Periodic Review Report

(Reporting Period March 28, 2014 to March 28, 2017)

Portions of Former Orangeburg Pipe Manufacturing Facility – Lowe's Site

Tax Map Numbers 74.15-1-3 and 74.15-1-4
206 Route 303
Orangeburg, New York 10962

Prepared Pursuant to Voluntary Cleanup Agreement

NYSDEC Site #: V-00579-3
NYSDEC Index #: W3-0930-02-07

Orangeburg Holdings, LLC
Hackensack, New Jersey

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1 Summary

1.1 Site, Nature and Extent of Contamination, and Remedial History

This report is the Periodic Review Report (PRR) for portions of the Former Orangeburg Pipe Manufacturing – Lowe's site (the "site") at 206 Route 303 in Orangeburg (Town of Orangetown), Rockland County, New York and documents site management during the period March 28, 2014 to March 28, 2017. The site is in a commercial area and is the location of a Lowe's home improvement retail store. Groundwater at the site is contaminated with volatile and semivolatile organic compounds (VOCs and SVOCs). There have been two remedial excavations of contaminated soil, one in 2001 to remove VOC-contaminated soil in the northwest portion of the site and one in 2002 to remove oil-contaminated soil in the north-central portion of the site.

The groundwater pump & treatment system (PTS), in operation since December 2004, had been effective in capturing residual contaminated groundwater and preventing downgradient migration. Based on the results of groundwater data and PTS discharge data for a decade and a recommendation in the previous PRR submitted in March 2014 that was approved by NYSDEC in September 2014, the groundwater PTS was shut down in October 2014. Historic site fill is covered by a cap, consisting of a combination of the building slab, paved/concrete parking and walking areas, and soil cover.

1.2 Effectiveness of the Remedial Program

The site is subject to Voluntary Cleanup Agreement (VCA) V-00579-3 between Orangeburg Holdings, LLC (the Volunteer) and the New York State Department of Environmental Conservation (NYSDEC) under the New York Brownfield Cleanup Program. The remedial program consists of a remedial action work plan and operation, maintenance, and monitoring work plan (LMS 2005) approved by the NYSDEC on April 22, 2005 (together referred to as the Work Plan). The Site Management Plan (SMP) (HDR 2006) incorporates the Work Plan and includes by reference a Declaration of Covenants and Restrictions filed with the deed at the Rockland County Clerk. The Site Management Plan has the following six elements:

1. Cap over historic fill;
2. Groundwater PTS (system shut down during this reporting period);
3. Soil management plan;
4. Land use restrictions;
5. Groundwater use restrictions; and
6. Reporting.

The remedial program continues to prevent unacceptable exposure to the site contaminants and is meeting the remedial goals which are: (1) prevention of exposure to

contaminated groundwater, (2) prevention of off-site migration of contaminated groundwater, and (3) prevention of contact with historic site fill through the beneath cap.

1.3 Compliance

There has been no non-compliance with the SMP, except as follows:

1. HDR received an email from a contact at Lowe's on March 11, 2015 indicating they were going to be removing and replacing several concrete flags along the front apron of the store on that day. However, it was determined that this concrete flag removal activity was an extension of the paver removal and blacktop replacement activities conducted in August 2014 that was approved by NYSDEC. Due to the short notice from Lowe's, HDR was not able to provide notification to NYSDEC prior to this concrete apron removal and replacement. HDR visited the site later on the same day the email was received to document the cap disturbance activities being conducted. This concrete apron removal and replacement work was completed in two days. The contractor did not excavate into the soil below the concrete and cordoned off the work area to keep the public away from the work area. There was no significant adverse impact from this concrete removal work as the compacted soils under the concrete were not removed.

1.4 Recommendations

1. The pump & treatment groundwater remediation system should remain inactive. However, the system should remain operational in case future groundwater monitoring results demonstrates a need to reactivate.

2. The current groundwater monitoring program should continue with the same annual sample frequency using the monitoring wells recommended in the March 2014 PRR and approved by NYSDEC. The nine monitoring wells currently included in the annual groundwater sampling program are as follows: MW03-11S, MW03-12S, MW03-12D, MW03-14S, MW03-18S, MW03-18D, MW03-27S, MW03-27D, and MW07-29. In July 2014, the annual groundwater monitoring event included the following additional wells (the 2014 annual groundwater sampling event was conducted prior to the approval of the recommendation to remove these monitoring wells from the annual sampling program in the March 2014 PRR): MW03-11D, MW03-14D, MW03-25, MW03-26, and MW03-28 that were sampled since the SMP was put into place.

3. Requirements for discontinuing site management have not been met.

2 Site Overview

2.1 Description

The site is in in a commercial and industrial area. The site location is shown in Figure 1, a topographic map of the area and Figure 2 an aerial view of the site location (Figures follow the References section of this report). Figure 3 is taken from the deed restriction put in place pursuant to the VCA. This figure shows that the site consists of two tax lots: 74.15-1-3 and 74.15-1-4. The two lots were subsequently merged into one lot: 74.15-1-3. The site is an approximately 12-acre portion of the former Orangeburg Pipe Manufacturing site that included two other lots:

1. 16.6-acre Lot 74.15-1-21 to the south across Stevens Way. This property, now known as Orangeburg Commons, has also undergone remediation under the Brownfield Cleanup Program (Site No. C344073). Remediation consists of a cap over historic fill and the installation of sub-slab depressurization systems to prevent vapor intrusion into buildings. Investigations have demonstrated that vapor intrusion is not a concern at the Lowe's site. In addition, the deed for Orangeburg Commons has a Declaration of Covenants and Restrictions similar to that for the Lowe's site.

2. 6.1-acrea Lot 74.15-1-2 across Greenbush Road to the west. This property, referred as the Triangular Parcel, had also been in the voluntary cleanup program (V342-3); however, no progress on remediation appears to have taken place since the March 2014 PRR was submitted. This property, is now referred to the as the Orangeburg Commercial Center site. In April 2016 an application to be admitted into the Brownfield Cleanup Program (Site No. C344078) was prepared and submitted by Tenen Environmental, LLC on behalf of BF Orangetown LLC to NYSDEC for this Triangular Parcel. In September 2016, a draft Remedial Action Work Plan (RAWP) was submitted to NYSDEC for review and comments by the property owner. HDR contacted the NYSDEC Project Manager for this site in February 2017 to provide comments on the draft RAWP and our findings during previous historical investigations that were conducted on this portion of the site. As of May 2017, to HDR's knowledge, there have been no recent investigation or remediation activities at the Orangeburg Commercial Center site. As discussed below, the Triangular Parcel is believed to be the source of chlorinated VOCs detected in the upgradient, northwest corner of the Lowe's site.

Figure 4 shows the pertinent site features including the Lowe's building and monitoring and pumping wells and Figure 5 highlights the monitoring wells that are included in the current annual groundwater monitoring program. The building at the site is constructed slab-on-grade without a basement and is used for retail sales.

2.2 Remedial Program

Groundwater remediation has been on-going and accomplished with a groundwater PTS. The objective of the groundwater PTS is to capture contaminants in the groundwater emanating from two areas in the northwestern portion of the site. One area is along Greenbush Road in the vicinity of monitoring well MW03-18S. This area was contaminated with 1,1,1-trichloroethane (TCA), TCA environmental degradation products (notably 1,1-dichloroethane [DCA]), and petroleum-related constituents. A remedial excavation (cross-hatched area in Figure 4) was conducted in 2001 to remove the contaminated soil and the area was back-filled with crushed stone to enhance the subsequent groundwater PTS's ability to remove the residual contamination. The second area targeted by the PTS is an area of oil contamination excavated in 2002 just east of the first area. The PTS has a stone-filled trench which intercepts the two excavation areas and collects groundwater from those areas and upgradient and blocks the groundwater from migrating downgradient. In addition to the groundwater collection trench, the groundwater remediation system includes a manhole in the trench from which water is pumped to an on-site building for metering, treatment, and discharge to the local sanitary sewer in accordance with a permit issued by the Town of Orangeburg. The treatment system was started on December 29, 2004.

The system was designed to provide treatment with bag filters (for removal of particulates) and activated carbon (for removal of organics), after which the effluent would be discharged to the Town of Orangetown sanitary sewer system for further processing at the municipal sewage treatment plant. Because chemical concentrations in the system influent were low, in December 14, 2005, the Town of Orangetown allowed the filtration and activated carbon components of the site treatment system to be bypassed. However, the filtration vessels and carbon treatment remain in place (offline) in case there is a future need for reactivation of those components. As mentioned previously, the groundwater PTS was shut down on October 1, 2014, based on the results of the historical data from the monitoring wells since 2004. NYSDEC approved the recommendation in the March 2014 PRR to shut down the PTS for the site.

The second element of the remedial program is the cap over the historic site fill. Most of the site is covered by the building slab, parking lot, and concrete sidewalks. The remainder of the property has an earthen cover, underlain by a filter fabric that acts as a visual warning in case excavation activities in these areas are required.

In addition to the above elements, the remedial program has a deed restriction that prevents the use of the site's groundwater without the NYSDEC first permitting such use. Also the deed restriction prevents the site from being used for purposes other than for restricted commercial use, which prevents day care, child care and medical care uses, unless approved by the NYSDEC.

3 Remedy Performance, Effectiveness, and Protectiveness

The remediation goals for the site are:

1. Capture and prevent migration of contaminated groundwater in the area addressed by the pump & treatment groundwater remediation system. Monitoring data demonstrate that contaminated groundwater in the area of the PTS is not migrating. The results of the annual groundwater sampling conducted in July 2015 and July 2016, show no significant changes in the groundwater concentrations of the chemicals of concern (COC) for the site after the pump and treatment system was shut down. COC concentrations in the capture zone of the PTS remain low. Additional discussion of groundwater quality is presented in Chapter 5.

2. Prevent use of the site groundwater. There is a Declaration of Covenants and Restrictions with the land records in the county clerk's office that, among other restrictions, prevents the use of groundwater at the site. The site receives potable water from the municipal supply, and accordingly there is no use of the site groundwater. There are no water withdrawal wells at the site, other than the pump out manhole operated for the pump & treat system. Previous inventories indicate that there are no private or public water supply wells downgradient of the site.

3. Prevent exposure to the historic site fill. The cap over the historic fill remains intact. During this reporting period, there were two NYSDEC-approved excavations through the cap followed by a repair to the cap. As mentioned previously, there was a third excavation through the cap in April 2015 where Lowe's removed and replaced some of the concrete apron along the front of the store; it was determined that this work was an extension of the paver removal and blacktop replacement activities conducted in August 2014 that were approved by NYSDEC. The deed restriction on land use is still being complied with – the site continues to be commercially used as a home improvement retail store.

4 IC/EC Plan Compliance

4.1 IC/EC Requirements and Compliance

4.1.1 Pump and Treatment System

Description. The PTS is an engineering control that consists of a groundwater collection trench that drains to a pump out manhole whose operation serves to capture groundwater that might otherwise migrate downgradient. The pumpage is discharged to the local municipal sanitary sewer system as authorized by a permit from the Town of Orangetown. As discussed, the pump and treatment system was shutdown on October 1, 2014 in accordance with the recommendations in the March 2014 PRR that were approved by NYSDEC in a letter to Mr. Steven Kolitch (Orangeburg Holdings, LLC) dated September 23, 2014. The PTS discharge permit remains open in the event the results from the annual groundwater sampling events indicate the contamination is moving away from the site requiring the pump and treatment system to be reactivated. The Town issues a new permit every calendar year; copies of the 2015, 2016, and 2017 discharge permits are provided in Appendix A.

The performance of this control is evaluated by periodic sampling of monitoring wells and the pump out discharge (influent to the treatment plant) - Chapter 5. The capture zone of the system is the shallow groundwater in the fill upgradient of the collection trench in the northwest corner of the site.

Goal Status. System operations were normal up to the point when the system was shut down.

The PTS was fully in place and meeting its remediation goals (capture contaminated groundwater in the upgradient fill) until it was determined that it was no longer necessary to operate the pump and treatment system. NYSDEC approved the shut down of the system and it was shut down on October, 1, 2014.

Corrective Measures. There are no deficiencies in the system and corrective measures are not needed. The components of the system remain in place (including the discharge permit) in the event groundwater data from the site indicates the system should be reactivated

Conclusions and Recommendations. No changes to the system are needed; it should remain shut down.

4.1.2 Water Use Restrictions

Description. The restriction is an institutional control included in the Declaration of Covenants and Restrictions that prohibits use of the site's groundwater unless NYSDEC approves otherwise. The site receives potable water from the municipal supply, and accordingly there is no use of the site groundwater.

Goal Status. The restriction is fully in place and there are no on-site wells, other than those associated with the remedial system.

Corrective Measures. There are no deficiencies and corrective measures are not needed.

Conclusions and Recommendations. No changes are needed.

4.1.3 Land Use Restrictions

Description. The restriction is an institutional control included in the Declaration of Covenants and Restrictions that limits use of the site to "restricted commercial," which excludes day care, child care and medical care.

Goal Status. The restriction is fully in place. The site use is for a home improvement store.

Corrective Measures. There are no deficiencies and corrective measures are not needed.

Conclusions and Recommendations. No changes are needed.

4.1.4 Cap Over Historic Fill

Description. As noted previously, the site is capped by a combination of the site building, pavement, concrete sidewalks, and earthen fill. Excavation through the cap must first be approved by the NYSDEC.

Goal Status. During this 3-year reporting period, there have been two maintenance/upgrade activities requiring removal and replacement of the cap in several areas of the site.

In July 2014, a Lowe's representative contacted HDR with proposed plans outlining paver removal and replacement project in several locations on the site. Lowe's determined that the paver areas required significant maintenance as the pavers were prone to shifting and cracking. Lowe's provided a letter and a site plan showing the cap removal and replacement locations. They were not planning to excavate into the soil below the paver base material. HDR forwarded the information from Lowe's to NYSDEC for approval. In August 2014, Lowe's removed the sections of pavers and the associated concrete edging along the pavers that were along the front of the store and also at the ends of the parking lot drive-through areas. After the concrete and pavers were removed, these areas were filled with Item 4 material, compacted and then capped with asphalt stamped to give the appearance of pavers. HDR received an email from a contact at Lowe's on March 11, 2015 about the removal and replacement of several concrete flags along the front apron of the store taking place on that day; based on conversations with the Lowe's representative, it was determined that this cap removal and replacement activity was an extension of the paver area removal activities. HDR visited the site during this work to document the cap removal and replacement activities being conducted. They did not excavate below the concrete and completed this concrete

removal and replacement activities two days. Copies of photographs of the work and the drawings and letter from Lowe's as well as the communications with the NYSDEC are presented in Appendix C.

In February 2015, a Lowe's representative contacted HDR with proposed plans outlining the replacement of a portion of the outdoor Garden Center area where the Garden Center expansion was constructed (northern portion), scheduled for later in the year. Lowe's provided a letter and a site plan showing the cap removal and replacement locations. They were only planning to remove and replace the concrete slab; there were no plans to remove the soil below the slab or the compacted sub base material below the concrete. HDR forwarded the information from Lowe's to NYSDEC for review. In November 2015, Lowe's removed the northern portion of the Garden Center concrete slab and replaced the slab approximately three weeks later. HDR visited the site and took photos after the new slab was poured. This portion of the Garden Center was closed off to the public during this slab removal and replacement activities. Copies of photographs of the work and the drawings and letter from Lowe's as well as the communications with the NYSDEC are presented in Appendix C.

The cap is in place and meets the requirements of the remediation Work Plan.

Corrective Measures. There are no deficiencies and corrective measures are not needed.

Conclusions and Recommendations. No changes are needed.

4.2 IC/EC Certification

A copy of the requisite certification is presented in Appendix D. The Qualified Environmental Professional (QEP) section of the certification has been signed by Stuart Bassell, P.E., the former project manager for remedial operations at the site who is still involved with the project for consultation as the senior project manager. The original certification document has been separately submitted to the NYSDEC project manager.

5 Monitoring Plan Compliance

5.1 Components of the Monitoring Plan

During the previous PRR interval there were two NYSDEC-approved amendments to the monitoring plan specified in the original remedial Work Plan (reduction of manhole discharge sample frequency from quarterly to semiannually and elimination of the annual sampling of the storm water detention basin). During this current PRR interval, NYSDEC approved the reduction in the number of monitoring wells included in the annual groundwater monitoring program. In accordance with the approval of the recommendations in the March 2014 PRR from NYSDEC, the following monitoring wells were removed from the monitoring program: MW03-11D, MW03-14D, MW03-25, MW03-26, and MW03-28. The nine monitoring wells currently included in the annual groundwater sampling program are as follows: MW03-11S, MW03-12S, MW03-12D, MW03-14S, MW03-18S, MW03-18D, MW03-27S, MW03-27D, and MW07-29. In July 2014, the annual groundwater monitoring event included the full set of monitoring wells because the 2014 annual groundwater sampling event was conducted prior to the approval of the recommendation to remove these monitoring wells from the annual sampling program in the March 2014 PRR). The nine groundwater monitoring wells now included in the sampling program will continue to be sampled annually. Samples are analyzed for volatiles per EPA GC/MS Method 8260, rather than EPA GC Methods 601 and 602, as specified in the Work Plan; Method 8260 assesses a greater number of analytes and is less costly.

In order to comply with the sewer discharge permit from the Town of Orangetown when the pump and treatment system was in operation, once a year, there was additional analytical work conducted on the sample collected from the manhole discharge: pH, SVOCs (Method 625), BOD (Method 5210B), COD (Method 8000), cyanide (Method 335.4), cyanide-available (Method OIA-1677), oil & grease (Method 1664A), phenols (Method 420.1), and total suspended solids (Method 2540D). These samples were collected in July 2014 before the PTS was shut down. The 2011 and earlier permits required testing for additional parameters that are no longer required when the PTS was in operation: PCBs and pesticides (Method 608), metals (Methods 200.7 and 245.1)

EQuIS electronic deliverables for the sampling and analytical work have already been submitted to the NYSDEC. Therefore, copies of the laboratory reports are no longer included with the PRR.

In addition to the above monitoring required by the Work Plan, when the PTS was in operation, the Town of Orangetown would periodically sample the manhole discharge as part of the town's compliance monitoring program. Copies of the pertinent correspondence and sample results from the Town are presented in Appendix A.

5.2 Summary of the Monitoring Completed

During this reporting period (March 28, 2014 through March 28, 2017), the annual sampling of the monitoring wells was conducted on the following days:

- July 16, 2014
- July 14, 2015
- July 14, 2016

The semiannual sampling of the manhole discharge was conducted on the following days:

- July 16, 2014

No additional semiannual manhole monitoring was required after the PTS was shutdown on October 1, 2014.

Copies of the field data sheets for the groundwater sampling events are presented in Appendix E.

Tables 1, 2, and 3 summarize the VOC results for the July 2014, July 2015, and July 2016 groundwater monitoring events (Tables follow the References section of this report). Table 4 summarizes the sampling results for the PTS discharge samples (VOCs, SVOCs, Metals, and Wet Chemistries) for the duration the PTS was in operation.

Table 5 summarizes the VOC results from the site monitoring wells since the sampling program began. Where a new well was constructed in 2003 as a replacement for a well abandoned during construction of the shopping center, the test results are grouped for the two wells as a single location.

5.3 Comparisons with Remedial Objectives

Reference is made to Table 4 (PTS Influent VOCs and SVOCs) and Table 5 (monitoring well VOCs), which show all results for these locations along with the GA groundwater standards and/or guidance values where applicable. Locations of the monitoring wells and the PTS manhole are depicted in Figure 5.

5.3.1 Chlorinated VOCs

The original impetus for the installation of the groundwater remediation system was the presence of chlorinated VOCs in the area of MW-18S (now MW03-18S). Prior to remediation, 1,1-dichloroethane (DCA) concentrations had been in the range of 230 to 480 µg/L. DCA is an environmental degradation product of 1,1,1-trichloroethane (TCA). The oily soil in the area was excavated and backfilled with crushed stone that drains to the groundwater PTS. DCA concentrations have been less than 3 µg/L since 2005. Downgradient of the MW-18 area (manhole discharge, MW03-11S, MW03-11D, MW03-12S, MW03-12D, MW03-14S, MW03-14D, MW03-27S, MW03-27D), the site is essentially free of chlorinated VOCs.

The highest chlorinated VOC concentrations are at the upgradient fringe of the site (MW03-26 and MW03-18D). MW03-26 (DCA concentrations in the range of 3 to 4.9 µg/L over between 2010 and 2014) is upgradient and off-site in Greenbush Road. MW03-26 was removed from the groundwater sampling program after the 2014 sampling

event. MW03-18D (DCA concentrations showing a slight decreasing trend from 20 to 15 µg/L from 2010 through 2016) is the only deep well at the site that still has chlorinated VOCs. The source of the chlorinated VOCs is believed to be the Triangular Parcel west of Greenbush Road where TCA and DCA concentrations of 12,000 and 720 µg/L, respectively, were measured in what appears to be a foundation drain of a former Orangeburg Pipe manufacturing building (LMS 1991).

Remedial objectives for the site have been met for chlorinated VOCs. There is an upgradient source of chlorinated VOCs that appears to be impacting the deeper groundwater in an isolated upgradient portion of the site; the groundwater remediation system is not designed to address that off-site source. It is assumed the investigation and remedial activities to be conducted at this adjacent Brownfield Cleanup site (Orangeburg Commercial Center) (Site No. C344078) will aim to address the chlorinated VOCs coming from this site.

5.3.2 Naphthalene in MW03-11S and MW03-11D

MW-11D was sampled once for naphthalene prior to the construction of the shopping center; the compound was not detected (<10 µg/L). After the construction of the shopping center, naphthalene was found in the replacement well MW03-11D at a concentration of 680 µg/L (December 2004), indicating that there was probably an oil spill in the area during construction. There was no shallow well at this location prior to the shopping center construction; the first sampling of the new shallow well MW03-11S indicated that naphthalene was present at a concentration of 1300 µg/L (December 2004).

Since December 2004, the naphthalene concentration at MW03-11D has consistently declined such that naphthalene was not detected in this well between 2012 and 2014. MW03-11D was removed from the groundwater sampling program after the 2014 sampling event. Naphthalene degrades anaerobically and this decline over time is consistent with that process.

The naphthalene concentration in MW03-11S has also declined over time, though not to the degree exhibited by MW03-11D, consistent with the expected more aerobic condition of the shallow aquifer. The naphthalene concentrations in MW03-11S were 100, 110, and 67 µg/L, in 2014, 2015, and 2016, respectively, during the annual groundwater monitoring events.

At the request of NYSDEC, MW07-29 was installed about 100 feet downgradient in response to the reported naphthalene in the MW03-11S/D cluster in 2007. Except for a low concentration of 1.1 µg/L detected in 2009, naphthalene has not been detected at MW03-29, indicating that naphthalene is not a compound of concern in the eastern and southern portions of the site.

5.3.3 Oil Contamination in the Northwestern Portion of the Site

In 2002, oil was discovered during test pit work conducted during preliminary clearing of the property. The contaminated soil was excavated as best possible given the presence

of large concrete foundation footings of the former manufacturing building at that location. The area of excavation is shown in Figure 4. The excavation was backfilled with crushed stone and the alignment of the groundwater collection trench for the PTS was subsequently adjusted to intercept that stone.

From February 2011 through July 2014 when the PTS was shut down the naphthalene concentration in the manhole discharge has ranged from 5.7 to 170 µg/L and has averaged about 79 µg/L, over the 10 µg/L GA guidance value. Other petroleum-related VOCs are either not present in the discharge or are at trace concentrations. The occasional trace detection of MTBE and benzene is expected for a large parking lot and is unrelated to the historic oil contamination. Other than MTBE, petroleum-related VOCs have not been present at monitoring locations downgradient of the excavated area (MW03-12 cluster, MW03-14 cluster, and MW03-27 cluster), indicating that the contamination has been and remains localized and is not mobile.

SVOCs in the manhole discharge sample collected in July 2014 only contained acenaphthene at a concentration above its GA guidance value of 20 µg/L at a concentration of 82 µg/L. Acenaphthene has been present in all of the discharge samples since October of 2005 with concentrations ranging from 22 to 250 µg/L. In July 2014 other SVOCs including dibenzofuran, fluoranthene, fluorene, pyrene, and 2-4-dimethylohenol were detected at low concentrations, below their applicable GA guidance values.

Sampling (LMS 1990) prior to Work Plan approval demonstrated that SVOCs were not at problematic concentrations elsewhere at the site, so there has been no testing for these compounds since before the shopping center was constructed. Those historical results also demonstrate that the oil contamination in the 2002 excavation area had not migrated. After final well development, the SVOCs shown in Table 4 were not detected in those wells (<10 µg/L), except that the analyses did not include carbazole and dibenzofuran in those early samples.

5.4 Monitoring Deficiencies

There were no monitoring deficiencies during this PRR interval between March 28, 2014 and March 28, 2017; the monitoring fully complied with the Monitoring Plan.

5.5 Conclusions and Recommendations

The monitoring being conducted demonstrates that remediation goals have been achieved, except in three areas:

1. There remains naphthalene contamination localized around MW03-11S. Water quality in the deeper aquifer has been restored. The contamination has not spread and is slowly declining. During the July 2016 sampling event the concentration of naphthalene in this well was below 100 µg/L for the first time since the sampling was initiated in December 2004 with a concentration of 67 µg/L.

2. There remains oil contamination localized to the 2002 excavation. Historical sampling demonstrates that the contamination has not spread.

3. There remains deep DCA contamination at MW03-18D, the source of which is upgradient and off site. The remediation system does not address this off site source.

The current groundwater monitoring program should be continued with no changes at this time.

6 Operation and Maintenance Plan Compliance

6.1 Components

The PTS includes a stone-filled groundwater collection trench. There is perforated pipe at the bottom of the trench that drains to the pump out manhole. The pump out manhole has a single pump that is controlled with pump-ON and pump-OFF float switches. The discharge from the pump flows through a flexible hose riser to a force main that leads to the treatment building. At the treatment building, the pumpage is metered and sampled before being discharge to the municipal sanitary sewer system. The bag filter and activated carbon treatment in the building has been bypassed as approved by the Town since December 2005. As discussed previously, the PTS was shut down on October 1, 2014 as approved by NYSDEC. However, the discharge permit with the Town remains active and all of the PTS components remain in place in the event the results from the groundwater sampling indicate the PTS should be reactivated.

6.2 Summary of O&M Completed

The Work Plan requires regular inspection of the treatment facility and manhole to verify that all systems are functioning properly and that there are no leaks or blockages. Water meter readings and water levels in the pumping system are recorded. The manhole inspection determines whether oil floating on the water surface should be vacuumed or absorbed, and whether sediment has accumulated to a depth that might be drawn into the sump pump. The inspection frequency specified in the Work Plan was biweekly when the PTS was in operation. The actual inspection frequency was as follows:

MONTH	DAY ON WHICH AN INSPECTION WAS CONDUCTED
Apr. 2014	1, 14, 28
May 2014	12, 25
Jun. 2014	9, 23, 30
Jul. 2014	7, 21 (operator sheet missing)
Aug. 2014	5, 17
Sep. 2014	3, 17
Oct. 2014	01 (PTS was shut down after this inspection)

Since the PTS was shut down, the treatment building and the manhole have been inspected on a quarterly basis to document there has been no damage to the equipment or the system and the treatment building is being maintained.

