127.5002	0.237730166	0.2351154	0	0.234213	0.658781	0	1035.028841	1036.02884	0.00000001	6.59E-03
127.5273	0.237302386	0.2351154	0	0.233798	0.658781	0	1036.028841		0.00000001	6.59E-03
127.5489	0.236556584	0.2351154	0	0.233066	0.658781	0	1036.028841	1037.02884	0.00000001	6.59E-03
127.5705	0.236089532	0.2351154	0	0.232608	0.658781	0	1037.028841		0.00000001	6.59E-03
127.5948	0.236160406	0.2351154	0	0.232689	0.658781	0	1037.028841	1038.02884	0.00000001	6.59E-03
127.6192	0.236631556	0.2351154	0	0.233173	0.658781	0	1038.028841		0.00000001	6.59E-03
127.6435	0.236568995	0.2351154	0	0.233124	0.658781	0	1038.028841	1039.02884	0.00000001	6.59E-03
127.6678	0.236564613	0.2351154	0	0.233132	0.658781	0	1039.028841		0.00000001	6.59E-03
127.6894	0.236476551	0.2351154	0	0.233057	0.658781	0	1039.028841	1040.02884	0.00000001	6.59E-03
127.7138	0.236760385	0.2351154	0	0.233354	0.658781	0	1040.028841		0.00000001	6.59E-03
127.7381	0.237183438	0.2351154	0	0.23379	0.658781	0	1040.028841	1041.02884	0.00000001	6.59E-03
127.7624	0.237462451	0.2351154	0	0.234079	0.658781	0	1041.028841		0.00000001	6.59E-03
127.7867	0.237263324	0.2351154	0	0.23389	0.658781	0	1041.028841	1042.02884	0.00000001	6.59E-03
127.8138	0.237112975	0.2351154	0	0.233753	0.658781	0	1042.028841		0.00000001	6.59E-03
127.8408	0.237236006	0.2351154	0	0.233889	0.658781	0	1042.028841	1043.02884	0.00000001	6.59E-03
127.8651	0.237543209	0.2351154	0	0.234209	0.658781	0	1043.028841		0.00000001	6.59E-03
127.8922	0.237685984	0.2351154	0	0.234364	0.658781	0	1043.028841	1044.02884	0.00000001	6.59E-03
127.9165	0.237693286	0.2351154	0	0.234385	0.658781	0	1044.028841		0.00000001	6.59E-03
127.9435	0.23784607	0.2351154	0	0.23455	0.658781	0	1044.028841	1045.02884	0.00000001	6.59E-03
127.9678	0.238150786	0.2351154	0	0.234865	0.658781	0	1045.028841		0.00000001	6.59E-03
127.9922	0.23829439	0.2351154	0	0.235018	0.658781	0	1045.028841	1046.02884	0.00000001	6.59E-03
128.0165	0.238153202	0.2351154	0	0.23489	0.658781	0	1046.028841		0.00000001	6.59E-03
128.0435	0.237863133	0.2351154	0	0.234613	0.658781	0	1046.028841	1047.02884	0.00000001	6.59E-03
128.0679	0.237866353	0.2351154	0	0.234629	0.658781	0	1047.028841		0.00000001	6.59E-03
128.0922	0.237817815	0.2351154	0	0.234593	0.658781	0	1047.028841	1048.02884	0.00000001	6.59E-03
128.1165	0.237905902	0.2351154	0	0.234694	0.658781	0	1048.028841		0.00000001	6.59E-03
128.1408	0.238314339	0.2351154	0	0.235115	0.658781	0	1048.028841	1049.02884	0.00000001	6.59E-03
128.1652	0.23827627	0.2350872	7.91533E-05	0.235087	0.658781	0	1049.028841		0.00000001	6.59E-03
128.1922	0.238266592	0.2350872	0	0.235087	0.658702	0	1049.028841	1050.02884	0.00000001	6.59E-03
128.2192	0.238148732	0.2350036	0.000234257	0.234982	0.658702	0	1050.028841		0.00000001	6.59E-03
128.2436	0.237568053	0.2350036	0	0.234414	0.658468	0	1050.028841	1051.02884	0.00000001	6.58E-03
128.2679	0.237006356	0.2350036	0	0.233865	0.658468	0	1051.028841		0.00000001	6.58E-03
128.2949	0.236526226	0.2350036	0	0.233398	0.658468	0	1051.028841	1052.02884	0.00000001	6.58E-03
128.3219	0.236129631	0.2350036	0	0.233014	0.658468	0	1052.028841		0.00000001	6.58E-03
128.3463	0.235552921	0.2350036	0	0.23245	0.658468	0	1052.028841	1053.02884	0.00000001	6.58E-03
128.3706	0.23475745	0.2350036	0	0.231665	0.658468	0	1053.028841		0.00000001	6.58E-03
128.3949	0.234547853	0.2350036	0	0.231465	0.658468	0	1053.028841	1054.02884	0.00000001	6.58E-03
128.4193	0.234578585	0.2350036	0	0.231508	0.658468	0	1054.028841		0.00000001	6.58E-03
128.4436	0.234657624	0.2350036	0	0.2316	0.658468	0	1054.028841	1055.02884	0.00000001	6.58E-03
128.4679	0.234595979	0.2350036	0	0.231551	0.658468	0	1055.028841		0.00000001	6.58E-03
128.4895	0.23463996	0.2350036	0	0.231608	0.658468	0	1055.028841	1056.02884	0.00000001	6.58E-03
128.5139	0.23467617	0.2350036	0	0.231656	0.658468	0	1056.028841		0.00000001	6.58E-03
128.5355	0.234959311	0.2350036	0	0.231952	0.658468	0	1056.028841	1057.02884	0.00000001	6.58E-03
128.5571	0.235359226	0.2350036	0	0.232362	0.658468	0	1057.028841		0.00000001	6.58E-03
128.5814	0.235131754	0.2350036	0	0.232144	0.658468	0	1057.028841	1058.02884	0.00000001	6.58E-03
128.6112	0.235240482	0.2350036	0	0.232265	0.658468	0	1058.028841		0.00000001	6.58E-03
128.6382	0.23559373	0.2350036	0	0.232631	0.658468	0	1058.028841	1059.02884	0.00000001	6.58E-03
128.6652	0.236112165	0.2350036	0	0.233162	0.658468	0	1059.028841		0.00000001	6.58E-03
128.6923	0.236999128	0.2350036	0	0.234062	0.658468	0	1059.028841	1060.02884	0.00000001	6.58E-03
128.7193	0.237587777	0.2350036	0	0.234663	0.658468	0	1060.028841		0.00000001	6.58E-03
128.7463	0.237890855	0.2350036	0	0.234979	0.658468	0	1060.028841	1061.02884	0.00000001	6.58E-03

128.7679	0.237905843	0.2350036	0	0.235004	0.658468	0	1061.028841		0.00000001	6.58E-03
128.7896	0.237841349	0.2349486	0.000153993	0.234949	0.658468	0	1061.028841	1062.02884	0.00000001	6.58E-03
128.8139	0.237344397	0.2344643	0.001357039	0.234464	0.658314	0	1062.028841		0.00000001	6.58E-03
128.8409	0.237049051	0.2343494	0.000322028	0.234182	0.656957	0	1062.028841	1063.02884	0.00000001	6.57E-03
128.8653	0.236737684	0.2343494	0	0.233883	0.656635	0	1063.028841		0.00000001	6.57E-03
128.8923	0.23680504	0.2343494	0	0.233963	0.656635	0	1063.028841	1064.02884	0.00000001	6.57E-03
128.9193	0.236913218	0.2343494	0	0.234084	0.656635	0	1064.028841		0.00000001	6.57E-03
128.9463	0.236885371	0.2343494	0	0.234068	0.656635	0	1064.028841	1065.02884	0.00000001	6.57E-03
128.9734	0.237108024	0.2343494	0	0.2343	0.656635	0	1065.028841		0.00000001	6.57E-03
129.0004	0.237147489	0.2343494	0	0.234349	0.656635	0	1065.028841	1066.02884	0.00000001	6.57E-03
129.0247	0.236747204	0.2339616	0.001086482	0.233962	0.656635	0	1066.028841		0.00000001	6.57E-03
129.0491	0.236340177	0.2335671	0.001105402	0.233567	0.655548	0	1066.028841	1067.02884	0.00000001	6.56E-03
129.0734	0.236315663	0.2335551	3.37387E-05	0.233555	0.654443	0	1067.028841		0.00000001	6.54E-03
129.095	0.236196253	0.2334482	0.000299472	0.233448	0.654409	0	1067.028841	1068.02884	0.00000001	6.54E-03
129.122	0.236095231	0.2333597	0.000248068	0.23336	0.65411	0	1068.028841		0.00000001	6.54E-03
129.1464	0.236073909	0.2333508	2.47811E-05	0.233351	0.653862	0	1068.028841	1069.02884	0.00000001	6.54E-03
129.1707	0.235917617	0.233204	0.000411419	0.233204	0.653837	0	1069.028841		0.00000001	6.54E-03
129.1977	0.235035638	0.2324589	0.002087591	0.232331	0.653425	0	1069.028841	1070.02884	0.00000001	6.53E-03
129.2221	0.234944128	0.2324589	0	0.232252	0.651338	0	1070.028841		0.00000001	6.51E-03
129.2437	0.23500431	0.2324589	0	0.232325	0.651338	0	1070.028841	1071.02884	0.00000001	6.51E-03
129.268	0.23496371	0.2324589	0	0.232297	0.651338	0	1071.028841		0.00000001	6.51E-03
129.2923	0.234991289	0.2324589	0	0.232337	0.651338	0	1071.028841	1072.02884	0.00000001	6.51E-03
129.314	0.234756771	0.2324589	0	0.232115	0.651338	0	1072.028841		0.00000001	6.51E-03
129.3383	0.234543409	0.2324589	0	0.231914	0.651338	0	1072.028841	1073.02884	0.00000001	6.51E-03
129.3599	0.234354151	0.2324589	0	0.231734	0.651338	0	1073.028841		0.00000001	6.51E-03
129.3815	0.23420024	0.2324589	0	0.231589	0.651338	0	1073.028841	1074.02884	0.00000001	6.51E-03
129.4059	0.234170968	0.2324589	0	0.231572	0.651338	0	1074.028841		0.00000001	6.51E-03
129.4329	0.234225063	0.2324589	0	0.231639	0.651338	0	1074.028841	1075.02884	0.00000001	6.51E-03
129.4572	0.234043927	0.2324589	0	0.23147	0.651338	0	1075.028841		0.00000001	6.51E-03
129.4815	0.23401335	0.2324589	0	0.231452	0.651338	0	1075.028841	1076.02884	0.00000001	6.51E-03
129.5059	0.234431431	0.2324589	0	0.231882	0.651338	0	1076.028841		0.00000001	6.51E-03
129.5329	0.234841696	0.2324589	0	0.232305	0.651338	0	1076.028841	1077.02884	0.00000001	6.51E-03
129.5572	0.234986455	0.2324589	0	0.232459	0.651338	0	1077.028841		0.00000001	6.51E-03
129.5789	0.234684536	0.2321663	0.000819876	0.232166	0.651338	0	1077.028841	1078.02884	0.00000001	6.51E-03
129.6032	0.234286847	0.2317809	0.001079806	0.231781	0.650518	0	1078.028841		0.00000001	6.51E-03
129.6275	0.234024361	0.2315308	0.00070083	0.231531	0.649438	0	1078.028841	1079.02884	0.00000001	6.49E-03
129.6572	0.233613555	0.2314262	0.000293096	0.231132	0.648737	0	1079.028841		0.00000001	6.49E-03
129.6843	0.233338413	0.2314262	0	0.23087	0.648444	0	1079.028841	1080.02884	0.00000001	6.48E-03
129.714	0.233437783	0.2314262	0	0.230981	0.648444	0	1080.028841		0.00000001	6.48E-03
129.7437	0.233365344	0.2314262	0	0.230921	0.648444	0	1080.028841	1081.02884	0.00000001	6.48E-03
129.7708	0.23386117	0.2314262	0	0.231426	0.648444	0	1081.028841		0.00000001	6.48E-03
129.7978	0.233733429	0.2313077	0.000331997	0.231308	0.648444	0	1081.028841	1082.02884	0.00000001	6.48E-03
129.8221	0.233014764	0.2306013	0.001979363	0.230601	0.648112	0	1082.028841		0.00000001	6.48E-03
129.8465	0.232583348	0.2301821	0.001174531	0.230182	0.646133	0	1082.028841	1083.02884	0.00000001	6.46E-03
129.8708	0.2324613	0.2300723	0.000307562	0.230072	0.644958	0	1083.028841		0.00000001	6.45E-03
129.9005	0.232192165	0.2298154	0.000719883	0.229815	0.644651	0	1083.028841	1084.02884	0.00000001	6.45E-03
129.9248	0.231810469	0.229573	0.000679164	0.229446	0.643931	0	1084.028841		0.00000001	6.44E-03
129.9519	0.231390091	0.229573	0	0.229038	0.643252	0	1084.028841	1085.02884	0.00000001	6.43E-03
129.9789	0.230892634	0.229573	0	0.22855	0.643252	0	1085.028841		0.00000001	6.43E-03
130.0032	0.23037301	0.229573	0	0.228039	0.643252	0	1085.028841	1086.02884	0.00000001	6.43E-03
130.0249	0.230147579	0.229573	0	0.227826	0.643252	0	1086.028841		0.00000001	6.43E-03
130.0492	0.230024576	0.229573	0	0.227715	0.643252	0	1086.028841	1087.02884	0.00000001	6.43E-03
130.0735	0.229856554	0.229573	0	0.227559	0.643252	0	1087.028841		0.00000001	6.43E-03
130.0978	0.229392761	0.229573	0	0.227107	0.643252	0	1087.028841	1088.02884	0.00000001	6.43E-03
130.1222	0.228802435	0.229573	0	0.226529	0.643252	0	1088.028841		0.00000001	6.43E-03
130.1492	0.228801601	0.229573	0	0.226541	0.643252	0	1088.028841	1089.02884	0.00000001	6.43E-03
130.1735	0.22898313	0.229573	0	0.226731	0.643252	0	1089.028841		0.00000001	6.43E-03
130.1951	0.228964856	0.229573	0	0.226722	0.643252	0	1089.028841	1090.02884	0.00000001	6.43E-03
130.2195	0.228621676	0.229573	0	0.226391	0.643252	0	1090.028841		0.00000001	6.43E-03
130.2465	0.229180588	0.229573	0	0.226962	0.643252	0	1090.028841	1091.02884	0.00000001	6.43E-03
130.2708	0.229304468	0.229573	0	0.227098	0.643252	0	1091.028841		0.00000001	6.43E-03
130.2979	0.229698262	0.229573	0	0.227504	0.643252	0	1091.028841	1092.02884	0.00000001	6.43E-03
130.3222	0.230261925	0.229573	0	0.22808	0.643252	0	1092.028841		0.00000001	6.43E-03
130.3465	0.230544641	0.229573	0	0.228374	0.643252	0	1092.028841	1093.02884	0.00000001	6.43E-03
130.3681	0.230997434	0.229573	0	0.228836	0.643252	0	1093.028841		0.00000001	6.43E-03
130.3925	0.231457571	0.229573	0	0.229306	0.643252	0	1093.028841	1094.02884	0.00000001	6.43E-03
130.4168	0.231260541	0.229573	0	0.229121	0.643252	0	1094.028841		0.00000001	6.43E-03
130.4438	0.231474928	0.229573	0	0.229347	0.643252	0	1094.028841	1095.02884	0.00000001	6.43E-03
130.4655	0.231688973	0.229573	0	0.229573	0.643252	0	1095.028841		0.00000001	6.43E-03
130.4925	0.23158172	0.2295211	0.000145427	0.229478	0.643252	0	1095.028841	1096.02884	0.00000001	6.43E-03
130.5222	0.2313414	0.2295211	0	0.22925	0.643106	0	1096.028841		0.00000001	6.43E-03
130.5492	0.231210086	0.2295211	0	0.22913	0.643106	0	1096.028841	1097.02884	0.00000001	6.43E-03
130.5709	0.231495834	0.2295211	0	0.229425	0.643106	0	1097.028841		0.00000001	6.43E-03
130.5952	0.231582924	0.2295211	0	0.229521	0.643106	0	1097.028841	1098.02884	0.00000001	6.43E-03

130.6222	0.231311319	0.2292615	0.000727427	0.229262	0.643106	0	1098.028841		0.00000001	6.43E-03
130.6493	0.230628625	0.2285908	0.001879446	0.228591	0.642379	0	1098.028841	1099.02884	0.00000001	6.42E-03
130.6709	0.229749289	0.2277234	0.00243024	0.227723	0.640499	0	1099.028841		0.00000001	6.40E-03
130.7006	0.229070891	0.227057	0.001867317	0.227057	0.638069	0	1099.028841	1100.02884	0.00000001	6.38E-03
130.7276	0.228536266	0.2265343	0.001464498	0.226534	0.636202	0	1100.028841		0.00000001	6.36E-03
130.7547	0.228272549	0.2262825	0.000705457	0.226283	0.634737	0	1100.028841	1101.02884	0.00000001	6.35E-03
130.7817	0.227020424	0.2250394	0.003483271	0.225039	0.634032	0	1101.028841		0.00000001	6.34E-03
130.8033	0.226432289	0.2244602	0.001622823	0.22446	0.630549	0	1101.028841	1102.02884	0.00000001	6.31E-03
130.825	0.226092023	0.2241318	0.000920072	0.224132	0.628926	0	1102.028841		0.00000001	6.29E-03
130.8493	0.225909712	0.2239614	0.00047745	0.223961	0.628006	0	1102.028841	1103.02884	0.00000001	6.28E-03
130.8763	0.225382157	0.2239533	2.27063E-05	0.223446	0.627528	0	1103.028841		0.00000001	6.28E-03
130.9006	0.225106032	0.2239533	0	0.223181	0.627506	0	1103.028841	1104.02884	0.00000001	6.28E-03
130.925	0.225109641	0.2239533	0	0.223197	0.627506	0	1104.028841		0.00000001	6.28E-03
130.9493	0.224900521	0.2239533	0	0.223	0.627506	0	1104.028841	1105.02884	0.00000001	6.28E-03
130.9736	0.224289887	0.2239533	0	0.222398	0.627506	0	1105.028841		0.00000001	6.28E-03
130.9952	0.224050219	0.2239533	0	0.222167	0.627506	0	1105.028841	1106.02884	0.00000001	6.28E-03
131.0169	0.224326367	0.2239533	0	0.222455	0.627506	0	1106.028841		0.00000001	6.28E-03
131.0412	0.224759602	0.2239533	0	0.2229	0.627506	0	1106.028841	1107.02884	0.00000001	6.28E-03
131.0655	0.224756313	0.2239533	0	0.222909	0.627506	0	1107.028841		0.00000001	6.28E-03
131.0871	0.224859123	0.2239533	0	0.223023	0.627506	0	1107.028841	1108.02884	0.00000001	6.28E-03
131.1088	0.224884514	0.2239533	0	0.223061	0.627506	0	1108.028841		0.00000001	6.28E-03
131.1304	0.224989611	0.2239533	0	0.223177	0.627506	0	1108.028841	1109.02884	0.00000001	6.28E-03
131.1574	0.225038072	0.2239533	0	0.223235	0.627506	0	1109.028841		0.00000001	6.28E-03
131.1845	0.225189495	0.2239533	0	0.223395	0.627506	0	1109.028841	1110.02884	0.00000001	6.28E-03
131.2061	0.225317063	0.2239533	0	0.223534	0.627506	0	1110.028841		0.00000001	6.28E-03
131.2304	0.225246205	0.2239533	0	0.223475	0.627506	0	1110.028841	1111.02884	0.00000001	6.28E-03
131.2574	0.22508929	0.2239533	0	0.22333	0.627506	0	1111.028841		0.00000001	6.28E-03
131.2818	0.224755046	0.2239533	0	0.223008	0.627506	0	1111.028841	1112.02884	0.00000001	6.28E-03
131.3115	0.224670297	0.2239533	0	0.222935	0.627506	0	1112.028841		0.00000001	6.28E-03
131.3385	0.225016275	0.2239533	0	0.223292	0.627506	0	1112.028841	1113.02884	0.00000001	6.28E-03
131.3629	0.225446118	0.2239533	0	0.223731	0.627506	0	1113.028841		0.00000001	6.28E-03
131.3899	0.225659503	0.2239533	0	0.223953	0.627506	0	1113.028841	1114.02884	0.00000001	6.28E-03
131.4196	0.225565226	0.2238708	0.000231269	0.223871	0.627506	0	1114.028841		0.00000001	6.28E-03
131.4494	0.225529017	0.2238463	6.8651E-05	0.223846	0.627274	0	1114.028841	1115.02884	0.00000001	6.27E-03
131.4764	0.225312204	0.2236412	0.000574773	0.223641	0.627206	0	1115.028841		0.00000001	6.27E-03
131.5007	0.224607387	0.222948	0.001942105	0.222948	0.626631	0	1115.028841	1116.02884	0.00000001	6.27E-03
131.5277	0.223793795	0.2221461	0.002246911	0.222146	0.624689	0	1116.028841		0.00000001	6.25E-03
131.5548	0.22338674	0.2217538	0.001099219	0.221751	0.622442	0	1116.028841	1117.02884	0.00000001	6.22E-03
131.5818	0.223106918	0.2217538	0	0.22148	0.621343	0	1117.028841		0.00000001	6.21E-03
131.6061	0.222664928	0.2217538	0	0.221046	0.621343	0	1117.028841	1118.02884	0.00000001	6.21E-03
131.6305	0.22218019	0.2217538	0	0.220573	0.621343	0	1118.028841		0.00000001	6.21E-03
131.6521	0.222235129	0.2217538	0	0.22064	0.621343	0	1118.028841	1119.02884	0.00000001	6.21E-03
131.6764	0.222116766	0.2217538	0	0.220533	0.621343	0	1119.028841		0.00000001	6.21E-03
131.7007	0.221682122	0.2217538	0	0.22011	0.621343	0	1119.028841	1120.02884	0.00000001	6.21E-03
131.7305	0.221276738	0.2217538	0	0.219716	0.621343	0	1120.028841		0.00000001	6.21E-03
131.7548	0.220880047	0.2217538	0	0.219331	0.621343	0	1120.028841	1121.02884	0.00000001	6.21E-03
131.7764	0.220634819	0.2217538	0	0.219095	0.621343	0	1121.028841		0.00000001	6.21E-03
131.7953	0.220456013	0.2217538	0	0.218925	0.621343	0	1121.028841	1122.02884	0.00000001	6.21E-03
131.817	0.220540736	0.2217538	0	0.219021	0.621343	0	1122.028841		0.00000001	6.21E-03
131.8386	0.220360399	0.2217538	0	0.218852	0.621343	0	1122.028841	1123.02884	0.00000001	6.21E-03
131.8629	0.219971543	0.2217538	0	0.218475	0.621343	0	1123.028841		0.00000001	6.21E-03
131.8845	0.21962639	0.2217538	0	0.218141	0.621343	0	1123.028841	1124.02884	0.00000001	6.21E-03
131.9116	0.219610846	0.2217538	0	0.218137	0.621343	0	1124.028841		0.00000001	6.21E-03
131.9359	0.219967297	0.2217538	0	0.218505	0.621343	0	1124.028841	1125.02884	0.00000001	6.21E-03
131.9575	0.219913254	0.2217538	0	0.21846	0.621343	0	1125.028841		0.00000001	6.21E-03
131.9791	0.220601485	0.2217538	0	0.219157	0.621343	0	1125.028841	1126.02884	0.00000001	6.21E-03
132.0035	0.221279502	0.2217538	0	0.219846	0.621343	0	1126.028841		0.00000001	6.21E-03
132.0305	0.221770989	0.2217538	0	0.220349	0.621343	0	1126.028841	1127.02884	0.00000001	6.21E-03
132.0575	0.222038733	0.2217538	0	0.220628	0.621343	0	1127.028841		0.00000001	6.21E-03
132.0819	0.222346451	0.2217538	0	0.220948	0.621343	0	1127.028841	1128.02884	0.00000001	6.21E-03
132.1089	0.223141171	0.2217538	0	0.221754	0.621343	0	1128.028841		0.00000001	6.21E-03
132.1359	0.222859653	0.2214838	0.000756644	0.221484	0.621343	0	1128.028841	1129.02884	0.00000001	6.21E-03
132.163	0.221938842	0.2205716	0.002555895	0.220572	0.620586	0	1129.028841		0.00000001	6.21E-03
132.1873	0.221752347	0.2204195	0.000426191	0.220394	0.61803	0	1129.028841	1130.02884	0.00000001	6.18E-03
132.2143	0.221766647	0.2204195	0	0.220419	0.617604	0	1130.028841		0.00000001	6.18E-03
132.2413	0.221612157	0.2202994	0.00033636	0.220276	0.617604	0	1130.028841	1131.02884	0.00000001	6.18E-03
132.2657	0.221524818	0.2202994	0	0.2202	0.617268	0	1131.028841		0.00000001	6.17E-03
132.29	0.221029221	0.2202994	0	0.219716	0.617268	0	1131.028841	1132.02884	0.00000001	6.17E-03
132.317	0.22022734	0.2202994	0	0.218926	0.617268	0	1132.028841		0.00000001	6.17E-03
132.3468	0.219746476	0.2202994	0	0.218456	0.617268	0	1132.028841	1133.02884	0.00000001	6.17E-03
132.3738	0.219257775	0.2202994	0	0.217976	0.617268	0	1133.028841		0.00000001	6.17E-03
132.4008	0.218763088	0.2202994	0	0.21749	0.617268	0	1133.028841	1134.02884	0.00000001	6.17E-03
132.4279	0.218201111	0.2202994	0	0.21694	0.617268	0	1134.028841		0.00000001	6.17E-03
132.4522	0.217819535	0.2202994	0	0.216569	0.617268	0	1134.028841	1135.02884	0.00000001	6.17E-03

132.4765	0.217752216	0.2202994	0	0.216513	0.617268	0	1135.028841		0.00000001	6.17E-03
132.5008	0.217709704	0.2202994	0	0.216482	0.617268	0	1135.028841	1136.02884	0.00000001	6.17E-03
132.5252	0.217536294	0.2202994	0	0.21632	0.617268	0	1136.028841		0.00000001	6.17E-03
132.5495	0.217360448	0.2202994	0	0.216156	0.617268	0	1136.028841	1137.02884	0.00000001	6.17E-03
132.5684	0.217295265	0.2202994	0	0.216099	0.617268	0	1137.028841		0.00000001	6.17E-03
132.5927	0.217219587	0.2202994	0	0.216032	0.617268	0	1137.028841	1138.02884	0.00000001	6.17E-03
132.6144	0.217277311	0.2202994	0	0.216101	0.617268	0	1138.028841		0.00000001	6.17E-03
132.6414	0.2173368	0.2202994	0	0.216172	0.617268	0	1138.028841	1139.02884	0.00000001	6.17E-03
132.6657	0.217467519	0.2202994	0	0.216314	0.617268	0	1139.028841		0.00000001	6.17E-03
132.6928	0.217566156	0.2202994	0	0.216424	0.617268	0	1139.028841	1140.02884	0.00000001	6.17E-03
132.7171	0.217519071	0.2202994	0	0.216388	0.617268	0	1140.028841		0.00000001	6.17E-03
132.7414	0.21746534	0.2202994	0	0.216345	0.617268	0	1140.028841	1141.02884	0.00000001	6.17E-03
132.7657	0.217860652	0.2202994	0	0.216749	0.617268	0	1141.028841		0.00000001	6.17E-03
132.7874	0.218681348	0.2202994	0	0.217578	0.617268	0	1141.028841	1142.02884	0.00000001	6.17E-03
132.8117	0.219288059	0.2202994	0	0.218196	0.617268	0	1142.028841		0.00000001	6.17E-03
132.8333	0.21964895	0.2202994	0	0.218568	0.617268	0	1142.028841	1143.02884	0.00000001	6.17E-03
132.8549	0.219938435	0.2202994	0	0.218869	0.617268	0	1143.028841		0.00000001	6.17E-03
132.8793	0.220194409	0.2202994	0	0.219136	0.617268	0	1143.028841	1144.02884	0.00000001	6.17E-03
132.9009	0.220287055	0.2202994	0	0.21924	0.617268	0	1144.028841		0.00000001	6.17E-03
132.9279	0.220376012	0.2202994	0	0.21934	0.617268	0	1144.028841	1145.02884	0.00000001	6.17E-03
132.9576	0.221095848	0.2202994	0	0.220069	0.617268	0	1145.028841		0.00000001	6.17E-03
132.9874	0.221318283	0.2202994	0	0.220299	0.617268	0	1145.028841	1146.02884	0.00000001	6.17E-03
133.0144	0.221246312	0.2202387	0.000170255	0.220239	0.617268	0	1146.028841		0.00000001	6.17E-03
133.0441	0.221174929	0.2201785	0.000168669	0.220178	0.617097	0	1146.028841	1147.02884	0.00000001	6.17E-03
133.0712	0.220834396	0.2198491	0.000922837	0.219849	0.616929	0	1147.028841		0.00000001	6.17E-03
133.0982	0.220632001	0.2196579	0.000535768	0.219658	0.616006	0	1147.028841	1148.02884	0.00000001	6.16E-03
133.1279	0.220273996	0.219311	0.000971941	0.219311	0.61547	0	1148.028841		0.00000001	6.15E-03
133.1469	0.220146101	0.2191943	0.000327137	0.219194	0.614498	0	1148.028841	1149.02884	0.00000001	6.14E-03
133.1712	0.220049776	0.2191248	0.000194639	0.219106	0.614171	0	1149.028841		0.00000001	6.14E-03
133.1955	0.219876412	0.2191248	0	0.218941	0.613976	0	1149.028841	1150.02884	0.00000001	6.14E-03
133.2198	0.21959388	0.2191248	0	0.21867	0.613976	0	1150.028841		0.00000001	6.14E-03
133.2469	0.219474894	0.2191248	0	0.218562	0.613976	0	1150.028841	1151.02884	0.00000001	6.14E-03
133.2739	0.219494729	0.2191248	0	0.218593	0.613976	0	1151.028841		0.00000001	6.14E-03
133.2955	0.219217904	0.2191248	0	0.218327	0.613976	0	1151.028841	1152.02884	0.00000001	6.14E-03
133.3199	0.218801967	0.2191248	0	0.217922	0.613976	0	1152.028841		0.00000001	6.14E-03
133.3442	0.218880503	0.2191248	0	0.218012	0.613976	0	1152.028841	1153.02884	0.00000001	6.14E-03
133.3658	0.218514956	0.2191248	0	0.217655	0.613976	0	1153.028841		0.00000001	6.14E-03
133.3901	0.218302302	0.2191248	0	0.21745	0.613976	0	1153.028841	1154.02884	0.00000001	6.14E-03
133.4145	0.21822781	0.2191248	0	0.217387	0.613976	0	1154.028841		0.00000001	6.14E-03
133.4388	0.218157235	0.2191248	0	0.217328	0.613976	0	1154.028841	1155.02884	0.00000001	6.14E-03
133.4631	0.217936877	0.2191248	0	0.217118	0.613976	0	1155.028841		0.00000001	6.14E-03
133.4874	0.217904148	0.2191248	0	0.217096	0.613976	0	1155.028841	1156.02884	0.00000001	6.14E-03
133.5118	0.217919941	0.2191248	0	0.217123	0.613976	0	1156.028841		0.00000001	6.14E-03
133.5334	0.217849077	0.2191248	0	0.217063	0.613976	0	1156.028841	1157.02884	0.00000001	6.14E-03
133.5604	0.218386877	0.2191248	0	0.21761	0.613976	0	1157.028841		0.00000001	6.14E-03
133.5848	0.219073041	0.2191248	0	0.218304	0.613976	0	1157.028841	1158.02884	0.00000001	6.14E-03
133.6091	0.219555926	0.2191248	0	0.218798	0.613976	0	1158.028841		0.00000001	6.14E-03
133.6334	0.219695629	0.2191248	0	0.218949	0.613976	0	1158.028841	1159.02884	0.00000001	6.14E-03
133.655	0.219601538	0.2191248	0	0.218865	0.613976	0	1159.028841		0.00000001	6.14E-03
133.6794	0.219617503	0.2191248	0	0.218892	0.613976	0	1159.028841	1160.02884	0.00000001	6.14E-03
133.7037	0.219464152	0.2191248	0	0.21875	0.613976	0	1160.028841		0.00000001	6.14E-03
133.7307	0.218824558	0.2191248	0	0.218121	0.613976	0	1160.028841	1161.02884	0.00000001	6.14E-03
133.755	0.21872886	0.2191248	0	0.218034	0.613976	0	1161.028841		0.00000001	6.14E-03
133.7821	0.218945151	0.2191248	0	0.218258	0.613976	0	1161.028841	1162.02884	0.00000001	6.14E-03
133.8091	0.218957153	0.2191248	0	0.218281	0.613976	0	1162.028841		0.00000001	6.14E-03
133.8334	0.219275431	0.2191248	0	0.218611	0.613976	0	1162.028841	1163.02884	0.00000001	6.14E-03
133.8605	0.219628917	0.2191248	0	0.218975	0.613976	0	1163.028841		0.00000001	6.14E-03
133.8848	0.219767802	0.2191248	0	0.219125	0.613976	0	1163.028841	1164.02884	0.00000001	6.14E-03
133.9118	0.219596253	0.2189642	0.000450097	0.218964	0.613976	0	1164.028841		0.00000001	6.14E-03
133.9388	0.219180243	0.2185591	0.001135088	0.218559	0.613526	0	1164.028841	1165.02884	0.00000001	6.14E-03
133.9659	0.218328602	0.2182672	0.000817805	0.217716	0.612391	0	1165.028841		0.00000001	6.12E-03
133.9902	0.217811007	0.2182672	0	0.217206	0.611573	0	1165.028841	1166.02884	0.00000001	6.12E-03
134.0172	0.217307797	0.2182672	0	0.216714	0.611573	0	1166.028841		0.00000001	6.12E-03
134.0443	0.216814227	0.2182672	0	0.216231	0.611573	0	1166.028841	1167.02884	0.00000001	6.12E-03
134.0659	0.216527593	0.2182672	0	0.215955	0.611573	0	1167.028841		0.00000001	6.12E-03
134.0929	0.216202866	0.2182672	0	0.215642	0.611573	0	1167.028841	1168.02884	0.00000001	6.12E-03
134.1145	0.215768069	0.2182672	0	0.215218	0.611573	0	1168.028841		0.00000001	6.12E-03
134.1416	0.215765427	0.2182672	0	0.215226	0.611573	0	1168.028841	1169.02884	0.00000001	6.12E-03
134.1659	0.216063054	0.2182672	0	0.215532	0.611573	0	1169.028841		0.00000001	6.12E-03
134.1902	0.215809802	0.2182672	0	0.215286	0.611573	0	1169.028841	1170.02884	0.00000001	6.12E-03
134.2146	0.215685335	0.2182672	0	0.215173	0.611573	0	1170.028841		0.00000001	6.12E-03
134.2389	0.215233682	0.2182672	0	0.214732	0.611573	0	1170.028841	1171.02884	0.00000001	6.12E-03
134.2632	0.214877955	0.2182672	0	0.214387	0.611573	0	1171.028841		0.00000001	6.12E-03
134.2875	0.214793691	0.2182672	0	0.214313	0.611573	0	1171.028841	1172.02884	0.00000001	6.12E-03

134.3092	0.214831675	0.2182672	0	0.214362	0.611573	0	1172.028841		0.00000001	6.12E-03
134.3362	0.215064004	0.2182672	0	0.214605	0.611573	0	1172.028841	1173.02884	0.00000001	6.12E-03
134.3605	0.215693896	0.2182672	0	0.215243	0.611573	0	1173.028841		0.00000001	6.12E-03
134.3848	0.216155336	0.2182672	0	0.215713	0.611573	0	1173.028841	1174.02884	0.00000001	6.12E-03
134.4092	0.216601202	0.2182672	0	0.21617	0.611573	0	1174.028841		0.00000001	6.12E-03
134.4362	0.217151334	0.2182672	0	0.21673	0.611573	0	1174.028841	1175.02884	0.00000001	6.12E-03
134.4578	0.217360821	0.2182672	0	0.216951	0.611573	0	1175.028841		0.00000001	6.12E-03
134.4795	0.217565429	0.2182672	0	0.217166	0.611573	0	1175.028841	1176.02884	0.00000001	6.12E-03
134.5038	0.217557435	0.2182672	0	0.217169	0.611573	0	1176.028841		0.00000001	6.12E-03
134.5254	0.218093504	0.2182672	0	0.217715	0.611573	0	1176.028841	1177.02884	0.00000001	6.12E-03
134.5497	0.218219208	0.2182672	0	0.217849	0.611573	0	1177.028841		0.00000001	6.12E-03
134.5768	0.218175663	0.2182672	0	0.217814	0.611573	0	1177.028841	1178.02884	0.00000001	6.12E-03
134.6038	0.218243252	0.2182672	0	0.217892	0.611573	0	1178.028841		0.00000001	6.12E-03
134.6308	0.218192082	0.2182672	0	0.217852	0.611573	0	1178.028841	1179.02884	0.00000001	6.12E-03
134.6552	0.218398099	0.2182672	0	0.218068	0.611573	0	1179.028841		0.00000001	6.12E-03
134.6822	0.218277666	0.2182672	0	0.217958	0.611573	0	1179.028841	1180.02884	0.00000001	6.12E-03
134.7038	0.218121841	0.2182672	0	0.217813	0.611573	0	1180.028841		0.00000001	6.12E-03
134.7254	0.218040684	0.2182672	0	0.217743	0.611573	0	1180.028841	1181.02884	0.00000001	6.12E-03
134.7471	0.218144534	0.2182672	0	0.217855	0.611573	0	1181.028841		0.00000001	6.12E-03
134.7714	0.218223296	0.2182672	0	0.217941	0.611573	0	1181.028841	1182.02884	0.00000001	6.12E-03
134.7957	0.217847196	0.2182672	0	0.217576	0.611573	0	1182.028841		0.00000001	6.12E-03
134.8173	0.217528985	0.2182672	0	0.217268	0.611573	0	1182.028841	1183.02884	0.00000001	6.12E-03
134.8417	0.217235501	0.2182672	0	0.216985	0.611573	0	1183.028841		0.00000001	6.12E-03
134.8687	0.217076758	0.2182672	0	0.216837	0.611573	0	1183.028841	1184.02884	0.00000001	6.12E-03
134.8903	0.216954239	0.2182672	0	0.216725	0.611573	0	1184.028841		0.00000001	6.12E-03
134.9146	0.216828427	0.2182672	0	0.21661	0.611573	0	1184.028841	1185.02884	0.00000001	6.12E-03
134.939	0.216720138	0.2182672	0	0.21651	0.611573	0	1185.028841		0.00000001	6.12E-03
134.9606	0.216733354	0.2182672	0	0.216531	0.611573	0	1185.028841	1186.02884	0.00000001	6.12E-03
134.9849	0.216362699	0.2182672	0	0.216171	0.611573	0	1186.028841		0.00000001	6.12E-03
135.0065	0.215878037	0.2182672	0	0.215697	0.611573	0	1186.028841	1187.02884	0.00000001	6.12E-03
135.0309	0.215535533	0.2182672	0	0.215365	0.611573	0	1187.028841		0.00000001	6.12E-03
135.0525	0.215658845	0.2182672	0	0.215499	0.611573	0	1187.028841	1188.02884	0.00000001	6.12E-03
135.0741	0.215767985	0.2182672	0	0.215618	0.611573	0	1188.028841		0.00000001	6.12E-03
135.0984	0.21578153	0.2182672	0	0.215643	0.611573	0	1188.028841	1189.02884	0.00000001	6.12E-03
135.1201	0.215822488	0.2182672	0	0.215691	0.611573	0	1189.028841		0.00000001	6.12E-03
135.1444	0.215710182	0.2182672	0	0.215587	0.611573	0	1189.028841	1190.02884	0.00000001	6.12E-03
135.166	0.215852816	0.2182672	0	0.21574	0.611573	0	1190.028841		0.00000001	6.12E-03
135.1876	0.215852816	0.2182672	0	0.215751	0.611573	0	1190.028841	1191.02884	0.00000001	6.12E-03
135.212	0.216164894	0.2182672	0	0.216073	0.611573	0	1191.028841		0.00000001	6.12E-03
135.2309	0.216313542	0.2182672	0	0.216232	0.611573	0	1191.028841	1192.02884	0.00000001	6.12E-03
135.2525	0.216460821	0.2182672	0	0.21639	0.611573	0	1192.028841		0.00000001	6.12E-03
135.2741	0.216624318	0.2182672	0	0.216564	0.611573	0	1192.028841	1193.02884	0.00000001	6.12E-03
135.2958	0.2169124	0.2182672	0	0.21686	0.611573	0	1193.028841		0.00000001	6.12E-03
135.3174	0.216921789	0.2182672	0	0.216877	0.611573	0	1193.028841	1194.02884	0.00000001	6.12E-03
135.3444	0.216634527	0.2182672	0	0.216601	0.611573	0	1194.028841		0.00000001	6.12E-03
135.3715	0.216473275	0.2182672	0	0.21645	0.611573	0	1194.028841	1195.02884	0.00000001	6.12E-03
135.3958	0.216346377	0.2182672	0	0.216333	0.611573	0	1195.028841		0.00000001	6.12E-03
135.4255	0.216227284	0.2182672	0	0.216225	0.611573	0	1195.028841	1196.02884	0.00000001	6.12E-03
135.4525	0.216150929	0.2182672	0	0.216151	0.611573	0	1196.028841		0.00000001	6.12E-03
135.4769	0.216075326	0.2182672	0	0.216075	0.611573	0	1196.028841	1197.02884	0.00000001	6.12E-03
135.5039	0.216215258	0.2182672	0	0.216215	0.611573	0	1197.028841		0.00000001	6.12E-03
135.5309	0.216278018	0.2182672	0	0.216278	0.611573	0	1197.028841	1198.02884	0.00000001	6.12E-03
135.5553	0.216011724	0.2182672	0	0.216012	0.611573	0	1198.028841		0.00000001	6.12E-03
135.5823	0.215556626	0.2182672	0	0.215557	0.611573	0	1198.028841	1199.02884	0.00000001	6.12E-03
135.6066	0.21501572	0.2182672	0	0.215016	0.611573	0	1199.028841		0.00000001	6.12E-03
135.6309	0.214808082	0.2182672	0	0.214808	0.611573	0	1199.028841	1200.02884	0.00000001	6.12E-03
135.6553	0.214593013	0.2182672	0	0.214593	0.611573	0	1200.028841		0.00000001	6.12E-03
135.6796	0.214500162	0.2182672	0	0.2145	0.611573	0	1200.028841	1201.02884	0.00000001	6.12E-03
135.7039	0.214729788	0.2182672	0	0.21473	0.611573	0	1201.028841		0.00000001	6.12E-03
135.7283	0.21496787	0.2182672	0	0.214968	0.611573	0	1201.028841	1202.02884	0.00000001	6.12E-03
135.758	0.214872677	0.2182672	0	0.214873	0.611573	0	1202.028841		0.00000001	6.12E-03
135.7823	0.214814933	0.2182672	0	0.214815	0.611573	0	1202.028841	1203.02884	0.00000001	6.12E-03
135.8066	0.214917464	0.2182672	0	0.214917	0.611573	0	1203.028841		0.00000001	6.12E-03
135.8283	0.215050186	0.2182672	0	0.21505	0.611573	0	1203.028841	1204.02884	0.00000001	6.12E-03
135.8526	0.214967858	0.2182672	0	0.214968	0.611573	0	1204.028841		0.00000001	6.12E-03
135.8769	0.214927607	0.2182672	0	0.214928	0.611573	0	1204.028841	1205.02884	0.00000001	6.12E-03
135.9013	0.214874884	0.2182672	0	0.214875	0.611573	0	1205.028841		0.00000001	6.12E-03
135.9283	0.214685343	0.2182672	0	0.214685	0.611573	0	1205.028841	1206.02884	0.00000001	6.12E-03
135.9526	0.214678186	0.2182672	0	0.214678	0.611573	0	1206.028841		0.00000001	6.12E-03
135.9769	0.214646984	0.2182672	0	0.214647	0.611573	0	1206.028841	1207.02884	0.00000001	6.12E-03
135.9959	0.214730935	0.2182672	0	0.214731	0.611573	0	1207.028841		0.00000001	6.12E-03
136.0175	0.215159272	0.2182672	0	0.215159	0.611573	0	1207.028841	1208.02884	0.00000001	6.12E-03
136.0418	0.215738655	0.2182672	0	0.215739	0.611573	0	1208.028841		0.00000001	6.12E-03
136.0661	0.216137782	0.2182672	0	0.216138	0.611573	0	1208.028841	1209.02884	0.00000001	6.12E-03

136.0905	0.216072109	0.2182672	0	0.216072	0.611573	0	1209.028841		0.00000001	6.12E-03
136.1148	0.216326798	0.2182672	0	0.216327	0.611573	0	1209.028841	1210.02884	0.00000001	6.12E-03
136.1391	0.216605095	0.2182672	0	0.216605	0.611573	0	1210.028841		0.00000001	6.12E-03
136.1634	0.216549562	0.2182672	0	0.21655	0.611573	0	1210.028841	1211.02884	0.00000001	6.12E-03
136.1905	0.216877065	0.2182672	0	0.216877	0.611573	0	1211.028841		0.00000001	6.12E-03
136.2175	0.2172141	0.2182672	0	0.217214	0.611573	0	1211.028841	1212.02884	0.00000001	6.12E-03
136.2418	0.217629393	0.2182672	0	0.217629	0.611573	0	1212.028841		0.00000001	6.12E-03
136.2689	0.217905175	0.2182672	0	0.217905	0.611573	0	1212.028841	1213.02884	0.00000001	6.12E-03
136.2932	0.218251989	0.2182672	0	0.218252	0.611573	0	1213.028841		0.00000001	6.12E-03
136.3202	0.21826719	0.2182672	0	0.218267	0.611573	0	1213.028841	1214.02884	0.00000001	6.12E-03
136.3418	0.217990266	0.2179903	0.000775928	0.21799	0.611573	0	1214.028841		0.00000001	6.12E-03
136.3662	0.217267928	0.2172679	0.002023953	0.217268	0.610797	0	1214.028841	1215.02884	0.00000001	6.11E-03
136.3878	0.21673637	0.2167364	0.001489397	0.216736	0.608773	0	1215.028841		0.00000001	6.09E-03
136.4121	0.216236174	0.2162362	0.001401524	0.216236	0.607284	0	1215.028841	1216.02884	0.00000001	6.07E-03
136.4365	0.215795085	0.2157951	0.001235907	0.215795	0.605882	0	1216.028841		0.00000001	6.06E-03
136.4581	0.215529781	0.2155298	0.00074337	0.21553	0.604647	0	1216.028841	1217.02884	0.00000001	6.05E-03
136.477	0.21524398	0.215244	0.000800797	0.215244	0.603903	0	1217.028841		0.00000001	6.04E-03
136.5013	0.21516417	0.2151642	0.000223624	0.215164	0.603102	0	1217.028841	1218.02884	0.00000001	6.03E-03
136.5257	0.214757076	0.2147571	0.001140656	0.214757	0.602879	0	1218.028841		0.00000001	6.03E-03
136.5473	0.214650998	0.214651	0.000297224	0.214651	0.601738	0	1218.028841	1219.02884	0.00000001	6.02E-03
136.5716	0.214480356	0.2145266	0.000348687	0.21448	0.601441	0	1219.028841		0.00000001	6.01E-03
136.5932	0.214288927	0.2145266	0	0.214289	0.601092	0	1219.028841	1220.02884	0.00000001	6.01E-03
136.6149	0.214316812	0.2145266	0	0.214317	0.601092	0	1220.028841		0.00000001	6.01E-03
136.6392	0.214424445	0.2145266	0	0.214424	0.601092	0	1220.028841	1221.02884	0.00000001	6.01E-03
136.6608	0.214526554	0.2145266	0	0.214527	0.601092	0	1221.028841		0.00000001	6.01E-03
136.6851	0.214478486	0.2144785	0.000134684	0.214478	0.601092	0	1221.028841	1222.02884	0.00000001	6.01E-03
136.7068	0.21438493	0.2143849	0.000262138	0.214385	0.600958	0	1222.028841		0.00000001	6.01E-03
136.7311	0.214135967	0.2141698	0.000602724	0.214136	0.600695	0	1222.028841	1223.02884	0.00000001	6.01E-03
136.7527	0.214169821	0.2141698	0	0.21417	0.600093	0	1223.028841		0.00000001	6.00E-03
136.7743	0.213776736	0.2141313	0.00010803	0.213777	0.600093	0	1223.028841	1224.02884	0.00000001	6.00E-03
136.7987	0.213686556	0.2141313	0	0.213687	0.599985	0	1224.028841		0.00000001	6.00E-03
136.8203	0.213853627	0.2141313	0	0.213854	0.599985	0	1224.028841	1225.02884	0.00000001	6.00E-03
136.8446	0.21398406	0.2141313	0	0.213984	0.599985	0	1225.028841		0.00000001	6.00E-03
136.8689	0.213999375	0.2141313	0	0.213999	0.599985	0	1225.028841	1226.02884	0.00000001	6.00E-03
136.8906	0.214073065	0.2141313	0	0.214073	0.599985	0	1226.028841		0.00000001	6.00E-03
136.9122	0.213875635	0.2141313	0	0.213876	0.599985	0	1226.028841	1227.02884	0.00000001	6.00E-03
136.9338	0.213564695	0.2141313	0	0.213565	0.599985	0	1227.028841		0.00000001	6.00E-03
136.9554	0.213542921	0.2141313	0	0.213543	0.599985	0	1227.028841	1228.02884	0.00000001	6.00E-03
136.9771	0.213748527	0.2141313	0	0.213749	0.599985	0	1228.028841		0.00000001	6.00E-03
137.0014	0.214131266	0.2141313	0	0.214131	0.599985	0	1228.028841	1229.02884	0.00000001	6.00E-03
137.0284	0.214041807	0.2140418	0.000250658	0.214042	0.599985	0	1229.028841		0.00000001	6.00E-03
137.0554	0.213663047	0.213663	0.001061268	0.213663	0.599734	0	1229.028841	1230.02884	0.00000001	6.00E-03
137.0771	0.213444416	0.2134444	0.000612592	0.213444	0.598673	0	1230.028841		0.00000001	5.99E-03
137.0987	0.213299046	0.213299	0.00040732	0.213299	0.59806	0	1230.028841	1231.02884	0.00000001	5.98E-03
137.1257	0.212897532	0.2128975	0.001125019	0.212898	0.597653	0	1231.028841		0.00000001	5.98E-03
137.1473	0.212452053	0.2124521	0.001248211	0.212452	0.596528	0	1231.028841	1232.02884	0.00000001	5.97E-03
137.169	0.212209028	0.212209	0.000680944	0.212209	0.59528	0	1232.028841		0.00000001	5.95E-03
137.1933	0.211823368	0.2118234	0.001080599	0.211823	0.594599	0	1232.028841	1233.02884	0.00000001	5.95E-03
137.2176	0.211431188	0.2115644	0.0007256	0.211431	0.593518	0	1233.028841		0.00000001	5.94E-03
137.242	0.210727495	0.2115644	0	0.210727	0.592792	0	1233.028841	1234.02884	0.00000001	5.93E-03
137.2663	0.210690167	0.2115644	0	0.21069	0.592792	0	1234.028841		0.00000001	5.93E-03
137.2906	0.210357693	0.2115644	0	0.210358	0.592792	0	1234.028841	1235.02884	0.00000001	5.93E-03
137.3176	0.210139032	0.2115644	0	0.210139	0.592792	0	1235.028841		0.00000001	5.93E-03
137.3393	0.21018229	0.2115644	0	0.210182	0.592792	0	1235.028841	1236.02884	0.00000001	5.93E-03
137.3609	0.210260368	0.2115644	0	0.21026	0.592792	0	1236.028841		0.00000001	5.93E-03
137.3825	0.210334278	0.2115644	0	0.210334	0.592792	0	1236.028841	1237.02884	0.00000001	5.93E-03
137.4041	0.210357892	0.2115644	0	0.210358	0.592792	0	1237.028841		0.00000001	5.93E-03
137.4285	0.210240499	0.2115644	0	0.21024	0.592792	0	1237.028841	1238.02884	0.00000001	5.93E-03
137.4528	0.210374467	0.2115644	0	0.210374	0.592792	0	1238.028841		0.00000001	5.93E-03
137.4744	0.210508715	0.2115644	0	0.210509	0.592792	0	1238.028841	1239.02884	0.00000001	5.93E-03
137.4987	0.210425787	0.2115644	0	0.210426	0.592792	0	1239.028841		0.00000001	5.93E-03
137.5204	0.210241671	0.2115644	0	0.210242	0.592792	0	1239.028841	1240.02884	0.00000001	5.93E-03
137.5447	0.210090896	0.2115644	0	0.210091	0.592792	0	1240.028841		0.00000001	5.93E-03
137.569	0.210092045	0.2115644	0	0.210092	0.592792	0	1240.028841	1241.02884	0.00000001	5.93E-03
137.5906	0.210363689	0.2115644	0	0.210364	0.592792	0	1241.028841		0.00000001	5.93E-03
137.615	0.211065958	0.2115644	0	0.211066	0.592792	0	1241.028841	1242.02884	0.00000001	5.93E-03
137.6393	0.211094911	0.2115644	0	0.211095	0.592792	0	1242.028841		0.00000001	5.93E-03
137.6636	0.211173928	0.2115644	0	0.211174	0.592792	0	1242.028841	1243.02884	0.00000001	5.93E-03
137.6853	0.211194043	0.2115644	0	0.211194	0.592792	0	1243.028841		0.00000001	5.93E-03
137.7096	0.211366044	0.2115644	0	0.211366	0.592792	0	1243.028841	1244.02884	0.00000001	5.93E-03
137.7339	0.211476164	0.2115644	0	0.211476	0.592792	0	1244.028841		0.00000001	5.93E-03
137.7582	0.211564405	0.2115644	0	0.211564	0.592792	0	1244.028841	1245.02884	0.00000001	5.93E-03
137.7799	0.211478663	0.2114787	0.000240244	0.211479	0.592792	0	1245.028841		0.00000001	5.93E-03
137.8042	0.211247608	0.2112476	0.000647403	0.211248	0.592552	0	1245.028841	1246.02884	0.00000001	5.93E-03

137.8285	0.210899488	0.2108995	0.000975416	0.210899	0.591905	0	1246.028841		0.00000001	5.92E-03
137.8528	0.210545041	0.210545	0.00099314	0.210545	0.590929	0	1246.028841	1247.02884	0.00000001	5.91E-03
137.8772	0.210437997	0.210438	0.000299933	0.210438	0.589936	0	1247.028841		0.00000001	5.90E-03
137.9042	0.210287631	0.2102876	0.000421319	0.210288	0.589636	0	1247.028841	1248.02884	0.00000001	5.90E-03
137.9258	0.210042179	0.2100422	0.000687744	0.210042	0.589215	0	1248.028841		0.00000001	5.89E-03
137.9502	0.209931073	0.2099311	0.000311313	0.209931	0.588527	0	1248.028841	1249.02884	0.00000001	5.89E-03
137.9745	0.209810315	0.2098103	0.000338358	0.20981	0.588216	0	1249.028841		0.00000001	5.88E-03
137.9988	0.209449622	0.2094496	0.00101064	0.20945	0.587878	0	1249.028841	1250.02884	0.00000001	5.88E-03
138.0231	0.208882619	0.2088826	0.001588716	0.208883	0.586867	0	1250.028841		0.00000001	5.87E-03
138.0448	0.208339557	0.2083396	0.00152163	0.20834	0.585278	0	1250.028841	1251.02884	0.00000001	5.85E-03
138.0664	0.207878495	0.2078785	0.001291872	0.207878	0.583757	0	1251.028841		0.00000001	5.84E-03
138.0907	0.207570868	0.2075709	0.000861954	0.207571	0.582465	0	1251.028841	1252.02884	0.00000001	5.82E-03
138.1123	0.207203724	0.2072037	0.00102872	0.207204	0.581603	0	1252.028841		0.00000001	5.82E-03
138.1313	0.206863218	0.2068632	0.000954079	0.206863	0.580574	0	1252.028841	1253.02884	0.00000001	5.81E-03
138.1529	0.206543926	0.2065439	0.000894641	0.206544	0.57962	0	1253.028841		0.00000001	5.80E-03
138.1772	0.20607334	0.2060733	0.001318557	0.206073	0.578725	0	1253.028841	1254.02884	0.00000001	5.79E-03
138.1988	0.205783001	0.205783	0.000813513	0.205783	0.577407	0	1254.028841		0.00000001	5.77E-03
138.2205	0.205700726	0.2057007	0.000230531	0.205701	0.576593	0	1254.028841	1255.02884	0.00000001	5.77E-03
138.2394	0.205672236	0.2056722	7.98265E-05	0.205672	0.576363	0	1255.028841		0.00000001	5.76E-03
138.2637	0.205426456	0.2055975	0.000209462	0.205426	0.576283	0	1255.028841	1256.02884	0.00000001	5.76E-03
138.2853	0.205350592	0.2055975	0	0.205351	0.576073	0	1256.028841		0.00000001	5.76E-03
138.307	0.205030204	0.2055975	0	0.20503	0.576073	0	1256.028841	1257.02884	0.00000001	5.76E-03
138.3313	0.204652433	0.2055975	0	0.204652	0.576073	0	1257.028841		0.00000001	5.76E-03
138.3556	0.20470447	0.2055975	0	0.204704	0.576073	0	1257.028841	1258.02884	0.00000001	5.76E-03
138.3772	0.204910685	0.2055975	0	0.204911	0.576073	0	1258.028841		0.00000001	5.76E-03
138.4016	0.205121294	0.2055975	0	0.205121	0.576073	0	1258.028841	1259.02884	0.00000001	5.76E-03
138.4232	0.205064488	0.2055975	0	0.205064	0.576073	0	1259.028841		0.00000001	5.76E-03
138.4475	0.204923518	0.2055975	0	0.204924	0.576073	0	1259.028841	1260.02884	0.00000001	5.76E-03
138.4718	0.205080001	0.2055975	0	0.20508	0.576073	0	1260.028841		0.00000001	5.76E-03
138.4908	0.205370446	0.2055975	0	0.20537	0.576073	0	1260.028841	1261.02884	0.00000001	5.76E-03
138.5151	0.205487223	0.2055975	0	0.205487	0.576073	0	1261.028841		0.00000001	5.76E-03
138.5367	0.205418218	0.2055975	0	0.205418	0.576073	0	1261.028841	1262.02884	0.00000001	5.76E-03
138.5583	0.205371617	0.2055975	0	0.205372	0.576073	0	1262.028841		0.00000001	5.76E-03
138.5827	0.205597481	0.2055975	0	0.205597	0.576073	0	1262.028841	1263.02884	0.00000001	5.76E-03
138.6097	0.205589674	0.2055897	2.18738E-05	0.20559	0.576073	0	1263.028841		0.00000001	5.76E-03
138.6394	0.20519068	0.2053245	0.000743117	0.205191	0.576052	0	1263.028841	1264.02884	0.00000001	5.76E-03
138.661	0.20532446	0.2053245	0	0.205324	0.575308	0	1264.028841		0.00000001	5.75E-03
138.6854	0.205184612	0.2051846	0.000391845	0.205185	0.575308	0	1264.028841	1265.02884	0.00000001	5.75E-03
138.7124	0.20478532	0.2047853	0.001118796	0.204785	0.574917	0	1265.028841		0.00000001	5.75E-03
138.7367	0.204520027	0.204524	0.000732256	0.20452	0.573798	0	1265.028841	1266.02884	0.00000001	5.74E-03
138.7611	0.204463781	0.204524	0	0.204464	0.573066	0	1266.028841		0.00000001	5.73E-03
138.7854	0.204369874	0.204524	0	0.20437	0.573066	0	1266.028841	1267.02884	0.00000001	5.73E-03
138.807	0.203970913	0.204524	0	0.203971	0.573066	0	1267.028841		0.00000001	5.73E-03
138.8286	0.203493446	0.204524	0	0.203493	0.573066	0	1267.028841	1268.02884	0.00000001	5.73E-03
138.853	0.203153403	0.204524	0	0.203153	0.573066	0	1268.028841		0.00000001	5.73E-03
138.8773	0.202307023	0.204524	0	0.202307	0.573066	0	1268.028841	1269.02884	0.00000001	5.73E-03
138.9016	0.202165494	0.204524	0	0.202165	0.573066	0	1269.028841		0.00000001	5.73E-03
138.9232	0.201789009	0.204524	0	0.201789	0.573066	0	1269.028841	1270.02884	0.00000001	5.73E-03
138.9449	0.201545705	0.204524	0	0.201546	0.573066	0	1270.028841		0.00000001	5.73E-03
138.9692	0.201415791	0.204524	0	0.201416	0.573066	0	1270.028841	1271.02884	0.00000001	5.73E-03
138.9908	0.201329404	0.204524	0	0.201329	0.573066	0	1271.028841		0.00000001	5.73E-03
139.0124	0.201243612	0.204524	0	0.201244	0.573066	0	1271.028841	1272.02884	0.00000001	5.73E-03
139.0368	0.201334019	0.204524	0	0.201334	0.573066	0	1272.028841		0.00000001	5.73E-03
139.0611	0.20153547	0.204524	0	0.201535	0.573066	0	1272.028841	1273.02884	0.00000001	5.73E-03
139.08	0.201590191	0.204524	0	0.20159	0.573066	0	1273.028841		0.00000001	5.73E-03
139.1016	0.20149478	0.204524	0	0.201495	0.573066	0	1273.028841	1274.02884	0.00000001	5.73E-03
139.126	0.20162148	0.204524	0	0.201621	0.573066	0	1274.028841		0.00000001	5.73E-03
139.1476	0.201933674	0.204524	0	0.201934	0.573066	0	1274.028841	1275.02884	0.00000001	5.73E-03
139.1665	0.202074567	0.204524	0	0.202075	0.573066	0	1275.028841		0.00000001	5.73E-03
139.1881	0.202232124	0.204524	0	0.202232	0.573066	0	1275.028841	1276.02884	0.00000001	5.73E-03
139.2125	0.202394311	0.204524	0	0.202394	0.573066	0	1276.028841		0.00000001	5.73E-03
139.2368	0.202540362	0.204524	0	0.20254	0.573066	0	1276.028841	1277.02884	0.00000001	5.73E-03
139.2584	0.202628976	0.204524	0	0.202629	0.573066	0	1277.028841		0.00000001	5.73E-03
139.2827	0.202906966	0.204524	0	0.202907	0.573066	0	1277.028841	1278.02884	0.00000001	5.73E-03
139.3071	0.20322018	0.204524	0	0.20322	0.573066	0	1278.028841		0.00000001	5.73E-03
139.3287	0.20322018	0.204524	0	0.20322	0.573066	0	1278.028841	1279.02884	0.00000001	5.73E-03
139.3503	0.203166478	0.204524	0	0.203166	0.573066	0	1279.028841		0.00000001	5.73E-03
139.3746	0.203120981	0.204524	0	0.203121	0.573066	0	1279.028841	1280.02884	0.00000001	5.73E-03
139.399	0.203065437	0.204524	0	0.203065	0.573066	0	1280.028841		0.00000001	5.73E-03
139.4233	0.203087415	0.204524	0	0.203087	0.573066	0	1280.028841	1281.02884	0.00000001	5.73E-03
139.4476	0.203002041	0.204524	0	0.203002	0.573066	0	1281.028841		0.00000001	5.73E-03
139.4747	0.203145272	0.204524	0	0.203145	0.573066	0	1281.028841	1282.02884	0.00000001	5.73E-03
139.5017	0.203200637	0.204524	0	0.203201	0.573066	0	1282.028841		0.00000001	5.73E-03
139.526	0.203227589	0.204524	0	0.203228	0.573066	0	1282.028841	1283.02884	0.00000001	5.73E-03

139.5503	0.20324605	0.204524	0	0.203246	0.573066	0	1283.028841		0.00000001	5.73E-03
139.5774	0.203142258	0.204524	0	0.203142	0.573066	0	1283.028841	1284.02884	0.00000001	5.73E-03
139.6044	0.202911981	0.204524	0	0.202912	0.573066	0	1284.028841		0.00000001	5.73E-03
139.626	0.202261458	0.204524	0	0.202261	0.573066	0	1284.028841	1285.02884	0.00000001	5.73E-03
139.6531	0.201815556	0.204524	0	0.201816	0.573066	0	1285.028841		0.00000001	5.73E-03
139.6774	0.201673714	0.204524	0	0.201674	0.573066	0	1285.028841	1286.02884	0.00000001	5.73E-03
139.699	0.201382646	0.204524	0	0.201383	0.573066	0	1286.028841		0.00000001	5.73E-03
139.7206	0.20127846	0.204524	0	0.201278	0.573066	0	1286.028841	1287.02884	0.00000001	5.73E-03
139.745	0.201184084	0.204524	0	0.201184	0.573066	0	1287.028841		0.00000001	5.73E-03
139.7666	0.200821682	0.204524	0	0.200822	0.573066	0	1287.028841	1288.02884	0.00000001	5.73E-03
139.7909	0.200747302	0.204524	0	0.200747	0.573066	0	1288.028841		0.00000001	5.73E-03
139.8098	0.201070805	0.204524	0	0.201071	0.573066	0	1288.028841	1289.02884	0.00000001	5.73E-03
139.8315	0.201158032	0.204524	0	0.201158	0.573066	0	1289.028841		0.00000001	5.73E-03
139.8531	0.201091239	0.204524	0	0.201091	0.573066	0	1289.028841	1290.02884	0.00000001	5.73E-03
139.872	0.201232703	0.204524	0	0.201233	0.573066	0	1290.028841		0.00000001	5.73E-03
139.8936	0.201322044	0.204524	0	0.201322	0.573066	0	1290.028841	1291.02884	0.00000001	5.73E-03
139.9153	0.201379799	0.204524	0	0.20138	0.573066	0	1291.028841		0.00000001	5.73E-03
139.9342	0.201590344	0.204524	0	0.20159	0.573066	0	1291.028841	1292.02884	0.00000001	5.73E-03
139.9558	0.201667335	0.204524	0	0.201667	0.573066	0	1292.028841		0.00000001	5.73E-03
139.9801	0.201861557	0.204524	0	0.201862	0.573066	0	1292.028841	1293.02884	0.00000001	5.73E-03
140.0018	0.202031059	0.204524	0	0.202031	0.573066	0	1293.028841		0.00000001	5.73E-03
140.0261	0.20210855	0.204524	0	0.202109	0.573066	0	1293.028841	1294.02884	0.00000001	5.73E-03
140.0477	0.202125895	0.204524	0	0.202126	0.573066	0	1294.028841		0.00000001	5.73E-03
140.072	0.202408235	0.204524	0	0.202408	0.573066	0	1294.028841	1295.02884	0.00000001	5.73E-03
140.0937	0.202983066	0.204524	0	0.202983	0.573066	0	1295.028841		0.00000001	5.73E-03
140.1153	0.203253113	0.204524	0	0.203253	0.573066	0	1295.028841	1296.02884	0.00000001	5.73E-03
140.1369	0.20347355	0.204524	0	0.203474	0.573066	0	1296.028841		0.00000001	5.73E-03
140.1612	0.203974676	0.204524	0	0.203975	0.573066	0	1296.028841	1297.02884	0.00000001	5.73E-03
140.1856	0.204348174	0.204524	0	0.204348	0.573066	0	1297.028841		0.00000001	5.73E-03
140.2099	0.204418621	0.204524	0	0.204419	0.573066	0	1297.028841	1298.02884	0.00000001	5.73E-03
140.2315	0.204238249	0.204524	0	0.204238	0.573066	0	1298.028841		0.00000001	5.73E-03
140.2531	0.204164447	0.204524	0	0.204164	0.573066	0	1298.028841	1299.02884	0.00000001	5.73E-03
140.2775	0.204371953	0.204524	0	0.204372	0.573066	0	1299.028841		0.00000001	5.73E-03
140.3045	0.204432013	0.204524	0	0.204432	0.573066	0	1299.028841	1300.02884	0.00000001	5.73E-03
140.3288	0.204523982	0.204524	0	0.204524	0.573066	0	1300.028841		0.00000001	5.73E-03
140.3531	0.204364077	0.2043641	0.000448046	0.204364	0.573066	0	1300.028841	1301.02884	0.00000001	5.73E-03
140.3748	0.204148595	0.2041486	0.000603769	0.204149	0.572617	0	1301.028841		0.00000001	5.73E-03
140.3991	0.203828735	0.2038287	0.00089623	0.203829	0.572014	0	1301.028841	1302.02884	0.00000001	5.72E-03
140.4234	0.203412113	0.2034121	0.001167352	0.203412	0.571117	0	1302.028841		0.00000001	5.71E-03
140.4478	0.20296634	0.2029663	0.001249035	0.202966	0.56995	0	1302.028841	1303.02884	0.00000001	5.70E-03
140.4721	0.202680072	0.2026801	0.000802107	0.20268	0.568701	0	1303.028841		0.00000001	5.69E-03
140.4937	0.202024426	0.2020244	0.001837086	0.202024	0.567899	0	1303.028841	1304.02884	0.00000001	5.68E-03
140.518	0.20120566	0.2012057	0.002294139	0.201206	0.566062	0	1304.028841		0.00000001	5.66E-03
140.5424	0.200944298	0.2011111	0.000265086	0.200944	0.563768	0	1304.028841	1305.02884	0.00000001	5.64E-03
140.564	0.200642367	0.2011111	0	0.200642	0.563503	0	1305.028841		0.00000001	5.64E-03
140.5883	0.200064815	0.2011111	0	0.200065	0.563503	0	1305.028841	1306.02884	0.00000001	5.64E-03
140.6126	0.199655923	0.2011111	0	0.199656	0.563503	0	1306.028841		0.00000001	5.64E-03
140.6343	0.199408771	0.2011111	0	0.199409	0.563503	0	1306.028841	1307.02884	0.00000001	5.64E-03
140.6559	0.199124417	0.2011111	0	0.199124	0.563503	0	1307.028841		0.00000001	5.64E-03
140.6775	0.199104425	0.2011111	0	0.199104	0.563503	0	1307.028841	1308.02884	0.00000001	5.64E-03
140.7018	0.199168504	0.2011111	0	0.199169	0.563503	0	1308.028841		0.00000001	5.64E-03
140.7262	0.199159767	0.2011111	0	0.19916	0.563503	0	1308.028841	1309.02884	0.00000001	5.64E-03
140.7478	0.199121104	0.2011111	0	0.199121	0.563503	0	1309.028841		0.00000001	5.64E-03
140.7667	0.199092005	0.2011111	0	0.199092	0.563503	0	1309.028841	1310.02884	0.00000001	5.64E-03
140.791	0.199209184	0.2011111	0	0.199209	0.563503	0	1310.028841		0.00000001	5.64E-03
140.8154	0.199448317	0.2011111	0	0.199448	0.563503	0	1310.028841	1311.02884	0.00000001	5.64E-03
140.837	0.199539928	0.2011111	0	0.19954	0.563503	0	1311.028841		0.00000001	5.64E-03
140.8613	0.199749789	0.2011111	0	0.19975	0.563503	0	1311.028841	1312.02884	0.00000001	5.64E-03
140.8856	0.200107719	0.2011111	0	0.200108	0.563503	0	1312.028841		0.00000001	5.64E-03
140.91	0.200411395	0.2011111	0	0.200411	0.563503	0	1312.028841	1313.02884	0.00000001	5.64E-03
140.9316	0.200847703	0.2011111	0	0.200848	0.563503	0	1313.028841		0.00000001	5.64E-03
140.9559	0.201092075	0.2011111	0	0.201092	0.563503	0	1313.028841	1314.02884	0.00000001	5.64E-03
140.9803	0.201095433	0.2011111	0	0.201095	0.563503	0	1314.028841		0.00000001	5.64E-03
141.0019	0.201050283	0.2011111	0	0.20105	0.563503	0	1314.028841	1315.02884	0.00000001	5.64E-03
141.0262	0.200989352	0.2011111	0	0.200989	0.563503	0	1315.028841		0.00000001	5.64E-03
141.0505	0.201053668	0.2011111	0	0.201054	0.563503	0	1315.028841	1316.02884	0.00000001	5.64E-03
141.0749	0.200987637	0.2011111	0	0.200988	0.563503	0	1316.028841		0.00000001	5.64E-03
141.1019	0.201043182	0.2011111	0	0.201043	0.563503	0	1316.028841	1317.02884	0.00000001	5.64E-03
141.1262	0.201111052	0.2011111	0	0.201111	0.563503	0	1317.028841		0.00000001	5.64E-03
141.1532	0.200781862	0.2007819	0.000922374	0.200782	0.563503	0	1317.028841	1318.02884	0.00000001	5.64E-03
141.1776	0.200465146	0.2004651	0.000887422	0.200465	0.56258	0	1318.028841		0.00000001	5.63E-03
141.2019	0.200123243	0.2001232	0.000957993	0.200123	0.561693	0	1318.028841	1319.02884	0.00000001	5.62E-03
141.2262	0.199948736	0.1999487	0.00048896	0.199949	0.560735	0	1319.028841		0.00000001	5.61E-03
141.2479	0.199781616	0.1997816	0.000468262	0.199782	0.560246	0	1319.028841	1320.02884	0.00000001	5.60E-03

141.2722	0.199489385	0.1994894	0.000818816	0.199489	0.559778	0	1320.028841		0.00000001	5.60E-03
141.2992	0.199052483	0.1990525	0.001224175	0.199052	0.558959	0	1320.028841	1321.02884	0.00000001	5.59E-03
141.3235	0.198331229	0.1983312	0.002020915	0.198331	0.557735	0	1321.028841		0.00000001	5.58E-03
141.3452	0.19807771	0.1980777	0.000710349	0.198078	0.555714	0	1321.028841	1322.02884	0.00000001	5.56E-03
141.3668	0.19782883	0.1978288	0.000697349	0.197829	0.555003	0	1322.028841		0.00000001	5.55E-03
141.3911	0.197452457	0.197714	0.000321817	0.197452	0.554306	0	1322.028841	1323.02884	0.00000001	5.54E-03
141.41	0.197127119	0.197714	0	0.197127	0.553984	0	1323.028841		0.00000001	5.54E-03
141.4317	0.196822083	0.197714	0	0.196822	0.553984	0	1323.028841	1324.02884	0.00000001	5.54E-03
141.4533	0.196537878	0.197714	0	0.196538	0.553984	0	1324.028841		0.00000001	5.54E-03
141.4722	0.19643111	0.197714	0	0.196431	0.553984	0	1324.028841	1325.02884	0.00000001	5.54E-03
141.4938	0.196317356	0.197714	0	0.196317	0.553984	0	1325.028841		0.00000001	5.54E-03
141.5127	0.19633097	0.197714	0	0.196331	0.553984	0	1325.028841	1326.02884	0.00000001	5.54E-03
141.5317	0.196175713	0.197714	0	0.196176	0.553984	0	1326.028841		0.00000001	5.54E-03
141.5533	0.196144085	0.197714	0	0.196144	0.553984	0	1326.028841	1327.02884	0.00000001	5.54E-03
141.5749	0.196105856	0.197714	0	0.196106	0.553984	0	1327.028841		0.00000001	5.54E-03
141.5938	0.195961469	0.197714	0	0.195961	0.553984	0	1327.028841	1328.02884	0.00000001	5.54E-03
141.6128	0.195947722	0.197714	0	0.195948	0.553984	0	1328.028841		0.00000001	5.54E-03
141.6344	0.196078355	0.197714	0	0.196078	0.553984	0	1328.028841	1329.02884	0.00000001	5.54E-03
141.656	0.196185123	0.197714	0	0.196185	0.553984	0	1329.028841		0.00000001	5.54E-03
141.6776	0.196310286	0.197714	0	0.19631	0.553984	0	1329.028841	1330.02884	0.00000001	5.54E-03
141.6993	0.196310286	0.197714	0	0.19631	0.553984	0	1330.028841		0.00000001	5.54E-03
141.7209	0.196460176	0.197714	0	0.19646	0.553984	0	1330.028841	1331.02884	0.00000001	5.54E-03
141.7425	0.196676713	0.197714	0	0.196677	0.553984	0	1331.028841		0.00000001	5.54E-03
141.7641	0.197011524	0.197714	0	0.197012	0.553984	0	1331.028841	1332.02884	0.00000001	5.54E-03
141.7858	0.197365237	0.197714	0	0.197365	0.553984	0	1332.028841		0.00000001	5.54E-03
141.8074	0.197539682	0.197714	0	0.19754	0.553984	0	1332.028841	1333.02884	0.00000001	5.54E-03
141.829	0.1976753	0.197714	0	0.197675	0.553984	0	1333.028841		0.00000001	5.54E-03
141.8506	0.197713975	0.197714	0	0.197714	0.553984	0	1333.028841	1334.02884	0.00000001	5.54E-03
141.8723	0.197618317	0.1976183	0.000268029	0.197618	0.553984	0	1334.028841		0.00000001	5.54E-03
141.8966	0.197538192	0.1975382	0.000224507	0.197538	0.553716	0	1334.028841	1335.02884	0.00000001	5.54E-03
141.9209	0.19734751	0.1973475	0.000534281	0.197348	0.553492	0	1335.028841		0.00000001	5.53E-03
141.9452	0.19714435	0.1971443	0.000569244	0.197144	0.552957	0	1335.028841	1336.02884	0.00000001	5.53E-03
141.9669	0.196950272	0.1969503	0.000543796	0.19695	0.552388	0	1336.028841		0.00000001	5.52E-03
141.9912	0.196845142	0.1968451	0.000294568	0.196845	0.551844	0	1336.028841	1337.02884	0.00000001	5.52E-03
142.0128	0.196830857	0.1968309	4.0025E-05	0.196831	0.55155	0	1337.028841		0.00000001	5.52E-03
142.0371	0.196711651	0.1967117	0.00033401	0.196712	0.55151	0	1337.028841	1338.02884	0.00000001	5.52E-03
142.0615	0.19632148	0.1963215	0.001093238	0.196321	0.551176	0	1338.028841		0.00000001	5.51E-03
142.0831	0.195776593	0.1957766	0.001526745	0.195777	0.550083	0	1338.028841	1339.02884	0.00000001	5.50E-03
142.1074	0.195371152	0.1953712	0.001136024	0.195371	0.548556	0	1339.028841		0.00000001	5.49E-03
142.129	0.194914564	0.1949146	0.001279338	0.194915	0.54742	0	1339.028841	1340.02884	0.00000001	5.47E-03
142.1507	0.194622101	0.1946221	0.000819465	0.194622	0.54614	0	1340.028841		0.00000001	5.46E-03
142.1723	0.194053713	0.1945918	8.47971E-05	0.194054	0.545321	0	1340.028841	1341.02884	0.00000001	5.45E-03
142.1939	0.193748189	0.1945918	0	0.193748	0.545236	0	1341.028841		0.00000001	5.45E-03
142.2155	0.193436186	0.1945918	0	0.193436	0.545236	0	1341.028841	1342.02884	0.00000001	5.45E-03
142.2372	0.193141024	0.1945918	0	0.193141	0.545236	0	1342.028841		0.00000001	5.45E-03
142.2561	0.192892848	0.1945918	0	0.192893	0.545236	0	1342.028841	1343.02884	0.00000001	5.45E-03
142.2777	0.192407097	0.1945918	0	0.192407	0.545236	0	1343.028841		0.00000001	5.45E-03
142.2993	0.192073494	0.1945918	0	0.192073	0.545236	0	1343.028841	1344.02884	0.00000001	5.45E-03
142.3183	0.192170725	0.1945918	0	0.192171	0.545236	0	1344.028841		0.00000001	5.45E-03
142.3399	0.192211491	0.1945918	0	0.192211	0.545236	0	1344.028841	1345.02884	0.00000001	5.45E-03
142.3615	0.192213142	0.1945918	0	0.192213	0.545236	0	1345.028841		0.00000001	5.45E-03
142.3804	0.192107555	0.1945918	0	0.192108	0.545236	0	1345.028841	1346.02884	0.00000001	5.45E-03
142.3993	0.192232976	0.1945918	0	0.192233	0.545236	0	1346.028841		0.00000001	5.45E-03
142.421	0.192321337	0.1945918	0	0.192321	0.545236	0	1346.028841	1347.02884	0.00000001	5.45E-03
142.4399	0.19219487	0.1945918	0	0.192195	0.545236	0	1347.028841		0.00000001	5.45E-03
142.4615	0.192310763	0.1945918	0	0.192311	0.545236	0	1347.028841	1348.02884	0.00000001	5.45E-03
142.4804	0.192397324	0.1945918	0	0.192397	0.545236	0	1348.028841		0.00000001	5.45E-03
142.5021	0.192448527	0.1945918	0	0.192449	0.545236	0	1348.028841	1349.02884	0.00000001	5.45E-03
142.5237	0.19279508	0.1945918	0	0.192795	0.545236	0	1349.028841		0.00000001	5.45E-03
142.5453	0.193050804	0.1945918	0	0.193051	0.545236	0	1349.028841	1350.02884	0.00000001	5.45E-03
142.5669	0.193464191	0.1945918	0	0.193464	0.545236	0	1350.028841		0.00000001	5.45E-03
142.5886	0.193778277	0.1945918	0	0.193778	0.545236	0	1350.028841	1351.02884	0.00000001	5.45E-03
142.6102	0.194225759	0.1945918	0	0.194226	0.545236	0	1351.028841		0.00000001	5.45E-03
142.6318	0.194540235	0.1945918	0	0.19454	0.545236	0	1351.028841	1352.02884	0.00000001	5.45E-03
142.6534	0.194502902	0.1945918	0	0.194503	0.545236	0	1352.028841		0.00000001	5.45E-03
142.6751	0.194591837	0.1945918	0	0.194592	0.545236	0	1352.028841	1353.02884	0.00000001	5.45E-03
142.6994	0.194419373	0.1944194	0.000483235	0.194419	0.545236	0	1353.028841		0.00000001	5.45E-03
142.7237	0.194133982	0.1942389	0.000505652	0.194134	0.544753	0	1353.028841	1354.02884	0.00000001	5.45E-03
142.748	0.194238909	0.1942389	0	0.194239	0.544247	0	1354.028841		0.00000001	5.44E-03
142.7697	0.194220363	0.1942204	5.19633E-05	0.19422	0.544247	0	1354.028841	1355.02884	0.00000001	5.44E-03
142.7967	0.194053681	0.1940537	0.000467036	0.194054	0.544195	0	1355.028841		0.00000001	5.44E-03
142.821	0.194032662	0.1940327	5.88932E-05	0.194033	0.543728	0	1355.028841	1356.02884	0.00000001	5.44E-03
142.8453	0.193761257	0.1937613	0.000760464	0.193761	0.543669	0	1356.028841		0.00000001	5.44E-03
142.867	0.193607927	0.1936079	0.000429623	0.193608	0.542909	0	1356.028841	1357.02884	0.00000001	5.43E-03

142.8913	0.193340091	0.1935701	0.000105994	0.19334	0.542479	0	1357.028841		0.00000001	5.42E-03
142.9129	0.192826461	0.1935701	0	0.192826	0.542373	0	1357.028841	1358.02884	0.00000001	5.42E-03
142.9318	0.192207455	0.1935701	0	0.192207	0.542373	0	1358.028841		0.00000001	5.42E-03
142.9535	0.191855826	0.1935701	0	0.191856	0.542373	0	1358.028841	1359.02884	0.00000001	5.42E-03
142.9751	0.191692891	0.1935701	0	0.191693	0.542373	0	1359.028841		0.00000001	5.42E-03
142.9967	0.191118408	0.1935701	0	0.191118	0.542373	0	1359.028841	1360.02884	0.00000001	5.42E-03
143.021	0.190839788	0.1935701	0	0.19084	0.542373	0	1360.028841		0.00000001	5.42E-03
143.0427	0.190593518	0.1935701	0	0.190594	0.542373	0	1360.028841	1361.02884	0.00000001	5.42E-03
143.0616	0.19065479	0.1935701	0	0.190655	0.542373	0	1361.028841		0.00000001	5.42E-03
143.0832	0.190544632	0.1935701	0	0.190545	0.542373	0	1361.028841	1362.02884	0.00000001	5.42E-03
143.1048	0.190508169	0.1935701	0	0.190508	0.542373	0	1362.028841		0.00000001	5.42E-03
143.1265	0.190664891	0.1935701	0	0.190665	0.542373	0	1362.028841	1363.02884	0.00000001	5.42E-03
143.1454	0.190995896	0.1935701	0	0.190996	0.542373	0	1363.028841		0.00000001	5.42E-03
143.1643	0.191010897	0.1935701	0	0.191011	0.542373	0	1363.028841	1364.02884	0.00000001	5.42E-03
143.1832	0.19116705	0.1935701	0	0.191167	0.542373	0	1364.028841		0.00000001	5.42E-03
143.2048	0.191224562	0.1935701	0	0.191225	0.542373	0	1364.028841	1365.02884	0.00000001	5.42E-03
143.2238	0.191242977	0.1935701	0	0.191243	0.542373	0	1365.028841		0.00000001	5.42E-03
143.2427	0.191261242	0.1935701	0	0.191261	0.542373	0	1365.028841	1366.02884	0.00000001	5.42E-03
143.2616	0.191166448	0.1935701	0	0.191166	0.542373	0	1366.028841		0.00000001	5.42E-03
143.2805	0.191191789	0.1935701	0	0.191192	0.542373	0	1366.028841	1367.02884	0.00000001	5.42E-03
143.3022	0.191468311	0.1935701	0	0.191468	0.542373	0	1367.028841		0.00000001	5.42E-03
143.3238	0.191504101	0.1935701	0	0.191504	0.542373	0	1367.028841	1368.02884	0.00000001	5.42E-03
143.3454	0.191534848	0.1935701	0	0.191535	0.542373	0	1368.028841		0.00000001	5.42E-03
143.3643	0.191820756	0.1935701	0	0.191821	0.542373	0	1368.028841	1369.02884	0.00000001	5.42E-03
143.386	0.192214694	0.1935701	0	0.192215	0.542373	0	1369.028841		0.00000001	5.42E-03
143.4076	0.192579365	0.1935701	0	0.192579	0.542373	0	1369.028841	1370.02884	0.00000001	5.42E-03
143.4265	0.192655404	0.1935701	0	0.192655	0.542373	0	1370.028841		0.00000001	5.42E-03
143.4454	0.192969771	0.1935701	0	0.19297	0.542373	0	1370.028841	1371.02884	0.00000001	5.42E-03
143.467	0.193283532	0.1935701	0	0.193284	0.542373	0	1371.028841		0.00000001	5.42E-03
143.486	0.19353996	0.1935701	0	0.19354	0.542373	0	1371.028841	1372.02884	0.00000001	5.42E-03
143.5076	0.193570098	0.1935701	0	0.19357	0.542373	0	1372.028841		0.00000001	5.42E-03
143.5292	0.193509029	0.193509	0.000171112	0.193509	0.542373	0	1372.028841	1373.02884	0.00000001	5.42E-03
143.5535	0.193446315	0.1934463	0.000175723	0.193446	0.542202	0	1373.028841		0.00000001	5.42E-03
143.5806	0.193282505	0.1932825	0.000458987	0.193283	0.542026	0	1373.028841	1374.02884	0.00000001	5.42E-03
143.6022	0.193240607	0.1932406	0.000117394	0.193241	0.541568	0	1374.028841		0.00000001	5.42E-03
143.6292	0.19301806	0.1930181	0.000623566	0.193018	0.54145	0	1374.028841	1375.02884	0.00000001	5.41E-03
143.6508	0.192799665	0.1927997	0.000611931	0.1928	0.540827	0	1375.028841		0.00000001	5.41E-03
143.6725	0.192591695	0.1925917	0.00058272	0.192592	0.540215	0	1375.028841	1376.02884	0.00000001	5.40E-03
143.6968	0.192224252	0.1922243	0.001029558	0.192224	0.539632	0	1376.028841		0.00000001	5.40E-03
143.713	0.191686824	0.1916868	0.001505845	0.191687	0.538602	0	1376.028841	1377.02884	0.00000001	5.39E-03
143.7346	0.191332459	0.1913325	0.000992912	0.191332	0.537096	0	1377.028841		0.00000001	5.37E-03
143.759	0.191028827	0.1910536	0.000781452	0.191029	0.536104	0	1377.028841	1378.02884	0.00000001	5.36E-03
143.7779	0.190566858	0.1910536	0	0.190567	0.535322	0	1378.028841		0.00000001	5.35E-03
143.7995	0.190018039	0.1910536	0	0.190018	0.535322	0	1378.028841	1379.02884	0.00000001	5.35E-03
143.8211	0.189497063	0.1910536	0	0.189497	0.535322	0	1379.028841		0.00000001	5.35E-03
143.8401	0.189262961	0.1910536	0	0.189263	0.535322	0	1379.028841	1380.02884	0.00000001	5.35E-03
143.8617	0.189017495	0.1910536	0	0.189017	0.535322	0	1380.028841		0.00000001	5.35E-03
143.8806	0.188898614	0.1910536	0	0.188899	0.535322	0	1380.028841	1381.02884	0.00000001	5.35E-03
143.9022	0.188643394	0.1910536	0	0.188643	0.535322	0	1381.028841		0.00000001	5.35E-03
143.9184	0.188509856	0.1910536	0	0.18851	0.535322	0	1381.028841	1382.02884	0.00000001	5.35E-03
143.9374	0.188490458	0.1910536	0	0.18849	0.535322	0	1382.028841		0.00000001	5.35E-03
143.9563	0.188481588	0.1910536	0	0.188482	0.535322	0	1382.028841	1383.02884	0.00000001	5.35E-03
143.9779	0.188546505	0.1910536	0	0.188547	0.535322	0	1383.028841		0.00000001	5.35E-03
143.9941	0.188546505	0.1910536	0	0.188547	0.535322	0	1383.028841	1384.02884	0.00000001	5.35E-03
144.0131	0.188493614	0.1910536	0	0.188494	0.535322	0	1384.028841		0.00000001	5.35E-03
144.032	0.188305937	0.1910536	0	0.188306	0.535322	0	1384.028841	1385.02884	0.00000001	5.35E-03
144.0536	0.188276745	0.1910536	0	0.188277	0.535322	0	1385.028841		0.00000001	5.35E-03
144.0752	0.18807883	0.1910536	0	0.188079	0.535322	0	1385.028841	1386.02884	0.00000001	5.35E-03
144.0941	0.188068422	0.1910536	0	0.188068	0.535322	0	1386.028841		0.00000001	5.35E-03
144.1158	0.188024607	0.1910536	0	0.188025	0.535322	0	1386.028841	1387.02884	0.00000001	5.35E-03
144.1401	0.188069089	0.1910536	0	0.188069	0.535322	0	1387.028841		0.00000001	5.35E-03
144.1644	0.18858677	0.1910536	0	0.188587	0.535322	0	1387.028841	1388.02884	0.00000001	5.35E-03
144.186	0.188698594	0.1910536	0	0.188699	0.535322	0	1388.028841		0.00000001	5.35E-03
144.2077	0.188838349	0.1910536	0	0.188838	0.535322	0	1388.028841	1389.02884	0.00000001	5.35E-03
144.2293	0.189160328	0.1910536	0	0.18916	0.535322	0	1389.028841		0.00000001	5.35E-03
144.2482	0.189609379	0.1910536	0	0.189609	0.535322	0	1389.028841	1390.02884	0.00000001	5.35E-03
144.2671	0.189765542	0.1910536	0	0.189766	0.535322	0	1390.028841		0.00000001	5.35E-03
144.2915	0.189793113	0.1910536	0	0.189793	0.535322	0	1390.028841	1391.02884	0.00000001	5.35E-03
144.3131	0.189819639	0.1910536	0	0.18982	0.535322	0	1391.028841		0.00000001	5.35E-03
144.332	0.189726544	0.1910536	0	0.189727	0.535322	0	1391.028841	1392.02884	0.00000001	5.35E-03
144.3563	0.190029741	0.1910536	0	0.19003	0.535322	0	1392.028841		0.00000001	5.35E-03
144.378	0.190323422	0.1910536	0	0.190323	0.535322	0	1392.028841	1393.02884	0.00000001	5.35E-03
144.4023	0.190244364	0.1910536	0	0.190244	0.535322	0	1393.028841		0.00000001	5.35E-03
144.4266	0.19019857	0.1910536	0	0.190199	0.535322	0	1393.028841	1394.02884	0.00000001	5.35E-03

144.4509	0.190080466	0.1910536	0	0.19008	0.535322	0	1394.028841		0.00000001	5.35E-03
144.4753	0.189876364	0.1910536	0	0.189876	0.535322	0	1394.028841	1395.02884	0.00000001	5.35E-03
144.4996	0.189837629	0.1910536	0	0.189838	0.535322	0	1395.028841		0.00000001	5.35E-03
144.5212	0.189627364	0.1910536	0	0.189627	0.535322	0	1395.028841	1396.02884	0.00000001	5.35E-03
144.5428	0.189013784	0.1910536	0	0.189014	0.535322	0	1396.028841		0.00000001	5.35E-03
144.5645	0.188522747	0.1910536	0	0.188523	0.535322	0	1396.028841	1397.02884	0.00000001	5.35E-03
144.5834	0.188264343	0.1910536	0	0.188264	0.535322	0	1397.028841		0.00000001	5.35E-03
144.6077	0.18785106	0.1910536	0	0.187851	0.535322	0	1397.028841	1398.02884	0.00000001	5.35E-03
144.6266	0.187727106	0.1910536	0	0.187727	0.535322	0	1398.028841		0.00000001	5.35E-03
144.6483	0.187349484	0.1910536	0	0.187349	0.535322	0	1398.028841	1399.02884	0.00000001	5.35E-03
144.6672	0.18721541	0.1910536	0	0.187215	0.535322	0	1399.028841		0.00000001	5.35E-03
144.6888	0.187065601	0.1910536	0	0.187066	0.535322	0	1399.028841	1400.02884	0.00000001	5.35E-03
144.7077	0.187165454	0.1910536	0	0.187165	0.535322	0	1400.028841		0.00000001	5.35E-03
144.7294	0.187365524	0.1910536	0	0.187366	0.535322	0	1400.028841	1401.02884	0.00000001	5.35E-03
144.751	0.187314524	0.1910536	0	0.187315	0.535322	0	1401.028841		0.00000001	5.35E-03
144.7699	0.187381707	0.1910536	0	0.187382	0.535322	0	1401.028841	1402.02884	0.00000001	5.35E-03
144.7915	0.187704505	0.1910536	0	0.187705	0.535322	0	1402.028841		0.00000001	5.35E-03
144.8104	0.187865961	0.1910536	0	0.187866	0.535322	0	1402.028841	1403.02884	0.00000001	5.35E-03
144.8294	0.188133	0.1910536	0	0.188133	0.535322	0	1403.028841		0.00000001	5.35E-03
144.8483	0.188202278	0.1910536	0	0.188202	0.535322	0	1403.028841	1404.02884	0.00000001	5.35E-03
144.8699	0.188445645	0.1910536	0	0.188446	0.535322	0	1404.028841		0.00000001	5.35E-03
144.8915	0.188663561	0.1910536	0	0.188664	0.535322	0	1404.028841	1405.02884	0.00000001	5.35E-03
144.9105	0.189023742	0.1910536	0	0.189024	0.535322	0	1405.028841		0.00000001	5.35E-03
144.9294	0.1894786	0.1910536	0	0.189479	0.535322	0	1405.028841	1406.02884	0.00000001	5.35E-03
144.951	0.189927391	0.1910536	0	0.189927	0.535322	0	1406.028841		0.00000001	5.35E-03
144.9726	0.190182248	0.1910536	0	0.190182	0.535322	0	1406.028841	1407.02884	0.00000001	5.35E-03
144.9943	0.190679128	0.1910536	0	0.190679	0.535322	0	1407.028841		0.00000001	5.35E-03
145.0159	0.190920486	0.1910536	0	0.19092	0.535322	0	1407.028841	1408.02884	0.00000001	5.35E-03
145.0348	0.190948323	0.1910536	0	0.190948	0.535322	0	1408.028841		0.00000001	5.35E-03
145.0537	0.190888528	0.1910536	0	0.190889	0.535322	0	1408.028841	1409.02884	0.00000001	5.35E-03
145.0726	0.190956485	0.1910536	0	0.190956	0.535322	0	1409.028841		0.00000001	5.35E-03
145.0916	0.191053563	0.1910536	0	0.191054	0.535322	0	1409.028841	1410.02884	0.00000001	5.35E-03
145.1132	0.19093146	0.1909315	0.000342127	0.190931	0.535322	0	1410.028841		0.00000001	5.35E-03
145.1321	0.190547384	0.1905474	0.001076159	0.190547	0.53498	0	1410.028841	1411.02884	0.00000001	5.35E-03
145.1537	0.190182851	0.1901857	0.001013284	0.190183	0.533904	0	1411.028841		0.00000001	5.34E-03
145.1754	0.190125725	0.1901857	0	0.190126	0.532891	0	1411.028841	1412.02884	0.00000001	5.33E-03
145.197	0.190185749	0.1901857	0	0.190186	0.532891	0	1412.028841		0.00000001	5.33E-03
145.2186	0.190010304	0.1901675	5.11582E-05	0.19001	0.532891	0	1412.028841	1413.02884	0.00000001	5.33E-03
145.2429	0.18998399	0.1901675	0	0.189984	0.532839	0	1413.028841		0.00000001	5.33E-03
145.2673	0.190167491	0.1901675	0	0.190167	0.532839	0	1413.028841	1414.02884	0.00000001	5.33E-03
145.2862	0.190034233	0.1900342	0.00037338	0.190034	0.532839	0	1414.028841		0.00000001	5.33E-03
145.3105	0.189708561	0.1897086	0.000912516	0.189709	0.532466	0	1414.028841	1415.02884	0.00000001	5.32E-03
145.3321	0.189554038	0.189554	0.000432965	0.189554	0.531553	0	1415.028841		0.00000001	5.32E-03
145.3592	0.188829774	0.1888298	0.002029351	0.18883	0.531121	0	1415.028841	1416.02884	0.00000001	5.31E-03
145.3808	0.188413298	0.1884133	0.001166945	0.188413	0.529091	0	1416.028841		0.00000001	5.29E-03
145.4024	0.187882448	0.1878824	0.001487415	0.187882	0.527924	0	1416.028841	1417.02884	0.00000001	5.28E-03
145.4213	0.187694046	0.187694	0.000527892	0.187694	0.526437	0	1417.028841		0.00000001	5.26E-03
145.443	0.187224748	0.1872247	0.001314949	0.187225	0.525909	0	1417.028841	1418.02884	0.00000001	5.26E-03
145.4619	0.18674493	0.1869007	0.000907947	0.186745	0.524594	0	1418.028841		0.00000001	5.25E-03
145.4808	0.1864509	0.1869007	0	0.186451	0.523686	0	1418.028841	1419.02884	0.00000001	5.24E-03
145.5024	0.186113757	0.1869007	0	0.186114	0.523686	0	1419.028841		0.00000001	5.24E-03
145.5213	0.185766188	0.1869007	0	0.185766	0.523686	0	1419.028841	1420.02884	0.00000001	5.24E-03
145.5403	0.185591138	0.1869007	0	0.185591	0.523686	0	1420.028841		0.00000001	5.24E-03
145.5592	0.185403654	0.1869007	0	0.185404	0.523686	0	1420.028841	1421.02884	0.00000001	5.24E-03
145.5808	0.184907839	0.1869007	0	0.184908	0.523686	0	1421.028841		0.00000001	5.24E-03
145.5997	0.184688711	0.1869007	0	0.184689	0.523686	0	1421.028841	1422.02884	0.00000001	5.24E-03
145.6187	0.184484791	0.1869007	0	0.184485	0.523686	0	1422.028841		0.00000001	5.24E-03
145.6376	0.184537571	0.1869007	0	0.184538	0.523686	0	1422.028841	1423.02884	0.00000001	5.24E-03
145.6565	0.184607419	0.1869007	0	0.184607	0.523686	0	1423.028841		0.00000001	5.24E-03
145.6754	0.18468486	0.1869007	0	0.184685	0.523686	0	1423.028841	1424.02884	0.00000001	5.24E-03
145.697	0.184771076	0.1869007	0	0.184771	0.523686	0	1424.028841		0.00000001	5.24E-03
145.716	0.184875441	0.1869007	0	0.184875	0.523686	0	1424.028841	1425.02884	0.00000001	5.24E-03
145.7376	0.184843252	0.1869007	0	0.184843	0.523686	0	1425.028841		0.00000001	5.24E-03
145.7592	0.184911971	0.1869007	0	0.184912	0.523686	0	1425.028841	1426.02884	0.00000001	5.24E-03
145.7808	0.184984858	0.1869007	0	0.184985	0.523686	0	1426.028841		0.00000001	5.24E-03
145.8052	0.185057693	0.1869007	0	0.185058	0.523686	0	1426.028841	1427.02884	0.00000001	5.24E-03
145.8268	0.185234122	0.1869007	0	0.185234	0.523686	0	1427.028841		0.00000001	5.24E-03
145.8511	0.185333695	0.1869007	0	0.185334	0.523686	0	1427.028841	1428.02884	0.00000001	5.24E-03
145.8727	0.185238645	0.1869007	0	0.185239	0.523686	0	1428.028841		0.00000001	5.24E-03
145.8971	0.185413426	0.1869007	0	0.185413	0.523686	0	1428.028841	1429.02884	0.00000001	5.24E-03
145.9187	0.185567915	0.1869007	0	0.185568	0.523686	0	1429.028841		0.00000001	5.24E-03
145.943	0.185601012	0.1869007	0	0.185601	0.523686	0	1429.028841	1430.02884	0.00000001	5.24E-03
145.9673	0.185757804	0.1869007	0	0.185758	0.523686	0	1430.028841		0.00000001	5.24E-03
145.9917	0.185617894	0.1869007	0	0.185618	0.523686	0	1430.028841	1431.02884	0.00000001	5.24E-03

146.0133	0.185607447	0.1869007	0	0.185607	0.523686	0	1431.028841		0.00000001	5.24E-03
146.0376	0.185990224	0.1869007	0	0.18599	0.523686	0	1431.028841	1432.02884	0.00000001	5.24E-03
146.0593	0.186346875	0.1869007	0	0.186347	0.523686	0	1432.028841		0.00000001	5.24E-03
146.0836	0.186650787	0.1869007	0	0.186651	0.523686	0	1432.028841	1433.02884	0.00000001	5.24E-03
146.1052	0.186680009	0.1869007	0	0.18668	0.523686	0	1433.028841		0.00000001	5.24E-03
146.1241	0.186843416	0.1869007	0	0.186843	0.523686	0	1433.028841	1434.02884	0.00000001	5.24E-03
146.1457	0.186790509	0.1869007	0	0.186791	0.523686	0	1434.028841		0.00000001	5.24E-03
146.1674	0.186199285	0.1869007	0	0.186199	0.523686	0	1434.028841	1435.02884	0.00000001	5.24E-03
146.1917	0.185053844	0.1869007	0	0.185054	0.523686	0	1435.028841		0.00000001	5.24E-03
146.2133	0.18445337	0.1869007	0	0.184453	0.523686	0	1435.028841	1436.02884	0.00000001	5.24E-03
146.2322	0.184193342	0.1869007	0	0.184193	0.523686	0	1436.028841		0.00000001	5.24E-03
146.2539	0.183894661	0.1869007	0	0.183895	0.523686	0	1436.028841	1437.02884	0.00000001	5.24E-03
146.2755	0.183853045	0.1869007	0	0.183853	0.523686	0	1437.028841		0.00000001	5.24E-03
146.2944	0.183677637	0.1869007	0	0.183678	0.523686	0	1437.028841	1438.02884	0.00000001	5.24E-03
146.316	0.183497877	0.1869007	0	0.183498	0.523686	0	1438.028841		0.00000001	5.24E-03
146.335	0.183214906	0.1869007	0	0.183215	0.523686	0	1438.028841	1439.02884	0.00000001	5.24E-03
146.3539	0.183253679	0.1869007	0	0.183254	0.523686	0	1439.028841		0.00000001	5.24E-03
146.3728	0.182983445	0.1869007	0	0.182983	0.523686	0	1439.028841	1440.02884	0.00000001	5.24E-03
146.3917	0.183434104	0.1869007	0	0.183434	0.523686	0	1440.028841		0.00000001	5.24E-03
146.4106	0.18349124	0.1869007	0	0.183491	0.523686	0	1440.028841	1441.02884	0.00000001	5.24E-03
146.4296	0.184481912	0.1869007	0	0.184482	0.523686	0	1441.028841		0.00000001	5.24E-03
146.4485	0.184844095	0.1869007	0	0.184844	0.523686	0	1441.028841	1442.02884	0.00000001	5.24E-03
146.4674	0.185076965	0.1869007	0	0.185077	0.523686	0	1442.028841		0.00000001	5.24E-03
146.489	0.185031953	0.1869007	0	0.185032	0.523686	0	1442.028841	1443.02884	0.00000001	5.24E-03
146.5053	0.184866707	0.1869007	0	0.184867	0.523686	0	1443.028841		0.00000001	5.24E-03
146.5242	0.184743818	0.1869007	0	0.184744	0.523686	0	1443.028841	1444.02884	0.00000001	5.24E-03
146.5431	0.184583325	0.1869007	0	0.184583	0.523686	0	1444.028841		0.00000001	5.24E-03
146.562	0.184565473	0.1869007	0	0.184565	0.523686	0	1444.028841	1445.02884	0.00000001	5.24E-03
146.5782	0.184777273	0.1869007	0	0.184777	0.523686	0	1445.028841		0.00000001	5.24E-03
146.5972	0.184767462	0.1869007	0	0.184767	0.523686	0	1445.028841	1446.02884	0.00000001	5.24E-03
146.6161	0.185321914	0.1869007	0	0.185322	0.523686	0	1446.028841		0.00000001	5.24E-03
146.635	0.185703691	0.1869007	0	0.185704	0.523686	0	1446.028841	1447.02884	0.00000001	5.24E-03
146.6566	0.18605721	0.1869007	0	0.186057	0.523686	0	1447.028841		0.00000001	5.24E-03
146.6755	0.186316534	0.1869007	0	0.186317	0.523686	0	1447.028841	1448.02884	0.00000001	5.24E-03
146.6972	0.186299263	0.1869007	0	0.186299	0.523686	0	1448.028841		0.00000001	5.24E-03
146.7161	0.186421321	0.1869007	0	0.186421	0.523686	0	1448.028841	1449.02884	0.00000001	5.24E-03
146.7377	0.186401189	0.1869007	0	0.186401	0.523686	0	1449.028841		0.00000001	5.24E-03
146.7566	0.186900706	0.1869007	0	0.186901	0.523686	0	1449.028841	1450.02884	0.00000001	5.24E-03
146.7783	0.18684377	0.1868438	0.000159532	0.186844	0.523686	0	1450.028841		0.00000001	5.24E-03
146.7972	0.18609182	0.1860918	0.002106925	0.186092	0.523527	0	1450.028841	1451.02884	0.00000001	5.24E-03
146.8188	0.185602202	0.1856022	0.001371885	0.185602	0.52142	0	1451.028841		0.00000001	5.21E-03
146.8377	0.185272806	0.1852728	0.00092295	0.185273	0.520048	0	1451.028841	1452.02884	0.00000001	5.20E-03
146.8566	0.184844354	0.1848444	0.001200499	0.184844	0.519125	0	1452.028841		0.00000001	5.19E-03
146.8783	0.184424937	0.1844249	0.001175186	0.184425	0.517924	0	1452.028841	1453.02884	0.00000001	5.18E-03
146.8999	0.184025315	0.1841024	0.00090366	0.184025	0.516749	0	1453.028841		0.00000001	5.17E-03
146.9188	0.18362131	0.1841024	0	0.183621	0.515845	0	1453.028841	1454.02884	0.00000001	5.16E-03
146.9377	0.183557696	0.1841024	0	0.183558	0.515845	0	1454.028841		0.00000001	5.16E-03
146.9621	0.183166582	0.1841024	0	0.183167	0.515845	0	1454.028841	1455.02884	0.00000001	5.16E-03
146.9837	0.182523217	0.1841024	0	0.182523	0.515845	0	1455.028841		0.00000001	5.16E-03
147.0026	0.182213559	0.1841024	0	0.182214	0.515845	0	1455.028841	1456.02884	0.00000001	5.16E-03
147.0269	0.182006883	0.1841024	0	0.182007	0.515845	0	1456.028841		0.00000001	5.16E-03
147.0486	0.181813602	0.1841024	0	0.181814	0.515845	0	1456.028841	1457.02884	0.00000001	5.16E-03
147.0729	0.181634407	0.1841024	0	0.181634	0.515845	0	1457.028841		0.00000001	5.16E-03
147.0945	0.181332565	0.1841024	0	0.181333	0.515845	0	1457.028841	1458.02884	0.00000001	5.16E-03
147.1161	0.180665315	0.1841024	0	0.180665	0.515845	0	1458.028841		0.00000001	5.16E-03
147.1405	0.180390684	0.1841024	0	0.180391	0.515845	0	1458.028841	1459.02884	0.00000001	5.16E-03
147.1567	0.18027603	0.1841024	0	0.180276	0.515845	0	1459.028841		0.00000001	5.16E-03
147.1729	0.18013948	0.1841024	0	0.180139	0.515845	0	1459.028841	1460.02884	0.00000001	5.16E-03
147.1891	0.180084048	0.1841024	0	0.180084	0.515845	0	1460.028841		0.00000001	5.16E-03
147.1999	0.179899586	0.1841024	0	0.1799	0.515845	0	1460.028841	1461.02884	0.00000001	5.16E-03
147.2189	0.179749287	0.1841024	0	0.179749	0.515845	0	1461.028841		0.00000001	5.16E-03
147.2378	0.179701545	0.1841024	0	0.179702	0.515845	0	1461.028841	1462.02884	0.00000001	5.16E-03
147.2594	0.179782274	0.1841024	0	0.179782	0.515845	0	1462.028841		0.00000001	5.16E-03
147.2783	0.179742467	0.1841024	0	0.179742	0.515845	0	1462.028841	1463.02884	0.00000001	5.16E-03
147.2972	0.179446066	0.1841024	0	0.179446	0.515845	0	1463.028841		0.00000001	5.16E-03
147.3189	0.179141765	0.1841024	0	0.179142	0.515845	0	1463.028841	1464.02884	0.00000001	5.16E-03
147.3378	0.179267495	0.1841024	0	0.179267	0.515845	0	1464.028841		0.00000001	5.16E-03
147.3594	0.179507575	0.1841024	0	0.179508	0.515845	0	1464.028841	1465.02884	0.00000001	5.16E-03
147.3783	0.179713768	0.1841024	0	0.179714	0.515845	0	1465.028841		0.00000001	5.16E-03
147.4108	0.180008967	0.1841024	0	0.180009	0.515845	0	1465.028841	1466.02884	0.00000001	5.16E-03
147.4378	0.180147298	0.1841024	0	0.180147	0.515845	0	1466.028841		0.00000001	5.16E-03
147.4594	0.180453508	0.1841024	0	0.180454	0.515845	0	1466.028841	1467.02884	0.00000001	5.16E-03
147.481	0.180511375	0.1841024	0	0.180511	0.515845	0	1467.028841		0.00000001	5.16E-03
147.5	0.180579614	0.1841024	0	0.18058	0.515845	0	1467.028841	1468.02884	0.00000001	5.16E-03

147.5189	0.180901968	0.1841024	0	0.180902	0.515845	0	1468.028841		0.00000001	5.16E-03
147.5351	0.181022579	0.1841024	0	0.181023	0.515845	0	1468.028841	1469.02884	0.00000001	5.16E-03
147.554	0.181182867	0.1841024	0	0.181183	0.515845	0	1469.028841		0.00000001	5.16E-03
147.5757	0.181181186	0.1841024	0	0.181181	0.515845	0	1469.028841	1470.02884	0.00000001	5.16E-03
147.6	0.181458319	0.1841024	0	0.181458	0.515845	0	1470.028841		0.00000001	5.16E-03
147.627	0.181528696	0.1841024	0	0.181529	0.515845	0	1470.028841	1471.02884	0.00000001	5.16E-03
147.6486	0.181742453	0.1841024	0	0.181742	0.515845	0	1471.028841		0.00000001	5.16E-03
147.673	0.18189818	0.1841024	0	0.181898	0.515845	0	1471.028841	1472.02884	0.00000001	5.16E-03
147.6973	0.181962788	0.1841024	0	0.181963	0.515845	0	1472.028841		0.00000001	5.16E-03
147.7189	0.181991609	0.1841024	0	0.181992	0.515845	0	1472.028841	1473.02884	0.00000001	5.16E-03
147.7432	0.181892775	0.1841024	0	0.181893	0.515845	0	1473.028841		0.00000001	5.16E-03
147.773	0.181742781	0.1841024	0	0.181743	0.515845	0	1473.028841	1474.02884	0.00000001	5.16E-03
147.7892	0.181718437	0.1841024	0	0.181718	0.515845	0	1474.028841		0.00000001	5.16E-03
147.8054	0.181616195	0.1841024	0	0.181616	0.515845	0	1474.028841	1475.02884	0.00000001	5.16E-03
147.827	0.181551791	0.1841024	0	0.181552	0.515845	0	1475.028841		0.00000001	5.16E-03
147.846	0.181600012	0.1841024	0	0.1816	0.515845	0	1475.028841	1476.02884	0.00000001	5.16E-03
147.8649	0.181514081	0.1841024	0	0.181514	0.515845	0	1476.028841		0.00000001	5.16E-03
147.8838	0.181009735	0.1841024	0	0.18101	0.515845	0	1476.028841	1477.02884	0.00000001	5.16E-03
147.9027	0.180964865	0.1841024	0	0.180965	0.515845	0	1477.028841		0.00000001	5.16E-03
147.9216	0.181052299	0.1841024	0	0.181052	0.515845	0	1477.028841	1478.02884	0.00000001	5.16E-03
147.9433	0.180983507	0.1841024	0	0.180984	0.515845	0	1478.028841		0.00000001	5.16E-03
147.9622	0.180783601	0.1841024	0	0.180784	0.515845	0	1478.028841	1479.02884	0.00000001	5.16E-03
147.9811	0.180768103	0.1841024	0	0.180768	0.515845	0	1479.028841		0.00000001	5.16E-03
148	0.180848777	0.1841024	0	0.180849	0.515845	0	1479.028841	1480.02884	0.00000001	5.16E-03
148.0189	0.180708958	0.1841024	0	0.180709	0.515845	0	1480.028841		0.00000001	5.16E-03
148.0406	0.180664793	0.1841024	0	0.180665	0.515845	0	1480.028841	1481.02884	0.00000001	5.16E-03
148.0595	0.18061882	0.1841024	0	0.180619	0.515845	0	1481.028841		0.00000001	5.16E-03
148.0811	0.180599896	0.1841024	0	0.1806	0.515845	0	1481.028841	1482.02884	0.00000001	5.16E-03
148.0973	0.180676153	0.1841024	0	0.180676	0.515845	0	1482.028841		0.00000001	5.16E-03
148.1136	0.180848361	0.1841024	0	0.180848	0.515845	0	1482.028841	1483.02884	0.00000001	5.16E-03
148.1298	0.180790759	0.1841024	0	0.180791	0.515845	0	1483.028841		0.00000001	5.16E-03
148.146	0.180815073	0.1841024	0	0.180815	0.515845	0	1483.028841	1484.02884	0.00000001	5.16E-03
148.1676	0.181375883	0.1841024	0	0.181376	0.515845	0	1484.028841		0.00000001	5.16E-03
148.1865	0.181863118	0.1841024	0	0.181863	0.515845	0	1484.028841	1485.02884	0.00000001	5.16E-03
148.2055	0.182949583	0.1841024	0	0.18295	0.515845	0	1485.028841		0.00000001	5.16E-03
148.2217	0.182990228	0.1841024	0	0.18299	0.515845	0	1485.028841	1486.02884	0.00000001	5.16E-03
148.2433	0.182940857	0.1841024	0	0.182941	0.515845	0	1486.028841		0.00000001	5.16E-03
148.2649	0.183016666	0.1841024	0	0.183017	0.515845	0	1486.028841	1487.02884	0.00000001	5.16E-03
148.2811	0.183593201	0.1841024	0	0.183593	0.515845	0	1487.028841		0.00000001	5.16E-03
148.2974	0.183566609	0.1841024	0	0.183567	0.515845	0	1487.028841	1488.02884	0.00000001	5.16E-03
148.3163	0.183888848	0.1841024	0	0.183889	0.515845	0	1488.028841		0.00000001	5.16E-03
148.3325	0.183922396	0.1841024	0	0.183922	0.515845	0	1488.028841	1489.02884	0.00000001	5.16E-03
148.3541	0.183949525	0.1841024	0	0.18395	0.515845	0	1489.028841		0.00000001	5.16E-03
148.373	0.184102426	0.1841024	0	0.184102	0.515845	0	1489.028841	1490.02884	0.00000001	5.16E-03
148.3947	0.183725699	0.1837257	0.001055568	0.183726	0.515845	0	1490.028841		0.00000001	5.16E-03
148.4136	0.182818102	0.1834318	0.00082341	0.182818	0.51479	0	1490.028841	1491.02884	0.00000001	5.15E-03
148.4325	0.18288044	0.1834318	0	0.18288	0.513966	0	1491.028841		0.00000001	5.14E-03
148.4541	0.182600983	0.1834318	0	0.182601	0.513966	0	1491.028841	1492.02884	0.00000001	5.14E-03
148.4758	0.182572624	0.1834318	0	0.182573	0.513966	0	1492.028841		0.00000001	5.14E-03
148.4947	0.182638868	0.1834318	0	0.182639	0.513966	0	1492.028841	1493.02884	0.00000001	5.14E-03
148.5136	0.182854295	0.1834318	0	0.182854	0.513966	0	1493.028841		0.00000001	5.14E-03
148.5352	0.183431829	0.1834318	0	0.183432	0.513966	0	1493.028841	1494.02884	0.00000001	5.14E-03
148.5541	0.183354122	0.1833541	0.00021773	0.183354	0.513966	0	1494.028841		0.00000001	5.14E-03
148.5704	0.183250432	0.1832504	0.000290535	0.18325	0.513749	0	1494.028841	1495.02884	0.00000001	5.14E-03
148.592	0.182946952	0.182947	0.000850334	0.182947	0.513458	0	1495.028841		0.00000001	5.13E-03
148.6082	0.182405144	0.182598	0.000977692	0.182405	0.512608	0	1495.028841	1496.02884	0.00000001	5.13E-03
148.6298	0.182017267	0.182598	0	0.182017	0.51163	0	1496.028841		0.00000001	5.12E-03
148.6515	0.181669104	0.182598	0	0.181669	0.51163	0	1496.028841	1497.02884	0.00000001	5.12E-03
148.6731	0.181199953	0.182598	0	0.1812	0.51163	0	1497.028841		0.00000001	5.12E-03
148.692	0.181042719	0.182598	0	0.181043	0.51163	0	1497.028841	1498.02884	0.00000001	5.12E-03
148.7136	0.180727918	0.182598	0	0.180728	0.51163	0	1498.028841		0.00000001	5.12E-03
148.7325	0.180424296	0.182598	0	0.180424	0.51163	0	1498.028841	1499.02884	0.00000001	5.12E-03
148.7515	0.179745434	0.182598	0	0.179745	0.51163	0	1499.028841		0.00000001	5.12E-03
148.7704	0.179633644	0.182598	0	0.179634	0.51163	0	1499.028841	1500.02884	0.00000001	5.12E-03
148.7893	0.179810257	0.182598	0	0.17981	0.51163	0	1500.028841		0.00000001	5.12E-03
148.8082	0.179884006	0.182598	0	0.179884	0.51163	0	1500.028841	1501.02884	0.00000001	5.12E-03
148.8272	0.179702845	0.182598	0	0.179703	0.51163	0	1501.028841		0.00000001	5.12E-03
148.8461	0.179766086	0.182598	0	0.179766	0.51163	0	1501.028841	1502.02884	0.00000001	5.12E-03
148.865	0.180195573	0.182598	0	0.180196	0.51163	0	1502.028841		0.00000001	5.12E-03
148.8812	0.180195663	0.182598	0	0.180196	0.51163	0	1502.028841	1503.02884	0.00000001	5.12E-03
148.9001	0.179978695	0.182598	0	0.179979	0.51163	0	1503.028841		0.00000001	5.12E-03
148.9191	0.179803618	0.182598	0	0.179804	0.51163	0	1503.028841	1504.02884	0.00000001	5.12E-03
148.938	0.179751149	0.182598	0	0.179751	0.51163	0	1504.028841		0.00000001	5.12E-03
148.9596	0.179921591	0.182598	0	0.179922	0.51163	0	1504.028841	1505.02884	0.00000001	5.12E-03

148.9785	0.180348826	0.182598	0	0.180349	0.51163	0	1505.028841		0.00000001	5.12E-03
148.9974	0.180730663	0.182598	0	0.180731	0.51163	0	1505.028841	1506.02884	0.00000001	5.12E-03
149.0191	0.180879739	0.182598	0	0.18088	0.51163	0	1506.028841		0.00000001	5.12E-03
149.0407	0.18076655	0.182598	0	0.180767	0.51163	0	1506.028841	1507.02884	0.00000001	5.12E-03
149.0623	0.180671464	0.182598	0	0.180671	0.51163	0	1507.028841		0.00000001	5.12E-03
149.0839	0.180691322	0.182598	0	0.180691	0.51163	0	1507.028841	1508.02884	0.00000001	5.12E-03
149.1056	0.180965648	0.182598	0	0.180966	0.51163	0	1508.028841		0.00000001	5.12E-03
149.1272	0.181346844	0.182598	0	0.181347	0.51163	0	1508.028841	1509.02884	0.00000001	5.12E-03
149.1488	0.182026182	0.182598	0	0.182026	0.51163	0	1509.028841		0.00000001	5.12E-03
149.1704	0.182233237	0.182598	0	0.182233	0.51163	0	1509.028841	1510.02884	0.00000001	5.12E-03
149.1921	0.18230475	0.182598	0	0.182305	0.51163	0	1510.028841		0.00000001	5.12E-03
149.211	0.18252106	0.182598	0	0.182521	0.51163	0	1510.028841	1511.02884	0.00000001	5.12E-03
149.2326	0.182598019	0.182598	0	0.182598	0.51163	0	1511.028841		0.00000001	5.12E-03
149.2515	0.182172167	0.1824581	0.00039198	0.182172	0.51163	0	1511.028841	1512.02884	0.00000001	5.12E-03
149.2759	0.181671218	0.1824581	0	0.181671	0.511238	0	1512.028841		0.00000001	5.11E-03
149.3029	0.182367386	0.1824581	0	0.182367	0.511238	0	1512.028841	1513.02884	0.00000001	5.11E-03
149.3245	0.182458124	0.1824581	0	0.182458	0.511238	0	1513.028841		0.00000001	5.11E-03
149.3461	0.181846187	0.1823402	0.00033034	0.181846	0.511238	0	1513.028841	1514.02884	0.00000001	5.11E-03
149.3678	0.181836214	0.1823402	0	0.181836	0.510908	0	1514.028841		0.00000001	5.11E-03
149.3921	0.181823727	0.1823402	0	0.181824	0.510908	0	1514.028841	1515.02884	0.00000001	5.11E-03
149.4137	0.181729094	0.1823402	0	0.181729	0.510908	0	1515.028841		0.00000001	5.11E-03
149.4353	0.181592287	0.1823402	0	0.181592	0.510908	0	1515.028841	1516.02884	0.00000001	5.11E-03
149.457	0.181311125	0.1823402	0	0.181311	0.510908	0	1516.028841		0.00000001	5.11E-03
149.4786	0.18115213	0.1823402	0	0.181152	0.510908	0	1516.028841	1517.02884	0.00000001	5.11E-03
149.5002	0.181293734	0.1823402	0	0.181294	0.510908	0	1517.028841		0.00000001	5.11E-03
149.5218	0.181269907	0.1823402	0	0.18127	0.510908	0	1517.028841	1518.02884	0.00000001	5.11E-03
149.5435	0.181048469	0.1823402	0	0.181048	0.510908	0	1518.028841		0.00000001	5.11E-03
149.5624	0.181060288	0.1823402	0	0.18106	0.510908	0	1518.028841	1519.02884	0.00000001	5.11E-03
149.584	0.181037283	0.1823402	0	0.181037	0.510908	0	1519.028841		0.00000001	5.11E-03
149.6029	0.180940685	0.1823402	0	0.180941	0.510908	0	1519.028841	1520.02884	0.00000001	5.11E-03
149.6246	0.180794348	0.1823402	0	0.180794	0.510908	0	1520.028841		0.00000001	5.11E-03
149.6435	0.180152235	0.1823402	0	0.180152	0.510908	0	1520.028841	1521.02884	0.00000001	5.11E-03
149.6624	0.179826149	0.1823402	0	0.179826	0.510908	0	1521.028841		0.00000001	5.11E-03
149.6813	0.179750532	0.1823402	0	0.179751	0.510908	0	1521.028841	1522.02884	0.00000001	5.11E-03
149.7002	0.179809138	0.1823402	0	0.179809	0.510908	0	1522.028841		0.00000001	5.11E-03
149.7192	0.18012395	0.1823402	0	0.180124	0.510908	0	1522.028841	1523.02884	0.00000001	5.11E-03
149.7381	0.180183043	0.1823402	0	0.180183	0.510908	0	1523.028841		0.00000001	5.11E-03
149.757	0.180835459	0.1823402	0	0.180835	0.510908	0	1523.028841	1524.02884	0.00000001	5.11E-03
149.7759	0.181330486	0.1823402	0	0.18133	0.510908	0	1524.028841		0.00000001	5.11E-03
149.7948	0.181557742	0.1823402	0	0.181558	0.510908	0	1524.028841	1525.02884	0.00000001	5.11E-03
149.8138	0.181654219	0.1823402	0	0.181654	0.510908	0	1525.028841		0.00000001	5.11E-03
149.83	0.18170356	0.1823402	0	0.181704	0.510908	0	1525.028841	1526.02884	0.00000001	5.11E-03
149.8516	0.181574785	0.1823402	0	0.181575	0.510908	0	1526.028841		0.00000001	5.11E-03
149.8759	0.181674908	0.1823402	0	0.181675	0.510908	0	1526.028841	1527.02884	0.00000001	5.11E-03
149.8922	0.181884951	0.1823402	0	0.181885	0.510908	0	1527.028841		0.00000001	5.11E-03
149.9084	0.181905034	0.1823402	0	0.181905	0.510908	0	1527.028841	1528.02884	0.00000001	5.11E-03
149.9246	0.181968693	0.1823402	0	0.181969	0.510908	0	1528.028841		0.00000001	5.11E-03
149.9462	0.181795458	0.1823402	0	0.181795	0.510908	0	1528.028841	1529.02884	0.00000001	5.11E-03
149.9678	0.181694824	0.1823402	0	0.181695	0.510908	0	1529.028841		0.00000001	5.11E-03
149.9922	0.181894931	0.1823402	0	0.181895	0.510908	0	1529.028841	1530.02884	0.00000001	5.11E-03
150.0138	0.181843941	0.1823402	0	0.181844	0.510908	0	1530.028841		0.00000001	5.11E-03
150.0327	0.181681194	0.1823402	0	0.181681	0.510908	0	1530.028841	1531.02884	0.00000001	5.11E-03
150.0516	0.181767356	0.1823402	0	0.181767	0.510908	0	1531.028841		0.00000001	5.11E-03
150.0706	0.181576822	0.1823402	0	0.181577	0.510908	0	1531.028841	1532.02884	0.00000001	5.11E-03
150.0895	0.181553663	0.1823402	0	0.181554	0.510908	0	1532.028841		0.00000001	5.11E-03
150.1084	0.181277332	0.1823402	0	0.181277	0.510908	0	1532.028841	1533.02884	0.00000001	5.11E-03
150.13	0.181014325	0.1823402	0	0.181014	0.510908	0	1533.028841		0.00000001	5.11E-03
150.1543	0.180675463	0.1823402	0	0.180675	0.510908	0	1533.028841	1534.02884	0.00000001	5.11E-03
150.176	0.180594935	0.1823402	0	0.180595	0.510908	0	1534.028841		0.00000001	5.11E-03
150.1949	0.180592252	0.1823402	0	0.180592	0.510908	0	1534.028841	1535.02884	0.00000001	5.11E-03
150.2165	0.180513426	0.1823402	0	0.180513	0.510908	0	1535.028841		0.00000001	5.11E-03
150.2354	0.180398513	0.1823402	0	0.180399	0.510908	0	1535.028841	1536.02884	0.00000001	5.11E-03
150.2517	0.180191415	0.1823402	0	0.180191	0.510908	0	1536.028841		0.00000001	5.11E-03
150.2679	0.180248825	0.1823402	0	0.180249	0.510908	0	1536.028841	1537.02884	0.00000001	5.11E-03
150.2868	0.179740728	0.1823402	0	0.179741	0.510908	0	1537.028841		0.00000001	5.11E-03
150.3111	0.179138855	0.1823402	0	0.179139	0.510908	0	1537.028841	1538.02884	0.00000001	5.11E-03
150.3246	0.179102964	0.1823402	0	0.179103	0.510908	0	1538.028841		0.00000001	5.11E-03
150.3409	0.179102964	0.1823402	0	0.179103	0.510908	0	1538.028841	1539.02884	0.00000001	5.11E-03
150.3598	0.179202048	0.1823402	0	0.179202	0.510908	0	1539.028841		0.00000001	5.11E-03
150.3814	0.179170572	0.1823402	0	0.179171	0.510908	0	1539.028841	1540.02884	0.00000001	5.11E-03
150.4003	0.179150856	0.1823402	0	0.179151	0.510908	0	1540.028841		0.00000001	5.11E-03
150.4192	0.178996943	0.1823402	0	0.178997	0.510908	0	1540.028841	1541.02884	0.00000001	5.11E-03
150.4382	0.178732407	0.1823402	0	0.178732	0.510908	0	1541.028841		0.00000001	5.11E-03
150.4571	0.178608229	0.1823402	0	0.178608	0.510908	0	1541.028841	1542.02884	0.00000001	5.11E-03

150.476	0.178440589	0.1823402	0	0.178441	0.510908	0	1542.028841		0.00000001	5.11E-03
150.4949	0.17836356	0.1823402	0	0.178364	0.510908	0	1542.028841	1543.02884	0.00000001	5.11E-03
150.5166	0.178358562	0.1823402	0	0.178359	0.510908	0	1543.028841		0.00000001	5.11E-03
150.5355	0.178368402	0.1823402	0	0.178368	0.510908	0	1543.028841	1544.02884	0.00000001	5.11E-03
150.5517	0.17858492	0.1823402	0	0.178585	0.510908	0	1544.028841		0.00000001	5.11E-03
150.5706	0.178702859	0.1823402	0	0.178703	0.510908	0	1544.028841	1545.02884	0.00000001	5.11E-03
150.5895	0.178675983	0.1823402	0	0.178676	0.510908	0	1545.028841		0.00000001	5.11E-03
150.6058	0.178641357	0.1823402	0	0.178641	0.510908	0	1545.028841	1546.02884	0.00000001	5.11E-03
150.6247	0.178749855	0.1823402	0	0.17875	0.510908	0	1546.028841		0.00000001	5.11E-03
150.6409	0.178749855	0.1823402	0	0.17875	0.510908	0	1546.028841	1547.02884	0.00000001	5.11E-03
150.6571	0.178928002	0.1823402	0	0.178928	0.510908	0	1547.028841		0.00000001	5.11E-03
150.676	0.179125647	0.1823402	0	0.179126	0.510908	0	1547.028841	1548.02884	0.00000001	5.11E-03
150.695	0.179311137	0.1823402	0	0.179311	0.510908	0	1548.028841		0.00000001	5.11E-03
150.7166	0.179470788	0.1823402	0	0.179471	0.510908	0	1548.028841	1549.02884	0.00000001	5.11E-03
150.7409	0.179884337	0.1823402	0	0.179884	0.510908	0	1549.028841		0.00000001	5.11E-03
150.7679	0.180288432	0.1823402	0	0.180288	0.510908	0	1549.028841	1550.02884	0.00000001	5.11E-03
150.7896	0.180519486	0.1823402	0	0.180519	0.510908	0	1550.028841		0.00000001	5.11E-03
150.8112	0.180630369	0.1823402	0	0.18063	0.510908	0	1550.028841	1551.02884	0.00000001	5.11E-03
150.8301	0.180850394	0.1823402	0	0.18085	0.510908	0	1551.028841		0.00000001	5.11E-03
150.849	0.180867333	0.1823402	0	0.180867	0.510908	0	1551.028841	1552.02884	0.00000001	5.11E-03
150.8679	0.180600712	0.1823402	0	0.180601	0.510908	0	1552.028841		0.00000001	5.11E-03
150.8869	0.180608641	0.1823402	0	0.180609	0.510908	0	1552.028841	1553.02884	0.00000001	5.11E-03
150.9085	0.181211927	0.1823402	0	0.181212	0.510908	0	1553.028841		0.00000001	5.11E-03
150.9274	0.181302532	0.1823402	0	0.181303	0.510908	0	1553.028841	1554.02884	0.00000001	5.11E-03
150.9463	0.181148205	0.1823402	0	0.181148	0.510908	0	1554.028841		0.00000001	5.11E-03
150.9653	0.181275063	0.1823402	0	0.181275	0.510908	0	1554.028841	1555.02884	0.00000001	5.11E-03
150.9869	0.181105324	0.1823402	0	0.181105	0.510908	0	1555.028841		0.00000001	5.11E-03
151.0085	0.1807332	0.1823402	0	0.180733	0.510908	0	1555.028841	1556.02884	0.00000001	5.11E-03
151.0274	0.18060246	0.1823402	0	0.180602	0.510908	0	1556.028841		0.00000001	5.11E-03
151.049	0.180724454	0.1823402	0	0.180724	0.510908	0	1556.028841	1557.02884	0.00000001	5.11E-03
151.0734	0.180823722	0.1823402	0	0.180824	0.510908	0	1557.028841		0.00000001	5.11E-03
151.0923	0.180795795	0.1823402	0	0.180796	0.510908	0	1557.028841	1558.02884	0.00000001	5.11E-03
151.1112	0.180779814	0.1823402	0	0.18078	0.510908	0	1558.028841		0.00000001	5.11E-03
151.1301	0.180532757	0.1823402	0	0.180533	0.510908	0	1558.028841	1559.02884	0.00000001	5.11E-03
151.1491	0.180312649	0.1823402	0	0.180313	0.510908	0	1559.028841		0.00000001	5.11E-03
151.168	0.17984488	0.1823402	0	0.179845	0.510908	0	1559.028841	1560.02884	0.00000001	5.11E-03
151.1896	0.179748214	0.1823402	0	0.179748	0.510908	0	1560.028841		0.00000001	5.11E-03
151.2085	0.17975815	0.1823402	0	0.179758	0.510908	0	1560.028841	1561.02884	0.00000001	5.11E-03
151.2274	0.179786945	0.1823402	0	0.179787	0.510908	0	1561.028841		0.00000001	5.11E-03
151.2464	0.179911995	0.1823402	0	0.179912	0.510908	0	1561.028841	1562.02884	0.00000001	5.11E-03
151.2653	0.180172747	0.1823402	0	0.180173	0.510908	0	1562.028841		0.00000001	5.11E-03
151.2869	0.180102619	0.1823402	0	0.180103	0.510908	0	1562.028841	1563.02884	0.00000001	5.11E-03
151.3031	0.180014614	0.1823402	0	0.180015	0.510908	0	1563.028841		0.00000001	5.11E-03
151.3221	0.180025553	0.1823402	0	0.180026	0.510908	0	1563.028841	1564.02884	0.00000001	5.11E-03
151.3437	0.180544642	0.1823402	0	0.180545	0.510908	0	1564.028841		0.00000001	5.11E-03
151.3653	0.180504382	0.1823402	0	0.180504	0.510908	0	1564.028841	1565.02884	0.00000001	5.11E-03
151.3869	0.180457649	0.1823402	0	0.180458	0.510908	0	1565.028841		0.00000001	5.11E-03
151.4086	0.18053443	0.1823402	0	0.180534	0.510908	0	1565.028841	1566.02884	0.00000001	5.11E-03
151.4248	0.180625236	0.1823402	0	0.180625	0.510908	0	1566.028841		0.00000001	5.11E-03
151.4437	0.18069424	0.1823402	0	0.180694	0.510908	0	1566.028841	1567.02884	0.00000001	5.11E-03
151.4626	0.180758734	0.1823402	0	0.180759	0.510908	0	1567.028841		0.00000001	5.11E-03
151.4788	0.180680972	0.1823402	0	0.180681	0.510908	0	1567.028841	1568.02884	0.00000001	5.11E-03
151.5005	0.180623051	0.1823402	0	0.180623	0.510908	0	1568.028841		0.00000001	5.11E-03
151.5194	0.180572107	0.1823402	0	0.180572	0.510908	0	1568.028841	1569.02884	0.00000001	5.11E-03
151.541	0.180749335	0.1823402	0	0.180749	0.510908	0	1569.028841		0.00000001	5.11E-03
151.5626	0.181179877	0.1823402	0	0.18118	0.510908	0	1569.028841	1570.02884	0.00000001	5.11E-03
151.5815	0.18124064	0.1823402	0	0.181241	0.510908	0	1570.028841		0.00000001	5.11E-03
151.6005	0.181623666	0.1823402	0	0.181624	0.510908	0	1570.028841	1571.02884	0.00000001	5.11E-03
151.6194	0.181779479	0.1823402	0	0.181779	0.510908	0	1571.028841		0.00000001	5.11E-03
151.641	0.182213983	0.1823402	0	0.182214	0.510908	0	1571.028841	1572.02884	0.00000001	5.11E-03
151.6599	0.182340227	0.1823402	0	0.18234	0.510908	0	1572.028841		0.00000001	5.11E-03
151.6816	0.182194348	0.1821943	0.000408746	0.182194	0.510908	0	1572.028841	1573.02884	0.00000001	5.11E-03
151.7005	0.182193621	0.1821936	2.03551E-06	0.182194	0.510499	0	1573.028841		0.00000001	5.10E-03
151.7221	0.18202253	0.1820225	0.000479389	0.182023	0.510497	0	1573.028841	1574.02884	0.00000001	5.10E-03
151.7437	0.181373281	0.1813733	0.001819164	0.181373	0.510018	0	1574.028841		0.00000001	5.10E-03
151.7654	0.181332511	0.1813325	0.000114234	0.181333	0.508198	0	1574.028841	1575.02884	0.00000001	5.08E-03
151.787	0.180868872	0.1808689	0.001299093	0.180869	0.508084	0	1575.028841		0.00000001	5.08E-03
151.8086	0.180517479	0.1806226	0.000690053	0.180517	0.506785	0	1575.028841	1576.02884	0.00000001	5.07E-03
151.8275	0.180463147	0.1806226	0	0.180463	0.506095	0	1576.028841		0.00000001	5.06E-03
151.8464	0.180495002	0.1806226	0	0.180495	0.506095	0	1576.028841	1577.02884	0.00000001	5.06E-03
151.8681	0.180622595	0.1806226	0	0.180623	0.506095	0	1577.028841		0.00000001	5.06E-03
151.887	0.180528599	0.1805286	0.000263372	0.180529	0.506095	0	1577.028841	1578.02884	0.00000001	5.06E-03
151.9059	0.180373438	0.1805138	4.14625E-05	0.180373	0.505832	0	1578.028841		0.00000001	5.06E-03
151.9275	0.180349524	0.1805138	0	0.18035	0.50579	0	1578.028841	1579.02884	0.00000001	5.06E-03

151.9465	0.180513802	0.1805138	0	0.180514	0.50579	0	1579.028841		0.00000001	5.06E-03
151.9708	0.180259669	0.1802597	0.000712067	0.18026	0.50579	0	1579.028841	1580.02884	0.00000001	5.06E-03
151.9897	0.179925142	0.1799251	0.000937326	0.179925	0.505078	0	1580.028841		0.00000001	5.05E-03
152.0086	0.179598941	0.1795989	0.000913999	0.179599	0.504141	0	1580.028841	1581.02884	0.00000001	5.04E-03
152.0275	0.17928824	0.1792882	0.000870568	0.179288	0.503227	0	1581.028841		0.00000001	5.03E-03
152.0492	0.178973851	0.1789739	0.000880902	0.178974	0.502356	0	1581.028841	1582.02884	0.00000001	5.02E-03
152.0681	0.178860092	0.1788601	0.000318747	0.17886	0.501475	0	1582.028841		0.00000001	5.01E-03
152.087	0.178209839	0.1782098	0.001821975	0.17821	0.501157	0	1582.028841	1583.02884	0.00000001	5.01E-03
152.1059	0.17795205	0.1779521	0.00072231	0.177952	0.499335	0	1583.028841		0.00000001	4.99E-03
152.1276	0.177924195	0.1779242	7.805E-05	0.177924	0.498612	0	1583.028841	1584.02884	0.00000001	4.99E-03
152.1465	0.177781923	0.1777819	0.000398638	0.177782	0.498534	0	1584.028841		0.00000001	4.99E-03
152.1627	0.177520524	0.1775769	0.000574584	0.177521	0.498136	0	1584.028841	1585.02884	0.00000001	4.98E-03
152.1816	0.17696248	0.1775769	0	0.176962	0.497561	0	1585.028841		0.00000001	4.98E-03
152.2005	0.176845761	0.1775769	0	0.176846	0.497561	0	1585.028841	1586.02884	0.00000001	4.98E-03
152.2222	0.176964162	0.1775769	0	0.176964	0.497561	0	1586.028841		0.00000001	4.98E-03
152.2411	0.177203352	0.1775769	0	0.177203	0.497561	0	1586.028841	1587.02884	0.00000001	4.98E-03
152.26	0.177238518	0.1775769	0	0.177239	0.497561	0	1587.028841		0.00000001	4.98E-03
152.2789	0.177330185	0.1775769	0	0.17733	0.497561	0	1587.028841	1588.02884	0.00000001	4.98E-03
152.2979	0.177417592	0.1775769	0	0.177418	0.497561	0	1588.028841		0.00000001	4.98E-03
152.3168	0.177498021	0.1775769	0	0.177498	0.497561	0	1588.028841	1589.02884	0.00000001	4.98E-03
152.3357	0.177211102	0.1775769	0	0.177211	0.497561	0	1589.028841		0.00000001	4.98E-03
152.3546	0.176927997	0.1775769	0	0.176928	0.497561	0	1589.028841	1590.02884	0.00000001	4.98E-03
152.3762	0.176891408	0.1775769	0	0.176891	0.497561	0	1590.028841		0.00000001	4.98E-03
152.3952	0.176745545	0.1775769	0	0.176746	0.497561	0	1590.028841	1591.02884	0.00000001	4.98E-03
152.4168	0.176824091	0.1775769	0	0.176824	0.497561	0	1591.028841		0.00000001	4.98E-03
152.4357	0.177045951	0.1775769	0	0.177046	0.497561	0	1591.028841	1592.02884	0.00000001	4.98E-03
152.4573	0.177103285	0.1775769	0	0.177103	0.497561	0	1592.028841		0.00000001	4.98E-03
152.4763	0.177409283	0.1775769	0	0.177409	0.497561	0	1592.028841	1593.02884	0.00000001	4.98E-03
152.4952	0.177576857	0.1775769	0	0.177577	0.497561	0	1593.028841		0.00000001	4.98E-03
152.5168	0.177526239	0.1775262	0.000141829	0.177526	0.497561	0	1593.028841	1594.02884	0.00000001	4.98E-03
152.5357	0.177329582	0.1773296	0.000551021	0.17733	0.497419	0	1594.028841		0.00000001	4.97E-03
152.5573	0.176915032	0.176915	0.001161548	0.176915	0.496868	0	1594.028841	1595.02884	0.00000001	4.97E-03
152.5817	0.17682514	0.1768747	0.000113024	0.176825	0.495707	0	1595.028841		0.00000001	4.96E-03
152.6033	0.176798858	0.1768747	0	0.176799	0.495594	0	1595.028841	1596.02884	0.00000001	4.96E-03
152.6222	0.176874695	0.1768747	0	0.176875	0.495594	0	1596.028841		0.00000001	4.96E-03
152.6438	0.176724109	0.1767241	0.000421933	0.176724	0.495594	0	1596.028841	1597.02884	0.00000001	4.96E-03
152.6628	0.176205926	0.1762059	0.001451921	0.176206	0.495172	0	1597.028841		0.00000001	4.95E-03
152.6817	0.175812749	0.1758127	0.001101664	0.175813	0.49372	0	1597.028841	1598.02884	0.00000001	4.94E-03
152.706	0.175201425	0.1754533	0.001007159	0.175201	0.492618	0	1598.028841		0.00000001	4.93E-03
152.7276	0.174852912	0.1754533	0	0.174853	0.491611	0	1598.028841	1599.02884	0.00000001	4.92E-03
152.7466	0.174911314	0.1754533	0	0.174911	0.491611	0	1599.028841		0.00000001	4.92E-03
152.7682	0.175077632	0.1754533	0	0.175078	0.491611	0	1599.028841	1600.02884	0.00000001	4.92E-03
152.7871	0.175251216	0.1754533	0	0.175251	0.491611	0	1600.028841		0.00000001	4.92E-03
152.806	0.175251216	0.1754533	0	0.175251	0.491611	0	1600.028841	1601.02884	0.00000001	4.92E-03
152.8276	0.175453299	0.1754533	0	0.175453	0.491611	0	1601.028841		0.00000001	4.92E-03
152.8466	0.175320542	0.1753205	0.000371979	0.175321	0.491611	0	1601.028841	1602.02884	0.00000001	4.92E-03
152.8682	0.174798705	0.1752673	0.000149247	0.174799	0.491239	0	1602.028841		0.00000001	4.91E-03
152.8871	0.174575696	0.1752673	0	0.174576	0.49109	0	1602.028841	1603.02884	0.00000001	4.91E-03
152.906	0.174382005	0.1752673	0	0.174382	0.49109	0	1603.028841		0.00000001	4.91E-03
152.9277	0.174420895	0.1752673	0	0.174421	0.49109	0	1603.028841	1604.02884	0.00000001	4.91E-03
152.9493	0.174312887	0.1752673	0	0.174313	0.49109	0	1604.028841		0.00000001	4.91E-03
152.9682	0.174281948	0.1752673	0	0.174282	0.49109	0	1604.028841	1605.02884	0.00000001	4.91E-03
152.9871	0.174080167	0.1752673	0	0.17408	0.49109	0	1605.028841		0.00000001	4.91E-03
153.006	0.174086766	0.1752673	0	0.174087	0.49109	0	1605.028841	1606.02884	0.00000001	4.91E-03
153.0223	0.174115863	0.1752673	0	0.174116	0.49109	0	1606.028841		0.00000001	4.91E-03
153.0412	0.174011792	0.1752673	0	0.174012	0.49109	0	1606.028841	1607.02884	0.00000001	4.91E-03
153.0628	0.173909869	0.1752673	0	0.17391	0.49109	0	1607.028841		0.00000001	4.91E-03
153.079	0.174024806	0.1752673	0	0.174025	0.49109	0	1607.028841	1608.02884	0.00000001	4.91E-03
153.0925	0.17403353	0.1752673	0	0.174034	0.49109	0	1608.028841		0.00000001	4.91E-03
153.1115	0.173681362	0.1752673	0	0.173681	0.49109	0	1608.028841	1609.02884	0.00000001	4.91E-03
153.1304	0.173466332	0.1752673	0	0.173466	0.49109	0	1609.028841		0.00000001	4.91E-03
153.1466	0.173605379	0.1752673	0	0.173605	0.49109	0	1609.028841	1610.02884	0.00000001	4.91E-03
153.1628	0.173752027	0.1752673	0	0.173752	0.49109	0	1610.028841		0.00000001	4.91E-03
153.179	0.173752027	0.1752673	0	0.173752	0.49109	0	1610.028841	1611.02884	0.00000001	4.91E-03
153.198	0.173878541	0.1752673	0	0.173879	0.49109	0	1611.028841		0.00000001	4.91E-03
153.2169	0.174114864	0.1752673	0	0.174115	0.49109	0	1611.028841	1612.02884	0.00000001	4.91E-03
153.2385	0.174326707	0.1752673	0	0.174327	0.49109	0	1612.028841		0.00000001	4.91E-03
153.2601	0.174689086	0.1752673	0	0.174689	0.49109	0	1612.028841	1613.02884	0.00000001	4.91E-03
153.2818	0.174993194	0.1752673	0	0.174993	0.49109	0	1613.028841		0.00000001	4.91E-03
153.3007	0.175163132	0.1752673	0	0.175163	0.49109	0	1613.028841	1614.02884	0.00000001	4.91E-03
153.3196	0.175210589	0.1752673	0	0.175211	0.49109	0	1614.028841		0.00000001	4.91E-03
153.3358	0.175148008	0.1752673	0	0.175148	0.49109	0	1614.028841	1615.02884	0.00000001	4.91E-03
153.3574	0.175199513	0.1752673	0	0.1752	0.49109	0	1615.028841		0.00000001	4.91E-03
153.3791	0.175267276	0.1752673	0	0.175267	0.49109	0	1615.028841	1616.02884	0.00000001	4.91E-03

153.398	0.175197764	0.1752001	0.000188086	0.175198	0.49109	0	1616.028841		0.00000001	4.91E-03
153.4196	0.175111604	0.1752001	0	0.175112	0.490902	0	1616.028841	1617.02884	0.00000001	4.91E-03
153.4385	0.175048366	0.1752001	0	0.175048	0.490902	0	1617.028841		0.00000001	4.91E-03
153.4602	0.174979772	0.1752001	0	0.17498	0.490902	0	1617.028841	1618.02884	0.00000001	4.91E-03
153.4818	0.174899463	0.1752001	0	0.174899	0.490902	0	1618.028841		0.00000001	4.91E-03
153.5034	0.174810952	0.1752001	0	0.174811	0.490902	0	1618.028841	1619.02884	0.00000001	4.91E-03
153.5223	0.175200149	0.1752001	0	0.1752	0.490902	0	1619.028841		0.00000001	4.91E-03
153.5412	0.175125977	0.175126	0.000207827	0.175126	0.490902	0	1619.028841	1620.02884	0.00000001	4.91E-03
153.5575	0.175020554	0.1750245	0.000284392	0.175021	0.490694	0	1620.028841		0.00000001	4.91E-03
153.5791	0.174649564	0.1750245	0	0.17465	0.490409	0	1620.028841	1621.02884	0.00000001	4.90E-03
153.598	0.174141321	0.1750245	0	0.174141	0.490409	0	1621.028841		0.00000001	4.90E-03
153.6169	0.173991103	0.1750245	0	0.173991	0.490409	0	1621.028841	1622.02884	0.00000001	4.90E-03
153.6413	0.173602446	0.1750245	0	0.173602	0.490409	0	1622.028841		0.00000001	4.90E-03
153.6548	0.173246292	0.1750245	0	0.173246	0.490409	0	1622.028841	1623.02884	0.00000001	4.90E-03
153.671	0.173002788	0.1750245	0	0.173003	0.490409	0	1623.028841		0.00000001	4.90E-03
153.6872	0.17264876	0.1750245	0	0.172649	0.490409	0	1623.028841	1624.02884	0.00000001	4.90E-03
153.7034	0.17264876	0.1750245	0	0.172649	0.490409	0	1624.028841		0.00000001	4.90E-03
153.7196	0.172205564	0.1750245	0	0.172206	0.490409	0	1624.028841	1625.02884	0.00000001	4.90E-03
153.7386	0.172031862	0.1750245	0	0.172032	0.490409	0	1625.028841		0.00000001	4.90E-03
153.7629	0.171701186	0.1750245	0	0.171701	0.490409	0	1625.028841	1626.02884	0.00000001	4.90E-03
153.7845	0.171621364	0.1750245	0	0.171621	0.490409	0	1626.028841		0.00000001	4.90E-03
153.8088	0.171599687	0.1750245	0	0.1716	0.490409	0	1626.028841	1627.02884	0.00000001	4.90E-03
153.8278	0.171528774	0.1750245	0	0.171529	0.490409	0	1627.028841		0.00000001	4.90E-03
153.8467	0.171440511	0.1750245	0	0.171441	0.490409	0	1627.028841	1628.02884	0.00000001	4.90E-03
153.8629	0.171548694	0.1750245	0	0.171549	0.490409	0	1628.028841		0.00000001	4.90E-03
153.8791	0.171600212	0.1750245	0	0.1716	0.490409	0	1628.028841	1629.02884	0.00000001	4.90E-03
153.8953	0.171642304	0.1750245	0	0.171642	0.490409	0	1629.028841		0.00000001	4.90E-03
153.9143	0.171673839	0.1750245	0	0.171674	0.490409	0	1629.028841	1630.02884	0.00000001	4.90E-03
153.9359	0.171573752	0.1750245	0	0.171574	0.490409	0	1630.028841		0.00000001	4.90E-03
153.9548	0.171639051	0.1750245	0	0.171639	0.490409	0	1630.028841	1631.02884	0.00000001	4.90E-03
153.9737	0.171787753	0.1750245	0	0.171788	0.490409	0	1631.028841		0.00000001	4.90E-03
153.9927	0.171808223	0.1750245	0	0.171808	0.490409	0	1631.028841	1632.02884	0.00000001	4.90E-03
154.0116	0.172107468	0.1750245	0	0.172107	0.490409	0	1632.028841		0.00000001	4.90E-03
154.0305	0.172277251	0.1750245	0	0.172277	0.490409	0	1632.028841	1633.02884	0.00000001	4.90E-03
154.0494	0.172442941	0.1750245	0	0.172443	0.490409	0	1633.028841		0.00000001	4.90E-03
154.0683	0.172584974	0.1750245	0	0.172585	0.490409	0	1633.028841	1634.02884	0.00000001	4.90E-03
154.09	0.172975055	0.1750245	0	0.172975	0.490409	0	1634.028841		0.00000001	4.90E-03
154.1062	0.173245076	0.1750245	0	0.173245	0.490409	0	1634.028841	1635.02884	0.00000001	4.90E-03
154.1224	0.173266191	0.1750245	0	0.173266	0.490409	0	1635.028841		0.00000001	4.90E-03
154.1413	0.173507631	0.1750245	0	0.173508	0.490409	0	1635.028841	1636.02884	0.00000001	4.90E-03
154.1602	0.173967859	0.1750245	0	0.173968	0.490409	0	1636.028841		0.00000001	4.90E-03
154.1792	0.174712177	0.1750245	0	0.174712	0.490409	0	1636.028841	1637.02884	0.00000001	4.90E-03
154.2008	0.175024479	0.1750245	0	0.175024	0.490409	0	1637.028841		0.00000001	4.90E-03
154.2251	0.174851074	0.1748511	0.000485872	0.174851	0.490409	0	1637.028841	1638.02884	0.00000001	4.90E-03
154.2467	0.17447361	0.1748229	7.89568E-05	0.174474	0.489924	0	1638.028841		0.00000001	4.90E-03
154.2711	0.174253189	0.1748229	0	0.174253	0.489845	0	1638.028841	1639.02884	0.00000001	4.90E-03
154.2927	0.174089346	0.1748229	0	0.174089	0.489845	0	1639.028841		0.00000001	4.90E-03
154.3143	0.173949086	0.1748229	0	0.173949	0.489845	0	1639.028841	1640.02884	0.00000001	4.90E-03
154.3332	0.174064602	0.1748229	0	0.174065	0.489845	0	1640.028841		0.00000001	4.90E-03
154.3522	0.174397807	0.1748229	0	0.174398	0.489845	0	1640.028841	1641.02884	0.00000001	4.90E-03
154.3765	0.174128782	0.1748229	0	0.174129	0.489845	0	1641.028841		0.00000001	4.90E-03
154.3954	0.173751029	0.1748229	0	0.173751	0.489845	0	1641.028841	1642.02884	0.00000001	4.90E-03
154.417	0.173623338	0.1748229	0	0.173623	0.489845	0	1642.028841		0.00000001	4.90E-03
154.436	0.173395298	0.1748229	0	0.173395	0.489845	0	1642.028841	1643.02884	0.00000001	4.90E-03
154.4576	0.17317516	0.1748229	0	0.173175	0.489845	0	1643.028841		0.00000001	4.90E-03
154.4765	0.172953538	0.1748229	0	0.172954	0.489845	0	1643.028841	1644.02884	0.00000001	4.90E-03
154.4954	0.172515349	0.1748229	0	0.172515	0.489845	0	1644.028841		0.00000001	4.90E-03
154.517	0.17243684	0.1748229	0	0.172437	0.489845	0	1644.028841	1645.02884	0.00000001	4.90E-03
154.5468	0.17255194	0.1748229	0	0.172552	0.489845	0	1645.028841		0.00000001	4.90E-03
154.563	0.172378221	0.1748229	0	0.172378	0.489845	0	1645.028841	1646.02884	0.00000001	4.90E-03
154.5792	0.172094623	0.1748229	0	0.172095	0.489845	0	1646.028841		0.00000001	4.90E-03
154.5981	0.17206569	0.1748229	0	0.172066	0.489845	0	1646.028841	1647.02884	0.00000001	4.90E-03
154.6171	0.171912127	0.1748229	0	0.171912	0.489845	0	1647.028841		0.00000001	4.90E-03
154.636	0.172052529	0.1748229	0	0.172053	0.489845	0	1647.028841	1648.02884	0.00000001	4.90E-03
154.6522	0.17224728	0.1748229	0	0.172247	0.489845	0	1648.028841		0.00000001	4.90E-03
154.6684	0.172781348	0.1748229	0	0.172781	0.489845	0	1648.028841	1649.02884	0.00000001	4.90E-03
154.6846	0.173205541	0.1748229	0	0.173206	0.489845	0	1649.028841		0.00000001	4.90E-03
154.7036	0.173592245	0.1748229	0	0.173592	0.489845	0	1649.028841	1650.02884	0.00000001	4.90E-03
154.7198	0.173641993	0.1748229	0	0.173642	0.489845	0	1650.028841		0.00000001	4.90E-03
154.7387	0.173277775	0.1748229	0	0.173278	0.489845	0	1650.028841	1651.02884	0.00000001	4.90E-03
154.7549	0.1731878	0.1748229	0	0.173188	0.489845	0	1651.028841		0.00000001	4.90E-03
154.7738	0.172830929	0.1748229	0	0.172831	0.489845	0	1651.028841	1652.02884	0.00000001	4.90E-03
154.7928	0.172477614	0.1748229	0	0.172478	0.489845	0	1652.028841		0.00000001	4.90E-03
154.8117	0.172295063	0.1748229	0	0.172295	0.489845	0	1652.028841	1653.02884	0.00000001	4.90E-03