The actual inspection frequency when the PTS was in operation exceeded the minimum required by the Work Plan. The additional inspections were required to address operation and maintenance needs as they arose. Each inspection when the PTS was in operation has been documented by the operator completing a standard report form at the time of the inspection. Copies of the completed forms are presented in Appendix B.

The following summarizes pertinent information from the inspection forms:

1. During the reporting period up until the PTS was shut down, water flow through the system was 464,466 gallons, based on the differences in meter readings between March 18, 2014 and October 1, 2017. This flow represents a long-term average of 1.64 gpm (or 2358 gpd) while the system was in operation as shown below:

Inspection Date / Time	Flow Totalizer (gal.)	Pump Rates			Total Flow (gal.)	Total Time		
		gpm (Instant.)	gpm (calc.)	gpd (calc.)		Days	Hours	Min.
3/18/14 7:50	2,000,114	13.1						
4/1/14 8:00	2,044,788	11.9	2.2	3189	44,674	14.0	336.2	20,170
4/14/14 10:15	2,073,022	11.2	1.5	2156	28,234	13.1	314.3	18,855
4/28/14 8:30	2,104,286	10.2	1.6	2245	31,264	13.9	334.2	20,055
5/12/14 7:40	2,150,669	8.1	2.3	3321	46,383	14.0	335.2	20,110
5/25/14 7:50	2,183,467	7.1	1.8	2522	32,798	13.0	312.2	18,730
6/9/14 8:00	2,210,881	6.3	1.3	1827	27,414	15.0	360.2	21,610
6/23/14 7:30	2,238,896	4.9	1.4	2004	28,015	14.0	335.5	20,130
6/30/14 19:30	2,253,257	4.6	1.3	1915	14,361	7.5	180.0	10,800
7/7/14 7:30	2,267,143	4.3	1.5	2136	13,886	6.5	156.0	9,360
7/22/14 7:15	2,296,673	3.7	1.4	1970	29,530	15.0	359.8	21,585
8/5/14 7:05	2,325,648	3.3	1.4	2071	28,975	14.0	335.8	20,150
8/17/14 17:15	2,353,225	2.9	1.5	2220	27,577	12.4	298.2	17,890
9/3/14 14:00	2,391,791	2.4	1.6	2287	38,566	16.9	404.8	24,285
9/17/14 14:00	2,428,563	14.6	1.8	2627	36,772	14.0	336.0	20,160
10/1/14 7:50	2,464,580	13.8	1.8	2621	36,017	13.7	329.8	19,790
Total Gallons:	**464,466**							
Average GPD:	**2,358**							
Average GPM:	**1.64**							

2. Sampling was conducted in accordance with the Work Plan requirements (Chapter 5).

3. The PTS continued to run with the filter bags and activated carbon being bypassed, as allowed on December 14, 2005 by the Town of Orangetown while it was in operation from March 28, 2014 through October 1, 2014 of this PRR interval. The basis for the Town's permission to remove the filter bags and carbon treatment was provided in the October 2006 progress report (PTS influent concentrations consistently far below the allowed effluent limitations). The PTS remains in-place, in the event there is a future need for it to be reactivated.

4. During this PRR interval, Lowe's conducted cap removal and replacement activities as part of two projects. In August 2014, Lowe's removed the sections of paver areas and the associated concrete edging along the pavers that were along the front of the store and also at the ends of the parking lot drive-through areas. After the concrete and pavers were removed, these areas were filled with Item 4 material, compacted and then capped with asphalt stamped to give the appearance of pavers. They did not disturb the compacted soils below the pavers and the pavers sub-base. In March 2015, as an extension of the paver area removal and replacement work activities, Lowe's removed and replaced several sections of concrete flags along the front apron of the store. They did not excavate below the concrete and completed this concrete removal and replacement activities in two days.

In November 2015, Lowe's removed the northern portion of the Garden Center concrete slab and replaced the concrete slab approximately three weeks later. They did not excavate below the concrete slab.

5. In December 2014 it was noted that the curb box flush-mount protective casing for MW03-26 in Greenbush Road had gotten damaged (it appeared that it may have been snow plow damage. The curb box rim was broken and the cover could no longer be secured. HDR replaced this curb box in December 2014.

6.3 Evaluation

The PTS continued to operate as designed prior to its shut down in October 2014.

6.4 Deficiencies

There were no deficiencies in complying with the O&M Plan during this reporting period.

6.5 Conclusions and Recommendations

No modifications to the PTS are required; it should remain shut down.

7 Overall PRR Conclusions and Recommendations

7.1 Compliance with Site Management Plan

1. For each component of the SMP, all requirements were met during the reporting period.
2. There were no requirements that were not met.
3. New compliance plans/schedules are not needed.

7.2 Performance and Effectiveness of the Remedy

The site management plan is achieving the remedial objectives for the site:

1. Groundwater at the site is not being used.
2. Excavation through the cap over the historic fill is controlled.
3. Contaminated groundwater is not migrating.

7.3 Future PRR Submittals

The current triennial frequency for PRR submittals should be retained.

7.4 Continued Shutdown of the Pump and Treatment System

The PTS should remain shut down. The results of the annual groundwater sampling events in July 2015 and July 2016 revealed no significant changes in the contaminants of concern at the site with the PST shut down. The system will be kept in operational readiness and the sewer use permit with the Town of Orangetown should be maintained in case future monitoring demonstrates a need for reactivation.

8 References

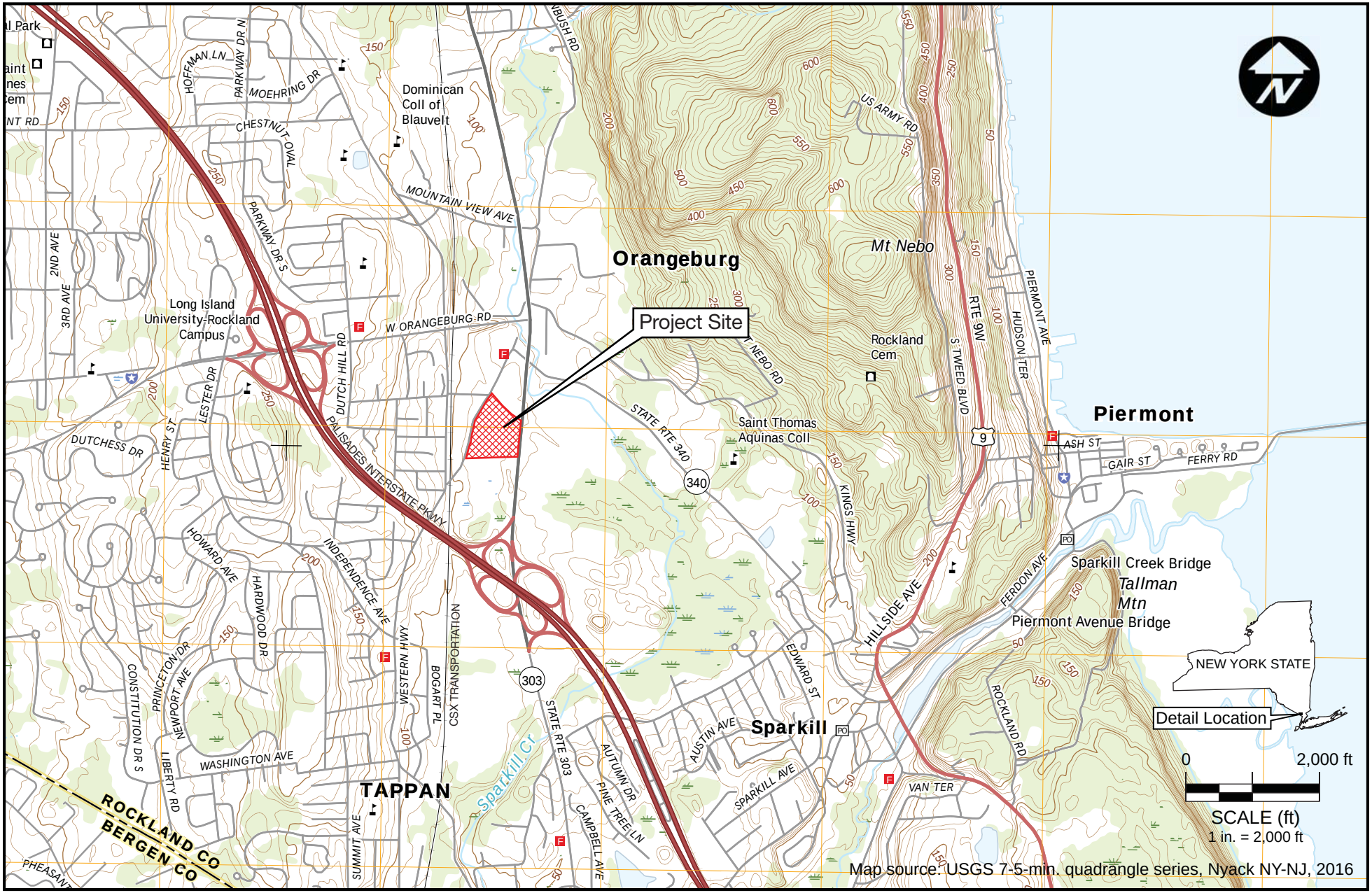
HDR. 2006. Site Management Plan for Portions of Former Orangeburg Pipe Manufacturing Site Tax Map Numbers 74.15-1-3 and 74.15-1-4.

Lawler, Matusky & Skelly Engineers (LMS) 1990. Remedial Action Work Plan – Soil and Groundwater Investigations Conducted on the Former Orangeburg Pipe Manufacturing Site.

Lawler, Matusky & Skelly Engineers (LMS) 1991. Remedial Action Work Plan – Soil and Groundwater Investigations Conducted on Block 754 of the Former Orangeburg Pipe Manufacturing Site.

Lawler, Matusky & Skelly Engineers LLP (LMS) 2005. Remedial Action Work Plan - Operation, Maintenance, and Monitoring Work Plan for Portions of Former Orangeburg Pipe Manufacturing Site.

Figures



Henningson, Durham & Richardson Architecture and Engineering, P.C. in association with HDR Engineering, Inc. 711 Westchester Avenue White Plains, NY 10604-3504	**Site Location** **FORMER ORANGEBURG PIPE MANUFACTURING FACILITY – LOWE'S SITE**	**Figure** **1**

M:\Graphics\Projects\10016690_FormerOrangeburgPipe\Fig1_SiteLocation.ai

Henningson, Durham & Richardson Architecture and Engineering, P.C. in association with HDR Engineering, Inc. 711 Westchester Avenue White Plains, NY 10604-3504	**Site Vicinity** **FORMER ORANGEBURG PIPE MANUFACTURING FACILITY – LOWE'S SITE**	**Figure** **2**

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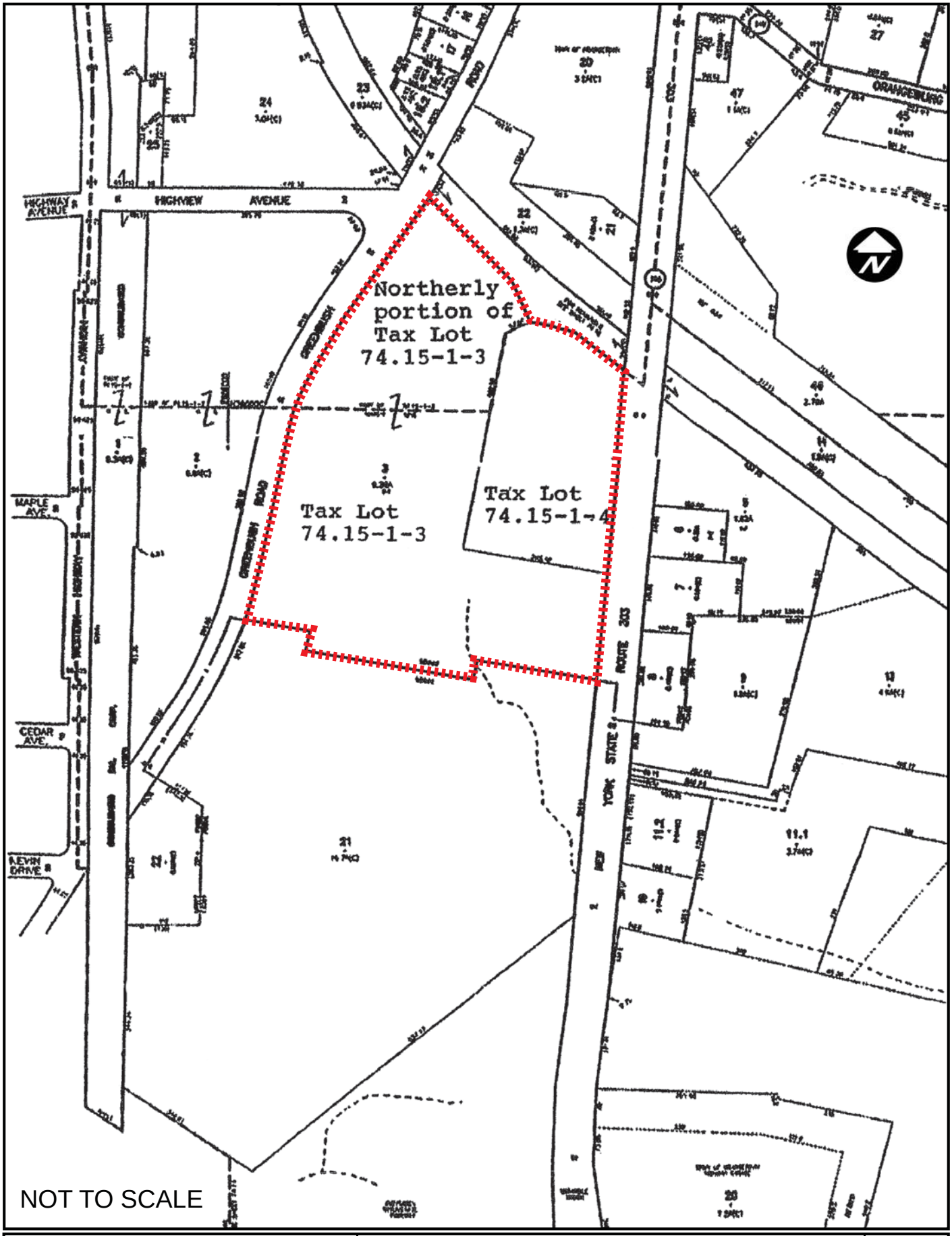

Henningson, Durham & Richardson Architecture and Engineering, P.C. in association with HDR Engineering, Inc. 711 Westchester Avenue White Plains, NY 10604-3504	**Site Tax Map** **FORMER ORANGEBURG PIPE MANUFACTURING FACILITY – LOWE'S SITE**	**Figure 3**

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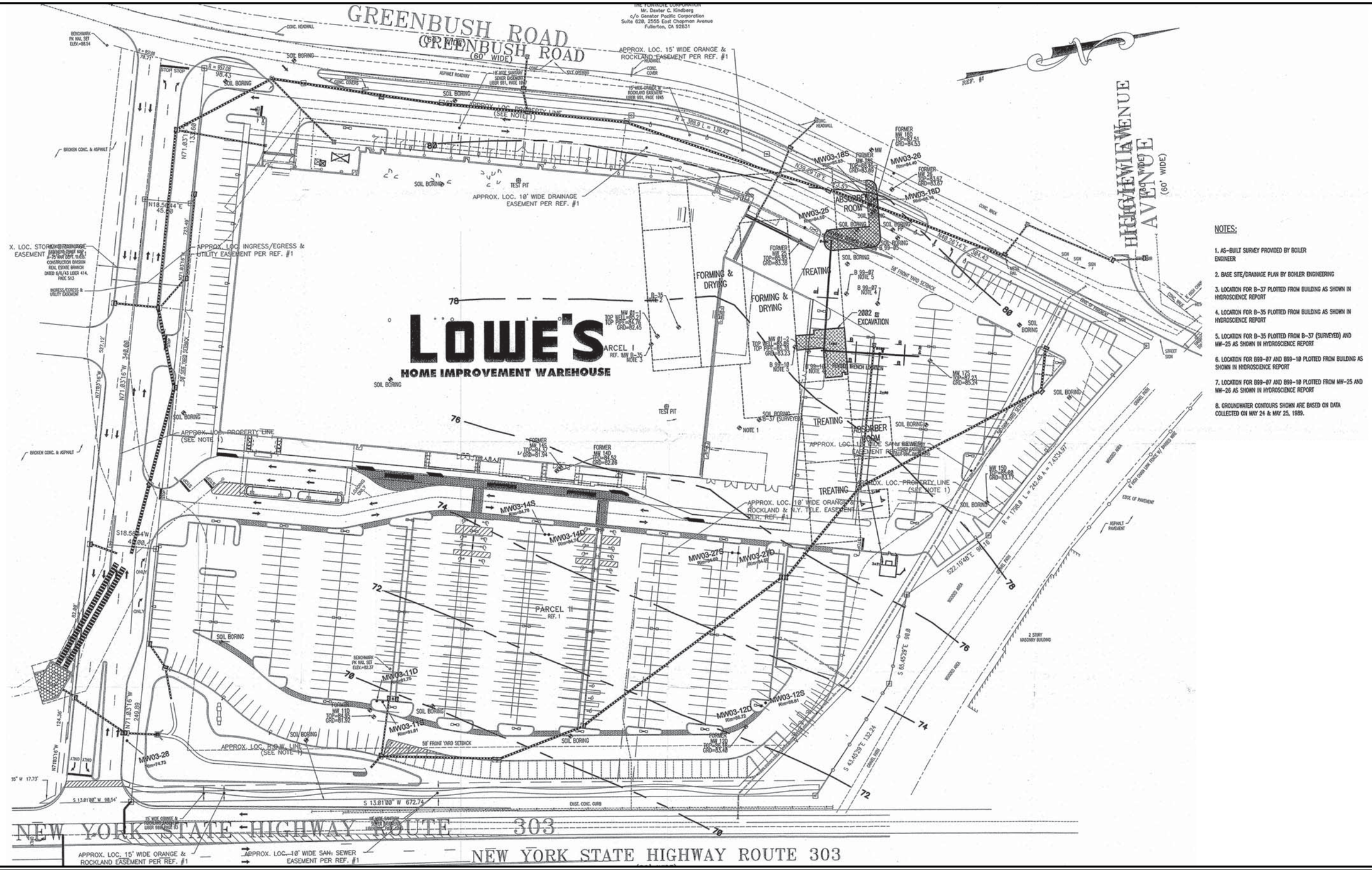

Henningson, Durham & Richardson Architecture and Engineering, P.C. in association with HDR Engineering, Inc. 711 Westchester Avenue White Plains, NY 10604-3504		**Site Details** **FORMER ORANGEBURG PIPE MANUFACTURING FACILITY LOWE'S SITE**	**Figure 4**

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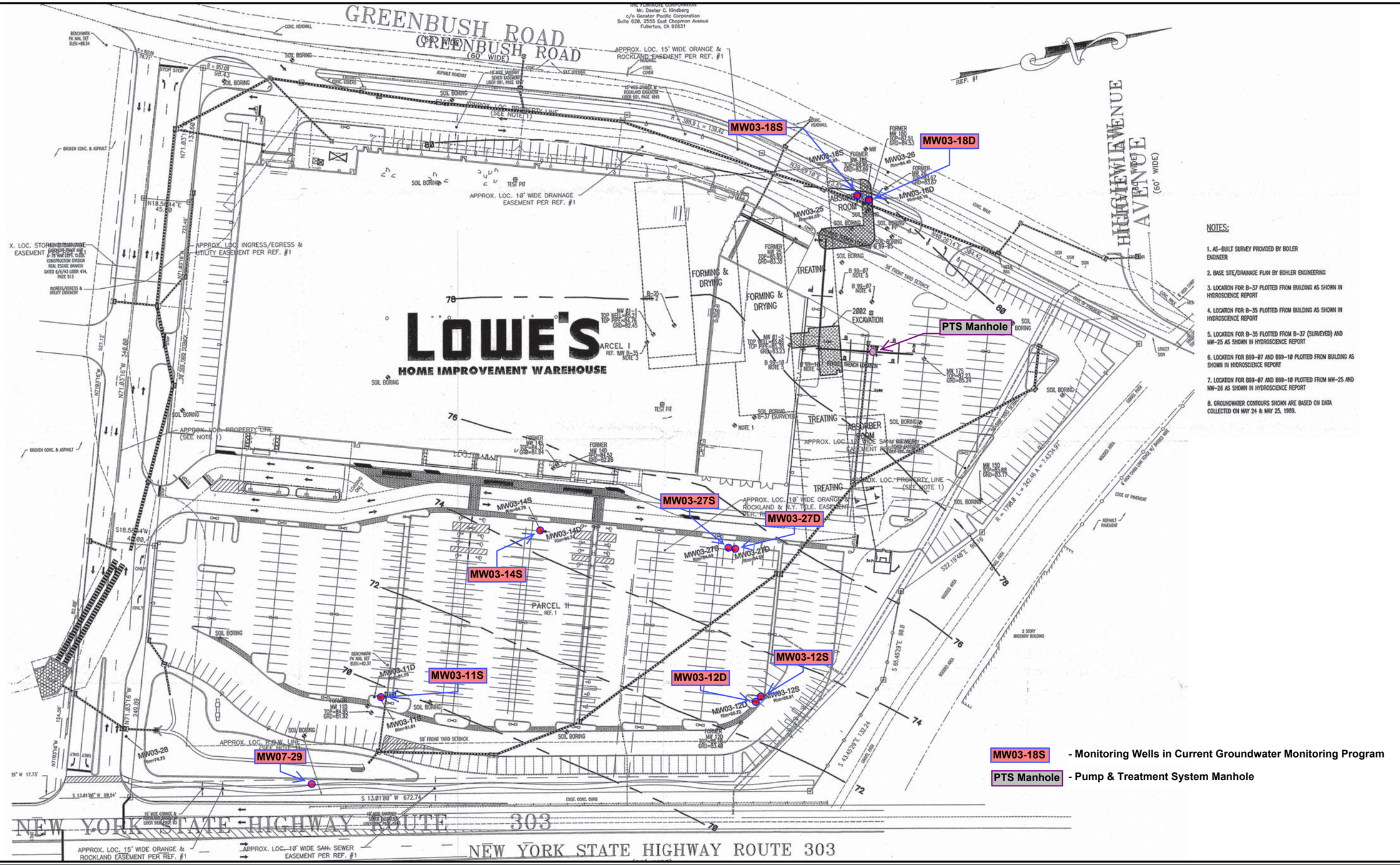

Henningson, Durham & Richardson
Architecture and Engineering, P.C.
in association with HDR Engineering, Inc.
711 Westchester Avenue
White Plains, NY 10604-3504

Monitoring Well Locations

FORMER ORANGEBURG PIPE MANUFACTURING FACILITY
LOWE'S SITE

Figure 5

M:\Graphics\Projects\10016690_FormerOrangeburgPipe\Fig4_SiteDetails.ai

Tables

Table 1

Annual Groundwater Sampling Data Results (July 16, 2014)
Former Orangeburg Pipe Manufacturing Facility (Lowe's Home Center)

HDR Sample ID		NYSDEC	MW03-11S		MW03-12S		MW03-12D		MW03-14S		MW03-18S		MW03-18D		MW03-27S		MW03-27D		MW07-29		Trip Blank	
Lab Sample ID		Class GA	AC79744-008				AC79744-005		AC79744-003		AC79744-012		AC79744-011		AC79744-001		AC79744-002		AC79744-007		AC79744-014	
Date Sampled		Standards (a)	7/16/14		7/16/14		7/16/14		7/16/14		7/16/14		7/16/14		7/16/14		7/16/14		7/16/14		7/16/14	
			Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL
VOCs (µg/L)	**CAS No.**																					
1,1-Dichloroethane	75-34-4	5	ND	1	**No Sample**		ND	1	ND	1	**1.1**	1	**16**	1	ND	1	ND	1	ND	1	ND	1
1,1,1-Trichloroethane	71-55-6	5	ND	1	**(Dry)**		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,1-Dichloroethene	75-35-4	5	ND	1			ND	1	ND	1	ND	1	**2.0**	1	**2.1**	1	**1.6**	1	ND	1	ND	1
Methylene chloride	75-09-2	5	ND	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Chloroethane	75-00-3	5 GV	ND	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Benzene	71-43-2	1	**0.87**	0.5			ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5
Toluene	108-88-3	5	ND	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Ethylbenzene	100-41-4	5	**3.1**	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
m&p-Xylenes	108-38-3 106-42-3	5	**2.2**	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
o-Xylene	95-47-6	5	**4.3**	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Naphthalene	91-20-3	10 GV	**100**	1			ND	1	ND	1	ND	1	ND	1	**1.1**	1	**1.4**	1	ND	1	ND	1
Methyl tert-butyl ether (MTBE)	1634-04-4	10 GV	**3.8**	0.5			ND	0.5	**0.73**	0.5	ND	0.5	ND	0.5	**4.0**	0.5	**0.72**	0.5	ND	0.5	ND	0.5
n-Propylbenzene	103-65-1	5	ND	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
n-Butylbenzene	104-51-8	5	ND	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
sec-Butylbenzene	135-98-8	5	ND	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Isopropylbenzene	98-82-8	5	ND	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,2,4-Trimethylbenzene	95-63-6	5	**3.3**	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,3,5-Trimethylbenzene	108-67-8	5	ND	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Acetone	67-64-1	50 GV	ND	10			ND	10	ND	10	ND	10	ND	10	**23**	10	ND	10	ND	10	ND	10
		Total VOCs:	*118*				*ND*		*0.7*		*1.1*		*18*		*30*		*3.7*		*ND*		*ND*	
		Total CVOCs:	*ND*				*ND*		*ND*		*1.1*		*18*		*2.1*		*1.6*		*ND*		*ND*	
		Total BTEX:	*10*				*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*	

(a) - NYSDEC Part 703 & TOGS 1.1.1, June 1998.
ND - Not detected at analytical reporting limit.
1.6 - **Bold** indicates paramter detected above analytical reporting limit.
67 - **Bold** & color indicates exceedance of applicable standard or guidance value.

GV - Guidance value.
NS - No standard or guidance value available.
RL - Reporting Limit
Note - The results represent detected parameters only. Please refer to the laboratory data packages in the appendix of this report for all parameters analyzed.