154.8306	0.172463732	0.1748229	0	0.172464	0.489845	0	1653.028841		0.00000001	4.90E-03
154.8495	0.17284104	0.1748229	0	0.172841	0.489845	0	1653.028841	1654.02884	0.00000001	4.90E-03
154.8711	0.173206056	0.1748229	0	0.173206	0.489845	0	1654.028841		0.00000001	4.90E-03
154.8901	0.173446364	0.1748229	0	0.173446	0.489845	0	1654.028841	1655.02884	0.00000001	4.90E-03
154.909	0.173674756	0.1748229	0	0.173675	0.489845	0	1655.028841		0.00000001	4.90E-03
154.9306	0.173686017	0.1748229	0	0.173686	0.489845	0	1655.028841	1656.02884	0.00000001	4.90E-03
154.9495	0.17356422	0.1748229	0	0.173564	0.489845	0	1656.028841		0.00000001	4.90E-03
154.9712	0.173572926	0.1748229	0	0.173573	0.489845	0	1656.028841	1657.02884	0.00000001	4.90E-03
154.9901	0.173697188	0.1748229	0	0.173697	0.489845	0	1657.028841		0.00000001	4.90E-03
155.009	0.173841151	0.1748229	0	0.173841	0.489845	0	1657.028841	1658.02884	0.00000001	4.90E-03
155.0306	0.173882797	0.1748229	0	0.173883	0.489845	0	1658.028841		0.00000001	4.90E-03
155.0522	0.17399964	0.1748229	0	0.174	0.489845	0	1658.028841	1659.02884	0.00000001	4.90E-03
155.0712	0.174030152	0.1748229	0	0.17403	0.489845	0	1659.028841		0.00000001	4.90E-03
155.0901	0.17403152	0.1748229	0	0.174032	0.489845	0	1659.028841	1660.02884	0.00000001	4.90E-03
155.109	0.174165401	0.1748229	0	0.174165	0.489845	0	1660.028841		0.00000001	4.90E-03
155.1279	0.174173539	0.1748229	0	0.174174	0.489845	0	1660.028841	1661.02884	0.00000001	4.90E-03
155.1496	0.174302531	0.1748229	0	0.174303	0.489845	0	1661.028841		0.00000001	4.90E-03
155.1712	0.174288627	0.1748229	0	0.174289	0.489845	0	1661.028841	1662.02884	0.00000001	4.90E-03
155.1955	0.173785129	0.1748229	0	0.173785	0.489845	0	1662.028841		0.00000001	4.90E-03
155.2171	0.173549487	0.1748229	0	0.173549	0.489845	0	1662.028841	1663.02884	0.00000001	4.90E-03
155.2333	0.173238421	0.1748229	0	0.173238	0.489845	0	1663.028841		0.00000001	4.90E-03
155.2523	0.173150841	0.1748229	0	0.173151	0.489845	0	1663.028841	1664.02884	0.00000001	4.90E-03
155.2712	0.172969496	0.1748229	0	0.172969	0.489845	0	1664.028841		0.00000001	4.90E-03
155.2901	0.172809363	0.1748229	0	0.172809	0.489845	0	1664.028841	1665.02884	0.00000001	4.90E-03
155.309	0.172518	0.1748229	0	0.172518	0.489845	0	1665.028841		0.00000001	4.90E-03
155.3252	0.172470411	0.1748229	0	0.17247	0.489845	0	1665.028841	1666.02884	0.00000001	4.90E-03
155.3469	0.172534076	0.1748229	0	0.172534	0.489845	0	1666.028841		0.00000001	4.90E-03
155.3712	0.172228189	0.1748229	0	0.172228	0.489845	0	1666.028841	1667.02884	0.00000001	4.90E-03
155.3847	0.172056258	0.1748229	0	0.172056	0.489845	0	1667.028841		0.00000001	4.90E-03
155.4036	0.172285438	0.1748229	0	0.172285	0.489845	0	1667.028841	1668.02884	0.00000001	4.90E-03
155.4226	0.172390026	0.1748229	0	0.17239	0.489845	0	1668.028841		0.00000001	4.90E-03
155.4388	0.172460971	0.1748229	0	0.172461	0.489845	0	1668.028841	1669.02884	0.00000001	4.90E-03
155.4577	0.172531277	0.1748229	0	0.172531	0.489845	0	1669.028841		0.00000001	4.90E-03
155.4766	0.17260802	0.1748229	0	0.172608	0.489845	0	1669.028841	1670.02884	0.00000001	4.90E-03
155.4928	0.172478543	0.1748229	0	0.172479	0.489845	0	1670.028841		0.00000001	4.90E-03
155.5118	0.172228984	0.1748229	0	0.172229	0.489845	0	1670.028841	1671.02884	0.00000001	4.90E-03
155.5307	0.171649283	0.1748229	0	0.171649	0.489845	0	1671.028841		0.00000001	4.90E-03
155.5469	0.171336884	0.1748229	0	0.171337	0.489845	0	1671.028841	1672.02884	0.00000001	4.90E-03
155.5631	0.171592339	0.1748229	0	0.171592	0.489845	0	1672.028841		0.00000001	4.90E-03
155.5793	0.171726695	0.1748229	0	0.171727	0.489845	0	1672.028841	1673.02884	0.00000001	4.90E-03
155.5983	0.171722448	0.1748229	0	0.171722	0.489845	0	1673.028841		0.00000001	4.90E-03
155.6172	0.171974288	0.1748229	0	0.171974	0.489845	0	1673.028841	1674.02884	0.00000001	4.90E-03
155.6388	0.172294598	0.1748229	0	0.172295	0.489845	0	1674.028841		0.00000001	4.90E-03
155.6577	0.172429355	0.1748229	0	0.172429	0.489845	0	1674.028841	1675.02884	0.00000001	4.90E-03
155.6793	0.172599506	0.1748229	0	0.1726	0.489845	0	1675.028841		0.00000001	4.90E-03
155.6983	0.172993016	0.1748229	0	0.172993	0.489845	0	1675.028841	1676.02884	0.00000001	4.90E-03
155.7145	0.173370134	0.1748229	0	0.17337	0.489845	0	1676.028841		0.00000001	4.90E-03
155.7334	0.173577609	0.1748229	0	0.173578	0.489845	0	1676.028841	1677.02884	0.00000001	4.90E-03
155.7496	0.173837206	0.1748229	0	0.173837	0.489845	0	1677.028841		0.00000001	4.90E-03
155.7685	0.173958117	0.1748229	0	0.173958	0.489845	0	1677.028841	1678.02884	0.00000001	4.90E-03
155.7875	0.174083313	0.1748229	0	0.174083	0.489845	0	1678.028841		0.00000001	4.90E-03
155.8064	0.174133671	0.1748229	0	0.174134	0.489845	0	1678.028841	1679.02884	0.00000001	4.90E-03
155.8253	0.174280103	0.1748229	0	0.17428	0.489845	0	1679.028841		0.00000001	4.90E-03
155.8469	0.17440487	0.1748229	0	0.174405	0.489845	0	1679.028841	1680.02884	0.00000001	4.90E-03
155.8686	0.174372608	0.1748229	0	0.174373	0.489845	0	1680.028841		0.00000001	4.90E-03
155.8875	0.174142732	0.1748229	0	0.174143	0.489845	0	1680.028841	1681.02884	0.00000001	4.90E-03
155.9064	0.174033274	0.1748229	0	0.174033	0.489845	0	1681.028841		0.00000001	4.90E-03
155.928	0.173817683	0.1748229	0	0.173818	0.489845	0	1681.028841	1682.02884	0.00000001	4.90E-03
155.9469	0.173645116	0.1748229	0	0.173645	0.489845	0	1682.028841		0.00000001	4.90E-03
155.9659	0.173454694	0.1748229	0	0.173455	0.489845	0	1682.028841	1683.02884	0.00000001	4.90E-03
155.9848	0.173258594	0.1748229	0	0.173259	0.489845	0	1683.028841		0.00000001	4.90E-03
156.0064	0.173405802	0.1748229	0	0.173406	0.489845	0	1683.028841	1684.02884	0.00000001	4.90E-03
156.0253	0.173411435	0.1748229	0	0.173411	0.489845	0	1684.028841		0.00000001	4.90E-03
156.0443	0.173264979	0.1748229	0	0.173265	0.489845	0	1684.028841	1685.02884	0.00000001	4.90E-03
156.0659	0.173156959	0.1748229	0	0.173157	0.489845	0	1685.028841		0.00000001	4.90E-03
156.0848	0.172924444	0.1748229	0	0.172924	0.489845	0	1685.028841	1686.02884	0.00000001	4.90E-03
156.1037	0.17259247	0.1748229	0	0.172592	0.489845	0	1686.028841		0.00000001	4.90E-03
156.1199	0.172611274	0.1748229	0	0.172611	0.489845	0	1686.028841	1687.02884	0.00000001	4.90E-03
156.1389	0.172097567	0.1748229	0	0.172098	0.489845	0	1687.028841		0.00000001	4.90E-03
156.1605	0.171705085	0.1748229	0	0.171705	0.489845	0	1687.028841	1688.02884	0.00000001	4.90E-03
156.1767	0.171310463	0.1748229	0	0.17131	0.489845	0	1688.028841		0.00000001	4.90E-03
156.1929	0.171281836	0.1748229	0	0.171282	0.489845	0	1688.028841	1689.02884	0.00000001	4.90E-03
156.2118	0.170923914	0.1748229	0	0.170924	0.489845	0	1689.028841		0.00000001	4.90E-03
156.2335	0.170917169	0.1748229	0	0.170917	0.489845	0	1689.028841	1690.02884	0.00000001	4.90E-03

156.2551	0.170893628	0.1748229	0	0.170894	0.489845	0	1690.028841		0.00000001	4.90E-03
156.274	0.171025151	0.1748229	0	0.171025	0.489845	0	1690.028841	1691.02884	0.00000001	4.90E-03
156.2902	0.171148244	0.1748229	0	0.171148	0.489845	0	1691.028841		0.00000001	4.90E-03
156.3092	0.171395083	0.1748229	0	0.171395	0.489845	0	1691.028841	1692.02884	0.00000001	4.90E-03
156.3281	0.171362157	0.1748229	0	0.171362	0.489845	0	1692.028841		0.00000001	4.90E-03
156.347	0.170869873	0.1748229	0	0.17087	0.489845	0	1692.028841	1693.02884	0.00000001	4.90E-03
156.3632	0.170869873	0.1748229	0	0.17087	0.489845	0	1693.028841		0.00000001	4.90E-03
156.3848	0.171259426	0.1748229	0	0.171259	0.489845	0	1693.028841	1694.02884	0.00000001	4.90E-03
156.4065	0.171250804	0.1748229	0	0.171251	0.489845	0	1694.028841		0.00000001	4.90E-03
156.4254	0.171335296	0.1748229	0	0.171335	0.489845	0	1694.028841	1695.02884	0.00000001	4.90E-03
156.447	0.171540299	0.1748229	0	0.17154	0.489845	0	1695.028841		0.00000001	4.90E-03
156.4659	0.172011138	0.1748229	0	0.172011	0.489845	0	1695.028841	1696.02884	0.00000001	4.90E-03
156.4848	0.17242934	0.1748229	0	0.172429	0.489845	0	1696.028841		0.00000001	4.90E-03
156.5011	0.172600785	0.1748229	0	0.172601	0.489845	0	1696.028841	1697.02884	0.00000001	4.90E-03
156.5173	0.172594662	0.1748229	0	0.172595	0.489845	0	1697.028841		0.00000001	4.90E-03
156.5362	0.172776377	0.1748229	0	0.172776	0.489845	0	1697.028841	1698.02884	0.00000001	4.90E-03
156.5524	0.173051003	0.1748229	0	0.173051	0.489845	0	1698.028841		0.00000001	4.90E-03
156.5713	0.173184939	0.1748229	0	0.173185	0.489845	0	1698.028841	1699.02884	0.00000001	4.90E-03
156.5876	0.173321648	0.1748229	0	0.173322	0.489845	0	1699.028841		0.00000001	4.90E-03
156.6065	0.173582122	0.1748229	0	0.173582	0.489845	0	1699.028841	1700.02884	0.00000001	4.90E-03
156.6281	0.173724889	0.1748229	0	0.173725	0.489845	0	1700.028841		0.00000001	4.90E-03
156.647	0.173840512	0.1748229	0	0.173841	0.489845	0	1700.028841	1701.02884	0.00000001	4.90E-03
156.6632	0.173957696	0.1748229	0	0.173958	0.489845	0	1701.028841		0.00000001	4.90E-03
156.6822	0.1740666	0.1748229	0	0.174067	0.489845	0	1701.028841	1702.02884	0.00000001	4.90E-03
156.7065	0.174254141	0.1748229	0	0.174254	0.489845	0	1702.028841		0.00000001	4.90E-03
156.7254	0.17443498	0.1748229	0	0.174435	0.489845	0	1702.028841	1703.02884	0.00000001	4.90E-03
156.747	0.174624132	0.1748229	0	0.174624	0.489845	0	1703.028841		0.00000001	4.90E-03
156.766	0.174822895	0.1748229	0	0.174823	0.489845	0	1703.028841	1704.02884	0.00000001	4.90E-03
156.7849	0.174787233	0.1747872	9.99232E-05	0.174787	0.489845	0	1704.028841		0.00000001	4.90E-03
156.8065	0.174528286	0.1745283	0.000725557	0.174528	0.489745	0	1704.028841	1705.02884	0.00000001	4.90E-03
156.8254	0.174281579	0.1742816	0.000691257	0.174282	0.489019	0	1705.028841		0.00000001	4.89E-03
156.8471	0.173932118	0.1739321	0.000979174	0.173932	0.488328	0	1705.028841	1706.02884	0.00000001	4.88E-03
156.866	0.173788155	0.1737882	0.000403375	0.173788	0.487349	0	1706.028841		0.00000001	4.87E-03
156.8849	0.173660686	0.1736607	0.000357162	0.173661	0.486945	0	1706.028841	1707.02884	0.00000001	4.87E-03
156.9011	0.173633039	0.173633	7.74644E-05	0.173633	0.486588	0	1707.028841		0.00000001	4.87E-03
156.92	0.173482488	0.1735921	0.000114604	0.173482	0.486511	0	1707.028841	1708.02884	0.00000001	4.87E-03
156.9363	0.173224249	0.1735921	0	0.173224	0.486396	0	1708.028841		0.00000001	4.86E-03
156.9552	0.173118607	0.1735921	0	0.173119	0.486396	0	1708.028841	1709.02884	0.00000001	4.86E-03
156.9714	0.173117365	0.1735921	0	0.173117	0.486396	0	1709.028841		0.00000001	4.86E-03
156.9903	0.173014406	0.1735921	0	0.173014	0.486396	0	1709.028841	1710.02884	0.00000001	4.86E-03
157.0119	0.172919769	0.1735921	0	0.17292	0.486396	0	1710.028841		0.00000001	4.86E-03
157.0309	0.173021165	0.1735921	0	0.173021	0.486396	0	1710.028841	1711.02884	0.00000001	4.86E-03
157.0525	0.172889935	0.1735921	0	0.17289	0.486396	0	1711.028841		0.00000001	4.86E-03
157.0687	0.172548558	0.1735921	0	0.172549	0.486396	0	1711.028841	1712.02884	0.00000001	4.86E-03
157.0849	0.172589251	0.1735921	0	0.172589	0.486396	0	1712.028841		0.00000001	4.86E-03
157.1011	0.172859611	0.1735921	0	0.17286	0.486396	0	1712.028841	1713.02884	0.00000001	4.86E-03
157.1201	0.173202702	0.1735921	0	0.173203	0.486396	0	1713.028841		0.00000001	4.86E-03
157.1363	0.173164902	0.1735921	0	0.173165	0.486396	0	1713.028841	1714.02884	0.00000001	4.86E-03
157.1498	0.173046742	0.1735921	0	0.173047	0.486396	0	1714.028841		0.00000001	4.86E-03
157.1687	0.172950291	0.1735921	0	0.17295	0.486396	0	1714.028841	1715.02884	0.00000001	4.86E-03
157.1849	0.173070893	0.1735921	0	0.173071	0.486396	0	1715.028841		0.00000001	4.86E-03
157.2039	0.173224493	0.1735921	0	0.173224	0.486396	0	1715.028841	1716.02884	0.00000001	4.86E-03
157.2201	0.172992355	0.1735921	0	0.172992	0.486396	0	1716.028841		0.00000001	4.86E-03
157.2363	0.172651761	0.1735921	0	0.172652	0.486396	0	1716.028841	1717.02884	0.00000001	4.86E-03
157.2552	0.172550958	0.1735921	0	0.172551	0.486396	0	1717.028841		0.00000001	4.86E-03
157.2741	0.172683667	0.1735921	0	0.172684	0.486396	0	1717.028841	1718.02884	0.00000001	4.86E-03
157.2931	0.173024072	0.1735921	0	0.173024	0.486396	0	1718.028841		0.00000001	4.86E-03
157.312	0.173212182	0.1735921	0	0.173212	0.486396	0	1718.028841	1719.02884	0.00000001	4.86E-03
157.3282	0.173285165	0.1735921	0	0.173285	0.486396	0	1719.028841		0.00000001	4.86E-03
157.3444	0.173285165	0.1735921	0	0.173285	0.486396	0	1719.028841	1720.02884	0.00000001	4.86E-03
157.3633	0.173572987	0.1735921	0	0.173573	0.486396	0	1720.028841		0.00000001	4.86E-03
157.3823	0.173592138	0.1735921	0	0.173592	0.486396	0	1720.028841	1721.02884	0.00000001	4.86E-03
157.3985	0.173259728	0.1734304	0.000453181	0.17326	0.486396	0	1721.028841		0.00000001	4.86E-03
157.4174	0.173172299	0.1734304	0	0.173172	0.485943	0	1721.028841	1722.02884	0.00000001	4.86E-03
157.4336	0.173196858	0.1734304	0	0.173197	0.485943	0	1722.028841		0.00000001	4.86E-03
157.4552	0.17301726	0.1734304	0	0.173017	0.485943	0	1722.028841	1723.02884	0.00000001	4.86E-03
157.4796	0.172843505	0.1734304	0	0.172844	0.485943	0	1723.028841		0.00000001	4.86E-03
157.4985	0.17289513	0.1734304	0	0.172895	0.485943	0	1723.028841	1724.02884	0.00000001	4.86E-03
157.5174	0.173282092	0.1734304	0	0.173282	0.485943	0	1724.028841		0.00000001	4.86E-03
157.5363	0.173407536	0.1734304	0	0.173408	0.485943	0	1724.028841	1725.02884	0.00000001	4.86E-03
157.5553	0.173416632	0.1734304	0	0.173417	0.485943	0	1725.028841		0.00000001	4.86E-03
157.5715	0.173412451	0.1734304	0	0.173412	0.485943	0	1725.028841	1726.02884	0.00000001	4.86E-03
157.5931	0.1734304	0.1734304	0	0.17343	0.485943	0	1726.028841		0.00000001	4.86E-03
157.6147	0.173093638	0.1730936	0.000943589	0.173094	0.485943	0	1726.028841	1727.02884	0.00000001	4.86E-03

157.6363	0.172627985	0.1726836	0.001149003	0.172628	0.484999	0	1727.028841		0.00000001	4.85E-03
157.658	0.172608366	0.1726836	0	0.172608	0.48385	0	1727.028841	1728.02884	0.00000001	4.84E-03
157.6796	0.172683565	0.1726836	0	0.172684	0.48385	0	1728.028841		0.00000001	4.84E-03
157.7012	0.172395888	0.1726507	9.20309E-05	0.172396	0.48385	0	1728.028841	1729.02884	0.00000001	4.84E-03
157.7201	0.172014129	0.1726507	0	0.172014	0.483758	0	1729.028841		0.00000001	4.84E-03
157.7418	0.171781646	0.1726507	0	0.171782	0.483758	0	1729.028841	1730.02884	0.00000001	4.84E-03
157.7607	0.17126104	0.1726507	0	0.171261	0.483758	0	1730.028841		0.00000001	4.84E-03
157.7823	0.171137851	0.1726507	0	0.171138	0.483758	0	1730.028841	1731.02884	0.00000001	4.84E-03
157.7985	0.171022417	0.1726507	0	0.171022	0.483758	0	1731.028841		0.00000001	4.84E-03
157.8147	0.170771471	0.1726507	0	0.170771	0.483758	0	1731.028841	1732.02884	0.00000001	4.84E-03
157.8337	0.170421475	0.1726507	0	0.170421	0.483758	0	1732.028841		0.00000001	4.84E-03
157.8499	0.170231761	0.1726507	0	0.170232	0.483758	0	1732.028841	1733.02884	0.00000001	4.84E-03
157.8688	0.17024057	0.1726507	0	0.170241	0.483758	0	1733.028841		0.00000001	4.84E-03
157.8877	0.170363616	0.1726507	0	0.170364	0.483758	0	1733.028841	1734.02884	0.00000001	4.84E-03
157.9066	0.170595578	0.1726507	0	0.170596	0.483758	0	1734.028841		0.00000001	4.84E-03
157.9256	0.170706558	0.1726507	0	0.170707	0.483758	0	1734.028841	1735.02884	0.00000001	4.84E-03
157.9418	0.170803766	0.1726507	0	0.170804	0.483758	0	1735.028841		0.00000001	4.84E-03
157.9607	0.170882499	0.1726507	0	0.170882	0.483758	0	1735.028841	1736.02884	0.00000001	4.84E-03
157.9796	0.171089857	0.1726507	0	0.17109	0.483758	0	1736.028841		0.00000001	4.84E-03
157.9985	0.170951173	0.1726507	0	0.170951	0.483758	0	1736.028841	1737.02884	0.00000001	4.84E-03
158.0175	0.170914833	0.1726507	0	0.170915	0.483758	0	1737.028841		0.00000001	4.84E-03
158.0391	0.170931418	0.1726507	0	0.170931	0.483758	0	1737.028841	1738.02884	0.00000001	4.84E-03
158.0553	0.170918496	0.1726507	0	0.170918	0.483758	0	1738.028841		0.00000001	4.84E-03
158.0715	0.171126767	0.1726507	0	0.171127	0.483758	0	1738.028841	1739.02884	0.00000001	4.84E-03
158.0932	0.171309542	0.1726507	0	0.17131	0.483758	0	1739.028841		0.00000001	4.84E-03
158.1148	0.171375604	0.1726507	0	0.171376	0.483758	0	1739.028841	1740.02884	0.00000001	4.84E-03
158.1337	0.171554957	0.1726507	0	0.171555	0.483758	0	1740.028841		0.00000001	4.84E-03
158.1526	0.172233361	0.1726507	0	0.172233	0.483758	0	1740.028841	1741.02884	0.00000001	4.84E-03
158.1688	0.172223785	0.1726507	0	0.172224	0.483758	0	1741.028841		0.00000001	4.84E-03
158.1878	0.172107719	0.1726507	0	0.172108	0.483758	0	1741.028841	1742.02884	0.00000001	4.84E-03
158.2067	0.172024151	0.1726507	0	0.172024	0.483758	0	1742.028841		0.00000001	4.84E-03
158.2229	0.172158808	0.1726507	0	0.172159	0.483758	0	1742.028841	1743.02884	0.00000001	4.84E-03
158.2418	0.172253191	0.1726507	0	0.172253	0.483758	0	1743.028841		0.00000001	4.84E-03
158.2607	0.171987573	0.1726507	0	0.171988	0.483758	0	1743.028841	1744.02884	0.00000001	4.84E-03
158.2797	0.171865281	0.1726507	0	0.171865	0.483758	0	1744.028841		0.00000001	4.84E-03
158.304	0.17195298	0.1726507	0	0.171953	0.483758	0	1744.028841	1745.02884	0.00000001	4.84E-03
158.3229	0.172184396	0.1726507	0	0.172184	0.483758	0	1745.028841		0.00000001	4.84E-03
158.3445	0.172426859	0.1726507	0	0.172427	0.483758	0	1745.028841	1746.02884	0.00000001	4.84E-03
158.3662	0.172372029	0.1726507	0	0.172372	0.483758	0	1746.028841		0.00000001	4.84E-03
158.3851	0.172584904	0.1726507	0	0.172585	0.483758	0	1746.028841	1747.02884	0.00000001	4.84E-03
158.404	0.17265072	0.1726507	0	0.172651	0.483758	0	1747.028841		0.00000001	4.84E-03
158.4256	0.172599373	0.1725994	0.000143872	0.172599	0.483758	0	1747.028841	1748.02884	0.00000001	4.84E-03
158.4473	0.17243645	0.1724364	0.000456501	0.172436	0.483614	0	1748.028841		0.00000001	4.84E-03
158.4635	0.171893966	0.171894	0.001520013	0.171894	0.483158	0	1748.028841	1749.02884	0.00000001	4.83E-03
158.4824	0.171513571	0.1715136	0.001065844	0.171514	0.481638	0	1749.028841		0.00000001	4.82E-03
158.5013	0.171255272	0.1712553	0.000723741	0.171255	0.480572	0	1749.028841	1750.02884	0.00000001	4.81E-03
158.5229	0.170381869	0.1703819	0.00244723	0.170382	0.479848	0	1750.028841		0.00000001	4.80E-03
158.5419	0.170167299	0.1702477	0.00037587	0.170167	0.477401	0	1750.028841	1751.02884	0.00000001	4.77E-03
158.5608	0.170209777	0.1702477	0	0.17021	0.477025	0	1751.028841		0.00000001	4.77E-03
158.5797	0.169880028	0.1702477	0	0.16988	0.477025	0	1751.028841	1752.02884	0.00000001	4.77E-03
158.5986	0.169198128	0.1702477	0	0.169198	0.477025	0	1752.028841		0.00000001	4.77E-03
158.6148	0.168795136	0.1702477	0	0.168795	0.477025	0	1752.028841	1753.02884	0.00000001	4.77E-03
158.6338	0.168820937	0.1702477	0	0.168821	0.477025	0	1753.028841		0.00000001	4.77E-03
158.65	0.168424703	0.1702477	0	0.168425	0.477025	0	1753.028841	1754.02884	0.00000001	4.77E-03
158.6689	0.168014639	0.1702477	0	0.168015	0.477025	0	1754.028841		0.00000001	4.77E-03
158.6878	0.167865997	0.1702477	0	0.167866	0.477025	0	1754.028841	1755.02884	0.00000001	4.77E-03
158.7067	0.167868746	0.1702477	0	0.167869	0.477025	0	1755.028841		0.00000001	4.77E-03
158.723	0.167865852	0.1702477	0	0.167866	0.477025	0	1755.028841	1756.02884	0.00000001	4.77E-03
158.7419	0.167976836	0.1702477	0	0.167977	0.477025	0	1756.028841		0.00000001	4.77E-03
158.7581	0.167976836	0.1702477	0	0.167977	0.477025	0	1756.028841	1757.02884	0.00000001	4.77E-03
158.7743	0.167951125	0.1702477	0	0.167951	0.477025	0	1757.028841		0.00000001	4.77E-03
158.7932	0.167826036	0.1702477	0	0.167826	0.477025	0	1757.028841	1758.02884	0.00000001	4.77E-03
158.8122	0.167921331	0.1702477	0	0.167921	0.477025	0	1758.028841		0.00000001	4.77E-03
158.8284	0.16788999	0.1702477	0	0.16789	0.477025	0	1758.028841	1759.02884	0.00000001	4.77E-03
158.8446	0.1677835	0.1702477	0	0.167784	0.477025	0	1759.028841		0.00000001	4.77E-03
158.8635	0.167917481	0.1702477	0	0.167917	0.477025	0	1759.028841	1760.02884	0.00000001	4.77E-03
158.8824	0.168036518	0.1702477	0	0.168037	0.477025	0	1760.028841		0.00000001	4.77E-03
158.9014	0.168159976	0.1702477	0	0.16816	0.477025	0	1760.028841	1761.02884	0.00000001	4.77E-03
158.923	0.168637413	0.1702477	0	0.168637	0.477025	0	1761.028841		0.00000001	4.77E-03
158.9392	0.169425125	0.1702477	0	0.169425	0.477025	0	1761.028841	1762.02884	0.00000001	4.77E-03
158.9608	0.16950081	0.1702477	0	0.169501	0.477025	0	1762.028841		0.00000001	4.77E-03
158.9797	0.169879214	0.1702477	0	0.169879	0.477025	0	1762.028841	1763.02884	0.00000001	4.77E-03
158.9987	0.169893896	0.1702477	0	0.169894	0.477025	0	1763.028841		0.00000001	4.77E-03
159.0203	0.169814472	0.1702477	0	0.169814	0.477025	0	1763.028841	1764.02884	0.00000001	4.77E-03

159.0392	0.169859429	0.1702477	0	0.169859	0.477025	0	1764.028841		0.00000001	4.77E-03
159.0581	0.170002327	0.1702477	0	0.170002	0.477025	0	1764.028841	1765.02884	0.00000001	4.77E-03
159.0771	0.169888799	0.1702477	0	0.169889	0.477025	0	1765.028841		0.00000001	4.77E-03
159.096	0.169637604	0.1702477	0	0.169638	0.477025	0	1765.028841	1766.02884	0.00000001	4.77E-03
159.1149	0.169520858	0.1702477	0	0.169521	0.477025	0	1766.028841		0.00000001	4.77E-03
159.1365	0.169463393	0.1702477	0	0.169463	0.477025	0	1766.028841	1767.02884	0.00000001	4.77E-03
159.1581	0.169475242	0.1702477	0	0.169475	0.477025	0	1767.028841		0.00000001	4.77E-03
159.1744	0.16949839	0.1702477	0	0.169498	0.477025	0	1767.028841	1768.02884	0.00000001	4.77E-03
159.1933	0.169516084	0.1702477	0	0.169516	0.477025	0	1768.028841		0.00000001	4.77E-03
159.2095	0.169805575	0.1702477	0	0.169806	0.477025	0	1768.028841	1769.02884	0.00000001	4.77E-03
159.2311	0.169950334	0.1702477	0	0.16995	0.477025	0	1769.028841		0.00000001	4.77E-03
159.2501	0.16975378	0.1702477	0	0.169754	0.477025	0	1769.028841	1770.02884	0.00000001	4.77E-03
159.2663	0.169471041	0.1702477	0	0.169471	0.477025	0	1770.028841		0.00000001	4.77E-03
159.2879	0.168947711	0.1702477	0	0.168948	0.477025	0	1770.028841	1771.02884	0.00000001	4.77E-03
159.3095	0.168235855	0.1702477	0	0.168236	0.477025	0	1771.028841		0.00000001	4.77E-03
159.3311	0.168018742	0.1702477	0	0.168019	0.477025	0	1771.028841	1772.02884	0.00000001	4.77E-03
159.3501	0.167742885	0.1702477	0	0.167743	0.477025	0	1772.028841		0.00000001	4.77E-03
159.3717	0.167452399	0.1702477	0	0.167452	0.477025	0	1772.028841	1773.02884	0.00000001	4.77E-03
159.3933	0.167083373	0.1702477	0	0.167083	0.477025	0	1773.028841		0.00000001	4.77E-03
159.4122	0.166801865	0.1702477	0	0.166802	0.477025	0	1773.028841	1774.02884	0.00000001	4.77E-03
159.4312	0.166452704	0.1702477	0	0.166453	0.477025	0	1774.028841		0.00000001	4.77E-03
159.4501	0.166437153	0.1702477	0	0.166437	0.477025	0	1774.028841	1775.02884	0.00000001	4.77E-03
159.469	0.166646452	0.1702477	0	0.166646	0.477025	0	1775.028841		0.00000001	4.77E-03
159.4879	0.166738936	0.1702477	0	0.166739	0.477025	0	1775.028841	1776.02884	0.00000001	4.77E-03
159.5041	0.166698575	0.1702477	0	0.166699	0.477025	0	1776.028841		0.00000001	4.77E-03
159.5177	0.166636387	0.1702477	0	0.166636	0.477025	0	1776.028841	1777.02884	0.00000001	4.77E-03
159.5339	0.166395209	0.1702477	0	0.166395	0.477025	0	1777.028841		0.00000001	4.77E-03
159.5528	0.166356633	0.1702477	0	0.166357	0.477025	0	1777.028841	1778.02884	0.00000001	4.77E-03
159.5717	0.166443001	0.1702477	0	0.166443	0.477025	0	1778.028841		0.00000001	4.77E-03
159.5852	0.16651065	0.1702477	0	0.166511	0.477025	0	1778.028841	1779.02884	0.00000001	4.77E-03
159.6014	0.166633561	0.1702477	0	0.166634	0.477025	0	1779.028841		0.00000001	4.77E-03
159.6204	0.166804749	0.1702477	0	0.166805	0.477025	0	1779.028841	1780.02884	0.00000001	4.77E-03
159.6393	0.166992287	0.1702477	0	0.166992	0.477025	0	1780.028841		0.00000001	4.77E-03
159.6555	0.167197883	0.1702477	0	0.167198	0.477025	0	1780.028841	1781.02884	0.00000001	4.77E-03
159.6744	0.167276944	0.1702477	0	0.167277	0.477025	0	1781.028841		0.00000001	4.77E-03
159.6961	0.16718456	0.1702477	0	0.167185	0.477025	0	1781.028841	1782.02884	0.00000001	4.77E-03
159.715	0.167356028	0.1702477	0	0.167356	0.477025	0	1782.028841		0.00000001	4.77E-03
159.7366	0.167622782	0.1702477	0	0.167623	0.477025	0	1782.028841	1783.02884	0.00000001	4.77E-03
159.7582	0.16824005	0.1702477	0	0.16824	0.477025	0	1783.028841		0.00000001	4.77E-03
159.7771	0.168481884	0.1702477	0	0.168482	0.477025	0	1783.028841	1784.02884	0.00000001	4.77E-03
159.7934	0.168464786	0.1702477	0	0.168465	0.477025	0	1784.028841		0.00000001	4.77E-03
159.8123	0.168586744	0.1702477	0	0.168587	0.477025	0	1784.028841	1785.02884	0.00000001	4.77E-03
159.8285	0.16882658	0.1702477	0	0.168827	0.477025	0	1785.028841		0.00000001	4.77E-03
159.8447	0.168794319	0.1702477	0	0.168794	0.477025	0	1785.028841	1786.02884	0.00000001	4.77E-03
159.8663	0.168653895	0.1702477	0	0.168654	0.477025	0	1786.028841		0.00000001	4.77E-03
159.8853	0.168649273	0.1702477	0	0.168649	0.477025	0	1786.028841	1787.02884	0.00000001	4.77E-03
159.9069	0.168549933	0.1702477	0	0.16855	0.477025	0	1787.028841		0.00000001	4.77E-03
159.9339	0.168661914	0.1702477	0	0.168662	0.477025	0	1787.028841	1788.02884	0.00000001	4.77E-03
159.961	0.168609786	0.1702477	0	0.16861	0.477025	0	1788.028841		0.00000001	4.77E-03
159.9826	0.168603017	0.1702477	0	0.168603	0.477025	0	1788.028841	1789.02884	0.00000001	4.77E-03
160.0015	0.168494533	0.1702477	0	0.168495	0.477025	0	1789.028841		0.00000001	4.77E-03
160.0231	0.168537274	0.1702477	0	0.168537	0.477025	0	1789.028841	1790.02884	0.00000001	4.77E-03
160.042	0.168529042	0.1702477	0	0.168529	0.477025	0	1790.028841		0.00000001	4.77E-03
160.061	0.168730953	0.1702477	0	0.168731	0.477025	0	1790.028841	1791.02884	0.00000001	4.77E-03
160.0799	0.168943797	0.1702477	0	0.168944	0.477025	0	1791.028841		0.00000001	4.77E-03
160.1015	0.169118179	0.1702477	0	0.169118	0.477025	0	1791.028841	1792.02884	0.00000001	4.77E-03
160.1204	0.168957092	0.1702477	0	0.168957	0.477025	0	1792.028841		0.00000001	4.77E-03
160.1394	0.168599923	0.1702477	0	0.1686	0.477025	0	1792.028841	1793.02884	0.00000001	4.77E-03
160.1583	0.168598759	0.1702477	0	0.168599	0.477025	0	1793.028841		0.00000001	4.77E-03
160.1772	0.16879436	0.1702477	0	0.168794	0.477025	0	1793.028841	1794.02884	0.00000001	4.77E-03
160.1988	0.168991704	0.1702477	0	0.168992	0.477025	0	1794.028841		0.00000001	4.77E-03
160.2204	0.168959554	0.1702477	0	0.16896	0.477025	0	1794.028841	1795.02884	0.00000001	4.77E-03
160.2394	0.168797871	0.1702477	0	0.168798	0.477025	0	1795.028841		0.00000001	4.77E-03
160.2556	0.168870661	0.1702477	0	0.168871	0.477025	0	1795.028841	1796.02884	0.00000001	4.77E-03
160.2718	0.168848783	0.1702477	0	0.168849	0.477025	0	1796.028841		0.00000001	4.77E-03
160.288	0.168611083	0.1702477	0	0.168611	0.477025	0	1796.028841	1797.02884	0.00000001	4.77E-03
160.3042	0.168583187	0.1702477	0	0.168583	0.477025	0	1797.028841		0.00000001	4.77E-03
160.3205	0.168328161	0.1702477	0	0.168328	0.477025	0	1797.028841	1798.02884	0.00000001	4.77E-03
160.3394	0.168208335	0.1702477	0	0.168208	0.477025	0	1798.028841		0.00000001	4.77E-03
160.3556	0.168116437	0.1702477	0	0.168116	0.477025	0	1798.028841	1799.02884	0.00000001	4.77E-03
160.3718	0.167908445	0.1702477	0	0.167908	0.477025	0	1799.028841		0.00000001	4.77E-03
160.388	0.167975559	0.1702477	0	0.167976	0.477025	0	1799.028841	1800.02884	0.00000001	4.77E-03
160.4042	0.167992261	0.1702477	0	0.167992	0.477025	0	1800.028841		0.00000001	4.77E-03
160.4205	0.168130188	0.1702477	0	0.16813	0.477025	0	1800.028841	1801.02884	0.00000001	4.77E-03

160.4367	0.168258624	0.1702477	0	0.168259	0.477025	0	1801.028841		0.00000001	4.77E-03
160.4556	0.168278902	0.1702477	0	0.168279	0.477025	0	1801.028841	1802.02884	0.00000001	4.77E-03
160.4745	0.168290642	0.1702477	0	0.168291	0.477025	0	1802.028841		0.00000001	4.77E-03
160.4934	0.16843004	0.1702477	0	0.16843	0.477025	0	1802.028841	1803.02884	0.00000001	4.77E-03
160.5124	0.168759618	0.1702477	0	0.16876	0.477025	0	1803.028841		0.00000001	4.77E-03
160.5286	0.169121084	0.1702477	0	0.169121	0.477025	0	1803.028841	1804.02884	0.00000001	4.77E-03
160.5448	0.1691979	0.1702477	0	0.169198	0.477025	0	1804.028841		0.00000001	4.77E-03
160.5637	0.169154759	0.1702477	0	0.169155	0.477025	0	1804.028841	1805.02884	0.00000001	4.77E-03
160.5826	0.169469823	0.1702477	0	0.16947	0.477025	0	1805.028841		0.00000001	4.77E-03
160.6016	0.169995939	0.1702477	0	0.169996	0.477025	0	1805.028841	1806.02884	0.00000001	4.77E-03
160.6205	0.17002852	0.1702477	0	0.170029	0.477025	0	1806.028841		0.00000001	4.77E-03
160.6394	0.170163162	0.1702477	0	0.170163	0.477025	0	1806.028841	1807.02884	0.00000001	4.77E-03
160.6583	0.170205227	0.1702477	0	0.170205	0.477025	0	1807.028841		0.00000001	4.77E-03
160.6773	0.170099883	0.1702477	0	0.1701	0.477025	0	1807.028841	1808.02884	0.00000001	4.77E-03
160.6935	0.170247723	0.1702477	0	0.170248	0.477025	0	1808.028841		0.00000001	4.77E-03
160.7124	0.170154483	0.1701545	0.000261253	0.170154	0.477025	0	1808.028841	1809.02884	0.00000001	4.77E-03
160.7313	0.169921077	0.1700546	0.00027976	0.169921	0.476764	0	1809.028841		0.00000001	4.77E-03
160.7529	0.169682653	0.1700546	0	0.169683	0.476484	0	1809.028841	1810.02884	0.00000001	4.76E-03
160.7746	0.16958106	0.1700546	0	0.169581	0.476484	0	1810.028841		0.00000001	4.76E-03
160.7935	0.169829143	0.1700546	0	0.169829	0.476484	0	1810.028841	1811.02884	0.00000001	4.76E-03
160.8124	0.169949156	0.1700546	0	0.169949	0.476484	0	1811.028841		0.00000001	4.76E-03
160.8313	0.170054638	0.1700546	0	0.170055	0.476484	0	1811.028841	1812.02884	0.00000001	4.76E-03
160.8475	0.170027266	0.1700273	7.66972E-05	0.170027	0.476484	0	1812.028841		0.00000001	4.76E-03
160.8665	0.169502349	0.1695023	0.001470788	0.169502	0.476408	0	1812.028841	1813.02884	0.00000001	4.76E-03
160.8854	0.169290547	0.1692905	0.000593459	0.169291	0.474937	0	1813.028841		0.00000001	4.75E-03
160.9043	0.169105806	0.1691058	0.000517636	0.169106	0.474343	0	1813.028841	1814.02884	0.00000001	4.74E-03
160.9232	0.168441461	0.1690414	0.000180437	0.168441	0.473826	0	1814.028841		0.00000001	4.74E-03
160.9449	0.167805122	0.1690414	0	0.167805	0.473645	0	1814.028841	1815.02884	0.00000001	4.74E-03
160.9638	0.167319557	0.1690414	0	0.16732	0.473645	0	1815.028841		0.00000001	4.74E-03
160.9827	0.167076763	0.1690414	0	0.167077	0.473645	0	1815.028841	1816.02884	0.00000001	4.74E-03
161.0016	0.166968543	0.1690414	0	0.166969	0.473645	0	1816.028841		0.00000001	4.74E-03
161.0205	0.166937407	0.1690414	0	0.166937	0.473645	0	1816.028841	1817.02884	0.00000001	4.74E-03
161.0422	0.166772937	0.1690414	0	0.166773	0.473645	0	1817.028841		0.00000001	4.74E-03
161.0638	0.166205785	0.1690414	0	0.166206	0.473645	0	1817.028841	1818.02884	0.00000001	4.74E-03
161.0854	0.166006666	0.1690414	0	0.166007	0.473645	0	1818.028841		0.00000001	4.74E-03
161.107	0.16559002	0.1690414	0	0.16559	0.473645	0	1818.028841	1819.02884	0.00000001	4.74E-03
161.1233	0.165396677	0.1690414	0	0.165397	0.473645	0	1819.028841		0.00000001	4.74E-03
161.1422	0.165319471	0.1690414	0	0.165319	0.473645	0	1819.028841	1820.02884	0.00000001	4.74E-03
161.1611	0.165144123	0.1690414	0	0.165144	0.473645	0	1820.028841		0.00000001	4.74E-03
161.1827	0.164775486	0.1690414	0	0.164775	0.473645	0	1820.028841	1821.02884	0.00000001	4.74E-03
161.2016	0.164608879	0.1690414	0	0.164609	0.473645	0	1821.028841		0.00000001	4.74E-03
161.2206	0.164450367	0.1690414	0	0.16445	0.473645	0	1821.028841	1822.02884	0.00000001	4.74E-03
161.2395	0.164403395	0.1690414	0	0.164403	0.473645	0	1822.028841		0.00000001	4.74E-03
161.2584	0.164576078	0.1690414	0	0.164576	0.473645	0	1822.028841	1823.02884	0.00000001	4.74E-03
161.2773	0.164984607	0.1690414	0	0.164985	0.473645	0	1823.028841		0.00000001	4.74E-03
161.2962	0.165355152	0.1690414	0	0.165355	0.473645	0	1823.028841	1824.02884	0.00000001	4.74E-03
161.3152	0.165474248	0.1690414	0	0.165474	0.473645	0	1824.028841		0.00000001	4.74E-03
161.3341	0.165372022	0.1690414	0	0.165372	0.473645	0	1824.028841	1825.02884	0.00000001	4.74E-03
161.353	0.165376201	0.1690414	0	0.165376	0.473645	0	1825.028841		0.00000001	4.74E-03
161.3719	0.165937863	0.1690414	0	0.165938	0.473645	0	1825.028841	1826.02884	0.00000001	4.74E-03
161.3936	0.166275373	0.1690414	0	0.166275	0.473645	0	1826.028841		0.00000001	4.74E-03
161.4125	0.166605102	0.1690414	0	0.166605	0.473645	0	1826.028841	1827.02884	0.00000001	4.74E-03
161.4341	0.166920244	0.1690414	0	0.16692	0.473645	0	1827.028841		0.00000001	4.74E-03
161.453	0.167098987	0.1690414	0	0.167099	0.473645	0	1827.028841	1828.02884	0.00000001	4.74E-03
161.4719	0.167154929	0.1690414	0	0.167155	0.473645	0	1828.028841		0.00000001	4.74E-03
161.4909	0.167201879	0.1690414	0	0.167202	0.473645	0	1828.028841	1829.02884	0.00000001	4.74E-03
161.5098	0.167351563	0.1690414	0	0.167352	0.473645	0	1829.028841		0.00000001	4.74E-03
161.5287	0.167771687	0.1690414	0	0.167772	0.473645	0	1829.028841	1830.02884	0.00000001	4.74E-03
161.5476	0.168026486	0.1690414	0	0.168026	0.473645	0	1830.028841		0.00000001	4.74E-03
161.5666	0.167951849	0.1690414	0	0.167952	0.473645	0	1830.028841	1831.02884	0.00000001	4.74E-03
161.5882	0.16794145	0.1690414	0	0.167941	0.473645	0	1831.028841		0.00000001	4.74E-03
161.6071	0.167850561	0.1690414	0	0.167851	0.473645	0	1831.028841	1832.02884	0.00000001	4.74E-03
161.6287	0.167845949	0.1690414	0	0.167846	0.473645	0	1832.028841		0.00000001	4.74E-03
161.6476	0.167923965	0.1690414	0	0.167924	0.473645	0	1832.028841	1833.02884	0.00000001	4.74E-03
161.6666	0.167848703	0.1690414	0	0.167849	0.473645	0	1833.028841		0.00000001	4.74E-03
161.6882	0.167917313	0.1690414	0	0.167917	0.473645	0	1833.028841	1834.02884	0.00000001	4.74E-03
161.7098	0.168030718	0.1690414	0	0.168031	0.473645	0	1834.028841		0.00000001	4.74E-03
161.7287	0.167926481	0.1690414	0	0.167926	0.473645	0	1834.028841	1835.02884	0.00000001	4.74E-03
161.7477	0.167487838	0.1690414	0	0.167488	0.473645	0	1835.028841		0.00000001	4.74E-03
161.7693	0.167044222	0.1690414	0	0.167044	0.473645	0	1835.028841	1836.02884	0.00000001	4.74E-03
161.7882	0.166864013	0.1690414	0	0.166864	0.473645	0	1836.028841		0.00000001	4.74E-03
161.8098	0.166803504	0.1690414	0	0.166804	0.473645	0	1836.028841	1837.02884	0.00000001	4.74E-03
161.8287	0.16675604	0.1690414	0	0.166756	0.473645	0	1837.028841		0.00000001	4.74E-03
161.8477	0.166805813	0.1690414	0	0.166806	0.473645	0	1837.028841	1838.02884	0.00000001	4.74E-03

161.8639	0.166685007	0.1690414	0	0.166685	0.473645	0	1838.028841		0.00000001	4.74E-03
161.8828	0.166635623	0.1690414	0	0.166636	0.473645	0	1838.028841	1839.02884	0.00000001	4.74E-03
161.9017	0.16647437	0.1690414	0	0.166474	0.473645	0	1839.028841		0.00000001	4.74E-03
161.9179	0.166310595	0.1690414	0	0.166311	0.473645	0	1839.028841	1840.02884	0.00000001	4.74E-03
161.9369	0.166143989	0.1690414	0	0.166144	0.473645	0	1840.028841		0.00000001	4.74E-03
161.9585	0.165886101	0.1690414	0	0.165886	0.473645	0	1840.028841	1841.02884	0.00000001	4.74E-03
161.9747	0.1657537	0.1690414	0	0.165754	0.473645	0	1841.028841		0.00000001	4.74E-03
161.9936	0.165842852	0.1690414	0	0.165843	0.473645	0	1841.028841	1842.02884	0.00000001	4.74E-03
162.0126	0.166052935	0.1690414	0	0.166053	0.473645	0	1842.028841		0.00000001	4.74E-03
162.0315	0.165961666	0.1690414	0	0.165962	0.473645	0	1842.028841	1843.02884	0.00000001	4.74E-03
162.0477	0.165723947	0.1690414	0	0.165724	0.473645	0	1843.028841		0.00000001	4.74E-03
162.0612	0.16572266	0.1690414	0	0.165723	0.473645	0	1843.028841	1844.02884	0.00000001	4.74E-03
162.0801	0.165503129	0.1690414	0	0.165503	0.473645	0	1844.028841		0.00000001	4.74E-03
162.0963	0.165300637	0.1690414	0	0.165301	0.473645	0	1844.028841	1845.02884	0.00000001	4.74E-03
162.1099	0.165212866	0.1690414	0	0.165213	0.473645	0	1845.028841		0.00000001	4.74E-03
162.1288	0.165245969	0.1690414	0	0.165246	0.473645	0	1845.028841	1846.02884	0.00000001	4.74E-03
162.145	0.16514855	0.1690414	0	0.165149	0.473645	0	1846.028841		0.00000001	4.74E-03
162.1612	0.16483295	0.1690414	0	0.164833	0.473645	0	1846.028841	1847.02884	0.00000001	4.74E-03
162.1774	0.164743314	0.1690414	0	0.164743	0.473645	0	1847.028841		0.00000001	4.74E-03
162.1964	0.164765808	0.1690414	0	0.164766	0.473645	0	1847.028841	1848.02884	0.00000001	4.74E-03
162.2153	0.165030238	0.1690414	0	0.16503	0.473645	0	1848.028841		0.00000001	4.74E-03
162.2315	0.16528612	0.1690414	0	0.165286	0.473645	0	1848.028841	1849.02884	0.00000001	4.74E-03
162.2477	0.16529998	0.1690414	0	0.1653	0.473645	0	1849.028841		0.00000001	4.74E-03
162.2666	0.165511724	0.1690414	0	0.165512	0.473645	0	1849.028841	1850.02884	0.00000001	4.74E-03
162.2883	0.165608308	0.1690414	0	0.165608	0.473645	0	1850.028841		0.00000001	4.74E-03
162.3072	0.165580158	0.1690414	0	0.16558	0.473645	0	1850.028841	1851.02884	0.00000001	4.74E-03
162.3234	0.165690415	0.1690414	0	0.16569	0.473645	0	1851.028841		0.00000001	4.74E-03
162.3396	0.165791965	0.1690414	0	0.165792	0.473645	0	1851.028841	1852.02884	0.00000001	4.74E-03
162.3585	0.165632031	0.1690414	0	0.165632	0.473645	0	1852.028841		0.00000001	4.74E-03
162.3802	0.165526997	0.1690414	0	0.165527	0.473645	0	1852.028841	1853.02884	0.00000001	4.74E-03
162.3991	0.165531238	0.1690414	0	0.165531	0.473645	0	1853.028841		0.00000001	4.74E-03
162.4207	0.165420213	0.1690414	0	0.16542	0.473645	0	1853.028841	1854.02884	0.00000001	4.74E-03
162.4396	0.16540187	0.1690414	0	0.165402	0.473645	0	1854.028841		0.00000001	4.74E-03
162.4613	0.165496309	0.1690414	0	0.165496	0.473645	0	1854.028841	1855.02884	0.00000001	4.74E-03
162.4802	0.165471246	0.1690414	0	0.165471	0.473645	0	1855.028841		0.00000001	4.74E-03
162.5018	0.165438859	0.1690414	0	0.165439	0.473645	0	1855.028841	1856.02884	0.00000001	4.74E-03
162.5234	0.165388876	0.1690414	0	0.165389	0.473645	0	1856.028841		0.00000001	4.74E-03
162.5451	0.165238166	0.1690414	0	0.165238	0.473645	0	1856.028841	1857.02884	0.00000001	4.74E-03
162.5667	0.164967727	0.1690414	0	0.164968	0.473645	0	1857.028841		0.00000001	4.74E-03
162.5856	0.164937575	0.1690414	0	0.164938	0.473645	0	1857.028841	1858.02884	0.00000001	4.74E-03
162.6045	0.164778413	0.1690414	0	0.164778	0.473645	0	1858.028841		0.00000001	4.74E-03
162.6234	0.164551338	0.1690414	0	0.164551	0.473645	0	1858.028841	1859.02884	0.00000001	4.74E-03
162.6451	0.164343148	0.1690414	0	0.164343	0.473645	0	1859.028841		0.00000001	4.74E-03
162.6667	0.164016436	0.1690414	0	0.164016	0.473645	0	1859.028841	1860.02884	0.00000001	4.74E-03
162.6856	0.163903923	0.1690414	0	0.163904	0.473645	0	1860.028841		0.00000001	4.74E-03
162.7045	0.163478227	0.1690414	0	0.163478	0.473645	0	1860.028841	1861.02884	0.00000001	4.74E-03
162.7262	0.163191619	0.1690414	0	0.163192	0.473645	0	1861.028841		0.00000001	4.74E-03
162.7424	0.16303735	0.1690414	0	0.163037	0.473645	0	1861.028841	1862.02884	0.00000001	4.74E-03
162.7586	0.162901675	0.1690414	0	0.162902	0.473645	0	1862.028841		0.00000001	4.74E-03
162.7775	0.162751435	0.1690414	0	0.162751	0.473645	0	1862.028841	1863.02884	0.00000001	4.74E-03
162.7964	0.162621323	0.1690414	0	0.162621	0.473645	0	1863.028841		0.00000001	4.74E-03
162.8154	0.162595688	0.1690414	0	0.162596	0.473645	0	1863.028841	1864.02884	0.00000001	4.74E-03
162.8343	0.162677164	0.1690414	0	0.162677	0.473645	0	1864.028841		0.00000001	4.74E-03
162.8505	0.162869279	0.1690414	0	0.162869	0.473645	0	1864.028841	1865.02884	0.00000001	4.74E-03
162.8694	0.163050361	0.1690414	0	0.16305	0.473645	0	1865.028841		0.00000001	4.74E-03
162.8883	0.163132516	0.1690414	0	0.163133	0.473645	0	1865.028841	1866.02884	0.00000001	4.74E-03
162.9046	0.163318978	0.1690414	0	0.163319	0.473645	0	1866.028841		0.00000001	4.74E-03
162.9235	0.163501722	0.1690414	0	0.163502	0.473645	0	1866.028841	1867.02884	0.00000001	4.74E-03
162.9424	0.163327781	0.1690414	0	0.163328	0.473645	0	1867.028841		0.00000001	4.74E-03
162.9586	0.163276195	0.1690414	0	0.163276	0.473645	0	1867.028841	1868.02884	0.00000001	4.74E-03
162.9775	0.16345943	0.1690414	0	0.163459	0.473645	0	1868.028841		0.00000001	4.74E-03
162.9992	0.163523908	0.1690414	0	0.163524	0.473645	0	1868.028841	1869.02884	0.00000001	4.74E-03
163.0208	0.163580973	0.1690414	0	0.163581	0.473645	0	1869.028841		0.00000001	4.74E-03
163.0397	0.163876083	0.1690414	0	0.163876	0.473645	0	1869.028841	1870.02884	0.00000001	4.74E-03
163.0586	0.164384313	0.1690414	0	0.164384	0.473645	0	1870.028841		0.00000001	4.74E-03
163.0775	0.164743143	0.1690414	0	0.164743	0.473645	0	1870.028841	1871.02884	0.00000001	4.74E-03
163.0965	0.165315822	0.1690414	0	0.165316	0.473645	0	1871.028841		0.00000001	4.74E-03
163.1127	0.165536268	0.1690414	0	0.165536	0.473645	0	1871.028841	1872.02884	0.00000001	4.74E-03
163.1316	0.165727592	0.1690414	0	0.165728	0.473645	0	1872.028841		0.00000001	4.74E-03
163.1478	0.165928651	0.1690414	0	0.165929	0.473645	0	1872.028841	1873.02884	0.00000001	4.74E-03
163.164	0.166221749	0.1690414	0	0.166222	0.473645	0	1873.028841		0.00000001	4.74E-03
163.183	0.166264443	0.1690414	0	0.166264	0.473645	0	1873.028841	1874.02884	0.00000001	4.74E-03
163.2046	0.166169199	0.1690414	0	0.166169	0.473645	0	1874.028841		0.00000001	4.74E-03
163.2262	0.166310165	0.1690414	0	0.16631	0.473645	0	1874.028841	1875.02884	0.00000001	4.74E-03

163.2478	0.166742619	0.1690414	0	0.166743	0.473645	0	1875.028841		0.00000001	4.74E-03
163.2695	0.166592731	0.1690414	0	0.166593	0.473645	0	1875.028841	1876.02884	0.00000001	4.74E-03
163.2884	0.16639945	0.1690414	0	0.166399	0.473645	0	1876.028841		0.00000001	4.74E-03
163.3073	0.166454222	0.1690414	0	0.166454	0.473645	0	1876.028841	1877.02884	0.00000001	4.74E-03
163.3289	0.166611459	0.1690414	0	0.166611	0.473645	0	1877.028841		0.00000001	4.74E-03
163.3479	0.166643278	0.1690414	0	0.166643	0.473645	0	1877.028841	1878.02884	0.00000001	4.74E-03
163.3641	0.166555621	0.1690414	0	0.166556	0.473645	0	1878.028841		0.00000001	4.74E-03
163.3857	0.166480323	0.1690414	0	0.16648	0.473645	0	1878.028841	1879.02884	0.00000001	4.74E-03
163.4046	0.166178421	0.1690414	0	0.166178	0.473645	0	1879.028841		0.00000001	4.74E-03
163.4235	0.165887095	0.1690414	0	0.165887	0.473645	0	1879.028841	1880.02884	0.00000001	4.74E-03
163.4452	0.165600599	0.1690414	0	0.165601	0.473645	0	1880.028841		0.00000001	4.74E-03
163.4641	0.165248354	0.1690414	0	0.165248	0.473645	0	1880.028841	1881.02884	0.00000001	4.74E-03
163.483	0.164997346	0.1690414	0	0.164997	0.473645	0	1881.028841		0.00000001	4.74E-03
163.5019	0.164756105	0.1690414	0	0.164756	0.473645	0	1881.028841	1882.02884	0.00000001	4.74E-03
163.5208	0.164745739	0.1690414	0	0.164746	0.473645	0	1882.028841		0.00000001	4.74E-03
163.5398	0.164392208	0.1690414	0	0.164392	0.473645	0	1882.028841	1883.02884	0.00000001	4.74E-03
163.556	0.164049498	0.1690414	0	0.164049	0.473645	0	1883.028841		0.00000001	4.74E-03
163.5749	0.163941132	0.1690414	0	0.163941	0.473645	0	1883.028841	1884.02884	0.00000001	4.74E-03
163.5938	0.163946056	0.1690414	0	0.163946	0.473645	0	1884.028841		0.00000001	4.74E-03
163.6127	0.163956388	0.1690414	0	0.163956	0.473645	0	1884.028841	1885.02884	0.00000001	4.74E-03
163.629	0.163870404	0.1690414	0	0.16387	0.473645	0	1885.028841		0.00000001	4.74E-03
163.6479	0.163678055	0.1690414	0	0.163678	0.473645	0	1885.028841	1886.02884	0.00000001	4.74E-03
163.6641	0.163567107	0.1690414	0	0.163567	0.473645	0	1886.028841		0.00000001	4.74E-03
163.683	0.163385571	0.1690414	0	0.163386	0.473645	0	1886.028841	1887.02884	0.00000001	4.74E-03
163.6992	0.163390843	0.1690414	0	0.163391	0.473645	0	1887.028841		0.00000001	4.74E-03
163.7155	0.163298835	0.1690414	0	0.163299	0.473645	0	1887.028841	1888.02884	0.00000001	4.74E-03
163.7317	0.163321447	0.1690414	0	0.163321	0.473645	0	1888.028841		0.00000001	4.74E-03
163.7479	0.16354824	0.1690414	0	0.163548	0.473645	0	1888.028841	1889.02884	0.00000001	4.74E-03
163.7668	0.163466529	0.1690414	0	0.163467	0.473645	0	1889.028841		0.00000001	4.74E-03
163.783	0.163463194	0.1690414	0	0.163463	0.473645	0	1889.028841	1890.02884	0.00000001	4.74E-03
163.802	0.163479395	0.1690414	0	0.163479	0.473645	0	1890.028841		0.00000001	4.74E-03
163.8209	0.163613446	0.1690414	0	0.163613	0.473645	0	1890.028841	1891.02884	0.00000001	4.74E-03
163.8398	0.163951805	0.1690414	0	0.163952	0.473645	0	1891.028841		0.00000001	4.74E-03
163.8587	0.164179899	0.1690414	0	0.16418	0.473645	0	1891.028841	1892.02884	0.00000001	4.74E-03
163.8776	0.164165582	0.1690414	0	0.164166	0.473645	0	1892.028841		0.00000001	4.74E-03
163.8966	0.164373675	0.1690414	0	0.164374	0.473645	0	1892.028841	1893.02884	0.00000001	4.74E-03
163.9155	0.164687538	0.1690414	0	0.164688	0.473645	0	1893.028841		0.00000001	4.74E-03
163.9344	0.164791609	0.1690414	0	0.164792	0.473645	0	1893.028841	1894.02884	0.00000001	4.74E-03
163.9506	0.164871306	0.1690414	0	0.164871	0.473645	0	1894.028841		0.00000001	4.74E-03
163.9695	0.16496042	0.1690414	0	0.16496	0.473645	0	1894.028841	1895.02884	0.00000001	4.74E-03
163.9885	0.164924802	0.1690414	0	0.164925	0.473645	0	1895.028841		0.00000001	4.74E-03
164.0074	0.16478458	0.1690414	0	0.164785	0.473645	0	1895.028841	1896.02884	0.00000001	4.74E-03
164.0263	0.164675481	0.1690414	0	0.164675	0.473645	0	1896.028841		0.00000001	4.74E-03
164.0479	0.164642353	0.1690414	0	0.164642	0.473645	0	1896.028841	1897.02884	0.00000001	4.74E-03
164.0669	0.164618135	0.1690414	0	0.164618	0.473645	0	1897.028841		0.00000001	4.74E-03
164.0885	0.164572217	0.1690414	0	0.164572	0.473645	0	1897.028841	1898.02884	0.00000001	4.74E-03
164.1074	0.164640086	0.1690414	0	0.16464	0.473645	0	1898.028841		0.00000001	4.74E-03
164.1263	0.164707604	0.1690414	0	0.164708	0.473645	0	1898.028841	1899.02884	0.00000001	4.74E-03
164.1479	0.164981261	0.1690414	0	0.164981	0.473645	0	1899.028841		0.00000001	4.74E-03
164.1669	0.165055615	0.1690414	0	0.165056	0.473645	0	1899.028841	1900.02884	0.00000001	4.74E-03
164.1858	0.164896778	0.1690414	0	0.164897	0.473645	0	1900.028841		0.00000001	4.74E-03
164.2047	0.164511244	0.1690414	0	0.164511	0.473645	0	1900.028841	1901.02884	0.00000001	4.74E-03
164.2263	0.164147355	0.1690414	0	0.164147	0.473645	0	1901.028841		0.00000001	4.74E-03
164.248	0.163705575	0.1690414	0	0.163706	0.473645	0	1901.028841	1902.02884	0.00000001	4.74E-03
164.2669	0.1636042	0.1690414	0	0.163604	0.473645	0	1902.028841		0.00000001	4.74E-03
164.2858	0.163395035	0.1690414	0	0.163395	0.473645	0	1902.028841	1903.02884	0.00000001	4.74E-03
164.3047	0.16343627	0.1690414	0	0.163436	0.473645	0	1903.028841		0.00000001	4.74E-03
164.3236	0.163358613	0.1690414	0	0.163359	0.473645	0	1903.028841	1904.02884	0.00000001	4.74E-03
164.3426	0.163169994	0.1690414	0	0.16317	0.473645	0	1904.028841		0.00000001	4.74E-03
164.3615	0.163201416	0.1690414	0	0.163201	0.473645	0	1904.028841	1905.02884	0.00000001	4.74E-03
164.3831	0.163116636	0.1690414	0	0.163117	0.473645	0	1905.028841		0.00000001	4.74E-03
164.402	0.162936576	0.1690414	0	0.162937	0.473645	0	1905.028841	1906.02884	0.00000001	4.74E-03
164.4183	0.162978774	0.1690414	0	0.162979	0.473645	0	1906.028841		0.00000001	4.74E-03
164.4372	0.163030194	0.1690414	0	0.16303	0.473645	0	1906.028841	1907.02884	0.00000001	4.74E-03
164.4534	0.163056408	0.1690414	0	0.163056	0.473645	0	1907.028841		0.00000001	4.74E-03
164.4696	0.163107048	0.1690414	0	0.163107	0.473645	0	1907.028841	1908.02884	0.00000001	4.74E-03
164.4885	0.163148155	0.1690414	0	0.163148	0.473645	0	1908.028841		0.00000001	4.74E-03
164.5075	0.163088044	0.1690414	0	0.163088	0.473645	0	1908.028841	1909.02884	0.00000001	4.74E-03
164.5264	0.163045392	0.1690414	0	0.163045	0.473645	0	1909.028841		0.00000001	4.74E-03
164.5426	0.163247626	0.1690414	0	0.163248	0.473645	0	1909.028841	1910.02884	0.00000001	4.74E-03
164.5615	0.163320687	0.1690414	0	0.163321	0.473645	0	1910.028841		0.00000001	4.74E-03
164.5804	0.163294699	0.1690414	0	0.163295	0.473645	0	1910.028841	1911.02884	0.00000001	4.74E-03
164.5994	0.16325664	0.1690414	0	0.163257	0.473645	0	1911.028841		0.00000001	4.74E-03
164.6183	0.163324852	0.1690414	0	0.163325	0.473645	0	1911.028841	1912.02884	0.00000001	4.74E-03

164.6372	0.163501127	0.1690414	0	0.163501	0.473645	0	1912.028841		0.00000001	4.74E-03
164.6561	0.163792838	0.1690414	0	0.163793	0.473645	0	1912.028841	1913.02884	0.00000001	4.74E-03
164.6723	0.164084592	0.1690414	0	0.164085	0.473645	0	1913.028841		0.00000001	4.74E-03
164.6913	0.164251133	0.1690414	0	0.164251	0.473645	0	1913.028841	1914.02884	0.00000001	4.74E-03
164.7102	0.164637034	0.1690414	0	0.164637	0.473645	0	1914.028841		0.00000001	4.74E-03
164.7291	0.164842653	0.1690414	0	0.164843	0.473645	0	1914.028841	1915.02884	0.00000001	4.74E-03
164.748	0.165278901	0.1690414	0	0.165279	0.473645	0	1915.028841		0.00000001	4.74E-03
164.7642	0.165408559	0.1690414	0	0.165409	0.473645	0	1915.028841	1916.02884	0.00000001	4.74E-03
164.7832	0.165835154	0.1690414	0	0.165835	0.473645	0	1916.028841		0.00000001	4.74E-03
164.8021	0.165912411	0.1690414	0	0.165912	0.473645	0	1916.028841	1917.02884	0.00000001	4.74E-03
164.8237	0.165874321	0.1690414	0	0.165874	0.473645	0	1917.028841		0.00000001	4.74E-03
164.8453	0.165914033	0.1690414	0	0.165914	0.473645	0	1917.028841	1918.02884	0.00000001	4.74E-03
164.8643	0.165955048	0.1690414	0	0.165955	0.473645	0	1918.028841		0.00000001	4.74E-03
164.8832	0.166010462	0.1690414	0	0.16601	0.473645	0	1918.028841	1919.02884	0.00000001	4.74E-03
164.9048	0.166175266	0.1690414	0	0.166175	0.473645	0	1919.028841		0.00000001	4.74E-03
164.9264	0.166211776	0.1690414	0	0.166212	0.473645	0	1919.028841	1920.02884	0.00000001	4.74E-03
164.9453	0.166266574	0.1690414	0	0.166267	0.473645	0	1920.028841		0.00000001	4.74E-03
164.9643	0.166221447	0.1690414	0	0.166221	0.473645	0	1920.028841	1921.02884	0.00000001	4.74E-03
164.9832	0.166043086	0.1690414	0	0.166043	0.473645	0	1921.028841		0.00000001	4.74E-03
165.0048	0.165969884	0.1690414	0	0.16597	0.473645	0	1921.028841	1922.02884	0.00000001	4.74E-03
165.0237	0.165905972	0.1690414	0	0.165906	0.473645	0	1922.028841		0.00000001	4.74E-03
165.0427	0.165698775	0.1690414	0	0.165699	0.473645	0	1922.028841	1923.02884	0.00000001	4.74E-03
165.0616	0.165400235	0.1690414	0	0.1654	0.473645	0	1923.028841		0.00000001	4.74E-03
165.0805	0.165263669	0.1690414	0	0.165264	0.473645	0	1923.028841	1924.02884	0.00000001	4.74E-03
165.0994	0.165221739	0.1690414	0	0.165222	0.473645	0	1924.028841		0.00000001	4.74E-03
165.1183	0.164947655	0.1690414	0	0.164948	0.473645	0	1924.028841	1925.02884	0.00000001	4.74E-03
165.1373	0.164737427	0.1690414	0	0.164737	0.473645	0	1925.028841		0.00000001	4.74E-03
165.1562	0.164518383	0.1690414	0	0.164518	0.473645	0	1925.028841	1926.02884	0.00000001	4.74E-03
165.1751	0.164427576	0.1690414	0	0.164428	0.473645	0	1926.028841		0.00000001	4.74E-03
165.194	0.164240476	0.1690414	0	0.16424	0.473645	0	1926.028841	1927.02884	0.00000001	4.74E-03
165.2102	0.164052864	0.1690414	0	0.164053	0.473645	0	1927.028841		0.00000001	4.74E-03
165.2292	0.163747578	0.1690414	0	0.163748	0.473645	0	1927.028841	1928.02884	0.00000001	4.74E-03
165.2454	0.163775003	0.1690414	0	0.163775	0.473645	0	1928.028841		0.00000001	4.74E-03
165.2643	0.16383229	0.1690414	0	0.163832	0.473645	0	1928.028841	1929.02884	0.00000001	4.74E-03
165.2805	0.163742044	0.1690414	0	0.163742	0.473645	0	1929.028841		0.00000001	4.74E-03
165.2994	0.163787617	0.1690414	0	0.163788	0.473645	0	1929.028841	1930.02884	0.00000001	4.74E-03
165.3184	0.163802951	0.1690414	0	0.163803	0.473645	0	1930.028841		0.00000001	4.74E-03
165.3373	0.163721541	0.1690414	0	0.163722	0.473645	0	1930.028841	1931.02884	0.00000001	4.74E-03
165.3535	0.163657141	0.1690414	0	0.163657	0.473645	0	1931.028841		0.00000001	4.74E-03
165.3724	0.163452109	0.1690414	0	0.163452	0.473645	0	1931.028841	1932.02884	0.00000001	4.74E-03
165.3886	0.163383827	0.1690414	0	0.163384	0.473645	0	1932.028841		0.00000001	4.74E-03
165.4076	0.163544508	0.1690414	0	0.163545	0.473645	0	1932.028841	1933.02884	0.00000001	4.74E-03
165.4265	0.163695846	0.1690414	0	0.163696	0.473645	0	1933.028841		0.00000001	4.74E-03
165.4481	0.163839554	0.1690414	0	0.16384	0.473645	0	1933.028841	1934.02884	0.00000001	4.74E-03
165.467	0.164274758	0.1690414	0	0.164275	0.473645	0	1934.028841		0.00000001	4.74E-03
165.486	0.164381979	0.1690414	0	0.164382	0.473645	0	1934.028841	1935.02884	0.00000001	4.74E-03
165.5049	0.16461643	0.1690414	0	0.164616	0.473645	0	1935.028841		0.00000001	4.74E-03
165.5211	0.164605768	0.1690414	0	0.164606	0.473645	0	1935.028841	1936.02884	0.00000001	4.74E-03
165.54	0.164748256	0.1690414	0	0.164748	0.473645	0	1936.028841		0.00000001	4.74E-03
165.5589	0.164858934	0.1690414	0	0.164859	0.473645	0	1936.028841	1937.02884	0.00000001	4.74E-03
165.5752	0.164840374	0.1690414	0	0.16484	0.473645	0	1937.028841		0.00000001	4.74E-03
165.5941	0.164834225	0.1690414	0	0.164834	0.473645	0	1937.028841	1938.02884	0.00000001	4.74E-03
165.6103	0.164830116	0.1690414	0	0.16483	0.473645	0	1938.028841		0.00000001	4.74E-03
165.6292	0.164815483	0.1690414	0	0.164815	0.473645	0	1938.028841	1939.02884	0.00000001	4.74E-03
165.6481	0.164905228	0.1690414	0	0.164905	0.473645	0	1939.028841		0.00000001	4.74E-03
165.6698	0.165005961	0.1690414	0	0.165006	0.473645	0	1939.028841	1940.02884	0.00000001	4.74E-03
165.6887	0.165087836	0.1690414	0	0.165088	0.473645	0	1940.028841		0.00000001	4.74E-03
165.7076	0.16519319	0.1690414	0	0.165193	0.473645	0	1940.028841	1941.02884	0.00000001	4.74E-03
165.7292	0.16516472	0.1690414	0	0.165165	0.473645	0	1941.028841		0.00000001	4.74E-03
165.7481	0.165251195	0.1690414	0	0.165251	0.473645	0	1941.028841	1942.02884	0.00000001	4.74E-03
165.7698	0.165327267	0.1690414	0	0.165327	0.473645	0	1942.028841		0.00000001	4.74E-03
165.7914	0.165069539	0.1690414	0	0.16507	0.473645	0	1942.028841	1943.02884	0.00000001	4.74E-03
165.8103	0.16480083	0.1690414	0	0.164801	0.473645	0	1943.028841		0.00000001	4.74E-03
165.8292	0.164339268	0.1690414	0	0.164339	0.473645	0	1943.028841	1944.02884	0.00000001	4.74E-03
165.8509	0.16410718	0.1690414	0	0.164107	0.473645	0	1944.028841		0.00000001	4.74E-03
165.8698	0.16410523	0.1690414	0	0.164105	0.473645	0	1944.028841	1945.02884	0.00000001	4.74E-03
165.8914	0.163900147	0.1690414	0	0.1639	0.473645	0	1945.028841		0.00000001	4.74E-03
165.913	0.163594823	0.1690414	0	0.163595	0.473645	0	1945.028841	1946.02884	0.00000001	4.74E-03
165.932	0.16331136	0.1690414	0	0.163311	0.473645	0	1946.028841		0.00000001	4.74E-03
165.9509	0.163336657	0.1690414	0	0.163337	0.473645	0	1946.028841	1947.02884	0.00000001	4.74E-03
165.9671	0.163335164	0.1690414	0	0.163335	0.473645	0	1947.028841		0.00000001	4.74E-03
165.986	0.163071056	0.1690414	0	0.163071	0.473645	0	1947.028841	1948.02884	0.00000001	4.74E-03
166.0049	0.162989528	0.1690414	0	0.16299	0.473645	0	1948.028841		0.00000001	4.74E-03
166.0239	0.163007132	0.1690414	0	0.163007	0.473645	0	1948.028841	1949.02884	0.00000001	4.74E-03

166.0428	0.163071364	0.1690414	0	0.163071	0.473645	0	1949.028841		0.00000001	4.74E-03
166.059	0.163071364	0.1690414	0	0.163071	0.473645	0	1949.028841	1950.02884	0.00000001	4.74E-03
166.0806	0.163142783	0.1690414	0	0.163143	0.473645	0	1950.028841		0.00000001	4.74E-03
166.0995	0.163166913	0.1690414	0	0.163167	0.473645	0	1950.028841	1951.02884	0.00000001	4.74E-03
166.1158	0.163166913	0.1690414	0	0.163167	0.473645	0	1951.028841		0.00000001	4.74E-03
166.1347	0.163198612	0.1690414	0	0.163199	0.473645	0	1951.028841	1952.02884	0.00000001	4.74E-03
166.1509	0.163231539	0.1690414	0	0.163232	0.473645	0	1952.028841		0.00000001	4.74E-03
166.1698	0.163267813	0.1690414	0	0.163268	0.473645	0	1952.028841	1953.02884	0.00000001	4.74E-03
166.186	0.163197914	0.1690414	0	0.163198	0.473645	0	1953.028841		0.00000001	4.74E-03
166.2023	0.163221749	0.1690414	0	0.163222	0.473645	0	1953.028841	1954.02884	0.00000001	4.74E-03
166.2212	0.163358697	0.1690414	0	0.163359	0.473645	0	1954.028841		0.00000001	4.74E-03
166.2374	0.163499647	0.1690414	0	0.1635	0.473645	0	1954.028841	1955.02884	0.00000001	4.74E-03
166.259	0.163641918	0.1690414	0	0.163642	0.473645	0	1955.028841		0.00000001	4.74E-03
166.2779	0.163887462	0.1690414	0	0.163887	0.473645	0	1955.028841	1956.02884	0.00000001	4.74E-03
166.2942	0.164228612	0.1690414	0	0.164229	0.473645	0	1956.028841		0.00000001	4.74E-03
166.3158	0.164648302	0.1690414	0	0.164648	0.473645	0	1956.028841	1957.02884	0.00000001	4.74E-03
166.332	0.164627948	0.1690414	0	0.164628	0.473645	0	1957.028841		0.00000001	4.74E-03
166.3509	0.165159033	0.1690414	0	0.165159	0.473645	0	1957.028841	1958.02884	0.00000001	4.74E-03
166.3671	0.165339134	0.1690414	0	0.165339	0.473645	0	1958.028841		0.00000001	4.74E-03
166.3861	0.165302199	0.1690414	0	0.165302	0.473645	0	1958.028841	1959.02884	0.00000001	4.74E-03
166.405	0.165235992	0.1690414	0	0.165236	0.473645	0	1959.028841		0.00000001	4.74E-03
166.4239	0.165185088	0.1690414	0	0.165185	0.473645	0	1959.028841	1960.02884	0.00000001	4.74E-03
166.4428	0.165025461	0.1690414	0	0.165025	0.473645	0	1960.028841		0.00000001	4.74E-03
166.4617	0.16487634	0.1690414	0	0.164876	0.473645	0	1960.028841	1961.02884	0.00000001	4.74E-03
166.4861	0.1649257	0.1690414	0	0.164926	0.473645	0	1961.028841		0.00000001	4.74E-03
166.505	0.165228702	0.1690414	0	0.165229	0.473645	0	1961.028841	1962.02884	0.00000001	4.74E-03
166.5239	0.165386171	0.1690414	0	0.165386	0.473645	0	1962.028841		0.00000001	4.74E-03
166.5428	0.165413142	0.1690414	0	0.165413	0.473645	0	1962.028841	1963.02884	0.00000001	4.74E-03
166.5618	0.165567369	0.1690414	0	0.165567	0.473645	0	1963.028841		0.00000001	4.74E-03
166.5807	0.165700665	0.1690414	0	0.165701	0.473645	0	1963.028841	1964.02884	0.00000001	4.74E-03
166.5996	0.16574246	0.1690414	0	0.165742	0.473645	0	1964.028841		0.00000001	4.74E-03
166.6185	0.165676073	0.1690414	0	0.165676	0.473645	0	1964.028841	1965.02884	0.00000001	4.74E-03
166.6374	0.165606066	0.1690414	0	0.165606	0.473645	0	1965.028841		0.00000001	4.74E-03
166.6591	0.165292046	0.1690414	0	0.165292	0.473645	0	1965.028841	1966.02884	0.00000001	4.74E-03
166.6753	0.164905433	0.1690414	0	0.164905	0.473645	0	1966.028841		0.00000001	4.74E-03
166.6969	0.164502271	0.1690414	0	0.164502	0.473645	0	1966.028841	1967.02884	0.00000001	4.74E-03
166.7158	0.164236325	0.1690414	0	0.164236	0.473645	0	1967.028841		0.00000001	4.74E-03
166.7348	0.163870949	0.1690414	0	0.163871	0.473645	0	1967.028841	1968.02884	0.00000001	4.74E-03
166.7537	0.16351532	0.1690414	0	0.163515	0.473645	0	1968.028841		0.00000001	4.74E-03
166.7726	0.16305788	0.1690414	0	0.163058	0.473645	0	1968.028841	1969.02884	0.00000001	4.74E-03
166.7888	0.162864992	0.1690414	0	0.162865	0.473645	0	1969.028841		0.00000001	4.74E-03
166.8077	0.162565825	0.1690414	0	0.162566	0.473645	0	1969.028841	1970.02884	0.00000001	4.74E-03
166.824	0.162376212	0.1690414	0	0.162376	0.473645	0	1970.028841		0.00000001	4.74E-03
166.8402	0.162219055	0.1690414	0	0.162219	0.473645	0	1970.028841	1971.02884	0.00000001	4.74E-03
166.8591	0.16205749	0.1690414	0	0.162057	0.473645	0	1971.028841		0.00000001	4.74E-03
166.878	0.161893256	0.1690414	0	0.161893	0.473645	0	1971.028841	1972.02884	0.00000001	4.74E-03
166.8942	0.161725013	0.1690414	0	0.161725	0.473645	0	1972.028841		0.00000001	4.74E-03
166.9132	0.161692886	0.1690414	0	0.161693	0.473645	0	1972.028841	1973.02884	0.00000001	4.74E-03
166.9294	0.161753902	0.1690414	0	0.161754	0.473645	0	1973.028841		0.00000001	4.74E-03
166.9483	0.16181292	0.1690414	0	0.161813	0.473645	0	1973.028841	1974.02884	0.00000001	4.74E-03
166.9672	0.162075469	0.1690414	0	0.162075	0.473645	0	1974.028841		0.00000001	4.74E-03
166.9834	0.162141156	0.1690414	0	0.162141	0.473645	0	1974.028841	1975.02884	0.00000001	4.74E-03
167.0024	0.162071849	0.1690414	0	0.162072	0.473645	0	1975.028841		0.00000001	4.74E-03
167.0213	0.162017501	0.1690414	0	0.162018	0.473645	0	1975.028841	1976.02884	0.00000001	4.74E-03
167.0402	0.161975802	0.1690414	0	0.161976	0.473645	0	1976.028841		0.00000001	4.74E-03
167.0591	0.162008093	0.1690414	0	0.162008	0.473645	0	1976.028841	1977.02884	0.00000001	4.74E-03
167.078	0.161969523	0.1690414	0	0.16197	0.473645	0	1977.028841		0.00000001	4.74E-03
167.097	0.161701983	0.1690414	0	0.161702	0.473645	0	1977.028841	1978.02884	0.00000001	4.74E-03
167.1159	0.16187377	0.1690414	0	0.161874	0.473645	0	1978.028841		0.00000001	4.74E-03
167.1348	0.16202852	0.1690414	0	0.162029	0.473645	0	1978.028841	1979.02884	0.00000001	4.74E-03
167.1537	0.162206003	0.1690414	0	0.162206	0.473645	0	1979.028841		0.00000001	4.74E-03
167.1726	0.162368476	0.1690414	0	0.162368	0.473645	0	1979.028841	1980.02884	0.00000001	4.74E-03
167.1889	0.162636945	0.1690414	0	0.162637	0.473645	0	1980.028841		0.00000001	4.74E-03
167.2078	0.162666876	0.1690414	0	0.162667	0.473645	0	1980.028841	1981.02884	0.00000001	4.74E-03
167.2267	0.162716792	0.1690414	0	0.162717	0.473645	0	1981.028841		0.00000001	4.74E-03
167.2456	0.162751268	0.1690414	0	0.162751	0.473645	0	1981.028841	1982.02884	0.00000001	4.74E-03
167.2645	0.162530011	0.1690414	0	0.16253	0.473645	0	1982.028841		0.00000001	4.74E-03
167.2862	0.162585661	0.1690414	0	0.162586	0.473645	0	1982.028841	1983.02884	0.00000001	4.74E-03
167.3078	0.162642614	0.1690414	0	0.162643	0.473645	0	1983.028841		0.00000001	4.74E-03
167.3348	0.162778092	0.1690414	0	0.162778	0.473645	0	1983.028841	1984.02884	0.00000001	4.74E-03
167.3564	0.162685001	0.1690414	0	0.162685	0.473645	0	1984.028841		0.00000001	4.74E-03
167.3754	0.162982165	0.1690414	0	0.162982	0.473645	0	1984.028841	1985.02884	0.00000001	4.74E-03
167.3916	0.162940727	0.1690414	0	0.162941	0.473645	0	1985.028841		0.00000001	4.74E-03
167.4105	0.162817369	0.1690414	0	0.162817	0.473645	0	1985.028841	1986.02884	0.00000001	4.74E-03

167.4294	0.162625496	0.1690414	0	0.162625	0.473645	0	1986.028841		0.00000001	4.74E-03
167.4484	0.162565394	0.1690414	0	0.162565	0.473645	0	1986.028841	1987.02884	0.00000001	4.74E-03
167.4673	0.16228735	0.1690414	0	0.162287	0.473645	0	1987.028841		0.00000001	4.74E-03
167.4889	0.162034653	0.1690414	0	0.162035	0.473645	0	1987.028841	1988.02884	0.00000001	4.74E-03
167.5105	0.162129899	0.1690414	0	0.16213	0.473645	0	1988.028841		0.00000001	4.74E-03
167.5294	0.162192489	0.1690414	0	0.162192	0.473645	0	1988.028841	1989.02884	0.00000001	4.74E-03
167.5511	0.162278892	0.1690414	0	0.162279	0.473645	0	1989.028841		0.00000001	4.74E-03
167.57	0.162213544	0.1690414	0	0.162214	0.473645	0	1989.028841	1990.02884	0.00000001	4.74E-03
167.5916	0.1621821	0.1690414	0	0.162182	0.473645	0	1990.028841		0.00000001	4.74E-03
167.6078	0.162145311	0.1690414	0	0.162145	0.473645	0	1990.028841	1991.02884	0.00000001	4.74E-03
167.6268	0.16211301	0.1690414	0	0.162113	0.473645	0	1991.028841		0.00000001	4.74E-03
167.6457	0.161976375	0.1690414	0	0.161976	0.473645	0	1991.028841	1992.02884	0.00000001	4.74E-03
167.6619	0.161960265	0.1690414	0	0.16196	0.473645	0	1992.028841		0.00000001	4.74E-03
167.6781	0.161933756	0.1690414	0	0.161934	0.473645	0	1992.028841	1993.02884	0.00000001	4.74E-03
167.6943	0.16204462	0.1690414	0	0.162045	0.473645	0	1993.028841		0.00000001	4.74E-03
167.7133	0.162005247	0.1690414	0	0.162005	0.473645	0	1993.028841	1994.02884	0.00000001	4.74E-03
167.7295	0.162008943	0.1690414	0	0.162009	0.473645	0	1994.028841		0.00000001	4.74E-03
167.7457	0.161996678	0.1690414	0	0.161997	0.473645	0	1994.028841	1995.02884	0.00000001	4.74E-03
167.7619	0.161977544	0.1690414	0	0.161978	0.473645	0	1995.028841		0.00000001	4.74E-03
167.7781	0.16205599	0.1690414	0	0.162056	0.473645	0	1995.028841	1996.02884	0.00000001	4.74E-03
167.7943	0.162133872	0.1690414	0	0.162134	0.473645	0	1996.028841		0.00000001	4.74E-03
167.8106	0.162236173	0.1690414	0	0.162236	0.473645	0	1996.028841	1997.02884	0.00000001	4.74E-03
167.8268	0.162306753	0.1690414	0	0.162307	0.473645	0	1997.028841		0.00000001	4.74E-03
167.8457	0.162377683	0.1690414	0	0.162378	0.473645	0	1997.028841	1998.02884	0.00000001	4.74E-03
167.8619	0.162244217	0.1690414	0	0.162244	0.473645	0	1998.028841		0.00000001	4.74E-03
167.8808	0.162201153	0.1690414	0	0.162201	0.473645	0	1998.028841	1999.02884	0.00000001	4.74E-03
167.8998	0.16240227	0.1690414	0	0.162402	0.473645	0	1999.028841		0.00000001	4.74E-03
167.9187	0.162584885	0.1690414	0	0.162585	0.473645	0	1999.028841	2000.02884	0.00000001	4.74E-03
167.9376	0.1618626	0.1690414	0	0.161863	0.473645	0	2000.028841		0.00000001	4.74E-03
167.9565	0.161874589	0.1690414	0	0.161875	0.473645	0	2000.028841	2001.02884	0.00000001	4.74E-03
167.9754	0.162188132	0.1690414	0	0.162188	0.473645	0	2001.028841		0.00000001	4.74E-03
167.9944	0.162621654	0.1690414	0	0.162622	0.473645	0	2001.028841	2002.02884	0.00000001	4.74E-03
168.0106	0.162683036	0.1690414	0	0.162683	0.473645	0	2002.028841		0.00000001	4.74E-03
168.0295	0.162542221	0.1690414	0	0.162542	0.473645	0	2002.028841	2003.02884	0.00000001	4.74E-03
168.0457	0.162492881	0.1690414	0	0.162493	0.473645	0	2003.028841		0.00000001	4.74E-03
168.0646	0.162701407	0.1690414	0	0.162701	0.473645	0	2003.028841	2004.02884	0.00000001	4.74E-03
168.0809	0.162662408	0.1690414	0	0.162662	0.473645	0	2004.028841		0.00000001	4.74E-03
168.0971	0.162403769	0.1690414	0	0.162404	0.473645	0	2004.028841	2005.02884	0.00000001	4.74E-03
168.116	0.162268239	0.1690414	0	0.162268	0.473645	0	2005.028841		0.00000001	4.74E-03
168.1349	0.162254817	0.1690414	0	0.162255	0.473645	0	2005.028841	2006.02884	0.00000001	4.74E-03
168.1538	0.162101187	0.1690414	0	0.162101	0.473645	0	2006.028841		0.00000001	4.74E-03
168.1728	0.162090013	0.1690414	0	0.16209	0.473645	0	2006.028841	2007.02884	0.00000001	4.74E-03
168.1917	0.162191837	0.1690414	0	0.162192	0.473645	0	2007.028841		0.00000001	4.74E-03
168.2079	0.16207011	0.1690414	0	0.16207	0.473645	0	2007.028841	2008.02884	0.00000001	4.74E-03
168.2268	0.161944639	0.1690414	0	0.161945	0.473645	0	2008.028841		0.00000001	4.74E-03
168.2457	0.161744035	0.1690414	0	0.161744	0.473645	0	2008.028841	2009.02884	0.00000001	4.74E-03
168.262	0.161669077	0.1690414	0	0.161669	0.473645	0	2009.028841		0.00000001	4.74E-03
168.2809	0.161688281	0.1690414	0	0.161688	0.473645	0	2009.028841	2010.02884	0.00000001	4.74E-03
168.2971	0.161430853	0.1690414	0	0.161431	0.473645	0	2010.028841		0.00000001	4.74E-03
168.3187	0.161403394	0.1690414	0	0.161403	0.473645	0	2010.028841	2011.02884	0.00000001	4.74E-03
168.3349	0.160954524	0.1690414	0	0.160955	0.473645	0	2011.028841		0.00000001	4.74E-03
168.3512	0.161085633	0.1690414	0	0.161086	0.473645	0	2011.028841	2012.02884	0.00000001	4.74E-03
168.3701	0.161002905	0.1690414	0	0.161003	0.473645	0	2012.028841		0.00000001	4.74E-03
168.3917	0.161221057	0.1690414	0	0.161221	0.473645	0	2012.028841	2013.02884	0.00000001	4.74E-03
168.4079	0.161128972	0.1690414	0	0.161129	0.473645	0	2013.028841		0.00000001	4.74E-03
168.4241	0.161016862	0.1690414	0	0.161017	0.473645	0	2013.028841	2014.02884	0.00000001	4.74E-03
168.4404	0.161037646	0.1690414	0	0.161038	0.473645	0	2014.028841		0.00000001	4.74E-03
168.4593	0.161041282	0.1690414	0	0.161041	0.473645	0	2014.028841	2015.02884	0.00000001	4.74E-03
168.4755	0.160824928	0.1690414	0	0.160825	0.473645	0	2015.028841		0.00000001	4.74E-03
168.4944	0.160397187	0.1690414	0	0.160397	0.473645	0	2015.028841	2016.02884	0.00000001	4.74E-03
168.5133	0.160211532	0.1690414	0	0.160212	0.473645	0	2016.028841		0.00000001	4.74E-03
168.5323	0.160258833	0.1690414	0	0.160259	0.473645	0	2016.028841	2017.02884	0.00000001	4.74E-03
168.5512	0.160198323	0.1690414	0	0.160198	0.473645	0	2017.028841		0.00000001	4.74E-03
168.5674	0.16014019	0.1690414	0	0.16014	0.473645	0	2017.028841	2018.02884	0.00000001	4.74E-03
168.5863	0.160200802	0.1690414	0	0.160201	0.473645	0	2018.028841		0.00000001	4.74E-03
168.6025	0.160566212	0.1690414	0	0.160566	0.473645	0	2018.028841	2019.02884	0.00000001	4.74E-03
168.6215	0.160801547	0.1690414	0	0.160802	0.473645	0	2019.028841		0.00000001	4.74E-03
168.6377	0.160590477	0.1690414	0	0.16059	0.473645	0	2019.028841	2020.02884	0.00000001	4.74E-03
168.6566	0.160401159	0.1690414	0	0.160401	0.473645	0	2020.028841		0.00000001	4.74E-03
168.6728	0.160385059	0.1690414	0	0.160385	0.473645	0	2020.028841	2021.02884	0.00000001	4.74E-03
168.6917	0.16052811	0.1690414	0	0.160528	0.473645	0	2021.028841		0.00000001	4.74E-03
168.7107	0.16040964	0.1690414	0	0.16041	0.473645	0	2021.028841	2022.02884	0.00000001	4.74E-03
168.7296	0.160610178	0.1690414	0	0.16061	0.473645	0	2022.028841		0.00000001	4.74E-03
168.7458	0.160629989	0.1690414	0	0.16063	0.473645	0	2022.028841	2023.02884	0.00000001	4.74E-03

168.7647	0.160756685	0.1690414	0	0.160757	0.473645	0	2023.028841		0.00000001	4.74E-03
168.7809	0.160901096	0.1690414	0	0.160901	0.473645	0	2023.028841	2024.02884	0.00000001	4.74E-03
168.7999	0.1611389	0.1690414	0	0.161139	0.473645	0	2024.028841		0.00000001	4.74E-03
168.8161	0.161611986	0.1690414	0	0.161612	0.473645	0	2024.028841	2025.02884	0.00000001	4.74E-03
168.8323	0.161952916	0.1690414	0	0.161953	0.473645	0	2025.028841		0.00000001	4.74E-03
168.8512	0.162070401	0.1690414	0	0.16207	0.473645	0	2025.028841	2026.02884	0.00000001	4.74E-03
168.8647	0.162177685	0.1690414	0	0.162178	0.473645	0	2026.028841		0.00000001	4.74E-03
168.8837	0.162293764	0.1690414	0	0.162294	0.473645	0	2026.028841	2027.02884	0.00000001	4.74E-03
168.9026	0.162268478	0.1690414	0	0.162268	0.473645	0	2027.028841		0.00000001	4.74E-03
168.9215	0.162130022	0.1690414	0	0.16213	0.473645	0	2027.028841	2028.02884	0.00000001	4.74E-03
168.9296	0.162130022	0.1690414	0	0.16213	0.473645	0	2028.028841		0.00000001	4.74E-03
168.9458	0.162205547	0.1690414	0	0.162206	0.473645	0	2028.028841	2029.02884	0.00000001	4.74E-03
168.9648	0.162507321	0.1690414	0	0.162507	0.473645	0	2029.028841		0.00000001	4.74E-03
168.9864	0.162772479	0.1690414	0	0.162772	0.473645	0	2029.028841	2030.02884	0.00000001	4.74E-03
169.008	0.16314743	0.1690414	0	0.163147	0.473645	0	2030.028841		0.00000001	4.74E-03
169.0242	0.163484444	0.1690414	0	0.163484	0.473645	0	2030.028841	2031.02884	0.00000001	4.74E-03
169.0404	0.163540019	0.1690414	0	0.16354	0.473645	0	2031.028841		0.00000001	4.74E-03
169.0594	0.163572853	0.1690414	0	0.163573	0.473645	0	2031.028841	2032.02884	0.00000001	4.74E-03
169.081	0.163726284	0.1690414	0	0.163726	0.473645	0	2032.028841		0.00000001	4.74E-03
169.0945	0.163566761	0.1690414	0	0.163567	0.473645	0	2032.028841	2033.02884	0.00000001	4.74E-03
169.1107	0.163351909	0.1690414	0	0.163352	0.473645	0	2033.028841		0.00000001	4.74E-03
169.1269	0.163060961	0.1690414	0	0.163061	0.473645	0	2033.028841	2034.02884	0.00000001	4.74E-03
169.1459	0.162979525	0.1690414	0	0.16298	0.473645	0	2034.028841		0.00000001	4.74E-03
169.1594	0.163019998	0.1690414	0	0.16302	0.473645	0	2034.028841	2035.02884	0.00000001	4.74E-03
169.1783	0.162956803	0.1690414	0	0.162957	0.473645	0	2035.028841		0.00000001	4.74E-03
169.1945	0.162783489	0.1690414	0	0.162783	0.473645	0	2035.028841	2036.02884	0.00000001	4.74E-03
169.2107	0.162603417	0.1690414	0	0.162603	0.473645	0	2036.028841		0.00000001	4.74E-03
169.2269	0.162440505	0.1690414	0	0.162441	0.473645	0	2036.028841	2037.02884	0.00000001	4.74E-03
169.2432	0.162362316	0.1690414	0	0.162362	0.473645	0	2037.028841		0.00000001	4.74E-03
169.2594	0.162431694	0.1690414	0	0.162432	0.473645	0	2037.028841	2038.02884	0.00000001	4.74E-03
169.2756	0.162497982	0.1690414	0	0.162498	0.473645	0	2038.028841		0.00000001	4.74E-03
169.2972	0.16234752	0.1690414	0	0.162348	0.473645	0	2038.028841	2039.02884	0.00000001	4.74E-03
169.3161	0.162396252	0.1690414	0	0.162396	0.473645	0	2039.028841		0.00000001	4.74E-03
169.3351	0.162740292	0.1690414	0	0.16274	0.473645	0	2039.028841	2040.02884	0.00000001	4.74E-03
169.354	0.163026476	0.1690414	0	0.163026	0.473645	0	2040.028841		0.00000001	4.74E-03
169.3702	0.162970847	0.1690414	0	0.162971	0.473645	0	2040.028841	2041.02884	0.00000001	4.74E-03
169.3891	0.163110774	0.1690414	0	0.163111	0.473645	0	2041.028841		0.00000001	4.74E-03
169.4053	0.163094159	0.1690414	0	0.163094	0.473645	0	2041.028841	2042.02884	0.00000001	4.74E-03
169.4216	0.16326326	0.1690414	0	0.163263	0.473645	0	2042.028841		0.00000001	4.74E-03
169.4378	0.1634098	0.1690414	0	0.16341	0.473645	0	2042.028841	2043.02884	0.00000001	4.74E-03
169.4567	0.163373575	0.1690414	0	0.163374	0.473645	0	2043.028841		0.00000001	4.74E-03
169.4729	0.163299494	0.1690414	0	0.163299	0.473645	0	2043.028841	2044.02884	0.00000001	4.74E-03
169.4891	0.163203854	0.1690414	0	0.163204	0.473645	0	2044.028841		0.00000001	4.74E-03
169.5027	0.163119558	0.1690414	0	0.16312	0.473645	0	2044.028841	2045.02884	0.00000001	4.74E-03
169.5216	0.162723803	0.1690414	0	0.162724	0.473645	0	2045.028841		0.00000001	4.74E-03
169.5405	0.162665687	0.1690414	0	0.162666	0.473645	0	2045.028841	2046.02884	0.00000001	4.74E-03
169.5567	0.162718918	0.1690414	0	0.162719	0.473645	0	2046.028841		0.00000001	4.74E-03
169.5729	0.162771161	0.1690414	0	0.162771	0.473645	0	2046.028841	2047.02884	0.00000001	4.74E-03
169.5946	0.162363151	0.1690414	0	0.162363	0.473645	0	2047.028841		0.00000001	4.74E-03
169.6162	0.161835825	0.1690414	0	0.161836	0.473645	0	2047.028841	2048.02884	0.00000001	4.74E-03
169.6324	0.162168608	0.1690414	0	0.162169	0.473645	0	2048.028841		0.00000001	4.74E-03
169.6459	0.162190854	0.1690414	0	0.162191	0.473645	0	2048.028841	2049.02884	0.00000001	4.74E-03
169.6594	0.162501357	0.1690414	0	0.162501	0.473645	0	2049.028841		0.00000001	4.74E-03
169.6757	0.162688487	0.1690414	0	0.162688	0.473645	0	2049.028841	2050.02884	0.00000001	4.74E-03
169.6919	0.162952666	0.1690414	0	0.162953	0.473645	0	2050.028841		0.00000001	4.74E-03
169.7054	0.162952666	0.1690414	0	0.162953	0.473645	0	2050.028841	2051.02884	0.00000001	4.74E-03
169.7243	0.163355306	0.1690414	0	0.163355	0.473645	0	2051.028841		0.00000001	4.74E-03
169.7378	0.163615834	0.1690414	0	0.163616	0.473645	0	2051.028841	2052.02884	0.00000001	4.74E-03
169.754	0.163652729	0.1690414	0	0.163653	0.473645	0	2052.028841		0.00000001	4.74E-03
169.7703	0.163796542	0.1690414	0	0.163797	0.473645	0	2052.028841	2053.02884	0.00000001	4.74E-03
169.7865	0.163825134	0.1690414	0	0.163825	0.473645	0	2053.028841		0.00000001	4.74E-03
169.8054	0.163970502	0.1690414	0	0.163971	0.473645	0	2053.028841	2054.02884	0.00000001	4.74E-03
169.827	0.163892329	0.1690414	0	0.163892	0.473645	0	2054.028841		0.00000001	4.74E-03
169.8459	0.163837197	0.1690414	0	0.163837	0.473645	0	2054.028841	2055.02884	0.00000001	4.74E-03
169.8622	0.163886422	0.1690414	0	0.163886	0.473645	0	2055.028841		0.00000001	4.74E-03
169.8811	0.16371109	0.1690414	0	0.163711	0.473645	0	2055.028841	2056.02884	0.00000001	4.74E-03
169.9	0.163284618	0.1690414	0	0.163285	0.473645	0	2056.028841		0.00000001	4.74E-03
169.9162	0.16316649	0.1690414	0	0.163166	0.473645	0	2056.028841	2057.02884	0.00000001	4.74E-03
169.9324	0.163761454	0.1690414	0	0.163761	0.473645	0	2057.028841		0.00000001	4.74E-03
169.9541	0.163440783	0.1690414	0	0.163441	0.473645	0	2057.028841	2058.02884	0.00000001	4.74E-03
169.9757	0.162554951	0.1690414	0	0.162555	0.473645	0	2058.028841		0.00000001	4.74E-03
169.9973	0.161957541	0.1690414	0	0.161958	0.473645	0	2058.028841	2059.02884	0.00000001	4.74E-03
170.0189	0.161956503	0.1690414	0	0.161957	0.473645	0	2059.028841		0.00000001	4.74E-03
170.0406	0.162621261	0.1690414	0	0.162621	0.473645	0	2059.028841	2060.02884	0.00000001	4.74E-03

170.0568	0.162621261	0.1690414	0	0.162621	0.473645	0	2060.028841		0.00000001	4.74E-03
170.0757	0.162079928	0.1690414	0	0.16208	0.473645	0	2060.028841	2061.02884	0.00000001	4.74E-03
170.0919	0.161838502	0.1690414	0	0.161839	0.473645	0	2061.028841		0.00000001	4.74E-03
170.1081	0.162033704	0.1690414	0	0.162034	0.473645	0	2061.028841	2062.02884	0.00000001	4.74E-03
170.1217	0.162014155	0.1690414	0	0.162014	0.473645	0	2062.028841		0.00000001	4.74E-03
170.1379	0.161894652	0.1690414	0	0.161895	0.473645	0	2062.028841	2063.02884	0.00000001	4.74E-03
170.1568	0.162007329	0.1690414	0	0.162007	0.473645	0	2063.028841		0.00000001	4.74E-03
170.1757	0.162203309	0.1690414	0	0.162203	0.473645	0	2063.028841	2064.02884	0.00000001	4.74E-03
170.1919	0.162785434	0.1690414	0	0.162785	0.473645	0	2064.028841		0.00000001	4.74E-03
170.2054	0.162866498	0.1690414	0	0.162866	0.473645	0	2064.028841	2065.02884	0.00000001	4.74E-03
170.2217	0.16360577	0.1690414	0	0.163606	0.473645	0	2065.028841		0.00000001	4.74E-03
170.2379	0.163878631	0.1690414	0	0.163879	0.473645	0	2065.028841	2066.02884	0.00000001	4.74E-03
170.2541	0.164037823	0.1690414	0	0.164038	0.473645	0	2066.028841		0.00000001	4.74E-03
170.273	0.164321024	0.1690414	0	0.164321	0.473645	0	2066.028841	2067.02884	0.00000001	4.74E-03
170.2892	0.164240831	0.1690414	0	0.164241	0.473645	0	2067.028841		0.00000001	4.74E-03
170.3055	0.163931355	0.1690414	0	0.163931	0.473645	0	2067.028841	2068.02884	0.00000001	4.74E-03
170.3244	0.163912918	0.1690414	0	0.163913	0.473645	0	2068.028841		0.00000001	4.74E-03
170.346	0.164007358	0.1690414	0	0.164007	0.473645	0	2068.028841	2069.02884	0.00000001	4.74E-03
170.3649	0.164208957	0.1690414	0	0.164209	0.473645	0	2069.028841		0.00000001	4.74E-03
170.3838	0.164194201	0.1690414	0	0.164194	0.473645	0	2069.028841	2070.02884	0.00000001	4.74E-03
170.4028	0.16380288	0.1690414	0	0.163803	0.473645	0	2070.028841		0.00000001	4.74E-03
170.419	0.163742894	0.1690414	0	0.163743	0.473645	0	2070.028841	2071.02884	0.00000001	4.74E-03
170.4379	0.163805002	0.1690414	0	0.163805	0.473645	0	2071.028841		0.00000001	4.74E-03
170.4541	0.163976519	0.1690414	0	0.163977	0.473645	0	2071.028841	2072.02884	0.00000001	4.74E-03
170.4703	0.164177492	0.1690414	0	0.164177	0.473645	0	2072.028841		0.00000001	4.74E-03
170.4866	0.164416285	0.1690414	0	0.164416	0.473645	0	2072.028841	2073.02884	0.00000001	4.74E-03
170.5028	0.164730111	0.1690414	0	0.16473	0.473645	0	2073.028841		0.00000001	4.74E-03
170.5163	0.164885401	0.1690414	0	0.164885	0.473645	0	2073.028841	2074.02884	0.00000001	4.74E-03
170.5352	0.164911269	0.1690414	0	0.164911	0.473645	0	2074.028841		0.00000001	4.74E-03
170.5514	0.165032271	0.1690414	0	0.165032	0.473645	0	2074.028841	2075.02884	0.00000001	4.74E-03
170.5704	0.165168426	0.1690414	0	0.165168	0.473645	0	2075.028841		0.00000001	4.74E-03
170.5866	0.164965523	0.1690414	0	0.164966	0.473645	0	2075.028841	2076.02884	0.00000001	4.74E-03
170.5947	0.164332496	0.1690414	0	0.164332	0.473645	0	2076.028841		0.00000001	4.74E-03
170.6082	0.164162925	0.1690414	0	0.164163	0.473645	0	2076.028841	2077.02884	0.00000001	4.74E-03
170.6271	0.163890721	0.1690414	0	0.163891	0.473645	0	2077.028841		0.00000001	4.74E-03
170.6487	0.164150363	0.1690414	0	0.16415	0.473645	0	2077.028841	2078.02884	0.00000001	4.74E-03
170.6677	0.163649721	0.1690414	0	0.16365	0.473645	0	2078.028841		0.00000001	4.74E-03
170.6866	0.162810531	0.1690414	0	0.162811	0.473645	0	2078.028841	2079.02884	0.00000001	4.74E-03
170.7109	0.162575575	0.1690414	0	0.162576	0.473645	0	2079.028841		0.00000001	4.74E-03
170.7325	0.162593195	0.1690414	0	0.162593	0.473645	0	2079.028841	2080.02884	0.00000001	4.74E-03
170.7515	0.162436879	0.1690414	0	0.162437	0.473645	0	2080.028841		0.00000001	4.74E-03
170.7677	0.162211685	0.1690414	0	0.162212	0.473645	0	2080.028841	2081.02884	0.00000001	4.74E-03
170.7893	0.161896861	0.1690414	0	0.161897	0.473645	0	2081.028841		0.00000001	4.74E-03
170.8055	0.161723968	0.1690414	0	0.161724	0.473645	0	2081.028841	2082.02884	0.00000001	4.74E-03
170.8217	0.16184347	0.1690414	0	0.161843	0.473645	0	2082.028841		0.00000001	4.74E-03
170.838	0.161316569	0.1690414	0	0.161317	0.473645	0	2082.028841	2083.02884	0.00000001	4.74E-03
170.8542	0.160890946	0.1690414	0	0.160891	0.473645	0	2083.028841		0.00000001	4.74E-03
170.8704	0.160412677	0.1690414	0	0.160413	0.473645	0	2083.028841	2084.02884	0.00000001	4.74E-03
170.8812	0.159917173	0.1690414	0	0.159917	0.473645	0	2084.028841		0.00000001	4.74E-03
170.8974	0.159863552	0.1690414	0	0.159864	0.473645	0	2084.028841	2085.02884	0.00000001	4.74E-03
170.9136	0.160109242	0.1690414	0	0.160109	0.473645	0	2085.028841		0.00000001	4.74E-03
170.9299	0.160334157	0.1690414	0	0.160334	0.473645	0	2085.028841	2086.02884	0.00000001	4.74E-03
170.9434	0.160362125	0.1690414	0	0.160362	0.473645	0	2086.028841		0.00000001	4.74E-03
170.9569	0.160008457	0.1690414	0	0.160008	0.473645	0	2086.028841	2087.02884	0.00000001	4.74E-03
170.9704	0.160531037	0.1690414	0	0.160531	0.473645	0	2087.028841		0.00000001	4.74E-03
170.9812	0.163011893	0.1690414	0	0.163012	0.473645	0	2087.028841	2088.02884	0.00000001	4.74E-03
170.9974	0.162721933	0.1690414	0	0.162722	0.473645	0	2088.028841		0.00000001	4.74E-03
171.0137	0.162721933	0.1690414	0	0.162722	0.473645	0	2088.028841	2089.02884	0.00000001	4.74E-03
171.0326	0.162447838	0.1690414	0	0.162448	0.473645	0	2089.028841		0.00000001	4.74E-03
171.0596	0.165117627	0.1690414	0	0.165118	0.473645	0	2089.028841	2090.02884	0.00000001	4.74E-03
171.0704	0.165117627	0.1690414	0	0.165118	0.473645	0	2090.028841		0.00000001	4.74E-03
171.0812	0.16520839	0.1690414	0	0.165208	0.473645	0	2090.028841	2091.02884	0.00000001	4.74E-03
171.0974	0.165163461	0.1690414	0	0.165163	0.473645	0	2091.028841		0.00000001	4.74E-03
171.1137	0.16521122	0.1690414	0	0.165211	0.473645	0	2091.028841	2092.02884	0.00000001	4.74E-03
171.1272	0.165267714	0.1690414	0	0.165268	0.473645	0	2092.028841		0.00000001	4.74E-03
171.1434	0.164997372	0.1690414	0	0.164997	0.473645	0	2092.028841	2093.02884	0.00000001	4.74E-03
171.1596	0.164245992	0.1690414	0	0.164246	0.473645	0	2093.028841		0.00000001	4.74E-03
171.1785	0.164003976	0.1690414	0	0.164004	0.473645	0	2093.028841	2094.02884	0.00000001	4.74E-03
171.2056	0.164299897	0.1690414	0	0.1643	0.473645	0	2094.028841		0.00000001	4.74E-03
171.2272	0.164633552	0.1690414	0	0.164634	0.473645	0	2094.028841	2095.02884	0.00000001	4.74E-03
171.2434	0.165722093	0.1690414	0	0.165722	0.473645	0	2095.028841		0.00000001	4.74E-03
171.2623	0.165726623	0.1690414	0	0.165727	0.473645	0	2095.028841	2096.02884	0.00000001	4.74E-03
171.2813	0.16663477	0.1690414	0	0.166635	0.473645	0	2096.028841		0.00000001	4.74E-03
171.2975	0.166965679	0.1690414	0	0.166966	0.473645	0	2096.028841	2097.02884	0.00000001	4.74E-03

171.3137	0.166957322	0.1690414	0	0.166957	0.473645	0	2097.028841		0.00000001	4.74E-03
171.3326	0.166606105	0.1690414	0	0.166606	0.473645	0	2097.028841	2098.02884	0.00000001	4.74E-03
171.3515	0.166171036	0.1690414	0	0.166171	0.473645	0	2098.028841		0.00000001	4.74E-03
171.3705	0.165753802	0.1690414	0	0.165754	0.473645	0	2098.028841	2099.02884	0.00000001	4.74E-03
171.384	0.165346301	0.1690414	0	0.165346	0.473645	0	2099.028841		0.00000001	4.74E-03
171.3975	0.165054971	0.1690414	0	0.165055	0.473645	0	2099.028841	2100.02884	0.00000001	4.74E-03
171.4137	0.164862344	0.1690414	0	0.164862	0.473645	0	2100.028841		0.00000001	4.74E-03
171.4272	0.164707515	0.1690414	0	0.164708	0.473645	0	2100.028841	2101.02884	0.00000001	4.74E-03
171.4461	0.164552164	0.1690414	0	0.164552	0.473645	0	2101.028841		0.00000001	4.74E-03
171.4651	0.163965469	0.1690414	0	0.163965	0.473645	0	2101.028841	2102.02884	0.00000001	4.74E-03
171.484	0.163876771	0.1690414	0	0.163877	0.473645	0	2102.028841		0.00000001	4.74E-03
171.5029	0.163912573	0.1690414	0	0.163913	0.473645	0	2102.028841	2103.02884	0.00000001	4.74E-03
171.5218	0.164138257	0.1690414	0	0.164138	0.473645	0	2103.028841		0.00000001	4.74E-03
171.5407	0.165378667	0.1690414	0	0.165379	0.473645	0	2103.028841	2104.02884	0.00000001	4.74E-03
171.5597	0.165380793	0.1690414	0	0.165381	0.473645	0	2104.028841		0.00000001	4.74E-03
171.5759	0.166656839	0.1690414	0	0.166657	0.473645	0	2104.028841	2105.02884	0.00000001	4.74E-03
171.5921	0.167106325	0.1690414	0	0.167106	0.473645	0	2105.028841		0.00000001	4.74E-03
171.6029	0.167818488	0.1690414	0	0.167818	0.473645	0	2105.028841	2106.02884	0.00000001	4.74E-03
171.6218	0.167751372	0.1690414	0	0.167751	0.473645	0	2106.028841		0.00000001	4.74E-03
171.6326	0.167242612	0.1690414	0	0.167243	0.473645	0	2106.028841	2107.02884	0.00000001	4.74E-03
171.6489	0.166659267	0.1690414	0	0.166659	0.473645	0	2107.028841		0.00000001	4.74E-03
171.6597	0.166236071	0.1690414	0	0.166236	0.473645	0	2107.028841	2108.02884	0.00000001	4.74E-03
171.6705	0.165697027	0.1690414	0	0.165697	0.473645	0	2108.028841		0.00000001	4.74E-03
171.6813	0.165697027	0.1690414	0	0.165697	0.473645	0	2108.028841	2109.02884	0.00000001	4.74E-03
171.6921	0.164979355	0.1690414	0	0.164979	0.473645	0	2109.028841		0.00000001	4.74E-03
171.7056	0.164611372	0.1690414	0	0.164611	0.473645	0	2109.028841	2110.02884	0.00000001	4.74E-03
171.7191	0.16403054	0.1690414	0	0.164031	0.473645	0	2110.028841		0.00000001	4.74E-03
171.7354	0.163798509	0.1690414	0	0.163799	0.473645	0	2110.028841	2111.02884	0.00000001	4.74E-03
171.7489	0.163686134	0.1690414	0	0.163686	0.473645	0	2111.028841		0.00000001	4.74E-03
171.7597	0.163678574	0.1690414	0	0.163679	0.473645	0	2111.028841	2112.02884	0.00000001	4.74E-03
171.7732	0.163665144	0.1690414	0	0.163665	0.473645	0	2112.028841		0.00000001	4.74E-03
171.7867	0.163665144	0.1690414	0	0.163665	0.473645	0	2112.028841	2113.02884	0.00000001	4.74E-03
171.8002	0.163545643	0.1690414	0	0.163546	0.473645	0	2113.028841		0.00000001	4.74E-03
171.8192	0.163077279	0.1690414	0	0.163077	0.473645	0	2113.028841	2114.02884	0.00000001	4.74E-03
171.8327	0.162963287	0.1690414	0	0.162963	0.473645	0	2114.028841		0.00000001	4.74E-03
171.8435	0.162838759	0.1690414	0	0.162839	0.473645	0	2114.028841	2115.02884	0.00000001	4.74E-03
171.8543	0.162903025	0.1690414	0	0.162903	0.473645	0	2115.028841		0.00000001	4.74E-03
171.8678	0.16282653	0.1690414	0	0.162827	0.473645	0	2115.028841	2116.02884	0.00000001	4.74E-03
171.8786	0.162997267	0.1690414	0	0.162997	0.473645	0	2116.028841		0.00000001	4.74E-03
171.8894	0.16306696	0.1690414	0	0.163067	0.473645	0	2116.028841	2117.02884	0.00000001	4.74E-03
171.9057	0.162797381	0.1690414	0	0.162797	0.473645	0	2117.028841		0.00000001	4.74E-03
171.9246	0.162374525	0.1690414	0	0.162375	0.473645	0	2117.028841	2118.02884	0.00000001	4.74E-03
171.9381	0.162370641	0.1690414	0	0.162371	0.473645	0	2118.028841		0.00000001	4.74E-03
171.957	0.162741662	0.1690414	0	0.162742	0.473645	0	2118.028841	2119.02884	0.00000001	4.74E-03
171.9786	0.162777109	0.1690414	0	0.162777	0.473645	0	2119.028841		0.00000001	4.74E-03
172.0489	0.162404819	0.1690414	0	0.162405	0.473645	0	2119.028841	2120.02884	0.00000001	4.74E-03
172.0732	0.163352945	0.1690414	0	0.163353	0.473645	0	2120.028841		0.00000001	4.74E-03
172.0868	0.163601181	0.1690414	0	0.163601	0.473645	0	2120.028841	2121.02884	0.00000001	4.74E-03
172.103	0.164384685	0.1690414	0	0.164385	0.473645	0	2121.028841		0.00000001	4.74E-03
172.1165	0.164511302	0.1690414	0	0.164511	0.473645	0	2121.028841	2122.02884	0.00000001	4.74E-03
172.1327	0.165541603	0.1690414	0	0.165542	0.473645	0	2122.028841		0.00000001	4.74E-03
172.1435	0.165560096	0.1690414	0	0.16556	0.473645	0	2122.028841	2123.02884	0.00000001	4.74E-03
172.157	0.165961621	0.1690414	0	0.165962	0.473645	0	2123.028841		0.00000001	4.74E-03
172.1706	0.16604015	0.1690414	0	0.16604	0.473645	0	2123.028841	2124.02884	0.00000001	4.74E-03
172.1841	0.165476843	0.1690414	0	0.165477	0.473645	0	2124.028841		0.00000001	4.74E-03
172.2003	0.165785201	0.1690414	0	0.165785	0.473645	0	2124.028841	2125.02884	0.00000001	4.74E-03
172.2165	0.165558384	0.1690414	0	0.165558	0.473645	0	2125.028841		0.00000001	4.74E-03
172.2381	0.166187505	0.1690414	0	0.166188	0.473645	0	2125.028841	2126.02884	0.00000001	4.74E-03
172.2733	0.166860003	0.1690414	0	0.16686	0.473645	0	2126.028841		0.00000001	4.74E-03
172.2949	0.166973846	0.1690414	0	0.166974	0.473645	0	2126.028841	2127.02884	0.00000001	4.74E-03
172.3138	0.16684702	0.1690414	0	0.166847	0.473645	0	2127.028841		0.00000001	4.74E-03
172.33	0.16684237	0.1690414	0	0.166842	0.473645	0	2127.028841	2128.02884	0.00000001	4.74E-03
172.3462	0.166559232	0.1690414	0	0.166559	0.473645	0	2128.028841		0.00000001	4.74E-03
172.3598	0.166267038	0.1690414	0	0.166267	0.473645	0	2128.028841	2129.02884	0.00000001	4.74E-03
172.3733	0.166079564	0.1690414	0	0.16608	0.473645	0	2129.028841		0.00000001	4.74E-03
172.3868	0.166126196	0.1690414	0	0.166126	0.473645	0	2129.028841	2130.02884	0.00000001	4.74E-03
172.4003	0.166263819	0.1690414	0	0.166264	0.473645	0	2130.028841		0.00000001	4.74E-03
172.4165	0.166335369	0.1690414	0	0.166335	0.473645	0	2130.028841	2131.02884	0.00000001	4.74E-03
172.43	0.166269742	0.1690414	0	0.16627	0.473645	0	2131.028841		0.00000001	4.74E-03
172.4463	0.166123053	0.1690414	0	0.166123	0.473645	0	2131.028841	2132.02884	0.00000001	4.74E-03
172.4571	0.166002788	0.1690414	0	0.166003	0.473645	0	2132.028841		0.00000001	4.74E-03
172.4679	0.165505258	0.1690414	0	0.165505	0.473645	0	2132.028841	2133.02884	0.00000001	4.74E-03
172.4841	0.165092876	0.1690414	0	0.165093	0.473645	0	2133.028841		0.00000001	4.74E-03
172.4976	0.164812202	0.1690414	0	0.164812	0.473645	0	2133.028841	2134.02884	0.00000001	4.74E-03

172.5111	0.164503092	0.1690414	0	0.164503	0.473645	0	2134.028841		0.00000001	4.74E-03
172.5328	0.164337851	0.1690414	0	0.164338	0.473645	0	2134.028841	2135.02884	0.00000001	4.74E-03
172.5733	0.164809192	0.1690414	0	0.164809	0.473645	0	2135.028841		0.00000001	4.74E-03
172.5976	0.165963966	0.1690414	0	0.165964	0.473645	0	2135.028841	2136.02884	0.00000001	4.74E-03
172.6138	0.166141414	0.1690414	0	0.166141	0.473645	0	2136.028841		0.00000001	4.74E-03
172.6301	0.166913896	0.1690414	0	0.166914	0.473645	0	2136.028841	2137.02884	0.00000001	4.74E-03
172.6436	0.167200257	0.1690414	0	0.1672	0.473645	0	2137.028841		0.00000001	4.74E-03
172.6571	0.16752522	0.1690414	0	0.167525	0.473645	0	2137.028841	2138.02884	0.00000001	4.74E-03
172.6679	0.16784968	0.1690414	0	0.16785	0.473645	0	2138.028841		0.00000001	4.74E-03
172.6814	0.168633726	0.1690414	0	0.168634	0.473645	0	2138.028841	2139.02884	0.00000001	4.74E-03
172.6922	0.168980046	0.1690414	0	0.16898	0.473645	0	2139.028841		0.00000001	4.74E-03
172.7058	0.169041409	0.1690414	0	0.169041	0.473645	0	2139.028841	2140.02884	0.00000001	4.74E-03
172.722	0.168862181	0.1688993	0.000398049	0.168862	0.473645	0	2140.028841		0.00000001	4.74E-03
172.7382	0.168587801	0.1688993	0	0.168588	0.473247	0	2140.028841	2141.02884	0.00000001	4.73E-03
172.7517	0.168551476	0.1688993	0	0.168551	0.473247	0	2141.028841		0.00000001	4.73E-03
172.7706	0.168513241	0.1688993	0	0.168513	0.473247	0	2141.028841	2142.02884	0.00000001	4.73E-03
172.7868	0.168899347	0.1688993	0	0.168899	0.473247	0	2142.028841		0.00000001	4.73E-03
172.8031	0.168217977	0.168218	0.001909163	0.168218	0.473247	0	2142.028841	2143.02884	0.00000001	4.73E-03
172.8139	0.167566743	0.1677014	0.001447553	0.167567	0.471338	0	2143.028841		0.00000001	4.71E-03
172.8274	0.167094537	0.1677014	0	0.167095	0.46989	0	2143.028841	2144.02884	0.00000001	4.70E-03
172.8409	0.167110567	0.1677014	0	0.167111	0.46989	0	2144.028841		0.00000001	4.70E-03
172.8544	0.167600888	0.1677014	0	0.167601	0.46989	0	2144.028841	2145.02884	0.00000001	4.70E-03
172.8706	0.167701354	0.1677014	0	0.167701	0.46989	0	2145.028841		0.00000001	4.70E-03
172.8842	0.167691513	0.1676953	1.70442E-05	0.167692	0.46989	0	2145.028841	2146.02884	0.00000001	4.70E-03
172.8977	0.167318847	0.1676953	0	0.167319	0.469873	0	2146.028841		0.00000001	4.70E-03
172.9085	0.166596784	0.1676953	0	0.166597	0.469873	0	2146.028841	2147.02884	0.00000001	4.70E-03
172.922	0.166250075	0.1676953	0	0.16625	0.469873	0	2147.028841		0.00000001	4.70E-03
172.9355	0.166163715	0.1676953	0	0.166164	0.469873	0	2147.028841	2148.02884	0.00000001	4.70E-03
172.949	0.166293677	0.1676953	0	0.166294	0.469873	0	2148.028841		0.00000001	4.70E-03
172.9625	0.165684588	0.1676953	0	0.165685	0.469873	0	2148.028841	2149.02884	0.00000001	4.70E-03
172.9761	0.165099316	0.1676953	0	0.165099	0.469873	0	2149.028841		0.00000001	4.70E-03
172.9896	0.161119777	0.1676953	0	0.16112	0.469873	0	2149.028841	2150.02884	0.00000001	4.70E-03
173.0031	0.160640821	0.1676953	0	0.160641	0.469873	0	2150.028841		0.00000001	4.70E-03
173.0193	0.159739358	0.1676953	0	0.159739	0.469873	0	2150.028841	2151.02884	0.00000001	4.70E-03
173.0355	0.159325979	0.1676953	0	0.159326	0.469873	0	2151.028841		0.00000001	4.70E-03
173.0517	0.156461177	0.1676953	0	0.156461	0.469873	0	2151.028841	2152.02884	0.00000001	4.70E-03
173.0707	0.156216885	0.1676953	0	0.156217	0.469873	0	2152.028841		0.00000001	4.70E-03
173.0923	0.156036004	0.1676953	0	0.156036	0.469873	0	2152.028841	2153.02884	0.00000001	4.70E-03
173.1193	0.156468336	0.1676953	0	0.156468	0.469873	0	2153.028841		0.00000001	4.70E-03
173.1463	0.157755933	0.1676953	0	0.157756	0.469873	0	2153.028841	2154.02884	0.00000001	4.70E-03
173.1626	0.15890429	0.1676953	0	0.158904	0.469873	0	2154.028841		0.00000001	4.70E-03
173.1842	0.160777843	0.1676953	0	0.160778	0.469873	0	2154.028841	2155.02884	0.00000001	4.70E-03
173.2031	0.160759195	0.1676953	0	0.160759	0.469873	0	2155.028841		0.00000001	4.70E-03
173.2274	0.164082086	0.1676953	0	0.164082	0.469873	0	2155.028841	2156.02884	0.00000001	4.70E-03
173.2572	0.163106545	0.1676953	0	0.163107	0.469873	0	2156.028841		0.00000001	4.70E-03
173.2842	0.16218863	0.1676953	0	0.162189	0.469873	0	2156.028841	2157.02884	0.00000001	4.70E-03
173.2977	0.164744635	0.1676953	0	0.164745	0.469873	0	2157.028841		0.00000001	4.70E-03
173.3166	0.164737564	0.1676953	0	0.164738	0.469873	0	2157.028841	2158.02884	0.00000001	4.70E-03
173.3329	0.165416058	0.1676953	0	0.165416	0.469873	0	2158.028841		0.00000001	4.70E-03
173.3491	0.165707423	0.1676953	0	0.165707	0.469873	0	2158.028841	2159.02884	0.00000001	4.70E-03
173.3653	0.166003046	0.1676953	0	0.166003	0.469873	0	2159.028841		0.00000001	4.70E-03
173.3788	0.166505845	0.1676953	0	0.166506	0.469873	0	2159.028841	2160.02884	0.00000001	4.70E-03
173.395	0.166980412	0.1676953	0	0.16698	0.469873	0	2160.028841		0.00000001	4.70E-03
173.4139	0.167121071	0.1676953	0	0.167121	0.469873	0	2160.028841	2161.02884	0.00000001	4.70E-03
173.4275	0.167060254	0.1676953	0	0.16706	0.469873	0	2161.028841		0.00000001	4.70E-03
173.4464	0.167175769	0.1676953	0	0.167176	0.469873	0	2161.028841	2162.02884	0.00000001	4.70E-03
173.4599	0.167249242	0.1676953	0	0.167249	0.469873	0	2162.028841		0.00000001	4.70E-03
173.4734	0.167093598	0.1676953	0	0.167094	0.469873	0	2162.028841	2163.02884	0.00000001	4.70E-03
173.4869	0.166828026	0.1676953	0	0.166828	0.469873	0	2163.028841		0.00000001	4.70E-03
173.5004	0.166703807	0.1676953	0	0.166704	0.469873	0	2163.028841	2164.02884	0.00000001	4.70E-03
173.5167	0.166142052	0.1676953	0	0.166142	0.469873	0	2164.028841		0.00000001	4.70E-03
173.5329	0.164440633	0.1676953	0	0.164441	0.469873	0	2164.028841	2165.02884	0.00000001	4.70E-03
173.5491	0.163838783	0.1676953	0	0.163839	0.469873	0	2165.028841		0.00000001	4.70E-03
173.5707	0.163669811	0.1676953	0	0.16367	0.469873	0	2165.028841	2166.02884	0.00000001	4.70E-03
173.5951	0.161873028	0.1676953	0	0.161873	0.469873	0	2166.028841		0.00000001	4.70E-03
173.6248	0.161296775	0.1676953	0	0.161297	0.469873	0	2166.028841	2167.02884	0.00000001	4.70E-03
173.6464	0.161964466	0.1676953	0	0.161964	0.469873	0	2167.028841		0.00000001	4.70E-03
173.6626	0.162745625	0.1676953	0	0.162746	0.469873	0	2167.028841	2168.02884	0.00000001	4.70E-03
173.6788	0.163359045	0.1676953	0	0.163359	0.469873	0	2168.028841		0.00000001	4.70E-03
173.6951	0.164436838	0.1676953	0	0.164437	0.469873	0	2168.028841	2169.02884	0.00000001	4.70E-03
173.7113	0.164583367	0.1676953	0	0.164583	0.469873	0	2169.028841		0.00000001	4.70E-03
173.7248	0.165042713	0.1676953	0	0.165043	0.469873	0	2169.028841	2170.02884	0.00000001	4.70E-03
173.7383	0.165168376	0.1676953	0	0.165168	0.469873	0	2170.028841		0.00000001	4.70E-03
173.7518	0.165390945	0.1676953	0	0.165391	0.469873	0	2170.028841	2171.02884	0.00000001	4.70E-03

173.7653	0.165270648	0.1676953	0	0.165271	0.469873	0	2171.028841		0.00000001	4.70E-03
173.787	0.164558087	0.1676953	0	0.164558	0.469873	0	2171.028841	2172.02884	0.00000001	4.70E-03
173.8005	0.164364565	0.1676953	0	0.164365	0.469873	0	2172.028841		0.00000001	4.70E-03
173.8086	0.164611897	0.1676953	0	0.164612	0.469873	0	2172.028841	2173.02884	0.00000001	4.70E-03
173.8194	0.164763559	0.1676953	0	0.164764	0.469873	0	2173.028841		0.00000001	4.70E-03
173.8329	0.164690393	0.1676953	0	0.16469	0.469873	0	2173.028841	2174.02884	0.00000001	4.70E-03
173.8464	0.164731075	0.1676953	0	0.164731	0.469873	0	2174.028841		0.00000001	4.70E-03
173.8627	0.165111956	0.1676953	0	0.165112	0.469873	0	2174.028841	2175.02884	0.00000001	4.70E-03
173.8762	0.165238981	0.1676953	0	0.165239	0.469873	0	2175.028841		0.00000001	4.70E-03
173.887	0.165810583	0.1676953	0	0.165811	0.469873	0	2175.028841	2176.02884	0.00000001	4.70E-03
173.8978	0.166149698	0.1676953	0	0.16615	0.469873	0	2176.028841		0.00000001	4.70E-03
173.9086	0.166481277	0.1676953	0	0.166481	0.469873	0	2176.028841	2177.02884	0.00000001	4.70E-03
173.9221	0.166704788	0.1676953	0	0.166705	0.469873	0	2177.028841		0.00000001	4.70E-03
173.941	0.167027937	0.1676953	0	0.167028	0.469873	0	2177.028841	2178.02884	0.00000001	4.70E-03
173.96	0.167427674	0.1676953	0	0.167428	0.469873	0	2178.028841		0.00000001	4.70E-03
173.9708	0.167641097	0.1676953	0	0.167641	0.469873	0	2178.028841	2179.02884	0.00000001	4.70E-03
173.9789	0.167695271	0.1676953	0	0.167695	0.469873	0	2179.028841		0.00000001	4.70E-03
173.987	0.167695271	0.1676953	0	0.167695	0.469873	0	2179.028841	2180.02884	0.00000001	4.70E-03
173.9978	0.167526063	0.1675261	0.00047411	0.167526	0.469873	0	2180.028841		0.00000001	4.70E-03
174.0059	0.167355997	0.167356	0.000476516	0.167356	0.469399	0	2180.028841	2181.02884	0.00000001	4.69E-03
174.0167	0.167355997	0.167356	0	0.167356	0.468923	0	2181.028841		0.00000001	4.69E-03
174.0248	0.166943583	0.1669436	0.001155563	0.166944	0.468923	0	2181.028841	2182.02884	0.00000001	4.69E-03
174.0356	0.166672215	0.1666722	0.000760358	0.166672	0.467767	0	2182.028841		0.00000001	4.68E-03
174.0492	0.166578884	0.1665789	0.000261511	0.166579	0.467007	0	2182.028841	2183.02884	0.00000001	4.67E-03
174.06	0.166381171	0.1663812	0.000553979	0.166381	0.466745	0	2183.028841		0.00000001	4.67E-03
174.0708	0.165874142	0.1658741	0.001420668	0.165874	0.466191	0	2183.028841	2184.02884	0.00000001	4.66E-03
174.0843	0.165580796	0.1657799	0.000264083	0.165581	0.464771	0	2184.028841		0.00000001	4.65E-03
174.0951	0.164410223	0.1657799	0	0.16441	0.464507	0	2184.028841	2185.02884	0.00000001	4.65E-03
174.1086	0.164486951	0.1657799	0	0.164487	0.464507	0	2185.028841		0.00000001	4.65E-03
174.1275	0.163818028	0.1657799	0	0.163818	0.464507	0	2185.028841	2186.02884	0.00000001	4.65E-03
174.1519	0.163342296	0.1657799	0	0.163342	0.464507	0	2186.028841		0.00000001	4.65E-03
174.1762	0.162617142	0.1657799	0	0.162617	0.464507	0	2186.028841	2187.02884	0.00000001	4.65E-03
174.2167	0.160826988	0.1657799	0	0.160827	0.464507	0	2187.028841		0.00000001	4.65E-03
174.2897	0.15838372	0.1657799	0	0.158384	0.464507	0	2187.028841	2188.02884	0.00000001	4.65E-03
174.3249	0.159317576	0.1657799	0	0.159318	0.464507	0	2188.028841		0.00000001	4.65E-03
174.3438	0.15916703	0.1657799	0	0.159167	0.464507	0	2188.028841	2189.02884	0.00000001	4.65E-03
174.3654	0.158706343	0.1657799	0	0.158706	0.464507	0	2189.028841		0.00000001	4.65E-03
174.387	0.158474862	0.1657799	0	0.158475	0.464507	0	2189.028841	2190.02884	0.00000001	4.65E-03
174.4087	0.158407901	0.1657799	0	0.158408	0.464507	0	2190.028841		0.00000001	4.65E-03
174.4249	0.158319539	0.1657799	0	0.15832	0.464507	0	2190.028841	2191.02884	0.00000001	4.65E-03
174.4411	0.158004137	0.1657799	0	0.158004	0.464507	0	2191.028841		0.00000001	4.65E-03
174.4546	0.157819334	0.1657799	0	0.157819	0.464507	0	2191.028841	2192.02884	0.00000001	4.65E-03
174.4681	0.157739222	0.1657799	0	0.157739	0.464507	0	2192.028841		0.00000001	4.65E-03
174.4816	0.157756913	0.1657799	0	0.157757	0.464507	0	2192.028841	2193.02884	0.00000001	4.65E-03
174.4952	0.157911227	0.1657799	0	0.157911	0.464507	0	2193.028841		0.00000001	4.65E-03
174.5087	0.158059068	0.1657799	0	0.158059	0.464507	0	2193.028841	2194.02884	0.00000001	4.65E-03
174.5195	0.158231635	0.1657799	0	0.158232	0.464507	0	2194.028841		0.00000001	4.65E-03
174.533	0.158212793	0.1657799	0	0.158213	0.464507	0	2194.028841	2195.02884	0.00000001	4.65E-03
174.5465	0.158628085	0.1657799	0	0.158628	0.464507	0	2195.028841		0.00000001	4.65E-03
174.56	0.15913129	0.1657799	0	0.159131	0.464507	0	2195.028841	2196.02884	0.00000001	4.65E-03
174.5763	0.158584876	0.1657799	0	0.158585	0.464507	0	2196.028841		0.00000001	4.65E-03
174.5898	0.159338848	0.1657799	0	0.159339	0.464507	0	2196.028841	2197.02884	0.00000001	4.65E-03
174.6006	0.158509426	0.1657799	0	0.158509	0.464507	0	2197.028841		0.00000001	4.65E-03
174.6141	0.159683358	0.1657799	0	0.159683	0.464507	0	2197.028841	2198.02884	0.00000001	4.65E-03
174.6303	0.159038649	0.1657799	0	0.159039	0.464507	0	2198.028841		0.00000001	4.65E-03
174.6519	0.160456847	0.1657799	0	0.160457	0.464507	0	2198.028841	2199.02884	0.00000001	4.65E-03
174.6736	0.160553042	0.1657799	0	0.160553	0.464507	0	2199.028841		0.00000001	4.65E-03
174.6925	0.160860356	0.1657799	0	0.16086	0.464507	0	2199.028841	2200.02884	0.00000001	4.65E-03
174.7168	0.16105057	0.1657799	0	0.161051	0.464507	0	2200.028841		0.00000001	4.65E-03
174.7384	0.161327704	0.1657799	0	0.161328	0.464507	0	2200.028841	2201.02884	0.00000001	4.65E-03
174.7574	0.16114013	0.1657799	0	0.16114	0.464507	0	2201.028841		0.00000001	4.65E-03
174.7709	0.16115663	0.1657799	0	0.161157	0.464507	0	2201.028841	2202.02884	0.00000001	4.65E-03
174.7844	0.161502912	0.1657799	0	0.161503	0.464507	0	2202.028841		0.00000001	4.65E-03
174.7979	0.161494024	0.1657799	0	0.161494	0.464507	0	2202.028841	2203.02884	0.00000001	4.65E-03
174.8141	0.162995637	0.1657799	0	0.162996	0.464507	0	2203.028841		0.00000001	4.65E-03
174.8276	0.163642772	0.1657799	0	0.163643	0.464507	0	2203.028841	2204.02884	0.00000001	4.65E-03
174.8411	0.163887756	0.1657799	0	0.163888	0.464507	0	2204.028841		0.00000001	4.65E-03
174.8574	0.164177689	0.1657799	0	0.164178	0.464507	0	2204.028841	2205.02884	0.00000001	4.65E-03
174.8817	0.164264311	0.1657799	0	0.164264	0.464507	0	2205.028841		0.00000001	4.65E-03
174.9006	0.164885049	0.1657799	0	0.164885	0.464507	0	2205.028841	2206.02884	0.00000001	4.65E-03
174.9168	0.164750691	0.1657799	0	0.164751	0.464507	0	2206.028841		0.00000001	4.65E-03
174.9358	0.163920664	0.1657799	0	0.163921	0.464507	0	2206.028841	2207.02884	0.00000001	4.65E-03
174.9547	0.163303162	0.1657799	0	0.163303	0.464507	0	2207.028841		0.00000001	4.65E-03
174.9763	0.16297045	0.1657799	0	0.16297	0.464507	0	2207.028841	2208.02884	0.00000001	4.65E-03

174.9871	0.163600074	0.1657799	0	0.1636	0.464507	0	2208.028841		0.00000001	4.65E-03
175.0033	0.16324937	0.1657799	0	0.163249	0.464507	0	2208.028841	2209.02884	0.00000001	4.65E-03
175.0168	0.164232551	0.1657799	0	0.164233	0.464507	0	2209.028841		0.00000001	4.65E-03
175.0304	0.164598038	0.1657799	0	0.164598	0.464507	0	2209.028841	2210.02884	0.00000001	4.65E-03
175.0466	0.164790489	0.1657799	0	0.16479	0.464507	0	2210.028841		0.00000001	4.65E-03
175.0628	0.165297924	0.1657799	0	0.165298	0.464507	0	2210.028841	2211.02884	0.00000001	4.65E-03
175.079	0.165439552	0.1657799	0	0.16544	0.464507	0	2211.028841		0.00000001	4.65E-03
175.0898	0.165593718	0.1657799	0	0.165594	0.464507	0	2211.028841	2212.02884	0.00000001	4.65E-03
175.1033	0.165779893	0.1657799	0	0.16578	0.464507	0	2212.028841		0.00000001	4.65E-03
175.125	0.165189895	0.1651899	0.001653143	0.16519	0.464507	0	2212.028841	2213.02884	0.00000001	4.65E-03
175.1439	0.164161138	0.1641611	0.002882524	0.164161	0.462853	0	2213.028841		0.00000001	4.63E-03
175.1574	0.162950729	0.1629507	0.003391502	0.162951	0.459971	0	2213.028841	2214.02884	0.00000001	4.60E-03
175.1709	0.162695312	0.1626953	0.000715667	0.162695	0.456579	0	2214.028841		0.00000001	4.57E-03
175.1844	0.160720895	0.1607209	0.005532211	0.160721	0.455864	0	2214.028841	2215.02884	0.00000001	4.56E-03
175.1979	0.160509286	0.1605093	0.000592917	0.160509	0.450332	0	2215.028841		0.00000001	4.50E-03
175.2088	0.160509286	0.1605093	0	0.160509	0.449739	0	2215.028841	2216.02884	0.00000001	4.50E-03
175.2196	0.156710332	0.158536	0.005529038	0.15671	0.449739	0	2216.028841		0.00000001	4.50E-03
175.2304	0.156739827	0.158536	0	0.15674	0.44421	0	2216.028841	2217.02884	0.00000001	4.44E-03
175.2439	0.156739827	0.158536	0	0.15674	0.44421	0	2217.028841		0.00000001	4.44E-03
175.2574	0.156980761	0.158536	0	0.156981	0.44421	0	2217.028841	2218.02884	0.00000001	4.44E-03
175.2736	0.157193799	0.158536	0	0.157194	0.44421	0	2218.028841		0.00000001	4.44E-03
175.298	0.154481107	0.158536	0	0.154481	0.44421	0	2218.028841	2219.02884	0.00000001	4.44E-03
175.3223	0.154588998	0.158536	0	0.154589	0.44421	0	2219.028841		0.00000001	4.44E-03
175.3358	0.154046896	0.158536	0	0.154047	0.44421	0	2219.028841	2220.02884	0.00000001	4.44E-03
175.3493	0.153964485	0.158536	0	0.153964	0.44421	0	2220.028841		0.00000001	4.44E-03
175.3601	0.153964485	0.158536	0	0.153964	0.44421	0	2220.028841	2221.02884	0.00000001	4.44E-03
175.3709	0.153752299	0.158536	0	0.153752	0.44421	0	2221.028841		0.00000001	4.44E-03
175.3845	0.153738665	0.158536	0	0.153739	0.44421	0	2221.028841	2222.02884	0.00000001	4.44E-03
175.398	0.15345444	0.158536	0	0.153454	0.44421	0	2222.028841		0.00000001	4.44E-03
175.4142	0.153387025	0.158536	0	0.153387	0.44421	0	2222.028841	2223.02884	0.00000001	4.44E-03
175.425	0.153378536	0.158536	0	0.153379	0.44421	0	2223.028841		0.00000001	4.44E-03
175.4385	0.153187	0.158536	0	0.153187	0.44421	0	2223.028841	2224.02884	0.00000001	4.44E-03
175.452	0.153283916	0.158536	0	0.153284	0.44421	0	2224.028841		0.00000001	4.44E-03
175.4628	0.153458541	0.158536	0	0.153459	0.44421	0	2224.028841	2225.02884	0.00000001	4.44E-03
175.4737	0.153718283	0.158536	0	0.153718	0.44421	0	2225.028841		0.00000001	4.44E-03
175.4872	0.153888587	0.158536	0	0.153889	0.44421	0	2225.028841	2226.02884	0.00000001	4.44E-03
175.5007	0.154027114	0.158536	0	0.154027	0.44421	0	2226.028841		0.00000001	4.44E-03
175.5169	0.154275759	0.158536	0	0.154276	0.44421	0	2226.028841	2227.02884	0.00000001	4.44E-03
175.5331	0.154733175	0.158536	0	0.154733	0.44421	0	2227.028841		0.00000001	4.44E-03
175.5547	0.154858947	0.158536	0	0.154859	0.44421	0	2227.028841	2228.02884	0.00000001	4.44E-03
175.5791	0.154781743	0.158536	0	0.154782	0.44421	0	2228.028841		0.00000001	4.44E-03
175.6034	0.155202961	0.158536	0	0.155203	0.44421	0	2228.028841	2229.02884	0.00000001	4.44E-03
175.6385	0.154701075	0.158536	0	0.154701	0.44421	0	2229.028841		0.00000001	4.44E-03
175.6737	0.153617416	0.158536	0	0.153617	0.44421	0	2229.028841	2230.02884	0.00000001	4.44E-03
175.6845	0.153469387	0.158536	0	0.153469	0.44421	0	2230.028841		0.00000001	4.44E-03
175.7007	0.153009207	0.158536	0	0.153009	0.44421	0	2230.028841	2231.02884	0.00000001	4.44E-03
175.7142	0.152988915	0.158536	0	0.152989	0.44421	0	2231.028841		0.00000001	4.44E-03
175.7359	0.152446959	0.158536	0	0.152447	0.44421	0	2231.028841	2232.02884	0.00000001	4.44E-03
175.7413	0.15214306	0.158536	0	0.152143	0.44421	0	2232.028841		0.00000001	4.44E-03
175.7575	0.152139427	0.158536	0	0.152139	0.44421	0	2232.028841	2233.02884	0.00000001	4.44E-03
175.7764	0.152345035	0.158536	0	0.152345	0.44421	0	2233.028841		0.00000001	4.44E-03
175.8007	0.152792549	0.158536	0	0.152793	0.44421	0	2233.028841	2234.02884	0.00000001	4.44E-03
175.8224	0.152956616	0.158536	0	0.152957	0.44421	0	2234.028841		0.00000001	4.44E-03
175.844	0.153399321	0.158536	0	0.153399	0.44421	0	2234.028841	2235.02884	0.00000001	4.44E-03
175.8629	0.153192007	0.158536	0	0.153192	0.44421	0	2235.028841		0.00000001	4.44E-03
175.8764	0.153333015	0.158536	0	0.153333	0.44421	0	2235.028841	2236.02884	0.00000001	4.44E-03
175.8926	0.153039282	0.158536	0	0.153039	0.44421	0	2236.028841		0.00000001	4.44E-03
175.9061	0.152924211	0.158536	0	0.152924	0.44421	0	2236.028841	2237.02884	0.00000001	4.44E-03
175.917	0.152945149	0.158536	0	0.152945	0.44421	0	2237.028841		0.00000001	4.44E-03
175.9305	0.152983419	0.158536	0	0.152983	0.44421	0	2237.028841	2238.02884	0.00000001	4.44E-03
175.944	0.152719871	0.158536	0	0.15272	0.44421	0	2238.028841		0.00000001	4.44E-03
175.9575	0.152404765	0.158536	0	0.152405	0.44421	0	2238.028841	2239.02884	0.00000001	4.44E-03
175.9683	0.152354512	0.158536	0	0.152355	0.44421	0	2239.028841		0.00000001	4.44E-03
175.9791	0.152422032	0.158536	0	0.152422	0.44421	0	2239.028841	2240.02884	0.00000001	4.44E-03
175.9899	0.152648464	0.158536	0	0.152648	0.44421	0	2240.028841		0.00000001	4.44E-03
176.0008	0.152600082	0.158536	0	0.1526	0.44421	0	2240.028841	2241.02884	0.00000001	4.44E-03
176.017	0.152884071	0.158536	0	0.152884	0.44421	0	2241.028841		0.00000001	4.44E-03
176.0332	0.153252353	0.158536	0	0.153252	0.44421	0	2241.028841	2242.02884	0.00000001	4.44E-03
176.0521	0.153579944	0.158536	0	0.15358	0.44421	0	2242.028841		0.00000001	4.44E-03
176.0683	0.15355336	0.158536	0	0.153553	0.44421	0	2242.028841	2243.02884	0.00000001	4.44E-03
176.0872	0.154061758	0.158536	0	0.154062	0.44421	0	2243.028841		0.00000001	4.44E-03
176.1035	0.154399373	0.158536	0	0.154399	0.44421	0	2243.028841	2244.02884	0.00000001	4.44E-03
176.1197	0.15449126	0.158536	0	0.154491	0.44421	0	2244.028841		0.00000001	4.44E-03
176.1359	0.154150497	0.158536	0	0.15415	0.44421	0	2244.028841	2245.02884	0.00000001	4.44E-03

176.1494	0.15403972	0.158536	0	0.15404	0.44421	0	2245.028841		0.00000001	4.44E-03
176.1656	0.154226381	0.158536	0	0.154226	0.44421	0	2245.028841	2246.02884	0.00000001	4.44E-03
176.1792	0.154408228	0.158536	0	0.154408	0.44421	0	2246.028841		0.00000001	4.44E-03
176.1927	0.154609307	0.158536	0	0.154609	0.44421	0	2246.028841	2247.02884	0.00000001	4.44E-03
176.2089	0.1553032	0.158536	0	0.155303	0.44421	0	2247.028841		0.00000001	4.44E-03
176.2251	0.155683237	0.158536	0	0.155683	0.44421	0	2247.028841	2248.02884	0.00000001	4.44E-03
176.244	0.155958168	0.158536	0	0.155958	0.44421	0	2248.028841		0.00000001	4.44E-03
176.2656	0.155617025	0.158536	0	0.155617	0.44421	0	2248.028841	2249.02884	0.00000001	4.44E-03
176.2846	0.155090458	0.158536	0	0.15509	0.44421	0	2249.028841		0.00000001	4.44E-03
176.3035	0.15426739	0.158536	0	0.154267	0.44421	0	2249.028841	2250.02884	0.00000001	4.44E-03
176.3224	0.153925614	0.158536	0	0.153926	0.44421	0	2250.028841		0.00000001	4.44E-03
176.3413	0.153782102	0.158536	0	0.153782	0.44421	0	2250.028841	2251.02884	0.00000001	4.44E-03
176.3603	0.154258655	0.158536	0	0.154259	0.44421	0	2251.028841		0.00000001	4.44E-03
176.3792	0.154356789	0.158536	0	0.154357	0.44421	0	2251.028841	2252.02884	0.00000001	4.44E-03
176.3954	0.154293583	0.158536	0	0.154294	0.44421	0	2252.028841		0.00000001	4.44E-03
176.4143	0.154254817	0.158536	0	0.154255	0.44421	0	2252.028841	2253.02884	0.00000001	4.44E-03
176.4278	0.154439181	0.158536	0	0.154439	0.44421	0	2253.028841		0.00000001	4.44E-03
176.444	0.154486334	0.158536	0	0.154486	0.44421	0	2253.028841	2254.02884	0.00000001	4.44E-03
176.4603	0.154665947	0.158536	0	0.154666	0.44421	0	2254.028841		0.00000001	4.44E-03
176.4765	0.155138917	0.158536	0	0.155139	0.44421	0	2254.028841	2255.02884	0.00000001	4.44E-03
176.4927	0.155127671	0.158536	0	0.155128	0.44421	0	2255.028841		0.00000001	4.44E-03
176.5089	0.155023628	0.158536	0	0.155024	0.44421	0	2255.028841	2256.02884	0.00000001	4.44E-03
176.5251	0.154837901	0.158536	0	0.154838	0.44421	0	2256.028841		0.00000001	4.44E-03
176.5414	0.154434145	0.158536	0	0.154434	0.44421	0	2256.028841	2257.02884	0.00000001	4.44E-03
176.5576	0.153708629	0.158536	0	0.153709	0.44421	0	2257.028841		0.00000001	4.44E-03
176.5738	0.153770272	0.158536	0	0.15377	0.44421	0	2257.028841	2258.02884	0.00000001	4.44E-03
176.5873	0.152908948	0.158536	0	0.152909	0.44421	0	2258.028841		0.00000001	4.44E-03
176.6035	0.151707078	0.158536	0	0.151707	0.44421	0	2258.028841	2259.02884	0.00000001	4.44E-03
176.6197	0.151680177	0.158536	0	0.15168	0.44421	0	2259.028841		0.00000001	4.44E-03
176.636	0.151557328	0.158536	0	0.151557	0.44421	0	2259.028841	2260.02884	0.00000001	4.44E-03
176.6495	0.14993259	0.158536	0	0.149933	0.44421	0	2260.028841		0.00000001	4.44E-03
176.6657	0.149948424	0.158536	0	0.149948	0.44421	0	2260.028841	2261.02884	0.00000001	4.44E-03
176.6792	0.149397705	0.158536	0	0.149398	0.44421	0	2261.028841		0.00000001	4.44E-03
176.6954	0.149680633	0.158536	0	0.149681	0.44421	0	2261.028841	2262.02884	0.00000001	4.44E-03
176.7116	0.14994425	0.158536	0	0.149944	0.44421	0	2262.028841		0.00000001	4.44E-03
176.7279	0.149897149	0.158536	0	0.149897	0.44421	0	2262.028841	2263.02884	0.00000001	4.44E-03
176.7441	0.150719973	0.158536	0	0.15072	0.44421	0	2263.028841		0.00000001	4.44E-03
176.7603	0.150966147	0.158536	0	0.150966	0.44421	0	2263.028841	2264.02884	0.00000001	4.44E-03
176.7765	0.150519682	0.158536	0	0.15052	0.44421	0	2264.028841		0.00000001	4.44E-03
176.7954	0.150811032	0.158536	0	0.150811	0.44421	0	2264.028841	2265.02884	0.00000001	4.44E-03
176.8117	0.150356664	0.158536	0	0.150357	0.44421	0	2265.028841		0.00000001	4.44E-03
176.8306	0.150047807	0.158536	0	0.150048	0.44421	0	2265.028841	2266.02884	0.00000001	4.44E-03
176.8495	0.149953922	0.158536	0	0.149954	0.44421	0	2266.028841		0.00000001	4.44E-03
176.8684	0.150286682	0.158536	0	0.150287	0.44421	0	2266.028841	2267.02884	0.00000001	4.44E-03
176.8873	0.150588004	0.158536	0	0.150588	0.44421	0	2267.028841		0.00000001	4.44E-03
176.9063	0.151151528	0.158536	0	0.151152	0.44421	0	2267.028841	2268.02884	0.00000001	4.44E-03
176.9252	0.15150735	0.158536	0	0.151507	0.44421	0	2268.028841		0.00000001	4.44E-03
176.9414	0.151683031	0.158536	0	0.151683	0.44421	0	2268.028841	2269.02884	0.00000001	4.44E-03
176.9576	0.152257341	0.158536	0	0.152257	0.44421	0	2269.028841		0.00000001	4.44E-03
176.9738	0.152667582	0.158536	0	0.152668	0.44421	0	2269.028841	2270.02884	0.00000001	4.44E-03
176.9928	0.153438162	0.158536	0	0.153438	0.44421	0	2270.028841		0.00000001	4.44E-03
177.0063	0.153529795	0.158536	0	0.15353	0.44421	0	2270.028841	2271.02884	0.00000001	4.44E-03
177.0252	0.153500867	0.158536	0	0.153501	0.44421	0	2271.028841		0.00000001	4.44E-03
177.0468	0.153300404	0.158536	0	0.1533	0.44421	0	2271.028841	2272.02884	0.00000001	4.44E-03
177.0684	0.153019908	0.158536	0	0.15302	0.44421	0	2272.028841		0.00000001	4.44E-03
177.0901	0.153058633	0.158536	0	0.153059	0.44421	0	2272.028841	2273.02884	0.00000001	4.44E-03
177.109	0.153327171	0.158536	0	0.153327	0.44421	0	2273.028841		0.00000001	4.44E-03
177.1279	0.153578041	0.158536	0	0.153578	0.44421	0	2273.028841	2274.02884	0.00000001	4.44E-03
177.1441	0.153813629	0.158536	0	0.153814	0.44421	0	2274.028841		0.00000001	4.44E-03
177.1604	0.153941343	0.158536	0	0.153941	0.44421	0	2274.028841	2275.02884	0.00000001	4.44E-03
177.1793	0.154374359	0.158536	0	0.154374	0.44421	0	2275.028841		0.00000001	4.44E-03
177.1955	0.154381742	0.158536	0	0.154382	0.44421	0	2275.028841	2276.02884	0.00000001	4.44E-03
177.2144	0.154292429	0.158536	0	0.154292	0.44421	0	2276.028841		0.00000001	4.44E-03
177.2306	0.153957205	0.158536	0	0.153957	0.44421	0	2276.028841	2277.02884	0.00000001	4.44E-03
177.2468	0.153664025	0.158536	0	0.153664	0.44421	0	2277.028841		0.00000001	4.44E-03
177.2604	0.153664025	0.158536	0	0.153664	0.44421	0	2277.028841	2278.02884	0.00000001	4.44E-03
177.2766	0.153488182	0.158536	0	0.153488	0.44421	0	2278.028841		0.00000001	4.44E-03
177.2928	0.153419875	0.158536	0	0.15342	0.44421	0	2278.028841	2279.02884	0.00000001	4.44E-03
177.309	0.153283861	0.158536	0	0.153284	0.44421	0	2279.028841		0.00000001	4.44E-03
177.3252	0.153226798	0.158536	0	0.153227	0.44421	0	2279.028841	2280.02884	0.00000001	4.44E-03
177.3388	0.153510175	0.158536	0	0.15351	0.44421	0	2280.028841		0.00000001	4.44E-03
177.355	0.153673245	0.158536	0	0.153673	0.44421	0	2280.028841	2281.02884	0.00000001	4.44E-03
177.3685	0.153580689	0.158536	0	0.153581	0.44421	0	2281.028841		0.00000001	4.44E-03
177.3847	0.153768438	0.158536	0	0.153768	0.44421	0	2281.028841	2282.02884	0.00000001	4.44E-03

177.3982	0.153822911	0.158536	0	0.153823	0.44421	0	2282.028841		0.00000001	4.44E-03
177.4144	0.153889789	0.158536	0	0.15389	0.44421	0	2282.028841	2283.02884	0.00000001	4.44E-03
177.4307	0.15403885	0.158536	0	0.154039	0.44421	0	2283.028841		0.00000001	4.44E-03
177.4469	0.154096254	0.158536	0	0.154096	0.44421	0	2283.028841	2284.02884	0.00000001	4.44E-03
177.4631	0.154146401	0.158536	0	0.154146	0.44421	0	2284.028841		0.00000001	4.44E-03
177.4793	0.15429441	0.158536	0	0.154294	0.44421	0	2284.028841	2285.02884	0.00000001	4.44E-03
177.4955	0.154555697	0.158536	0	0.154556	0.44421	0	2285.028841		0.00000001	4.44E-03
177.5117	0.154893235	0.158536	0	0.154893	0.44421	0	2285.028841	2286.02884	0.00000001	4.44E-03
177.5307	0.154996571	0.158536	0	0.154997	0.44421	0	2286.028841		0.00000001	4.44E-03
177.5469	0.155318119	0.158536	0	0.155318	0.44421	0	2286.028841	2287.02884	0.00000001	4.44E-03
177.5658	0.155545654	0.158536	0	0.155546	0.44421	0	2287.028841		0.00000001	4.44E-03
177.582	0.155851803	0.158536	0	0.155852	0.44421	0	2287.028841	2288.02884	0.00000001	4.44E-03
177.5982	0.156141821	0.158536	0	0.156142	0.44421	0	2288.028841		0.00000001	4.44E-03
177.6172	0.156325219	0.158536	0	0.156325	0.44421	0	2288.028841	2289.02884	0.00000001	4.44E-03
177.6307	0.156383508	0.158536	0	0.156384	0.44421	0	2289.028841		0.00000001	4.44E-03
177.6469	0.15656938	0.158536	0	0.156569	0.44421	0	2289.028841	2290.02884	0.00000001	4.44E-03
177.6631	0.156737368	0.158536	0	0.156737	0.44421	0	2290.028841		0.00000001	4.44E-03
177.6793	0.157089825	0.158536	0	0.15709	0.44421	0	2290.028841	2291.02884	0.00000001	4.44E-03
177.6983	0.157256007	0.158536	0	0.157256	0.44421	0	2291.028841		0.00000001	4.44E-03
177.7172	0.156987834	0.158536	0	0.156988	0.44421	0	2291.028841	2292.02884	0.00000001	4.44E-03
177.7334	0.156520517	0.158536	0	0.156521	0.44421	0	2292.028841		0.00000001	4.44E-03
177.755	0.155884592	0.158536	0	0.155885	0.44421	0	2292.028841	2293.02884	0.00000001	4.44E-03
177.7766	0.155792872	0.158536	0	0.155793	0.44421	0	2293.028841		0.00000001	4.44E-03
177.7956	0.155663063	0.158536	0	0.155663	0.44421	0	2293.028841	2294.02884	0.00000001	4.44E-03
177.8118	0.155542199	0.158536	0	0.155542	0.44421	0	2294.028841		0.00000001	4.44E-03
177.8307	0.155252616	0.158536	0	0.155253	0.44421	0	2294.028841	2295.02884	0.00000001	4.44E-03
177.8496	0.155148415	0.158536	0	0.155148	0.44421	0	2295.028841		0.00000001	4.44E-03
177.8712	0.155062902	0.158536	0	0.155063	0.44421	0	2295.028841	2296.02884	0.00000001	4.44E-03
177.8875	0.154868545	0.158536	0	0.154869	0.44421	0	2296.028841		0.00000001	4.44E-03
177.9064	0.154658542	0.158536	0	0.154659	0.44421	0	2296.028841	2297.02884	0.00000001	4.44E-03
177.9226	0.154702957	0.158536	0	0.154703	0.44421	0	2297.028841		0.00000001	4.44E-03
177.9388	0.154601602	0.158536	0	0.154602	0.44421	0	2297.028841	2298.02884	0.00000001	4.44E-03
177.955	0.154494611	0.158536	0	0.154495	0.44421	0	2298.028841		0.00000001	4.44E-03
177.9713	0.154514238	0.158536	0	0.154514	0.44421	0	2298.028841	2299.02884	0.00000001	4.44E-03
177.9875	0.154534744	0.158536	0	0.154535	0.44421	0	2299.028841		0.00000001	4.44E-03
178.001	0.154547786	0.158536	0	0.154548	0.44421	0	2299.028841	2300.02884	0.00000001	4.44E-03
178.0172	0.154450629	0.158536	0	0.154451	0.44421	0	2300.028841		0.00000001	4.44E-03
178.0334	0.154137619	0.158536	0	0.154138	0.44421	0	2300.028841	2301.02884	0.00000001	4.44E-03
178.0469	0.153836156	0.158536	0	0.153836	0.44421	0	2301.028841		0.00000001	4.44E-03
178.0632	0.153893979	0.158536	0	0.153894	0.44421	0	2301.028841	2302.02884	0.00000001	4.44E-03
178.0794	0.153407191	0.158536	0	0.153407	0.44421	0	2302.028841		0.00000001	4.44E-03
178.0983	0.153038414	0.158536	0	0.153038	0.44421	0	2302.028841	2303.02884	0.00000001	4.44E-03
178.1172	0.153015612	0.158536	0	0.153016	0.44421	0	2303.028841		0.00000001	4.44E-03
178.1361	0.153275285	0.158536	0	0.153275	0.44421	0	2303.028841	2304.02884	0.00000001	4.44E-03
178.1524	0.153603711	0.158536	0	0.153604	0.44421	0	2304.028841		0.00000001	4.44E-03
178.1686	0.15364296	0.158536	0	0.153643	0.44421	0	2304.028841	2305.02884	0.00000001	4.44E-03
178.1848	0.153665935	0.158536	0	0.153666	0.44421	0	2305.028841		0.00000001	4.44E-03
178.1983	0.153631092	0.158536	0	0.153631	0.44421	0	2305.028841	2306.02884	0.00000001	4.44E-03
178.2145	0.153752895	0.158536	0	0.153753	0.44421	0	2306.028841		0.00000001	4.44E-03
178.228	0.153792207	0.158536	0	0.153792	0.44421	0	2306.028841	2307.02884	0.00000001	4.44E-03
178.2443	0.153903517	0.158536	0	0.153904	0.44421	0	2307.028841		0.00000001	4.44E-03
178.2605	0.154358558	0.158536	0	0.154359	0.44421	0	2307.028841	2308.02884	0.00000001	4.44E-03
178.2794	0.154560407	0.158536	0	0.15456	0.44421	0	2308.028841		0.00000001	4.44E-03
178.2956	0.154772543	0.158536	0	0.154773	0.44421	0	2308.028841	2309.02884	0.00000001	4.44E-03
178.3118	0.154843361	0.158536	0	0.154843	0.44421	0	2309.028841		0.00000001	4.44E-03
178.3308	0.155248853	0.158536	0	0.155249	0.44421	0	2309.028841	2310.02884	0.00000001	4.44E-03
178.3524	0.155827472	0.158536	0	0.155827	0.44421	0	2310.028841		0.00000001	4.44E-03
178.3713	0.156420862	0.158536	0	0.156421	0.44421	0	2310.028841	2311.02884	0.00000001	4.44E-03
178.3902	0.156659558	0.158536	0	0.15666	0.44421	0	2311.028841		0.00000001	4.44E-03
178.4064	0.156882378	0.158536	0	0.156882	0.44421	0	2311.028841	2312.02884	0.00000001	4.44E-03
178.4227	0.157020472	0.158536	0	0.15702	0.44421	0	2312.028841		0.00000001	4.44E-03
178.4389	0.157043902	0.158536	0	0.157044	0.44421	0	2312.028841	2313.02884	0.00000001	4.44E-03
178.4551	0.156971443	0.158536	0	0.156971	0.44421	0	2313.028841		0.00000001	4.44E-03
178.4713	0.156906529	0.158536	0	0.156907	0.44421	0	2313.028841	2314.02884	0.00000001	4.44E-03
178.4902	0.156953721	0.158536	0	0.156954	0.44421	0	2314.028841		0.00000001	4.44E-03
178.5092	0.156965433	0.158536	0	0.156965	0.44421	0	2314.028841	2315.02884	0.00000001	4.44E-03
178.5308	0.156651738	0.158536	0	0.156652	0.44421	0	2315.028841		0.00000001	4.44E-03
178.5497	0.156257819	0.158536	0	0.156258	0.44421	0	2315.028841	2316.02884	0.00000001	4.44E-03
178.5686	0.156201449	0.158536	0	0.156201	0.44421	0	2316.028841		0.00000001	4.44E-03
178.5876	0.156150716	0.158536	0	0.156151	0.44421	0	2316.028841	2317.02884	0.00000001	4.44E-03
178.6065	0.155881353	0.158536	0	0.155881	0.44421	0	2317.028841		0.00000001	4.44E-03
178.6254	0.155842462	0.158536	0	0.155842	0.44421	0	2317.028841	2318.02884	0.00000001	4.44E-03
178.6416	0.155798687	0.158536	0	0.155799	0.44421	0	2318.028841		0.00000001	4.44E-03
178.6605	0.155342879	0.158536	0	0.155343	0.44421	0	2318.028841	2319.02884	0.00000001	4.44E-03

178.6768	0.155300564	0.158536	0	0.155301	0.44421	0	2319.028841		0.00000001	4.44E-03
178.6957	0.155275905	0.158536	0	0.155276	0.44421	0	2319.028841	2320.02884	0.00000001	4.44E-03
178.7146	0.155141191	0.158536	0	0.155141	0.44421	0	2320.028841		0.00000001	4.44E-03
178.7227	0.155066517	0.158536	0	0.155067	0.44421	0	2320.028841	2321.02884	0.00000001	4.44E-03
178.7362	0.154808627	0.158536	0	0.154809	0.44421	0	2321.028841		0.00000001	4.44E-03
178.747	0.154845787	0.158536	0	0.154846	0.44421	0	2321.028841	2322.02884	0.00000001	4.44E-03
178.7633	0.154501713	0.158536	0	0.154502	0.44421	0	2322.028841		0.00000001	4.44E-03
178.7795	0.15426261	0.158536	0	0.154263	0.44421	0	2322.028841	2323.02884	0.00000001	4.44E-03
178.7957	0.154246381	0.158536	0	0.154246	0.44421	0	2323.028841		0.00000001	4.44E-03
178.8119	0.15422319	0.158536	0	0.154223	0.44421	0	2323.028841	2324.02884	0.00000001	4.44E-03
178.8281	0.15422319	0.158536	0	0.154223	0.44421	0	2324.028841		0.00000001	4.44E-03
178.8443	0.154126219	0.158536	0	0.154126	0.44421	0	2324.028841	2325.02884	0.00000001	4.44E-03
178.8633	0.15373299	0.158536	0	0.153733	0.44421	0	2325.028841		0.00000001	4.44E-03
178.8795	0.15354326	0.158536	0	0.153543	0.44421	0	2325.028841	2326.02884	0.00000001	4.44E-03
178.8957	0.153464192	0.158536	0	0.153464	0.44421	0	2326.028841		0.00000001	4.44E-03
178.9119	0.153470128	0.158536	0	0.15347	0.44421	0	2326.028841	2327.02884	0.00000001	4.44E-03
178.9308	0.153681108	0.158536	0	0.153681	0.44421	0	2327.028841		0.00000001	4.44E-03
178.9444	0.153756893	0.158536	0	0.153757	0.44421	0	2327.028841	2328.02884	0.00000001	4.44E-03
178.9606	0.153961694	0.158536	0	0.153962	0.44421	0	2328.028841		0.00000001	4.44E-03
178.9768	0.154158534	0.158536	0	0.154159	0.44421	0	2328.028841	2329.02884	0.00000001	4.44E-03
178.9957	0.154441885	0.158536	0	0.154442	0.44421	0	2329.028841		0.00000001	4.44E-03
179.0092	0.154734633	0.158536	0	0.154735	0.44421	0	2329.028841	2330.02884	0.00000001	4.44E-03
179.0254	0.154931928	0.158536	0	0.154932	0.44421	0	2330.028841		0.00000001	4.44E-03
179.0417	0.155080324	0.158536	0	0.15508	0.44421	0	2330.028841	2331.02884	0.00000001	4.44E-03
179.0606	0.155371916	0.158536	0	0.155372	0.44421	0	2331.028841		0.00000001	4.44E-03
179.0768	0.155528893	0.158536	0	0.155529	0.44421	0	2331.028841	2332.02884	0.00000001	4.44E-03
179.0903	0.155578147	0.158536	0	0.155578	0.44421	0	2332.028841		0.00000001	4.44E-03
179.1065	0.155406465	0.158536	0	0.155406	0.44421	0	2332.028841	2333.02884	0.00000001	4.44E-03
179.1255	0.15526742	0.158536	0	0.155267	0.44421	0	2333.028841		0.00000001	4.44E-03
179.1471	0.15521412	0.158536	0	0.155214	0.44421	0	2333.028841	2334.02884	0.00000001	4.44E-03
179.166	0.155283019	0.158536	0	0.155283	0.44421	0	2334.028841		0.00000001	4.44E-03
179.1822	0.155332743	0.158536	0	0.155333	0.44421	0	2334.028841	2335.02884	0.00000001	4.44E-03
179.2011	0.155674928	0.158536	0	0.155675	0.44421	0	2335.028841		0.00000001	4.44E-03
179.2201	0.155947307	0.158536	0	0.155947	0.44421	0	2335.028841	2336.02884	0.00000001	4.44E-03
179.2363	0.156105242	0.158536	0	0.156105	0.44421	0	2336.028841		0.00000001	4.44E-03
179.2552	0.156150131	0.158536	0	0.15615	0.44421	0	2336.028841	2337.02884	0.00000001	4.44E-03
179.2741	0.156100994	0.158536	0	0.156101	0.44421	0	2337.028841		0.00000001	4.44E-03
179.293	0.155947993	0.158536	0	0.155948	0.44421	0	2337.028841	2338.02884	0.00000001	4.44E-03
179.312	0.155550138	0.158536	0	0.15555	0.44421	0	2338.028841		0.00000001	4.44E-03
179.3336	0.155200145	0.158536	0	0.1552	0.44421	0	2338.028841	2339.02884	0.00000001	4.44E-03
179.3579	0.154777062	0.158536	0	0.154777	0.44421	0	2339.028841		0.00000001	4.44E-03
179.3768	0.154385993	0.158536	0	0.154386	0.44421	0	2339.028841	2340.02884	0.00000001	4.44E-03
179.3958	0.154196001	0.158536	0	0.154196	0.44421	0	2340.028841		0.00000001	4.44E-03
179.4147	0.1541111	0.158536	0	0.154111	0.44421	0	2340.028841	2341.02884	0.00000001	4.44E-03
179.4336	0.154138561	0.158536	0	0.154139	0.44421	0	2341.028841		0.00000001	4.44E-03
179.4498	0.154045865	0.158536	0	0.154046	0.44421	0	2341.028841	2342.02884	0.00000001	4.44E-03
179.466	0.153990033	0.158536	0	0.15399	0.44421	0	2342.028841		0.00000001	4.44E-03
179.4823	0.153904144	0.158536	0	0.153904	0.44421	0	2342.028841	2343.02884	0.00000001	4.44E-03
179.5012	0.153824665	0.158536	0	0.153825	0.44421	0	2343.028841		0.00000001	4.44E-03
179.5174	0.153540169	0.158536	0	0.15354	0.44421	0	2343.028841	2344.02884	0.00000001	4.44E-03
179.5309	0.153163325	0.158536	0	0.153163	0.44421	0	2344.028841		0.00000001	4.44E-03
179.5471	0.153150109	0.158536	0	0.15315	0.44421	0	2344.028841	2345.02884	0.00000001	4.44E-03
179.5633	0.1530985	0.158536	0	0.153098	0.44421	0	2345.028841		0.00000001	4.44E-03
179.5823	0.153159101	0.158536	0	0.153159	0.44421	0	2345.028841	2346.02884	0.00000001	4.44E-03
179.5958	0.153117978	0.158536	0	0.153118	0.44421	0	2346.028841		0.00000001	4.44E-03
179.612	0.152969582	0.158536	0	0.15297	0.44421	0	2346.028841	2347.02884	0.00000001	4.44E-03
179.6282	0.153058818	0.158536	0	0.153059	0.44421	0	2347.028841		0.00000001	4.44E-03
179.6417	0.153042211	0.158536	0	0.153042	0.44421	0	2347.028841	2348.02884	0.00000001	4.44E-03
179.6553	0.153122027	0.158536	0	0.153122	0.44421	0	2348.028841		0.00000001	4.44E-03
179.6715	0.153203621	0.158536	0	0.153204	0.44421	0	2348.028841	2349.02884	0.00000001	4.44E-03
179.6877	0.153374068	0.158536	0	0.153374	0.44421	0	2349.028841		0.00000001	4.44E-03
179.7066	0.153435057	0.158536	0	0.153435	0.44421	0	2349.028841	2350.02884	0.00000001	4.44E-03
179.7228	0.15438868	0.158536	0	0.154389	0.44421	0	2350.028841		0.00000001	4.44E-03
179.739	0.154820674	0.158536	0	0.154821	0.44421	0	2350.028841	2351.02884	0.00000001	4.44E-03
179.758	0.155131471	0.158536	0	0.155131	0.44421	0	2351.028841		0.00000001	4.44E-03
179.7742	0.155201334	0.158536	0	0.155201	0.44421	0	2351.028841	2352.02884	0.00000001	4.44E-03
179.7931	0.155440677	0.158536	0	0.155441	0.44421	0	2352.028841		0.00000001	4.44E-03
179.8093	0.155642608	0.158536	0	0.155643	0.44421	0	2352.028841	2353.02884	0.00000001	4.44E-03
179.8282	0.155884033	0.158536	0	0.155884	0.44421	0	2353.028841		0.00000001	4.44E-03
179.8445	0.156056928	0.158536	0	0.156057	0.44421	0	2353.028841	2354.02884	0.00000001	4.44E-03
179.8607	0.15626134	0.158536	0	0.156261	0.44421	0	2354.028841		0.00000001	4.44E-03
179.8769	0.156328307	0.158536	0	0.156328	0.44421	0	2354.028841	2355.02884	0.00000001	4.44E-03
179.8931	0.156395057	0.158536	0	0.156395	0.44421	0	2355.028841		0.00000001	4.44E-03
179.9093	0.156474049	0.158536	0	0.156474	0.44421	0	2355.028841	2356.02884	0.00000001	4.44E-03

179.9283	0.15644079	0.158536	0	0.156441	0.44421	0	2356.028841		0.00000001	4.44E-03
179.9472	0.156807443	0.158536	0	0.156807	0.44421	0	2356.028841	2357.02884	0.00000001	4.44E-03
179.9661	0.15675614	0.158536	0	0.156756	0.44421	0	2357.028841		0.00000001	4.44E-03
179.985	0.156610705	0.158536	0	0.156611	0.44421	0	2357.028841	2358.02884	0.00000001	4.44E-03
180.004	0.156586782	0.158536	0	0.156587	0.44421	0	2358.028841		0.00000001	4.44E-03
180.0234	0.156675319	0.158536	0	0.156675	0.44421	0	2358.028841	2359.02884	0.00000001	4.44E-03
180.0428	0.156598493	0.158536	0	0.156598	0.44421	0	2359.028841		0.00000001	4.44E-03
180.0622	0.156475145	0.158536	0	0.156475	0.44421	0	2359.028841	2360.02884	0.00000001	4.44E-03
180.0816	0.156576845	0.158536	0	0.156577	0.44421	0	2360.028841		0.00000001	4.44E-03
180.101	0.156475728	0.158536	0	0.156476	0.44421	0	2360.028841	2361.02884	0.00000001	4.44E-03
180.1176	0.156253901	0.158536	0	0.156254	0.44421	0	2361.028841		0.00000001	4.44E-03
180.137	0.155902247	0.158536	0	0.155902	0.44421	0	2361.028841	2362.02884	0.00000001	4.44E-03
180.1537	0.155581159	0.158536	0	0.155581	0.44421	0	2362.028841		0.00000001	4.44E-03
180.173	0.155488158	0.158536	0	0.155488	0.44421	0	2362.028841	2363.02884	0.00000001	4.44E-03
180.1897	0.155288379	0.158536	0	0.155288	0.44421	0	2363.028841		0.00000001	4.44E-03
180.2091	0.154997411	0.158536	0	0.154997	0.44421	0	2363.028841	2364.02884	0.00000001	4.44E-03
180.2285	0.154994606	0.158536	0	0.154995	0.44421	0	2364.028841		0.00000001	4.44E-03
180.2451	0.154958971	0.158536	0	0.154959	0.44421	0	2364.028841	2365.02884	0.00000001	4.44E-03
180.2645	0.154967427	0.158536	0	0.154967	0.44421	0	2365.028841		0.00000001	4.44E-03
180.2811	0.15483652	0.158536	0	0.154837	0.44421	0	2365.028841	2366.02884	0.00000001	4.44E-03
180.2977	0.154752489	0.158536	0	0.154752	0.44421	0	2366.028841		0.00000001	4.44E-03
180.3116	0.154600848	0.158536	0	0.154601	0.44421	0	2366.028841	2367.02884	0.00000001	4.44E-03
180.3282	0.154334975	0.158536	0	0.154335	0.44421	0	2367.028841		0.00000001	4.44E-03
180.3448	0.153985265	0.158536	0	0.153985	0.44421	0	2367.028841	2368.02884	0.00000001	4.44E-03
180.3587	0.153673325	0.158536	0	0.153673	0.44421	0	2368.028841		0.00000001	4.44E-03
180.3753	0.153640173	0.158536	0	0.15364	0.44421	0	2368.028841	2369.02884	0.00000001	4.44E-03
180.3919	0.15364011	0.158536	0	0.15364	0.44421	0	2369.028841		0.00000001	4.44E-03
180.4058	0.153728931	0.158536	0	0.153729	0.44421	0	2369.028841	2370.02884	0.00000001	4.44E-03
180.4224	0.153795335	0.158536	0	0.153795	0.44421	0	2370.028841		0.00000001	4.44E-03
180.439	0.153811929	0.158536	0	0.153812	0.44421	0	2370.028841	2371.02884	0.00000001	4.44E-03
180.4529	0.154094602	0.158536	0	0.154095	0.44421	0	2371.028841		0.00000001	4.44E-03
180.4695	0.154354639	0.158536	0	0.154355	0.44421	0	2371.028841	2372.02884	0.00000001	4.44E-03
180.4861	0.154503482	0.158536	0	0.154503	0.44421	0	2372.028841		0.00000001	4.44E-03
180.5055	0.154658723	0.158536	0	0.154659	0.44421	0	2372.028841	2373.02884	0.00000001	4.44E-03
180.5194	0.154897234	0.158536	0	0.154897	0.44421	0	2373.028841		0.00000001	4.44E-03
180.536	0.155135289	0.158536	0	0.155135	0.44421	0	2373.028841	2374.02884	0.00000001	4.44E-03
180.5526	0.155244649	0.158536	0	0.155245	0.44421	0	2374.028841		0.00000001	4.44E-03
180.572	0.155378574	0.158536	0	0.155379	0.44421	0	2374.028841	2375.02884	0.00000001	4.44E-03
180.5914	0.155592572	0.158536	0	0.155593	0.44421	0	2375.028841		0.00000001	4.44E-03
180.608	0.155915378	0.158536	0	0.155915	0.44421	0	2375.028841	2376.02884	0.00000001	4.44E-03
180.6247	0.156118837	0.158536	0	0.156119	0.44421	0	2376.028841		0.00000001	4.44E-03
180.6441	0.156632174	0.158536	0	0.156632	0.44421	0	2376.028841	2377.02884	0.00000001	4.44E-03
180.6607	0.156835436	0.158536	0	0.156835	0.44421	0	2377.028841		0.00000001	4.44E-03
180.6801	0.156907964	0.158536	0	0.156908	0.44421	0	2377.028841	2378.02884	0.00000001	4.44E-03
180.6995	0.156862303	0.158536	0	0.156862	0.44421	0	2378.028841		0.00000001	4.44E-03
180.7189	0.156806517	0.158536	0	0.156807	0.44421	0	2378.028841	2379.02884	0.00000001	4.44E-03
180.7383	0.156644261	0.158536	0	0.156644	0.44421	0	2379.028841		0.00000001	4.44E-03
180.7549	0.156515381	0.158536	0	0.156515	0.44421	0	2379.028841	2380.02884	0.00000001	4.44E-03
180.7743	0.156376639	0.158536	0	0.156377	0.44421	0	2380.028841		0.00000001	4.44E-03
180.7937	0.156233699	0.158536	0	0.156234	0.44421	0	2380.028841	2381.02884	0.00000001	4.44E-03
180.8131	0.156103039	0.158536	0	0.156103	0.44421	0	2381.028841		0.00000001	4.44E-03
180.8325	0.155977625	0.158536	0	0.155978	0.44421	0	2381.028841	2382.02884	0.00000001	4.44E-03
180.8546	0.155749407	0.158536	0	0.155749	0.44421	0	2382.028841		0.00000001	4.44E-03
180.874	0.155628519	0.158536	0	0.155629	0.44421	0	2382.028841	2383.02884	0.00000001	4.44E-03
180.8934	0.155584146	0.158536	0	0.155584	0.44421	0	2383.028841		0.00000001	4.44E-03
180.91	0.155360836	0.158536	0	0.155361	0.44421					4.44E-03
180.9294	0.155139715	0.158536	0	0.15514	0.44421					4.44E-03
180.9488	0.154634611	0.158536	0	0.154635	0.44421					4.44E-03
180.9654	0.154575862	0.158536	0	0.154576	0.44421					4.44E-03
180.9821	0.154390596	0.158536	0	0.154391	0.44421					4.44E-03
180.9987	0.154305269	0.158536	0	0.154305	0.44421					4.44E-03
181.0153	0.154197913	0.158536	0	0.154198	0.44421					4.44E-03
181.0319	0.15407275	0.158536	0	0.154073	0.44421					4.44E-03
181.0486	0.153915207	0.158536	0	0.153915	0.44421					4.44E-03
181.0652	0.153805636	0.158536	0	0.153806	0.44421					4.44E-03
181.0818	0.153592276	0.158536	0	0.153592	0.44421					4.44E-03
181.0984	0.153520806	0.158536	0	0.153521	0.44421					4.44E-03
181.1123	0.153416319	0.158536	0	0.153416	0.44421					4.44E-03
181.1289	0.153420097	0.158536	0	0.15342	0.44421					4.44E-03
181.1455	0.153450562	0.158536	0	0.153451	0.44421					4.44E-03
181.1622	0.153359417	0.158536	0	0.153359	0.44421					4.44E-03
181.1788	0.153377709	0.158536	0	0.153378	0.44421					4.44E-03
181.1926	0.153478888	0.158536	0	0.153479	0.44421					4.44E-03
181.2093	0.153484632	0.158536	0	0.153485	0.44421					4.44E-03

181.2259	0.153484632	0.158536	0	0.153485	0.44421	4.44E-03
181.2453	0.153667317	0.158536	0	0.153667	0.44421	4.44E-03
181.2619	0.153782458	0.158536	0	0.153782	0.44421	4.44E-03
181.2813	0.153852535	0.158536	0	0.153853	0.44421	4.44E-03
181.2979	0.154141907	0.158536	0	0.154142	0.44421	4.44E-03
181.3118	0.15440687	0.158536	0	0.154407	0.44421	4.44E-03
181.3312	0.154459441	0.158536	0	0.154459	0.44421	4.44E-03
181.3478	0.154604025	0.158536	0	0.154604	0.44421	4.44E-03
181.3644	0.154870193	0.158536	0	0.15487	0.44421	4.44E-03
181.381	0.154906456	0.158536	0	0.154906	0.44421	4.44E-03
181.4004	0.155046055	0.158536	0	0.155046	0.44421	4.44E-03
181.4198	0.155266087	0.158536	0	0.155266	0.44421	4.44E-03
181.4392	0.155518155	0.158536	0	0.155518	0.44421	4.44E-03
181.4586	0.155607122	0.158536	0	0.155607	0.44421	4.44E-03
181.478	0.155603111	0.158536	0	0.155603	0.44421	4.44E-03
181.4974	0.155593738	0.158536	0	0.155594	0.44421	4.44E-03
181.5168	0.155586937	0.158536	0	0.155587	0.44421	4.44E-03
181.5334	0.155591384	0.158536	0	0.155591	0.44421	4.44E-03
181.5528	0.15539318	0.158536	0	0.155393	0.44421	4.44E-03
181.5722	0.155060387	0.158536	0	0.15506	0.44421	4.44E-03
181.5916	0.154853649	0.158536	0	0.154854	0.44421	4.44E-03
181.611	0.154647169	0.158536	0	0.154647	0.44421	4.44E-03
181.6304	0.154440006	0.158536	0	0.15444	0.44421	4.44E-03
181.647	0.154248871	0.158536	0	0.154249	0.44421	4.44E-03
181.6664	0.154049189	0.158536	0	0.154049	0.44421	4.44E-03
181.683	0.153760074	0.158536	0	0.15376	0.44421	4.44E-03
181.7024	0.153466907	0.158536	0	0.153467	0.44421	4.44E-03
181.719	0.153205935	0.158536	0	0.153206	0.44421	4.44E-03
181.7357	0.153104125	0.158536	0	0.153104	0.44421	4.44E-03
181.7523	0.153061895	0.158536	0	0.153062	0.44421	4.44E-03
181.7689	0.153115055	0.158536	0	0.153115	0.44421	4.44E-03
181.7855	0.152935671	0.158536	0	0.152936	0.44421	4.44E-03
181.8022	0.152675105	0.158536	0	0.152675	0.44421	4.44E-03
181.8188	0.152428821	0.158536	0	0.152429	0.44421	4.44E-03
181.8354	0.152088206	0.158536	0	0.152088	0.44421	4.44E-03
181.852	0.152010642	0.158536	0	0.152011	0.44421	4.44E-03
181.8659	0.151785999	0.158536	0	0.151786	0.44421	4.44E-03
181.8825	0.151640497	0.158536	0	0.15164	0.44421	4.44E-03
181.8964	0.151624676	0.158536	0	0.151625	0.44421	4.44E-03
181.913	0.151604526	0.158536	0	0.151605	0.44421	4.44E-03
181.9296	0.151586132	0.158536	0	0.151586	0.44421	4.44E-03
181.9435	0.15170968	0.158536	0	0.15171	0.44421	4.44E-03
181.9601	0.151896817	0.158536	0	0.151897	0.44421	4.44E-03
181.9767	0.151967977	0.158536	0	0.151968	0.44421	4.44E-03
181.9933	0.152349224	0.158536	0	0.152349	0.44421	4.44E-03
182.0127	0.152598715	0.158536	0	0.152599	0.44421	4.44E-03
182.0294	0.152727635	0.158536	0	0.152728	0.44421	4.44E-03
182.0488	0.152930406	0.158536	0	0.15293	0.44421	4.44E-03
182.0654	0.153060087	0.158536	0	0.15306	0.44421	4.44E-03
182.082	0.153196406	0.158536	0	0.153196	0.44421	4.44E-03
182.0986	0.153359904	0.158536	0	0.15336	0.44421	4.44E-03
182.1152	0.153563473	0.158536	0	0.153563	0.44421	4.44E-03
182.1346	0.15369168	0.158536	0	0.153692	0.44421	4.44E-03
182.1513	0.153803111	0.158536	0	0.153803	0.44421	4.44E-03
182.1679	0.153902219	0.158536	0	0.153902	0.44421	4.44E-03
182.1873	0.15409668	0.158536	0	0.154097	0.44421	4.44E-03
182.2067	0.154195042	0.158536	0	0.154195	0.44421	4.44E-03
182.2261	0.153995916	0.158536	0	0.153996	0.44421	4.44E-03
182.2482	0.153714589	0.158536	0	0.153715	0.44421	4.44E-03
182.2649	0.153641449	0.158536	0	0.153641	0.44421	4.44E-03
182.2843	0.1534016	0.158536	0	0.153402	0.44421	4.44E-03
182.3036	0.153418465	0.158536	0	0.153418	0.44421	4.44E-03
182.323	0.153317328	0.158536	0	0.153317	0.44421	4.44E-03
182.3397	0.153006318	0.158536	0	0.153006	0.44421	4.44E-03
182.3591	0.152795426	0.158536	0	0.152795	0.44421	4.44E-03
182.3785	0.152704316	0.158536	0	0.152704	0.44421	4.44E-03
182.3951	0.152512697	0.158536	0	0.152513	0.44421	4.44E-03
182.4145	0.152127171	0.158536	0	0.152127	0.44421	4.44E-03
182.4339	0.1517561	0.158536	0	0.151756	0.44421	4.44E-03
182.4533	0.151386319	0.158536	0	0.151386	0.44421	4.44E-03
182.4699	0.151242921	0.158536	0	0.151243	0.44421	4.44E-03
182.4893	0.151112434	0.158536	0	0.151112	0.44421	4.44E-03
182.5087	0.150981245	0.158536	0	0.150981	0.44421	4.44E-03
182.5253	0.150955544	0.158536	0	0.150956	0.44421	4.44E-03

182.5419	0.150933102	0.158536	0	0.150933	0.44421	4.44E-03
182.5585	0.150808426	0.158536	0	0.150808	0.44421	4.44E-03
182.5752	0.150584385	0.158536	0	0.150584	0.44421	4.44E-03
182.5918	0.150474049	0.158536	0	0.150474	0.44421	4.44E-03
182.6084	0.150414368	0.158536	0	0.150414	0.44421	4.44E-03
182.625	0.150112294	0.158536	0	0.150112	0.44421	4.44E-03
182.6417	0.150125317	0.158536	0	0.150125	0.44421	4.44E-03
182.6583	0.150137901	0.158536	0	0.150138	0.44421	4.44E-03
182.6749	0.150165831	0.158536	0	0.150166	0.44421	4.44E-03
182.6915	0.150294282	0.158536	0	0.150294	0.44421	4.44E-03
182.7082	0.150276996	0.158536	0	0.150277	0.44421	4.44E-03
182.7248	0.150499044	0.158536	0	0.150499	0.44421	4.44E-03
182.7414	0.150716959	0.158536	0	0.150717	0.44421	4.44E-03
182.7608	0.151034552	0.158536	0	0.151035	0.44421	4.44E-03
182.7802	0.151252873	0.158536	0	0.151253	0.44421	4.44E-03
182.7968	0.151375878	0.158536	0	0.151376	0.44421	4.44E-03
182.8134	0.151585619	0.158536	0	0.151586	0.44421	4.44E-03
182.8301	0.151777605	0.158536	0	0.151778	0.44421	4.44E-03
182.8467	0.151984005	0.158536	0	0.151984	0.44421	4.44E-03
182.8633	0.152157376	0.158536	0	0.152157	0.44421	4.44E-03
182.8827	0.152629955	0.158536	0	0.15263	0.44421	4.44E-03
182.8993	0.152836646	0.158536	0	0.152837	0.44421	4.44E-03
182.9187	0.15292925	0.158536	0	0.152929	0.44421	4.44E-03
182.9381	0.153235431	0.158536	0	0.153235	0.44421	4.44E-03
182.9575	0.153363487	0.158536	0	0.153363	0.44421	4.44E-03
182.9797	0.153385436	0.158536	0	0.153385	0.44421	4.44E-03
183.0018	0.153270803	0.158536	0	0.153271	0.44421	4.44E-03
183.0212	0.153170187	0.158536	0	0.15317	0.44421	4.44E-03
183.0406	0.152971907	0.158536	0	0.152972	0.44421	4.44E-03
183.06	0.152861998	0.158536	0	0.152862	0.44421	4.44E-03
183.0794	0.152851477	0.158536	0	0.152851	0.44421	4.44E-03
183.0988	0.152908119	0.158536	0	0.152908	0.44421	4.44E-03
183.1182	0.152794421	0.158536	0	0.152794	0.44421	4.44E-03
183.1376	0.152686301	0.158536	0	0.152686	0.44421	4.44E-03
183.157	0.152404198	0.158536	0	0.152404	0.44421	4.44E-03
183.1764	0.152289164	0.158536	0	0.152289	0.44421	4.44E-03
183.1958	0.152088625	0.158536	0	0.152089	0.44421	4.44E-03
183.2124	0.151997326	0.158536	0	0.151997	0.44421	4.44E-03
183.229	0.151807435	0.158536	0	0.151807	0.44421	4.44E-03
183.2457	0.151872224	0.158536	0	0.151872	0.44421	4.44E-03
183.265	0.151777617	0.158536	0	0.151778	0.44421	4.44E-03
183.2817	0.151740709	0.158536	0	0.151741	0.44421	4.44E-03
183.2983	0.151571907	0.158536	0	0.151572	0.44421	4.44E-03
183.3149	0.151533904	0.158536	0	0.151534	0.44421	4.44E-03
183.3315	0.151597755	0.158536	0	0.151598	0.44421	4.44E-03
183.3454	0.151564916	0.158536	0	0.151565	0.44421	4.44E-03
183.362	0.151523534	0.158536	0	0.151524	0.44421	4.44E-03
183.3786	0.151519529	0.158536	0	0.15152	0.44421	4.44E-03
183.3953	0.151591291	0.158536	0	0.151591	0.44421	4.44E-03
183.4119	0.151560667	0.158536	0	0.151561	0.44421	4.44E-03
183.4285	0.151544593	0.158536	0	0.151545	0.44421	4.44E-03
183.4424	0.15165296	0.158536	0	0.151653	0.44421	4.44E-03
183.459	0.151846726	0.158536	0	0.151847	0.44421	4.44E-03
183.4784	0.152036532	0.158536	0	0.152037	0.44421	4.44E-03
183.495	0.152104753	0.158536	0	0.152105	0.44421	4.44E-03
183.5144	0.152399923	0.158536	0	0.1524	0.44421	4.44E-03
183.531	0.152525124	0.158536	0	0.152525	0.44421	4.44E-03
183.5504	0.152899672	0.158536	0	0.1529	0.44421	4.44E-03
183.567	0.1531634	0.158536	0	0.153163	0.44421	4.44E-03
183.5837	0.153521481	0.158536	0	0.153521	0.44421	4.44E-03
183.6031	0.153869404	0.158536	0	0.153869	0.44421	4.44E-03
183.6169	0.154191573	0.158536	0	0.154192	0.44421	4.44E-03
183.6335	0.154317292	0.158536	0	0.154317	0.44421	4.44E-03
183.6529	0.154544128	0.158536	0	0.154544	0.44421	4.44E-03
183.6696	0.154665306	0.158536	0	0.154665	0.44421	4.44E-03
183.689	0.154883557	0.158536	0	0.154884	0.44421	4.44E-03
183.7083	0.155087396	0.158536	0	0.155087	0.44421	4.44E-03
183.7277	0.155192891	0.158536	0	0.155193	0.44421	4.44E-03
183.7471	0.155075633	0.158536	0	0.155076	0.44421	4.44E-03
183.7693	0.154873913	0.158536	0	0.154874	0.44421	4.44E-03
183.7859	0.154777084	0.158536	0	0.154777	0.44421	4.44E-03
183.8053	0.154797023	0.158536	0	0.154797	0.44421	4.44E-03
183.8247	0.154821281	0.158536	0	0.154821	0.44421	4.44E-03
183.8441	0.154744765	0.158536	0	0.154745	0.44421	4.44E-03

183.8635	0.154765229	0.158536	0	0.154765	0.44421	4.44E-03
183.8829	0.154689274	0.158536	0	0.154689	0.44421	4.44E-03
183.8995	0.154617306	0.158536	0	0.154617	0.44421	4.44E-03
183.9189	0.154447149	0.158536	0	0.154447	0.44421	4.44E-03
183.9383	0.154163599	0.158536	0	0.154164	0.44421	4.44E-03
183.9549	0.153992363	0.158536	0	0.153992	0.44421	4.44E-03
183.9716	0.153843466	0.158536	0	0.153843	0.44421	4.44E-03
183.9882	0.153588601	0.158536	0	0.153589	0.44421	4.44E-03
184.0048	0.153465392	0.158536	0	0.153465	0.44421	4.44E-03
184.0214	0.15345087	0.158536	0	0.153451	0.44421	4.44E-03
184.038	0.153508587	0.158536	0	0.153509	0.44421	4.44E-03
184.0547	0.153480104	0.158536	0	0.15348	0.44421	4.44E-03
184.0713	0.153467728	0.158536	0	0.153468	0.44421	4.44E-03
184.0879	0.153450915	0.158536	0	0.153451	0.44421	4.44E-03
184.1045	0.153333385	0.158536	0	0.153333	0.44421	4.44E-03
184.1212	0.153323653	0.158536	0	0.153324	0.44421	4.44E-03
184.1378	0.153331617	0.158536	0	0.153332	0.44421	4.44E-03
184.1516	0.153331617	0.158536	0	0.153332	0.44421	4.44E-03
184.1683	0.153229567	0.158536	0	0.15323	0.44421	4.44E-03
184.1849	0.153251385	0.158536	0	0.153251	0.44421	4.44E-03
184.2015	0.153447781	0.158536	0	0.153448	0.44421	4.44E-03
184.2209	0.153863279	0.158536	0	0.153863	0.44421	4.44E-03
184.2375	0.154358384	0.158536	0	0.154358	0.44421	4.44E-03
184.2569	0.154643851	0.158536	0	0.154644	0.44421	4.44E-03
184.2735	0.154805403	0.158536	0	0.154805	0.44421	4.44E-03
184.2902	0.154950978	0.158536	0	0.154951	0.44421	4.44E-03
184.3068	0.15521093	0.158536	0	0.155211	0.44421	4.44E-03
184.3262	0.155450031	0.158536	0	0.15545	0.44421	4.44E-03
184.3428	0.155795988	0.158536	0	0.155796	0.44421	4.44E-03
184.3594	0.156025123	0.158536	0	0.156025	0.44421	4.44E-03
184.3788	0.156295935	0.158536	0	0.156296	0.44421	4.44E-03
184.3955	0.156518257	0.158536	0	0.156518	0.44421	4.44E-03
184.4121	0.156625092	0.158536	0	0.156625	0.44421	4.44E-03
184.4315	0.156838278	0.158536	0	0.156838	0.44421	4.44E-03
184.4509	0.157152505	0.158536	0	0.157153	0.44421	4.44E-03
184.4703	0.157140489	0.158536	0	0.15714	0.44421	4.44E-03
184.4897	0.157125883	0.158536	0	0.157126	0.44421	4.44E-03
184.5091	0.157122644	0.158536	0	0.157123	0.44421	4.44E-03
184.5312	0.156919477	0.158536	0	0.156919	0.44421	4.44E-03
184.5506	0.156801638	0.158536	0	0.156802	0.44421	4.44E-03
184.57	0.156926262	0.158536	0	0.156926	0.44421	4.44E-03
184.5922	0.156932667	0.158536	0	0.156933	0.44421	4.44E-03
184.6116	0.156842092	0.158536	0	0.156842	0.44421	4.44E-03
184.6337	0.156745974	0.158536	0	0.156746	0.44421	4.44E-03
184.6504	0.15665636	0.158536	0	0.156656	0.44421	4.44E-03
184.6697	0.156531341	0.158536	0	0.156531	0.44421	4.44E-03
184.6891	0.156332021	0.158536	0	0.156332	0.44421	4.44E-03
184.7058	0.15625001	0.158536	0	0.15625	0.44421	4.44E-03
184.7252	0.156079587	0.158536	0	0.15608	0.44421	4.44E-03
184.7418	0.156013226	0.158536	0	0.156013	0.44421	4.44E-03
184.7584	0.155828556	0.158536	0	0.155829	0.44421	4.44E-03
184.775	0.155749125	0.158536	0	0.155749	0.44421	4.44E-03
184.7917	0.15577524	0.158536	0	0.155775	0.44421	4.44E-03
184.8083	0.155590188	0.158536	0	0.15559	0.44421	4.44E-03
184.8249	0.155422897	0.158536	0	0.155423	0.44421	4.44E-03
184.8415	0.155346751	0.158536	0	0.155347	0.44421	4.44E-03
184.8581	0.155171552	0.158536	0	0.155172	0.44421	4.44E-03
184.8748	0.155107856	0.158536	0	0.155108	0.44421	4.44E-03
184.8914	0.15513742	0.158536	0	0.155137	0.44421	4.44E-03
184.908	0.155174064	0.158536	0	0.155174	0.44421	4.44E-03
184.9246	0.155220499	0.158536	0	0.15522	0.44421	4.44E-03
184.9385	0.155217554	0.158536	0	0.155218	0.44421	4.44E-03
184.9551	0.155567555	0.158536	0	0.155568	0.44421	4.44E-03
184.9745	0.155914259	0.158536	0	0.155914	0.44421	4.44E-03
184.9911	0.156232426	0.158536	0	0.156232	0.44421	4.44E-03
185.0105	0.156546082	0.158536	0	0.156546	0.44421	4.44E-03
185.0272	0.156747627	0.158536	0	0.156748	0.44421	4.44E-03
185.0465	0.156975735	0.158536	0	0.156976	0.44421	4.44E-03
185.0632	0.157090616	0.158536	0	0.157091	0.44421	4.44E-03
185.0826	0.157296854	0.158536	0	0.157297	0.44421	4.44E-03
185.0992	0.157507232	0.158536	0	0.157507	0.44421	4.44E-03
185.1158	0.157811497	0.158536	0	0.157811	0.44421	4.44E-03
185.1352	0.157985633	0.158536	0	0.157986	0.44421	4.44E-03
185.1518	0.158393983	0.158536	0	0.158394	0.44421	4.44E-03

185.1685	0.158464963	0.158536	0	0.158465	0.44421	4.44E-03
185.1879	0.158536003	0.158536	0	0.158536	0.44421	4.44E-03
185.2072	0.15848912	0.1584891	0.000131364	0.158489	0.44421	4.44E-03
185.2294	0.158450037	0.15845	0.000109508	0.15845	0.444078	4.44E-03
185.2516	0.158266996	0.158267	0.00051287	0.158267	0.443969	4.44E-03
185.271	0.158111891	0.1581725	0.000264675	0.158112	0.443456	4.43E-03
185.2904	0.158172535	0.1581725	0	0.158173	0.443191	4.43E-03
185.3098	0.158023047	0.158023	0.000418858	0.158023	0.443191	4.43E-03
185.3292	0.157877861	0.1578779	0.000406803	0.157878	0.442772	4.43E-03
185.3485	0.157841833	0.1578418	0.000100949	0.157842	0.442366	4.42E-03
185.3652	0.157687029	0.1577192	0.000343541	0.157687	0.442265	4.42E-03
185.3846	0.157445282	0.1577192	0	0.157445	0.441921	4.42E-03
185.404	0.157311059	0.1577192	0	0.157311	0.441921	4.42E-03
185.4206	0.157080452	0.1577192	0	0.15708	0.441921	4.42E-03
185.44	0.156838867	0.1577192	0	0.156839	0.441921	4.42E-03
185.4594	0.156621067	0.1577192	0	0.156621	0.441921	4.42E-03
185.476	0.15640123	0.1577192	0	0.156401	0.441921	4.42E-03
185.4954	0.15620954	0.1577192	0	0.15621	0.441921	4.42E-03
185.512	0.155897794	0.1577192	0	0.155898	0.441921	4.42E-03
185.5286	0.155825025	0.1577192	0	0.155825	0.441921	4.42E-03
185.5453	0.155537724	0.1577192	0	0.155538	0.441921	4.42E-03
185.5619	0.155353778	0.1577192	0	0.155354	0.441921	4.42E-03
185.5813	0.155017567	0.1577192	0	0.155018	0.441921	4.42E-03
185.5979	0.154743253	0.1577192	0	0.154743	0.441921	4.42E-03
185.6118	0.154539263	0.1577192	0	0.154539	0.441921	4.42E-03
185.6284	0.154606674	0.1577192	0	0.154607	0.441921	4.42E-03
185.645	0.154552946	0.1577192	0	0.154553	0.441921	4.42E-03
185.6616	0.154621531	0.1577192	0	0.154622	0.441921	4.42E-03
185.6782	0.154578868	0.1577192	0	0.154579	0.441921	4.42E-03
185.6949	0.154645379	0.1577192	0	0.154645	0.441921	4.42E-03
185.7115	0.154936505	0.1577192	0	0.154937	0.441921	4.42E-03
185.7281	0.155200374	0.1577192	0	0.1552	0.441921	4.42E-03
185.7475	0.155561714	0.1577192	0	0.155562	0.441921	4.42E-03
185.7641	0.155674137	0.1577192	0	0.155674	0.441921	4.42E-03
185.7835	0.156032419	0.1577192	0	0.156032	0.441921	4.42E-03
185.8002	0.156271943	0.1577192	0	0.156272	0.441921	4.42E-03
185.8168	0.156388823	0.1577192	0	0.156389	0.441921	4.42E-03
185.8334	0.156509594	0.1577192	0	0.15651	0.441921	4.42E-03
185.85	0.15674047	0.1577192	0	0.15674	0.441921	4.42E-03
185.8667	0.156944559	0.1577192	0	0.156945	0.441921	4.42E-03
185.886	0.157148859	0.1577192	0	0.157149	0.441921	4.42E-03
185.9027	0.157343143	0.1577192	0	0.157343	0.441921	4.42E-03
185.9221	0.157431058	0.1577192	0	0.157431	0.441921	4.42E-03
185.9415	0.157719225	0.1577192	0	0.157719	0.441921	4.42E-03
185.9636	0.157571489	0.1576429	0.000213862	0.157571	0.441921	4.42E-03
185.983	0.157433638	0.1576429	0	0.157434	0.441707	4.42E-03
186.0052	0.157414073	0.1576429	0	0.157414	0.441707	4.42E-03
186.0246	0.157278845	0.1576429	0	0.157279	0.441707	4.42E-03
186.044	0.157035171	0.1576429	0	0.157035	0.441707	4.42E-03
186.0634	0.156788572	0.1576429	0	0.156789	0.441707	4.42E-03
186.0828	0.156669743	0.1576429	0	0.15667	0.441707	4.42E-03
186.1022	0.156671452	0.1576429	0	0.156671	0.441707	4.42E-03
186.1243	0.156602119	0.1576429	0	0.156602	0.441707	4.42E-03
186.1409	0.156485677	0.1576429	0	0.156486	0.441707	4.42E-03
186.1603	0.156385091	0.1576429	0	0.156385	0.441707	4.42E-03
186.177	0.15627902	0.1576429	0	0.156279	0.441707	4.42E-03
186.1964	0.156086608	0.1576429	0	0.156087	0.441707	4.42E-03
186.213	0.155790609	0.1576429	0	0.155791	0.441707	4.42E-03
186.2324	0.155293211	0.1576429	0	0.155293	0.441707	4.42E-03
186.249	0.155254058	0.1576429	0	0.155254	0.441707	4.42E-03
186.2656	0.155080753	0.1576429	0	0.155081	0.441707	4.42E-03
186.2822	0.154926708	0.1576429	0	0.154927	0.441707	4.42E-03
186.2989	0.154886277	0.1576429	0	0.154886	0.441707	4.42E-03
186.3155	0.154840381	0.1576429	0	0.15484	0.441707	4.42E-03
186.3321	0.154686353	0.1576429	0	0.154686	0.441707	4.42E-03
186.3487	0.154659222	0.1576429	0	0.154659	0.441707	4.42E-03
186.3654	0.154617706	0.1576429	0	0.154618	0.441707	4.42E-03
186.382	0.154574511	0.1576429	0	0.154575	0.441707	4.42E-03
186.3986	0.154428729	0.1576429	0	0.154429	0.441707	4.42E-03
186.4125	0.154501516	0.1576429	0	0.154502	0.441707	4.42E-03
186.4291	0.1546889	0.1576429	0	0.154689	0.441707	4.42E-03
186.4457	0.154746655	0.1576429	0	0.154747	0.441707	4.42E-03
186.4623	0.154747328	0.1576429	0	0.154747	0.441707	4.42E-03
186.479	0.154905105	0.1576429	0	0.154905	0.441707	4.42E-03

186.4956	0.155071295	0.1576429	0	0.155071	0.441707	4.42E-03
186.5122	0.155325404	0.1576429	0	0.155325	0.441707	4.42E-03
186.5288	0.15556697	0.1576429	0	0.155567	0.441707	4.42E-03
186.5454	0.15581073	0.1576429	0	0.155811	0.441707	4.42E-03
186.5621	0.155931317	0.1576429	0	0.155931	0.441707	4.42E-03
186.5787	0.155931317	0.1576429	0	0.155931	0.441707	4.42E-03
186.5953	0.156162453	0.1576429	0	0.156162	0.441707	4.42E-03
186.6119	0.156776446	0.1576429	0	0.156776	0.441707	4.42E-03
186.6313	0.156973313	0.1576429	0	0.156973	0.441707	4.42E-03
186.648	0.157166541	0.1576429	0	0.157167	0.441707	4.42E-03
186.6674	0.157353224	0.1576429	0	0.157353	0.441707	4.42E-03
186.684	0.157539251	0.1576429	0	0.157539	0.441707	4.42E-03
186.7034	0.157612998	0.1576429	0	0.157613	0.441707	4.42E-03
186.7255	0.157571066	0.1576429	0	0.157571	0.441707	4.42E-03
186.7449	0.15741656	0.1576429	0	0.157417	0.441707	4.42E-03
186.7671	0.157124094	0.1576429	0	0.157124	0.441707	4.42E-03
186.7865	0.156992265	0.1576429	0	0.156992	0.441707	4.42E-03
186.8059	0.156971723	0.1576429	0	0.156972	0.441707	4.42E-03
186.8225	0.156848488	0.1576429	0	0.156848	0.441707	4.42E-03
186.8419	0.156739898	0.1576429	0	0.15674	0.441707	4.42E-03
186.8613	0.15672821	0.1576429	0	0.156728	0.441707	4.42E-03
186.8807	0.156416567	0.1576429	0	0.156417	0.441707	4.42E-03
186.9001	0.156193894	0.1576429	0	0.156194	0.441707	4.42E-03
186.9195	0.156082181	0.1576429	0	0.156082	0.441707	4.42E-03
186.9361	0.155867617	0.1576429	0	0.155868	0.441707	4.42E-03
186.9527	0.155440105	0.1576429	0	0.15544	0.441707	4.42E-03
186.9694	0.155027762	0.1576429	0	0.155028	0.441707	4.42E-03
186.986	0.154859309	0.1576429	0	0.154859	0.441707	4.42E-03
187.0054	0.154703518	0.1576429	0	0.154704	0.441707	4.42E-03
187.022	0.154779569	0.1576429	0	0.15478	0.441707	4.42E-03
187.0386	0.15472916	0.1576429	0	0.154729	0.441707	4.42E-03
187.0525	0.154674637	0.1576429	0	0.154675	0.441707	4.42E-03
187.0691	0.154511023	0.1576429	0	0.154511	0.441707	4.42E-03
187.0857	0.154353368	0.1576429	0	0.154353	0.441707	4.42E-03
187.1023	0.154094152	0.1576429	0	0.154094	0.441707	4.42E-03
187.119	0.153947988	0.1576429	0	0.153948	0.441707	4.42E-03
187.1384	0.153828168	0.1576429	0	0.153828	0.441707	4.42E-03
187.1522	0.153704685	0.1576429	0	0.153705	0.441707	4.42E-03
187.1688	0.153691565	0.1576429	0	0.153692	0.441707	4.42E-03
187.1855	0.153874962	0.1576429	0	0.153875	0.441707	4.42E-03
187.2021	0.154069601	0.1576429	0	0.15407	0.441707	4.42E-03
187.2187	0.154227945	0.1576429	0	0.154228	0.441707	4.42E-03
187.2326	0.154231869	0.1576429	0	0.154232	0.441707	4.42E-03
187.252	0.154477423	0.1576429	0	0.154477	0.441707	4.42E-03
187.2686	0.15473101	0.1576429	0	0.154731	0.441707	4.42E-03
187.2852	0.154973137	0.1576429	0	0.154973	0.441707	4.42E-03
187.3046	0.155216416	0.1576429	0	0.155216	0.441707	4.42E-03
187.3212	0.155460311	0.1576429	0	0.15546	0.441707	4.42E-03
187.3378	0.155700624	0.1576429	0	0.155701	0.441707	4.42E-03
187.3545	0.15592445	0.1576429	0	0.155924	0.441707	4.42E-03
187.3711	0.156015148	0.1576429	0	0.156015	0.441707	4.42E-03
187.3877	0.156231301	0.1576429	0	0.156231	0.441707	4.42E-03
187.4043	0.156555374	0.1576429	0	0.156555	0.441707	4.42E-03
187.4237	0.156849547	0.1576429	0	0.15685	0.441707	4.42E-03
187.4431	0.156922721	0.1576429	0	0.156923	0.441707	4.42E-03
187.4625	0.156976509	0.1576429	0	0.156977	0.441707	4.42E-03
187.4819	0.157050567	0.1576429	0	0.157051	0.441707	4.42E-03
187.5013	0.156934699	0.1576429	0	0.156935	0.441707	4.42E-03
187.5207	0.156820219	0.1576429	0	0.15682	0.441707	4.42E-03
187.5401	0.156806009	0.1576429	0	0.156806	0.441707	4.42E-03
187.5595	0.156796295	0.1576429	0	0.156796	0.441707	4.42E-03
187.5789	0.156853642	0.1576429	0	0.156854	0.441707	4.42E-03
187.6011	0.156651515	0.1576429	0	0.156652	0.441707	4.42E-03
187.6204	0.156424331	0.1576429	0	0.156424	0.441707	4.42E-03
187.6398	0.156214668	0.1576429	0	0.156215	0.441707	4.42E-03
187.6592	0.155968941	0.1576429	0	0.155969	0.441707	4.42E-03
187.6786	0.155774164	0.1576429	0	0.155774	0.441707	4.42E-03
187.698	0.155571457	0.1576429	0	0.155571	0.441707	4.42E-03
187.7146	0.15527656	0.1576429	0	0.155277	0.441707	4.42E-03
187.7313	0.155115836	0.1576429	0	0.155116	0.441707	4.42E-03
187.7479	0.154954074	0.1576429	0	0.154954	0.441707	4.42E-03
187.7645	0.155030945	0.1576429	0	0.155031	0.441707	4.42E-03
187.7811	0.154873625	0.1576429	0	0.154874	0.441707	4.42E-03
187.7978	0.154792407	0.1576429	0	0.154792	0.441707	4.42E-03

187.8144	0.154825614	0.1576429	0	0.154826	0.441707	4.42E-03
187.8282	0.154800966	0.1576429	0	0.154801	0.441707	4.42E-03
187.8449	0.154605715	0.1576429	0	0.154606	0.441707	4.42E-03
187.8615	0.154544361	0.1576429	0	0.154544	0.441707	4.42E-03
187.8781	0.154583943	0.1576429	0	0.154584	0.441707	4.42E-03
187.892	0.154408283	0.1576429	0	0.154408	0.441707	4.42E-03
187.9086	0.154332623	0.1576429	0	0.154333	0.441707	4.42E-03
187.9252	0.154376109	0.1576429	0	0.154376	0.441707	4.42E-03
187.9418	0.154500774	0.1576429	0	0.154501	0.441707	4.42E-03
187.9557	0.154744503	0.1576429	0	0.154745	0.441707	4.42E-03
187.9723	0.154836957	0.1576429	0	0.154837	0.441707	4.42E-03
187.9917	0.155057206	0.1576429	0	0.155057	0.441707	4.42E-03
188.0083	0.155291147	0.1576429	0	0.155291	0.441707	4.42E-03
188.0277	0.155497658	0.1576429	0	0.155498	0.441707	4.42E-03
188.0443	0.155818741	0.1576429	0	0.155819	0.441707	4.42E-03
188.0637	0.156022983	0.1576429	0	0.156023	0.441707	4.42E-03
188.0776	0.156109107	0.1576429	0	0.156109	0.441707	4.42E-03
188.097	0.156395428	0.1576429	0	0.156395	0.441707	4.42E-03
188.1108	0.156466417	0.1576429	0	0.156466	0.441707	4.42E-03
188.1275	0.156638864	0.1576429	0	0.156639	0.441707	4.42E-03
188.1441	0.156828592	0.1576429	0	0.156829	0.441707	4.42E-03
188.1579	0.157008225	0.1576429	0	0.157008	0.441707	4.42E-03
188.1773	0.157085083	0.1576429	0	0.157085	0.441707	4.42E-03
188.1967	0.157268413	0.1576429	0	0.157268	0.441707	4.42E-03
188.2161	0.157416381	0.1576429	0	0.157416	0.441707	4.42E-03
188.2355	0.157642899	0.1576429	0	0.157643	0.441707	4.42E-03
188.2549	0.157491662	0.1574917	0.000423758	0.157492	0.441707	4.42E-03
188.2743	0.157451315	0.1574513	0.000113049	0.157451	0.441283	4.41E-03
188.2937	0.156967201	0.1569672	0.001356464	0.156967	0.44117	4.41E-03
188.3131	0.156830889	0.1568309	0.000381939	0.156831	0.439814	4.40E-03
188.3325	0.156703449	0.1567714	0.000166755	0.156703	0.439432	4.39E-03
188.3519	0.156569508	0.1567714	0	0.15657	0.439265	4.39E-03
188.3713	0.15655827	0.1567714	0	0.156558	0.439265	4.39E-03
188.3907	0.156540623	0.1567714	0	0.156541	0.439265	4.39E-03
188.4101	0.156428755	0.1567714	0	0.156429	0.439265	4.39E-03
188.4295	0.156188766	0.1567714	0	0.156189	0.439265	4.39E-03
188.4461	0.155876552	0.1567714	0	0.155877	0.439265	4.39E-03
188.4627	0.155560168	0.1567714	0	0.15556	0.439265	4.39E-03
188.4821	0.155355001	0.1567714	0	0.155355	0.439265	4.39E-03
188.4987	0.155299121	0.1567714	0	0.155299	0.439265	4.39E-03
188.5126	0.155096586	0.1567714	0	0.155097	0.439265	4.39E-03
188.5292	0.154873894	0.1567714	0	0.154874	0.439265	4.39E-03
188.5458	0.154678539	0.1567714	0	0.154679	0.439265	4.39E-03
188.5625	0.154466181	0.1567714	0	0.154466	0.439265	4.39E-03
188.5791	0.154275818	0.1567714	0	0.154276	0.439265	4.39E-03
188.5957	0.154315587	0.1567714	0	0.154316	0.439265	4.39E-03
188.6096	0.154030933	0.1567714	0	0.154031	0.439265	4.39E-03
188.6262	0.153860768	0.1567714	0	0.153861	0.439265	4.39E-03
188.64	0.153676732	0.1567714	0	0.153677	0.439265	4.39E-03
188.6567	0.153736376	0.1567714	0	0.153736	0.439265	4.39E-03
188.6733	0.15379993	0.1567714	0	0.1538	0.439265	4.39E-03
188.6871	0.153677476	0.1567714	0	0.153677	0.439265	4.39E-03
188.7038	0.153840464	0.1567714	0	0.15384	0.439265	4.39E-03
188.7204	0.154095661	0.1567714	0	0.154096	0.439265	4.39E-03
188.7398	0.154341621	0.1567714	0	0.154342	0.439265	4.39E-03
188.7564	0.154695044	0.1567714	0	0.154695	0.439265	4.39E-03
188.7758	0.154933637	0.1567714	0	0.154934	0.439265	4.39E-03
188.7924	0.15504625	0.1567714	0	0.155046	0.439265	4.39E-03
188.8118	0.155161579	0.1567714	0	0.155162	0.439265	4.39E-03
188.8284	0.155558047	0.1567714	0	0.155558	0.439265	4.39E-03
188.8451	0.155779092	0.1567714	0	0.155779	0.439265	4.39E-03
188.8644	0.155976282	0.1567714	0	0.155976	0.439265	4.39E-03
188.8811	0.156161638	0.1567714	0	0.156162	0.439265	4.39E-03
188.8977	0.156461597	0.1567714	0	0.156462	0.439265	4.39E-03
188.9171	0.156533644	0.1567714	0	0.156534	0.439265	4.39E-03
188.9337	0.156594679	0.1567714	0	0.156595	0.439265	4.39E-03
188.9531	0.156771375	0.1567714	0	0.156771	0.439265	4.39E-03
188.9725	0.156573088	0.1565731	0.000555589	0.156573	0.439265	4.39E-03
188.9947	0.156312879	0.1565317	0.000115968	0.156313	0.43871	4.39E-03
189.0141	0.156069241	0.1565317	0	0.156069	0.438594	4.39E-03
189.0335	0.155772597	0.1565317	0	0.155773	0.438594	4.39E-03
189.0529	0.155654227	0.1565317	0	0.155654	0.438594	4.39E-03
189.0695	0.155639437	0.1565317	0	0.155639	0.438594	4.39E-03
189.0889	0.155605186	0.1565317	0	0.155605	0.438594	4.39E-03

189.111	0.155739498	0.1565317	0	0.155739	0.438594	4.39E-03
189.1304	0.155412506	0.1565317	0	0.155413	0.438594	4.39E-03
189.1498	0.155479851	0.1565317	0	0.15548	0.438594	4.39E-03
189.1664	0.155441228	0.1565317	0	0.155441	0.438594	4.39E-03
189.1858	0.155199294	0.1565317	0	0.155199	0.438594	4.39E-03
189.2052	0.154946269	0.1565317	0	0.154946	0.438594	4.39E-03
189.2246	0.154728089	0.1565317	0	0.154728	0.438594	4.39E-03
189.2413	0.154531534	0.1565317	0	0.154532	0.438594	4.39E-03
189.2579	0.154449686	0.1565317	0	0.15445	0.438594	4.39E-03
189.2745	0.15435747	0.1565317	0	0.154357	0.438594	4.39E-03
189.2884	0.154414964	0.1565317	0	0.154415	0.438594	4.39E-03
189.305	0.154331998	0.1565317	0	0.154332	0.438594	4.39E-03
189.3216	0.154134471	0.1565317	0	0.154134	0.438594	4.39E-03
189.3355	0.153942225	0.1565317	0	0.153942	0.438594	4.39E-03
189.3521	0.153769296	0.1565317	0	0.153769	0.438594	4.39E-03
189.3687	0.153726376	0.1565317	0	0.153726	0.438594	4.39E-03
189.3853	0.153546045	0.1565317	0	0.153546	0.438594	4.39E-03
189.4019	0.153383118	0.1565317	0	0.153383	0.438594	4.39E-03
189.4186	0.15334658	0.1565317	0	0.153347	0.438594	4.39E-03
189.4352	0.153328936	0.1565317	0	0.153329	0.438594	4.39E-03
189.449	0.15360507	0.1565317	0	0.153605	0.438594	4.39E-03
189.4657	0.153663206	0.1565317	0	0.153663	0.438594	4.39E-03
189.4823	0.153721606	0.1565317	0	0.153722	0.438594	4.39E-03
189.4989	0.154193132	0.1565317	0	0.154193	0.438594	4.39E-03
189.5155	0.154642482	0.1565317	0	0.154642	0.438594	4.39E-03
189.5322	0.154711201	0.1565317	0	0.154711	0.438594	4.39E-03
189.5488	0.15484233	0.1565317	0	0.154842	0.438594	4.39E-03
189.5654	0.154871094	0.1565317	0	0.154871	0.438594	4.39E-03
189.5848	0.154994731	0.1565317	0	0.154995	0.438594	4.39E-03
189.6014	0.155311503	0.1565317	0	0.155312	0.438594	4.39E-03
189.6181	0.155618523	0.1565317	0	0.155619	0.438594	4.39E-03
189.6347	0.15590795	0.1565317	0	0.155908	0.438594	4.39E-03
189.6513	0.156161661	0.1565317	0	0.156162	0.438594	4.39E-03
189.6707	0.156201708	0.1565317	0	0.156202	0.438594	4.39E-03
189.6901	0.15651044	0.1565317	0	0.15651	0.438594	4.39E-03
189.7095	0.1565317	0.1565317	0	0.156532	0.438594	4.39E-03
189.7289	0.156442022	0.156442	0.000251273	0.156442	0.438594	4.39E-03
189.7483	0.156366297	0.1563663	0.000212177	0.156366	0.438342	4.38E-03
189.7704	0.156065389	0.1560654	0.000843127	0.156065	0.43813	4.38E-03
189.7871	0.155883625	0.1558836	0.000509292	0.155884	0.437287	4.37E-03
189.8065	0.155740929	0.155751	0.00037147	0.155741	0.436778	4.37E-03
189.8231	0.15560181	0.155751	0	0.155602	0.436406	4.36E-03
189.8425	0.155585439	0.155751	0	0.155585	0.436406	4.36E-03
189.8619	0.155347628	0.155751	0	0.155348	0.436406	4.36E-03
189.8813	0.155195104	0.155751	0	0.155195	0.436406	4.36E-03
189.9007	0.155028971	0.155751	0	0.155029	0.436406	4.36E-03
189.9173	0.154813107	0.155751	0	0.154813	0.436406	4.36E-03
189.9367	0.154624703	0.155751	0	0.154625	0.436406	4.36E-03
189.9533	0.154426465	0.155751	0	0.154426	0.436406	4.36E-03
189.9699	0.154281626	0.155751	0	0.154282	0.436406	4.36E-03
189.9838	0.153898681	0.155751	0	0.153899	0.436406	4.36E-03
190.0004	0.153634642	0.155751	0	0.153635	0.436406	4.36E-03
190.0143	0.153596787	0.155751	0	0.153597	0.436406	4.36E-03
190.0309	0.153695796	0.155751	0	0.153696	0.436406	4.36E-03
190.0475	0.153538396	0.155751	0	0.153538	0.436406	4.36E-03
190.0641	0.153496071	0.155751	0	0.153496	0.436406	4.36E-03
190.0807	0.153455788	0.155751	0	0.153456	0.436406	4.36E-03
190.0974	0.15321367	0.155751	0	0.153214	0.436406	4.36E-03
190.114	0.152949026	0.155751	0	0.152949	0.436406	4.36E-03
190.1278	0.152949026	0.155751	0	0.152949	0.436406	4.36E-03
190.1445	0.152778832	0.155751	0	0.152779	0.436406	4.36E-03
190.1611	0.152713156	0.155751	0	0.152713	0.436406	4.36E-03
190.1777	0.152636435	0.155751	0	0.152636	0.436406	4.36E-03
190.1943	0.152566382	0.155751	0	0.152566	0.436406	4.36E-03
190.211	0.152620771	0.155751	0	0.152621	0.436406	4.36E-03
190.2276	0.152745185	0.155751	0	0.152745	0.436406	4.36E-03
190.2442	0.153080969	0.155751	0	0.153081	0.436406	4.36E-03
190.2636	0.153393958	0.155751	0	0.153394	0.436406	4.36E-03
190.2802	0.153706994	0.155751	0	0.153707	0.436406	4.36E-03
190.2996	0.154001314	0.155751	0	0.154001	0.436406	4.36E-03
190.3162	0.154067733	0.155751	0	0.154068	0.436406	4.36E-03
190.3329	0.154357565	0.155751	0	0.154358	0.436406	4.36E-03
190.3495	0.154625098	0.155751	0	0.154625	0.436406	4.36E-03
190.3661	0.154788968	0.155751	0	0.154789	0.436406	4.36E-03

190.3827	0.154955808	0.155751	0	0.154956	0.436406	4.36E-03
190.3994	0.155125388	0.155751	0	0.155125	0.436406	4.36E-03
190.416	0.15516395	0.155751	0	0.155164	0.436406	4.36E-03
190.4354	0.155362792	0.155751	0	0.155363	0.436406	4.36E-03
190.4548	0.155511368	0.155751	0	0.155511	0.436406	4.36E-03
190.4714	0.155451744	0.155751	0	0.155452	0.436406	4.36E-03
190.4908	0.155403545	0.155751	0	0.155404	0.436406	4.36E-03
190.513	0.155365354	0.155751	0	0.155365	0.436406	4.36E-03
190.5324	0.155131165	0.155751	0	0.155131	0.436406	4.36E-03
190.549	0.155007271	0.155751	0	0.155007	0.436406	4.36E-03
190.5656	0.154777018	0.155751	0	0.154777	0.436406	4.36E-03
190.585	0.154565441	0.155751	0	0.154565	0.436406	4.36E-03
190.6044	0.15446657	0.155751	0	0.154467	0.436406	4.36E-03
190.6238	0.154472302	0.155751	0	0.154472	0.436406	4.36E-03
190.6432	0.154222869	0.155751	0	0.154223	0.436406	4.36E-03
190.6626	0.154022896	0.155751	0	0.154023	0.436406	4.36E-03
190.6792	0.153700138	0.155751	0	0.1537	0.436406	4.36E-03
190.6986	0.153504752	0.155751	0	0.153505	0.436406	4.36E-03
190.7152	0.153318277	0.155751	0	0.153318	0.436406	4.36E-03
190.7346	0.153149578	0.155751	0	0.15315	0.436406	4.36E-03
190.7512	0.152959972	0.155751	0	0.15296	0.436406	4.36E-03
190.7679	0.153145644	0.155751	0	0.153146	0.436406	4.36E-03
190.7845	0.153072676	0.155751	0	0.153073	0.436406	4.36E-03
190.8011	0.153014351	0.155751	0	0.153014	0.436406	4.36E-03
190.8177	0.153044551	0.155751	0	0.153045	0.436406	4.36E-03
190.8344	0.153072233	0.155751	0	0.153072	0.436406	4.36E-03
190.851	0.152883951	0.155751	0	0.152884	0.436406	4.36E-03
190.8648	0.152716195	0.155751	0	0.152716	0.436406	4.36E-03
190.8815	0.152555548	0.155751	0	0.152556	0.436406	4.36E-03
190.8981	0.152616716	0.155751	0	0.152617	0.436406	4.36E-03
190.9147	0.152663578	0.155751	0	0.152664	0.436406	4.36E-03
190.9286	0.152634689	0.155751	0	0.152635	0.436406	4.36E-03
190.9452	0.152661656	0.155751	0	0.152662	0.436406	4.36E-03
190.9618	0.152889624	0.155751	0	0.15289	0.436406	4.36E-03
190.9757	0.153208757	0.155751	0	0.153209	0.436406	4.36E-03
190.9923	0.153532446	0.155751	0	0.153532	0.436406	4.36E-03
191.0089	0.15383294	0.155751	0	0.153833	0.436406	4.36E-03
191.0283	0.154118307	0.155751	0	0.154118	0.436406	4.36E-03
191.0449	0.154168877	0.155751	0	0.154169	0.436406	4.36E-03
191.0615	0.154359256	0.155751	0	0.154359	0.436406	4.36E-03
191.0782	0.154546245	0.155751	0	0.154546	0.436406	4.36E-03
191.0948	0.154637695	0.155751	0	0.154638	0.436406	4.36E-03
191.1114	0.154811855	0.155751	0	0.154812	0.436406	4.36E-03
191.128	0.155369646	0.155751	0	0.15537	0.436406	4.36E-03
191.1447	0.155544918	0.155751	0	0.155545	0.436406	4.36E-03
191.1613	0.155610441	0.155751	0	0.15561	0.436406	4.36E-03
191.1779	0.155677125	0.155751	0	0.155677	0.436406	4.36E-03
191.1973	0.155749246	0.155751	0	0.155749	0.436406	4.36E-03
191.2167	0.155697954	0.155751	0	0.155698	0.436406	4.36E-03
191.2361	0.15575105	0.155751	0	0.155751	0.436406	4.36E-03
191.2583	0.155688429	0.1556884	0.00017546	0.155688	0.436406	4.36E-03
191.2776	0.155416483	0.1554165	0.00076198	0.155416	0.436231	4.36E-03
191.297	0.155167413	0.1553004	0.000325384	0.155167	0.435469	4.35E-03
191.3164	0.15487105	0.1553004	0	0.154871	0.435143	4.35E-03
191.3358	0.154721158	0.1553004	0	0.154721	0.435143	4.35E-03
191.3552	0.154688253	0.1553004	0	0.154688	0.435143	4.35E-03
191.3746	0.154556724	0.1553004	0	0.154557	0.435143	4.35E-03
191.394	0.154263758	0.1553004	0	0.154264	0.435143	4.35E-03
191.4134	0.154132038	0.1553004	0	0.154132	0.435143	4.35E-03
191.43	0.154000195	0.1553004	0	0.154	0.435143	4.35E-03
191.4494	0.153657864	0.1553004	0	0.153658	0.435143	4.35E-03
191.4661	0.153422623	0.1553004	0	0.153423	0.435143	4.35E-03
191.4827	0.153294364	0.1553004	0	0.153294	0.435143	4.35E-03
191.4993	0.152962923	0.1553004	0	0.152963	0.435143	4.35E-03
191.5159	0.152756235	0.1553004	0	0.152756	0.435143	4.35E-03
191.5298	0.152829605	0.1553004	0	0.15283	0.435143	4.35E-03
191.5464	0.15283653	0.1553004	0	0.152837	0.435143	4.35E-03
191.5603	0.152937184	0.1553004	0	0.152937	0.435143	4.35E-03
191.5769	0.152829346	0.1553004	0	0.152829	0.435143	4.35E-03
191.5907	0.152664896	0.1553004	0	0.152665	0.435143	4.35E-03
191.6074	0.152588851	0.1553004	0	0.152589	0.435143	4.35E-03
191.624	0.152517683	0.1553004	0	0.152518	0.435143	4.35E-03
191.6378	0.152495297	0.1553004	0	0.152495	0.435143	4.35E-03
191.6545	0.152332385	0.1553004	0	0.152332	0.435143	4.35E-03

191.6683	0.152286317	0.1553004	0	0.152286	0.435143	4.35E-03
191.6849	0.15233301	0.1553004	0	0.152333	0.435143	4.35E-03
191.7016	0.152382798	0.1553004	0	0.152383	0.435143	4.35E-03
191.7182	0.152448877	0.1553004	0	0.152449	0.435143	4.35E-03
191.7348	0.152599601	0.1553004	0	0.1526	0.435143	4.35E-03
191.7542	0.152832082	0.1553004	0	0.152832	0.435143	4.35E-03
191.7736	0.153074853	0.1553004	0	0.153075	0.435143	4.35E-03
191.7902	0.153154146	0.1553004	0	0.153154	0.435143	4.35E-03
191.8068	0.153384	0.1553004	0	0.153384	0.435143	4.35E-03
191.8262	0.153590785	0.1553004	0	0.153591	0.435143	4.35E-03
191.8429	0.153780024	0.1553004	0	0.15378	0.435143	4.35E-03
191.8595	0.154079765	0.1553004	0	0.15408	0.435143	4.35E-03
191.8761	0.154375624	0.1553004	0	0.154376	0.435143	4.35E-03
191.8927	0.154450553	0.1553004	0	0.154451	0.435143	4.35E-03
191.9121	0.154512564	0.1553004	0	0.154513	0.435143	4.35E-03
191.9287	0.154943741	0.1553004	0	0.154944	0.435143	4.35E-03
191.9481	0.154991439	0.1553004	0	0.154991	0.435143	4.35E-03
191.9675	0.155150301	0.1553004	0	0.15515	0.435143	4.35E-03
191.9869	0.155300355	0.1553004	0	0.1553	0.435143	4.35E-03
192.0063	0.155224467	0.1552245	0.000212635	0.155224	0.435143	4.35E-03
192.0257	0.155032637	0.1550349	0.000531024	0.155033	0.434931	4.35E-03
192.0451	0.15458247	0.1550349	0	0.154582	0.4344	4.34E-03
192.0645	0.154508423	0.1550349	0	0.154508	0.4344	4.34E-03
192.0839	0.154455822	0.1550349	0	0.154456	0.4344	4.34E-03
192.1005	0.154310595	0.1550349	0	0.154311	0.4344	4.34E-03
192.1227	0.15417226	0.1550349	0	0.154172	0.4344	4.34E-03
192.1421	0.153766847	0.1550349	0	0.153767	0.4344	4.34E-03
192.1615	0.153701196	0.1550349	0	0.153701	0.4344	4.34E-03
192.1781	0.153580704	0.1550349	0	0.153581	0.4344	4.34E-03
192.1975	0.153250802	0.1550349	0	0.153251	0.4344	4.34E-03
192.2141	0.153101037	0.1550349	0	0.153101	0.4344	4.34E-03
192.2307	0.15292364	0.1550349	0	0.152924	0.4344	4.34E-03
192.2501	0.152711776	0.1550349	0	0.152712	0.4344	4.34E-03
192.2668	0.152462412	0.1550349	0	0.152462	0.4344	4.34E-03
192.2806	0.15240787	0.1550349	0	0.152408	0.4344	4.34E-03
192.2972	0.152342113	0.1550349	0	0.152342	0.4344	4.34E-03
192.3139	0.152410904	0.1550349	0	0.152411	0.4344	4.34E-03
192.3277	0.152236943	0.1550349	0	0.152237	0.4344	4.34E-03
192.3443	0.152165181	0.1550349	0	0.152165	0.4344	4.34E-03
192.361	0.152102955	0.1550349	0	0.152103	0.4344	4.34E-03
192.3748	0.151936143	0.1550349	0	0.151936	0.4344	4.34E-03
192.3914	0.151903531	0.1550349	0	0.151904	0.4344	4.34E-03
192.4053	0.151772279	0.1550349	0	0.151772	0.4344	4.34E-03
192.4219	0.151721058	0.1550349	0	0.151721	0.4344	4.34E-03
192.4385	0.151770121	0.1550349	0	0.15177	0.4344	4.34E-03
192.4524	0.151949594	0.1550349	0	0.15195	0.4344	4.34E-03
192.469	0.15219497	0.1550349	0	0.152195	0.4344	4.34E-03
192.4856	0.152436809	0.1550349	0	0.152437	0.4344	4.34E-03
192.5023	0.152653654	0.1550349	0	0.152654	0.4344	4.34E-03
192.5217	0.152969686	0.1550349	0	0.15297	0.4344	4.34E-03
192.5383	0.15313453	0.1550349	0	0.153135	0.4344	4.34E-03
192.5577	0.153456305	0.1550349	0	0.153456	0.4344	4.34E-03
192.5743	0.153759189	0.1550349	0	0.153759	0.4344	4.34E-03
192.5909	0.154212473	0.1550349	0	0.154212	0.4344	4.34E-03
192.6103	0.154391848	0.1550349	0	0.154392	0.4344	4.34E-03
192.6269	0.154565368	0.1550349	0	0.154565	0.4344	4.34E-03
192.6436	0.154731718	0.1550349	0	0.154732	0.4344	4.34E-03
192.6602	0.154886308	0.1550349	0	0.154886	0.4344	4.34E-03
192.6768	0.154940154	0.1550349	0	0.15494	0.4344	4.34E-03
192.6962	0.154981722	0.1550349	0	0.154982	0.4344	4.34E-03
192.7128	0.155004209	0.1550349	0	0.155004	0.4344	4.34E-03
192.7322	0.155034947	0.1550349	0	0.155035	0.4344	4.34E-03
192.7516	0.15497636	0.1549764	0.000164157	0.154976	0.4344	4.34E-03
192.771	0.154711304	0.1547113	0.000742675	0.154711	0.434236	4.34E-03
192.7904	0.154291387	0.1542914	0.001176585	0.154291	0.433493	4.33E-03
192.8098	0.154146698	0.1541467	0.00040541	0.154147	0.432316	4.32E-03
192.8292	0.15400482	0.1540048	0.000397535	0.154005	0.431911	4.32E-03
192.8486	0.153962389	0.1539624	0.000118891	0.153962	0.431513	4.32E-03
192.868	0.153818848	0.1538188	0.000402194	0.153819	0.431395	4.31E-03
192.8874	0.153524285	0.1535243	0.00082535	0.153524	0.430992	4.31E-03
192.904	0.153303643	0.1534081	0.000325666	0.153304	0.430167	4.30E-03
192.9234	0.153083138	0.1534081	0	0.153083	0.429841	4.30E-03
192.9428	0.152883372	0.1534081	0	0.152883	0.429841	4.30E-03
192.9594	0.152593059	0.1534081	0	0.152593	0.429841	4.30E-03

192.9788	0.152052595	0.1534081	0	0.152053	0.429841	4.30E-03
192.9954	0.151867381	0.1534081	0	0.151867	0.429841	4.30E-03
193.0121	0.15168434	0.1534081	0	0.151684	0.429841	4.30E-03
193.0287	0.151625002	0.1534081	0	0.151625	0.429841	4.30E-03
193.0425	0.151625002	0.1534081	0	0.151625	0.429841	4.30E-03
193.0592	0.151549158	0.1534081	0	0.151549	0.429841	4.30E-03
193.0758	0.15138403	0.1534081	0	0.151384	0.429841	4.30E-03
193.0924	0.151089378	0.1534081	0	0.151089	0.429841	4.30E-03
193.1063	0.150955845	0.1534081	0	0.150956	0.429841	4.30E-03
193.1229	0.150696879	0.1534081	0	0.150697	0.429841	4.30E-03
193.1367	0.150680847	0.1534081	0	0.150681	0.429841	4.30E-03
193.1506	0.150527087	0.1534081	0	0.150527	0.429841	4.30E-03
193.1672	0.150475974	0.1534081	0	0.150476	0.429841	4.30E-03
193.1838	0.150519645	0.1534081	0	0.15052	0.429841	4.30E-03
193.1977	0.150565962	0.1534081	0	0.150566	0.429841	4.30E-03
193.2143	0.150713728	0.1534081	0	0.150714	0.429841	4.30E-03
193.2309	0.150858485	0.1534081	0	0.150858	0.429841	4.30E-03
193.2476	0.150858485	0.1534081	0	0.150858	0.429841	4.30E-03
193.2669	0.151181729	0.1534081	0	0.151182	0.429841	4.30E-03
193.2836	0.151497994	0.1534081	0	0.151498	0.429841	4.30E-03
193.303	0.151716315	0.1534081	0	0.151716	0.429841	4.30E-03
193.3196	0.152022941	0.1534081	0	0.152023	0.429841	4.30E-03
193.3362	0.152212694	0.1534081	0	0.152213	0.429841	4.30E-03
193.3556	0.152290011	0.1534081	0	0.15229	0.429841	4.30E-03
193.3722	0.152581938	0.1534081	0	0.152582	0.429841	4.30E-03
193.3889	0.152847254	0.1534081	0	0.152847	0.429841	4.30E-03
193.4055	0.153162037	0.1534081	0	0.153162	0.429841	4.30E-03
193.4221	0.153108265	0.1534081	0	0.153108	0.429841	4.30E-03
193.4415	0.1532574	0.1534081	0	0.153257	0.429841	4.30E-03
193.4609	0.153408057	0.1534081	0	0.153408	0.429841	4.30E-03
193.4803	0.153335716	0.1533357	0.000202694	0.153336	0.429841	4.30E-03
193.4997	0.153265336	0.1532653	0.000197203	0.153265	0.429639	4.30E-03
193.5191	0.153082825	0.1530828	0.000511385	0.153083	0.429441	4.29E-03
193.5385	0.15244446	0.1524445	0.001788665	0.152444	0.42893	4.29E-03
193.5579	0.152192154	0.1522781	0.000466139	0.152192	0.427141	4.27E-03
193.5773	0.152165802	0.1522781	0	0.152166	0.426675	4.27E-03
193.5966	0.151998574	0.1522781	0	0.151999	0.426675	4.27E-03
193.616	0.151503279	0.1522781	0	0.151503	0.426675	4.27E-03
193.6327	0.151373814	0.1522781	0	0.151374	0.426675	4.27E-03
193.6521	0.151360922	0.1522781	0	0.151361	0.426675	4.27E-03
193.6687	0.151219656	0.1522781	0	0.15122	0.426675	4.27E-03
193.6853	0.150899819	0.1522781	0	0.1509	0.426675	4.27E-03
193.7047	0.150473366	0.1522781	0	0.150473	0.426675	4.27E-03
193.7213	0.15035777	0.1522781	0	0.150358	0.426675	4.27E-03
193.7407	0.150047111	0.1522781	0	0.150047	0.426675	4.27E-03
193.7573	0.149768445	0.1522781	0	0.149768	0.426675	4.27E-03
193.774	0.149692065	0.1522781	0	0.149692	0.426675	4.27E-03
193.7878	0.149791098	0.1522781	0	0.149791	0.426675	4.27E-03
193.8044	0.149610065	0.1522781	0	0.14961	0.426675	4.27E-03
193.8211	0.149438776	0.1522781	0	0.149439	0.426675	4.27E-03
193.8377	0.149171074	0.1522781	0	0.149171	0.426675	4.27E-03
193.8543	0.149005924	0.1522781	0	0.149006	0.426675	4.27E-03
193.8682	0.148947649	0.1522781	0	0.148948	0.426675	4.27E-03
193.8848	0.14894753	0.1522781	0	0.148948	0.426675	4.27E-03
193.8986	0.148890527	0.1522781	0	0.148891	0.426675	4.27E-03
193.9153	0.14883819	0.1522781	0	0.148838	0.426675	4.27E-03
193.9291	0.148679764	0.1522781	0	0.14868	0.426675	4.27E-03
193.9457	0.148623466	0.1522781	0	0.148623	0.426675	4.27E-03
193.9596	0.148659533	0.1522781	0	0.14866	0.426675	4.27E-03
193.9735	0.148860675	0.1522781	0	0.148861	0.426675	4.27E-03
193.9901	0.148981074	0.1522781	0	0.148981	0.426675	4.27E-03
194.0067	0.149028812	0.1522781	0	0.149029	0.426675	4.27E-03
194.0233	0.149363703	0.1522781	0	0.149364	0.426675	4.27E-03
194.0427	0.149921401	0.1522781	0	0.149921	0.426675	4.27E-03
194.0593	0.150025834	0.1522781	0	0.150026	0.426675	4.27E-03
194.076	0.150117202	0.1522781	0	0.150117	0.426675	4.27E-03
194.0898	0.150166567	0.1522781	0	0.150167	0.426675	4.27E-03
194.1064	0.150597199	0.1522781	0	0.150597	0.426675	4.27E-03
194.1231	0.150744278	0.1522781	0	0.150744	0.426675	4.27E-03
194.1397	0.151118435	0.1522781	0	0.151118	0.426675	4.27E-03
194.1563	0.151280502	0.1522781	0	0.151281	0.426675	4.27E-03
194.1729	0.15133095	0.1522781	0	0.151331	0.426675	4.27E-03
194.1923	0.151497565	0.1522781	0	0.151498	0.426675	4.27E-03
194.209	0.151663207	0.1522781	0	0.151663	0.426675	4.27E-03

194.2283	0.151591439	0.1522781	0	0.151591	0.426675	4.27E-03
194.2477	0.151363006	0.1522781	0	0.151363	0.426675	4.27E-03
194.2671	0.151204316	0.1522781	0	0.151204	0.426675	4.27E-03
194.2865	0.150948036	0.1522781	0	0.150948	0.426675	4.27E-03
194.3059	0.150704442	0.1522781	0	0.150704	0.426675	4.27E-03
194.3253	0.15067435	0.1522781	0	0.150674	0.426675	4.27E-03
194.3419	0.150554228	0.1522781	0	0.150554	0.426675	4.27E-03
194.3613	0.150272003	0.1522781	0	0.150272	0.426675	4.27E-03
194.3807	0.150136888	0.1522781	0	0.150137	0.426675	4.27E-03
194.4001	0.150019788	0.1522781	0	0.15002	0.426675	4.27E-03
194.4168	0.149906168	0.1522781	0	0.149906	0.426675	4.27E-03
194.4334	0.14968687	0.1522781	0	0.149687	0.426675	4.27E-03
194.4528	0.149235666	0.1522781	0	0.149236	0.426675	4.27E-03
194.4694	0.148931036	0.1522781	0	0.148931	0.426675	4.27E-03
194.486	0.148748233	0.1522781	0	0.148748	0.426675	4.27E-03
194.5026	0.148564923	0.1522781	0	0.148565	0.426675	4.27E-03
194.5193	0.148390009	0.1522781	0	0.14839	0.426675	4.27E-03
194.5331	0.148399489	0.1522781	0	0.148399	0.426675	4.27E-03
194.547	0.148219325	0.1522781	0	0.148219	0.426675	4.27E-03
194.5636	0.148156963	0.1522781	0	0.148157	0.426675	4.27E-03
194.5802	0.148091225	0.1522781	0	0.148091	0.426675	4.27E-03
194.5968	0.147816272	0.1522781	0	0.147816	0.426675	4.27E-03
194.6107	0.147724047	0.1522781	0	0.147724	0.426675	4.27E-03
194.6245	0.147670158	0.1522781	0	0.14767	0.426675	4.27E-03
194.6412	0.147612804	0.1522781	0	0.147613	0.426675	4.27E-03
194.6578	0.147562542	0.1522781	0	0.147563	0.426675	4.27E-03
194.6716	0.147720889	0.1522781	0	0.147721	0.426675	4.27E-03
194.6855	0.147762743	0.1522781	0	0.147763	0.426675	4.27E-03
194.6994	0.147762743	0.1522781	0	0.147763	0.426675	4.27E-03
194.716	0.147825028	0.1522781	0	0.147825	0.426675	4.27E-03
194.7326	0.147861051	0.1522781	0	0.147861	0.426675	4.27E-03
194.7465	0.148005054	0.1522781	0	0.148005	0.426675	4.27E-03
194.7631	0.1483291	0.1522781	0	0.148329	0.426675	4.27E-03
194.7825	0.148663886	0.1522781	0	0.148664	0.426675	4.27E-03
194.7991	0.148862236	0.1522781	0	0.148862	0.426675	4.27E-03
194.8157	0.148965795	0.1522781	0	0.148966	0.426675	4.27E-03
194.8323	0.148993347	0.1522781	0	0.148993	0.426675	4.27E-03
194.8462	0.149205144	0.1522781	0	0.149205	0.426675	4.27E-03
194.8656	0.149604494	0.1522781	0	0.149604	0.426675	4.27E-03
194.8822	0.149989452	0.1522781	0	0.149989	0.426675	4.27E-03
194.8988	0.150407574	0.1522781	0	0.150408	0.426675	4.27E-03
194.9155	0.150569813	0.1522781	0	0.15057	0.426675	4.27E-03
194.9321	0.150626293	0.1522781	0	0.150626	0.426675	4.27E-03
194.9487	0.150795122	0.1522781	0	0.150795	0.426675	4.27E-03
194.9681	0.151058868	0.1522781	0	0.151059	0.426675	4.27E-03
194.9875	0.151107698	0.1522781	0	0.151108	0.426675	4.27E-03
195.0069	0.151069344	0.1522781	0	0.151069	0.426675	4.27E-03
195.0291	0.150909019	0.1522781	0	0.150909	0.426675	4.27E-03
195.0484	0.150507784	0.1522781	0	0.150508	0.426675	4.27E-03
195.0651	0.150468255	0.1522781	0	0.150468	0.426675	4.27E-03
195.0845	0.150544198	0.1522781	0	0.150544	0.426675	4.27E-03
195.1011	0.150523172	0.1522781	0	0.150523	0.426675	4.27E-03
195.1233	0.150308242	0.1522781	0	0.150308	0.426675	4.27E-03
195.1399	0.150184352	0.1522781	0	0.150184	0.426675	4.27E-03
195.1593	0.149834089	0.1522781	0	0.149834	0.426675	4.27E-03
195.1759	0.149533934	0.1522781	0	0.149534	0.426675	4.27E-03
195.1953	0.149336342	0.1522781	0	0.149336	0.426675	4.27E-03
195.2119	0.14914922	0.1522781	0	0.149149	0.426675	4.27E-03
195.2285	0.148853573	0.1522781	0	0.148854	0.426675	4.27E-03
195.2452	0.148868435	0.1522781	0	0.148868	0.426675	4.27E-03
195.2618	0.148686459	0.1522781	0	0.148686	0.426675	4.27E-03
195.2784	0.148639541	0.1522781	0	0.14864	0.426675	4.27E-03
195.2923	0.148578617	0.1522781	0	0.148579	0.426675	4.27E-03
195.3089	0.14842346	0.1522781	0	0.148423	0.426675	4.27E-03
195.3255	0.148482793	0.1522781	0	0.148483	0.426675	4.27E-03
195.3421	0.148533303	0.1522781	0	0.148533	0.426675	4.27E-03
195.3588	0.148539679	0.1522781	0	0.14854	0.426675	4.27E-03
195.3726	0.148388093	0.1522781	0	0.148388	0.426675	4.27E-03
195.3892	0.14824645	0.1522781	0	0.148246	0.426675	4.27E-03
195.4031	0.148311943	0.1522781	0	0.148312	0.426675	4.27E-03
195.4197	0.1483596	0.1522781	0	0.14836	0.426675	4.27E-03
195.4336	0.148407892	0.1522781	0	0.148408	0.426675	4.27E-03
195.4502	0.148397546	0.1522781	0	0.148398	0.426675	4.27E-03
195.464	0.148446584	0.1522781	0	0.148447	0.426675	4.27E-03

195.4807	0.1487026	0.1522781	0	0.148703	0.426675	4.27E-03
195.4973	0.148929289	0.1522781	0	0.148929	0.426675	4.27E-03
195.5139	0.149261444	0.1522781	0	0.149261	0.426675	4.27E-03
195.5305	0.149417843	0.1522781	0	0.149418	0.426675	4.27E-03
195.5472	0.150076381	0.1522781	0	0.150076	0.426675	4.27E-03
195.5666	0.150253697	0.1522781	0	0.150254	0.426675	4.27E-03
195.5832	0.150339687	0.1522781	0	0.15034	0.426675	4.27E-03
195.597	0.150518949	0.1522781	0	0.150519	0.426675	4.27E-03
195.6137	0.150882969	0.1522781	0	0.150883	0.426675	4.27E-03
195.6303	0.15114219	0.1522781	0	0.151142	0.426675	4.27E-03
195.6469	0.151174739	0.1522781	0	0.151175	0.426675	4.27E-03
195.6635	0.151333492	0.1522781	0	0.151333	0.426675	4.27E-03
195.6829	0.151583153	0.1522781	0	0.151583	0.426675	4.27E-03
195.6995	0.152056121	0.1522781	0	0.152056	0.426675	4.27E-03
195.7189	0.15209576	0.1522781	0	0.152096	0.426675	4.27E-03
195.7356	0.152137809	0.1522781	0	0.152138	0.426675	4.27E-03
195.7577	0.152278098	0.1522781	0	0.152278	0.426675	4.27E-03
195.7771	0.152097204	0.1520972	0.000506857	0.152097	0.426675	4.27E-03
195.7965	0.151918869	0.1520662	8.69334E-05	0.151919	0.426168	4.26E-03
195.8131	0.151747108	0.1520662	0	0.151747	0.426082	4.26E-03
195.8325	0.15172093	0.1520662	0	0.151721	0.426082	4.26E-03
195.8519	0.151669115	0.1520662	0	0.151669	0.426082	4.26E-03
195.8741	0.15132364	0.1520662	0	0.151324	0.426082	4.26E-03
195.8935	0.151172808	0.1520662	0	0.151173	0.426082	4.26E-03
195.9129	0.15102613	0.1520662	0	0.151026	0.426082	4.26E-03
195.9295	0.150891701	0.1520662	0	0.150892	0.426082	4.26E-03
195.9461	0.150622053	0.1520662	0	0.150622	0.426082	4.26E-03
195.9655	0.150400551	0.1520662	0	0.150401	0.426082	4.26E-03
195.9821	0.150075585	0.1520662	0	0.150076	0.426082	4.26E-03
195.9988	0.149865303	0.1520662	0	0.149865	0.426082	4.26E-03
196.0154	0.149653444	0.1520662	0	0.149653	0.426082	4.26E-03
196.032	0.149461137	0.1520662	0	0.149461	0.426082	4.26E-03
196.0459	0.149430051	0.1520662	0	0.14943	0.426082	4.26E-03
196.0625	0.149347154	0.1520662	0	0.149347	0.426082	4.26E-03
196.0791	0.149263024	0.1520662	0	0.149263	0.426082	4.26E-03
196.0957	0.149182514	0.1520662	0	0.149183	0.426082	4.26E-03
196.1096	0.149015903	0.1520662	0	0.149016	0.426082	4.26E-03
196.1234	0.148845839	0.1520662	0	0.148846	0.426082	4.26E-03
196.1401	0.148777681	0.1520662	0	0.148778	0.426082	4.26E-03
196.1539	0.148874587	0.1520662	0	0.148875	0.426082	4.26E-03
196.1678	0.148915388	0.1520662	0	0.148915	0.426082	4.26E-03
196.1816	0.14893543	0.1520662	0	0.148935	0.426082	4.26E-03
196.1983	0.148881525	0.1520662	0	0.148882	0.426082	4.26E-03
196.2121	0.149119106	0.1520662	0	0.149119	0.426082	4.26E-03
196.2287	0.14924103	0.1520662	0	0.149241	0.426082	4.26E-03
196.2454	0.149478325	0.1520662	0	0.149478	0.426082	4.26E-03
196.262	0.149794818	0.1520662	0	0.149795	0.426082	4.26E-03
196.2814	0.15010033	0.1520662	0	0.1501	0.426082	4.26E-03
196.298	0.150401436	0.1520662	0	0.150401	0.426082	4.26E-03
196.3146	0.150448047	0.1520662	0	0.150448	0.426082	4.26E-03
196.334	0.150563883	0.1520662	0	0.150564	0.426082	4.26E-03
196.3506	0.150609217	0.1520662	0	0.150609	0.426082	4.26E-03
196.3673	0.150784848	0.1520662	0	0.150785	0.426082	4.26E-03
196.3839	0.150972429	0.1520662	0	0.150972	0.426082	4.26E-03
196.4005	0.151243927	0.1520662	0	0.151244	0.426082	4.26E-03
196.4199	0.15163428	0.1520662	0	0.151634	0.426082	4.26E-03
196.4365	0.151782166	0.1520662	0	0.151782	0.426082	4.26E-03
196.4531	0.151925799	0.1520662	0	0.151926	0.426082	4.26E-03
196.4725	0.152066178	0.1520662	0	0.152066	0.426082	4.26E-03
196.4919	0.151998691	0.1519987	0.000189093	0.151999	0.426082	4.26E-03
196.5113	0.151932016	0.151932	0.000186821	0.151932	0.425892	4.26E-03
196.5335	0.151817599	0.1519208	3.1537E-05	0.151818	0.425706	4.26E-03
196.5529	0.151548504	0.1519208	0	0.151549	0.425674	4.26E-03
196.5723	0.151291027	0.1519208	0	0.151291	0.425674	4.26E-03
196.5889	0.151356089	0.1519208	0	0.151356	0.425674	4.26E-03
196.6083	0.151419951	0.1519208	0	0.15142	0.425674	4.26E-03
196.6277	0.151216162	0.1519208	0	0.151216	0.425674	4.26E-03
196.6471	0.151098182	0.1519208	0	0.151098	0.425674	4.26E-03
196.6637	0.150857266	0.1519208	0	0.150857	0.425674	4.26E-03
196.6831	0.150615282	0.1519208	0	0.150615	0.425674	4.26E-03
196.7025	0.150498721	0.1519208	0	0.150499	0.425674	4.26E-03
196.7191	0.150160205	0.1519208	0	0.15016	0.425674	4.26E-03
196.7357	0.149945201	0.1519208	0	0.149945	0.425674	4.26E-03
196.7551	0.149826806	0.1519208	0	0.149827	0.425674	4.26E-03

196.7718	0.149529861	0.1519208	0	0.14953	0.425674	4.26E-03
196.7884	0.149423596	0.1519208	0	0.149424	0.425674	4.26E-03
196.805	0.149347254	0.1519208	0	0.149347	0.425674	4.26E-03
196.8189	0.149265186	0.1519208	0	0.149265	0.425674	4.26E-03
196.8355	0.149065901	0.1519208	0	0.149066	0.425674	4.26E-03
196.8521	0.148784552	0.1519208	0	0.148785	0.425674	4.26E-03
196.8687	0.14877118	0.1519208	0	0.148771	0.425674	4.26E-03
196.8826	0.148501464	0.1519208	0	0.148501	0.425674	4.26E-03
196.8992	0.148430341	0.1519208	0	0.14843	0.425674	4.26E-03
196.9131	0.148465628	0.1519208	0	0.148466	0.425674	4.26E-03
196.9297	0.148608836	0.1519208	0	0.148609	0.425674	4.26E-03
196.9435	0.148800347	0.1519208	0	0.1488	0.425674	4.26E-03
196.9602	0.148912595	0.1519208	0	0.148913	0.425674	4.26E-03
196.974	0.148862425	0.1519208	0	0.148862	0.425674	4.26E-03
196.9906	0.149083699	0.1519208	0	0.149084	0.425674	4.26E-03
197.0073	0.149293422	0.1519208	0	0.149293	0.425674	4.26E-03
197.0267	0.149496247	0.1519208	0	0.149496	0.425674	4.26E-03
197.0433	0.149802051	0.1519208	0	0.149802	0.425674	4.26E-03
197.0599	0.150082178	0.1519208	0	0.150082	0.425674	4.26E-03
197.0765	0.15026675	0.1519208	0	0.150267	0.425674	4.26E-03
197.0932	0.150307508	0.1519208	0	0.150308	0.425674	4.26E-03
197.1098	0.150724313	0.1519208	0	0.150724	0.425674	4.26E-03
197.1264	0.150881915	0.1519208	0	0.150882	0.425674	4.26E-03
197.143	0.15103792	0.1519208	0	0.151038	0.425674	4.26E-03
197.1624	0.15129712	0.1519208	0	0.151297	0.425674	4.26E-03
197.179	0.151647553	0.1519208	0	0.151648	0.425674	4.26E-03
197.1984	0.151886599	0.1519208	0	0.151887	0.425674	4.26E-03
197.2178	0.151920761	0.1519208	0	0.151921	0.425674	4.26E-03
197.2345	0.151839804	0.1518398	0.000226836	0.15184	0.425674	4.26E-03
197.2566	0.151680893	0.1518223	4.90926E-05	0.151681	0.425447	4.25E-03
197.276	0.151495273	0.1518223	0	0.151495	0.425398	4.25E-03
197.2954	0.151216584	0.1518223	0	0.151217	0.425398	4.25E-03
197.3148	0.150955346	0.1518223	0	0.150955	0.425398	4.25E-03
197.3314	0.150993158	0.1518223	0	0.150993	0.425398	4.25E-03
197.3508	0.150685268	0.1518223	0	0.150685	0.425398	4.25E-03
197.3674	0.150643522	0.1518223	0	0.150644	0.425398	4.25E-03
197.3868	0.150503402	0.1518223	0	0.150503	0.425398	4.25E-03
197.4062	0.150252421	0.1518223	0	0.150252	0.425398	4.25E-03
197.4256	0.150134475	0.1518223	0	0.150134	0.425398	4.25E-03
197.4423	0.15002331	0.1518223	0	0.150023	0.425398	4.25E-03
197.4616	0.149768059	0.1518223	0	0.149768	0.425398	4.25E-03
197.4783	0.149555653	0.1518223	0	0.149556	0.425398	4.25E-03
197.4949	0.149370162	0.1518223	0	0.14937	0.425398	4.25E-03
197.5115	0.149080523	0.1518223	0	0.149081	0.425398	4.25E-03
197.5281	0.149054689	0.1518223	0	0.149055	0.425398	4.25E-03
197.5448	0.148786052	0.1518223	0	0.148786	0.425398	4.25E-03
197.5586	0.148636711	0.1518223	0	0.148637	0.425398	4.25E-03
197.5752	0.148579281	0.1518223	0	0.148579	0.425398	4.25E-03
197.5919	0.148515527	0.1518223	0	0.148516	0.425398	4.25E-03
197.6085	0.148357203	0.1518223	0	0.148357	0.425398	4.25E-03
197.6251	0.148350534	0.1518223	0	0.148351	0.425398	4.25E-03
197.639	0.14819341	0.1518223	0	0.148193	0.425398	4.25E-03
197.6556	0.148147553	0.1518223	0	0.148148	0.425398	4.25E-03
197.6694	0.148079816	0.1518223	0	0.14808	0.425398	4.25E-03
197.6861	0.148035439	0.1518223	0	0.148035	0.425398	4.25E-03
197.7027	0.148185725	0.1518223	0	0.148186	0.425398	4.25E-03
197.7165	0.148272195	0.1518223	0	0.148272	0.425398	4.25E-03
197.7332	0.148406674	0.1518223	0	0.148407	0.425398	4.25E-03
197.7498	0.148368262	0.1518223	0	0.148368	0.425398	4.25E-03
197.7636	0.14850494	0.1518223	0	0.148505	0.425398	4.25E-03
197.783	0.148735799	0.1518223	0	0.148736	0.425398	4.25E-03
197.7997	0.149059666	0.1518223	0	0.14906	0.425398	4.25E-03
197.8163	0.149375016	0.1518223	0	0.149375	0.425398	4.25E-03
197.8329	0.149481109	0.1518223	0	0.149481	0.425398	4.25E-03
197.8495	0.149484943	0.1518223	0	0.149485	0.425398	4.25E-03
197.8662	0.14970172	0.1518223	0	0.149702	0.425398	4.25E-03
197.8828	0.150021553	0.1518223	0	0.150022	0.425398	4.25E-03
197.9022	0.150342225	0.1518223	0	0.150342	0.425398	4.25E-03
197.9188	0.150494412	0.1518223	0	0.150494	0.425398	4.25E-03
197.9382	0.150594317	0.1518223	0	0.150594	0.425398	4.25E-03
197.9576	0.150659058	0.1518223	0	0.150659	0.425398	4.25E-03
197.977	0.150867684	0.1518223	0	0.150868	0.425398	4.25E-03
197.9964	0.150837337	0.1518223	0	0.150837	0.425398	4.25E-03
198.0158	0.150697231	0.1518223	0	0.150697	0.425398	4.25E-03

198.0352	0.150291073	0.1518223	0	0.150291	0.425398	4.25E-03
198.0546	0.150276474	0.1518223	0	0.150276	0.425398	4.25E-03
198.074	0.150251186	0.1518223	0	0.150251	0.425398	4.25E-03
198.0933	0.150163748	0.1518223	0	0.150164	0.425398	4.25E-03
198.11	0.150044619	0.1518223	0	0.150045	0.425398	4.25E-03
198.1294	0.149775988	0.1518223	0	0.149776	0.425398	4.25E-03
198.146	0.14955223	0.1518223	0	0.149552	0.425398	4.25E-03
198.1654	0.14923576	0.1518223	0	0.149236	0.425398	4.25E-03
198.1848	0.149041984	0.1518223	0	0.149042	0.425398	4.25E-03
198.2014	0.148746012	0.1518223	0	0.148746	0.425398	4.25E-03
198.218	0.148561574	0.1518223	0	0.148562	0.425398	4.25E-03
198.2346	0.148174925	0.1518223	0	0.148175	0.425398	4.25E-03
198.2513	0.148183175	0.1518223	0	0.148183	0.425398	4.25E-03
198.2679	0.147918834	0.1518223	0	0.147919	0.425398	4.25E-03
198.2845	0.14776824	0.1518223	0	0.147768	0.425398	4.25E-03
198.2984	0.14760135	0.1518223	0	0.147601	0.425398	4.25E-03
198.315	0.147675583	0.1518223	0	0.147676	0.425398	4.25E-03
198.3344	0.147727132	0.1518223	0	0.147727	0.425398	4.25E-03
198.3482	0.147729953	0.1518223	0	0.14773	0.425398	4.25E-03
198.3649	0.147678058	0.1518223	0	0.147678	0.425398	4.25E-03
198.3815	0.147631709	0.1518223	0	0.147632	0.425398	4.25E-03
198.3953	0.147484097	0.1518223	0	0.147484	0.425398	4.25E-03
198.412	0.147252836	0.1518223	0	0.147253	0.425398	4.25E-03
198.4286	0.147218037	0.1518223	0	0.147218	0.425398	4.25E-03
198.4424	0.147282128	0.1518223	0	0.147282	0.425398	4.25E-03
198.4591	0.147400952	0.1518223	0	0.147401	0.425398	4.25E-03
198.4757	0.147554927	0.1518223	0	0.147555	0.425398	4.25E-03
198.4923	0.147801022	0.1518223	0	0.147801	0.425398	4.25E-03
198.5089	0.147857788	0.1518223	0	0.147858	0.425398	4.25E-03
198.5256	0.148076173	0.1518223	0	0.148076	0.425398	4.25E-03
198.5422	0.148402737	0.1518223	0	0.148403	0.425398	4.25E-03
198.5588	0.148866858	0.1518223	0	0.148867	0.425398	4.25E-03
198.5754	0.148960548	0.1518223	0	0.148961	0.425398	4.25E-03
198.5921	0.14914043	0.1518223	0	0.14914	0.425398	4.25E-03
198.6087	0.149225241	0.1518223	0	0.149225	0.425398	4.25E-03
198.6253	0.149408689	0.1518223	0	0.149409	0.425398	4.25E-03
198.6419	0.149544749	0.1518223	0	0.149545	0.425398	4.25E-03
198.6586	0.149819362	0.1518223	0	0.149819	0.425398	4.25E-03
198.6752	0.149982146	0.1518223	0	0.149982	0.425398	4.25E-03
198.6946	0.149934479	0.1518223	0	0.149934	0.425398	4.25E-03
198.714	0.150096592	0.1518223	0	0.150097	0.425398	4.25E-03
198.7306	0.150250126	0.1518223	0	0.15025	0.425398	4.25E-03
198.75	0.150418642	0.1518223	0	0.150419	0.425398	4.25E-03
198.7694	0.150189188	0.1518223	0	0.150189	0.425398	4.25E-03
198.7888	0.149952701	0.1518223	0	0.149953	0.425398	4.25E-03
198.8109	0.149528768	0.1518223	0	0.149529	0.425398	4.25E-03
198.8276	0.149401307	0.1518223	0	0.149401	0.425398	4.25E-03
198.8442	0.149287551	0.1518223	0	0.149288	0.425398	4.25E-03
198.8608	0.149267038	0.1518223	0	0.149267	0.425398	4.25E-03
198.883	0.149058863	0.1518223	0	0.149059	0.425398	4.25E-03
198.8996	0.148826977	0.1518223	0	0.148827	0.425398	4.25E-03
198.919	0.148411612	0.1518223	0	0.148412	0.425398	4.25E-03
198.9356	0.148308559	0.1518223	0	0.148309	0.425398	4.25E-03
198.9522	0.148112483	0.1518223	0	0.148112	0.425398	4.25E-03
198.9689	0.147833074	0.1518223	0	0.147833	0.425398	4.25E-03
198.9855	0.147561657	0.1518223	0	0.147562	0.425398	4.25E-03
199.0021	0.147397421	0.1518223	0	0.147397	0.425398	4.25E-03
199.0187	0.147249875	0.1518223	0	0.14725	0.425398	4.25E-03
199.0326	0.147275722	0.1518223	0	0.147276	0.425398	4.25E-03
199.0492	0.147124211	0.1518223	0	0.147124	0.425398	4.25E-03
199.0658	0.146984913	0.1518223	0	0.146985	0.425398	4.25E-03
199.0825	0.146841534	0.1518223	0	0.146842	0.425398	4.25E-03
199.0963	0.146802577	0.1518223	0	0.146803	0.425398	4.25E-03
199.1129	0.146775791	0.1518223	0	0.146776	0.425398	4.25E-03
199.1268	0.146775791	0.1518223	0	0.146776	0.425398	4.25E-03
199.1434	0.146743043	0.1518223	0	0.146743	0.425398	4.25E-03
199.1573	0.146810559	0.1518223	0	0.146811	0.425398	4.25E-03
199.1711	0.146788238	0.1518223	0	0.146788	0.425398	4.25E-03
199.1877	0.146780595	0.1518223	0	0.146781	0.425398	4.25E-03
199.2016	0.146963772	0.1518223	0	0.146964	0.425398	4.25E-03
199.2182	0.147236654	0.1518223	0	0.147237	0.425398	4.25E-03
199.2321	0.147236654	0.1518223	0	0.147237	0.425398	4.25E-03
199.2487	0.147517461	0.1518223	0	0.147517	0.425398	4.25E-03
199.2653	0.147767638	0.1518223	0	0.147768	0.425398	4.25E-03

199.2819	0.147918229	0.1518223	0	0.147918	0.425398	4.25E-03
199.2986	0.148292218	0.1518223	0	0.148292	0.425398	4.25E-03
199.318	0.14842152	0.1518223	0	0.148422	0.425398	4.25E-03
199.3346	0.148550084	0.1518223	0	0.14855	0.425398	4.25E-03
199.3512	0.148769809	0.1518223	0	0.14877	0.425398	4.25E-03
199.3678	0.148886336	0.1518223	0	0.148886	0.425398	4.25E-03
199.3845	0.149107875	0.1518223	0	0.149108	0.425398	4.25E-03
199.4011	0.149248273	0.1518223	0	0.149248	0.425398	4.25E-03
199.4149	0.149443888	0.1518223	0	0.149444	0.425398	4.25E-03
199.4343	0.149642996	0.1518223	0	0.149643	0.425398	4.25E-03
199.4509	0.149727235	0.1518223	0	0.149727	0.425398	4.25E-03
199.4703	0.149825169	0.1518223	0	0.149825	0.425398	4.25E-03
199.4897	0.14992918	0.1518223	0	0.149929	0.425398	4.25E-03
199.5091	0.149803136	0.1518223	0	0.149803	0.425398	4.25E-03
199.5285	0.149712976	0.1518223	0	0.149713	0.425398	4.25E-03
199.5507	0.149602306	0.1518223	0	0.149602	0.425398	4.25E-03
199.5673	0.149280477	0.1518223	0	0.14928	0.425398	4.25E-03
199.5867	0.149191048	0.1518223	0	0.149191	0.425398	4.25E-03
199.6061	0.149012904	0.1518223	0	0.149013	0.425398	4.25E-03
199.6227	0.148935806	0.1518223	0	0.148936	0.425398	4.25E-03
199.6421	0.148697979	0.1518223	0	0.148698	0.425398	4.25E-03
199.6615	0.148547722	0.1518223	0	0.148548	0.425398	4.25E-03
199.6781	0.148288028	0.1518223	0	0.148288	0.425398	4.25E-03
199.6948	0.147923265	0.1518223	0	0.147923	0.425398	4.25E-03
199.7142	0.14773981	0.1518223	0	0.14774	0.425398	4.25E-03
199.7308	0.147606891	0.1518223	0	0.147607	0.425398	4.25E-03
199.7502	0.147379717	0.1518223	0	0.14738	0.425398	4.25E-03
199.764	0.147332585	0.1518223	0	0.147333	0.425398	4.25E-03
199.7806	0.147217849	0.1518223	0	0.147218	0.425398	4.25E-03
199.7945	0.147029718	0.1518223	0	0.14703	0.425398	4.25E-03
199.8084	0.147090076	0.1518223	0	0.14709	0.425398	4.25E-03
199.825	0.146999088	0.1518223	0	0.146999	0.425398	4.25E-03
199.8388	0.147034228	0.1518223	0	0.147034	0.425398	4.25E-03
199.8555	0.147107712	0.1518223	0	0.147108	0.425398	4.25E-03
199.8721	0.146967381	0.1518223	0	0.146967	0.425398	4.25E-03
199.8859	0.146938942	0.1518223	0	0.146939	0.425398	4.25E-03
199.8998	0.147007142	0.1518223	0	0.147007	0.425398	4.25E-03
199.9164	0.147028661	0.1518223	0	0.147029	0.425398	4.25E-03
199.9303	0.147001601	0.1518223	0	0.147002	0.425398	4.25E-03
199.9469	0.147150312	0.1518223	0	0.14715	0.425398	4.25E-03
199.9635	0.147397366	0.1518223	0	0.147397	0.425398	4.25E-03
199.9774	0.147441278	0.1518223	0	0.147441	0.425398	4.25E-03
199.994	0.147682011	0.1518223	0	0.147682	0.425398	4.25E-03
200.0106	0.147926519	0.1518223	0	0.147927	0.425398	4.25E-03
200.0272	0.148340838	0.1518223	0	0.148341	0.425398	4.25E-03
200.0439	0.148767875	0.1518223	0	0.148768	0.425398	4.25E-03
200.0605	0.148807104	0.1518223	0	0.148807	0.425398	4.25E-03
200.0771	0.148916673	0.1518223	0	0.148917	0.425398	4.25E-03
200.0937	0.149122193	0.1518223	0	0.149122	0.425398	4.25E-03
200.1104	0.149416189	0.1518223	0	0.149416	0.425398	4.25E-03
200.127	0.149860427	0.1518223	0	0.14986	0.425398	4.25E-03
200.1436	0.150054001	0.1518223	0	0.150054	0.425398	4.25E-03
200.163	0.150229818	0.1518223	0	0.15023	0.425398	4.25E-03
200.1796	0.150408845	0.1518223	0	0.150409	0.425398	4.25E-03
200.1962	0.150576258	0.1518223	0	0.150576	0.425398	4.25E-03
200.2156	0.150749326	0.1518223	0	0.150749	0.425398	4.25E-03
200.235	0.150923523	0.1518223	0	0.150924	0.425398	4.25E-03
200.2544	0.150879716	0.1518223	0	0.15088	0.425398	4.25E-03
200.2738	0.150688595	0.1518223	0	0.150689	0.425398	4.25E-03
200.2904	0.150656463	0.1518223	0	0.150656	0.425398	4.25E-03
200.3098	0.150416652	0.1518223	0	0.150417	0.425398	4.25E-03
200.3292	0.150201403	0.1518223	0	0.150201	0.425398	4.25E-03
200.3459	0.15008735	0.1518223	0	0.150087	0.425398	4.25E-03
200.3652	0.149987938	0.1518223	0	0.149988	0.425398	4.25E-03
200.3819	0.149977309	0.1518223	0	0.149977	0.425398	4.25E-03
200.4013	0.149858212	0.1518223	0	0.149858	0.425398	4.25E-03
200.4207	0.149845321	0.1518223	0	0.149845	0.425398	4.25E-03
200.4373	0.14963241	0.1518223	0	0.149632	0.425398	4.25E-03
200.4539	0.149405659	0.1518223	0	0.149406	0.425398	4.25E-03
200.4733	0.149100065	0.1518223	0	0.1491	0.425398	4.25E-03
200.4899	0.148779503	0.1518223	0	0.14878	0.425398	4.25E-03
200.5065	0.148767125	0.1518223	0	0.148767	0.425398	4.25E-03
200.5204	0.148582896	0.1518223	0	0.148583	0.425398	4.25E-03
200.537	0.148299298	0.1518223	0	0.148299	0.425398	4.25E-03

200.5509	0.148221471	0.1518223	0	0.148221	0.425398	4.25E-03
200.5647	0.148326052	0.1518223	0	0.148326	0.425398	4.25E-03
200.5814	0.14837551	0.1518223	0	0.148376	0.425398	4.25E-03
200.5952	0.14823386	0.1518223	0	0.148234	0.425398	4.25E-03
200.6091	0.148285308	0.1518223	0	0.148285	0.425398	4.25E-03
200.6257	0.148224763	0.1518223	0	0.148225	0.425398	4.25E-03
200.6395	0.148220787	0.1518223	0	0.148221	0.425398	4.25E-03
200.6534	0.148064895	0.1518223	0	0.148065	0.425398	4.25E-03
200.6672	0.148137134	0.1518223	0	0.148137	0.425398	4.25E-03
200.6811	0.148184418	0.1518223	0	0.148184	0.425398	4.25E-03
200.695	0.148234656	0.1518223	0	0.148235	0.425398	4.25E-03
200.7116	0.148238355	0.1518223	0	0.148238	0.425398	4.25E-03
200.7254	0.148284715	0.1518223	0	0.148285	0.425398	4.25E-03
200.7421	0.148547141	0.1518223	0	0.148547	0.425398	4.25E-03
200.7559	0.148608312	0.1518223	0	0.148608	0.425398	4.25E-03
200.7725	0.149046831	0.1518223	0	0.149047	0.425398	4.25E-03
200.7892	0.149488361	0.1518223	0	0.149488	0.425398	4.25E-03
200.8058	0.149916679	0.1518223	0	0.149917	0.425398	4.25E-03
200.8224	0.15012938	0.1518223	0	0.150129	0.425398	4.25E-03
200.839	0.150557529	0.1518223	0	0.150558	0.425398	4.25E-03
200.8556	0.150745465	0.1518223	0	0.150745	0.425398	4.25E-03
200.8723	0.15089079	0.1518223	0	0.150891	0.425398	4.25E-03
200.8917	0.151272237	0.1518223	0	0.151272	0.425398	4.25E-03
200.9083	0.151432488	0.1518223	0	0.151432	0.425398	4.25E-03
200.9249	0.151493736	0.1518223	0	0.151494	0.425398	4.25E-03
200.9415	0.151652471	0.1518223	0	0.151652	0.425398	4.25E-03
200.9609	0.151710627	0.1518223	0	0.151711	0.425398	4.25E-03
200.9803	0.151822283	0.1518223	0	0.151822	0.425398	4.25E-03
200.9997	0.151759064	0.1517591	0.000177135	0.151759	0.425398	4.25E-03
201.0191	0.151700899	0.1517009	0.000162978	0.151701	0.425221	4.25E-03
201.0413	0.151648583	0.1516486	0.000146584	0.151649	0.425058	4.25E-03
201.0607	0.151354557	0.1514015	0.000692364	0.151355	0.424911	4.25E-03
201.0773	0.151326845	0.1514015	0	0.151327	0.424219	4.24E-03
201.0967	0.151196601	0.1514015	0	0.151197	0.424219	4.24E-03
201.1161	0.151065903	0.1514015	0	0.151066	0.424219	4.24E-03
201.1355	0.150932595	0.1514015	0	0.150933	0.424219	4.24E-03
201.1521	0.150382288	0.1514015	0	0.150382	0.424219	4.24E-03
201.1687	0.15006225	0.1514015	0	0.150062	0.424219	4.24E-03
201.1881	0.150059778	0.1514015	0	0.15006	0.424219	4.24E-03
201.2047	0.150048268	0.1514015	0	0.150048	0.424219	4.24E-03
201.2241	0.149714798	0.1514015	0	0.149715	0.424219	4.24E-03
201.238	0.149386041	0.1514015	0	0.149386	0.424219	4.24E-03
201.2574	0.149099029	0.1514015	0	0.149099	0.424219	4.24E-03
201.2712	0.148997926	0.1514015	0	0.148998	0.424219	4.24E-03
201.2879	0.148806998	0.1514015	0	0.148807	0.424219	4.24E-03
201.3045	0.148629075	0.1514015	0	0.148629	0.424219	4.24E-03
201.3183	0.14855302	0.1514015	0	0.148553	0.424219	4.24E-03
201.335	0.148471622	0.1514015	0	0.148472	0.424219	4.24E-03
201.3488	0.148296686	0.1514015	0	0.148297	0.424219	4.24E-03
201.3654	0.148225653	0.1514015	0	0.148226	0.424219	4.24E-03
201.3821	0.148033962	0.1514015	0	0.148034	0.424219	4.24E-03
201.3959	0.147953778	0.1514015	0	0.147954	0.424219	4.24E-03
201.4125	0.147796746	0.1514015	0	0.147797	0.424219	4.24E-03
201.4292	0.147730294	0.1514015	0	0.14773	0.424219	4.24E-03
201.443	0.147778772	0.1514015	0	0.147779	0.424219	4.24E-03
201.4596	0.147719192	0.1514015	0	0.147719	0.424219	4.24E-03
201.4735	0.147746985	0.1514015	0	0.147747	0.424219	4.24E-03
201.4901	0.147976097	0.1514015	0	0.147976	0.424219	4.24E-03
201.5067	0.148087874	0.1514015	0	0.148088	0.424219	4.24E-03
201.5234	0.148478219	0.1514015	0	0.148478	0.424219	4.24E-03
201.54	0.148892092	0.1514015	0	0.148892	0.424219	4.24E-03
201.5594	0.149292755	0.1514015	0	0.149293	0.424219	4.24E-03
201.576	0.149578541	0.1514015	0	0.149579	0.424219	4.24E-03
201.5954	0.149959177	0.1514015	0	0.149959	0.424219	4.24E-03
201.612	0.150120801	0.1514015	0	0.150121	0.424219	4.24E-03
201.6286	0.150380326	0.1514015	0	0.15038	0.424219	4.24E-03
201.6453	0.150592054	0.1514015	0	0.150592	0.424219	4.24E-03
201.6619	0.150811338	0.1514015	0	0.150811	0.424219	4.24E-03
201.6813	0.151206232	0.1514015	0	0.151206	0.424219	4.24E-03
201.6979	0.151289369	0.1514015	0	0.151289	0.424219	4.24E-03
201.7145	0.151366061	0.1514015	0	0.151366	0.424219	4.24E-03
201.7339	0.151334788	0.1514015	0	0.151335	0.424219	4.24E-03
201.7561	0.151401483	0.1514015	0	0.151401	0.424219	4.24E-03
201.7755	0.151278951	0.151279	0.000343326	0.151279	0.424219	4.24E-03

201.7977	0.151153073	0.1511531	0.000352705	0.151153	0.423876	4.24E-03
201.8143	0.150763848	0.1507638	0.001090586	0.150764	0.423523	4.24E-03
201.8337	0.150555508	0.1505555	0.00058376	0.150556	0.422432	4.22E-03
201.8531	0.150388315	0.1503883	0.000468464	0.150388	0.421849	4.22E-03
201.8725	0.150122609	0.1501226	0.000744495	0.150123	0.42138	4.21E-03
201.8919	0.149524966	0.149525	0.001674565	0.149525	0.420636	4.21E-03
201.9085	0.14940043	0.1494004	0.000348944	0.1494	0.418961	4.19E-03
201.9251	0.149281578	0.1492816	0.000333018	0.149282	0.418612	4.19E-03
201.9445	0.149079055	0.1490791	0.000567458	0.149079	0.418279	4.18E-03
201.9611	0.148766819	0.1488366	0.000679473	0.148767	0.417712	4.18E-03
201.9777	0.148662577	0.1488366	0	0.148663	0.417032	4.17E-03
201.9944	0.148269389	0.1488366	0	0.148269	0.417032	4.17E-03
202.011	0.148080765	0.1488366	0	0.148081	0.417032	4.17E-03
202.0276	0.147824134	0.1488366	0	0.147824	0.417032	4.17E-03
202.0442	0.14753492	0.1488366	0	0.147535	0.417032	4.17E-03
202.0581	0.14753492	0.1488366	0	0.147535	0.417032	4.17E-03
202.0747	0.147443622	0.1488366	0	0.147444	0.417032	4.17E-03
202.0913	0.147134446	0.1488366	0	0.147134	0.417032	4.17E-03
202.1052	0.14696131	0.1488366	0	0.146961	0.417032	4.17E-03
202.1218	0.146542935	0.1488366	0	0.146543	0.417032	4.17E-03
202.1357	0.146454233	0.1488366	0	0.146454	0.417032	4.17E-03
202.1495	0.146329596	0.1488366	0	0.14633	0.417032	4.17E-03
202.1634	0.146251013	0.1488366	0	0.146251	0.417032	4.17E-03
202.1772	0.146158342	0.1488366	0	0.146158	0.417032	4.17E-03
202.1966	0.146080289	0.1488366	0	0.14608	0.417032	4.17E-03
202.2132	0.145992011	0.1488366	0	0.145992	0.417032	4.17E-03
202.2271	0.146232913	0.1488366	0	0.146233	0.417032	4.17E-03
202.2437	0.146545708	0.1488366	0	0.146546	0.417032	4.17E-03
202.2576	0.146565943	0.1488366	0	0.146566	0.417032	4.17E-03
202.2742	0.146859502	0.1488366	0	0.14686	0.417032	4.17E-03
202.2881	0.147030854	0.1488366	0	0.147031	0.417032	4.17E-03
202.3047	0.147293137	0.1488366	0	0.147293	0.417032	4.17E-03
202.3241	0.147545215	0.1488366	0	0.147545	0.417032	4.17E-03
202.3379	0.147802339	0.1488366	0	0.147802	0.417032	4.17E-03
202.3545	0.147902044	0.1488366	0	0.147902	0.417032	4.17E-03
202.3712	0.148049182	0.1488366	0	0.148049	0.417032	4.17E-03
202.385	0.148302642	0.1488366	0	0.148303	0.417032	4.17E-03
202.4016	0.148548221	0.1488366	0	0.148548	0.417032	4.17E-03
202.4183	0.148606269	0.1488366	0	0.148606	0.417032	4.17E-03
202.4349	0.148660682	0.1488366	0	0.148661	0.417032	4.17E-03
202.4515	0.148712752	0.1488366	0	0.148713	0.417032	4.17E-03
202.4681	0.148767086	0.1488366	0	0.148767	0.417032	4.17E-03
202.4875	0.148836555	0.1488366	0	0.148837	0.417032	4.17E-03
202.5069	0.148804037	0.148804	9.11122E-05	0.148804	0.417032	4.17E-03
202.5291	0.148755406	0.1487554	0.000136263	0.148755	0.416941	4.17E-03
202.5485	0.148383025	0.148383	0.00104339	0.148383	0.416805	4.17E-03
202.5679	0.148136273	0.1481363	0.000691388	0.148136	0.415762	4.16E-03
202.5873	0.147809721	0.1478097	0.000914981	0.14781	0.41507	4.15E-03
202.6039	0.147383706	0.1473837	0.001193671	0.147384	0.414155	4.14E-03
202.6233	0.147283613	0.1472836	0.000280457	0.147284	0.412961	4.13E-03
202.6427	0.147074435	0.1470744	0.000586105	0.147074	0.412681	4.13E-03
202.6593	0.146865222	0.1468652	0.000586204	0.146865	0.412095	4.12E-03
202.6787	0.146560406	0.1465604	0.000854079	0.14656	0.411509	4.12E-03
202.6953	0.146262574	0.1462626	0.000834509	0.146263	0.410655	4.11E-03
202.7147	0.146031643	0.1460316	0.000647056	0.146032	0.40982	4.10E-03
202.7313	0.14593156	0.1459316	0.000280429	0.145932	0.409173	4.09E-03
202.748	0.145416775	0.1454168	0.0014424	0.145417	0.408893	4.09E-03
202.7646	0.144860864	0.1452108	0.000576995	0.144861	0.40745	4.07E-03
202.7812	0.14446744	0.1452108	0	0.144467	0.406873	4.07E-03
202.7978	0.14418472	0.1452108	0	0.144185	0.406873	4.07E-03
202.8117	0.144211456	0.1452108	0	0.144211	0.406873	4.07E-03
202.8283	0.144056112	0.1452108	0	0.144056	0.406873	4.07E-03
202.8422	0.143700067	0.1452108	0	0.1437	0.406873	4.07E-03
202.8588	0.143439038	0.1452108	0	0.143439	0.406873	4.07E-03
202.8726	0.14318773	0.1452108	0	0.143188	0.406873	4.07E-03
202.8865	0.143132779	0.1452108	0	0.143133	0.406873	4.07E-03
202.9004	0.143036036	0.1452108	0	0.143036	0.406873	4.07E-03
202.917	0.142940719	0.1452108	0	0.142941	0.406873	4.07E-03
202.9308	0.142843321	0.1452108	0	0.142843	0.406873	4.07E-03
202.9475	0.142638738	0.1452108	0	0.142639	0.406873	4.07E-03
202.9613	0.142628408	0.1452108	0	0.142628	0.406873	4.07E-03
202.9779	0.142682646	0.1452108	0	0.142683	0.406873	4.07E-03
202.9918	0.142841062	0.1452108	0	0.142841	0.406873	4.07E-03
203.0084	0.143010594	0.1452108	0	0.143011	0.406873	4.07E-03

203.025	0.143163461	0.1452108	0	0.143163	0.406873	4.07E-03
203.0417	0.143393133	0.1452108	0	0.143393	0.406873	4.07E-03
203.0583	0.143815332	0.1452108	0	0.143815	0.406873	4.07E-03
203.0749	0.143916739	0.1452108	0	0.143917	0.406873	4.07E-03
203.0888	0.143916739	0.1452108	0	0.143917	0.406873	4.07E-03
203.1054	0.144200526	0.1452108	0	0.144201	0.406873	4.07E-03
203.1192	0.144291116	0.1452108	0	0.144291	0.406873	4.07E-03
203.1359	0.144634986	0.1452108	0	0.144635	0.406873	4.07E-03
203.1497	0.14496865	0.1452108	0	0.144969	0.406873	4.07E-03
203.1663	0.145210848	0.1452108	0	0.145211	0.406873	4.07E-03
203.183	0.145137438	0.1451374	0.000205693	0.145137	0.406873	4.07E-03
203.1996	0.144878671	0.144971	0.000466424	0.144879	0.406668	4.07E-03
203.2162	0.144835421	0.144971	0	0.144835	0.406201	4.06E-03
203.2384	0.144881311	0.144971	0	0.144881	0.406201	4.06E-03
203.2578	0.144970974	0.144971	0	0.144971	0.406201	4.06E-03
203.2772	0.144804634	0.1448046	0.000466074	0.144805	0.406201	4.06E-03
203.2966	0.144753411	0.1447534	0.000143524	0.144753	0.405735	4.06E-03
203.3159	0.144404814	0.1444048	0.000976753	0.144405	0.405592	4.06E-03
203.3353	0.144085543	0.1440855	0.000894581	0.144086	0.404615	4.05E-03
203.3547	0.143999618	0.1439996	0.000240756	0.144	0.40372	4.04E-03
203.3741	0.14387384	0.1438738	0.000352425	0.143874	0.403479	4.03E-03
203.3935	0.14354633	0.1435463	0.000917664	0.143546	0.403127	4.03E-03
203.4129	0.143315988	0.143316	0.000645406	0.143316	0.402209	4.02E-03
203.4295	0.142985634	0.1429856	0.000925635	0.142986	0.401564	4.02E-03
203.4462	0.142511546	0.1425115	0.00132837	0.142512	0.400638	4.01E-03
203.4628	0.142289462	0.1422895	0.000622267	0.142289	0.39931	3.99E-03
203.4794	0.141979694	0.1419797	0.000867955	0.14198	0.398688	3.99E-03
203.496	0.141577791	0.1415778	0.001126111	0.141578	0.39782	3.98E-03
203.5127	0.141215581	0.1412156	0.001014892	0.141216	0.396694	3.97E-03
203.5293	0.140834556	0.1408474	0.001031497	0.140835	0.395679	3.96E-03
203.5431	0.140802962	0.1408474	0	0.140803	0.394647	3.95E-03
203.5598	0.140530935	0.1408474	0	0.140531	0.394647	3.95E-03
203.5736	0.140254148	0.1408474	0	0.140254	0.394647	3.95E-03
203.5875	0.140189839	0.1408474	0	0.14019	0.394647	3.95E-03
203.6013	0.140244458	0.1408474	0	0.140244	0.394647	3.95E-03
203.6179	0.140071307	0.1408474	0	0.140071	0.394647	3.95E-03
203.6318	0.139799068	0.1408474	0	0.139799	0.394647	3.95E-03
203.6456	0.139675752	0.1408474	0	0.139676	0.394647	3.95E-03
203.6595	0.139443606	0.1408474	0	0.139444	0.394647	3.95E-03
203.6761	0.139426401	0.1408474	0	0.139426	0.394647	3.95E-03
203.69	0.13930393	0.1408474	0	0.139304	0.394647	3.95E-03
203.7038	0.139185615	0.1408474	0	0.139186	0.394647	3.95E-03
203.7205	0.139078152	0.1408474	0	0.139078	0.394647	3.95E-03
203.7343	0.139069967	0.1408474	0	0.13907	0.394647	3.95E-03
203.7482	0.139228231	0.1408474	0	0.139228	0.394647	3.95E-03
203.762	0.139228231	0.1408474	0	0.139228	0.394647	3.95E-03
203.7786	0.139382032	0.1408474	0	0.139382	0.394647	3.95E-03
203.7925	0.139427912	0.1408474	0	0.139428	0.394647	3.95E-03
203.8091	0.139558894	0.1408474	0	0.139559	0.394647	3.95E-03
203.8257	0.139690888	0.1408474	0	0.139691	0.394647	3.95E-03
203.8396	0.139796933	0.1408474	0	0.139797	0.394647	3.95E-03
203.8534	0.139911113	0.1408474	0	0.139911	0.394647	3.95E-03
203.8701	0.140107428	0.1408474	0	0.140107	0.394647	3.95E-03
203.8839	0.140260429	0.1408474	0	0.14026	0.394647	3.95E-03
203.9005	0.140579864	0.1408474	0	0.14058	0.394647	3.95E-03
203.9144	0.140597033	0.1408474	0	0.140597	0.394647	3.95E-03
203.931	0.140683227	0.1408474	0	0.140683	0.394647	3.95E-03
203.9449	0.140694115	0.1408474	0	0.140694	0.394647	3.95E-03
203.9615	0.140792207	0.1408474	0	0.140792	0.394647	3.95E-03
203.9781	0.140847446	0.1408474	0	0.140847	0.394647	3.95E-03
203.9975	0.140806526	0.1408065	0.000114656	0.140807	0.394647	3.95E-03
204.0141	0.140512114	0.1405121	0.000824926	0.140512	0.394533	3.95E-03
204.0335	0.140366951	0.140367	0.000406738	0.140367	0.393708	3.94E-03
204.0529	0.140141352	0.1401414	0.000632117	0.140141	0.393301	3.93E-03
204.0723	0.139778354	0.1397784	0.001017101	0.139778	0.392669	3.93E-03
204.0889	0.139725294	0.1397253	0.000148674	0.139725	0.391652	3.92E-03
204.1083	0.139627497	0.1396275	0.000274021	0.139627	0.391503	3.92E-03
204.125	0.139543735	0.1395437	0.000234695	0.139544	0.391229	3.91E-03
204.1444	0.139368296	0.1393683	0.000491571	0.139368	0.390994	3.91E-03
204.1638	0.139291267	0.1392913	0.000215831	0.139291	0.390503	3.91E-03
204.1804	0.138802483	0.1388025	0.001369548	0.138802	0.390287	3.90E-03
204.197	0.138538734	0.1385387	0.000739011	0.138539	0.388917	3.89E-03
204.2109	0.138281019	0.138281	0.000722104	0.138281	0.388178	3.88E-03
204.2275	0.137912901	0.1379129	0.001031449	0.137913	0.387456	3.87E-03

204.2441	0.137466292	0.1374663	0.001251374	0.137466	0.386425	3.86E-03
204.2607	0.137027538	0.1370275	0.001229365	0.137028	0.385173	3.85E-03
204.2746	0.136947285	0.1369473	0.000224866	0.136947	0.383944	3.84E-03
204.2912	0.1366266	0.1366266	0.000898542	0.136627	0.383719	3.84E-03
204.3051	0.136415968	0.136416	0.000590179	0.136416	0.382821	3.83E-03
204.3189	0.136200668	0.1362007	0.00060326	0.136201	0.38223	3.82E-03
204.3328	0.136116464	0.1361165	0.000235937	0.136116	0.381627	3.82E-03
204.3494	0.135818078	0.1358181	0.000836061	0.135818	0.381391	3.81E-03
204.3632	0.135499393	0.1357277	0.000253132	0.135499	0.380555	3.81E-03
204.3771	0.135182057	0.1357277	0	0.135182	0.380302	3.80E-03
204.3909	0.135099566	0.1357277	0	0.1351	0.380302	3.80E-03
204.4048	0.134884033	0.1357277	0	0.134884	0.380302	3.80E-03
204.4186	0.134755944	0.1357277	0	0.134756	0.380302	3.80E-03
204.4297	0.134704578	0.1357277	0	0.134705	0.380302	3.80E-03
204.4436	0.134626974	0.1357277	0	0.134627	0.380302	3.80E-03
204.4574	0.134501067	0.1357277	0	0.134501	0.380302	3.80E-03
204.4713	0.134466943	0.1357277	0	0.134467	0.380302	3.80E-03
204.4851	0.134538622	0.1357277	0	0.134539	0.380302	3.80E-03
204.499	0.134589949	0.1357277	0	0.13459	0.380302	3.80E-03
204.5156	0.13464747	0.1357277	0	0.134647	0.380302	3.80E-03
204.5295	0.134769008	0.1357277	0	0.134769	0.380302	3.80E-03
204.5461	0.134881432	0.1357277	0	0.134881	0.380302	3.80E-03
204.56	0.134990783	0.1357277	0	0.134991	0.380302	3.80E-03
204.5766	0.135083507	0.1357277	0	0.135084	0.380302	3.80E-03
204.5932	0.135159182	0.1357277	0	0.135159	0.380302	3.80E-03
204.6098	0.13523912	0.1357277	0	0.135239	0.380302	3.80E-03
204.6237	0.135397739	0.1357277	0	0.135398	0.380302	3.80E-03
204.6403	0.135494218	0.1357277	0	0.135494	0.380302	3.80E-03
204.6542	0.135662967	0.1357277	0	0.135663	0.380302	3.80E-03
204.668	0.135636679	0.1357277	0	0.135637	0.380302	3.80E-03
204.6846	0.135597042	0.1357277	0	0.135597	0.380302	3.80E-03
204.6985	0.135654894	0.1357277	0	0.135655	0.380302	3.80E-03
204.7151	0.135727736	0.1357277	0	0.135728	0.380302	3.80E-03
204.729	0.135713292	0.1357133	4.04715E-05	0.135713	0.380302	3.80E-03
204.7456	0.135683332	0.1356833	8.39467E-05	0.135683	0.380262	3.80E-03
204.765	0.135629036	0.135629	0.000152134	0.135629	0.380178	3.80E-03
204.7816	0.135598171	0.1355982	8.64827E-05	0.135598	0.380025	3.80E-03
204.7982	0.13547781	0.1354778	0.000337246	0.135478	0.379939	3.80E-03
204.8148	0.135267381	0.1352674	0.000589609	0.135267	0.379602	3.80E-03
204.8315	0.135161274	0.1351613	0.000297306	0.135161	0.379012	3.79E-03
204.8481	0.134978049	0.134978	0.000513388	0.134978	0.378715	3.79E-03
204.8647	0.13478895	0.134789	0.000529844	0.134789	0.378201	3.78E-03
204.8841	0.134679942	0.1346799	0.000305436	0.13468	0.377672	3.78E-03
204.9007	0.134500416	0.1345004	0.000503021	0.1345	0.377366	3.77E-03
204.9174	0.134409474	0.1344095	0.000254815	0.134409	0.376863	3.77E-03
204.934	0.13422635	0.1342263	0.000513105	0.134226	0.376608	3.77E-03
204.9506	0.134041924	0.1340419	0.00051675	0.134042	0.376095	3.76E-03
204.9672	0.133710101	0.1337101	0.000929753	0.13371	0.375578	3.76E-03
204.9839	0.133359947	0.1333773	0.000932403	0.13336	0.374649	3.75E-03
204.9977	0.133096267	0.1333773	0	0.133096	0.373716	3.74E-03
205.0116	0.133156753	0.1333773	0	0.133157	0.373716	3.74E-03
205.0282	0.132992254	0.1333773	0	0.132992	0.373716	3.74E-03
205.042	0.132652199	0.1333773	0	0.132652	0.373716	3.74E-03
205.0559	0.132313403	0.1333773	0	0.132313	0.373716	3.74E-03
205.0697	0.132373412	0.1333773	0	0.132373	0.373716	3.74E-03
205.0836	0.132233748	0.1333773	0	0.132234	0.373716	3.74E-03
205.0974	0.132002624	0.1333773	0	0.132003	0.373716	3.74E-03
205.1113	0.131775595	0.1333773	0	0.131776	0.373716	3.74E-03
205.1252	0.131563998	0.1333773	0	0.131564	0.373716	3.74E-03
205.139	0.131529757	0.1333773	0	0.13153	0.373716	3.74E-03
205.1529	0.131248677	0.1333773	0	0.131249	0.373716	3.74E-03
205.1667	0.131144914	0.1333773	0	0.131145	0.373716	3.74E-03
205.1778	0.131144914	0.1333773	0	0.131145	0.373716	3.74E-03
205.1916	0.131125508	0.1333773	0	0.131126	0.373716	3.74E-03
205.2027	0.131105875	0.1333773	0	0.131106	0.373716	3.74E-03
205.2166	0.131180713	0.1333773	0	0.131181	0.373716	3.74E-03
205.2304	0.131345469	0.1333773	0	0.131345	0.373716	3.74E-03
205.2443	0.131508855	0.1333773	0	0.131509	0.373716	3.74E-03
205.2581	0.131508855	0.1333773	0	0.131509	0.373716	3.74E-03
205.272	0.131641218	0.1333773	0	0.131641	0.373716	3.74E-03
205.2858	0.131780381	0.1333773	0	0.13178	0.373716	3.74E-03
205.2997	0.131908449	0.1333773	0	0.131908	0.373716	3.74E-03
205.3163	0.132118723	0.1333773	0	0.132119	0.373716	3.74E-03
205.3302	0.132308547	0.1333773	0	0.132309	0.373716	3.74E-03