Table 1

Annual Groundwater Sampling Data Results (July 16, 2014)
Former Orangeburg Pipe Manufacturing Facility (Lowe's Home Center)

HDR Sample ID		NYSDEC	MW03-11D		MW03-14D		MW03-25		MW03-26		MW03-28	
Lab Sample ID		Class GA	AC79744-006		AC79744-004		AC79744-013		AC79744-010		AC79744-009	
Date Sampled		Standards (a)	7/16/14		7/16/14		7/16/14		7/16/14		7/16/14	
			Results	RL	Results	RL	Results	RL	Results	RL	Results	RL
VOCs (µg/L)	**CAS No.**											
1,1-Dichloroethane	75-34-4	5	ND	1	ND	1	ND	1	**2.7**	1	ND	1
1,1,1-Trichloroethane	71-55-6	5	ND	1	ND	1	ND	1	ND	1	ND	1
1,1-Dichloroethene	75-35-4	5	ND	1	ND	1	ND	1	ND	1	ND	1
Methylene chloride	75-09-2	5	ND	1	ND	1	ND	1	ND	1	ND	1
Chloroethane	75-00-3	5 GV	ND	1	ND	1	ND	1	ND	1	ND	1
Benzene	71-43-2	1	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5
Toluene	108-88-3	5	ND	1	ND	1	ND	1	ND	1	ND	1
Ethylbenzene	100-41-4	5	ND	1	ND	1	ND	1	ND	1	ND	1
m&p-Xylenes	108-38-3 106-42-3	5	ND	1	ND	1	ND	1	ND	1	ND	1
o-Xylene	95-47-6	5	ND	1	ND	1	ND	1	ND	1	ND	1
Naphthalene	91-20-3	10 GV	ND	1	**1.2**	1	ND	1	ND	1	ND	1
Methyl tert-butyl ether (MTBE)	1634-04-4	10 GV	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5
n-Propylbenzene	103-65-1	5	ND	1	ND	1	ND	1	ND	1	ND	1
n-Butylbenzene	104-51-8	5	ND	1	ND	1	ND	1	ND	1	ND	1
sec-Butylbenzene	135-98-8	5	ND	1	ND	1	ND	1	ND	1	ND	1
Isopropylbenzene	98-82-8	5	ND	1	ND	1	ND	1	ND	1	ND	1
1,2,4-Trimethylbenzene	95-63-6	5	ND	1	ND	1	ND	1	ND	1	ND	1
1,3,5-Trimethylbenzene	108-67-8	5	ND	1	ND	1	ND	1	ND	1	ND	1
Acetone	67-64-1	50 GV	ND	10	ND	10	ND	10	ND	10	ND	10
		Total VOCs:	*ND*		*1.2*		*ND*		*2.7*		*ND*	
		Total CVOCs:	*ND*		*ND*		*ND*		*2.7*		*ND*	
		Total BTEX:	*ND*		*ND*		*ND*		*ND*		*ND*	

(a) - NYSDEC Part 703 & TOGS 1.1.1, June 1998.
ND - Not detected at analytical reporting limit.
1.6 - **Bold** indicates parameter detected above analytical reporting limit.
67 - **Bold** & color indicates exceedance of applicable standard or guidance value.

GV - Guidance value.
NS - No standard or guidance value available.
RL - Reporting Limit
Note - The results represent detected parameters only. Please refer to the laboratory data packages in the appendix of this report for all parameters analyzed.

Table 2

Annual Groundwater Sampling Data Results (July 14, 2015)
Former Orangeburg Pipe Manufacturing Facility (Lowe's Home Center)

HDR Sample ID		NYSDEC	MW03-11S		MW03-12S		MW03-12D		MW03-14S		MW03-18S		MW03-18D		MW03-27S		MW03-27D		MW07-29		Trip Blank	
Lab Sample ID		Class GA	AC86047-006				AC86047-004		AC86047-003		AC86047-007		AC86047-008		AC86047-001		AC86047-002		AC86047-005		AC86047-009	
Date Sampled		Standards (a)	7/14/15		7/14/15		7/14/15		7/14/15		7/14/15		7/14/15		7/14/15		7/14/15		7/14/15		7/14/15	
			Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL
VOCs (µg/L)	**CAS No.**																					
1,1-Dichloroethane	75-34-4	5	ND	1	**No Sample**		ND	1	ND	1	**2.5**	1	**14**	1	ND	1	ND	1	ND	1	ND	1
1,1,1-Trichloroethane	71-55-6	5	ND	1	**(Dry)**		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,1-Dichloroethene	75-35-4	5	ND	1			ND	1	ND	1	ND	1	**2.2**	1	ND	1	ND	1	ND	1	ND	1
Methylene chloride	75-09-2	5	ND	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Chloroethane	75-00-3	5 GV	ND	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Benzene	71-43-2	1	**1.0**	0.5			ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5
Toluene	108-88-3	5	**1.3**	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Ethylbenzene	100-41-4	5	**2.7**	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
m&p-Xylenes	108-38-3 106-42-3	5	**3.0**	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
o-Xylene	95-47-6	5	**6.0**	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Naphthalene	91-20-3	10 GV	**110**	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Methyl tert-butyl ether (MTBE)	1634-04-4	10 GV	**4.6**	0.5			ND	0.5	**8.0**	0.5	ND	0.5	ND	0.5	**2.1**	0.5	ND	0.5	ND	0.5	ND	0.5
n-Propylbenzene	103-65-1	5	ND	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
n-Butylbenzene	104-51-8	5	ND	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
sec-Butylbenzene	135-98-8	5	ND	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Isopropylbenzene	98-82-8	5	ND	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,2,4-Trimethylbenzene	95-63-6	5	**2.7**	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,3,5-Trimethylbenzene	108-67-8	5	ND	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Acetone	67-64-1	50 GV	ND	5			ND	5	ND	5	ND	5	ND	5	ND	5	**35**	5	ND	5	ND	5
		Total VOCs:	*131*				*ND*		*8.0*		*2.5*		*16*		*2.1*		*35*		*ND*		*ND*	
		Total CVOCs:	*ND*				*ND*		*ND*		*2.5*		*16*		*ND*		*ND*		*ND*		*ND*	
		Total BTEX:	*14*				*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*	

(a) - NYSDEC Part 703 & TOGS 1.1.1, June 1998.
ND - Not detected at analytical reporting limit.
1.6 - **Bold** indicates parameter detected above analytical reporting limit.
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GV - Guidance value.
NS - No standard or guidance value available.
RL - Reporting Limit
Note - The results represent detected parameters only. Please refer to the laboratory data packages in the appendix of this report for all parameters analyzed.

Table 3

Annual Groundwater Sampling Data Results (July 14, 2016)
Former Orangeburg Pipe Manufacturing Facility (Lowe's Home Center)

HDR Sample ID		NYSDEC	MW03-11S		MW03-12S		MW03-12D		MW03-14S		MW03-18S		MW03-18D		MW03-27S		MW03-27D		MW07-29		Trip Blank	
Lab Sample ID		Class GA	AC92395-005				AC92395-004		AC92395-003		AC92395-007		AC92395-008		AC92395-001		AC92395-002		AC92395-006		AC92395-009	
Date Sampled		Standards (a)	7/14/16		7/14/16		7/14/16		7/14/16		7/14/16		7/14/16		7/14/16		7/14/16		7/14/16		7/14/16	
			Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL
VOCs (µg/L)	**CAS No.**																					
1,1-Dichloroethane	75-34-4	5	ND	1	**No Sample**		ND	1	ND	1	**1.9**	1	**15**	1	**1.3**	1	ND	1	ND	1	ND	1
1,1,1-Trichloroethane	71-55-6	5	ND	1	**(Dry)**		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,1-Dichloroethene	75-35-4	5	ND	1			ND	1	ND	1	ND	1	**3.1**	1	**1.8**	1	ND	1	ND	1	ND	1
Methylene chloride	75-09-2	5	ND	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Chloroethane	75-00-3	5 GV	ND	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Benzene	71-43-2	1	ND	0.5			ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5
Toluene	108-88-3	5	ND	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Ethylbenzene	100-41-4	5	**1.6**	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
m&p-Xylenes	108-38-3 106-42-3	5	**1.0**	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
o-Xylene	95-47-6	5	**4.0**	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Naphthalene	91-20-3	10 GV	**67**	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Methyl tert-butyl ether (MTBE)	1634-04-4	10 GV	**5.1**	0.5			**8.0**	0.5	ND	0.5	ND	0.5	ND	0.5	**2.5**	0.5	ND	0.5	ND	0.5	ND	0.5
n-Propylbenzene	103-65-1	5	ND	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
n-Butylbenzene	104-51-8	5	ND	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
sec-Butylbenzene	135-98-8	5	ND	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Isopropylbenzene	98-82-8	5	ND	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,2,4-Trimethylbenzene	95-63-6	5	**1.9**	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,3,5-Trimethylbenzene	108-67-8	5	**1.1**	1			ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Acetone	67-64-1	50 GV	ND	5			ND	5	ND	5	ND	5	ND	5	ND	5	**35**	5	ND	5	ND	5
		Total VOCs:	*82*				*8.0*		*ND*		*1.9*		*18*		*5.6*		*35*		*ND*		*ND*	
		Total CVOCs:	*ND*				*ND*		*ND*		*1.9*		*18*		*3.1*		*ND*		*ND*		*ND*	
		Total BTEX:	*6.6*				*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*	

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Table 4

Pump & Treatment System Influent - Historical Sampling Data Summary
Former Orangeburg Pipe Manufacturing Facility (Lowe's Home Center)

HDR Sample ID / Date Sampled		NYSDEC Stds (a)	Pump and Treatment System Influent - VOCs											
			Dec-04 Results	Jan-05 Results	Feb-05 Results	Mar-05 Results	Apr-05 Results	May-05 Results	Jun-05 Results	Sep-05 Results	Oct-05 Results	Dec-05 Results	Mar-06 Results	Jul-06 Results
VOCs (µg/L)	**CAS No.**													
Benzene	71-43-2	1	ND	ND	ND	ND	ND	ND	ND	**0.94**	ND	**0.51**	ND	ND
Toluene	108-88-3	5	ND	ND	**0.55**	ND	**0.56**	**0.8**	ND	**1.5**	ND	**0.71**	**0.88**	ND
Ethylbenzene	100-41-4	5	ND	**0.75**	**0.72**	**0.59**	**1.0**	**1.4**	ND	**5.1**	ND	**1.2**	**1.4**	**1.3**
m&p-Xylenes	108-38-3 106-42-3	5	ND	ND	**0.53**	**0.58**	**0.93**	**1.2**	ND	**2.7**	NA	**0.87**	**1.1**	ND
o-Xylene	95-47-6	5	ND	**0.53**	ND	**0.63**	**0.99**	**1.2**	ND	**3.4**	NA	**1.2**	**1.4**	**1.3**
Naphthalene	91-20-3	10 GV	**2.7**	**75**	**32**	**61**	**130**	**120**	**190**	**330**	ND	**97**	**120**	**240**
MTBE	1634-04-4	10 GV	ND	**2.1**	**2.3**	**2.1**	**1.6**	ND	ND	**1.1**	ND	ND	**1.3**	**1.8**
1,2,4-Trimethylbenzene	95-63-6	5	ND	ND	ND	ND	**0.61**	**0.71**	ND	**2.3**	NA	**0.87**	**0.69**	ND
1,3,5-Trimethylbenzene	108-67-8	5	ND	ND	ND	ND	ND	ND	ND	**0.69**	NA	ND	ND	ND
n-Butylbenzene	104-51-8	5	ND	ND	ND	**0.72**	ND	**0.71**	ND	**1.4**	NA	**0.83**	ND	ND
1,1-Dichloroethane	75-34-4	5	NA	ND	ND	ND	**0.63**	ND	ND	ND	ND	**0.9**	**1.1**	**1.2**
Tetrachloroethene	147-18-4	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	75-35-4	5	NA	ND	ND	ND	ND	**0.59**	ND	ND	ND	ND	ND	ND
Methylene chloride	75-09-2	5	NA	ND	ND	ND	**1.3**	ND	ND	ND	ND	ND	**1.2**	**1.3**
Acetone	67-64-1	50 GV	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	67-66-3	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.4**
Bromodichloromethane	75-27-4	50 GA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	124-48-1	50 GA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	75-25-2	50 GA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		Total VOCs:	*2.7*	*78*	*36*	*66*	*138*	*127*	*190*	*349*	*ND*	*104*	*129*	*248*
		Total CVOCs:	*ND*	*ND*	*ND*	*ND*	*1.9*	*0.6*	*ND*	*ND*	*ND*	*0.9*	*2.3*	*2.5*
		Total BTEX:	*ND*	*1.3*	*1.8*	*1.8*	*3.5*	*4.6*	*ND*	*13.6*	*ND*	*4.5*	*4.8*	*2.6*

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Table 4

Pump & Treatment System Influent - Historical Sampling Data Summary
Former Orangeburg Pipe Manufacturing Facility (Lowe's Home Center)

HDR Sample ID / Date Sampled		NYSDEC Stds (a)	Pump and Treatment System Influent - VOCs											
			Sep-06 Results	Nov-06 Results	Dec-06 Results	Mar-07 Results	Jul-07 Results	Oct-07 Results	Jan-08 Results	Apr-08 Results	Jul-08 Results	Oct-08 Results	Jan-09 Results	Apr-09 Results
VOCs (µg/L)	**CAS No.**													
Benzene	71-43-2	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.0**	ND	ND
Toluene	108-88-3	5	**1.2**	ND	**1.1**	ND	ND	ND	ND	**1.3**	ND	**1.1**	ND	ND
Ethylbenzene	100-41-4	5	**1.7**	NA	**1.1**	ND	ND	ND	ND	**1.6**	ND	**1.2**	ND	ND
m&p-Xylenes	108-38-3 106-42-3	5	**1.2**	ND	ND	ND	ND	ND	ND	**1.6**	ND	ND	ND	ND
o-Xylene	95-47-6	5	**1.5**	ND	ND	ND	ND	ND	ND	**1.1**	ND	ND	ND	ND
Naphthalene	91-20-3	10 GV	**150**	**8.9**	**170**	**59**	**32**	ND	**16**	**230**	**180**	ND	**130**	**18**
MTBE	1634-04-4	10 GV	ND	NA	**1.2**	ND	ND	ND	ND	ND	ND	**1.3**	**0.91**	ND
1,2,4-Trimethylbenzene	95-63-6	5	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	108-67-8	5	ND	NA	**1.2**	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	104-51-8	5	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	75-34-4	5	**1.6**	ND	**1.1**	ND	ND	ND	ND	ND	ND	**1.5**	ND	ND
Tetrachloroethene	147-18-4	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	75-35-4	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	75-09-2	5	ND	**1.5**	**2.1**	ND	**7.3**	ND	ND	ND	ND	ND	ND	ND
Acetone	67-64-1	50 GV	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	67-66-3	7	ND	ND	ND	ND	**32**	**26**	**4.7**	ND	ND	ND	ND	ND
Bromodichloromethane	75-27-4	50 GA	ND	ND	ND	ND	**6.1**	**6.8**	**2.2**	ND	ND	ND	ND	ND
Dibromochloromethane	124-48-1	50 GA	ND	ND	ND	ND	ND	**2.1**	**2**	ND	ND	ND	ND	ND
Bromoform	75-25-2	50 GA	ND	ND	ND	ND	ND	ND	**1.4**	ND	ND	ND	ND	ND
	Total VOCs:		*157*	*10*	*178*	*59*	*77*	*35*	*26*	*236*	*180*	*6.1*	*131*	*18*
	Total CVOCs:		*1.6*	*1.5*	*3.2*	*ND*	*7.3*	*ND*	*ND*	*ND*	*ND*	*1.5*	*ND*	*ND*
	Total BTEX:		*5.6*	*ND*	*2.2*	*ND*	*ND*	*ND*	*ND*	*5.6*	*ND*	*3.3*	*ND*	*ND*

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Table 4

Pump & Treatment System Influent - Historical Sampling Data Summary
Former Orangeburg Pipe Manufacturing Facility (Lowe's Home Center)

HDR Sample ID / Date Sampled		NYSDEC Stds (a)	Pump and Treatment System Influent - VOCs												
			Jul-09 Results	Nov-09 Results	Jan-10 Results	Apr-10 Results	Jul-10 Results	Nov-10 Results	Feb-11 Results	Jul-11 Results	Dec-11 Results	Jul-12 Results	Jul-13 Results	Dec-13 Results	Jul-14 Results
VOCs (µg/L)	**CAS No.**														
Benzene	71-43-2	1	**1.1**	**0.88**	ND	ND	ND	**0.82**	ND	**0.63**	**0.51**	ND	ND	ND	**0.51**
Toluene	108-88-3	5	**1.1**	**1.1**	ND	ND	ND	**1.1**	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	100-41-4	5	**1.4**	**1.6**	ND	ND	ND	**1.6**	ND	ND	ND	ND	ND	ND	ND
m&p-Xylenes	108-38-3 106-42-3	5	**1.7**	**1.5**	ND	ND	ND	**1.6**	ND	ND	ND	ND	ND	ND	ND
o-Xylene	95-47-6	5	**1.3**	**1.2**	ND	ND	ND	**1.2**	ND	**1.2**	ND	ND	ND	ND	ND
Naphthalene	91-20-3	10 GV	**190**	ND	**100**	**170**	**320**	ND	**5.7**	**170**	**10**	**54**	**100**	**50**	**160**
MTBE	1634-04-4	10 GV	**1.1**	**0.89**	ND	**0.6**	**0.54**	**0.96**	ND	**0.66**	**0.73**	ND	ND	ND	ND
1,2,4-Trimethylbenzene	95-63-6	5	ND	ND	ND	ND	ND	**1.0**	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	108-67-8	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	104-51-8	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	75-34-4	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	147-18-4	5	ND	ND	ND	ND	ND	ND	ND	ND	**1.4**	ND	ND	ND	ND
1,1-Dichloroethene	75-35-4	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	75-09-2	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	67-64-1	50 GV	ND	ND	ND	ND	ND	ND	**15**	**30**	ND	ND	ND	ND	ND
Chloroform	67-66-3	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	75-27-4	50 GA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	124-48-1	50 GA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	75-25-2	50 GA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Total VOCs:		*198*	*7.2*	*100*	*171*	*321*	*8.3*	*21*	*202*	*13*	*54*	*100*	*50*	*161*
	Total CVOCs:		*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*1.4*	*ND*	*ND*	*ND*	*ND*
	Total BTEX:		*6.6*	*6.3*	*ND*	*ND*	*ND*	*6.3*	*ND*	*1.8*	*0.5*	*ND*	*ND*	*ND*	*0.5*

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Table 4

Pump & Treatment System Influent - Historical Sampling Data Summary
Former Orangeburg Pipe Manufacturing Facility (Lowe's Home Center)

HDR Sample ID / Date Sampled		NYSDEC Stds (a)	Pump and Treatment System Influent - SVOCs									
			Oct-05 Results	Nov-06 Results	Oct-07 Results	Oct-08 Results	Nov-09 Results	Nov-10 Results	Dec-11 Results	Jul-12 Results	Jul-13 Results	Jul-14 Results
SVOCs (µg/L)	**CAS No.**											
Acenaphthene	83-32-9	20 GV	**25**	**140**	**22**	**250**	**190**	**220**	**150**	**43**	**140**	**82**
Anthracene	120-12-7	50 GV	ND	**5.4**	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	56-55-3	0.002 GV	ND	**1.6**	**1.9**	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	50-32-8	ND	ND	**1.3**	**2.0**	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	205-99-2	0.002 GV	ND	**1.7**	**2.3**	ND	ND	ND	ND	ND	ND	ND
Chrysene	218-01-9	0.002 GV	ND	**1.7**	**1.8**	ND	ND	ND	ND	ND	ND	ND
Carbozole	86-74-8	NS	NA	NA	**1.0**	**58**	**35**	**31**	**16**	**4.7**	**13**	ND
Dibenzofuran	132-64-9	NS	NA	NA	ND	**50**	**37**	**30**	**22**	**5.7**	**22**	**6.6**
Fluoranthene	206-44-0	50 GV	**2.3**	**10**	**5.1**	**13**	**9.4**	**9.7**	**11**	ND	**7.1**	**4.5**
Fluorene	86-73-7	50 GV	**3.7**	**31**	ND	**51**	**40**	**43**	**27**	**6.1**	**28**	**11**
Phenanthrene	85-01-8	50 GV	ND	**22**	ND	**30**	**24**	**17**	**14**	ND	**8.0**	ND
Pyrene	129-00-0	50 GV	ND	**7.5**	**4.3**	**7.7**	**6.0**	**7.6**	**7.3**	ND	**5.0**	**3.7**
2,4-Dimethylphenol	105-67-9	50 GV	**3.0**	**5.6**	ND	**17**	**17**	**27**	**30**	**2.5**	**9.3**	**4.5**
2-Methylnaphthalene	91-57-6	NS	NA	NA	ND	**26**	**16**	**12**	**3.8**	**4.7**	**10**	ND
Di-n-butyl phthalate	84-74-2	50	**3.0**	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	117-81-7	5	**8.6**	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Total SVOCs:		*46*	*228*	*40*	*503*	*374*	*397*	*281*	*67*	*242*	*112*

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Note - For naphthalene results, see VOC results in Table 7.

Table 4

Pump & Treatment System Influent - Historical Sampling Data Summary
Former Orangeburg Pipe Manufacturing Facility (Lowe's Home Center)

HDR Sample ID / Date Sampled		Town Discharge Limits	Pump and Treatment System Influent - Inorganics & Wet Chemistries								
			Nov-06 Results	Oct-07 Results	Oct-08 Results	Nov-09 Results	Nov-10 Results	Dec-11 Results	Jul-12 Results	Jul-13 Results	Jul-14 Results
Metals (µg/L)	**CAS No.**										
Antimony	7440-36-0	NL	< 7.5	< 7.5	< 7.5	< 7.5	< 7.5	< 7.5	NS	NS	NS
Arsenic	7440-38-2	2500	10	8	< 20	< 20	< 20	< 20	NS	NS	NS
Barium	7440-39-3	NL	NA	960	960	920	1000	690	NS	NS	NS
Beryllium	7440-41-7	300	< 4	< 4	< 4	< 4	< 4	< 4	NS	NS	NS
Cadmium	7440-43-9	800	< 2	< 2	< 2	< 2	< 2	< 2	NS	NS	NS
Chromium	7440-47-3	6000	< 25	< 25	< 25	< 25	< 25	< 25	NS	NS	NS
Copper	7440-50-8	1000	< 25	39.0	< 25	< 25	< 25	< 25	NS	NS	NS
Lead	7439-92-1	1500	< 5	< 5	< 5	< 5	< 5	< 5	NS	NS	NS
Nickel	7440-02-0	1500	< 10	< 10	< 10	< 10	< 10	< 10	NS	NS	NS
Selenium	7782-49-2	1500	< 25	< 25	< 25	< 25	< 25	< 25	NS	NS	NS
Silver	7440-22-4	1500	< 10	< 10	< 10	< 10	< 10	< 10	NS	NS	NS
Thallium	7440-28-0	NL	< 5	< 5	< 5	< 5	< 5	< 5	NS	NS	NS
Zinc	7440-66-6	20000	< 25	< 25	< 25	< 25	< 25	< 25	NS	NS	NS
Mercury	7439-97-6	50	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	NS	NS	NS
Wet Chemistry (mg/L)											
Cyanide (Total)	-	3	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.02	< 0.02	< 0.02
Cyanide (Total)	-	NL	NA	NA	NA	NA	NA	NA	< 0.05	< 0.02	< 0.02
BOD	-	200	4.1	< 2	10	6.4	7.6	3.9	3.1	7.5	7.5
COD	-	500	47	19	48	40	30	32	25	42	47
Oil & Grease	-	26	1	< 1.5	2.7	< 1.4	< 1.6	< 10.9	< 5.3	< 5.5	< 5.5
Phenols	-	25	< 0.05	< 0.05	< 0.05	0.076	0.072	0.069	< 0.05	< 0.05	< 0.05
TSS	-	200	36	160	46	34	61	15	12	20	20
pH (pH Units)	-	6.0 - 9.0	6.5	6.5	6.8	6.5	6.7	6.8	6.8	6.8	6.4

NL - No Town Limit (monitor only)
NA - Not Analyzed
NS - Permit Revised (analysis not required)

Table 5

Historical Groundwater Sampling Data Summary
Former Orangeburg Pipe Manufacturing Facility (Lowe's Home Center)

HDR Sample ID		NYSDEC Stds (a)	MW03-11S																	
Date Sampled			Dec-04	Mar-05	Jun-05	Sep-05	Dec-05	Jul-06	Jul-07	Jul-08	Jul-09	Jul-10	Jul-11	Jul-12	Jul-13	Jul-14	Jul-15	Jul-16
			Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL
VOCs (µg/L)	**CAS No.**																	
1,1-Dichloroethane	75-34-4	5	NS	ND 20	ND 50	**5.1** 1	ND 1	ND 1	ND 5	ND 1	ND 20	ND 2	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1
1,1,1-Trichloroethane	71-55-6	5	NS	ND 20	ND 50	ND 1	ND 1	ND 1	ND 5	ND 1	ND 20	ND 2	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1
1,1-Dichloroethene	75-35-4	5	NS	ND 20	ND 50	ND 1	ND 1	ND 1	ND 5	ND 1	ND 20	ND 2	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1
Methylene chloride	75-09-2	5	NS	ND 20	ND 50	ND 1	ND 1	ND 1	ND 5	ND 1	ND 20	ND 2	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1
Chloroethane	75-00-3	5 GV	NS	ND 20	ND 50	ND 1	ND 1	ND 1	ND 5	ND 1	ND 20	ND 2	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1
Benzene	71-43-2	1	ND 1	ND 10	ND 25	**0.94** 0.5	**1.5** 0.5	**2.3** 0.5	ND 1	**1.4** 0.5	ND 10	**1.6** 1	**2.8** 2.5	ND 0.5	**1.3** 0.5	**0.87** 0.5	**1.0** 0.5	ND 0.5
Toluene	108-88-3	5	**2.3** 1	ND 20	ND 50	**1.5** 1	**4.2** 1	**3.7** 1	ND 1	**1.9** 1	ND 20	ND 2	ND 5	ND 1	ND 1	ND 1	**1.3** 1	ND 1
Ethylbenzene	100-41-4	5	**5.8** 1	ND 20	ND 50	ND 1	**10** 1	**12** 1	ND 1	**6.8** 1	ND 20	ND 2	**29** 5	**5.7** 1	**5.6** 1	**3.1** 1	**2.7** 1	**1.6** 1
m&p-Xylenes	108-38-3 106-42-3	5	**6.5** 1	ND 20	ND 50	**2.7** 1	**5.4** 1	**6.5** 1	ND 1	**4.9** 1	ND 20	**3.9** 2	**11** 5	ND 1	**3.9** 1	**2.2** 1	**3.0** 1	**1.0** 1
o-Xylene	95-47-6	5	**4.7** 1	ND 20	ND 50	**3.4** 1	**7.2** 1	**7.5** 1	ND 1	**5.7** 1	ND 20	ND 2	**13** 5	ND 1	**6.2** 1	**4.3** 1	**6.0** 1	**4.0** 1
Naphthalene	91-20-3	10 GV	**1300** 1	**840** 20	**1300** 50	**330** 1	**450** 1	**370** 1	**130** 1	**540** 1	**970** 20	**550** 2	**430** 5	**290** 1	**140** 1	**100** 1	**110** 1	**67** 1
Methyl tert-butyl ether (MTBE)	1634-04-4	10 GV	**1.7** 1	ND 10	ND 25	**1.1** 0.5	**1.1** 0.5	ND 0.5	**2.5** 0.5	**7.2** 0.5	ND 10	**3.7** 1	**7.8** 2.5	**3.4** 0.5	**5.7** 0.5	**3.8** 0.5	**4.6** 0.5	**5.1** 0.5
n-Propylbenzene	103-65-1	5	ND 1	ND 20	ND 50	ND 1	**3.0** 1	ND 1	ND 1	ND 1	ND 20	ND 2	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1
n-Butylbenzene	104-51-8	5	**2.5** 1	ND 20	ND 50	**1.4** 1	ND 1	**3.2** 1	ND 1	ND 1	ND 20	ND 2	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1
sec-Butylbenzene	135-98-8	5	ND 1	ND 20	ND 50	ND 1	ND 1	ND 1	ND 1	ND 1	ND 20	ND 2	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1
Isopropylbenzene	98-82-8	5	**0.85** 1	ND 20	ND 50	ND 1	**0.66** 1	ND 1	ND 1	ND 1	ND 20	ND 2	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1
1,2,4-Trimethylbenzene	95-63-6	5	**4.5** 1	ND 20	ND 50	**2.3** 1	**4.6** 1	**5.0** 1	**1.3** 1	**5.1** 1	ND 20	**5.6** 2	**13** 5	ND 1	**5.8** 1	**3.3** 1	**2.7** 1	**1.9** 1
1,3,5-Trimethylbenzene	108-67-8	5	**0.72** 1	ND 20	ND 50	ND 1	**1.4** 1	**1.6** 1	ND 1	**1.6** 1	ND 20	ND 2	ND 5	ND 1	ND 1	ND 1	ND 1	**1.1** 1
Acetone	67-64-1	50 GV	ND 5	ND 20	ND 50	ND 5	ND 5	ND 5	ND 5	ND 5	ND 20	ND 10	ND 5	ND 5	ND 5	ND 5	ND 5	ND 5
	Total VOCs:		*1330*	*840*	*1300*	*348*	*489*	*412*	*134*	*575*	*970*	*565*	*507*	*299*	*169*	*118*	*131*	*82*
	Total CVOCs:		*ND*	*ND*	*ND*	*5.1*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*
	Total BTEX:		*19*	*ND*	*ND*	*8.5*	*28*	*32*	*ND*	*21*	*ND*	*5.5*	*56*	*5.7*	*17*	*10*	*14*	*6.6*

(a) - NYSDEC TOGS 1.1.1 GA Standards, June 1998.
ND - Not detected at analytical reporting limit.
1.6 - **Bold** indicates parameter detected above analytical reporting limit.
67 - **Bold** & color indicates exceedance of applicable standard or guidance value.
GV - Guidance value.
NS - No standard or guidance value available.
RL - Reporting Limit
Note - The results represent detected parameters only. Please refer to the laboratory data packages in the appendix of this report for all parameters analyzed.