205.344	0.1323172	0.1333773	0	0.132317	0.373716	3.74E-03
205.3579	0.132338428	0.1333773	0	0.132338	0.373716	3.74E-03
205.3717	0.132422873	0.1333773	0	0.132423	0.373716	3.74E-03
205.3856	0.132614891	0.1333773	0	0.132615	0.373716	3.74E-03
205.3994	0.132802233	0.1333773	0	0.132802	0.373716	3.74E-03
205.4161	0.132960403	0.1333773	0	0.13296	0.373716	3.74E-03
205.4299	0.133287327	0.1333773	0	0.133287	0.373716	3.74E-03
205.4438	0.133261269	0.1333773	0	0.133261	0.373716	3.74E-03
205.4576	0.13332599	0.1333773	0	0.133326	0.373716	3.74E-03
205.4743	0.133377331	0.1333773	0	0.133377	0.373716	3.74E-03
205.4909	0.133351895	0.1333519	7.12695E-05	0.133352	0.373716	3.74E-03
205.5075	0.133221868	0.1332219	0.00036433	0.133222	0.373645	3.74E-03
205.5241	0.133007078	0.1330071	0.00060183	0.133007	0.373281	3.73E-03
205.5407	0.132891801	0.1328918	0.000323001	0.132892	0.372679	3.73E-03
205.5574	0.132779243	0.1327792	0.00031538	0.132779	0.372356	3.72E-03
205.574	0.132671879	0.1326719	0.000300829	0.132672	0.372041	3.72E-03
205.5878	0.132373568	0.1323736	0.000835851	0.132374	0.37174	3.72E-03
205.6045	0.132019472	0.1320195	0.000992159	0.132019	0.370904	3.71E-03
205.6211	0.131922362	0.1319224	0.000272099	0.131922	0.369912	3.70E-03
205.6405	0.131789886	0.1317899	0.000371189	0.13179	0.36964	3.70E-03
205.6543	0.131683483	0.1316835	0.000298137	0.131683	0.369268	3.69E-03
205.671	0.131430761	0.1314308	0.000708113	0.131431	0.36897	3.69E-03
205.6848	0.131259427	0.1312594	0.000480068	0.131259	0.368262	3.68E-03
205.7014	0.131182711	0.1311857	0.000206711	0.131183	0.367782	3.68E-03
205.7181	0.131185653	0.1311857	0	0.131186	0.367575	3.68E-03
205.7319	0.13099767	0.1311689	4.69304E-05	0.130998	0.367575	3.68E-03
205.7458	0.130646375	0.1311689	0	0.130646	0.367528	3.68E-03
205.7596	0.130698965	0.1311689	0	0.130699	0.367528	3.68E-03
205.7762	0.130539816	0.1311689	0	0.13054	0.367528	3.68E-03
205.7901	0.130390169	0.1311689	0	0.13039	0.367528	3.68E-03
205.804	0.130243854	0.1311689	0	0.130244	0.367528	3.68E-03
205.8178	0.130107969	0.1311689	0	0.130108	0.367528	3.68E-03
205.8317	0.129973224	0.1311689	0	0.129973	0.367528	3.68E-03
205.8455	0.129952657	0.1311689	0	0.129953	0.367528	3.68E-03
205.8566	0.129816365	0.1311689	0	0.129816	0.367528	3.68E-03
205.8704	0.129599783	0.1311689	0	0.1296	0.367528	3.68E-03
205.8843	0.129387011	0.1311689	0	0.129387	0.367528	3.68E-03
205.8982	0.129357439	0.1311689	0	0.129357	0.367528	3.68E-03
205.912	0.129148755	0.1311689	0	0.129149	0.367528	3.68E-03
205.9259	0.128952158	0.1311689	0	0.128952	0.367528	3.68E-03
205.9369	0.128843816	0.1311689	0	0.128844	0.367528	3.68E-03
205.9508	0.12871178	0.1311689	0	0.128712	0.367528	3.68E-03
205.9646	0.128769794	0.1311689	0	0.12877	0.367528	3.68E-03
205.9757	0.128828145	0.1311689	0	0.128828	0.367528	3.68E-03
205.9896	0.128805958	0.1311689	0	0.128806	0.367528	3.68E-03
206.0034	0.129024672	0.1311689	0	0.129025	0.367528	3.68E-03
206.0201	0.1291571	0.1311689	0	0.129157	0.367528	3.68E-03
206.0339	0.129279928	0.1311689	0	0.12928	0.367528	3.68E-03
206.0478	0.129491082	0.1311689	0	0.129491	0.367528	3.68E-03
206.0616	0.129683205	0.1311689	0	0.129683	0.367528	3.68E-03
206.0782	0.129872553	0.1311689	0	0.129873	0.367528	3.68E-03
206.0921	0.130057375	0.1311689	0	0.130057	0.367528	3.68E-03
206.106	0.130123498	0.1311689	0	0.130123	0.367528	3.68E-03
206.1198	0.13029889	0.1311689	0	0.130299	0.367528	3.68E-03
206.1337	0.130453853	0.1311689	0	0.130454	0.367528	3.68E-03
206.1475	0.130504733	0.1311689	0	0.130505	0.367528	3.68E-03
206.1614	0.130573374	0.1311689	0	0.130573	0.367528	3.68E-03
206.178	0.130877169	0.1311689	0	0.130877	0.367528	3.68E-03
206.1918	0.131026061	0.1311689	0	0.131026	0.367528	3.68E-03
206.2057	0.131168904	0.1311689	0	0.131169	0.367528	3.68E-03
206.2223	0.1311328	0.1311328	0.000101162	0.131133	0.367528	3.68E-03
206.2417	0.131103906	0.1311039	8.09607E-05	0.131104	0.367427	3.67E-03
206.2583	0.131035462	0.1310355	0.000191775	0.131035	0.367346	3.67E-03
206.275	0.130986876	0.1309869	0.000136138	0.130987	0.367155	3.67E-03
206.2916	0.130866799	0.1308668	0.000336447	0.130867	0.367018	3.67E-03
206.3082	0.130650723	0.1306507	0.000605434	0.130651	0.366682	3.67E-03
206.3248	0.130473774	0.1304738	0.000495802	0.130474	0.366077	3.66E-03
206.3415	0.13036495	0.1303649	0.00030492	0.130365	0.365581	3.66E-03
206.3553	0.130257975	0.1302912	0.000206572	0.130258	0.365276	3.65E-03
206.3719	0.130291226	0.1302912	0	0.130291	0.365069	3.65E-03
206.3886	0.130043806	0.1300438	0.000693258	0.130044	0.365069	3.65E-03
206.4052	0.129947957	0.129948	0.000268564	0.129948	0.364376	3.64E-03
206.4218	0.129762616	0.1299439	1.1483E-05	0.129763	0.364107	3.64E-03
206.4357	0.129659125	0.1299439	0	0.129659	0.364096	3.64E-03

206.4495	0.12956353	0.1299439	0	0.129564	0.364096	3.64E-03
206.4661	0.129374467	0.1299439	0	0.129374	0.364096	3.64E-03
206.48	0.129186725	0.1299439	0	0.129187	0.364096	3.64E-03
206.4938	0.129113013	0.1299439	0	0.129113	0.364096	3.64E-03
206.5077	0.128965721	0.1299439	0	0.128966	0.364096	3.64E-03
206.5215	0.128827467	0.1299439	0	0.128827	0.364096	3.64E-03
206.5354	0.128752709	0.1299439	0	0.128753	0.364096	3.64E-03
206.5492	0.128620141	0.1299439	0	0.12862	0.364096	3.64E-03
206.5631	0.128545878	0.1299439	0	0.128546	0.364096	3.64E-03
206.577	0.128483907	0.1299439	0	0.128484	0.364096	3.64E-03
206.588	0.128425196	0.1299439	0	0.128425	0.364096	3.64E-03
206.6019	0.128488665	0.1299439	0	0.128489	0.364096	3.64E-03
206.6157	0.128430034	0.1299439	0	0.12843	0.364096	3.64E-03
206.6296	0.128201833	0.1299439	0	0.128202	0.364096	3.64E-03
206.6434	0.128063337	0.1299439	0	0.128063	0.364096	3.64E-03
206.6545	0.128010471	0.1299439	0	0.12801	0.364096	3.64E-03
206.6684	0.127998403	0.1299439	0	0.127998	0.364096	3.64E-03
206.6822	0.127957831	0.1299439	0	0.127958	0.364096	3.64E-03
206.6933	0.12791583	0.1299439	0	0.127916	0.364096	3.64E-03
206.7099	0.127770803	0.1299439	0	0.127771	0.364096	3.64E-03
206.7238	0.127800675	0.1299439	0	0.127801	0.364096	3.64E-03
206.7349	0.127865052	0.1299439	0	0.127865	0.364096	3.64E-03
206.7487	0.127972998	0.1299439	0	0.127973	0.364096	3.64E-03
206.7654	0.128009471	0.1299439	0	0.128009	0.364096	3.64E-03
206.7792	0.128120916	0.1299439	0	0.128121	0.364096	3.64E-03
206.7931	0.128314104	0.1299439	0	0.128314	0.364096	3.64E-03
206.8069	0.128504534	0.1299439	0	0.128505	0.364096	3.64E-03
206.8208	0.128675774	0.1299439	0	0.128676	0.364096	3.64E-03
206.8346	0.128842048	0.1299439	0	0.128842	0.364096	3.64E-03
206.8485	0.128970188	0.1299439	0	0.12897	0.364096	3.64E-03
206.8623	0.129130579	0.1299439	0	0.129131	0.364096	3.64E-03
206.8762	0.129205701	0.1299439	0	0.129206	0.364096	3.64E-03
206.89	0.129352532	0.1299439	0	0.129353	0.364096	3.64E-03
206.9039	0.129407962	0.1299439	0	0.129408	0.364096	3.64E-03
206.915	0.129460037	0.1299439	0	0.12946	0.364096	3.64E-03
206.9288	0.129688517	0.1299439	0	0.129689	0.364096	3.64E-03
206.9427	0.129812653	0.1299439	0	0.129813	0.364096	3.64E-03
206.9565	0.129845539	0.1299439	0	0.129846	0.364096	3.64E-03
206.9732	0.129900743	0.1299439	0	0.129901	0.364096	3.64E-03
206.9898	0.129943858	0.1299439	0	0.129944	0.364096	3.64E-03
207.0064	0.129794595	0.1297946	0.000418229	0.129795	0.364096	3.64E-03
207.023	0.129640055	0.1296401	0.000433013	0.12964	0.363678	3.64E-03
207.0396	0.129501462	0.1295015	0.00038833	0.129501	0.363245	3.63E-03
207.0563	0.129374706	0.1293747	0.000355162	0.129375	0.362856	3.63E-03
207.0729	0.129141366	0.1291414	0.000653806	0.129141	0.362501	3.63E-03
207.0895	0.128913926	0.1289139	0.000637277	0.128914	0.361847	3.62E-03
207.1061	0.128580652	0.1285807	0.000933817	0.128581	0.36121	3.61E-03
207.1228	0.128465248	0.1284652	0.000323356	0.128465	0.360276	3.60E-03
207.1394	0.128352368	0.1283524	0.000316285	0.128352	0.359953	3.60E-03
207.1532	0.128249484	0.1282495	0.000288274	0.128249	0.359637	3.60E-03
207.1699	0.127931551	0.1279316	0.000890834	0.127932	0.359348	3.59E-03
207.1837	0.127728348	0.1277283	0.000569362	0.127728	0.358458	3.58E-03
207.2003	0.127604601	0.1276046	0.000346734	0.127605	0.357888	3.58E-03
207.2142	0.127489699	0.1274897	0.00032195	0.12749	0.357541	3.58E-03
207.228	0.127111326	0.1271113	0.001060181	0.127111	0.357219	3.57E-03
207.2419	0.126741613	0.1268565	0.000713988	0.126742	0.356159	3.56E-03
207.2558	0.126726611	0.1268565	0	0.126727	0.355445	3.55E-03
207.2696	0.126552348	0.1268565	0	0.126552	0.355445	3.55E-03
207.2835	0.12637424	0.1268565	0	0.126374	0.355445	3.55E-03
207.2945	0.126211856	0.1268565	0	0.126212	0.355445	3.55E-03
207.3084	0.126060412	0.1268565	0	0.12606	0.355445	3.55E-03
207.3222	0.126063576	0.1268565	0	0.126064	0.355445	3.55E-03
207.3361	0.125923456	0.1268565	0	0.125923	0.355445	3.55E-03
207.3472	0.125855852	0.1268565	0	0.125856	0.355445	3.55E-03
207.361	0.125778241	0.1268565	0	0.125778	0.355445	3.55E-03
207.3749	0.125528331	0.1268565	0	0.125528	0.355445	3.55E-03
207.386	0.125436766	0.1268565	0	0.125437	0.355445	3.55E-03
207.3998	0.12528522	0.1268565	0	0.125285	0.355445	3.55E-03
207.4137	0.125161093	0.1268565	0	0.125161	0.355445	3.55E-03
207.4248	0.125135049	0.1268565	0	0.125135	0.355445	3.55E-03
207.4386	0.125191791	0.1268565	0	0.125192	0.355445	3.55E-03
207.4497	0.125058591	0.1268565	0	0.125059	0.355445	3.55E-03
207.4635	0.125074381	0.1268565	0	0.125074	0.355445	3.55E-03
207.4774	0.125129271	0.1268565	0	0.125129	0.355445	3.55E-03

207.4913	0.125170603	0.1268565	0	0.125171	0.355445	3.55E-03
207.5079	0.12532515	0.1268565	0	0.125325	0.355445	3.55E-03
207.519	0.12532515	0.1268565	0	0.125325	0.355445	3.55E-03
207.5328	0.125512189	0.1268565	0	0.125512	0.355445	3.55E-03
207.5494	0.125712179	0.1268565	0	0.125712	0.355445	3.55E-03
207.5633	0.125813562	0.1268565	0	0.125814	0.355445	3.55E-03
207.5771	0.125909939	0.1268565	0	0.12591	0.355445	3.55E-03
207.591	0.126002521	0.1268565	0	0.126003	0.355445	3.55E-03
207.6076	0.126108687	0.1268565	0	0.126109	0.355445	3.55E-03
207.6215	0.126188678	0.1268565	0	0.126189	0.355445	3.55E-03
207.6353	0.126265349	0.1268565	0	0.126265	0.355445	3.55E-03
207.6492	0.12642239	0.1268565	0	0.126422	0.355445	3.55E-03
207.663	0.126583435	0.1268565	0	0.126583	0.355445	3.55E-03
207.6769	0.126645271	0.1268565	0	0.126645	0.355445	3.55E-03
207.6907	0.126698472	0.1268565	0	0.126698	0.355445	3.55E-03
207.7046	0.126745098	0.1268565	0	0.126745	0.355445	3.55E-03
207.7184	0.126709516	0.1268565	0	0.12671	0.355445	3.55E-03
207.7351	0.126856507	0.1268565	0	0.126857	0.355445	3.55E-03
207.7489	0.126729284	0.1267293	0.000356471	0.126729	0.355445	3.55E-03
207.7655	0.126615549	0.1266155	0.000318682	0.126616	0.355089	3.55E-03
207.7822	0.126568633	0.1265686	0.000131454	0.126569	0.35477	3.55E-03
207.7988	0.126521473	0.1265215	0.000132143	0.126521	0.354639	3.55E-03
207.8154	0.126273294	0.1262733	0.000695383	0.126273	0.354507	3.55E-03
207.832	0.126160694	0.1261607	0.0003155	0.126161	0.353811	3.54E-03
207.8487	0.126038603	0.1261436	4.78059E-05	0.126039	0.353496	3.53E-03
207.8625	0.125835124	0.1261436	0	0.125835	0.353448	3.53E-03
207.8791	0.125808565	0.1261436	0	0.125809	0.353448	3.53E-03
207.8958	0.125709576	0.1261436	0	0.12571	0.353448	3.53E-03
207.9096	0.125596649	0.1261436	0	0.125597	0.353448	3.53E-03
207.9262	0.125479436	0.1261436	0	0.125479	0.353448	3.53E-03
207.9429	0.125289822	0.1261436	0	0.12529	0.353448	3.53E-03
207.9567	0.125038101	0.1261436	0	0.125038	0.353448	3.53E-03
207.9706	0.124959466	0.1261436	0	0.124959	0.353448	3.53E-03
207.9872	0.124639105	0.1261436	0	0.124639	0.353448	3.53E-03
207.9983	0.124384545	0.1261436	0	0.124385	0.353448	3.53E-03
208.0149	0.124138247	0.1261436	0	0.124138	0.353448	3.53E-03
208.026	0.123988381	0.1261436	0	0.123988	0.353448	3.53E-03
208.0398	0.123842743	0.1261436	0	0.123843	0.353448	3.53E-03
208.0537	0.123854535	0.1261436	0	0.123855	0.353448	3.53E-03
208.0675	0.123718272	0.1261436	0	0.123718	0.353448	3.53E-03
208.0786	0.123576336	0.1261436	0	0.123576	0.353448	3.53E-03
208.0925	0.123438253	0.1261436	0	0.123438	0.353448	3.53E-03
208.1036	0.123438253	0.1261436	0	0.123438	0.353448	3.53E-03
208.1146	0.123302507	0.1261436	0	0.123303	0.353448	3.53E-03
208.1285	0.12319059	0.1261436	0	0.123191	0.353448	3.53E-03
208.1396	0.123152565	0.1261436	0	0.123153	0.353448	3.53E-03
208.1534	0.123101819	0.1261436	0	0.123102	0.353448	3.53E-03
208.1645	0.123123838	0.1261436	0	0.123124	0.353448	3.53E-03
208.1784	0.123081993	0.1261436	0	0.123082	0.353448	3.53E-03
208.1894	0.123038371	0.1261436	0	0.123038	0.353448	3.53E-03
208.2033	0.122985217	0.1261436	0	0.122985	0.353448	3.53E-03
208.2172	0.123105789	0.1261436	0	0.123106	0.353448	3.53E-03
208.2282	0.12312104	0.1261436	0	0.123121	0.353448	3.53E-03
208.2421	0.123247032	0.1261436	0	0.123247	0.353448	3.53E-03
208.2559	0.123368807	0.1261436	0	0.123369	0.353448	3.53E-03
208.2698	0.123491413	0.1261436	0	0.123491	0.353448	3.53E-03
208.2836	0.12370456	0.1261436	0	0.123705	0.353448	3.53E-03
208.2975	0.123987071	0.1261436	0	0.123987	0.353448	3.53E-03
208.3114	0.124095965	0.1261436	0	0.124096	0.353448	3.53E-03
208.3252	0.124197815	0.1261436	0	0.124198	0.353448	3.53E-03
208.3391	0.124294687	0.1261436	0	0.124295	0.353448	3.53E-03
208.3529	0.124463331	0.1261436	0	0.124463	0.353448	3.53E-03
208.3668	0.124552546	0.1261436	0	0.124553	0.353448	3.53E-03
208.3778	0.124807273	0.1261436	0	0.124807	0.353448	3.53E-03
208.3917	0.125027873	0.1261436	0	0.125028	0.353448	3.53E-03
208.4056	0.125075104	0.1261436	0	0.125075	0.353448	3.53E-03
208.4194	0.125209883	0.1261436	0	0.12521	0.353448	3.53E-03
208.4333	0.125314459	0.1261436	0	0.125314	0.353448	3.53E-03
208.4471	0.125454275	0.1261436	0	0.125454	0.353448	3.53E-03
208.4582	0.125500802	0.1261436	0	0.125501	0.353448	3.53E-03
208.4748	0.125451848	0.1261436	0	0.125452	0.353448	3.53E-03
208.4887	0.125408022	0.1261436	0	0.125408	0.353448	3.53E-03
208.5025	0.125286987	0.1261436	0	0.125287	0.353448	3.53E-03
208.5192	0.125416196	0.1261436	0	0.125416	0.353448	3.53E-03

208.5358	0.12534595	0.1261436	0	0.125346	0.353448	3.53E-03
208.5524	0.125141956	0.1261436	0	0.125142	0.353448	3.53E-03
208.5663	0.125015318	0.1261436	0	0.125015	0.353448	3.53E-03
208.5801	0.124985035	0.1261436	0	0.124985	0.353448	3.53E-03
208.594	0.124783503	0.1261436	0	0.124784	0.353448	3.53E-03
208.6106	0.1245863	0.1261436	0	0.124586	0.353448	3.53E-03
208.6244	0.124408492	0.1261436	0	0.124408	0.353448	3.53E-03
208.6411	0.124404802	0.1261436	0	0.124405	0.353448	3.53E-03
208.6549	0.124314497	0.1261436	0	0.124314	0.353448	3.53E-03
208.6715	0.124217269	0.1261436	0	0.124217	0.353448	3.53E-03
208.6854	0.12420628	0.1261436	0	0.124206	0.353448	3.53E-03
208.6992	0.1241079	0.1261436	0	0.124108	0.353448	3.53E-03
208.7159	0.123871052	0.1261436	0	0.123871	0.353448	3.53E-03
208.7297	0.12379767	0.1261436	0	0.123798	0.353448	3.53E-03
208.7436	0.123716068	0.1261436	0	0.123716	0.353448	3.53E-03
208.7574	0.123541731	0.1261436	0	0.123542	0.353448	3.53E-03
208.7713	0.123302067	0.1261436	0	0.123302	0.353448	3.53E-03
208.7851	0.123163992	0.1261436	0	0.123164	0.353448	3.53E-03
208.799	0.123030291	0.1261436	0	0.12303	0.353448	3.53E-03
208.8101	0.123062952	0.1261436	0	0.123063	0.353448	3.53E-03
208.8239	0.12284514	0.1261436	0	0.122845	0.353448	3.53E-03
208.835	0.122714465	0.1261436	0	0.122714	0.353448	3.53E-03
208.8489	0.122756538	0.1261436	0	0.122757	0.353448	3.53E-03
208.8599	0.122756538	0.1261436	0	0.122757	0.353448	3.53E-03
208.8738	0.122701844	0.1261436	0	0.122702	0.353448	3.53E-03
208.8876	0.122574156	0.1261436	0	0.122574	0.353448	3.53E-03
208.8987	0.122446326	0.1261436	0	0.122446	0.353448	3.53E-03
208.9098	0.122326713	0.1261436	0	0.122327	0.353448	3.53E-03
208.9237	0.122346111	0.1261436	0	0.122346	0.353448	3.53E-03
208.9347	0.122227426	0.1261436	0	0.122227	0.353448	3.53E-03
208.9458	0.122216444	0.1261436	0	0.122216	0.353448	3.53E-03
208.9569	0.122257998	0.1261436	0	0.122258	0.353448	3.53E-03
208.9708	0.122303261	0.1261436	0	0.122303	0.353448	3.53E-03
208.9818	0.122303261	0.1261436	0	0.122303	0.353448	3.53E-03
208.9957	0.122419088	0.1261436	0	0.122419	0.353448	3.53E-03
209.0068	0.122528866	0.1261436	0	0.122529	0.353448	3.53E-03
209.0206	0.122658914	0.1261436	0	0.122659	0.353448	3.53E-03
209.0345	0.122866297	0.1261436	0	0.122866	0.353448	3.53E-03
209.0483	0.123057881	0.1261436	0	0.123058	0.353448	3.53E-03
209.0622	0.123081574	0.1261436	0	0.123082	0.353448	3.53E-03
209.076	0.123351456	0.1261436	0	0.123351	0.353448	3.53E-03
209.0899	0.123614846	0.1261436	0	0.123615	0.353448	3.53E-03
209.1037	0.123974763	0.1261436	0	0.123975	0.353448	3.53E-03
209.1176	0.124145558	0.1261436	0	0.124146	0.353448	3.53E-03
209.1315	0.124383697	0.1261436	0	0.124384	0.353448	3.53E-03
209.1453	0.124615524	0.1261436	0	0.124616	0.353448	3.53E-03
209.1592	0.124701097	0.1261436	0	0.124701	0.353448	3.53E-03
209.173	0.124928322	0.1261436	0	0.124928	0.353448	3.53E-03
209.1869	0.125155422	0.1261436	0	0.125155	0.353448	3.53E-03
209.2007	0.125290727	0.1261436	0	0.125291	0.353448	3.53E-03
209.2146	0.125415933	0.1261436	0	0.125416	0.353448	3.53E-03
209.2312	0.124927359	0.1261436	0	0.124927	0.353448	3.53E-03
209.2451	0.124732565	0.1261436	0	0.124733	0.353448	3.53E-03
209.2617	0.124618086	0.1261436	0	0.124618	0.353448	3.53E-03
209.2755	0.124512475	0.1261436	0	0.124512	0.353448	3.53E-03
209.2922	0.124398359	0.1261436	0	0.124398	0.353448	3.53E-03
209.3088	0.124454705	0.1261436	0	0.124455	0.353448	3.53E-03
209.3226	0.124507897	0.1261436	0	0.124508	0.353448	3.53E-03
209.3393	0.124384549	0.1261436	0	0.124385	0.353448	3.53E-03
209.3531	0.12428063	0.1261436	0	0.124281	0.353448	3.53E-03
209.3697	0.124348366	0.1261436	0	0.124348	0.353448	3.53E-03
209.3864	0.12441515	0.1261436	0	0.124415	0.353448	3.53E-03
209.403	0.124403824	0.1261436	0	0.124404	0.353448	3.53E-03
209.4168	0.124395482	0.1261436	0	0.124395	0.353448	3.53E-03
209.4335	0.124344325	0.1261436	0	0.124344	0.353448	3.53E-03
209.4473	0.124340643	0.1261436	0	0.124341	0.353448	3.53E-03
209.4612	0.124240215	0.1261436	0	0.12424	0.353448	3.53E-03
209.475	0.124143969	0.1261436	0	0.124144	0.353448	3.53E-03
209.4889	0.124136376	0.1261436	0	0.124136	0.353448	3.53E-03
209.5027	0.124043725	0.1261436	0	0.124044	0.353448	3.53E-03
209.5193	0.123874814	0.1261436	0	0.123875	0.353448	3.53E-03
209.5332	0.123877047	0.1261436	0	0.123877	0.353448	3.53E-03
209.547	0.123717585	0.1261436	0	0.123718	0.353448	3.53E-03
209.5581	0.123629676	0.1261436	0	0.12363	0.353448	3.53E-03

209.572	0.123630372	0.1261436	0	0.12363	0.353448	3.53E-03
209.5858	0.123542343	0.1261436	0	0.123542	0.353448	3.53E-03
209.5969	0.123379164	0.1261436	0	0.123379	0.353448	3.53E-03
209.6108	0.123311743	0.1261436	0	0.123312	0.353448	3.53E-03
209.6219	0.123315382	0.1261436	0	0.123315	0.353448	3.53E-03
209.6357	0.123253226	0.1261436	0	0.123253	0.353448	3.53E-03
209.6496	0.123198967	0.1261436	0	0.123199	0.353448	3.53E-03
209.6606	0.123135597	0.1261436	0	0.123136	0.353448	3.53E-03
209.6745	0.123070473	0.1261436	0	0.12307	0.353448	3.53E-03
209.6883	0.123084998	0.1261436	0	0.123085	0.353448	3.53E-03
209.6994	0.123015275	0.1261436	0	0.123015	0.353448	3.53E-03
209.7105	0.123016076	0.1261436	0	0.123016	0.353448	3.53E-03
209.7244	0.122957696	0.1261436	0	0.122958	0.353448	3.53E-03
209.7382	0.123076704	0.1261436	0	0.123077	0.353448	3.53E-03
209.7521	0.123189513	0.1261436	0	0.12319	0.353448	3.53E-03
209.7632	0.123209166	0.1261436	0	0.123209	0.353448	3.53E-03
209.777	0.123333444	0.1261436	0	0.123333	0.353448	3.53E-03
209.7909	0.123541474	0.1261436	0	0.123541	0.353448	3.53E-03
209.8047	0.123641488	0.1261436	0	0.123641	0.353448	3.53E-03
209.8186	0.123902314	0.1261436	0	0.123902	0.353448	3.53E-03
209.8296	0.124158036	0.1261436	0	0.124158	0.353448	3.53E-03
209.8463	0.124308723	0.1261436	0	0.124309	0.353448	3.53E-03
209.8601	0.12453532	0.1261436	0	0.124535	0.353448	3.53E-03
209.874	0.124682211	0.1261436	0	0.124682	0.353448	3.53E-03
209.8878	0.124829291	0.1261436	0	0.124829	0.353448	3.53E-03
209.8989	0.125018195	0.1261436	0	0.125018	0.353448	3.53E-03
209.9128	0.125155326	0.1261436	0	0.125155	0.353448	3.53E-03
209.9266	0.125382296	0.1261436	0	0.125382	0.353448	3.53E-03
209.9405	0.125610277	0.1261436	0	0.12561	0.353448	3.53E-03
209.9543	0.125731427	0.1261436	0	0.125731	0.353448	3.53E-03
209.9682	0.125773655	0.1261436	0	0.125774	0.353448	3.53E-03
209.9848	0.125966979	0.1261436	0	0.125967	0.353448	3.53E-03
209.9987	0.126103229	0.1261436	0	0.126103	0.353448	3.53E-03
210.0153	0.126143632	0.1261436	0	0.126144	0.353448	3.53E-03
210.0291	0.126095298	0.1260953	0.000135431	0.126095	0.353448	3.53E-03
210.0458	0.126040102	0.1260401	0.000154654	0.12604	0.353312	3.53E-03
210.0624	0.125775422	0.1257754	0.00074162	0.125775	0.353158	3.53E-03
210.079	0.125727058	0.1257271	0.000135514	0.125727	0.352416	3.52E-03
210.0956	0.125595488	0.1255955	0.000368652	0.125595	0.352281	3.52E-03
210.1095	0.125196697	0.1251967	0.001117391	0.125197	0.351912	3.52E-03
210.1261	0.125073675	0.1250737	0.000344701	0.125074	0.350795	3.51E-03
210.1427	0.124968782	0.1249688	0.000293904	0.124969	0.35045	3.50E-03
210.1594	0.124674156	0.1246742	0.000825527	0.124674	0.350156	3.50E-03
210.176	0.124555741	0.1245557	0.000331794	0.124556	0.34933	3.49E-03
210.1926	0.12426	0.12426	0.000828649	0.12426	0.348999	3.49E-03
210.2065	0.124164669	0.1241647	0.000267113	0.124165	0.34817	3.48E-03
210.2258	0.123891369	0.1238914	0.000765772	0.123891	0.347903	3.48E-03
210.2286	0.123813959	0.123814	0.0002169	0.123814	0.347137	3.47E-03
210.2397	0.123716231	0.1237162	0.000273828	0.123716	0.34692	3.47E-03
210.2508	0.123626153	0.1236262	0.000252393	0.123626	0.346646	3.47E-03
210.2646	0.123540117	0.1235401	0.00024107	0.12354	0.346394	3.46E-03
210.2757	0.123430604	0.1234306	0.000306848	0.123431	0.346153	3.46E-03
210.2896	0.123348027	0.123348	0.000231378	0.123348	0.345846	3.46E-03
210.3034	0.12308976	0.1230898	0.000723649	0.12309	0.345615	3.46E-03
210.32	0.122999371	0.1229994	0.000253266	0.122999	0.344891	3.45E-03
210.3339	0.122761433	0.1227614	0.000666689	0.122761	0.344638	3.45E-03
210.345	0.122670402	0.1226704	0.000255065	0.12267	0.343971	3.44E-03
210.3588	0.122453647	0.1224536	0.000607338	0.122454	0.343716	3.44E-03
210.3727	0.122305019	0.122305	0.000416445	0.122305	0.343109	3.43E-03
210.3865	0.1221772	0.1221772	0.000358142	0.122177	0.342692	3.43E-03
210.4004	0.122103503	0.1221035	0.000206497	0.122104	0.342334	3.42E-03
210.4142	0.121896483	0.1218965	0.000580058	0.121896	0.342128	3.42E-03
210.4281	0.121779679	0.1217797	0.000327279	0.12178	0.341548	3.42E-03
210.442	0.121742263	0.1217423	0.000104838	0.121742	0.34122	3.41E-03
210.453	0.121696363	0.1216964	0.00012861	0.121696	0.341115	3.41E-03
210.4669	0.121569375	0.1215694	0.000355815	0.121569	0.340987	3.41E-03
210.4807	0.12153805	0.121538	8.77712E-05	0.121538	0.340631	3.41E-03
210.4946	0.121488616	0.1214886	0.000138511	0.121489	0.340543	3.41E-03
210.5084	0.121367205	0.1213672	0.000340188	0.121367	0.340405	3.40E-03
210.5223	0.121084496	0.1210845	0.000792135	0.121084	0.340065	3.40E-03
210.5362	0.120940166	0.1209402	0.000404406	0.12094	0.339272	3.39E-03
210.55	0.1207976	0.1207976	0.000399461	0.120798	0.338868	3.39E-03
210.5639	0.120406623	0.1204066	0.001095498	0.120407	0.338469	3.38E-03
210.5777	0.120086748	0.1200867	0.000896272	0.120087	0.337373	3.37E-03

210.5888	0.119525603	0.1195256	0.001572298	0.119526	0.336477	3.36E-03
210.6026	0.119276211	0.1192762	0.000698784	0.119276	0.334905	3.35E-03
210.6165	0.118696021	0.118696	0.001625663	0.118696	0.334206	3.34E-03
210.6304	0.118118766	0.1181188	0.001617437	0.118119	0.33258	3.33E-03
210.6442	0.117303156	0.1173032	0.002285297	0.117303	0.330963	3.31E-03
210.6581	0.117038058	0.1170381	0.000742792	0.117038	0.328677	3.29E-03
210.6719	0.116320196	0.1163202	0.002011411	0.11632	0.327935	3.28E-03
210.6858	0.115613922	0.1156139	0.001978945	0.115614	0.325923	3.26E-03
210.6996	0.115021878	0.1150219	0.001658875	0.115022	0.323944	3.24E-03
210.7135	0.114388865	0.1143889	0.001773669	0.114389	0.322285	3.22E-03
210.7273	0.113608835	0.1136088	0.002185604	0.113609	0.320512	3.21E-03
210.7439	0.112918777	0.1129188	0.001933507	0.112919	0.318326	3.18E-03
210.7578	0.11216408	0.1121641	0.002114623	0.112164	0.316393	3.16E-03
210.7717	0.111014868	0.1110149	0.003220032	0.111015	0.314278	3.14E-03
210.7883	0.110204068	0.1102041	0.002271819	0.110204	0.311058	3.11E-03
210.8049	0.109066589	0.1090666	0.003187156	0.109067	0.308786	3.09E-03
210.8215	0.106071528	0.1060715	0.008392006	0.106072	0.305599	3.06E-03
210.8382	0.105501838	0.1055018	0.00159624	0.105502	0.297207	2.97E-03
210.852	0.104641537	0.1046415	0.00241052	0.104642	0.295611	2.96E-03
210.8686	0.10369009	0.1036901	0.002665905	0.10369	0.2932	2.93E-03
210.8853	0.102619643	0.1026196	0.002999337	0.10262	0.290534	2.91E-03
210.8991	0.101877163	0.1018772	0.002080389	0.101877	0.287535	2.88E-03
210.9157	0.100848011	0.100848	0.00288363	0.100848	0.285455	2.85E-03
210.9324	0.099437998	0.099438	0.003950785	0.099438	0.282571	2.83E-03
210.9462	0.098731257	0.0987313	0.00198025	0.098731	0.27862	2.79E-03
210.9601	0.097794624	0.0977946	0.002624398	0.097795	0.27664	2.77E-03
210.9739	0.097056118	0.0970561	0.002069254	0.097056	0.274015	2.74E-03
210.9905	0.095699829	0.0956998	0.003800253	0.0957	0.271946	2.72E-03
211.0044	0.094993052	0.0949931	0.001980353	0.094993	0.268146	2.68E-03
211.0182	0.094046533	0.0940465	0.002652097	0.094047	0.266166	2.66E-03
211.0321	0.093344654	0.0933447	0.001966629	0.093345	0.263513	2.64E-03
211.0459	0.09238048	0.0923805	0.002701565	0.09238	0.261547	2.62E-03
211.057	0.091815863	0.0918159	0.001582026	0.091816	0.258845	2.59E-03
211.0709	0.090900587	0.0909006	0.002564557	0.090901	0.257263	2.57E-03
211.0847	0.090212437	0.0902124	0.00192816	0.090212	0.254699	2.55E-03
211.0958	0.089585337	0.0895853	0.0017571	0.089585	0.252771	2.53E-03
211.1069	0.089194335	0.0891943	0.001095569	0.089194	0.251013	2.51E-03
211.118	0.088578195	0.0885782	0.001726393	0.088578	0.249918	2.50E-03
211.1318	0.087607902	0.0876079	0.002718708	0.087608	0.248191	2.48E-03
211.1429	0.086959101	0.0869591	0.001817907	0.086959	0.245473	2.45E-03
211.154	0.086662535	0.0866625	0.000830964	0.086663	0.243655	2.44E-03
211.1679	0.086088313	0.0860883	0.001608938	0.086088	0.242824	2.43E-03
211.1789	0.085461376	0.0854614	0.001756646	0.085461	0.241215	2.41E-03
211.19	0.085122608	0.0851226	0.000949209	0.085123	0.239458	2.39E-03
211.2039	0.08441302	0.084413	0.001988231	0.084413	0.238509	2.39E-03
211.215	0.083819064	0.0838191	0.001664232	0.083819	0.236521	2.37E-03
211.226	0.083452325	0.0834523	0.001027585	0.083452	0.234857	2.35E-03
211.2399	0.083177355	0.0831774	0.000770449	0.083177	0.233829	2.34E-03
211.2537	0.08258943	0.0825894	0.001647337	0.082589	0.233059	2.33E-03
211.2676	0.082156688	0.0821567	0.001212519	0.082157	0.231411	2.31E-03
211.2814	0.081833584	0.0818336	0.000905321	0.081834	0.230199	2.30E-03
211.2925	0.081396324	0.0813963	0.001225181	0.081396	0.229293	2.29E-03
211.3064	0.080902516	0.0809025	0.001383624	0.080903	0.228068	2.28E-03
211.3202	0.08046745	0.0804674	0.001219032	0.080467	0.226685	2.27E-03
211.3313	0.080173135	0.0801731	0.000824656	0.080173	0.225466	2.25E-03
211.3452	0.079722403	0.0797224	0.001262926	0.079722	0.224641	2.25E-03
211.3563	0.079437382	0.0794374	0.000798615	0.079437	0.223378	2.23E-03
211.3701	0.079079191	0.0790792	0.001003631	0.079079	0.222579	2.23E-03
211.384	0.0784859	0.0784859	0.001662371	0.078486	0.221576	2.22E-03
211.3978	0.078081647	0.0780816	0.001132696	0.078082	0.219913	2.20E-03
211.4089	0.077683125	0.0776831	0.001116638	0.077683	0.218781	2.19E-03
211.42	0.077234417	0.0772344	0.001257257	0.077234	0.217664	2.18E-03
211.4338	0.076793609	0.0767936	0.001235122	0.076794	0.216407	2.16E-03
211.4477	0.076299777	0.0762998	0.001383689	0.0763	0.215172	2.15E-03
211.4588	0.075926836	0.0759268	0.001044963	0.075927	0.213788	2.14E-03
211.4698	0.075498268	0.0754983	0.001200825	0.075498	0.212743	2.13E-03
211.4837	0.075166646	0.0751666	0.000929188	0.075167	0.211542	2.12E-03
211.4948	0.074734787	0.0747348	0.001210045	0.074735	0.210613	2.11E-03
211.5086	0.074097397	0.0740974	0.001785933	0.074097	0.209403	2.09E-03
211.5197	0.073839033	0.073839	0.000723922	0.073839	0.207617	2.08E-03
211.5308	0.073384906	0.0733849	0.001272442	0.073385	0.206893	2.07E-03
211.5419	0.072994763	0.0729948	0.001093159	0.072995	0.205621	2.06E-03
211.5502	0.072510189	0.0725102	0.001357752	0.07251	0.204528	2.05E-03
211.5613	0.072342794	0.0723428	0.000469031	0.072343	0.20317	2.03E-03

211.5696	0.071867828	0.0718678	0.001330831	0.071868	0.202701	2.03E-03
211.5779	0.071548941	0.0715489	0.000893504	0.071549	0.20137	2.01E-03
211.5862	0.071520053	0.0715201	8.09431E-05	0.07152	0.200476	2.00E-03
211.5945	0.071325017	0.071325	0.000546481	0.071325	0.200395	2.00E-03
211.6028	0.070946703	0.0709467	0.001060015	0.070947	0.199849	2.00E-03
211.6112	0.070863545	0.0708635	0.000233006	0.070864	0.198789	1.99E-03
211.6195	0.070526972	0.070527	0.000943058	0.070527	0.198556	1.99E-03
211.6278	0.070486779	0.0704868	0.000112621	0.070487	0.197613	1.98E-03
211.6361	0.070184964	0.070185	0.000845668	0.070185	0.1975	1.98E-03
211.6416	0.07009663	0.0700966	0.000247509	0.070097	0.196655	1.97E-03
211.6499	0.069611802	0.0696118	0.001358463	0.069612	0.196407	1.96E-03
211.6583	0.069134848	0.0691348	0.001336398	0.069135	0.195049	1.95E-03
211.6638	0.068877053	0.0688771	0.00072233	0.068877	0.193712	1.94E-03
211.6721	0.068413473	0.0684135	0.001298925	0.068413	0.19299	1.93E-03
211.6804	0.068337724	0.0683377	0.000212245	0.068338	0.191691	1.92E-03
211.686	0.068051957	0.068052	0.000800704	0.068052	0.191479	1.91E-03
211.6943	0.067812188	0.0678122	0.000671821	0.067812	0.190678	1.91E-03
211.6998	0.067530438	0.0675304	0.000789448	0.06753	0.190006	1.90E-03
211.7081	0.067300587	0.0673006	0.000644032	0.067301	0.189217	1.89E-03
211.7164	0.066906408	0.0669064	0.001104469	0.066906	0.188573	1.89E-03
211.722	0.066794644	0.0667946	0.000313156	0.066795	0.187468	1.87E-03
211.7303	0.066359588	0.0663596	0.001219006	0.06636	0.187155	1.87E-03
211.7386	0.066189532	0.0661895	0.000476486	0.06619	0.185936	1.86E-03
211.7441	0.065821661	0.0658217	0.001030757	0.065822	0.18546	1.85E-03
211.7497	0.065716587	0.0657166	0.000294411	0.065717	0.184429	1.84E-03
211.758	0.065382853	0.0653829	0.000935106	0.065383	0.184134	1.84E-03
211.7635	0.065326672	0.0653267	0.000157416	0.065327	0.183199	1.83E-03
211.7691	0.065224737	0.0652247	0.000285617	0.065225	0.183042	1.83E-03
211.7746	0.064855957	0.064856	0.001033301	0.064856	0.182756	1.83E-03
211.7802	0.064802795	0.0648028	0.000148956	0.064803	0.181723	1.82E-03
211.7885	0.064386976	0.064387	0.001165103	0.064387	0.181574	1.82E-03
211.794	0.064336331	0.0643363	0.000141907	0.064336	0.180409	1.80E-03
211.7996	0.064240252	0.0642403	0.000269208	0.06424	0.180267	1.80E-03
211.8106	0.063793632	0.0637936	0.001251406	0.063794	0.179998	1.80E-03
211.8106	0.063793632	0.0637936	0	0.063794	0.178746	1.79E-03
211.8134	0.063745306	0.0637453	0.000135407	0.063745	0.178746	1.79E-03
211.8134	0.063745306	0.0637453	0	0.063745	0.178611	1.79E-03
211.8162	0.063745306	0.0637453	0	0.063745	0.178611	1.79E-03
211.8189	0.063697063	0.0636971	0.000135174	0.063697	0.178611	1.79E-03
211.8273	0.063350917	0.0633509	0.000969882	0.063351	0.178476	1.78E-03
211.8356	0.063213695	0.0632137	0.000384488	0.063214	0.177506	1.78E-03
211.8411	0.06287592	0.0628759	0.000946428	0.062876	0.177121	1.77E-03
211.8467	0.062832489	0.0628325	0.000121692	0.062832	0.176175	1.76E-03
211.8522	0.062543295	0.0625433	0.000810307	0.062543	0.176053	1.76E-03
211.8605	0.062455658	0.0624557	0.000245555	0.062456	0.175243	1.75E-03
211.866	0.06241084	0.0624108	0.000125578	0.062411	0.174997	1.75E-03
211.8716	0.062081447	0.0620814	0.000922942	0.062081	0.174872	1.75E-03
211.8771	0.061995163	0.0619952	0.000241764	0.061995	0.173949	1.74E-03
211.8827	0.061908654	0.0619087	0.000242392	0.061909	0.173707	1.74E-03
211.8882	0.06162167	0.0616217	0.000804115	0.061622	0.173465	1.73E-03
211.8938	0.061580794	0.0615808	0.000114532	0.061581	0.172661	1.73E-03
211.8993	0.061217471	0.0612233	0.001001756	0.061217	0.172546	1.73E-03
211.9048	0.061217471	0.0612233	0	0.061217	0.171544	1.72E-03
211.9104	0.061223273	0.0612233	0	0.061223	0.171544	1.72E-03
211.9159	0.06090225	0.0609023	0.000899488	0.060902	0.171544	1.72E-03
211.9215	0.060744862	0.0607449	0.000440995	0.060745	0.170645	1.71E-03
211.9242	0.060744862	0.0607449	0	0.060745	0.170204	1.70E-03
211.9298	0.060709693	0.0607097	9.85411E-05	0.06071	0.170204	1.70E-03
211.9353	0.06031225	0.0603123	0.001113613	0.060312	0.170105	1.70E-03
211.9409	0.060278461	0.0602785	9.46758E-05	0.060278	0.168992	1.69E-03
211.9464	0.060048256	0.0600483	0.000645024	0.060048	0.168897	1.69E-03
211.9519	0.06001561	0.0600156	9.14701E-05	0.060016	0.168252	1.68E-03
211.9575	0.059983549	0.0599835	8.98328E-05	0.059984	0.168161	1.68E-03
211.963	0.059749982	0.05975	0.000654442	0.05975	0.168071	1.68E-03
211.9686	0.059717447	0.0597174	9.11617E-05	0.059717	0.167416	1.67E-03
211.9741	0.059442269	0.0594423	0.000771035	0.059442	0.167325	1.67E-03
211.9796	0.059409011	0.059409	9.31891E-05	0.059409	0.166554	1.67E-03
211.9852	0.059375581	0.0593756	9.36689E-05	0.059376	0.166461	1.66E-03
211.988	0.059375581	0.0593756	0	0.059376	0.166367	1.66E-03
211.9935	0.05909614	0.0590961	0.000782979	0.059096	0.166367	1.66E-03
211.999	0.059064035	0.059064	8.99558E-05	0.059064	0.165584	1.66E-03
212.0046	0.058825748	0.0588257	0.000667668	0.058826	0.165494	1.65E-03
212.0101	0.058794697	0.0587947	8.70026E-05	0.058795	0.164827	1.65E-03
212.0157	0.058764486	0.0587645	8.46504E-05	0.058764	0.16474	1.65E-03

212.0212	0.058420216	0.0584317	0.000932348	0.05842	0.164655	1.65E-03
212.0267	0.058431736	0.0584317	0	0.058432	0.163723	1.64E-03
212.0323	0.058230044	0.0582424	0.000530489	0.05823	0.163723	1.64E-03
212.0378	0.058242407	0.0582424	0	0.058242	0.163192	1.63E-03
212.0434	0.058213267	0.0582133	8.1651E-05	0.058213	0.163192	1.63E-03
212.0489	0.058023898	0.0580239	0.000530601	0.058024	0.163111	1.63E-03
212.0517	0.057994953	0.057995	8.11023E-05	0.057995	0.16258	1.63E-03
212.0572	0.057845641	0.057856	0.000389452	0.057846	0.162499	1.62E-03
212.0628	0.057845641	0.057856	0	0.057846	0.162109	1.62E-03
212.0683	0.05785596	0.057856	0	0.057856	0.162109	1.62E-03
212.0738	0.057626098	0.0576261	0.000644059	0.057626	0.162109	1.62E-03
212.0794	0.057596345	0.0575963	8.33665E-05	0.057596	0.161465	1.61E-03
212.0849	0.057405133	0.0574051	0.000535766	0.057405	0.161382	1.61E-03
212.0905	0.057376291	0.0573763	8.08158E-05	0.057376	0.160846	1.61E-03
212.096	0.057220124	0.0572201	0.000437571	0.05722	0.160765	1.61E-03
212.1015	0.057192331	0.0571923	7.7874E-05	0.057192	0.160328	1.60E-03
212.1071	0.056966872	0.0569669	0.000631726	0.056967	0.16025	1.60E-03
212.1126	0.056966872	0.0569669	0	0.056967	0.159618	1.60E-03
212.1182	0.056803986	0.056804	0.000456398	0.056804	0.159618	1.60E-03
212.1237	0.056776246	0.0567762	7.77241E-05	0.056776	0.159162	1.59E-03
212.1265	0.056748218	0.0567482	7.85345E-05	0.056748	0.159084	1.59E-03
212.132	0.056544332	0.0565443	0.000571276	0.056544	0.159006	1.59E-03
212.1376	0.056516796	0.0565168	7.71571E-05	0.056517	0.158434	1.58E-03
212.1431	0.056354352	0.0563544	0.000455158	0.056354	0.158357	1.58E-03
212.1486	0.056326905	0.0563269	7.69053E-05	0.056327	0.157902	1.58E-03
212.157	0.056126967	0.0561376	0.000530424	0.056127	0.157825	1.58E-03
212.1625	0.0561376	0.0561376	0	0.056138	0.157295	1.57E-03
212.168	0.055977388	0.0559774	0.000448904	0.055977	0.157295	1.57E-03
212.1736	0.055950551	0.0559506	7.51964E-05	0.055951	0.156846	1.57E-03
212.1791	0.055827839	0.0558278	0.000343832	0.055828	0.156771	1.57E-03
212.1847	0.055827839	0.0558278	0	0.055828	0.156427	1.56E-03
212.1902	0.055667047	0.055667	0.000450531	0.055667	0.156427	1.56E-03
212.1957	0.055641031	0.055641	7.28959E-05	0.055641	0.155976	1.56E-03
212.2013	0.055615448	0.0556154	7.16834E-05	0.055615	0.155903	1.56E-03
212.2068	0.055417448	0.0554174	0.000554786	0.055417	0.155832	1.56E-03
212.2124	0.055393512	0.0553935	6.70663E-05	0.055394	0.155277	1.55E-03
212.2179	0.055236171	0.0552362	0.000440861	0.055236	0.15521	1.55E-03
212.2235	0.055213154	0.0552132	6.44934E-05	0.055213	0.154769	1.55E-03
212.229	0.055012259	0.0550123	0.000562896	0.055012	0.154704	1.55E-03
212.2345	0.054988901	0.0549889	6.54476E-05	0.054989	0.154141	1.54E-03
212.2401	0.054748416	0.0547484	0.000673827	0.054748	0.154076	1.54E-03
212.2456	0.054726605	0.0547266	6.11127E-05	0.054727	0.153402	1.53E-03
212.2512	0.054705314	0.0547053	5.96558E-05	0.054705	0.153341	1.53E-03
212.2567	0.054467263	0.0544673	0.000667009	0.054467	0.153281	1.53E-03
212.2622	0.05444711	0.0544471	5.64656E-05	0.054447	0.152614	1.53E-03
212.2678	0.054216943	0.0542169	0.000644918	0.054217	0.152558	1.53E-03
212.2761	0.05410578	0.0541058	0.000311472	0.054106	0.151913	1.52E-03
212.2816	0.053911761	0.0539118	0.000543633	0.053912	0.151602	1.52E-03
212.2872	0.053893504	0.0538935	5.11549E-05	0.053894	0.151058	1.51E-03
212.2955	0.053678764	0.0536788	0.000601689	0.053679	0.151007	1.51E-03
212.301	0.053660853	0.0536609	5.01866E-05	0.053661	0.150405	1.50E-03
212.3066	0.053393647	0.0533936	0.000748698	0.053394	0.150355	1.50E-03
212.3149	0.053326917	0.0533269	0.000186973	0.053327	0.149606	1.50E-03
212.3204	0.053131619	0.0531316	0.000547216	0.053132	0.149419	1.49E-03
212.326	0.053116438	0.0531164	4.25367E-05	0.053116	0.148872	1.49E-03
212.3315	0.052889606	0.0528896	0.000635569	0.05289	0.148829	1.49E-03
212.3398	0.052828375	0.0528284	0.000171567	0.052828	0.148194	1.48E-03
212.3454	0.052634171	0.0526342	0.00054415	0.052634	0.148022	1.48E-03
212.3509	0.052620427	0.0526204	3.85108E-05	0.05262	0.147478	1.47E-03
212.3564	0.052394108	0.0523941	0.000634132	0.052394	0.14744	1.47E-03
212.3648	0.052332478	0.0523325	0.000172685	0.052332	0.146806	1.47E-03
212.3703	0.05210759	0.0521076	0.000630123	0.052108	0.146633	1.47E-03
212.3758	0.052095148	0.0520951	3.48623E-05	0.052095	0.146003	1.46E-03
212.3814	0.052082834	0.0520828	3.45028E-05	0.052083	0.145968	1.46E-03
212.3869	0.051859425	0.0518594	0.000625981	0.051859	0.145933	1.46E-03
212.3925	0.051848475	0.0518485	3.06825E-05	0.051848	0.145307	1.45E-03
212.4008	0.051585511	0.0515855	0.00073681	0.051586	0.145277	1.45E-03
212.4063	0.051578005	0.051578	2.10325E-05	0.051578	0.14454	1.45E-03
212.4119	0.051431302	0.0514313	0.000411053	0.051431	0.144519	1.45E-03
212.4174	0.051389637	0.0513896	0.000116745	0.05139	0.144108	1.44E-03
212.4229	0.05116872	0.0511687	0.000618998	0.051169	0.143991	1.44E-03
212.4285	0.051086755	0.0510868	0.000229662	0.051087	0.143372	1.43E-03
212.434	0.050867915	0.0508679	0.000613177	0.050868	0.143142	1.43E-03
212.4396	0.050828621	0.0508286	0.000110099	0.050829	0.142529	1.43E-03

212.4451	0.050789349	0.0507893	0.000110039	0.050789	0.142419	1.42E-03
212.4506	0.050607081	0.0506071	0.000510706	0.050607	0.142309	1.42E-03
212.4562	0.050602132	0.0506021	1.38661E-05	0.050602	0.141798	1.42E-03
212.4617	0.05045192	0.0504519	0.000420885	0.050452	0.141785	1.42E-03
212.4673	0.050374702	0.0503747	0.000216361	0.050375	0.141364	1.41E-03
212.4728	0.050189716	0.0501897	0.000518322	0.05019	0.141147	1.41E-03
212.4811	0.050114913	0.0501149	0.000209594	0.050115	0.140629	1.41E-03
212.4867	0.049933114	0.0499331	0.000509392	0.049933	0.140419	1.40E-03
212.4922	0.049897126	0.0498971	0.000100837	0.049897	0.13991	1.40E-03
212.4977	0.04968183	0.0496822	0.000602092	0.049682	0.139809	1.40E-03
212.5005	0.049682242	0.0496822	0	0.049682	0.139207	1.39E-03
212.5061	0.049648289	0.0496483	9.51361E-05	0.049648	0.139207	1.39E-03
212.5116	0.049439756	0.0494415	0.000579375	0.04944	0.139112	1.39E-03
212.5171	0.049441513	0.0494415	0	0.049442	0.138533	1.39E-03
212.5199	0.049303262	0.0493056	0.000380754	0.049303	0.138533	1.39E-03
212.5255	0.049305624	0.0493056	0	0.049306	0.138152	1.38E-03
212.531	0.049136317	0.0491363	0.000474388	0.049136	0.138152	1.38E-03
212.5365	0.049104324	0.0491043	8.96443E-05	0.049104	0.137677	1.38E-03
212.5421	0.049005543	0.0490085	0.000268455	0.049006	0.137588	1.38E-03
212.5448	0.049008514	0.0490085	0	0.049009	0.137319	1.37E-03
212.5504	0.048911287	0.0489144	0.000263692	0.048911	0.137319	1.37E-03
212.5559	0.048914404	0.0489144	0	0.048914	0.137056	1.37E-03
212.5615	0.048817826	0.0488178	0.000270606	0.048818	0.137056	1.37E-03
212.5642	0.048817826	0.0488178	0	0.048818	0.136785	1.37E-03
212.5698	0.048755301	0.0487553	0.000175193	0.048755	0.136785	1.37E-03
212.5753	0.048693761	0.0486938	0.000172432	0.048694	0.13661	1.37E-03
212.5809	0.048598335	0.0485983	0.000267378	0.048598	0.136437	1.36E-03
212.5892	0.048508163	0.0485082	0.000252657	0.048508	0.13617	1.36E-03
212.5947	0.048414409	0.0484144	0.000262694	0.048414	0.135917	1.36E-03
212.6003	0.04838562	0.0483856	8.0666E-05	0.048386	0.135655	1.36E-03
212.6058	0.048326766	0.0483268	0.000164906	0.048327	0.135574	1.36E-03
212.6113	0.048206202	0.0482125	0.000320073	0.048206	0.135409	1.35E-03
212.6169	0.048212533	0.0482125	0	0.048213	0.135089	1.35E-03
212.6252	0.048155839	0.0481558	0.000158854	0.048156	0.135089	1.35E-03
212.6307	0.04803877	0.0480388	0.000328021	0.048039	0.13493	1.35E-03
212.6363	0.047981931	0.0479819	0.000159261	0.047982	0.134602	1.35E-03
212.6418	0.047925163	0.0479332	0.0001365	0.047925	0.134443	1.34E-03
212.6446	0.047933214	0.0479332	0	0.047933	0.134306	1.34E-03
212.6501	0.047878925	0.0478789	0.000152116	0.047879	0.134306	1.34E-03
212.6529	0.047878925	0.0478789	3.88848E-17	0.047879	0.134154	1.34E-03
212.6584	0.047794616	0.0477946	0.000236229	0.047795	0.134154	1.34E-03
212.6612	0.047794616	0.0477946	3.88848E-17	0.047795	0.133918	1.34E-03
212.6668	0.047769732	0.047778	4.65743E-05	0.04777	0.133918	1.34E-03
212.6695	0.047777994	0.047778	0	0.047778	0.133871	1.34E-03
212.6751	0.047687775	0.0476878	0.00025279	0.047688	0.133871	1.34E-03
212.6806	0.047630343	0.0476303	0.000160919	0.04763	0.133619	1.34E-03
212.6861	0.047605628	0.0476142	4.53627E-05	0.047606	0.133458	1.33E-03
212.6889	0.047614154	0.0476142	0	0.047614	0.133412	1.33E-03
212.6945	0.047590087	0.0475901	6.74341E-05	0.04759	0.133412	1.33E-03
212.7	0.047533982	0.0475819	2.28336E-05	0.047534	0.133345	1.33E-03
212.7028	0.047509272	0.0475819	0	0.047509	0.133322	1.33E-03
212.7083	0.047455944	0.0475819	0	0.047456	0.133322	1.33E-03
212.7139	0.047463453	0.0475819	0	0.047463	0.133322	1.33E-03
212.7166	0.047431998	0.0475819	0	0.047432	0.133322	1.33E-03
212.7222	0.047408684	0.0475819	0	0.047409	0.133322	1.33E-03
212.7277	0.047417	0.0475819	0	0.047417	0.133322	1.33E-03
212.7305	0.047362205	0.0475819	0	0.047362	0.133322	1.33E-03
212.736	0.047370838	0.0475819	0	0.047371	0.133322	1.33E-03
212.7416	0.047347676	0.0475819	0	0.047348	0.133322	1.33E-03
212.7443	0.047347963	0.0475819	0	0.047348	0.133322	1.33E-03
212.7499	0.047325763	0.0475819	0	0.047326	0.133322	1.33E-03
212.7554	0.04733308	0.0475819	0	0.047333	0.133322	1.33E-03
212.761	0.047309371	0.0475819	0	0.047309	0.133322	1.33E-03
212.7665	0.047317249	0.0475819	0	0.047317	0.133322	1.33E-03
212.7693	0.047324545	0.0475819	0	0.047325	0.133322	1.33E-03
212.7748	0.047331364	0.0475819	0	0.047331	0.133322	1.33E-03
212.7803	0.047306667	0.0475819	0	0.047307	0.133322	1.33E-03
212.7859	0.047314208	0.0475819	0	0.047314	0.133322	1.33E-03
212.7914	0.047287814	0.0475819	0	0.047288	0.133322	1.33E-03
212.797	0.047292405	0.0475819	0	0.047292	0.133322	1.33E-03
212.7997	0.047225176	0.0475819	0	0.047225	0.133322	1.33E-03
212.8053	0.047231946	0.0475819	0	0.047232	0.133322	1.33E-03
212.8108	0.047329071	0.0475819	0	0.047329	0.133322	1.33E-03
212.8164	0.047581938	0.0475819	0	0.047582	0.133322	1.33E-03

212.8219	0.04757952	0.0475795	6.77505E-06	0.04758	0.133322	1.33E-03
212.8274	0.047510437	0.0475149	0.000180933	0.04751	0.133315	1.33E-03
212.833	0.047514946	0.0475149	0	0.047515	0.133134	1.33E-03
212.8358	0.047480473	0.0474805	9.65903E-05	0.04748	0.133134	1.33E-03
212.8413	0.04747851	0.0474785	5.50119E-06	0.047479	0.133038	1.33E-03
212.8468	0.047476966	0.047477	4.32609E-06	0.047477	0.133032	1.33E-03
212.8524	0.047443204	0.0474479	8.15746E-05	0.047443	0.133028	1.33E-03
212.8579	0.047447852	0.0474479	0	0.047448	0.132946	1.33E-03
212.8635	0.047414943	0.0474149	9.22103E-05	0.047415	0.132946	1.33E-03
212.869	0.047414686	0.0474147	7.18627E-07	0.047415	0.132854	1.33E-03
212.8745	0.047414342	0.0474143	9.64073E-07	0.047414	0.132853	1.33E-03
212.8773	0.04740964	0.0474096	1.31746E-05	0.04741	0.132853	1.33E-03
212.8829	0.047348037	0.0473816	7.85686E-05	0.047348	0.132839	1.33E-03
212.8884	0.047346356	0.0473816	0	0.047346	0.132761	1.33E-03
212.8939	0.047344196	0.0473816	0	0.047344	0.132761	1.33E-03
212.8967	0.047344196	0.0473816	0	0.047344	0.132761	1.33E-03
212.905	0.04734045	0.0473816	0	0.04734	0.132761	1.33E-03
212.9106	0.047336712	0.0473816	0	0.047337	0.132761	1.33E-03
212.9161	0.047330156	0.0473816	0	0.04733	0.132761	1.33E-03
212.9189	0.047330156	0.0473816	0	0.04733	0.132761	1.33E-03
212.9244	0.0473816	0.0473816	0	0.047382	0.132761	1.33E-03
212.93	0.047374644	0.0473773	1.20164E-05	0.047375	0.132761	1.33E-03
212.9327	0.047377311	0.0473773	0	0.047377	0.132749	1.33E-03
212.9383	0.047370986	0.0473739	9.66466E-06	0.047371	0.132749	1.33E-03
212.9438	0.047364848	0.0473739	0	0.047365	0.132739	1.33E-03
212.9494	0.047358037	0.0473739	0	0.047358	0.132739	1.33E-03
212.9549	0.047350301	0.0473739	0	0.04735	0.132739	1.33E-03
212.9604	0.047343074	0.0473739	0	0.047343	0.132739	1.33E-03
212.966	0.047337608	0.0473739	0	0.047338	0.132739	1.33E-03
212.9715	0.047331865	0.0473739	0	0.047332	0.132739	1.33E-03
212.9771	0.047326774	0.0473739	0	0.047327	0.132739	1.33E-03
212.9826	0.047321592	0.0473739	0	0.047322	0.132739	1.33E-03
212.9881	0.047373862	0.0473739	0	0.047374	0.132739	1.33E-03
212.9937	0.047368638	0.0473686	1.46357E-05	0.047369	0.132739	1.33E-03
212.9992	0.047362395	0.0473624	1.74933E-05	0.047362	0.132724	1.33E-03
213.0048	0.047355259	0.0473553	1.99943E-05	0.047355	0.132707	1.33E-03
213.0103	0.04734951	0.0473495	1.61083E-05	0.04735	0.132687	1.33E-03
213.0158	0.04734508	0.0473451	1.24146E-05	0.047345	0.132671	1.33E-03
213.0186	0.04734508	0.0473451	0	0.047345	0.132658	1.33E-03
213.0242	0.047339319	0.0473393	1.61407E-05	0.047339	0.132658	1.33E-03
213.0325	0.047326268	0.0473347	1.30681E-05	0.047326	0.132642	1.33E-03
213.038	0.047319074	0.0473347	0	0.047319	0.132629	1.33E-03
213.0436	0.047309892	0.0473347	0	0.04731	0.132629	1.33E-03
213.0491	0.047334655	0.0473347	0	0.047335	0.132629	1.33E-03
213.0546	0.047327658	0.0473277	1.96055E-05	0.047328	0.132629	1.33E-03
213.0629	0.047277777	0.0472778	0.000139764	0.047278	0.13261	1.33E-03
213.0685	0.047267548	0.0472675	2.86603E-05	0.047268	0.13247	1.32E-03
213.074	0.047256842	0.0472568	2.99984E-05	0.047257	0.132441	1.32E-03
213.0796	0.04721561	0.0472156	0.00011553	0.047216	0.132411	1.32E-03
213.0851	0.047175185	0.0471752	0.000113269	0.047175	0.132296	1.32E-03
213.0907	0.047166113	0.0471661	2.54192E-05	0.047166	0.132182	1.32E-03
213.0962	0.047156258	0.0471563	2.7613E-05	0.047156	0.132157	1.32E-03
213.1017	0.047084101	0.0470841	0.000202181	0.047084	0.132129	1.32E-03
213.1045	0.047084101	0.0470841	3.88848E-17	0.047084	0.131927	1.32E-03
213.1128	0.047034723	0.0470445	0.000111004	0.047035	0.131927	1.32E-03
213.1184	0.046994602	0.0470445	0	0.046995	0.131816	1.32E-03
213.1239	0.047019298	0.0470445	0	0.047019	0.131816	1.32E-03
213.1294	0.047044484	0.0470445	0	0.047044	0.131816	1.32E-03
213.135	0.046975707	0.0469757	0.00019271	0.046976	0.131816	1.32E-03
213.1405	0.046968569	0.0469686	2E-05	0.046969	0.131623	1.32E-03
213.1461	0.046930245	0.0469302	0.000107382	0.04693	0.131603	1.32E-03
213.1516	0.046858612	0.0468586	0.000200711	0.046859	0.131496	1.31E-03
213.1572	0.046818598	0.0468186	0.000112118	0.046819	0.131295	1.31E-03
213.1655	0.046784039	0.046784	9.68331E-05	0.046784	0.131183	1.31E-03
213.171	0.04674718	0.0467472	0.000103278	0.046747	0.131086	1.31E-03
213.1765	0.046741924	0.0467419	1.47256E-05	0.046742	0.130983	1.31E-03
213.1849	0.04666591	0.0466659	0.000212987	0.046666	0.130968	1.31E-03
213.1904	0.046656955	0.046657	2.50928E-05	0.046657	0.130755	1.31E-03
213.1959	0.046588659	0.0465887	0.000191362	0.046589	0.13073	1.31E-03
213.2015	0.046581954	0.046582	1.87858E-05	0.046582	0.130539	1.31E-03
213.207	0.046543683	0.0465437	0.000107233	0.046544	0.13052	1.31E-03
213.2126	0.046505379	0.0465054	0.000107326	0.046505	0.130413	1.30E-03
213.2181	0.046498248	0.0464982	1.99824E-05	0.046498	0.130306	1.30E-03
213.2236	0.04649121	0.0464912	1.97203E-05	0.046491	0.130286	1.30E-03

213.2292	0.046487296	0.0464873	1.09672E-05	0.046487	0.130266	1.30E-03
213.2347	0.046422616	0.0464226	0.000181229	0.046423	0.130255	1.30E-03
213.2403	0.046418609	0.0464186	1.12264E-05	0.046419	0.130074	1.30E-03
213.2458	0.046382779	0.0463828	0.000100395	0.046383	0.130063	1.30E-03
213.2514	0.046346949	0.0463469	0.000100395	0.046347	0.129962	1.30E-03
213.2569	0.046342536	0.0463425	1.23651E-05	0.046343	0.129862	1.30E-03
213.2624	0.046338646	0.0463386	1.0899E-05	0.046339	0.129849	1.30E-03
213.268	0.046244639	0.0462446	0.000263403	0.046245	0.129838	1.30E-03
213.2707	0.046244639	0.0462446	0	0.046245	0.129575	1.30E-03
213.2763	0.046209635	0.0462096	9.8079E-05	0.04621	0.129575	1.30E-03
213.2818	0.046149883	0.0461499	0.000167421	0.04615	0.129477	1.29E-03
213.2874	0.046118289	0.0461238	7.31514E-05	0.046118	0.12931	1.29E-03
213.2929	0.046123776	0.0461238	0	0.046124	0.129236	1.29E-03
213.2985	0.046061634	0.0460616	0.000174118	0.046062	0.129236	1.29E-03
213.304	0.04603146	0.0460315	8.45472E-05	0.046031	0.129062	1.29E-03
213.3068	0.046001482	0.0460074	6.73889E-05	0.046001	0.128978	1.29E-03
213.3123	0.046007409	0.0460074	0	0.046007	0.12891	1.29E-03
213.3178	0.045946744	0.0459467	0.000169981	0.045947	0.12891	1.29E-03
213.3234	0.045917297	0.045919	7.77008E-05	0.045917	0.12874	1.29E-03
213.3289	0.045919013	0.045919	0	0.045919	0.128663	1.29E-03
213.3317	0.045889695	0.0458897	8.21481E-05	0.04589	0.128663	1.29E-03
213.3372	0.045864699	0.0458647	7.00364E-05	0.045865	0.128581	1.29E-03
213.3428	0.045803839	0.0458051	0.000167026	0.045804	0.12851	1.29E-03
213.3483	0.045804438	0.0458051	0	0.045804	0.128343	1.28E-03
213.3539	0.045805088	0.0458051	0	0.045805	0.128343	1.28E-03
213.3566	0.045773834	0.0457738	8.75734E-05	0.045774	0.128343	1.28E-03
213.3622	0.045748231	0.0457482	7.17388E-05	0.045748	0.128256	1.28E-03
213.3677	0.045685727	0.0456857	0.000175133	0.045686	0.128184	1.28E-03
213.3733	0.04568561	0.0456856	3.26186E-07	0.045686	0.128009	1.28E-03
213.3788	0.045685058	0.0456851	1.54763E-06	0.045685	0.128009	1.28E-03
213.3843	0.04562945	0.0456297	0.000155075	0.045629	0.128007	1.28E-03
213.3899	0.045629712	0.0456297	0	0.04563	0.127852	1.28E-03
213.3954	0.045597678	0.0455977	8.97579E-05	0.045598	0.127852	1.28E-03
213.3982	0.045597678	0.0455977	0	0.045598	0.127762	1.28E-03
213.4037	0.045511434	0.0455114	0.000241652	0.045511	0.127762	1.28E-03
213.4093	0.045510772	0.0455108	1.85603E-06	0.045511	0.127521	1.28E-03
213.4148	0.045508733	0.0455087	5.71109E-06	0.045509	0.127519	1.28E-03
213.4176	0.04549866	0.0454987	2.82263E-05	0.045499	0.127513	1.28E-03
213.4231	0.045441964	0.045442	0.000158859	0.045442	0.127485	1.27E-03
213.4259	0.045441964	0.045442	0	0.045442	0.127326	1.27E-03
213.4314	0.04543944	0.0454394	7.07281E-06	0.045439	0.127326	1.27E-03
213.437	0.045435604	0.0454356	1.07461E-05	0.045436	0.127319	1.27E-03
213.4398	0.045400186	0.0454002	9.92409E-05	0.0454	0.127308	1.27E-03
213.4453	0.045365027	0.0453857	4.06252E-05	0.045365	0.127209	1.27E-03
213.4508	0.04535884	0.0453857	0	0.045359	0.127168	1.27E-03
213.4564	0.04535135	0.0453857	0	0.045351	0.127168	1.27E-03
213.4619	0.045289835	0.0453857	0	0.04529	0.127168	1.27E-03
213.4647	0.045289835	0.0453857	0	0.04529	0.127168	1.27E-03
213.4702	0.045284992	0.0453857	0	0.045285	0.127168	1.27E-03
213.4758	0.045249752	0.0453857	0	0.04525	0.127168	1.27E-03
213.4785	0.045226349	0.0453857	0	0.045226	0.127168	1.27E-03
213.4841	0.045164261	0.0453857	0	0.045164	0.127168	1.27E-03
213.4896	0.045164027	0.0453857	0	0.045164	0.127168	1.27E-03
213.4924	0.045164325	0.0453857	0	0.045164	0.127168	1.27E-03
213.4979	0.045195756	0.0453857	0	0.045196	0.127168	1.27E-03
213.5035	0.045226449	0.0453857	0	0.045226	0.127168	1.27E-03
213.5062	0.045217562	0.0453857	0	0.045218	0.127168	1.27E-03
213.5118	0.045162128	0.0453857	0	0.045162	0.127168	1.27E-03
213.5173	0.045191087	0.0453857	0	0.045191	0.127168	1.27E-03
213.5229	0.045218803	0.0453857	0	0.045219	0.127168	1.27E-03
213.5284	0.045213183	0.0453857	0	0.045213	0.127168	1.27E-03
213.5312	0.045199237	0.0453857	0	0.045199	0.127168	1.27E-03
213.5367	0.045192826	0.0453857	0	0.045193	0.127168	1.27E-03
213.5423	0.045165701	0.0453857	0	0.045166	0.127168	1.27E-03
213.5478	0.045191312	0.0453857	0	0.045191	0.127168	1.27E-03
213.5533	0.045183225	0.0453857	0	0.045183	0.127168	1.27E-03
213.5589	0.045174993	0.0453857	0	0.045175	0.127168	1.27E-03
213.5644	0.045216268	0.0453857	0	0.045216	0.127168	1.27E-03
213.57	0.045208147	0.0453857	0	0.045208	0.127168	1.27E-03
213.5727	0.045208147	0.0453857	0	0.045208	0.127168	1.27E-03
213.5783	0.045200217	0.0453857	0	0.0452	0.127168	1.27E-03
213.5811	0.045160189	0.0453857	0	0.04516	0.127168	1.27E-03
213.5866	0.045138084	0.0453857	0	0.045138	0.127168	1.27E-03
213.5921	0.045068686	0.0453857	0	0.045069	0.127168	1.27E-03

213.5949	0.04506336	0.0453857	0	0.045063	0.127168	1.27E-03
213.6004	0.045057736	0.0453857	0	0.045058	0.127168	1.27E-03
213.606	0.045053752	0.0453857	0	0.045054	0.127168	1.27E-03
213.6088	0.045053752	0.0453857	0	0.045054	0.127168	1.27E-03
213.6143	0.045051569	0.0453857	0	0.045052	0.127168	1.27E-03
213.6198	0.045020488	0.0453857	0	0.04502	0.127168	1.27E-03
213.6254	0.044990661	0.0453857	0	0.044991	0.127168	1.27E-03
213.6282	0.044999755	0.0453857	0	0.045	0.127168	1.27E-03
213.6337	0.045000279	0.0453857	0	0.045	0.127168	1.27E-03
213.6365	0.044993252	0.0453857	0	0.044993	0.127168	1.27E-03
213.642	0.045024772	0.0453857	0	0.045025	0.127168	1.27E-03
213.6475	0.045056377	0.0453857	0	0.045056	0.127168	1.27E-03
213.6531	0.045111123	0.0453857	0	0.045111	0.127168	1.27E-03
213.6559	0.045117594	0.0453857	0	0.045118	0.127168	1.27E-03
213.6614	0.045171048	0.0453857	0	0.045171	0.127168	1.27E-03
213.6669	0.045200176	0.0453857	0	0.0452	0.127168	1.27E-03
213.6725	0.045228336	0.0453857	0	0.045228	0.127168	1.27E-03
213.6753	0.045219363	0.0453857	0	0.045219	0.127168	1.27E-03
213.6808	0.045217081	0.0453857	0	0.045217	0.127168	1.27E-03
213.6863	0.045245006	0.0453857	0	0.045245	0.127168	1.27E-03
213.6919	0.045272259	0.0453857	0	0.045272	0.127168	1.27E-03
213.6974	0.045266827	0.0453857	0	0.045267	0.127168	1.27E-03
213.7002	0.045292868	0.0453857	0	0.045293	0.127168	1.27E-03
213.7057	0.045318728	0.0453857	0	0.045319	0.127168	1.27E-03
213.7113	0.045313305	0.0453857	0	0.045313	0.127168	1.27E-03
213.7168	0.045360912	0.0453857	0	0.045361	0.127168	1.27E-03
213.7224	0.045355131	0.0453857	0	0.045355	0.127168	1.27E-03
213.7279	0.045350423	0.0453857	0	0.04535	0.127168	1.27E-03
213.7334	0.045345737	0.0453857	0	0.045346	0.127168	1.27E-03
213.739	0.045339407	0.0453857	0	0.045339	0.127168	1.27E-03
213.7445	0.045385687	0.0453857	0	0.045386	0.127168	1.27E-03
213.7501	0.045379078	0.0453791	1.85177E-05	0.045379	0.127168	1.27E-03
213.7556	0.045372265	0.0453723	1.90893E-05	0.045372	0.12715	1.27E-03
213.7611	0.04536515	0.0453652	1.99362E-05	0.045365	0.127131	1.27E-03
213.7667	0.045334769	0.0453602	1.38608E-05	0.045335	0.127111	1.27E-03
213.7722	0.045360203	0.0453602	0	0.04536	0.127097	1.27E-03
213.7778	0.045353337	0.0453533	1.92399E-05	0.045353	0.127097	1.27E-03
213.7833	0.045346693	0.0453467	1.8615E-05	0.045347	0.127078	1.27E-03
213.7888	0.045338996	0.0453464	8.51067E-07	0.045339	0.127059	1.27E-03
213.7944	0.045331976	0.0453464	0	0.045332	0.127058	1.27E-03
213.7999	0.045346389	0.0453464	0	0.045346	0.127058	1.27E-03
213.8055	0.045308142	0.0453351	3.15639E-05	0.045308	0.127058	1.27E-03
213.811	0.045300184	0.0453351	0	0.0453	0.127027	1.27E-03
213.8166	0.04529251	0.0453351	0	0.045293	0.127027	1.27E-03
213.8221	0.04528466	0.0453351	0	0.045285	0.127027	1.27E-03
213.8276	0.04527683	0.0453351	0	0.045277	0.127027	1.27E-03
213.8332	0.045301904	0.0453351	0	0.045302	0.127027	1.27E-03
213.8387	0.045270582	0.0453351	0	0.045271	0.127027	1.27E-03
213.8443	0.04526248	0.0453351	0	0.045262	0.127027	1.27E-03
213.8498	0.045254807	0.0453351	0	0.045255	0.127027	1.27E-03
213.8553	0.045247523	0.0453351	0	0.045248	0.127027	1.27E-03
213.8609	0.045241014	0.0453351	0	0.045241	0.127027	1.27E-03
213.8664	0.045204539	0.0453351	0	0.045205	0.127027	1.27E-03
213.872	0.045168704	0.0453351	0	0.045169	0.127027	1.27E-03
213.8775	0.045215537	0.0453351	0	0.045216	0.127027	1.27E-03
213.8803	0.045221146	0.0453351	0	0.045221	0.127027	1.27E-03
213.8858	0.04518486	0.0453351	0	0.045185	0.127027	1.27E-03
213.8914	0.045148035	0.0453351	0	0.045148	0.127027	1.27E-03
213.8969	0.045159171	0.0453351	0	0.045159	0.127027	1.27E-03
213.9024	0.045164693	0.0453351	0	0.045165	0.127027	1.27E-03
213.908	0.045039486	0.0453351	0	0.045039	0.127027	1.27E-03
213.9135	0.04503298	0.0453351	0	0.045033	0.127027	1.27E-03
213.9191	0.045077642	0.0453351	0	0.045078	0.127027	1.27E-03
213.9246	0.045040083	0.0453351	0	0.04504	0.127027	1.27E-03
213.9302	0.045010713	0.0453351	0	0.045011	0.127027	1.27E-03
213.9357	0.045035214	0.0453351	0	0.045035	0.127027	1.27E-03
213.9412	0.045028255	0.0453351	0	0.045028	0.127027	1.27E-03
213.9468	0.045174481	0.0453351	0	0.045174	0.127027	1.27E-03
213.9523	0.045161135	0.0453351	0	0.045161	0.127027	1.27E-03
213.9579	0.04514744	0.0453351	0	0.045147	0.127027	1.27E-03
213.9634	0.045134181	0.0453351	0	0.045134	0.127027	1.27E-03
213.9689	0.045335124	0.0453351	0	0.045335	0.127027	1.27E-03
213.9745	0.045324424	0.0453244	2.99801E-05	0.045324	0.127027	1.27E-03
213.98	0.045199418	0.0452518	0.000203389	0.045199	0.126997	1.27E-03

213.9856	0.045251836	0.0452518	0	0.045252	0.126793	1.27E-03
213.9911	0.045240957	0.045241	3.04825E-05	0.045241	0.126793	1.27E-03
213.9966	0.04514542	0.0451454	0.000267689	0.045145	0.126763	1.27E-03
214.0022	0.044710668	0.04474	0.001135966	0.044711	0.126495	1.26E-03
214.0077	0.04474	0.04474	0	0.04474	0.125359	1.25E-03
214.0133	0.044727512	0.0447275	3.49918E-05	0.044728	0.125359	1.25E-03
214.0188	0.044608025	0.044608	0.000334795	0.044608	0.125324	1.25E-03
214.0244	0.044543478	0.0445435	0.000180859	0.044543	0.124989	1.25E-03
214.0299	0.044502951	0.044503	0.000113555	0.044503	0.124809	1.25E-03
214.0354	0.044469123	0.0444691	9.4784E-05	0.044469	0.124695	1.25E-03
214.041	0.044436631	0.0444366	9.10414E-05	0.044437	0.1246	1.25E-03
214.0465	0.044404348	0.0444043	9.04539E-05	0.044404	0.124509	1.25E-03
214.0521	0.044353103	0.0443531	0.000143587	0.044353	0.124419	1.24E-03
214.0548	0.044310026	0.0443215	8.85969E-05	0.04431	0.124275	1.24E-03
214.0604	0.044321483	0.0443215	0	0.044321	0.124186	1.24E-03
214.0659	0.044178818	0.0442783	0.000120923	0.044179	0.124186	1.24E-03
214.0715	0.044131401	0.0442783	0	0.044131	0.124066	1.24E-03
214.077	0.044134752	0.0442783	0	0.044135	0.124066	1.24E-03
214.0798	0.044123939	0.0442783	0	0.044124	0.124066	1.24E-03
214.0853	0.044125451	0.0442783	0	0.044125	0.124066	1.24E-03
214.0908	0.044158417	0.0442783	0	0.044158	0.124066	1.24E-03
214.0964	0.044220854	0.0442783	0	0.044221	0.124066	1.24E-03
214.0992	0.044220854	0.0442783	0	0.044221	0.124066	1.24E-03
214.1047	0.044269552	0.0442783	0	0.04427	0.124066	1.24E-03
214.1102	0.044278326	0.0442783	0	0.044278	0.124066	1.24E-03
214.113	0.044237882	0.0442379	0.000113323	0.044238	0.124066	1.24E-03
214.1186	0.044186022	0.0441869	0.000142765	0.044186	0.123952	1.24E-03
214.1241	0.04418693	0.0441869	0	0.044187	0.123809	1.24E-03
214.1296	0.044158137	0.0441581	8.06776E-05	0.044158	0.123809	1.24E-03
214.1324	0.044138544	0.0441397	5.16216E-05	0.044139	0.123729	1.24E-03
214.1379	0.044139713	0.0441397	0	0.04414	0.123677	1.24E-03
214.1435	0.044111436	0.0441114	7.92317E-05	0.044111	0.123677	1.24E-03
214.1463	0.044082715	0.0440827	8.04745E-05	0.044083	0.123598	1.24E-03
214.1518	0.044054741	0.0440547	7.83812E-05	0.044055	0.123517	1.24E-03
214.1573	0.043996701	0.0439967	0.000162626	0.043997	0.123439	1.23E-03
214.1629	0.043959851	0.0439599	0.00010325	0.04396	0.123276	1.23E-03
214.1657	0.043921021	0.043921	0.0001088	0.043921	0.123173	1.23E-03
214.1712	0.043876488	0.0438765	0.000124778	0.043876	0.123064	1.23E-03
214.1767	0.04382037	0.0438204	0.000157241	0.04382	0.12294	1.23E-03
214.1795	0.043802804	0.0438028	4.92182E-05	0.043803	0.122782	1.23E-03
214.185	0.043777543	0.0437851	4.97167E-05	0.043778	0.122733	1.23E-03
214.1906	0.043781622	0.0437851	0	0.043782	0.122683	1.23E-03
214.1934	0.043781622	0.0437851	0	0.043782	0.122683	1.23E-03
214.1989	0.043785061	0.0437851	0	0.043785	0.122683	1.23E-03
214.2044	0.043739936	0.0437399	0.000126438	0.04374	0.122683	1.23E-03
214.2072	0.043729985	0.04373	2.78807E-05	0.04373	0.122557	1.23E-03
214.2128	0.043685417	0.0436926	0.00010462	0.043685	0.122529	1.23E-03
214.2183	0.043689271	0.0436926	0	0.043689	0.122425	1.22E-03
214.2238	0.043692647	0.0436926	0	0.043693	0.122425	1.22E-03
214.2294	0.043665816	0.0436658	7.5178E-05	0.043666	0.122425	1.22E-03
214.2321	0.0436485	0.0436511	4.12399E-05	0.043648	0.122349	1.22E-03
214.2377	0.043651098	0.0436511	0	0.043651	0.122308	1.22E-03
214.2432	0.043623543	0.0436235	7.72065E-05	0.043624	0.122308	1.22E-03
214.246	0.043595392	0.0436133	2.85801E-05	0.043595	0.122231	1.22E-03
214.2515	0.043597795	0.0436133	0	0.043598	0.122202	1.22E-03
214.2571	0.04359982	0.0436133	0	0.0436	0.122202	1.22E-03
214.2626	0.043571258	0.0436133	0	0.043571	0.122202	1.22E-03
214.2654	0.043553315	0.0436133	0	0.043553	0.122202	1.22E-03
214.2709	0.043603701	0.0436133	0	0.043604	0.122202	1.22E-03
214.2765	0.043575272	0.0436133	0	0.043575	0.122202	1.22E-03
214.2792	0.043557805	0.0436133	0	0.043558	0.122202	1.22E-03
214.2848	0.043529632	0.0436133	0	0.04353	0.122202	1.22E-03
214.2903	0.043424602	0.0436133	0	0.043425	0.122202	1.22E-03
214.2959	0.043397925	0.0436133	0	0.043398	0.122202	1.22E-03
214.2986	0.043402333	0.0436133	0	0.043402	0.122202	1.22E-03
214.3042	0.043435477	0.0436133	0	0.043435	0.122202	1.22E-03
214.3097	0.0434678	0.0436133	0	0.043468	0.122202	1.22E-03
214.3153	0.043439672	0.0436133	0	0.04344	0.122202	1.22E-03
214.318	0.043412091	0.0436133	0	0.043412	0.122202	1.22E-03
214.3236	0.043415477	0.0436133	0	0.043415	0.122202	1.22E-03
214.3291	0.043418042	0.0436133	0	0.043418	0.122202	1.22E-03
214.3347	0.043419779	0.0436133	0	0.04342	0.122202	1.22E-03
214.3374	0.043421521	0.0436133	0	0.043422	0.122202	1.22E-03
214.343	0.04339338	0.0436133	0	0.043393	0.122202	1.22E-03

214.3485	0.043366445	0.0436133	0	0.043366	0.122202	1.22E-03
214.3541	0.043399939	0.0436133	0	0.0434	0.122202	1.22E-03
214.3596	0.043386237	0.0436133	0	0.043386	0.122202	1.22E-03
214.3624	0.043375038	0.0436133	0	0.043375	0.122202	1.22E-03
214.3679	0.043377361	0.0436133	0	0.043377	0.122202	1.22E-03
214.3734	0.04333214	0.0436133	0	0.043332	0.122202	1.22E-03
214.379	0.043334166	0.0436133	0	0.043334	0.122202	1.22E-03
214.3818	0.043334166	0.0436133	0	0.043334	0.122202	1.22E-03
214.3873	0.04333635	0.0436133	0	0.043336	0.122202	1.22E-03
214.3928	0.043338174	0.0436133	0	0.043338	0.122202	1.22E-03
214.3984	0.043386563	0.0436133	0	0.043387	0.122202	1.22E-03
214.4012	0.04340039	0.0436133	0	0.0434	0.122202	1.22E-03
214.4067	0.0433703	0.0436133	0	0.04337	0.122202	1.22E-03
214.4122	0.043339663	0.0436133	0	0.04334	0.122202	1.22E-03
214.4178	0.043384569	0.0436133	0	0.043385	0.122202	1.22E-03
214.4205	0.043397456	0.0436133	0	0.043397	0.122202	1.22E-03
214.4261	0.043442572	0.0436133	0	0.043443	0.122202	1.22E-03
214.4316	0.043439745	0.0436133	0	0.04344	0.122202	1.22E-03
214.4372	0.043467025	0.0436133	0	0.043467	0.122202	1.22E-03
214.4399	0.043482905	0.0436133	0	0.043483	0.122202	1.22E-03
214.4455	0.043479554	0.0436133	0	0.04348	0.122202	1.22E-03
214.451	0.043477266	0.0436133	0	0.043477	0.122202	1.22E-03
214.4566	0.043474414	0.0436133	0	0.043474	0.122202	1.22E-03
214.4593	0.043484917	0.0436133	0	0.043485	0.122202	1.22E-03
214.4649	0.043528283	0.0436133	0	0.043528	0.122202	1.22E-03
214.4704	0.043524134	0.0436133	0	0.043524	0.122202	1.22E-03
214.476	0.043549863	0.0436133	0	0.04355	0.122202	1.22E-03
214.4787	0.043566717	0.0436133	0	0.043567	0.122202	1.22E-03
214.4843	0.043561873	0.0436133	0	0.043562	0.122202	1.22E-03
214.4898	0.043587772	0.0436133	0	0.043588	0.122202	1.22E-03
214.4954	0.043613343	0.0436133	0	0.043613	0.122202	1.22E-03
214.5009	0.043607156	0.0436072	1.73359E-05	0.043607	0.122202	1.22E-03
214.5064	0.043597623	0.0435976	2.67126E-05	0.043598	0.122185	1.22E-03
214.5092	0.043597623	0.0435976	0	0.043598	0.122158	1.22E-03
214.5147	0.043591159	0.0435941	9.83854E-06	0.043591	0.122158	1.22E-03
214.5203	0.043584676	0.0435941	0	0.043585	0.122148	1.22E-03
214.5258	0.043528626	0.0435941	0	0.043529	0.122148	1.22E-03
214.5314	0.04356787	0.0435941	0	0.043568	0.122148	1.22E-03
214.5369	0.043561037	0.0435941	0	0.043561	0.122148	1.22E-03
214.5397	0.043561037	0.0435941	0	0.043561	0.122148	1.22E-03
214.5452	0.043554813	0.0435941	0	0.043555	0.122148	1.22E-03
214.5508	0.043547909	0.0435941	0	0.043548	0.122148	1.22E-03
214.5563	0.043492762	0.0435941	0	0.043493	0.122148	1.22E-03
214.5618	0.043485909	0.0435941	0	0.043486	0.122148	1.22E-03
214.5674	0.043478292	0.0435941	0	0.043478	0.122148	1.22E-03
214.5729	0.043516909	0.0435941	0	0.043517	0.122148	1.22E-03
214.5785	0.043540391	0.0435941	0	0.04354	0.122148	1.22E-03
214.584	0.043564203	0.0435941	0	0.043564	0.122148	1.22E-03
214.5868	0.043547232	0.0435941	0	0.043547	0.122148	1.22E-03
214.5923	0.043570772	0.0435941	0	0.043571	0.122148	1.22E-03
214.5979	0.043594111	0.0435941	0	0.043594	0.122148	1.22E-03
214.6034	0.043534966	0.0435431	0.00014285	0.043535	0.122148	1.22E-03
214.6089	0.043543129	0.0435431	0	0.043543	0.122006	1.22E-03
214.6145	0.043456074	0.0434987	0.000124554	0.043456	0.122006	1.22E-03
214.62	0.043448302	0.0434987	0	0.043448	0.121881	1.22E-03
214.6256	0.043471399	0.0434987	0	0.043471	0.121881	1.22E-03
214.6311	0.043493616	0.0434987	0	0.043494	0.121881	1.22E-03
214.6367	0.043498676	0.0434987	0	0.043499	0.121881	1.22E-03
214.6422	0.043460005	0.043495	1.02704E-05	0.04346	0.121881	1.22E-03
214.6477	0.043450365	0.043495	0	0.04345	0.121871	1.22E-03
214.6533	0.043472296	0.043495	0	0.043472	0.121871	1.22E-03
214.6588	0.043495011	0.043495	0	0.043495	0.121871	1.22E-03
214.6644	0.043436716	0.0434628	9.03637E-05	0.043437	0.121871	1.22E-03
214.6699	0.043427372	0.0434628	0	0.043427	0.12178	1.22E-03
214.6754	0.043462761	0.0434628	0	0.043463	0.12178	1.22E-03
214.681	0.043452853	0.043454	2.44346E-05	0.043453	0.12178	1.22E-03
214.6865	0.043443246	0.043454	0	0.043443	0.121756	1.22E-03
214.6921	0.043432569	0.043454	0	0.043433	0.121756	1.22E-03
214.6976	0.04345404	0.043454	0	0.043454	0.121756	1.22E-03
214.7032	0.043445686	0.0434457	2.34078E-05	0.043446	0.121756	1.22E-03
214.7087	0.043356711	0.0433567	0.000249302	0.043357	0.121733	1.22E-03
214.7142	0.043348772	0.0433488	2.22462E-05	0.043349	0.121483	1.21E-03
214.7198	0.043311223	0.0433112	0.000105209	0.043311	0.121461	1.21E-03
214.7253	0.043273301	0.0432733	0.000106258	0.043273	0.121356	1.21E-03

214.7281	0.043264068	0.0432641	2.58702E-05	0.043264	0.12125	1.21E-03
214.7336	0.043254807	0.0432548	2.59489E-05	0.043255	0.121224	1.21E-03
214.7392	0.043217041	0.043217	0.000105818	0.043217	0.121198	1.21E-03
214.7447	0.043179827	0.0431798	0.000104271	0.04318	0.121092	1.21E-03
214.7503	0.043124627	0.0431246	0.000154668	0.043125	0.120988	1.21E-03
214.7558	0.043088774	0.0430888	0.000100458	0.043089	0.120833	1.21E-03
214.7613	0.043052211	0.043063	7.21473E-05	0.043052	0.120732	1.21E-03
214.7641	0.043063025	0.043063	0	0.043063	0.12066	1.21E-03
214.7696	0.043027032	0.043027	0.000100849	0.043027	0.12066	1.21E-03
214.7752	0.042991126	0.0429911	0.000100606	0.042991	0.12056	1.21E-03
214.7807	0.042936865	0.0429369	0.000152038	0.042937	0.120459	1.20E-03
214.7863	0.042930042	0.04293	1.9117E-05	0.04293	0.120307	1.20E-03
214.7918	0.042894204	0.0428942	0.000100417	0.042894	0.120288	1.20E-03
214.7974	0.042858734	0.0428587	9.9386E-05	0.042859	0.120187	1.20E-03
214.8001	0.042823605	0.0428236	9.84286E-05	0.042824	0.120088	1.20E-03
214.8057	0.042789116	0.0427891	9.66373E-05	0.042789	0.11999	1.20E-03
214.8112	0.042784523	0.0427845	1.287E-05	0.042785	0.119893	1.20E-03
214.8167	0.042734231	0.0427342	0.000140914	0.042734	0.11988	1.20E-03
214.8223	0.042701362	0.0427014	9.20981E-05	0.042701	0.119739	1.20E-03
214.8278	0.042668699	0.0426778	6.6078E-05	0.042669	0.119647	1.20E-03
214.8334	0.042664862	0.0426778	0	0.042665	0.119581	1.20E-03
214.8361	0.042677779	0.0426778	0	0.042678	0.119581	1.20E-03
214.8417	0.042644757	0.0426448	9.25269E-05	0.042645	0.119581	1.20E-03
214.8472	0.042612176	0.0426122	9.12894E-05	0.042612	0.119488	1.19E-03
214.8528	0.042609068	0.0426091	8.7077E-06	0.042609	0.119397	1.19E-03
214.8583	0.042559962	0.04256	0.000137592	0.04256	0.119388	1.19E-03
214.8638	0.042527195	0.0425272	9.1811E-05	0.042527	0.119251	1.19E-03
214.8666	0.042495285	0.0424953	8.94107E-05	0.042495	0.119159	1.19E-03
214.8722	0.042492826	0.0424928	6.89019E-06	0.042493	0.11907	1.19E-03
214.8777	0.042491034	0.042491	5.02202E-06	0.042491	0.119063	1.19E-03
214.8832	0.042444948	0.0424449	0.00012913	0.042445	0.119058	1.19E-03
214.886	0.042429614	0.0424296	4.29655E-05	0.04243	0.118929	1.19E-03
214.8916	0.042383745	0.0423837	0.000128524	0.042384	0.118886	1.19E-03
214.8971	0.042353042	0.042353	8.60278E-05	0.042353	0.118757	1.19E-03
214.9026	0.042322418	0.0423382	4.1595E-05	0.042322	0.118671	1.19E-03
214.9054	0.042337228	0.0423382	0	0.042337	0.118629	1.19E-03
214.9082	0.042322076	0.0423382	0	0.042322	0.118629	1.19E-03
214.9165	0.042338197	0.0423382	0	0.042338	0.118629	1.19E-03
214.9193	0.042323878	0.0423239	4.01207E-05	0.042324	0.118629	1.19E-03
214.9248	0.042249584	0.0422496	0.000208167	0.04225	0.118589	1.19E-03
214.9276	0.042205273	0.0422053	0.000124157	0.042205	0.118381	1.18E-03
214.9331	0.042175226	0.0421752	8.41897E-05	0.042175	0.118257	1.18E-03
214.9387	0.042131334	0.0421313	0.000122983	0.042131	0.118173	1.18E-03
214.9442	0.042101644	0.0421016	8.31909E-05	0.042102	0.11805	1.18E-03
214.9636	0.041970062	0.0419701	0.000368685	0.04197	0.117967	1.18E-03
214.9747	0.041940917	0.0419409	8.16633E-05	0.041941	0.117598	1.18E-03
214.9774	0.041927748	0.0419277	3.68984E-05	0.041928	0.117516	1.18E-03
214.9774	0.041927748	0.0419277	0	0.041928	0.117479	1.17E-03
214.983	0.041898656	0.0418987	8.15139E-05	0.041899	0.117479	1.17E-03
214.9941	0.041829252	0.0418293	0.000194466	0.041829	0.117398	1.17E-03
214.9941	0.041829252	0.0418293	0	0.041829	0.117203	1.17E-03
214.9968	0.041813719	0.0418137	4.35237E-05	0.041814	0.117203	1.17E-03
214.9968	0.041813719	0.0418137	0	0.041814	0.11716	1.17E-03
214.9968	0.041813719	0.0418137	0	0.041814	0.11716	1.17E-03
214.9968	0.041813719	0.0418137	0	0.041814	0.11716	1.17E-03
214.9996	0.041801607	0.0418016	3.39384E-05	0.041802	0.11716	1.17E-03
215.0051	0.041774822	0.0417748	7.50499E-05	0.041775	0.117126	1.17E-03
215.0135	0.04174872	0.0417487	7.31348E-05	0.041749	0.117051	1.17E-03
215.0162	0.041735631	0.0417356	3.66762E-05	0.041736	0.116978	1.17E-03
215.0162	0.041735631	0.0417356	0	0.041736	0.116941	1.17E-03
215.019	0.041721047	0.0417227	3.62685E-05	0.041721	0.116941	1.17E-03
215.0245	0.041722687	0.0417227	0	0.041723	0.116905	1.17E-03
215.0273	0.041709924	0.0417161	1.84861E-05	0.04171	0.116905	1.17E-03
215.0329	0.04168359	0.0417161	0	0.041684	0.116886	1.17E-03
215.0384	0.041716089	0.0417161	0	0.041716	0.116886	1.17E-03
215.0412	0.041703347	0.0417033	3.57035E-05	0.041703	0.116886	1.17E-03
215.0467	0.041662865	0.0416665	0.000103223	0.041663	0.116851	1.17E-03
215.0495	0.041649444	0.0416665	0	0.041649	0.116747	1.17E-03
215.055	0.041666507	0.0416665	0	0.041667	0.116747	1.17E-03
215.0606	0.0416397	0.0416397	7.51122E-05	0.04164	0.116747	1.17E-03
215.0606	0.0416397	0.0416397	0	0.04164	0.116672	1.17E-03
215.0661	0.041599517	0.0416073	9.07911E-05	0.0416	0.116672	1.17E-03
215.0689	0.041599517	0.0416073	0	0.0416	0.116581	1.17E-03
215.0744	0.041602104	0.0416073	0	0.041602	0.116581	1.17E-03

215.08	0.041607297	0.0416073	0	0.041607	0.116581	1.17E-03
215.0855	0.04158175	0.0416017	1.57972E-05	0.041582	0.116581	1.17E-03
215.0938	0.04154599	0.0416017	0	0.041546	0.116566	1.17E-03
215.1021	0.041523362	0.0416017	0	0.041523	0.116566	1.17E-03
215.1077	0.041527133	0.0416017	0	0.041527	0.116566	1.17E-03
215.1132	0.041601659	0.0416017	0	0.041602	0.116566	1.17E-03
215.116	0.041601659	0.0416017	0	0.041602	0.116566	1.17E-03
215.1215	0.041562629	0.0415723	8.22809E-05	0.041563	0.116566	1.17E-03
215.1271	0.041535996	0.0415723	0	0.041536	0.116483	1.16E-03
215.1298	0.041566843	0.0415723	0	0.041567	0.116483	1.16E-03
215.1354	0.041567687	0.0415723	0	0.041568	0.116483	1.16E-03
215.1409	0.041499539	0.0415723	0	0.0415	0.116483	1.16E-03
215.1437	0.041513124	0.0415723	0	0.041513	0.116483	1.16E-03
215.1492	0.041544793	0.0415723	0	0.041545	0.116483	1.16E-03
215.152	0.041518519	0.0415723	0	0.041519	0.116483	1.16E-03
215.1575	0.041491534	0.0415723	0	0.041492	0.116483	1.16E-03
215.1603	0.041480023	0.0415723	0	0.04148	0.116483	1.16E-03
215.1658	0.041496233	0.0415723	0	0.041496	0.116483	1.16E-03
215.1686	0.041484616	0.0415723	0	0.041485	0.116483	1.16E-03
215.1742	0.041457584	0.0415723	0	0.041458	0.116483	1.16E-03
215.1769	0.041459318	0.0415723	0	0.041459	0.116483	1.16E-03
215.1825	0.041462071	0.0415723	0	0.041462	0.116483	1.16E-03
215.188	0.041425049	0.0415723	0	0.041425	0.116483	1.16E-03
215.1935	0.041441763	0.0415723	0	0.041442	0.116483	1.16E-03
215.1991	0.041416806	0.0415723	0	0.041417	0.116483	1.16E-03
215.2019	0.041405971	0.0415723	0	0.041406	0.116483	1.16E-03
215.2074	0.041423864	0.0415723	0	0.041424	0.116483	1.16E-03
215.2102	0.041442087	0.0415723	0	0.041442	0.116483	1.16E-03
215.2157	0.041446375	0.0415723	0	0.041446	0.116483	1.16E-03
215.2213	0.041450605	0.0415723	0	0.041451	0.116483	1.16E-03
215.2268	0.041453745	0.0415723	0	0.041454	0.116483	1.16E-03
215.2296	0.041468317	0.0415723	0	0.041468	0.116483	1.16E-03
215.2351	0.041456691	0.0415723	0	0.041457	0.116483	1.16E-03
215.2406	0.041458395	0.0415723	0	0.041458	0.116483	1.16E-03
215.2434	0.041471787	0.0415723	0	0.041472	0.116483	1.16E-03
215.249	0.041461085	0.0415723	0	0.041461	0.116483	1.16E-03
215.2545	0.041462956	0.0415723	0	0.041463	0.116483	1.16E-03
215.26	0.041464983	0.0415723	0	0.041465	0.116483	1.16E-03
215.2628	0.04147814	0.0415723	0	0.041478	0.116483	1.16E-03
215.2684	0.041508667	0.0415723	0	0.041509	0.116483	1.16E-03
215.2739	0.041469741	0.0415723	0	0.04147	0.116483	1.16E-03
215.2767	0.041482469	0.0415723	0	0.041482	0.116483	1.16E-03
215.2822	0.041512977	0.0415723	0	0.041513	0.116483	1.16E-03
215.285	0.041513487	0.0415723	0	0.041513	0.116483	1.16E-03
215.2877	0.041513487	0.0415723	0	0.041513	0.116483	1.16E-03
215.2905	0.041514246	0.0415723	0	0.041514	0.116483	1.16E-03
215.2961	0.041543537	0.0415723	0	0.041544	0.116483	1.16E-03
215.3016	0.041572293	0.0415723	0	0.041572	0.116483	1.16E-03
215.3071	0.041543368	0.0415707	4.37768E-06	0.041543	0.116483	1.16E-03
215.3127	0.041514612	0.0415707	0	0.041515	0.116479	1.16E-03
215.3155	0.041542712	0.0415707	0	0.041543	0.116479	1.16E-03
215.321	0.041570731	0.0415707	0	0.041571	0.116479	1.16E-03
215.3265	0.041569951	0.04157	2.18643E-06	0.04157	0.116479	1.16E-03
215.3293	0.041553898	0.0415695	1.26442E-06	0.041554	0.116477	1.16E-03
215.3348	0.041540791	0.0415695	0	0.041541	0.116476	1.16E-03
215.3404	0.041569499	0.0415695	0	0.041569	0.116476	1.16E-03
215.3432	0.041554075	0.0415541	4.32174E-05	0.041554	0.116476	1.16E-03
215.3487	0.041512332	0.0415417	3.47477E-05	0.041512	0.116432	1.16E-03
215.3542	0.041512394	0.0415417	0	0.041512	0.116398	1.16E-03
215.357	0.041512394	0.0415417	0	0.041512	0.116398	1.16E-03
215.3626	0.041513286	0.0415417	0	0.041513	0.116398	1.16E-03
215.3681	0.041541674	0.0415417	0	0.041542	0.116398	1.16E-03
215.3709	0.041541674	0.0415417	1.94424E-17	0.041542	0.116398	1.16E-03
215.3764	0.041540491	0.0415405	3.31591E-06	0.04154	0.116398	1.16E-03
215.3819	0.041509636	0.0415357	1.34415E-05	0.04151	0.116394	1.16E-03
215.3875	0.041535694	0.0415357	0	0.041536	0.116381	1.16E-03
215.393	0.041518444	0.0415184	4.83311E-05	0.041518	0.116381	1.16E-03
215.3986	0.041503149	0.0415031	4.28557E-05	0.041503	0.116333	1.16E-03
215.4041	0.041501594	0.0415016	4.35824E-06	0.041502	0.11629	1.16E-03
215.4069	0.041399992	0.0414429	0.000164464	0.0414	0.116285	1.16E-03
215.4124	0.041398654	0.0414429	0	0.041399	0.116121	1.16E-03
215.418	0.041426285	0.0414429	0	0.041426	0.116121	1.16E-03
215.4235	0.041425044	0.0414429	0	0.041425	0.116121	1.16E-03
215.429	0.041394472	0.0414429	0	0.041394	0.116121	1.16E-03

215.4346	0.041392868	0.0414429	0	0.041393	0.116121	1.16E-03
215.4401	0.041431758	0.0414429	0	0.041432	0.116121	1.16E-03
215.4457	0.041388508	0.0414429	0	0.041389	0.116121	1.16E-03
215.4512	0.041387474	0.0414429	0	0.041387	0.116121	1.16E-03
215.4568	0.041415792	0.0414429	0	0.041416	0.116121	1.16E-03
215.4623	0.041442898	0.0414429	0	0.041443	0.116121	1.16E-03
215.4678	0.041413312	0.0414133	8.28974E-05	0.041413	0.116121	1.16E-03
215.4734	0.041383234	0.0413832	8.42759E-05	0.041383	0.116038	1.16E-03
215.4789	0.041381037	0.041381	6.1578E-06	0.041381	0.115954	1.16E-03
215.4845	0.041378526	0.0413785	7.03555E-06	0.041379	0.115948	1.16E-03
215.49	0.041348178	0.0413482	8.50314E-05	0.041348	0.11594	1.16E-03
215.4955	0.041318086	0.0413181	8.43173E-05	0.041318	0.115855	1.16E-03
215.5011	0.041275674	0.0412757	0.000118836	0.041276	0.115771	1.16E-03
215.5039	0.041275674	0.0412757	0	0.041276	0.115652	1.16E-03
215.5094	0.041274535	0.0412745	3.19245E-06	0.041275	0.115652	1.16E-03
215.5149	0.04127344	0.0412734	3.06774E-06	0.041273	0.115649	1.16E-03
215.5205	0.041243859	0.0412439	8.28849E-05	0.041244	0.115646	1.16E-03
215.5233	0.041231394	0.0412314	3.49254E-05	0.041231	0.115563	1.16E-03
215.5288	0.041201696	0.0412105	5.86614E-05	0.041202	0.115528	1.16E-03
215.5343	0.041172137	0.0412105	0	0.041172	0.11547	1.15E-03
215.5399	0.041210458	0.0412105	0	0.04121	0.11547	1.15E-03
215.5454	0.041166973	0.041167	0.000121842	0.041167	0.11547	1.15E-03
215.551	0.041164904	0.0411649	5.79878E-06	0.041165	0.115348	1.15E-03
215.5537	0.041164904	0.0411649	0	0.041165	0.115342	1.15E-03
215.5593	0.041122022	0.041122	0.000120152	0.041122	0.115342	1.15E-03
215.5648	0.041090969	0.041091	8.7009E-05	0.041091	0.115222	1.15E-03
215.5704	0.041059743	0.0410597	8.74936E-05	0.04106	0.115135	1.15E-03
215.5759	0.041057581	0.0410576	6.05901E-06	0.041058	0.115047	1.15E-03
215.5814	0.041015794	0.0410544	8.92257E-06	0.041016	0.115041	1.15E-03
215.587	0.041054396	0.0410544	0	0.041054	0.115032	1.15E-03
215.5925	0.041024692	0.0410247	8.32295E-05	0.041025	0.115032	1.15E-03
215.5981	0.040996228	0.0410127	3.36283E-05	0.040996	0.114949	1.15E-03
215.6008	0.04101269	0.0410127	0	0.041013	0.114915	1.15E-03
215.6064	0.040983262	0.0409833	8.2457E-05	0.040983	0.114915	1.15E-03
215.6091	0.040954227	0.0409542	8.13543E-05	0.040954	0.114833	1.15E-03
215.6119	0.040954227	0.0409542	1.94424E-17	0.040954	0.114752	1.15E-03
215.6175	0.040885863	0.0408859	0.000191554	0.040886	0.114752	1.15E-03
215.623	0.040856913	0.0408569	8.11139E-05	0.040857	0.11456	1.15E-03
215.6285	0.040817389	0.0408174	0.000110744	0.040817	0.114479	1.14E-03
215.6341	0.040789358	0.0407894	7.85435E-05	0.040789	0.114368	1.14E-03
215.6368	0.040733728	0.0407337	0.000155873	0.040734	0.11429	1.14E-03
215.6424	0.040707592	0.0407101	6.60684E-05	0.040708	0.114134	1.14E-03
215.6479	0.040708455	0.0407101	0	0.040708	0.114068	1.14E-03
215.6535	0.040710148	0.0407101	0	0.04071	0.114068	1.14E-03
215.659	0.040673349	0.0406773	9.21694E-05	0.040673	0.114068	1.14E-03
215.6618	0.040673349	0.0406773	0	0.040673	0.113976	1.14E-03
215.6673	0.040675281	0.0406773	0	0.040675	0.113976	1.14E-03
215.6729	0.040677253	0.0406773	0	0.040677	0.113976	1.14E-03
215.6784	0.040640041	0.0406421	9.84934E-05	0.04064	0.113976	1.14E-03
215.6839	0.040642102	0.0406421	0	0.040642	0.113877	1.14E-03
215.6895	0.040616331	0.0406163	7.22081E-05	0.040616	0.113877	1.14E-03
215.695	0.040552872	0.0405529	0.000177808	0.040553	0.113805	1.14E-03
215.7006	0.040527656	0.0405277	7.06558E-05	0.040528	0.113627	1.14E-03
215.7033	0.04050219	0.0405022	7.13538E-05	0.040502	0.113556	1.14E-03
215.7061	0.04050219	0.0405022	0	0.040502	0.113485	1.13E-03
215.7117	0.040466333	0.0404663	0.000100468	0.040466	0.113485	1.13E-03
215.7172	0.040440931	0.0404409	7.11765E-05	0.040441	0.113385	1.13E-03
215.72	0.040415554	0.0404203	5.78247E-05	0.040416	0.113313	1.13E-03
215.7255	0.040418057	0.0404203	0	0.040418	0.113256	1.13E-03
215.731	0.040420294	0.0404203	0	0.04042	0.113256	1.13E-03
215.7366	0.040384945	0.0403849	9.90445E-05	0.040385	0.113256	1.13E-03
215.7394	0.040368569	0.0403686	4.58838E-05	0.040369	0.113157	1.13E-03
215.7449	0.040332988	0.040333	9.96964E-05	0.040333	0.113111	1.13E-03
215.7477	0.040332988	0.040333	0	0.040333	0.113011	1.13E-03
215.7532	0.040298719	0.0402987	9.60198E-05	0.040299	0.113011	1.13E-03
215.756	0.040282326	0.0402823	4.59347E-05	0.040282	0.112915	1.13E-03
215.7615	0.040275843	0.0402781	1.1748E-05	0.040276	0.112869	1.13E-03
215.7671	0.040278133	0.0402781	0	0.040278	0.112857	1.13E-03
215.7698	0.040252997	0.040253	7.04285E-05	0.040253	0.112857	1.13E-03
215.7754	0.040227418	0.0402274	7.16724E-05	0.040227	0.112787	1.13E-03
215.7781	0.040219413	0.0402194	2.24296E-05	0.040219	0.112715	1.13E-03
215.7837	0.040194351	0.0401944	7.02217E-05	0.040194	0.112693	1.13E-03
215.7892	0.040134377	0.0401344	0.000168043	0.040134	0.112622	1.13E-03
215.792	0.040116899	0.0401238	2.9738E-05	0.040117	0.112454	1.12E-03

215.7975	0.040112945	0.0401238	0	0.040113	0.112425	1.12E-03
215.8003	0.040123764	0.0401238	0	0.040124	0.112425	1.12E-03
215.8059	0.040091938	0.0400919	8.91751E-05	0.040092	0.112425	1.12E-03
215.8114	0.040068103	0.0400681	6.67854E-05	0.040068	0.112336	1.12E-03
215.8142	0.040060766	0.0400608	2.05556E-05	0.040061	0.112269	1.12E-03
215.8197	0.040037214	0.0400372	6.59929E-05	0.040037	0.112248	1.12E-03
215.8225	0.040013439	0.0400134	6.6615E-05	0.040013	0.112182	1.12E-03
215.828	0.03998915	0.0399924	5.89018E-05	0.039989	0.112116	1.12E-03
215.8336	0.039992418	0.0399924	0	0.039992	0.112057	1.12E-03
215.8391	0.039988367	0.0399884	1.13497E-05	0.039988	0.112057	1.12E-03
215.8419	0.039971195	0.0399712	4.81162E-05	0.039971	0.112045	1.12E-03
215.8474	0.0399392	0.0399429	7.93025E-05	0.039939	0.111997	1.12E-03
215.853	0.039942892	0.0399429	0	0.039943	0.111918	1.12E-03
215.8557	0.039942892	0.0399429	0	0.039943	0.111918	1.12E-03
215.8613	0.039911189	0.0399214	6.03235E-05	0.039911	0.111918	1.12E-03
215.864	0.039921363	0.0399214	0	0.039921	0.111858	1.12E-03
215.8696	0.039917204	0.0399198	4.2839E-06	0.039917	0.111858	1.12E-03
215.8751	0.03989284	0.0399198	0	0.039893	0.111853	1.12E-03
215.8779	0.039868592	0.0399198	0	0.039869	0.111853	1.12E-03
215.8807	0.039868592	0.0399198	0	0.039869	0.111853	1.12E-03
215.8862	0.039874142	0.0399198	0	0.039874	0.111853	1.12E-03
215.889	0.039874142	0.0399198	0	0.039874	0.111853	1.12E-03
215.8945	0.039841729	0.0399198	0	0.039842	0.111853	1.12E-03
215.8973	0.039824619	0.0399198	0	0.039825	0.111853	1.12E-03
215.9028	0.039854677	0.0399198	0	0.039855	0.111853	1.12E-03
215.9084	0.039857371	0.0399198	0	0.039857	0.111853	1.12E-03
215.9139	0.039849879	0.0399198	0	0.03985	0.111853	1.12E-03
215.9194	0.039832948	0.0399198	0	0.039833	0.111853	1.12E-03
215.9222	0.039825472	0.0399198	0	0.039825	0.111853	1.12E-03
215.925	0.0398274	0.0399198	0	0.039827	0.111853	1.12E-03
215.9278	0.039836634	0.0399198	0	0.039837	0.111853	1.12E-03
215.9333	0.039804637	0.0399198	0	0.039805	0.111853	1.12E-03
215.9361	0.039804637	0.0399198	0	0.039805	0.111853	1.12E-03
215.9416	0.039807695	0.0399198	0	0.039808	0.111853	1.12E-03
215.9444	0.039674357	0.0399198	0	0.039674	0.111853	1.12E-03
215.9499	0.039667702	0.0399198	0	0.039668	0.111853	1.12E-03
215.9527	0.039661145	0.0399198	0	0.039661	0.111853	1.12E-03
215.9582	0.039654505	0.0399198	0	0.039655	0.111853	1.12E-03
215.961	0.03964803	0.0399198	0	0.039648	0.111853	1.12E-03
215.9665	0.039469491	0.0399198	0	0.039469	0.111853	1.12E-03
215.9721	0.039463056	0.0399198	0	0.039463	0.111853	1.12E-03
215.9749	0.039416134	0.0399198	0	0.039416	0.111853	1.12E-03
215.9804	0.039510212	0.0399198	0	0.03951	0.111853	1.12E-03
215.9832	0.039435321	0.0399198	0	0.039435	0.111853	1.12E-03
215.9887	0.039428779	0.0399198	0	0.039429	0.111853	1.12E-03
215.9915	0.039422501	0.0399198	0	0.039423	0.111853	1.12E-03
215.997	0.039770647	0.0399198	0	0.039771	0.111853	1.12E-03
215.9998	0.039771605	0.0399198	0	0.039772	0.111853	1.12E-03
216.0053	0.039744171	0.0399198	0	0.039744	0.111853	1.12E-03
216.0109	0.039736563	0.0399198	0	0.039737	0.111853	1.12E-03
216.0136	0.039709346	0.0399198	0	0.039709	0.111853	1.12E-03
216.0192	0.039835187	0.0399198	0	0.039835	0.111853	1.12E-03
216.0247	0.039834495	0.0399198	0	0.039834	0.111853	1.12E-03
216.0275	0.039833998	0.0399198	0	0.039834	0.111853	1.12E-03
216.033	0.039806421	0.0399198	0	0.039806	0.111853	1.12E-03
216.0414	0.039834596	0.0399198	0	0.039835	0.111853	1.12E-03
216.0441	0.039827005	0.0399198	0	0.039827	0.111853	1.12E-03
216.0469	0.039834348	0.0399198	0	0.039834	0.111853	1.12E-03
216.0524	0.03986128	0.0399198	0	0.039861	0.111853	1.12E-03
216.0552	0.039832821	0.0399198	0	0.039833	0.111853	1.12E-03
216.0607	0.039895274	0.0399198	0	0.039895	0.111853	1.12E-03
216.0635	0.039914949	0.0399198	0	0.039915	0.111853	1.12E-03
216.0691	0.039919834	0.0399198	0	0.03992	0.111853	1.12E-03
216.0746	0.039889165	0.0399085	3.16379E-05	0.039889	0.111853	1.12E-03
216.0774	0.039908543	0.0399085	0	0.039909	0.111822	1.12E-03
216.0829	0.039843386	0.0398434	0.000182565	0.039843	0.111822	1.12E-03
216.0857	0.039794127	0.0398422	3.2489E-06	0.039794	0.111639	1.12E-03
216.0912	0.039842227	0.0398422	0	0.039842	0.111636	1.12E-03
216.094	0.039765867	0.0398326	2.68558E-05	0.039766	0.111636	1.12E-03
216.0968	0.039757534	0.0398326	0	0.039758	0.111609	1.12E-03
216.1023	0.039702569	0.0398326	0	0.039703	0.111609	1.12E-03
216.1078	0.039702922	0.0398326	0	0.039703	0.111609	1.12E-03
216.1162	0.039757847	0.0398326	0	0.039758	0.111609	1.12E-03
216.1189	0.039757847	0.0398326	0	0.039758	0.111609	1.12E-03

216.1217	0.039757021	0.0398326	0	0.039757	0.111609	1.12E-03
216.1272	0.039783139	0.0398326	0	0.039783	0.111609	1.12E-03
216.1328	0.039809562	0.0398326	0	0.03981	0.111609	1.12E-03
216.1356	0.03979012	0.0398326	0	0.03979	0.111609	1.12E-03
216.1383	0.039781475	0.0398326	0	0.039781	0.111609	1.12E-03
216.1439	0.039788663	0.0398326	0	0.039789	0.111609	1.12E-03
216.1494	0.03977871	0.0398326	0	0.039779	0.111609	1.12E-03
216.1522	0.039786157	0.0398326	0	0.039786	0.111609	1.12E-03
216.1577	0.039811811	0.0398326	0	0.039812	0.111609	1.12E-03
216.1605	0.039809889	0.0398326	0	0.03981	0.111609	1.12E-03
216.166	0.039807623	0.0398326	0	0.039808	0.111609	1.12E-03
216.1688	0.039832642	0.0398326	0	0.039833	0.111609	1.12E-03
216.1743	0.039830178	0.0398302	6.90489E-06	0.03983	0.111609	1.12E-03
216.1771	0.039827565	0.0398276	7.32159E-06	0.039828	0.111602	1.12E-03
216.1827	0.039797057	0.0397971	8.54808E-05	0.039797	0.111595	1.12E-03
216.1854	0.039787843	0.0397878	2.58166E-05	0.039788	0.111509	1.12E-03
216.191	0.039757731	0.0397739	3.8987E-05	0.039758	0.111483	1.11E-03
216.1937	0.039727875	0.0397739	0	0.039728	0.111444	1.11E-03
216.1993	0.039753481	0.0397739	0	0.039753	0.111444	1.11E-03
216.202	0.039760463	0.0397739	0	0.03976	0.111444	1.11E-03
216.2076	0.039749331	0.0397739	0	0.039749	0.111444	1.11E-03
216.2131	0.039773929	0.0397739	0	0.039774	0.111444	1.11E-03
216.2187	0.039769871	0.0397699	1.13697E-05	0.03977	0.111444	1.11E-03
216.2242	0.039738754	0.03976	2.75285E-05	0.039739	0.111433	1.11E-03
216.2298	0.03974293	0.03976	0	0.039743	0.111406	1.11E-03
216.2325	0.039760046	0.03976	0	0.03976	0.111406	1.11E-03
216.2381	0.039755693	0.0397599	5.39564E-07	0.039756	0.111406	1.11E-03
216.2436	0.039759854	0.0397599	0	0.03976	0.111405	1.11E-03
216.2464	0.039749313	0.0397581	5.00835E-06	0.039749	0.111405	1.11E-03
216.2519	0.039744729	0.0397581	0	0.039745	0.1114	1.11E-03
216.2575	0.039740797	0.0397581	0	0.039741	0.1114	1.11E-03
216.263	0.039745486	0.0397581	0	0.039745	0.1114	1.11E-03
216.2685	0.039715179	0.0397581	0	0.039715	0.1114	1.11E-03
216.2713	0.039705337	0.0397581	0	0.039705	0.1114	1.11E-03
216.2769	0.039710437	0.0397581	0	0.03971	0.1114	1.11E-03
216.2824	0.039698013	0.0397581	0	0.039698	0.1114	1.11E-03
216.2879	0.039758066	0.0397581	0	0.039758	0.1114	1.11E-03
216.2935	0.039755035	0.039755	8.49461E-06	0.039755	0.1114	1.11E-03
216.299	0.039749829	0.0397498	1.45863E-05	0.03975	0.111392	1.11E-03
216.3046	0.039744581	0.0397446	1.47032E-05	0.039745	0.111377	1.11E-03
216.3073	0.039712734	0.0397221	6.31067E-05	0.039713	0.111362	1.11E-03
216.3129	0.039709247	0.0397221	0	0.039709	0.111299	1.11E-03
216.3184	0.039722059	0.0397221	0	0.039722	0.111299	1.11E-03
216.324	0.039699888	0.0396999	6.2121E-05	0.0397	0.111299	1.11E-03
216.3295	0.039690832	0.0396908	2.53766E-05	0.039691	0.111237	1.11E-03
216.3323	0.039653603	0.0396536	0.000104312	0.039654	0.111212	1.11E-03
216.3378	0.039531162	0.0396346	5.32768E-05	0.039531	0.111107	1.11E-03
216.3434	0.039586778	0.0396346	0	0.039587	0.111054	1.11E-03
216.3461	0.039586778	0.0396346	0	0.039587	0.111054	1.11E-03
216.3517	0.03960756	0.0396346	0	0.039608	0.111054	1.11E-03
216.3572	0.039634589	0.0396346	0	0.039635	0.111054	1.11E-03
216.36	0.039623655	0.0396237	3.06375E-05	0.039624	0.111054	1.11E-03
216.3655	0.039501944	0.0395229	0.000282405	0.039502	0.111023	1.11E-03
216.3738	0.039522866	0.0395229	0	0.039523	0.110741	1.11E-03
216.3766	0.039465206	0.0394652	0.000161562	0.039465	0.110741	1.11E-03
216.3794	0.039455486	0.0394555	2.72329E-05	0.039455	0.110579	1.11E-03
216.3849	0.039424759	0.0394248	8.60954E-05	0.039425	0.110552	1.11E-03
216.3932	0.039362124	0.0393621	0.000175502	0.039362	0.110466	1.10E-03
216.396	0.039352696	0.0393527	2.64146E-05	0.039353	0.110291	1.10E-03
216.3988	0.039330833	0.0393308	6.12601E-05	0.039331	0.110264	1.10E-03
216.4043	0.039291271	0.0392913	0.000110849	0.039291	0.110203	1.10E-03
216.4043	0.039291271	0.0392913	0	0.039291	0.110092	1.10E-03
216.4098	0.039288197	0.0392882	8.61358E-06	0.039288	0.110092	1.10E-03
216.4154	0.039249053	0.0392491	0.00010968	0.039249	0.110083	1.10E-03
216.4209	0.039219224	0.0392192	8.35788E-05	0.039219	0.109974	1.10E-03
216.4237	0.03918969	0.0391897	8.27529E-05	0.03919	0.10989	1.10E-03
216.4292	0.039161048	0.039161	8.0253E-05	0.039161	0.109807	1.10E-03
216.4348	0.03913288	0.0391329	7.89257E-05	0.039133	0.109727	1.10E-03
216.4403	0.039097392	0.0390974	9.94354E-05	0.039097	0.109648	1.10E-03
216.4431	0.039097392	0.0390974	0	0.039097	0.109549	1.10E-03
216.4486	0.039062628	0.0390626	9.74071E-05	0.039063	0.109549	1.10E-03
216.4542	0.039036083	0.0390361	7.43796E-05	0.039036	0.109451	1.09E-03
216.4597	0.039009578	0.0390096	7.42644E-05	0.03901	0.109377	1.09E-03
216.4653	0.038949782	0.0389498	0.000167545	0.03895	0.109303	1.09E-03

216.468	0.03892388	0.0389239	7.25755E-05	0.038924	0.109135	1.09E-03
216.4736	0.038898313	0.0388983	7.16377E-05	0.038898	0.109063	1.09E-03
216.4763	0.038891769	0.0388918	1.8337E-05	0.038892	0.108991	1.09E-03
216.4819	0.038865901	0.0388659	7.24809E-05	0.038866	0.108973	1.09E-03
216.4874	0.038840093	0.0388401	7.23127E-05	0.03884	0.1089	1.09E-03
216.4902	0.038814049	0.038814	7.29737E-05	0.038814	0.108828	1.09E-03
216.4957	0.038788372	0.0387894	6.90548E-05	0.038788	0.108755	1.09E-03
216.4985	0.038781833	0.0387894	0	0.038782	0.108686	1.09E-03
216.504	0.038789404	0.0387894	0	0.038789	0.108686	1.09E-03
216.5068	0.038782572	0.0387826	1.91428E-05	0.038783	0.108686	1.09E-03
216.5124	0.038755992	0.038757	7.1615E-05	0.038756	0.108667	1.09E-03
216.5179	0.038756257	0.038757	0	0.038756	0.108595	1.09E-03
216.5207	0.038756499	0.038757	0	0.038756	0.108595	1.09E-03
216.5262	0.038757013	0.038757	0	0.038757	0.108595	1.09E-03
216.529	0.038731176	0.0387312	7.23944E-05	0.038731	0.108595	1.09E-03
216.5345	0.038705302	0.0387234	2.16599E-05	0.038705	0.108523	1.09E-03
216.5401	0.038673091	0.0387234	0	0.038673	0.108501	1.09E-03
216.5428	0.038673091	0.0387234	0	0.038673	0.108501	1.09E-03
216.5484	0.038641795	0.0387234	0	0.038642	0.108501	1.09E-03
216.5539	0.038649338	0.0387234	0	0.038649	0.108501	1.09E-03
216.5567	0.038616991	0.0387234	0	0.038617	0.108501	1.09E-03
216.5622	0.038592553	0.0387234	0	0.038593	0.108501	1.09E-03
216.565	0.038568908	0.0387234	0	0.038569	0.108501	1.09E-03
216.5705	0.038545121	0.0387234	0	0.038545	0.108501	1.09E-03
216.5761	0.038516818	0.0387234	0	0.038517	0.108501	1.09E-03
216.5789	0.038516818	0.0387234	0	0.038517	0.108501	1.09E-03
216.5844	0.038488213	0.0387234	0	0.038488	0.108501	1.09E-03
216.5899	0.038464136	0.0387234	0	0.038464	0.108501	1.09E-03
216.5927	0.03844032	0.0387234	0	0.03844	0.108501	1.09E-03
216.5982	0.038443095	0.0387234	0	0.038443	0.108501	1.09E-03
216.6038	0.038445896	0.0387234	0	0.038446	0.108501	1.09E-03
216.6066	0.038448318	0.0387234	0	0.038448	0.108501	1.09E-03
216.6121	0.038483273	0.0387234	0	0.038483	0.108501	1.09E-03
216.6149	0.038478641	0.0387234	0	0.038479	0.108501	1.09E-03
216.6176	0.03845406	0.0387234	0	0.038454	0.108501	1.09E-03
216.6232	0.038429827	0.0387234	0	0.03843	0.108501	1.09E-03
216.626	0.03842565	0.0387234	0	0.038426	0.108501	1.09E-03
216.6315	0.038402042	0.0387234	0	0.038402	0.108501	1.09E-03
216.6343	0.038404492	0.0387234	0	0.038404	0.108501	1.09E-03
216.637	0.038411057	0.0387234	0	0.038411	0.108501	1.09E-03
216.6426	0.038383225	0.0387234	0	0.038383	0.108501	1.09E-03
216.6481	0.038359961	0.0387234	0	0.03836	0.108501	1.09E-03
216.6537	0.038335874	0.0387234	0	0.038336	0.108501	1.09E-03
216.6564	0.038358133	0.0387234	0	0.038358	0.108501	1.09E-03
216.662	0.038420017	0.0387234	0	0.03842	0.108501	1.09E-03
216.6675	0.038400761	0.0387234	0	0.038401	0.108501	1.09E-03
216.6731	0.038429401	0.0387234	0	0.038429	0.108501	1.09E-03
216.6758	0.03842313	0.0387234	0	0.038423	0.108501	1.09E-03
216.6814	0.038366863	0.0387234	0	0.038367	0.108501	1.09E-03
216.6869	0.038342757	0.0387234	0	0.038343	0.108501	1.09E-03
216.6897	0.038292763	0.0387234	0	0.038293	0.108501	1.09E-03
216.6924	0.038287821	0.0387234	0	0.038288	0.108501	1.09E-03
216.698	0.0382638	0.0387234	0	0.038264	0.108501	1.09E-03
216.7008	0.038266189	0.0387234	0	0.038266	0.108501	1.09E-03
216.7063	0.03832706	0.0387234	0	0.038327	0.108501	1.09E-03
216.7091	0.03832706	0.0387234	0	0.038327	0.108501	1.09E-03
216.7146	0.038297459	0.0387234	0	0.038297	0.108501	1.09E-03
216.7174	0.038303845	0.0387234	0	0.038304	0.108501	1.09E-03
216.7229	0.038331268	0.0387234	0	0.038331	0.108501	1.09E-03
216.7257	0.038306763	0.0387234	0	0.038307	0.108501	1.09E-03
216.7312	0.038282549	0.0387234	0	0.038283	0.108501	1.09E-03
216.734	0.038303767	0.0387234	0	0.038304	0.108501	1.09E-03
216.7395	0.038338243	0.0387234	0	0.038338	0.108501	1.09E-03
216.7423	0.038338243	0.0387234	0	0.038338	0.108501	1.09E-03
216.7479	0.038339464	0.0387234	0	0.038339	0.108501	1.09E-03
216.7506	0.038339464	0.0387234	0	0.038339	0.108501	1.09E-03
216.7562	0.038372269	0.0387234	0	0.038372	0.108501	1.09E-03
216.7589	0.038366993	0.0387234	0	0.038367	0.108501	1.09E-03
216.7645	0.038341865	0.0387234	0	0.038342	0.108501	1.09E-03
216.7673	0.038342711	0.0387234	0	0.038343	0.108501	1.09E-03
216.7728	0.038343443	0.0387234	0	0.038343	0.108501	1.09E-03
216.7756	0.038370563	0.0387234	0	0.038371	0.108501	1.09E-03
216.7811	0.038371251	0.0387234	0	0.038371	0.108501	1.09E-03
216.7839	0.038345755	0.0387234	0	0.038346	0.108501	1.09E-03

216.7866	0.038345755	0.0387234	0	0.038346	0.108501	1.09E-03
216.7922	0.038347385	0.0387234	0	0.038347	0.108501	1.09E-03
216.795	0.038347385	0.0387234	0	0.038347	0.108501	1.09E-03
216.8005	0.038381065	0.0387234	0	0.038381	0.108501	1.09E-03
216.8033	0.038376165	0.0387234	0	0.038376	0.108501	1.09E-03
216.8088	0.038350661	0.0387234	0	0.038351	0.108501	1.09E-03
216.8116	0.038376977	0.0387234	0	0.038377	0.108501	1.09E-03
216.8171	0.038376919	0.0387234	0	0.038377	0.108501	1.09E-03
216.8199	0.038376573	0.0387234	0	0.038377	0.108501	1.09E-03
216.8254	0.038402328	0.0387234	0	0.038402	0.108501	1.09E-03
216.8282	0.038381686	0.0387234	0	0.038382	0.108501	1.09E-03
216.8337	0.038348568	0.0387234	0	0.038349	0.108501	1.09E-03
216.8365	0.038348568	0.0387234	0	0.038349	0.108501	1.09E-03
216.8421	0.038380335	0.0387234	0	0.03838	0.108501	1.09E-03
216.8448	0.038374068	0.0387234	0	0.038374	0.108501	1.09E-03
216.8504	0.038347434	0.0387234	0	0.038347	0.108501	1.09E-03
216.8559	0.038377691	0.0387234	0	0.038378	0.108501	1.09E-03
216.8587	0.038397119	0.0387234	0	0.038397	0.108501	1.09E-03
216.8642	0.038478633	0.0387234	0	0.038479	0.108501	1.09E-03
216.867	0.038478633	0.0387234	0	0.038479	0.108501	1.09E-03
216.8725	0.038457532	0.0387234	0	0.038458	0.108501	1.09E-03
216.8753	0.038531675	0.0387234	0	0.038532	0.108501	1.09E-03
216.8808	0.038585935	0.0387234	0	0.038586	0.108501	1.09E-03
216.8836	0.038585935	0.0387234	0	0.038586	0.108501	1.09E-03
216.8892	0.038639521	0.0387234	0	0.03864	0.108501	1.09E-03
216.8919	0.038639521	0.0387234	0	0.03864	0.108501	1.09E-03
216.8975	0.038718967	0.0387234	0	0.038719	0.108501	1.09E-03
216.903	0.038713212	0.0387234	0	0.038713	0.108501	1.09E-03
216.9058	0.038678458	0.0387234	0	0.038678	0.108501	1.09E-03
216.9113	0.038647541	0.0387234	0	0.038648	0.108501	1.09E-03
216.9141	0.038668797	0.0387234	0	0.038669	0.108501	1.09E-03
216.9196	0.03867457	0.0387234	0	0.038675	0.108501	1.09E-03
216.9224	0.038723445	0.0387234	0	0.038723	0.108501	1.09E-03
216.9279	0.038691517	0.0386915	8.94614E-05	0.038692	0.108501	1.09E-03
216.9307	0.03865687	0.0386814	2.82821E-05	0.038657	0.108412	1.08E-03
216.9363	0.03865842	0.0386814	0	0.038658	0.108383	1.08E-03
216.9418	0.038681423	0.0386814	0	0.038681	0.108383	1.08E-03
216.9473	0.03864345	0.0386434	0.0001064	0.038643	0.108383	1.08E-03
216.9501	0.038640317	0.0386403	8.77826E-06	0.03864	0.108277	1.08E-03
216.9557	0.038637504	0.0386389	3.9788E-06	0.038638	0.108268	1.08E-03
216.9584	0.038608648	0.0386389	0	0.038609	0.108264	1.08E-03
216.964	0.038605944	0.0386389	0	0.038606	0.108264	1.08E-03
216.9695	0.038568667	0.0386389	0	0.038569	0.108264	1.08E-03
216.9723	0.038573177	0.0386389	0	0.038573	0.108264	1.08E-03
216.9778	0.038596572	0.0386389	0	0.038597	0.108264	1.08E-03
216.9806	0.038619567	0.0386389	0	0.03862	0.108264	1.08E-03
216.9861	0.038616232	0.0386389	0	0.038616	0.108264	1.08E-03
216.9889	0.038612667	0.0386389	0	0.038613	0.108264	1.08E-03
216.9944	0.038634799	0.0386389	0	0.038635	0.108264	1.08E-03
216.9972	0.038638897	0.0386389	0	0.038639	0.108264	1.08E-03
217.0028	0.038626924	0.0386269	3.35457E-05	0.038627	0.108264	1.08E-03
217.0083	0.038596549	0.0385965	8.51108E-05	0.038597	0.108231	1.08E-03
217.0111	0.038593512	0.0385935	8.50979E-06	0.038594	0.108146	1.08E-03
217.0166	0.038590661	0.0385907	7.98788E-06	0.038591	0.108137	1.08E-03
217.0194	0.038560784	0.0385608	8.3714E-05	0.038561	0.108129	1.08E-03
217.0249	0.038557769	0.0385578	8.44628E-06	0.038558	0.108045	1.08E-03
217.0277	0.038554858	0.0385549	8.15617E-06	0.038555	0.108037	1.08E-03
217.0332	0.03852379	0.0385238	8.70523E-05	0.038524	0.108029	1.08E-03
217.0388	0.038516267	0.0385163	2.1078E-05	0.038516	0.107942	1.08E-03
217.0415	0.038461466	0.0384615	0.000153549	0.038461	0.107921	1.08E-03
217.0471	0.038262797	0.0382628	0.000556662	0.038263	0.107767	1.08E-03
217.0526	0.038177992	0.0382041	0.000164569	0.038178	0.10721	1.07E-03
217.0554	0.038204063	0.0382041	0	0.038204	0.107046	1.07E-03
217.0609	0.03820363	0.0382036	1.21311E-06	0.038204	0.107046	1.07E-03
217.0665	0.038203043	0.038203	1.64577E-06	0.038203	0.107045	1.07E-03
217.0693	0.038175214	0.0381985	1.27907E-05	0.038175	0.107043	1.07E-03
217.0748	0.038173766	0.0381985	0	0.038174	0.10703	1.07E-03
217.0803	0.038198478	0.0381985	0	0.038198	0.10703	1.07E-03
217.0803	0.038198478	0.0381985	0	0.038198	0.10703	1.07E-03
217.0886	0.038194908	0.0381949	1.00006E-05	0.038195	0.10703	1.07E-03
217.0942	0.038191729	0.0381917	8.90804E-06	0.038192	0.10702	1.07E-03
217.097	0.038190595	0.0381906	3.17689E-06	0.038191	0.107011	1.07E-03
217.1025	0.038188824	0.0381888	4.96242E-06	0.038189	0.107008	1.07E-03
217.108	0.0381341	0.0381755	3.73993E-05	0.038134	0.107003	1.07E-03

217.1136	0.038128729	0.0381755	0	0.038129	0.106966	1.07E-03
217.1191	0.038157685	0.0381755	0	0.038158	0.106966	1.07E-03
217.1247	0.038150585	0.0381755	0	0.038151	0.106966	1.07E-03
217.1302	0.038121978	0.0381755	0	0.038122	0.106966	1.07E-03
217.1357	0.038151237	0.0381755	0	0.038151	0.106966	1.07E-03
217.1385	0.038175477	0.0381755	0	0.038175	0.106966	1.07E-03
217.1441	0.038146118	0.0381633	3.40189E-05	0.038146	0.106966	1.07E-03
217.1468	0.038140637	0.0381633	0	0.038141	0.106932	1.07E-03
217.1524	0.038141718	0.0381633	0	0.038142	0.106932	1.07E-03
217.1579	0.038139478	0.0381633	0	0.038139	0.106932	1.07E-03
217.1607	0.038163336	0.0381633	0	0.038163	0.106932	1.07E-03
217.1662	0.038161152	0.0381612	6.11832E-06	0.038161	0.106932	1.07E-03
217.1718	0.038159325	0.0381593	5.11868E-06	0.038159	0.106926	1.07E-03
217.1745	0.038157171	0.0381572	6.03703E-06	0.038157	0.10692	1.07E-03
217.1801	0.038154917	0.0381549	6.31336E-06	0.038155	0.106914	1.07E-03
217.1828	0.038152906	0.0381529	5.6355E-06	0.038153	0.106908	1.07E-03
217.1884	0.03815062	0.0381506	6.40474E-06	0.038151	0.106902	1.07E-03
217.1912	0.038147646	0.0381476	8.33417E-06	0.038148	0.106896	1.07E-03
217.1967	0.038144307	0.0381443	9.35436E-06	0.038144	0.106888	1.07E-03
217.2022	0.038137424	0.0381374	1.92856E-05	0.038137	0.106878	1.07E-03
217.205	0.038137424	0.0381374	0	0.038137	0.106859	1.07E-03
217.2106	0.038101045	0.038101	0.000101934	0.038101	0.106859	1.07E-03
217.2161	0.038071346	0.0380713	8.32149E-05	0.038071	0.106757	1.07E-03
217.2216	0.038042272	0.0380423	8.1463E-05	0.038042	0.106674	1.07E-03
217.2244	0.03801431	0.0380143	7.83469E-05	0.038014	0.106592	1.07E-03
217.2299	0.038013714	0.0380137	1.67162E-06	0.038014	0.106514	1.07E-03
217.2355	0.03798123	0.0379812	9.10182E-05	0.037981	0.106512	1.07E-03
217.241	0.037953591	0.0379536	7.74415E-05	0.037954	0.106421	1.06E-03
217.2438	0.037952497	0.0379525	3.06595E-06	0.037952	0.106344	1.06E-03
217.2493	0.037951307	0.0379513	3.33566E-06	0.037951	0.106341	1.06E-03
217.2549	0.037919063	0.0379191	9.03458E-05	0.037919	0.106338	1.06E-03
217.2604	0.037891136	0.0378911	7.82482E-05	0.037891	0.106247	1.06E-03
217.2632	0.037837047	0.037837	0.000151555	0.037837	0.106169	1.06E-03
217.2687	0.03783624	0.0378362	2.26213E-06	0.037836	0.106017	1.06E-03
217.2715	0.037835292	0.0378353	2.65415E-06	0.037835	0.106015	1.06E-03
217.277	0.037807941	0.0378079	7.66375E-05	0.037808	0.106013	1.06E-03
217.2798	0.037804736	0.0378047	8.9799E-06	0.037805	0.105936	1.06E-03
217.2854	0.037749228	0.0377492	0.000155532	0.037749	0.105927	1.06E-03
217.2881	0.03772561	0.0377256	6.6174E-05	0.037726	0.105771	1.06E-03
217.2937	0.037669574	0.0376705	0.000154391	0.03767	0.105705	1.06E-03
217.2992	0.037643536	0.0376705	0	0.037644	0.105551	1.06E-03
217.3048	0.037670371	0.0376705	0	0.03767	0.105551	1.06E-03
217.3075	0.037670509	0.0376705	0	0.037671	0.105551	1.06E-03
217.3131	0.037645017	0.0376515	5.32502E-05	0.037645	0.105551	1.06E-03
217.3158	0.037642298	0.0376515	0	0.037642	0.105498	1.05E-03
217.3241	0.037590733	0.0376515	0	0.037591	0.105498	1.05E-03
217.3269	0.037588021	0.0376515	0	0.037588	0.105498	1.05E-03
217.3297	0.037591018	0.0376515	0	0.037591	0.105498	1.05E-03
217.3325	0.037591365	0.0376515	0	0.037591	0.105498	1.05E-03
217.3325	0.037591365	0.0376515	0	0.037591	0.105498	1.05E-03
217.338	0.037565252	0.0376515	0	0.037565	0.105498	1.05E-03
217.3463	0.037565587	0.0376515	0	0.037566	0.105498	1.05E-03
217.3519	0.037510263	0.0376515	0	0.03751	0.105498	1.05E-03
217.3574	0.03751064	0.0376515	0	0.037511	0.105498	1.05E-03
217.3602	0.037511077	0.0376515	0	0.037511	0.105498	1.05E-03
217.3602	0.037511077	0.0376515	0	0.037511	0.105498	1.05E-03
217.3657	0.03745935	0.0376515	0	0.037459	0.105498	1.05E-03
217.3712	0.037453561	0.0376515	0	0.037454	0.105498	1.05E-03
217.374	0.037431093	0.0376515	0	0.037431	0.105498	1.05E-03
217.3768	0.037457572	0.0376515	0	0.037458	0.105498	1.05E-03
217.3823	0.037457416	0.0376515	0	0.037457	0.105498	1.05E-03
217.3851	0.037406002	0.0376515	0	0.037406	0.105498	1.05E-03
217.3906	0.037403334	0.0376515	0	0.037403	0.105498	1.05E-03
217.3934	0.037378298	0.0376515	0	0.037378	0.105498	1.05E-03
217.399	0.037380029	0.0376515	0	0.03738	0.105498	1.05E-03
217.4017	0.037380029	0.0376515	0	0.03738	0.105498	1.05E-03
217.4045	0.037436274	0.0376515	0	0.037436	0.105498	1.05E-03
217.41	0.037411901	0.0376515	0	0.037412	0.105498	1.05E-03
217.4128	0.037411009	0.0376515	0	0.037411	0.105498	1.05E-03
217.4183	0.03733307	0.0376515	0	0.037333	0.105498	1.05E-03
217.4211	0.037335345	0.0376515	0	0.037335	0.105498	1.05E-03
217.4267	0.037337741	0.0376515	0	0.037338	0.105498	1.05E-03
217.4294	0.03728754	0.0376515	0	0.037288	0.105498	1.05E-03
217.435	0.037264456	0.0376515	0	0.037264	0.105498	1.05E-03

217.4377	0.037263153	0.0376515	0	0.037263	0.105498	1.05E-03
217.4433	0.037267746	0.0376515	0	0.037268	0.105498	1.05E-03
217.4461	0.037292595	0.0376515	0	0.037293	0.105498	1.05E-03
217.4516	0.037268291	0.0376515	0	0.037268	0.105498	1.05E-03
217.4544	0.037243864	0.0376515	0	0.037244	0.105498	1.05E-03
217.4599	0.03722011	0.0376515	0	0.03722	0.105498	1.05E-03
217.4627	0.037218603	0.0376515	0	0.037219	0.105498	1.05E-03
217.4654	0.037221915	0.0376515	0	0.037222	0.105498	1.05E-03
217.471	0.037222141	0.0376515	0	0.037222	0.105498	1.05E-03
217.4738	0.03722541	0.0376515	0	0.037225	0.105498	1.05E-03
217.4793	0.037226035	0.0376515	0	0.037226	0.105498	1.05E-03
217.4821	0.037203872	0.0376515	0	0.037204	0.105498	1.05E-03
217.4876	0.037204232	0.0376515	0	0.037204	0.105498	1.05E-03
217.4904	0.037207529	0.0376515	0	0.037208	0.105498	1.05E-03
217.4959	0.037207465	0.0376515	0	0.037207	0.105498	1.05E-03
217.4987	0.037210029	0.0376515	0	0.03721	0.105498	1.05E-03
217.5042	0.037237243	0.0376515	0	0.037237	0.105498	1.05E-03
217.507	0.037238196	0.0376515	0	0.037238	0.105498	1.05E-03
217.5125	0.037185599	0.0376515	0	0.037186	0.105498	1.05E-03
217.5181	0.037212841	0.0376515	0	0.037213	0.105498	1.05E-03
217.5209	0.037215463	0.0376515	0	0.037215	0.105498	1.05E-03
217.5264	0.037213557	0.0376515	0	0.037214	0.105498	1.05E-03
217.5292	0.037216088	0.0376515	0	0.037216	0.105498	1.05E-03
217.5347	0.037188027	0.0376515	0	0.037188	0.105498	1.05E-03
217.5375	0.037188027	0.0376515	0	0.037188	0.105498	1.05E-03
217.543	0.037216808	0.0376515	0	0.037217	0.105498	1.05E-03
217.5458	0.037213729	0.0376515	0	0.037214	0.105498	1.05E-03
217.5513	0.037159664	0.0376515	0	0.03716	0.105498	1.05E-03
217.5541	0.03716232	0.0376515	0	0.037162	0.105498	1.05E-03
217.5569	0.037188214	0.0376515	0	0.037188	0.105498	1.05E-03
217.5624	0.037187971	0.0376515	0	0.037188	0.105498	1.05E-03
217.5652	0.037188443	0.0376515	0	0.037188	0.105498	1.05E-03
217.5707	0.037162574	0.0376515	0	0.037163	0.105498	1.05E-03
217.5735	0.037159734	0.0376515	0	0.03716	0.105498	1.05E-03
217.579	0.037187669	0.0376515	0	0.037188	0.105498	1.05E-03
217.5818	0.037187669	0.0376515	0	0.037188	0.105498	1.05E-03
217.5874	0.037132472	0.0376515	0	0.037132	0.105498	1.05E-03
217.5901	0.037132591	0.0376515	0	0.037133	0.105498	1.05E-03
217.5957	0.037132343	0.0376515	0	0.037132	0.105498	1.05E-03
217.5984	0.037107331	0.0376515	0	0.037107	0.105498	1.05E-03
217.604	0.037107901	0.0376515	0	0.037108	0.105498	1.05E-03
217.6067	0.037108579	0.0376515	0	0.037109	0.105498	1.05E-03
217.6123	0.037108564	0.0376515	0	0.037109	0.105498	1.05E-03
217.6151	0.03713376	0.0376515	0	0.037134	0.105498	1.05E-03
217.6206	0.037158521	0.0376515	0	0.037159	0.105498	1.05E-03
217.6234	0.037160618	0.0376515	0	0.037161	0.105498	1.05E-03
217.6289	0.037130715	0.0376515	0	0.037131	0.105498	1.05E-03
217.6317	0.037129411	0.0376515	0	0.037129	0.105498	1.05E-03
217.6372	0.037181069	0.0376515	0	0.037181	0.105498	1.05E-03
217.64	0.037181069	0.0376515	0	0.037181	0.105498	1.05E-03
217.6455	0.037180348	0.0376515	0	0.03718	0.105498	1.05E-03
217.6483	0.037153197	0.0376515	0	0.037153	0.105498	1.05E-03
217.6538	0.03715185	0.0376515	0	0.037152	0.105498	1.05E-03
217.6594	0.037176274	0.0376515	0	0.037176	0.105498	1.05E-03
217.6677	0.037120971	0.0376515	0	0.037121	0.105498	1.05E-03
217.6732	0.037145023	0.0376515	0	0.037145	0.105498	1.05E-03
217.676	0.037143228	0.0376515	0	0.037143	0.105498	1.05E-03
217.6788	0.037139641	0.0376515	0	0.03714	0.105498	1.05E-03
217.6843	0.03713702	0.0376515	0	0.037137	0.105498	1.05E-03
217.6871	0.037138586	0.0376515	0	0.037139	0.105498	1.05E-03
217.6899	0.037187901	0.0376515	0	0.037188	0.105498	1.05E-03
217.6954	0.037185701	0.0376515	0	0.037186	0.105498	1.05E-03
217.6982	0.037183279	0.0376515	0	0.037183	0.105498	1.05E-03
217.7037	0.037206381	0.0376515	0	0.037206	0.105498	1.05E-03
217.7093	0.037231065	0.0376515	0	0.037231	0.105498	1.05E-03
217.712	0.037231065	0.0376515	0	0.037231	0.105498	1.05E-03
217.7176	0.037255738	0.0376515	0	0.037256	0.105498	1.05E-03
217.7231	0.037278182	0.0376515	0	0.037278	0.105498	1.05E-03
217.7259	0.037300376	0.0376515	0	0.0373	0.105498	1.05E-03
217.7314	0.037297835	0.0376515	0	0.037298	0.105498	1.05E-03
217.737	0.037295429	0.0376515	0	0.037295	0.105498	1.05E-03
217.7425	0.037320796	0.0376515	0	0.037321	0.105498	1.05E-03
217.7453	0.03734161	0.0376515	0	0.037342	0.105498	1.05E-03
217.7508	0.037341137	0.0376515	0	0.037341	0.105498	1.05E-03

217.7564	0.037338167	0.0376515	0	0.037338	0.105498	1.05E-03
217.7591	0.037361357	0.0376515	0	0.037361	0.105498	1.05E-03
217.7647	0.037358789	0.0376515	0	0.037359	0.105498	1.05E-03
217.7674	0.037356319	0.0376515	0	0.037356	0.105498	1.05E-03
217.773	0.037379321	0.0376515	0	0.037379	0.105498	1.05E-03
217.7785	0.037376377	0.0376515	0	0.037376	0.105498	1.05E-03
217.7813	0.037373097	0.0376515	0	0.037373	0.105498	1.05E-03
217.7868	0.037421924	0.0376515	0	0.037422	0.105498	1.05E-03
217.7896	0.037421924	0.0376515	0	0.037422	0.105498	1.05E-03
217.7952	0.037413469	0.0376515	0	0.037413	0.105498	1.05E-03
217.8007	0.037435264	0.0376515	0	0.037435	0.105498	1.05E-03
217.8035	0.037436836	0.0376515	0	0.037437	0.105498	1.05E-03
217.809	0.037427434	0.0376515	0	0.037427	0.105498	1.05E-03
217.8145	0.037449571	0.0376515	0	0.03745	0.105498	1.05E-03
217.8173	0.037450816	0.0376515	0	0.037451	0.105498	1.05E-03
217.8229	0.03744353	0.0376515	0	0.037444	0.105498	1.05E-03
217.8284	0.037441589	0.0376515	0	0.037442	0.105498	1.05E-03
217.8312	0.03743774	0.0376515	0	0.037438	0.105498	1.05E-03
217.8367	0.037461878	0.0376515	0	0.037462	0.105498	1.05E-03
217.8423	0.037484006	0.0376515	0	0.037484	0.105498	1.05E-03
217.845	0.037485871	0.0376515	0	0.037486	0.105498	1.05E-03
217.8506	0.03745039	0.0376515	0	0.03745	0.105498	1.05E-03
217.8561	0.037471631	0.0376515	0	0.037472	0.105498	1.05E-03
217.8616	0.037492847	0.0376515	0	0.037493	0.105498	1.05E-03
217.8727	0.03748631	0.0376515	0	0.037486	0.105498	1.05E-03
217.8783	0.037476756	0.0376515	0	0.037477	0.105498	1.05E-03
217.8838	0.037499708	0.0376515	0	0.0375	0.105498	1.05E-03
217.8921	0.037493606	0.0376515	0	0.037494	0.105498	1.05E-03
217.9004	0.037459558	0.0376515	0	0.03746	0.105498	1.05E-03
217.9032	0.037461622	0.0376515	0	0.037462	0.105498	1.05E-03
217.906	0.037459585	0.0376515	0	0.03746	0.105498	1.05E-03
217.9115	0.037426918	0.0376515	0	0.037427	0.105498	1.05E-03
217.9198	0.037421429	0.0376515	0	0.037421	0.105498	1.05E-03
217.9226	0.037423055	0.0376515	0	0.037423	0.105498	1.05E-03
217.9254	0.037443869	0.0376515	0	0.037444	0.105498	1.05E-03
217.9281	0.037445518	0.0376515	0	0.037446	0.105498	1.05E-03
217.9309	0.037442178	0.0376515	0	0.037442	0.105498	1.05E-03
217.9365	0.037412369	0.0376515	0	0.037412	0.105498	1.05E-03
217.942	0.03735254	0.0376515	0	0.037353	0.105498	1.05E-03
217.9448	0.037348424	0.0376515	0	0.037348	0.105498	1.05E-03
217.9475	0.037349705	0.0376515	0	0.03735	0.105498	1.05E-03
217.9531	0.037341817	0.0376515	0	0.037342	0.105498	1.05E-03
217.9558	0.037343127	0.0376515	0	0.037343	0.105498	1.05E-03
217.9586	0.037340322	0.0376515	0	0.03734	0.105498	1.05E-03
217.9642	0.037311253	0.0376515	0	0.037311	0.105498	1.05E-03
217.9669	0.037307177	0.0376515	0	0.037307	0.105498	1.05E-03
217.9725	0.037306483	0.0376515	0	0.037306	0.105498	1.05E-03
217.978	0.037299164	0.0376515	0	0.037299	0.105498	1.05E-03
217.9836	0.037296319	0.0376515	0	0.037296	0.105498	1.05E-03
217.9863	0.037293722	0.0376515	0	0.037294	0.105498	1.05E-03
217.9919	0.037291186	0.0376515	0	0.037291	0.105498	1.05E-03
217.9974	0.037289645	0.0376515	0	0.03729	0.105498	1.05E-03
218.0002	0.037285923	0.0376515	0	0.037286	0.105498	1.05E-03
218.0057	0.037257289	0.0376515	0	0.037257	0.105498	1.05E-03
218.0085	0.037255808	0.0376515	0	0.037256	0.105498	1.05E-03
218.014	0.037254091	0.0376515	0	0.037254	0.105498	1.05E-03
218.0168	0.037252307	0.0376515	0	0.037252	0.105498	1.05E-03
218.0223	0.037250312	0.0376515	0	0.03725	0.105498	1.05E-03
218.0251	0.037248504	0.0376515	0	0.037249	0.105498	1.05E-03
218.0307	0.037245805	0.0376515	0	0.037246	0.105498	1.05E-03
218.0362	0.03721301	0.0376515	0	0.037213	0.105498	1.05E-03
218.039	0.03721452	0.0376515	0	0.037215	0.105498	1.05E-03
218.0417	0.037212668	0.0376515	0	0.037213	0.105498	1.05E-03
218.0445	0.037183803	0.0376515	0	0.037184	0.105498	1.05E-03
218.0445	0.037183803	0.0376515	0	0.037184	0.105498	1.05E-03
218.0445	0.037183803	0.0376515	0	0.037184	0.105498	1.05E-03
218.0473	0.037156399	0.0376515	0	0.037156	0.105498	1.05E-03
218.0473	0.037156399	0.0376515	0	0.037156	0.105498	1.05E-03
218.0528	0.03715472	0.0376515	0	0.037155	0.105498	1.05E-03
218.0584	0.037153206	0.0376515	0	0.037153	0.105498	1.05E-03
218.0611	0.037125207	0.0376515	0	0.037125	0.105498	1.05E-03
218.0667	0.037123648	0.0376515	0	0.037124	0.105498	1.05E-03
218.0694	0.037121991	0.0376515	0	0.037122	0.105498	1.05E-03
218.075	0.03709461	0.0376515	0	0.037095	0.105498	1.05E-03

218.0805	0.037118332	0.0376515	0	0.037118	0.105498	1.05E-03
218.0833	0.037118332	0.0376515	0	0.037118	0.105498	1.05E-03
218.0888	0.037036404	0.0376515	0	0.037036	0.105498	1.05E-03
218.0916	0.037034591	0.0376515	0	0.037035	0.105498	1.05E-03
218.0944	0.037036575	0.0376515	0	0.037037	0.105498	1.05E-03
218.0999	0.037034966	0.0376515	0	0.037035	0.105498	1.05E-03
218.1055	0.037009286	0.0376515	0	0.037009	0.105498	1.05E-03
218.1082	0.036983736	0.0376515	0	0.036984	0.105498	1.05E-03
218.1138	0.036957944	0.0376515	0	0.036958	0.105498	1.05E-03
218.1193	0.036905241	0.0376515	0	0.036905	0.105498	1.05E-03
218.1221	0.036905241	0.0376515	0	0.036905	0.105498	1.05E-03
218.1276	0.036853744	0.0376515	0	0.036854	0.105498	1.05E-03
218.1304	0.03682933	0.0376515	0	0.036829	0.105498	1.05E-03
218.1359	0.036830358	0.0376515	0	0.03683	0.105498	1.05E-03
218.1415	0.036832134	0.0376515	0	0.036832	0.105498	1.05E-03
218.1442	0.036833928	0.0376515	0	0.036834	0.105498	1.05E-03
218.1498	0.036835964	0.0376515	0	0.036836	0.105498	1.05E-03
218.1526	0.036812056	0.0376515	0	0.036812	0.105498	1.05E-03
218.1581	0.036813869	0.0376515	0	0.036814	0.105498	1.05E-03
218.1636	0.036814986	0.0376515	0	0.036815	0.105498	1.05E-03
218.1664	0.036791505	0.0376515	0	0.036792	0.105498	1.05E-03
218.172	0.036766571	0.0376515	0	0.036767	0.105498	1.05E-03
218.1747	0.036768755	0.0376515	0	0.036769	0.105498	1.05E-03
218.1803	0.036770781	0.0376515	0	0.036771	0.105498	1.05E-03
218.183	0.036772389	0.0376515	0	0.036772	0.105498	1.05E-03
218.1886	0.036774108	0.0376515	0	0.036774	0.105498	1.05E-03
218.1913	0.036775828	0.0376515	0	0.036776	0.105498	1.05E-03
218.1969	0.036778117	0.0376515	0	0.036778	0.105498	1.05E-03
218.1997	0.036778117	0.0376515	0	0.036778	0.105498	1.05E-03
218.2052	0.036781123	0.0376515	0	0.036781	0.105498	1.05E-03
218.208	0.036781123	0.0376515	0	0.036781	0.105498	1.05E-03
218.2135	0.036757569	0.0376515	0	0.036758	0.105498	1.05E-03
218.2163	0.036734425	0.0376515	0	0.036734	0.105498	1.05E-03
218.2218	0.036737267	0.0376515	0	0.036737	0.105498	1.05E-03
218.2246	0.036739873	0.0376515	0	0.03674	0.105498	1.05E-03
218.2301	0.036717266	0.0376515	0	0.036717	0.105498	1.05E-03
218.2329	0.036717266	0.0376515	0	0.036717	0.105498	1.05E-03
218.2357	0.036695801	0.0376515	0	0.036696	0.105498	1.05E-03
218.2412	0.036699047	0.0376515	0	0.036699	0.105498	1.05E-03
218.244	0.036702262	0.0376515	0	0.036702	0.105498	1.05E-03
218.2495	0.03668047	0.0376515	0	0.03668	0.105498	1.05E-03
218.2523	0.036706068	0.0376515	0	0.036706	0.105498	1.05E-03
218.2578	0.036683609	0.0376515	0	0.036684	0.105498	1.05E-03
218.2606	0.036686046	0.0376515	0	0.036686	0.105498	1.05E-03
218.2634	0.036689074	0.0376515	0	0.036689	0.105498	1.05E-03
218.2689	0.036716897	0.0376515	0	0.036717	0.105498	1.05E-03
218.2717	0.036718812	0.0376515	0	0.036719	0.105498	1.05E-03
218.2772	0.036720298	0.0376515	0	0.03672	0.105498	1.05E-03
218.28	0.036746747	0.0376515	0	0.036747	0.105498	1.05E-03
218.2828	0.036746747	0.0376515	0	0.036747	0.105498	1.05E-03
218.2883	0.036749278	0.0376515	0	0.036749	0.105498	1.05E-03
218.2911	0.036749278	0.0376515	0	0.036749	0.105498	1.05E-03
218.2939	0.036725007	0.0376515	0	0.036725	0.105498	1.05E-03
218.2994	0.036701617	0.0376515	0	0.036702	0.105498	1.05E-03
218.3049	0.036701369	0.0376515	0	0.036701	0.105498	1.05E-03
218.3077	0.036704105	0.0376515	0	0.036704	0.105498	1.05E-03
218.3133	0.036730855	0.0376515	0	0.036731	0.105498	1.05E-03
218.316	0.036707054	0.0376515	0	0.036707	0.105498	1.05E-03
218.3216	0.036705194	0.0376515	0	0.036705	0.105498	1.05E-03
218.3243	0.036681851	0.0376515	0	0.036682	0.105498	1.05E-03
218.3299	0.036737266	0.0376515	0	0.036737	0.105498	1.05E-03
218.3326	0.036817355	0.0376515	0	0.036817	0.105498	1.05E-03
218.3382	0.036768103	0.0376515	0	0.036768	0.105498	1.05E-03
218.341	0.036766561	0.0376515	0	0.036767	0.105498	1.05E-03
218.3465	0.036718575	0.0376515	0	0.036719	0.105498	1.05E-03
218.3493	0.036717666	0.0376515	0	0.036718	0.105498	1.05E-03
218.352	0.036697132	0.0376515	0	0.036697	0.105498	1.05E-03
218.3576	0.036700186	0.0376515	0	0.0367	0.105498	1.05E-03
218.3604	0.036780822	0.0376515	0	0.036781	0.105498	1.05E-03
218.3659	0.036757591	0.0376515	0	0.036758	0.105498	1.05E-03
218.3687	0.036756444	0.0376515	0	0.036756	0.105498	1.05E-03
218.3742	0.036812227	0.0376515	0	0.036812	0.105498	1.05E-03
218.377	0.036815704	0.0376515	0	0.036816	0.105498	1.05E-03
218.3825	0.036815434	0.0376515	0	0.036815	0.105498	1.05E-03

218.3853	0.036819001	0.0376515	0	0.036819	0.105498	1.05E-03
218.3908	0.036818261	0.0376515	0	0.036818	0.105498	1.05E-03
218.3936	0.036821716	0.0376515	0	0.036822	0.105498	1.05E-03
218.3964	0.036819637	0.0376515	0	0.03682	0.105498	1.05E-03
218.4019	0.03684921	0.0376515	0	0.036849	0.105498	1.05E-03
218.4047	0.036849633	0.0376515	0	0.03685	0.105498	1.05E-03
218.4102	0.036850177	0.0376515	0	0.03685	0.105498	1.05E-03
218.413	0.036850876	0.0376515	0	0.036851	0.105498	1.05E-03
218.4158	0.03684873	0.0376515	0	0.036849	0.105498	1.05E-03
218.4185	0.036851818	0.0376515	0	0.036852	0.105498	1.05E-03
218.4241	0.036849925	0.0376515	0	0.03685	0.105498	1.05E-03
218.4268	0.036852482	0.0376515	0	0.036852	0.105498	1.05E-03
218.4296	0.036877482	0.0376515	0	0.036877	0.105498	1.05E-03
218.4352	0.036902646	0.0376515	0	0.036903	0.105498	1.05E-03
218.4379	0.036905044	0.0376515	0	0.036905	0.105498	1.05E-03
218.4435	0.036902434	0.0376515	0	0.036902	0.105498	1.05E-03
218.449	0.036902475	0.0376515	0	0.036902	0.105498	1.05E-03
218.4518	0.036902745	0.0376515	0	0.036903	0.105498	1.05E-03
218.4573	0.036902924	0.0376515	0	0.036903	0.105498	1.05E-03
218.4601	0.036902766	0.0376515	0	0.036903	0.105498	1.05E-03
218.4656	0.036981971	0.0376515	0	0.036982	0.105498	1.05E-03
218.4684	0.036981971	0.0376515	0	0.036982	0.105498	1.05E-03
218.4739	0.037009394	0.0376515	0	0.037009	0.105498	1.05E-03
218.4767	0.036980582	0.0376515	0	0.036981	0.105498	1.05E-03
218.4823	0.036928567	0.0376515	0	0.036929	0.105498	1.05E-03
218.485	0.03692676	0.0376515	0	0.036927	0.105498	1.05E-03
218.4906	0.036955628	0.0376515	0	0.036956	0.105498	1.05E-03
218.4933	0.036955628	0.0376515	0	0.036956	0.105498	1.05E-03
218.4989	0.036931192	0.0376515	0	0.036931	0.105498	1.05E-03
218.5044	0.036932283	0.0376515	0	0.036932	0.105498	1.05E-03
218.5072	0.036933536	0.0376515	0	0.036934	0.105498	1.05E-03
218.51	0.03690612	0.0376515	0	0.036906	0.105498	1.05E-03
218.5155	0.03688154	0.0376515	0	0.036882	0.105498	1.05E-03
218.521	0.036857643	0.0376515	0	0.036858	0.105498	1.05E-03
218.5238	0.036856565	0.0376515	0	0.036857	0.105498	1.05E-03
218.5294	0.036886045	0.0376515	0	0.036886	0.105498	1.05E-03
218.5321	0.036886045	0.0376515	0	0.036886	0.105498	1.05E-03
218.5377	0.036914221	0.0376515	0	0.036914	0.105498	1.05E-03
218.5432	0.036939437	0.0376515	0	0.036939	0.105498	1.05E-03
218.546	0.036938948	0.0376515	0	0.036939	0.105498	1.05E-03
218.5488	0.036936996	0.0376515	0	0.036937	0.105498	1.05E-03
218.5543	0.036964369	0.0376515	0	0.036964	0.105498	1.05E-03
218.5598	0.036936851	0.0376515	0	0.036937	0.105498	1.05E-03
218.5626	0.036938109	0.0376515	0	0.036938	0.105498	1.05E-03
218.5682	0.036963353	0.0376515	0	0.036963	0.105498	1.05E-03
218.5709	0.036962872	0.0376515	0	0.036963	0.105498	1.05E-03
218.5765	0.036962715	0.0376515	0	0.036963	0.105498	1.05E-03
218.582	0.036989635	0.0376515	0	0.03699	0.105498	1.05E-03
218.5848	0.037013299	0.0376515	0	0.037013	0.105498	1.05E-03
218.5875	0.037014446	0.0376515	0	0.037014	0.105498	1.05E-03
218.5931	0.037011533	0.0376515	0	0.037012	0.105498	1.05E-03
218.5959	0.037012712	0.0376515	0	0.037013	0.105498	1.05E-03
218.6014	0.037036657	0.0376515	0	0.037037	0.105498	1.05E-03
218.6042	0.037035267	0.0376515	0	0.037035	0.105498	1.05E-03
218.6097	0.037034151	0.0376515	0	0.037034	0.105498	1.05E-03
218.6125	0.0370335	0.0376515	0	0.037034	0.105498	1.05E-03
218.618	0.037057302	0.0376515	0	0.037057	0.105498	1.05E-03
218.6236	0.037059641	0.0376515	0	0.03706	0.105498	1.05E-03
218.6263	0.037059641	0.0376515	0	0.03706	0.105498	1.05E-03
218.6291	0.037030042	0.0376515	0	0.03703	0.105498	1.05E-03
218.6346	0.036949973	0.0376515	0	0.03695	0.105498	1.05E-03
218.6402	0.036976281	0.0376515	0	0.036976	0.105498	1.05E-03
218.6457	0.037002095	0.0376515	0	0.037002	0.105498	1.05E-03
218.6485	0.037002184	0.0376515	0	0.037002	0.105498	1.05E-03
218.654	0.036948404	0.0376515	0	0.036948	0.105498	1.05E-03
218.6596	0.036922658	0.0376515	0	0.036923	0.105498	1.05E-03
218.6624	0.036922658	0.0376515	0	0.036923	0.105498	1.05E-03
218.6679	0.036870452	0.0376515	0	0.03687	0.105498	1.05E-03
218.6734	0.036871542	0.0376515	0	0.036872	0.105498	1.05E-03
218.6762	0.036897245	0.0376515	0	0.036897	0.105498	1.05E-03
218.6817	0.036923335	0.0376515	0	0.036923	0.105498	1.05E-03
218.6873	0.036951266	0.0376515	0	0.036951	0.105498	1.05E-03
218.6928	0.036898692	0.0376515	0	0.036899	0.105498	1.05E-03
218.6956	0.036900104	0.0376515	0	0.0369	0.105498	1.05E-03

218.7011	0.036901178	0.0376515	0	0.036901	0.105498	1.05E-03
218.7067	0.036876018	0.0376515	0	0.036876	0.105498	1.05E-03
218.7122	0.036877488	0.0376515	0	0.036877	0.105498	1.05E-03
218.7178	0.036904579	0.0376515	0	0.036905	0.105498	1.05E-03
218.7233	0.036906814	0.0376515	0	0.036907	0.105498	1.05E-03
218.7288	0.037087544	0.0376515	0	0.037088	0.105498	1.05E-03
218.7316	0.037064258	0.0376515	0	0.037064	0.105498	1.05E-03
218.7372	0.03704126	0.0376515	0	0.037041	0.105498	1.05E-03
218.7427	0.037043979	0.0376515	0	0.037044	0.105498	1.05E-03
218.7482	0.037245433	0.0376515	0	0.037245	0.105498	1.05E-03
218.751	0.037222557	0.0376515	0	0.037223	0.105498	1.05E-03
218.7566	0.037293541	0.0376515	0	0.037294	0.105498	1.05E-03
218.7621	0.03733834	0.0376515	0	0.037338	0.105498	1.05E-03
218.7649	0.037341407	0.0376515	0	0.037341	0.105498	1.05E-03
218.7704	0.037410545	0.0376515	0	0.037411	0.105498	1.05E-03
218.7759	0.03738759	0.0376515	0	0.037388	0.105498	1.05E-03
218.7787	0.037505335	0.0376515	0	0.037505	0.105498	1.05E-03
218.7843	0.037508938	0.0376515	0	0.037509	0.105498	1.05E-03
218.7898	0.037515417	0.0376515	0	0.037515	0.105498	1.05E-03
218.7926	0.037628672	0.0376515	0	0.037629	0.105498	1.05E-03
218.7981	0.03760566	0.0376515	0	0.037606	0.105498	1.05E-03
218.8037	0.037651504	0.0376515	0	0.037652	0.105498	1.05E-03
218.8064	0.037559803	0.0375598	0.000256942	0.03756	0.105498	1.05E-03
218.812	0.036991211	0.0373506	0.000586136	0.036991	0.105241	1.05E-03
218.8175	0.036704435	0.0373506	0	0.036704	0.104654	1.05E-03
218.8203	0.036704776	0.0373506	0	0.036705	0.104654	1.05E-03
218.8258	0.036706469	0.0373506	0	0.036706	0.104654	1.05E-03
218.8286	0.036708714	0.0373506	0	0.036709	0.104654	1.05E-03
218.8341	0.036708471	0.0373506	0	0.036708	0.104654	1.05E-03
218.8397	0.036709846	0.0373506	0	0.03671	0.104654	1.05E-03
218.8452	0.036713217	0.0373506	0	0.036713	0.104654	1.05E-03
218.848	0.036712159	0.0373506	0	0.036712	0.104654	1.05E-03
218.8535	0.036688541	0.0373506	0	0.036689	0.104654	1.05E-03
218.8591	0.036665164	0.0373506	0	0.036665	0.104654	1.05E-03
218.8646	0.036591265	0.0373506	0	0.036591	0.104654	1.05E-03
218.8674	0.036591265	0.0373506	0	0.036591	0.104654	1.05E-03
218.8729	0.036493885	0.0373506	0	0.036494	0.104654	1.05E-03
218.8757	0.036493468	0.0373506	0	0.036493	0.104654	1.05E-03
218.8812	0.03647282	0.0373506	0	0.036473	0.104654	1.05E-03
218.8868	0.036402228	0.0373506	0	0.036402	0.104654	1.05E-03
218.8895	0.036402228	0.0373506	0	0.036402	0.104654	1.05E-03
218.8951	0.036332784	0.0373506	0	0.036333	0.104654	1.05E-03
218.8979	0.036332784	0.0373506	0	0.036333	0.104654	1.05E-03
218.9034	0.03634025	0.0373506	0	0.03634	0.104654	1.05E-03
218.9062	0.036343684	0.0373506	0	0.036344	0.104654	1.05E-03
218.9089	0.036343341	0.0373506	0	0.036343	0.104654	1.05E-03
218.9145	0.036297582	0.0373506	0	0.036298	0.104654	1.05E-03
218.9172	0.036297637	0.0373506	0	0.036298	0.104654	1.05E-03
218.9228	0.036305224	0.0373506	0	0.036305	0.104654	1.05E-03
218.9283	0.036360925	0.0373506	0	0.036361	0.104654	1.05E-03
218.9311	0.036364473	0.0373506	0	0.036364	0.104654	1.05E-03
218.9366	0.036317398	0.0373506	0	0.036317	0.104654	1.05E-03
218.9394	0.036317611	0.0373506	0	0.036318	0.104654	1.05E-03
218.9422	0.036320981	0.0373506	0	0.036321	0.104654	1.05E-03
218.9477	0.036351687	0.0373506	0	0.036352	0.104654	1.05E-03
218.9505	0.036351687	0.0373506	0	0.036352	0.104654	1.05E-03
218.956	0.036381824	0.0373506	0	0.036382	0.104654	1.05E-03
218.9588	0.036384085	0.0373506	0	0.036384	0.104654	1.05E-03
218.9643	0.036386457	0.0373506	0	0.036386	0.104654	1.05E-03
218.9671	0.036388786	0.0373506	0	0.036389	0.104654	1.05E-03
218.9727	0.036367567	0.0373506	0	0.036368	0.104654	1.05E-03
218.9754	0.036367567	0.0373506	0	0.036368	0.104654	1.05E-03
218.981	0.036346396	0.0373506	0	0.036346	0.104654	1.05E-03
218.9837	0.03634904	0.0373506	0	0.036349	0.104654	1.05E-03
218.9893	0.0363524	0.0373506	0	0.036352	0.104654	1.05E-03
218.9921	0.036330613	0.0373506	0	0.036331	0.104654	1.05E-03
218.9976	0.036359173	0.0373506	0	0.036359	0.104654	1.05E-03
219.0004	0.036362047	0.0373506	0	0.036362	0.104654	1.05E-03
219.0059	0.036365051	0.0373506	0	0.036365	0.104654	1.05E-03
219.0087	0.036368472	0.0373506	0	0.036368	0.104654	1.05E-03
219.0142	0.036371694	0.0373506	0	0.036372	0.104654	1.05E-03
219.017	0.036374873	0.0373506	0	0.036375	0.104654	1.05E-03
219.0225	0.036377584	0.0373506	0	0.036378	0.104654	1.05E-03
219.0253	0.036405253	0.0373506	0	0.036405	0.104654	1.05E-03

219.0308	0.036382913	0.0373506	0	0.036383	0.104654	1.05E-03
219.0336	0.036382687	0.0373506	0	0.036383	0.104654	1.05E-03
219.0392	0.036436927	0.0373506	0	0.036437	0.104654	1.05E-03
219.0419	0.036464473	0.0373506	0	0.036464	0.104654	1.05E-03
219.0447	0.036645554	0.0373506	0	0.036646	0.104654	1.05E-03
219.0502	0.036724255	0.0373506	0	0.036724	0.104654	1.05E-03
219.053	0.036699477	0.0373506	0	0.036699	0.104654	1.05E-03
219.0585	0.036700181	0.0373506	0	0.0367	0.104654	1.05E-03
219.0613	0.036727034	0.0373506	0	0.036727	0.104654	1.05E-03
219.0669	0.036727961	0.0373506	0	0.036728	0.104654	1.05E-03
219.0696	0.036729149	0.0373506	0	0.036729	0.104654	1.05E-03
219.0752	0.036729493	0.0373506	0	0.036729	0.104654	1.05E-03
219.0779	0.036729493	0.0373506	0	0.036729	0.104654	1.05E-03
219.0835	0.036729246	0.0373506	0	0.036729	0.104654	1.05E-03
219.0863	0.036729246	0.0373506	0	0.036729	0.104654	1.05E-03
219.089	0.036729018	0.0373506	0	0.036729	0.104654	1.05E-03
219.0946	0.036755762	0.0373506	0	0.036756	0.104654	1.05E-03
219.0973	0.036754268	0.0373506	0	0.036754	0.104654	1.05E-03
219.1029	0.036729034	0.0373506	0	0.036729	0.104654	1.05E-03
219.1056	0.03673006	0.0373506	0	0.03673	0.104654	1.05E-03
219.1112	0.036731314	0.0373506	0	0.036731	0.104654	1.05E-03
219.114	0.036706833	0.0373506	0	0.036707	0.104654	1.05E-03
219.1167	0.036705743	0.0373506	0	0.036706	0.104654	1.05E-03
219.1223	0.036734157	0.0373506	0	0.036734	0.104654	1.05E-03
219.125	0.036734157	0.0373506	0	0.036734	0.104654	1.05E-03
219.1278	0.03673477	0.0373506	0	0.036735	0.104654	1.05E-03
219.1334	0.036735677	0.0373506	0	0.036736	0.104654	1.05E-03
219.1361	0.036711172	0.0373506	0	0.036711	0.104654	1.05E-03
219.1417	0.036712013	0.0373506	0	0.036712	0.104654	1.05E-03
219.1444	0.036712875	0.0373506	0	0.036713	0.104654	1.05E-03
219.15	0.036713986	0.0373506	0	0.036714	0.104654	1.05E-03
219.1527	0.036714691	0.0373506	0	0.036715	0.104654	1.05E-03
219.1583	0.036690669	0.0373506	0	0.036691	0.104654	1.05E-03
219.1611	0.03668969	0.0373506	0	0.03669	0.104654	1.05E-03
219.1666	0.036692862	0.0373506	0	0.036693	0.104654	1.05E-03
219.1694	0.036691226	0.0373506	0	0.036691	0.104654	1.05E-03
219.1721	0.036692058	0.0373506	0	0.036692	0.104654	1.05E-03
219.1777	0.03671811	0.0373506	0	0.036718	0.104654	1.05E-03
219.1805	0.036720545	0.0373506	0	0.036721	0.104654	1.05E-03
219.186	0.036720245	0.0373506	0	0.03672	0.104654	1.05E-03
219.1888	0.036723313	0.0373506	0	0.036723	0.104654	1.05E-03
219.1943	0.036724031	0.0373506	0	0.036724	0.104654	1.05E-03
219.1998	0.036728909	0.0373506	0	0.036729	0.104654	1.05E-03
219.2026	0.036727263	0.0373506	0	0.036727	0.104654	1.05E-03
219.2082	0.036756501	0.0373506	0	0.036757	0.104654	1.05E-03
219.2109	0.036756501	0.0373506	0	0.036757	0.104654	1.05E-03
219.2165	0.03675744	0.0373506	0	0.036757	0.104654	1.05E-03
219.2192	0.03675744	0.0373506	0	0.036757	0.104654	1.05E-03
219.2248	0.036785537	0.0373506	0	0.036786	0.104654	1.05E-03
219.2276	0.036783408	0.0373506	0	0.036783	0.104654	1.05E-03
219.2331	0.03681154	0.0373506	0	0.036812	0.104654	1.05E-03
219.2359	0.036836797	0.0373506	0	0.036837	0.104654	1.05E-03
219.2414	0.036862573	0.0373506	0	0.036863	0.104654	1.05E-03
219.2442	0.036864506	0.0373506	0	0.036865	0.104654	1.05E-03
219.2497	0.036862863	0.0373506	0	0.036863	0.104654	1.05E-03
219.2553	0.036887656	0.0373506	0	0.036888	0.104654	1.05E-03
219.258	0.036889474	0.0373506	0	0.036889	0.104654	1.05E-03
219.2636	0.036940373	0.0373506	0	0.03694	0.104654	1.05E-03
219.2691	0.036964231	0.0373506	0	0.036964	0.104654	1.05E-03
219.2719	0.036962103	0.0373506	0	0.036962	0.104654	1.05E-03
219.2774	0.036959915	0.0373506	0	0.03696	0.104654	1.05E-03
219.283	0.037009838	0.0373506	0	0.03701	0.104654	1.05E-03
219.2857	0.037031764	0.0373506	0	0.037032	0.104654	1.05E-03
219.2913	0.037057181	0.0373506	0	0.037057	0.104654	1.05E-03
219.294	0.037055285	0.0373506	0	0.037055	0.104654	1.05E-03
219.2996	0.037052447	0.0373506	0	0.037052	0.104654	1.05E-03
219.3024	0.037052447	0.0373506	0	0.037052	0.104654	1.05E-03
219.3079	0.037077107	0.0373506	0	0.037077	0.104654	1.05E-03
219.3134	0.037070703	0.0373506	0	0.037071	0.104654	1.05E-03
219.3162	0.037072288	0.0373506	0	0.037072	0.104654	1.05E-03
219.3218	0.037095251	0.0373506	0	0.037095	0.104654	1.05E-03
219.3245	0.037092646	0.0373506	0	0.037093	0.104654	1.05E-03
219.3301	0.037089872	0.0373506	0	0.03709	0.104654	1.05E-03
219.3328	0.037087452	0.0373506	0	0.037087	0.104654	1.05E-03

219.3384	0.037085143	0.0373506	0	0.037085	0.104654	1.05E-03
219.3412	0.037107318	0.0373506	0	0.037107	0.104654	1.05E-03
219.3467	0.03712996	0.0373506	0	0.03713	0.104654	1.05E-03
219.3495	0.037158115	0.0373506	0	0.037158	0.104654	1.05E-03
219.355	0.037150901	0.0373506	0	0.037151	0.104654	1.05E-03
219.3578	0.037152616	0.0373506	0	0.037153	0.104654	1.05E-03
219.3633	0.037175387	0.0373506	0	0.037175	0.104654	1.05E-03
219.3661	0.037198325	0.0373506	0	0.037198	0.104654	1.05E-03
219.3716	0.037195825	0.0373506	0	0.037196	0.104654	1.05E-03
219.3772	0.037196066	0.0373506	0	0.037196	0.104654	1.05E-03
219.3799	0.037191276	0.0373506	0	0.037191	0.104654	1.05E-03
219.3855	0.037191384	0.0373506	0	0.037191	0.104654	1.05E-03
219.3883	0.037186589	0.0373506	0	0.037187	0.104654	1.05E-03
219.3938	0.037211688	0.0373506	0	0.037212	0.104654	1.05E-03
219.3966	0.037233743	0.0373506	0	0.037234	0.104654	1.05E-03
219.4021	0.037255655	0.0373506	0	0.037256	0.104654	1.05E-03
219.4049	0.037256405	0.0373506	0	0.037256	0.104654	1.05E-03
219.4104	0.037246144	0.0373506	0	0.037246	0.104654	1.05E-03
219.4132	0.037273384	0.0373506	0	0.037273	0.104654	1.05E-03
219.4187	0.037321306	0.0373506	0	0.037321	0.104654	1.05E-03
219.4215	0.037315941	0.0373506	0	0.037316	0.104654	1.05E-03
219.427	0.037338283	0.0373506	0	0.037338	0.104654	1.05E-03
219.4326	0.037327996	0.0373506	0	0.037328	0.104654	1.05E-03
219.4381	0.037350615	0.0373506	0	0.037351	0.104654	1.05E-03
219.4409	0.037350615	0.0373506	0	0.037351	0.104654	1.05E-03
219.4464	0.037315259	0.0373327	5.01527E-05	0.037315	0.104654	1.05E-03
219.4492	0.037317002	0.0373327	0	0.037317	0.104604	1.05E-03
219.4547	0.037309148	0.0373327	0	0.037309	0.104604	1.05E-03
219.4575	0.037310957	0.0373327	0	0.037311	0.104604	1.05E-03
219.4631	0.037332715	0.0373327	0	0.037333	0.104604	1.05E-03
219.4714	0.037296075	0.0372975	9.87696E-05	0.037296	0.104604	1.05E-03
219.4741	0.037297465	0.0372975	0	0.037297	0.104506	1.05E-03
219.4769	0.037294438	0.0372944	8.4804E-06	0.037294	0.104506	1.05E-03
219.4797	0.037290014	0.0372913	8.6575E-06	0.03729	0.104497	1.04E-03
219.4825	0.037291349	0.0372913	0	0.037291	0.104488	1.04E-03
219.488	0.037284279	0.0372843	1.98088E-05	0.037284	0.104488	1.04E-03
219.4935	0.03728245	0.0372824	5.12592E-06	0.037282	0.104469	1.04E-03
219.4963	0.037277962	0.037278	1.25734E-05	0.037278	0.104463	1.04E-03
219.4991	0.037253294	0.0372533	6.91187E-05	0.037253	0.104451	1.04E-03
219.5046	0.037220282	0.0372455	2.18313E-05	0.03722	0.104382	1.04E-03
219.5074	0.037243857	0.0372455	0	0.037244	0.10436	1.04E-03
219.5102	0.037245503	0.0372455	0	0.037246	0.10436	1.04E-03
219.5157	0.037211457	0.0372115	9.53945E-05	0.037211	0.10436	1.04E-03
219.5185	0.037211457	0.0372115	0	0.037211	0.104265	1.04E-03
219.5212	0.037209388	0.0372094	5.79701E-06	0.037209	0.104265	1.04E-03
219.5268	0.037177838	0.037179	8.52387E-05	0.037178	0.104259	1.04E-03
219.5323	0.037178967	0.037179	0	0.037179	0.104174	1.04E-03
219.5379	0.037151912	0.0371519	7.58072E-05	0.037152	0.104174	1.04E-03
219.5434	0.037121858	0.0371466	1.47927E-05	0.037122	0.104098	1.04E-03
219.5462	0.037146632	0.0371466	0	0.037147	0.104083	1.04E-03
219.5517	0.037145128	0.0371451	4.21526E-06	0.037145	0.104083	1.04E-03
219.5545	0.037117868	0.0371179	7.63802E-05	0.037118	0.104079	1.04E-03
219.5573	0.037117868	0.0371179	0	0.037118	0.104002	1.04E-03
219.5628	0.037115173	0.0371152	7.55231E-06	0.037115	0.104002	1.04E-03
219.5683	0.037114016	0.037114	3.24177E-06	0.037114	0.103995	1.04E-03
219.5711	0.037087574	0.0370876	7.40882E-05	0.037088	0.103992	1.04E-03
219.5767	0.037060698	0.0370607	7.53041E-05	0.037061	0.103917	1.04E-03
219.5822	0.037030584	0.037057	1.04746E-05	0.037031	0.103842	1.04E-03
219.5877	0.03705696	0.037057	0	0.037057	0.103832	1.04E-03
219.5905	0.03705317	0.0370532	1.06183E-05	0.037053	0.103832	1.04E-03
219.596	0.037024561	0.0370246	8.01613E-05	0.037025	0.103821	1.04E-03
219.6016	0.037022739	0.0370227	5.10716E-06	0.037023	0.103741	1.04E-03
219.6044	0.037020679	0.0370207	5.7698E-06	0.037021	0.103736	1.04E-03
219.6099	0.037018955	0.037019	4.83159E-06	0.037019	0.10373	1.04E-03
219.6127	0.036992402	0.0369924	7.43991E-05	0.036992	0.103725	1.04E-03
219.6154	0.036989563	0.0369896	7.95574E-06	0.03699	0.103651	1.04E-03
219.6265	0.036937817	0.0369378	0.000144989	0.036938	0.103643	1.04E-03
219.6265	0.036937817	0.0369378	0	0.036938	0.103498	1.03E-03
219.6293	0.036912657	0.0369127	7.04963E-05	0.036913	0.103498	1.03E-03
219.6293	0.036912657	0.0369127	0	0.036913	0.103427	1.03E-03
219.6348	0.036887778	0.0368878	6.97112E-05	0.036888	0.103427	1.03E-03
219.6404	0.036834867	0.0368362	0.00014442	0.036835	0.103358	1.03E-03
219.6459	0.036835401	0.0368362	0	0.036835	0.103213	1.03E-03
219.6487	0.036836235	0.0368362	0	0.036836	0.103213	1.03E-03

219.6515	0.036834441	0.0368344	5.02567E-06	0.036834	0.103213	1.03E-03
219.657	0.036809135	0.0368091	7.09069E-05	0.036809	0.103208	1.03E-03
219.6625	0.036759873	0.0367668	0.00011851	0.03676	0.103137	1.03E-03
219.6653	0.036758451	0.0367668	0	0.036758	0.103019	1.03E-03
219.6709	0.036734492	0.0367668	0	0.036734	0.103019	1.03E-03
219.6736	0.036710593	0.0367668	0	0.036711	0.103019	1.03E-03
219.6792	0.036712404	0.0367668	0	0.036712	0.103019	1.03E-03
219.6847	0.036687781	0.0367668	0	0.036688	0.103019	1.03E-03
219.6875	0.036665365	0.0367668	0	0.036665	0.103019	1.03E-03
219.6902	0.036663939	0.0367668	0	0.036664	0.103019	1.03E-03
219.693	0.036639724	0.0367668	0	0.03664	0.103019	1.03E-03
219.6986	0.036641378	0.0367668	0	0.036641	0.103019	1.03E-03
219.7013	0.03661825	0.0367668	0	0.036618	0.103019	1.03E-03
219.7069	0.036568525	0.0367668	0	0.036569	0.103019	1.03E-03
219.7096	0.036568525	0.0367668	0	0.036569	0.103019	1.03E-03
219.7152	0.036543121	0.0367668	0	0.036543	0.103019	1.03E-03
219.7235	0.036497272	0.0367668	0	0.036497	0.103019	1.03E-03
219.7429	0.036454128	0.0367668	0	0.036454	0.103019	1.03E-03
219.754	0.036456934	0.0367668	0	0.036457	0.103019	1.03E-03
219.7595	0.036433152	0.0367668	0	0.036433	0.103019	1.03E-03
219.7678	0.036435371	0.0367668	0	0.036435	0.103019	1.03E-03
219.7761	0.036412996	0.0367668	0	0.036413	0.103019	1.03E-03
219.79	0.036393057	0.0367668	0	0.036393	0.103019	1.03E-03
219.7983	0.036372453	0.0367668	0	0.036372	0.103019	1.03E-03
219.8038	0.036374428	0.0367668	0	0.036374	0.103019	1.03E-03
219.8038	0.036374428	0.0367668	0	0.036374	0.103019	1.03E-03
219.8066	0.036376356	0.0367668	0	0.036376	0.103019	1.03E-03
219.8066	0.036376356	0.0367668	0	0.036376	0.103019	1.03E-03
219.8066	0.036376356	0.0367668	0	0.036376	0.103019	1.03E-03
219.8066	0.036376356	0.0367668	0	0.036376	0.103019	1.03E-03
219.8066	0.036376356	0.0367668	0	0.036376	0.103019	1.03E-03
219.8094	0.036376356	0.0367668	0	0.036376	0.103019	1.03E-03
219.8094	0.036376356	0.0367668	0	0.036376	0.103019	1.03E-03
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219.8122	0.036352858	0.0367668	0	0.036353	0.103019	1.03E-03
219.8122	0.036352858	0.0367668	0	0.036353	0.103019	1.03E-03
219.8122	0.036352858	0.0367668	0	0.036353	0.103019	1.03E-03
219.8149	0.036352313	0.0367668	0	0.036352	0.103019	1.03E-03
219.8149	0.036352313	0.0367668	0	0.036352	0.103019	1.03E-03
219.8177	0.036354042	0.0367668	0	0.036354	0.103019	1.03E-03
219.8232	0.036353946	0.0367668	0	0.036354	0.103019	1.03E-03
219.8288	0.036380802	0.0367668	0	0.036381	0.103019	1.03E-03
219.8315	0.036380802	0.0367668	0	0.036381	0.103019	1.03E-03
219.8371	0.036329171	0.0367668	0	0.036329	0.103019	1.03E-03
219.8426	0.036305388	0.0367668	0	0.036305	0.103019	1.03E-03
219.8454	0.036331212	0.0367668	0	0.036331	0.103019	1.03E-03
219.8509	0.036332641	0.0367668	0	0.036333	0.103019	1.03E-03
219.8537	0.036309908	0.0367668	0	0.03631	0.103019	1.03E-03
219.8593	0.03628645	0.0367668	0	0.036286	0.103019	1.03E-03
219.862	0.036284926	0.0367668	0	0.036285	0.103019	1.03E-03
219.8676	0.036288912	0.0367668	0	0.036289	0.103019	1.03E-03
219.8703	0.036287094	0.0367668	0	0.036287	0.103019	1.03E-03
219.8731	0.036289884	0.0367668	0	0.03629	0.103019	1.03E-03
219.8786	0.036289211	0.0367668	0	0.036289	0.103019	1.03E-03
219.8814	0.036267355	0.0367668	0	0.036267	0.103019	1.03E-03
219.8842	0.036266042	0.0367668	0	0.036266	0.103019	1.03E-03
219.8897	0.036269992	0.0367668	0	0.03627	0.103019	1.03E-03
219.8925	0.03626913	0.0367668	0	0.036269	0.103019	1.03E-03
219.898	0.036246808	0.0367668	0	0.036247	0.103019	1.03E-03
219.9008	0.036246808	0.0367668	0	0.036247	0.103019	1.03E-03
219.9064	0.036274156	0.0367668	0	0.036274	0.103019	1.03E-03
219.9091	0.036276064	0.0367668	0	0.036276	0.103019	1.03E-03
219.9147	0.036302301	0.0367668	0	0.036302	0.103019	1.03E-03
219.9174	0.036302564	0.0367668	0	0.036303	0.103019	1.03E-03
219.923	0.03627797	0.0367668	0	0.036278	0.103019	1.03E-03
219.9257	0.036301022	0.0367668	0	0.036301	0.103019	1.03E-03
219.9313	0.036303717	0.0367668	0	0.036304	0.103019	1.03E-03
219.9341	0.036301829	0.0367668	0	0.036302	0.103019	1.03E-03
219.9368	0.036303931	0.0367668	0	0.036304	0.103019	1.03E-03
219.9424	0.03632902	0.0367668	0	0.036329	0.103019	1.03E-03
219.9451	0.03632902	0.0367668	0	0.036329	0.103019	1.03E-03
219.9507	0.036356625	0.0367668	0	0.036357	0.103019	1.03E-03
219.9535	0.036354851	0.0367668	0	0.036355	0.103019	1.03E-03
219.959	0.036356733	0.0367668	0	0.036357	0.103019	1.03E-03

219.9618	0.036379752	0.0367668	0	0.03638	0.103019	1.03E-03
219.9673	0.036381598	0.0367668	0	0.036382	0.103019	1.03E-03
219.9701	0.036378904	0.0367668	0	0.036379	0.103019	1.03E-03
219.9756	0.036405649	0.0367668	0	0.036406	0.103019	1.03E-03
219.9784	0.036405649	0.0367668	0	0.036406	0.103019	1.03E-03
219.9839	0.036404517	0.0367668	0	0.036405	0.103019	1.03E-03
219.9867	0.036404517	0.0367668	0	0.036405	0.103019	1.03E-03
219.9922	0.036430348	0.0367668	0	0.03643	0.103019	1.03E-03
219.9978	0.036453679	0.0367668	0	0.036454	0.103019	1.03E-03
220.0006	0.036476641	0.0367668	0	0.036477	0.103019	1.03E-03
220.0061	0.036474866	0.0367668	0	0.036475	0.103019	1.03E-03
220.0089	0.036473279	0.0367668	0	0.036473	0.103019	1.03E-03
220.0144	0.036496475	0.0367668	0	0.036496	0.103019	1.03E-03
220.0172	0.036498695	0.0367668	0	0.036499	0.103019	1.03E-03
220.0227	0.036522417	0.0367668	0	0.036522	0.103019	1.03E-03
220.0283	0.036517312	0.0367668	0	0.036517	0.103019	1.03E-03
220.031	0.036519567	0.0367668	0	0.03652	0.103019	1.03E-03
220.0366	0.036542555	0.0367668	0	0.036543	0.103019	1.03E-03
220.0421	0.036563928	0.0367668	0	0.036564	0.103019	1.03E-03
220.0449	0.036565525	0.0367668	0	0.036566	0.103019	1.03E-03
220.0504	0.036588222	0.0367668	0	0.036588	0.103019	1.03E-03
220.0532	0.036585982	0.0367668	0	0.036586	0.103019	1.03E-03
220.0587	0.036584348	0.0367668	0	0.036584	0.103019	1.03E-03
220.0643	0.036579029	0.0367668	0	0.036579	0.103019	1.03E-03
220.067	0.036581128	0.0367668	0	0.036581	0.103019	1.03E-03
220.0726	0.036603931	0.0367668	0	0.036604	0.103019	1.03E-03
220.0781	0.036599821	0.0367668	0	0.0366	0.103019	1.03E-03
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220.0864	0.036647652	0.0367668	0	0.036648	0.103019	1.03E-03
220.0892	0.036643794	0.0367668	0	0.036644	0.103019	1.03E-03
220.0948	0.036639605	0.0367668	0	0.03664	0.103019	1.03E-03
220.0975	0.036659708	0.0367668	0	0.03666	0.103019	1.03E-03
220.1031	0.036680243	0.0367668	0	0.03668	0.103019	1.03E-03
220.1058	0.036681458	0.0367668	0	0.036681	0.103019	1.03E-03
220.1114	0.036702158	0.0367668	0	0.036702	0.103019	1.03E-03
220.1142	0.036723442	0.0367668	0	0.036723	0.103019	1.03E-03
220.1197	0.036718991	0.0367668	0	0.036719	0.103019	1.03E-03
220.1252	0.036736013	0.0367668	0	0.036736	0.103019	1.03E-03
220.128	0.036736313	0.0367668	0	0.036736	0.103019	1.03E-03
220.1335	0.036727652	0.0367668	0	0.036728	0.103019	1.03E-03
220.1363	0.036727354	0.0367668	0	0.036727	0.103019	1.03E-03
220.1419	0.036718879	0.0367668	0	0.036719	0.103019	1.03E-03
220.1446	0.036718477	0.0367668	0	0.036718	0.103019	1.03E-03
220.1502	0.036738565	0.0367668	0	0.036739	0.103019	1.03E-03
220.1529	0.036733632	0.0367668	0	0.036734	0.103019	1.03E-03
220.1585	0.036729337	0.0367668	0	0.036729	0.103019	1.03E-03
220.1613	0.036749708	0.0367668	0	0.03675	0.103019	1.03E-03
220.1668	0.036745388	0.0367668	0	0.036745	0.103019	1.03E-03
220.1696	0.03676684	0.0367668	0	0.036767	0.103019	1.03E-03
220.1751	0.036762235	0.0367622	1.29021E-05	0.036762	0.103019	1.03E-03
220.1806	0.036758323	0.0367583	1.09618E-05	0.036758	0.103006	1.03E-03
220.1834	0.036753529	0.0367535	1.34323E-05	0.036754	0.102995	1.03E-03
220.189	0.036750185	0.0367502	9.36896E-06	0.03675	0.102981	1.03E-03
220.1917	0.036745763	0.0367458	1.23908E-05	0.036746	0.102972	1.03E-03
220.1973	0.036715253	0.0367354	2.89175E-05	0.036715	0.10296	1.03E-03
220.2	0.036735442	0.0367354	0	0.036735	0.102931	1.03E-03
220.2056	0.036730946	0.0367309	1.25981E-05	0.036731	0.102931	1.03E-03
220.2111	0.036726272	0.0367263	1.30968E-05	0.036726	0.102918	1.03E-03
220.2139	0.036721467	0.0367215	1.34637E-05	0.036721	0.102905	1.03E-03
220.2194	0.036716143	0.0367161	1.49165E-05	0.036716	0.102892	1.03E-03
220.225	0.036705624	0.0367058	2.89457E-05	0.036706	0.102877	1.03E-03
220.2277	0.036705813	0.0367058	0	0.036706	0.102848	1.03E-03
220.2333	0.036696214	0.0366962	2.68937E-05	0.036696	0.102848	1.03E-03
220.2388	0.036691893	0.0366919	1.21078E-05	0.036692	0.102821	1.03E-03
220.2444	0.036687893	0.0366879	1.12072E-05	0.036688	0.102809	1.03E-03
220.2471	0.036683349	0.0366833	1.27328E-05	0.036683	0.102798	1.03E-03
220.2527	0.036624378	0.0366244	0.000165234	0.036624	0.102785	1.03E-03
220.2582	0.036621271	0.0366213	8.70568E-06	0.036621	0.10262	1.03E-03
220.2638	0.036592101	0.0365921	8.17331E-05	0.036592	0.102611	1.03E-03
220.2693	0.036584284	0.0365854	1.87046E-05	0.036584	0.102529	1.03E-03
220.2721	0.036585425	0.0365854	0	0.036585	0.10251	1.03E-03
220.2776	0.03655219	0.0365522	9.31227E-05	0.036552	0.10251	1.03E-03
220.2832	0.036548724	0.0365487	9.71348E-06	0.036549	0.102417	1.02E-03
220.2887	0.036516381	0.0365178	8.67815E-05	0.036516	0.102408	1.02E-03

220.2915	0.036517752	0.0365178	0	0.036518	0.102321	1.02E-03
220.297	0.036510524	0.0365105	2.02526E-05	0.036511	0.102321	1.02E-03
220.3026	0.036508842	0.0365088	4.71078E-06	0.036509	0.102301	1.02E-03
220.3081	0.036480427	0.0364804	7.96191E-05	0.03648	0.102296	1.02E-03
220.3109	0.03647657	0.0364766	1.08058E-05	0.036477	0.102216	1.02E-03
220.3164	0.036447776	0.0364478	8.06796E-05	0.036448	0.102205	1.02E-03
220.3219	0.036445817	0.0364458	5.48837E-06	0.036446	0.102125	1.02E-03
220.3247	0.036419027	0.036419	7.5066E-05	0.036419	0.102119	1.02E-03
220.3303	0.0364175	0.0364175	4.277E-06	0.036418	0.102044	1.02E-03
220.333	0.036415971	0.036416	4.28544E-06	0.036416	0.10204	1.02E-03
220.3386	0.036414152	0.0364142	5.09685E-06	0.036414	0.102036	1.02E-03
220.3441	0.036384997	0.036385	8.16913E-05	0.036385	0.102031	1.02E-03
220.3497	0.036383076	0.0363831	5.38107E-06	0.036383	0.101949	1.02E-03
220.3524	0.036380808	0.0363808	6.35576E-06	0.036381	0.101943	1.02E-03
220.358	0.036379103	0.0363791	4.77591E-06	0.036379	0.101937	1.02E-03
220.3635	0.036349017	0.036349	8.43004E-05	0.036349	0.101932	1.02E-03
220.369	0.036346673	0.0363467	6.56651E-06	0.036347	0.101848	1.02E-03
220.3718	0.036319787	0.0363198	7.53339E-05	0.03632	0.101841	1.02E-03
220.3774	0.036290898	0.0362917	7.86073E-05	0.036291	0.101766	1.02E-03
220.3801	0.036291733	0.0362917	0	0.036292	0.101688	1.02E-03
220.3857	0.036263773	0.0362638	7.83403E-05	0.036264	0.101688	1.02E-03
220.3884	0.036238187	0.0362382	7.16912E-05	0.036238	0.101609	1.02E-03
220.394	0.036237505	0.0362375	1.91248E-06	0.036238	0.101538	1.02E-03
220.3995	0.03620987	0.0362103	7.61208E-05	0.03621	0.101536	1.02E-03
220.4051	0.036210338	0.0362103	0	0.03621	0.101459	1.01E-03
220.4078	0.036208357	0.0362084	5.54867E-06	0.036208	0.101459	1.01E-03
220.4134	0.03615654	0.0361565	0.00014519	0.036157	0.101454	1.01E-03
220.4189	0.036155432	0.0361554	3.10512E-06	0.036155	0.101309	1.01E-03
220.4217	0.036154875	0.0361549	1.55889E-06	0.036155	0.101306	1.01E-03
220.4272	0.036077635	0.0361014	0.000149893	0.036078	0.101304	1.01E-03
220.43	0.036076093	0.0361014	0	0.036076	0.101154	1.01E-03
220.4355	0.036050583	0.0361014	0	0.036051	0.101154	1.01E-03
220.4411	0.036024568	0.0361014	0	0.036025	0.101154	1.01E-03
220.4439	0.036024568	0.0361014	0	0.036025	0.101154	1.01E-03
220.4494	0.036022676	0.0361014	0	0.036023	0.101154	1.01E-03
220.4522	0.036022676	0.0361014	0	0.036023	0.101154	1.01E-03
220.4577	0.036021075	0.0361014	0	0.036021	0.101154	1.01E-03
220.4632	0.035969825	0.0361014	0	0.03597	0.101154	1.01E-03
220.466	0.035944343	0.0361014	0	0.035944	0.101154	1.01E-03
220.4688	0.035944267	0.0361014	0	0.035944	0.101154	1.01E-03
220.4743	0.035945165	0.0361014	0	0.035945	0.101154	1.01E-03
220.4771	0.035970565	0.0361014	0	0.035971	0.101154	1.01E-03
220.4826	0.035994925	0.0361014	0	0.035995	0.101154	1.01E-03
220.4854	0.035968847	0.0361014	0	0.035969	0.101154	1.01E-03
220.491	0.035941952	0.0361014	0	0.035942	0.101154	1.01E-03
220.4937	0.035940453	0.0361014	0	0.03594	0.101154	1.01E-03
220.4993	0.035963567	0.0361014	0	0.035964	0.101154	1.01E-03
220.502	0.035962385	0.0361014	0	0.035962	0.101154	1.01E-03
220.5048	0.035960877	0.0361014	0	0.035961	0.101154	1.01E-03
220.5103	0.035984339	0.0361014	0	0.035984	0.101154	1.01E-03
220.5131	0.035983279	0.0361014	0	0.035983	0.101154	1.01E-03
220.5187	0.036006596	0.0361014	0	0.036007	0.101154	1.01E-03
220.5214	0.036004898	0.0361014	0	0.036005	0.101154	1.01E-03
220.5242	0.036004898	0.0361014	0	0.036005	0.101154	1.01E-03
220.5297	0.035976404	0.0361014	0	0.035976	0.101154	1.01E-03
220.5325	0.03595082	0.0361014	0	0.035951	0.101154	1.01E-03
220.5381	0.035924625	0.0361014	0	0.035925	0.101154	1.01E-03
220.5408	0.035924625	0.0361014	0	0.035925	0.101154	1.01E-03
220.5436	0.035924235	0.0361014	0	0.035924	0.101154	1.01E-03
220.5491	0.035922788	0.0361014	0	0.035923	0.101154	1.01E-03
220.5519	0.035946161	0.0361014	0	0.035946	0.101154	1.01E-03
220.5574	0.035969332	0.0361014	0	0.035969	0.101154	1.01E-03
220.5602	0.035968294	0.0361014	0	0.035968	0.101154	1.01E-03
220.5658	0.035941714	0.0361014	0	0.035942	0.101154	1.01E-03
220.5685	0.035940421	0.0361014	0	0.03594	0.101154	1.01E-03
220.5713	0.035939463	0.0361014	0	0.035939	0.101154	1.01E-03
220.5768	0.035911995	0.0361014	0	0.035912	0.101154	1.01E-03
220.5796	0.035911995	0.0361014	0	0.035912	0.101154	1.01E-03
220.5824	0.035885892	0.0361014	0	0.035886	0.101154	1.01E-03
220.5879	0.035884606	0.0361014	0	0.035885	0.101154	1.01E-03
220.5907	0.035882972	0.0361014	0	0.035883	0.101154	1.01E-03
220.5935	0.035882025	0.0361014	0	0.035882	0.101154	1.01E-03
220.599	0.035856277	0.0361014	0	0.035856	0.101154	1.01E-03
220.6018	0.035855153	0.0361014	0	0.035855	0.101154	1.01E-03

220.6073	0.035853755	0.0361014	0	0.035854	0.101154	1.01E-03
220.6101	0.03585204	0.0361014	0	0.035852	0.101154	1.01E-03
220.6129	0.035876652	0.0361014	0	0.035877	0.101154	1.01E-03
220.6184	0.035821868	0.0361014	0	0.035822	0.101154	1.01E-03
220.6212	0.035821868	0.0361014	0	0.035822	0.101154	1.01E-03
220.6239	0.035844152	0.0361014	0	0.035844	0.101154	1.01E-03
220.6267	0.035869102	0.0361014	0	0.035869	0.101154	1.01E-03
220.6295	0.035942173	0.0361014	0	0.035942	0.101154	1.01E-03
220.635	0.035914306	0.0361014	0	0.035914	0.101154	1.01E-03
220.6378	0.035912822	0.0361014	0	0.035913	0.101154	1.01E-03
220.6406	0.035885108	0.0361014	0	0.035885	0.101154	1.01E-03
220.6461	0.035882598	0.0361014	0	0.035883	0.101154	1.01E-03
220.6489	0.035905729	0.0361014	0	0.035906	0.101154	1.01E-03
220.6544	0.035903597	0.0361014	0	0.035904	0.101154	1.01E-03
220.6572	0.035876021	0.0361014	0	0.035876	0.101154	1.01E-03
220.66	0.035876021	0.0361014	0	0.035876	0.101154	1.01E-03
220.6627	0.035873895	0.0361014	0	0.035874	0.101154	1.01E-03
220.6683	0.03587157	0.0361014	0	0.035872	0.101154	1.01E-03
220.671	0.035869489	0.0361014	0	0.035869	0.101154	1.01E-03
220.6738	0.035867818	0.0361014	0	0.035868	0.101154	1.01E-03
220.6794	0.035865344	0.0361014	0	0.035865	0.101154	1.01E-03
220.6821	0.035865344	0.0361014	0	0.035865	0.101154	1.01E-03
220.6877	0.035861525	0.0361014	0	0.035862	0.101154	1.01E-03
220.6904	0.035884136	0.0361014	0	0.035884	0.101154	1.01E-03
220.6932	0.035882473	0.0361014	0	0.035882	0.101154	1.01E-03
220.6987	0.03587791	0.0361014	0	0.035878	0.101154	1.01E-03
220.7015	0.035876954	0.0361014	0	0.035877	0.101154	1.01E-03
220.7043	0.035899714	0.0361014	0	0.0359	0.101154	1.01E-03
220.7098	0.03589631	0.0361014	0	0.035896	0.101154	1.01E-03
220.7126	0.035894911	0.0361014	0	0.035895	0.101154	1.01E-03
220.7181	0.035842071	0.0361014	0	0.035842	0.101154	1.01E-03
220.7209	0.035841031	0.0361014	0	0.035841	0.101154	1.01E-03
220.7265	0.03566244	0.0361014	0	0.035662	0.101154	1.01E-03
220.7292	0.035661754	0.0361014	0	0.035662	0.101154	1.01E-03
220.7348	0.035661119	0.0361014	0	0.035661	0.101154	1.01E-03
220.7375	0.035660449	0.0361014	0	0.03566	0.101154	1.01E-03
220.7431	0.035488319	0.0361014	0	0.035488	0.101154	1.01E-03
220.7458	0.035488319	0.0361014	0	0.035488	0.101154	1.01E-03
220.7514	0.035511954	0.0361014	0	0.035512	0.101154	1.01E-03
220.7542	0.035466056	0.0361014	0	0.035466	0.101154	1.01E-03
220.7597	0.035420915	0.0361014	0	0.035421	0.101154	1.01E-03
220.7625	0.035420004	0.0361014	0	0.03542	0.101154	1.01E-03
220.768	0.035375604	0.0361014	0	0.035376	0.101154	1.01E-03
220.7708	0.035375604	0.0361014	0	0.035376	0.101154	1.01E-03
220.7763	0.03528477	0.0361014	0	0.035285	0.101154	1.01E-03
220.7791	0.035283877	0.0361014	0	0.035284	0.101154	1.01E-03
220.7819	0.035283011	0.0361014	0	0.035283	0.101154	1.01E-03
220.7874	0.035305865	0.0361014	0	0.035306	0.101154	1.01E-03
220.7929	0.035216673	0.0361014	0	0.035217	0.101154	1.01E-03
220.7957	0.035216673	0.0361014	0	0.035217	0.101154	1.01E-03
220.8013	0.035172018	0.0361014	0	0.035172	0.101154	1.01E-03
220.804	0.035248705	0.0361014	0	0.035249	0.101154	1.01E-03
220.8096	0.035739688	0.0361014	0	0.03574	0.101154	1.01E-03
220.8123	0.035915143	0.0361014	0	0.035915	0.101154	1.01E-03
220.8179	0.036034895	0.0361014	0	0.036035	0.101154	1.01E-03
220.8207	0.036055771	0.0361014	0	0.036056	0.101154	1.01E-03
220.8262	0.036025577	0.0361014	0	0.036026	0.101154	1.01E-03
220.8317	0.036021355	0.0361014	0	0.036021	0.101154	1.01E-03
220.8345	0.036017632	0.0361014	0	0.036018	0.101154	1.01E-03
220.8373	0.035988539	0.0361014	0	0.035989	0.101154	1.01E-03
220.8428	0.036009598	0.0361014	0	0.03601	0.101154	1.01E-03
220.8484	0.036005967	0.0361014	0	0.036006	0.101154	1.01E-03
220.8511	0.036002893	0.0361014	0	0.036003	0.101154	1.01E-03
220.8567	0.03602394	0.0361014	0	0.036024	0.101154	1.01E-03
220.8594	0.036023674	0.0361014	0	0.036024	0.101154	1.01E-03
220.865	0.036044228	0.0361014	0	0.036044	0.101154	1.01E-03
220.8678	0.036040279	0.0361014	0	0.03604	0.101154	1.01E-03
220.8733	0.036061112	0.0361014	0	0.036061	0.101154	1.01E-03
220.8761	0.036081346	0.0361014	0	0.036081	0.101154	1.01E-03
220.8816	0.036101379	0.0361014	0	0.036101	0.101154	1.01E-03
220.8844	0.036072308	0.0360723	8.14549E-05	0.036072	0.101154	1.01E-03
220.8899	0.036067688	0.0360715	2.25724E-06	0.036068	0.101073	1.01E-03
220.8927	0.036063162	0.0360715	0	0.036063	0.10107	1.01E-03
220.8955	0.036059073	0.0360715	0	0.036059	0.10107	1.01E-03

220.901	0.036054763	0.0360715	0	0.036055	0.10107	1.01E-03
220.9038	0.036051269	0.0360715	0	0.036051	0.10107	1.01E-03
220.9093	0.036071503	0.0360715	0	0.036072	0.10107	1.01E-03
220.9149	0.036067495	0.0360675	1.12287E-05	0.036067	0.10107	1.01E-03
220.9176	0.036064239	0.0360642	9.12477E-06	0.036064	0.101059	1.01E-03
220.9232	0.036059999	0.0360631	3.22545E-06	0.03606	0.10105	1.01E-03
220.9287	0.036028185	0.0360631	0	0.036028	0.101047	1.01E-03
220.9315	0.036027485	0.0360631	0	0.036027	0.101047	1.01E-03
220.937	0.036044279	0.0360631	0	0.036044	0.101047	1.01E-03
220.9398	0.036044279	0.0360631	0	0.036044	0.101047	1.01E-03
220.9453	0.036063087	0.0360631	0	0.036063	0.101047	1.01E-03
220.9509	0.036030773	0.036047	4.51939E-05	0.036031	0.101047	1.01E-03
220.9536	0.036026659	0.036047	0	0.036027	0.101002	1.01E-03
220.9592	0.036046958	0.036047	0	0.036047	0.101002	1.01E-03
220.9647	0.036042691	0.0360427	1.19564E-05	0.036043	0.101002	1.01E-03
220.9675	0.036037973	0.036038	1.32197E-05	0.036038	0.10099	1.01E-03
220.973	0.036033123	0.0360331	1.35878E-05	0.036033	0.100977	1.01E-03
220.9786	0.035999458	0.0359995	9.43288E-05	0.035999	0.100963	1.01E-03
220.9814	0.035999458	0.0359995	0	0.035999	0.100869	1.01E-03
220.9869	0.035990877	0.0359909	2.40433E-05	0.035991	0.100869	1.01E-03
220.9924	0.035961153	0.0359612	8.32854E-05	0.035961	0.100845	1.01E-03
220.998	0.035957483	0.0359575	1.02825E-05	0.035957	0.100761	1.01E-03
221.0035	0.03592658	0.0359266	8.65889E-05	0.035927	0.100751	1.01E-03
221.0063	0.035922363	0.0359224	1.18153E-05	0.035922	0.100664	1.01E-03
221.0118	0.035918813	0.0359188	9.9479E-06	0.035919	0.100653	1.01E-03
221.0174	0.035914279	0.0359143	1.27026E-05	0.035914	0.100643	1.01E-03
221.0229	0.035858903	0.0358589	0.00015516	0.035859	0.10063	1.01E-03
221.0257	0.035856898	0.0358569	5.6191E-06	0.035857	0.100475	1.00E-03
221.0312	0.035853045	0.035853	1.07953E-05	0.035853	0.100469	1.00E-03
221.0368	0.035824919	0.0358249	7.8809E-05	0.035825	0.100458	1.00E-03
221.0395	0.035822471	0.0358225	6.85757E-06	0.035822	0.10038	1.00E-03
221.0451	0.03579175	0.0357918	8.60785E-05	0.035792	0.100373	1.00E-03
221.0506	0.035738306	0.0357383	0.000149748	0.035738	0.100287	1.00E-03
221.0534	0.035737196	0.0357372	3.10924E-06	0.035737	0.100137	1.00E-03
221.0589	0.035708228	0.0357082	8.11665E-05	0.035708	0.100134	1.00E-03
221.0617	0.035708228	0.0357082	0	0.035708	0.100053	1.00E-03
221.0672	0.035677879	0.0356779	8.50381E-05	0.035678	0.100053	1.00E-03
221.0728	0.035625191	0.0356252	0.00014762	0.035625	0.099968	1.00E-03
221.0756	0.035625191	0.0356252	0	0.035625	0.09982	9.98E-04
221.0811	0.035597831	0.0355978	7.66617E-05	0.035598	0.09982	9.98E-04
221.0866	0.035596618	0.0355966	3.39946E-06	0.035597	0.099743	9.97E-04
221.0894	0.03559499	0.035595	4.56088E-06	0.035595	0.09974	9.97E-04
221.0949	0.035592484	0.0355925	7.02175E-06	0.035592	0.099735	9.97E-04
221.1005	0.035565104	0.0355651	7.67167E-05	0.035565	0.099728	9.97E-04
221.106	0.035487338	0.0355133	0.000145086	0.035487	0.099652	9.97E-04
221.1116	0.035487021	0.0355133	0	0.035487	0.099506	9.95E-04
221.1143	0.035485538	0.0355133	0	0.035486	0.099506	9.95E-04
221.1199	0.035459642	0.0355133	0	0.03546	0.099506	9.95E-04
221.1227	0.035459642	0.0355133	0	0.03546	0.099506	9.95E-04
221.1282	0.0354328	0.0355133	0	0.035433	0.099506	9.95E-04
221.131	0.035433463	0.0355133	0	0.035433	0.099506	9.95E-04
221.1365	0.035455938	0.0355133	0	0.035456	0.099506	9.95E-04
221.1393	0.035455938	0.0355133	0	0.035456	0.099506	9.95E-04
221.1448	0.035428886	0.0355133	0	0.035429	0.099506	9.95E-04
221.1504	0.035403625	0.0355133	0	0.035404	0.099506	9.95E-04
221.1531	0.035401914	0.0355133	0	0.035402	0.099506	9.95E-04
221.1587	0.035351326	0.0355133	0	0.035351	0.099506	9.95E-04
221.1642	0.035376332	0.0355133	0	0.035376	0.099506	9.95E-04
221.167	0.03532751	0.0355133	0	0.035328	0.099506	9.95E-04
221.1725	0.035353072	0.0355133	0	0.035353	0.099506	9.95E-04
221.1753	0.03532689	0.0355133	0	0.035327	0.099506	9.95E-04
221.1808	0.035303344	0.0355133	0	0.035303	0.099506	9.95E-04
221.1836	0.035278583	0.0355133	0	0.035279	0.099506	9.95E-04
221.1891	0.035278292	0.0355133	0	0.035278	0.099506	9.95E-04
221.1919	0.035277957	0.0355133	0	0.035278	0.099506	9.95E-04
221.1975	0.035278027	0.0355133	0	0.035278	0.099506	9.95E-04
221.203	0.035255058	0.0355133	0	0.035255	0.099506	9.95E-04
221.2058	0.035230791	0.0355133	0	0.035231	0.099506	9.95E-04
221.2113	0.035231989	0.0355133	0	0.035232	0.099506	9.95E-04
221.2141	0.035207505	0.0355133	0	0.035208	0.099506	9.95E-04
221.2196	0.035183252	0.0355133	0	0.035183	0.099506	9.95E-04
221.2224	0.035184952	0.0355133	0	0.035185	0.099506	9.95E-04
221.2279	0.035183486	0.0355133	0	0.035183	0.099506	9.95E-04
221.2307	0.035185295	0.0355133	0	0.035185	0.099506	9.95E-04

221.2362	0.035138236	0.0355133	0	0.035138	0.099506	9.95E-04
221.239	0.035111374	0.0355133	0	0.035111	0.099506	9.95E-04
221.2446	0.035063305	0.0355133	0	0.035063	0.099506	9.95E-04
221.2473	0.035064439	0.0355133	0	0.035064	0.099506	9.95E-04
221.2501	0.035067304	0.0355133	0	0.035067	0.099506	9.95E-04
221.2556	0.035044216	0.0355133	0	0.035044	0.099506	9.95E-04
221.2584	0.034996443	0.0355133	0	0.034996	0.099506	9.95E-04
221.264	0.034973611	0.0355133	0	0.034974	0.099506	9.95E-04
221.2667	0.03497634	0.0355133	0	0.034976	0.099506	9.95E-04
221.2723	0.034954968	0.0355133	0	0.034955	0.099506	9.95E-04
221.275	0.034954968	0.0355133	0	0.034955	0.099506	9.95E-04
221.2806	0.034934285	0.0355133	0	0.034934	0.099506	9.95E-04
221.2833	0.034908841	0.0355133	0	0.034909	0.099506	9.95E-04
221.2861	0.034911311	0.0355133	0	0.034911	0.099506	9.95E-04
221.2917	0.034911555	0.0355133	0	0.034912	0.099506	9.95E-04
221.2944	0.034913683	0.0355133	0	0.034914	0.099506	9.95E-04
221.3	0.034890621	0.0355133	0	0.034891	0.099506	9.95E-04
221.3027	0.03486765	0.0355133	0	0.034868	0.099506	9.95E-04
221.3083	0.034868714	0.0355133	0	0.034869	0.099506	9.95E-04
221.3111	0.034894567	0.0355133	0	0.034895	0.099506	9.95E-04
221.3138	0.034894567	0.0355133	0	0.034895	0.099506	9.95E-04
221.3194	0.034849398	0.0355133	0	0.034849	0.099506	9.95E-04
221.3221	0.034851216	0.0355133	0	0.034851	0.099506	9.95E-04
221.3249	0.034850964	0.0355133	0	0.034851	0.099506	9.95E-04
221.3304	0.034855675	0.0355133	0	0.034856	0.099506	9.95E-04
221.3332	0.034855246	0.0355133	0	0.034855	0.099506	9.95E-04
221.3388	0.034836436	0.0355133	0	0.034836	0.099506	9.95E-04
221.3415	0.034836436	0.0355133	0	0.034836	0.099506	9.95E-04
221.3443	0.034839492	0.0355133	0	0.034839	0.099506	9.95E-04
221.3498	0.034841264	0.0355133	0	0.034841	0.099506	9.95E-04
221.3526	0.034818302	0.0355133	0	0.034818	0.099506	9.95E-04
221.3582	0.034795775	0.0355133	0	0.034796	0.099506	9.95E-04
221.3609	0.034798388	0.0355133	0	0.034798	0.099506	9.95E-04
221.3637	0.034776302	0.0355133	0	0.034776	0.099506	9.95E-04
221.3692	0.034778023	0.0355133	0	0.034778	0.099506	9.95E-04
221.372	0.034755378	0.0355133	0	0.034755	0.099506	9.95E-04
221.3748	0.034758068	0.0355133	0	0.034758	0.099506	9.95E-04
221.3803	0.034760131	0.0355133	0	0.03476	0.099506	9.95E-04
221.3831	0.034763345	0.0355133	0	0.034763	0.099506	9.95E-04
221.3859	0.034762928	0.0355133	0	0.034763	0.099506	9.95E-04
221.3886	0.034765571	0.0355133	0	0.034766	0.099506	9.95E-04
221.3942	0.034743728	0.0355133	0	0.034744	0.099506	9.95E-04
221.3969	0.034746368	0.0355133	0	0.034746	0.099506	9.95E-04
221.3997	0.034724114	0.0355133	0	0.034724	0.099506	9.95E-04
221.4053	0.034726605	0.0355133	0	0.034727	0.099506	9.95E-04
221.408	0.034704126	0.0355133	0	0.034704	0.099506	9.95E-04
221.4108	0.034706472	0.0355133	0	0.034706	0.099506	9.95E-04
221.4136	0.034682337	0.0355133	0	0.034682	0.099506	9.95E-04
221.4191	0.034707791	0.0355133	0	0.034708	0.099506	9.95E-04
221.4219	0.034709262	0.0355133	0	0.034709	0.099506	9.95E-04
221.4246	0.034711466	0.0355133	0	0.034711	0.099506	9.95E-04
221.4274	0.034711347	0.0355133	0	0.034711	0.099506	9.95E-04
221.433	0.034691359	0.0355133	0	0.034691	0.099506	9.95E-04
221.4357	0.034669921	0.0355133	0	0.03467	0.099506	9.95E-04
221.4385	0.034669921	0.0355133	0	0.03467	0.099506	9.95E-04
221.444	0.034696216	0.0355133	0	0.034696	0.099506	9.95E-04
221.4468	0.034698947	0.0355133	0	0.034699	0.099506	9.95E-04
221.4524	0.034699496	0.0355133	0	0.034699	0.099506	9.95E-04
221.4551	0.034702167	0.0355133	0	0.034702	0.099506	9.95E-04
221.4607	0.034680633	0.0355133	0	0.034681	0.099506	9.95E-04
221.4634	0.034707023	0.0355133	0	0.034707	0.099506	9.95E-04
221.4662	0.034730338	0.0355133	0	0.03473	0.099506	9.95E-04
221.4717	0.034733644	0.0355133	0	0.034734	0.099506	9.95E-04
221.4745	0.034732758	0.0355133	0	0.034733	0.099506	9.95E-04
221.4801	0.034735412	0.0355133	0	0.034735	0.099506	9.95E-04
221.4828	0.034734408	0.0355133	0	0.034734	0.099506	9.95E-04
221.4856	0.034759349	0.0355133	0	0.034759	0.099506	9.95E-04
221.4911	0.034784463	0.0355133	0	0.034784	0.099506	9.95E-04
221.4939	0.03478359	0.0355133	0	0.034784	0.099506	9.95E-04
221.4995	0.034807955	0.0355133	0	0.034808	0.099506	9.95E-04
221.5022	0.034856558	0.0355133	0	0.034857	0.099506	9.95E-04
221.5078	0.034857049	0.0355133	0	0.034857	0.099506	9.95E-04
221.5105	0.03485758	0.0355133	0	0.034858	0.099506	9.95E-04
221.5161	0.034881839	0.0355133	0	0.034882	0.099506	9.95E-04

221.5188	0.034881127	0.0355133	0	0.034881	0.099506	9.95E-04
221.5244	0.034929015	0.0355133	0	0.034929	0.099506	9.95E-04
221.5272	0.034953878	0.0355133	0	0.034954	0.099506	9.95E-04
221.5327	0.034952607	0.0355133	0	0.034953	0.099506	9.95E-04
221.5355	0.034953117	0.0355133	0	0.034953	0.099506	9.95E-04
221.541	0.034975683	0.0355133	0	0.034976	0.099506	9.95E-04
221.5438	0.034975264	0.0355133	0	0.034975	0.099506	9.95E-04
221.5493	0.034974692	0.0355133	0	0.034975	0.099506	9.95E-04
221.5549	0.034973745	0.0355133	0	0.034974	0.099506	9.95E-04
221.5576	0.034997139	0.0355133	0	0.034997	0.099506	9.95E-04
221.5632	0.034996404	0.0355133	0	0.034996	0.099506	9.95E-04
221.5659	0.034995628	0.0355133	0	0.034996	0.099506	9.95E-04
221.5715	0.035017711	0.0355133	0	0.035018	0.099506	9.95E-04
221.5743	0.035017231	0.0355133	0	0.035017	0.099506	9.95E-04
221.5798	0.035040091	0.0355133	0	0.03504	0.099506	9.95E-04
221.5826	0.035040039	0.0355133	0	0.03504	0.099506	9.95E-04
221.5881	0.035039732	0.0355133	0	0.03504	0.099506	9.95E-04
221.5909	0.035063346	0.0355133	0	0.035063	0.099506	9.95E-04
221.5964	0.035086499	0.0355133	0	0.035086	0.099506	9.95E-04
221.5992	0.035085668	0.0355133	0	0.035086	0.099506	9.95E-04
221.6047	0.035084225	0.0355133	0	0.035084	0.099506	9.95E-04
221.6075	0.035083475	0.0355133	0	0.035083	0.099506	9.95E-04
221.613	0.035129611	0.0355133	0	0.03513	0.099506	9.95E-04
221.6158	0.035128994	0.0355133	0	0.035129	0.099506	9.95E-04
221.6214	0.035150483	0.0355133	0	0.03515	0.099506	9.95E-04
221.6269	0.035219587	0.0355133	0	0.03522	0.099506	9.95E-04
221.6297	0.035216249	0.0355133	0	0.035216	0.099506	9.95E-04
221.6352	0.03516448	0.0355133	0	0.035164	0.099506	9.95E-04
221.638	0.035186483	0.0355133	0	0.035186	0.099506	9.95E-04
221.6435	0.035183967	0.0355133	0	0.035184	0.099506	9.95E-04
221.6463	0.035181148	0.0355133	0	0.035181	0.099506	9.95E-04
221.6518	0.035202655	0.0355133	0	0.035203	0.099506	9.95E-04
221.6546	0.035201268	0.0355133	0	0.035201	0.099506	9.95E-04
221.6601	0.035245919	0.0355133	0	0.035246	0.099506	9.95E-04
221.6629	0.035244151	0.0355133	0	0.035244	0.099506	9.95E-04
221.6685	0.035265087	0.0355133	0	0.035265	0.099506	9.95E-04
221.6712	0.035286916	0.0355133	0	0.035287	0.099506	9.95E-04
221.6768	0.035258366	0.0355133	0	0.035258	0.099506	9.95E-04
221.6823	0.035277519	0.0355133	0	0.035278	0.099506	9.95E-04
221.6851	0.035277519	0.0355133	0	0.035278	0.099506	9.95E-04
221.6879	0.035274704	0.0355133	0	0.035275	0.099506	9.95E-04
221.6934	0.035245962	0.0355133	0	0.035246	0.099506	9.95E-04
221.6962	0.035220941	0.0355133	0	0.035221	0.099506	9.95E-04
221.7017	0.035241256	0.0355133	0	0.035241	0.099506	9.95E-04
221.7073	0.035238605	0.0355133	0	0.035239	0.099506	9.95E-04
221.71	0.035237442	0.0355133	0	0.035237	0.099506	9.95E-04
221.7156	0.035211376	0.0355133	0	0.035211	0.099506	9.95E-04
221.7183	0.035209777	0.0355133	0	0.03521	0.099506	9.95E-04
221.7239	0.035232771	0.0355133	0	0.035233	0.099506	9.95E-04
221.7266	0.0352313	0.0355133	0	0.035231	0.099506	9.95E-04
221.7322	0.035277963	0.0355133	0	0.035278	0.099506	9.95E-04
221.735	0.035276598	0.0355133	0	0.035277	0.099506	9.95E-04
221.7405	0.035369841	0.0355133	0	0.03537	0.099506	9.95E-04
221.746	0.035366793	0.0355133	0	0.035367	0.099506	9.95E-04
221.7516	0.03545851	0.0355133	0	0.035459	0.099506	9.95E-04
221.7571	0.035500929	0.0355133	0	0.035501	0.099506	9.95E-04
221.7599	0.035500089	0.0355133	0	0.0355	0.099506	9.95E-04
221.7654	0.03546803	0.0355133	0	0.035468	0.099506	9.95E-04
221.771	0.035388338	0.0355133	0	0.035388	0.099506	9.95E-04
221.7765	0.035285697	0.0355133	0	0.035286	0.099506	9.95E-04
221.7793	0.035308357	0.0355133	0	0.035308	0.099506	9.95E-04
221.7848	0.035305577	0.0355133	0	0.035306	0.099506	9.95E-04
221.7904	0.035155912	0.0355133	0	0.035156	0.099506	9.95E-04
221.7959	0.035103221	0.0355133	0	0.035103	0.099506	9.95E-04
221.7987	0.035103583	0.0355133	0	0.035104	0.099506	9.95E-04
221.8042	0.035100516	0.0355133	0	0.035101	0.099506	9.95E-04
221.807	0.035076634	0.0355133	0	0.035077	0.099506	9.95E-04
221.8125	0.035073265	0.0355133	0	0.035073	0.099506	9.95E-04
221.8181	0.035048999	0.0355133	0	0.035049	0.099506	9.95E-04
221.8236	0.035048429	0.0355133	0	0.035048	0.099506	9.95E-04
221.8264	0.035023606	0.0355133	0	0.035024	0.099506	9.95E-04
221.8319	0.034975711	0.0355133	0	0.034976	0.099506	9.95E-04
221.8347	0.035000462	0.0355133	0	0.035	0.099506	9.95E-04
221.8402	0.035000637	0.0355133	0	0.035001	0.099506	9.95E-04

221.8458	0.034976679	0.0355133	0	0.034977	0.099506	9.95E-04
221.8486	0.034977273	0.0355133	0	0.034977	0.099506	9.95E-04
221.8541	0.034977468	0.0355133	0	0.034977	0.099506	9.95E-04
221.8596	0.034977531	0.0355133	0	0.034978	0.099506	9.95E-04
221.8652	0.034977574	0.0355133	0	0.034978	0.099506	9.95E-04
221.8679	0.034953305	0.0355133	0	0.034953	0.099506	9.95E-04
221.8735	0.034953857	0.0355133	0	0.034954	0.099506	9.95E-04
221.879	0.03493114	0.0355133	0	0.034931	0.099506	9.95E-04
221.8818	0.03493113	0.0355133	0	0.034931	0.099506	9.95E-04
221.8846	0.03492922	0.0355133	0	0.034929	0.099506	9.95E-04
221.8901	0.034953623	0.0355133	0	0.034954	0.099506	9.95E-04
221.8929	0.034977603	0.0355133	0	0.034978	0.099506	9.95E-04
221.8984	0.03497687	0.0355133	0	0.034977	0.099506	9.95E-04
221.9012	0.034976148	0.0355133	0	0.034976	0.099506	9.95E-04
221.9067	0.034952605	0.0355133	0	0.034953	0.099506	9.95E-04
221.9123	0.034927924	0.0355133	0	0.034928	0.099506	9.95E-04
221.915	0.034928659	0.0355133	0	0.034929	0.099506	9.95E-04
221.9206	0.034929862	0.0355133	0	0.03493	0.099506	9.95E-04
221.9234	0.034881693	0.0355133	0	0.034882	0.099506	9.95E-04
221.9261	0.034859205	0.0355133	0	0.034859	0.099506	9.95E-04
221.9317	0.034858947	0.0355133	0	0.034859	0.099506	9.95E-04
221.9344	0.034861071	0.0355133	0	0.034861	0.099506	9.95E-04
221.94	0.034860523	0.0355133	0	0.034861	0.099506	9.95E-04
221.9455	0.034839382	0.0355133	0	0.034839	0.099506	9.95E-04
221.9483	0.034839382	0.0355133	0	0.034839	0.099506	9.95E-04
221.9511	0.034840044	0.0355133	0	0.03484	0.099506	9.95E-04
221.9566	0.034818786	0.0355133	0	0.034819	0.099506	9.95E-04
221.9621	0.034794682	0.0355133	0	0.034795	0.099506	9.95E-04
221.9649	0.034795717	0.0355133	0	0.034796	0.099506	9.95E-04
221.9705	0.034797045	0.0355133	0	0.034797	0.099506	9.95E-04
221.9732	0.034774507	0.0355133	0	0.034775	0.099506	9.95E-04
221.976	0.034774507	0.0355133	0	0.034775	0.099506	9.95E-04
221.9815	0.034777463	0.0355133	0	0.034777	0.099506	9.95E-04
221.9843	0.034777463	0.0355133	0	0.034777	0.099506	9.95E-04
221.9899	0.034757246	0.0355133	0	0.034757	0.099506	9.95E-04
221.9926	0.034732907	0.0355133	0	0.034733	0.099506	9.95E-04
221.9982	0.034688212	0.0355133	0	0.034688	0.099506	9.95E-04
222.0009	0.03469017	0.0355133	0	0.03469	0.099506	9.95E-04
222.0037	0.034689774	0.0355133	0	0.03469	0.099506	9.95E-04
222.0092	0.03469363	0.0355133	0	0.034694	0.099506	9.95E-04
222.012	0.034669371	0.0355133	0	0.034669	0.099506	9.95E-04
222.0176	0.034625065	0.0355133	0	0.034625	0.099506	9.95E-04
222.0203	0.034627854	0.0355133	0	0.034628	0.099506	9.95E-04
222.0231	0.034627234	0.0355133	0	0.034627	0.099506	9.95E-04
222.0286	0.034632382	0.0355133	0	0.034632	0.099506	9.95E-04
222.0314	0.034608546	0.0355133	0	0.034609	0.099506	9.95E-04
222.037	0.034613564	0.0355133	0	0.034614	0.099506	9.95E-04
222.0397	0.034613235	0.0355133	0	0.034613	0.099506	9.95E-04
222.0425	0.034615834	0.0355133	0	0.034616	0.099506	9.95E-04
222.048	0.034593762	0.0355133	0	0.034594	0.099506	9.95E-04
222.048	0.034593762	0.0355133	0	0.034594	0.099506	9.95E-04
222.0536	0.03461973	0.0355133	0	0.03462	0.099506	9.95E-04
222.0563	0.034621763	0.0355133	0	0.034622	0.099506	9.95E-04
222.0619	0.034623105	0.0355133	0	0.034623	0.099506	9.95E-04
222.0647	0.034625222	0.0355133	0	0.034625	0.099506	9.95E-04
222.0674	0.034578776	0.0355133	0	0.034579	0.099506	9.95E-04
222.0702	0.034581281	0.0355133	0	0.034581	0.099506	9.95E-04
222.0757	0.034583604	0.0355133	0	0.034584	0.099506	9.95E-04
222.0785	0.034586365	0.0355133	0	0.034586	0.099506	9.95E-04
222.0813	0.034563269	0.0355133	0	0.034563	0.099506	9.95E-04
222.0868	0.034568166	0.0355133	0	0.034568	0.099506	9.95E-04
222.0896	0.034568663	0.0355133	0	0.034569	0.099506	9.95E-04
222.0951	0.034550561	0.0355133	0	0.034551	0.099506	9.95E-04
222.0979	0.034550561	0.0355133	0	0.034551	0.099506	9.95E-04
222.1007	0.034530213	0.0355133	0	0.03453	0.099506	9.95E-04
222.1007	0.034530213	0.0355133	0	0.03453	0.099506	9.95E-04
222.1062	0.034509492	0.0355133	0	0.034509	0.099506	9.95E-04
222.109	0.034511731	0.0355133	0	0.034512	0.099506	9.95E-04
222.1145	0.034493086	0.0355133	0	0.034493	0.099506	9.95E-04
222.1173	0.034493086	0.0355133	0	0.034493	0.099506	9.95E-04
222.1228	0.034498274	0.0355133	0	0.034498	0.099506	9.95E-04
222.1256	0.034498274	0.0355133	0	0.034498	0.099506	9.95E-04
222.1284	0.034500936	0.0355133	0	0.034501	0.099506	9.95E-04
222.1339	0.034503095	0.0355133	0	0.034503	0.099506	9.95E-04

222.1395	0.034507231	0.0355133	0	0.034507	0.099506	9.95E-04
222.1422	0.034507231	0.0355133	0	0.034507	0.099506	9.95E-04
222.145	0.034485847	0.0355133	0	0.034486	0.099506	9.95E-04
222.1478	0.034488545	0.0355133	0	0.034489	0.099506	9.95E-04
222.1533	0.034490989	0.0355133	0	0.034491	0.099506	9.95E-04
222.1533	0.034490989	0.0355133	0	0.034491	0.099506	9.95E-04
222.1589	0.034469814	0.0355133	0	0.03447	0.099506	9.95E-04
222.1644	0.034474386	0.0355133	0	0.034474	0.099506	9.95E-04
222.1644	0.034474386	0.0355133	0	0.034474	0.099506	9.95E-04
222.1699	0.03447614	0.0355133	0	0.034476	0.099506	9.95E-04
222.1755	0.03447761	0.0355133	0	0.034478	0.099506	9.95E-04
222.1783	0.034479494	0.0355133	0	0.034479	0.099506	9.95E-04
222.181	0.034481495	0.0355133	0	0.034481	0.099506	9.95E-04
222.1838	0.03448085	0.0355133	0	0.034481	0.099506	9.95E-04
222.1893	0.034484448	0.0355133	0	0.034484	0.099506	9.95E-04
222.1921	0.034484148	0.0355133	0	0.034484	0.099506	9.95E-04
222.1976	0.034465062	0.0355133	0	0.034465	0.099506	9.95E-04
222.2004	0.034465062	0.0355133	0	0.034465	0.099506	9.95E-04
222.2032	0.034490714	0.0355133	0	0.034491	0.099506	9.95E-04
222.2087	0.034515665	0.0355133	0	0.034516	0.099506	9.95E-04
222.2115	0.034515733	0.0355133	0	0.034516	0.099506	9.95E-04
222.2143	0.034516993	0.0355133	0	0.034517	0.099506	9.95E-04
222.2198	0.034518989	0.0355133	0	0.034519	0.099506	9.95E-04
222.2226	0.034520791	0.0355133	0	0.034521	0.099506	9.95E-04
222.2281	0.034521975	0.0355133	0	0.034522	0.099506	9.95E-04
222.2309	0.034546985	0.0355133	0	0.034547	0.099506	9.95E-04
222.2337	0.034546985	0.0355133	0	0.034547	0.099506	9.95E-04
222.2392	0.034548449	0.0355133	0	0.034548	0.099506	9.95E-04
222.2392	0.034548449	0.0355133	0	0.034548	0.099506	9.95E-04
222.2447	0.034573669	0.0355133	0	0.034574	0.099506	9.95E-04
222.2475	0.034596983	0.0355133	0	0.034597	0.099506	9.95E-04
222.2531	0.0346219	0.0355133	0	0.034622	0.099506	9.95E-04
222.2558	0.034622769	0.0355133	0	0.034623	0.099506	9.95E-04
222.2586	0.034623487	0.0355133	0	0.034623	0.099506	9.95E-04
222.2641	0.034648294	0.0355133	0	0.034648	0.099506	9.95E-04
222.2669	0.034648629	0.0355133	0	0.034649	0.099506	9.95E-04
222.2697	0.034673495	0.0355133	0	0.034673	0.099506	9.95E-04
222.2752	0.034675148	0.0355133	0	0.034675	0.099506	9.95E-04
222.278	0.034675355	0.0355133	0	0.034675	0.099506	9.95E-04
222.2835	0.034723318	0.0355133	0	0.034723	0.099506	9.95E-04
222.2863	0.034723691	0.0355133	0	0.034724	0.099506	9.95E-04
222.2918	0.03472383	0.0355133	0	0.034724	0.099506	9.95E-04
222.2946	0.034724027	0.0355133	0	0.034724	0.099506	9.95E-04
222.3002	0.034748139	0.0355133	0	0.034748	0.099506	9.95E-04
222.3029	0.034748442	0.0355133	0	0.034748	0.099506	9.95E-04
222.3085	0.034747906	0.0355133	0	0.034748	0.099506	9.95E-04
222.314	0.034794772	0.0355133	0	0.034795	0.099506	9.95E-04
222.3168	0.034794267	0.0355133	0	0.034794	0.099506	9.95E-04
222.3196	0.03479342	0.0355133	0	0.034793	0.099506	9.95E-04
222.3251	0.034839183	0.0355133	0	0.034839	0.099506	9.95E-04
222.3279	0.034839183	0.0355133	0	0.034839	0.099506	9.95E-04
222.3334	0.034837002	0.0355133	0	0.034837	0.099506	9.95E-04
222.3362	0.034837002	0.0355133	0	0.034837	0.099506	9.95E-04
222.3417	0.034858812	0.0355133	0	0.034859	0.099506	9.95E-04
222.3473	0.034880897	0.0355133	0	0.034881	0.099506	9.95E-04
222.35	0.03488	0.0355133	0	0.03488	0.099506	9.95E-04
222.3528	0.034902191	0.0355133	0	0.034902	0.099506	9.95E-04
222.3583	0.034901061	0.0355133	0	0.034901	0.099506	9.95E-04
222.3611	0.034923731	0.0355133	0	0.034924	0.099506	9.95E-04
222.3667	0.034945911	0.0355133	0	0.034946	0.099506	9.95E-04
222.3694	0.034945283	0.0355133	0	0.034945	0.099506	9.95E-04
222.3722	0.034991425	0.0355133	0	0.034991	0.099506	9.95E-04
222.3777	0.03498945	0.0355133	0	0.034989	0.099506	9.95E-04
222.3805	0.034986545	0.0355133	0	0.034987	0.099506	9.95E-04
222.386	0.035031749	0.0355133	0	0.035032	0.099506	9.95E-04
222.3888	0.035029117	0.0355133	0	0.035029	0.099506	9.95E-04
222.3944	0.035026846	0.0355133	0	0.035027	0.099506	9.95E-04
222.3971	0.035049561	0.0355133	0	0.03505	0.099506	9.95E-04
222.4027	0.035047522	0.0355133	0	0.035048	0.099506	9.95E-04
222.4054	0.035045675	0.0355133	0	0.035046	0.099506	9.95E-04
222.4082	0.035069471	0.0355133	0	0.035069	0.099506	9.95E-04
222.4138	0.035114497	0.0355133	0	0.035114	0.099506	9.95E-04
222.4193	0.035111005	0.0355133	0	0.035111	0.099506	9.95E-04
222.4221	0.035135007	0.0355133	0	0.035135	0.099506	9.95E-04

222.4276	0.035156072	0.0355133	0	0.035156	0.099506	9.95E-04
222.4304	0.035156072	0.0355133	0	0.035156	0.099506	9.95E-04
222.4331	0.035154147	0.0355133	0	0.035154	0.099506	9.95E-04
222.4387	0.035176036	0.0355133	0	0.035176	0.099506	9.95E-04
222.4442	0.035172861	0.0355133	0	0.035173	0.099506	9.95E-04
222.447	0.035172143	0.0355133	0	0.035172	0.099506	9.95E-04
222.4525	0.035168179	0.0355133	0	0.035168	0.099506	9.95E-04
222.4553	0.035167185	0.0355133	0	0.035167	0.099506	9.95E-04
222.4609	0.035162313	0.0355133	0	0.035162	0.099506	9.95E-04
222.4664	0.035182957	0.0355133	0	0.035183	0.099506	9.95E-04
222.4692	0.035180815	0.0355133	0	0.035181	0.099506	9.95E-04
222.4747	0.03517648	0.0355133	0	0.035176	0.099506	9.95E-04
222.4775	0.035174637	0.0355133	0	0.035175	0.099506	9.95E-04
222.483	0.035196074	0.0355133	0	0.035196	0.099506	9.95E-04
222.4886	0.035193719	0.0355133	0	0.035194	0.099506	9.95E-04
222.4941	0.035165912	0.0355133	0	0.035166	0.099506	9.95E-04
222.4996	0.035164141	0.0355133	0	0.035164	0.099506	9.95E-04
222.5052	0.035160916	0.0355133	0	0.035161	0.099506	9.95E-04
222.508	0.03516038	0.0355133	0	0.03516	0.099506	9.95E-04
222.5135	0.03513251	0.0355133	0	0.035133	0.099506	9.95E-04
222.519	0.035129806	0.0355133	0	0.03513	0.099506	9.95E-04
222.5246	0.035126463	0.0355133	0	0.035126	0.099506	9.95E-04
222.5301	0.035123951	0.0355133	0	0.035124	0.099506	9.95E-04
222.5329	0.035097602	0.0355133	0	0.035098	0.099506	9.95E-04
222.5384	0.035094868	0.0355133	0	0.035095	0.099506	9.95E-04
222.5412	0.035092318	0.0355133	0	0.035092	0.099506	9.95E-04
222.5467	0.0350657	0.0355133	0	0.035066	0.099506	9.95E-04
222.5495	0.035040513	0.0355133	0	0.035041	0.099506	9.95E-04
222.5551	0.03501415	0.0355133	0	0.035014	0.099506	9.95E-04
222.5606	0.035012664	0.0355133	0	0.035013	0.099506	9.95E-04
222.5634	0.035011216	0.0355133	0	0.035011	0.099506	9.95E-04
222.5689	0.034961188	0.0355133	0	0.034961	0.099506	9.95E-04
222.5717	0.034935705	0.0355133	0	0.034936	0.099506	9.95E-04
222.5772	0.034934163	0.0355133	0	0.034934	0.099506	9.95E-04
222.58	0.034932984	0.0355133	0	0.034933	0.099506	9.95E-04
222.5855	0.034908676	0.0355133	0	0.034909	0.099506	9.95E-04
222.5883	0.034907989	0.0355133	0	0.034908	0.099506	9.95E-04
222.5938	0.034883421	0.0355133	0	0.034883	0.099506	9.95E-04
222.5994	0.034882124	0.0355133	0	0.034882	0.099506	9.95E-04
222.6022	0.034882326	0.0355133	0	0.034882	0.099506	9.95E-04
222.6077	0.034881066	0.0355133	0	0.034881	0.099506	9.95E-04
222.6132	0.034856956	0.0355133	0	0.034857	0.099506	9.95E-04
222.616	0.034857012	0.0355133	0	0.034857	0.099506	9.95E-04
222.6216	0.034833304	0.0355133	0	0.034833	0.099506	9.95E-04
222.6271	0.034810005	0.0355133	0	0.03481	0.099506	9.95E-04
222.6299	0.03480944	0.0355133	0	0.034809	0.099506	9.95E-04
222.6326	0.034810192	0.0355133	0	0.03481	0.099506	9.95E-04
222.6354	0.034786021	0.0355133	0	0.034786	0.099506	9.95E-04
222.6409	0.034786457	0.0355133	0	0.034786	0.099506	9.95E-04
222.6437	0.034786943	0.0355133	0	0.034787	0.099506	9.95E-04
222.6493	0.034764568	0.0355133	0	0.034765	0.099506	9.95E-04
222.6548	0.03476395	0.0355133	0	0.034764	0.099506	9.95E-04
222.6576	0.034741118	0.0355133	0	0.034741	0.099506	9.95E-04
222.6631	0.034740603	0.0355133	0	0.034741	0.099506	9.95E-04
222.6687	0.03471803	0.0355133	0	0.034718	0.099506	9.95E-04
222.6714	0.034694073	0.0355133	0	0.034694	0.099506	9.95E-04
222.6742	0.034695562	0.0355133	0	0.034696	0.099506	9.95E-04
222.6797	0.034672314	0.0355133	0	0.034672	0.099506	9.95E-04
222.6853	0.034674209	0.0355133	0	0.034674	0.099506	9.95E-04
222.688	0.03467352	0.0355133	0	0.034674	0.099506	9.95E-04
222.6908	0.034676128	0.0355133	0	0.034676	0.099506	9.95E-04
222.6936	0.0346774	0.0355133	0	0.034677	0.099506	9.95E-04
222.6964	0.03467656	0.0355133	0	0.034677	0.099506	9.95E-04
222.7019	0.034655542	0.0355133	0	0.034656	0.099506	9.95E-04
222.7047	0.034655542	0.0355133	0	0.034656	0.099506	9.95E-04
222.7102	0.034656479	0.0355133	0	0.034656	0.099506	9.95E-04
222.713	0.034656479	0.0355133	0	0.034656	0.099506	9.95E-04
222.7158	0.034656739	0.0355133	0	0.034657	0.099506	9.95E-04
222.7213	0.034610616	0.0355133	0	0.034611	0.099506	9.95E-04
222.7268	0.034610234	0.0355133	0	0.03461	0.099506	9.95E-04
222.7351	0.034611064	0.0355133	0	0.034611	0.099506	9.95E-04
222.7462	0.034567791	0.0355133	0	0.034568	0.099506	9.95E-04
222.7545	0.03450126	0.0355133	0	0.034501	0.099506	9.95E-04
222.7601	0.03450202	0.0355133	0	0.034502	0.099506	9.95E-04

222.7629	0.034480378	0.0355133	0	0.03448	0.099506	9.95E-04
222.7656	0.034458324	0.0355133	0	0.034458	0.099506	9.95E-04
222.7656	0.034458324	0.0355133	0	0.034458	0.099506	9.95E-04
222.7712	0.03443653	0.0355133	0	0.034437	0.099506	9.95E-04
222.7712	0.03443653	0.0355133	0	0.034437	0.099506	9.95E-04
222.7739	0.034439203	0.0355133	0	0.034439	0.099506	9.95E-04
222.7767	0.034438358	0.0355133	0	0.034438	0.099506	9.95E-04
222.7822	0.034442234	0.0355133	0	0.034442	0.099506	9.95E-04
222.785	0.034417993	0.0355133	0	0.034418	0.099506	9.95E-04
222.785	0.034417993	0.0355133	0	0.034418	0.099506	9.95E-04
222.7878	0.034420022	0.0355133	0	0.03442	0.099506	9.95E-04
222.7906	0.034398177	0.0355133	0	0.034398	0.099506	9.95E-04
222.7933	0.034398177	0.0355133	0	0.034398	0.099506	9.95E-04
222.7961	0.034400245	0.0355133	0	0.0344	0.099506	9.95E-04
222.8016	0.034401967	0.0355133	0	0.034402	0.099506	9.95E-04
222.8044	0.034403907	0.0355133	0	0.034404	0.099506	9.95E-04
222.8072	0.034382296	0.0355133	0	0.034382	0.099506	9.95E-04
222.8127	0.034361268	0.0355133	0	0.034361	0.099506	9.95E-04
222.8155	0.034363855	0.0355133	0	0.034364	0.099506	9.95E-04
222.8183	0.034319098	0.0355133	0	0.034319	0.099506	9.95E-04
222.8238	0.034322196	0.0355133	0	0.034322	0.099506	9.95E-04
222.8266	0.034325008	0.0355133	0	0.034325	0.099506	9.95E-04
222.8293	0.034327821	0.0355133	0	0.034328	0.099506	9.95E-04
222.8321	0.034327958	0.0355133	0	0.034328	0.099506	9.95E-04
222.8377	0.034332443	0.0355133	0	0.034332	0.099506	9.95E-04
222.8404	0.034308771	0.0355133	0	0.034309	0.099506	9.95E-04
222.846	0.03428957	0.0355133	0	0.03429	0.099506	9.95E-04
222.8487	0.034291626	0.0355133	0	0.034292	0.099506	9.95E-04
222.8543	0.034270461	0.0355133	0	0.03427	0.099506	9.95E-04
222.8571	0.034273326	0.0355133	0	0.034273	0.099506	9.95E-04
222.8626	0.034252682	0.0355133	0	0.034253	0.099506	9.95E-04
222.8654	0.034255307	0.0355133	0	0.034255	0.099506	9.95E-04
222.8681	0.034255367	0.0355133	0	0.034255	0.099506	9.95E-04
222.8737	0.034237378	0.0355133	0	0.034237	0.099506	9.95E-04
222.8764	0.034237378	0.0355133	0	0.034237	0.099506	9.95E-04
222.8792	0.034240228	0.0355133	0	0.03424	0.099506	9.95E-04
222.8848	0.034266039	0.0355133	0	0.034266	0.099506	9.95E-04
222.8903	0.034155202	0.0355133	0	0.034155	0.099506	9.95E-04
222.8931	0.034183497	0.0355133	0	0.034183	0.099506	9.95E-04
222.8986	0.034210673	0.0355133	0	0.034211	0.099506	9.95E-04
222.9014	0.034210279	0.0355133	0	0.03421	0.099506	9.95E-04
222.9042	0.034213894	0.0355133	0	0.034214	0.099506	9.95E-04
222.9097	0.034193724	0.0355133	0	0.034194	0.099506	9.95E-04
222.9125	0.034196625	0.0355133	0	0.034197	0.099506	9.95E-04
222.918	0.034178526	0.0355133	0	0.034179	0.099506	9.95E-04
222.9208	0.034178217	0.0355133	0	0.034178	0.099506	9.95E-04
222.9235	0.034204187	0.0355133	0	0.034204	0.099506	9.95E-04
222.9263	0.034207203	0.0355133	0	0.034207	0.099506	9.95E-04
222.9319	0.034210441	0.0355133	0	0.03421	0.099506	9.95E-04
222.9346	0.03421372	0.0355133	0	0.034214	0.099506	9.95E-04
222.9402	0.034193562	0.0355133	0	0.034194	0.099506	9.95E-04
222.9429	0.034172744	0.0355133	0	0.034173	0.099506	9.95E-04
222.9485	0.034198379	0.0355133	0	0.034198	0.099506	9.95E-04
222.9513	0.034201337	0.0355133	0	0.034201	0.099506	9.95E-04
222.954	0.034180883	0.0355133	0	0.034181	0.099506	9.95E-04
222.9596	0.034140263	0.0355133	0	0.03414	0.099506	9.95E-04
222.9623	0.03413958	0.0355133	0	0.03414	0.099506	9.95E-04
222.9679	0.034122398	0.0355133	0	0.034122	0.099506	9.95E-04
222.9706	0.034125464	0.0355133	0	0.034125	0.099506	9.95E-04
222.9762	0.034151129	0.0355133	0	0.034151	0.099506	9.95E-04
222.979	0.034130753	0.0355133	0	0.034131	0.099506	9.95E-04
222.9845	0.034112729	0.0355133	0	0.034113	0.099506	9.95E-04
222.9873	0.034112729	0.0355133	0	0.034113	0.099506	9.95E-04
222.9928	0.034094547	0.0355133	0	0.034095	0.099506	9.95E-04
222.9956	0.034098714	0.0355133	0	0.034099	0.099506	9.95E-04
222.9984	0.03409743	0.0355133	0	0.034097	0.099506	9.95E-04
223.0039	0.034102195	0.0355133	0	0.034102	0.099506	9.95E-04
223.0067	0.034106823	0.0355133	0	0.034107	0.099506	9.95E-04
223.0122	0.033996906	0.0355133	0	0.033997	0.099506	9.95E-04
223.015	0.033996906	0.0355133	0	0.033997	0.099506	9.95E-04
223.0177	0.034025583	0.0355133	0	0.034026	0.099506	9.95E-04
223.0233	0.034050888	0.0355133	0	0.034051	0.099506	9.95E-04
223.0261	0.034055987	0.0355133	0	0.034056	0.099506	9.95E-04
223.0316	0.034057856	0.0355133	0	0.034058	0.099506	9.95E-04

223.0344	0.034038479	0.0355133	0	0.034038	0.099506	9.95E-04
223.0399	0.034064127	0.0355133	0	0.034064	0.099506	9.95E-04
223.0427	0.034067683	0.0355133	0	0.034068	0.099506	9.95E-04
223.0482	0.034071165	0.0355133	0	0.034071	0.099506	9.95E-04
223.0538	0.034030048	0.0355133	0	0.03403	0.099506	9.95E-04
223.0565	0.034032967	0.0355133	0	0.034033	0.099506	9.95E-04
223.0621	0.034036546	0.0355133	0	0.034037	0.099506	9.95E-04
223.0648	0.034039268	0.0355133	0	0.034039	0.099506	9.95E-04
223.0676	0.034041622	0.0355133	0	0.034042	0.099506	9.95E-04
223.0732	0.034001343	0.0355133	0	0.034001	0.099506	9.95E-04
223.0759	0.03398003	0.0355133	0	0.03398	0.099506	9.95E-04
223.0815	0.034004561	0.0355133	0	0.034005	0.099506	9.95E-04
223.0842	0.034010454	0.0355133	0	0.03401	0.099506	9.95E-04
223.0898	0.033968812	0.0355133	0	0.033969	0.099506	9.95E-04
223.0926	0.033950155	0.0355133	0	0.03395	0.099506	9.95E-04
223.0981	0.03397464	0.0355133	0	0.033975	0.099506	9.95E-04
223.1009	0.034045715	0.0355133	0	0.034046	0.099506	9.95E-04
223.1064	0.034005233	0.0355133	0	0.034005	0.099506	9.95E-04
223.1092	0.034007757	0.0355133	0	0.034008	0.099506	9.95E-04
223.1119	0.034007757	0.0355133	0	0.034008	0.099506	9.95E-04
223.1175	0.033988351	0.0355133	0	0.033988	0.099506	9.95E-04
223.1203	0.033994552	0.0355133	0	0.033995	0.099506	9.95E-04
223.1258	0.034018348	0.0355133	0	0.034018	0.099506	9.95E-04
223.1286	0.033996493	0.0355133	0	0.033996	0.099506	9.95E-04
223.1341	0.033933621	0.0355133	0	0.033934	0.099506	9.95E-04
223.1369	0.033940462	0.0355133	0	0.03394	0.099506	9.95E-04
223.1424	0.033964782	0.0355133	0	0.033965	0.099506	9.95E-04
223.1452	0.03396741	0.0355133	0	0.033967	0.099506	9.95E-04
223.1507	0.033953223	0.0355133	0	0.033953	0.099506	9.95E-04
223.1535	0.033994055	0.0355133	0	0.033994	0.099506	9.95E-04
223.159	0.033955818	0.0355133	0	0.033956	0.099506	9.95E-04
223.1618	0.033938138	0.0355133	0	0.033938	0.099506	9.95E-04
223.1674	0.03394226	0.0355133	0	0.033942	0.099506	9.95E-04
223.1701	0.033921093	0.0355133	0	0.033921	0.099506	9.95E-04
223.1757	0.03392437	0.0355133	0	0.033924	0.099506	9.95E-04
223.1784	0.033926233	0.0355133	0	0.033926	0.099506	9.95E-04
223.184	0.033906455	0.0355133	0	0.033906	0.099506	9.95E-04
223.1868	0.033914121	0.0355133	0	0.033914	0.099506	9.95E-04
223.1923	0.033913341	0.0355133	0	0.033913	0.099506	9.95E-04
223.1951	0.033895864	0.0355133	0	0.033896	0.099506	9.95E-04
223.2006	0.033876603	0.0355133	0	0.033877	0.099506	9.95E-04
223.2061	0.033880823	0.0355133	0	0.033881	0.099506	9.95E-04
223.2117	0.033912563	0.0355133	0	0.033913	0.099506	9.95E-04
223.2145	0.033908345	0.0355133	0	0.033908	0.099506	9.95E-04
223.22	0.033894422	0.0355133	0	0.033894	0.099506	9.95E-04
223.2228	0.033873585	0.0355133	0	0.033874	0.099506	9.95E-04
223.2283	0.033835291	0.0355133	0	0.033835	0.099506	9.95E-04
223.2339	0.033816405	0.0355133	0	0.033816	0.099506	9.95E-04
223.2366	0.033849726	0.0355133	0	0.03385	0.099506	9.95E-04
223.2422	0.03388874	0.0355133	0	0.033889	0.099506	9.95E-04
223.2477	0.033936013	0.0355133	0	0.033936	0.099506	9.95E-04
223.2533	0.033944921	0.0355133	0	0.033945	0.099506	9.95E-04
223.256	0.033964124	0.0355133	0	0.033964	0.099506	9.95E-04
223.2616	0.033948615	0.0355133	0	0.033949	0.099506	9.95E-04
223.2671	0.033928553	0.0355133	0	0.033929	0.099506	9.95E-04
223.2726	0.033823323	0.0355133	0	0.033823	0.099506	9.95E-04
223.2754	0.033735966	0.0355133	0	0.033736	0.099506	9.95E-04
223.281	0.033700053	0.0355133	0	0.0337	0.099506	9.95E-04
223.2865	0.033660385	0.0355133	0	0.03366	0.099506	9.95E-04
223.2893	0.033645231	0.0355133	0	0.033645	0.099506	9.95E-04
223.2948	0.033709346	0.0355133	0	0.033709	0.099506	9.95E-04
223.3004	0.033704938	0.0355133	0	0.033705	0.099506	9.95E-04
223.3031	0.033700863	0.0355133	0	0.033701	0.099506	9.95E-04
223.3087	0.033673052	0.0355133	0	0.033673	0.099506	9.95E-04
223.3142	0.033908798	0.0355133	0	0.033909	0.099506	9.95E-04
223.317	0.033928471	0.0355133	0	0.033928	0.099506	9.95E-04
223.3225	0.033924331	0.0355133	0	0.033924	0.099506	9.95E-04
223.3281	0.034043916	0.0355133	0	0.034044	0.099506	9.95E-04
223.3308	0.034043916	0.0355133	0	0.034044	0.099506	9.95E-04
223.3364	0.034035701	0.0355133	0	0.034036	0.099506	9.95E-04
223.3391	0.034035701	0.0355133	0	0.034036	0.099506	9.95E-04
223.3447	0.0340076	0.0355133	0	0.034008	0.099506	9.95E-04
223.3502	0.034024079	0.0355133	0	0.034024	0.099506	9.95E-04
223.3558	0.034171411	0.0355133	0	0.034171	0.099506	9.95E-04

223.3585	0.034149009	0.0355133	0	0.034149	0.099506	9.95E-04
223.3641	0.034200114	0.0355133	0	0.0342	0.099506	9.95E-04
223.3696	0.034217283	0.0355133	0	0.034217	0.099506	9.95E-04
223.3752	0.034467881	0.0355133	0	0.034468	0.099506	9.95E-04
223.3779	0.034464283	0.0355133	0	0.034464	0.099506	9.95E-04
223.3835	0.034460539	0.0355133	0	0.034461	0.099506	9.95E-04
223.3862	0.034456795	0.0355133	0	0.034457	0.099506	9.95E-04
223.3918	0.0344536	0.0355133	0	0.034454	0.099506	9.95E-04
223.3946	0.034450411	0.0355133	0	0.03445	0.099506	9.95E-04
223.4001	0.034501404	0.0355133	0	0.034501	0.099506	9.95E-04
223.4029	0.03449853	0.0355133	0	0.034499	0.099506	9.95E-04
223.4084	0.034568947	0.0355133	0	0.034569	0.099506	9.95E-04
223.4139	0.03454438	0.0355133	0	0.034544	0.099506	9.95E-04
223.4167	0.034453441	0.0355133	0	0.034453	0.099506	9.95E-04
223.4223	0.034498709	0.0355133	0	0.034499	0.099506	9.95E-04
223.425	0.034498709	0.0355133	0	0.034499	0.099506	9.95E-04
223.4306	0.034614339	0.0355133	0	0.034614	0.099506	9.95E-04
223.4333	0.034611754	0.0355133	0	0.034612	0.099506	9.95E-04
223.4389	0.034679893	0.0355133	0	0.03468	0.099506	9.95E-04
223.4417	0.034679893	0.0355133	0	0.03468	0.099506	9.95E-04
223.4472	0.034675204	0.0355133	0	0.034675	0.099506	9.95E-04
223.45	0.034768998	0.0355133	0	0.034769	0.099506	9.95E-04
223.4555	0.034763941	0.0355133	0	0.034764	0.099506	9.95E-04
223.4583	0.034832676	0.0355133	0	0.034833	0.099506	9.95E-04
223.4638	0.034806143	0.0355133	0	0.034806	0.099506	9.95E-04
223.4666	0.034896679	0.0355133	0	0.034897	0.099506	9.95E-04
223.4721	0.034894807	0.0355133	0	0.034895	0.099506	9.95E-04
223.4749	0.03489323	0.0355133	0	0.034893	0.099506	9.95E-04
223.4804	0.034959458	0.0355133	0	0.034959	0.099506	9.95E-04
223.4832	0.034931653	0.0355133	0	0.034932	0.099506	9.95E-04
223.4888	0.034879988	0.0355133	0	0.03488	0.099506	9.95E-04
223.4915	0.034879988	0.0355133	0	0.03488	0.099506	9.95E-04
223.4943	0.034876803	0.0355133	0	0.034877	0.099506	9.95E-04
223.4998	0.034873563	0.0355133	0	0.034874	0.099506	9.95E-04
223.5026	0.034873563	0.0355133	0	0.034874	0.099506	9.95E-04
223.5081	0.034893384	0.0355133	0	0.034893	0.099506	9.95E-04
223.5109	0.034914781	0.0355133	0	0.034915	0.099506	9.95E-04
223.5137	0.034890265	0.0355133	0	0.03489	0.099506	9.95E-04
223.5192	0.034886161	0.0355133	0	0.034886	0.099506	9.95E-04
223.522	0.034907192	0.0355133	0	0.034907	0.099506	9.95E-04
223.5275	0.034903216	0.0355133	0	0.034903	0.099506	9.95E-04
223.5303	0.034902474	0.0355133	0	0.034902	0.099506	9.95E-04
223.5331	0.034899689	0.0355133	0	0.0349	0.099506	9.95E-04
223.5386	0.03489737	0.0355133	0	0.034897	0.099506	9.95E-04
223.5414	0.034918023	0.0355133	0	0.034918	0.099506	9.95E-04
223.5442	0.034918023	0.0355133	0	0.034918	0.099506	9.95E-04
223.5497	0.034938869	0.0355133	0	0.034939	0.099506	9.95E-04
223.5525	0.034936599	0.0355133	0	0.034937	0.099506	9.95E-04
223.5552	0.034910824	0.0355133	0	0.034911	0.099506	9.95E-04
223.5608	0.034930973	0.0355133	0	0.034931	0.099506	9.95E-04
223.5636	0.034931015	0.0355133	0	0.034931	0.099506	9.95E-04
223.5663	0.034928873	0.0355133	0	0.034929	0.099506	9.95E-04
223.5691	0.034927084	0.0355133	0	0.034927	0.099506	9.95E-04
223.5719	0.034927375	0.0355133	0	0.034927	0.099506	9.95E-04
223.5774	0.0349482	0.0355133	0	0.034948	0.099506	9.95E-04
223.5802	0.034945601	0.0355133	0	0.034946	0.099506	9.95E-04
223.583	0.034943082	0.0355133	0	0.034943	0.099506	9.95E-04
223.5885	0.03496327	0.0355133	0	0.034963	0.099506	9.95E-04
223.5913	0.03496327	0.0355133	0	0.034963	0.099506	9.95E-04
223.594	0.03495969	0.0355133	0	0.03496	0.099506	9.95E-04
223.5996	0.034957384	0.0355133	0	0.034957	0.099506	9.95E-04
223.6023	0.034955147	0.0355133	0	0.034955	0.099506	9.95E-04
223.6079	0.034951795	0.0355133	0	0.034952	0.099506	9.95E-04
223.6107	0.034951795	0.0355133	0	0.034952	0.099506	9.95E-04
223.6134	0.034949529	0.0355133	0	0.03495	0.099506	9.95E-04
223.619	0.034921926	0.0355133	0	0.034922	0.099506	9.95E-04
223.6217	0.03489893	0.0355133	0	0.034899	0.099506	9.95E-04
223.6245	0.034919376	0.0355133	0	0.034919	0.099506	9.95E-04
223.6301	0.034941749	0.0355133	0	0.034942	0.099506	9.95E-04
223.6328	0.034963118	0.0355133	0	0.034963	0.099506	9.95E-04
223.6356	0.034963752	0.0355133	0	0.034964	0.099506	9.95E-04
223.6411	0.034984026	0.0355133	0	0.034984	0.099506	9.95E-04
223.6439	0.034981348	0.0355133	0	0.034981	0.099506	9.95E-04
223.6467	0.034955461	0.0355133	0	0.034955	0.099506	9.95E-04

223.6522	0.034929405	0.0355133	0	0.034929	0.099506	9.95E-04
223.655	0.034927645	0.0355133	0	0.034928	0.099506	9.95E-04
223.6578	0.034902217	0.0355133	0	0.034902	0.099506	9.95E-04
223.6633	0.034876273	0.0355133	0	0.034876	0.099506	9.95E-04
223.6661	0.034873653	0.0355133	0	0.034874	0.099506	9.95E-04
223.6688	0.034871486	0.0355133	0	0.034871	0.099506	9.95E-04
223.6716	0.034895478	0.0355133	0	0.034895	0.099506	9.95E-04
223.6772	0.034890468	0.0355133	0	0.03489	0.099506	9.95E-04
223.6799	0.034867558	0.0355133	0	0.034868	0.099506	9.95E-04
223.6827	0.034865172	0.0355133	0	0.034865	0.099506	9.95E-04
223.6882	0.034887337	0.0355133	0	0.034887	0.099506	9.95E-04
223.691	0.034932011	0.0355133	0	0.034932	0.099506	9.95E-04
223.6965	0.03495334	0.0355133	0	0.034953	0.099506	9.95E-04
223.6993	0.034950761	0.0355133	0	0.034951	0.099506	9.95E-04
223.7049	0.03494786	0.0355133	0	0.034948	0.099506	9.95E-04
223.7076	0.034945246	0.0355133	0	0.034945	0.099506	9.95E-04
223.7132	0.034989002	0.0355133	0	0.034989	0.099506	9.95E-04
223.7159	0.034988601	0.0355133	0	0.034989	0.099506	9.95E-04
223.7187	0.035008953	0.0355133	0	0.035009	0.099506	9.95E-04
223.7215	0.034984386	0.0355133	0	0.034984	0.099506	9.95E-04
223.727	0.034930527	0.0355133	0	0.034931	0.099506	9.95E-04
223.7298	0.034930527	0.0355133	0	0.034931	0.099506	9.95E-04
223.7353	0.034856831	0.0355133	0	0.034857	0.099506	9.95E-04
223.7381	0.034853726	0.0355133	0	0.034854	0.099506	9.95E-04
223.7436	0.034850684	0.0355133	0	0.034851	0.099506	9.95E-04
223.7464	0.034756335	0.0355133	0	0.034756	0.099506	9.95E-04
223.7492	0.034754032	0.0355133	0	0.034754	0.099506	9.95E-04
223.752	0.034754032	0.0355133	0	0.034754	0.099506	9.95E-04
223.7575	0.034730423	0.0355133	0	0.03473	0.099506	9.95E-04
223.7603	0.034729919	0.0355133	0	0.03473	0.099506	9.95E-04
223.763	0.034752131	0.0355133	0	0.034752	0.099506	9.95E-04
223.7686	0.034821712	0.0355133	0	0.034822	0.099506	9.95E-04
223.7714	0.03489095	0.0355133	0	0.034891	0.099506	9.95E-04
223.7769	0.034934803	0.0355133	0	0.034935	0.099506	9.95E-04
223.7797	0.034934803	0.0355133	0	0.034935	0.099506	9.95E-04
223.7852	0.035024756	0.0355133	0	0.035025	0.099506	9.95E-04
223.788	0.035048453	0.0355133	0	0.035048	0.099506	9.95E-04
223.7935	0.035066369	0.0355133	0	0.035066	0.099506	9.95E-04
223.7963	0.035039841	0.0355133	0	0.03504	0.099506	9.95E-04
223.8018	0.035036232	0.0355133	0	0.035036	0.099506	9.95E-04
223.8046	0.035056708	0.0355133	0	0.035057	0.099506	9.95E-04
223.8074	0.035052965	0.0355133	0	0.035053	0.099506	9.95E-04
223.8129	0.035071728	0.0355133	0	0.035072	0.099506	9.95E-04
223.8157	0.035095103	0.0355133	0	0.035095	0.099506	9.95E-04
223.8185	0.035113712	0.0355133	0	0.035114	0.099506	9.95E-04
223.824	0.035131539	0.0355133	0	0.035132	0.099506	9.95E-04
223.8268	0.035155026	0.0355133	0	0.035155	0.099506	9.95E-04
223.8323	0.035169878	0.0355133	0	0.03517	0.099506	9.95E-04
223.8351	0.035169878	0.0355133	0	0.03517	0.099506	9.95E-04
223.8406	0.035159537	0.0355133	0	0.03516	0.099506	9.95E-04
223.8434	0.035159537	0.0355133	0	0.03516	0.099506	9.95E-04
223.8462	0.035177256	0.0355133	0	0.035177	0.099506	9.95E-04
223.8517	0.035172287	0.0355133	0	0.035172	0.099506	9.95E-04
223.8545	0.03516749	0.0355133	0	0.035167	0.099506	9.95E-04
223.86	0.035163473	0.0355133	0	0.035163	0.099506	9.95E-04
223.8628	0.035158544	0.0355133	0	0.035159	0.099506	9.95E-04
223.8683	0.035200118	0.0355133	0	0.0352	0.099506	9.95E-04
223.8711	0.035200118	0.0355133	0	0.0352	0.099506	9.95E-04
223.8766	0.035213836	0.0355133	0	0.035214	0.099506	9.95E-04
223.8794	0.035212953	0.0355133	0	0.035213	0.099506	9.95E-04
223.8849	0.035178987	0.0355133	0	0.035179	0.099506	9.95E-04
223.8849	0.035178987	0.0355133	0	0.035179	0.099506	9.95E-04
223.8849	0.035178987	0.0355133	0	0.035179	0.099506	9.95E-04
223.8905	0.035174413	0.0355133	0	0.035174	0.099506	9.95E-04
223.896	0.035169547	0.0355133	0	0.03517	0.099506	9.95E-04
223.9016	0.035211077	0.0355133	0	0.035211	0.099506	9.95E-04
223.9043	0.0352055	0.0355133	0	0.035206	0.099506	9.95E-04
223.9099	0.035200373	0.0355133	0	0.0352	0.099506	9.95E-04
223.9127	0.035195345	0.0355133	0	0.035195	0.099506	9.95E-04
223.9154	0.035191829	0.0355133	0	0.035192	0.099506	9.95E-04
223.921	0.035209927	0.0355133	0	0.03521	0.099506	9.95E-04
223.9237	0.035229323	0.0355133	0	0.035229	0.099506	9.95E-04
223.9293	0.035247353	0.0355133	0	0.035247	0.099506	9.95E-04
223.932	0.035246019	0.0355133	0	0.035246	0.099506	9.95E-04

223.9376	0.035213877	0.0355133	0	0.035214	0.099506	9.95E-04
223.9404	0.035208231	0.0355133	0	0.035208	0.099506	9.95E-04
223.9431	0.035206801	0.0355133	0	0.035207	0.099506	9.95E-04
223.9487	0.035224225	0.0355133	0	0.035224	0.099506	9.95E-04
223.9514	0.035243326	0.0355133	0	0.035243	0.099506	9.95E-04
223.9542	0.035237681	0.0355133	0	0.035238	0.099506	9.95E-04
223.957	0.035237681	0.0355133	0	0.035238	0.099506	9.95E-04
223.9625	0.035227673	0.0355133	0	0.035228	0.099506	9.95E-04
223.9653	0.035227673	0.0355133	0	0.035228	0.099506	9.95E-04
223.9681	0.03522269	0.0355133	0	0.035223	0.099506	9.95E-04
223.9736	0.035191091	0.0355133	0	0.035191	0.099506	9.95E-04
223.9764	0.035189724	0.0355133	0	0.03519	0.099506	9.95E-04
223.9791	0.035185004	0.0355133	0	0.035185	0.099506	9.95E-04
223.9819	0.035181403	0.0355133	0	0.035181	0.099506	9.95E-04
223.9875	0.0351753	0.0355133	0	0.035175	0.099506	9.95E-04
223.9902	0.035171955	0.0355133	0	0.035172	0.099506	9.95E-04
223.993	0.03517091	0.0355133	0	0.035171	0.099506	9.95E-04
223.9985	0.035164046	0.0355133	0	0.035164	0.099506	9.95E-04
224.0013	0.035160798	0.0355133	0	0.035161	0.099506	9.95E-04
224.0041	0.035159823	0.0355133	0	0.03516	0.099506	9.95E-04
224.0096	0.03515211	0.0355133	0	0.035152	0.099506	9.95E-04
224.0096	0.03515211	0.0355133	0	0.035152	0.099506	9.95E-04
224.0096	0.03515211	0.0355133	0	0.035152	0.099506	9.95E-04
224.0152	0.035170669	0.0355133	0	0.035171	0.099506	9.95E-04
224.0207	0.035165436	0.0355133	0	0.035165	0.099506	9.95E-04
224.0235	0.035160502	0.0355133	0	0.035161	0.099506	9.95E-04
224.029	0.035155514	0.0355133	0	0.035156	0.099506	9.95E-04
224.0318	0.035150535	0.0355133	0	0.035151	0.099506	9.95E-04
224.0346	0.035145551	0.0355133	0	0.035146	0.099506	9.95E-04
224.0401	0.035141064	0.0355133	0	0.035141	0.099506	9.95E-04
224.0429	0.035114147	0.0355133	0	0.035114	0.099506	9.95E-04
224.0456	0.035111503	0.0355133	0	0.035112	0.099506	9.95E-04
224.0484	0.035085714	0.0355133	0	0.035086	0.099506	9.95E-04
224.0512	0.03508298	0.0355133	0	0.035083	0.099506	9.95E-04
224.054	0.035079312	0.0355133	0	0.035079	0.099506	9.95E-04
224.0595	0.035075344	0.0355133	0	0.035075	0.099506	9.95E-04
224.0623	0.035048032	0.0355133	0	0.035048	0.099506	9.95E-04
224.065	0.035069029	0.0355133	0	0.035069	0.099506	9.95E-04
224.0678	0.035067496	0.0355133	0	0.035067	0.099506	9.95E-04
224.0706	0.035064997	0.0355133	0	0.035065	0.099506	9.95E-04
224.0734	0.035060784	0.0355133	0	0.035061	0.099506	9.95E-04
224.0761	0.035058963	0.0355133	0	0.035059	0.099506	9.95E-04
224.0817	0.035052295	0.0355133	0	0.035052	0.099506	9.95E-04
224.0844	0.03505104	0.0355133	0	0.035051	0.099506	9.95E-04
224.0872	0.035048619	0.0355133	0	0.035049	0.099506	9.95E-04
224.09	0.03504486	0.0355133	0	0.035045	0.099506	9.95E-04
224.0927	0.035043517	0.0355133	0	0.035044	0.099506	9.95E-04
224.0983	0.035013961	0.0355133	0	0.035014	0.099506	9.95E-04
224.1011	0.035010639	0.0355133	0	0.035011	0.099506	9.95E-04
224.1038	0.035010639	0.0355133	0	0.035011	0.099506	9.95E-04
224.1066	0.035007144	0.0355133	0	0.035007	0.099506	9.95E-04
224.1121	0.035001843	0.0355133	0	0.035002	0.099506	9.95E-04
224.1149	0.035001843	0.0355133	0	0.035002	0.099506	9.95E-04
224.1177	0.034998245	0.0355133	0	0.034998	0.099506	9.95E-04
224.1232	0.034994242	0.0355133	0	0.034994	0.099506	9.95E-04
224.126	0.034990482	0.0355133	0	0.03499	0.099506	9.95E-04
224.1288	0.034963476	0.0355133	0	0.034963	0.099506	9.95E-04
224.1315	0.034961513	0.0355133	0	0.034962	0.099506	9.95E-04
224.1343	0.034959868	0.0355133	0	0.03496	0.099506	9.95E-04
224.1398	0.034930582	0.0355133	0	0.034931	0.099506	9.95E-04
224.1426	0.03492715	0.0355133	0	0.034927	0.099506	9.95E-04
224.1454	0.034925312	0.0355133	0	0.034925	0.099506	9.95E-04
224.1482	0.034923712	0.0355133	0	0.034924	0.099506	9.95E-04
224.1537	0.034893682	0.0355133	0	0.034894	0.099506	9.95E-04
224.1565	0.034893682	0.0355133	0	0.034894	0.099506	9.95E-04
224.1592	0.03489017	0.0355133	0	0.03489	0.099506	9.95E-04
224.162	0.034886812	0.0355133	0	0.034887	0.099506	9.95E-04
224.1648	0.034886812	0.0355133	0	0.034887	0.099506	9.95E-04
224.1676	0.034884236	0.0355133	0	0.034884	0.099506	9.95E-04
224.1731	0.034833354	0.0355133	0	0.034833	0.099506	9.95E-04
224.1759	0.034831107	0.0355133	0	0.034831	0.099506	9.95E-04
224.1786	0.034829713	0.0355133	0	0.03483	0.099506	9.95E-04
224.1814	0.034828488	0.0355133	0	0.034828	0.099506	9.95E-04
224.1842	0.034802082	0.0355133	0	0.034802	0.099506	9.95E-04

224.1897	0.034799677	0.0355133	0	0.0348	0.099506	9.95E-04
224.1925	0.034796974	0.0355133	0	0.034797	0.099506	9.95E-04
224.1953	0.034771315	0.0355133	0	0.034771	0.099506	9.95E-04
224.198	0.034747207	0.0355133	0	0.034747	0.099506	9.95E-04
224.2008	0.034721266	0.0355133	0	0.034721	0.099506	9.95E-04
224.2063	0.034695846	0.0355133	0	0.034696	0.099506	9.95E-04
224.2091	0.034671685	0.0355133	0	0.034672	0.099506	9.95E-04
224.2147	0.03466935	0.0355133	0	0.034669	0.099506	9.95E-04
224.2174	0.034669087	0.0355133	0	0.034669	0.099506	9.95E-04
224.2202	0.034644251	0.0355133	0	0.034644	0.099506	9.95E-04
224.223	0.03464334	0.0355133	0	0.034643	0.099506	9.95E-04
224.2257	0.03464334	0.0355133	0	0.034643	0.099506	9.95E-04
224.2285	0.034617995	0.0355133	0	0.034618	0.099506	9.95E-04
224.2313	0.034594371	0.0355133	0	0.034594	0.099506	9.95E-04
224.234	0.034593509	0.0355133	0	0.034594	0.099506	9.95E-04
224.2424	0.034544213	0.0355133	0	0.034544	0.099506	9.95E-04
224.2479	0.034519347	0.0355133	0	0.034519	0.099506	9.95E-04
224.2507	0.0345197	0.0355133	0	0.03452	0.099506	9.95E-04
224.2562	0.034517463	0.0355133	0	0.034517	0.099506	9.95E-04
224.259	0.034517683	0.0355133	0	0.034518	0.099506	9.95E-04
224.2618	0.034492548	0.0355133	0	0.034493	0.099506	9.95E-04
224.2645	0.034492548	0.0355133	0	0.034493	0.099506	9.95E-04
224.2673	0.034467536	0.0355133	0	0.034468	0.099506	9.95E-04
224.2701	0.034444419	0.0355133	0	0.034444	0.099506	9.95E-04
224.2701	0.034444419	0.0355133	0	0.034444	0.099506	9.95E-04
224.2728	0.034443295	0.0355133	0	0.034443	0.099506	9.95E-04
224.2728	0.034443295	0.0355133	0	0.034443	0.099506	9.95E-04
224.2756	0.034442613	0.0355133	0	0.034443	0.099506	9.95E-04
224.2784	0.034443173	0.0355133	0	0.034443	0.099506	9.95E-04
224.2811	0.034419646	0.0355133	0	0.03442	0.099506	9.95E-04
224.2839	0.034419646	0.0355133	0	0.03442	0.099506	9.95E-04
224.2867	0.03441979	0.0355133	0	0.03442	0.099506	9.95E-04
224.2895	0.034419499	0.0355133	0	0.034419	0.099506	9.95E-04
224.2895	0.034419499	0.0355133	0	0.034419	0.099506	9.95E-04
224.3089	0.034349615	0.0355133	0	0.03435	0.099506	9.95E-04
224.3227	0.034326902	0.0355133	0	0.034327	0.099506	9.95E-04
224.3227	0.034326902	0.0355133	0	0.034327	0.099506	9.95E-04
224.3227	0.034326902	0.0355133	0	0.034327	0.099506	9.95E-04
224.3255	0.034327935	0.0355133	0	0.034328	0.099506	9.95E-04
224.3504	0.034280678	0.0355133	0	0.034281	0.099506	9.95E-04
224.3532	0.034280678	0.0355133	0	0.034281	0.099506	9.95E-04
224.356	0.034304168	0.0355133	0	0.034304	0.099506	9.95E-04
224.3587	0.034304023	0.0355133	0	0.034304	0.099506	9.95E-04
224.3698	0.034214148	0.0355133	0	0.034214	0.099506	9.95E-04
224.3947	0.03421942	0.0355133	0	0.034219	0.099506	9.95E-04
224.3975	0.03421942	0.0355133	0	0.034219	0.099506	9.95E-04
224.3975	0.03421942	0.0355133	0	0.034219	0.099506	9.95E-04
224.3975	0.03421942	0.0355133	0	0.034219	0.099506	9.95E-04
224.4058	0.034243937	0.0355133	0	0.034244	0.099506	9.95E-04
224.4114	0.034199176	0.0355133	0	0.034199	0.099506	9.95E-04
224.4141	0.034198752	0.0355133	0	0.034199	0.099506	9.95E-04
224.4141	0.034198752	0.0355133	0	0.034199	0.099506	9.95E-04
224.4169	0.034198818	0.0355133	0	0.034199	0.099506	9.95E-04
224.428	0.034200844	0.0355133	0	0.034201	0.099506	9.95E-04
224.4363	0.034224113	0.0355133	0	0.034224	0.099506	9.95E-04
224.4474	0.034224166	0.0355133	0	0.034224	0.099506	9.95E-04
224.4557	0.034225558	0.0355133	0	0.034226	0.099506	9.95E-04
224.464	0.034226025	0.0355133	0	0.034226	0.099506	9.95E-04
224.4751	0.034250238	0.0355133	0	0.03425	0.099506	9.95E-04
224.4806	0.034250977	0.0355133	0	0.034251	0.099506	9.95E-04
224.4834	0.034250617	0.0355133	0	0.034251	0.099506	9.95E-04
224.4862	0.034251048	0.0355133	0	0.034251	0.099506	9.95E-04
224.4917	0.034273635	0.0355133	0	0.034274	0.099506	9.95E-04
224.4973	0.034273028	0.0355133	0	0.034273	0.099506	9.95E-04
224.5028	0.034272174	0.0355133	0	0.034272	0.099506	9.95E-04
224.5083	0.034272808	0.0355133	0	0.034273	0.099506	9.95E-04
224.5139	0.034295954	0.0355133	0	0.034296	0.099506	9.95E-04
224.5194	0.034295918	0.0355133	0	0.034296	0.099506	9.95E-04
224.525	0.03429601	0.0355133	0	0.034296	0.099506	9.95E-04
224.5305	0.034318956	0.0355133	0	0.034319	0.099506	9.95E-04
224.5333	0.034318787	0.0355133	0	0.034319	0.099506	9.95E-04
224.5388	0.034319156	0.0355133	0	0.034319	0.099506	9.95E-04
224.5444	0.034341958	0.0355133	0	0.034342	0.099506	9.95E-04
224.5499	0.034342003	0.0355133	0	0.034342	0.099506	9.95E-04

224.5527	0.03436537	0.0355133	0	0.034365	0.099506	9.95E-04
224.5582	0.034364807	0.0355133	0	0.034365	0.099506	9.95E-04
224.5637	0.034340072	0.0355133	0	0.03434	0.099506	9.95E-04
224.5665	0.034362553	0.0355133	0	0.034363	0.099506	9.95E-04
224.5721	0.034383958	0.0355133	0	0.034384	0.099506	9.95E-04
224.5776	0.034359064	0.0355133	0	0.034359	0.099506	9.95E-04
224.5804	0.0343815	0.0355133	0	0.034381	0.099506	9.95E-04
224.5859	0.034379948	0.0355133	0	0.03438	0.099506	9.95E-04
224.5915	0.034354535	0.0355133	0	0.034355	0.099506	9.95E-04
224.597	0.034353327	0.0355133	0	0.034353	0.099506	9.95E-04
224.5998	0.034352468	0.0355133	0	0.034352	0.099506	9.95E-04
224.6053	0.034305351	0.0355133	0	0.034305	0.099506	9.95E-04
224.6108	0.034326975	0.0355133	0	0.034327	0.099506	9.95E-04
224.6136	0.034326317	0.0355133	0	0.034326	0.099506	9.95E-04
224.6164	0.034303843	0.0355133	0	0.034304	0.099506	9.95E-04
224.6219	0.03427987	0.0355133	0	0.03428	0.099506	9.95E-04
224.6275	0.03427957	0.0355133	0	0.03428	0.099506	9.95E-04
224.6302	0.034279182	0.0355133	0	0.034279	0.099506	9.95E-04
224.6358	0.034254199	0.0355133	0	0.034254	0.099506	9.95E-04
224.6413	0.034207735	0.0355133	0	0.034208	0.099506	9.95E-04
224.6441	0.034231081	0.0355133	0	0.034231	0.099506	9.95E-04
224.6469	0.034228743	0.0355133	0	0.034229	0.099506	9.95E-04
224.6524	0.0342068	0.0355133	0	0.034207	0.099506	9.95E-04
224.6552	0.034206622	0.0355133	0	0.034207	0.099506	9.95E-04
224.6579	0.03418266	0.0355133	0	0.034183	0.099506	9.95E-04
224.6635	0.034182848	0.0355133	0	0.034183	0.099506	9.95E-04
224.6663	0.034207402	0.0355133	0	0.034207	0.099506	9.95E-04
224.6718	0.034183903	0.0355133	0	0.034184	0.099506	9.95E-04
224.6746	0.034162651	0.0355133	0	0.034163	0.099506	9.95E-04
224.6801	0.034183757	0.0355133	0	0.034184	0.099506	9.95E-04
224.6829	0.034183194	0.0355133	0	0.034183	0.099506	9.95E-04
224.6884	0.034137035	0.0355133	0	0.034137	0.099506	9.95E-04
224.694	0.034136626	0.0355133	0	0.034137	0.099506	9.95E-04
224.6967	0.03413649	0.0355133	0	0.034136	0.099506	9.95E-04
224.7023	0.034135908	0.0355133	0	0.034136	0.099506	9.95E-04
224.705	0.034160139	0.0355133	0	0.03416	0.099506	9.95E-04
224.7106	0.034159873	0.0355133	0	0.03416	0.099506	9.95E-04
224.7161	0.034180858	0.0355133	0	0.034181	0.099506	9.95E-04
224.7217	0.034179959	0.0355133	0	0.03418	0.099506	9.95E-04
224.7244	0.034181936	0.0355133	0	0.034182	0.099506	9.95E-04
224.73	0.034178791	0.0355133	0	0.034179	0.099506	9.95E-04
224.7355	0.034133294	0.0355133	0	0.034133	0.099506	9.95E-04
224.7383	0.034132792	0.0355133	0	0.034133	0.099506	9.95E-04
224.7438	0.034132636	0.0355133	0	0.034133	0.099506	9.95E-04
224.7466	0.034156655	0.0355133	0	0.034157	0.099506	9.95E-04
224.7521	0.03417716	0.0355133	0	0.034177	0.099506	9.95E-04
224.7577	0.034155484	0.0355133	0	0.034155	0.099506	9.95E-04
224.7605	0.034176378	0.0355133	0	0.034176	0.099506	9.95E-04
224.766	0.034178877	0.0355133	0	0.034179	0.099506	9.95E-04
224.7688	0.034175761	0.0355133	0	0.034176	0.099506	9.95E-04
224.7743	0.034177817	0.0355133	0	0.034178	0.099506	9.95E-04
224.7799	0.034198625	0.0355133	0	0.034199	0.099506	9.95E-04
224.7826	0.034198625	0.0355133	0	0.034199	0.099506	9.95E-04
224.7882	0.034243539	0.0355133	0	0.034244	0.099506	9.95E-04
224.7909	0.034243539	0.0355133	0	0.034244	0.099506	9.95E-04
224.7937	0.034314091	0.0355133	0	0.034314	0.099506	9.95E-04
224.7965	0.034311791	0.0355133	0	0.034312	0.099506	9.95E-04
224.802	0.034357039	0.0355133	0	0.034357	0.099506	9.95E-04
224.8048	0.034378737	0.0355133	0	0.034379	0.099506	9.95E-04
224.8103	0.034399834	0.0355133	0	0.0344	0.099506	9.95E-04
224.8159	0.03444261	0.0355133	0	0.034443	0.099506	9.95E-04
224.8214	0.03444032	0.0355133	0	0.03444	0.099506	9.95E-04
224.827	0.034435744	0.0355133	0	0.034436	0.099506	9.95E-04
224.8297	0.034436204	0.0355133	0	0.034436	0.099506	9.95E-04
224.8353	0.034432235	0.0355133	0	0.034432	0.099506	9.95E-04
224.838	0.03443254	0.0355133	0	0.034433	0.099506	9.95E-04
224.8436	0.03447603	0.0355133	0	0.034476	0.099506	9.95E-04
224.8491	0.034473808	0.0355133	0	0.034474	0.099506	9.95E-04
224.8519	0.034471545	0.0355133	0	0.034472	0.099506	9.95E-04
224.8574	0.034492591	0.0355133	0	0.034493	0.099506	9.95E-04
224.8602	0.034490275	0.0355133	0	0.03449	0.099506	9.95E-04
224.8657	0.034559344	0.0355133	0	0.034559	0.099506	9.95E-04
224.8713	0.034555544	0.0355133	0	0.034556	0.099506	9.95E-04
224.8741	0.034624555	0.0355133	0	0.034625	0.099506	9.95E-04

224.8796	0.034642155	0.0355133	0	0.034642	0.099506	9.95E-04
224.8824	0.034642155	0.0355133	0	0.034642	0.099506	9.95E-04
224.8879	0.034779701	0.0355133	0	0.03478	0.099506	9.95E-04
224.8907	0.034773332	0.0355133	0	0.034773	0.099506	9.95E-04
224.8962	0.034744003	0.0355133	0	0.034744	0.099506	9.95E-04
224.9018	0.034739024	0.0355133	0	0.034739	0.099506	9.95E-04
224.9045	0.034757337	0.0355133	0	0.034757	0.099506	9.95E-04
224.9101	0.034752581	0.0355133	0	0.034753	0.099506	9.95E-04
224.9128	0.034772457	0.0355133	0	0.034772	0.099506	9.95E-04
224.9184	0.034767995	0.0355133	0	0.034768	0.099506	9.95E-04
224.9212	0.0347406	0.0355133	0	0.034741	0.099506	9.95E-04
224.9267	0.034736375	0.0355133	0	0.034736	0.099506	9.95E-04
224.9322	0.034727735	0.0355133	0	0.034728	0.099506	9.95E-04
224.935	0.034727735	0.0355133	0	0.034728	0.099506	9.95E-04
224.9378	0.03472381	0.0355133	0	0.034724	0.099506	9.95E-04
224.9433	0.034716339	0.0355133	0	0.034716	0.099506	9.95E-04
224.9489	0.034712176	0.0355133	0	0.034712	0.099506	9.95E-04
224.9516	0.034708879	0.0355133	0	0.034709	0.099506	9.95E-04
224.9572	0.034702473	0.0355133	0	0.034702	0.099506	9.95E-04
224.9599	0.034702473	0.0355133	0	0.034702	0.099506	9.95E-04
224.9655	0.034719341	0.0355133	0	0.034719	0.099506	9.95E-04
224.9683	0.034716747	0.0355133	0	0.034717	0.099506	9.95E-04
224.971	0.034715123	0.0355133	0	0.034715	0.099506	9.95E-04
224.9766	0.034733152	0.0355133	0	0.034733	0.099506	9.95E-04
224.9793	0.034754018	0.0355133	0	0.034754	0.099506	9.95E-04
224.9849	0.034724978	0.0355133	0	0.034725	0.099506	9.95E-04
224.9877	0.034722226	0.0355133	0	0.034722	0.099506	9.95E-04
224.9932	0.034715141	0.0355133	0	0.034715	0.099506	9.95E-04
224.996	0.034713985	0.0355133	0	0.034714	0.099506	9.95E-04
224.9987	0.034711315	0.0355133	0	0.034711	0.099506	9.95E-04
225.0043	0.034727147	0.0355133	0	0.034727	0.099506	9.95E-04
225.007	0.034727147	0.0355133	0	0.034727	0.099506	9.95E-04
225.0126	0.034815411	0.0355133	0	0.034815	0.099506	9.95E-04
225.0154	0.034783759	0.0355133	0	0.034784	0.099506	9.95E-04
225.0209	0.034778559	0.0355133	0	0.034779	0.099506	9.95E-04
225.0237	0.034773309	0.0355133	0	0.034773	0.099506	9.95E-04
225.0292	0.034768373	0.0355133	0	0.034768	0.099506	9.95E-04
225.032	0.034788708	0.0355133	0	0.034789	0.099506	9.95E-04
225.0375	0.034783646	0.0355133	0	0.034784	0.099506	9.95E-04
225.0403	0.034779097	0.0355133	0	0.034779	0.099506	9.95E-04
225.0431	0.034800948	0.0355133	0	0.034801	0.099506	9.95E-04
225.0486	0.034842022	0.0355133	0	0.034842	0.099506	9.95E-04
225.0514	0.034863748	0.0355133	0	0.034864	0.099506	9.95E-04
225.0569	0.034856647	0.0355133	0	0.034857	0.099506	9.95E-04
225.0597	0.034852747	0.0355133	0	0.034853	0.099506	9.95E-04
225.0625	0.034872654	0.0355133	0	0.034873	0.099506	9.95E-04
225.068	0.034914485	0.0355133	0	0.034914	0.099506	9.95E-04
225.0708	0.03493433	0.0355133	0	0.034934	0.099506	9.95E-04
225.0763	0.034949812	0.0355133	0	0.03495	0.099506	9.95E-04
225.0791	0.034948	0.0355133	0	0.034948	0.099506	9.95E-04
225.0846	0.034939151	0.0355133	0	0.034939	0.099506	9.95E-04
225.0874	0.034960778	0.0355133	0	0.034961	0.099506	9.95E-04
225.0929	0.034974813	0.0355133	0	0.034975	0.099506	9.95E-04
225.0957	0.034974813	0.0355133	0	0.034975	0.099506	9.95E-04
225.0985	0.034968792	0.0355133	0	0.034969	0.099506	9.95E-04
225.104	0.035010173	0.0355133	0	0.03501	0.099506	9.95E-04
225.1068	0.035004063	0.0355133	0	0.035004	0.099506	9.95E-04
225.1096	0.035002066	0.0355133	0	0.035002	0.099506	9.95E-04
225.1151	0.035017871	0.0355133	0	0.035018	0.099506	9.95E-04
225.1179	0.034987587	0.0355133	0	0.034988	0.099506	9.95E-04
225.1234	0.034981007	0.0355133	0	0.034981	0.099506	9.95E-04
225.1262	0.035000632	0.0355133	0	0.035001	0.099506	9.95E-04
225.129	0.035020038	0.0355133	0	0.03502	0.099506	9.95E-04
225.1345	0.035034621	0.0355133	0	0.035035	0.099506	9.95E-04
225.1373	0.035008939	0.0355133	0	0.035009	0.099506	9.95E-04
225.14	0.0350021	0.0355133	0	0.035002	0.099506	9.95E-04
225.1456	0.035042668	0.0355133	0	0.035043	0.099506	9.95E-04
225.1483	0.03503582	0.0355133	0	0.035036	0.099506	9.95E-04
225.1511	0.03503582	0.0355133	0	0.035036	0.099506	9.95E-04
225.1567	0.035024259	0.0355133	0	0.035024	0.099506	9.95E-04
225.1594	0.03504369	0.0355133	0	0.035044	0.099506	9.95E-04
225.165	0.035108453	0.0355133	0	0.035108	0.099506	9.95E-04
225.1677	0.035103225	0.0355133	0	0.035103	0.099506	9.95E-04
225.1705	0.035101502	0.0355133	0	0.035102	0.099506	9.95E-04