Table 5

Historical Groundwater Sampling Data Summary
Former Orangeburg Pipe Manufacturing Facility (Lowe's Home Center)

HDR Sample ID		NYSDEC Stds (a)	MW03-12D																					
Date Sampled			Mar-89		Jul-95		Dec-04		Mar-05		Jun-05		Sep-05		Dec-05		Jul-06		Jul-07		Jul-08		Jul-09	
			Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL
VOCs (µg/L)	**CAS No.**																							
1,1-Dichloroethane	75-34-4	5	**6.0**	1	**1.6**	1	NS		**0.82**	1	**0.85**	1	**0.78**	1	**0.76**	1	ND	1	ND	5	ND	1	ND	1
1,1,1-Trichloroethane	71-55-6	5	ND	1	ND	1	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1
1,1-Dichloroethene	75-35-4	5	**1.0**	1	ND	1	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1
Trichloroethene		5	ND	0	ND	1	NS		ND	1	**0.54**	1	**0.68**	1	**0.61**	1	ND	1	ND	5	ND	1	ND	1
Methylene chloride	75-09-2	5	ND	1	ND	1	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1
Chloroethane	75-00-3	5 GV	ND	1	ND	1	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1
Benzene	71-43-2	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	0.5	ND	0.5	ND	0.5	ND	5	ND	0.5	ND	0.5
Toluene	108-88-3	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1
Ethylbenzene	100-41-4	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1
m&p-Xylenes	108-38-3 106-42-3	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	2	ND	1
o-Xylene	95-47-6	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1
Naphthalene	91-20-3	10 GV	NS		NS		ND	1	ND	1	**2.9**	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1
Methyl tert-butyl ether (MTBE)	1634-04-4	10 GV	NS		NS		**16**	1	**13**	1	**15**	1	**4.7**	0.5	**7.1**	0.5	**8.8**	0.5	**2.9**	0.5	**1.3**	0.5	**0.97**	0.5
n-Propylbenzene	103-65-1	5	NS		NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
n-Butylbenzene	104-51-8	5	NS		NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
sec-Butylbenzene	135-98-8	5	NS		NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Isopropylbenzene	98-82-8	5	NS		NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,2,4-Trimethylbenzene	95-63-6	5	NS		NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,3,5-Trimethylbenzene	108-67-8	5	NS		NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Acetone	67-64-1	50 GV	NS		NS		ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5
		Total VOCs:	*7*		*1.6*		*16*		*14*		*19*		*6.2*		*8.5*		*8.8*		*2.9*		*1.3*		*1.0*	
		Total CVOCs:	*7*		*1.6*		*ND*		*0.8*		*1.4*		*1.5*		*1.4*		*ND*		*ND*		*ND*		*ND*	
		Total BTEX:	*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*	

HDR Sample ID		NYSDEC Stds (a)	MW03-12D																					
Date Sampled			Jul-10		Jul-11		Jul-12		Jul-13		Jul-14		Jul-15		Jul-16									
			Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL								
VOCs (µg/L)	**CAS No.**																							
1,1-Dichloroethane	75-34-4	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
1,1,1-Trichloroethane	71-55-6	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
1,1-Dichloroethene	75-35-4	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
Trichloroethene		5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
Methylene chloride	75-09-2	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
Chloroethane	75-00-3	5 GV	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
Benzene	71-43-2	1	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5								
Toluene	108-88-3	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
Ethylbenzene	100-41-4	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
m&p-Xylenes	108-38-3 106-42-3	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
o-Xylene	95-47-6	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
Naphthalene	91-20-3	10 GV	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
Methyl tert-butyl ether (MTBE)	1634-04-4	10 GV	**0.57**	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5								
n-Propylbenzene	103-65-1	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
n-Butylbenzene	104-51-8	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
sec-Butylbenzene	135-98-8	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
Isopropylbenzene	98-82-8	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
1,2,4-Trimethylbenzene	95-63-6	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
1,3,5-Trimethylbenzene	108-67-8	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
Acetone	67-64-1	50 GV	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5								
		Total VOCs:	*0.6*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*									
		Total CVOCs:	*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*									
		Total BTEX:	*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*									

(a) - NYSDEC TOGS 1.1.1 GA Standards, June 1998.
ND - Not detected at analytical reporting limit.
1.6 - **Bold** indicates parameter detected above analytical reporting limit.
67 - **Bold** & color indicates exceedance of applicable standard or guidance value.

GV - Guidance value.
NS - No standard or guidance value available.
RL - Reporting Limit
Note - The results represent detected parameters only. Please refer to the laboratory data packages in the appendix of this report for all parameters analyzed.

Table 5

Historical Groundwater Sampling Data Summary
Former Orangeburg Pipe Manufacturing Facility (Lowe's Home Center)

HDR Sample ID		NYSDEC Stds (a)	MW03-14S																					
Date Sampled			Mar-89		Jul-95		Dec-04		Mar-05		Jun-05		Sep-05		Dec-05		Jul-06		Jul-07		Jul-08		Jul-09	
			Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL
VOCs (µg/L)	**CAS No.**																							
1,1-Dichloroethane	75-34-4	5	**1.0**	1	**1.3**	1	NS		**0.82**	1	**0.85**	1	**0.78**	1	**0.76**	1	ND	1	ND	5	ND	1	ND	1
1,1,1-Trichloroethane	71-55-6	5	ND	1	ND	1	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1
1,1-Dichloroethene	75-35-4	5	ND	1	ND	1	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1
Methylene chloride	75-09-2	5	ND	1	ND	1	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1
Chloroethane	75-00-3	5 GV	ND	1	ND	1	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1
Benzene	71-43-2	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	0.5	ND	0.5	ND	0.5	ND	5	ND	0.5	ND	0.5
Toluene	108-88-3	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1
Ethylbenzene	100-41-4	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1
m&p-Xylenes	108-38-3 106-42-3	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	2	ND	1
o-Xylene	95-47-6	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1
Naphthalene	91-20-3	10 GV	NS		NS		ND	1	ND	1	**2.9**	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1
Methyl tert-butyl ether (MTBE)	1634-04-4	10 GV	NS		NS		ND	1	**13**	1	**15**	1	**4.7**	0.5	**7.1**	0.5	**8.8**	0.5	**2.9**	0.5	**1.3**	0.5	**0.97**	0.5
n-Propylbenzene	103-65-1	5	NS		NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
n-Butylbenzene	104-51-8	5	NS		NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
sec-Butylbenzene	135-98-8	5	NS		NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Isopropylbenzene	98-82-8	5	NS		NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,2,4-Trimethylbenzene	95-63-6	5	NS		NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,3,5-Trimethylbenzene	108-67-8	5	NS		NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Acetone	67-64-1	50 GV	NS		NS		ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5
		Total VOCs:	*1.0*		*1.3*		*ND*		*14*		*19*		*5.5*		*7.9*		*8.8*		*2.9*		*1.3*		*1.0*	
		Total CVOCs:	*1.0*		*1.3*		*ND*		*0.8*		*0.9*		*0.8*		*0.8*		*ND*		*ND*		*ND*		*ND*	
		Total BTEX:	*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*	

HDR Sample ID		NYSDEC Stds (a)	MW03-14S																					
Date Sampled			Jul-10		Jul-11		Jul-12		Jul-13		Jul-14		Jul-15		Jul-16									
			Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL								
VOCs (µg/L)	**CAS No.**																							
1,1-Dichloroethane	75-34-4	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
1,1,1-Trichloroethane	71-55-6	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
1,1-Dichloroethene	75-35-4	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
Methylene chloride	75-09-2	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
Chloroethane	75-00-3	5 GV	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
Benzene	71-43-2	1	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5								
Toluene	108-88-3	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
Ethylbenzene	100-41-4	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
m&p-Xylenes	108-38-3 106-42-3	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
o-Xylene	95-47-6	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
Naphthalene	91-20-3	10 GV	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
Methyl tert-butyl ether (MTBE)	1634-04-4	10 GV	**0.57**	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	**8.0**	0.5	ND	0.5								
n-Propylbenzene	103-65-1	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
n-Butylbenzene	104-51-8	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
sec-Butylbenzene	135-98-8	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
Isopropylbenzene	98-82-8	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
1,2,4-Trimethylbenzene	95-63-6	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
1,3,5-Trimethylbenzene	108-67-8	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1								
Acetone	67-64-1	50 GV	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5								
		Total VOCs:	*0.6*		*ND*		*ND*		*ND*		*ND*		*8.0*		*ND*									
		Total CVOCs:	*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*									
		Total BTEX:	*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*									

(a) - NYSDEC TOGS 1.1.1 GA Standards, June 1998.
ND - Not detected at analytical reporting limit.
1.6 - **Bold** indicates parameter detected above analytical reporting limit.
67 - **Bold** & color indicates exceedance of applicable standard or guidance value.
GV - Guidance value.
NS - No standard or guidance value available.
RL - Reporting Limit
Note - The results represent detected parameters only. Please refer to the laboratory data packages in the appendix of this report for all parameters analyzed.

Table 5

Historical Groundwater Sampling Data Summary
Former Orangeburg Pipe Manufacturing Facility (Lowe's Home Center)

HDR Sample ID		NYSDEC Stds (a)	MW03-18S																	
Date Sampled			Mar-89	Jul-95	Dec-04	Mar-05	Jun-05	Sep-05	Dec-05	Jul-06	Jul-07	Jul-08	Jul-09	Jul-10	Jul-11	Jul-12	Jul-13	Jul-14	Jul-15	Jul-16
			Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL
VOCs (µg/L)	**CAS No.**																			
1,1-Dichloroethane	75-34-4	5	**480** 1	**230** 1	NS	**2.3** 1	**1.6** 1	**2.9** 1	**2.6** 1	**2.5** 1	ND 5	ND 1	ND 1	ND 1	**1.6** 1	**1.2** 1	**1.5** 1	**1.1** 1	**2.5** 1	**1.9** 1
1,1,1-Trichloroethane	71-55-6	5	**14** 1	**59** 1	NS	**0.65** 1	ND 1	ND 1	**1.2** 1	ND 1	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1	**1.5** 1	ND 1	ND 1	ND 1
1,1-Dichloroethene	75-35-4	5	ND 1	ND 10	NS	ND 1	ND 1	ND 1	ND 1	ND 1	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
Cis-1,2-Dichloroethene	156-59-2		ND 1	ND 10	NS	ND 1	ND 1	**0.52** 1	ND 1	ND 1	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
1,2-Dichloroethane	107-06-2	5	**5.0** 1	ND 10	NS	ND 1	ND 1	ND 1	ND 1	ND 1	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
Methylene chloride	75-09-2	5	ND 1	ND 10	NS	ND 1	ND 1	ND 1	ND 1	ND 1	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
Chloroethane	75-00-3	5 GV	**60** 1	**26** 1	NS	**4.1** 1	**1.5** 1	**2.5** 1	**2.0** 1	**2.1** 1	**1.4** 5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
Benzene	71-43-2	1	ND 1	ND 10	ND 1	ND 1	ND 1	ND 0.5	ND 0.5	ND 0.5	ND 5	ND 0.5	ND 0.5	ND 0.5	ND 0.5	ND 0.5	ND 0.5	ND 0.5	ND 0.5	ND 0.5
Toluene	108-88-3	5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
Ethylbenzene	100-41-4	5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
m&p-Xylenes	108-38-3 106-42-3	5	ND 1	ND 10	**1.2** 1	ND 1	ND 1	ND 1	**0.6** 1	ND 1	ND 5	ND 2	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
o-Xylene	95-47-6	5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
Naphthalene	91-20-3	10 GV	ND 10	NS	**25** 1	**14** 1	**17** 1	**10** 1	**12** 1	**8.6** 1	**2.1** 5	ND 1	ND 1	ND 1	ND 1	ND 1	**5.1** 1	ND 1	ND 1	ND 1
Methyl tert-butyl ether (MTBE)	1634-04-4	10 GV	NS	NS	ND 1	ND 1	ND 1	ND 0.5	ND 0.5	ND 0.5	ND 0.5	ND 0.5	ND 0.5	ND 0.5	ND 0.5	ND 0.5	ND 0.5	ND 0.5	ND 0.5	ND 0.5
n-Propylbenzene	103-65-1	5	NS	NS	**2.2** 1	**1.9** 1	**1.7** 1	**0.96** 1	**1.7** 1	**2.2** 1	**1.6** 1	**1.5** 1	**1.9** 1	ND 1	ND 1	**1.1** 1	**1.4** 1	ND 1	ND 1	ND 1
n-Butylbenzene	104-51-8	5	NS	NS	**3.8** 1	**3.0** 1	**3.1** 1	**1.8** 1	**2.6** 1	**3.9** 1	**1.5** 1	**1.1** 1	**1.1** 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
sec-Butylbenzene	135-98-8	5	NS	NS	**1.3** 1	**1.7** 1	**1.3** 1	**0.68** 1	**1.6** 1	**1.9** 1	**1.4** 1	**1.7** 1	**1.4** 1	ND 1	ND 1	**1.3** 1	**1.3** 1	ND 1	ND 1	ND 1
Isopropylbenzene	98-82-8	5	NS	NS	**1.3** 1	**1.1** 1	ND 1	**0.59** 1	**0.91** 1	**1.2** 1	ND 1	ND 1	**1.1** 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
1,2,4-Trimethylbenzene	95-63-6	5	NS	NS	**6.4** 1	**5.2** 1	**8.0** 1	**4.3** 1	**5.1** 1	**5.6** 1	**2.5** 1	**1.9** 1	**1.6** 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
1,3,5-Trimethylbenzene	108-67-8	5	NS	NS	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
Acetone	67-64-1	50 GV	NS	NS	ND 5	ND 5	ND 5	ND 5	ND 5	ND 5	ND 5	ND 5	ND 5	ND 5	ND 5	ND 5	ND 5	ND 5	ND 5	ND 5
		Total VOCs:	*559*	*315*	*41*	*34*	*34*	*24*	*30*	*28*	*11*	*6.2*	*7.1*	*ND*	*1.6*	*3.6*	*11*	*1.1*	*2.5*	*1.9*
		Total CVOCs:	*559*	*315*	*ND*	*7.1*	*3.1*	*5.9*	*5.8*	*4.6*	*1.4*	*ND*	*ND*	*ND*	*1.6*	*1.2*	*3.0*	*1.1*	*2.5*	*1.9*
		Total BTEX:	*ND*	*ND*	*1.2*	*ND*	*ND*	*ND*	*0.6*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*

(a) - NYSDEC TOGS 1.1.1 GA Standards, June 1998.
ND - Not detected at analytical reporting limit.
1.6 - **Bold** indicates parameter detected above analytical reporting limit.
67 - **Bold** & color indicates exceedance of applicable standard or guidance value.
GV - Guidance value.
NS - No standard or guidance value available.
RL - Reporting Limit
Note - The results represent detected parameters only. Please refer to the laboratory data packages in the appendix of this report for all parameters analyzed.

Table 5

Historical Groundwater Sampling Data Summary
Former Orangeburg Pipe Manufacturing Facility (Lowe's Home Center)

HDR Sample ID		NYSDEC Stds (a)	MW03-18D																					
Date Sampled			Jul-95		Dec-04		Mar-05		Jun-05		Sep-05		Dec-05		Jul-06		Jul-07		Jul-08		Jul-09		Jul-10		Jul-11		Jul-12		Jul-13		Jul-14		Jul-15		Jul-16	
			Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL
VOCs (µg/L)	**CAS No.**																																			
1,1-Dichloroethane	75-34-4	5	**6.1**	1	NS		**22**	1	**29**	1	**29**	1	**6.6**	1	**22**	1	**26**	5	**23**	1	**23**	1	**20**	1	**19**	1	**18**	1	**17**	1	**16**	1	**14**	1	**15**	1
1,1,1-Trichloroethane	71-55-6	5	**1.1**	1	NS		ND	1	ND	1	**0.9**	1	**0.61**	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,1-Dichloroethene	75-35-4	5	**5.9**	10	NS		**2.0**	1	**2.6**	1	**3.3**	1	ND	1	**2.2**	1	**3.3**	5	**2.3**	1	**3.2**	1	**2.3**	1	**2.9**	1	**2.3**	1	**2.7**	1	**2.0**	1	**2.2**	1	**3.1**	1
1,2-Dichloroethane	107-06-2	5	**2.9**	10	NS		ND	1	**0.77**	1	**0.94**	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	**0.59**	1	ND	1	ND	1	ND	1	ND	1
Methylene chloride	75-09-2	5	ND	10	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Chloroethane	75-00-3	5 GV	ND	1	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Benzene	71-43-2	1	ND	10	ND	1	ND	1	ND	1	ND	0.5	ND	0.5	ND	0.5	ND	5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5
Toluene	108-88-3	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Ethylbenzene	100-41-4	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
m&p-Xylenes	108-38-3 106-42-3	5	ND	10	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	2	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
o-Xylene	95-47-6	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Naphthalene	91-20-3	10 GV	NS		ND	1	ND	1	**0.98**	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Methyl tert-butyl ether (MTBE)	1634-04-4	10 GV	NS		ND	1	ND	1	ND	1	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	**1.1**	0.5	**1.0**	0.5	**0.81**	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5
n-Propylbenzene	103-65-1	5	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
n-Butylbenzene	104-51-8	5	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
sec-Butylbenzene	135-98-8	5	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Isopropylbenzene	98-82-8	5	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,2,4-Trimethylbenzene	95-63-6	5	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,3,5-Trimethylbenzene	108-67-8	5	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Acetone	67-64-1	50 GV	NS		ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5
	Total VOCs:		*16*		*ND*		*24*		*33*		*34*		*7.2*		*24*		*29*		*25*		*27*		*23*		*23*		*21*		*20*		*18*		*16*		*18*	
	Total CVOCs:		*16*		*ND*		*24*		*32*		*34*		*7.2*		*24*		*29*		*25*		*26*		*22*		*22*		*21*		*20*		*18*		*16*		*18*	
	Total BTEX:		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*	

(a) - NYSDEC TOGS 1.1.1 GA Standards, June 1998.
ND - Not detected at analytical reporting limit.
2.3 - **Bold** indicates parameter detected above analytical reporting limit.
6.1 - **Bold** & color indicates exceedance of applicable standard or guidance value.
GV - Guidance value.
NS - No standard or guidance value available.
RL - Reporting Limit
Note - The results represent detected parameters only. Please refer to the laboratory data packages in the appendix of this report for all parameters analyzed.

Table 5

Historical Groundwater Sampling Data Summary
Former Orangeburg Pipe Manufacturing Facility (Lowe's Home Center)

HDR Sample ID		NYSDEC Stds (a)	MW03-27S																			
Date Sampled			Dec-04		Mar-05		Jun-05		Sep-05		Dec-05		Jul-06		Jul-07		Jul-08		Jul-09		Jul-10		Jul-11		Jul-12		Jul-13		Jul-14		Jul-15		Jul-16	
			Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL
VOCs (µg/L)	**CAS No.**																																	
1,1-Dichloroethane	75-34-4	5	NS		**1.9**	1	**2.8**	1	**0.7**	1	**1.7**	1	ND	1	1.3	5	ND	1	**1.7**	1	ND	1	ND	1	ND	1	**1.1**	1	ND	1	ND	1	**1.3**	1
1,1,1-Trichloroethane	71-55-6	5	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,1-Dichloroethene	75-35-4	5	NS		**1.4**	1	**2.3**	1	**0.77**	1	**1.7**	1	ND	1	**3.2**	5	ND	1	ND	1	ND	1	**1.7**	1	ND	1	**2.3**	1	**2.1**	1	ND	1	**1.8**	1
Cis-1,2-Dichloroethene	156-59-2		NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	**2.8**	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,2-Dichloroethane	107-06-2	5	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Methylene chloride	75-09-2	5	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Chloroethane	75-00-3	5 GV	NS		ND	1	ND	1	ND	0.5	ND	0.5	ND	0.5	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Benzene	71-43-2	1	ND	1	ND	1	ND	1	ND	0.5	ND	0.5	ND	0.5	ND	5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5
Toluene	108-88-3	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Ethylbenzene	100-41-4	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
m&p-Xylenes	108-38-3 106-42-3	5	ND	1	ND	1	ND	1	ND	1	**0.6**	1	ND	1	ND	5	ND	2	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
o-Xylene	95-47-6	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Naphthalene	91-20-3	10 GV	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	**1.1**	1	ND	1	ND	1
Methyl tert-butyl ether (MTBE)	1634-04-4	10 GV	**9.2**	1	**7.4**	1	**5.4**	1	**4.9**	0.5	**5.9**	0.5	**17**	0.5	**4.2**	0.5	**7.3**	0.5	**2.5**	0.5	ND	0.5	**1.6**	0.5	**3.3**	0.5	**1.2**	0.5	**4.0**	0.5	**2.1**	0.5	**2.5**	0.5
n-Propylbenzene	103-65-1	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
n-Butylbenzene	104-51-8	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
sec-Butylbenzene	135-98-8	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Isopropylbenzene	98-82-8	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,2,4-Trimethylbenzene	95-63-6	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,3,5-Trimethylbenzene	108-67-8	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Acetone	67-64-1	50 GV	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	**36**	5	ND	5	ND	5	ND	5	**23**	5	ND	5	ND	5
		Total VOCs:	*9.2*		*11*		*11*		*6.4*		*10*		*17*		*8.7*		*7.3*		*5.3*		*36*		*3.3*		*3.3*		*4.6*		*30*		*2.1*		*5.6*	
		Total CVOCs:	*ND*		*3.3*		*5.1*		*1.5*		*3.4*		*ND*		*4.5*		*ND*		*4.5*		*ND*		*1.7*		*ND*		*3.4*		*2.1*		*ND*		*3.1*	
		Total BTEX:	*ND*		*ND*		*ND*		*ND*		*0.6*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*	

(a) - NYSDEC TOGS 1.1.1 GA Standards, June 1998.
ND - Not detected at analytical reporting limit.
1.6 - **Bold** indicates parameter detected above analytical reporting limit.
67 - **Bold** & color indicates exceedance of applicable standard or guidance value.

GV - Guidance value.
NS - No standard or guidance value available.
RL - Reporting Limit
Note - The results represent detected parameters only. Please refer to the laboratory data packages in the appendix of this report for all parameters analyzed.