225.1733	0.03507039	0.0355133	0	0.03507	0.099506	9.95E-04
225.1788	0.035111164	0.0355133	0	0.035111	0.099506	9.95E-04
225.1816	0.035130501	0.0355133	0	0.035131	0.099506	9.95E-04
225.1844	0.035123329	0.0355133	0	0.035123	0.099506	9.95E-04
225.1899	0.035116289	0.0355133	0	0.035116	0.099506	9.95E-04
225.1927	0.035136055	0.0355133	0	0.035136	0.099506	9.95E-04
225.1954	0.03515697	0.0355133	0	0.035157	0.099506	9.95E-04
225.1982	0.035176461	0.0355133	0	0.035176	0.099506	9.95E-04
225.2038	0.03514275	0.0355133	0	0.035143	0.099506	9.95E-04
225.2065	0.035136517	0.0355133	0	0.035137	0.099506	9.95E-04
225.2093	0.035128997	0.0355133	0	0.035129	0.099506	9.95E-04
225.2148	0.035122177	0.0355133	0	0.035122	0.099506	9.95E-04
225.2176	0.035141289	0.0355133	0	0.035141	0.099506	9.95E-04
225.2204	0.035160789	0.0355133	0	0.035161	0.099506	9.95E-04
225.2259	0.035200999	0.0355133	0	0.035201	0.099506	9.95E-04
225.2287	0.035196032	0.0355133	0	0.035196	0.099506	9.95E-04
225.2315	0.035215125	0.0355133	0	0.035215	0.099506	9.95E-04
225.237	0.035205195	0.0355133	0	0.035205	0.099506	9.95E-04
225.2398	0.035205195	0.0355133	0	0.035205	0.099506	9.95E-04
225.2425	0.035144732	0.0355133	0	0.035145	0.099506	9.95E-04
225.2481	0.035138003	0.0355133	0	0.035138	0.099506	9.95E-04
225.2509	0.035131482	0.0355133	0	0.035131	0.099506	9.95E-04
225.2564	0.035124862	0.0355133	0	0.035125	0.099506	9.95E-04
225.2592	0.035144503	0.0355133	0	0.035145	0.099506	9.95E-04
225.2647	0.035184911	0.0355133	0	0.035185	0.099506	9.95E-04
225.2675	0.035204042	0.0355133	0	0.035204	0.099506	9.95E-04
225.2703	0.035297655	0.0355133	0	0.035298	0.099506	9.95E-04
225.2758	0.035436663	0.0355133	0	0.035437	0.099506	9.95E-04
225.2786	0.035457344	0.0355133	0	0.035457	0.099506	9.95E-04
225.2841	0.035492796	0.0355133	0	0.035493	0.099506	9.95E-04
225.2869	0.035513324	0.0355133	0	0.035513	0.099506	9.95E-04
225.2924	0.035435387	0.0354354	0.000218374	0.035435	0.099506	9.95E-04
225.2952	0.035435387	0.0354354	0	0.035435	0.099288	9.93E-04
225.3007	0.035430912	0.0354309	1.25383E-05	0.035431	0.099288	9.93E-04
225.3035	0.035430912	0.0354309	0	0.035431	0.099276	9.93E-04
225.3063	0.03542855	0.0354285	6.61962E-06	0.035429	0.099276	9.93E-04
225.3118	0.035169829	0.035233	0.000548037	0.03517	0.099269	9.93E-04
225.3174	0.035166522	0.035233	0	0.035167	0.098721	9.87E-04
225.3201	0.035166522	0.035233	0	0.035167	0.098721	9.87E-04
225.3229	0.035232958	0.035233	0	0.035233	0.098721	9.87E-04
225.3284	0.03500884	0.0350497	0.000513478	0.035009	0.098721	9.87E-04
225.3312	0.03500884	0.0350497	0	0.035009	0.098207	9.82E-04
225.3367	0.035031582	0.0350497	0	0.035032	0.098207	9.82E-04
225.3423	0.03502793	0.0350497	0	0.035028	0.098207	9.82E-04
225.3451	0.03502793	0.0350497	0	0.035028	0.098207	9.82E-04
225.3478	0.035049701	0.0350497	0	0.03505	0.098207	9.82E-04
225.3534	0.034914699	0.0349147	0.000378267	0.034915	0.098207	9.82E-04
225.3589	0.034877073	0.0348771	0.000105427	0.034877	0.097829	9.78E-04
225.3617	0.034874839	0.0348748	6.25979E-06	0.034875	0.097724	9.77E-04
225.3645	0.034874839	0.0348748	0	0.034875	0.097717	9.77E-04
225.3672	0.034872757	0.0348728	5.83299E-06	0.034873	0.097717	9.77E-04
225.3728	0.034603484	0.0346201	0.000708003	0.034603	0.097712	9.77E-04
225.3755	0.034602302	0.0346201	0	0.034602	0.097004	9.70E-04
225.3811	0.034601026	0.0346201	0	0.034601	0.097004	9.70E-04
225.3838	0.03459964	0.0346201	0	0.0346	0.097004	9.70E-04
225.3894	0.034597975	0.0346201	0	0.034598	0.097004	9.70E-04
225.3922	0.034620075	0.0346201	0	0.03462	0.097004	9.70E-04
225.3977	0.034563526	0.0345635	0.000158446	0.034564	0.097004	9.70E-04
225.4032	0.034537264	0.0345507	3.60176E-05	0.034537	0.096845	9.68E-04
225.406	0.034483558	0.0345507	0	0.034484	0.096809	9.68E-04
225.4088	0.034482359	0.0345507	0	0.034482	0.096809	9.68E-04
225.4143	0.034550672	0.0345507	0	0.034551	0.096809	9.68E-04
225.4171	0.034498442	0.0344984	0.000146345	0.034498	0.096809	9.68E-04
225.4226	0.034473121	0.0344731	7.09487E-05	0.034473	0.096663	9.67E-04
225.4254	0.034472477	0.0344725	1.804E-06	0.034472	0.096592	9.66E-04
225.4309	0.034371059	0.0343711	0.000284167	0.034371	0.09659	9.66E-04
225.4365	0.034271677	0.0342717	0.000278463	0.034272	0.096306	9.63E-04
225.4393	0.034271339	0.0342713	9.48429E-07	0.034271	0.096027	9.60E-04
225.4448	0.034270761	0.0342708	1.61791E-06	0.034271	0.096027	9.60E-04
225.4476	0.034173026	0.034173	0.000273848	0.034173	0.096025	9.60E-04
225.4531	0.034149063	0.0341491	6.71444E-05	0.034149	0.095751	9.58E-04
225.4559	0.034077334	0.0341011	0.000134448	0.034077	0.095684	9.57E-04
225.4614	0.034101079	0.0341011	0	0.034101	0.095549	9.55E-04
225.4642	0.034005514	0.0340055	0.000267672	0.034006	0.095549	9.55E-04

225.4697	0.034005548	0.0340055	0	0.034006	0.095282	9.53E-04
225.4753	0.033934885	0.0339899	4.38119E-05	0.033935	0.095282	9.53E-04
225.478	0.033934885	0.0339899	0	0.033935	0.095238	9.52E-04
225.4836	0.033982151	0.0339899	0	0.033982	0.095238	9.52E-04
225.4864	0.033981587	0.0339899	0	0.033982	0.095238	9.52E-04
225.4919	0.033911195	0.0339899	0	0.033911	0.095238	9.52E-04
225.4947	0.033911736	0.0339899	0	0.033912	0.095238	9.52E-04
225.5002	0.033911555	0.0339899	0	0.033912	0.095238	9.52E-04
225.503	0.033887949	0.0339899	0	0.033888	0.095238	9.52E-04
225.5085	0.033865074	0.0339899	0	0.033865	0.095238	9.52E-04
225.5113	0.033865074	0.0339899	0	0.033865	0.095238	9.52E-04
225.5168	0.033842197	0.0339899	0	0.033842	0.095238	9.52E-04
225.5196	0.033818754	0.0339899	0	0.033819	0.095238	9.52E-04
225.5251	0.033818678	0.0339899	0	0.033819	0.095238	9.52E-04
225.5279	0.033819	0.0339899	0	0.033819	0.095238	9.52E-04
225.5335	0.033796435	0.0339899	0	0.033796	0.095238	9.52E-04
225.5362	0.033796435	0.0339899	0	0.033796	0.095238	9.52E-04
225.5418	0.033750646	0.0339899	0	0.033751	0.095238	9.52E-04
225.5445	0.03372811	0.0339899	0	0.033728	0.095238	9.52E-04
225.5501	0.033728921	0.0339899	0	0.033729	0.095238	9.52E-04
225.5529	0.033729776	0.0339899	0	0.03373	0.095238	9.52E-04
225.5584	0.033708271	0.0339899	0	0.033708	0.095238	9.52E-04
225.5584	0.033708271	0.0339899	0	0.033708	0.095238	9.52E-04
225.5639	0.033708677	0.0339899	0	0.033709	0.095238	9.52E-04
225.5667	0.033709115	0.0339899	0	0.033709	0.095238	9.52E-04
225.5723	0.033686312	0.0339899	0	0.033686	0.095238	9.52E-04
225.575	0.033687174	0.0339899	0	0.033687	0.095238	9.52E-04
225.5778	0.033687402	0.0339899	0	0.033687	0.095238	9.52E-04
225.5833	0.03368763	0.0339899	0	0.033688	0.095238	9.52E-04
225.5861	0.033641662	0.0339899	0	0.033642	0.095238	9.52E-04
225.5889	0.033642553	0.0339899	0	0.033643	0.095238	9.52E-04
225.5916	0.03361934	0.0339899	0	0.033619	0.095238	9.52E-04
225.5972	0.033597792	0.0339899	0	0.033598	0.095238	9.52E-04
225.6	0.033598549	0.0339899	0	0.033599	0.095238	9.52E-04
225.6027	0.033598549	0.0339899	0	0.033599	0.095238	9.52E-04
225.6055	0.033576379	0.0339899	0	0.033576	0.095238	9.52E-04
225.611	0.033532505	0.0339899	0	0.033533	0.095238	9.52E-04
225.6138	0.033556647	0.0339899	0	0.033557	0.095238	9.52E-04
225.6166	0.033556369	0.0339899	0	0.033556	0.095238	9.52E-04
225.6194	0.033557965	0.0339899	0	0.033558	0.095238	9.52E-04
225.6221	0.033513044	0.0339899	0	0.033513	0.095238	9.52E-04
225.6277	0.033514464	0.0339899	0	0.033514	0.095238	9.52E-04
225.6304	0.033516073	0.0339899	0	0.033516	0.095238	9.52E-04
225.6332	0.033494368	0.0339899	0	0.033494	0.095238	9.52E-04
225.636	0.033473526	0.0339899	0	0.033474	0.095238	9.52E-04
225.6387	0.033473526	0.0339899	0	0.033474	0.095238	9.52E-04
225.6415	0.033499304	0.0339899	0	0.033499	0.095238	9.52E-04
225.6471	0.033523771	0.0339899	0	0.033524	0.095238	9.52E-04
225.6498	0.033525166	0.0339899	0	0.033525	0.095238	9.52E-04
225.6526	0.033524901	0.0339899	0	0.033525	0.095238	9.52E-04
225.6554	0.033572568	0.0339899	0	0.033573	0.095238	9.52E-04
225.6581	0.033572587	0.0339899	0	0.033573	0.095238	9.52E-04
225.6637	0.03357542	0.0339899	0	0.033575	0.095238	9.52E-04
225.6665	0.033575389	0.0339899	0	0.033575	0.095238	9.52E-04
225.6692	0.033576893	0.0339899	0	0.033577	0.095238	9.52E-04
225.672	0.03355502	0.0339899	0	0.033555	0.095238	9.52E-04
225.6748	0.033556542	0.0339899	0	0.033557	0.095238	9.52E-04
225.6803	0.033557945	0.0339899	0	0.033558	0.095238	9.52E-04
225.6831	0.033559382	0.0339899	0	0.033559	0.095238	9.52E-04
225.6858	0.033559382	0.0339899	0	0.033559	0.095238	9.52E-04
225.6886	0.033537699	0.0339899	0	0.033538	0.095238	9.52E-04
225.6942	0.033517974	0.0339899	0	0.033518	0.095238	9.52E-04
225.6969	0.033517618	0.0339899	0	0.033518	0.095238	9.52E-04
225.7025	0.03349783	0.0339899	0	0.033498	0.095238	9.52E-04
225.708	0.033499374	0.0339899	0	0.033499	0.095238	9.52E-04
225.7108	0.033477815	0.0339899	0	0.033478	0.095238	9.52E-04
225.7163	0.033412104	0.0339899	0	0.033412	0.095238	9.52E-04
225.7191	0.033391199	0.0339899	0	0.033391	0.095238	9.52E-04
225.7219	0.033370005	0.0339899	0	0.03337	0.095238	9.52E-04
225.7274	0.033373122	0.0339899	0	0.033373	0.095238	9.52E-04
225.7302	0.033376422	0.0339899	0	0.033376	0.095238	9.52E-04
225.7329	0.033376422	0.0339899	0	0.033376	0.095238	9.52E-04
225.7357	0.033402533	0.0339899	0	0.033403	0.095238	9.52E-04
225.7413	0.033405084	0.0339899	0	0.033405	0.095238	9.52E-04

225.744	0.033384094	0.0339899	0	0.033384	0.095238	9.52E-04
225.7496	0.033386033	0.0339899	0	0.033386	0.095238	9.52E-04
225.7523	0.033388804	0.0339899	0	0.033389	0.095238	9.52E-04
225.7551	0.033388804	0.0339899	0	0.033389	0.095238	9.52E-04
225.7607	0.033370083	0.0339899	0	0.03337	0.095238	9.52E-04
225.7634	0.033372669	0.0339899	0	0.033373	0.095238	9.52E-04
225.769	0.033374841	0.0339899	0	0.033375	0.095238	9.52E-04
225.7717	0.033353964	0.0339899	0	0.033354	0.095238	9.52E-04
225.7773	0.033333906	0.0339899	0	0.033334	0.095238	9.52E-04
225.7828	0.033359451	0.0339899	0	0.033359	0.095238	9.52E-04
225.7911	0.033365003	0.0339899	0	0.033365	0.095238	9.52E-04
225.7994	0.033368204	0.0339899	0	0.033368	0.095238	9.52E-04
225.805	0.033370129	0.0339899	0	0.03337	0.095238	9.52E-04
225.8105	0.033352441	0.0339899	0	0.033352	0.095238	9.52E-04
225.8161	0.033332458	0.0339899	0	0.033332	0.095238	9.52E-04
225.8188	0.03333464	0.0339899	0	0.033335	0.095238	9.52E-04
225.8244	0.033315446	0.0339899	0	0.033315	0.095238	9.52E-04
225.8271	0.033318358	0.0339899	0	0.033318	0.095238	9.52E-04
225.8327	0.033344385	0.0339899	0	0.033344	0.095238	9.52E-04
225.8355	0.033344472	0.0339899	0	0.033344	0.095238	9.52E-04
225.841	0.033349806	0.0339899	0	0.03335	0.095238	9.52E-04
225.8465	0.033329709	0.0339899	0	0.03333	0.095238	9.52E-04
225.8493	0.033308531	0.0339899	0	0.033309	0.095238	9.52E-04
225.8549	0.033310763	0.0339899	0	0.033311	0.095238	9.52E-04
225.8604	0.033316153	0.0339899	0	0.033316	0.095238	9.52E-04
225.8715	0.033279254	0.0339899	0	0.033279	0.095238	9.52E-04
225.877	0.0332824	0.0339899	0	0.033282	0.095238	9.52E-04
225.8826	0.033284958	0.0339899	0	0.033285	0.095238	9.52E-04
225.8881	0.033289406	0.0339899	0	0.033289	0.095238	9.52E-04
225.8936	0.033291798	0.0339899	0	0.033292	0.095238	9.52E-04
225.8964	0.033248843	0.0339899	0	0.033249	0.095238	9.52E-04
225.902	0.03325199	0.0339899	0	0.033252	0.095238	9.52E-04
225.9075	0.033257133	0.0339899	0	0.033257	0.095238	9.52E-04
225.9103	0.033256836	0.0339899	0	0.033257	0.095238	9.52E-04
225.9158	0.033262038	0.0339899	0	0.033262	0.095238	9.52E-04
225.9186	0.033261826	0.0339899	0	0.033262	0.095238	9.52E-04
225.9213	0.03338056	0.0339899	0	0.033381	0.095238	9.52E-04
225.9269	0.033358084	0.0339899	0	0.033358	0.095238	9.52E-04
225.9297	0.033358084	0.0339899	0	0.033358	0.095238	9.52E-04
225.9352	0.033380795	0.0339899	0	0.033381	0.095238	9.52E-04
225.938	0.033473451	0.0339899	0	0.033473	0.095238	9.52E-04
225.9407	0.03351892	0.0339899	0	0.033519	0.095238	9.52E-04
225.9463	0.033497219	0.0339899	0	0.033497	0.095238	9.52E-04
225.9491	0.033497782	0.0339899	0	0.033498	0.095238	9.52E-04
225.9518	0.033543319	0.0339899	0	0.033543	0.095238	9.52E-04
225.9546	0.03352013	0.0339899	0	0.03352	0.095238	9.52E-04
225.9601	0.033475672	0.0339899	0	0.033476	0.095238	9.52E-04
225.9629	0.033453255	0.0339899	0	0.033453	0.095238	9.52E-04
225.9684	0.033476495	0.0339899	0	0.033476	0.095238	9.52E-04
225.9712	0.03347682	0.0339899	0	0.033477	0.095238	9.52E-04
225.9768	0.03347721	0.0339899	0	0.033477	0.095238	9.52E-04
225.9795	0.033478053	0.0339899	0	0.033478	0.095238	9.52E-04
225.9823	0.033478716	0.0339899	0	0.033479	0.095238	9.52E-04
225.9878	0.033502113	0.0339899	0	0.033502	0.095238	9.52E-04
225.9906	0.033502113	0.0339899	0	0.033502	0.095238	9.52E-04
225.9934	0.033502304	0.0339899	0	0.033502	0.095238	9.52E-04
225.9989	0.03352484	0.0339899	0	0.033525	0.095238	9.52E-04
226.0017	0.033525397	0.0339899	0	0.033525	0.095238	9.52E-04
226.0072	0.033525538	0.0339899	0	0.033526	0.095238	9.52E-04
226.01	0.033526068	0.0339899	0	0.033526	0.095238	9.52E-04
226.0128	0.033503956	0.0339899	0	0.033504	0.095238	9.52E-04
226.0183	0.033504696	0.0339899	0	0.033505	0.095238	9.52E-04
226.0211	0.033528254	0.0339899	0	0.033528	0.095238	9.52E-04
226.0266	0.033528634	0.0339899	0	0.033529	0.095238	9.52E-04
226.0294	0.033528921	0.0339899	0	0.033529	0.095238	9.52E-04
226.0349	0.033551637	0.0339899	0	0.033552	0.095238	9.52E-04
226.0377	0.033551282	0.0339899	0	0.033551	0.095238	9.52E-04
226.0433	0.033573726	0.0339899	0	0.033574	0.095238	9.52E-04
226.046	0.033573726	0.0339899	0	0.033574	0.095238	9.52E-04
226.0516	0.033573598	0.0339899	0	0.033574	0.095238	9.52E-04
226.0543	0.033573598	0.0339899	0	0.033574	0.095238	9.52E-04
226.0599	0.033641413	0.0339899	0	0.033641	0.095238	9.52E-04
226.0626	0.033641022	0.0339899	0	0.033641	0.095238	9.52E-04
226.0682	0.033730816	0.0339899	0	0.033731	0.095238	9.52E-04

226.071	0.03373036	0.0339899	0	0.03373	0.095238	9.52E-04
226.0765	0.033796371	0.0339899	0	0.033796	0.095238	9.52E-04
226.0793	0.033796567	0.0339899	0	0.033797	0.095238	9.52E-04
226.082	0.033838496	0.0339899	0	0.033838	0.095238	9.52E-04
226.0876	0.033838401	0.0339899	0	0.033838	0.095238	9.52E-04
226.0904	0.033903863	0.0339899	0	0.033904	0.095238	9.52E-04
226.0959	0.03392727	0.0339899	0	0.033927	0.095238	9.52E-04
226.0987	0.033946926	0.0339899	0	0.033947	0.095238	9.52E-04
226.1042	0.033966468	0.0339899	0	0.033966	0.095238	9.52E-04
226.107	0.033989912	0.0339899	0	0.03399	0.095238	9.52E-04
226.1125	0.033983947	0.0339839	1.67145E-05	0.033984	0.095238	9.52E-04
226.1153	0.033889376	0.0338894	0.000264984	0.033889	0.095221	9.52E-04
226.1181	0.033865379	0.0338654	6.72365E-05	0.033865	0.094956	9.50E-04
226.1236	0.033679635	0.0336796	0.000520445	0.03368	0.094889	9.49E-04
226.1264	0.033542533	0.0336733	1.77109E-05	0.033543	0.094369	9.44E-04
226.1319	0.033363282	0.0336733	0	0.033363	0.094351	9.44E-04
226.1347	0.03327439	0.0336733	0	0.033274	0.094351	9.44E-04
226.1375	0.033275747	0.0336733	0	0.033276	0.094351	9.44E-04
226.143	0.033278347	0.0336733	0	0.033278	0.094351	9.44E-04
226.1458	0.033280317	0.0336733	0	0.03328	0.094351	9.44E-04
226.1513	0.033304019	0.0336733	0	0.033304	0.094351	9.44E-04
226.1541	0.033330755	0.0336733	0	0.033331	0.094351	9.44E-04
226.1568	0.03332947	0.0336733	0	0.033329	0.094351	9.44E-04
226.1624	0.033335175	0.0336733	0	0.033335	0.094351	9.44E-04
226.1679	0.033358449	0.0336733	0	0.033358	0.094351	9.44E-04
226.1707	0.033383	0.0336733	0	0.033383	0.094351	9.44E-04
226.1735	0.033381111	0.0336733	0	0.033381	0.094351	9.44E-04
226.179	0.033406134	0.0336733	0	0.033406	0.094351	9.44E-04
226.1818	0.033430278	0.0336733	0	0.03343	0.094351	9.44E-04
226.1873	0.033431021	0.0336733	0	0.033431	0.094351	9.44E-04
226.1901	0.033431777	0.0336733	0	0.033432	0.094351	9.44E-04
226.1956	0.033476434	0.0336733	0	0.033476	0.094351	9.44E-04
226.1984	0.033499917	0.0336733	0	0.0335	0.094351	9.44E-04
226.2012	0.033499917	0.0336733	0	0.0335	0.094351	9.44E-04
226.2067	0.03352389	0.0336733	0	0.033524	0.094351	9.44E-04
226.2095	0.033521956	0.0336733	0	0.033522	0.094351	9.44E-04
226.215	0.033524418	0.0336733	0	0.033524	0.094351	9.44E-04
226.2178	0.033545489	0.0336733	0	0.033545	0.094351	9.44E-04
226.2233	0.033547505	0.0336733	0	0.033548	0.094351	9.44E-04
226.2261	0.033545543	0.0336733	0	0.033546	0.094351	9.44E-04
226.2289	0.03356879	0.0336733	0	0.033569	0.094351	9.44E-04
226.2344	0.033547357	0.0336733	0	0.033547	0.094351	9.44E-04
226.24	0.033568038	0.0336733	0	0.033568	0.094351	9.44E-04
226.2427	0.033567903	0.0336733	0	0.033568	0.094351	9.44E-04
226.2483	0.033590839	0.0336733	0	0.033591	0.094351	9.44E-04
226.251	0.03358871	0.0336733	0	0.033589	0.094351	9.44E-04
226.2566	0.0335895	0.0336733	0	0.03359	0.094351	9.44E-04
226.2594	0.033587404	0.0336733	0	0.033587	0.094351	9.44E-04
226.2649	0.033609933	0.0336733	0	0.03361	0.094351	9.44E-04
226.2677	0.033632367	0.0336733	0	0.033632	0.094351	9.44E-04
226.2732	0.033631792	0.0336733	0	0.033632	0.094351	9.44E-04
226.2788	0.033629242	0.0336733	0	0.033629	0.094351	9.44E-04
226.2815	0.033629242	0.0336733	0	0.033629	0.094351	9.44E-04
226.2871	0.033673314	0.0336733	0	0.033673	0.094351	9.44E-04
226.2898	0.033673314	0.0336733	1.94424E-17	0.033673	0.094351	9.44E-04
226.2954	0.033669298	0.0336693	1.12522E-05	0.033669	0.094351	9.44E-04
226.2981	0.033511891	0.0335119	0.000441047	0.033512	0.09434	9.43E-04
226.3037	0.033154262	0.0333936	0.000331559	0.033154	0.093899	9.39E-04
226.3065	0.033066454	0.0333936	0	0.033066	0.093567	9.36E-04
226.312	0.033070528	0.0333936	0	0.033071	0.093567	9.36E-04
226.3148	0.033070528	0.0333936	0	0.033071	0.093567	9.36E-04
226.3203	0.033121904	0.0333936	0	0.033122	0.093567	9.36E-04
226.3231	0.033118465	0.0333936	0	0.033118	0.093567	9.36E-04
226.3259	0.033147525	0.0333936	0	0.033148	0.093567	9.36E-04
226.3314	0.033146796	0.0333936	0	0.033147	0.093567	9.36E-04
226.3369	0.033125355	0.0333936	0	0.033125	0.093567	9.36E-04
226.3397	0.033130765	0.0333936	0	0.033131	0.093567	9.36E-04
226.3453	0.033134644	0.0333936	0	0.033135	0.093567	9.36E-04
226.3508	0.033160502	0.0333936	0	0.033161	0.093567	9.36E-04
226.3563	0.033139504	0.0333936	0	0.03314	0.093567	9.36E-04
226.3591	0.033117504	0.0333936	0	0.033118	0.093567	9.36E-04
226.3646	0.033143819	0.0333936	0	0.033144	0.093567	9.36E-04
226.3674	0.033140182	0.0333936	0	0.03314	0.093567	9.36E-04
226.373	0.033147576	0.0333936	0	0.033148	0.093567	9.36E-04

226.3757	0.033144449	0.0333936	0	0.033144	0.093567	9.36E-04
226.3813	0.033151598	0.0333936	0	0.033152	0.093567	9.36E-04
226.384	0.03314871	0.0333936	0	0.033149	0.093567	9.36E-04
226.3896	0.03315584	0.0333936	0	0.033156	0.093567	9.36E-04
226.3951	0.033157649	0.0333936	0	0.033158	0.093567	9.36E-04
226.3979	0.033112962	0.0333936	0	0.033113	0.093567	9.36E-04
226.4007	0.033118006	0.0333936	0	0.033118	0.093567	9.36E-04
226.4062	0.033140101	0.0333936	0	0.03314	0.093567	9.36E-04
226.409	0.033141881	0.0333936	0	0.033142	0.093567	9.36E-04
226.4117	0.033141881	0.0333936	0	0.033142	0.093567	9.36E-04
226.4173	0.033122385	0.0333936	0	0.033122	0.093567	9.36E-04
226.4201	0.033126816	0.0333936	0	0.033127	0.093567	9.36E-04
226.4228	0.033123559	0.0333936	0	0.033124	0.093567	9.36E-04
226.4284	0.033106131	0.0333936	0	0.033106	0.093567	9.36E-04
226.4311	0.033084914	0.0333936	0	0.033085	0.093567	9.36E-04
226.4367	0.03308732	0.0333936	0	0.033087	0.093567	9.36E-04
226.4395	0.033065856	0.0333936	0	0.033066	0.093567	9.36E-04
226.445	0.033049706	0.0333936	0	0.03305	0.093567	9.36E-04
226.4478	0.033046621	0.0333936	0	0.033047	0.093567	9.36E-04
226.4505	0.033052148	0.0333936	0	0.033052	0.093567	9.36E-04
226.4561	0.033009308	0.0333936	0	0.033009	0.093567	9.36E-04
226.4616	0.033011839	0.0333936	0	0.033012	0.093567	9.36E-04
226.4644	0.033014335	0.0333936	0	0.033014	0.093567	9.36E-04
226.4699	0.032976185	0.0333936	0	0.032976	0.093567	9.36E-04
226.4727	0.032976185	0.0333936	0	0.032976	0.093567	9.36E-04
226.4782	0.032981707	0.0333936	0	0.032982	0.093567	9.36E-04
226.4838	0.03298435	0.0333936	0	0.032984	0.093567	9.36E-04
226.4866	0.032963458	0.0333936	0	0.032963	0.093567	9.36E-04
226.4893	0.032969298	0.0333936	0	0.032969	0.093567	9.36E-04
226.4921	0.032966902	0.0333936	0	0.032967	0.093567	9.36E-04
226.4976	0.032951343	0.0333936	0	0.032951	0.093567	9.36E-04
226.5032	0.032951088	0.0333936	0	0.032951	0.093567	9.36E-04
226.5059	0.032956489	0.0333936	0	0.032956	0.093567	9.36E-04
226.5115	0.032914787	0.0333936	0	0.032915	0.093567	9.36E-04
226.5143	0.032920939	0.0333936	0	0.032921	0.093567	9.36E-04
226.5198	0.032921076	0.0333936	0	0.032921	0.093567	9.36E-04
226.5253	0.032883244	0.0333936	0	0.032883	0.093567	9.36E-04
226.5281	0.032886841	0.0333936	0	0.032887	0.093567	9.36E-04
226.5309	0.032886841	0.0333936	0	0.032887	0.093567	9.36E-04
226.5364	0.032893675	0.0333936	0	0.032894	0.093567	9.36E-04
226.5392	0.032893675	0.0333936	0	0.032894	0.093567	9.36E-04
226.542	0.032896982	0.0333936	0	0.032897	0.093567	9.36E-04
226.5475	0.032899782	0.0333936	0	0.0329	0.093567	9.36E-04
226.5503	0.032902728	0.0333936	0	0.032903	0.093567	9.36E-04
226.5558	0.032905651	0.0333936	0	0.032906	0.093567	9.36E-04
226.5586	0.032951593	0.0333936	0	0.032952	0.093567	9.36E-04
226.5641	0.032954561	0.0333936	0	0.032955	0.093567	9.36E-04
226.5669	0.032957213	0.0333936	0	0.032957	0.093567	9.36E-04
226.5724	0.032942055	0.0333936	0	0.032942	0.093567	9.36E-04
226.5752	0.032961977	0.0333936	0	0.032962	0.093567	9.36E-04
226.5808	0.032969476	0.0333936	0	0.032969	0.093567	9.36E-04
226.5835	0.032966507	0.0333936	0	0.032967	0.093567	9.36E-04
226.5863	0.032992034	0.0333936	0	0.032992	0.093567	9.36E-04
226.5918	0.032996697	0.0333936	0	0.032997	0.093567	9.36E-04
226.5946	0.032996697	0.0333936	0	0.032997	0.093567	9.36E-04
226.5974	0.032999569	0.0333936	0	0.033	0.093567	9.36E-04
226.6029	0.033003239	0.0333936	0	0.033003	0.093567	9.36E-04
226.6057	0.03300653	0.0333936	0	0.033007	0.093567	9.36E-04
226.6085	0.03300653	0.0333936	0	0.033007	0.093567	9.36E-04
226.6112	0.033009078	0.0333936	0	0.033009	0.093567	9.36E-04
226.6168	0.033053763	0.0333936	0	0.033054	0.093567	9.36E-04
226.6195	0.033079202	0.0333936	0	0.033079	0.093567	9.36E-04
226.6223	0.0330574	0.0333936	0	0.033057	0.093567	9.36E-04
226.6279	0.033059325	0.0333936	0	0.033059	0.093567	9.36E-04
226.6306	0.03308409	0.0333936	0	0.033084	0.093567	9.36E-04
226.6334	0.033108928	0.0333936	0	0.033109	0.093567	9.36E-04
226.6389	0.033153068	0.0333936	0	0.033153	0.093567	9.36E-04
226.6445	0.033154275	0.0333936	0	0.033154	0.093567	9.36E-04
226.6472	0.033155117	0.0333936	0	0.033155	0.093567	9.36E-04
226.6528	0.033198637	0.0333936	0	0.033199	0.093567	9.36E-04
226.6583	0.033223086	0.0333936	0	0.033223	0.093567	9.36E-04
226.6611	0.033223086	0.0333936	0	0.033223	0.093567	9.36E-04
226.6666	0.033246936	0.0333936	0	0.033247	0.093567	9.36E-04
226.6694	0.033266071	0.0333936	0	0.033266	0.093567	9.36E-04

226.6722	0.033289467	0.0333936	0	0.033289	0.093567	9.36E-04
226.6777	0.033271152	0.0333936	0	0.033271	0.093567	9.36E-04
226.6805	0.033266565	0.0333936	0	0.033267	0.093567	9.36E-04
226.686	0.033315103	0.0333936	0	0.033315	0.093567	9.36E-04
226.6888	0.033310596	0.0333936	0	0.033311	0.093567	9.36E-04
226.6916	0.033315735	0.0333936	0	0.033316	0.093567	9.36E-04
226.6971	0.03329371	0.0333936	0	0.033294	0.093567	9.36E-04
226.6999	0.03329371	0.0333936	0	0.033294	0.093567	9.36E-04
226.7027	0.033270486	0.0333936	0	0.03327	0.093567	9.36E-04
226.7082	0.033252485	0.0333936	0	0.033252	0.093567	9.36E-04
226.711	0.033248504	0.0333936	0	0.033249	0.093567	9.36E-04
226.7137	0.033253248	0.0333936	0	0.033253	0.093567	9.36E-04
226.7165	0.033253674	0.0333936	0	0.033254	0.093567	9.36E-04
226.7193	0.033272816	0.0333936	0	0.033273	0.093567	9.36E-04
226.7221	0.033273768	0.0333936	0	0.033274	0.093567	9.36E-04
226.7276	0.033255278	0.0333936	0	0.033255	0.093567	9.36E-04
226.7331	0.033298617	0.0333936	0	0.033299	0.093567	9.36E-04
226.7387	0.033279531	0.0333936	0	0.03328	0.093567	9.36E-04
226.7414	0.033274952	0.0333936	0	0.033275	0.093567	9.36E-04
226.7442	0.033274915	0.0333936	0	0.033275	0.093567	9.36E-04
226.7498	0.033275095	0.0333936	0	0.033275	0.093567	9.36E-04
226.7553	0.033275506	0.0333936	0	0.033276	0.093567	9.36E-04
226.7581	0.033280511	0.0333936	0	0.033281	0.093567	9.36E-04
226.7608	0.033275789	0.0333936	0	0.033276	0.093567	9.36E-04
226.7664	0.03325778	0.0333936	0	0.033258	0.093567	9.36E-04
226.7692	0.033258282	0.0333936	0	0.033258	0.093567	9.36E-04
226.7719	0.033253995	0.0333936	0	0.033254	0.093567	9.36E-04
226.7775	0.033212279	0.0333936	0	0.033212	0.093567	9.36E-04
226.783	0.033166441	0.0333936	0	0.033166	0.093567	9.36E-04
226.7885	0.033153144	0.0333936	0	0.033153	0.093567	9.36E-04
226.7885	0.033153144	0.0333936	0	0.033153	0.093567	9.36E-04
226.7941	0.033084444	0.0333936	0	0.033084	0.093567	9.36E-04
226.7969	0.033089598	0.0333936	0	0.03309	0.093567	9.36E-04
226.7996	0.033045611	0.0333936	0	0.033046	0.093567	9.36E-04
226.8052	0.033024823	0.0333936	0	0.033025	0.093567	9.36E-04
226.8079	0.033029668	0.0333936	0	0.03303	0.093567	9.36E-04
226.8135	0.033008619	0.0333936	0	0.033009	0.093567	9.36E-04
226.8163	0.032987384	0.0333936	0	0.032987	0.093567	9.36E-04
226.8218	0.032989568	0.0333936	0	0.03299	0.093567	9.36E-04
226.8246	0.032991896	0.0333936	0	0.032992	0.093567	9.36E-04
226.8301	0.032994253	0.0333936	0	0.032994	0.093567	9.36E-04
226.8356	0.032999309	0.0333936	0	0.032999	0.093567	9.36E-04
226.8384	0.032999309	0.0333936	0	0.032999	0.093567	9.36E-04
226.844	0.032984344	0.0333936	0	0.032984	0.093567	9.36E-04
226.8467	0.032981241	0.0333936	0	0.032981	0.093567	9.36E-04
226.8495	0.032983298	0.0333936	0	0.032983	0.093567	9.36E-04
226.855	0.032962591	0.0333936	0	0.032963	0.093567	9.36E-04
226.8578	0.032967638	0.0333936	0	0.032968	0.093567	9.36E-04
226.8634	0.032901007	0.0333936	0	0.032901	0.093567	9.36E-04
226.8661	0.032906096	0.0333936	0	0.032906	0.093567	9.36E-04
226.8689	0.03291112	0.0333936	0	0.032911	0.093567	9.36E-04
226.8744	0.032869888	0.0333936	0	0.03287	0.093567	9.36E-04
226.8772	0.032845591	0.0333936	0	0.032846	0.093567	9.36E-04
226.8827	0.032831277	0.0333936	0	0.032831	0.093567	9.36E-04
226.8855	0.032831277	0.0333936	0	0.032831	0.093567	9.36E-04
226.8911	0.032817717	0.0333936	0	0.032818	0.093567	9.36E-04
226.8938	0.032816029	0.0333936	0	0.032816	0.093567	9.36E-04
226.8966	0.032819792	0.0333936	0	0.03282	0.093567	9.36E-04
226.9021	0.032801633	0.0333936	0	0.032802	0.093567	9.36E-04
226.9049	0.032830122	0.0333936	0	0.03283	0.093567	9.36E-04
226.9105	0.032832474	0.0333936	0	0.032832	0.093567	9.36E-04
226.9132	0.032837306	0.0333936	0	0.032837	0.093567	9.36E-04
226.9188	0.032860786	0.0333936	0	0.032861	0.093567	9.36E-04
226.9354	0.032894609	0.0333936	0	0.032895	0.093567	9.36E-04
226.9382	0.032915178	0.0333936	0	0.032915	0.093567	9.36E-04
226.9492	0.032944542	0.0333936	0	0.032945	0.093567	9.36E-04
226.952	0.032968137	0.0333936	0	0.032968	0.093567	9.36E-04
226.9548	0.032966076	0.0333936	0	0.032966	0.093567	9.36E-04
226.9576	0.032969825	0.0333936	0	0.03297	0.093567	9.36E-04
226.9603	0.032971771	0.0333936	0	0.032972	0.093567	9.36E-04
226.9631	0.032969432	0.0333936	0	0.032969	0.093567	9.36E-04
226.9686	0.032975329	0.0333936	0	0.032975	0.093567	9.36E-04
226.9714	0.032973312	0.0333936	0	0.032973	0.093567	9.36E-04
226.9769	0.032979494	0.0333936	0	0.032979	0.093567	9.36E-04

226.9797	0.03299985	0.0333936	0	0.033	0.093567	9.36E-04
226.9853	0.033024997	0.0333936	0	0.033025	0.093567	9.36E-04
226.9908	0.033050142	0.0333936	0	0.03305	0.093567	9.36E-04
226.9936	0.033047946	0.0333936	0	0.033048	0.093567	9.36E-04
226.9991	0.033072164	0.0333936	0	0.033072	0.093567	9.36E-04
227.0019	0.033073422	0.0333936	0	0.033073	0.093567	9.36E-04
227.0074	0.033075043	0.0333936	0	0.033075	0.093567	9.36E-04
227.0102	0.033099041	0.0333936	0	0.033099	0.093567	9.36E-04
227.013	0.033100474	0.0333936	0	0.0331	0.093567	9.36E-04
227.0185	0.033101586	0.0333936	0	0.033102	0.093567	9.36E-04
227.024	0.033102294	0.0333936	0	0.033102	0.093567	9.36E-04
227.0268	0.033103716	0.0333936	0	0.033104	0.093567	9.36E-04
227.0324	0.033105056	0.0333936	0	0.033105	0.093567	9.36E-04
227.0379	0.03310773	0.0333936	0	0.033108	0.093567	9.36E-04
227.0407	0.03310773	0.0333936	0	0.033108	0.093567	9.36E-04
227.0462	0.033110519	0.0333936	0	0.033111	0.093567	9.36E-04
227.049	0.033110519	0.0333936	0	0.033111	0.093567	9.36E-04
227.0545	0.033113224	0.0333936	0	0.033113	0.093567	9.36E-04
227.0628	0.033115399	0.0333936	0	0.033115	0.093567	9.36E-04
227.0739	0.033117705	0.0333936	0	0.033118	0.093567	9.36E-04
227.0795	0.033141771	0.0333936	0	0.033142	0.093567	9.36E-04
227.0878	0.033119837	0.0333936	0	0.03312	0.093567	9.36E-04
227.0961	0.033120223	0.0333936	0	0.03312	0.093567	9.36E-04
227.0989	0.033121054	0.0333936	0	0.033121	0.093567	9.36E-04
227.1072	0.033100833	0.0333936	0	0.033101	0.093567	9.36E-04
227.1099	0.033103966	0.0333936	0	0.033104	0.093567	9.36E-04
227.1127	0.033102187	0.0333936	0	0.033102	0.093567	9.36E-04
227.1127	0.033102187	0.0333936	0	0.033102	0.093567	9.36E-04
227.1155	0.033125925	0.0333936	0	0.033126	0.093567	9.36E-04
227.1183	0.033104429	0.0333936	0	0.033104	0.093567	9.36E-04
227.1183	0.033104429	0.0333936	0	0.033104	0.093567	9.36E-04
227.121	0.033107797	0.0333936	0	0.033108	0.093567	9.36E-04
227.121	0.033107797	0.0333936	0	0.033108	0.093567	9.36E-04
227.1238	0.033105745	0.0333936	0	0.033106	0.093567	9.36E-04
227.1238	0.033105745	0.0333936	0	0.033106	0.093567	9.36E-04
227.1238	0.033105745	0.0333936	0	0.033106	0.093567	9.36E-04
227.1266	0.033107099	0.0333936	0	0.033107	0.093567	9.36E-04
227.1266	0.033107099	0.0333936	0	0.033107	0.093567	9.36E-04
227.1266	0.033107099	0.0333936	0	0.033107	0.093567	9.36E-04
227.1293	0.033087609	0.0333936	0	0.033088	0.093567	9.36E-04
227.1293	0.033087609	0.0333936	0	0.033088	0.093567	9.36E-04
227.1321	0.033066072	0.0333936	0	0.033066	0.093567	9.36E-04
227.1321	0.033066072	0.0333936	0	0.033066	0.093567	9.36E-04
227.1349	0.033090132	0.0333936	0	0.03309	0.093567	9.36E-04
227.1376	0.033087664	0.0333936	0	0.033088	0.093567	9.36E-04
227.1432	0.033068906	0.0333936	0	0.033069	0.093567	9.36E-04
227.146	0.033070202	0.0333936	0	0.03307	0.093567	9.36E-04
227.1515	0.033071228	0.0333936	0	0.033071	0.093567	9.36E-04
227.157	0.033092718	0.0333936	0	0.033093	0.093567	9.36E-04
227.1598	0.033096259	0.0333936	0	0.033096	0.093567	9.36E-04
227.1654	0.033032544	0.0333936	0	0.033033	0.093567	9.36E-04
227.1681	0.033033499	0.0333936	0	0.033033	0.093567	9.36E-04
227.1737	0.033054855	0.0333936	0	0.033055	0.093567	9.36E-04
227.1792	0.03303711	0.0333936	0	0.033037	0.093567	9.36E-04
227.182	0.033034456	0.0333936	0	0.033034	0.093567	9.36E-04
227.1875	0.033016081	0.0333936	0	0.033016	0.093567	9.36E-04
227.1903	0.033017215	0.0333936	0	0.033017	0.093567	9.36E-04
227.1958	0.033018356	0.0333936	0	0.033018	0.093567	9.36E-04
227.2014	0.033020347	0.0333936	0	0.03302	0.093567	9.36E-04
227.2041	0.033020347	0.0333936	0	0.03302	0.093567	9.36E-04
227.2097	0.033000141	0.0333936	0	0.033	0.093567	9.36E-04
227.2125	0.032981397	0.0333936	0	0.032981	0.093567	9.36E-04
227.218	0.032980595	0.0333936	0	0.032981	0.093567	9.36E-04
227.2208	0.032985082	0.0333936	0	0.032985	0.093567	9.36E-04
227.2263	0.032988112	0.0333936	0	0.032988	0.093567	9.36E-04
227.2291	0.032985478	0.0333936	0	0.032985	0.093567	9.36E-04
227.2318	0.03298977	0.0333936	0	0.03299	0.093567	9.36E-04
227.2374	0.032968124	0.0333936	0	0.032968	0.093567	9.36E-04
227.2402	0.032969152	0.0333936	0	0.032969	0.093567	9.36E-04
227.2457	0.032970884	0.0333936	0	0.032971	0.093567	9.36E-04
227.2512	0.03295146	0.0333936	0	0.032951	0.093567	9.36E-04
227.254	0.032932943	0.0333936	0	0.032933	0.093567	9.36E-04
227.2596	0.032932785	0.0333936	0	0.032933	0.093567	9.36E-04
227.2651	0.032916427	0.0333936	0	0.032916	0.093567	9.36E-04
227.2679	0.0328953	0.0333936	0	0.032895	0.093567	9.36E-04

227.2734	0.032875365	0.0333936	0	0.032875	0.093567	9.36E-04
227.2762	0.032880466	0.0333936	0	0.03288	0.093567	9.36E-04
227.2817	0.032838992	0.0333936	0	0.032839	0.093567	9.36E-04
227.2845	0.032844359	0.0333936	0	0.032844	0.093567	9.36E-04
227.2956	0.032828752	0.0333936	0	0.032829	0.093567	9.36E-04
227.2956	0.032828752	0.0333936	0	0.032829	0.093567	9.36E-04
227.2956	0.032828752	0.0333936	0	0.032829	0.093567	9.36E-04
227.2956	0.032828752	0.0333936	0	0.032829	0.093567	9.36E-04
227.2983	0.032825671	0.0333936	0	0.032826	0.093567	9.36E-04
227.2983	0.032825671	0.0333936	0	0.032826	0.093567	9.36E-04
227.2983	0.032825671	0.0333936	0	0.032826	0.093567	9.36E-04
227.2983	0.032825671	0.0333936	0	0.032826	0.093567	9.36E-04
227.3011	0.032830891	0.0333936	0	0.032831	0.093567	9.36E-04
227.3011	0.032830891	0.0333936	0	0.032831	0.093567	9.36E-04
227.3011	0.032830891	0.0333936	0	0.032831	0.093567	9.36E-04
227.3039	0.032809693	0.0333936	0	0.03281	0.093567	9.36E-04
227.3039	0.032809693	0.0333936	0	0.03281	0.093567	9.36E-04
227.3067	0.03281233	0.0333936	0	0.032812	0.093567	9.36E-04
227.315	0.032793988	0.0333936	0	0.032794	0.093567	9.36E-04
227.3177	0.032776541	0.0333936	0	0.032777	0.093567	9.36E-04
227.3233	0.032799178	0.0333936	0	0.032799	0.093567	9.36E-04
227.3288	0.032807721	0.0333936	0	0.032808	0.093567	9.36E-04
227.3316	0.032782447	0.0333936	0	0.032782	0.093567	9.36E-04
227.3371	0.032767611	0.0333936	0	0.032768	0.093567	9.36E-04
227.3399	0.032770731	0.0333936	0	0.032771	0.093567	9.36E-04
227.3427	0.032770731	0.0333936	0	0.032771	0.093567	9.36E-04
227.3482	0.032734679	0.0333936	0	0.032735	0.093567	9.36E-04
227.3538	0.032716414	0.0333936	0	0.032716	0.093567	9.36E-04
227.3565	0.032720055	0.0333936	0	0.03272	0.093567	9.36E-04
227.3593	0.032700547	0.0333936	0	0.032701	0.093567	9.36E-04
227.3621	0.032706335	0.0333936	0	0.032706	0.093567	9.36E-04
227.3676	0.032707448	0.0333936	0	0.032707	0.093567	9.36E-04
227.3704	0.032690143	0.0333936	0	0.03269	0.093567	9.36E-04
227.3759	0.032691183	0.0333936	0	0.032691	0.093567	9.36E-04
227.3787	0.032696976	0.0333936	0	0.032697	0.093567	9.36E-04
227.3842	0.032698242	0.0333936	0	0.032698	0.093567	9.36E-04
227.387	0.032703893	0.0333936	0	0.032704	0.093567	9.36E-04
227.3925	0.032644991	0.0333936	0	0.032645	0.093567	9.36E-04
227.3953	0.032648959	0.0333936	0	0.032649	0.093567	9.36E-04
227.3981	0.032668494	0.0333936	0	0.032668	0.093567	9.36E-04
227.4036	0.03267835	0.0333936	0	0.032678	0.093567	9.36E-04
227.4064	0.032675947	0.0333936	0	0.032676	0.093567	9.36E-04
227.4119	0.032704427	0.0333936	0	0.032704	0.093567	9.36E-04
227.4147	0.032704427	0.0333936	0	0.032704	0.093567	9.36E-04
227.4175	0.032730281	0.0333936	0	0.03273	0.093567	9.36E-04
227.423	0.03275239	0.0333936	0	0.032752	0.093567	9.36E-04
227.4258	0.032758063	0.0333936	0	0.032758	0.093567	9.36E-04
227.4286	0.032755188	0.0333936	0	0.032755	0.093567	9.36E-04
227.4341	0.032762986	0.0333936	0	0.032763	0.093567	9.36E-04
227.4369	0.032760356	0.0333936	0	0.03276	0.093567	9.36E-04
227.4396	0.032763065	0.0333936	0	0.032763	0.093567	9.36E-04
227.4424	0.032768071	0.0333936	0	0.032768	0.093567	9.36E-04
227.448	0.032790047	0.0333936	0	0.03279	0.093567	9.36E-04
227.4507	0.032769212	0.0333936	0	0.032769	0.093567	9.36E-04
227.4535	0.032774228	0.0333936	0	0.032774	0.093567	9.36E-04
227.4563	0.032749329	0.0333936	0	0.032749	0.093567	9.36E-04
227.4618	0.032756666	0.0333936	0	0.032757	0.093567	9.36E-04
227.4646	0.032754195	0.0333936	0	0.032754	0.093567	9.36E-04
227.4673	0.032759312	0.0333936	0	0.032759	0.093567	9.36E-04
227.4729	0.032742235	0.0333936	0	0.032742	0.093567	9.36E-04
227.4757	0.032742235	0.0333936	0	0.032742	0.093567	9.36E-04
227.4812	0.032705568	0.0333936	0	0.032706	0.093567	9.36E-04
227.484	0.032708981	0.0333936	0	0.032709	0.093567	9.36E-04
227.4867	0.032728592	0.0333936	0	0.032729	0.093567	9.36E-04
227.4923	0.032756188	0.0333936	0	0.032756	0.093567	9.36E-04
227.4951	0.032756188	0.0333936	0	0.032756	0.093567	9.36E-04
227.4978	0.032737399	0.0333936	0	0.032737	0.093567	9.36E-04
227.5034	0.032699697	0.0333936	0	0.0327	0.093567	9.36E-04
227.5061	0.032702681	0.0333936	0	0.032703	0.093567	9.36E-04
227.5089	0.032702681	0.0333936	0	0.032703	0.093567	9.36E-04
227.5117	0.032705958	0.0333936	0	0.032706	0.093567	9.36E-04
227.5172	0.032709322	0.0333936	0	0.032709	0.093567	9.36E-04
227.52	0.032690697	0.0333936	0	0.032691	0.093567	9.36E-04
227.5228	0.032696048	0.0333936	0	0.032696	0.093567	9.36E-04

227.5255	0.032693559	0.0333936	0	0.032694	0.093567	9.36E-04
227.5311	0.032697946	0.0333936	0	0.032698	0.093567	9.36E-04
227.5338	0.032680578	0.0333936	0	0.032681	0.093567	9.36E-04
227.5394	0.032703418	0.0333936	0	0.032703	0.093567	9.36E-04
227.5422	0.032706357	0.0333936	0	0.032706	0.093567	9.36E-04
227.5477	0.032691999	0.0333936	0	0.032692	0.093567	9.36E-04
227.5505	0.032688944	0.0333936	0	0.032689	0.093567	9.36E-04
227.556	0.032674209	0.0333936	0	0.032674	0.093567	9.36E-04
227.5588	0.032677452	0.0333936	0	0.032677	0.093567	9.36E-04
227.5643	0.032680405	0.0333936	0	0.03268	0.093567	9.36E-04
227.5671	0.032660339	0.0333936	0	0.03266	0.093567	9.36E-04
227.5699	0.032665959	0.0333936	0	0.032666	0.093567	9.36E-04
227.5754	0.032665748	0.0333936	0	0.032666	0.093567	9.36E-04
227.5782	0.032671028	0.0333936	0	0.032671	0.093567	9.36E-04
227.5837	0.032693453	0.0333936	0	0.032693	0.093567	9.36E-04
227.5865	0.032695887	0.0333936	0	0.032696	0.093567	9.36E-04
227.5893	0.032695887	0.0333936	0	0.032696	0.093567	9.36E-04
227.5948	0.032740427	0.0333936	0	0.03274	0.093567	9.36E-04
227.5976	0.032742234	0.0333936	0	0.032742	0.093567	9.36E-04
227.6003	0.032747372	0.0333936	0	0.032747	0.093567	9.36E-04
227.6031	0.032744851	0.0333936	0	0.032745	0.093567	9.36E-04
227.6086	0.032793544	0.0333936	0	0.032794	0.093567	9.36E-04
227.6114	0.032790469	0.0333936	0	0.03279	0.093567	9.36E-04
227.617	0.032797396	0.0333936	0	0.032797	0.093567	9.36E-04
227.6197	0.032816676	0.0333936	0	0.032817	0.093567	9.36E-04
227.6225	0.032818667	0.0333936	0	0.032819	0.093567	9.36E-04
227.628	0.032820439	0.0333936	0	0.03282	0.093567	9.36E-04
227.6308	0.032844612	0.0333936	0	0.032845	0.093567	9.36E-04
227.6364	0.032846261	0.0333936	0	0.032846	0.093567	9.36E-04
227.6391	0.032848095	0.0333936	0	0.032848	0.093567	9.36E-04
227.6447	0.032849601	0.0333936	0	0.03285	0.093567	9.36E-04
227.6474	0.032851446	0.0333936	0	0.032851	0.093567	9.36E-04
227.653	0.032830713	0.0333936	0	0.032831	0.093567	9.36E-04
227.6557	0.03283497	0.0333936	0	0.032835	0.093567	9.36E-04
227.6613	0.032856202	0.0333936	0	0.032856	0.093567	9.36E-04
227.6641	0.032856202	0.0333936	0	0.032856	0.093567	9.36E-04
227.6696	0.03288052	0.0333936	0	0.032881	0.093567	9.36E-04
227.6724	0.032877584	0.0333936	0	0.032878	0.093567	9.36E-04
227.6751	0.032904236	0.0333936	0	0.032904	0.093567	9.36E-04
227.6807	0.032901994	0.0333936	0	0.032902	0.093567	9.36E-04
227.6835	0.03290597	0.0333936	0	0.032906	0.093567	9.36E-04
227.689	0.032926545	0.0333936	0	0.032927	0.093567	9.36E-04
227.6918	0.032927719	0.0333936	0	0.032928	0.093567	9.36E-04
227.6945	0.032927719	0.0333936	0	0.032928	0.093567	9.36E-04
227.7001	0.032951987	0.0333936	0	0.032952	0.093567	9.36E-04
227.7028	0.032949099	0.0333936	0	0.032949	0.093567	9.36E-04
227.7056	0.03297543	0.0333936	0	0.032975	0.093567	9.36E-04
227.7112	0.032995284	0.0333936	0	0.032995	0.093567	9.36E-04
227.7139	0.033018067	0.0333936	0	0.033018	0.093567	9.36E-04
227.7195	0.033060095	0.0333936	0	0.03306	0.093567	9.36E-04
227.7222	0.033059888	0.0333936	0	0.03306	0.093567	9.36E-04
227.725	0.033059888	0.0333936	0	0.03306	0.093567	9.36E-04
227.7306	0.033040182	0.0333936	0	0.03304	0.093567	9.36E-04
227.7333	0.033014356	0.0333936	0	0.033014	0.093567	9.36E-04
227.7361	0.03304028	0.0333936	0	0.03304	0.093567	9.36E-04
227.7416	0.033082129	0.0333936	0	0.033082	0.093567	9.36E-04
227.7444	0.033079184	0.0333936	0	0.033079	0.093567	9.36E-04
227.7499	0.033059414	0.0333936	0	0.033059	0.093567	9.36E-04
227.7527	0.033059414	0.0333936	0	0.033059	0.093567	9.36E-04
227.7555	0.033059807	0.0333936	0	0.03306	0.093567	9.36E-04
227.761	0.033079127	0.0333936	0	0.033079	0.093567	9.36E-04
227.7638	0.033082038	0.0333936	0	0.033082	0.093567	9.36E-04
227.7666	0.033082064	0.0333936	0	0.033082	0.093567	9.36E-04
227.7721	0.033101738	0.0333936	0	0.033102	0.093567	9.36E-04
227.7749	0.033104803	0.0333936	0	0.033105	0.093567	9.36E-04
227.7777	0.033079181	0.0333936	0	0.033079	0.093567	9.36E-04
227.7832	0.033037448	0.0333936	0	0.033037	0.093567	9.36E-04
227.786	0.033040344	0.0333936	0	0.03304	0.093567	9.36E-04
227.7887	0.033080011	0.0333936	0	0.03308	0.093567	9.36E-04
227.7943	0.033082864	0.0333936	0	0.033083	0.093567	9.36E-04
227.797	0.033102645	0.0333936	0	0.033103	0.093567	9.36E-04
227.8026	0.033105314	0.0333936	0	0.033105	0.093567	9.36E-04
227.8054	0.033102136	0.0333936	0	0.033102	0.093567	9.36E-04
227.8109	0.033082296	0.0333936	0	0.033082	0.093567	9.36E-04

227.8137	0.033081941	0.0333936	0	0.033082	0.093567	9.36E-04
227.8164	0.033079327	0.0333936	0	0.033079	0.093567	9.36E-04
227.822	0.033081644	0.0333936	0	0.033082	0.093567	9.36E-04
227.8248	0.033078319	0.0333936	0	0.033078	0.093567	9.36E-04
227.8303	0.03303566	0.0333936	0	0.033036	0.093567	9.36E-04
227.8331	0.03303891	0.0333936	0	0.033039	0.093567	9.36E-04
227.8386	0.033035829	0.0333936	0	0.033036	0.093567	9.36E-04
227.8414	0.033038772	0.0333936	0	0.033039	0.093567	9.36E-04
227.8469	0.033059	0.0333936	0	0.033059	0.093567	9.36E-04
227.8497	0.033059009	0.0333936	0	0.033059	0.093567	9.36E-04
227.8552	0.033058914	0.0333936	0	0.033059	0.093567	9.36E-04
227.858	0.033058784	0.0333936	0	0.033059	0.093567	9.36E-04
227.8635	0.033058663	0.0333936	0	0.033059	0.093567	9.36E-04
227.8663	0.033058875	0.0333936	0	0.033059	0.093567	9.36E-04
227.8719	0.0330591	0.0333936	0	0.033059	0.093567	9.36E-04
227.8774	0.033059692	0.0333936	0	0.03306	0.093567	9.36E-04
227.8802	0.033059692	0.0333936	0	0.03306	0.093567	9.36E-04
227.8857	0.033038113	0.0333936	0	0.033038	0.093567	9.36E-04
227.8885	0.033041358	0.0333936	0	0.033041	0.093567	9.36E-04
227.894	0.03306131	0.0333936	0	0.033061	0.093567	9.36E-04
227.8968	0.033038483	0.0333936	0	0.033038	0.093567	9.36E-04
227.9023	0.033039344	0.0333936	0	0.033039	0.093567	9.36E-04
227.9079	0.03302107	0.0333936	0	0.033021	0.093567	9.36E-04
227.9106	0.033021714	0.0333936	0	0.033022	0.093567	9.36E-04
227.9162	0.033022303	0.0333936	0	0.033022	0.093567	9.36E-04
227.919	0.032887231	0.0333936	0	0.032887	0.093567	9.36E-04
227.9245	0.032872282	0.0333936	0	0.032872	0.093567	9.36E-04
227.9273	0.032872282	0.0333936	0	0.032872	0.093567	9.36E-04
227.9328	0.032857521	0.0333936	0	0.032858	0.093567	9.36E-04
227.9384	0.03272701	0.0333936	0	0.032727	0.093567	9.36E-04
227.9411	0.032731267	0.0333936	0	0.032731	0.093567	9.36E-04
227.9467	0.032716963	0.0333936	0	0.032717	0.093567	9.36E-04
227.9494	0.032672447	0.0333936	0	0.032672	0.093567	9.36E-04
227.955	0.032720775	0.0333936	0	0.032721	0.093567	9.36E-04
227.9577	0.032740801	0.0333936	0	0.032741	0.093567	9.36E-04
227.9633	0.032744609	0.0333936	0	0.032745	0.093567	9.36E-04
227.9661	0.032726271	0.0333936	0	0.032726	0.093567	9.36E-04
227.9716	0.032727064	0.0333936	0	0.032727	0.093567	9.36E-04
227.9744	0.032731562	0.0333936	0	0.032732	0.093567	9.36E-04
227.9799	0.03269108	0.0333936	0	0.032691	0.093567	9.36E-04
227.9855	0.032671806	0.0333936	0	0.032672	0.093567	9.36E-04
227.9882	0.032676896	0.0333936	0	0.032677	0.093567	9.36E-04
227.9938	0.032660158	0.0333936	0	0.03266	0.093567	9.36E-04
227.9993	0.032663018	0.0333936	0	0.032663	0.093567	9.36E-04
228.0021	0.032665496	0.0333936	0	0.032665	0.093567	9.36E-04
228.0076	0.032668403	0.0333936	0	0.032668	0.093567	9.36E-04
228.0104	0.032670194	0.0333936	0	0.03267	0.093567	9.36E-04
228.0159	0.032632963	0.0333936	0	0.032633	0.093567	9.36E-04
228.0187	0.032614567	0.0333936	0	0.032615	0.093567	9.36E-04
228.0242	0.032617975	0.0333936	0	0.032618	0.093567	9.36E-04
228.027	0.032598768	0.0333936	0	0.032599	0.093567	9.36E-04
228.0326	0.032581035	0.0333936	0	0.032581	0.093567	9.36E-04
228.0353	0.032586681	0.0333936	0	0.032587	0.093567	9.36E-04
228.0409	0.032548161	0.0333936	0	0.032548	0.093567	9.36E-04
228.0436	0.032554264	0.0333936	0	0.032554	0.093567	9.36E-04
228.0492	0.032555534	0.0333936	0	0.032556	0.093567	9.36E-04
228.0519	0.032538523	0.0333936	0	0.032539	0.093567	9.36E-04
228.0575	0.032498985	0.0333936	0	0.032499	0.093567	9.36E-04
228.0603	0.032504647	0.0333936	0	0.032505	0.093567	9.36E-04
228.0658	0.032384259	0.0333936	0	0.032384	0.093567	9.36E-04
228.0686	0.032390956	0.0333936	0	0.032391	0.093567	9.36E-04
228.0741	0.032333406	0.0333936	0	0.032333	0.093567	9.36E-04
228.0769	0.032317573	0.0333936	0	0.032318	0.093567	9.36E-04
228.0824	0.032266738	0.0333936	0	0.032267	0.093567	9.36E-04
228.0852	0.032266738	0.0333936	0	0.032267	0.093567	9.36E-04
228.088	0.032209991	0.0333936	0	0.03221	0.093567	9.36E-04
228.0935	0.03221743	0.0333936	0	0.032217	0.093567	9.36E-04
228.0963	0.03220314	0.0333936	0	0.032203	0.093567	9.36E-04
228.1018	0.032150422	0.0333936	0	0.03215	0.093567	9.36E-04
228.1046	0.032157494	0.0333936	0	0.032157	0.093567	9.36E-04
228.1074	0.032136179	0.0333936	0	0.032136	0.093567	9.36E-04
228.1129	0.032228468	0.0333936	0	0.032228	0.093567	9.36E-04
228.1157	0.032255068	0.0333936	0	0.032255	0.093567	9.36E-04
228.1184	0.032335871	0.0333936	0	0.032336	0.093567	9.36E-04

228.124	0.032550592	0.0333936	0	0.032551	0.093567	9.36E-04
228.1268	0.032638361	0.0333936	0	0.032638	0.093567	9.36E-04
228.1295	0.032720009	0.0333936	0	0.03272	0.093567	9.36E-04
228.1323	0.032807959	0.0333936	0	0.032808	0.093567	9.36E-04
228.1378	0.032787766	0.0333936	0	0.032788	0.093567	9.36E-04
228.1406	0.032794452	0.0333936	0	0.032794	0.093567	9.36E-04
228.1434	0.032789935	0.0333936	0	0.03279	0.093567	9.36E-04
228.1489	0.032798715	0.0333936	0	0.032799	0.093567	9.36E-04
228.1517	0.032772088	0.0333936	0	0.032772	0.093567	9.36E-04
228.1572	0.032757908	0.0333936	0	0.032758	0.093567	9.36E-04
228.16	0.032760654	0.0333936	0	0.032761	0.093567	9.36E-04
228.1628	0.032760654	0.0333936	0	0.032761	0.093567	9.36E-04
228.1655	0.032763169	0.0333936	0	0.032763	0.093567	9.36E-04
228.1711	0.032765894	0.0333936	0	0.032766	0.093567	9.36E-04
228.1739	0.032746267	0.0333936	0	0.032746	0.093567	9.36E-04
228.1766	0.032729959	0.0333936	0	0.03273	0.093567	9.36E-04
228.1822	0.032729544	0.0333936	0	0.03273	0.093567	9.36E-04
228.1849	0.032736287	0.0333936	0	0.032736	0.093567	9.36E-04
228.1877	0.032739182	0.0333936	0	0.032739	0.093567	9.36E-04
228.1932	0.032742247	0.0333936	0	0.032742	0.093567	9.36E-04
228.196	0.03270009	0.0333936	0	0.0327	0.093567	9.36E-04
228.1988	0.032706942	0.0333936	0	0.032707	0.093567	9.36E-04
228.2043	0.0327063	0.0333936	0	0.032706	0.093567	9.36E-04
228.2071	0.032712325	0.0333936	0	0.032712	0.093567	9.36E-04
228.2099	0.032708456	0.0333936	0	0.032708	0.093567	9.36E-04
228.2126	0.032711023	0.0333936	0	0.032711	0.093567	9.36E-04
228.2182	0.032696055	0.0333936	0	0.032696	0.093567	9.36E-04
228.221	0.032692541	0.0333936	0	0.032693	0.093567	9.36E-04
228.2237	0.032698249	0.0333936	0	0.032698	0.093567	9.36E-04
228.2293	0.032718296	0.0333936	0	0.032718	0.093567	9.36E-04
228.232	0.032719768	0.0333936	0	0.03272	0.093567	9.36E-04
228.2376	0.032703521	0.0333936	0	0.032704	0.093567	9.36E-04
228.2403	0.032699763	0.0333936	0	0.0327	0.093567	9.36E-04
228.2459	0.032683223	0.0333936	0	0.032683	0.093567	9.36E-04
228.2487	0.032683223	0.0333936	0	0.032683	0.093567	9.36E-04
228.2514	0.032684516	0.0333936	0	0.032685	0.093567	9.36E-04
228.2542	0.032685903	0.0333936	0	0.032686	0.093567	9.36E-04
228.2597	0.032665714	0.0333936	0	0.032666	0.093567	9.36E-04
228.2625	0.03264814	0.0333936	0	0.032648	0.093567	9.36E-04
228.2653	0.032650636	0.0333936	0	0.032651	0.093567	9.36E-04
228.2681	0.032647681	0.0333936	0	0.032648	0.093567	9.36E-04
228.2736	0.032633585	0.0333936	0	0.032634	0.093567	9.36E-04
228.2764	0.032613771	0.0333936	0	0.032614	0.093567	9.36E-04
228.2791	0.032619639	0.0333936	0	0.03262	0.093567	9.36E-04
228.2819	0.032616862	0.0333936	0	0.032617	0.093567	9.36E-04
228.2874	0.032558975	0.0333936	0	0.032559	0.093567	9.36E-04
228.2902	0.03256486	0.0333936	0	0.032565	0.093567	9.36E-04
228.293	0.03256486	0.0333936	0	0.032565	0.093567	9.36E-04
228.2985	0.032902155	0.0333936	0	0.032902	0.093567	9.36E-04
228.3013	0.033052875	0.0333936	0	0.033053	0.093567	9.36E-04
228.3041	0.033134708	0.0333936	0	0.033135	0.093567	9.36E-04
228.3096	0.033092224	0.0333936	0	0.033092	0.093567	9.36E-04
228.3124	0.033074003	0.0333936	0	0.033074	0.093567	9.36E-04
228.3152	0.033049926	0.0333936	0	0.03305	0.093567	9.36E-04
228.3179	0.033044678	0.0333936	0	0.033045	0.093567	9.36E-04
228.3235	0.033025538	0.0333936	0	0.033026	0.093567	9.36E-04
228.3262	0.033025538	0.0333936	0	0.033026	0.093567	9.36E-04
228.3318	0.033024436	0.0333936	0	0.033024	0.093567	9.36E-04
228.3345	0.033024436	0.0333936	0	0.033024	0.093567	9.36E-04
228.3373	0.033023574	0.0333936	0	0.033024	0.093567	9.36E-04
228.3429	0.033040437	0.0333936	0	0.03304	0.093567	9.36E-04
228.3456	0.03304532	0.0333936	0	0.033045	0.093567	9.36E-04
228.3484	0.032998711	0.0333936	0	0.032999	0.093567	9.36E-04
228.3539	0.032998978	0.0333936	0	0.032999	0.093567	9.36E-04
228.3567	0.033022129	0.0333936	0	0.033022	0.093567	9.36E-04
228.3595	0.033045207	0.0333936	0	0.033045	0.093567	9.36E-04
228.365	0.033067368	0.0333936	0	0.033067	0.093567	9.36E-04
228.3678	0.033061961	0.0333936	0	0.033062	0.093567	9.36E-04
228.3706	0.033060777	0.0333936	0	0.033061	0.093567	9.36E-04
228.3761	0.03305954	0.0333936	0	0.03306	0.093567	9.36E-04
228.3789	0.033058735	0.0333936	0	0.033059	0.093567	9.36E-04
228.3844	0.033058018	0.0333936	0	0.033058	0.093567	9.36E-04
228.3872	0.033079936	0.0333936	0	0.03308	0.093567	9.36E-04
228.39	0.033079936	0.0333936	0	0.03308	0.093567	9.36E-04

228.3927	0.033079341	0.0333936	0	0.033079	0.093567	9.36E-04
228.3983	0.033096133	0.0333936	0	0.033096	0.093567	9.36E-04
228.401	0.033099807	0.0333936	0	0.0331	0.093567	9.36E-04
228.4066	0.033093802	0.0333936	0	0.033094	0.093567	9.36E-04
228.4094	0.033097709	0.0333936	0	0.033098	0.093567	9.36E-04
228.4149	0.033114749	0.0333936	0	0.033115	0.093567	9.36E-04
228.4204	0.033135795	0.0333936	0	0.033136	0.093567	9.36E-04
228.4232	0.033134324	0.0333936	0	0.033134	0.093567	9.36E-04
228.4287	0.033150924	0.0333936	0	0.033151	0.093567	9.36E-04
228.4315	0.033154048	0.0333936	0	0.033154	0.093567	9.36E-04
228.4371	0.033170524	0.0333936	0	0.033171	0.093567	9.36E-04
228.4398	0.033192061	0.0333936	0	0.033192	0.093567	9.36E-04
228.4454	0.033190189	0.0333936	0	0.03319	0.093567	9.36E-04
228.4481	0.033188141	0.0333936	0	0.033188	0.093567	9.36E-04
228.4509	0.033209372	0.0333936	0	0.033209	0.093567	9.36E-04
228.4565	0.033225663	0.0333936	0	0.033226	0.093567	9.36E-04
228.4592	0.033228844	0.0333936	0	0.033229	0.093567	9.36E-04
228.4648	0.033245018	0.0333936	0	0.033245	0.093567	9.36E-04
228.4675	0.033220358	0.0333936	0	0.03322	0.093567	9.36E-04
228.4703	0.033223606	0.0333936	0	0.033224	0.093567	9.36E-04
228.4758	0.033216456	0.0333936	0	0.033216	0.093567	9.36E-04
228.4786	0.033219454	0.0333936	0	0.033219	0.093567	9.36E-04
228.4814	0.033214424	0.0333936	0	0.033214	0.093567	9.36E-04
228.4869	0.033232517	0.0333936	0	0.033233	0.093567	9.36E-04
228.4897	0.033232517	0.0333936	0	0.033233	0.093567	9.36E-04
228.4952	0.033251472	0.0333936	0	0.033251	0.093567	9.36E-04
228.498	0.033246379	0.0333936	0	0.033246	0.093567	9.36E-04
228.5008	0.033271641	0.0333936	0	0.033272	0.093567	9.36E-04
228.5036	0.033266943	0.0333936	0	0.033267	0.093567	9.36E-04
228.5091	0.033308498	0.0333936	0	0.033308	0.093567	9.36E-04
228.5119	0.033303181	0.0333936	0	0.033303	0.093567	9.36E-04
228.5174	0.033303127	0.0333936	0	0.033303	0.093567	9.36E-04
228.5202	0.033321299	0.0333936	0	0.033321	0.093567	9.36E-04
228.5257	0.033338713	0.0333936	0	0.033339	0.093567	9.36E-04
228.5285	0.033338713	0.0333936	0	0.033339	0.093567	9.36E-04
228.5313	0.033335182	0.0333936	0	0.033335	0.093567	9.36E-04
228.534	0.033332179	0.0333936	0	0.033332	0.093567	9.36E-04
228.5396	0.033329305	0.0333936	0	0.033329	0.093567	9.36E-04
228.5423	0.033326287	0.0333936	0	0.033326	0.093567	9.36E-04
228.5451	0.033326287	0.0333936	0	0.033326	0.093567	9.36E-04
228.5507	0.033320852	0.0333936	0	0.033321	0.093567	9.36E-04
228.5534	0.033320852	0.0333936	0	0.033321	0.093567	9.36E-04
228.5562	0.033318088	0.0333936	0	0.033318	0.093567	9.36E-04
228.5617	0.033315486	0.0333936	0	0.033315	0.093567	9.36E-04
228.5645	0.033335636	0.0333936	0	0.033336	0.093567	9.36E-04
228.5673	0.033354268	0.0333936	0	0.033354	0.093567	9.36E-04
228.5728	0.033331576	0.0333936	0	0.033332	0.093567	9.36E-04
228.5756	0.033329644	0.0333936	0	0.03333	0.093567	9.36E-04
228.5811	0.033327255	0.0333936	0	0.033327	0.093567	9.36E-04
228.5839	0.033324245	0.0333936	0	0.033324	0.093567	9.36E-04
228.5894	0.033361947	0.0333936	0	0.033362	0.093567	9.36E-04
228.595	0.033358635	0.0333936	0	0.033359	0.093567	9.36E-04
228.5978	0.033378846	0.0333936	0	0.033379	0.093567	9.36E-04
228.6033	0.03339356	0.0333936	0	0.033394	0.093567	9.36E-04
228.6061	0.033372757	0.0333728	5.82882E-05	0.033373	0.093567	9.36E-04
228.6116	0.033343886	0.033361	3.30056E-05	0.033344	0.093509	9.35E-04
228.6144	0.033343886	0.033361	0	0.033344	0.093476	9.35E-04
228.6199	0.033360977	0.033361	0	0.033361	0.093476	9.35E-04
228.6227	0.033355869	0.0333559	1.43134E-05	0.033356	0.093476	9.35E-04
228.6282	0.033332971	0.033333	6.41584E-05	0.033333	0.093461	9.35E-04
228.631	0.033330966	0.033331	5.61868E-06	0.033331	0.093397	9.34E-04
228.6365	0.033328755	0.0333288	6.19575E-06	0.033329	0.093392	9.34E-04
228.6421	0.033306888	0.0333069	6.12703E-05	0.033307	0.093385	9.34E-04
228.6449	0.033302236	0.0333022	1.30327E-05	0.033302	0.093324	9.33E-04
228.6504	0.033280976	0.033281	5.95696E-05	0.033281	0.093311	9.33E-04
228.6532	0.033256499	0.0332565	6.85842E-05	0.033256	0.093252	9.33E-04
228.6587	0.033255153	0.0332552	3.77191E-06	0.033255	0.093183	9.32E-04
228.6642	0.033229373	0.0332506	1.2862E-05	0.033229	0.093179	9.32E-04
228.667	0.033232806	0.0332506	0	0.033233	0.093166	9.32E-04
228.6726	0.033250563	0.0332506	0	0.033251	0.093166	9.32E-04
228.6781	0.033207289	0.0332073	0.00012125	0.033207	0.093166	9.32E-04
228.6809	0.033206332	0.0332063	2.68321E-06	0.033206	0.093045	9.30E-04
228.6864	0.033205344	0.0332053	2.76603E-06	0.033205	0.093042	9.30E-04
228.6892	0.033181146	0.033203	6.59618E-06	0.033181	0.09304	9.30E-04

228.6947	0.033198437	0.033203	0	0.033198	0.093033	9.30E-04
228.6975	0.03320299	0.033203	0	0.033203	0.093033	9.30E-04
228.703	0.033202429	0.0332024	1.57283E-06	0.033202	0.093033	9.30E-04
228.7086	0.033202099	0.0332021	9.24148E-07	0.033202	0.093031	9.30E-04
228.7114	0.033178578	0.0331793	6.3905E-05	0.033179	0.093031	9.30E-04
228.7169	0.033159881	0.0331793	0	0.03316	0.092967	9.30E-04
228.7197	0.033155037	0.0331793	0	0.033155	0.092967	9.30E-04
228.7252	0.033154279	0.0331793	0	0.033154	0.092967	9.30E-04
228.728	0.033158638	0.0331793	0	0.033159	0.092967	9.30E-04
228.7335	0.033176494	0.0331793	0	0.033176	0.092967	9.30E-04
228.7391	0.033134945	0.0331793	0	0.033135	0.092967	9.30E-04
228.7446	0.03311231	0.0331793	0	0.033112	0.092967	9.30E-04
228.7474	0.03311231	0.0331793	0	0.033112	0.092967	9.30E-04
228.7529	0.033112421	0.0331793	0	0.033112	0.092967	9.30E-04
228.7557	0.033089206	0.0331793	0	0.033089	0.092967	9.30E-04
228.7612	0.033089276	0.0331793	0	0.033089	0.092967	9.30E-04
228.764	0.033113051	0.0331793	0	0.033113	0.092967	9.30E-04
228.7695	0.033071804	0.0331793	0	0.033072	0.092967	9.30E-04
228.7723	0.033071269	0.0331793	0	0.033071	0.092967	9.30E-04
228.7778	0.033087678	0.0331793	0	0.033088	0.092967	9.30E-04
228.7806	0.033069081	0.0331793	0	0.033069	0.092967	9.30E-04
228.7834	0.033044967	0.0331793	0	0.033045	0.092967	9.30E-04
228.7889	0.033062465	0.0331793	0	0.033062	0.092967	9.30E-04
228.7917	0.033066971	0.0331793	0	0.033067	0.092967	9.30E-04
228.7972	0.033042761	0.0331793	0	0.033043	0.092967	9.30E-04
228.8	0.033042761	0.0331793	0	0.033043	0.092967	9.30E-04
228.8056	0.033018874	0.0331793	0	0.033019	0.092967	9.30E-04
228.8083	0.033000304	0.0331793	0	0.033	0.092967	9.30E-04
228.8111	0.033000156	0.0331793	0	0.033	0.092967	9.30E-04
228.8166	0.033017384	0.0331793	0	0.033017	0.092967	9.30E-04
228.8194	0.03299896	0.0331793	0	0.032999	0.092967	9.30E-04
228.8249	0.03295188	0.0331793	0	0.032952	0.092967	9.30E-04
228.8277	0.032957158	0.0331793	0	0.032957	0.092967	9.30E-04
228.8305	0.032951359	0.0331793	0	0.032951	0.092967	9.30E-04
228.836	0.032933542	0.0331793	0	0.032934	0.092967	9.30E-04
228.8388	0.032910308	0.0331793	0	0.03291	0.092967	9.30E-04
228.8443	0.032893105	0.0331793	0	0.032893	0.092967	9.30E-04
228.8471	0.032887749	0.0331793	0	0.032888	0.092967	9.30E-04
228.8527	0.032871384	0.0331793	0	0.032871	0.092967	9.30E-04
228.8554	0.032849158	0.0331793	0	0.032849	0.092967	9.30E-04
228.861	0.03281058	0.0331793	0	0.032811	0.092967	9.30E-04
228.8637	0.032812488	0.0331793	0	0.032812	0.092967	9.30E-04
228.8665	0.03280736	0.0331793	0	0.032807	0.092967	9.30E-04
228.872	0.03276975	0.0331793	0	0.03277	0.092967	9.30E-04
228.8748	0.032775986	0.0331793	0	0.032776	0.092967	9.30E-04
228.8804	0.032772492	0.0331793	0	0.032772	0.092967	9.30E-04
228.8831	0.03275572	0.0331793	0	0.032756	0.092967	9.30E-04
228.8859	0.032756991	0.0331793	0	0.032757	0.092967	9.30E-04
228.8914	0.032758508	0.0331793	0	0.032759	0.092967	9.30E-04
228.8942	0.032736607	0.0331793	0	0.032737	0.092967	9.30E-04
228.897	0.032738142	0.0331793	0	0.032738	0.092967	9.30E-04
228.9025	0.032716671	0.0331793	0	0.032717	0.092967	9.30E-04
228.9053	0.032723271	0.0331793	0	0.032723	0.092967	9.30E-04
228.9081	0.032717977	0.0331793	0	0.032718	0.092967	9.30E-04
228.9136	0.032725378	0.0331793	0	0.032725	0.092967	9.30E-04
228.9164	0.032720489	0.0331793	0	0.03272	0.092967	9.30E-04
228.9191	0.032721629	0.0331793	0	0.032722	0.092967	9.30E-04
228.9219	0.032727475	0.0331793	0	0.032727	0.092967	9.30E-04
228.9275	0.032723937	0.0331793	0	0.032724	0.092967	9.30E-04
228.9302	0.032729956	0.0331793	0	0.03273	0.092967	9.30E-04
228.933	0.032702747	0.0331793	0	0.032703	0.092967	9.30E-04
228.9385	0.032687258	0.0331793	0	0.032687	0.092967	9.30E-04
228.9413	0.03268901	0.0331793	0	0.032689	0.092967	9.30E-04
228.9441	0.03268901	0.0331793	0	0.032689	0.092967	9.30E-04
228.9496	0.032692265	0.0331793	0	0.032692	0.092967	9.30E-04
228.9524	0.032692265	0.0331793	0	0.032692	0.092967	9.30E-04
228.9579	0.032695016	0.0331793	0	0.032695	0.092967	9.30E-04
228.9607	0.032695016	0.0331793	0	0.032695	0.092967	9.30E-04
228.9635	0.03269655	0.0331793	0	0.032697	0.092967	9.30E-04
228.9662	0.032675073	0.0331793	0	0.032675	0.092967	9.30E-04
228.9718	0.032676684	0.0331793	0	0.032677	0.092967	9.30E-04
228.9746	0.03267826	0.0331793	0	0.032678	0.092967	9.30E-04
228.9773	0.032684584	0.0331793	0	0.032685	0.092967	9.30E-04
228.9801	0.032657445	0.0331793	0	0.032657	0.092967	9.30E-04

228.9856	0.032642481	0.0331793	0	0.032642	0.092967	9.30E-04
228.9884	0.032644402	0.0331793	0	0.032644	0.092967	9.30E-04
228.9912	0.032644402	0.0331793	0	0.032644	0.092967	9.30E-04
228.9967	0.032629631	0.0331793	0	0.03263	0.092967	9.30E-04
228.9995	0.032625632	0.0331793	0	0.032626	0.092967	9.30E-04
229.005	0.032610479	0.0331793	0	0.03261	0.092967	9.30E-04
229.0078	0.032589296	0.0331793	0	0.032589	0.092967	9.30E-04
229.0106	0.032591006	0.0331793	0	0.032591	0.092967	9.30E-04
229.0133	0.032591006	0.0331793	0	0.032591	0.092967	9.30E-04
229.0161	0.032592882	0.0331793	0	0.032593	0.092967	9.30E-04
229.0217	0.032595389	0.0331793	0	0.032595	0.092967	9.30E-04
229.0244	0.032597164	0.0331793	0	0.032597	0.092967	9.30E-04
229.0272	0.032575947	0.0331793	0	0.032576	0.092967	9.30E-04
229.0327	0.032577622	0.0331793	0	0.032578	0.092967	9.30E-04
229.0355	0.032579583	0.0331793	0	0.03258	0.092967	9.30E-04
229.0383	0.032585985	0.0331793	0	0.032586	0.092967	9.30E-04
229.0411	0.032581842	0.0331793	0	0.032582	0.092967	9.30E-04
229.0466	0.032567151	0.0331793	0	0.032567	0.092967	9.30E-04
229.0494	0.032569264	0.0331793	0	0.032569	0.092967	9.30E-04
229.0521	0.032565032	0.0331793	0	0.032565	0.092967	9.30E-04
229.0577	0.032549991	0.0331793	0	0.03255	0.092967	9.30E-04
229.0604	0.032552351	0.0331793	0	0.032552	0.092967	9.30E-04
229.0632	0.032552351	0.0331793	0	0.032552	0.092967	9.30E-04
229.066	0.03255462	0.0331793	0	0.032555	0.092967	9.30E-04
229.0715	0.032540649	0.0331793	0	0.032541	0.092967	9.30E-04
229.0743	0.032536779	0.0331793	0	0.032537	0.092967	9.30E-04
229.0771	0.032539604	0.0331793	0	0.03254	0.092967	9.30E-04
229.0798	0.032546244	0.0331793	0	0.032546	0.092967	9.30E-04
229.0854	0.032567719	0.0331793	0	0.032568	0.092967	9.30E-04
229.0882	0.032571165	0.0331793	0	0.032571	0.092967	9.30E-04
229.0937	0.032574473	0.0331793	0	0.032574	0.092967	9.30E-04
229.0965	0.032577355	0.0331793	0	0.032577	0.092967	9.30E-04
229.0992	0.032577355	0.0331793	0	0.032577	0.092967	9.30E-04
229.102	0.032579929	0.0331793	0	0.03258	0.092967	9.30E-04
229.1075	0.032584607	0.0331793	0	0.032585	0.092967	9.30E-04
229.1103	0.032584607	0.0331793	0	0.032585	0.092967	9.30E-04
229.1131	0.032587746	0.0331793	0	0.032588	0.092967	9.30E-04
229.1186	0.032608086	0.0331793	0	0.032608	0.092967	9.30E-04
229.1214	0.032614911	0.0331793	0	0.032615	0.092967	9.30E-04
229.1242	0.032594376	0.0331793	0	0.032594	0.092967	9.30E-04
229.1297	0.032637061	0.0331793	0	0.032637	0.092967	9.30E-04
229.1325	0.032662172	0.0331793	0	0.032662	0.092967	9.30E-04
229.1353	0.032662172	0.0331793	0	0.032662	0.092967	9.30E-04
229.138	0.032664879	0.0331793	0	0.032665	0.092967	9.30E-04
229.1436	0.032685179	0.0331793	0	0.032685	0.092967	9.30E-04
229.1463	0.032714566	0.0331793	0	0.032715	0.092967	9.30E-04
229.1519	0.032711769	0.0331793	0	0.032712	0.092967	9.30E-04
229.1546	0.032717471	0.0331793	0	0.032717	0.092967	9.30E-04
229.1574	0.032713302	0.0331793	0	0.032713	0.092967	9.30E-04
229.163	0.032761247	0.0331793	0	0.032761	0.092967	9.30E-04
229.1657	0.03275737	0.0331793	0	0.032757	0.092967	9.30E-04
229.1713	0.032781607	0.0331793	0	0.032782	0.092967	9.30E-04
229.174	0.032805129	0.0331793	0	0.032805	0.092967	9.30E-04
229.1768	0.032805822	0.0331793	0	0.032806	0.092967	9.30E-04
229.1824	0.032806708	0.0331793	0	0.032807	0.092967	9.30E-04
229.1851	0.032806831	0.0331793	0	0.032807	0.092967	9.30E-04
229.1907	0.032807186	0.0331793	0	0.032807	0.092967	9.30E-04
229.1934	0.032807559	0.0331793	0	0.032808	0.092967	9.30E-04
229.1962	0.032807763	0.0331793	0	0.032808	0.092967	9.30E-04
229.2017	0.032808026	0.0331793	0	0.032808	0.092967	9.30E-04
229.2045	0.032831281	0.0331793	0	0.032831	0.092967	9.30E-04
229.2101	0.032872209	0.0331793	0	0.032872	0.092967	9.30E-04
229.2128	0.032872209	0.0331793	0	0.032872	0.092967	9.30E-04
229.2156	0.032872209	0.0331793	0	0.032872	0.092967	9.30E-04
229.2211	0.032895267	0.0331793	0	0.032895	0.092967	9.30E-04
229.2239	0.032890605	0.0331793	0	0.032891	0.092967	9.30E-04
229.2295	0.03289563	0.0331793	0	0.032896	0.092967	9.30E-04
229.2322	0.032891503	0.0331793	0	0.032892	0.092967	9.30E-04
229.235	0.032895604	0.0331793	0	0.032896	0.092967	9.30E-04
229.2405	0.032890478	0.0331793	0	0.03289	0.092967	9.30E-04
229.2433	0.032894255	0.0331793	0	0.032894	0.092967	9.30E-04
229.2488	0.032911524	0.0331793	0	0.032912	0.092967	9.30E-04
229.2516	0.032933377	0.0331793	0	0.032933	0.092967	9.30E-04
229.2572	0.032932283	0.0331793	0	0.032932	0.092967	9.30E-04

229.2599	0.032931559	0.0331793	0	0.032932	0.092967	9.30E-04
229.2627	0.032953125	0.0331793	0	0.032953	0.092967	9.30E-04
229.2682	0.032970206	0.0331793	0	0.03297	0.092967	9.30E-04
229.271	0.032973693	0.0331793	0	0.032974	0.092967	9.30E-04
229.2738	0.032968842	0.0331793	0	0.032969	0.092967	9.30E-04
229.2766	0.032990543	0.0331793	0	0.032991	0.092967	9.30E-04
229.2821	0.032988652	0.0331793	0	0.032989	0.092967	9.30E-04
229.2849	0.032988652	0.0331793	0	0.032989	0.092967	9.30E-04
229.2876	0.032987809	0.0331793	0	0.032988	0.092967	9.30E-04
229.2932	0.033005244	0.0331793	0	0.033005	0.092967	9.30E-04
229.2959	0.033009144	0.0331793	0	0.033009	0.092967	9.30E-04
229.2987	0.033008426	0.0331793	0	0.033008	0.092967	9.30E-04
229.3043	0.033026338	0.0331793	0	0.033026	0.092967	9.30E-04
229.307	0.033030333	0.0331793	0	0.03303	0.092967	9.30E-04
229.3098	0.033025262	0.0331793	0	0.033025	0.092967	9.30E-04
229.3126	0.033047622	0.0331793	0	0.033048	0.092967	9.30E-04
229.3181	0.033023259	0.0331793	0	0.033023	0.092967	9.30E-04
229.3209	0.033028126	0.0331793	0	0.033028	0.092967	9.30E-04
229.3264	0.033022667	0.0331793	0	0.033023	0.092967	9.30E-04
229.3292	0.033027784	0.0331793	0	0.033028	0.092967	9.30E-04
229.3347	0.03304581	0.0331793	0	0.033046	0.092967	9.30E-04
229.3375	0.033045645	0.0331793	0	0.033046	0.092967	9.30E-04
229.343	0.033045167	0.0331793	0	0.033045	0.092967	9.30E-04
229.3458	0.033068098	0.0331793	0	0.033068	0.092967	9.30E-04
229.3486	0.033062797	0.0331793	0	0.033063	0.092967	9.30E-04
229.3541	0.033044595	0.0331793	0	0.033045	0.092967	9.30E-04
229.3569	0.033067707	0.0331793	0	0.033068	0.092967	9.30E-04
229.3624	0.03306789	0.0331793	0	0.033068	0.092967	9.30E-04
229.368	0.033067408	0.0331793	0	0.033067	0.092967	9.30E-04
229.3708	0.033061921	0.0331793	0	0.033062	0.092967	9.30E-04
229.3763	0.033044224	0.0331793	0	0.033044	0.092967	9.30E-04
229.3791	0.033044256	0.0331793	0	0.033044	0.092967	9.30E-04
229.3846	0.033044626	0.0331793	0	0.033045	0.092967	9.30E-04
229.3901	0.033085414	0.0331793	0	0.033085	0.092967	9.30E-04
229.3929	0.033084567	0.0331793	0	0.033085	0.092967	9.30E-04
229.3985	0.033083539	0.0331793	0	0.033084	0.092967	9.30E-04
229.4012	0.033082502	0.0331793	0	0.033083	0.092967	9.30E-04
229.4068	0.033062841	0.0331793	0	0.033063	0.092967	9.30E-04
229.4095	0.033057604	0.0331793	0	0.033058	0.092967	9.30E-04
229.4151	0.033015984	0.0331793	0	0.033016	0.092967	9.30E-04
229.4206	0.033016029	0.0331793	0	0.033016	0.092967	9.30E-04
229.4234	0.033015671	0.0331793	0	0.033016	0.092967	9.30E-04
229.4289	0.032973837	0.0331793	0	0.032974	0.092967	9.30E-04
229.4317	0.032973578	0.0331793	0	0.032974	0.092967	9.30E-04
229.4372	0.032973422	0.0331793	0	0.032973	0.092967	9.30E-04
229.44	0.032950527	0.0331793	0	0.032951	0.092967	9.30E-04
229.4456	0.032950732	0.0331793	0	0.032951	0.092967	9.30E-04
229.4483	0.032973208	0.0331793	0	0.032973	0.092967	9.30E-04
229.4539	0.032953439	0.0331793	0	0.032953	0.092967	9.30E-04
229.4566	0.032948827	0.0331793	0	0.032949	0.092967	9.30E-04
229.4622	0.032929111	0.0331793	0	0.032929	0.092967	9.30E-04
229.465	0.032928164	0.0331793	0	0.032928	0.092967	9.30E-04
229.4677	0.032946217	0.0331793	0	0.032946	0.092967	9.30E-04
229.4733	0.032926577	0.0331793	0	0.032927	0.092967	9.30E-04
229.476	0.032925681	0.0331793	0	0.032926	0.092967	9.30E-04
229.4816	0.032942694	0.0331793	0	0.032943	0.092967	9.30E-04
229.4844	0.032924359	0.0331793	0	0.032924	0.092967	9.30E-04
229.4899	0.032878083	0.0331793	0	0.032878	0.092967	9.30E-04
229.4927	0.032883055	0.0331793	0	0.032883	0.092967	9.30E-04
229.4982	0.032900356	0.0331793	0	0.0329	0.092967	9.30E-04
229.5037	0.032900144	0.0331793	0	0.0329	0.092967	9.30E-04
229.5065	0.032900144	0.0331793	0	0.0329	0.092967	9.30E-04
229.5121	0.03287645	0.0331793	0	0.032876	0.092967	9.30E-04
229.5148	0.032880998	0.0331793	0	0.032881	0.092967	9.30E-04
229.5204	0.032875378	0.0331793	0	0.032875	0.092967	9.30E-04
229.5231	0.032856922	0.0331793	0	0.032857	0.092967	9.30E-04
229.5287	0.032856076	0.0331793	0	0.032856	0.092967	9.30E-04
229.5315	0.032873717	0.0331793	0	0.032874	0.092967	9.30E-04
229.537	0.032854019	0.0331793	0	0.032854	0.092967	9.30E-04
229.5398	0.032830423	0.0331793	0	0.03283	0.092967	9.30E-04
229.5453	0.032847246	0.0331793	0	0.032847	0.092967	9.30E-04
229.5481	0.03285221	0.0331793	0	0.032852	0.092967	9.30E-04
229.5536	0.032828625	0.0331793	0	0.032829	0.092967	9.30E-04
229.5564	0.032805157	0.0331793	0	0.032805	0.092967	9.30E-04

229.5619	0.032804622	0.0331793	0	0.032805	0.092967	9.30E-04
229.5675	0.032803692	0.0331793	0	0.032804	0.092967	9.30E-04
229.5702	0.032785679	0.0331793	0	0.032786	0.092967	9.30E-04
229.573	0.032762987	0.0331793	0	0.032763	0.092967	9.30E-04
229.5786	0.032763179	0.0331793	0	0.032763	0.092967	9.30E-04
229.5813	0.032763425	0.0331793	0	0.032763	0.092967	9.30E-04
229.5869	0.032746406	0.0331793	0	0.032746	0.092967	9.30E-04
229.5924	0.032724095	0.0331793	0	0.032724	0.092967	9.30E-04
229.5952	0.032702013	0.0331793	0	0.032702	0.092967	9.30E-04
229.6007	0.032662154	0.0331793	0	0.032662	0.092967	9.30E-04
229.6035	0.032662431	0.0331793	0	0.032662	0.092967	9.30E-04
229.6063	0.032657121	0.0331793	0	0.032657	0.092967	9.30E-04
229.609	0.032662649	0.0331793	0	0.032663	0.092967	9.30E-04
229.6146	0.0326404	0.0331793	0	0.03264	0.092967	9.30E-04
229.6173	0.0326404	0.0331793	0	0.03264	0.092967	9.30E-04
229.6229	0.032618921	0.0331793	0	0.032619	0.092967	9.30E-04
229.6257	0.032602209	0.0331793	0	0.032602	0.092967	9.30E-04
229.6284	0.032603449	0.0331793	0	0.032603	0.092967	9.30E-04
229.634	0.032604323	0.0331793	0	0.032604	0.092967	9.30E-04
229.6367	0.032560099	0.0331793	0	0.03256	0.092967	9.30E-04
229.6395	0.03254329	0.0331793	0	0.032543	0.092967	9.30E-04
229.645	0.032539329	0.0331793	0	0.032539	0.092967	9.30E-04
229.6478	0.032545506	0.0331793	0	0.032546	0.092967	9.30E-04
229.6506	0.032546572	0.0331793	0	0.032547	0.092967	9.30E-04
229.6534	0.032541827	0.0331793	0	0.032542	0.092967	9.30E-04
229.6589	0.032503953	0.0331793	0	0.032504	0.092967	9.30E-04
229.6617	0.032509681	0.0331793	0	0.03251	0.092967	9.30E-04
229.6644	0.032505433	0.0331793	0	0.032505	0.092967	9.30E-04
229.67	0.032512844	0.0331793	0	0.032513	0.092967	9.30E-04
229.6728	0.032485952	0.0331793	0	0.032486	0.092967	9.30E-04
229.6755	0.032492251	0.0331793	0	0.032492	0.092967	9.30E-04
229.6783	0.032471163	0.0331793	0	0.032471	0.092967	9.30E-04
229.6838	0.032472421	0.0331793	0	0.032472	0.092967	9.30E-04
229.6866	0.032473525	0.0331793	0	0.032474	0.092967	9.30E-04
229.6894	0.032451927	0.0331793	0	0.032452	0.092967	9.30E-04
229.6949	0.032453213	0.0331793	0	0.032453	0.092967	9.30E-04
229.6977	0.032454905	0.0331793	0	0.032455	0.092967	9.30E-04
229.7005	0.03246117	0.0331793	0	0.032461	0.092967	9.30E-04
229.706	0.032440885	0.0331793	0	0.032441	0.092967	9.30E-04
229.7088	0.032442749	0.0331793	0	0.032443	0.092967	9.30E-04
229.7115	0.032438466	0.0331793	0	0.032438	0.092967	9.30E-04
229.7143	0.032444419	0.0331793	0	0.032444	0.092967	9.30E-04
229.7199	0.032424784	0.0331793	0	0.032425	0.092967	9.30E-04
229.7226	0.032424784	0.0331793	0	0.032425	0.092967	9.30E-04
229.7254	0.032426361	0.0331793	0	0.032426	0.092967	9.30E-04
229.7309	0.032428528	0.0331793	0	0.032429	0.092967	9.30E-04
229.7337	0.032408266	0.0331793	0	0.032408	0.092967	9.30E-04
229.7365	0.032391562	0.0331793	0	0.032392	0.092967	9.30E-04
229.7392	0.032349162	0.0331793	0	0.032349	0.092967	9.30E-04
229.742	0.032355707	0.0331793	0	0.032356	0.092967	9.30E-04
229.7476	0.03235419	0.0331793	0	0.032354	0.092967	9.30E-04
229.7503	0.032338023	0.0331793	0	0.032338	0.092967	9.30E-04
229.7531	0.03234003	0.0331793	0	0.03234	0.092967	9.30E-04
229.7559	0.032335749	0.0331793	0	0.032336	0.092967	9.30E-04
229.7614	0.032343968	0.0331793	0	0.032344	0.092967	9.30E-04
229.7642	0.032339694	0.0331793	0	0.03234	0.092967	9.30E-04
229.767	0.032345763	0.0331793	0	0.032346	0.092967	9.30E-04
229.7697	0.032347424	0.0331793	0	0.032347	0.092967	9.30E-04
229.7753	0.032349006	0.0331793	0	0.032349	0.092967	9.30E-04
229.778	0.032328223	0.0331793	0	0.032328	0.092967	9.30E-04
229.7808	0.032352106	0.0331793	0	0.032352	0.092967	9.30E-04
229.7836	0.032347982	0.0331793	0	0.032348	0.092967	9.30E-04
229.7891	0.032333189	0.0331793	0	0.032333	0.092967	9.30E-04
229.7919	0.032335017	0.0331793	0	0.032335	0.092967	9.30E-04
229.7947	0.032335017	0.0331793	0	0.032335	0.092967	9.30E-04
229.8002	0.032316583	0.0331793	0	0.032317	0.092967	9.30E-04
229.803	0.03232295	0.0331793	0	0.032323	0.092967	9.30E-04
229.8057	0.032318699	0.0331793	0	0.032319	0.092967	9.30E-04
229.8085	0.032343016	0.0331793	0	0.032343	0.092967	9.30E-04
229.8141	0.032345524	0.0331793	0	0.032346	0.092967	9.30E-04
229.8168	0.032347729	0.0331793	0	0.032348	0.092967	9.30E-04
229.8196	0.032327598	0.0331793	0	0.032328	0.092967	9.30E-04
229.8224	0.032311644	0.0331793	0	0.032312	0.092967	9.30E-04
229.8251	0.032314257	0.0331793	0	0.032314	0.092967	9.30E-04

229.8307	0.032333999	0.0331793	0	0.032334	0.092967	9.30E-04
229.8334	0.032340853	0.0331793	0	0.032341	0.092967	9.30E-04
229.8362	0.032336494	0.0331793	0	0.032336	0.092967	9.30E-04
229.839	0.032339268	0.0331793	0	0.032339	0.092967	9.30E-04
229.8418	0.032346017	0.0331793	0	0.032346	0.092967	9.30E-04
229.8473	0.032343958	0.0331793	0	0.032344	0.092967	9.30E-04
229.8501	0.032350291	0.0331793	0	0.03235	0.092967	9.30E-04
229.8528	0.032346096	0.0331793	0	0.032346	0.092967	9.30E-04
229.8556	0.032347826	0.0331793	0	0.032348	0.092967	9.30E-04
229.8584	0.032353793	0.0331793	0	0.032354	0.092967	9.30E-04
229.8612	0.032349525	0.0331793	0	0.03235	0.092967	9.30E-04
229.8667	0.032374682	0.0331793	0	0.032375	0.092967	9.30E-04
229.8695	0.032374682	0.0331793	0	0.032375	0.092967	9.30E-04
229.8722	0.032376699	0.0331793	0	0.032377	0.092967	9.30E-04
229.8778	0.032362865	0.0331793	0	0.032363	0.092967	9.30E-04
229.8805	0.032358547	0.0331793	0	0.032359	0.092967	9.30E-04
229.8833	0.032383012	0.0331793	0	0.032383	0.092967	9.30E-04
229.8889	0.03238542	0.0331793	0	0.032385	0.092967	9.30E-04
229.8916	0.032387858	0.0331793	0	0.032388	0.092967	9.30E-04
229.8944	0.032412413	0.0331793	0	0.032412	0.092967	9.30E-04
229.8999	0.032436958	0.0331793	0	0.032437	0.092967	9.30E-04
229.9027	0.032432023	0.0331793	0	0.032432	0.092967	9.30E-04
229.9083	0.032457707	0.0331793	0	0.032458	0.092967	9.30E-04
229.911	0.032457707	0.0331793	0	0.032458	0.092967	9.30E-04
229.9166	0.03248368	0.0331793	0	0.032484	0.092967	9.30E-04
229.9193	0.032501376	0.0331793	0	0.032501	0.092967	9.30E-04
229.9249	0.03250899	0.0331793	0	0.032509	0.092967	9.30E-04
229.9276	0.032504429	0.0331793	0	0.032504	0.092967	9.30E-04
229.9332	0.032529439	0.0331793	0	0.032529	0.092967	9.30E-04
229.936	0.032529439	0.0331793	0	0.032529	0.092967	9.30E-04
229.9387	0.032530675	0.0331793	0	0.032531	0.092967	9.30E-04
229.9443	0.032550117	0.0331793	0	0.03255	0.092967	9.30E-04
229.947	0.032556039	0.0331793	0	0.032556	0.092967	9.30E-04
229.9526	0.032554016	0.0331793	0	0.032554	0.092967	9.30E-04
229.9554	0.032560268	0.0331793	0	0.03256	0.092967	9.30E-04
229.9609	0.032580072	0.0331793	0	0.03258	0.092967	9.30E-04
229.9637	0.032603806	0.0331793	0	0.032604	0.092967	9.30E-04
229.9664	0.032605236	0.0331793	0	0.032605	0.092967	9.30E-04
229.972	0.032606479	0.0331793	0	0.032606	0.092967	9.30E-04
229.9747	0.032630235	0.0331793	0	0.03263	0.092967	9.30E-04
229.9803	0.032648872	0.0331793	0	0.032649	0.092967	9.30E-04
229.9831	0.032654092	0.0331793	0	0.032654	0.092967	9.30E-04
229.9858	0.032649017	0.0331793	0	0.032649	0.092967	9.30E-04
229.9914	0.032672259	0.0331793	0	0.032672	0.092967	9.30E-04
229.9941	0.032672259	0.0331793	0	0.032672	0.092967	9.30E-04
229.9997	0.032649992	0.0331793	0	0.03265	0.092967	9.30E-04
230.0025	0.032655136	0.0331793	0	0.032655	0.092967	9.30E-04
230.0052	0.032650089	0.0331793	0	0.03265	0.092967	9.30E-04
230.008	0.032672768	0.0331793	0	0.032673	0.092967	9.30E-04
230.0135	0.032712675	0.0331793	0	0.032713	0.092967	9.30E-04
230.0163	0.032734918	0.0331793	0	0.032735	0.092967	9.30E-04
230.0218	0.032734581	0.0331793	0	0.032735	0.092967	9.30E-04
230.0246	0.032756818	0.0331793	0	0.032757	0.092967	9.30E-04
230.0274	0.032751427	0.0331793	0	0.032751	0.092967	9.30E-04
230.0329	0.032755504	0.0331793	0	0.032756	0.092967	9.30E-04
230.0357	0.032772939	0.0331793	0	0.032773	0.092967	9.30E-04
230.0412	0.03281203	0.0331793	0	0.032812	0.092967	9.30E-04
230.044	0.032816808	0.0331793	0	0.032817	0.092967	9.30E-04
230.0468	0.032816156	0.0331793	0	0.032816	0.092967	9.30E-04
230.0523	0.032833236	0.0331793	0	0.032833	0.092967	9.30E-04
230.0551	0.032837788	0.0331793	0	0.032838	0.092967	9.30E-04
230.0579	0.032832758	0.0331793	0	0.032833	0.092967	9.30E-04
230.0634	0.032854142	0.0331793	0	0.032854	0.092967	9.30E-04
230.0662	0.032852762	0.0331793	0	0.032853	0.092967	9.30E-04
230.0689	0.032852762	0.0331793	0	0.032853	0.092967	9.30E-04
230.0745	0.032871956	0.0331793	0	0.032872	0.092967	9.30E-04
230.0773	0.032889097	0.0331793	0	0.032889	0.092967	9.30E-04
230.0828	0.032868758	0.0331793	0	0.032869	0.092967	9.30E-04
230.0856	0.032866983	0.0331793	0	0.032867	0.092967	9.30E-04
230.0911	0.032864903	0.0331793	0	0.032865	0.092967	9.30E-04
230.0939	0.032863059	0.0331793	0	0.032863	0.092967	9.30E-04
230.0994	0.032901827	0.0331793	0	0.032902	0.092967	9.30E-04
230.1022	0.032900256	0.0331793	0	0.0329	0.092967	9.30E-04
230.105	0.032900256	0.0331793	0	0.0329	0.092967	9.30E-04

230.1105	0.032897406	0.0331793	0	0.032897	0.092967	9.30E-04
230.1133	0.032895535	0.0331793	0	0.032896	0.092967	9.30E-04
230.1188	0.032893975	0.0331793	0	0.032894	0.092967	9.30E-04
230.1216	0.032892972	0.0331793	0	0.032893	0.092967	9.30E-04
230.1244	0.032868472	0.0331793	0	0.032868	0.092967	9.30E-04
230.1299	0.032866812	0.0331793	0	0.032867	0.092967	9.30E-04
230.1354	0.032887578	0.0331793	0	0.032888	0.092967	9.30E-04
230.1382	0.032886001	0.0331793	0	0.032886	0.092967	9.30E-04
230.1438	0.032884326	0.0331793	0	0.032884	0.092967	9.30E-04
230.1493	0.03286474	0.0331793	0	0.032865	0.092967	9.30E-04
230.1521	0.032857987	0.0331793	0	0.032858	0.092967	9.30E-04
230.1576	0.032855621	0.0331793	0	0.032856	0.092967	9.30E-04
230.1604	0.032838182	0.0331793	0	0.032838	0.092967	9.30E-04
230.1659	0.03283015	0.0331793	0	0.03283	0.092967	9.30E-04
230.1715	0.032811706	0.0331793	0	0.032812	0.092967	9.30E-04
230.1742	0.032833565	0.0331793	0	0.032834	0.092967	9.30E-04
230.1798	0.032831958	0.0331793	0	0.032832	0.092967	9.30E-04
230.1825	0.032807701	0.0331793	0	0.032808	0.092967	9.30E-04
230.1853	0.032806169	0.0331793	0	0.032806	0.092967	9.30E-04
230.1909	0.032804368	0.0331793	0	0.032804	0.092967	9.30E-04
230.1936	0.032803176	0.0331793	0	0.032803	0.092967	9.30E-04
230.1964	0.032801522	0.0331793	0	0.032802	0.092967	9.30E-04
230.2019	0.032799889	0.0331793	0	0.0328	0.092967	9.30E-04
230.2075	0.032780615	0.0331793	0	0.032781	0.092967	9.30E-04
230.2102	0.032774626	0.0331793	0	0.032775	0.092967	9.30E-04
230.2158	0.032772557	0.0331793	0	0.032773	0.092967	9.30E-04
230.2186	0.032754252	0.0331793	0	0.032754	0.092967	9.30E-04
230.2241	0.032748026	0.0331793	0	0.032748	0.092967	9.30E-04
230.2269	0.032752327	0.0331793	0	0.032752	0.092967	9.30E-04
230.2324	0.032728821	0.0331793	0	0.032729	0.092967	9.30E-04
230.2352	0.032728646	0.0331793	0	0.032729	0.092967	9.30E-04
230.2407	0.032728729	0.0331793	0	0.032729	0.092967	9.30E-04
230.2435	0.03270643	0.0331793	0	0.032706	0.092967	9.30E-04
230.249	0.032706779	0.0331793	0	0.032707	0.092967	9.30E-04
230.2518	0.032707155	0.0331793	0	0.032707	0.092967	9.30E-04
230.2574	0.032707177	0.0331793	0	0.032707	0.092967	9.30E-04
230.2601	0.032729747	0.0331793	0	0.03273	0.092967	9.30E-04
230.2657	0.032711359	0.0331793	0	0.032711	0.092967	9.30E-04
230.2684	0.032705831	0.0331793	0	0.032706	0.092967	9.30E-04
230.274	0.03272676	0.0331793	0	0.032727	0.092967	9.30E-04
230.2767	0.03272586	0.0331793	0	0.032726	0.092967	9.30E-04
230.2795	0.03272586	0.0331793	0	0.032726	0.092967	9.30E-04
230.2851	0.03272524	0.0331793	0	0.032725	0.092967	9.30E-04
230.2878	0.03270221	0.0331793	0	0.032702	0.092967	9.30E-04
230.2934	0.032702026	0.0331793	0	0.032702	0.092967	9.30E-04
230.2961	0.032724686	0.0331793	0	0.032725	0.092967	9.30E-04
230.3017	0.032684717	0.0331793	0	0.032685	0.092967	9.30E-04
230.3045	0.032684916	0.0331793	0	0.032685	0.092967	9.30E-04
230.31	0.032725608	0.0331793	0	0.032726	0.092967	9.30E-04
230.3128	0.032703307	0.0331793	0	0.032703	0.092967	9.30E-04
230.3155	0.032686451	0.0331793	0	0.032686	0.092967	9.30E-04
230.3183	0.032664544	0.0331793	0	0.032665	0.092967	9.30E-04
230.3238	0.032665532	0.0331793	0	0.032666	0.092967	9.30E-04
230.3266	0.032667178	0.0331793	0	0.032667	0.092967	9.30E-04
230.3322	0.032629634	0.0331793	0	0.03263	0.092967	9.30E-04
230.3349	0.032608148	0.0331793	0	0.032608	0.092967	9.30E-04
230.3405	0.032609673	0.0331793	0	0.03261	0.092967	9.30E-04
230.3432	0.032610923	0.0331793	0	0.032611	0.092967	9.30E-04
230.3488	0.032612674	0.0331793	0	0.032613	0.092967	9.30E-04
230.3516	0.032612674	0.0331793	0	0.032613	0.092967	9.30E-04
230.3543	0.032613708	0.0331793	0	0.032614	0.092967	9.30E-04
230.3599	0.032575411	0.0331793	0	0.032575	0.092967	9.30E-04
230.3626	0.0325313	0.0331793	0	0.032531	0.092967	9.30E-04
230.3654	0.032515305	0.0331793	0	0.032515	0.092967	9.30E-04
230.3709	0.032512163	0.0331793	0	0.032512	0.092967	9.30E-04
230.3737	0.032518972	0.0331793	0	0.032519	0.092967	9.30E-04
230.3765	0.032497715	0.0331793	0	0.032498	0.092967	9.30E-04
230.382	0.032499405	0.0331793	0	0.032499	0.092967	9.30E-04
230.3848	0.032479069	0.0331793	0	0.032479	0.092967	9.30E-04
230.3903	0.032465365	0.0331793	0	0.032465	0.092967	9.30E-04
230.3931	0.032460562	0.0331793	0	0.032461	0.092967	9.30E-04
230.3987	0.032447523	0.0331793	0	0.032448	0.092967	9.30E-04
230.4014	0.032427083	0.0331793	0	0.032427	0.092967	9.30E-04
230.4042	0.03243433	0.0331793	0	0.032434	0.092967	9.30E-04

230.4097	0.032431866	0.0331793	0	0.032432	0.092967	9.30E-04
230.4125	0.032439205	0.0331793	0	0.032439	0.092967	9.30E-04
230.4153	0.032413118	0.0331793	0	0.032413	0.092967	9.30E-04
230.4208	0.032400492	0.0331793	0	0.0324	0.092967	9.30E-04
230.4236	0.032380553	0.0331793	0	0.032381	0.092967	9.30E-04
230.4264	0.032388049	0.0331793	0	0.032388	0.092967	9.30E-04
230.4291	0.032383552	0.0331793	0	0.032384	0.092967	9.30E-04
230.4347	0.032371414	0.0331793	0	0.032371	0.092967	9.30E-04
230.4374	0.03237441	0.0331793	0	0.032374	0.092967	9.30E-04
230.4402	0.032369793	0.0331793	0	0.03237	0.092967	9.30E-04
230.4458	0.032356642	0.0331793	0	0.032357	0.092967	9.30E-04
230.4485	0.032359349	0.0331793	0	0.032359	0.092967	9.30E-04
230.4513	0.032359349	0.0331793	0	0.032359	0.092967	9.30E-04
230.4568	0.032342179	0.0331793	0	0.032342	0.092967	9.30E-04
230.4596	0.032326905	0.0331793	0	0.032327	0.092967	9.30E-04
230.4624	0.032329741	0.0331793	0	0.03233	0.092967	9.30E-04
230.4679	0.032349028	0.0331793	0	0.032349	0.092967	9.30E-04
230.4707	0.032355388	0.0331793	0	0.032355	0.092967	9.30E-04
230.4735	0.032350612	0.0331793	0	0.032351	0.092967	9.30E-04
230.479	0.032358717	0.0331793	0	0.032359	0.092967	9.30E-04
230.4818	0.0323544	0.0331793	0	0.032354	0.092967	9.30E-04
230.4845	0.032356506	0.0331793	0	0.032357	0.092967	9.30E-04
230.4873	0.032340144	0.0331793	0	0.03234	0.092967	9.30E-04
230.4901	0.032341966	0.0331793	0	0.032342	0.092967	9.30E-04
230.4956	0.032343735	0.0331793	0	0.032344	0.092967	9.30E-04
230.4984	0.032301157	0.0331793	0	0.032301	0.092967	9.30E-04
230.5012	0.032307418	0.0331793	0	0.032307	0.092967	9.30E-04
230.5067	0.032304851	0.0331793	0	0.032305	0.092967	9.30E-04
230.5095	0.032288771	0.0331793	0	0.032289	0.092967	9.30E-04
230.5122	0.032268218	0.0331793	0	0.032268	0.092967	9.30E-04
230.5178	0.032270392	0.0331793	0	0.03227	0.092967	9.30E-04
230.5206	0.032272644	0.0331793	0	0.032273	0.092967	9.30E-04
230.5233	0.032252601	0.0331793	0	0.032253	0.092967	9.30E-04
230.5261	0.032236972	0.0331793	0	0.032237	0.092967	9.30E-04
230.5316	0.032235698	0.0331793	0	0.032236	0.092967	9.30E-04
230.5344	0.03224316	0.0331793	0	0.032243	0.092967	9.30E-04
230.5372	0.032223403	0.0331793	0	0.032223	0.092967	9.30E-04
230.54	0.032204181	0.0331793	0	0.032204	0.092967	9.30E-04
230.5455	0.03219266	0.0331793	0	0.032193	0.092967	9.30E-04
230.5483	0.032188087	0.0331793	0	0.032188	0.092967	9.30E-04
230.551	0.03219594	0.0331793	0	0.032196	0.092967	9.30E-04
230.5538	0.032176389	0.0331793	0	0.032176	0.092967	9.30E-04
230.5566	0.032179455	0.0331793	0	0.032179	0.092967	9.30E-04
230.5621	0.032160282	0.0331793	0	0.03216	0.092967	9.30E-04
230.5649	0.032145011	0.0331793	0	0.032145	0.092967	9.30E-04
230.5677	0.032148026	0.0331793	0	0.032148	0.092967	9.30E-04
230.5704	0.032165229	0.0331793	0	0.032165	0.092967	9.30E-04
230.5732	0.032168274	0.0331793	0	0.032168	0.092967	9.30E-04
230.5787	0.032171263	0.0331793	0	0.032171	0.092967	9.30E-04
230.5815	0.032173931	0.0331793	0	0.032174	0.092967	9.30E-04
230.5843	0.032158149	0.0331793	0	0.032158	0.092967	9.30E-04
230.5898	0.032139331	0.0331793	0	0.032139	0.092967	9.30E-04
230.5926	0.032142226	0.0331793	0	0.032142	0.092967	9.30E-04
230.5954	0.032145254	0.0331793	0	0.032145	0.092967	9.30E-04
230.5981	0.032145254	0.0331793	0	0.032145	0.092967	9.30E-04
230.6009	0.032148164	0.0331793	0	0.032148	0.092967	9.30E-04
230.6064	0.032190019	0.0331793	0	0.03219	0.092967	9.30E-04
230.6092	0.032191803	0.0331793	0	0.032192	0.092967	9.30E-04
230.612	0.032197902	0.0331793	0	0.032198	0.092967	9.30E-04
230.6175	0.032195776	0.0331793	0	0.032196	0.092967	9.30E-04
230.6203	0.032201855	0.0331793	0	0.032202	0.092967	9.30E-04
230.6231	0.032197622	0.0331793	0	0.032198	0.092967	9.30E-04
230.6258	0.032220988	0.0331793	0	0.032221	0.092967	9.30E-04
230.6314	0.032222413	0.0331793	0	0.032222	0.092967	9.30E-04
230.6342	0.032223881	0.0331793	0	0.032224	0.092967	9.30E-04
230.6369	0.03224709	0.0331793	0	0.032247	0.092967	9.30E-04
230.6397	0.032242281	0.0331793	0	0.032242	0.092967	9.30E-04
230.6452	0.032249502	0.0331793	0	0.03225	0.092967	9.30E-04
230.648	0.032266426	0.0331793	0	0.032266	0.092967	9.30E-04
230.6535	0.03230644	0.0331793	0	0.032306	0.092967	9.30E-04
230.6563	0.032311668	0.0331793	0	0.032312	0.092967	9.30E-04
230.6591	0.03231271	0.0331793	0	0.032313	0.092967	9.30E-04
230.6646	0.032330408	0.0331793	0	0.03233	0.092967	9.30E-04
230.6674	0.032336226	0.0331793	0	0.032336	0.092967	9.30E-04

230.6729	0.032353752	0.0331793	0	0.032354	0.092967	9.30E-04
230.6757	0.032254927	0.0331793	0	0.032255	0.092967	9.30E-04
230.6785	0.03224921	0.0331793	0	0.032249	0.092967	9.30E-04
230.684	0.032272885	0.0331793	0	0.032273	0.092967	9.30E-04
230.6868	0.032296269	0.0331793	0	0.032296	0.092967	9.30E-04
230.6896	0.032297053	0.0331793	0	0.032297	0.092967	9.30E-04
230.6951	0.032297543	0.0331793	0	0.032298	0.092967	9.30E-04
230.6979	0.032320089	0.0331793	0	0.03232	0.092967	9.30E-04
230.7034	0.032320558	0.0331793	0	0.032321	0.092967	9.30E-04
230.7062	0.032298189	0.0331793	0	0.032298	0.092967	9.30E-04
230.7117	0.032320978	0.0331793	0	0.032321	0.092967	9.30E-04
230.7145	0.032314947	0.0331793	0	0.032315	0.092967	9.30E-04
230.7173	0.032343924	0.0331793	0	0.032344	0.092967	9.30E-04
230.7228	0.032360994	0.0331793	0	0.032361	0.092967	9.30E-04
230.7256	0.032339081	0.0331793	0	0.032339	0.092967	9.30E-04
230.7311	0.032323609	0.0331793	0	0.032324	0.092967	9.30E-04
230.7339	0.032339913	0.0331793	0	0.03234	0.092967	9.30E-04
230.7367	0.032362674	0.0331793	0	0.032363	0.092967	9.30E-04
230.7394	0.032385299	0.0331793	0	0.032385	0.092967	9.30E-04
230.745	0.032429101	0.0331793	0	0.032429	0.092967	9.30E-04
230.7477	0.032422847	0.0331793	0	0.032423	0.092967	9.30E-04
230.7505	0.032438958	0.0331793	0	0.032439	0.092967	9.30E-04
230.7561	0.032498126	0.0331793	0	0.032498	0.092967	9.30E-04
230.7588	0.032503015	0.0331793	0	0.032503	0.092967	9.30E-04
230.7644	0.032517722	0.0331793	0	0.032518	0.092967	9.30E-04
230.7671	0.032538231	0.0331793	0	0.032538	0.092967	9.30E-04
230.7727	0.032414806	0.0331793	0	0.032415	0.092967	9.30E-04
230.7755	0.032438875	0.0331793	0	0.032439	0.092967	9.30E-04
230.7782	0.032455711	0.0331793	0	0.032456	0.092967	9.30E-04
230.7838	0.032495698	0.0331793	0	0.032496	0.092967	9.30E-04
230.7865	0.032523898	0.0331793	0	0.032524	0.092967	9.30E-04
230.7893	0.032518488	0.0331793	0	0.032518	0.092967	9.30E-04
230.7948	0.032558291	0.0331793	0	0.032558	0.092967	9.30E-04
230.7976	0.032585736	0.0331793	0	0.032586	0.092967	9.30E-04
230.8004	0.03258067	0.0331793	0	0.032581	0.092967	9.30E-04
230.8059	0.032642608	0.0331793	0	0.032643	0.092967	9.30E-04
230.8087	0.032641971	0.0331793	0	0.032642	0.092967	9.30E-04
230.8142	0.032601285	0.0331793	0	0.032601	0.092967	9.30E-04
230.817	0.032600843	0.0331793	0	0.032601	0.092967	9.30E-04
230.8198	0.032622582	0.0331793	0	0.032623	0.092967	9.30E-04
230.8226	0.032639497	0.0331793	0	0.032639	0.092967	9.30E-04
230.8281	0.032621228	0.0331793	0	0.032621	0.092967	9.30E-04
230.8309	0.03262045	0.0331793	0	0.03262	0.092967	9.30E-04
230.8364	0.032681454	0.0331793	0	0.032681	0.092967	9.30E-04
230.8392	0.032698285	0.0331793	0	0.032698	0.092967	9.30E-04
230.8447	0.032741807	0.0331793	0	0.032742	0.092967	9.30E-04
230.8475	0.032735628	0.0331793	0	0.032736	0.092967	9.30E-04
230.853	0.032817247	0.0331793	0	0.032817	0.092967	9.30E-04
230.8558	0.032858846	0.0331793	0	0.032859	0.092967	9.30E-04
230.8613	0.032829906	0.0331793	0	0.03283	0.092967	9.30E-04
230.8641	0.032829906	0.0331793	0	0.03283	0.092967	9.30E-04
230.8697	0.0328872	0.0331793	0	0.032887	0.092967	9.30E-04
230.8724	0.032881215	0.0331793	0	0.032881	0.092967	9.30E-04
230.8752	0.032971268	0.0331793	0	0.032971	0.092967	9.30E-04
230.8807	0.032982557	0.0331793	0	0.032983	0.092967	9.30E-04
230.8835	0.032976305	0.0331793	0	0.032976	0.092967	9.30E-04
230.889	0.033059188	0.0331793	0	0.033059	0.092967	9.30E-04
230.8918	0.033076389	0.0331793	0	0.033076	0.092967	9.30E-04
230.8974	0.033136111	0.0331793	0	0.033136	0.092967	9.30E-04
230.9029	0.033168098	0.0331793	0	0.033168	0.092967	9.30E-04
230.9057	0.033168098	0.0331793	0	0.033168	0.092967	9.30E-04
230.9112	0.033179292	0.0331793	0	0.033179	0.092967	9.30E-04
230.914	0.033115403	0.0331154	0.000179013	0.033115	0.092967	9.30E-04
230.9195	0.033000428	0.0330004	0.000322154	0.033	0.092788	9.28E-04
230.9223	0.032916894	0.0329169	0.000234059	0.032917	0.092465	9.25E-04
230.9278	0.032616667	0.03264	0.000775731	0.032617	0.092231	9.22E-04
230.9306	0.032560129	0.03264	0	0.03256	0.091456	9.15E-04
230.9361	0.032598945	0.03264	0	0.032599	0.091456	9.15E-04
230.9389	0.032592781	0.03264	0	0.032593	0.091456	9.15E-04
230.9445	0.032597723	0.03264	0	0.032598	0.091456	9.15E-04
230.9472	0.032592006	0.03264	0	0.032592	0.091456	9.15E-04
230.9528	0.032574787	0.03264	0	0.032575	0.091456	9.15E-04
230.9555	0.032574431	0.03264	0	0.032574	0.091456	9.15E-04
230.9611	0.032573914	0.03264	0	0.032574	0.091456	9.15E-04

230.9639	0.032573676	0.03264	0	0.032574	0.091456	9.15E-04
230.9694	0.032573174	0.03264	0	0.032573	0.091456	9.15E-04
230.9722	0.032572535	0.03264	0	0.032573	0.091456	9.15E-04
230.9777	0.032555138	0.03264	0	0.032555	0.091456	9.15E-04
230.9805	0.032548698	0.03264	0	0.032549	0.091456	9.15E-04
230.986	0.032548667	0.03264	0	0.032549	0.091456	9.15E-04
230.9888	0.032532033	0.03264	0	0.032532	0.091456	9.15E-04
230.9943	0.032526534	0.03264	0	0.032527	0.091456	9.15E-04
230.9971	0.03253297	0.03264	0	0.032533	0.091456	9.15E-04
230.9999	0.032510551	0.03264	0	0.032511	0.091456	9.15E-04
231.0054	0.03255044	0.03264	0	0.03255	0.091456	9.15E-04
231.0082	0.03255109	0.03264	0	0.032551	0.091456	9.15E-04
231.0137	0.03251259	0.03264	0	0.032513	0.091456	9.15E-04
231.0193	0.032513082	0.03264	0	0.032513	0.091456	9.15E-04
231.022	0.032513425	0.03264	0	0.032513	0.091456	9.15E-04
231.0276	0.032513906	0.03264	0	0.032514	0.091456	9.15E-04
231.0304	0.032513906	0.03264	0	0.032514	0.091456	9.15E-04
231.0359	0.032491355	0.03264	0	0.032491	0.091456	9.15E-04
231.0414	0.0324917	0.03264	0	0.032492	0.091456	9.15E-04
231.0442	0.032514908	0.03264	0	0.032515	0.091456	9.15E-04
231.0497	0.032476444	0.03264	0	0.032476	0.091456	9.15E-04
231.0525	0.032477412	0.03264	0	0.032477	0.091456	9.15E-04
231.0581	0.032494778	0.03264	0	0.032495	0.091456	9.15E-04
231.0608	0.032501993	0.03264	0	0.032502	0.091456	9.15E-04
231.0636	0.032495591	0.03264	0	0.032496	0.091456	9.15E-04
231.0691	0.032496582	0.03264	0	0.032497	0.091456	9.15E-04
231.0719	0.03250367	0.03264	0	0.032504	0.091456	9.15E-04
231.0775	0.032497227	0.03264	0	0.032497	0.091456	9.15E-04
231.0802	0.032481302	0.03264	0	0.032481	0.091456	9.15E-04
231.083	0.032458809	0.03264	0	0.032459	0.091456	9.15E-04
231.0885	0.032459025	0.03264	0	0.032459	0.091456	9.15E-04
231.0913	0.032459286	0.03264	0	0.032459	0.091456	9.15E-04
231.0968	0.032420825	0.03264	0	0.032421	0.091456	9.15E-04
231.0996	0.032398121	0.03264	0	0.032398	0.091456	9.15E-04
231.1052	0.032413869	0.03264	0	0.032414	0.091456	9.15E-04
231.1079	0.032421228	0.03264	0	0.032421	0.091456	9.15E-04
231.1107	0.032398397	0.03264	0	0.032398	0.091456	9.15E-04
231.1162	0.032361083	0.03264	0	0.032361	0.091456	9.15E-04
231.119	0.032338745	0.03264	0	0.032339	0.091456	9.15E-04
231.1218	0.032362384	0.03264	0	0.032362	0.091456	9.15E-04
231.1246	0.032355239	0.03264	0	0.032355	0.091456	9.15E-04
231.1301	0.03234175	0.03264	0	0.032342	0.091456	9.15E-04
231.1329	0.03234175	0.03264	0	0.032342	0.091456	9.15E-04
231.1356	0.03234271	0.03264	0	0.032343	0.091456	9.15E-04
231.1412	0.032329029	0.03264	0	0.032329	0.091456	9.15E-04
231.1439	0.032299413	0.03264	0	0.032299	0.091456	9.15E-04
231.1467	0.032307853	0.03264	0	0.032308	0.091456	9.15E-04
231.1523	0.032265726	0.03264	0	0.032266	0.091456	9.15E-04
231.155	0.032274294	0.03264	0	0.032274	0.091456	9.15E-04
231.1578	0.032267915	0.03264	0	0.032268	0.091456	9.15E-04
231.1606	0.03226993	0.03264	0	0.03227	0.091456	9.15E-04
231.1661	0.03223466	0.03264	0	0.032235	0.091456	9.15E-04
231.1689	0.03223466	0.03264	0	0.032235	0.091456	9.15E-04
231.1717	0.032236681	0.03264	0	0.032237	0.091456	9.15E-04
231.1772	0.032238725	0.03264	0	0.032239	0.091456	9.15E-04
231.18	0.032240683	0.03264	0	0.032241	0.091456	9.15E-04
231.1827	0.032264857	0.03264	0	0.032265	0.091456	9.15E-04
231.1883	0.032266509	0.03264	0	0.032267	0.091456	9.15E-04
231.191	0.032267858	0.03264	0	0.032268	0.091456	9.15E-04
231.1938	0.032284536	0.03264	0	0.032285	0.091456	9.15E-04
231.1994	0.032291408	0.03264	0	0.032291	0.091456	9.15E-04
231.2021	0.032263254	0.03264	0	0.032263	0.091456	9.15E-04
231.2049	0.032269194	0.03264	0	0.032269	0.091456	9.15E-04
231.2104	0.032247279	0.03264	0	0.032247	0.091456	9.15E-04
231.2132	0.032247279	0.03264	0	0.032247	0.091456	9.15E-04
231.216	0.032247436	0.03264	0	0.032247	0.091456	9.15E-04
231.2188	0.032247558	0.03264	0	0.032248	0.091456	9.15E-04
231.2243	0.032247733	0.03264	0	0.032248	0.091456	9.15E-04
231.2271	0.032225833	0.03264	0	0.032226	0.091456	9.15E-04
231.2298	0.032232024	0.03264	0	0.032232	0.091456	9.15E-04
231.2326	0.032226779	0.03264	0	0.032227	0.091456	9.15E-04
231.2381	0.032212354	0.03264	0	0.032212	0.091456	9.15E-04
231.2409	0.032213472	0.03264	0	0.032213	0.091456	9.15E-04
231.2437	0.032208645	0.03264	0	0.032209	0.091456	9.15E-04

231.2492	0.032193765	0.03264	0	0.032194	0.091456	9.15E-04
231.252	0.032194985	0.03264	0	0.032195	0.091456	9.15E-04
231.2575	0.032196342	0.03264	0	0.032196	0.091456	9.15E-04
231.2603	0.032175613	0.03264	0	0.032176	0.091456	9.15E-04
231.2631	0.032159926	0.03264	0	0.03216	0.091456	9.15E-04
231.2686	0.032141095	0.03264	0	0.032141	0.091456	9.15E-04
231.2714	0.032141095	0.03264	0	0.032141	0.091456	9.15E-04
231.2742	0.032142936	0.03264	0	0.032143	0.091456	9.15E-04
231.2797	0.032123244	0.03264	0	0.032123	0.091456	9.15E-04
231.2825	0.032130496	0.03264	0	0.03213	0.091456	9.15E-04
231.2852	0.032124928	0.03264	0	0.032125	0.091456	9.15E-04
231.288	0.032126662	0.03264	0	0.032127	0.091456	9.15E-04
231.2936	0.032091201	0.03264	0	0.032091	0.091456	9.15E-04
231.2963	0.032093204	0.03264	0	0.032093	0.091456	9.15E-04
231.2991	0.032093204	0.03264	0	0.032093	0.091456	9.15E-04
231.3019	0.032094978	0.03264	0	0.032095	0.091456	9.15E-04
231.3074	0.0320592	0.03264	0	0.032059	0.091456	9.15E-04
231.3102	0.032060657	0.03264	0	0.032061	0.091456	9.15E-04
231.313	0.03207654	0.03264	0	0.032077	0.091456	9.15E-04
231.3157	0.032099897	0.03264	0	0.0321	0.091456	9.15E-04
231.3185	0.03207833	0.03264	0	0.032078	0.091456	9.15E-04
231.324	0.032064455	0.03264	0	0.032064	0.091456	9.15E-04
231.3268	0.032057713	0.03264	0	0.032058	0.091456	9.15E-04
231.3296	0.032065552	0.03264	0	0.032066	0.091456	9.15E-04
231.3323	0.032043702	0.03264	0	0.032044	0.091456	9.15E-04
231.3351	0.032044317	0.03264	0	0.032044	0.091456	9.15E-04
231.3407	0.03204491	0.03264	0	0.032045	0.091456	9.15E-04
231.3434	0.032045139	0.03264	0	0.032045	0.091456	9.15E-04
231.3462	0.032045139	0.03264	0	0.032045	0.091456	9.15E-04
231.3517	0.032044785	0.03264	0	0.032045	0.091456	9.15E-04
231.3545	0.032044478	0.03264	0	0.032044	0.091456	9.15E-04
231.3573	0.032044478	0.03264	0	0.032044	0.091456	9.15E-04
231.3601	0.032066218	0.03264	0	0.032066	0.091456	9.15E-04
231.3628	0.03208185	0.03264	0	0.032082	0.091456	9.15E-04
231.3656	0.032081658	0.03264	0	0.032082	0.091456	9.15E-04
231.3711	0.032065481	0.03264	0	0.032065	0.091456	9.15E-04
231.3739	0.032080814	0.03264	0	0.032081	0.091456	9.15E-04
231.3767	0.032080411	0.03264	0	0.03208	0.091456	9.15E-04
231.3822	0.032079976	0.03264	0	0.03208	0.091456	9.15E-04
231.385	0.032080093	0.03264	0	0.03208	0.091456	9.15E-04
231.3878	0.032086623	0.03264	0	0.032087	0.091456	9.15E-04
231.3933	0.032080181	0.03264	0	0.03208	0.091456	9.15E-04
231.3961	0.032086381	0.03264	0	0.032086	0.091456	9.15E-04
231.3988	0.032080449	0.03264	0	0.03208	0.091456	9.15E-04
231.4016	0.032124795	0.03264	0	0.032125	0.091456	9.15E-04
231.4072	0.032124773	0.03264	0	0.032125	0.091456	9.15E-04
231.4099	0.032124622	0.03264	0	0.032125	0.091456	9.15E-04
231.4155	0.032139924	0.03264	0	0.03214	0.091456	9.15E-04
231.4182	0.032123731	0.03264	0	0.032124	0.091456	9.15E-04
231.421	0.032123286	0.03264	0	0.032123	0.091456	9.15E-04
231.4238	0.032139397	0.03264	0	0.032139	0.091456	9.15E-04
231.4293	0.032161537	0.03264	0	0.032162	0.091456	9.15E-04
231.4321	0.032161537	0.03264	0	0.032162	0.091456	9.15E-04
231.4349	0.032183621	0.03264	0	0.032184	0.091456	9.15E-04
231.4404	0.032199843	0.03264	0	0.0322	0.091456	9.15E-04
231.4432	0.032205594	0.03264	0	0.032206	0.091456	9.15E-04
231.4459	0.032200178	0.03264	0	0.0322	0.091456	9.15E-04
231.4515	0.032201401	0.03264	0	0.032201	0.091456	9.15E-04
231.4543	0.032207003	0.03264	0	0.032207	0.091456	9.15E-04
231.457	0.032201996	0.03264	0	0.032202	0.091456	9.15E-04
231.4598	0.032224476	0.03264	0	0.032224	0.091456	9.15E-04
231.4653	0.032225146	0.03264	0	0.032225	0.091456	9.15E-04
231.4681	0.032225617	0.03264	0	0.032226	0.091456	9.15E-04
231.4736	0.032242914	0.03264	0	0.032243	0.091456	9.15E-04
231.4764	0.032248612	0.03264	0	0.032249	0.091456	9.15E-04
231.482	0.032265222	0.03264	0	0.032265	0.091456	9.15E-04
231.4847	0.032287178	0.03264	0	0.032287	0.091456	9.15E-04
231.4875	0.03230949	0.03264	0	0.032309	0.091456	9.15E-04
231.493	0.032309307	0.03264	0	0.032309	0.091456	9.15E-04
231.4958	0.032308945	0.03264	0	0.032309	0.091456	9.15E-04
231.4986	0.032325254	0.03264	0	0.032325	0.091456	9.15E-04
231.5041	0.032330187	0.03264	0	0.03233	0.091456	9.15E-04
231.5069	0.032324327	0.03264	0	0.032324	0.091456	9.15E-04
231.5097	0.032368549	0.03264	0	0.032369	0.091456	9.15E-04

231.5124	0.032363135	0.03264	0	0.032363	0.091456	9.15E-04
231.518	0.03236824	0.03264	0	0.032368	0.091456	9.15E-04
231.5207	0.032385351	0.03264	0	0.032385	0.091456	9.15E-04
231.5235	0.032429224	0.03264	0	0.032429	0.091456	9.15E-04
231.5263	0.032424104	0.03264	0	0.032424	0.091456	9.15E-04
231.5318	0.032428399	0.03264	0	0.032428	0.091456	9.15E-04
231.5346	0.032445488	0.03264	0	0.032445	0.091456	9.15E-04
231.5374	0.032467116	0.03264	0	0.032467	0.091456	9.15E-04
231.5401	0.032466303	0.03264	0	0.032466	0.091456	9.15E-04
231.5429	0.032466303	0.03264	0	0.032466	0.091456	9.15E-04
231.5485	0.032486761	0.03264	0	0.032487	0.091456	9.15E-04
231.5512	0.032503533	0.03264	0	0.032504	0.091456	9.15E-04
231.554	0.032546775	0.03264	0	0.032547	0.091456	9.15E-04
231.5595	0.032545662	0.03264	0	0.032546	0.091456	9.15E-04
231.5623	0.032544736	0.03264	0	0.032545	0.091456	9.15E-04
231.5651	0.032561821	0.03264	0	0.032562	0.091456	9.15E-04
231.5706	0.03258261	0.03264	0	0.032583	0.091456	9.15E-04
231.5734	0.032581267	0.03264	0	0.032581	0.091456	9.15E-04
231.5789	0.032579705	0.03264	0	0.03258	0.091456	9.15E-04
231.5817	0.032600917	0.03264	0	0.032601	0.091456	9.15E-04
231.5845	0.032595203	0.03264	0	0.032595	0.091456	9.15E-04
231.59	0.032575644	0.03264	0	0.032576	0.091456	9.15E-04
231.5928	0.032596676	0.03264	0	0.032597	0.091456	9.15E-04
231.5983	0.03263454	0.03264	0	0.032635	0.091456	9.15E-04
231.6011	0.032632681	0.03264	0	0.032633	0.091456	9.15E-04
231.6066	0.032630984	0.03264	0	0.032631	0.091456	9.15E-04
231.6094	0.03263008	0.03264	0	0.03263	0.091456	9.15E-04
231.6149	0.032628588	0.03264	0	0.032629	0.091456	9.15E-04
231.6177	0.032626834	0.03264	0	0.032627	0.091456	9.15E-04
231.6233	0.032624331	0.03264	0	0.032624	0.091456	9.15E-04
231.626	0.032622372	0.03264	0	0.032622	0.091456	9.15E-04
231.6316	0.032620866	0.03264	0	0.032621	0.091456	9.15E-04
231.6343	0.032619857	0.03264	0	0.03262	0.091456	9.15E-04
231.6399	0.032635397	0.03264	0	0.032635	0.091456	9.15E-04
231.6427	0.032640039	0.03264	0	0.03264	0.091456	9.15E-04
231.6482	0.032615462	0.0326155	6.88645E-05	0.032615	0.091456	9.15E-04
231.6537	0.032614537	0.0326145	2.59214E-06	0.032615	0.091387	9.14E-04
231.6565	0.032613991	0.032614	1.53078E-06	0.032614	0.091384	9.14E-04
231.662	0.032595983	0.032596	5.0457E-05	0.032596	0.091383	9.14E-04
231.6648	0.032590326	0.0325903	1.58488E-05	0.03259	0.091332	9.13E-04
231.6704	0.032571899	0.0325719	5.16333E-05	0.032572	0.091316	9.13E-04
231.6731	0.032548505	0.0325647	2.02453E-05	0.032549	0.091265	9.13E-04
231.6731	0.032548505	0.0325647	0	0.032549	0.091245	9.12E-04
231.6731	0.032548505	0.0325647	0	0.032549	0.091245	9.12E-04
231.6787	0.032564673	0.0325647	0	0.032565	0.091245	9.12E-04
231.6842	0.032546518	0.0325465	5.08691E-05	0.032547	0.091245	9.12E-04
231.687	0.032545966	0.032546	1.54772E-06	0.032546	0.091194	9.12E-04
231.6925	0.032545258	0.0325453	1.98278E-06	0.032545	0.091192	9.12E-04
231.6953	0.032544247	0.0325442	2.83295E-06	0.032544	0.09119	9.12E-04
231.7008	0.032503531	0.0325035	0.000114086	0.032504	0.091187	9.12E-04
231.7036	0.032502357	0.0325024	3.28855E-06	0.032502	0.091073	9.11E-04
231.7064	0.032496449	0.0325016	2.07958E-06	0.032496	0.09107	9.11E-04
231.7091	0.032501615	0.0325016	0	0.032502	0.091068	9.11E-04
231.7147	0.032478337	0.0324783	6.52246E-05	0.032478	0.091068	9.11E-04
231.7202	0.03246079	0.0324608	4.91658E-05	0.032461	0.091003	9.10E-04
231.723	0.032454809	0.0324548	1.67573E-05	0.032455	0.090953	9.10E-04
231.7258	0.032453727	0.0324537	3.03197E-06	0.032454	0.090937	9.09E-04
231.7285	0.032436619	0.0324518	5.45199E-06	0.032437	0.090934	9.09E-04
231.7341	0.032435267	0.0324518	0	0.032435	0.090928	9.09E-04
231.7369	0.032451781	0.0324518	0	0.032452	0.090928	9.09E-04
231.7424	0.032433549	0.0324335	5.10844E-05	0.032434	0.090928	9.09E-04
231.7507	0.032424416	0.0324244	2.55903E-05	0.032424	0.090877	9.09E-04
231.7562	0.032405632	0.0324056	5.26339E-05	0.032406	0.090852	9.09E-04
231.759	0.032404591	0.0324046	2.91639E-06	0.032405	0.090799	9.08E-04
231.7646	0.032403556	0.0324036	2.89834E-06	0.032404	0.090796	9.08E-04
231.7673	0.032380299	0.0323803	6.51648E-05	0.03238	0.090793	9.08E-04
231.7673	0.032380299	0.0323803	0	0.03238	0.090728	9.07E-04
231.7673	0.032380299	0.0323803	0	0.03238	0.090728	9.07E-04
231.7729	0.032379131	0.0323791	3.27489E-06	0.032379	0.090728	9.07E-04
231.7784	0.032377107	0.0323771	5.66856E-06	0.032377	0.090725	9.07E-04
231.784	0.032359179	0.032375	6.02221E-06	0.032359	0.090719	9.07E-04
231.7895	0.032374958	0.032375	0	0.032375	0.090713	9.07E-04
231.795	0.032334646	0.0323497	7.06413E-05	0.032335	0.090713	9.07E-04
231.8006	0.032349747	0.0323497	0	0.03235	0.090642	9.06E-04

231.8061	0.032331569	0.0323316	5.09316E-05	0.032332	0.090642		9.06E-04
231.8089	0.03230819	0.0323205	3.09974E-05	0.032308	0.090591		9.06E-04
231.8117	0.032291635	0.0323205	0	0.032292	0.09056		9.06E-04
231.8144	0.03226845	0.0323205	0	0.032268	0.09056		9.06E-04
231.8172	0.032289919	0.0323205	0	0.03229	0.09056		9.06E-04
231.8227	0.032304196	0.0323205	0	0.032304	0.09056		9.06E-04
231.8255	0.032287387	0.0323205	0	0.032287	0.09056		9.06E-04
231.8283	0.032264068	0.0323205	0	0.032264	0.09056		9.06E-04
231.8338	0.032246678	0.0323205	0	0.032247	0.09056		9.06E-04
231.8394	0.032238906	0.0323205	0	0.032239	0.09056		9.06E-04
231.8477	0.032215537	0.0323205	0	0.032216	0.09056		9.06E-04
231.8532	0.032199089	0.0323205	0	0.032199	0.09056		9.06E-04
231.8588	0.032199011	0.0323205	0	0.032199	0.09056		9.06E-04
231.8588	0.032199011	0.0323205	0	0.032199	0.09056		9.06E-04
231.8643	0.032175902	0.0323205	0	0.032176	0.09056		9.06E-04
231.8726	0.032174344	0.0323205	0	0.032174	0.09056		9.06E-04
231.8837	0.032170475	0.0323205	0	0.03217	0.09056		9.06E-04
231.892	0.032107925	0.0323205	0	0.032108	0.09056		9.06E-04
231.9003	0.03209132	0.0323205	0	0.032091	0.09056		9.06E-04
231.9059	0.032068201	0.0323205	0	0.032068	0.09056		9.06E-04
231.9114	0.032067363	0.0323205	0	0.032067	0.09056		9.06E-04
231.9114	0.032067363	0.0323205	0	0.032067	0.09056		9.06E-04
231.9142	0.032066549	0.0323205	0	0.032067	0.09056		9.06E-04
231.9142	0.032066549	0.0323205	0	0.032067	0.09056		9.06E-04
231.9169	0.032066549	0.0323205	0	0.032067	0.09056		9.06E-04
231.9197	0.032066101	0.0323205	0	0.032066	0.09056		9.06E-04
231.9197	0.032066101	0.0323205	0	0.032066	0.09056		9.06E-04
231.9225	0.032043502	0.0323205	0	0.032044	0.09056		9.06E-04
231.9225	0.032043502	0.0323205	0	0.032044	0.09056		9.06E-04
231.9225	0.032043502	0.0323205	0	0.032044	0.09056		9.06E-04
231.9253	0.032049833	0.0323205	0	0.03205	0.09056		9.06E-04
231.9253	0.032049833	0.0323205	0	0.03205	0.09056		9.06E-04
231.9253	0.032049833	0.0323205	0	0.03205	0.09056		9.06E-04
231.928	0.032043227	0.0323205	0	0.032043	0.09056		9.06E-04
231.928	0.032043227	0.0323205	0	0.032043	0.09056		9.06E-04
231.9336	0.032048689	0.0323205	0	0.032049	0.09056		9.06E-04
231.9391	0.032041119	0.0323205	0	0.032041	0.09056		9.06E-04
231.9419	0.032025	0.0323205	0	0.032025	0.09056		9.06E-04
231.9474	0.032017104	0.0323205	0	0.032017	0.09056		9.06E-04
231.9502	0.032022901	0.0323205	0	0.032023	0.09056		9.06E-04
231.953	0.032021784	0.0323205	0	0.032022	0.09056		9.06E-04
231.9585	0.032020593	0.0323205	0	0.032021	0.09056		9.06E-04
231.9613	0.03199769	0.0323205	0	0.031998	0.09056		9.06E-04
231.964	0.031996862	0.0323205	0	0.031997	0.09056		9.06E-04
231.9696	0.031996005	0.0323205	0	0.031996	0.09056		9.06E-04
231.9724	0.031973185	0.0323205	0	0.031973	0.09056		9.06E-04
231.9751	0.031957597	0.0323205	0	0.031958	0.09056		9.06E-04
231.9807	0.031950941	0.0323205	0	0.031951	0.09056		9.06E-04
231.9834	0.031957835	0.0323205	0	0.031958	0.09056		9.06E-04
231.9862	0.03195807	0.0323205	0	0.031958	0.09056		9.06E-04
231.989	0.03195146	0.0323205	0	0.031951	0.09056		9.06E-04
231.9945	0.03193642	0.0323205	0	0.031936	0.09056		9.06E-04
231.9973	0.03193678	0.0323205	0	0.031937	0.09056		9.06E-04
232.0001	0.031915027	0.0323205	0	0.031915	0.09056		9.06E-04
232.0056	0.031915691	0.0323205	0	0.031916	0.09056		9.06E-04
232.0084	0.031916252	0.0323205	0	0.031916	0.09056		9.06E-04
232.0111	0.031900846	0.0323205	0	0.031901	0.09056		9.06E-04
232.0139	0.031879193	0.0323205	0	0.031879	0.09056		9.06E-04
232.0195	0.031879366	0.0323205	0	0.031879	0.09056		9.06E-04
232.0222	0.031879447	0.0323205	0	0.031879	0.09056		9.06E-04
232.025	0.031879447	0.0323205	0	0.031879	0.09056		9.06E-04
232.0305	0.031857818	0.0323205	0	0.031858	0.09056		9.06E-04
232.0333	0.031864216	0.0323205	0	0.031864	0.09056		9.06E-04
232.0361	0.031835969	0.0323205	0	0.031836	0.09056		9.06E-04
232.0416	0.031820328	0.0323205	0	0.03182	0.09056		9.06E-04
232.0444	0.031798407	0.0323205	0	0.031798	0.09056		9.06E-04
232.0472	0.03178312	0.0323205	0	0.031783	0.09056		9.06E-04
232.0499	0.031783497	0.0323205	0	0.031783	0.09056		9.06E-04
232.0555	0.031783895	0.0323205	0	0.031784	0.09056		9.06E-04
232.0582	0.031762266	0.0323205	0	0.031762	0.09056		9.06E-04
232.0638	0.031763043	0.0323205	0	0.031763	0.09056		9.06E-04
232.0666	0.031763043	0.0323205	0	0.031763	0.09056		9.06E-04
232.0693	0.031763446	0.0323205	0	0.031763	0.09056		9.06E-04
232.0749	0.031726741	0.0323205	0	0.031727	0.09056		9.06E-04