Table 5

Historical Groundwater Sampling Data Summary
Former Orangeburg Pipe Manufacturing Facility (Lowe's Home Center)

HDR Sample ID		NYSDEC Stds (a)	MW03-27D															
Date Sampled			Dec-04	Mar-05	Jun-05	Sep-05	Dec-05	Jul-06	Jul-07	Jul-08	Jul-09	Jul-10	Jul-11	Jul-12	Jul-13	Jul-14	Jul-15	Jul-16
			Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL	Rslts RL
VOCs (µg/L)	**CAS No.**																	
1,1-Dichloroethane	75-34-4	5	NS	**0.93** 1	**1.0** 1	**0.88** 1	**0.80** 1	ND 1	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
1,1,1-Trichloroethane	71-55-6	5	NS	ND 1	ND 1	ND 1	ND 1	ND 1	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
1,1-Dichloroethene	75-35-4	5	NS	**0.97** 1	**1.2** 1	**0.87** 1	**0.93** 1	**1.3** 1	**1.9** 5	**1.4** 1	**2.0** 1	ND 1	ND 1	ND 1	ND 1	**1.4** 1	ND 1	ND 1
1,2-Dichloroethene	156-59-2		NS	ND 1	ND 1	ND 1	ND 1	ND 1	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
1,2-Dichloroethane	107-06-2	5	NS	ND 1	ND 1	ND 1	ND 1	ND 1	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
Methylene chloride	75-09-2	5	NS	ND 1	ND 1	ND 1	ND 1	ND 1	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
Chloroethane	75-00-3	5 GV	NS	ND 1	ND 1	ND 0.5	ND 0.5	ND 0.5	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
Benzene	71-43-2	1	ND 1	ND 1	ND 1	ND 0.5	ND 0.5	ND 0.5	ND 5	ND 0.5	ND 0.5	ND 0.5	ND 0.5	ND 0.5	ND 0.5	ND 0.5	ND 0.5	ND 0.5
Toluene	108-88-3	5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
Ethylbenzene	100-41-4	5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
m&p-Xylenes	108-38-3 106-42-3	5	ND 1	ND 1	ND 1	ND 1	**0.6** 1	ND 1	ND 5	ND 2	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
o-Xylene	95-47-6	5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
Naphthalene	91-20-3	10 GV	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	**1.4** 1	ND 1	ND 1
Methyl tert-butyl ether (MTBE)	1634-04-4	10 GV	**2.0** 1	**1.4** 1	**1.4** 1	ND 0.5	**2.1** 0.5	**2.8** 0.5	**1.0** 0.5	**1.2** 0.5	**0.95** 0.5	ND 0.5	ND 0.5	ND 0.5	**0.58** 0.5	**0.72** 0.5	ND 0.5	ND 0.5
n-Propylbenzene	103-65-1	5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
n-Butylbenzene	104-51-8	5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
sec-Butylbenzene	135-98-8	5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
Isopropylbenzene	98-82-8	5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
1,2,4-Trimethylbenzene	95-63-6	5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
1,3,5-Trimethylbenzene	108-67-8	5	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1	ND 1
Acetone	67-64-1	50 GV	ND 5	ND 5	ND 5	ND 5	ND 5	ND 5	ND 5	ND 5	ND 5	ND 5	ND 5	ND 5	ND 5	ND 5	ND 5	ND 5
	Total VOCs:		*2.0*	*3.3*	*3.6*	*1.8*	*4.4*	*4.1*	*2.9*	*2.6*	*3.0*	*ND*	*ND*	*ND*	*0.6*	*3.5*	*ND*	*ND*
	Total CVOCs:		*ND*	*1.9*	*2.2*	*1.8*	*1.7*	*1.3*	*1.9*	*1.4*	*2.0*	*ND*	*ND*	*ND*	*ND*	*1.4*	*ND*	*ND*
	Total BTEX:		*ND*	*ND*	*ND*	*ND*	*0.6*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*

(a) - NYSDEC TOGS 1.1.1 GA Standards, June 1998.
ND - Not detected at analytical reporting limit.
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GV - Guidance value.
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RL - Reporting Limit
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Table 5

Historical Groundwater Sampling Data Summary
Former Orangeburg Pipe Manufacturing Facility (Lowe's Home Center)

HDR Sample ID		NYSDEC Stds (a)	Jul-07		Jul-08		Jul-09		Jul-10		Jul-11		Jul-12		Jul-13		Jul-14		Jul-15		Jul-16	
Date Sampled			Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL
VOCs (µg/L)	**CAS No.**																					
1,1-Dichloroethane	75-34-4	5	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,1,1-Trichloroethane	71-55-6	5	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,1-Dichloroethene	75-35-4	5	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,2-Dichloroethene	156-59-2		ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,2-Dichloroethane	107-06-2	5	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Methylene chloride	75-09-2	5	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Chloroethane	75-00-3	5 GV	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Benzene	71-43-2	1	ND	5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5
Toluene	108-88-3	5	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Ethylbenzene	100-41-4	5	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
m&p-Xylenes	108-38-3 106-42-3	5	ND	5	ND	2	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
o-Xylene	95-47-6	5	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Naphthalene	91-20-3	10 GV	ND	5	ND	1	**1.1**	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Methyl tert-butyl ether (MTBE)	1634-04-4	10 GV	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5
n-Propylbenzene	103-65-1	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
n-Butylbenzene	104-51-8	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
sec-Butylbenzene	135-98-8	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Isopropylbenzene	98-82-8	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,2,4-Trimethylbenzene	95-63-6	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,3,5-Trimethylbenzene	108-67-8	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Acetone	67-64-1	50 GV	ND	5	ND	5	**55**	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5
		Total VOCs:	*ND*		*ND*		*56*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*	
		Total CVOCs:	*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*	
		Total BTEX:	*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*	

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Table 5

Historical Groundwater Sampling Data Summary
Former Orangeburg Pipe Manufacturing Facility (Lowe's Home Center)

HDR Sample ID		NYSDEC Stds (a)	MW03-11D																			
Date Sampled			Mar-89		Jul-95		Dec-04		Mar-05		Jun-05		Sep-05		Dec-05		Jul-06		Jul-07		Jul-08		Jul-09		Jul-10		Jul-11		Jul-12		Jul-13		Jul-14 *	
			Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL
VOCs (µg/L)	**CAS No.**																																	
1,1-Dichloroethane	75-34-4	5	ND	1	**0.7**	1	NS		ND	20	ND	1	ND	1	ND	1	ND	1	ND	100	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,1,1-Trichloroethane	71-55-6	5	ND	1	ND	1	NS		ND	20	ND	1	ND	1	ND	1	ND	1	ND	100	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,1-Dichloroethene	75-35-4	5	ND	1	ND	1	NS		ND	20	ND	1	ND	1	ND	1	ND	1	ND	100	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Methylene chloride	75-09-2	5	ND	1	ND	1	NS		ND	20	ND	1	ND	1	ND	1	ND	1	ND	100	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Chloroethane	75-00-3	5 GV	ND	1	ND	1	NS		ND	20	ND	1	ND	1	ND	1	ND	1	ND	100	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Benzene	71-43-2	1	ND	1	ND	1	ND	1	ND	10	ND	1	ND	0.5	ND	0.5	ND	0.5	ND	100	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5
Toluene	108-88-3	5	ND	1	ND	1	**5.2**	1	ND	20	**1.7**	1	**0.56**	1	**0.93**	1	ND	1	ND	100	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Ethylbenzene	100-41-4	5	ND	1	ND	1	**11**	1	ND	20	**6.1**	1	**1.9**	1	**4.5**	1	**3.1**	1	ND	100	**1.1**	1	**1.1**	1	**13**	1	ND	1	ND	1	ND	1	ND	1
m&p-Xylenes	108-38-3 106-42-3	5	ND	3	ND	1	**3.5**	1	ND	20	**3.8**	1	**1.2**	1	**2.6**	1	**2.2**	1	ND	40	ND	2	**1.2**	1	ND	1	ND	1	ND	1	ND	1	ND	1
o-Xylene	95-47-6	5	ND	1	ND	1	**8.2**	1	ND	20	**4.3**	1	**1.4**	1	**2.7**	1	**2.4**	1	ND	100	**1.2**	1	ND	1	**6.6**	1	ND	1	ND	1	ND	1	ND	1
Naphthalene	91-20-3	10 GV	ND	1	NS		**680**	10	**500**	20	**490**	1	**210**	1	**460**	1	**280**	1	**440**	100	**72**	1	**26**	1	**5.0**	1	**1.7**	1	ND	1	ND	1	ND	1
Methyl tert-butyl ether (MTBE)	1634-04-4	10 GV	NS	1	NS		ND	1	ND	10	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	20	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5
n-Propylbenzene	103-65-1	5	NS		NS		ND	1	ND	20	ND	1	ND	1	**1.6**	1	ND	1	ND	20	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
n-Butylbenzene	104-51-8	5	NS		NS		**1.9**	1	ND	20	**2.3**	1	ND	1	ND	1	**1.3**	1	ND	20	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
sec-Butylbenzene	135-98-8	5	NS		NS		ND	1	ND	20	ND	1	ND	1	ND	1	ND	1	ND	20	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Isopropylbenzene	98-82-8	5	NS		NS		ND	1	ND	20	**0.51**	1	ND	1	ND	1	ND	1	ND	20	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,2,4-Trimethylbenzene	95-63-6	5	NS		NS		**2.9**	1	ND	20	**3.4**	1	**1.3**	1	**2.5**	1	**2.4**	1	ND	20	**1.6**	1	**1.3**	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,3,5-Trimethylbenzene	108-67-8	5	NS		NS		**1.1**	1	ND	20	**1.1**	1	ND	1	**0.66**	1	ND	1	ND	20	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Acetone	67-64-1	50 GV	NS		NS		ND	5	ND	20	ND	5	ND	5	ND	5	ND	5	ND	20	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5
		Total VOCs:	*ND*		*0.7*		*714*		*500*		*513*		*216*		*475*		*291*		*440*		*76*		*30*		*25*		*1.7*		*ND*		*ND*		*ND*	
		Total CVOCs:	*ND*		*0.7*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*	
		Total BTEX:	*ND*		*ND*		*28*		*ND*		*16*		*5.1*		*11*		*7.7*		*ND*		*2.3*		*2.3*		*19.6*		*ND*		*ND*		*ND*		*ND*	

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Table 5

Historical Groundwater Sampling Data Summary
Former Orangeburg Pipe Manufacturing Facility (Lowe's Home Center)

HDR Sample ID		NYSDEC Stds (a)	Jul-95		Dec-04		Mar-05		Jun-05		Sep-05		Dec-05		Jul-06		Jul-07		Jul-08		Jul-09		Jul-10		Jul-11		Jul-12		Jul-13		Jul-14 *	
Date Sampled			Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL
VOCs (µg/L)	**CAS No.**																															
1,1-Dichloroethane	75-34-4	5	**0.9**	1	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,1,1-Trichloroethane	71-55-6	5	ND	1	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,1-Dichloroethene	75-35-4	5	ND	1	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Methylene chloride	75-09-2	5	ND	1	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Chloroethane	75-00-3	5 GV	ND	1	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Benzene	71-43-2	1	ND	1	ND	1	ND	1	ND	1	ND	0.5	ND	0.5	ND	0.5	ND	5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5
Toluene	108-88-3	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Ethylbenzene	100-41-4	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
m&p-Xylenes	108-38-3 106-42-3	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	2	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
o-Xylene	95-47-6	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Naphthalene	91-20-3	10 GV	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	**1.2**	1
Methyl tert-butyl ether (MTBE)	1634-04-4	10 GV	NS		ND	1	ND	1	ND	1	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	**2.8**	0.5	ND	0.5
n-Propylbenzene	103-65-1	5	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
n-Butylbenzene	104-51-8	5	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
sec-Butylbenzene	135-98-8	5	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Isopropylbenzene	98-82-8	5	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,2,4-Trimethylbenzene	95-63-6	5	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,3,5-Trimethylbenzene	108-67-8	5	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Acetone	67-64-1	50 GV	NS		ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5
	Total VOCs:		*0.9*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*2.8*		*1.2*	
	Total CVOCs:		*0.9*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*	
	Total BTEX:		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*	

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67 - **Bold** & color indicates exceedance of applicable standard or guidance value.
* * - Removed from sampling program after July 2014 sampling event.
GV - Guidance value.
NS - No standard or guidance value available.
RL - Reporting Limit
Note - The results represent detected parameters only. Please refer to the laboratory data packages in the appendix of this report for all parameters analyzed.

Table 5

Historical Groundwater Sampling Data Summary
Former Orangeburg Pipe Manufacturing Facility (Lowe's Home Center)

HDR Sample ID		NYSDEC Stds (a)	MW03-25																			
Date Sampled			Jul-95		Dec-04		Mar-05		Jun-05		Sep-05		Dec-05		Jul-06		Jul-07		Jul-08		Jul-09		Jul-10		Jul-11		Jul-12		Jul-13		Jul-14 *	
			Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL
VOCs (µg/L)	**CAS No.**																															
1,1-Dichloroethane	75-34-4	5	**1.3**	1	NS		**2.7**	1	**2.4**	1	**2.7**	1	**0.54**	1	**2.4**	1	**3.9**	5	**4.2**	1	**2.9**	1	**2.8**	1	**2.1**	1	**1.1**	1	ND	1	ND	1
1,1,1-Trichloroethane	71-55-6	5	ND	1	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,1-Dichloroethene	75-35-4	5	ND	10	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Cis-1,2-Dichloroethene	156-59-2	5	ND	10	NS		ND	1	ND	1	**0.58**	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,2-Dichloroethane	107-06-2	5	ND	10	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Methylene chloride	75-09-2	5	ND	10	NS		ND	1	ND	1	ND	1	ND	1	ND	1	**2.2**	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Chloroethane	75-00-3	5 GV	ND	1	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Benzene	71-43-2	1	**1.8**	10	ND	1	ND	1	**0.51**	1	ND	0.5	ND	0.5	**1.1**	0.5	ND	5	**1.2**	0.5	**0.95**	0.5	**0.65**	0.5	**0.68**	0.5	ND	0.5	ND	0.5	ND	0.5
Toluene	108-88-3	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Ethylbenzene	100-41-4	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
m&p-Xylenes	108-38-3 106-42-3	5	ND	10	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	2	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
o-Xylene	95-47-6	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Naphthalene	91-20-3	10 GV	NS		**1.8**	1	**2.7**	1	**1.2**	1	**0.56**	1	**8.9**	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	**1.2**	1	ND	1
Methyl tert-butyl ether (MTBE)	1634-04-4	10 GV	NS		ND	1	ND	1	ND	1	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5
Cyclohexane	110-82-7	NS	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	**1.4**	1	**1.4**	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
n-Propylbenzene	103-65-1	5	NS		ND	1	ND	1	**0.53**	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
n-Butylbenzene	104-51-8	5	NS		ND	1	ND	1	**0.53**	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
sec-Butylbenzene	135-98-8	5	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Isopropylbenzene	98-82-8	5	NS		ND	1	ND	1	**0.54**	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,2,4-Trimethylbenzene	95-63-6	5	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,3,5-Trimethylbenzene	108-67-8	5	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Acetone	67-64-1	50 GV	NS		ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5
		Total VOCs:	*3.1*		*1.8*		*5.4*		*5.7*		*3.8*		*9.4*		*3.5*		*7.5*		*6.8*		*3.9*		*3.5*		*2.8*		*1.1*		*1.2*		*ND*	
		Total CVOCs:	*1.3*		*ND*		*2.7*		*2.4*		*3.3*		*0.5*		*2.4*		*6.1*		*4.2*		*2.9*		*2.8*		*2.1*		*1.1*		*ND*		*ND*	
		Total BTEX:	*1.8*		*ND*		*ND*		*0.5*		*ND*		*ND*		*1.1*		*ND*		*1.2*		*1.0*		*0.7*		*0.7*		*ND*		*ND*		*ND*	

(a) - NYSDEC TOGS 1.1.1 GA Standards, June 1998.
ND - Not detected at analytical reporting limit.
2.3 - **Bold** indicates parameter detected above analytical reporting limit.
6.1 - **Bold** & color indicates exceedance of applicable standard or guidance value.
* - Removed from sampling program after July 2014 sampling event.
GV - Guidance value.
NS - No standard or guidance value available.
RL - Reporting Limit
Note - The results represent detected parameters only. Please refer to the laboratory data packages in the appendix of this report for all parameters analyzed.

Table 5

Historical Groundwater Sampling Data Summary
Former Orangeburg Pipe Manufacturing Facility (Lowe's Home Center)

HDR Sample ID		NYSDEC Stds (a)	MW03-26																			
Date Sampled			Jul-95		Dec-04		Mar-05		Jun-05		Sep-05		Dec-05		Jul-06		Jul-07		Jul-08		Jul-09		Jul-10		Jul-11		Jul-12		Jul-13		Jul-14 *	
			Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL	Rslts	RL
VOCs (µg/L)	**CAS No.**																															
1,1-Dichloroethane	75-34-4	5	ND	1	NS		**5.1**	1	**7.1**	1	**8.7**	1	ND	1	**6.1**	1	**6.7**	5	**6.2**	1	**7.3**	1	**4.8**	1	**3.0**	1	**4.9**	1	**3.7**	1	**2.7**	1
1,1,1-Trichloroethane	71-55-6	5	**3.3**	1	NS		**1.2**	1	**1.1**	1	**4.3**	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Trichloroethene	79-01-6		ND	10	NS		ND	1	ND	1	**0.6**	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,1-Dichloroethene	75-35-4	5	ND	10	NS		ND	1	ND	1	**1.5**	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Cis-1,2-Dichloroethene	156-59-2	5	ND	10	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,2-Dichloroethane	107-06-2	5	ND	10	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Methylene chloride	75-09-2	5	ND	10	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Chloroethane	75-00-3	5 GV	ND	1	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Benzene	71-43-2	1	ND	1	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	0.5	ND	0.5	ND	0.5	ND	0.5
Toluene	108-88-3	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Ethylbenzene	100-41-4	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
m&p-Xylenes	108-38-3 106-42-3	5	ND	10	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	2	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
o-Xylene	95-47-6	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Naphthalene	91-20-3	10 GV	NS		ND	1	ND	1	**1.6**	1	**0.68**	1	**0.87**	1	ND	1	ND	5	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Methyl tert-butyl ether (MTBE)	1634-04-4	10 GV	NS		ND	1	ND	1	ND	1	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5
n-Propylbenzene	103-65-1	5	NS		ND	1	ND	1	**0.53**	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
n-Butylbenzene	104-51-8	5	NS		ND	1	ND	1	**0.53**	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
sec-Butylbenzene	135-98-8	5	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Isopropylbenzene	98-82-8	5	NS		ND	1	ND	1	**0.54**	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,2,4-Trimethylbenzene	95-63-6	5	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
1,3,5-Trimethylbenzene	108-67-8	5	NS		ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1	ND	1
Acetone	67-64-1	50 GV	NS		ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5	ND	5
		Total VOCs:	*3.3*		*ND*		*6.3*		*11*		*16*		*0.9*		*6.1*		*6.7*		*6.2*		*7.3*		*4.8*		*3.0*		*4.9*		*3.7*		*2.7*	
		Total CVOCs:	*3.3*		*ND*		*6.3*		*8.2*		*15*		*ND*		*6.1*		*6.7*		*6.2*		*7.3*		*4.8*		*3.0*		*4.9*		*3.7*		*2.7*	
		Total BTEX:	*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*		*ND*	

(a) - NYSDEC TOGS 1.1.1 GA Standards, June 1998.
ND - Not detected at analytical reporting limit.
2.3 - **Bold** indicates parameter detected above analytical reporting limit.
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Note - The results represent detected parameters only. Please refer to the laboratory data packages in the appendix of this report for all parameters analyzed.

Appendix A

Sewer Discharge Permit and Related Correspondence

Department of Environmental Management and Engineering
Town of Orangetown

Route 303 • Orangeburg • New York 10962
Tel: (845) 359-6502 • Fax: (845) 359-6951

July 3, 2013

Mr. John Guzewich
HDR Inc.
One Blue Hill Plaza, Floor 12
PO Box 1509
Pearl River, NY 10965-3104

Re: Permit 2014 – 033; Industrial Pretreatment Inspection Event

Dear Mr. Guzewich:

Please find enclosed a completed Industrial Pretreatment Inspection Report for the event that took place on June 24, 2013. Thank you for your time in meeting me at the facility and for helping complete the Report form. No issues were found at the site.

If you have any questions, please feel free to contact me at the number above or at kskibinski@orangetown.com.

Very Truly Yours,

KENECK SKIBINSKI
Chief Plant Operator

KES:ks

TOWN OF ORANGETOWN WASTEWATER PLANT

INDUSTRIAL PRETREATMENT INSPECTION REPORT

Date of Inspection: June 23, 2014

Company Name: Orangeburg Holdings; C/O ILY Properties

Address: 505 Main St. - Unit 318
Hackensack, NJ 07601

Pretreatment Contact: John Guzewich, Project Manager
HDR Engineering

DEME Inspector: Ken Skibinski, Chief Plant Operator

PART A: Preamble – this site is a groundwater clean up on the former Orangeburg Pipe site that is now mostly occupied by a Lowe's Store. The cleanup consists of an "L" shaped perforated piping collection system that funnels flow into a manhole. The pump in the manhole is controlled by floats that direct flow 300 feet away into a shed. Formerly, the flow was filtered, then entered carbon treatment in drums. Neither is presently in use per approval by NYS DEC.

1. **Weekly hours of operation:** NA
2. **Number of employees per shift:** None – groundwater clean-up site
3. **Number of wastewater discharge permits:** One
4. **List of discharge permits and expiration dates:**

   Orangetown #2014-033; Expires 12-31-2014
5. **Amount of waste generated:** NA

   Amount of hazardous waste: NA
6. **Name of Hazardous Waste Hauler:** NA

   Hazardous Waste Transporter EPA ID No.: NA
7. **SIC Code:** 6552 – Land Subdividers & Developers

8. **Water discharged (gpd):** 455 GPD 1st Half 2013 records.

9. **Wells Used?** (y / n) Yes, which are wells for the groundwater collection into a manhole. Not wells used for process or production.

10. **Job Shop** (y / n): NO

PART B:

1. **Manufacturing Facilities**: (briefly describe operation and list any problems)

   No manufacturing occurs; this is a groundwater clean-up site located on the former Orangeburg pipe grounds. A Lowe's store now partially occupies the site.

2. **Type of Discharge:** Continuous flow _X__ Batch - _____

3. **Pretreatment Facilities**: (briefly describe operation and list any problems)

   NA

4. **Chemical Storage Areas**: (list all types of chemical storage)
   Does the potential exist for chemicals to exit down floor drains to POTW or storm drains?

   NA

   What type of secondary containment exists?

   NA

5. **Spill Prevention Plans**: (list plans and certification dates) (SPCC, Solvent Management, Slug Plan).

   NA

6. **Industrial user sampling**: (list lab used and any in-house testing)

   Hamption Clark; pH onsite by HDR Certified Lab personnel.

7. **Monitoring Records**: (briefly describe all logs kept - flow, pH, production, etc.)

   System is checked ~ every two weeks and flow is recorded, other pertinent

observations are recorded.

8. **Wastewater flow**: (briefly describe water use and discharge - attach diagram)

   The collection system brings flow into a manhole with a pump. The pump is controlled by floats (High level, ON, OFF, Low Level alarm). The flow is pumped to the shed located in the NE corner of the Lowe's parking lot along the horticultural side of the store. The flow goes into a sewer pipe that flows to the Town.

9. **Discharge sampling location:**

   Discharge inside the shed in Lowe's parking lot.

10. **Is Sampling Location Adequate for a Obtaining a Representative Sample?**

    Yes

11. **Is There Evidence of Materials Being Stored Outside the Facility?**

    NA

12. **Has Company Completed an Industrial Chemical Survey Form within the Past 5 Years?**

    Yes – 1/04/2013.

13. **Topic and Comments:**

    - Pump failed 1/1/13 and replaced on 6/17/2013. The manhole was cleaned and the pump has been operating without problems since/ Generally cleaned every 3 years.
    - Operating normally at the time of the inspection.
    - Discharge water meter reading – 02241291.

Inspector's Signature: Ken Skibinski

KENECK SKIBINSKI

SUMMARY OF TEST RESULTS FOR SAMPLES COLLECTED JULY 16, 2014
(Orangeburg Holdings LLC - Permit No. 2014-033)

PARAMETER	CONCENTRATION (mg/L, unless otherwise noted) EFFLUENT	DISCHARGE LIMIT
Method 625 Semivolatiles (Acid Extractables and Base/Neutrals)		
2,4-dimethylphenol	0.0045	no limit
Acenaphthene	0.082	no limit
Dibenzofuran	0.0066	no limit
Fluoranthene	0.0045	no limit
Fluorene	0.0110	no limit
Pyrene	0.0037	no limit
Naphthalene	see Volatiles	no limit
All other priority pollutant semivolatiles	ND	no limit
Method 8260 Volatiles		
Naphthalene	0.16	no limit
Benzene	0.00051	no limit
All other priority pollutant volatiles	ND	varies
Additional Analyses		
Oil and grease	<5.5	26 *
Total suspended solids	20	200
Cyanide (T)	<0.020	1.2
Cyanide-Amenable	<0.020	monitor only
Biochemical oxygen demand (5-day)	7.5	200 *
Chemical oxygen demand	47	500
Phenolics (total recoverable)	<0.050	25.0
pH (standard units)	6.4	6.0 - 9.0

*Limit for calculating surcharge fees

Department of Environmental Management and Engineering
Town of Orangetown

127 Route 303 Orangeburg New York 10962
Tel: (845) 359-6502 • Fax: (845) 359-6951

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

December 3, 2014

Mr. John Guezwich
C/O HDR, Inc.
One Blue Hill Plaza
P.O. Box 1508
Pearl River, NY 10965

Re: Permit 2015 – 033, Renewed for 2015.

Dear Mr. Guzewich:

Please find enclosed a modified Permit Number 2015 – 033 for 2015 for Orangeburg Holdings. Please review the Permit and become familiar with the contents and the requirements contained therein. If you have any questions, please feel free to contact me at the number above or at kskibinski@orangetown.com.

Very Truly Yours,

KENECK SKIBINSKI
Chief Plant Operator

KES:ks

PERMIT NO. 2015 – 033

TOWN OF ORANGETOWN
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT AND ENGINEERING

INDUSTRIAL WASTEWATER DISCHARGE PERMIT

In accordance with terms and conditions of Chapter 30A of the Orangetown Code of Regulations and in compliance with the provisions of thee Federal Water Pollution Control Act, as emended, (33 U.S.C. 1251 et: the "Act") PL 84-660,

PERMISSION IS HEREBY GRANTED TO:

Orangeburg Holdings LLC
One Executive Drive
Fort Lee, NJ 27024

Contact Person: C/O John Guzewich; HDR Inc.; (845) 735-8300

As Classified by SIC Codes: 6552

for contribution of 14,000 gallons per event of industrial wastewater into the Town of Orangetown sewer line that runs from East to West across the Loews Site.

This Permit is granted in accordance with the application filed in the office of the Orangetown Sewer District on May 30, 2001 and in conformity with the plans, specifications and other data submitted in support of the above application, all of which are filed with and considered as part of this Permit, together with discharge limitations, monitoring requirements and other conditions set forth in Parts I, II, III, IV, V, VI, VII and VIII hereof.

This Permit shall become **effective on January 1, 2015**, and this Permit and the authorization to discharge shall **expire at midnight on December 31, 2015**.

Keneck Skibinski

Keneck E. Skibinski
Chief Plant Operator

December 3, 2014

Date

PERMIT CONDITIONS

PART 1: DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on January 1, 2015 and lasting through December 31, 2015, the Permittee is authorized to discharge its industrial wastewater to the Orangetown sewer system in full accordance with all existing rules and regulations in Chapters 30A and 30B of the Town of Orangetown Code. These regulations include but are not limited to the limitations contained in the Table, below.

A. Specific Discharge Limitations and Monitoring Requirements:

During the period of this Permit, the Permittee is no longer required to have its discharge analyzed at the frequencies listed in Outfall Table 001. The Permittee has received notification from the NYS DEC that operation of the groundwater recovery system is no longer necessary as of the DEC letter dated 9/23/2014. Should discharge become necessary once again, the the Permittee shall have its discharges analyzed at the indicated frequencies at a minimum and meet the discharge limitations as contained in the Outfall 001 Table as listed below.

Outfall 001 –

These limits are the Town of Orangetown Local Limits. These limits are applicable at the point of discharge of the facility's wastestream into the sanitary sewer. Based upon the development of technically derived Local Limits, no Industrial User shall discharge non-domestic wastewater into the public sewer in excess of the concentrations set forth below:

Outfall 001 Table

Pollutant	Local Limit mg/L	Sample Frequency	Sample Type
pH	6.0 - 9.0 su	Once each year	grab
BOD5 *1	200	Once each year	grab
COD *1	500	Once each year	grab
TSS *1	200	Once each year	grab
Oil & Grease	26	Once each year	grab
Cyanide (T)	1.2	Once each year	grab
Cyanide (amenable)	monitor only	Once each year	grab
Ammonia	monitor only	NA	
Nitrate	monitor only	NA	
1,1,1 Trichloroethane	2.759	Once each year	grab
Trans - 1,2 dichloroethylene	2.04	Once each year	grab
Chloroform	0.06	Once each year	grab
Ethylbenzene	1.659	Once each year	grab
Methylene Chloride	4.139	Once each year	grab
Tetrachloroethylene	5.0	Once each year	grab
Toluene	12	Once each year	grab
Trichloroethylene	0.026	Once each year	grab
Xylene	20	Once each year	grab
Pesticides	0.0001	NA	
Phenols	25	NA	
PCB's (total)	0.0001	NA	
Arsenic	2.5	NA	
Beryllium	0.3	NA	
Cadmium	0.8	NA	
Chromium	6.0	NA	
Copper	1.0	NA	
Lead	1.5	NA	
Mercury *2	500 ng/L	NA	
Nickel	1.5	NA	
Selenium	1.5	NA	
Silver	1.5	NA	
Zinc	1.0	NA	
1,3 dichlorobenzene	9.0	NA	
Bis(2-ethylhexyl) phthalate	monitor only	Once each year	grab

*1 = These are guidance values; results greater than these result in surcharges.
NA = No requirement to analyze for these.
*2 – New SPDES mercury limits are required by NYSDEC; measured in ng/L.

Note that the Annual sampling (once each year) shall be during the month of July.

PART II – GENERAL PROHIBITIONS:

1. Prohibited Discharges

   Substances are prohibited from being introduced into the sewer system if they are explosive, obstructive, corrosive, noxious, objectionably colored, or contain excess amounts of heat or radiation, as specified in Subsection 30A-5 of the Town of Orangetown Code.

2. Specific Pollutant Limitations

   In no case shall a discharge to the sewer system contain a concentration of pollutants that exceeds for any time period the specific limitations as set forth in Subsection 30A-6 of the Town of Orangetown Code.

3. Slug Discharge

   No pollutant or pollutant parameter may be released to the sewage system at a flow rate or concentration which is greater then five times the average twenty four hour concentration experienced during normal operating periods by the Permittee.

4. Compliance Monitoring: Right to Access Facility

   The Town shall have the right to inspect the facilities of an Industrial User to ascertain whether the requirements of Chapter 30A are being met. Persons or occupants of premises where wastewater is created or discharged shall allow the Town or their representatives ready access at all reasonable times to all parts of the premises for the purpose of inspection, sampling and examination of records. The Town shall inspect the facilities of the Permittee annually. The Town shall have the right to set up at any point within the users process system such devices as are necessary to conduct sampling, monitoring and/or metering operations as stipulated in Subsection 30A-24 of the Town of Orangetown Code and the following schedules. The wastewater discharge of the Permittee shall be sampled and analyzed four times annually by the Town, with procedures as specified below, and at the expense of the Permittee in order to ensure compliance with the Permit requirements. All inspections and monitoring activities shall be unscheduled and may include all or some of the locations and parameters outlined in Part I, Discharge Limitations and Monitoring Requirements, but shall not be limited to those.

Part III – REPORTING REQUIREMENTS

1. Report on Compliance

   The Permittee shall submit a Report on Compliance within 30 days after the end of the month during which the sampling event took place. These Reports shall include the results of ALL sampling of the discharges specified in Part I, providing that the sampling was done using approved methodologies and at NYS Department of Health Certified Laboratories.

2. Report Submittals

   All reports shall be sent at the prescribed times to the following address:

   Keneck Skibinski
   Chief Plant Operator/Pretreatment Officer
   Town of Orangetown Sewer District #2
   127 Route 303
   Orangeburg, NY 10962
   Phone - (845)359-6502 extension 4205
   FAX – (845)359-6951

3. Certification Statement

   The "Certification Statement" from 40CFR§403.6(a)(2)(ii) shall be included in all self monitoring reports as follows:

   > "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based upon my inquiry of the person or persons who manage the system of those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

   This Certification shall be signed and included in all self monitoring reports.

   The Self Monitoring Report Certification Statement shall be signed in accordance with 40CFR§403.12(i)(1) as follows:

1) By a responsible corporate official, if the Industrial User submitting the reports ... is a corporation. A responsible corporate officer means (1) a president, secretary, treasurer or vice president of the corporation in charge of a principle business function, or other person who performs similar policy of decision making functions for the corporation or, (2) the manager of one or more manufacturing, production or operation facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million, if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2) By a general partner or proprietor if the Industrial User submitting the reports is a partnership or sole proprietorship, respectively.

3) By a duly authorized representative of the Individual designated in above paragraphs if:

a) The authorization is made in writing by the individual described in 1 or 2 above.

b) The authorization specifies either an individual or a position having responsibility for the overall operation of the facility from which the Industrial Discharge originates, such as the position of plant manager, operator of a well, or well field superintendent or a position of equivalent responsibility; or having overall responsibility for environmental matters for the company; and

c) the written authorization is submitted to the Town of Orangetown.

4. Hazardous Waste Notification

The Permittee shall notify the Town of Orangetown Chief Plant Operator, the EPA Regional Waste Management Division Director and the NYS Department of Environmental Conservation Division of Hazardous Substance Regulation Director in writing of any discharge which, if otherwise disposed of, would be a hazardous waste under 40CFR§261. Such notifications, and any necessary certifications or subsequent notifications, shall be made pursuant to the requirements of 40CFR§403.12(p).

5. Additional Self Monitoring Results

The Permittee shall include in report(s) all sampling results, even if the sampling was performed more frequently than required by the Permit, if the sampling and analyses were performed in accordance with procedures set forth at 40CFR§136 or other EPA approved procedures.

6. Violations of Discharge Limits

If any of the test results obtained by self monitoring indicates a violation of the Discharge Limits set forth in Part 1 of this Permit, the Permittee shall notify the Chief Operator of the Town of Orangetown within 24 hours of becoming aware of the violation. The Permittee shall repeat the sampling and analysis of those parameters that have been violated within seven (7) days of having been made aware of the violation. The Permittee is not required to resample, however, if the Town has performed a sampling event at the Permittee's facility between the time the Permittee performs its initial sampling and the time the Permittee receives the results of their sampling or if the Permittee samples on a monthly frequency.

7. Discharges Which Could Pose Potential Problems

In the event of a discharge which could cause potential problems to the treatment plant or sewer system, including slug loadings and accidental discharges to the sewer system, the Permittee must immediately telephone the Town of Orangetown Chief Operator to report the incident. The notification shall include the location of the discharge, type of waste, concentration, volume and corrective actions taken. Within five (5) days following the incident, the Permittee shall submit to the Town a detailed report describing the cause of the discharge and the measures taken to prevent similar future occurrences.

8. Additional Categorical Pretreatment Standards Reports

The Permittee shall submit all Baseline Monitoring Reports, Compliance Schedule Reports and 90 Day Compliance Reports as required by applicable Categorical Pretreatment Standards pursuant to the requirements of 40CFR§403.12.

9. Substantial Changes

The Permittee shall notify the Town of Orangetown in advance of any substantial changes in the volume or character of pollutants in its discharge, including the hazardous wastes for which the Permittee has submitted initial notification pursuant to this Permit.

10. Non-Permitted Discharges

The Permittee shall not discharge any wastes that are not specifically allowed under this Permit.

PART IV – RECORD KEEPING REQUIREMENTS

1. Records to be Kept

The Permittee shall maintain records of all information resulting from monitoring activities required by Chapter 30A of the Town Code. Such records shall include for all samples:

(i) The date, exact place, method and the time of sampling and the names or person(s) taking the samples;
(ii) The dates the analyses were performed;
(iii) Who performed the analyses;
(iv) The analytical techniques/methods used; and
(v) The results of such analyses.

2. Maintenance of Records

The Permittee shall keep copies of all such records and reports or monitoring activities and results for a minimum of three (3) years, regardless of whether or not such monitoring activities are required by this Chapter of the Act, and shall make such records available for inspection and copying by the EPA, NYS DEC and the Town of Orangetown. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the Industrial User or the POTW, or when requested by the EPA, NYS DEC or the Town of Orangetown.

3. Flow Measurement

The Industrial User shall be responsible for the maintenance of any installed flow metering equipment that is required for pretreatment purposes. If the Industrial User does not have a separate effluent flow meter then the Industrial User shall report to the Town of Orangetown the facility flow from the water supply provider. These charts and totalizer readings and water usage records shall be used by the Town of Orangetown to invoice for Industrial Flow Charges on a Semi-Annual basis, as specified under Chapter 31-3(A) of the Town of Orangetown Code. All such records shall be provided to the Town of Orangetown by the fifteenth day of the end of the respective period (First Half of year – by July 15th; Second Half of the Year by January 15th) at a minimum; and shall be reported monthly if the Industrial User has a pretreatment flow meter and totalizer.

PART V - SCHEDULE OF COMPLIANCE

1. Monitoring Facilities – **Not Applicable**

2. Compliance Schedule – **Not Applicable**

3. Flow Measurement – **Not Applicable**

PART VI – SCHEDULE OF FEES

The Permittee shall pay an Administrative Fee of $1,873.00 for the costs associated with the permit requirements contained herein. This fee shall be paid by the Permittee within thirty (30) days following the issuance of this Permit.

The Permittee is also responsible for reimbursing the Town of Orangetown for all expenses incurred during performance of the Compliance Monitoring activities designated in both Part I and Part II of this Permit. Any additional monitoring by the Town of Orangetown to verify compliance with this Permit shall be due and payable to the Town of Orangetown when analyses are performed and as invoiced by the Town. The costs for the scheduled compliance monitoring shall be paid by the Permittee to the Town in accordance with the following schedule of payments:

Payment Item	Payment Amount	Payment Date

No Town monitoring will be performed.

Additionally, it is the responsibility of the Permittee to pay for all costs associated with self monitoring and pretreatment.

PART VII – PENALTIES

In the event that the Permittee is proven to have violated any of the terms or conditions of this Permit, the Town of Orangetown Code, or Part 403 of the Code of Federal Regulations, the Permittee shall be subject to all the enforcement procedures and penalties as outlined in Chapter 30A of the Town of Orangetown Code. The Civil Administrative Penalty may be assessed to not exceed $5,000.00 per day of each violation and the Civil Judicial Penalty assessed may be assessed to not exceed $7,500.00 per day of each violation. Each day on which a violation shall occur or continue shall be deemed a separate and distinct violation.

PART VIII – PERMIT PROCEDURES

1. Permit Modifications

The Town of Orangetown may modify the limitations and conditions set forth in this Permit during the term of the Permit if such modification is deemed necessary by the Town of Orangetown to meet the objectives of the Act and Chapters 30A and 30B of the Town of Orangetown Code. The Permittee shall be informed of any proposed changes to its Permit before they become effective. All modified Permits shall contain a reasonable schedule for compliance with the modified provisions, except no schedule shall extend beyond any compliance date established by the EPA for federal standards and limitations.

2. Permit Revocation

The Town of Orangetown may revoke this Permit in accordance with the procedures set forth in Chapter 30A of the Town of Orangetown Code if the Permittee violates any conditions of his Permit or any other requirements specified in Section 30A – 30 of the Town of Orangetown Code.

3. Permit Transfer

The Permittee shall not transfer this Permit to another owner or user without the written approval of the Town of Orangetown.

Department of Environmental Management and Engineering
Town of Orangetown

127 Route 303 Orangeburg New York 10962
Tel: (845) 359-6502 • Fax: (845) 359-6951

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

January 4, 2016

Mr. John Guzewich
C/O HDR, Inc.
1 International Drive
10th Floor; Suite 1000
Mahwah, NJ 07495

Re: Permit 2016 – 033, Renewed for 2016.

Dear Mr. Guzewich:

Please find enclosed a modified Permit Number 2016 – 033 for 2016 for Orangeburg Holdings. Please review the Permit and become familiar with the contents and requirements contained therein. If you have any questions, please feel free to contact me at the number above or at kskibinski@orangetown.com.

Very Truly Yours,

KENECK SKIBINSKI
Chief Plant Operator

KES:ks

PERMIT NO. 2016 – 033

TOWN OF ORANGETOWN
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT AND ENGINEERING

INDUSTRIAL WASTEWATER DISCHARGE PERMIT

In accordance with terms and conditions of Chapter 30A of the Orangetown Code of Regulations and in compliance with the provisions of thee Federal Water Pollution Control Act, as emended, (33 U.S.C. 1251 et: the "Act") PL 84-660,

PERMISSION IS HEREBY GRANTED TO:

Orangeburg Holdings LLC
One Executive Drive
Fort Lee, NJ 27024

Contact Person: C/O John Guzewich; HDR Inc.; (845) 735-8300; john.guzewich@hdrinc.com

As Classified by SIC Codes: 6552

for contribution of 14,000 gallons per event of industrial wastewater into the Town of Orangetown sewer line that runs from East to West across the Loews Site.

This Permit is granted in accordance with the application filed in the office of the Orangetown Sewer District on May 30, 2001 and in conformity with the plans, specifications and other data submitted in support of the above application, all of which are filed with and considered as part of this Permit, together with discharge limitations, monitoring requirements and other conditions set forth in Parts I, II, III, IV, V, VI, VII and VIII hereof.

This Permit shall become **effective on January 1, 2016**, and this Permit and the authorization to discharge shall **expire at midnight on December 31, 2016**.

Ken Skibinski

Keneck E. Skibinski
Chief Plant Operator

November 24, 2015

Date

PERMIT CONDITIONS

PART 1: DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on January 1, 2016 and lasting through December 31, 2016, the Permittee is authorized to discharge its industrial wastewater to the Orangetown sewer system in full accordance with all existing rules and regulations in Chapters 30A and 30B of the Town of Orangetown Code. These regulations include but are not limited to the limitations contained in the Table, below.

A. Specific Discharge Limitations and Monitoring Requirements:

During the period of this Permit, the Permittee is no longer required to have its discharge analyzed at the frequencies listed in Outfall Table 001. The Permittee has received notification from the NYS DEC that operation of the groundwater recovery system is no longer necessary as of the DEC letter dated 9/23/2014. Should discharge become necessary once again, the Permittee shall have its discharges analyzed at the indicated frequencies at a minimum and meet the discharge limitations as contained in the Outfall 001 Table as listed below.

Outfall 001 –

These limits are the Town of Orangetown Local Limits. These limits are applicable at the point of discharge of the facility's wastestream into the sanitary sewer. Based upon the development of technically derived Local Limits, no Industrial User shall discharge non-domestic wastewater into the public sewer in excess of the concentrations set forth below:

Outfall 001 Table

Pollutant	Local Limit mg/L	Sample Frequency *3	Sample Type
pH	6.0 - 9.0 su	Once each year	grab
BOD5 *1	200	Once each year	grab
COD *1	500	Once each year	grab
TSS *1	200	Once each year	grab
Oil & Grease	26	Once each year	grab
Cyanide (T)	1.2	Once each year	grab
Cyanide (amenable)	monitor only	Once each year	grab
Ammonia	monitor only	NA	
Nitrate	monitor only	NA	
1,1,1 Trichloroethane	2.759	Once each year	grab
Trans - 1,2 dichloroethylene	2.04	Once each year	grab
Chloroform	0.06	Once each year	grab
Ethylbenzene	1.659	Once each year	grab
Methylene Chloride	4.139	Once each year	grab
Tetrachloroethylene	5.0	Once each year	grab
Toluene	12	Once each year	grab
Trichloroethylene	0.026	Once each year	grab
Xylene	20	Once each year	grab
Pesticides	0.0001	NA	
Phenols	25	NA	
PCB's (total)	0.0001	NA	
Arsenic	2.5	NA	
Beryllium	0.3	NA	
Cadmium	0.8	NA	
Chromium	6.0	NA	
Copper	1.0	NA	
Lead	1.5	NA	
Mercury *2	500 ng/L	NA	
Nickel	1.5	NA	
Selenium	1.5	NA	
Silver	1.5	NA	
Zinc	1.0	NA	
1,3 dichlorobenzene	9.0	NA	
Bis(2-ethylhexyl) phthalate	monitor only	Once each year	grab

*1 = These are guidance values; results greater than these result in surcharges.
NA = No requirement to analyze for these.
*2 – New SPDES mercury limits are required by NYSDEC; measured in ng/L.

*3 = No Sampling is required unless Permittee resumes discharge from the groundwater recovery facility located in the Lowes parking lot.

Note that the Annual sampling (once each year) shall be during the month of July.

PART II – GENERAL PROHIBITIONS:

1. Prohibited Discharges

   Substances are prohibited from being introduced into the sewer system if they are explosive, obstructive, corrosive, noxious, objectionably colored, or contain excess amounts of heat or radiation, as specified in Subsection 30A-5 of the Town of Orangetown Code.

2. Specific Pollutant Limitations

   In no case shall a discharge to the sewer system contain a concentration of pollutants that exceeds for any time period the specific limitations as set forth in Subsection 30A-6 of the Town of Orangetown Code.

3. Slug Discharge

   No pollutant or pollutant parameter may be released to the sewage system at a flow rate or concentration which is greater then five times the average twenty four hour concentration experienced during normal operating periods by the Permittee.

4. Compliance Monitoring: Right to Access Facility

   The Town shall have the right to inspect the facilities of an Industrial User to ascertain whether the requirements of Chapter 30A are being met. Persons or occupants of premises where wastewater is created or discharged shall allow the Town or their representatives ready access at all reasonable times to all parts of the premises for the purpose of inspection, sampling and examination of records. The Town shall inspect the facilities of the Permittee annually. The Town shall have the right to set up at any point within the users process system such devices as are necessary to conduct sampling, monitoring and/or metering operations as stipulated in Subsection 30A-24 of the Town of Orangetown Code and the following schedules. The wastewater discharge of the Permittee shall be sampled and analyzed four times annually by the Town, with procedures as specified below, and at the expense of the Permittee in order to ensure compliance with the Permit requirements. All inspections and monitoring activities shall be unscheduled and may include all or some of the locations and parameters outlined in Part I, Discharge Limitations and Monitoring Requirements, but shall not be limited to those.

Part III – REPORTING REQUIREMENTS

1. Report on Compliance

   The Permittee shall submit a Report on Compliance within 30 days after the end of the month during which the sampling event took place. These Reports shall include the results of ALL sampling of the discharges specified in Part I, providing that the sampling was done using approved methodologies and at NYS Department of Health Certified Laboratories.

2. Report Submittals

   All reports shall be sent at the prescribed times to the following address:

   Keneck Skibinski
   Chief Plant Operator/Pretreatment Officer
   Town of Orangetown Sewer District #2
   127 Route 303
   Orangeburg, NY 10962
   Phone - (845)359-6502 extension 4205
   FAX – (845)359-6525

3. Certification Statement

   The "Certification Statement" from 40CFR§403.6(a)(2)(ii) shall be included in all self monitoring reports as follows:

   > "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based upon my inquiry of the person or persons who manage the system of those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

   This Certification shall be signed and included in all self monitoring reports.

   The Self Monitoring Report Certification Statement shall be signed in accordance with 40CFR§403.12(i)(1) as follows:

1) By a responsible corporate official, if the Industrial User submitting the reports ... is a corporation. A responsible corporate officer means (1) a president, secretary, treasurer or vice president of the corporation in charge of a principle business function, or other person who performs similar policy of decision making functions for the corporation or, (2) the manager of one or more manufacturing, production or operation facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million, if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2) By a general partner or proprietor if the Industrial User submitting the reports is a partnership or sole proprietorship, respectively.

3) By a duly authorized representative of the Individual designated in above paragraphs if:

a) The authorization is made in writing by the individual described in 1 or 2 above.

b) The authorization specifies either an individual or a position having responsibility for the overall operation of the facility from which the Industrial Discharge originates, such as the position of plant manager, operator of a well, or well field superintendent or a position of equivalent responsibility; or having overall responsibility for environmental matters for the company; and

c) the written authorization is submitted to the Town of Orangetown.

4. Hazardous Waste Notification

The Permittee shall notify the Town of Orangetown Chief Plant Operator, the EPA Regional Waste Management Division Director and the NYS Department of Environmental Conservation Division of Hazardous Substance Regulation Director in writing of any discharge which, if otherwise disposed of, would be a hazardous waste under 40CFR§261. Such notifications, and any necessary certifications or subsequent notifications, shall be made pursuant to the requirements of 40CFR§403.12(p).

5. Additional Self Monitoring Results

The Permittee shall include in report(s) all sampling results, even if the sampling was performed more frequently than required by the Permit, if the sampling and analyses were performed in accordance with procedures set forth at 40CFR§136 or other EPA approved procedures.

6. Violations of Discharge Limits

If any of the test results obtained by self monitoring indicates a violation of the Discharge Limits set forth in Part 1 of this Permit, the Permittee shall notify the Chief Operator of the Town of Orangetown within 24 hours of becoming aware of the violation. The Permittee shall repeat the sampling and analysis of those parameters that have been violated within seven (7) days of having been made aware of the violation. The Permittee is not required to resample, however, if the Town has performed a sampling event at the Permittee's facility between the time the Permittee performs its initial sampling and the time the Permittee receives the results of their sampling or if the Permittee samples on a monthly frequency.

7. Discharges Which Could Pose Potential Problems

In the event of a discharge which could cause potential problems to the treatment plant or sewer system, including slug loadings and accidental discharges to the sewer system, the Permittee must immediately telephone the Town of Orangetown Chief Operator to report the incident. The notification shall include the location of the discharge, type of waste, concentration, volume and corrective actions taken. Within five (5) days following the incident, the Permittee shall submit to the Town a detailed report describing the cause of the discharge and the measures taken to prevent similar future occurrences.

8. Additional Categorical Pretreatment Standards Reports

The Permittee shall submit all Baseline Monitoring Reports, Compliance Schedule Reports and 90 Day Compliance Reports as required by applicable Categorical Pretreatment Standards pursuant to the requirements of 40CFR§403.12.

9. Substantial Changes

The Permittee shall notify the Town of Orangetown in advance of any substantial changes in the volume or character of pollutants in its discharge, including the hazardous wastes for which the Permittee has submitted initial notification pursuant to this Permit.

10. Non-Permitted Discharges

The Permittee shall not discharge any wastes that are not specifically allowed under this Permit.

PART IV – RECORD KEEPING REQUIREMENTS

1. Records to be Kept

The Permittee shall maintain records of all information resulting from monitoring activities required by Chapter 30A of the Town Code. Such records shall include for all samples:

(i) The date, exact place, method and the time of sampling and the names or person(s) taking the samples;
(ii) The dates the analyses were performed;
(iii) Who performed the analyses;
(iv) The analytical techniques/methods used; and
(v) The results of such analyses.

2. Maintenance of Records

The Permittee shall keep copies of all such records and reports or monitoring activities and results for a minimum of three (3) years, regardless of whether or not such monitoring activities are required by this Chapter of the Act, and shall make such records available for inspection and copying by the EPA, NYS DEC and the Town of Orangetown. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the Industrial User or the POTW, or when requested by the EPA, NYS DEC or the Town of Orangetown.

3. Flow Measurement

The Industrial User shall be responsible for the maintenance of any installed flow metering equipment that is required for pretreatment purposes. If the Industrial User does not have a separate effluent flow meter then the Industrial User shall report to the Town of Orangetown the facility flow from the water supply provider. These charts and totalizer readings and water usage records shall be used by the Town of Orangetown to invoice for Industrial Flow Charges on a Semi-Annual basis, as specified under Chapter 31-3(A) of the Town of Orangetown Code. All such records shall be provided to the Town of Orangetown by the fifteenth day of the end of the respective period (First Half of year – by July 15th; Second Half of the Year by January 15th) at a minimum; and shall be reported monthly if the Industrial User has a pretreatment flow meter and totalizer.

PART V - SCHEDULE OF COMPLIANCE

1. Monitoring Facilities – **Not Applicable**

2. Compliance Schedule – **Not Applicable**

3. Flow Measurement – **Not Applicable**

PART VI – SCHEDULE OF FEES

The Permittee shall pay an Administrative Fee of $1,873.00 for the costs associated with the permit requirements contained herein. This fee shall be paid by the Permittee within thirty (30) days following the issuance of this Permit.

The Permittee is also responsible for reimbursing the Town of Orangetown for all expenses incurred during performance of the Compliance Monitoring activities designated in both Part I and Part II of this Permit. Any additional monitoring by the Town of Orangetown to verify compliance with this Permit shall be due and payable to the Town of Orangetown when analyses are performed and as invoiced by the Town. The costs for the scheduled compliance monitoring shall be paid by the Permittee to the Town in accordance with the following schedule of payments:

Payment Item	Payment Amount	Payment Date

No Town monitoring will be performed.

Additionally, it is the responsibility of the Permittee to pay for all costs associated with self monitoring and pretreatment.

PART VII – PENALTIES

In the event that the Permittee is proven to have violated any of the terms or conditions of this Permit, the Town of Orangetown Code, or Part 403 of the Code of Federal Regulations, the Permittee shall be subject to all the enforcement procedures and penalties as outlined in Chapter 30A of the Town of Orangetown Code. The Civil Administrative Penalty may be assessed to not exceed $5,000.00 per day of each violation and the Civil Judicial Penalty assessed may be assessed to not exceed $7,500.00 per day of each violation. Each day on which a violation shall occur or continue shall be deemed a separate and distinct violation.

PART VIII – PERMIT PROCEDURES

1. Permit Modifications

The Town of Orangetown may modify the limitations and conditions set forth in this Permit during the term of the Permit if such modification is deemed necessary by the Town of Orangetown to meet the objectives of the Act and Chapters 30A and 30B of the Town of Orangetown Code. The Permittee shall be informed of any proposed changes to its Permit before they become effective. All modified Permits shall contain a reasonable schedule for compliance with the modified provisions, except no schedule shall extend beyond any compliance date established by the EPA for federal standards and limitations.

2. Permit Revocation

The Town of Orangetown may revoke this Permit in accordance with the procedures set forth in Chapter 30A of the Town of Orangetown Code if the Permittee violates any conditions of his Permit or any other requirements specified in Section 30A – 30 of the Town of Orangetown Code.

3. Permit Transfer

The Permittee shall not transfer this Permit to another owner or user without the written approval of the Town of Orangetown.

Department of Environmental Management and Engineering
Town of Orangetown

Route 303 Orangeburg New York 10962
Tel: (845) 359-6502 • Fax: (845) 359-6951

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

February 8, 2017

Mr. John Guzewich
C/O HDR, Inc.
1 International Drive
10th Floor; Suite 1000
Mahwah, NJ 07495-0020

Re: Permit 2017 – 033, Renewed for 2017.

Dear Mr. Guzewich:

Please find enclosed a modified Permit Number 2017 – 033 for 2017 for Orangeburg Holdings. Please review the Permit and become familiar with the contents and requirements contained therein. If you have any questions, please feel free to contact me at the number above or at kskibinski@orangetown.com.