232.0776	0.031727153	0.0323205	0	0.031727	0.09056	9.06E-04
232.0804	0.031742744	0.0323205	0	0.031743	0.09056	9.06E-04
232.0832	0.031742969	0.0323205	0	0.031743	0.09056	9.06E-04
232.0887	0.03174344	0.0323205	0	0.031743	0.09056	9.06E-04
232.0915	0.031744059	0.0323205	0	0.031744	0.09056	9.06E-04
232.0943	0.031728827	0.0323205	0	0.031729	0.09056	9.06E-04
232.097	0.031729233	0.0323205	0	0.031729	0.09056	9.06E-04
232.0998	0.031723011	0.0323205	0	0.031723	0.09056	9.06E-04
232.1053	0.031729027	0.0323205	0	0.031729	0.09056	9.06E-04
232.1081	0.0317446	0.0323205	0	0.031745	0.09056	9.06E-04
232.1109	0.031744511	0.0323205	0	0.031745	0.09056	9.06E-04
232.1137	0.031750656	0.0323205	0	0.031751	0.09056	9.06E-04
232.1164	0.031744423	0.0323205	0	0.031744	0.09056	9.06E-04
232.1192	0.031765985	0.0323205	0	0.031766	0.09056	9.06E-04
232.1247	0.031781551	0.0323205	0	0.031782	0.09056	9.06E-04
232.1275	0.031787722	0.0323205	0	0.031788	0.09056	9.06E-04
232.1331	0.031786756	0.0323205	0	0.031787	0.09056	9.06E-04
232.1358	0.03177995	0.0323205	0	0.03178	0.09056	9.06E-04
232.1386	0.031786069	0.0323205	0	0.031786	0.09056	9.06E-04
232.1441	0.031800663	0.0323205	0	0.031801	0.09056	9.06E-04
232.1469	0.031799822	0.0323205	0	0.0318	0.09056	9.06E-04
232.1497	0.031805803	0.0323205	0	0.031806	0.09056	9.06E-04
232.1524	0.031798877	0.0323205	0	0.031799	0.09056	9.06E-04
232.158	0.031856689	0.0323205	0	0.031857	0.09056	9.06E-04
232.1608	0.031855258	0.0323205	0	0.031855	0.09056	9.06E-04
232.1635	0.0318611	0.0323205	0	0.031861	0.09056	9.06E-04
232.1691	0.031874469	0.0323205	0	0.031874	0.09056	9.06E-04
232.1718	0.031873381	0.0323205	0	0.031873	0.09056	9.06E-04
232.1774	0.031872343	0.0323205	0	0.031872	0.09056	9.06E-04
232.1802	0.031893535	0.0323205	0	0.031894	0.09056	9.06E-04
232.1857	0.031892469	0.0323205	0	0.031892	0.09056	9.06E-04
232.1885	0.031891363	0.0323205	0	0.031891	0.09056	9.06E-04
232.194	0.03190578	0.0323205	0	0.031906	0.09056	9.06E-04
232.1968	0.031889527	0.0323205	0	0.03189	0.09056	9.06E-04
232.2023	0.031904491	0.0323205	0	0.031904	0.09056	9.06E-04
232.2051	0.031903924	0.0323205	0	0.031904	0.09056	9.06E-04
232.2079	0.031909347	0.0323205	0	0.031909	0.09056	9.06E-04
232.2134	0.031924732	0.0323205	0	0.031925	0.09056	9.06E-04
232.2162	0.03194613	0.0323205	0	0.031946	0.09056	9.06E-04
232.2217	0.031945748	0.0323205	0	0.031946	0.09056	9.06E-04
232.2245	0.031945229	0.0323205	0	0.031945	0.09056	9.06E-04
232.2273	0.031961335	0.0323205	0	0.031961	0.09056	9.06E-04
232.2328	0.031959927	0.0323205	0	0.03196	0.09056	9.06E-04
232.2356	0.031964931	0.0323205	0	0.031965	0.09056	9.06E-04
232.2383	0.031958993	0.0323205	0	0.031959	0.09056	9.06E-04
232.2439	0.031978877	0.0323205	0	0.031979	0.09056	9.06E-04
232.2466	0.031978877	0.0323205	0	0.031979	0.09056	9.06E-04
232.2494	0.031977633	0.0323205	0	0.031978	0.09056	9.06E-04
232.255	0.031976265	0.0323205	0	0.031976	0.09056	9.06E-04
232.2577	0.031974746	0.0323205	0	0.031975	0.09056	9.06E-04
232.2605	0.031995335	0.0323205	0	0.031995	0.09056	9.06E-04
232.2633	0.03198929	0.0323205	0	0.031989	0.09056	9.06E-04
232.266	0.031993709	0.0323205	0	0.031994	0.09056	9.06E-04
232.2716	0.03200853	0.0323205	0	0.032009	0.09056	9.06E-04
232.2744	0.032007024	0.0323205	0	0.032007	0.09056	9.06E-04
232.2771	0.032011333	0.0323205	0	0.032011	0.09056	9.06E-04
232.2799	0.032005093	0.0323205	0	0.032005	0.09056	9.06E-04
232.2854	0.032045656	0.0323205	0	0.032046	0.09056	9.06E-04
232.2882	0.032038994	0.0323205	0	0.032039	0.09056	9.06E-04
232.291	0.032043686	0.0323205	0	0.032044	0.09056	9.06E-04
232.2937	0.032041857	0.0323205	0	0.032042	0.09056	9.06E-04
232.2993	0.032099229	0.0323205	0	0.032099	0.09056	9.06E-04
232.3021	0.032092173	0.0323205	0	0.032092	0.09056	9.06E-04
232.3048	0.032096653	0.0323205	0	0.032097	0.09056	9.06E-04
232.3076	0.032093914	0.0323205	0	0.032094	0.09056	9.06E-04
232.3131	0.032150662	0.0323205	0	0.032151	0.09056	9.06E-04
232.3159	0.032166191	0.0323205	0	0.032166	0.09056	9.06E-04
232.3187	0.032163024	0.0323205	0	0.032163	0.09056	9.06E-04
232.3215	0.032167289	0.0323205	0	0.032167	0.09056	9.06E-04
232.327	0.032179051	0.0323205	0	0.032179	0.09056	9.06E-04
232.3298	0.03219813	0.0323205	0	0.032198	0.09056	9.06E-04
232.3325	0.032213343	0.0323205	0	0.032213	0.09056	9.06E-04
232.3381	0.032213308	0.0323205	0	0.032213	0.09056	9.06E-04
232.3408	0.032205743	0.0323205	0	0.032206	0.09056	9.06E-04

232.3464	0.032239249	0.0323205	0	0.032239	0.09056	9.06E-04
232.3492	0.032242918	0.0323205	0	0.032243	0.09056	9.06E-04
232.3519	0.032239137	0.0323205	0	0.032239	0.09056	9.06E-04
232.3575	0.032273565	0.0323205	0	0.032274	0.09056	9.06E-04
232.363	0.032290337	0.0323205	0	0.03229	0.09056	9.06E-04
232.3658	0.03228288	0.0323205	0	0.032283	0.09056	9.06E-04
232.3686	0.032286706	0.0323205	0	0.032287	0.09056	9.06E-04
232.3741	0.032298782	0.0323205	0	0.032299	0.09056	9.06E-04
232.3769	0.032295293	0.0323205	0	0.032295	0.09056	9.06E-04
232.3824	0.03227393	0.0323205	0	0.032274	0.09056	9.06E-04
232.3852	0.032289329	0.0323205	0	0.032289	0.09056	9.06E-04
232.3907	0.032289374	0.0323205	0	0.032289	0.09056	9.06E-04
232.3935	0.032281703	0.0323205	0	0.032282	0.09056	9.06E-04
232.399	0.032297806	0.0323205	0	0.032298	0.09056	9.06E-04
232.4046	0.032293787	0.0323205	0	0.032294	0.09056	9.06E-04
232.4073	0.032289524	0.0323205	0	0.03229	0.09056	9.06E-04
232.4129	0.032285224	0.0323205	0	0.032285	0.09056	9.06E-04
232.4157	0.032281068	0.0323205	0	0.032281	0.09056	9.06E-04
232.4184	0.032278256	0.0323205	0	0.032278	0.09056	9.06E-04
232.424	0.03228947	0.0323205	0	0.032289	0.09056	9.06E-04
232.4267	0.032292869	0.0323205	0	0.032293	0.09056	9.06E-04
232.4323	0.032303559	0.0323205	0	0.032304	0.09056	9.06E-04
232.4378	0.032280924	0.0323205	0	0.032281	0.09056	9.06E-04
232.4406	0.032255561	0.0323205	0	0.032256	0.09056	9.06E-04
232.4461	0.032267147	0.0323205	0	0.032267	0.09056	9.06E-04
232.4489	0.032270989	0.0323205	0	0.032271	0.09056	9.06E-04
232.4517	0.03224541	0.0323205	0	0.032245	0.09056	9.06E-04
232.4572	0.032279809	0.0323205	0	0.03228	0.09056	9.06E-04
232.46	0.03227617	0.0323205	0	0.032276	0.09056	9.06E-04
232.4655	0.032233629	0.0323205	0	0.032234	0.09056	9.06E-04
232.4683	0.032231234	0.0323205	0	0.032231	0.09056	9.06E-04
232.4738	0.032228921	0.0323205	0	0.032229	0.09056	9.06E-04
232.4766	0.032204868	0.0323205	0	0.032205	0.09056	9.06E-04
232.4821	0.032185694	0.0323205	0	0.032186	0.09056	9.06E-04
232.4849	0.032201793	0.0323205	0	0.032202	0.09056	9.06E-04
232.4905	0.032182387	0.0323205	0	0.032182	0.09056	9.06E-04
232.4932	0.032180246	0.0323205	0	0.03218	0.09056	9.06E-04
232.4988	0.032194038	0.0323205	0	0.032194	0.09056	9.06E-04
232.5015	0.032176528	0.0323205	0	0.032177	0.09056	9.06E-04
232.5071	0.032172742	0.0323205	0	0.032173	0.09056	9.06E-04
232.5126	0.032185958	0.0323205	0	0.032186	0.09056	9.06E-04
232.5154	0.032168392	0.0323205	0	0.032168	0.09056	9.06E-04
232.5209	0.032181479	0.0323205	0	0.032181	0.09056	9.06E-04
232.5265	0.032176767	0.0323205	0	0.032177	0.09056	9.06E-04
232.5292	0.032159523	0.0323205	0	0.03216	0.09056	9.06E-04
232.5348	0.032154755	0.0323205	0	0.032155	0.09056	9.06E-04
232.5376	0.032169727	0.0323205	0	0.03217	0.09056	9.06E-04
232.5431	0.032164654	0.0323205	0	0.032165	0.09056	9.06E-04
232.5459	0.032147817	0.0323205	0	0.032148	0.09056	9.06E-04
232.5514	0.032160346	0.0323205	0	0.03216	0.09056	9.06E-04
232.557	0.032141467	0.0323205	0	0.032141	0.09056	9.06E-04
232.5597	0.032117909	0.0323205	0	0.032118	0.09056	9.06E-04
232.5653	0.032114797	0.0323205	0	0.032115	0.09056	9.06E-04
232.568	0.032114797	0.0323205	0	0.032115	0.09056	9.06E-04
232.5708	0.032112907	0.0323205	0	0.032113	0.09056	9.06E-04
232.5764	0.03207276	0.0323205	0	0.032073	0.09056	9.06E-04
232.5791	0.032049609	0.0323205	0	0.03205	0.09056	9.06E-04
232.5847	0.032064413	0.0323205	0	0.032064	0.09056	9.06E-04
232.5874	0.032070404	0.0323205	0	0.03207	0.09056	9.06E-04
232.5902	0.032047038	0.0323205	0	0.032047	0.09056	9.06E-04
232.5957	0.032029937	0.0323205	0	0.03203	0.09056	9.06E-04
232.5985	0.032022651	0.0323205	0	0.032023	0.09056	9.06E-04
232.6041	0.032005877	0.0323205	0	0.032006	0.09056	9.06E-04
232.6068	0.031983497	0.0323205	0	0.031983	0.09056	9.06E-04
232.6096	0.031961226	0.0323205	0	0.031961	0.09056	9.06E-04
232.6151	0.031946014	0.0323205	0	0.031946	0.09056	9.06E-04
232.6179	0.031939428	0.0323205	0	0.031939	0.09056	9.06E-04
232.6207	0.031946401	0.0323205	0	0.031946	0.09056	9.06E-04
232.6235	0.031924415	0.0323205	0	0.031924	0.09056	9.06E-04
232.629	0.031909173	0.0323205	0	0.031909	0.09056	9.06E-04
232.6318	0.031902473	0.0323205	0	0.031902	0.09056	9.06E-04
232.6345	0.031901895	0.0323205	0	0.031902	0.09056	9.06E-04
232.6401	0.031885549	0.0323205	0	0.031886	0.09056	9.06E-04
232.6428	0.031878765	0.0323205	0	0.031879	0.09056	9.06E-04

232.6456	0.03188505	0.0323205	0	0.031885	0.09056	9.06E-04
232.6512	0.031824915	0.0323205	0	0.031825	0.09056	9.06E-04
232.6539	0.031825223	0.0323205	0	0.031825	0.09056	9.06E-04
232.6567	0.031818643	0.0323205	0	0.031819	0.09056	9.06E-04
232.6595	0.031825444	0.0323205	0	0.031825	0.09056	9.06E-04
232.665	0.03180418	0.0323205	0	0.031804	0.09056	9.06E-04
232.6678	0.03180418	0.0323205	0	0.031804	0.09056	9.06E-04
232.6706	0.031804793	0.0323205	0	0.031805	0.09056	9.06E-04
232.6733	0.031902678	0.0323205	0	0.031903	0.09056	9.06E-04
232.6789	0.031879832	0.0323205	0	0.03188	0.09056	9.06E-04
232.6816	0.0318872	0.0323205	0	0.031887	0.09056	9.06E-04
232.6844	0.031864347	0.0323205	0	0.031864	0.09056	9.06E-04
232.6872	0.031864441	0.0323205	0	0.031864	0.09056	9.06E-04
232.6927	0.031864317	0.0323205	0	0.031864	0.09056	9.06E-04
232.6955	0.031842032	0.0323205	0	0.031842	0.09056	9.06E-04
232.6983	0.031849693	0.0323205	0	0.03185	0.09056	9.06E-04
232.701	0.031842242	0.0323205	0	0.031842	0.09056	9.06E-04
232.7066	0.031887352	0.0323205	0	0.031887	0.09056	9.06E-04
232.7093	0.03188018	0.0323205	0	0.03188	0.09056	9.06E-04
232.7121	0.031887237	0.0323205	0	0.031887	0.09056	9.06E-04
232.7149	0.031842153	0.0323205	0	0.031842	0.09056	9.06E-04
232.7177	0.031848958	0.0323205	0	0.031849	0.09056	9.06E-04
232.7232	0.031863684	0.0323205	0	0.031864	0.09056	9.06E-04
232.726	0.031863397	0.0323205	0	0.031863	0.09056	9.06E-04
232.7287	0.031862681	0.0323205	0	0.031863	0.09056	9.06E-04
232.7315	0.031862681	0.0323205	0	0.031863	0.09056	9.06E-04
232.737	0.031839964	0.0323205	0	0.03184	0.09056	9.06E-04
232.7398	0.031847242	0.0323205	0	0.031847	0.09056	9.06E-04
232.7426	0.031796252	0.0323205	0	0.031796	0.09056	9.06E-04
232.7454	0.031803283	0.0323205	0	0.031803	0.09056	9.06E-04
232.7509	0.031744548	0.0323205	0	0.031745	0.09056	9.06E-04
232.7537	0.031744548	0.0323205	0	0.031745	0.09056	9.06E-04
232.7564	0.031744963	0.0323205	0	0.031745	0.09056	9.06E-04
232.762	0.031729745	0.0323205	0	0.03173	0.09056	9.06E-04
232.7648	0.031724259	0.0323205	0	0.031724	0.09056	9.06E-04
232.7675	0.031843365	0.0323205	0	0.031843	0.09056	9.06E-04
232.7731	0.031819771	0.0323205	0	0.03182	0.09056	9.06E-04
232.7758	0.031826232	0.0323205	0	0.031826	0.09056	9.06E-04
232.7786	0.031781265	0.0323205	0	0.031781	0.09056	9.06E-04
232.7814	0.03178792	0.0323205	0	0.031788	0.09056	9.06E-04
232.7869	0.031765248	0.0323205	0	0.031765	0.09056	9.06E-04
232.7897	0.031720622	0.0323205	0	0.031721	0.09056	9.06E-04
232.7925	0.031727314	0.0323205	0	0.031727	0.09056	9.06E-04
232.7952	0.03169867	0.0323205	0	0.031699	0.09056	9.06E-04
232.8008	0.031661697	0.0323205	0	0.031662	0.09056	9.06E-04
232.8035	0.031668397	0.0323205	0	0.031668	0.09056	9.06E-04
232.8063	0.031662275	0.0323205	0	0.031662	0.09056	9.06E-04
232.8091	0.031684795	0.0323205	0	0.031685	0.09056	9.06E-04
232.8119	0.03168524	0.0323205	0	0.031685	0.09056	9.06E-04
232.8146	0.03170772	0.0323205	0	0.031708	0.09056	9.06E-04
232.8202	0.031708174	0.0323205	0	0.031708	0.09056	9.06E-04
232.8229	0.031686469	0.0323205	0	0.031686	0.09056	9.06E-04
232.8257	0.031708889	0.0323205	0	0.031709	0.09056	9.06E-04
232.8285	0.031702197	0.0323205	0	0.031702	0.09056	9.06E-04
232.8312	0.031709282	0.0323205	0	0.031709	0.09056	9.06E-04
232.8368	0.031672476	0.0323205	0	0.031672	0.09056	9.06E-04
232.8396	0.031621967	0.0323205	0	0.031622	0.09056	9.06E-04
232.8423	0.03162902	0.0323205	0	0.031629	0.09056	9.06E-04
232.8479	0.031550152	0.0323205	0	0.03155	0.09056	9.06E-04
232.8506	0.031557102	0.0323205	0	0.031557	0.09056	9.06E-04
232.8534	0.03153045	0.0323205	0	0.03153	0.09056	9.06E-04
232.859	0.031576943	0.0323205	0	0.031577	0.09056	9.06E-04
232.8617	0.031576943	0.0323205	0	0.031577	0.09056	9.06E-04
232.8645	0.031535425	0.0323205	0	0.031535	0.09056	9.06E-04
232.8673	0.031520493	0.0323205	0	0.03152	0.09056	9.06E-04
232.8728	0.031437869	0.0323205	0	0.031438	0.09056	9.06E-04
232.8756	0.031445084	0.0323205	0	0.031445	0.09056	9.06E-04
232.8811	0.031437707	0.0323205	0	0.031438	0.09056	9.06E-04
232.8839	0.031349258	0.0323205	0	0.031349	0.09056	9.06E-04
232.8867	0.031356691	0.0323205	0	0.031357	0.09056	9.06E-04
232.8894	0.031342322	0.0323205	0	0.031342	0.09056	9.06E-04
232.8922	0.031283676	0.0323205	0	0.031284	0.09056	9.06E-04
232.8977	0.031291207	0.0323205	0	0.031291	0.09056	9.06E-04
232.9005	0.031253699	0.0323205	0	0.031254	0.09056	9.06E-04

232.9033	0.031253699	0.0323205	0	0.031254	0.09056	9.06E-04
232.9088	0.031244317	0.0323205	0	0.031244	0.09056	9.06E-04
232.9116	0.0312981	0.0323205	0	0.031298	0.09056	9.06E-04
232.9171	0.031380881	0.0323205	0	0.031381	0.09056	9.06E-04
232.9199	0.031462307	0.0323205	0	0.031462	0.09056	9.06E-04
232.9227	0.031595547	0.0323205	0	0.031596	0.09056	9.06E-04
232.9282	0.031794743	0.0323205	0	0.031795	0.09056	9.06E-04
232.931	0.031794743	0.0323205	0	0.031795	0.09056	9.06E-04
232.9365	0.031777379	0.0323205	0	0.031777	0.09056	9.06E-04
232.9393	0.03177053	0.0323205	0	0.031771	0.09056	9.06E-04
232.9421	0.031769511	0.0323205	0	0.03177	0.09056	9.06E-04
232.9476	0.031768383	0.0323205	0	0.031768	0.09056	9.06E-04
232.9504	0.031789401	0.0323205	0	0.031789	0.09056	9.06E-04
232.9559	0.031772312	0.0323205	0	0.031772	0.09056	9.06E-04
232.9587	0.031765363	0.0323205	0	0.031765	0.09056	9.06E-04
232.9615	0.031786393	0.0323205	0	0.031786	0.09056	9.06E-04
232.967	0.031785034	0.0323205	0	0.031785	0.09056	9.06E-04
232.9698	0.031805034	0.0323205	0	0.031805	0.09056	9.06E-04
232.9725	0.031820169	0.0323205	0	0.03182	0.09056	9.06E-04
232.9753	0.03181808	0.0323205	0	0.031818	0.09056	9.06E-04
232.9809	0.03181588	0.0323205	0	0.031816	0.09056	9.06E-04
232.9836	0.031835773	0.0323205	0	0.031836	0.09056	9.06E-04
232.9892	0.031848094	0.0323205	0	0.031848	0.09056	9.06E-04
232.9919	0.031852726	0.0323205	0	0.031853	0.09056	9.06E-04
232.9947	0.031849833	0.0323205	0	0.03185	0.09056	9.06E-04
232.9975	0.031864708	0.0323205	0	0.031865	0.09056	9.06E-04
233.0003	0.031861594	0.0323205	0	0.031862	0.09056	9.06E-04
233.0058	0.031858176	0.0323205	0	0.031858	0.09056	9.06E-04
233.0086	0.031877783	0.0323205	0	0.031878	0.09056	9.06E-04
233.0113	0.03189726	0.0323205	0	0.031897	0.09056	9.06E-04
233.0169	0.031915736	0.0323205	0	0.031916	0.09056	9.06E-04
233.0196	0.031908212	0.0323205	0	0.031908	0.09056	9.06E-04
233.0252	0.031924594	0.0323205	0	0.031925	0.09056	9.06E-04
233.028	0.031924594	0.0323205	0	0.031925	0.09056	9.06E-04
233.0307	0.031921402	0.0323205	0	0.031921	0.09056	9.06E-04
233.0363	0.03193308	0.0323205	0	0.031933	0.09056	9.06E-04
233.039	0.031937664	0.0323205	0	0.031938	0.09056	9.06E-04
233.0418	0.031934563	0.0323205	0	0.031935	0.09056	9.06E-04
233.0446	0.031949492	0.0323205	0	0.031949	0.09056	9.06E-04
233.0474	0.031969006	0.0323205	0	0.031969	0.09056	9.06E-04
233.0529	0.031965899	0.0323205	0	0.031966	0.09056	9.06E-04
233.0557	0.031962633	0.0323205	0	0.031963	0.09056	9.06E-04
233.0584	0.031958845	0.0323205	0	0.031959	0.09056	9.06E-04
233.0612	0.031958845	0.0323205	0	0.031959	0.09056	9.06E-04
233.0667	0.031991565	0.0323205	0	0.031992	0.09056	9.06E-04
233.0695	0.031987808	0.0323205	0	0.031988	0.09056	9.06E-04
233.0723	0.031992276	0.0323205	0	0.031992	0.09056	9.06E-04
233.0751	0.031984475	0.0323205	0	0.031984	0.09056	9.06E-04
233.0806	0.032022836	0.0323205	0	0.032023	0.09056	9.06E-04
233.0834	0.032014895	0.0323205	0	0.032015	0.09056	9.06E-04
233.0889	0.032015291	0.0323205	0	0.032015	0.09056	9.06E-04
233.0917	0.032030241	0.0323205	0	0.03203	0.09056	9.06E-04
233.0945	0.03204916	0.0323205	0	0.032049	0.09056	9.06E-04
233.1	0.032060139	0.0323205	0	0.03206	0.09056	9.06E-04
233.1028	0.03206391	0.0323205	0	0.032064	0.09056	9.06E-04
233.1083	0.032074455	0.0323205	0	0.032074	0.09056	9.06E-04
233.1111	0.032092913	0.0323205	0	0.032093	0.09056	9.06E-04
233.1166	0.032126034	0.0323205	0	0.032126	0.09056	9.06E-04
233.1194	0.032121078	0.0323205	0	0.032121	0.09056	9.06E-04
233.1249	0.032116078	0.0323205	0	0.032116	0.09056	9.06E-04
233.1277	0.032111281	0.0323205	0	0.032111	0.09056	9.06E-04
233.1305	0.032093492	0.0323205	0	0.032093	0.09056	9.06E-04
233.136	0.032103549	0.0323205	0	0.032104	0.09056	9.06E-04
233.1388	0.032098689	0.0323205	0	0.032099	0.09056	9.06E-04
233.1443	0.032093661	0.0323205	0	0.032094	0.09056	9.06E-04
233.1471	0.032111981	0.0323205	0	0.032112	0.09056	9.06E-04
233.1526	0.032121159	0.0323205	0	0.032121	0.09056	9.06E-04
233.1582	0.032098464	0.0323205	0	0.032098	0.09056	9.06E-04
233.1609	0.032095366	0.0323205	0	0.032095	0.09056	9.06E-04
233.1665	0.032091043	0.0323205	0	0.032091	0.09056	9.06E-04
233.1693	0.032086987	0.0323205	0	0.032087	0.09056	9.06E-04
233.1748	0.032066003	0.0323205	0	0.032066	0.09056	9.06E-04
233.1776	0.032057772	0.0323205	0	0.032058	0.09056	9.06E-04
233.1831	0.032037428	0.0323205	0	0.032037	0.09056	9.06E-04

233.1859	0.032012662	0.0323205	0	0.032013	0.09056	9.06E-04
233.1914	0.032010369	0.0323205	0	0.03201	0.09056	9.06E-04
233.1942	0.032008526	0.0323205	0	0.032009	0.09056	9.06E-04
233.197	0.031985375	0.0323205	0	0.031985	0.09056	9.06E-04
233.2025	0.031967718	0.0323205	0	0.031968	0.09056	9.06E-04
233.2053	0.031983673	0.0323205	0	0.031984	0.09056	9.06E-04
233.2108	0.031965693	0.0323205	0	0.031966	0.09056	9.06E-04
233.2136	0.031964376	0.0323205	0	0.031964	0.09056	9.06E-04
233.2191	0.031963038	0.0323205	0	0.031963	0.09056	9.06E-04
233.2219	0.031939757	0.0323205	0	0.03194	0.09056	9.06E-04
233.2274	0.031954135	0.0323205	0	0.031954	0.09056	9.06E-04
233.2302	0.031959677	0.0323205	0	0.03196	0.09056	9.06E-04
233.233	0.031936397	0.0323205	0	0.031936	0.09056	9.06E-04
233.2385	0.031950999	0.0323205	0	0.031951	0.09056	9.06E-04
233.2413	0.031956738	0.0323205	0	0.031957	0.09056	9.06E-04
233.2468	0.031933136	0.0323205	0	0.031933	0.09056	9.06E-04
233.2496	0.031910133	0.0323205	0	0.03191	0.09056	9.06E-04
233.2551	0.031909099	0.0323205	0	0.031909	0.09056	9.06E-04
233.2579	0.031930561	0.0323205	0	0.031931	0.09056	9.06E-04
233.2635	0.031951577	0.0323205	0	0.031952	0.09056	9.06E-04
233.2662	0.031944257	0.0323205	0	0.031944	0.09056	9.06E-04
233.2718	0.031927024	0.0323205	0	0.031927	0.09056	9.06E-04
233.2745	0.031926357	0.0323205	0	0.031926	0.09056	9.06E-04
233.2801	0.031924297	0.0323205	0	0.031924	0.09056	9.06E-04
233.2829	0.031924297	0.0323205	0	0.031924	0.09056	9.06E-04
233.2884	0.03192188	0.0323205	0	0.031922	0.09056	9.06E-04
233.2912	0.031920811	0.0323205	0	0.031921	0.09056	9.06E-04
233.2967	0.031919102	0.0323205	0	0.031919	0.09056	9.06E-04
233.3022	0.031916069	0.0323205	0	0.031916	0.09056	9.06E-04
233.305	0.031937193	0.0323205	0	0.031937	0.09056	9.06E-04
233.3106	0.0319354	0.0323205	0	0.031935	0.09056	9.06E-04
233.3161	0.031910435	0.0323205	0	0.03191	0.09056	9.06E-04
233.3189	0.031909359	0.0323205	0	0.031909	0.09056	9.06E-04
233.3244	0.0319078	0.0323205	0	0.031908	0.09056	9.06E-04
233.3272	0.031906304	0.0323205	0	0.031906	0.09056	9.06E-04
233.3327	0.031882657	0.0323205	0	0.031883	0.09056	9.06E-04
233.3355	0.031867436	0.0323205	0	0.031867	0.09056	9.06E-04
233.341	0.03182178	0.0323205	0	0.031822	0.09056	9.06E-04
233.3466	0.031784908	0.0323205	0	0.031785	0.09056	9.06E-04
233.3494	0.031785313	0.0323205	0	0.031785	0.09056	9.06E-04
233.3549	0.031786015	0.0323205	0	0.031786	0.09056	9.06E-04
233.3577	0.031786304	0.0323205	0	0.031786	0.09056	9.06E-04
233.3604	0.031786304	0.0323205	0	0.031786	0.09056	9.06E-04
233.366	0.031823883	0.0323205	0	0.031824	0.09056	9.06E-04
233.3687	0.031823949	0.0323205	0	0.031824	0.09056	9.06E-04
233.3743	0.031786154	0.0323205	0	0.031786	0.09056	9.06E-04
233.3771	0.031763539	0.0323205	0	0.031764	0.09056	9.06E-04
233.3798	0.031770654	0.0323205	0	0.031771	0.09056	9.06E-04
233.3854	0.031763041	0.0323205	0	0.031763	0.09056	9.06E-04
233.3881	0.031747601	0.0323205	0	0.031748	0.09056	9.06E-04
233.3937	0.031681033	0.0323205	0	0.031681	0.09056	9.06E-04
233.3965	0.031710322	0.0323205	0	0.03171	0.09056	9.06E-04
233.3992	0.031681247	0.0323205	0	0.031681	0.09056	9.06E-04
233.4048	0.031688229	0.0323205	0	0.031688	0.09056	9.06E-04
233.4075	0.03168136	0.0323205	0	0.031681	0.09056	9.06E-04
233.4131	0.031665672	0.0323205	0	0.031666	0.09056	9.06E-04
233.4158	0.031687659	0.0323205	0	0.031688	0.09056	9.06E-04
233.4186	0.031680954	0.0323205	0	0.031681	0.09056	9.06E-04
233.4242	0.031665315	0.0323205	0	0.031665	0.09056	9.06E-04
233.4269	0.031665526	0.0323205	0	0.031666	0.09056	9.06E-04
233.4325	0.031643452	0.0323205	0	0.031643	0.09056	9.06E-04
233.4352	0.03165031	0.0323205	0	0.03165	0.09056	9.06E-04
233.438	0.031643478	0.0323205	0	0.031643	0.09056	9.06E-04
233.4408	0.031643474	0.0323205	0	0.031643	0.09056	9.06E-04
233.4463	0.031628189	0.0323205	0	0.031628	0.09056	9.06E-04
233.4491	0.031643484	0.0323205	0	0.031643	0.09056	9.06E-04
233.4519	0.031643648	0.0323205	0	0.031644	0.09056	9.06E-04
233.4574	0.031628715	0.0323205	0	0.031629	0.09056	9.06E-04
233.4602	0.031621903	0.0323205	0	0.031622	0.09056	9.06E-04
233.4629	0.03162897	0.0323205	0	0.031629	0.09056	9.06E-04
233.4657	0.03160695	0.0323205	0	0.031607	0.09056	9.06E-04
233.4713	0.031607217	0.0323205	0	0.031607	0.09056	9.06E-04
233.474	0.03160755	0.0323205	0	0.031608	0.09056	9.06E-04
233.4768	0.031585848	0.0323205	0	0.031586	0.09056	9.06E-04

233.4796	0.031593208	0.0323205	0	0.031593	0.09056	9.06E-04
233.4851	0.031586499	0.0323205	0	0.031586	0.09056	9.06E-04
233.4879	0.031593814	0.0323205	0	0.031594	0.09056	9.06E-04
233.4907	0.031586751	0.0323205	0	0.031587	0.09056	9.06E-04
233.4962	0.031572422	0.0323205	0	0.031572	0.09056	9.06E-04
233.499	0.031550868	0.0323205	0	0.031551	0.09056	9.06E-04
233.5017	0.031551668	0.0323205	0	0.031552	0.09056	9.06E-04
233.5045	0.031551668	0.0323205	0	0.031552	0.09056	9.06E-04
233.51	0.031515819	0.0323205	0	0.031516	0.09056	9.06E-04
233.5128	0.031516661	0.0323205	0	0.031517	0.09056	9.06E-04
233.5156	0.031510053	0.0323205	0	0.03151	0.09056	9.06E-04
233.5211	0.031474528	0.0323205	0	0.031475	0.09056	9.06E-04
233.5239	0.031482034	0.0323205	0	0.031482	0.09056	9.06E-04
233.5267	0.031475652	0.0323205	0	0.031476	0.09056	9.06E-04
233.5294	0.031477352	0.0323205	0	0.031477	0.09056	9.06E-04
233.5322	0.031463113	0.0323205	0	0.031463	0.09056	9.06E-04
233.5378	0.031422134	0.0323205	0	0.031422	0.09056	9.06E-04
233.5405	0.031430779	0.0323205	0	0.031431	0.09056	9.06E-04
233.5433	0.031424246	0.0323205	0	0.031424	0.09056	9.06E-04
233.5461	0.031425987	0.0323205	0	0.031426	0.09056	9.06E-04
233.5516	0.031392223	0.0323205	0	0.031392	0.09056	9.06E-04
233.5544	0.031392223	0.0323205	0	0.031392	0.09056	9.06E-04
233.5571	0.031394116	0.0323205	0	0.031394	0.09056	9.06E-04
233.5599	0.031395871	0.0323205	0	0.031396	0.09056	9.06E-04
233.5627	0.031395871	0.0323205	0	0.031396	0.09056	9.06E-04
233.5682	0.031398936	0.0323205	0	0.031399	0.09056	9.06E-04
233.571	0.031400947	0.0323205	0	0.031401	0.09056	9.06E-04
233.5738	0.031400947	0.0323205	0	0.031401	0.09056	9.06E-04
233.5765	0.031403201	0.0323205	0	0.031403	0.09056	9.06E-04
233.5793	0.031382879	0.0323205	0	0.031383	0.09056	9.06E-04
233.5849	0.031371059	0.0323205	0	0.031371	0.09056	9.06E-04
233.5876	0.031386477	0.0323205	0	0.031386	0.09056	9.06E-04
233.5904	0.031388928	0.0323205	0	0.031389	0.09056	9.06E-04
233.5932	0.031397171	0.0323205	0	0.031397	0.09056	9.06E-04
233.5987	0.031393512	0.0323205	0	0.031394	0.09056	9.06E-04
233.6015	0.031379562	0.0323205	0	0.03138	0.09056	9.06E-04
233.6042	0.031382242	0.0323205	0	0.031382	0.09056	9.06E-04
233.607	0.031397642	0.0323205	0	0.031398	0.09056	9.06E-04
233.6098	0.031400127	0.0323205	0	0.0314	0.09056	9.06E-04
233.6126	0.031386354	0.0323205	0	0.031386	0.09056	9.06E-04
233.6181	0.031404241	0.0323205	0	0.031404	0.09056	9.06E-04
233.6209	0.031428233	0.0323205	0	0.031428	0.09056	9.06E-04
233.6236	0.031430362	0.0323205	0	0.03143	0.09056	9.06E-04
233.6264	0.031430362	0.0323205	0	0.03143	0.09056	9.06E-04
233.632	0.031455925	0.0323205	0	0.031456	0.09056	9.06E-04
233.6347	0.031449207	0.0323205	0	0.031449	0.09056	9.06E-04
233.6375	0.031457292	0.0323205	0	0.031457	0.09056	9.06E-04
233.643	0.031473257	0.0323205	0	0.031473	0.09056	9.06E-04
233.6458	0.031474387	0.0323205	0	0.031474	0.09056	9.06E-04
233.6486	0.031482075	0.0323205	0	0.031482	0.09056	9.06E-04
233.6513	0.03147521	0.0323205	0	0.031475	0.09056	9.06E-04
233.6569	0.031535044	0.0323205	0	0.031535	0.09056	9.06E-04
233.6597	0.03153541	0.0323205	0	0.031535	0.09056	9.06E-04
233.6624	0.031542401	0.0323205	0	0.031542	0.09056	9.06E-04
233.668	0.031557576	0.0323205	0	0.031558	0.09056	9.06E-04
233.6707	0.031579123	0.0323205	0	0.031579	0.09056	9.06E-04
233.6735	0.03157211	0.0323205	0	0.031572	0.09056	9.06E-04
233.6791	0.031578389	0.0323205	0	0.031578	0.09056	9.06E-04
233.6818	0.031593654	0.0323205	0	0.031594	0.09056	9.06E-04
233.6846	0.031615377	0.0323205	0	0.031615	0.09056	9.06E-04
233.6901	0.031614966	0.0323205	0	0.031615	0.09056	9.06E-04
233.6929	0.031614543	0.0323205	0	0.031615	0.09056	9.06E-04
233.6957	0.031614543	0.0323205	0	0.031615	0.09056	9.06E-04
233.7012	0.031629693	0.0323205	0	0.03163	0.09056	9.06E-04
233.704	0.031636396	0.0323205	0	0.031636	0.09056	9.06E-04
233.7095	0.03163631	0.0323205	0	0.031636	0.09056	9.06E-04
233.7123	0.031651632	0.0323205	0	0.031652	0.09056	9.06E-04
233.7151	0.031673712	0.0323205	0	0.031674	0.09056	9.06E-04
233.7206	0.031658554	0.0323205	0	0.031659	0.09056	9.06E-04
233.7234	0.031652119	0.0323205	0	0.031652	0.09056	9.06E-04
233.7262	0.031674431	0.0323205	0	0.031674	0.09056	9.06E-04
233.7317	0.031689874	0.0323205	0	0.03169	0.09056	9.06E-04
233.7345	0.031696245	0.0323205	0	0.031696	0.09056	9.06E-04
233.7372	0.03167399	0.0323205	0	0.031674	0.09056	9.06E-04

233.7428	0.031711341	0.0323205	0	0.031711	0.09056	9.06E-04
233.7455	0.031711841	0.0323205	0	0.031712	0.09056	9.06E-04
233.7483	0.031718347	0.0323205	0	0.031718	0.09056	9.06E-04
233.7539	0.031734945	0.0323205	0	0.031735	0.09056	9.06E-04
233.7566	0.031713379	0.0323205	0	0.031713	0.09056	9.06E-04
233.7594	0.031720539	0.0323205	0	0.031721	0.09056	9.06E-04
233.7649	0.031737456	0.0323205	0	0.031737	0.09056	9.06E-04
233.7677	0.031738669	0.0323205	0	0.031739	0.09056	9.06E-04
233.7733	0.031762152	0.0323205	0	0.031762	0.09056	9.06E-04
233.776	0.031778061	0.0323205	0	0.031778	0.09056	9.06E-04
233.7788	0.031800752	0.0323205	0	0.031801	0.09056	9.06E-04
233.7843	0.031801355	0.0323205	0	0.031801	0.09056	9.06E-04
233.7871	0.031801651	0.0323205	0	0.031802	0.09056	9.06E-04
233.7899	0.031824253	0.0323205	0	0.031824	0.09056	9.06E-04
233.7954	0.031840721	0.0323205	0	0.031841	0.09056	9.06E-04
233.7982	0.031847206	0.0323205	0	0.031847	0.09056	9.06E-04
233.801	0.031841109	0.0323205	0	0.031841	0.09056	9.06E-04
233.8065	0.031863322	0.0323205	0	0.031863	0.09056	9.06E-04
233.8093	0.031885461	0.0323205	0	0.031885	0.09056	9.06E-04
233.812	0.031901434	0.0323205	0	0.031901	0.09056	9.06E-04
233.8176	0.031907869	0.0323205	0	0.031908	0.09056	9.06E-04
233.8204	0.031902106	0.0323205	0	0.031902	0.09056	9.06E-04
233.8231	0.031924518	0.0323205	0	0.031925	0.09056	9.06E-04
233.8287	0.031962536	0.0323205	0	0.031963	0.09056	9.06E-04
233.8314	0.03196196	0.0323205	0	0.031962	0.09056	9.06E-04
233.8342	0.031967561	0.0323205	0	0.031968	0.09056	9.06E-04
233.8397	0.031981942	0.0323205	0	0.031982	0.09056	9.06E-04
233.8425	0.031958813	0.0323205	0	0.031959	0.09056	9.06E-04
233.8453	0.031964356	0.0323205	0	0.031964	0.09056	9.06E-04
233.8481	0.031957828	0.0323205	0	0.031958	0.09056	9.06E-04
233.8536	0.031978421	0.0323205	0	0.031978	0.09056	9.06E-04
233.8564	0.031978421	0.0323205	0	0.031978	0.09056	9.06E-04
233.8619	0.031977544	0.0323205	0	0.031978	0.09056	9.06E-04
233.8647	0.031999816	0.0323205	0	0.032	0.09056	9.06E-04
233.8675	0.031993588	0.0323205	0	0.031994	0.09056	9.06E-04
233.873	0.031977602	0.0323205	0	0.031978	0.09056	9.06E-04
233.8758	0.031978005	0.0323205	0	0.031978	0.09056	9.06E-04
233.8785	0.031978005	0.0323205	0	0.031978	0.09056	9.06E-04
233.8841	0.031978617	0.0323205	0	0.031979	0.09056	9.06E-04
233.8868	0.032001265	0.0323205	0	0.032001	0.09056	9.06E-04
233.8896	0.032017067	0.0323205	0	0.032017	0.09056	9.06E-04
233.8952	0.032000687	0.0323205	0	0.032001	0.09056	9.06E-04
233.8979	0.031977963	0.0323205	0	0.031978	0.09056	9.06E-04
233.9035	0.031992926	0.0323205	0	0.031993	0.09056	9.06E-04
233.9062	0.031999761	0.0323205	0	0.032	0.09056	9.06E-04
233.9118	0.031977273	0.0323205	0	0.031977	0.09056	9.06E-04
233.9146	0.031977273	0.0323205	0	0.031977	0.09056	9.06E-04
233.9173	0.031977115	0.0323205	0	0.031977	0.09056	9.06E-04
233.9229	0.031976803	0.0323205	0	0.031977	0.09056	9.06E-04
233.9256	0.031976803	0.0323205	0	0.031977	0.09056	9.06E-04
233.9312	0.031953978	0.0323205	0	0.031954	0.09056	9.06E-04
233.9339	0.031960066	0.0323205	0	0.03196	0.09056	9.06E-04
233.9395	0.031976062	0.0323205	0	0.031976	0.09056	9.06E-04
233.9423	0.031953631	0.0323205	0	0.031954	0.09056	9.06E-04
233.9478	0.03195346	0.0323205	0	0.031953	0.09056	9.06E-04
233.9506	0.031952981	0.0323205	0	0.031953	0.09056	9.06E-04
233.9533	0.031936639	0.0323205	0	0.031937	0.09056	9.06E-04
233.9589	0.031952163	0.0323205	0	0.031952	0.09056	9.06E-04
233.9617	0.03195159	0.0323205	0	0.031952	0.09056	9.06E-04
233.9672	0.031934069	0.0323205	0	0.031934	0.09056	9.06E-04
233.9727	0.031971683	0.0323205	0	0.031972	0.09056	9.06E-04
233.9755	0.031948535	0.0323205	0	0.031949	0.09056	9.06E-04
233.981	0.031931339	0.0323205	0	0.031931	0.09056	9.06E-04
233.9838	0.031924485	0.0323205	0	0.031924	0.09056	9.06E-04
233.9894	0.031907932	0.0323205	0	0.031908	0.09056	9.06E-04
233.9921	0.031907739	0.0323205	0	0.031908	0.09056	9.06E-04
233.9977	0.031929342	0.0323205	0	0.031929	0.09056	9.06E-04
234.0004	0.03192228	0.0323205	0	0.031922	0.09056	9.06E-04
234.006	0.031905545	0.0323205	0	0.031906	0.09056	9.06E-04
234.0088	0.031905158	0.0323205	0	0.031905	0.09056	9.06E-04
234.0143	0.031904677	0.0323205	0	0.031905	0.09056	9.06E-04
234.0198	0.031882322	0.0323205	0	0.031882	0.09056	9.06E-04
234.0226	0.031866723	0.0323205	0	0.031867	0.09056	9.06E-04
234.0281	0.031882963	0.0323205	0	0.031883	0.09056	9.06E-04

234.0309	0.031883541	0.0323205	0	0.031884	0.09056	9.06E-04
234.0365	0.031846211	0.0323205	0	0.031846	0.09056	9.06E-04
234.0392	0.031846387	0.0323205	0	0.031846	0.09056	9.06E-04
234.0448	0.031869579	0.0323205	0	0.03187	0.09056	9.06E-04
234.0475	0.031862823	0.0323205	0	0.031863	0.09056	9.06E-04
234.0531	0.031848238	0.0323205	0	0.031848	0.09056	9.06E-04
234.0559	0.031848744	0.0323205	0	0.031849	0.09056	9.06E-04
234.0614	0.031850161	0.0323205	0	0.03185	0.09056	9.06E-04
234.0669	0.03185104	0.0323205	0	0.031851	0.09056	9.06E-04
234.0697	0.031851794	0.0323205	0	0.031852	0.09056	9.06E-04
234.0752	0.03183177	0.0323205	0	0.031832	0.09056	9.06E-04
234.078	0.031839895	0.0323205	0	0.03184	0.09056	9.06E-04
234.0836	0.031835374	0.0323205	0	0.031835	0.09056	9.06E-04
234.0863	0.0318209	0.0323205	0	0.031821	0.09056	9.06E-04
234.0919	0.031801321	0.0323205	0	0.031801	0.09056	9.06E-04
234.0946	0.031803687	0.0323205	0	0.031804	0.09056	9.06E-04
234.1002	0.031806328	0.0323205	0	0.031806	0.09056	9.06E-04
234.103	0.031786221	0.0323205	0	0.031786	0.09056	9.06E-04
234.1085	0.031789239	0.0323205	0	0.031789	0.09056	9.06E-04
234.1113	0.031792207	0.0323205	0	0.031792	0.09056	9.06E-04
234.1168	0.031758896	0.0323205	0	0.031759	0.09056	9.06E-04
234.1196	0.031739125	0.0323205	0	0.031739	0.09056	9.06E-04
234.1251	0.031706911	0.0323205	0	0.031707	0.09056	9.06E-04
234.1279	0.031709944	0.0323205	0	0.03171	0.09056	9.06E-04
234.1307	0.03169139	0.0323205	0	0.031691	0.09056	9.06E-04
234.1362	0.031660757	0.0323205	0	0.031661	0.09056	9.06E-04
234.139	0.031642671	0.0323205	0	0.031643	0.09056	9.06E-04
234.1445	0.031612998	0.0323205	0	0.031613	0.09056	9.06E-04
234.1473	0.031618114	0.0323205	0	0.031618	0.09056	9.06E-04
234.1528	0.031601501	0.0323205	0	0.031602	0.09056	9.06E-04
234.1556	0.031589435	0.0323205	0	0.031589	0.09056	9.06E-04
234.1584	0.031593999	0.0323205	0	0.031594	0.09056	9.06E-04
234.1611	0.031587645	0.0323205	0	0.031588	0.09056	9.06E-04
234.1667	0.031579803	0.0323205	0	0.03158	0.09056	9.06E-04
234.1695	0.031584002	0.0323205	0	0.031584	0.09056	9.06E-04
234.1722	0.031584002	0.0323205	0	0.031584	0.09056	9.06E-04
234.1778	0.031569349	0.0323205	0	0.031569	0.09056	9.06E-04
234.1805	0.031556474	0.0323205	0	0.031556	0.09056	9.06E-04
234.1833	0.0315606	0.0323205	0	0.031561	0.09056	9.06E-04
234.1861	0.031554581	0.0323205	0	0.031555	0.09056	9.06E-04
234.1916	0.031545535	0.0323205	0	0.031546	0.09056	9.06E-04
234.1944	0.031547936	0.0323205	0	0.031548	0.09056	9.06E-04
234.1972	0.03155184	0.0323205	0	0.031552	0.09056	9.06E-04
234.1999	0.03155184	0.0323205	0	0.031552	0.09056	9.06E-04
234.2055	0.031536714	0.0323205	0	0.031537	0.09056	9.06E-04
234.2082	0.031523764	0.0323205	0	0.031524	0.09056	9.06E-04
234.211	0.031527719	0.0323205	0	0.031528	0.09056	9.06E-04
234.2166	0.031532019	0.0323205	0	0.031532	0.09056	9.06E-04
234.2193	0.031512887	0.0323205	0	0.031513	0.09056	9.06E-04
234.2221	0.031516695	0.0323205	0	0.031517	0.09056	9.06E-04
234.2276	0.031520379	0.0323205	0	0.03152	0.09056	9.06E-04
234.2304	0.031522984	0.0323205	0	0.031523	0.09056	9.06E-04
234.2332	0.031526885	0.0323205	0	0.031527	0.09056	9.06E-04
234.2387	0.031530639	0.0323205	0	0.031531	0.09056	9.06E-04
234.2415	0.031511651	0.0323205	0	0.031512	0.09056	9.06E-04
234.2443	0.031520868	0.0323205	0	0.031521	0.09056	9.06E-04
234.247	0.031515235	0.0323205	0	0.031515	0.09056	9.06E-04
234.2498	0.031518581	0.0323205	0	0.031519	0.09056	9.06E-04
234.2553	0.031485854	0.0323205	0	0.031486	0.09056	9.06E-04
234.2581	0.031489191	0.0323205	0	0.031489	0.09056	9.06E-04
234.2609	0.031489191	0.0323205	0	0.031489	0.09056	9.06E-04
234.2664	0.031473369	0.0323205	0	0.031473	0.09056	9.06E-04
234.2692	0.031481955	0.0323205	0	0.031482	0.09056	9.06E-04
234.272	0.031476517	0.0323205	0	0.031477	0.09056	9.06E-04
234.2747	0.031479566	0.0323205	0	0.03148	0.09056	9.06E-04
234.2775	0.031465731	0.0323205	0	0.031466	0.09056	9.06E-04
234.283	0.031463251	0.0323205	0	0.031463	0.09056	9.06E-04
234.2858	0.031471937	0.0323205	0	0.031472	0.09056	9.06E-04
234.2886	0.031452588	0.0323205	0	0.031453	0.09056	9.06E-04
234.2914	0.031455519	0.0323205	0	0.031456	0.09056	9.06E-04
234.2969	0.031437445	0.0323205	0	0.031437	0.09056	9.06E-04
234.2997	0.031424018	0.0323205	0	0.031424	0.09056	9.06E-04
234.3024	0.031405077	0.0323205	0	0.031405	0.09056	9.06E-04
234.308	0.031408781	0.0323205	0	0.031409	0.09056	9.06E-04

234.3108	0.031391352	0.0323205	0	0.031391	0.09056	9.06E-04
234.3135	0.031378236	0.0323205	0	0.031378	0.09056	9.06E-04
234.3163	0.031382376	0.0323205	0	0.031382	0.09056	9.06E-04
234.3191	0.031376744	0.0323205	0	0.031377	0.09056	9.06E-04
234.3246	0.031368039	0.0323205	0	0.031368	0.09056	9.06E-04
234.3274	0.031372545	0.0323205	0	0.031373	0.09056	9.06E-04
234.3301	0.031372545	0.0323205	0	0.031373	0.09056	9.06E-04
234.3329	0.031377077	0.0323205	0	0.031377	0.09056	9.06E-04
234.3357	0.03135896	0.0323205	0	0.031359	0.09056	9.06E-04
234.3385	0.031368745	0.0323205	0	0.031369	0.09056	9.06E-04
234.3412	0.031342387	0.0323205	0	0.031342	0.09056	9.06E-04
234.344	0.031352363	0.0323205	0	0.031352	0.09056	9.06E-04
234.3468	0.03133462	0.0323205	0	0.031335	0.09056	9.06E-04
234.3495	0.031339746	0.0323205	0	0.03134	0.09056	9.06E-04
234.3551	0.031344796	0.0323205	0	0.031345	0.09056	9.06E-04
234.3606	0.031330271	0.0323205	0	0.03133	0.09056	9.06E-04
234.3662	0.031335045	0.0323205	0	0.031335	0.09056	9.06E-04
234.3689	0.031340065	0.0323205	0	0.03134	0.09056	9.06E-04
234.3717	0.031327769	0.0323205	0	0.031328	0.09056	9.06E-04
234.3745	0.031332821	0.0323205	0	0.031333	0.09056	9.06E-04
234.3772	0.031348322	0.0323205	0	0.031348	0.09056	9.06E-04
234.3828	0.031340984	0.0323205	0	0.031341	0.09056	9.06E-04
234.3856	0.031323466	0.0323205	0	0.031323	0.09056	9.06E-04
234.3883	0.031305835	0.0323205	0	0.031306	0.09056	9.06E-04
234.3883	0.031305835	0.0323205	0	0.031306	0.09056	9.06E-04
234.3939	0.03127667	0.0323205	0	0.031277	0.09056	9.06E-04
234.3994	0.031297865	0.0323205	0	0.031298	0.09056	9.06E-04
234.4022	0.031308005	0.0323205	0	0.031308	0.09056	9.06E-04
234.4077	0.031308152	0.0323205	0	0.031308	0.09056	9.06E-04
234.4105	0.031318227	0.0323205	0	0.031318	0.09056	9.06E-04
234.4133	0.031322917	0.0323205	0	0.031323	0.09056	9.06E-04
234.4188	0.031343619	0.0323205	0	0.031344	0.09056	9.06E-04
234.4216	0.031353387	0.0323205	0	0.031353	0.09056	9.06E-04
234.4243	0.03134837	0.0323205	0	0.031348	0.09056	9.06E-04
234.4299	0.031340788	0.0323205	0	0.031341	0.09056	9.06E-04
234.4327	0.031323358	0.0323205	0	0.031323	0.09056	9.06E-04
234.4382	0.031365337	0.0323205	0	0.031365	0.09056	9.06E-04
234.441	0.031370634	0.0323205	0	0.031371	0.09056	9.06E-04
234.4437	0.031380893	0.0323205	0	0.031381	0.09056	9.06E-04
234.4493	0.031401489	0.0323205	0	0.031401	0.09056	9.06E-04
234.4521	0.031406242	0.0323205	0	0.031406	0.09056	9.06E-04
234.4548	0.031406242	0.0323205	0	0.031406	0.09056	9.06E-04
234.4604	0.031414131	0.0323205	0	0.031414	0.09056	9.06E-04
234.4631	0.031440009	0.0323205	0	0.03144	0.09056	9.06E-04
234.4659	0.03143446	0.0323205	0	0.031434	0.09056	9.06E-04
234.4714	0.031449896	0.0323205	0	0.03145	0.09056	9.06E-04
234.4742	0.031465457	0.0323205	0	0.031465	0.09056	9.06E-04
234.477	0.031491396	0.0323205	0	0.031491	0.09056	9.06E-04
234.4825	0.031483546	0.0323205	0	0.031484	0.09056	9.06E-04
234.4853	0.031477855	0.0323205	0	0.031478	0.09056	9.06E-04
234.4908	0.031485432	0.0323205	0	0.031485	0.09056	9.06E-04
234.4936	0.03147268	0.0323205	0	0.031473	0.09056	9.06E-04
234.4964	0.031477482	0.0323205	0	0.031477	0.09056	9.06E-04
234.4992	0.031493185	0.0323205	0	0.031493	0.09056	9.06E-04
234.5047	0.03150128	0.0323205	0	0.031501	0.09056	9.06E-04
234.5075	0.031511051	0.0323205	0	0.031511	0.09056	9.06E-04
234.5102	0.031505782	0.0323205	0	0.031506	0.09056	9.06E-04
234.5158	0.031535601	0.0323205	0	0.031536	0.09056	9.06E-04
234.5185	0.031535601	0.0323205	0	0.031536	0.09056	9.06E-04
234.5213	0.031539632	0.0323205	0	0.03154	0.09056	9.06E-04
234.5269	0.031580231	0.0323205	0	0.03158	0.09056	9.06E-04
234.5296	0.031627274	0.0323205	0	0.031627	0.09056	9.06E-04
234.5324	0.0316215	0.0323205	0	0.031622	0.09056	9.06E-04
234.5352	0.031630094	0.0323205	0	0.03163	0.09056	9.06E-04
234.5379	0.031610254	0.0323205	0	0.03161	0.09056	9.06E-04
234.5435	0.031649344	0.0323205	0	0.031649	0.09056	9.06E-04
234.5463	0.031651377	0.0323205	0	0.031651	0.09056	9.06E-04
234.549	0.031637445	0.0323205	0	0.031637	0.09056	9.06E-04
234.5546	0.031654727	0.0323205	0	0.031655	0.09056	9.06E-04
234.5573	0.031678297	0.0323205	0	0.031678	0.09056	9.06E-04
234.5629	0.031695102	0.0323205	0	0.031695	0.09056	9.06E-04
234.5656	0.031702698	0.0323205	0	0.031703	0.09056	9.06E-04
234.5684	0.031703568	0.0323205	0	0.031704	0.09056	9.06E-04
234.574	0.031741643	0.0323205	0	0.031742	0.09056	9.06E-04

234.5767	0.031764304	0.0323205	0	0.031764	0.09056	9.06E-04
234.5795	0.031757914	0.0323205	0	0.031758	0.09056	9.06E-04
234.5823	0.031765272	0.0323205	0	0.031765	0.09056	9.06E-04
234.5878	0.031766416	0.0323205	0	0.031766	0.09056	9.06E-04
234.5906	0.03178169	0.0323205	0	0.031782	0.09056	9.06E-04
234.5961	0.03178936	0.0323205	0	0.031789	0.09056	9.06E-04
234.5989	0.031782645	0.0323205	0	0.031783	0.09056	9.06E-04
234.6017	0.031768204	0.0323205	0	0.031768	0.09056	9.06E-04
234.6072	0.031805869	0.0323205	0	0.031806	0.09056	9.06E-04
234.61	0.031828409	0.0323205	0	0.031828	0.09056	9.06E-04
234.6127	0.031821321	0.0323205	0	0.031821	0.09056	9.06E-04
234.6183	0.031806786	0.0323205	0	0.031807	0.09056	9.06E-04
234.6211	0.031807044	0.0323205	0	0.031807	0.09056	9.06E-04
234.6266	0.031822827	0.0323205	0	0.031823	0.09056	9.06E-04
234.6294	0.031830651	0.0323205	0	0.031831	0.09056	9.06E-04
234.6349	0.031811167	0.0323205	0	0.031811	0.09056	9.06E-04
234.6377	0.031813243	0.0323205	0	0.031813	0.09056	9.06E-04
234.6432	0.031815216	0.0323205	0	0.031815	0.09056	9.06E-04
234.646	0.031838936	0.0323205	0	0.031839	0.09056	9.06E-04
234.6515	0.031856329	0.0323205	0	0.031856	0.09056	9.06E-04
234.6571	0.031821488	0.0323205	0	0.031821	0.09056	9.06E-04
234.6598	0.031822545	0.0323205	0	0.031823	0.09056	9.06E-04
234.6654	0.03182399	0.0323205	0	0.031824	0.09056	9.06E-04
234.6682	0.031825573	0.0323205	0	0.031826	0.09056	9.06E-04
234.6737	0.031804921	0.0323205	0	0.031805	0.09056	9.06E-04
234.6765	0.031790862	0.0323205	0	0.031791	0.09056	9.06E-04
234.682	0.031806949	0.0323205	0	0.031807	0.09056	9.06E-04
234.6848	0.031807945	0.0323205	0	0.031808	0.09056	9.06E-04
234.6903	0.031772638	0.0323205	0	0.031773	0.09056	9.06E-04
234.6931	0.031795811	0.0323205	0	0.031796	0.09056	9.06E-04
234.6959	0.03178815	0.0323205	0	0.031788	0.09056	9.06E-04
234.7014	0.031775264	0.0323205	0	0.031775	0.09056	9.06E-04
234.7042	0.031754392	0.0323205	0	0.031754	0.09056	9.06E-04
234.7069	0.03174067	0.0323205	0	0.031741	0.09056	9.06E-04
234.7125	0.031721136	0.0323205	0	0.031721	0.09056	9.06E-04
234.7153	0.031700585	0.0323205	0	0.031701	0.09056	9.06E-04
234.718	0.031687033	0.0323205	0	0.031687	0.09056	9.06E-04
234.7236	0.031703252	0.0323205	0	0.031703	0.09056	9.06E-04
234.7263	0.031704698	0.0323205	0	0.031705	0.09056	9.06E-04
234.7319	0.031669606	0.0323205	0	0.03167	0.09056	9.06E-04
234.7347	0.031692656	0.0323205	0	0.031693	0.09056	9.06E-04
234.7374	0.031685213	0.0323205	0	0.031685	0.09056	9.06E-04
234.743	0.031672566	0.0323205	0	0.031673	0.09056	9.06E-04
234.7457	0.031673671	0.0323205	0	0.031674	0.09056	9.06E-04
234.7513	0.031674856	0.0323205	0	0.031675	0.09056	9.06E-04
234.754	0.031676451	0.0323205	0	0.031676	0.09056	9.06E-04
234.7568	0.031677577	0.0323205	0	0.031678	0.09056	9.06E-04
234.7624	0.031665901	0.0323205	0	0.031666	0.09056	9.06E-04
234.7651	0.031659347	0.0323205	0	0.031659	0.09056	9.06E-04
234.7707	0.031647822	0.0323205	0	0.031648	0.09056	9.06E-04
234.7762	0.031651434	0.0323205	0	0.031651	0.09056	9.06E-04
234.779	0.031644637	0.0323205	0	0.031645	0.09056	9.06E-04
234.7845	0.03163276	0.0323205	0	0.031633	0.09056	9.06E-04
234.7873	0.031634258	0.0323205	0	0.031634	0.09056	9.06E-04
234.7928	0.031600533	0.0323205	0	0.031601	0.09056	9.06E-04
234.7956	0.03160259	0.0323205	0	0.031603	0.09056	9.06E-04
234.8011	0.031619549	0.0323205	0	0.03162	0.09056	9.06E-04
234.8039	0.031606046	0.0323205	0	0.031606	0.09056	9.06E-04
234.8067	0.031608149	0.0323205	0	0.031608	0.09056	9.06E-04
234.8122	0.031625113	0.0323205	0	0.031625	0.09056	9.06E-04
234.815	0.031611513	0.0323205	0	0.031612	0.09056	9.06E-04
234.8205	0.031592303	0.0323205	0	0.031592	0.09056	9.06E-04
234.8233	0.031571825	0.0323205	0	0.031572	0.09056	9.06E-04
234.8289	0.031573915	0.0323205	0	0.031574	0.09056	9.06E-04
234.8316	0.031597844	0.0323205	0	0.031598	0.09056	9.06E-04
234.8372	0.031564644	0.0323205	0	0.031565	0.09056	9.06E-04
234.8399	0.031544658	0.0323205	0	0.031545	0.09056	9.06E-04
234.8427	0.031546448	0.0323205	0	0.031546	0.09056	9.06E-04
234.8482	0.031528745	0.0323205	0	0.031529	0.09056	9.06E-04
234.851	0.031538733	0.0323205	0	0.031539	0.09056	9.06E-04
234.8566	0.03153493	0.0323205	0	0.031535	0.09056	9.06E-04
234.8593	0.031522352	0.0323205	0	0.031522	0.09056	9.06E-04
234.8621	0.031502824	0.0323205	0	0.031503	0.09056	9.06E-04
234.8676	0.031508205	0.0323205	0	0.031508	0.09056	9.06E-04

234.8704	0.031508205	0.0323205	0	0.031508	0.09056	9.06E-04
234.8732	0.031511395	0.0323205	0	0.031511	0.09056	9.06E-04
234.8787	0.031493912	0.0323205	0	0.031494	0.09056	9.06E-04
234.8815	0.031481665	0.0323205	0	0.031482	0.09056	9.06E-04
234.8843	0.031485035	0.0323205	0	0.031485	0.09056	9.06E-04
234.8898	0.031502709	0.0323205	0	0.031503	0.09056	9.06E-04
234.8926	0.031490365	0.0323205	0	0.03149	0.09056	9.06E-04
234.8953	0.031493502	0.0323205	0	0.031494	0.09056	9.06E-04
234.8981	0.031486487	0.0323205	0	0.031486	0.09056	9.06E-04
234.9037	0.031477308	0.0323205	0	0.031477	0.09056	9.06E-04
234.9064	0.031457976	0.0323205	0	0.031458	0.09056	9.06E-04
234.9092	0.031468288	0.0323205	0	0.031468	0.09056	9.06E-04
234.9147	0.031486615	0.0323205	0	0.031487	0.09056	9.06E-04
234.9175	0.031467573	0.0323205	0	0.031468	0.09056	9.06E-04
234.9203	0.031455375	0.0323205	0	0.031455	0.09056	9.06E-04
234.9258	0.031452264	0.0323205	0	0.031452	0.09056	9.06E-04
234.9286	0.031462549	0.0323205	0	0.031463	0.09056	9.06E-04
234.9314	0.031443778	0.0323205	0	0.031444	0.09056	9.06E-04
234.9369	0.031413781	0.0323205	0	0.031414	0.09056	9.06E-04
234.9397	0.031417844	0.0323205	0	0.031418	0.09056	9.06E-04
234.9425	0.03141157	0.0323205	0	0.031412	0.09056	9.06E-04
234.948	0.031402976	0.0323205	0	0.031403	0.09056	9.06E-04
234.9508	0.031427687	0.0323205	0	0.031428	0.09056	9.06E-04
234.9535	0.031421382	0.0323205	0	0.031421	0.09056	9.06E-04
234.9591	0.031412476	0.0323205	0	0.031412	0.09056	9.06E-04
234.9618	0.031416062	0.0323205	0	0.031416	0.09056	9.06E-04
234.9646	0.031416062	0.0323205	0	0.031416	0.09056	9.06E-04
234.9702	0.031386394	0.0323205	0	0.031386	0.09056	9.06E-04
234.9729	0.031390769	0.0323205	0	0.031391	0.09056	9.06E-04
234.9757	0.031385075	0.0323205	0	0.031385	0.09056	9.06E-04
234.9785	0.03139511	0.0323205	0	0.031395	0.09056	9.06E-04
234.984	0.031381375	0.0323205	0	0.031381	0.09056	9.06E-04
234.9868	0.031381375	0.0323205	0	0.031381	0.09056	9.06E-04
234.9896	0.031385154	0.0323205	0	0.031385	0.09056	9.06E-04
234.9923	0.031366753	0.0323205	0	0.031367	0.09056	9.06E-04
234.9951	0.031375837	0.0323205	0	0.031376	0.09056	9.06E-04
235.0006	0.03137437	0.0323205	0	0.031374	0.09056	9.06E-04
235.0034	0.03138325	0.0323205	0	0.031383	0.09056	9.06E-04
235.0062	0.031377756	0.0323205	0	0.031378	0.09056	9.06E-04
235.0089	0.031381301	0.0323205	0	0.031381	0.09056	9.06E-04
235.0145	0.031350925	0.0323205	0	0.031351	0.09056	9.06E-04
235.0173	0.031350925	0.0323205	0	0.031351	0.09056	9.06E-04
235.02	0.031354687	0.0323205	0	0.031355	0.09056	9.06E-04
235.0228	0.031358112	0.0323205	0	0.031358	0.09056	9.06E-04
235.0283	0.031361721	0.0323205	0	0.031362	0.09056	9.06E-04
235.0311	0.031365298	0.0323205	0	0.031365	0.09056	9.06E-04
235.0339	0.031365298	0.0323205	0	0.031365	0.09056	9.06E-04
235.0367	0.031368856	0.0323205	0	0.031369	0.09056	9.06E-04
235.0394	0.031350355	0.0323205	0	0.03135	0.09056	9.06E-04
235.0422	0.03133743	0.0323205	0	0.031337	0.09056	9.06E-04
235.0477	0.031335255	0.0323205	0	0.031335	0.09056	9.06E-04
235.0505	0.031344441	0.0323205	0	0.031344	0.09056	9.06E-04
235.0533	0.03132591	0.0323205	0	0.031326	0.09056	9.06E-04
235.056	0.031329985	0.0323205	0	0.03133	0.09056	9.06E-04
235.0588	0.031329985	0.0323205	0	0.03133	0.09056	9.06E-04
235.0644	0.031300764	0.0323205	0	0.031301	0.09056	9.06E-04
235.0671	0.031305034	0.0323205	0	0.031305	0.09056	9.06E-04
235.0699	0.031299506	0.0323205	0	0.0313	0.09056	9.06E-04
235.0727	0.031309118	0.0323205	0	0.031309	0.09056	9.06E-04
235.0754	0.03129117	0.0323205	0	0.031291	0.09056	9.06E-04
235.081	0.03129536	0.0323205	0	0.031295	0.09056	9.06E-04
235.0838	0.031299758	0.0323205	0	0.0313	0.09056	9.06E-04
235.0865	0.03128221	0.0323205	0	0.031282	0.09056	9.06E-04
235.0893	0.031292313	0.0323205	0	0.031292	0.09056	9.06E-04
235.0921	0.031287158	0.0323205	0	0.031287	0.09056	9.06E-04
235.0976	0.03127985	0.0323205	0	0.03128	0.09056	9.06E-04
235.1004	0.03128474	0.0323205	0	0.031285	0.09056	9.06E-04
235.1031	0.03127977	0.0323205	0	0.03128	0.09056	9.06E-04
235.1087	0.031294621	0.0323205	0	0.031295	0.09056	9.06E-04
235.1115	0.031289661	0.0323205	0	0.03129	0.09056	9.06E-04
235.1142	0.031299346	0.0323205	0	0.031299	0.09056	9.06E-04
235.117	0.03130394	0.0323205	0	0.031304	0.09056	9.06E-04
235.1198	0.03129897	0.0323205	0	0.031299	0.09056	9.06E-04
235.1225	0.03130849	0.0323205	0	0.031308	0.09056	9.06E-04

235.1253	0.031312968	0.0323205	0	0.031313	0.09056	9.06E-04
235.1281	0.031328473	0.0323205	0	0.031328	0.09056	9.06E-04
235.1309	0.031332943	0.0323205	0	0.031333	0.09056	9.06E-04
235.1336	0.031320532	0.0323205	0	0.031321	0.09056	9.06E-04
235.1364	0.031325398	0.0323205	0	0.031325	0.09056	9.06E-04
235.1392	0.031320328	0.0323205	0	0.03132	0.09056	9.06E-04
235.1419	0.031330357	0.0323205	0	0.03133	0.09056	9.06E-04
235.1447	0.031312796	0.0323205	0	0.031313	0.09056	9.06E-04
235.1502	0.031317427	0.0323205	0	0.031317	0.09056	9.06E-04
235.153	0.031343916	0.0323205	0	0.031344	0.09056	9.06E-04
235.1558	0.031359381	0.0323205	0	0.031359	0.09056	9.06E-04
235.1613	0.031400652	0.0323205	0	0.031401	0.09056	9.06E-04
235.1641	0.03140936	0.0323205	0	0.031409	0.09056	9.06E-04
235.1669	0.031412472	0.0323205	0	0.031412	0.09056	9.06E-04
235.1724	0.031452431	0.0323205	0	0.031452	0.09056	9.06E-04
235.1752	0.031452431	0.0323205	0	0.031452	0.09056	9.06E-04
235.178	0.031455384	0.0323205	0	0.031455	0.09056	9.06E-04
235.1807	0.031479055	0.0323205	0	0.031479	0.09056	9.06E-04
235.1863	0.031496699	0.0323205	0	0.031497	0.09056	9.06E-04
235.189	0.031504778	0.0323205	0	0.031505	0.09056	9.06E-04
235.1918	0.03149881	0.0323205	0	0.031499	0.09056	9.06E-04
235.1946	0.031543617	0.0323205	0	0.031544	0.09056	9.06E-04
235.2001	0.031560387	0.0323205	0	0.03156	0.09056	9.06E-04
235.2029	0.031568072	0.0323205	0	0.031568	0.09056	9.06E-04
235.2057	0.031562249	0.0323205	0	0.031562	0.09056	9.06E-04
235.2084	0.03158523	0.0323205	0	0.031585	0.09056	9.06E-04
235.214	0.031573323	0.0323205	0	0.031573	0.09056	9.06E-04
235.2167	0.031567558	0.0323205	0	0.031568	0.09056	9.06E-04
235.2195	0.031590661	0.0323205	0	0.031591	0.09056	9.06E-04
235.2251	0.031592489	0.0323205	0	0.031592	0.09056	9.06E-04
235.2278	0.031593967	0.0323205	0	0.031594	0.09056	9.06E-04
235.2306	0.031616221	0.0323205	0	0.031616	0.09056	9.06E-04
235.2361	0.031617255	0.0323205	0	0.031617	0.09056	9.06E-04
235.2389	0.031617877	0.0323205	0	0.031618	0.09056	9.06E-04
235.2417	0.031633008	0.0323205	0	0.031633	0.09056	9.06E-04
235.2472	0.031675775	0.0323205	0	0.031676	0.09056	9.06E-04
235.25	0.031669606	0.0323205	0	0.03167	0.09056	9.06E-04
235.2528	0.031675618	0.0323205	0	0.031676	0.09056	9.06E-04
235.2555	0.031675511	0.0323205	0	0.031676	0.09056	9.06E-04
235.2611	0.031690245	0.0323205	0	0.03169	0.09056	9.06E-04
235.2638	0.031696442	0.0323205	0	0.031696	0.09056	9.06E-04
235.2666	0.031690007	0.0323205	0	0.03169	0.09056	9.06E-04
235.2722	0.031732734	0.0323205	0	0.031733	0.09056	9.06E-04
235.2749	0.031747748	0.0323205	0	0.031748	0.09056	9.06E-04
235.2777	0.031747819	0.0323205	0	0.031748	0.09056	9.06E-04
235.2832	0.031747802	0.0323205	0	0.031748	0.09056	9.06E-04
235.286	0.031769391	0.0323205	0	0.031769	0.09056	9.06E-04
235.2888	0.031790944	0.0323205	0	0.031791	0.09056	9.06E-04
235.2943	0.031790986	0.0323205	0	0.031791	0.09056	9.06E-04
235.2971	0.031769599	0.0323205	0	0.03177	0.09056	9.06E-04
235.2999	0.031791542	0.0323205	0	0.031792	0.09056	9.06E-04
235.3026	0.031785442	0.0323205	0	0.031785	0.09056	9.06E-04
235.3082	0.031792824	0.0323205	0	0.031793	0.09056	9.06E-04
235.3109	0.031808112	0.0323205	0	0.031808	0.09056	9.06E-04
235.3137	0.03183207	0.0323205	0	0.03183	0.09056	9.06E-04
235.3193	0.031831128	0.0323205	0	0.031831	0.09056	9.06E-04
235.322	0.031831128	0.0323205	0	0.031831	0.09056	9.06E-04
235.3248	0.03183165	0.0323205	0	0.031832	0.09056	9.06E-04
235.3303	0.031854353	0.0323205	0	0.031854	0.09056	9.06E-04
235.3331	0.031869075	0.0323205	0	0.031869	0.09056	9.06E-04
235.3359	0.031891144	0.0323205	0	0.031891	0.09056	9.06E-04
235.3414	0.031912976	0.0323205	0	0.031913	0.09056	9.06E-04
235.3442	0.031927696	0.0323205	0	0.031928	0.09056	9.06E-04
235.347	0.031949299	0.0323205	0	0.031949	0.09056	9.06E-04
235.3525	0.031912105	0.0323205	0	0.031912	0.09056	9.06E-04
235.3553	0.03189089	0.0323205	0	0.031891	0.09056	9.06E-04
235.358	0.03189089	0.0323205	0	0.031891	0.09056	9.06E-04
235.3608	0.031869995	0.0323205	0	0.03187	0.09056	9.06E-04
235.3664	0.031869795	0.0323205	0	0.03187	0.09056	9.06E-04
235.3691	0.031891537	0.0323205	0	0.031892	0.09056	9.06E-04
235.3719	0.031913386	0.0323205	0	0.031913	0.09056	9.06E-04
235.3774	0.031928788	0.0323205	0	0.031929	0.09056	9.06E-04
235.3802	0.031913488	0.0323205	0	0.031913	0.09056	9.06E-04
235.383	0.031913548	0.0323205	0	0.031914	0.09056	9.06E-04

235.3857	0.031928895	0.0323205	0	0.031929	0.09056	9.06E-04
235.3885	0.03198734	0.0323205	0	0.031987	0.09056	9.06E-04
235.3913	0.031971738	0.0323205	0	0.031972	0.09056	9.06E-04
235.3941	0.031949669	0.0323205	0	0.03195	0.09056	9.06E-04
235.3996	0.03194931	0.0323205	0	0.031949	0.09056	9.06E-04
235.4024	0.031927605	0.0323205	0	0.031928	0.09056	9.06E-04
235.4079	0.03191265	0.0323205	0	0.031913	0.09056	9.06E-04
235.4107	0.031928249	0.0323205	0	0.031928	0.09056	9.06E-04
235.4162	0.031913673	0.0323205	0	0.031914	0.09056	9.06E-04
235.419	0.031914279	0.0323205	0	0.031914	0.09056	9.06E-04
235.4245	0.031930565	0.0323205	0	0.031931	0.09056	9.06E-04
235.4273	0.031915663	0.0323205	0	0.031916	0.09056	9.06E-04
235.4301	0.03189461	0.0323205	0	0.031895	0.09056	9.06E-04
235.4328	0.031873607	0.0323205	0	0.031874	0.09056	9.06E-04
235.4384	0.031874564	0.0323205	0	0.031875	0.09056	9.06E-04
235.4412	0.031896977	0.0323205	0	0.031897	0.09056	9.06E-04
235.4467	0.031860911	0.0323205	0	0.031861	0.09056	9.06E-04
235.4495	0.031861497	0.0323205	0	0.031861	0.09056	9.06E-04
235.455	0.031876956	0.0323205	0	0.031877	0.09056	9.06E-04
235.4578	0.031861763	0.0323205	0	0.031862	0.09056	9.06E-04
235.4606	0.031861636	0.0323205	0	0.031862	0.09056	9.06E-04
235.4661	0.031876747	0.0323205	0	0.031877	0.09056	9.06E-04
235.4689	0.031861369	0.0323205	0	0.031861	0.09056	9.06E-04
235.4744	0.031860731	0.0323205	0	0.031861	0.09056	9.06E-04
235.4772	0.031854025	0.0323205	0	0.031854	0.09056	9.06E-04
235.4799	0.031860031	0.0323205	0	0.03186	0.09056	9.06E-04
235.4855	0.031816005	0.0323205	0	0.031816	0.09056	9.06E-04
235.4883	0.031800825	0.0323205	0	0.031801	0.09056	9.06E-04
235.491	0.031778911	0.0323205	0	0.031779	0.09056	9.06E-04
235.4938	0.031800209	0.0323205	0	0.0318	0.09056	9.06E-04
235.4993	0.031814418	0.0323205	0	0.031814	0.09056	9.06E-04
235.5021	0.0317993	0.0323205	0	0.031799	0.09056	9.06E-04
235.5049	0.031777308	0.0323205	0	0.031777	0.09056	9.06E-04
235.5104	0.031777214	0.0323205	0	0.031777	0.09056	9.06E-04
235.5132	0.031777214	0.0323205	0	0.031777	0.09056	9.06E-04
235.5187	0.031777663	0.0323205	0	0.031778	0.09056	9.06E-04
235.5215	0.031756071	0.0323205	0	0.031756	0.09056	9.06E-04
235.527	0.031755864	0.0323205	0	0.031756	0.09056	9.06E-04
235.5326	0.031777215	0.0323205	0	0.031777	0.09056	9.06E-04
235.5354	0.031776926	0.0323205	0	0.031777	0.09056	9.06E-04
235.5381	0.031776155	0.0323205	0	0.031776	0.09056	9.06E-04
235.5437	0.031775892	0.0323205	0	0.031776	0.09056	9.06E-04
235.5464	0.031775686	0.0323205	0	0.031776	0.09056	9.06E-04
235.5492	0.031753325	0.0323205	0	0.031753	0.09056	9.06E-04
235.5548	0.031752793	0.0323205	0	0.031753	0.09056	9.06E-04
235.5575	0.031752415	0.0323205	0	0.031752	0.09056	9.06E-04
235.5631	0.03171568	0.0323205	0	0.031716	0.09056	9.06E-04
235.5658	0.031715342	0.0323205	0	0.031715	0.09056	9.06E-04
235.5714	0.031700967	0.0323205	0	0.031701	0.09056	9.06E-04
235.5741	0.031693254	0.0323205	0	0.031693	0.09056	9.06E-04
235.5797	0.031715421	0.0323205	0	0.031715	0.09056	9.06E-04
235.5825	0.031693892	0.0323205	0	0.031694	0.09056	9.06E-04
235.5852	0.031679918	0.0323205	0	0.03168	0.09056	9.06E-04
235.5908	0.031637365	0.0323205	0	0.031637	0.09056	9.06E-04
235.5935	0.031623861	0.0323205	0	0.031624	0.09056	9.06E-04
235.5991	0.031638991	0.0323205	0	0.031639	0.09056	9.06E-04
235.5991	0.031638991	0.0323205	0	0.031639	0.09056	9.06E-04
235.6046	0.031625929	0.0323205	0	0.031626	0.09056	9.06E-04
235.6074	0.031604558	0.0323205	0	0.031605	0.09056	9.06E-04
235.6129	0.031583779	0.0323205	0	0.031584	0.09056	9.06E-04
235.6157	0.031593076	0.0323205	0	0.031593	0.09056	9.06E-04
235.6185	0.031584921	0.0323205	0	0.031585	0.09056	9.06E-04
235.6212	0.031586591	0.0323205	0	0.031587	0.09056	9.06E-04
235.6268	0.031553014	0.0323205	0	0.031553	0.09056	9.06E-04
235.6296	0.031532586	0.0323205	0	0.031533	0.09056	9.06E-04
235.6323	0.03152022	0.0323205	0	0.03152	0.09056	9.06E-04
235.6351	0.031522535	0.0323205	0	0.031523	0.09056	9.06E-04
235.6406	0.031525342	0.0323205	0	0.031525	0.09056	9.06E-04
235.6434	0.031527736	0.0323205	0	0.031528	0.09056	9.06E-04
235.649	0.031530048	0.0323205	0	0.03153	0.09056	9.06E-04
235.6517	0.031510709	0.0323205	0	0.031511	0.09056	9.06E-04
235.6545	0.031510709	0.0323205	0	0.031511	0.09056	9.06E-04
235.6573	0.031512729	0.0323205	0	0.031513	0.09056	9.06E-04
235.66	0.031492537	0.0323205	0	0.031493	0.09056	9.06E-04

235.6656	0.031482045	0.0323205	0	0.031482	0.09056	9.06E-04
235.6683	0.031475651	0.0323205	0	0.031476	0.09056	9.06E-04
235.6711	0.031485016	0.0323205	0	0.031485	0.09056	9.06E-04
235.6739	0.031465693	0.0323205	0	0.031466	0.09056	9.06E-04
235.6767	0.031468836	0.0323205	0	0.031469	0.09056	9.06E-04
235.6822	0.031472006	0.0323205	0	0.031472	0.09056	9.06E-04
235.685	0.031452754	0.0323205	0	0.031453	0.09056	9.06E-04
235.6877	0.031461933	0.0323205	0	0.031462	0.09056	9.06E-04
235.6905	0.031455421	0.0323205	0	0.031455	0.09056	9.06E-04
235.6961	0.031460114	0.0323205	0	0.03146	0.09056	9.06E-04
235.6988	0.031447404	0.0323205	0	0.031447	0.09056	9.06E-04
235.7016	0.031427826	0.0323205	0	0.031428	0.09056	9.06E-04
235.7044	0.031451648	0.0323205	0	0.031452	0.09056	9.06E-04
235.7071	0.031444898	0.0323205	0	0.031445	0.09056	9.06E-04
235.7099	0.031453783	0.0323205	0	0.031454	0.09056	9.06E-04
235.7127	0.031455762	0.0323205	0	0.031456	0.09056	9.06E-04
235.7155	0.031470082	0.0323205	0	0.03147	0.09056	9.06E-04
235.7182	0.031471973	0.0323205	0	0.031472	0.09056	9.06E-04
235.7238	0.031473871	0.0323205	0	0.031474	0.09056	9.06E-04
235.7265	0.031476176	0.0323205	0	0.031476	0.09056	9.06E-04
235.7293	0.031463082	0.0323205	0	0.031463	0.09056	9.06E-04
235.7321	0.031465619	0.0323205	0	0.031466	0.09056	9.06E-04
235.7376	0.031483084	0.0323205	0	0.031483	0.09056	9.06E-04
235.7404	0.031470276	0.0323205	0	0.03147	0.09056	9.06E-04
235.7432	0.031450916	0.0323205	0	0.031451	0.09056	9.06E-04
235.7459	0.031453395	0.0323205	0	0.031453	0.09056	9.06E-04
235.7515	0.031455679	0.0323205	0	0.031456	0.09056	9.06E-04
235.7542	0.031457123	0.0323205	0	0.031457	0.09056	9.06E-04
235.757	0.031436794	0.0323205	0	0.031437	0.09056	9.06E-04
235.7598	0.031445515	0.0323205	0	0.031446	0.09056	9.06E-04
235.7653	0.03143939	0.0323205	0	0.031439	0.09056	9.06E-04
235.7681	0.031426343	0.0323205	0	0.031426	0.09056	9.06E-04
235.7709	0.031406448	0.0323205	0	0.031406	0.09056	9.06E-04
235.7736	0.031406448	0.0323205	0	0.031406	0.09056	9.06E-04
235.7792	0.031388184	0.0323205	0	0.031388	0.09056	9.06E-04
235.7819	0.031397421	0.0323205	0	0.031397	0.09056	9.06E-04
235.7847	0.031390491	0.0323205	0	0.03139	0.09056	9.06E-04
235.7875	0.031392609	0.0323205	0	0.031393	0.09056	9.06E-04
235.7903	0.031379898	0.0323205	0	0.03138	0.09056	9.06E-04
235.793	0.031360096	0.0323205	0	0.03136	0.09056	9.06E-04
235.7986	0.031362426	0.0323205	0	0.031362	0.09056	9.06E-04
235.8013	0.031364718	0.0323205	0	0.031365	0.09056	9.06E-04
235.8041	0.031366422	0.0323205	0	0.031366	0.09056	9.06E-04
235.8097	0.031356522	0.0323205	0	0.031357	0.09056	9.06E-04
235.8124	0.031349548	0.0323205	0	0.03135	0.09056	9.06E-04
235.8152	0.031352127	0.0323205	0	0.031352	0.09056	9.06E-04
235.818	0.031339764	0.0323205	0	0.03134	0.09056	9.06E-04
235.8207	0.031320457	0.0323205	0	0.03132	0.09056	9.06E-04
235.8235	0.031301354	0.0323205	0	0.031301	0.09056	9.06E-04
235.829	0.031270873	0.0323205	0	0.031271	0.09056	9.06E-04
235.8318	0.031274676	0.0323205	0	0.031275	0.09056	9.06E-04
235.8346	0.031274676	0.0323205	0	0.031275	0.09056	9.06E-04
235.8374	0.031278633	0.0323205	0	0.031279	0.09056	9.06E-04
235.8401	0.031281161	0.0323205	0	0.031281	0.09056	9.06E-04
235.8429	0.031262815	0.0323205	0	0.031263	0.09056	9.06E-04
235.8457	0.031251102	0.0323205	0	0.031251	0.09056	9.06E-04
235.8484	0.03125496	0.0323205	0	0.031255	0.09056	9.06E-04
235.854	0.031258726	0.0323205	0	0.031259	0.09056	9.06E-04
235.8568	0.031240261	0.0323205	0	0.03124	0.09056	9.06E-04
235.8595	0.031242505	0.0323205	0	0.031243	0.09056	9.06E-04
235.8623	0.031245647	0.0323205	0	0.031246	0.09056	9.06E-04
235.8651	0.031245647	0.0323205	0	0.031246	0.09056	9.06E-04
235.8706	0.031250642	0.0323205	0	0.031251	0.09056	9.06E-04
235.8734	0.031253232	0.0323205	0	0.031253	0.09056	9.06E-04
235.8761	0.031253232	0.0323205	0	0.031253	0.09056	9.06E-04
235.8789	0.031255731	0.0323205	0	0.031256	0.09056	9.06E-04
235.8817	0.031257061	0.0323205	0	0.031257	0.09056	9.06E-04
235.8872	0.031259028	0.0323205	0	0.031259	0.09056	9.06E-04
235.89	0.031261116	0.0323205	0	0.031261	0.09056	9.06E-04
235.8928	0.031262506	0.0323205	0	0.031263	0.09056	9.06E-04
235.8983	0.031278293	0.0323205	0	0.031278	0.09056	9.06E-04
235.9011	0.031287584	0.0323205	0	0.031288	0.09056	9.06E-04
235.9039	0.031289197	0.0323205	0	0.031289	0.09056	9.06E-04
235.9066	0.031302774	0.0323205	0	0.031303	0.09056	9.06E-04

235.9122	0.031314064	0.0323205	0	0.031314	0.09056	9.06E-04
235.9149	0.031306729	0.0323205	0	0.031307	0.09056	9.06E-04
235.9177	0.031329779	0.0323205	0	0.03133	0.09056	9.06E-04
235.9205	0.031331392	0.0323205	0	0.031331	0.09056	9.06E-04
235.926	0.031333287	0.0323205	0	0.031333	0.09056	9.06E-04
235.9288	0.031356224	0.0323205	0	0.031356	0.09056	9.06E-04
235.9316	0.031349368	0.0323205	0	0.031349	0.09056	9.06E-04
235.9343	0.031358016	0.0323205	0	0.031358	0.09056	9.06E-04
235.9371	0.031359799	0.0323205	0	0.03136	0.09056	9.06E-04
235.9426	0.031376168	0.0323205	0	0.031376	0.09056	9.06E-04
235.9454	0.031384634	0.0323205	0	0.031385	0.09056	9.06E-04
235.9482	0.031378163	0.0323205	0	0.031378	0.09056	9.06E-04
235.9537	0.031402805	0.0323205	0	0.031403	0.09056	9.06E-04
235.9565	0.031402805	0.0323205	0	0.031403	0.09056	9.06E-04
235.9593	0.031404405	0.0323205	0	0.031404	0.09056	9.06E-04
235.9648	0.031421054	0.0323205	0	0.031421	0.09056	9.06E-04
235.9676	0.031429026	0.0323205	0	0.031429	0.09056	9.06E-04
235.9703	0.031408789	0.0323205	0	0.031409	0.09056	9.06E-04
235.9759	0.031445974	0.0323205	0	0.031446	0.09056	9.06E-04
235.9787	0.031447334	0.0323205	0	0.031447	0.09056	9.06E-04
235.9814	0.031455263	0.0323205	0	0.031455	0.09056	9.06E-04
235.987	0.031470707	0.0323205	0	0.031471	0.09056	9.06E-04
235.9897	0.031471371	0.0323205	0	0.031471	0.09056	9.06E-04
235.9925	0.031493574	0.0323205	0	0.031494	0.09056	9.06E-04
235.9981	0.031494252	0.0323205	0	0.031494	0.09056	9.06E-04
236.0008	0.03149486	0.0323205	0	0.031495	0.09056	9.06E-04
236.0064	0.03155252	0.0323205	0	0.031553	0.09056	9.06E-04
236.0091	0.031545771	0.0323205	0	0.031546	0.09056	9.06E-04
236.0119	0.03155287	0.0323205	0	0.031553	0.09056	9.06E-04
236.0174	0.031567404	0.0323205	0	0.031567	0.09056	9.06E-04
236.0202	0.031609991	0.0323205	0	0.03161	0.09056	9.06E-04
236.0258	0.031609644	0.0323205	0	0.03161	0.09056	9.06E-04
236.0285	0.031609287	0.0323205	0	0.031609	0.09056	9.06E-04
236.0341	0.031666173	0.0323205	0	0.031666	0.09056	9.06E-04
236.0368	0.03168084	0.0323205	0	0.031681	0.09056	9.06E-04
236.0396	0.031723496	0.0323205	0	0.031723	0.09056	9.06E-04
236.0424	0.031716325	0.0323205	0	0.031716	0.09056	9.06E-04
236.0479	0.031723424	0.0323205	0	0.031723	0.09056	9.06E-04
236.0507	0.031737724	0.0323205	0	0.031738	0.09056	9.06E-04
236.0535	0.031781143	0.0323205	0	0.031781	0.09056	9.06E-04
236.059	0.031794724	0.0323205	0	0.031795	0.09056	9.06E-04
236.0618	0.031665357	0.0323205	0	0.031665	0.09056	9.06E-04
236.0645	0.031688401	0.0323205	0	0.031688	0.09056	9.06E-04
236.0701	0.031716492	0.0323205	0	0.031716	0.09056	9.06E-04
236.0729	0.031781462	0.0323205	0	0.031781	0.09056	9.06E-04
236.0756	0.031773527	0.0323205	0	0.031774	0.09056	9.06E-04
236.0812	0.031779188	0.0323205	0	0.031779	0.09056	9.06E-04
236.0839	0.031793059	0.0323205	0	0.031793	0.09056	9.06E-04
236.0867	0.031749018	0.0323205	0	0.031749	0.09056	9.06E-04
236.0923	0.031753872	0.0323205	0	0.031754	0.09056	9.06E-04
236.095	0.031753872	0.0323205	0	0.031754	0.09056	9.06E-04
236.0978	0.03174535	0.0323205	0	0.031745	0.09056	9.06E-04
236.1033	0.031750061	0.0323205	0	0.03175	0.09056	9.06E-04
236.1061	0.031750061	0.0323205	0	0.03175	0.09056	9.06E-04
236.1116	0.031754236	0.0323205	0	0.031754	0.09056	9.06E-04
236.1144	0.031767596	0.0323205	0	0.031768	0.09056	9.06E-04
236.12	0.031793897	0.0323205	0	0.031794	0.09056	9.06E-04
236.1227	0.031806643	0.0323205	0	0.031807	0.09056	9.06E-04
236.1283	0.031831802	0.0323205	0	0.031832	0.09056	9.06E-04
236.131	0.031844236	0.0323205	0	0.031844	0.09056	9.06E-04
236.1338	0.031856585	0.0323205	0	0.031857	0.09056	9.06E-04
236.1394	0.031880737	0.0323205	0	0.031881	0.09056	9.06E-04
236.1421	0.031893047	0.0323205	0	0.031893	0.09056	9.06E-04
236.1449	0.031882009	0.0323205	0	0.031882	0.09056	9.06E-04
236.1504	0.031870824	0.0323205	0	0.031871	0.09056	9.06E-04
236.156	0.031873008	0.0323205	0	0.031873	0.09056	9.06E-04
236.1615	0.031862486	0.0323205	0	0.031862	0.09056	9.06E-04
236.1643	0.031875625	0.0323205	0	0.031876	0.09056	9.06E-04
236.1698	0.031865288	0.0323205	0	0.031865	0.09056	9.06E-04
236.1754	0.031868433	0.0323205	0	0.031868	0.09056	9.06E-04
236.1781	0.031882253	0.0323205	0	0.031882	0.09056	9.06E-04
236.1837	0.031872464	0.0323205	0	0.031872	0.09056	9.06E-04
236.1865	0.031862784	0.0323205	0	0.031863	0.09056	9.06E-04
236.192	0.031891059	0.0323205	0	0.031891	0.09056	9.06E-04

236.1975	0.031881304	0.0323205	0	0.031881	0.09056	9.06E-04
236.2003	0.031871507	0.0323205	0	0.031872	0.09056	9.06E-04
236.2058	0.031899845	0.0323205	0	0.0319	0.09056	9.06E-04
236.2086	0.031890031	0.0323205	0	0.03189	0.09056	9.06E-04
236.2114	0.031890031	0.0323205	0	0.03189	0.09056	9.06E-04
236.2169	0.031894513	0.0323205	0	0.031895	0.09056	9.06E-04
236.2197	0.03188497	0.0323205	0	0.031885	0.09056	9.06E-04
236.2252	0.03187559	0.0323205	0	0.031876	0.09056	9.06E-04
236.228	0.031890155	0.0323205	0	0.03189	0.09056	9.06E-04
236.2336	0.031880596	0.0323205	0	0.031881	0.09056	9.06E-04
236.2363	0.0318712	0.0323205	0	0.031871	0.09056	9.06E-04
236.2419	0.031877011	0.0323205	0	0.031877	0.09056	9.06E-04
236.2446	0.031877011	0.0323205	0	0.031877	0.09056	9.06E-04
236.2502	0.031883549	0.0323205	0	0.031884	0.09056	9.06E-04
236.2529	0.031899036	0.0323205	0	0.031899	0.09056	9.06E-04
236.2585	0.031890446	0.0323205	0	0.03189	0.09056	9.06E-04
236.2613	0.031881907	0.0323205	0	0.031882	0.09056	9.06E-04
236.2668	0.03188919	0.0323205	0	0.031889	0.09056	9.06E-04
236.2696	0.03188919	0.0323205	0	0.031889	0.09056	9.06E-04
236.2751	0.031896906	0.0323205	0	0.031897	0.09056	9.06E-04
236.2779	0.031888494	0.0323205	0	0.031888	0.09056	9.06E-04
236.2834	0.031879843	0.0323205	0	0.03188	0.09056	9.06E-04
236.2862	0.031895675	0.0323205	0	0.031896	0.09056	9.06E-04
236.2917	0.031886939	0.0323205	0	0.031887	0.09056	9.06E-04
236.2945	0.031877995	0.0323205	0	0.031878	0.09056	9.06E-04
236.2973	0.031893756	0.0323205	0	0.031894	0.09056	9.06E-04
236.3028	0.031900105	0.0323205	0	0.0319	0.09056	9.06E-04
236.3056	0.031900105	0.0323205	0	0.0319	0.09056	9.06E-04
236.3111	0.03190639	0.0323205	0	0.031906	0.09056	9.06E-04
236.3139	0.031896803	0.0323205	0	0.031897	0.09056	9.06E-04
236.3167	0.031896803	0.0323205	0	0.031897	0.09056	9.06E-04
236.3222	0.031902672	0.0323205	0	0.031903	0.09056	9.06E-04
236.325	0.031892777	0.0323205	0	0.031893	0.09056	9.06E-04
236.3278	0.031892777	0.0323205	0	0.031893	0.09056	9.06E-04
236.3333	0.031898381	0.0323205	0	0.031898	0.09056	9.06E-04
236.3361	0.031888394	0.0323205	0	0.031888	0.09056	9.06E-04
236.3388	0.031888394	0.0323205	0	0.031888	0.09056	9.06E-04
236.3444	0.03189359	0.0323205	0	0.031894	0.09056	9.06E-04
236.3471	0.031882854	0.0323205	0	0.031883	0.09056	9.06E-04
236.3499	0.031882854	0.0323205	0	0.031883	0.09056	9.06E-04
236.3527	0.031872137	0.0323205	0	0.031872	0.09056	9.06E-04
236.3582	0.031902939	0.0323205	0	0.031903	0.09056	9.06E-04
236.361	0.031892335	0.0323205	0	0.031892	0.09056	9.06E-04
236.3665	0.031881531	0.0323205	0	0.031882	0.09056	9.06E-04
236.3693	0.031896955	0.0323205	0	0.031897	0.09056	9.06E-04
236.3749	0.031885903	0.0323205	0	0.031886	0.09056	9.06E-04
236.3776	0.031874989	0.0323205	0	0.031875	0.09056	9.06E-04
236.3804	0.031890284	0.0323205	0	0.03189	0.09056	9.06E-04
236.3859	0.031921086	0.0323205	0	0.031921	0.09056	9.06E-04
236.3887	0.0319364	0.0323205	0	0.031936	0.09056	9.06E-04
236.3915	0.031951791	0.0323205	0	0.031952	0.09056	9.06E-04
236.397	0.03194052	0.0323205	0	0.031941	0.09056	9.06E-04
236.3998	0.031929902	0.0323205	0	0.03193	0.09056	9.06E-04
236.4026	0.031919123	0.0323205	0	0.031919	0.09056	9.06E-04
236.4053	0.031919123	0.0323205	0	0.031919	0.09056	9.06E-04
236.4109	0.031898036	0.0323205	0	0.031898	0.09056	9.06E-04
236.4136	0.031898036	0.0323205	0	0.031898	0.09056	9.06E-04
236.4164	0.031887291	0.0323205	0	0.031887	0.09056	9.06E-04
236.422	0.031876784	0.0323205	0	0.031877	0.09056	9.06E-04
236.4247	0.031865885	0.0323205	0	0.031866	0.09056	9.06E-04
236.4275	0.03188212	0.0323205	0	0.031882	0.09056	9.06E-04
236.4303	0.031898334	0.0323205	0	0.031898	0.09056	9.06E-04
236.433	0.031887059	0.0323205	0	0.031887	0.09056	9.06E-04
236.4386	0.031875627	0.0323205	0	0.031876	0.09056	9.06E-04
236.4413	0.031864296	0.0323205	0	0.031864	0.09056	9.06E-04
236.4441	0.031864296	0.0323205	0	0.031864	0.09056	9.06E-04
236.4469	0.031852863	0.0323205	0	0.031853	0.09056	9.06E-04
236.4524	0.03184147	0.0323205	0	0.031841	0.09056	9.06E-04
236.4552	0.031829991	0.0323205	0	0.03183	0.09056	9.06E-04
236.458	0.031846283	0.0323205	0	0.031846	0.09056	9.06E-04
236.4635	0.031834661	0.0323205	0	0.031835	0.09056	9.06E-04
236.4663	0.031822586	0.0323205	0	0.031823	0.09056	9.06E-04
236.4691	0.031810524	0.0323205	0	0.031811	0.09056	9.06E-04
236.4718	0.031810524	0.0323205	0	0.031811	0.09056	9.06E-04

236.4774	0.031814721	0.0323205	0	0.031815	0.09056	9.06E-04
236.4801	0.031802513	0.0323205	0	0.031803	0.09056	9.06E-04
236.4829	0.031802513	0.0323205	0	0.031803	0.09056	9.06E-04
236.4857	0.031790792	0.0323205	0	0.031791	0.09056	9.06E-04
236.4885	0.031807432	0.0323205	0	0.031807	0.09056	9.06E-04
236.4912	0.03182409	0.0323205	0	0.031824	0.09056	9.06E-04
236.4968	0.031812234	0.0323205	0	0.031812	0.09056	9.06E-04
236.4995	0.031800119	0.0323205	0	0.0318	0.09056	9.06E-04
236.5023	0.031816802	0.0323205	0	0.031817	0.09056	9.06E-04
236.5051	0.031805225	0.0323205	0	0.031805	0.09056	9.06E-04
236.5078	0.031805225	0.0323205	0	0.031805	0.09056	9.06E-04
236.5134	0.0317821	0.0323205	0	0.031782	0.09056	9.06E-04
236.5162	0.0317821	0.0323205	0	0.031782	0.09056	9.06E-04
236.5189	0.031770518	0.0323205	0	0.031771	0.09056	9.06E-04
236.5217	0.031759362	0.0323205	0	0.031759	0.09056	9.06E-04
236.5272	0.031719957	0.0323205	0	0.03172	0.09056	9.06E-04
236.53	0.031719957	0.0323205	0	0.03172	0.09056	9.06E-04
236.5328	0.03170925	0.0323205	0	0.031709	0.09056	9.06E-04
236.5356	0.031727337	0.0323205	0	0.031727	0.09056	9.06E-04
236.5411	0.031717132	0.0323205	0	0.031717	0.09056	9.06E-04
236.5439	0.031706782	0.0323205	0	0.031707	0.09056	9.06E-04
236.5466	0.031724817	0.0323205	0	0.031725	0.09056	9.06E-04
236.5494	0.031714442	0.0323205	0	0.031714	0.09056	9.06E-04
236.5549	0.031703851	0.0323205	0	0.031704	0.09056	9.06E-04
236.5577	0.031693741	0.0323205	0	0.031694	0.09056	9.06E-04
236.5605	0.031693741	0.0323205	0	0.031694	0.09056	9.06E-04
236.5633	0.031683902	0.0323205	0	0.031684	0.09056	9.06E-04
236.566	0.031674501	0.0323205	0	0.031675	0.09056	9.06E-04
236.5688	0.031674501	0.0323205	0	0.031675	0.09056	9.06E-04
236.5743	0.031654962	0.0323205	0	0.031655	0.09056	9.06E-04
236.5771	0.031654962	0.0323205	0	0.031655	0.09056	9.06E-04
236.5799	0.03164511	0.0323205	0	0.031645	0.09056	9.06E-04
236.5827	0.031664268	0.0323205	0	0.031664	0.09056	9.06E-04
236.5854	0.031654654	0.0323205	0	0.031655	0.09056	9.06E-04
236.5882	0.031654654	0.0323205	0	0.031655	0.09056	9.06E-04
236.591	0.031644998	0.0323205	0	0.031645	0.09056	9.06E-04
236.5937	0.031635106	0.0323205	0	0.031635	0.09056	9.06E-04
236.5993	0.031673637	0.0323205	0	0.031674	0.09056	9.06E-04
236.602	0.031673637	0.0323205	0	0.031674	0.09056	9.06E-04
236.6048	0.031663446	0.0323205	0	0.031663	0.09056	9.06E-04
236.6076	0.031653089	0.0323205	0	0.031653	0.09056	9.06E-04
236.6104	0.031653089	0.0323205	0	0.031653	0.09056	9.06E-04
236.6131	0.031642832	0.0323205	0	0.031643	0.09056	9.06E-04
236.6187	0.031681349	0.0323205	0	0.031681	0.09056	9.06E-04
236.6214	0.031670583	0.0323205	0	0.031671	0.09056	9.06E-04
236.6242	0.031670583	0.0323205	0	0.031671	0.09056	9.06E-04
236.627	0.031659679	0.0323205	0	0.03166	0.09056	9.06E-04
236.6298	0.031678638	0.0323205	0	0.031679	0.09056	9.06E-04
236.6325	0.031697547	0.0323205	0	0.031698	0.09056	9.06E-04
236.6381	0.03168598	0.0323205	0	0.031686	0.09056	9.06E-04
236.6408	0.031674384	0.0323205	0	0.031674	0.09056	9.06E-04
236.6464	0.031662767	0.0323205	0	0.031663	0.09056	9.06E-04
236.6491	0.031651263	0.0323205	0	0.031651	0.09056	9.06E-04
236.6547	0.0316889	0.0323205	0	0.031689	0.09056	9.06E-04
236.6575	0.03170775	0.0323205	0	0.031708	0.09056	9.06E-04
236.6602	0.031695513	0.0323205	0	0.031696	0.09056	9.06E-04
236.663	0.031695513	0.0323205	0	0.031696	0.09056	9.06E-04
236.6685	0.03170196	0.0323205	0	0.031702	0.09056	9.06E-04
236.6713	0.031721195	0.0323205	0	0.031721	0.09056	9.06E-04
236.6741	0.03174061	0.0323205	0	0.031741	0.09056	9.06E-04
236.6796	0.031728382	0.0323205	0	0.031728	0.09056	9.06E-04
236.6824	0.031716256	0.0323205	0	0.031716	0.09056	9.06E-04
236.6852	0.03173572	0.0323205	0	0.031736	0.09056	9.06E-04
236.6907	0.031743147	0.0323205	0	0.031743	0.09056	9.06E-04
236.6935	0.031743147	0.0323205	0	0.031743	0.09056	9.06E-04
236.6962	0.031730887	0.0323205	0	0.031731	0.09056	9.06E-04
236.699	0.03175072	0.0323205	0	0.031751	0.09056	9.06E-04
236.7018	0.031770472	0.0323205	0	0.03177	0.09056	9.06E-04
236.7073	0.031809836	0.0323205	0	0.03181	0.09056	9.06E-04
236.7101	0.031829551	0.0323205	0	0.03183	0.09056	9.06E-04
236.7156	0.031869566	0.0323205	0	0.03187	0.09056	9.06E-04
236.7184	0.03185795	0.0323205	0	0.031858	0.09056	9.06E-04
236.724	0.031846304	0.0323205	0	0.031846	0.09056	9.06E-04
236.7267	0.031867119	0.0323205	0	0.031867	0.09056	9.06E-04

236.7295	0.031887999	0.0323205	0	0.031888	0.09056	9.06E-04
236.735	0.031876136	0.0323205	0	0.031876	0.09056	9.06E-04
236.7378	0.031864228	0.0323205	0	0.031864	0.09056	9.06E-04
236.7406	0.031885351	0.0323205	0	0.031885	0.09056	9.06E-04
236.7433	0.031906522	0.0323205	0	0.031907	0.09056	9.06E-04
236.7489	0.03189505	0.0323205	0	0.031895	0.09056	9.06E-04
236.7517	0.031883303	0.0323205	0	0.031883	0.09056	9.06E-04
236.7544	0.031904684	0.0323205	0	0.031905	0.09056	9.06E-04
236.7572	0.031925938	0.0323205	0	0.031926	0.09056	9.06E-04
236.7627	0.0319136	0.0323205	0	0.031914	0.09056	9.06E-04
236.7655	0.031901179	0.0323205	0	0.031901	0.09056	9.06E-04
236.7683	0.031922579	0.0323205	0	0.031923	0.09056	9.06E-04
236.7738	0.031931302	0.0323205	0	0.031931	0.09056	9.06E-04
236.7766	0.031931302	0.0323205	0	0.031931	0.09056	9.06E-04
236.7794	0.031918949	0.0323205	0	0.031919	0.09056	9.06E-04
236.7849	0.031962536	0.0323205	0	0.031963	0.09056	9.06E-04
236.7877	0.031984303	0.0323205	0	0.031984	0.09056	9.06E-04
236.7904	0.032006153	0.0323205	0	0.032006	0.09056	9.06E-04
236.7932	0.031993489	0.0323205	0	0.031993	0.09056	9.06E-04
236.7988	0.031981039	0.0323205	0	0.031981	0.09056	9.06E-04
236.8015	0.032003147	0.0323205	0	0.032003	0.09056	9.06E-04
236.8043	0.03199038	0.0323205	0	0.03199	0.09056	9.06E-04
236.8071	0.03199038	0.0323205	0	0.03199	0.09056	9.06E-04
236.8126	0.031999894	0.0323205	0	0.032	0.09056	9.06E-04
236.8154	0.032022409	0.0323205	0	0.032022	0.09056	9.06E-04
236.8182	0.032044988	0.0323205	0	0.032045	0.09056	9.06E-04
236.8209	0.032067461	0.0323205	0	0.032067	0.09056	9.06E-04
236.8237	0.032054109	0.0323205	0	0.032054	0.09056	9.06E-04
236.8265	0.032054109	0.0323205	0	0.032054	0.09056	9.06E-04
236.8292	0.032040577	0.0323205	0	0.032041	0.09056	9.06E-04
236.8348	0.032085184	0.0323205	0	0.032085	0.09056	9.06E-04
236.8375	0.032107624	0.0323205	0	0.032108	0.09056	9.06E-04
236.8403	0.032130069	0.0323205	0	0.03213	0.09056	9.06E-04
236.8431	0.032152473	0.0323205	0	0.032152	0.09056	9.06E-04
236.8459	0.032174911	0.0323205	0	0.032175	0.09056	9.06E-04
236.8514	0.032160505	0.0323205	0	0.032161	0.09056	9.06E-04
236.8542	0.032145967	0.0323205	0	0.032146	0.09056	9.06E-04
236.8569	0.032168522	0.0323205	0	0.032169	0.09056	9.06E-04
236.8597	0.032191281	0.0323205	0	0.032191	0.09056	9.06E-04
236.8653	0.032199187	0.0323205	0	0.032199	0.09056	9.06E-04
236.868	0.032199187	0.0323205	0	0.032199	0.09056	9.06E-04
236.8708	0.032184328	0.0323205	0	0.032184	0.09056	9.06E-04
236.8763	0.032230451	0.0323205	0	0.03223	0.09056	9.06E-04
236.8791	0.032253363	0.0323205	0	0.032253	0.09056	9.06E-04
236.8819	0.03223804	0.0323205	0	0.032238	0.09056	9.06E-04
236.8874	0.032222875	0.0323205	0	0.032223	0.09056	9.06E-04
236.8902	0.032246115	0.0323205	0	0.032246	0.09056	9.06E-04
236.893	0.032231014	0.0323205	0	0.032231	0.09056	9.06E-04
236.8985	0.032215811	0.0323205	0	0.032216	0.09056	9.06E-04
236.9013	0.032239397	0.0323205	0	0.032239	0.09056	9.06E-04
236.9068	0.032247857	0.0323205	0	0.032248	0.09056	9.06E-04
236.9096	0.032247857	0.0323205	0	0.032248	0.09056	9.06E-04
236.9151	0.032256093	0.0323205	0	0.032256	0.09056	9.06E-04
236.9179	0.032279931	0.0323205	0	0.03228	0.09056	9.06E-04
236.9234	0.032264348	0.0323205	0	0.032264	0.09056	9.06E-04
236.9262	0.03224887	0.0323205	0	0.032249	0.09056	9.06E-04
236.9317	0.032296617	0.0323205	0	0.032297	0.09056	9.06E-04
236.9345	0.032320507	0.0323205	0	0.032321	0.09056	9.06E-04
236.9401	0.032304745	0.0323103	2.85267E-05	0.032305	0.09056	9.06E-04
236.9428	0.032289095	0.0323103	0	0.032289	0.090532	9.05E-04
236.9484	0.032299842	0.0323103	0	0.0323	0.090532	9.05E-04
236.9511	0.032299842	0.0323103	0	0.0323	0.090532	9.05E-04
236.9567	0.032310326	0.0323103	0	0.03231	0.090532	9.05E-04
236.9595	0.032295354	0.032306	1.19802E-05	0.032295	0.090532	9.05E-04
236.965	0.032280283	0.032306	0	0.03228	0.09052	9.05E-04
236.9678	0.03230605	0.032306	0	0.032306	0.09052	9.05E-04
236.9705	0.03229051	0.032301	1.40485E-05	0.032291	0.09052	9.05E-04
236.9761	0.032275009	0.032301	0	0.032275	0.090506	9.05E-04
236.9788	0.032301036	0.032301	0	0.032301	0.090506	9.05E-04
236.9844	0.032286126	0.0322995	4.28729E-06	0.032286	0.090506	9.05E-04
236.9872	0.032272176	0.0322995	0	0.032272	0.090502	9.05E-04
236.9899	0.032299506	0.0322995	0	0.0323	0.090502	9.05E-04
236.9955	0.032285591	0.0322856	3.89901E-05	0.032286	0.090502	9.05E-04
236.9982	0.032271772	0.032272	3.80556E-05	0.032272	0.090463	9.05E-04

237.0038	0.032258025	0.032272	0	0.032258	0.090424	9.04E-04
237.0093	0.032272009	0.032272	0	0.032272	0.090424	9.04E-04
237.0121	0.032258001	0.032258	3.92494E-05	0.032258	0.090424	9.04E-04
237.0176	0.032243963	0.032244	3.93338E-05	0.032244	0.090385	9.04E-04
237.0232	0.032230225	0.0322426	3.79329E-06	0.03223	0.090346	9.03E-04
237.0259	0.032216041	0.0322426	0	0.032216	0.090342	9.03E-04
237.0315	0.032201698	0.0322426	0	0.032202	0.090342	9.03E-04
237.037	0.032215499	0.0322426	0	0.032215	0.090342	9.03E-04
237.0426	0.032229103	0.0322426	0	0.032229	0.090342	9.03E-04
237.0453	0.032229103	0.0322426	0	0.032229	0.090342	9.03E-04
237.0509	0.032242609	0.0322426	0	0.032243	0.090342	9.03E-04
237.0564	0.032227069	0.0322399	7.64344E-06	0.032227	0.090342	9.03E-04
237.0592	0.032211398	0.0322399	0	0.032211	0.090334	9.03E-04
237.0592	0.032211398	0.0322399	0	0.032211	0.090334	9.03E-04
237.0592	0.032211398	0.0322399	0	0.032211	0.090334	9.03E-04
237.062	0.032239881	0.0322399	0	0.03224	0.090334	9.03E-04
237.0703	0.032207808	0.0322327	2.0114E-05	0.032208	0.090334	9.03E-04
237.0758	0.032220597	0.0322327	0	0.032221	0.090314	9.03E-04
237.0786	0.032220597	0.0322327	0	0.032221	0.090314	9.03E-04
237.0841	0.032232703	0.0322327	0	0.032233	0.090314	9.03E-04
237.0841	0.032232703	0.0322327	0	0.032233	0.090314	9.03E-04
237.0841	0.032232703	0.0322327	0	0.032233	0.090314	9.03E-04
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Attachment 3

Surveyor Form Bs

New Jersey Department of Environmental Protection
Site Remediation Program

Monitoring Well Certification Form B - Location Certification

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Former Hyatt Clark Industries, Inc.
List all AKAs:
Street Address: 1300 Raritan Road
Municipality: Clark (Township, Borough or City)
County: Union Zip Code: 07066
Program Interest (PI) Number(s): Case Tracking Number(s):

SECTION B. WELL OWNER AND LOCATION

1. Name of Well Owner
2. Well Location (Street Address)
3. Well Location (Municipal Block and Lot) Block # Lot #

SECTION C. WELL LOCATION SPECIFICS

1. Well Permit Number (This number must be permanently affixed to the well casing):
2. Site Well Number (As shown on application or plans): MW-88-1
3. Geographic Coordinate NAD 83 to nearest 1/100 of a second:
   Latitude: North 40°37'52.10" Longitude: West 74°18'51.24"
4. New Jersey State Plane Coordinates NAD 83 datum, US survey feet units, to nearest foot:
   North 654874.7 East 543682.2
5. Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): 59.92
   Elevation of Top of Outer Casing: 60.30 Elevation of Ground: 60.3
   Check one: ☐ NAVD 88 ☐ NGVD29 ☐ On Site Datum ☐ Other
6. Source of elevation datum (benchmark, number/description and elevation/datum). If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation (referencing NAVD 88).
   Site Datum : Benchmark MW-40 Inner Casing (Elevation 66.74'), MW-44 Inner Casing (Elevation 64.46'), and MW-45 Inner Casing (Elevation 68.14'). The vertical datum is the existing Site Datum as determined by Borbas Surveying & Mapping, LLC on October 12, 2006 and November 16, 2006, as shown on "Well Report" dated November 17, 2006
7. Significant observations and notes:
   MW-88-1, MW-88-2, MW-88-3, MW-88-4 and MW-88-TAG are located within one well housing.

SECTION D. LAND SURVEYOR'S CERTIFICATION

SEAL

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Professional Land Surveyor's Signature: Date: 11/6/2013
Surveyor's Name: J. Peter Borbas License Number: 24GS03165300
Firm Name: Borbas Surveying & Mapping, LLC Certificate of Authorization #: 24GA28056200
Mailing Address: 402 Main Street
City/Town: Boonton State: New Jersey Zip Code: 07005
Phone Number: 973-316-8743 Ext: Fax: 973-402-6627

New Jersey Department of Environmental Protection
Site Remediation Program

Monitoring Well Certification Form B - Location Certification

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Former Hyatt Clark Industries, Inc.
List all AKAs:
Street Address: 1300 Raritan Road
Municipality: Clark (Township, Borough or City)
County: Union Zip Code: 07066
Program Interest (PI) Number(s): Case Tracking Number(s):

SECTION B. WELL OWNER AND LOCATION

1. Name of Well Owner
2. Well Location (Street Address)
3. Well Location (Municipal Block and Lot) Block # Lot #

SECTION C. WELL LOCATION SPECIFICS

1. Well Permit Number (This number must be permanently affixed to the well casing):
2. Site Well Number (As shown on application or plans): MW-88-2
3. Geographic Coordinate NAD 83 to nearest 1/100 of a second:
   Latitude: North 40°37'52.10" Longitude: West 74°18'51.24"
4. New Jersey State Plane Coordinates NAD 83 datum, US survey feet units, to nearest foot:
   North 654874.7 East 543682.2
5. Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): 59.92
   Elevation of Top of Outer Casing: 60.30 Elevation of Ground: 60.3
   Check one: ☐ NAVD 88 ☐ NGVD29 ☐ On Site Datum ☐ Other
6. Source of elevation datum (benchmark, number/description and elevation/datum). If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation (referencing NAVD 88).
   Site Datum : Benchmark MW-40 Inner Casing (Elevation 66.74'), MW-44 Inner Casing (Elevation 64.46'), and MW-45 Inner Casing (Elevation 68.14'). The vertical datum is the existing Site Datum as determined by Borbas Surveying & Mapping, LLC on October 12, 2006 and November 16, 2006, as shown on "Well Report" dated November 17, 2006
7. Significant observations and notes:
   MW-88-1, MW-88-2, MW-88-3, MW-88-4 and MW-88-TAG are located within one well housing.

SECTION D. LAND SURVEYOR'S CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

SEAL

Professional Land Surveyor's Signature: Date: 11/6/2013
Surveyor's Name: J. Peter Borbas License Number: 24GS03165300
Firm Name: Borbas Surveying & Mapping, LLC Certificate of Authorization #: 24GA28056200
Mailing Address: 402 Main Street
City/Town: Boonton State: New Jersey Zip Code: 07005
Phone Number: 973-316-8743 Ext: Fax: 973-402-6627

New Jersey Department of Environmental Protection
Site Remediation Program

Monitoring Well Certification Form B - Location Certification

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Former Hyatt Clark Industries, Inc.
List all AKAs:
Street Address: 1300 Raritan Road
Municipality: Clark (Township, Borough or City)
County: Union Zip Code: 07066
Program Interest (PI) Number(s): Case Tracking Number(s):

SECTION B. WELL OWNER AND LOCATION

1. Name of Well Owner
2. Well Location (Street Address)
3. Well Location (Municipal Block and Lot) Block # Lot #

SECTION C. WELL LOCATION SPECIFICS

1. Well Permit Number (This number must be permanently affixed to the well casing):
2. Site Well Number (As shown on application or plans): MW-88-3
3. Geographic Coordinate NAD 83 to nearest 1/100 of a second:
   Latitude: North 40°37'52.10" Longitude: West 74°18'51.24"
4. New Jersey State Plane Coordinates NAD 83 datum, US survey feet units, to nearest foot:
   North 654874.7 East 543682.2
5. Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): 59.91
   Elevation of Top of Outer Casing: 60.30 Elevation of Ground: 60.3
   Check one: ☐ NAVD 88 ☐ NGVD29 ☐ On Site Datum ☐ Other
6. Source of elevation datum (benchmark, number/description and elevation/datum). If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation (referencing NAVD 88).
   Site Datum : Benchmark MW-40 Inner Casing (Elevation 66.74'), MW-44 Inner Casing (Elevation 64.46'), and MW-45 Inner Casing (Elevation 68.14'). The vertical datum is the existing Site Datum as determined by Borbas Surveying & Mapping, LLC on October 12, 2006 and November 16, 2006, as shown on "Well Report" dated November 17, 2006
7. Significant observations and notes:
   MW-88-1, MW-88-2, MW-88-3, MW-88-4 and MW-88-TAG are located within one well housing.

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2. Well Location (Street Address)
3. Well Location (Municipal Block and Lot) Block # Lot #

SECTION C. WELL LOCATION SPECIFICS

1. Well Permit Number (This number must be permanently affixed to the well casing):
2. Site Well Number (As shown on application or plans): MW-88-4
3. Geographic Coordinate NAD 83 to nearest 1/100 of a second:
   Latitude: North 40°37'52.10" Longitude: West 74°18'51.24"
4. New Jersey State Plane Coordinates NAD 83 datum, US survey feet units, to nearest foot:
   North 654874.7 East 543682.2
5. Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): 59.87
   Elevation of Top of Outer Casing: 60.30 Elevation of Ground: 60.3
   Check one: ☐ NAVD 88 ☐ NGVD29 ☐ On Site Datum ☐ Other
6. Source of elevation datum (benchmark, number/description and elevation/datum). If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation (referencing NAVD 88).
   Site Datum : Benchmark MW-40 Inner Casing (Elevation 66.74'), MW-44 Inner Casing (Elevation 64.46'), and MW-45 Inner Casing (Elevation 68.14'). The vertical datum is the existing Site Datum as determined by Borbas Surveying & Mapping, LLC on October 12, 2006 and November 16, 2006, as shown on "Well Report" dated November 17, 2006
7. Significant observations and notes:
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SECTION B. WELL OWNER AND LOCATION

1. Name of Well Owner
2. Well Location (Street Address)
3. Well Location (Municipal Block and Lot) Block # Lot #

SECTION C. WELL LOCATION SPECIFICS

1. Well Permit Number (This number must be permanently affixed to the well casing):
2. Site Well Number (As shown on application or plans): MW-88-TAG
3. Geographic Coordinate NAD 83 to nearest 1/100 of a second:
   Latitude: North 40°37'52.10" Longitude: West 74°18'51.24"
4. New Jersey State Plane Coordinates NAD 83 datum, US survey feet units, to nearest foot:
   North 654874.7 East 543682.2
5. Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): 59.97
   Elevation of Top of Outer Casing: 60.30 Elevation of Ground: 60.3
   Check one: ☐ NAVD 88 ☐ NGVD29 ☐ On Site Datum ☐ Other
6. Source of elevation datum (benchmark, number/description and elevation/datum). If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation (referencing NAVD 88).
   Site Datum : Benchmark MW-40 Inner Casing (Elevation 66.74'), MW-44 Inner Casing (Elevation 64.46'), and MW-45 Inner Casing (Elevation 68.14'). The vertical datum is the existing Site Datum as determined by Borbas Surveying & Mapping, LLC on October 12, 2006 and November 16, 2006, as shown on "Well Report" dated November 17, 2006
7. Significant observations and notes:
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APPENDIX F

Vapor Intrusion Receptor Evaluation Summary

ARCADIS Design & Consultancy for natural and built assets

Appendix F

Vapor Intrusion Receptor Evaluation Report

Former Hyatt Clark Industries Site, Clark, New Jersey

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Appendix F Vapor Intrusion Receptor Evaluation

Former Hyatt Clark Facility

1. Introduction

This appendix presents the results of the Vapor Intrusion Receptor Evaluation (VIRE) conducted for the former Hyatt Cark Industries, Inc. Site, located in Clark, New Jersey. The VIRE included on-site and off-site vapor intrusion (VI) monitoring. The results of the VIRE are being reported in support of the Groundwater Remedial Investigation Report (RIR).

In January 2009, the New Jersey Department of Environmental Protection (NJDEP) requested that General Motors (GM) conduct a VIRE. GM, who managed the Site at the time, evaluated the potential for VI from shallow groundwater into the nearest building downgradient of the Site. TCE concentrations at the site boundary exceeded the 2005 NJDEP VI Ground Water Screening Level (GWSL) of 1 part per billion (ppb) and that a building (i.e., the US Gypsum administration building) was located within 100 feet downgradient and to the southeast of the site boundary (**Figure 1**). Based on these conditions, further evaluation was warranted.

Johnson & Ettinger (J&E) modeling was conducted to predict potential indoor air concentrations assuming a pathway from groundwater to indoor air. The modeling results showed that the TCE concentrations in the shallow groundwater at the Site's downgradient boundary would not result in measureable concentrations of TCE in indoor air. GM concluded that further evaluation was not warranted. The modeling results and GM's conclusions were summarized in letters dated February 23 and March 31, 2009. The NJDEP did not accept the modeling results and requested VI sampling at the US Gypsum administration building, located southeast of the Site.

On April 10, 2009, GM submitted a draft VI Evaluation Work Plan (WP) that proposed sub-slab soil gas sampling at the US Gypsum facility. In an email dated April 13, 2009, NJDEP commented that the building southwest of the Site would also need to be evaluated and included in the WP. The building southwest of the Site is a commercial building where a Rite Aid and a Bally Total Fitness center were located.

On April 30, 2009, GM submitted a final WP for collection of sub-slab soil gas samples from the US Gypsum administration building and the commercial building located southwest of the Site. NJDEP approved the WP by letter dated June 23, 2009.

During the period of time when access to the off-site properties was being secured, the NJDEP updated the 2005 Vapor Intrusion Guidance (NJDEP, 2005), which resulted in the publication of the Vapor Intrusion Technical Guidance (NJDEP, 2012). In April

2012, GM prepared the Revised VI Evaluation Work Plan (WP) to incorporate the new provisions in the NJDEP VITG and address NJDEP requests. The off-site VI monitoring proposed in the April 2012 WP was conducted in December 2012.

In January 2014, subsequent to the off-site VI monitoring, the VIRE was expanded to include monitoring at the on-site building (i.e., Hyatt Hills Golf Complex clubhouse building). As such, all buildings above or within 100 feet of groundwater exceeding the NJDEP VI GWSL, were subject to VI monitoring.

2. Scope of Work

In December 2012, three sub-slab soil gas samples were collected from beneath the US Gypsum administration building, located approximately 90 feet from the southeast property boundary, and seven sub-slab soil gas samples were collected from the commercial building, located approximately 95 feet from the western property boundary. The building locations with respect to the Site are shown on **Figure 1**.

In January 2014, four sub-slab soil gas samples, four indoor air samples, and one ambient air sample were collected from the Hyatt Hills Golf Complex clubhouse building located on the Site. The indoor air and ambient air samples were contingent samples that were put on hold pending the results of the sub-slab soil gas samples.

3. Methods

Site reconnaissance and sampling methodologies for sub-slab soil gas and indoor air sampling are presented in this section.

3.1 Reconnaissance for Off-Site Buildings: US Gypsum Administration Building and the Commercial Building

On December 17, 2012, site reconnaissance was conducted at the US Gypsum administration building and the commercial building with either the owner or a building tenant present. Site reconnaissance facilitated completion of a building inventory, identification of any potential sources of volatile organic compounds (VOCs) that could affect sample results, and evaluation of the condition of the building slab. Subsurface utilities, basements, and other structures were also evaluated as to their potential to provide preferential vapor migration pathways.

In addition to conducting interviews with building owners or tenants and completing a utilities checklist, a private utility locator accompanied Arcadis field personnel to each building to mark out the location of underground utilities within the vicinity of the planned sample locations.

3.2 Reconnaissance for On-Site Building: Hyatt Hills Golf Complex Clubhouse Building

On December 30, 2013, a site reconnaissance was conducted at the on-site Hyatt Hills Golf Complex clubhouse building. Based on the information from the reconnaissance, the size of the building footprint, and the provisions in the 2013 VITG (NJDEP 2013), four sub-slab soil-gas sample locations were identified.

On January 7, 2014, additional reconnaissance was conducted prior to collecting samples. A private utility locator accompanied Arcadis field personnel to mark out underground utilities within the vicinity of the planned sample locations.

3.3 Sampling Methodology

In December 2012, sub-slab soil gas samples from US Gypsum and the commercial building were collected from temporary soil-gas sampling points. In January 2014, sub-slab soil gas, as well as co-located indoor air and ambient air samples, were collected from the on-site clubhouse building. The sub-slab samples at the on-site clubhouse building were collected from temporary soil-gas sampling points.

3.3.1 Sub-Slab Soil Gas Sampling

Prior to drilling, New Jersey One Call was contacted to request utility mark-outs. In addition, the sample locations were cleared by a private utility locator prior to installation or sampling.

The temporary soil-gas sampling ports were installed using a hand-held hammer drill that cored a 3/8-inch hole through the concrete slab and approximately two inches into the sub-slab material. New Teflon tubing was inserted into the concrete slab, approximately one inch above the sub-slab material. The tubing was then sealed to the surrounding concrete slab using inert clay that provided an air tight seal between the sample tubing and the concrete slab.

In accordance with recommendations in the NJDEP VITG (2012 and 2013), a helium tracer gas was used at each sampling location to verify the integrity of the soil-gas

sampling port seal and to confirm the absence of ambient air infiltration into the sampling apparatus. To conduct the leak check, the sampling port was enclosed in an inverted plastic container, and the enclosure was filled with helium. Helium concentrations were maintained at approximately 20% throughout the leak check. While inundated with helium, the sampling point tubing was purged at approximately 200 milliliters per minute. A one-liter Tedlar bag was used to collect the purge gas at each soil gas sampling point, and a portable helium detection instrument was used to quantify the concentration of helium in the purge sample. The purge air from each sampling location did not contain greater than 10 percent of the concentration of helium maintained within the enclosure, thus verifying the integrity of the port seals.

Independent of, and prior to the leak test using helium, a shut-in test of the sampling train was completed to verify that the above-ground fittings did not contain leaks. The shut-in test consisted of assembling above-ground apparatus (e.g., valves, lines, and fittings), evacuating the lines to a measured vacuum of approximately 10 inches of mercury (i.e., -10" Hg), and then shutting the vacuum in with closed valves on opposite ends of the sample train. The vacuum gauge was observed for approximately 10 minutes. If there was no observable loss of vacuum over that time period, the fittings did not require further adjustments, and the above-ground apparatus passed the shut-in test. If observable loss of vacuum did occur, the fittings of the sampling train would be re-checked and tightened as needed prior to performing the shut-in test again. This was repeated until the sample train passed the shut-in test.

Following the leak checks, the certified pre-cleaned stainless steel six-liter Summa® canister, which had been connected to the soil gas port prior to starting the helium leak check, was opened. The sample was collected over a 30 minute period using a flow controller with a flow rate of approximately 200 milliliters per minute. After sampling at each location, the drilled holes were filled with concrete filler material. The surrounding areas were swept clean of any debris and returned to pre-sampling conditions.

Sub-slab soil gas samples were submitted under routine chain of custody protocols to Test America for laboratory analysis in accordance with U.S. Environmental Protection Agency (USEPA) Method TO-15. Test America is an ELAP and NJDEP accredited laboratory for this method and has provided full data deliverable packages in accordance with current NJDEP requirements.

3.3.1.1 Sampling at the US Gypsum Administration Building

In accordance with 2012 VITG and estimated building area (3,600 square feet), three samples were collected from the US Gypsum administration building. The locations of

the samples (SS-5, SS-6, and SS-7) are shown on **Figure 2**. The first sample (SS-5) was located in a conference room, the second sample (SS-6) was located in the central area of the office, and the third sample (SS-7) was located in a walk-in vault that was being used to store documents. No difficulties were encountered at these three locations during the sampling activities.

3.3.1.2 Sampling at the Commercial Building

Based on the estimated area of the commercial building (45,000 square feet), six samples were collected at this building. The locations of the samples (SS-1, SS-2, SS-3, SS-4, SS-8, and SS-9) are shown on **Figure 3**. Four samples were taken in the Bally Total Fitness, and two samples were taken in the Rite Aid. No difficulties were encountered during the sampling activities at Rite Aid.

During reconnaissance at the Bally Total Fitness, field personnel noted that a portion of the concrete floor, which was used as a weight-lifting area, was approximately one foot lower than the rest of the concrete floor. Sample SS-3 was located within this lower floor area.

Based on the presence of the lower floor area and rough estimates of slab thickness from the private utility locator, field personnel anticipated variation in slab thickness and the potential for two separate slabs to exist. On the day of drilling, the field personnel noted the observed variations in the slab thicknesses in the different portions of the fitness center. At SS-1 (located in the mechanical room), slab thickness appeared to be approximately four to six inches, and there were no signs of a secondary slab. However, the slab was not uniform throughout the remainder of the building. At SS-2 (located in the hallway near the men's locker room), field personnel noted that there appeared to be a six to eight inch thick surface slab followed by approximately three inches of fill, and then a four to six inch thick layer of harder material that may have been a second slab. At SS-2, both the surface slab and the secondary harder material were drilled, but the sample was taken from beneath the first slab (i.e., above the second slab/harder material) because field personnel could not insert the tubing beneath the second slab/harder material. At SS-4 (located within the elliptical machine area), there appeared to be a secondary slab/harder material present, which was similar to sampling location SS-2. At SS-4, the same technique employed at SS-2 was used, and the sample was taken from above the secondary slab/harder material. At SS-3 (located within the lower floor weight-lifting area), field personnel noted that the slab appeared to be approximately nineteen inches thick. Field personnel drilled to a total depth of twenty-two inches (i.e., the length of the drill bit) at SS-3 and noted that the drill cuttings appeared to be soil for only the last three inches of drilling.

3.3.1.3 Sampling at the On-Site Clubhouse Building

In accordance with March 2013 VITG and estimated building area (approximately 6,500 square feet), four sub-slab soil gas samples were collected from the on-site clubhouse building. The locations of the samples (SS-10, SS-11, SS-12, and SS-13) are shown on **Figure 4**. Sample location SS-10 was located in a golf-cart storage bay. Sample location SS-11 was located in a kitchen supply storage room. Sample location SS-12 was located in a storage closet in the vicinity of a drainage sump. Sample location SS-13 was located in a workshop. All sample locations were located in the basement of the clubhouse building. No difficulties were encountered at these four locations during the sampling activities.

3.3.2 Indoor and Ambient Air Sampling – On-Site Clubhouse Building

Indoor and ambient air samples at the clubhouse building were collected in accordance with the March 2013 VITG. Indoor air samples were collected prior to the installation/sampling of the temporary sub-slab soil gas sampling ports. One ambient air sample was collected to establish background conditions. Indoor air and ambient air samples were collected over a 24-hour period with pre-cleaned stainless steel six-liter Summa® canisters placed within the breathing zone (approximately 3 to 5 feet above ground surface).

Indoor air samples were co-located with sub-slab soil gas sampling locations in the clubhouse building (e.g., IA-10 and SS-10 were located in approximately the same location within the golf-cart storage bay). One ambient air sample was collected outside of the clubhouse, in a landscaped area near the southeast entrance of the building. No difficulties were encountered during indoor and ambient air sampling activities.

Samples were submitted to Test American Laboratories of Burlington, VT under routine chain of custody protocols. Sub-slab soil gas samples were submitted for analysis via USEPA Method TO-15. Indoor air and ambient air samples were placed on hold, pending the results of the sub-slab soil gas samples. If all constituent concentrations in the sub-slab soil gas samples were less than laboratory detection limits and/or NJDEP VI soil gas screening levels (SGSLs), the indoor air samples would not be analyzed. If an indoor air sample were analyzed, the laboratory would have provide these results in the full data deliverable package in accordance with current NJDEP requirements.

4. Findings

The results of the off-site and on-site sub-slab soil gas sampling are presented in **Tables 1** and **Table 2**, respectively. The sample logs are provided in **Attachment A.** All sub-slab soil gas sample results were compared to the 2013 NJDEP Non-Residential VI SGSLs. Laboratory data sheets are provided in **Attachment B**. The full laboratory data deliverables and electronic data deliverables were previously provided in a notification letter to the NJDEP dated February 27, 2013 and February 12, 2014.

4.1.1 US Gypsum Administration Building Results

The results of the three sub-slab soil gas samples collected at the US Gypsum administration building are presented in **Table 1**. VOCs, including TCE, were not detected in any of the samples and all reporting limits were less than the NJDEP Non-Residential VI SGSLs. The data indicate the groundwater to sub-slab soil gas pathway is not complete.

4.1.2 Commercial Building Results

The results of the six soil sub-slab gas samples collected at the commercial building southwest of the Site are presented in **Table 1** and discussed below.

Bally Total Fitness

VOCs, including TCE, were not detected in samples SS-1, SS-2, and SS-4 and all reporting limits were less than the NJDEP Non-Residential VI SGSLs. PCE was the only VOC detected in sample SS-3 (the sample located within the lower floor weight-lifting area) and all reporting limits were less than the VI SGSLs. The PCE concentration (120 µg/m^3) was less than the NJDEP VI SGSL (2,400 µg/m^3). The data indicate the groundwater to sub-slab soil gas pathway is not complete.

Rite Aid

1,2,4-Trimethylbenzene, 1,3,5-trimethylbenzene, 4-ethyl toluene, acetone, ethyl benzene, and xylenes (*m*-, *p*-, and *o*-) were detected in sample SS-8 (located within the refrigerated room). Methylene chloride and PCE were detected in sample SS-9 (located within the store shopping area). However, all reported VOC concentrations were less than the NJDEP VI SGSLs. Furthermore, all reporting limits were less than the VI SGSLs. The data indicate the groundwater to sub-slab soil gas pathway is not complete.

4.1.3 On-Site Clubhouse Building Results

The results of the four sub-slab soil gas samples collected at the on-site clubhouse building are presented in **Table 2**. VOCs, including TCE, were not detected in samples SS-10, SS-12, and SS-13 and all reporting limits were less than NJDEP Non-Residential VI SGSLs. Carbon disulfide was the only VOC detected in sample SS-11 (located in the kitchen storage area) and all reporting limits were less than VI SGSLs. The carbon disulfide concentration (19 µg/m^3) was less than the NJDEP SGSL (150,000 µg/m^3). Because the VOCs were either not detected in sub-slab soil gas, or in the case of carbon disulfide, detected at concentrations less than NJDEP SGSLs, the indoor and ambient air samples were not analyzed. The data indicate the groundwater to sub-slab soil gas pathway is not complete.

5. Recommendations

Three sub-slab soil gas samples were collected from the US Gypsum administration building and six sub-slab soil gas samples were collected from the commercial building southwest of the Site. In addition, four sub-slab soil gas samples were collected at the on-site clubhouse building. The vast majority of VOCs tested were not detected. The few detected VOCs were reported at concentrations less than the NJDEP non-Residential SGSLs. As such, the groundwater to sub-slab soil gas pathway is not complete in that groundwater is not impacting the quality of sub-slab soil gas.

The VIRE sampling results supported the results of the 2009 J&E modeling which showed that TCE concentrations in the shallow groundwater at the Site's downgradient boundary would not result in measureable concentrations of TCE in indoor air. Both sampling and modeling have demonstrated that the vapor intrusion pathway is not complete.

Consistent with the 2013 VITG decision flow chart, no further VI investigation is warranted.

6. References

ARCADIS. 2009. DRAFT Vapor Intrusion Evaluation Work Plan, Former Hyatt Clark Industries, Inc., Clark New Jersey. April 10, 2009.

ARCADIS 2009. Vapor Intrusion Evaluation Work Plan, Former Hyatt Clark Industries, Inc., Clark New Jersey. April 30, 2009.

ARCADIS. 2012. Revised Vapor Intrusion Evaluation Work Plan, Former Hyatt Clark Industries, Inc., Clark, New Jersey. April 24, 2012.

New Jersey Department of Environmental Protection. 2012. Vapor Intrusion Technical Guidance. January 2012.

New Jersey Department of Environmental Protection. 2012. New Jersey Administrative Code 7:26E Technical Requirements for Site Remediation ("Tech Rule"). Date Last Amended: 7 May 2012.

New Jersey Department of Environmental Protection. 2013. Vapor Intrusion Technical Guidance. January 2013.

Table 1. December 2012 Sub-Slab Soil Gas Sample Results
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Sample Name:	NJDEP Residential	NJDEP Non-Residential	SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	SS-7	SS-8	SS-9
Date Collected:	Soil Gas	Soil Gas	12/20/2012	12/20/2012	12/20/2012	12/20/2012	12/20/2012	12/20/2012	12/20/2012	12/20/2012	12/20/2012
Sample Type:	Screening Level	Screening Level	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Units:	µg/m^3	µg/m^3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3
Volatile Organic Compounds											
1,1,1-Trichloroethane	260,000	1,100,000	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U
1,1,2,2-Tetrachloroethane	34	34	< 14 U	< 14 U	< 14 U	< 14 U	< 14 U	< 14 U	< 14 U	< 14 U	< 14 U
1,1,2-Trichloroethane	27	38	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U
1,1-Dichloroethane	76	380	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U
1,1-Dichloroethene	10,000	44,000	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U
1,2,4-Trichlorobenzene	100	440	< 37 U	< 37 U	< 37 U	< 37 U	< 37 U	< 37 U	< 37 U	< 37 U	< 37 U
1,2,4-Trimethylbenzene	NA	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	270.0	< 10 U
1,2-Dibromoethane (Ethylene dibromide)	38	38	< 15 U	< 15 U	< 15 U	< 15 U	< 15 U	< 15 U	< 15 U	< 15 U	< 15 U
1,2-Dichlorobenzene	10,000	44,000	< 12 U	< 12 U	< 12 U	< 12 U	< 12 U	< 12 U	< 12 U	< 12 U	< 12 U
1,2-Dichloroethane	20	24	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U
1,2-Dichloropropane	23	61	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U
1,2-Dichlorotetrafluoroethane (CFC 114)	NA	NA	< 14 U	< 14 U	< 14 U	< 14 U	< 14 U	< 14 U	< 14 U	< 14 U	< 14 U
1,3,5-Trimethylbenzene	NA	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	54.0	< 10 U
1,3-Butadiene	11	20	< 4 U	< 4 U	< 4 U	< 4 U	< 4 U	< 4 U	< 4 U	< 4 U	< 4 U
1,3-Dichlorobenzene	NA	NA	< 12 U	< 12 U	< 12 U	< 12 U	< 12 U	< 12 U	< 12 U	< 12 U	< 12 U
1,4-Dichlorobenzene	30	56	< 12 U	< 12 U	< 12 U	< 12 U	< 12 U	< 12 U	< 12 U	< 12 U	< 12 U
2,2,4-Trimethylpentane	NA	NA	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U
2-Butanone (Methyl ethyl ketone) (MEK)	260,000	1,100,000	< 15 U	< 15 U	< 15 U	< 15 U	< 15 U	< 15 U	< 15 U	< 15 U	< 15 U
2-Chlorotoluene	NA	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Ethyl toluene	NA	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	28.0	< 10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	160,000	660,000	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U
Acetone	1,600,000	6,800,000	< 120 U	< 120 U	< 120 U	< 120 U	< 120 U	< 120 U	< 120 U	200.0	< 120 U
Allyl chloride	20	100	< 16 U	< 16 U	< 16 U	< 16 U	< 16 U	< 16 U	< 16 U	< 16 U	< 16 U
Benzene	16	79	< 6 U	< 6 U	< 6 U	< 6 U	< 6 U	< 6 U	< 6 U	< 6 U	< 6 U
Bromodichloromethane	34	34	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U
bromoethene	22	22	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U
Bromoform	110	560	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U
Bromomethane (Methyl bromide)	260	1,100	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U
Carbon disulfide	36,000	150,000	< 16 U	< 16 U	< 16 U	< 16 U	< 16 U	< 16 U	< 16 U	< 16 U	< 16 U
Carbon tetrachloride	31	100	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U
Chlorobenzene	2,600	11,000	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U
Chloroethane	520,000	2,200,000	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U	< 13 U
Chloroform (Trichloromethane)	24	27	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Chloromethane (Methyl chloride)	4,700	20,000	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
cis-1,2-Dichloroethene	NA	NA	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U
cis-1,3-Dichloropropene	NA	NA	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U
Cyclohexane	310,000	1,300,000	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U
Dibromochloromethane	43	43	< 17 U	< 17 U	< 17 U	< 17 U	< 17 U	< 17 U	< 17 U	< 17 U	< 17 U
Dichlorodifluoromethane (CFC-12)	5,200	22,000	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U
Ethylbenzene	49	250	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	24.0	< 9 U
Hexachlorobutadiene	53	53	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U	< 21 U
Hexane	36,000	150,000	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U
m&p-Xylene	5,200	22,000	< 22 U	< 22 U	< 22 U	< 22 U	< 22 U	< 22 U	< 22 U	93.0	< 22 U
Methyl tert butyl ether (MTBE)	470	2,400	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U
Methylene chloride	4,800	61,000	< 17 U	< 17 U	< 17 U	< 17 U	< 17 U	< 17 U	< 17 U	< 17 U	38.0
N-Heptane	NA	NA	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U
o-Xylene	5,200	22,000	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	39.0	< 9 U
Styrene	52,000	220,000	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U
tert-Butyl alcohol	NA	NA	< 150 U	< 150 U	< 150 U	< 150 U	< 150 U	< 150 U	< 150 U	< 150 U	< 150 U
Tetrachloroethene	470	2,400	< 14 U	< 14 U	120.0	< 14 U	< 14 U	< 14 U	< 14 U	< 14 U	37.0
Toluene	260,000	1,100,000	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U
trans-1,2-Dichloroethene	3,100	13,000	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U	< 8 U
trans-1,3-Dichloropropene	NA	NA	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U	< 9 U
Trichloroethene	27	150	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U
Trichlorofluoromethane (CFC-11)	36,000	150,000	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U	< 11 U
Trifluorotrichloroethane (Freon 113)	1,600,000	6,600,000	< 15 U	< 15 U	< 15 U	< 15 U	< 15 U	< 15 U	< 15 U	< 15 U	< 15 U
Vinyl chloride	13	140	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U

Notes:

1. New Jersey Department of Environmental Protection (NJDEP) Screening Levels were obtained from the NJDEP Vapor Intrusion Technical Guidance, Table 1 (as updated March 2013).
2. Screening levels for total 1,3-dichloropropene were used to evaluate cis- and trans-1,3-dichloropropene.
3. Screening levels for xylenes (m&p) and (o) based on screening level for total xylene presented in the VITG .
4. Abbreviations are as follows:

NA = Value unavailable.

µg/m^3 = micrograms per cubic meter.

U = The sample was analyzed for this compound, but it was not detected. The associated value is the compound quantitation limit.

Table 2. January 2014 Sub-Slab Soil Gas Sample Results
Groundwater Remedial Investigation Report, Former Hyatt Clark Industries Inc. Site, Clark, New Jersey

Sample Name:	NJDEP Residential Soil Gas Screening Level	NJDEP Non-Residential Soil Gas Screening Level	SS-10	SS-11	SS-12	SS-13
Date Collected:			1/8/2014	1/8/2014	1/8/2014	1/8/2014
Sample Type:			Soil Gas	Soil Gas	Soil Gas	Soil Gas
Units:	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3
Volatile Organic Compounds						
1,1,1-Trichloroethane	260,000	1,100,000	< 11 U	< 11 U	< 11 U	< 11 U
1,1,2,2-Tetrachloroethane	34	34	< 14 U	< 14 U	< 14 U	< 14 U
1,1,2-Trichloroethane	27	38	< 11 U	< 11 U	< 11 U	< 11 U
1,1-Dichloroethane	76	380	< 8 U	< 8 U	< 8 U	< 8 U
1,1-Dichloroethene	10,000	44,000	< 8 U	< 8 U	< 8 U	< 8 U
1,2,4-Trichlorobenzene	100	440	< 37 U	< 37 U	< 37 U	< 37 U
1,2,4-Trimethylbenzene	NA	NA	< 10 U	< 10 U	< 10 U	< 10 U
1,2-Dibromoethane (Ethylene dibromide)	38	38	< 15 U	< 15 U	< 15 U	< 15 U
1,2-Dichlorobenzene	10,000	44,000	< 12 U	< 12 U	< 12 U	< 12 U
1,2-Dichloroethane	20	24	< 8 U	< 8 U	< 8 U	< 8 U
1,2-Dichloropropane	23	61	< 9 U	< 9 U	< 9 U	< 9 U
1,2-Dichlorotetrafluoroethane (CFC 114)	NA	NA	< 14 U	< 14 U	< 14 U	< 14 U
1,3,5-Trimethylbenzene	NA	NA	< 10 U	< 10 U	< 10 U	< 10 U
1,3-Butadiene	11	20	< 4 U	< 4 U	< 4 U	< 4 U
1,3-Dichlorobenzene	NA	NA	< 12 U	< 12 U	< 12 U	< 12 U
1,4-Dichlorobenzene	30	56	< 12 U	< 12 U	< 12 U	< 12 U
2,2,4-Trimethylpentane	NA	NA	< 9 U	< 9 U	< 9 U	< 9 U
2-Butanone (Methyl ethyl ketone) (MEK)	260,000	1,100,000	< 15 U	< 15 U	< 15 U	< 15 U
2-Chlorotoluene	NA	NA	< 10 U	< 10 U	< 10 U	< 10 U
4-Ethyl toluene	NA	NA	< 10 U	< 10 U	< 10 U	< 10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	160,000	660,000	< 20 U	< 20 U	< 20 U	< 20 U
Acetone	1,600,000	6,800,000	< 120 U	< 120 U	< 120 U	< 120 U
Allyl chloride	20	100	< 16 U	< 16 U	< 16 U	< 16 U
Benzene	16	79	< 6 U	< 6 U	< 6 U	< 6 U
Bromodichloromethane	34	34	< 13 U	< 13 U	< 13 U	< 13 U
Bromoethene	22	22	< 9 U	< 9 U	< 9 U	< 9 U
Bromoform	110	560	< 21 U	< 21 U	< 21 U	< 21 U
Bromomethane (Methyl bromide)	260	1,100	< 8 U	< 8 U	< 8 U	< 8 U
Carbon disulfide	36,000	150,000	< 16 U	19	< 16 U	< 16 U
Carbon tetrachloride	31	100	< 13 U	< 13 U	< 13 U	< 13 U
Chlorobenzene	2,600	11,000	< 9 U	< 9 U	< 9 U	< 9 U
Chloroethane	520,000	2,200,000	< 13 U	< 13 U	< 13 U	< 13 U
Chloroform (Trichloromethane)	24	27	< 10 U	< 10 U	< 10 U	< 10 U
Chloromethane (Methyl chloride)	4,700	20,000	< 10 U	< 10 U	< 10 U	< 10 U
cis-1,2-Dichloroethene	NA	NA	< 8 U	< 8 U	< 8 U	< 8 U
cis-1,3-Dichloropropene	NA	NA	< 9 U	< 9 U	< 9 U	< 9 U
Cyclohexane	310,000	1,300,000	< 7 U	< 7 U	< 7 U	< 7 U
Dibromochloromethane	43	43	< 17 U	< 17 U	< 17 U	< 17 U
Dichlorodifluoromethane (CFC-12)	5,200	22,000	< 25 U	< 25 U	< 25 U	< 25 U
Ethylbenzene	49	250	< 9 U	< 9 U	< 9 U	< 9 U
Hexachlorobutadiene	53	53	< 21 U	< 21 U	< 21 U	< 21 U
Hexane	36,000	150,000	< 7 U	< 7 U	< 7 U	< 7 U
m&p-Xylene	5,200	22,000	< 22 U	< 22 U	< 22 U	< 22 U
Methyl tert butyl ether (MTBE)	470	2,400	< 7 U	< 7 U	< 7 U	< 7 U
Methylene chloride	4,800	61,000	< 17 U	< 17 U	< 17 U	< 17 U
N-Heptane	NA	NA	< 8 U	< 8 U	< 8 U	< 8 U
o-Xylene	5,200	22,000	< 9 U	< 9 U	< 9 U	< 9 U
Styrene	52,000	220,000	< 9 U	< 9 U	< 9 U	< 9 U
tert-Butyl alcohol	NA	NA	< 150 U	< 150 U	< 150 U	< 150 U
Tetrachloroethene	470	2,400	< 14 U	< 14 U	< 14 U	< 14 U
Toluene	260,000	1,100,000	< 8 U	< 8 U	< 8 U	< 8 U
trans-1,2-Dichloroethene	3,100	13,000	< 8 U	< 8 U	< 8 U	< 8 U
trans-1,3-Dichloropropene	NA	NA	< 9 U	< 9 U	< 9 U	< 9 U
Trichloroethene	27	150	< 11 U	< 11 U	< 11 U	< 11 U
Trichlorofluoromethane (CFC-11)	36,000	150,000	< 11 U	< 11 U	< 11 U	< 11 U
Trifluorotrichloroethane (Freon 113)	1,600,000	6,600,000	< 15 U	< 15 U	< 15 U	< 15 U
Vinyl chloride	13	140	< 5 U	< 5 U	< 5 U	< 5 U

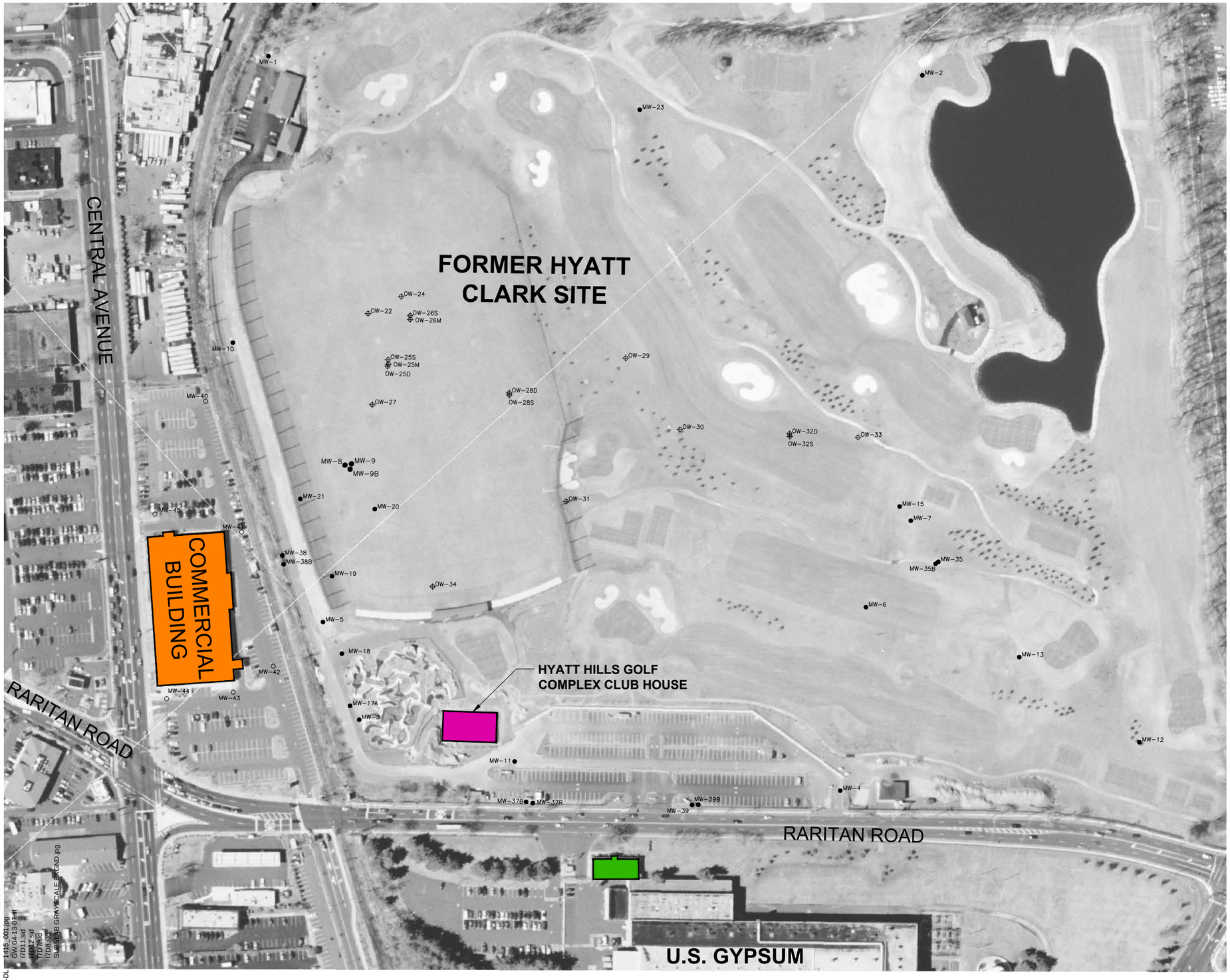
Notes:

1. New Jersey Department of Environmental Protection (NJDEP) Screening Levels were obtained from the NJDEP Vapor Intrusion Technical Guidance, Table 1 (as updated March 2013).
2. Screening levels for total 1,3-dichloropropene were used to evaluate cis- and trans-1,3-dichloropropene.
3. Screening levels for xylenes (m&p) and (o) based on screening level for total xylene presented in the VITG .
4. Abbreviations are as follows:

NA = Value unavailable.