Very Truly Yours,

Keneck S. Skibinski

KENECK SKIBINSKI
Chief Plant Operator

KES:ks

Cc: Orangeburg Holdings LLC, 505 Main St., Suite 318;
Hackensack, NJ 07601

PERMIT NO. 2017 – 033

TOWN OF ORANGETOWN
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT AND ENGINEERING

INDUSTRIAL WASTEWATER DISCHARGE PERMIT

In accordance with terms and conditions of Chapter 30A of the Orangetown Code of Regulations and in compliance with the provisions of thee Federal Water Pollution Control Act, as emended, (33 U.S.C. 1251 et: the "Act") PL 84-660,

PERMISSION IS HEREBY GRANTED TO:

Orangeburg Holdings LLC
505 Main St., Suite 318
Hackensack, NJ 07601

Contact Person: C/O John Guzewich; HDR Inc.; (845) 735-8300; john.guzewich@hdrinc.com

As Classified by SIC Codes: 6552

for contribution of 14,000 gallons per event of industrial wastewater into the Town of Orangetown sewer line that runs from East to West across the Loews Site.

This Permit is granted in accordance with the application filed in the office of the Orangetown Sewer District on May 30, 2001 and in conformity with the plans, specifications and other data submitted in support of the above application, all of which are filed with and considered as part of this Permit, together with discharge limitations, monitoring requirements and other conditions set forth in Parts I, II, III, IV, V, VI, VII and VIII hereof.

This Permit shall become **effective on January 1, 2017**, and this Permit and the authorization to discharge shall **expire at midnight on December 31, 2017**.

Keneck E. Skibinski

Keneck E. Skibinski
Chief Plant Operator

November 22, 2016

Date

PERMIT CONDITIONS

PART 1: DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on January 1, 2017 and lasting through December 31, 2017, the Permittee is authorized to discharge its industrial wastewater to the Orangetown sewer system in full accordance with all existing rules and regulations in Chapters 30A and 30B of the Town of Orangetown Code. These regulations include but are not limited to the limitations contained in the Table, below.

A. Specific Discharge Limitations and Monitoring Requirements:

During the period of this Permit, the Permittee is no longer required to have its discharge analyzed at the frequencies listed in Outfall Table 001. The Permittee has received notification from the NYS DEC that operation of the groundwater recovery system is no longer necessary as of the DEC letter dated 9/23/2014. Should discharge become necessary once again, the Permittee shall have its discharges analyzed at the indicated frequencies at a minimum and meet the discharge limitations as contained in the Outfall 001 Table as listed below.

Outfall 001 –

These limits are the Town of Orangetown Local Limits. These limits are applicable at the point of discharge of the facility's wastestream into the sanitary sewer. Based upon the development of technically derived Local Limits, no Industrial User shall discharge non-domestic wastewater into the public sewer in excess of the concentrations set forth below:

Outfall 001 Table

Pollutant	Local Limit mg/L	Sample Frequency *3	Sample Type
pH	6.0 - 9.0 su	Once each year	grab
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Cyanide (T)	1.2	Once each year	grab
Cyanide (amenable)	monitor only	Once each year	grab
Ammonia	monitor only	NA	
Nitrate	monitor only	NA	
1,1,1 Trichloroethane	2.759	Once each year	grab
Trans - 1,2 dichloroethylene	2.04	Once each year	grab
Chloroform	0.06	Once each year	grab
Ethylbenzene	1.659	Once each year	grab
Methylene Chloride	4.139	Once each year	grab
Tetrachloroethylene	5.0	Once each year	grab
Toluene	12	Once each year	grab
Trichloroethylene	0.026	Once each year	grab
Xylene	20	Once each year	grab
Pesticides	0.0001	NA	
Phenols	25	NA	
PCB's (total)	0.0001	NA	
Arsenic	2.5	NA	
Beryllium	0.3	NA	
Cadmium	0.8	NA	
Chromium	6.0	NA	
Copper	1.0	NA	
Lead	1.5	NA	
Mercury *2	500 ng/L	NA	
Nickel	1.5	NA	
Selenium	1.5	NA	
Silver	1.5	NA	
Zinc	1.0	NA	
1,3 dichlorobenzene	9.0	NA	
Bis(2-ethylhexyl) phthalate	monitor only	Once each year	grab

*1 = These are guidance values; results greater than these result in surcharges.
NA = No requirement to analyze for these.
*2 – New SPDES mercury limits are required by NYSDEC; measured in ng/L.

*3 = No Sampling is required unless Permittee resumes discharge from the groundwater recovery facility located in the Lowes parking lot.

Note that the Annual sampling (once each year) shall be during the month of July.

PART II – GENERAL PROHIBITIONS:

1. Prohibited Discharges

   Substances are prohibited from being introduced into the sewer system if they are explosive, obstructive, corrosive, noxious, objectionably colored, or contain excess amounts of heat or radiation, as specified in Subsection 30A-5 of the Town of Orangetown Code.

2. Specific Pollutant Limitations

   In no case shall a discharge to the sewer system contain a concentration of pollutants that exceeds for any time period the specific limitations as set forth in Subsection 30A-6 of the Town of Orangetown Code.

3. Slug Discharge

   No pollutant or pollutant parameter may be released to the sewage system at a flow rate or concentration which is greater then five times the average twenty four hour concentration experienced during normal operating periods by the Permittee.

4. Compliance Monitoring: Right to Access Facility

   The Town shall have the right to inspect the facilities of an Industrial User to ascertain whether the requirements of Chapter 30A are being met. Persons or occupants of premises where wastewater is created or discharged shall allow the Town or their representatives ready access at all reasonable times to all parts of the premises for the purpose of inspection, sampling and examination of records. The Town shall inspect the facilities of the Permittee annually. The Town shall have the right to set up at any point within the users process system such devices as are necessary to conduct sampling, monitoring and/or metering operations as stipulated in Subsection 30A-24 of the Town of Orangetown Code and the following schedules. The wastewater discharge of the Permittee shall be sampled and analyzed four times annually by the Town, with procedures as specified below, and at the expense of the Permittee in order to ensure compliance with the Permit requirements. All inspections and monitoring activities shall be unscheduled and may include all or some of the locations and parameters outlined in Part I, Discharge Limitations and Monitoring Requirements, but shall not be limited to those.

Part III – REPORTING REQUIREMENTS

1. Report on Compliance

   The Permittee shall submit a Report on Compliance within 30 days after the end of the month during which the sampling event took place. These Reports shall include the results of ALL sampling of the discharges specified in Part I, providing that the sampling was done using approved methodologies and at NYS Department of Health Certified Laboratories.

2. Report Submittals

   All reports shall be sent at the prescribed times to the following address:

   Keneck Skibinski
   Chief Plant Operator/Pretreatment Officer
   Town of Orangetown Sewer District #2
   127 Route 303
   Orangeburg, NY 10962
   Phone - (845)359-6502 extension 4205
   FAX – (845)359-6525

3. Certification Statement

   The "Certification Statement" from 40CFR§403.6(a)(2)(ii) shall be included in all self monitoring reports as follows:

   > "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based upon my inquiry of the person or persons who manage the system of those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

   This Certification shall be signed and included in all self monitoring reports.

   The Self Monitoring Report Certification Statement shall be signed in accordance with 40CFR§403.12(i)(1) as follows:

1) By a responsible corporate official, if the Industrial User submitting the reports ... is a corporation. A responsible corporate officer means (1) a president, secretary, treasurer or vice president of the corporation in charge of a principle business function, or other person who performs similar policy of decision making functions for the corporation or, (2) the manager of one or more manufacturing, production or operation facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million, if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2) By a general partner or proprietor if the Industrial User submitting the reports is a partnership or sole proprietorship, respectively.

3) By a duly authorized representative of the Individual designated in above paragraphs if:

a) The authorization is made in writing by the individual described in 1 or 2 above.

b) The authorization specifies either an individual or a position having responsibility for the overall operation of the facility from which the Industrial Discharge originates, such as the position of plant manager, operator of a well, or well field superintendent or a position of equivalent responsibility; or having overall responsibility for environmental matters for the company; and

c) the written authorization is submitted to the Town of Orangetown.

4. Hazardous Waste Notification

The Permittee shall notify the Town of Orangetown Chief Plant Operator, the EPA Regional Waste Management Division Director and the NYS Department of Environmental Conservation Division of Hazardous Substance Regulation Director in writing of any discharge which, if otherwise disposed of, would be a hazardous waste under 40CFR§261. Such notifications, and any necessary certifications or subsequent notifications, shall be made pursuant to the requirements of 40CFR§403.12(p).

5. Additional Self Monitoring Results

The Permittee shall include in report(s) all sampling results, even if the sampling was performed more frequently than required by the Permit, if the sampling and analyses were performed in accordance with procedures set forth at 40CFR§136 or other EPA approved procedures.

6. Violations of Discharge Limits

If any of the test results obtained by self monitoring indicates a violation of the Discharge Limits set forth in Part 1 of this Permit, the Permittee shall notify the Chief Operator of the Town of Orangetown within 24 hours of becoming aware of the violation. The Permittee shall repeat the sampling and analysis of those parameters that have been violated within seven (7) days of having been made aware of the violation. The Permittee is not required to resample, however, if the Town has performed a sampling event at the Permittee's facility between the time the Permittee performs its initial sampling and the time the Permittee receives the results of their sampling or if the Permittee samples on a monthly frequency.

7. Discharges Which Could Pose Potential Problems

In the event of a discharge which could cause potential problems to the treatment plant or sewer system, including slug loadings and accidental discharges to the sewer system, the Permittee must immediately telephone the Town of Orangetown Chief Operator to report the incident. The notification shall include the location of the discharge, type of waste, concentration, volume and corrective actions taken. Within five (5) days following the incident, the Permittee shall submit to the Town a detailed report describing the cause of the discharge and the measures taken to prevent similar future occurrences.

8. Additional Categorical Pretreatment Standards Reports

The Permittee shall submit all Baseline Monitoring Reports, Compliance Schedule Reports and 90 Day Compliance Reports as required by applicable Categorical Pretreatment Standards pursuant to the requirements of 40CFR§403.12.

9. Substantial Changes

The Permittee shall notify the Town of Orangetown in advance of any substantial changes in the volume or character of pollutants in its discharge, including the hazardous wastes for which the Permittee has submitted initial notification pursuant to this Permit.

10. Non-Permitted Discharges

The Permittee shall not discharge any wastes that are not specifically allowed under this Permit.

PART IV – RECORD KEEPING REQUIREMENTS

1. Records to be Kept

The Permittee shall maintain records of all information resulting from monitoring activities required by Chapter 30A of the Town Code. Such records shall include for all samples:

(i) The date, exact place, method and the time of sampling and the names or person(s) taking the samples;
(ii) The dates the analyses were performed;
(iii) Who performed the analyses;
(iv) The analytical techniques/methods used; and
(v) The results of such analyses.

2. Maintenance of Records

The Permittee shall keep copies of all such records and reports or monitoring activities and results for a minimum of three (3) years, regardless of whether or not such monitoring activities are required by this Chapter of the Act, and shall make such records available for inspection and copying by the EPA, NYS DEC and the Town of Orangetown. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the Industrial User or the POTW, or when requested by the EPA, NYS DEC or the Town of Orangetown.

3. Flow Measurement

The Industrial User shall be responsible for the maintenance of any installed flow metering equipment that is required for pretreatment purposes. If the Industrial User does not have a separate effluent flow meter then the Industrial User shall report to the Town of Orangetown the facility flow from the water supply provider. These charts and totalizer readings and water usage records shall be used by the Town of Orangetown to invoice for Industrial Flow Charges on a Semi-Annual basis, as specified under Chapter 31-3(A) of the Town of Orangetown Code. All such records shall be provided to the Town of Orangetown by the fifteenth day of the end of the respective period (First Half of year – by July 15th; Second Half of the Year by January 15th) at a minimum; and shall be reported monthly if the Industrial User has a pretreatment flow meter and totalizer.

PART V - SCHEDULE OF COMPLIANCE

1. Monitoring Facilities – **Not Applicable**

2. Compliance Schedule – **Not Applicable**

3. Flow Measurement – **Not Applicable**

PART VI – SCHEDULE OF FEES

The Permittee shall pay an Administrative Fee of $1,873.00 for the costs associated with the permit requirements contained herein. This fee shall be paid by the Permittee within thirty (30) days following the issuance of this Permit.

The Permittee is also responsible for reimbursing the Town of Orangetown for all expenses incurred during performance of the Compliance Monitoring activities designated in both Part I and Part II of this Permit. Any additional monitoring by the Town of Orangetown to verify compliance with this Permit shall be due and payable to the Town of Orangetown when analyses are performed and as invoiced by the Town. The costs for the scheduled compliance monitoring shall be paid by the Permittee to the Town in accordance with the following schedule of payments:

Payment Item	Payment Amount	Payment Date

No Town monitoring will be performed.

Additionally, it is the responsibility of the Permittee to pay for all costs associated with self monitoring and pretreatment.

PART VII – PENALTIES

In the event that the Permittee is proven to have violated any of the terms or conditions of this Permit, the Town of Orangetown Code, or Part 403 of the Code of Federal Regulations, the Permittee shall be subject to all the enforcement procedures and penalties as outlined in Chapter 30A of the Town of Orangetown Code. The Civil Administrative Penalty may be assessed to not exceed $5,000.00 per day of each violation and the Civil Judicial Penalty assessed may be assessed to not exceed $7,500.00 per day of each violation. Each day on which a violation shall occur or continue shall be deemed a separate and distinct violation.

PART VIII – PERMIT PROCEDURES

1. Permit Modifications

The Town of Orangetown may modify the limitations and conditions set forth in this Permit during the term of the Permit if such modification is deemed necessary by the Town of Orangetown to meet the objectives of the Act and Chapters 30A and 30B of the Town of Orangetown Code. The Permittee shall be informed of any proposed changes to its Permit before they become effective. All modified Permits shall contain a reasonable schedule for compliance with the modified provisions, except no schedule shall extend beyond any compliance date established by the EPA for federal standards and limitations.

2. Permit Revocation

The Town of Orangetown may revoke this Permit in accordance with the procedures set forth in Chapter 30A of the Town of Orangetown Code if the Permittee violates any conditions of his Permit or any other requirements specified in Section 30A – 30 of the Town of Orangetown Code.

3. Permit Transfer

The Permittee shall not transfer this Permit to another owner or user without the written approval of the Town of Orangetown.

Appendix B

Operator Reports

HDR Project No. 147-39743

July 8, 2014

Keneck Skibinski, Chief Plant Operator
Town of Orangetown Department of Environmental Management and Engineering
127 Route 303
Orangeburg, New York 10962

RE: **Orangeburg Holdings LLC**
Permit No. 2014-33
Semi-Annual Flow Report

Dear Mr. Skibinski:

This report is provided in compliance with Section IV.3 of the above referenced permit. During the first six months of 2014, the flow to the POTW was 421,614 gallons. This figure is based on the difference in meter readings made on December 30 (end date for the end-2013 report) and June 30, 2014, as indicated below:

DATE	METER READING
6/30/14	2,253,257
12/30/13	1,831,643
Total	421,614

This flow equates to an average discharge of 2,304 gallons per day. Enclosed is a summary of the flow data during the inspections as well as the copies of the meter readings on the inspection sheets completed during this period. If there are any questions, please contact me.

One Blue Hill Plaza, 12th Floor
P.O. Box 1509
Pearl River, NY 10965-8509
T 845.735.8300 **F** 845.735.7466

If there are any questions, please do not hesitate to contact me.

Yours very truly,
HENNINGSON, DURHAM & RICHARDSON ARCHITECTURE AND ENGINEERING, P.C.

John M. Guzewich
Project Manager

Enc.
cc: Kimberly Allen, Town of Orangetown (by e-mail)
Glenn Pantel, Esq., Drinker Biddle & Reath (by e-mail)
Joseph Schmidt, Esq., Drinker Biddle & Reath (by e-mail)
Steven Kolitch, Orangeburg Holdings LLC (by e-mail)

One Blue Hill Plaza, 12th Floor
P.O. Box 1509
Pearl River, NY 10965-8509
T 845.735.8300 **F** 845.735.7466

Orangeburg Holdings - Lowes's Project Site
Sewer Discharge Summary
Permit 2014-033
(January - June 2014)

Inspection Date / Time	Flow Totalizer (gal.)	Pump Rates			Total Flow (gal.)	Total Time		
		gpm (instant.)	gpm (calc.)	gpd (calc.)		Days	Hours	Min.
12/30/13 13:30	1,831,643	16.1	1.3					
1/14/14 14:45	1,856,896	15.9	1.2	1678	25,253	15.1	361.3	21,675
1/23/14 7:20	1,874,464	15.5	1.4	2021	17,568	8.7	208.6	12,515
2/4/14 17:00	1,896,269	15.1	1.2	1758	21,805	12.4	297.7	17,860
2/17/14 7:50	1,922,002	14.7	1.4	2039	25,733	12.6	302.8	18,170
3/4/14 14:45	1,964,560	13.7	1.9	2784	42,558	15.3	366.9	22,015
3/18/14 7:50	2,000,114	13.1	1.8	2593	35,554	13.7	329.1	19,745
4/1/14 8:00	2,044,788	11.9	2.2	3189	44,674	14.0	336.2	20,170
4/14/14 10:15	2,073,022	11.2	1.5	2156	28,234	13.1	314.3	18,855
4/28/14 8:30	2,104,286	10.2	1.6	2245	31,264	13.9	334.2	20,055
5/12/14 7:40	2,150,669	8.1	2.3	3321	46,383	14.0	335.2	20,110
5/25/14 7:50	2,183,467	7.1	1.8	2522	32,798	13.0	312.2	18,730
6/9/14 8:00	2,210,881	6.3	1.3	1827	27,414	15.0	360.2	21,610
6/23/14 7:30	2,238,896	4.9	1.4	2004	28,015	14.0	335.5	20,130
6/30/14 19:30	2,253,257	4.6	1.3	1915	14,361	7.5	180.0	10,800

Total Gallons: **421,614**
Average GPD: **2,304**

FIGURE 2-1

ROUTINE OPERATIONS REPORT

Lowe's Home Center (former Orangeburg Pipe) Groundwater Remediation

Date: 12/30/13

Time: 131 PM

MANHOLE WATER LEVEL (ft. - in.)		WATER TOTALIZER (gallons)	INSTANT. PUMP RATE		
TARGET	READING		(min/gal)	(gal/min)	
9'9" to 10'6" 9'3" - 11'0"	10' 4"	1,831,643 ⇒ 1.3 ?/mm		16.1	Before Filter Change
					After Filter Change

PRESSURE READINGS (psi)						
PLANT INLET	PRIMARY BAG INLET	BETWEEN BAGS	FINAL BAG INLET	CARBON INLET	BETWEEN CARBON	
						Before Filter Change
						After Filter Change

PUMP STATUS (circle one):	RUN	(AUTO-off)	HAND-off	Other
ALARMS:	—		**Surge Protector:**	OK

NOTES:

all OK

OPERATOR: [signature]

FIGURE 2-1

ROUTINE OPERATIONS REPORT

Lowe's Home Center (former Orangeburg Pipe) Groundwater Remediation

12/30
1,831,643
16.1

Date: 1/14/14

Time: 2:42 PM

MANHOLE WATER LEVEL (ft. - in.)		WATER TOTALIZER (gallons)	INSTANT PUMP RATE		
TARGET	READING		(min/gal)	(gal/min)	
9'9" to 10'6" 9'3" - 11' 0"	no reading *	1,856,896 / 1.2 g/m		15.9	Before Filter Change
					After Filter Change

PRESSURE READINGS (psi)						
PLANT INLET	PRIMARY BAG INLET	BETWEEN BAGS	FINAL BAG INLET	CARBON INLET	BETWEEN CARBON	
						Before Filter Change
						After Filter Change

PUMP STATUS (circle one):	RUN	(AUTO-off)	HAND-off	Other
ALARMS:	—		Surge Protector:	OK

NOTES:

* reeing. manhole under puddle. some packing but runoff is flowing over to puddle - not much but did not want to ~~to~~ open and allow water to cascade down.

OPERATOR: [signature]

FIGURE 2-1

ROUTINE OPERATIONS REPORT

Lowe's Home Center (former Orangeburg Pipe) Groundwater Remediation

Date: 1/23/14

Time: 728 AM

MANHOLE WATER LEVEL (ft. - in.)		WATER TOTALIZER (gallons)	INSTANT. PUMP RATE		
TARGET	READING		(min/gal)	(gal/min)	
9'9" to 10'6" 9'3" - 11'0"	*	1,874,464 ⇒ 1.4 /min		15.5	Before Filter Change
					After Filter Change

PRESSURE READINGS (psi)						
PLANT INLET	PRIMARY BAG INLET	BETWEEN BAGS	FINAL BAG INLET	CARBON INLET	BETWEEN CARBON	
						Before Filter Change
						After Filter Change

PUMP STATUS (circle one):	RUN	(AUTO-off)	HAND-off	Other
ALARMS:		—	Surge Protector:	OK

NOTES:

shoveled snow

* manhole covered with ice. Will Chip T access

OPERATOR:

FIGURE 2-1

ROUTINE OPERATIONS REPORT

Lowe's Home Center (former Orangeburg Pipe) Groundwater Remediation

Date: 2/4/14

Time: 505 PM

MANHOLE WATER LEVEL (ft. - in.)		WATER TOTALIZER (gallons)	INSTANT. PUMP RATE		
TARGET	READING		(min/gal)	(gal/min)	
9'9" to 10'6" 9'3" - 11'0"	9'8"	1,896,269 ⇒ 1,025/pm		15.1	Before Filter Change
					After Filter Change

PRESSURE READINGS (psi)						
PLANT INLET	PRIMARY BAG INLET	BETWEEN BAGS	FINAL BAG INLET	CARBON INLET	BETWEEN CARBON	
						Before Filter Change
						After Filter Change

PUMP STATUS (circle one):	RUN	(AUTO-off)	HAND-off	Other
ALARMS:	—		Surge Protector:	OK

NOTES:

Fuel building door unlocked and foot steps in snow inside fence. Probably town employee. Building otherwise OK

OPERATOR:

FIGURE 2-1

ROUTINE OPERATIONS REPORT

Lowe's Home Center (former Orangeburg Pipe) Groundwater Remediation

Date: 2/17/14

Time: 750 AM

MANHOLE WATER LEVEL (ft. - in.)		WATER TOTALIZER	INSTANT. PUMP RATE		
TARGET	READING	(gallons)	(min/gal)	(gal/min)	
~~9'9" to 10'6"~~ 4'3" ± 1'0"	9'5"	1,922,002 / 1 => 1.49/hr		14.7	Before Filter Change
					After Filter Change

PRESSURE READINGS (psi)						
PLANT INLET	PRIMARY BAG INLET	BETWEEN BAGS	FINAL BAG INLET	CARBON INLET	BETWEEN CARBON	
						Before Filter Change
						After Filter Change

PUMP STATUS (circle one):	RUN	(AUTO-off)	HAND-off	Other
ALARMS:	—		**Surge Protector:**	OK

NOTES:

4ft of snow & ice blocked gate - had to shovel & chop to access

OPERATOR:

FIGURE 2-1

ROUTINE OPERATIONS REPORT

Lowe's Home Center (former Orangeburg Pipe) Groundwater Remediation

Date: 3/4/14

Time: 250 PM

MANHOLE WATER LEVEL (ft. - in.)		WATER TOTALIZER (gallons)	INSTANT. PUMP RATE		
TARGET	READING		(min/gal)	(gal/min)	
~~9'9" to 10'6"~~ 93" - 4'0"	*	1964560 / 4255 gal => 20.1 gpm		13.7	Before Filter Change
					After Filter Change

PRESSURE READINGS (psi)						
PLANT INLET	PRIMARY BAG INLET	BETWEEN BAGS	FINAL BAG INLET	CARBON INLET	BETWEEN CARBON	
						Before Filter Change
						After Filter Change

PUMP STATUS (circle one):	(RUN)	AUTO-off	HAND-off	Other
ALARMS:	———		Surge Protector:	OK

NOTES:

* Car is parked over manhole.

OPERATOR: [signature]

FIGURE 2-1

ROUTINE OPERATIONS REPORT

Lowe's Home Center (former Orangeburg Pipe) Groundwater Remediation

Date: 3/18/14

Time: 753 AM

MANHOLE WATER LEVEL (ft. - in.)		WATER TOTALIZER (gallons)	INSTANT. PUMP RATE		
TARGET	READING		(min/gal)	(gal/min)	
~~9'9" to 10'6"~~ 9'3" - 11'0"	9'6"	2,000,114 1.8 gpm		13.1	Before Filter Change
					After Filter Change

PRESSURE READINGS (psi)						
PLANT INLET	PRIMARY BAG INLET	BETWEEN BAGS	FINAL BAG INLET	CARBON INLET	BETWEEN CARBON	
						Before Filter Change
						After Filter Change

PUMP STATUS (circle one):	RUN	AUTO-off	HAND-off	Other
ALARMS:	—	Surge Protector:	OK	

NOTES:

all OK

OPERATOR: [signature]

FIGURE 2-1

ROUTINE OPERATIONS REPORT
Lowe's Home Center (former Orangeburg Pipe) Groundwater Remediation

Date: 4/1/14

Time: 800 AM

MANHOLE WATER LEVEL (ft. - in.)		WATER TOTALIZER (gallons)	INSTANT. PUMP RATE		
TARGET	READING		(min/gal)	(gal/min)	
9'3" to 11'0"	10'0"	2,044,788		11.9	Before Filter Change
					After Filter Change

PRESSURE READINGS (psi)						
PLANT INLET	PRIMARY BAG INLET	BETWEEN BAGS	FINAL BAG INLET	CARBON INLET	BETWEEN CARBON	
						Before Filter Change
						After Filter Change

PUMP STATUS (circle one):	RUN	AUTO-off	HAND-off	Other
ALARMS:	—		Surge Protector:	OK

NOTES:

OPERATOR:

FIGURE 2-1

ROUTINE OPERATIONS REPORT

Lowe's Home Center (former Orangeburg Pipe) Groundwater Remediation

Date: 4/14/14

Time: 10:13 am

MANHOLE WATER LEVEL (ft. - in.)		WATER TOTALIZER	INSTANT. PUMP RATE		
TARGET	READING	(gallons)	(min/gal)	(gal/min)	
9'3" to 11'0"	10' 1"	2,073,022 => 1.5 gpm		11.2	Before Filter Change
					After Filter Change

PRESSURE READINGS (psi)						
PLANT INLET	PRIMARY BAG INLET	BETWEEN BAGS	FINAL BAG INLET	CARBON INLET	BETWEEN CARBON	
						Before Filter Change
						After Filter Change

PUMP STATUS (circle one):	RUN	AUTO-off	HAND-off	Other
ALARMS:	—	Surge Protector:	OK	

NOTES:

Turn of building heat for season.