µg/m^3 = micrograms per cubic meter.

U = The sample was analyzed for this compound, but it was not detected. The associated value is the compound quantitation limit.



PROJECT NORTH

N.J. GEODETIC NORTH

47°25'30"

LEGEND

- MW-40 — OFF-SITE MONITORING WELL
- MW-9B — MONITORING WELL
- OW-29 — OBSERVATION WELL
- PORTION OF U.S. GYPSUM BUILDING WHERE SUBSLAB SOIL GAS SAMPLES WERE COLLECTED
- COMMERCIAL BUILDING WHERE SUBSLAB SOIL GAS SAMPLES WERE COLLECTED
- HYATT HILLS GOLF COMPLEX CLUB HOUSE WHERE SUBSLAB SOIL GAS AND INDOOR AIR SAMPLES WERE COLLECTED

0 100 200 300
SCALE IN FEET

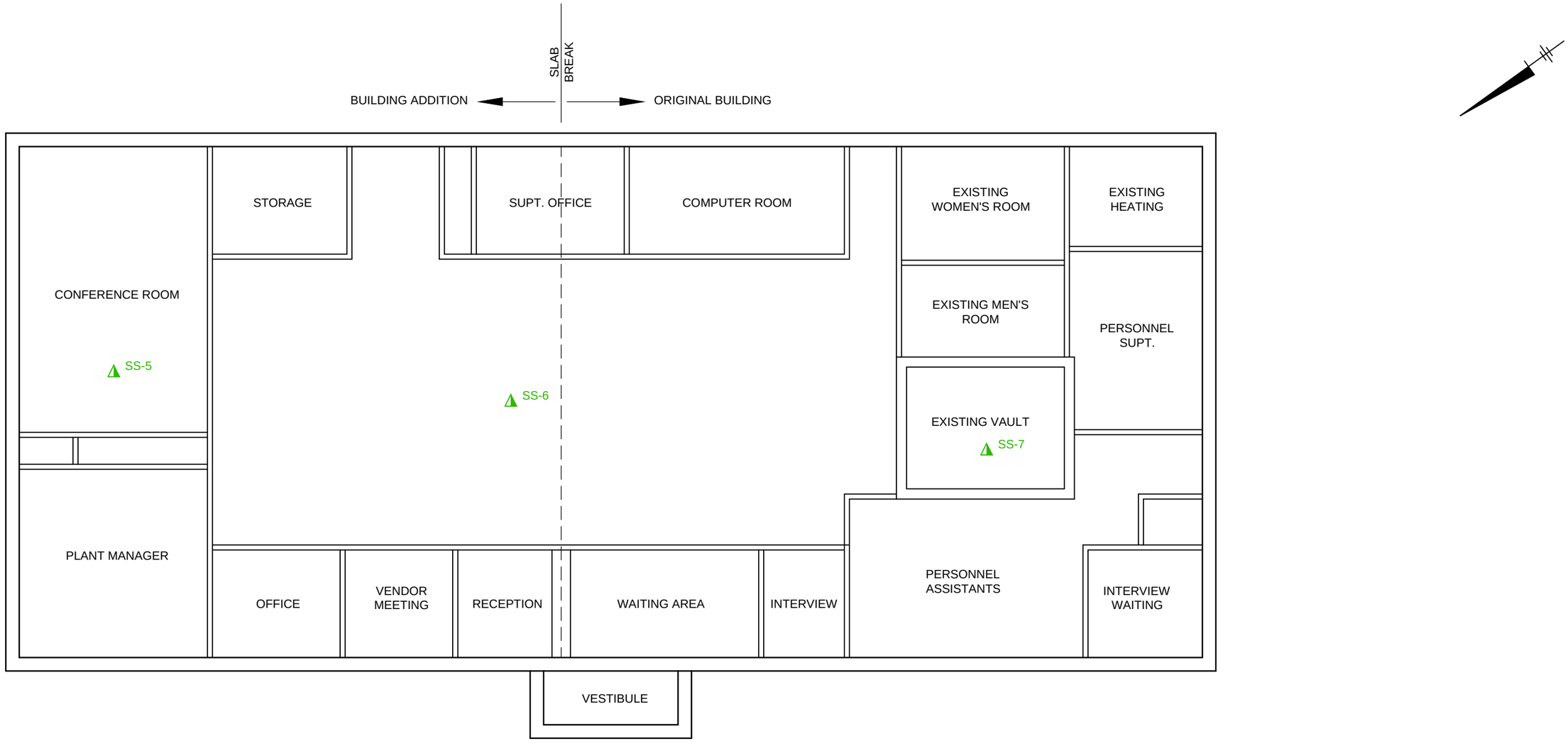
FORMER HYATT CLARK INDUSTRIES SITE
CLARK, NEW JERSEY
GROUNDWATER REMEDIAL INVESTIGATION REPORT

GENERAL ON-SITE AND OFF-SITE VAPOR INTRUSION SAMPLING LOCATIONS

ARCADIS Design & Consultancy for natural and built assets

FIGURE
1

CITY:SYRACUSE-NY DIV/GROUP:ENV DB:A.SANCHEZ LD:ALS PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
Z:\ENVCAD\SYRACUSE\ACTIN\J000298\00330\0006\N2983364F01.dwg LAYOUT: 1 SAVED: 3/7/2016 6:04 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ---- PLOTTED: 3/9/2016 11:08 AM BY: SANCHEZ, ADRIAN
XREFS:
XBDR-DL
IMAGES: PROJECTNAME: ----
1445_001.jpg
GW 04-1307.tif
I7D11.sid
I7D12.sid
I7D7red
I7D8.sid
Slab3DB GRAYSCALE BKGND.jpg



LEGEND

SUB-SLAB SOIL GAS SAMPLE

SOURCE:

MAP DIGITIZED FROM BLUEPRINT OF NEWCON, NEW CONSTRUCTION INCORPORATED DAWING TITLED "PROPOSED OFFICE ADDITION FOR U.S. GYPSUM", DWG. NO. A3, LAST REVISED: 8-3-87.

0 8' 16'

GRAPHIC SCALE

FORMER HYATT CLARK INDUSTRIES SITE
CLARK, NEW JERSEY
GROUNDWATER REMEDIAL INVESTIGATION REPORT

DECEMBER 2012 SOIL GAS SAMPLE LOCATIONS, UNITED STATES GYPSUM FACILITY

ARCADIS Design & Consultancy for natural and built assets

FIGURE
2

CITY:SYRACUSE-NY DIV/GROUP:ENV DB:A.SANCHEZ LD:ALS PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
G:\ENV\CAD\SYRACUSE\ACTIVE\NJ000298\00330006\INJ298336AF02.dwg LAYOUT: 2 SAVED: 3/7/2016 6:00 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ---- PLOTTED: 3/7/2016 6:03 PM BY: SANCHEZ, ADRIAN
XREFS: IMAGES: PROJECTNAME: ----
XBDR-BL



LEGEND:

SUB-SLAB SOIL GAS SAMPLE LOCATION

SOURCE:

1. RITE AID BASEMAP INFORMATION DIGITIZED FROM FIXTURE PLAN, STORE NUMBER 4823 PPR, DATED JUNE 8, 2011.
2. BALLY TOTAL FITNESS BASEMAP INFORMATION DIGITIZED FROM TENTANT RENOVATIONS OCCUPANCY PLAN, DATED JUNE 23, 1998. PROVIDED BY BROSSO WILHELM AND McWILLIAMS ARCHITECTS.

0 20' 40'

GRAPHIC SCALE

FORMER HYATT CLARK INDUSTRIES SITE
CLARK, NEW JERSEY
GROUNDWATER REMEDIAL INVESTIGATION REPORT

DECEMBER 2012
SOIL GAS SAMPLE LOCATIONS, COMMERCIAL BUILDING SOUTHWEST OF SITE

ARCADIS Design & Consultancy for natural and built assets

FIGURE 3

CITY:SYRACUSE-NY DIV/GROUP:ENV DB:A.SANCHEZ LD:ALS PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACTN\D0002980\D0033\D0006\NJ298336AF03.dwg LAYOUT: 3 SAVED: 3/7/2016 5:58 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ---- PLOTTED: 3/7/2016 6:03 PM BY: SANCHEZ, ADRIAN
XREFS: IMAGES: PROJECTNAME: ----
X\BDR-BL



LEGEND

- SUB-SLAB SOIL GAS SAMPLE
- A/C — AIR CONDITIONING UNIT
- INDUSTRIAL FAN
- ELECTRIC SPACE HEATER

NOTE:

1. IN ADDITION TO THE VISIBLE PORTION OF THE FRENCH DRAIN, THE DRAIN IS ASSUMED TO CONTINUE AROUND THE PERIMETER OF THE BUILDING BENEATH THE CONCRETE SLAB.

SOURCE:

BUILDING LAYOUT FROM HAND-DRAWN SKETCH AND MEASUREMENTS PROVIDED BY ERIN HENRY (ENGINEER, ARCADIS, NEWTOWN, PA).

0 8’ 16’

APPROXIMATE GRAPHIC SCALE

FORMER HYATT CLARK INDUSTRIES SITE
CLARK, NEW JERSEY
GROUNDWATER REMEDIAL INVESTIGATION REPORT

JANUARY 2014
SOIL GAS SAMPLE LOCATIONS,
HYATT HILLS GOLF COMPLEX

ARCADIS Design & Consultancy for natural and built assets

FIGURE
4

CITY:SYRACUSE-NY DIV/GROUP:ENV DB:A.SANCHEZ LD:ALS PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACTIVE\60028600\33000600\NJ298336AF04.dwg LAYOUT: 4 SAVED: 3/7/2016 5:59 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: ----
XREFS: IMAGES: PROJECTNAME: ----
X\BDR-BL PLOTSTYLETABLE: ---- PLOTTED: 3/7/2016 6:04 PM BY: SANCHEZ, ADRIAN

Attachment **A**

Field Sampling Logs

ARCADIS

Indoor Air Sample Collection Log

Sample ID:	IA-10		
Client:	Racer Trust	Outdoor/Indoor:	
Project:		Sample Intake Height:	4'
Location:	Hyatt Hills, Clark, NJ	Tubing Information:	—
Project #:	NJ298.31.5	Miscellaneous Equipment:	PID
Samplers:	EH / NM	Time On/Off:	see below
Sample Point Location:	cart storage bay	Subcontractor:	—

Instrument Readings:

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID (ppb)
1/7/14	11:12	-29	65	—	—		0.1
1/8/14	10:09	-6					

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L (6 L)
Canister ID:	5106
Flow Controller ID:	3385
Notes:	24 hr

General Observations/Notes:

Approximating One-Well Volume (for purging):

When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

Subslab Soil Vapor Sample Collection Log

Sample ID:	SS-10		
Client:	Racer Trust	Boring Equipment:	Hammer drill
Project:		Sealant:	no VOC clay
Location:	Hyatt Hills, Clark, NJ	Tubing Information:	1/4" OD tefzel
Project #:	NJ 298.31.5	Miscellaneous Equipment:	—
Samplers:	EH/NM	Subcontractor:	—
Sample Point Location:	1/8/14 @ 1200	Equipment:	PID, He detector, SKC pump
Sampling Depth:	6'	Moisture Content of:	—
Time and Date of Installation:	Cart storage bay	Approximate Purge Volume:	200 mL

Instrument Readings:

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID (ppb)
1/8/14	1219	-29"	65	—	—		NA
1/8/14	1245	-6	65	—	—		NA

PPM

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L (6 L)
Canister ID:	3529
Flow Controller ID:	4714
Notes:	200 mL/min F.C.

Tracer Test Information (if applicable):

Initial Helium Shroud:	21.7% @ 1213
Final Helium Shroud:	16.1% @ 1217
Tracer Test Passed:	(Yes) No
Notes:	

General Observations/Notes:

Soil in test:

-15" @ 1252	Tracer test:
-15" @ 1304	He in bag = 0.0%

Approximating One-Well Volume (for purging):

When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

ARCADIS

Indoor Air Sample Collection Log

		Sample ID:	IA-11
Client:	Racer Trust	Outdoor/Indoor:	(Indoor)
Project:		Sample Intake Height:	5'
Location:	Hyatt Hills, Clark, NJ	Tubing Information:	—
Project #:	NJ 298.31.5	Miscellaneous Equipment:	PID
Samplers:	EH/NM	Time On/Off:	See below
Sample Point Location:	Kitchen Storage	Subcontractor:	—

Instrument Readings:

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID ~~(ppb)~~
1/7/14	11:30	-30	60	—	—		0.1
1/8/14	11:00	-6	65	—	—		

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L (6 L)
Canister ID:	4833
Flow Controller ID:	5214
Notes:	24-hr

General Observations/Notes:

Approximating One-Well Volume (for purging):

When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

Subslab Soil Vapor Sample Collection Log

ARCADIS

Sample ID:	SS-11		
Client:	Race Trust	Boring Equipment:	Hammer drill
Project:		Sealant:	no VOC clay
Location:	Hyatt Hills, Clark, NJ	Tubing Information:	¼" OD Teflon
Project #:	NJ298.31.5	Miscellaneous Equipment:	–
Samplers:	EH/NM	Subcontractor:	–
Sample Point Location:	Kitchen Storage	Equipment:	PID, He detector, SKC pump
Sampling Depth:	6"	Moisture Content of	–
Time and Date of Installation:	1/8/14 @ 1235	Approximate Purge Volume:	200 mL

Instrument Readings:

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID ~~(ppb)~~ PPM
1/8/14	1239	-30"	65	–	–		
	1306	-6					

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L (6L)
Canister ID:	4439
Flow Controller ID:	4715
Notes:	30 min. FC

Tracer Test Information (if applicable):

Initial Helium Shroud:	21.4% @ 1235
Final Helium Shroud:	21.5% @ 1239
Tracer Test Passed:	(Yes) No
Notes:	0 ppm

General Observations/Notes:

Leak check
-14" Hg @ 12:19
-14" Hg @ 12:30

Approximating One-Well Volume (for purging):

When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

Indoor Air Sample Collection Log

Client:	Racer Trust	Sample ID:	IA-12
Project:		Outdoor/Indoor:	
Location:	Hyatt Hills, Clark, NJ	Sample Intake Height:	4'
Project #:	NJ298.31.5	Tubing Information:	—
Samplers:	EH/NM	Miscellaneous Equipment:	PID
Sample Point Location:	Storage room	Time On/Off:	See below
		Subcontractor:	—

Instrument Readings:

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID ~~(ppb)~~ (ppm)
1/7/19	11:18	-29	65	-	-		0.1
1/8/19	10:10	-6	65	-	-		

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L (6 L)
Canister ID:	4929
Flow Controller ID:	2756
Notes:	24 hr

General Observations/Notes:

Approximating One-Well Volume (for purging):

When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

Subslab Soil Vapor Sample Collection Log

ARCADIS

		Sample ID:	SS-12
Client:	Race Trust	Boring Equipment:	Hammer drill
Project:		Sealant:	No VOC clay
Location:	Hyatt Hills, Clwic, NJ	Tubing Information:	¼" OD Teflon
Project #:	NJ298.31.5	Miscellaneous Equipment:	–
Samplers:	EH/JM	Subcontractor:	–
Sample Point Location:	1/8/14 @ 12:58	Equipment:	PID, He detector, skc pump
Sampling Depth:	6"	Moisture Content of:	–
Time and Date of Installation:	Storage room	Approximate Purge Volume:	~200mL

Instrument Readings:

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	~~PID~~ (ppb) PPM
1/8/14	1307	-29.5	65	–	–		NA
1/8/14	1334	-6	65	–	–		

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L (6 L)
Canister ID:	3425
Flow Controller ID:	4979
Notes:	30-Min. FC

Tracer Test Information (if applicable):

Initial Helium Shroud:	15.07% @ 13:00
Final Helium Shroud:	17.29%
Tracer Test Passed:	(Yes) No
Notes:	

General Observations/Notes:

leak check 1/6/14
-14" Hg @ 12:39
-13.5" Hg @ 12:51

Approximating One-Well Volume (for purging):

When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

ARCADIS

Indoor Air Sample Collection Log

		Sample ID:	IA-13
Client:	Faces Trust	Outdoor/Indoor:	→
Project:		Sample Intake Height:	4'
Location:	Mount Hills, Clark, NJ	Tubing Information:	–
Project #:	NJ298.315	Miscellaneous Equipment:	PID
Samplers:	EM / NM	Time On/Off:	see below
Sample Point Location:	Shop	Subcontractor:	–

Instrument Readings:

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID (~~ppb~~) PPM
1/7/14	11:23	-30	70	–	–		0.8
1/8/14	11:58	-11	75	–	–		

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L (6 L)
Canister ID:	5158
Flow Controller ID:	5194
Notes:	24 hr

General Observations/Notes:

→ man working in shop wears cologne

Approximating One-Well Volume (for purging):

When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

Subslab Soil Vapor Sample Collection Log

Sample ID:	SS-13		
Client:	Race Trust	Boring Equipment:	Hammer Drill
Project:		Sealant:	no wet clay
Location:	Hyatt Hills, Clark, NJ	Tubing Information:	¼" OD teflon
Project #:	NJ 298.31.5	Miscellaneous Equipment:	–
Samplers:	EH/NM	Subcontractor:	–
Sample Point Location:	Shop	Equipment:	PID, Hg detector, sampling
Sampling Depth:	6"	Moisture Content of	–
Time and Date of Installation:	1/8/14 @ 1325	Approximate Purge Volume:	200 mL

Instrument Readings:

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID (ppb) ppm
1/8/14	1335	~30"	75°	–	–		
1/8/14	1405	~6"	75°	–	–		

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L (6 L)
Canister ID:	3760
Flow Controller ID:	4868
Notes:	200 mL/min F.C.

Tracer Test Information (if applicable):

Initial Helium Shroud:	27.6% @ 1329
Final Helium Shroud:	18.9% @ 1333
Tracer Test Passed:	(Yes) No
Notes:	8.0 ppm He

General Observations/Notes:

Shut-in test:
-18" Hg @ 1258
-19" Hg @ 1309

Approximating One-Well Volume (for purging):

When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

Ambient Air Sample Collection Log

Client:	Raew Trust	Sample ID:	AA-1
Project:		Outdoor/Indoor:	
Location:	Hyatt Hills, Clark, NJ	Sample Intake Height:	4'
Project #:	NJ298.31.5	Tubing Information:	—
Samplers:	EH/NM	Miscellaneous Equipment:	PID
Sample Point Location:	In front of Hyatt Hills	Time On/Off:	see below
		Subcontractor:	—

Instrument Readings: (Raritan Rd. side of building)

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID ~~(ppb)~~ ppm
1/7/14	0920	~30"	5				
1/8/14	1115	~7"	9				

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L (6 L)
Canister ID:	4357
Flow Controller ID:	4207
Notes:	24 hr

General Observations/Notes:

Approximating One-Well Volume (for purging):

When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

BALLY

Subslab Soil Vapor Sample Collection Log

Sample ID:	SS-1		
Client:		Boring Equipment:	Hammerdrill
Project:	Former Hyatt Clark	Sealant:	~~Bent~~ VOC clay
Location:	Clark, NJ	Tubing Information:	teflon 1/4"
Project #:	NJ 298.30.5	Miscellaneous Equipment:	PID, He detector, drill
Samplers:	Erin Hanny/Andrew Gutherz	Subcontractor:	—
Sample Point Location:	maintenance room	Equipment:	—
Sampling Depth:	6" - just below slab	Moisture Content of	—
Time and Date of Installation:	12/20/12 0900	Approximate Purge Volume:	1L - purged for 5 mins

fed air bag did not fill completely

Instrument Readings:

in bag ~ 100-200mL

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID (ppb)
12/20/12	0917	-28	70		0		568
	0945	-6.5	70				

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L (6 L)
Canister ID:	4919
Flow Controller ID:	4606
Notes:	

Tracer Test Information (if applicable):

Initial Helium Shroud:	38.2%
Final Helium Shroud:	30.9%
Tracer Test Passed:	(Yes) No
Notes:	0 ppm

General Observations/Notes: 12/14/12 leak ✓ Start 15:20 vac -10 ; stop 15:50 vac -10 ✓

Ambient - 235 ppb

Approximating One-Well Volume (for purging):

When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

BALLY

ARCADIS — Subslab Soil Vapor Sample Collection Log

		Sample ID:	SS-2
Client:		Boring Equipment:	Hammer drill
Project:	Former Hyatt Clark	Sealant:	ND vac clay
Location:	Clark, NJ	Tubing Information:	Teflon 1/4"
Project #:	NJ 298.30.5	Miscellaneous Equipment:	PID, drill, He detector
Samplers:	EH / AG	Subcontractor:	—
Sample Point Location:	back hall in men's room	Equipment:	—
Sampling Depth:	~10" (just above 2nd slab)	Moisture Content of	—
Time and Date of Installation:	12/20/12 1000	Approximate Purge Volume:	1L - purged 5 minutes @ set 200mL/min

Instrument Readings: couldn't get tubing down into 2nd slab — tedlar bag not full ~700mL

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID (ppb)
12/20/12	10:14	-30	60	-	0		326
	10:44	-6	60				

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L 6 L
Canister ID:	3261
Flow Controller ID:	4715
Notes:	

Tracer Test Information (if applicable):

Initial Helium Shroud:	365%
Final Helium Shroud:	46%
Tracer Test Passed:	Yes No
Notes:	0 ppm

General Observations/Notes: 12/19/12 64kV

start	vac	stop	vac
1539	-10	1609	-10

Ambient PID = 0 ppb

Approximating One-Well Volume (for purging):

When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

BACKY

ARCADIS

Subslab Soil Vapor Sample Collection Log

		Sample ID:	SS-3
Client:		Boring Equipment:	Hammer drill
Project:	Former Hyatt Clark	Sealant:	no vac day
Location:	Clark, NJ	Tubing Information:	Teflon ¼"
Project #:	NJ298.30.5	Miscellaneous Equipment:	PID, drill, He detector
Samplers:	EH/AG	Subcontractor:	—
Sample Point Location:	lowered floor - weights Area	Equipment:	—
Sampling Depth:	~ 19"	Moisture Content of	—
Time and Date of Installation:	12/20/12 1045	Approximate Purge Volume:	1L - purged 5min

Instrument Readings:

tedlar bag did not fill completely ~ 100-200mL

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID (ppb)
12/20/12	1112	-30	70		0		~~520~~ 770
	1139	-6	70		0		

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L (6 L)
Canister ID:	3430
Flow Controller ID:	4706
Notes:	

Tracer Test Information (if applicable):

Initial Helium Shroud:	31.5%	
Final Helium Shroud:	42.7%	
Tracer Test Passed:	(Yes)	No
Notes:	0 ppm	

General Observations/Notes:

12/19/12 leak check

start	vac	end	vac
16:06	-11	16:36	-11

Ambient = 250 PPB

Approximating One-Well Volume (for purging):

When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

BALLY

ARCADIS

Subslab Soil Vapor Sample Collection Log

Sample ID:	SS-4		
Client:		Boring Equipment:	Hammer drill
Project:	Former Hyatt Clark	Sealant:	NO VOC clay
Location:	Clark, NJ	Tubing Information:	teflon 1/4"
Project #:	NJ298.30.5	Miscellaneous Equipment:	PID, He detector, drill
Samplers:	EH/AG	Subcontractor:	—
Sample Point Location:	near elliptical machines	Equipment:	—
Sampling Depth:	~7"	Moisture Content of	—
Time and Date of Installation:	12/20 11:35	Approximate Purge Volume:	1L — purged 5 min. — tedlar bag did not fill ~100-200 mL

Instrument Readings:

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID (ppb)
12/20/12	12:12	7-30	70		0		772
	12:46	-6.5	70				

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L (6 L)
Canister ID:	2683
Flow Controller ID:	4591
Notes:	

Tracer Test Information (if applicable):

Initial Helium Shroud:	25.5%
Final Helium Shroud:	34.8%
Tracer Test Passed:	(Yes) No
Notes:	0

General Observations/Notes:

12/19/12 leak check: start 16:09 vac -10; end 16:39 vac -10

Ambient PID ~ 248 ppb

Approximating One-Well Volume (for purging):

When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

USG

ARCADIS

Subslab Soil Vapor Sample Collection Log

		Sample ID:	SS-5
Client:		Boring Equipment:	Hammer drill
Project:	Former Hyatt Clark	Sealant:	No VOC clay
Location:	Clark NJ	Tubing Information:	teflon ¼"
Project #:	NJ298.30.5	Miscellaneous Equipment:	PID, drill, tracer detector
Samplers:	EH / AG	Subcontractor:	—
Sample Point Location:	Conference room (under table)	Equipment:	—
Sampling Depth:	8-10"	Moisture Content of	—
Time and Date of Installation:	12/20/12 13:42	Approximate Purge Volume:	5 min

Instrument Readings: ~100-200mL approx. vol. in bag

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID (ppb)
12/20/12	13:59	-30	70		0		~~89~~ 568
	14:25	-6	70				

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L	6 L
Canister ID:	4147	
Flow Controller ID:	4538	
Notes:		

Tracer Test Information (if applicable):

Initial Helium Shroud:	42.2%	
Final Helium Shroud:	33.5%	
Tracer Test Passed:	Yes	No
Notes:	0ppm	

General Observations/Notes:

12/19/12 Leak checked

start 15:49 vac -8 | end 16:19 vac -8

Ambient PID = 89 PPB

Approximating One-Well Volume (for purging):

When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

USG

ARCADIS

Subslab Soil Vapor Sample Collection Log

Sample ID:	SS-6		
Client:		Boring Equipment:	Hammer drill
Project:	Former Hyatt Clark	Sealant:	No VOC Clay
Location:	Clark, NJ	Tubing Information:	teflon ¼"
Project #:	NJ298.3015	Miscellaneous Equipment:	PID, He detector
Samplers:	EM/AG	Subcontractor:	—
Sample Point Location:	central office (beside island)	Equipment:	—
Sampling Depth:	8-10"	Moisture Content of	—
Time and Date of Installation:	12/20/12 13:55	Approximate Purge Volume:	100-200mL - 6 minute purge

Instrument Readings:

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID (ppb)
12/20/12	14:22	-29	70		0		679
	14:52	-6	70		0		

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L	(6 L)
Canister ID:	3017	
Flow Controller ID:	4589	
Notes:		

Tracer Test Information (if applicable):

Initial Helium Shroud:	30.2%	
Final Helium Shroud:	36.8%	
Tracer Test Passed:	(Yes)	No
Notes:	0ppm	

General Observations/Notes:

12/19/12 Canister: Start 16:16 vac -11 j; End 16:46 vac -11

Ambient PID = 70 ppb

Approximating One-Well Volume (for purging):

When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

MSG

ARCADIS

Subslab Soil Vapor Sample Collection Log

		Sample ID:	SS-7
Client:		Boring Equipment:	Hammer drill
Project:	Former Hyatt Clark	Sealant:	NO VOC clay
Location:	Clark, NJ	Tubing Information:	tefzel 1/4"
Project #:	NJ298.30.5	Miscellaneous Equipment:	PID, He detector
Samplers:	EH/AG	Subcontractor:	—
Sample Point Location:	safe room (where concrete already shanny broken)	Equipment:	—
Sampling Depth:	~ -10"	Moisture Content of	—
Time and Date of Installation:	12/20/12 14:40	Approximate Purge Volume:	100-200mL - 6min purge

Instrument Readings:

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID (ppb)
12/20/12	1500	-30	70		8		629
	1525	-6	70				

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L (6 L)
Canister ID:	3213
Flow Controller ID:	4593
Notes:	

Tracer Test Information (if applicable):

Initial Helium Shroud:	38.0%
Final Helium Shroud:	42.9%
Tracer Test Passed:	(Yes) No
Notes:	0ppm

General Observations/Notes:

12/19/12 leakcheck start vac -10 ; 15:54 end vac -10 16:24

Ambient = 0 ppb

Rite-Aid

ARCADIS

Subslab Soil Vapor Sample Collection Log

		Sample ID:	SS-8
Client:		Boring Equipment:	Hammer drill
Project:	Farmer Hyatt Clark	Sealant:	ND voc clay
Location:	Clark, NJ	Tubing Information:	Teflon 1/4"
Project #:	NJ298.30.5	Miscellaneous Equipment:	drill, PID, tracer detector
Samplers:	ET/AG	Subcontractor:	—
Sample Point Location:	Stockroom-~~Refrigerator~~ Area	Equipment:	—
Sampling Depth:	8"	Moisture Content of	—
Time and Date of Installation:	12/20/12 16:40	Approximate Purge Volume:	6 min - 100-200 mL

Instrument Readings:

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID (ppb)
12/20/12	1657	-30	53		0		359
	1727	-4.5	46-53		0		

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L (6 L)
Canister ID:	2750
Flow Controller ID:	4621
Notes:	

Tracer Test Information (if applicable):

Initial Helium Shroud:	25%
Final Helium Shroud:	36%
Tracer Test Passed:	(Yes) No
Notes:	Open

General Observations/Notes: 12/19/12 leak check start vac end vac

Ambient PID = 100 inside fridge
continued to use during leak test to 250 ppb

- floor in refrigerator has epoxy coating / sealant

Approximating One-Well Volume (for purging):

When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

Attached

ARCADIS

Subslab Soil Vapor Sample Collection Log

		Sample ID:	SS-9
Client:		Boring Equipment:	Hammer Drill
Project:	Former Hyatt Clark	Sealant:	Novax Clay
Location:	Clark, NJ	Tubing Information:	Teflon 1/4"
Project #:	NJ29830.5	Miscellaneous Equipment:	PID, He detector
Samplers:	HH / AG	Subcontractor:	—
Sample Point Location:	just outside stockroom on store floor - tile	Equipment:	—
Sampling Depth:	10"	Moisture Content of	—
Time and Date of Installation:	12/20/12 1710	Approximate Purge Volume:	100-200 mL ~6 min

Instrument Readings:

Date	Time	Canister Vacuum (a) (inches of Hg)	Temperature (°F)	Relative Humidity (%)	Air Speed (mph)	Barometric Pressure (inches of Hg)	PID (ppb)
12/20/12	1729	-28	70		0		766
	1755	-6	70		0		

(a) Record canister information at a minimum at the beginning and end of sampling

SUMMA Canister Information:

Size (circle one):	1 L (6 L)
Canister ID:	3320
Flow Controller ID:	4609
Notes:	

Tracer Test Information (if applicable):

Initial Helium Shroud:	36.7%
Final Helium Shroud:	30.2%
Tracer Test Passed:	(Yes) No
Notes:	250ppm

General Observations/Notes:

12/19/12 leak ✓

Start 1536 vac -9 ; end 1606 vac -9

Ambient PID = 404 ppb

Approximating One-Well Volume (for purging):

When using 1¼-inch "Dummy Point" and a 6-inch sampling interval, the sampling space will have a volume of approximately 150 mL. Each foot of ¼-inch tubing will have a volume of approximately 10 mL.

APPENDIX G

Copy of Classification Exception Area/Water Restriction Area

New Jersey Department of Environmental Protection
Site Remediation Program

CLASSIFICATION EXCEPTION AREA / WELL RESTRICTION AREA (CEA/WRA) FACT SHEET FORM

Date Stamp
(For Department use only)

SECTION A. SITE INFORMATION

Site Name: Former Hyatt Clark Industries Site

Program Interest (PI) Number(s): 001205

Case Tracking Number(s) for this submission: ISRA Case No E87769

This form must be attached to the Cover / Certification Form if not submitted through the RIR Online Service

1. Indicate the reason for submission of this form *(see instructions)*:

☒ New CEA ☐ Revise CEA ☐ Reestablish CEA ☐ Existing CEA with no changes
☐ CEA for historic fill ☐ CEA lift/removal

If you are submitting this form for an existing CEA provide the CEA Subject Item ID: _____

2. Indicate the type of ground water Remedial Action (RA):

☐ Natural ☐ Active ☒ Final RA not yet selected

3. Is this form being submitted with a Remedial Action Permit (RAP) Form (for Soil or Ground Water)?... ☐ Yes ☒ No

SECTION B. CEA COMPONENT INFORMATION

1. Contaminant(s): This CEA/WRA applies only to contaminants above applicable numeric values established by the Ground Water Quality Standards (GWQS), N.J.A.C. 7:9C, listed in the table below. Except for historic fill CEAs based on assumed ground water contamination, list the maximum contaminant value for all ground water data that could be representative of current conditions and is for any well or sampling point used to establish the CEA. The values listed below may or may not be appropriate for use in evaluating plume fate and transport. See form instructions.

Contaminant	Concentration (1)	GWQS (2)	SWQS(3)	GWSL(4)
1,1,1-Trichloroethane	800	30		13,000
1,1-Dichloroethane	800	50		50
1,1-Dichloroethene	140	1		260
1,2-Dichloroethane	11	2		3
cis-1,2-Dichloroethene	1800	70		NA

Notes:
(1) Maximum concentration in Micrograms Per Liter
(2) New Jersey Ground Water Quality Standards, N.J.A.C. 7:9C
(3) Surface Water Quality Standards, N.J.A.C. 7:9B - Applicable only where contaminants in the CEA may discharge to a surface water body.
(4) Current NJDEP Vapor Intrusion Ground Water Screening Levels available at http://www.nj.gov/dep/srp/guidance/vaporintrusion/

☒ Check if attaching an Addendum to list additional contaminants and associated information.

2. CEA Boundaries: Year of tax map used: 1995

For CEA revisions: ☐ check if CEA Boundary has changed (*See instructions*)
☐ check if Block and Lot numbers have changed (*See instructions*)

List the Block(s) and Lot(s) included in the areal extent of the Classification Exception Area:

Block(s)	Lot(s)	Check if off-site
143	1	☐
541	1	☐
71	1	☒
71	2	☒
71	3	☒

Block(s)	Lot(s)	Check if off-site
71	4	☒
71	4.01	☒
71	5	☒
71	7	☒
71	14	☒

☒ Check if attaching an Addendum to list additional Blocks/Lots and associated information.

Narrative description of proposed CEA:

Even though impacted groundwater is not present beneath the entire Hyatt Clark Industries Site, the boundary encompasses the entire Site and extends approximately 1,600 feet off-site in the downgradient direction (to the southeast).

Name(s) of the affected Geologic Formation(s)/Unit(s): Passaic Formation and Rahway Till

Direction of ground water flow: Southeast (*If multiple water bearing zones exist within the CEA and/or there is no predominant flow direction, see instructions.*)

Ground Water Classification: II-A (*See instructions and GWQS for classification area information.*)

Vertical Depth of CEA: 505 (ft bgs) **and** 435 (msl).

Horizontal Extent of CEA: 146.2 Indicate units: ☒ acres or ☐ square feet

3. Projected Term of CEA: (*Based on modeling/calculations in the fate and transport description*)

Proposed Duration in Years: _____ Anticipated Expiration Date: _____

or ☒ Indeterminate (*Review instructions before selecting* "Indeterminate.")

4. ATTACH AND/OR SUBMIT THE FOLLOWING: (*see instructions for additional information*)

Exhibit A: Site Location Maps – USGS Quadrangle Map;

Exhibit B: CEA Map and Cross Section Figure – See N.J.A.C 7:26C- 7.3(c)1 and 2 and instructions regarding what to include on the map and the cross-section figure.

Exhibit C: GIS Deliverables – CEA Boundary Extent Map. The CEA Boundary Extent Map shall be submitted via email to srpgis_cea@dep.nj.gov. See the instructions for detailed GIS deliverable requirements.

For revisions, does the attached map differ from the CEA map on NJ-GeoWeb? ☐ Yes ☐ No ☒ N/A

If "Yes or N/A," identify the format of the CEA Boundary Extent Map: ..... ☒ Shape File ☐ CAD File

SECTION C. CURRENT GROUND WATER USE DOCUMENTATION

1. Indicate the year of the most recent well search completed per N.J.A.C. 7:26E-1.14: 2015
2. If this Fact Sheet form is for a revised CEA or an existing CEA with no changes, have new wells been installed since the CEA was established? ..... ☐ Yes ☐ No ☒ N/A
3. Are there any pumping wells (e.g., potable, industrial, irrigation or recovery wells) within the foot print of the CEA? ..... ☐ Yes ☒ No

SECTION D. WELL RESTRICTION INFORMATION

Certain well restrictions relevant to potable ground water use, such as “Double Case Wells”, “Sample Potable Wells”, and “Evaluate Production Wells”, are consistently set within the boundaries of all CEAs established by the NJDEP in Class I and II-A areas (*see instructions*).

1. Are there any other site-specific well restrictions relevant to potable ground water use that should be set within or near the boundaries of the proposed CEA?..... ☐ Yes ☒ No

   If “Yes”, describe below any such site-specific well restrictions proposed for this CEA:

SECTION E. PUBLIC NOTIFICATION REQUIREMENTS

1. Indicate which of the following entities have been notified pursuant to N.J.A.C. 7:26C-7.3(d). (*check all that apply*)

   ☒ Municipal and county clerk(s)
   ☒ Local, county or regional health department(s)
   ☒ Designated County Environmental Health Act agency (if applicable)
   ☐ County Planning Board
   ☐ Pinelands Commission (if applicable)
   ☒ Owners of real property overlying CEA foot print

2. **List of Names and Addresses** – List below and/or in an attachment, the names/addresses of all persons notified pursuant to N.J.A.C. 7:26C-7.3(d) based on the proposed CEA boundaries. If the site property owner differs from the person responsible for conducting the remediation, enter the site owner’s name and address first in below table. See instructions for more information regarding address list and indicating if vapor intrusion was evaluated for properties over the CEA.

   ☐ Check here if no volatile contaminants are in the CEA

Entity or Owner Name	**Notification Address Used** (include applicable block and lot overlying CEA if owner address differs from property address)	**Date notification sent**	**Was property evaluated for vapor intrusion?** Check if “Yes”
Racer Properties LLC	500 Woodward Ave, Detroit, MI 48226 Block/ Lot: 143/ 1 and 541/ 1	03/23/2016	☐
CCA Corp C/O Spirn	805 Dartmoor, Westfield, NJ 07090 Block/ Lot: 71/ 2	03/23/2016	☐
Clark Parkway Plaza C/O P Kruvant	71 Valley St, South Orange, NJ 07079 Block/ Lot: 71/ 3	03/23/2016	☐
PSE&G Corp	80 Park Plaza, Newark, NJ 07102 Block/ Lot: 71/ 4	03/23/2016	☐
JRF Realty C/O Tracey Cellitti	10 Kendall Ct, Mendham, NJ 07945 Block/ Lot: 71/ 4.01	03/23/2016	☐
Burger King #624 C/O Ryan	PO Box 460189 Houston, TX 77001 Block/ Lot: 71/ 5	03/23/2016	☐
Franglo LTD FJ Mason	1818 E Elizabeth Ave, Linden, NJ 07036 Block/ Lot: 71/ 7	03/23/2016	☐
Clark 1709 LLC	33 Northfield Ave, Edison, NJ 08837 Block/ Lots: 71/ 14 and 15	03/23/2016	☐
Consolidated Rail Corp	744 Broad St, Newark, NJ 07102 Block/ Lot: 140/ 18 and 142/ 6	03/23/2016	☐
Clark 1712 LLC	3333 New Hyde Park Rd, Hyde Park, NY 11042 Block/ Lot: 142/ 4	03/23/2016	☐
Raritan & Central LTD, Exxon Corp	PO Box 53, Houston, TX 77056 Block/ Lot: 71/ 1	03/23/2016	☐
Clark Commons LLC	12 Rt 17N, Ste 210, Paramus, NJ 07652 Block/ Lots: 144/ 1 and 2	03/23/2016	☐
CW Assoc LLC Mack-Cali Realty Corp	PO Box 7817, Edison, NJ 08818 Block/ Lot: 144/ 2.01	03/23/2016	☐
H-Cranford Conduit LTD Partnership	400 Plaza Dr, Secaucus, NJ 07094 Block/ Lot: 541/ 2	03/23/2016	☐
Union Cty Clerk - Joanne Rajoppi	Union Cty Courthouse, 2 Broad St, Elizabeth, NJ 07207	03/23/2016	☐

ADDENDUM
Classification Exception Area / Well Restriction Area
Fact Sheet Form

Section B. CEA Component Information

1. **Contaminant(s):** This CEA/WRA applies only to contaminants above applicable numeric values established by the GWQS, N.J.A.C. 7:9C, listed in the table below. Except for historic fill CEAs based on assumed ground water contamination, list below the maximum contaminant value for all ground water data that could be representative of current conditions using any well or sampling point used to establish the CEA. The values listed below may or may not be appropriate for use in evaluating plume fate and transport. See form Instructions.

Contaminant	Concentration (1)	GWQS (2)	SWQS(3)	GWSL(4)
trans-1,2-Dichloroethene	540	100		520
Tetrachloroethene	85	1		31
Trichloroethene	420	1		2
Vinyl Chloride	800	1		1
1,4-Dioxane	79	0.4		NA
Benzene	1.4	1		20
Carbon tetrachloride	3	1		1
Chloroethane	87	5		26,000
Methylene chloride	3.4	3		920
Indeno(1,2,3-cd)pyrene	0.22	0.2		NA
Arsenic	50.9	3		NA
Chromium	3,480	70		NA
Lead	201	5		NA
Beryllium	3.9	1		NA
Cadmium	5.6	4		NA

Notes: (1) Maximum concentration in Micrograms Per Liter
(2) New Jersey Ground Water Quality Standards, N.J.A.C. 7:9C
(3) Surface Water Quality Standards, N.J.A.C. 7:9B - Applicable only where contaminants in the CEA may discharge to a surface water body.
(4) Current NJDEP Vapor Intrusion Ground Water Screening Levels

2. **CEA Boundaries:**

Blocks(s) and Lot(s) included in the areal extent of the Classification Exception Area:

Year of tax map used: 1995 For CEA revisions, check here if Block and Lot numbers have changed: ☐

Block(s)	Lot(s)	Check if off-site	Block(s)	Lot(s)	Check if off-site
71	15	☒			☐
140	18	☒			☐
142	4	☒			☐
142	6	☒			☐
144	1	☒			☐
144	2	☒			☐
144	2.01	☒			☐
541	2	☒			☐
		☐			☐

To whom it may concern. Please find attached the Classification Exception Area / Well Restriction Area (CEA/WRA) Fact Sheet Form for the following site. If you have any question, please contact one of the individuals below.

Site Name: Former Hyatt Clark Industries Site

Program Interest (PI) Number: 001205

Case Tracking Number for this submission: ISRA Case No E87769

Person Responsible for Conducting the Remediation

Full Legal Name of the Person Responsible for Conducting the Remediation:
REVITALIZATION AUTO COMMUNITIES ENVIRONMENTAL RESPONSE TRUST, A trust formed under the laws of the State of New York, by: EPLET, LLC, Administrative Trustee, Elliot P. Laws, Managing Member.

Representative First Name: Robert

Representative Last Name: Hare

Title: Cleanup Manager (IL, IN, KS, MO, NJ, WI)

Phone Number: (313) 486-2908

Mailing Address: 500 Woodward Avenue, Suite 2650

City/Town: Detroit

State: MI

Zip Code: 48226

Email Address: rhare@racertrust.com

Licensed Site Remediation Professional Information and Statement

LSRP ID Number: 575494

First Name: Christopher

Last Name: Motta

Phone Number: (201) 398-4380

Mailing Address: 17-17 Route 208 North

City/Town: Fair Lawn

State: NJ

Zip Code: 07410

Email Address: Christopher.Motta@arcadis.com

ATTACHMENT
Classification Exception Area/ Well Restriction Area
Fact Sheet Form

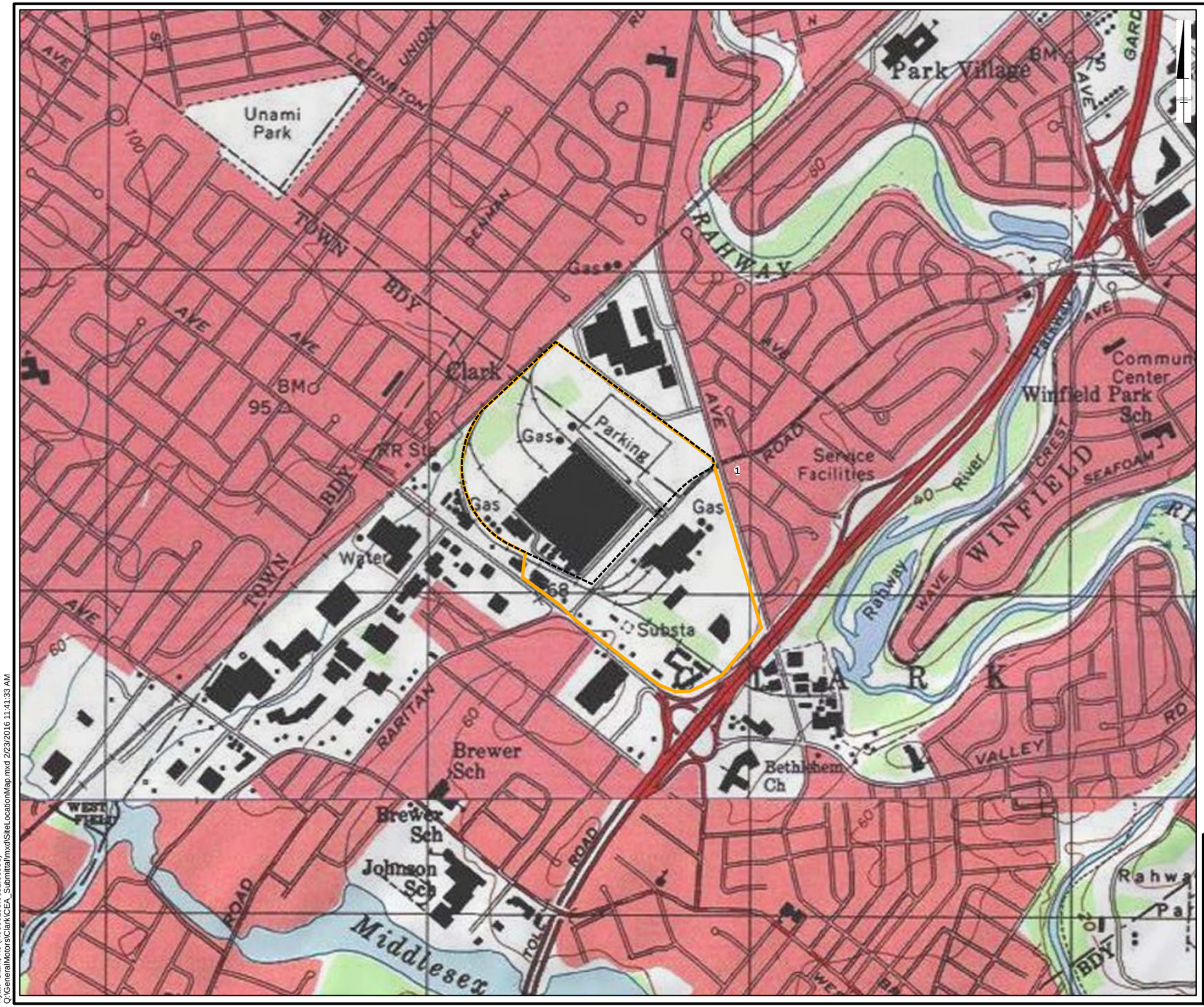
Section B. CEA Component Information

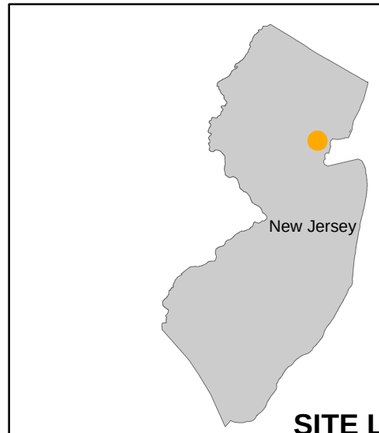
Contaminant	Concentration	GWQS	SWQS	GWSL
Cobalt	158	100		NA
Nickel	2,000	100		NA
Sodium	84,100	50,000		NA
Zinc	3,850	2,000		NA
bis(2-ethylhexyl)phthalate	55	3		NA
Petroleum hydrocarbons	LNAPL	None Noticable		NA

ATTACHMENT
Classification Exception Area/ Well Restriction Area
Fact Sheet Form

Section E. Public Notification Requirements

Entity or Owner Name	Notification Address Used	Date notification sent	Was property evaluated for vapor intrusion?
Union Cty Office of Health Management - Annarelly McNair	300 North Ave East, Westfield, NJ 07090	3/232016	
Westfield Regional Health Department - Megan Avallone	425 East Broad St, Westfield, NJ 07090	3/232016	
Clark Health Department - Nancy Raymond	430 Westfield Ave, Clark, NJ 07066	3/232016	
Clark Township Clerk - Edie Merkel	430 Westfield Ave, Clark, NJ 07066	3/232016	
Cranford Township Clerk - Tara Rowley	8 Springfield Ave, Cranford, NJ 07016	3/23/2016	





SITE LOCATION

LEGEND:

- SITE BOUNDARY
- CEA BOUNDARY

0 1,000 2,000 Feet

GRAPHIC SCALE

NOTE:
1. USGS QUADRANGLE FOR ROSELLE, NEW JERSEY OBTAINED FROM ESRI IMAGE SERVICES.

FORMER HYATT CLARK INDUSTRIES SITE
CLARK, NEW JERSEY

SITE LOCATION MAP

ARCADIS Design & Consultancy for natural and built assets

EXHIBIT
A

City: syr Div/Group: swg Created By: j.rapp Last Saved By: jrapp
Hyatt- Clark, NJ (NJ000298.0032.00006)
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City: syr Div/Group: swg Created By: jrapp Last Saved By: jrapp
Hyatt- Clark, NJ (NJ000298.0032.00006)
Q:\GeneralMotors\Clark\CEA_Submittal\mxd\CEA_BoundaryMap.mxd 2/29/2016 3:55:36 PM

LEGEND:

- SITE BOUNDARY
- CEA BOUNDARY
- MUNICIPAL BOUNDARY
- PARCEL BOUNDARY

0 500 1,000 Feet

GRAPHIC SCALE

NOTES:

1. AUGUST 5, 2013 IMAGERY OBTAINED FROM ESRI IMAGE SERVICE.
2. REFER TO APPENDIX C (GROUNDWATER MONITORING REPORT) IN THE RIR FOR GROUNDWATER ELEVATION CONTOUR MAPS SHOWING GROUNDWATER FLOW DIRECTION FOR OVERBURDEN, SHALLOW BEDROCK, AND DEEP BEDROCK.
3. REFER TO APPENDIX C (GROUNDWATER MONITORING REPORT) IN THE RIR FOR GROUNDWATER QUALITY MAPS FOR OVERBURDEN, SHALLOW BEDROCK, AND DEEP BEDROCK. ALSO, REFER TO SECTION 5.2 IN THE RIR FOR A DISCUSSION OF GROUNDWATER QUALITY.

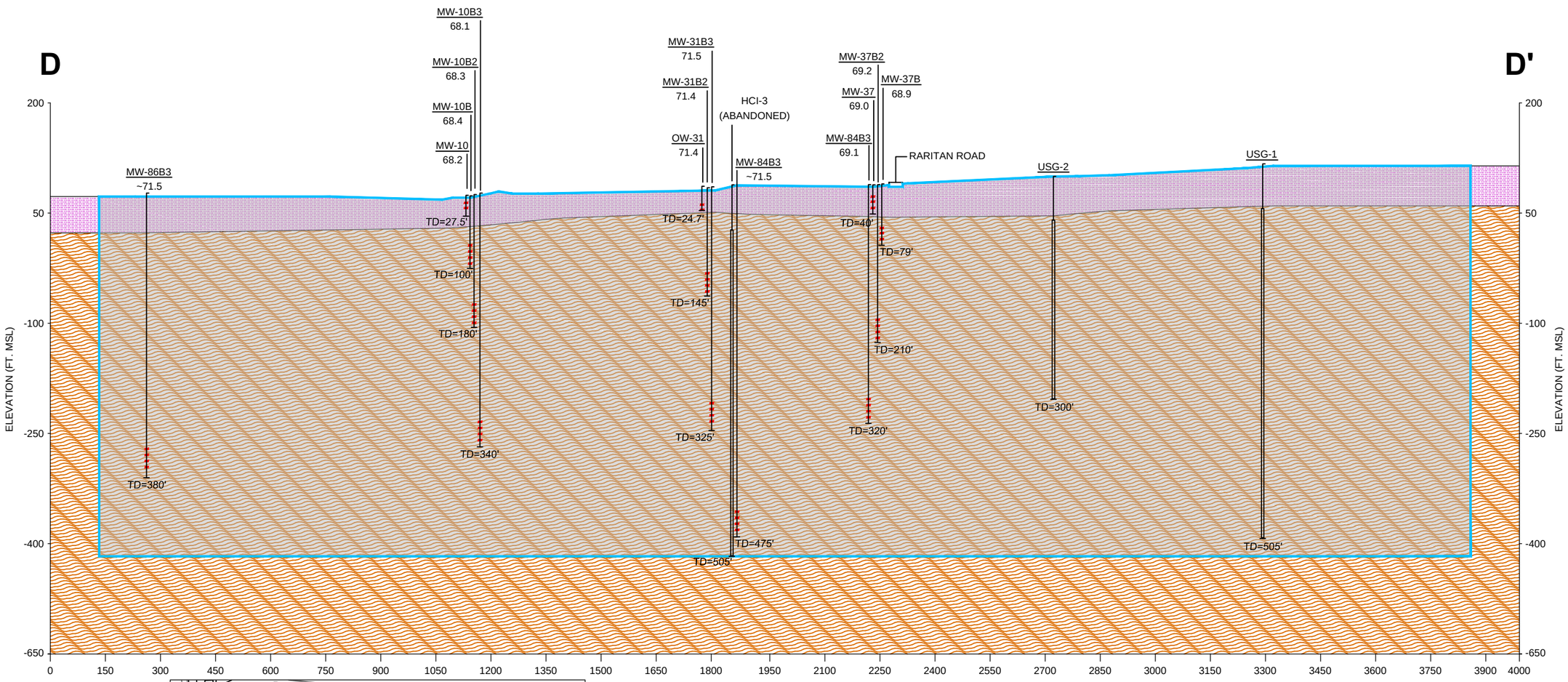
FORMER HYATT CLARK INDUSTRIES SITE
1300 RARITAN AVENUE
CLARK, NEW JERSEY

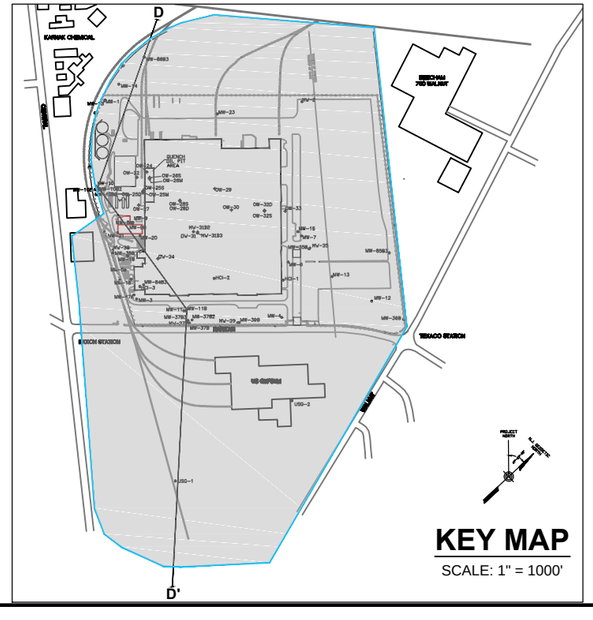
CEA BOUNDARY MAP

ARCADIS Design & Consultancy for natural and built assets

EXHIBIT
B

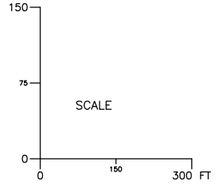
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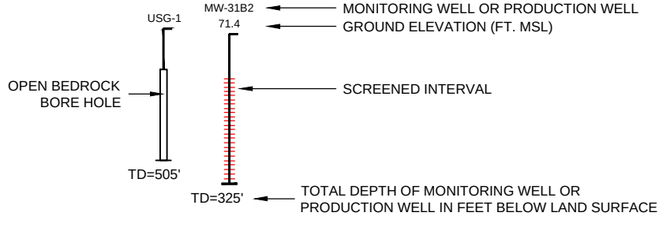




LEGEND

- OVERBURDEN
- BEDROCK - PASSAIC FORMATION SILTSTONE
- APPROXIMATE CEA EXTENT
- FT. MSL — FEET ABOVE MEAN SEA LEVEL





FORMER HYATT CLARK INDUSTRIES, INC
CLARK, NEW YORK

SCHEMATIC SECTION D-D'

ARCADIS Design & Consultancy for natural and built assets

EXHIBIT
B

APPENDIX H

Copy of Receptor Evaluation Form

New Jersey Department of Environmental Protection
Site Remediation Program

RECEPTOR EVALUATION (RE) FORM

Date Stamp
(For Department use only)

SECTION A. SITE

Site Name: Former Hyatt Clark Industries Site

Program Interest (PI) Number(s): 001205

Case Tracking Number(s) for this submission: ISRA Case No E87769

This form must be attached to the Cover/Certification Form if not submitted through the RIR Online Service

Indicate the type of submission:

☐ Initial RE Submission

☒ Updated RE Submission

Indicate the reason for submission of an updated RE form

☐ Submission of an Immediate Environmental Concern (IEC) source control report;
☒ Submission of a Remedial Investigation Report;
☐ Submission of a Remedial Action Report;

Check if included in updated RE

☐ The known concentration or extent of contamination in any medium has increased;
☐ A new AOC has been identified;
☐ A new receptor is identified;
☐ A new exposure pathway has been identified.

SECTION B. ON SITE AND SURROUNDING PROPERTY USE

1. Identify any sensitive populations/uses that are currently on-site or surrounding property usage within 200 feet of the site boundary (check all that apply):

	On-site	Off-site
None of the following	☐	☐
Residences or residential property	☐	☒
Public or Private Schools grades K-12	☐	☐
Child care centers	☐	☐
Public parks, playgrounds or other recreation areas	☐	☐
Other sensitive population use(s) Explain Golf Complex	☒	☐

If any of the above applies, attach a list of addresses, facility names, type of use, and a map depicting each location relative to the site.

2. Current site uses (check all that apply):

☐ Industrial ☐ Residential ☐ Commercial ☐ Agricultural
☐ School or child care ☐ Government ☐ Park or recreational use
☐ Vacant ☒ Other: Golf Complex

3. Planned future site uses and off-site use within 200 ft of site boundary (check all that apply):

☐ Industrial ☐ Residential ☒ Commercial ☐ Agricultural
☐ School or child care ☐ Government ☐ Park or recreational use
☐ Vacant ☒ Other: Golf Complex

Provide a map depicting the location of the proposed changes in land use. Not Applicable

SECTION C. DESCRIPTION OF CONTAMINATION

1. Identify if any of the following exist at the site (check all that apply):
   - ☒ Free product [N.J.A.C. 7:26E-1.8] identified is ☒ LNAPL* or ☐ DNAPL**. Date identified: Circa 1990
   - ☒ Residual product [N.J.A.C. 7:26E-1.8]
   - ☐ Other high concentration source materials not identified above (e.g., buried drums, containers, unsecured friable asbestos)

     Explain: _____

   * LNAPL – measured thickness of .01 feet or more

   **DNAPL – See US EPA DNAPL Overview

2. Soil Migration Pathway

   Has soil contamination been delineated to the applicable Direct Contact Soil Remediation Standard? ..... ☒ Yes ☐ No

   Are all soils either below the applicable Direct Contact Criteria or under an institutional control (i.e. deed notice)? ..... ☒ Yes ☐ No

3. If this evaluation is submitted with a technical document that includes contaminant summary information, proceed to Section D. Otherwise attach a brief summary of all currently available data and information to be included in the site investigation or remedial investigation report.

SECTION D. GROUND WATER USE

1. Has the requirement for ground water sampling been triggered? ..... ☒ Yes ☐ No ☐ Unknown
   If "No," proceed to Section F. If "Unknown," explain:

   _____

2. Is Ground water contaminated above the Ground Water Remediation Standards [N.J.A.C.7:9C]? ..... ☒ Yes ☐ No ☐ Unknown

   Or ☐ Awaiting laboratory data with the expected due date: _____

   If "Yes," provide the date that the laboratory data was available and confirmed contamination above the Ground Water Remediation Standards. Date: Circa 1988

   If "Unknown," explain: _____

   If "No," or awaiting laboratory data proceed to Section F.

3. Has ground water contamination been delineated to the applicable Remediation Standard? ..... ☒ Yes ☐ No
4. Has a well search been completed? ..... ☒ Yes ☐ No

   Date of most recent or updated well search: 09/08/2015

   Identify if any of the following conditions exist based on the well search [N.J.A.C.7:26E-1.14(a)] (check all that apply):
   - ☐ Potable wells located within 500 feet from the downgradient edge of the currently known extent of contamination.
   - ☐ Potable well located 250 feet upgradient or 500 feet side gradient of the currently known extent of contamination.
   - ☐ Ground water contamination is located within a Tier 1 wellhead protection area (WHPA).

5. Is a completed Well Search Spreadsheet or historical well search table attached and has an electronic copy of the spreadsheet been submitted to srpgis_wrs@dep.state.nj.us. ..... ☒ Yes ☐ No

   If "No," explain: _____

6. Are any private potable or irrigation wells located within ½ mile of the currently known extent of contamination? ..... ☐ Yes ☒ No

   If "Yes," was a door to door survey completed? ..... ☐ Yes ☐ No

   If survey was not completed explain: _____

7. Has sampling been conducted of ☐ potable well(s) and /or ☐ non-potable use well(s)? ..... ☐ Yes ☒ No

   If "No," provide justification then proceed to Section E.

   Not applicable. Wells are not present within the requisite distances for sampling.

8 Has contamination been identified in potable well(s) above Ground Water Remediation Standards that is not suspected to be from the site? (If "Yes," provide justification) ..... ☐ Yes ☐ No

_____

9 Has contamination been identified in potable well(s) that is above the Ground Water Remediation Standards or Federal Drinking Water Standards? ..... ☐ Yes ☐ No

Provide date laboratory data was received: _____

Or ☐ awaiting laboratory data with the expected due date: _____

If "Yes" for potable well contamination **not attributable to background**, follow the IEC Guidance Document at http://www.nj.gov/dep/srp/guidance/index.html#iec for required actions and answer the following:

Has an engineered system response action been completed on all receptors? ..... ☐ Yes ☐ No

Provide a brief narrative description:

Date completed: _____ NJDEP Case Manager: _____

10. Were Non-potable use well(s) sampled and results were above Class II Ground Water Remediation Standards? ..... ☐ Yes ☐ No

Provide date laboratory data was received: _____

Or ☐ awaiting laboratory data with the expected due date: _____

11. Has the ground water use evaluation been completed? ..... ☐ Yes ☐ No

SECTION E. VAPOR INTRUSION (VI)

1. Contaminants present in ground water exceed the Vapor Intrusion Ground Water Screening Levels that trigger a VI evaluation. (see NJDEP Vapor Intrusion Technical Guidance). ... ☒ Yes ☐ No ☐ Unknown

Or ☐ Awaiting laboratory data and the expected due date: _____

Provide the date that the laboratory data was available and confirmed contamination above the Vapor Intrusion Trigger Levels. Date: 10/01/2005

2. Other existing conditions that trigger a VI evaluation. (see NJDEP Vapor Intrusion Technical Guidance)

☐ Wet basement or sump containing free product or ground water containing volatile organics
☐ Methane generating conditions causing oxygen deficient or explosion concern
☐ Other human or safety concern from the VI pathway (i.e. elemental mercury, unsaturated contamination, elevated soil gas or indoor vapor (explain):

If you answered "No," or awaiting laboratory data to Question 1., *and* did not check any boxes in Question 2, proceed to Section F, "Ecological Receptors", otherwise complete the rest of this section.

3. Has ground water contamination been delineated to the applicable Ground Water Vapor Screening Level? ..... ☒ Yes ☐ No

4. Was a site specific screening level, modeling or other alternative approach employed for the VI pathway? ..... ☐ Yes ☒ No

5. Identify and locate on a scaled map any buildings/sensitive populations that exist within the following distances from ground water contamination with concentrations above the Vapor Intrusion Ground Water Screening Levels or specific threats (check all that apply):

☐ 30 feet of petroleum free product or dissolved petroleum hydrocarbon contamination in ground water
☒ 100 feet of any non-petroleum free product or any non-petroleum dissolved volatile organic ground water contamination
☐ No buildings exist within the specified distances

VI sampling in all buildings within 100 feet has been conducted. Refer to RIR.

6. The vapor intrusion pathway is a concern at or adjacent to the site (if "No," attach justification) ..... ☒ Yes ☐ No

7. Has soil gas sampling of the building(s) been conducted? ☒ Yes ☐ No ☐ N/A
   If "No," or "N/A," proceed to #12

8. Has indoor air sampling been conducted at the identified building(s)? ☒ Yes ☐ No
   If "No," proceed to #12

9 Has indoor air contamination been identified but not suspected to be from the site?
   (if "Yes," attach justification) ☐ Yes ☒ No

10. Indoor air results were above the NJDEP's Rapid Action Levels. ☐ Yes ☒ No

   Provide the date that the laboratory data was available. Date: 01/09/2013

   Or ☐ Awaiting laboratory data with the expected due date: _____

   If "Yes" to #10 above, follow the IEC Guidance Document at
   http://www.nj.gov/dep/srp/guidance/index.html#iec **for required actions.**

   The IEC engineering system response for control was implemented for all
   identified structures ☐ Yes ☐ No

   Date: _____ NJDEP Case Manager: _____

11. Indoor air sampling was conducted and results were above the NJDEP's Indoor Air Screening
   Levels but at or below the Rapid Action Levels ☐ Yes ☒ No

   Provide the date that the laboratory data was available. Date: _____

   Or ☐ Awaiting laboratory data with the expected due date: _____

   If "Yes" to #11 above, answer the following:

   Has the Vapor Concern (VC) Response Action Form notifying the NJDEP of the exceedances
   been submitted? ☐ Yes ☐ No

   Date: _____

   Has a plan to mitigate and monitor the exposure been submitted? ☐ Yes ☐ No

   Date: _____

   Has the Mitigation Response Action Report been submitted? ☐ Yes ☐ No

   Date: _____

12. Has the vapor intrusion investigation been completed? ☒ Yes ☐ No
   If "No", is the vapor intrusion investigation stepping out as part of the site
   investigation or remedial investigation. (If "No," attach justification) ☐ Yes ☐ No

SECTION F. ECOLOGICAL RECEPTORS

1. Has an Ecological Evaluation (EE) has been conducted? [N.J.A.C. 7:26E-1.16] ☒ Yes ☐ No

   Date conducted: 05/01/1996

2. Do the results of an EE trigger a remedial investigation of ecological receptors? [N.J.A.C. 7:26E-4.8] ☐ Yes ☒ No

3. Has a remedial investigation of ecological receptors been conducted? ☐ Yes ☒ No

   Date conducted: _____

4. Provide the following information for any surface water body on or within 200 feet of the site:

Surface Water Body Name	Stream Classification	Antidegradation Designation	Trout Production	Trout Maintenance
Unnamed man-made lined irrigation pond			☐	☐
Pond was constructed as part of, and to service, the Golf complex.			☐	☐
			☐	☐
			☐	☐
			☐	☐
			☐	☐

5. Does the site contain any features regulated by the Land Use Regulation Program (LURP)? (e.g. wetlands, flood hazard area, tidelands, etc.). ..... ☒ Yes ☐ No

   If "Yes," identify the type(s) of features: Unnamed man-made lined irrigation pond

6. Have any formal LURP jurisdiction letters or approvals been issued for the site? ..... ☐ Yes ☒ No

   If "Yes," what is the LURP Program Interest (PI) number(s) for the site? _____

7. Have any applications for formal LURP jurisdiction letters or approvals been submitted the NJDEP?..... ☐ Yes ☒ No

   If "Yes," what is the LURP Program Interest (PI) number(s) for the site? _____

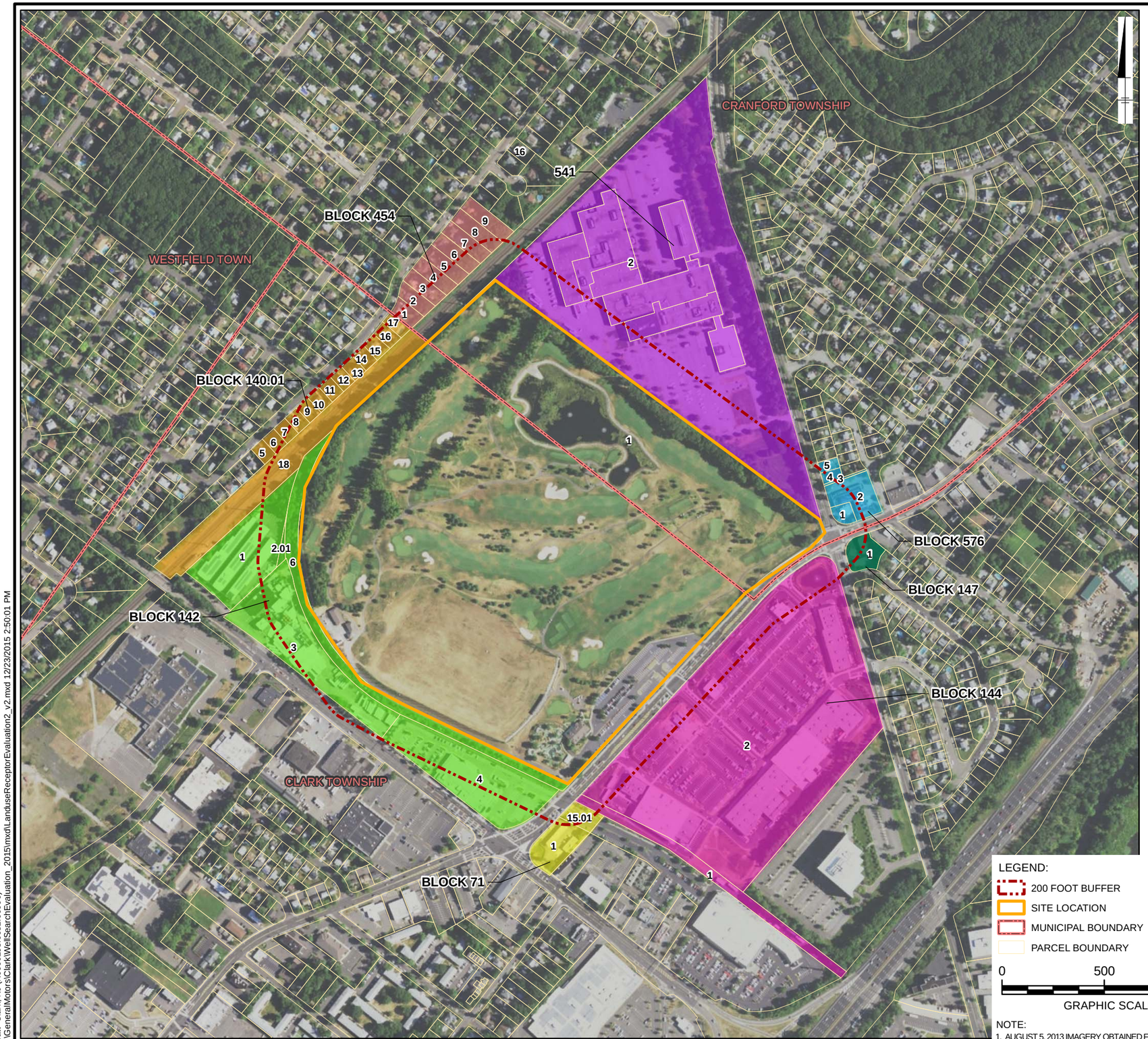
8. Is free product or residual product located within 100 feet from an ecological receptor?..... ☐ Yes ☒ No

9. Available data indicate an impact on: ☐ Ecological receptor(s) ☐ Surface water ☐ Sediment

   If this evaluation is submitted with a technical document that includes contaminant summary information, proceed to Section G. Otherwise attach a description of the type of contamination and provide a schedule and a description of all actions to be taken to mitigate exposure.

Completed forms should be sent to the municipal clerk, designate health department, and:

Bureau of Case Assignment & Initial Notice
Site Remediation Program
NJ Department of Environmental Protection
401-05H
PO Box 420
Trenton, NJ 08625-0420



MUN	BLOCK	LOT	LAND USE	PROPERTY LOCATION	OWNER	ADDRESS
2002	71	1	COMMERCIAL	162 CENTRAL AVE	RARITAN & CENTRAL LTD % EXXON CORP	P O BOX 53 HOUSTON, TX 77001
2002	71	15.01	COMMERCIAL	1225 RARITAN ROAD	CLARK 1709, LLC	33 NORTHFIELD AVE EDISON, NJ 08837
2002	140.01	5	RESIDENTIAL	66 GEORGIA ST	PATEL, NAVNITKUMAR & NAYANTARA	66 GEORGIA ST CLARK, N J 07066
2002	140.01	6	RESIDENTIAL	72 GEORGIA ST	ROKOSNY, HELEN	72 GEORGIA ST CLARK, N J 07066
2002	140.01	7	RESIDENTIAL	78 GEORGIA ST	MEDINA, LUIS & CONCEPCION	78 GEORGIA ST CLARK, N J 07066
2002	140.01	8	RESIDENTIAL	84 GEORGIA ST	ESTEVES, LUIS & MARIA F	84 GEORGIA ST CLARK, N J 07066
2002	140.01	9	RESIDENTIAL	90 GEORGIA ST	O'BRIEN, EDWARD H & GERDA A	90 GEORGIA ST CLARK, N J 07066
2002	140.01	10	RESIDENTIAL	96 GEORGIA ST	REY, ANA MARIA	96 GEORGIA ST CLARK, NJ 07066
2002	140.01	11	RESIDENTIAL	102 GEORGIA ST	FREDERICK, ARNISE	102 GEORGIA ST CLARK, NJ 07066
2002	140.01	12	RESIDENTIAL	108 GEORGIA ST	ALBRECHCINSKI,HENRY & TESSIE	108 GEORGIA ST CLARK, N J 07066
2002	140.01	13	RESIDENTIAL	114 GEORGIA ST	TAVALARO, THOMAS	114 GEORGIA ST CLARK, N J 07066
2002	140.01	14	RESIDENTIAL	120 GEORGIA ST	GIANNETTA, VITO & NANCY J	120 GEORGIA ST CLARK, N J 07066
2002	140.01	15	RESIDENTIAL	126 GEORGIA ST	JAMEER, RAUL ARIF & AMANDA A	126 GEORGIA ST CLARK, NJ 07066
2002	140.01	16	RESIDENTIAL	132 GEORGIA ST	FENCIK, ROBERT & CATHERINE	132 GEORGIA ST CLARK, N J 07066
2002	140.01	17	RESIDENTIAL	138 GEORGIA ST	FURFERO, LORRAINE	138 GEORGIA ST CLARK, N J 07066
2002	140.01	18	RAIL	LEHIGH VALLEY RAILROAD	CONSOLIDATED RAIL CORP	744 BROAD ST NEWARK, N J 07102
2002	142	1	COMMERCIAL	CENTRAL AVE	ACCESS SELF-STORAGE OF CLARK,L.L.C.	212 GATES ROAD LITTLE FERRY, NJ 07643
2002	142	2.01	RAIL	CENTRAL AVE-REAR	UNKNOWN	UNKNOWN
2002	142	3	INDUSTRIAL	330 CENTRAL AVE	LEWIS ASPHALT ENG CORP	330 CENTRAL AVE CLARK, N J 07066
2002	142	4	COMMERCIAL	142 CENTRAL AVE	CLARK 1712 LLC	3333 NEW HYDE PARK RD HYDE PARK, NY 11042
2002	142	6	RAIL	LEHIGH VALLEY RAILROAD	CONSOLIDATED RAIL CORP	744 BROAD ST NEWARK, N J 07102
2002	144	1	RAIL	LEHIGH VALLEY RAILROAD	CLARK COMMONS LLC	12 ROUTE 17 NORTH, ST 210 PARAMUS, NJ 07652
2002	144	2	COMMERCIAL	1255 RARITAN ROAD	CLARK COMMONS LLC	12 ROUTE 17 N. SUITE 210 PARAMUS, NJ 07652
2002	147	1	COMMERCIAL	1401-1411 RARITAN ROAD	EXXON CORP (FOR: PLATT, M & TRACKIM W)	8 MEADOW CT NEW PROVIDENCE, NJ 07974
2003	454	1	RESIDENTIAL	41 GEORGIA ST	GOYDIC, JAMES & MICHELE	41 GEORGIA ST CRANFORD, NJ 07016-2741
2003	454	2	RESIDENTIAL	39 GEORGIA ST	KAIN, JOHN & PHYLLIS	39 GEORGIA ST CRANFORD, NJ 07016-2741
2003	454	3	RESIDENTIAL	37 GEORGIA ST	GROSSMITH, RONALD & LORI	37 GEORGIA ST CRANFORD, NJ 07016-2741
2003	454	4	RESIDENTIAL	35 GEORGIA ST	BRANNA, AUGUST & PENELOPE	35 GEORGIA ST CRANFORD, NJ 07016-2741
2003	454	5	RESIDENTIAL	33 GEORGIA ST	ANSTATT, ROBERT M & NORMA G	33 GEORGIA ST CRANFORD, NJ 07016-2741
2003	454	6	RESIDENTIAL	31 GEORGIA ST	SCULLY, MICHAEL F & VERONICA	31 GEORGIA ST CRANFORD, NJ 07016-2741
2003	454	7	RESIDENTIAL	29 GEORGIA ST	FLOYD, KEVIN & MARTA	29 GEORGIA ST CRANFORD, NJ 07016-2741
2003	454	8	RESIDENTIAL	27 GEORGIA ST	HERBERT, WILLIAM J	27 GEORGIA ST CRANFORD, NJ 07016-2741
2003	454	9	RESIDENTIAL	25 GEORGIA ST	MEROLA, RICCARDO A & SHARYN M	25 GEORGIA ST CRANFORD, NJ 07016-2741
2003	541	1	COMMERCIAL	1300 RARITAN RD	RACER PROPERTIES, LLC	500 WOODWARD AVENUE DETROIT, MI 48226
2003	541	2	COMMERCIAL	750 WALNUT AVE	H-CRANFORD CONDUIT LTD PARTNERSHIP	400 PLAZA DR SECAUCUS, NJ 07094-3688
2003	576	1	COMMERCIAL	1230 RARITAN RD	NICELO CRANFORD, LLC	777 WALNUT AVE CRANFORD, NJ 07016-3395
2003	576	2	COMMERCIAL	777 WALNUT AVE	NICELO CRANFORD, LLC	777 WALNUT AVE CRANFORD, NJ 07016-3395
2003	576	3	COMMERCIAL	WALNUT AVE	TOWNSHIP OF CRANFORD	8 SPRINGFIELD AVE CRANFORD, NJ 07016-2199
2003	576	4	RESIDENTIAL	767 WALNUT AVE	TWASKAS, JAMES A & KATHLEEN A	767 WALNUT AVE CRANFORD, NJ 07016-3376
2003	576	5	RESIDENTIAL	765 WALNUT AVE	KATZ, MICHAEL & DONNA	765 WALNUT AVE CRANFORD, NJ 07016-3376

FORMER HYATT CLARK INDUSTRIES SITE
1300 RARITAN AVENUE
CLARK, NEW JERSEY

LAND USE RECEPTOR EVALUATION

ARCADIS

FIGURE
B-1

City: syr Div/Group: swg Created By: jrapp Last Saved By: kives
Hyatt- Clark, NJ (NJ000298.0032.00006)
Q:\GeneralMotors\Clark\WellSearchEvaluation_2015\mxd\LanduseReceptorEvaluation2_v2.mxd 12/23/2015 2:50:01 PM

SITE NAME	Former Hyatt Clark Industries Site		Enter no information beyond column B
SITE STREET ADDRESS	1300 Raritan Road		
SITE COUNTY (select)	Union		
SITE MUNICIPALITY (select)	Clark Twp		
PROGRAM INTEREST (PI) ID # :	001205		
SOURCE COORDINATE X		545607	
SOURCE COORDINATE Y		655082	
GROUNDWATER FLOW DIRECTION USED (if any)	SE		
WERE APPLICABLE WELL TYPES FOUND? (Yes/No)	Yes		
IS THIS SUBMISSION AN UPDATE? (Yes/No)	Yes		
AUTHOR (name of company)	ARCADIS, U.S., Inc.		
AUTHOR STREET ADDRESS (include town and zip code)	8 South River Road, Cranbury, NJ 08512		
LSRP LICENSE NUMBER OVERSEEING WORK	512653		
LSRP NAME OVERSEEING WORK	Christopher Motta		
PROFESSIONAL WHO PREPARED SUBMISSION	Jeremy Cuccuini		
EMAIL CONTACT	jeremy.cuccuini@arcadis-us.com		
PHONE CONTACT	609-860-0590		

Download_Documen	Permit_Number		Well_Use	Potentially_Potable	Document	Date (permitted/drille	Physical_Address	County	Municipality	Block	Lot	Location_Method	Easting_X	Northing_Y	Distance_(feet)	Depth (feet)	Capacity (gal/min)	COORD_METHOD	TOP_OPEN_INT	BOT_OPEN_INT	STATIC_LEVEL	STATUS	WELL_SAMPLED?
	P200913649		Irrigation	Yes	Record	12/1/2009	1715 BOYNTON AVENUE	Union	Westfield Town	5712	10	GPS	542563	657165	3688	120	10					Owner Unavailable	
	P200913351	RW-7	Recovery	No	Record	11/19/2009	222 TERMINAL AVENUE	Union	Clark Twp	58	2	GPS	541990	653670	3883	20	0					Owner Unavailable	
	P200913350	RW-6	Recovery	No	Record	11/20/2009	222 TERMINAL AVENUE	Union	Clark Twp	58	2	GPS	541960	653700	3900	25	0					Owner Unavailable	
	P200913349	RW-5	Recovery	No	Record	11/19/2009	222 TERMINAL AVENUE	Union	Clark Twp	58	2	GPS	541980	653650	3900	30	0					Owner Unavailable	
	P200802906	RW-4	Recovery	No	Record	1/14/2009	200 TERMINAL AVE.	Union	Clark Twp	58	2	GPS	541966	653708	3892	25	0					Owner Unavailable	
	2600001310		Domestic	Yes	Record	11/3/1955	JOHN ST	Union	Clark Twp	0	0	Prop Loc - Dig Image	547241	650997	4400	98	0					Owner Unavailable	
	2600001303	1	Domestic	Yes	Record	10/21/1955	15 CLARK STREET	Union	Cranford Twp	463	16	Prop Loc - Dig Image	544139	659085	4264	150	0					Owner Unavailable	
	2600000015	1	Domestic	Yes	Record	3/18/1948	1517 RAHWAY AVENUE	Union	Westfield Town	5112	27	Prop Loc - Hard Copy	539572	655703	0	111	0					Owner Unavailable	
	2600000006	1	Domestic	Yes	Record	12/21/1947	1532 RAHWAY AVENUE	Union	Westfield Town	5207	8	Prop Loc - Hard Copy	539575	654286	0	116	0					Owner Unavailable	
	2600002015		Domestic	Yes	Record	5/15/1959	73 WESTFIELD AVE	Union	Clark Twp	116	9	Prop Loc - Dig Image	548269	650999	4874	160	20					Owner Unavailable	
	2600001952		Domestic	Yes	Record	12/6/1958	LIBERTY AVE	Union	Clark Twp	0	0	Prop Loc - Dig Image	548269	650999	4874	106	8					Owner Unavailable	
	2600001819		Domestic	Yes	Record	4/26/1958	131 DENMAN ROAD	Union	Cranford Twp	489	4	Prop Loc - Dig Image	546192	660439	5388	107	0					Owner Unavailable	
	2600001754		Domestic	Yes	Record	1/3/1958	RIVERSIDE DR	Union	Clark Twp	75	17	Prop Loc - Hard Copy	545749	651668	0	123	0					Owner Unavailable	
	2600001753		Domestic	Yes	Record	1/15/1957	78 KING ST	Union	Clark Twp	73	6	Prop Loc - Hard Copy	545749	651668	0	100	10					Owner Unavailable	
	2600001682	1	Industrial	Yes	Record	9/1/1957	TERMINAL AVENUE #133	Union	Clark Twp	60	4	Prop Loc - Dig Image	543123	653686	2850	250	0					Owner Unavailable	
	2600002177		Domestic	Yes	Record	2/12/1960	330 PARKWAY DRIVE	Union	Clark Twp	157	9	Prop Loc - Dig Image	549291	653700	3935	121	15					Owner Unavailable	
	2600002176		Domestic	Yes	Record	2/20/1960	332 PARKWAY DRIVE	Union	Clark Twp	157	9	Prop Loc - Dig Image	549291	653700	3935	110	12					Owner Unavailable	
	2600034221	RW1	Recovery	No	Record	8/18/1993	100 TERMINAL AVENUE	Union	Clark Twp	58	4	Prop Loc - Hard Copy	542656	655709	0	40	0					Owner Unavailable	
	2600042381	RW-1	Recovery	No	Record	10/20/1995	200-222 TERMINAL AVE.	Union	Clark Twp	58	2	Prop Loc - Hard Copy	542659	654292	0	27	0					Owner Unavailable	
	2600043953	RW-2	Recovery	No	Record	3/21/1996	200-222 TERMINAL AVE.	Union	Clark Twp	58	2	Prop Loc - Hard Copy	542659	654292	0	35	0					Owner Unavailable	
	2600003784		Domestic	Yes	Permit	3/10/1996	86 PARKWAY DRIVE	Union	Clark Twp	150	4	Prop Loc - Hard Copy	547744	655720	0	150	10					Owner Unavailable	
	2600066048	RW-03	Recovery	No	Record	11/1/2002	200 L'OREAL WAY	Union	Clark Twp	58	2	Prop Loc - Hard Copy	541659	652975	0	30	0					Owner Unavailable	
	2600082785		Industrial	Yes	Record	5/16/1976	160 TERMINAL AVENUE	Union	Clark Twp	58	3	DEP Program Database	542195	654899	0	300	190					Owner Unavailable	
	2600082785	WELL 1	Cooling-Industrial	No	Permit, Record	3/21/2007	160 TERMINAL AVENUE	Union	Clark Twp	58	3		542060	654170		300	240					Owner Unavailable	
	2600004671	RETURN WELL 3	Cooling-Industrial	No	Permit, Record	6/29/1976	160 TERMINAL AVENUE	Union	Clark Twp	58	3		541914	654355		300	0					Owner Unavailable	
	2600004667	RETURN WELL 2	Cooling-Industrial	No	Permit, Record	5/26/1976	160 TERMINAL AVENUE	Union	Clark Twp	58	3		541837	654283		300	0					Owner Unavailable	

APPENDIX I

Conceptual Site Model

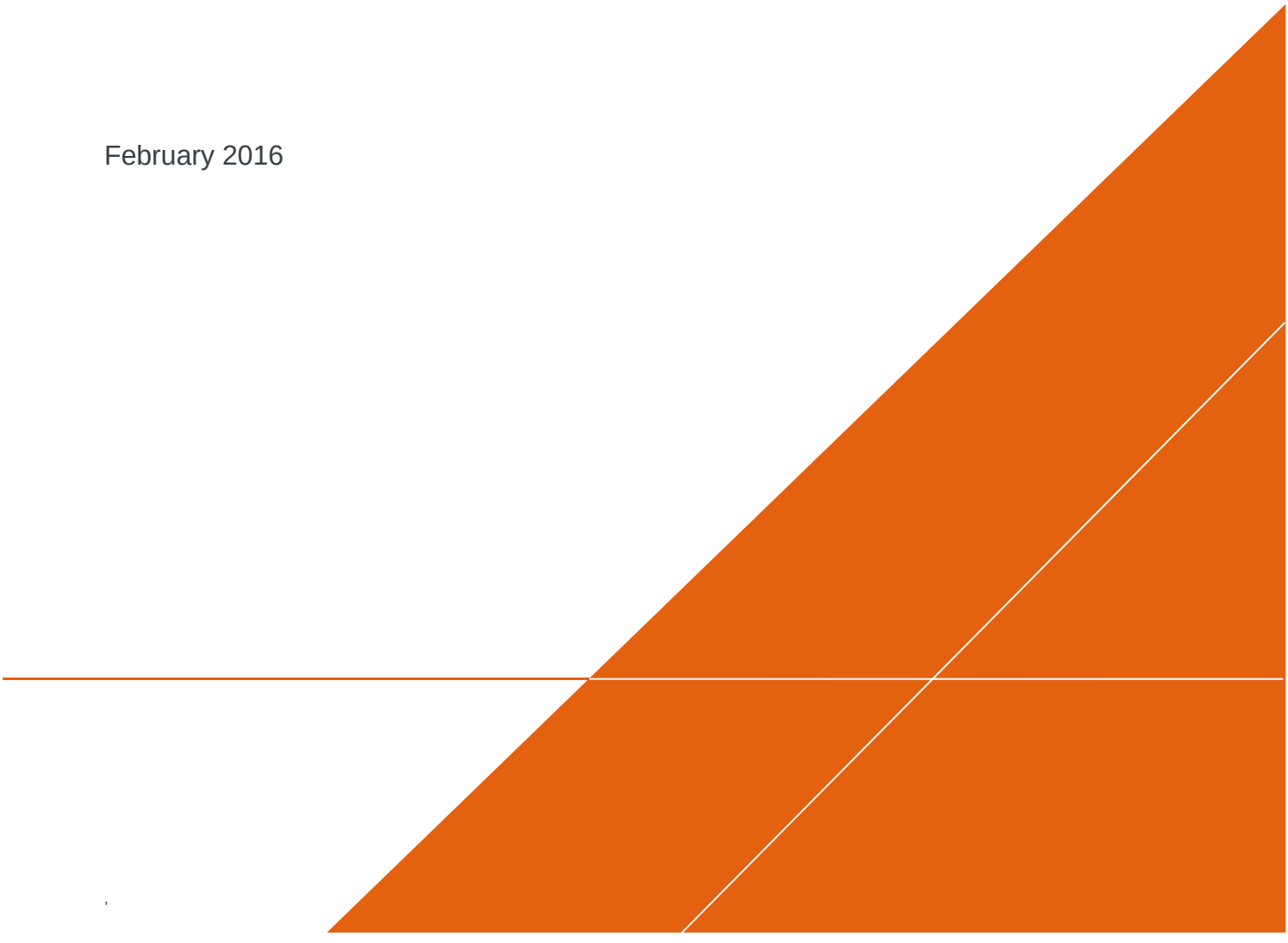
ARCADIS Design & Consultancy for natural and built assets

RACER Trust

CONCEPTUAL SITE MODEL FOR GROUNDWATER

Former Hyatt Clark Industries, Inc. Site

February 2016



CONCEPTUAL SITE MODEL FOR GROUNDWATER

Former Hyatt Clark Industries, Inc. Site

Prepared for:
RACER Trust

Prepared by:
Arcadis U.S., Inc.
17-17 Route 208 North
Fair Lawn
New Jersey 07410
Tel 201 797 7400
Fax 201 797 4399

Our Ref.:
NJ000298.0033

Date:
February 2016

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ACRONYMS AND ABBREVIATIONS

CFC-11	trichlorofluoromethane
CSM	conceptual site model
CVOC	chlorinated volatile organic compound
DCA	dichloroethane
DCE	dichloroethene
ft bgs	feet below ground surface
gpm	gallons per minute
LNAPL	light non-aqueous phase liquid
µg/L	micrograms per liter
PCE	tetrachloroethene
RCRA	Resource Conservation and Recovery Act
RIR	Remedial Investigation Report
TCA	trichloroethene
TCE	trichloroethene

1 INTRODUCTION

This document and its attachments form a conceptual site model (CSM) for groundwater at the Former Hyatt Clark Industries, Inc. Site (Site), in Clark, New Jersey. The model provides a condensed, descriptive interpretation of the Site's environmental condition based on the work completed at the Site to date and publicly available information.

2 SITE DESCRIPTION

The Site is a former auto parts manufacturing facility that operated for 50 years prior to closure in 1989. The former plant occupies about 87 acres within a fully developed mixed-use suburban area in northeast New Jersey (**Figure 1**). The Site lies in a gently rolling lowland between the Rahway River and Robinsons Branch, which both drain to the southeast. Robinsons Branch is dammed to form the Middlesex Reservoir, a former public water supply. Currently, all local public water supply wells are greater than 0.5 mile from the Site. (See the receptor evaluation in **Appendix H** of the Remedial Investigation Report [RIR].)

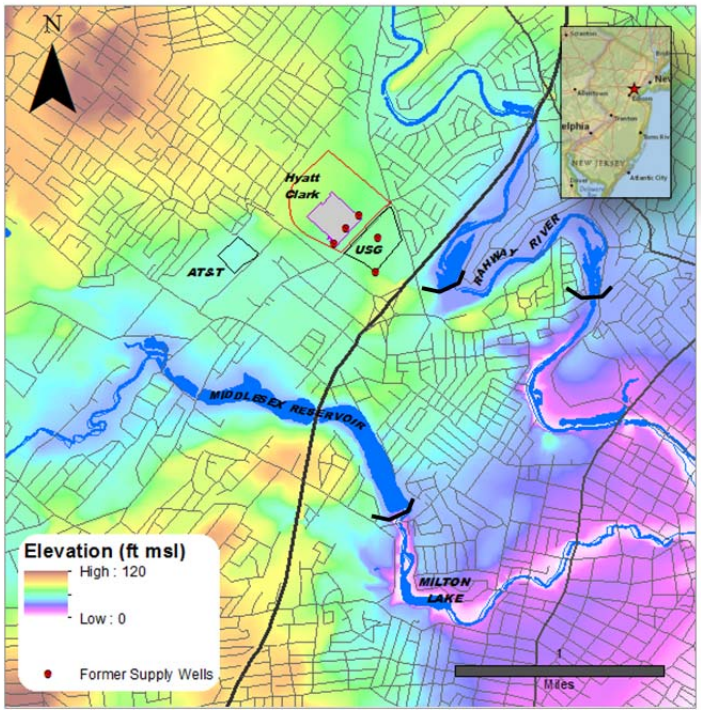


Figure 1 Site Vicinity

Color shading indicates surface elevation. Hyatt Clark plant building and supply wells no longer exist.

After closure, the Site was redeveloped. All former plant structures were razed as part of decommissioning and cleanup program efforts in the 1990s. Since 2002, the Site property has been used as a public golf course. **Figure 2** highlights several key historical features:

- The former manufacturing building, a large multi-purpose building and the principal structure on the Site
- Three former bedrock industrial supply wells, each 500 feet deep, that operated throughout the period of plant operations and played a major role in groundwater flow and contaminant transport
- The former quench pits area (part of the ball bearing manufacturing process), which is the apparent source of a mixed-constituent

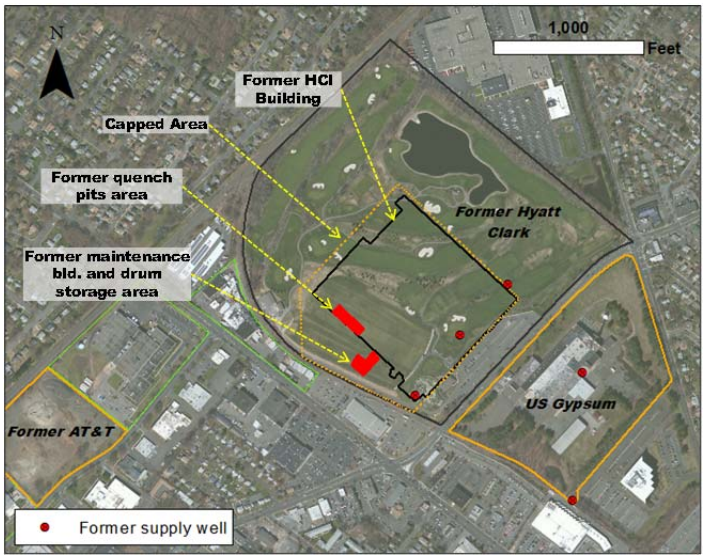


Figure 2 Site Layout and Key Historical Features

quench-oil light non-aqueous phase liquid (LNAPL) plume in that area

- The former maintenance building and drum storage area, southeast of the manufacturing building, an area interpreted to be the primary source of chlorinated volatile organic compounds (CVOCs) to groundwater on the Hyatt Clark facility.

Figure 2 also shows the perimeter of a remedial cap, installed prior to golf course construction to limit infiltration within areas of LNAPL or other potential shallow source materials.

The Site vicinity includes multiple current and former industrial properties. Two sites (shown on **Figures 1** and **2**) are integral to this CSM:

- The former AT&T Submarine Systems facility, a known source of background CVOC contamination to bedrock groundwater
- The former U.S. Gypsum facility, which operated two bedrock industrial supply wells that influenced groundwater flow prior to shutdown in 2010.

3 CHRONOLOGY

The chronology of industrial operations at the Site and neighboring facilities is a controlling factor on the area's current environmental condition (**Figure 3**). Even though the precise timing of releases of CVOCs is unknown for either the AT&T or Hyatt Clark Sites, both facilities operated over a period of decades, overlapping for nearly 30 years in the 1960s, 1970s, and 1980s. While the Hyatt Clark facility was active, its three industrial supply wells (with a cumulative pumping rate of up to 1,500 gallons per minute [gpm]) exerted a major hydraulic stress on the bedrock aquifer. Through most of this period, U.S. Gypsum also operated its two supply wells at up to an additional 500 gpm. After the Hyatt Clark Facility closed, U.S. Gypsum continued to operate its supply wells for 20 more years, ending in 2009. Only since 2009, or approximately the last 5 years, has major water withdrawal in the area ceased. As discussed later, the major pumping demand placed on the groundwater system over the last 50 years help explain the current nature and extent of contaminants.

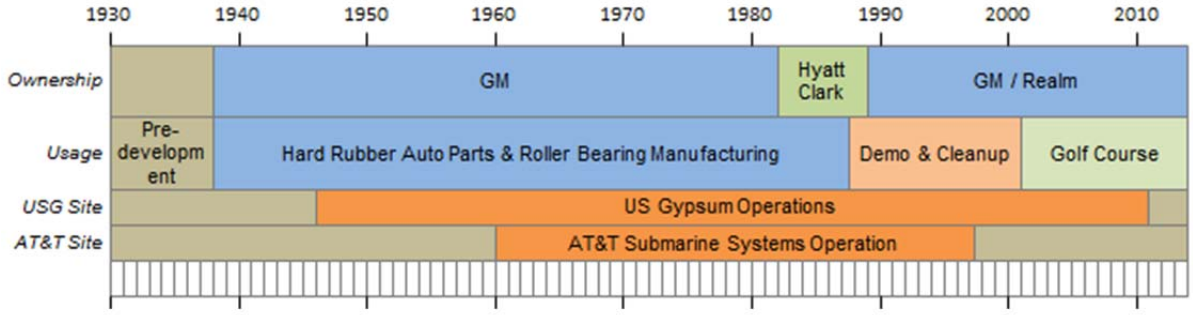


Figure 3 **Generalized Timeline of Former Hyatt Clark, U.S. Gypsum and AT&T Facilities**

4 HYDROGEOLOGIC FRAMEWORK

The Site and vicinity overlies a veneer of fill and till above sedimentary bedrock. The generalized stratigraphy is shown on **Figure 4** and includes the following:

- Fill (10 to15 feet thick). Mixed materials, generally unsaturated.
- Rahway Till (typically 15 to 20 feet thick). Dense, generally silty fine sand, with gravel, occasional clay lenses. The till is a low permeability unit that limits infiltration to the rock beneath.
- Passaic Formation (more than 3,000 feet thick). Locally siltstone to silty sandstone facies. Shallow zone acts as a hydraulic transition zone. Groundwater flow in unit is fracture-dominated.

The Passaic Formation is a regionally extensive unit underlying a broad section of northern New Jersey. Both regionally and locally, the rock exhibits a generally uniform structure: striking southwest-to-northeast and dipping toward the northwest. Geophysical logging of multiple deep bedrock boreholes at the Site has demonstrated highly uniform bedding, oriented as follows:

- Mean strike of bedding: 231° (SW-NE)
- Mean dip of bedding: 12° NW

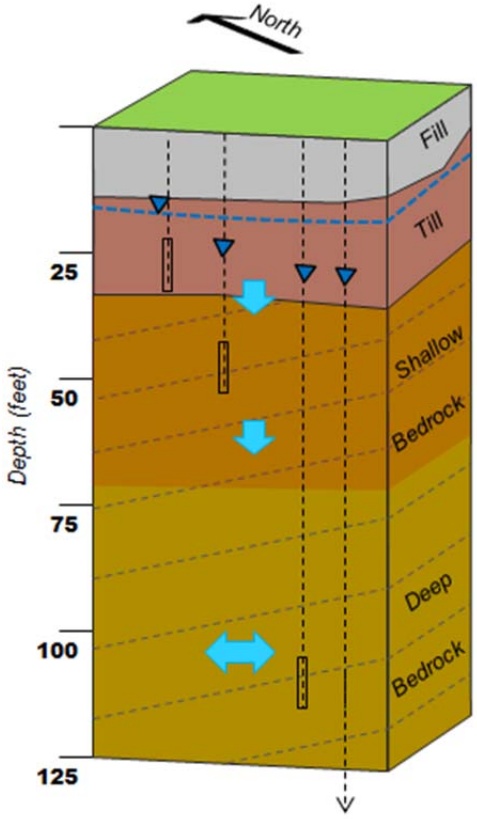


Figure 4 Generalized Stratigraphic Column.

Blue arrows indicate dominant gradient direction in zone. Dashed gray lines illustrate strike and dip of bedding. Deep bedrock zone encompasses wells as deep as 500 ft.

Consistent with the regional model of flow in the Passaic Formation (Michalski 2010), bedding plane fractures appear to be the dominant element in the permeability structure of the rock. Fractures that are oriented on bedding planes are both more frequent and more laterally extensive than fractures oriented traverse to bedding, such as joints. The dominance of bedding imparts anisotropy on the permeability of the rock, favoring flow in the plane of bedding over flow that crosses bedding (stair-stepping either up or down through the strata). Because the Passaic Formation is dipping, the structural anisotropy also affects lateral flow. Flow moving along strike is effectively able to stay within a bedding plane, and is favored. Flow moving perpendicular to strike must move across bedding, either up or down the stratigraphic section, and is less favored. Regionally, an anisotropy ratio of 10 to 1 is considered a good approximation for horizontal hydraulic conductivity parallel to strike versus perpendicular to strike (Spayd and Johnson 2003).

The bedrock can be described as consisting of shallow and deep hydrostratigraphic zones, roughly divided at a depth of 75 feet below ground surface (ft bgs; as shown on **Figure 4**). This division is not based on stratigraphy, but on hydraulic characteristics. The shallow bedrock zone is a transitional boundary between the unconfined till unit above and the semi-confined deep bedrock system below.

Weathering and more intense fracturing increase the interconnectivity in the shallow bedrock, reducing the anisotropy and heterogeneity relative to deeper rock. The potentiometric surface in shallow bedrock generally resembles the water table in the overlying till, reflecting strong hydraulic communication between the units. Gradients within shallow bedrock are downward, however, transitioning from higher heads in the till with lower heads in the deep bedrock. These properties are gradational, such that vertical gradients decrease and heads become more uniform as depths approach 75 feet.

5 SURFACE WATER CONTROLS ON GROUNDWATER FLOW

In the absence of major pumping stresses, the strongest controls on area-wide groundwater flow patterns are the locations and stages (elevations) of surface water bodies and the spatial relationship of those bodies to bedrock anisotropy. The Rahway River and Middlesex Reservoir (**Figure 5**) are the chief basin-scale controls on groundwater flow. Note that the stage of each water body, as they descend towards the southeast, is controlled by dams. Although the Middlesex Reservoir and the upstream reach of the Rahway River nearest the Site may act as discharge boundaries for shallower groundwater, deeper flow will likely travel farther southeast to the lower surface water elevations below the dams (e.g., downward gradients in deep bedrock and the absolute groundwater elevations in deep bedrock do not support discharge to the higher stages upstream of the dams).

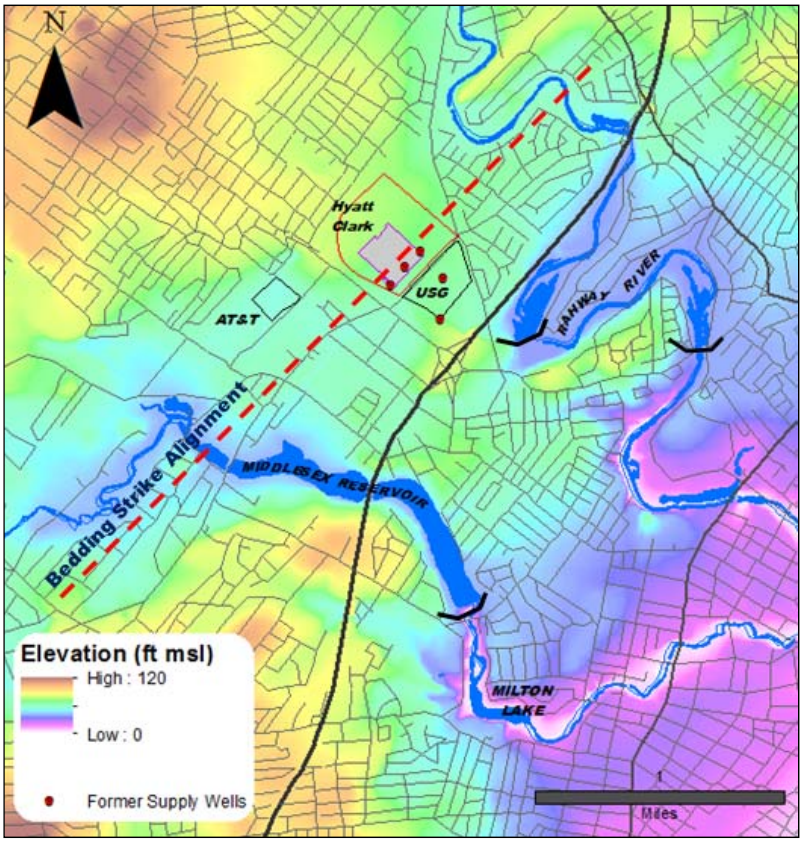


Figure 5. Site Vicinity

Shows major drainages and alignment of dominant bedrock bedding strike. Locations of dams are shown with black brackets.

For bedrock groundwater to flow to the Rahway River southeast of the Site, flow paths must move perpendicular to the dominant direction of bedrock strike (see the dashed line on **Figure 5**). While anisotropy favors flow parallel to strike, flow perpendicular to strike can occur via stair-stepping between bedding-plane fractures and joints, as long as a sufficient gradient exists. As illustrated on **Figure 6**, a flow path in shallow bedrock from the Site to the southeast must continually stair-step cross bedding. Flow in deeper bedrock, however, may follow bedding planes up-dip to the southeast, a path that requires less stair-stepping and allows groundwater to move more efficiently toward the Rahway River.

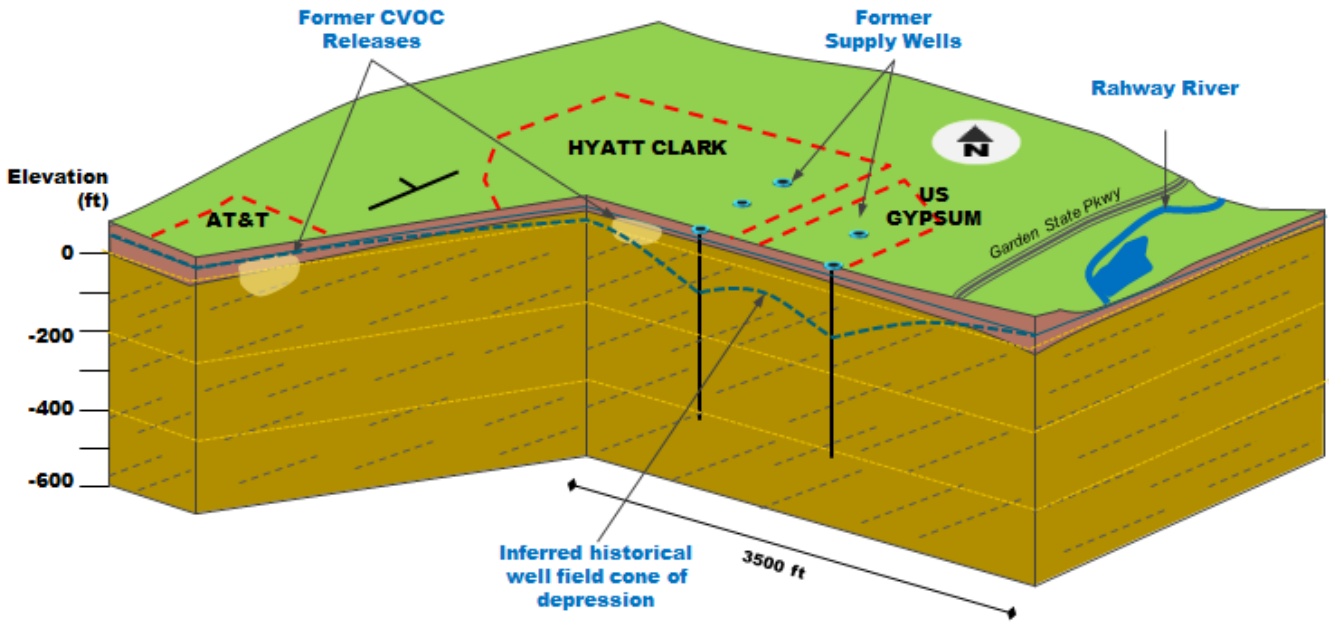


Figure 6. Generalized Model of Site Vicinity

Gray dashed lines depict approximately orientation (strike and dip) of bedding. Historical pumping cone of depression is inferred and shown for illustrative purposes. Scales are approximate.

6 PUMPING WELLS

Patterns of groundwater flow at and around the Site over time have been controlled by groundwater withdrawals from several high-capacity groundwater supply wells. Although the major pumping wells in the site vicinity have all ceased operation, significant pumping did occur throughout the majority of the past 60 years. The current observed distribution of CVOCs in bedrock is consistent with that associated with the past operation of the pumping wells.

The primary pumping wells relevant to the Site are as follows (**Figure 6**):

- Three former supply wells, each approximately 500 feet deep, serviced the Hyatt Clark facility. The wells reportedly operated from the 1940s until 1988 at a cumulative flow rate of up to 1,500 gpm. The wells were abandoned after plant closure.
- Two supply wells operated by U.S. Gypsum, completed to depths of 300 and 505 feet. These wells are reported to have operated from 1946 until 2009, at a cumulative rate of up to 500 gpm. Of the two wells, the deeper well (located in the southern corner of the U.S. Gypsum property) is reported to have been the primary well, and the shallower well was operated less frequently as a supplemental supply well. The two wells were abandoned after plant closure.

The well search reported in Appendix H of this this RIR identified a number of additional wells, shallow and deep, that may operate presently or historically in the Site vicinity. The well search identified several

wells, particularly at industrial properties located along Terminal Avenue southwest of the AT&T Site. It is possible that one or more of the wells in this area are operational, and if so they may have localized influence on transport of the AT&T site impacts. No available data, however, suggest that current pumping in the area has a measurable hydraulic influence at the Hyatt Clark Site or within the CVOC plume related to the Site.

The prior high-capacity pumping of Hyatt Clark's three supply wells over a period of more than 40 years has two critical implications for this CSM:

- Because the supply wells operated adjacent to the areas of CVOC releases at the Hyatt Clark facility, groundwater impacts were contained within the capture zone of the well network, and could not form an extensive plume.
- The pumping has drawn flow and CVOC transport from the AT&T facility onto the Hyatt Clark facility in deep bedrock.

The pumping effects are likely to have captured overburden as well as bedrock groundwater at the Site. The presence of cutting-oil LNAPL in shallow bedrock wells (screened approximately 20 feet below estimated non-pumping water levels), indicates that water levels were drawn down into bedrock near the former quench pits area.

In 1988, the Hyatt Clark supply wells stopped pumping, significantly changing the flow dynamics at the Site and in the surrounding area. As a result, dissolved CVOCs beneath the Site (including impacts drawn there from the AT&T site) were no longer contained on site. After 1988, the U.S. Gypsum wells, which had been pumping along with the Hyatt Clark wells for decades, became the only significant pumping influence in the area. Analysis of the capture zone of the U.S. Gypsum wells (reported in Resource Conservation and Recovery Act [RCRA] Environmental Indicators CA750 Report, Arcadis 2005) predicted that groundwater beneath the entire area of impacts at the Site was now captured by those wells. **Figure 7** illustrates the predicted capture envelop for deep bedrock. The pathlines on **Figure 7** illustrate several important points:



Figure 7. Simulated Groundwater Pathlines in Deep Bedrock Modeled with U.S. Gypsum Wells Pumping.

Model includes with 10:1 horizontal anisotropy, aligned with strike. Excerpted from Figure C-10 in the RCRA Environmental Indicators CA750 Report (Arcadis 2005).

- Anisotropy in bedrock drives flow in elongated arcs that spread along strike rather than taking the most direct path toward the pumping wells. (A conceptual analogy is to picture the spreading path of water poured on corrugated roofing if the channels were oriented perpendicular to the roof slope rather than directly downslope.)
- Even though anisotropy affects flow patterns, groundwater still travels toward the southeast, stair-stepping across bedding. The distribution of dissolve CVOCs, including impacts at the U.S. Gypsum wells, verifies that flow perpendicular to strike occurred (and is ongoing based on water elevation data and related flow field evaluation).

The U.S. Gypsum plant was idled in September 2009, ending the period of major groundwater withdrawals in the area.

7 CURRENT PATTERNS OF GROUNDWATER FLOW

Under the current conditions, groundwater in deep bedrock follows a natural course and flows towards surface water. Groundwater in the overburden and shallow bedrock will also flow towards surface water, except in the vicinity of an active on-site LNAPL recovery system operated in the vicinity of the former quench pits area. LNAPL recovery, which is accomplished using total fluids pumping, creates an on-site capture zone in the western portion of the Site. Operation of the LNAPL recovery system pumps at an average rate of approximately 1 to 2 gpm. The extent of LNAPL is stable.

Outside of the on-site capture zone, the direction of groundwater flow in overburden and shallow bedrock is southeast, consistent with flow toward the Rahway River. Groundwater contour figures are provided in **Appendix C** of the RIR and illustrate these shallow patterns of flow.

Interpretation of groundwater flow in deep bedrock requires that several factors be considered as follows:

- The distribution of CVOCs is not a reliable indicator of the current groundwater flow due to storage and back-diffusion of mass distributed in the rock under pumping-induced flow conditions that no longer exist.
- The anisotropy of bedrock means that the direction of maximum hydraulic gradient may not be the direction of groundwater flow. A 10-to-1 ratio of horizontal hydraulic conductivity, mentioned previously, suggests that flow could veer away from the direction of maximum gradient if it is not aligned with one of the principal axes of anisotropy (as is the case at the Site and surrounding area). Under these conditions, groundwater flow will follow paths that include running along bedding planes parallel to strike and stair-stepping across beds where fractures present themselves.
- There is no single planar surface through the bedrock that could be used to generate a fully representative potentiometric surface because the most likely pattern of flow includes vertical and cross-bed flow in addition to lateral transport. Heads measured at a constant elevation are the most straightforward representation of the potentiometric surface, though heads on a single bedding plane also provide a valid potentiometric surface to evaluate groundwater flow.
- Hydraulic gradients in bedrock at and near the Site are gentle (0.001), which can present additional uncertainty about the direction of flow.

Despite these factors, the dominant gradient direction in deep bedrock is consistently found to trend toward the southeast. **Figure 8** depicts the distribution of heads measured within one representative equal-elevation horizon in bedrock. Note that there is very little head difference among the wells, but that the general trend is for heads to decrease to the southeast.

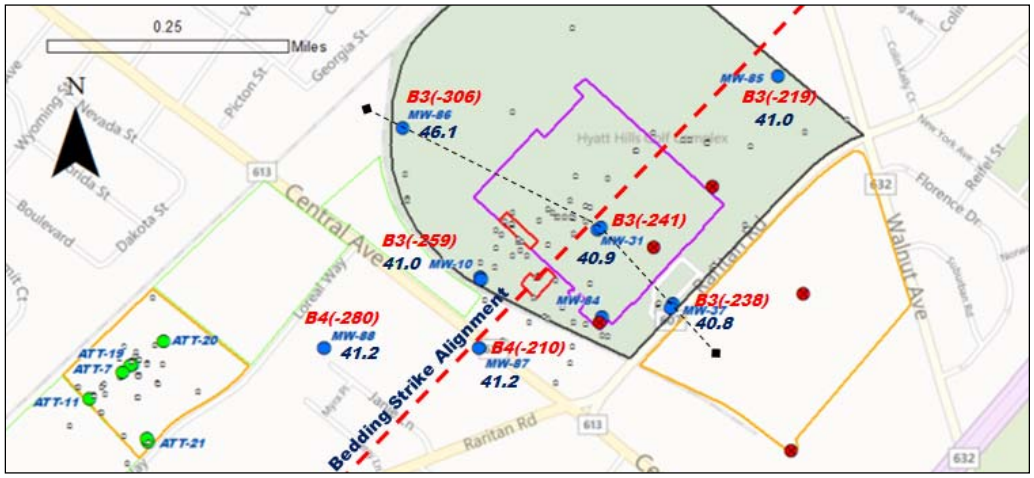


Figure 8. Heads Measured in Deep Bedrock at Wells Screened -310 to -210 ft mls.

Posted heads in feet above mean sea level, as measured October 28, 2013. Red labels indicate specific wells posted, and the mid-point elevation of the well screen. Dashed black line shows line of section for schematic figure below.

In addition to a plan-view representation of heads, a head profile, as shown on **Figure 9**, provides information on the direction of groundwater flow. In profile, a net hydraulic gradient perpendicular to strike is also present, even though vertical variability is also apparent. Not only do heads generally decrease moving to the southeast, they decrease as you move across-strata to greater depths.

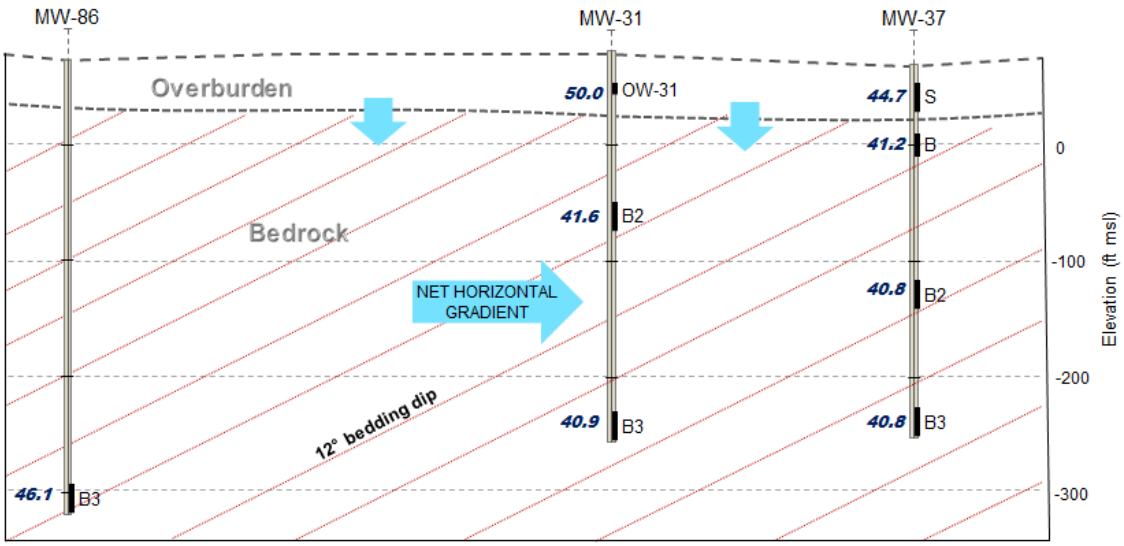


Figure 9. Schematic Cross-Section Illustrating the Distribution of Head Perpendicular to Strike

Posted heads in feet above mean sea level, as measured October 28, 2013. Horizontal scale approximate.

Evaluating the distribution of heads along discrete bedding planes provides additional information on groundwater flow in bedrock. **Figure 10** depicts heads with respect to a number of bedding planes extrapolated to intersect four multi-level wells. This depiction illustrates that, although the net southeast gradient is still apparent, gradients are not necessarily aligned from one bedding plane to another. The path of groundwater could be expected to follow a tortuous path, stair-stepping between bedding planes while making horizontal progress to the southeast.

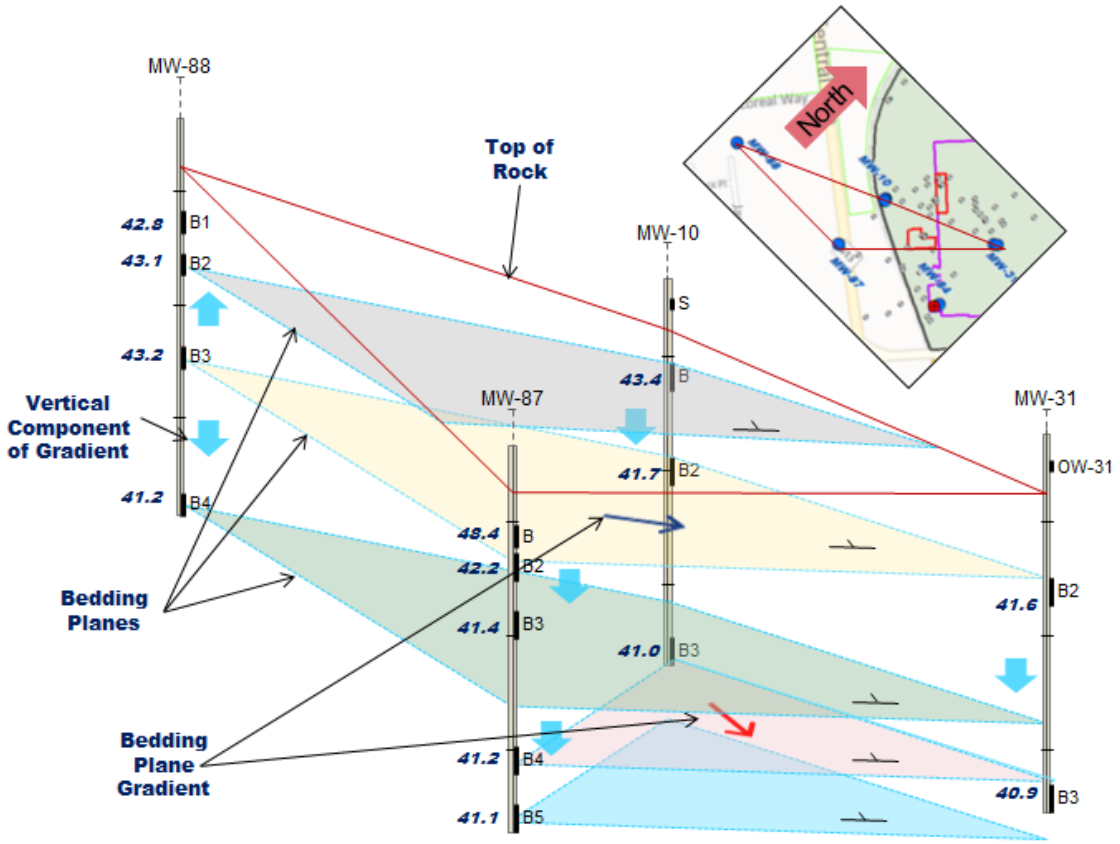


Figure 10. Fence Diagram Illustrating Idealized Bedding Planes

Posted heads in feet above mean sea level, as measured October 28, 2013.

One potential effect of stair-stepping and the tortuosity of flow in bedrock is illustrated on **Figure 11,** which shows an interpretation of flow patterns in the area of wells MW-10 and MW-21 based on head measurements and the bedrock structure. Even though the net flow direction in both the overburden and in bedrock is to the southeast, the difference in heads between the overburden and deep bedrock drives downward flow through shallow bedrock. When moving in the vertical direction, the anisotropy of the rock will tend to divert flow down-dip, which in this case is in a direction opposite to the overall hydraulic gradient. This presumed "jug-handle" flow pattern may explain the VOCs detected in MW-10B that appear to be from the former maintenance building and drum storage area. Although MW-10B appears to be upgradient of this source area in both overburden and bedrock, the water elevation data indicate that the well is actually downgradient of the source area along the plane of bedding.

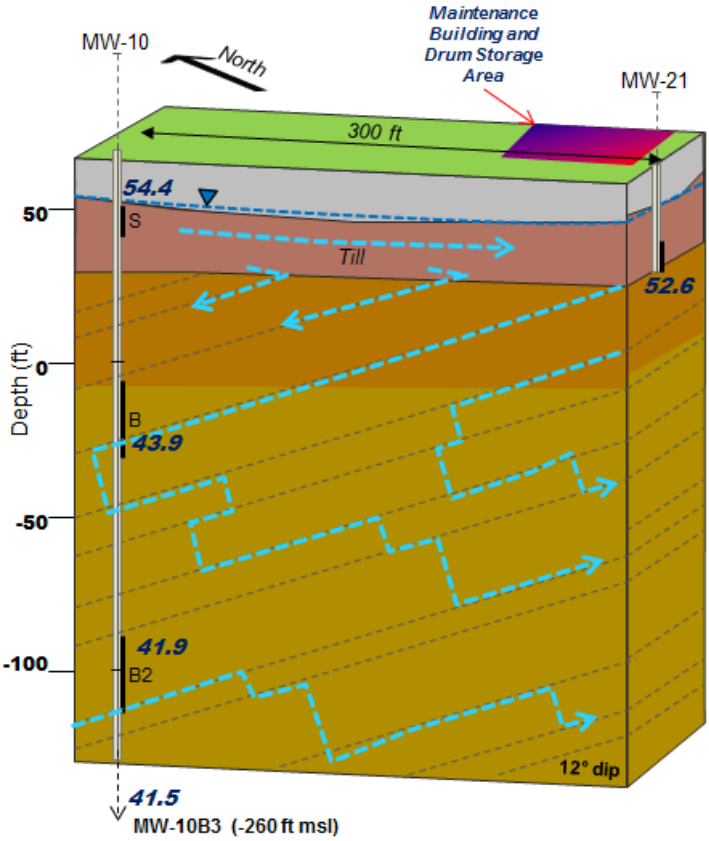


Figure 11. Schematic Block Diagram Illustrating an Interpretation of Flow Patterns in the Vicinity of the Former Maintenance Building and Drum Storage Area

Posted values are groundwater elevations measured 9/30/2013.

8 NATURE AND EXTENT OF IMPACTS

The principal constituents of concern in groundwater at the Site are CVOCs, chiefly the compounds tetrachloroethene (PCE), trichloroethene (TCE), 1,1,1-trichloroethane (1,1,1-TCA), and several daughter products formed from these compounds. The daughter products are frequently a major component of the VOCs mixture detected at the Hyatt Clark Site. The compounds cis-1,2-dichloroethene (cis-1,2-DCE), vinyl chloride, 1,1-dichloroethene (1,1-DCE), and 1,1-dichloroethane (1,1-DCA) are frequently present.

The apparent primary origin of CVOCs detected in shallow groundwater is the former location of the maintenance building and drum storage area near the southwestern edge of the Site (see **Figure 2**). No significant unsaturated zone concentrations of CVOCs were found anywhere on the Site; however, the drum storage area and maintenance building were known to manage CVOC-containing materials, and this area corresponds with the highest concentrations of CVOCs detected in shallow groundwater.

Considering the size and nature of operations at the former plant, other CVOC releases may have occurred, accounting for some minor irregularities in the distribution and nature of impacts. However, the overall uniformity of the Hyatt Clark CVOC constituent mixture, particularly in shallow bedrock, suggests

that only a single primary source area (i.e., the drum storage and maintenance area) accounts for the detectable CVOCs in groundwater.

The suite of detected CVOCs at the Site overlaps the suite detected at the AT&T facility, though there are some clear differences that distinguish each site's impacts. **Figure 12** illustrates the distribution of CVOCs detected in overburden and shallow bedrock groundwater at the two sites. The compound 1,1,1-TCA and its breakdown products 1,1-DCE and 1,1-DCA are a distinct component of Hyatt Clark VOCs, but are not a significant component of AT&T CVOCs.

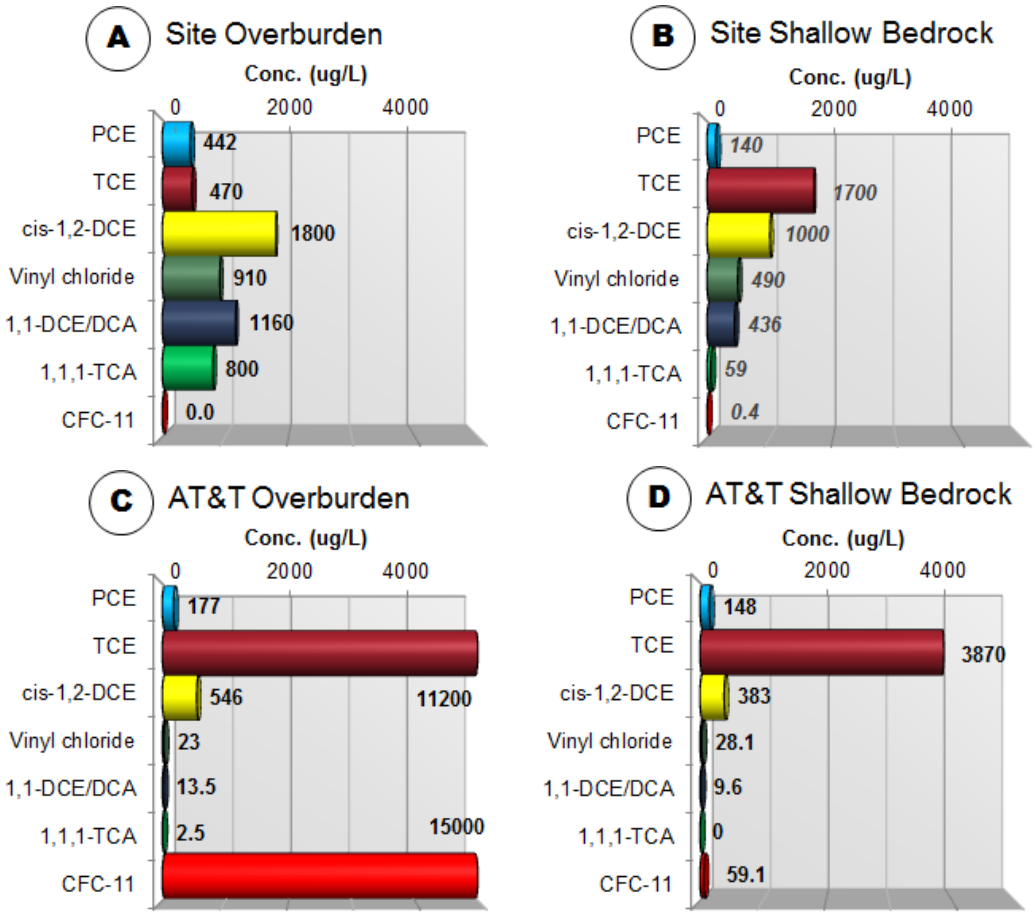


Figure 12. Maximum Historical Groundwater Concentration of Major VOCs Detected at Hyatt Clark Site (Site) and AT&T Submarine Systems Site (AT&T).

Shallow bedrock encompasses wells screened in rock to depths less than approximately 100 ft bgs. 1,1-DCE/DCA reflects sum of 1,1-DCE and 1,1-DCA concentrations. AT&T data based on review of publicly available reports (GeoTrans 2006, 2008, 2010). Hyatt Clark data based on database search encompassing more than 1500 samples collected 1988 to present.

This comparison makes several distinctions apparent:

- Although TCE is present in groundwater at both sites, the maximum concentrations of TCE are much higher at the AT&T site, reflecting a more significant source.
- The ratio of PCE to TCE is higher in the Hyatt Clark samples than in AT&T samples.
- The Hyatt Clark CVOCs include a greater fraction of TCE daughter products (cis-1,2-DCE and vinyl chloride) than the AT&T CVOCs.
- The compound trichlorofluoromethane (CFC-11) is a clear marker of AT&T VOCs. CFC-11 is present in AT&T VOCs, but is not a significant component of Hyatt Clark CVOCs.

The distinct characteristics of Hyatt Clark and AT&T groundwater are most apparent when considering the changing constituent mixture along a profile between the two sites. **Figure 13** depicts data from five multiple-depth well clusters located on a roughly west-to-east transect.

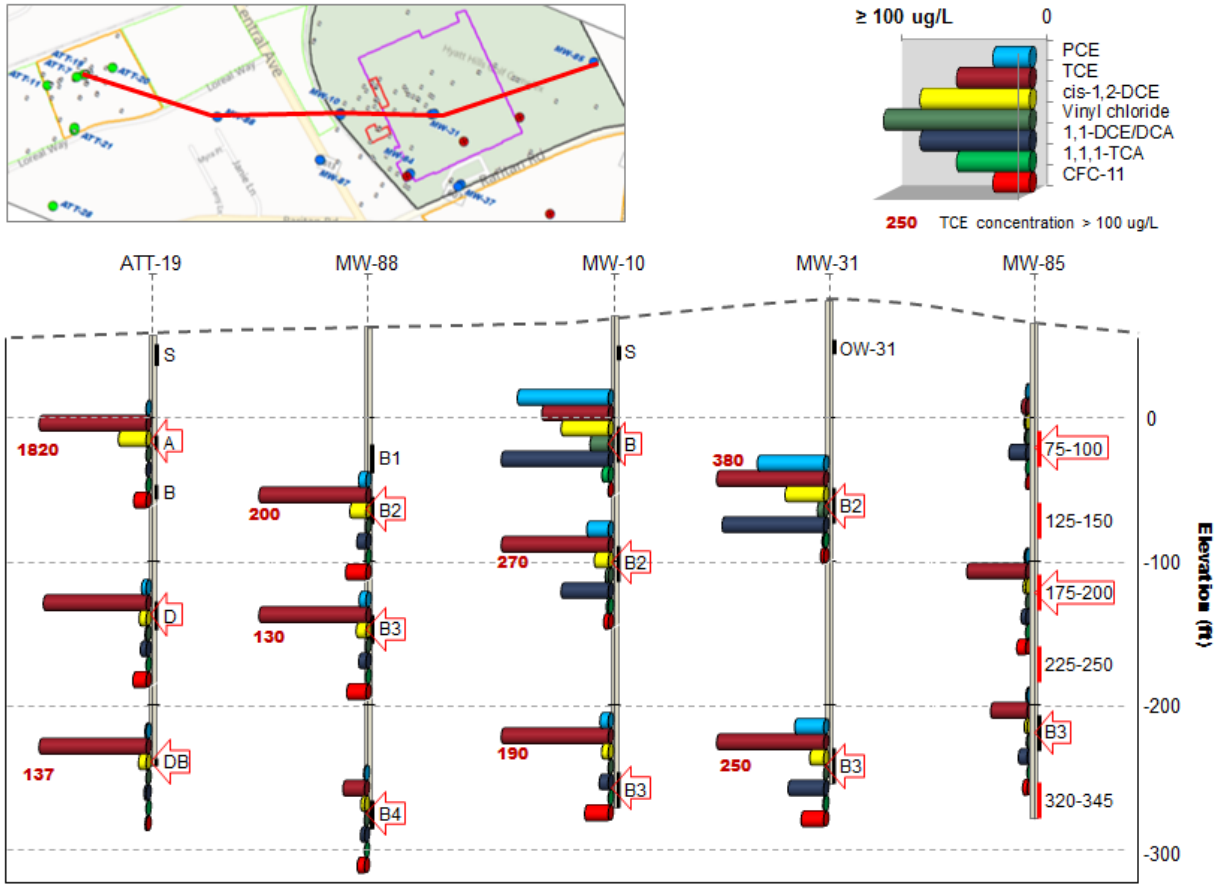


Figure 13. Schematic Cross-Section Illustrating Major VOC Detections in Bedrock Groundwater.

Red arrows indicate the sample interval plotted. Black bars indicate screen interval; red bars denote a packer test interval. Hyatt Clark well data from fall 2012 and 2013. MW-85 packer test results from June 1999. ATT-19 data from April 2008 (GeoTrans 2010). Horizontal axis not to scale.

The figure illustrates several important findings regarding the nature and extent of impacts:

- The distinct AT&T CVOC signature (e.g., TCE-dominant, minimal PCE, low levels of daughter products, CFC-11 present) extends from the AT&T site source areas deep into bedrock and laterally beneath the Hyatt Clark Site.
- The Hyatt Clark CVOC signature (e.g., comparable levels of PCE TCE, high 1,1-DCE and 1,1-DCE, with 1,1,1-TCA present) is found most clearly in shallow bedrock on site (e.g., MW-10 and MW-31).

At increasing depths beneath the Site, the two source signatures become commingled. For example, at MW-31B3, the mixture includes both CFC-11 (diagnostic of the AT&T plume), and elevated PCE and 1,1-DCE/1,1-DCA (characteristic of the Hyatt Clark shallow sources).

The distribution of CVOC impacts (as illustrated on **Figure 13**) likely reflects transport under historical pumping conditions rather than present day conditions. Note that well MW-31 is located only about 300 feet north of the central well of the three former 500-foot-deep Hyatt Clark supply wells. Decades of pumping from those wells would have driven flow downward from above and created flow inward from a broad catchment. Operation of the pumping wells would have limited the lateral distribution of on-site impacts because those impacts would have been captured by the pumping wells. However, impacted groundwater at the AT&T site would have been transmitted, essentially along the strike direction, to the pumping wells.

The evaluation of CVOC signatures illustrated on **Figure 13** can be extended to other deep bedrock well locations to help make a source attribution. Attachment 1 to this CSM presents bar plots for additional deep bedrock wells associated with the investigation of the Hyatt Clark Site and bedrock wells associated with the investigation of the AT&T site. This evaluation also includes sample results from the two U.S Gypsum industrial supply wells, which were sampled once in 1997. The CVOC mixture detected in samples from the U.S. Gypsum wells was nearly a perfect match to the AT&T signature (**Figure 14**). Though it is possible that some fraction of the TCE or the trace levels of 1,1,1-TCA detected in the U.S. Gypsum wells originated from Hyatt Clark sources, the relative contribution from Hyatt Clark sources is clearly minor.

In map view, the attribution of CVOCs to either Hyatt Clark or AT&T sources is consistent with expected patterns of flow under historical pumping conditions (**Figure 15**). Pumping at the Hyatt Clark Site and at U.S. Gypsum appears to have “dragged” the AT&T impacts over a significant swath of the area, a distribution exacerbated by the anisotropy in the bedrock. By comparison, impacts associated with the Hyatt Clark sources are contained near the former well field, primarily on-site, with a potential extension onto the U.S. Gypsum property.

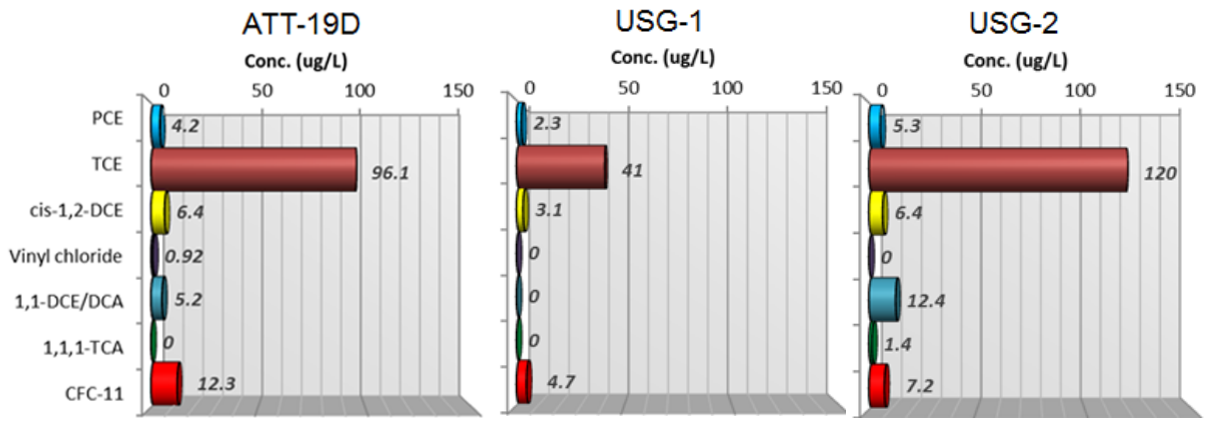


Figure 14. Distribution of Major VOCs Detected in Bedrock Groundwater at AT&T Site, and in U.S. Gypsum Supply Wells.

ATT-19D data from April, 2008. U.S. Gypsum data from December 1997. USG-1 and USG-2 were active water supply wells at the time of sampling, open from 70 to 505 ft bgs and 70 to 300 ft bgs, respectively. ATT-19D is screened 186 to 206 ft bgs. Non-detect results plotted as zero micrograms per liter (µg/L).

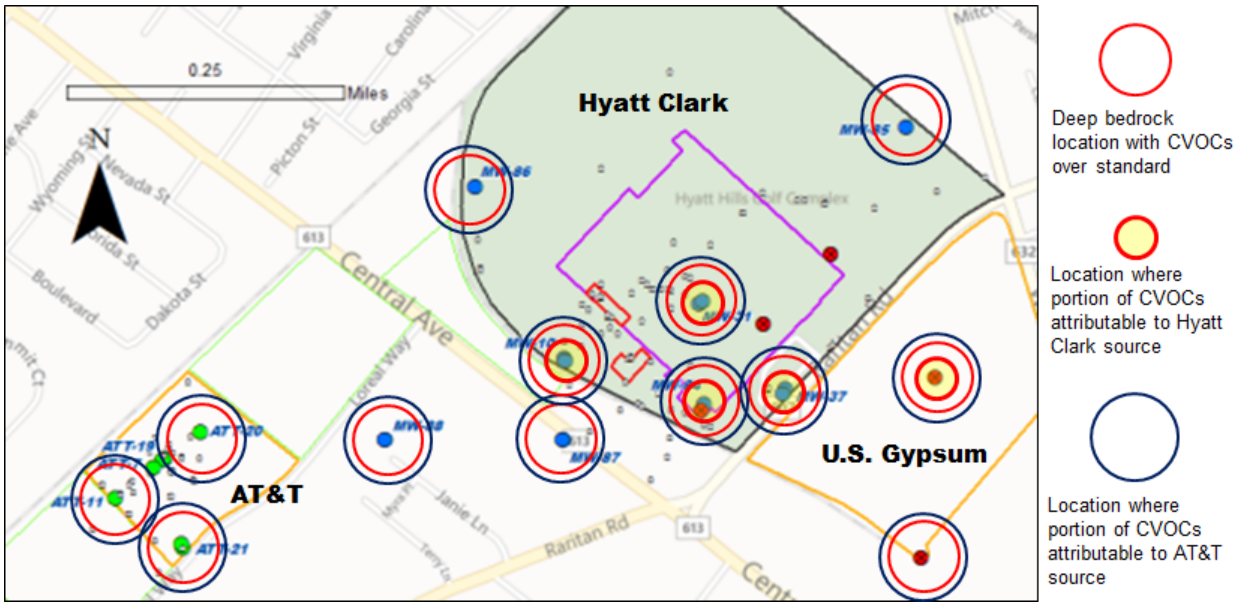


Figure 15. Interpretation of VOC Source Attribution for Deep Bedrock Wells.

If any well in a vertical cluster exhibits attributes of a particular source, location is flagged.

9 CONCLUSIONS

Dissolved CVOCs sourced from the former Hyatt Clark Site are present in a complex, commingled bedrock plume, to which the former AT&T Submarine Systems site is the most significant source. Historical industrial water-supply pumping, which largely contained the Hyatt Clark-sourced plume,

contributed to spreading of the AT&T plume and explains the current broad distribution of CVOC impacts in bedrock in the site vicinity.

Although the extent of CVOC-impacted groundwater in the site vicinity has not been fully delineated, the nature and extent of the Hyatt Clark-sourced CVOCs in groundwater have been characterized. The bedrock groundwater impacts sourced from the Hyatt Clark Site have migrated southeast from the on-site source areas, drawn in that direction by the U.S. Gypsum supply wells (between 1988 and 2010) and more recently under the natural gradient toward the Rahway River. Fate-and-transport analysis (**Appendix G** of the RIR) demonstrates that Hyatt Clark-sourced impacts will naturally attenuate before reaching the River. Based on the fate-and-transport analysis and the CSM presented here, the extent and future transport patterns of bedrock groundwater impacted by Hyatt Clark sources are understood sufficiently to conclude that there are no complete human health or ecological pathways.

10 REFERENCES

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GeoTrans, Inc. 2008. Supplemental Groundwater Remedial Investigation, AT&T Corp, Former Clark Shop Facility, ISRA Case No. 97187, June 2008.

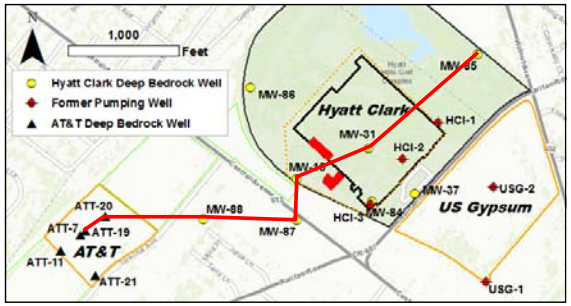
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Spayd, S. E., and Johnson, S. W. 2003. Guidelines for delineation of well head protection areas in New Jersey. New Jersey Department of Environmental Protection, New Jersey Geological Survey, Trenton.

ARCADIS Design & Consultancy for natural and built assets

Attachment 1



EXPLANATION

MW-1 ← Location or well cluster ID

45-65 ← Packer test (depth in feet)

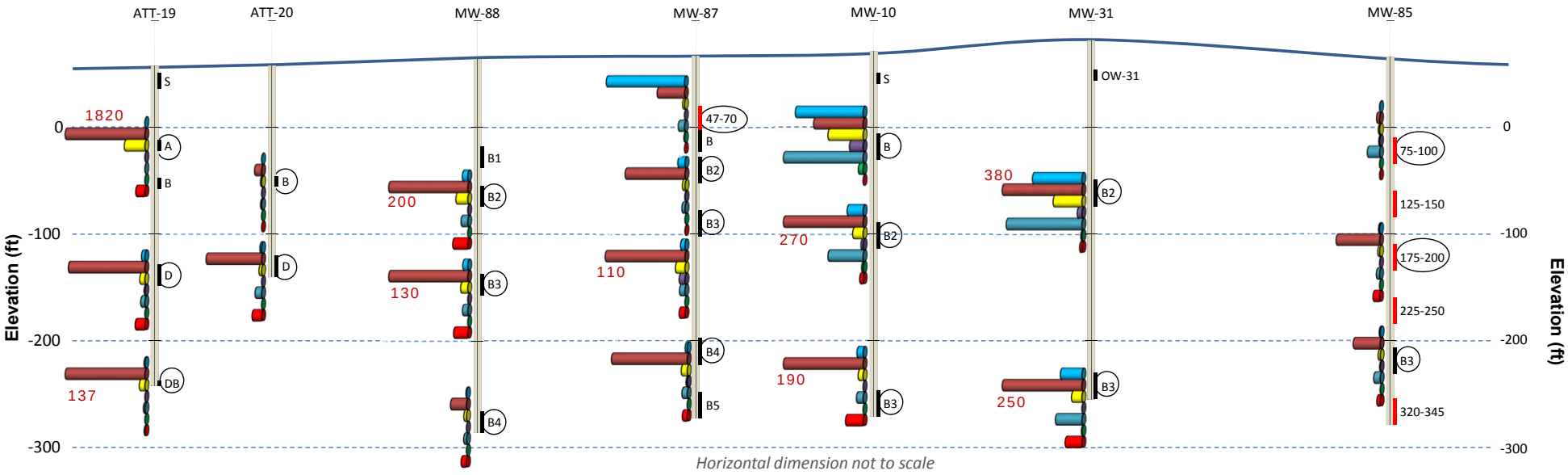
B1 ← Completed well or multi-port interval

≥ 100 ug/L 0

PCE
TCE
cis-1,2-DCE
Vinyl chloride
1,1-DCE/DCA
1,1,1-TCA
CFC-11

250 TCE concentration > 100 ug/L

Interval associated with plot



Horizontal dimension not to scale

Data Sources:

Hyatt Clark well data from annual sampling completed fall 2012, except MW-88 (fall 2013).
Packer test sample results from MW-87 (PH7) collected 5/24/2006.
Packer test sample results from MW-85 (PH5) collected 6/16/1999.
AT&T well data from sampling completed April 2008 (reported GeoTrans, Inc., 2010).

Notes:

1) Horizontal dimension not to scale.
2) TCE concentration values posted only if above plot scale (i.e.> 100 ug/L).
3) 1,1-DCE/DCA is sum of 1,1-DCE and 1,1-DCA concentrations.
4) Non-detect values plotted as zero.

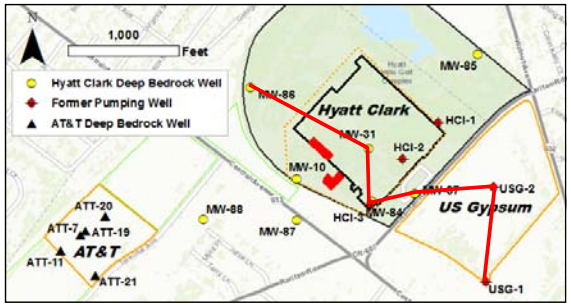
FORMER HYATT CLARK INDUSTRIES SITE
GROUNDWATER CONCEPTUAL SITE MODEL

SCHEMATIC CROSS-SECTION AND VOC FINGERPRINT ANALYSIS

ARCADIS

Attachment
1-A

CITY:(KNOXVILLE) DIV/GROUP:(ENV) DB:(B.ALTOM) LD:(B.ALTOM) PIC:(J.REID) PM:(D.WILDERMAN) TM:(H.ENGLISH)
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EXPLANATION

MW-1 ← Location or well cluster ID

45-65 ← Packer test (depth in feet)

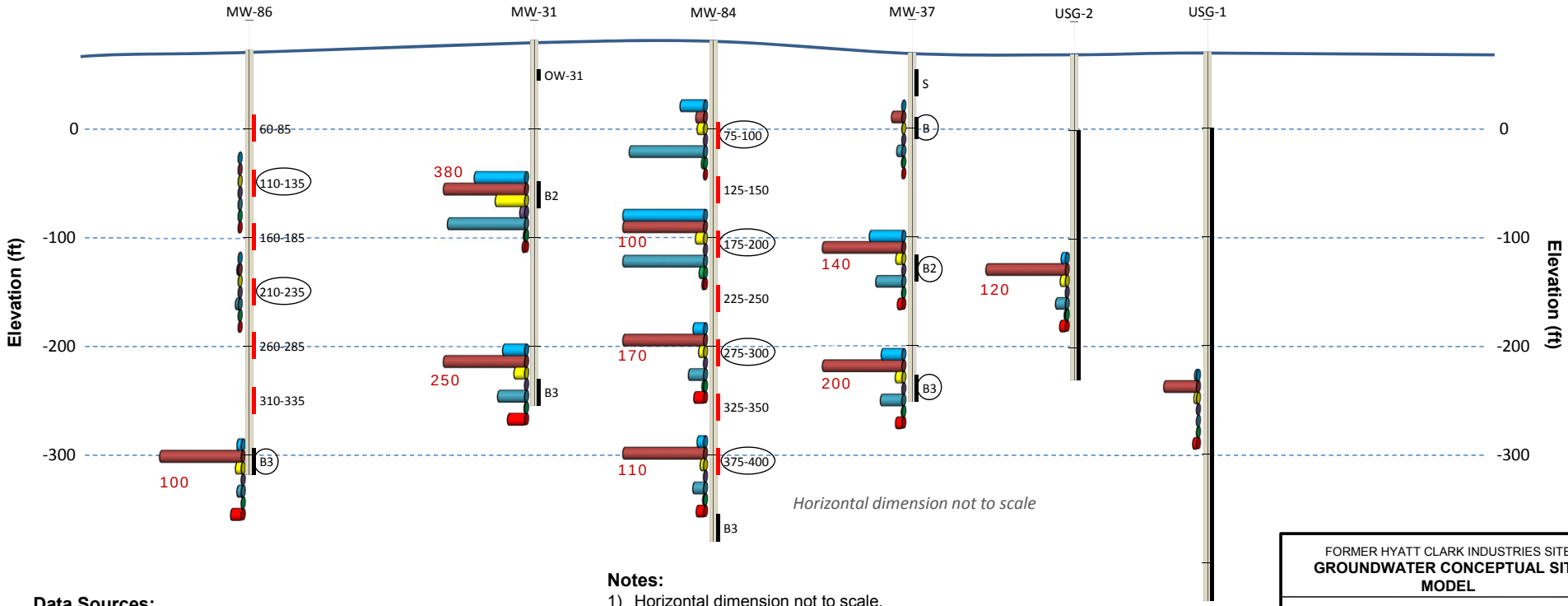
B1 ← Completed well or multi-port interval

≥ 100 ug/L 0

PCE
TCE
cis-1,2-DCE
Vinyl chloride
1,1-DCE/DCA
1,1,1-TCA
CFC-11

250 TCE concentration > 100 ug/L

Interval associated with plot



Data Sources:

Hyatt Clark well data from annual sampling completed fall 2012.
Packer test sample results from MW-84 and MW-86 collected June 1999.
U.S. Gypsum pumping wells sampled December 1997.

Notes:

1) Horizontal dimension not to scale.
2) TCE concentration values posted only if above plot scale (i.e.> 100 ug/L).
3) 1,1-DCE/DCA is sum of 1,1-DCE and 1,1-DCA concentrations.
4) Non-detect values plotted as zero.

FORMER HYATT CLARK INDUSTRIES SITE
GROUNDWATER CONCEPTUAL SITE MODEL

SCHEMATIC CROSS-SECTION AND VOC FINGERPRINT ANALYSIS

ARCADIS

FIGURE
1-B

CITY:(KNOXVILLE) DIV:(GROUP):(ENV) DB:(B.ALTOM) LD:(B.ALTOM) PIC:(J.REID) PM:(D.WILDERMAN) TM:(H.ENGLISH)
G:\ENV\OH\OH0001000_Ashland\GA01_Doraville\DL V2\00089 PH6 D\ELINEATION\??????.PPT SAVED: 23SEP2008