OPERATOR: [signature]

OPSHEET.XLS March 31, 2014

FIGURE 2-1

ROUTINE OPERATIONS REPORT

Lowe's Home Center (former Orangeburg Pipe) Groundwater Remediation

Date: 4/28/14

Time: 829 AM

MANHOLE WATER LEVEL (ft. - in.)		WATER TOTALIZER (gallons)	INSTANT. PUMP RATE		
TARGET	READING		(min/gal)	(gal/min)	
9'3" to 11'0"	9'10"	2,104,286 / 1.6 gpm		10.2	Before Filter Change
					After Filter Change

PRESSURE READINGS (psi)						
PLANT INLET	PRIMARY BAG INLET	BETWEEN BAGS	FINAL BAG INLET	CARBON INLET	BETWEEN CARBON	
						Before Filter Change
						After Filter Change

PUMP STATUS (circle one):	RUN	(AUTO-off)	HAND-off	Other
ALARMS:	—		Surge Protector:	OK

NOTES:

Crates cover manhole. Had to wait about 10 minutes to get area cleared. Spoke to Chris Cambell - Warehouse supervisor

Lights for one fixture out. Need step ladder to replace

OPERATOR: _____

FIGURE 2-1

ROUTINE OPERATIONS REPORT

Lowe's Home Center (former Orangeburg Pipe) Groundwater Remediation

Date: 5/12/14

Time: 740 AM

MANHOLE WATER LEVEL (ft. - in.)		WATER TOTALIZER (gallons)	INSTANT. PUMP RATE		
TARGET	READING		(min/gal)	(gal/min)	
9'3" to 11'0"	*	21506069 2.3		8.1	Before Filter Change
					After Filter Change

PRESSURE READINGS (psi)						
PLANT INLET	PRIMARY BAG INLET	BETWEEN BAGS	FINAL BAG INLET	CARBON INLET	BETWEEN CARBON	
						Before Filter Change
						After Filter Change

PUMP STATUS (circle one):	RUN	(AUTO-off)	HAND-off	Other
ALARMS:	—		**Surge Protector:**	OK

NOTES:

* manhole blocked by garden center rocks
Took photo and will send pic to Jane's

OPERATOR: [signature]

FIGURE 2-1

ROUTINE OPERATIONS REPORT

Lowe's Home Center (former Orangeburg Pipe) Groundwater Remediation

Date: 3/25/14

Time: 750 PM

MANHOLE WATER LEVEL (ft. - in.)		WATER TOTALIZER (gallons)	INSTANT. PUMP RATE		
TARGET	READING		(min/gal)	(gal/min)	
9'3" to 11'0"	*	2,183,467		7.1	Before Filter Change
		1.07 gpm			After Filter Change

PRESSURE READINGS (psi)						
PLANT INLET	PRIMARY BAG INLET	BETWEEN BAGS	FINAL BAG INLET	CARBON INLET	BETWEEN CARBON	
						Before Filter Change
						After Filter Change

PUMP STATUS (circle one):	RUN	AUTO-off	HAND-off	Other
ALARMS:	—	Surge Protector:		OK

NOTES:

* pallets still over manhole
Took another photo to show Jones

OPERATOR: [signature]

FIGURE 2-1

ROUTINE OPERATIONS REPORT

Lowe's Home Center (former Orangeburg Pipe) Groundwater Remediation

Date: 6/9/14

Time: 0800.

MANHOLE WATER LEVEL (ft. - in.)		WATER TOTALIZER (gallons)	INSTANT. PUMP RATE		
TARGET	READING		(min/gal)	(gal/min)	
9'3" to 11'0"	10' 2"	2210881 gal 1.4 gpm		6.3	Before Filter Change
					After Filter Change

PRESSURE READINGS (psi)						
PLANT INLET	PRIMARY BAG INLET	BETWEEN BAGS	FINAL BAG INLET	CARBON INLET	BETWEEN CARBON	
						Before Filter Change
						After Filter Change

PUMP STATUS (circle one):	RUN	(AUTO-off)	HAND-off	Other
ALARMS:	—		Surge Protector:	OK

NOTES:

* Lowes placed barricades around our manhole

OPERATOR: JMS

FIGURE 2-1

ROUTINE OPERATIONS REPORT

Lowe's Home Center (former Orangeburg Pipe) Groundwater Remediation

Date: 6/23/14

Time: 0730

MANHOLE WATER LEVEL (ft. - in.)		WATER TOTALIZER (gallons)	INSTANT. PUMP RATE		
TARGET	READING		(min/gal)	(gal/min)	
9'3" to 11'0"	9'4"	2238896 28,015 gal 1.4 gpm		4.9	Before Filter Change
					After Filter Change

PRESSURE READINGS (psi)						
PLANT INLET	PRIMARY BAG INLET	BETWEEN BAGS	FINAL BAG INLET	CARBON INLET	BETWEEN CARBON	
N/A	→	→	→	→	→	Before Filter Change
						After Filter Change

PUMP STATUS (circle one):	RUN	(AUTO-off)	HAND-off	Other
ALARMS:	No	Surge Protector:	OK	

NOTES:

* Lowes still has barricades around our manhole

OPERATOR: [signature]

6.3 on 6/9

20160 min/wk

FIGURE 2-1

ROUTINE OPERATIONS REPORT

Lowe's Home Center (former Orangeburg Pipe) Groundwater Remediation

Date: 6/30/14

Time: 1930

MANHOLE WATER LEVEL (ft. - in.)		WATER TOTALIZER (gallons)	INSTANT. PUMP RATE		
TARGET	READING		(min/gal)	(gal/min)	
9'3" to 11'0"	—	2253257 1.3 gpm	4.6 gpm	4.6	Before Filter Change
					After Filter Change

PRESSURE READINGS (psi)						
PLANT INLET	PRIMARY BAG INLET	BETWEEN BAGS	FINAL BAG INLET	CARBON INLET	BETWEEN CARBON	
						Before Filter Change
						After Filter Change

PUMP STATUS (circle one):	RUN	(AUTO-off)	HAND-off	Other
ALARMS:	None		Surge Protector:	OK

NOTES:

14361 gal. 10800 min = 1.33 gpm

6/23 2238896 1.4 gpm ave 4.9 gpm instantaneous

OPERATOR: JMS

HDR Project No. 147-39743

January 8, 2015

Keneck Skibinski, Chief Plant Operator
Town of Orangetown Department of Environmental Management and Engineering
127 Route 303
Orangeburg, New York 10962

RE: **Orangeburg Holdings LLC**
Permit No. 2014-33
Semi-Annual Flow Report – July-December 2014

Dear Mr. Skibinski:

This report is provided in compliance with Section IV.3 of the above referenced permit. During the last six months of 2014, the total flow to the POTW was 211,323 gallons. As discussed in our telephone conversation on 21 November 2014 and outlined in a letter dated 2 December 2014 (see attached file), Orangeburg Holdings, LLC has been given approval from NYSDEC to shut down the pump and treat system at the site. The system was shut down on 1 October 2014. There has been no discharge to the POTW since the system was shut down.

This table provides the total gallons of water discharged to the POTW for the second half of 2014. It is based on the difference in the flow totalizer meter readings made on 30 June (end date for the mid-year 2014 report) and 1 October 2014 (when the pump and treat system was shut down).

DATE	METER READING (gal.)
10/01/14	2,464,580
6/30/14	2,253,257
Total	**211,323**

When the treatment system was in operation this flow equated to an average discharge of 2,284 gallons per day. Attached is a table providing a summary of the flow data during the inspections before the system was shut down as well as the copies of the system inspection logs for the inspections conducted during this period.

1 International Boulevard, 10th Floor, Suite
1000, Mahwah, NJ 07495-0027
Ph: (201) 335-9300; Fax: (201) 335-9301

If there are any questions, please do not hesitate to contact me.

Yours very truly,
HENNINGSON, DURHAM & RICHARDSON ARCHITECTURE AND ENGINEERING, P.C.

John M. Guzewich
Project Manager

Enc.

cc: Kimberly Allen, Town of Orangetown (by e-mail)
Glenn S. Pantel, Esq., Drinker Biddle & Reath (by e-mail)
Joseph N. Schmidt, Esq., Drinker Biddle & Reath (by e-mail)
Steven Kolitch, Orangeburg Holdings LLC (by e-mail)

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Orangeburg Holdings - Lowes's Project Site
Sewer Discharge Summary
Permit 2014-033
(July -December 2014)

Inspection Date / Time	Flow Totalizer (gal.)	Pump Rates			Total Flow (gal.)	Total Time		
		gpm (instant.)	gpm (calc.)	gpd (calc.)		Days	Hours	Min.
6/30/14 19:30	2,253,257	4.6	1.3					
7/7/14 7:30	2,267,143	4.3	1.5	2136	13,886	6.5	156.0	9,360
7/22/14 7:15	2,296,673	3.7	1.4	1970	29,530	15.0	359.8	21,585
8/5/14 7:05	2,325,648	3.3	1.4	2071	28,975	14.0	335.8	20,150
8/17/14 17:15	2,353,225	2.9	1.5	2220	27,577	12.4	298.2	17,890
9/3/14 14:00	2,391,791	2.4 *	1.6	2287	38,566	16.9	404.8	24,285
9/17/14 14:00	2,428,563	14.6	1.8	2627	36,772	14.0	336.0	20,160
10/1/14 7:50 **	2,464,580	13.8	1.8	2621	36,017	13.7	329.8	19,790
Total Gallons :**	**211,323**	* - Flow reading prior to system piping and pump clean out.						
Average GPD:**	**2,284**							

* During the inspection event on 3 September, the discharge piping in building was cleaned out and the pump screen and piping in the manhole was cleaned out after the reading was taken. The instantaneous flow rate increased to 7.2 gpm. During the next inspection event the flow rate had increased to 14.6 gpm

** As per approval from NYSDEC, the pump and treatment system was shut down on 1 October 2014.

Note: There was no discharge from the system from 1 October to 31 December 2014.

FIGURE 2-1

ROUTINE OPERATIONS REPORT

Lowe's Home Center (former Orangeburg Pipe) Groundwater Remediation

Date: 7/7/14

Time: 0730

MANHOLE WATER LEVEL (ft. - in.)		WATER TOTALIZER (gallons)	INSTANT. PUMP RATE		
TARGET	READING		(min/gal)	(gal/min)	
9'3" to 11'0"	10'0"	2267143 1.5 gpm		4.3	Before Filter Change
					After Filter Change

PRESSURE READINGS (psi)						
PLANT INLET	PRIMARY BAG INLET	BETWEEN BAGS	FINAL BAG INLET	CARBON INLET	BETWEEN CARBON	
						Before Filter Change
						After Filter Change

PUMP STATUS (circle one):	(RUN)	AUTO-off	HAND-off	Other
ALARMS:	None		**Surge Protector:**	OK

NOTES:

6/30 c1930 2253257 1.3gpm 4.6gpm instan

OPERATOR: JMG

FIGURE 2-1

ROUTINE OPERATIONS REPORT

Lowe's Home Center (former Orangeburg Pipe) Groundwater Remediation

Date: 8/5/14

Time: 0705

MANHOLE WATER LEVEL (ft. - in.)		WATER TOTALIZER (gallons)	INSTANT. PUMP RATE		
TARGET	READING		(min/gal)	(gal/min)	
9'3" to 11'0"	9'5"	2325648 1.4 gpm (calc.)		3.3 gpm	Before Filter Change
					After Filter Change

PRESSURE READINGS (psi)						
PLANT INLET	PRIMARY BAG INLET	BETWEEN BAGS	FINAL BAG INLET	CARBON INLET	BETWEEN CARBON	
						Before Filter Change
						After Filter Change

PUMP STATUS (circle one):	(RUN)	AUTO-off	HAND-off	Other
ALARMS:	None	Surge Protector:	OK	

NOTES:

7/22/14 @ 0715 2296673 3.7 gpm / 1.4 gpm calc.

OPERATOR: JMZ

FIGURE 2-1

ROUTINE OPERATIONS REPORT

Lowe's Home Center (former Orangeburg Pipe) Groundwater Remediation

Date: 8/17/14

Time: 1715

MANHOLE WATER LEVEL (ft. - in.)		WATER TOTALIZER (gallons)	INSTANT. PUMP RATE		
TARGET	READING		(min/gal)	(gal/min)	
9'3" to 11'0"	9'9"	2353225 (1.4 gpm calc)		2.9	Before Filter Change
					After Filter Change

PRESSURE READINGS (psi)						
PLANT INLET	PRIMARY BAG INLET	BETWEEN BAGS	FINAL BAG INLET	CARBON INLET	BETWEEN CARBON	
						Before Filter Change
						After Filter Change

PUMP STATUS (circle one):	RUN	(AUTO-off)	HAND-off	Other
ALARMS:	None	Surge Protector:	OK	

NOTES:

27577 gal | 20/50 min = 1.37

9/5/14 0900 2325648 3.9 gpm / 1.4 gpm calc

OPERATOR: JMS

FIGURE 2-1

ROUTINE OPERATIONS REPORT

Lowe's Home Center (former Orangeburg Pipe) Groundwater Remediation

Date: 9/3/14

Time: 1400

MANHOLE WATER LEVEL (ft. - in.)		WATER TOTALIZER (gallons)	INSTANT. PUMP RATE		
TARGET	READING		(min/gal)	(gal/min)	
9'3" to 11'0"	10'10"	239.1791 (1.6 gpm calc)		2.4*	Before Filter Change
					After Filter Change

PRESSURE READINGS (psi)						
PLANT INLET	PRIMARY BAG INLET	BETWEEN BAGS	FINAL BAG INLET	CARBON INLET	BETWEEN CARBON	
						Before Filter Change
						After Filter Change

PUMP STATUS (circle one):	(RUN)	AUTO-off	HAND-off	Other
ALARMS:	No Alarms		Surge Protector:	OK

NOTES:

*Took reading prior to cleaning out piping in the building
- Replaced flex pipe along east wall w/ new flex hose
- after turning back on flow @ 3.7
- cleaned pump (needed to put new fittings on) ... removed small flex section at bottom & put on a cam fitting
- Flow now @ 7.2 gpm

8/17/14 @ 1715 2353225 2.9 gpm / 1.4 gpm

OPERATOR: JMS

FIGURE 2-1

ROUTINE OPERATIONS REPORT

Lowe's Home Center (former Orangeburg Pipe) Groundwater Remediation

Date: 9/17/14

Time: 1400

MANHOLE WATER LEVEL (ft. - in.)		WATER TOTALIZER	INSTANT. PUMP RATE		
TARGET	READING	(gallons)	(min/gal)	(gal/min)	
9'3" to 11'0"	9'8"	2428563 (1.8 gpm calc)		14.6	Before Filter Change
					After Filter Change

PRESSURE READINGS (psi)						
PLANT INLET	PRIMARY BAG INLET	BETWEEN BAGS	FINAL BAG INLET	CARBON INLET	BETWEEN CARBON	
						Before Filter Change
						After Filter Change

PUMP STATUS (circle one):	RUN	(AUTO-off)	HAND-off	Other
ALARMS:	None	Surge Protector:	OK	

NOTES:

* Put check valve back in line (cleaned it out first) & replace black pipe reducer w/ stainless steel reducer

9/3/14 @1400 2391791 2.4gpm/7.2gpm* (after cleaning)

OPERATOR: JMS

FIGURE 2-1

ROUTINE OPERATIONS REPORT

Lowe's Home Center (former Orangeburg Pipe) Groundwater Remediation

Date: 10/1/14

Time: 0750

MANHOLE WATER LEVEL (ft. - in.)		WATER TOTALIZER	INSTANT. PUMP RATE		
TARGET	READING	(gallons)	(min/gal)	(gal/min)	
9'3" to 11'0"	9'8"	2464580 (1.8gpm calc flow)		13.8	Before Filter Change
					After Filter Change

PRESSURE READINGS (psi)						
PLANT INLET	PRIMARY BAG INLET	BETWEEN BAGS	FINAL BAG INLET	CARBON INLET	BETWEEN CARBON	
						Before Filter Change
						After Filter Change

PUMP STATUS (circle one):	RUN	(AUTO-off)	HAND-off	Other
ALARMS:	None		Surge Protector:	OK

NOTES:

As per approval from NYSDEC the treatment system is being shut down today

Note: Contractor working on removing sections of pavers as discussed with Lowe's

9/17/14 @ 1400 2428563 14.6 gpm

OPERATOR: JMG

HDR Project No. 147-39743

December 2, 2014

Keneck Skibinski, Chief Plant Operator
Town of Orangetown Department of Environmental Management and Engineering
127 Route 303
Orangeburg, New York 10962

RE: **Orangeburg Holdings LLC**
Discharge Permit No. 2014-33
NYSDEC Treatment System Shutdown Approval

Dear Mr. Skibinski:

As part of the requirements of the Site Management Plan (SMP) in place for the Former Orangeburg Pipe Mfg. -Lowe's Site, HDR on behalf of Orangeburg Holdings, LLC, has been submitting Periodic Review Reports (PRRs) to New Your State Department of Conservation (NYSDEC) summarizing all observations, site activities, sampling activities, and data collected since the previous PRR. On the behalf of Orangeburg Holdings LLC, HDR submitted the most recent PRR to the NYSDEC case manager on April 8, 2014. As part of the PRR, HDR made the following two recommendations based on the recent results and overall data trends from the monitoring well data and the system discharge data:

- The SMP for Site #V-00579-3 should be modified to allow the shut-down of the pump & treat groundwater remediation system. However the system would remain operational and its discharge permit would be kept active in case future groundwater monitoring demonstrates a need for reactivation of the pump and treat system.
- The SMP for Site #V-00579-3 should be modified to eliminate the following five groundwater monitoring wells from the routine sampling schedule: MW03-11D, MW03-14D, MW03-25, MW03-26, & MW03-28.
    - The following nine monitoring wells will now be included in the annual groundwater sampling events conducted in July: MW03-11S, MW03-12S, MW03-12D, MW03-14S, MW03-18S, MW03-18D, MW03-27S, MW03-27D, & MW07-29.

One International Boulevard
10th Floor, Suite 1000
Mahwah, NJ 07495
T 201.335.9300 **F** 201.335.9301

NYSDEC has approved these two recommendations in a PRR Response Letter dated September 23, 2014. Groundwater will continue to be sampled on an annual basis and the site cover will be inspected on an annual basis as well. The next round of groundwater sampling is scheduled for July 2015 and the next PRR is scheduled to be submitted in April 2017. I have enclosed a copy of the NYSDEC PPR Response letter for your files.

As discussed in our conversation on November 21, 2014 Orangeburg Holdings LLC is planning to keep the discharge permit open in the event the results from future groundwater sampling indicate the pump and treat system should be turned back on.

It is understood that HDR, on behalf of Orangeburg Holdings LLC, will not be required to collect samples of the discharge for analysis in accordance with the permit requirements as long as the pump and treat system remains shutdown and is not discharging water to the POTW facility. In addition, the Town of Orangetown Department of Environmental Management & Engineering (DEME) will not collect any samples as long as the pump and treat system remains shutdown. HDR will continue to submit biannual letter reports to the Town of Orangetown DEME to document the system remains shutdown and there has been no discharge. If future groundwater sampling results indicate the treatment system should be reactivated or NYSDEC requests that the system be reactivated, HDR will notify the Town of Orangetown DEME of this change and sampling of the discharge water will be conducted in accordance with the current permit requirements. The pump and treat system was shutdown on October 1, 2014.

If the Town of Orangetown DEME needs to collect discharge samples when the system is shutdown, the ball valve on the upstream side of the flowmeter will need to be opened and the pump will need to be turned on at the control panel.

Please respond with an email or a letter confirming your receipt of this letter and your understanding of and agreement with the ongoing monitoring / documentation required for the pump and treatment system while it remains shut down for the project files.

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10th Floor, Suite 1000
Mahwah, NJ 07495
T 201.335.9300 **F** 201.335.9301

If there are any questions or you require additional information, please do not hesitate to contact me.

Yours very truly,
Henningson, Durham & Richardson Architecture and Engineering, P.C.

John M. Guzewich
Project Manager

Enc.

cc: Kimberly Allen, Town of Orangetown (by e-mail)
Glenn Pantel, Esq., Drinker Biddle & Reath (by e-mail)
Joseph Schmidt, Esq., Drinker Biddle & Reath (by e-mail)
Steven Kolitch, Orangeburg Holdings LLC (by e-mail)
Stuart Bassell, HDR (by email)

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New York State Department of Environmental Conservation
Division of Environmental Remediation, 11th Floor
625 Broadway, Albany, New York 12233
Phone: (518) 402-9662
Fax: 518-402-9679
Website: www.dec.ny.gov

Joe Martens
Commissioner

September 23, 2014

Steven Kolitch
Orangeburg Holdings, LLC
c/o ILY Properties
505 Main Street, Unit 318
Hackensack, NJ 07601

Re: Site Management (SM) Periodic Review Report (PRR) Response Letter
Former Orangeburg Pipe Mfg-Lowe's Site, Orangetown
Rockland County, Site No.: V00579

Dear Mr. Kolitch:

The New York State Department of Environmental Conservation (Department) has reviewed your Periodic Review Report (PRR) and IC/EC Certification for following period: April 11, 2011 to March 28, 2014.

The Department hereby accepts the PRR and associated Certification. The frequency of Periodic Reviews for this site is 3 years, your next PRR is due in April of 2017. You will receive a reminder letter and updated certification form prior to the due date.

Also, the Department hereby approves your request as outlined in the April 2014 Periodic Review Report (PRR) to shut down the pump and treat groundwater remediation system and to discontinue groundwater sampling at monitoring wells MW03-11D, MW03-14D, MW03-25, MW03-26, and MW03-28.

Groundwater sampling should continue and the site cover should be inspected on an annual basis.

If you have any questions, or need additional forms, please contact me at 518-402-9662 or e-mail: jamie.verrigni@dec.ny.gov.

Sincerely,

Jamie Verrigni
Project Manager

ec: Jamie Verrigni
James Candiloro
Edward Moore
Maureen Schuck – NYSDOH
Renata Ockerby - NYSDOH
John Guzewich – HDR – john.quzewich@hdrinc.com
Steven Kolitch – Orangeburg Holdings, LLC - stevenskol@aol.com

HDR Project No. 147-39743

July 15, 2015

Keneck Skibinski, Chief Plant Operator
Town of Orangetown Department of Environmental Management and Engineering
127 Route 303
Orangeburg, New York 10962

RE: **Orangeburg Holdings LLC**
Permit No. 2015-33
Semi-Annual Flow Report – January-July 2015

Dear Mr. Skibinski:

This report is provided in compliance with Section IV.3 of the above referenced permit. During the first six months of 2015 there has been no discharge to the POTW from the treatment system. As discussed in our telephone conversation on 21 November 2014 and outlined in a letter dated 2 December 2014, Orangeburg Holdings, LLC has been given approval from NYSDEC to shut down the pump and treat system at the site. The system was shut down on 1 October 2014. There has been no discharge to the POTW since the system was shut down.

If there are any questions, please do not hesitate to contact me.

Yours very truly,
HENNINGSON, DURHAM & RICHARDSON ARCHITECTURE AND ENGINEERING, P.C.

John M. Guzewich
Project Manager

Enc.

cc: Kimberly Allen, Town of Orangetown (by e-mail)
Glenn S. Pantel, Esq., Drinker Biddle & Reath (by e-mail)
Joseph N. Schmidt, Esq., Drinker Biddle & Reath (by e-mail)
Steven Kolitch, Orangeburg Holdings LLC (by e-mail)

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Ph: (201) 335-9300; Fax: (201) 335-9301

HDR Project No. 147-39743

January 12, 2016

Keneck Skibinski, Chief Plant Operator
Town of Orangetown Department of Environmental Management and Engineering
127 Route 303
Orangeburg, New York 10962

RE: **Orangeburg Holdings LLC**
Permit No. 2015-33
Semi-Annual Flow Report – July-December 2015

Dear Mr. Skibinski:

This report is provided in compliance with Section IV.3 of the above referenced permit. During the last six months of 2015, the system was not operated and there was no flow to the POTW. As discussed in our telephone conversation on 21 November 2014 and outlined in a letter dated 2 December 2014, Orangeburg Holdings, LLC has been given approval from NYSDEC to shut down the pump and treat system at the site. The system was shut down on 1 October 2014. There has been no discharge to the POTW since the system was shut down.

If there are any questions, please do not hesitate to contact me.

Yours very truly,
HENNINGSON, DURHAM & RICHARDSON ARCHITECTURE AND ENGINEERING, P.C.

John M. Guzewich
Project Manager

Enc.

cc: Kimberly Allen, Town of Orangetown (by e-mail)
Glenn S. Pantel, Esq., Drinker Biddle & Reath (by e-mail)
Joseph N. Schmidt, Esq., Drinker Biddle & Reath (by e-mail)
Steven Kolitch, Orangeburg Holdings LLC (by e-mail)

1 International Boulevard, 10th Floor, Suite
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Ph: (201) 335-9300; Fax: (201) 335-9301

HDR Project No. 10016690; 39743-001

July 07, 2016

Keneck Skibinski, Chief Plant Operator
Town of Orangetown Department of Environmental Management and Engineering
127 Route 303
Orangeburg, New York 10962

RE: **Orangeburg Holdings LLC**
Permit No. 2016-33
Semi-Annual Flow Report – January-July 2016

Dear Mr. Skibinski:

This report is provided in compliance with Section IV.3 of the above referenced permit. During the first six months of 2016 there has been no discharge to the POTW from the treatment system. As discussed in our telephone conversation on 21 November 2014 and outlined in a letter dated 2 December 2014, Orangeburg Holdings, LLC has been given approval from NYSDEC to shut down the pump and treat system at the site. The system was shut down on 1 October 2014. There has been no discharge to the POTW since the system was shut down.

If there are any questions, please do not hesitate to contact me.

Yours very truly,
HENNINGSON, DURHAM & RICHARDSON ARCHITECTURE AND ENGINEERING, P.C.

John M. Guzewich
Project Manager

Enc.

cc: Ellie Fordham, Town of Orangetown (by e-mail)
Glenn S. Pantel, Esq., Drinker Biddle & Reath (by e-mail)
Joseph N. Schmidt, Esq., Drinker Biddle & Reath (by e-mail)
Steven Kolitch, Orangeburg Holdings LLC (by e-mail)

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1000, Mahwah, NJ 07495-0027
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HDR Project No. 10016690; 39743-001

January 06, 2017

Keneck Skibinski, Chief Plant Operator
Town of Orangetown Department of Environmental Management and Engineering
127 Route 303
Orangeburg, New York 10962

RE: **Orangeburg Holdings LLC**
Permit No. 2016-33
Semi-Annual Flow Report –July-December 2016

Dear Mr. Skibinski:

This report is provided in compliance with Section IV.3 of the above referenced permit. During the last six months of 2016 there has been no discharge to the POTW from the treatment system. As discussed in our telephone conversation on 21 November 2014 and outlined in a letter dated 2 December 2014, Orangeburg Holdings, LLC has been given approval from NYSDEC to shut down the pump and treat system at the site. The system was shut down on 1 October 2014. There has been no discharge to the POTW since the system was shut down.

The annual sampling of the site monitoring wells in July 2016 revealed no significant groundwater chemistry changes or concentrations of the chemical of concern at the site since the pump and treatment system has been shut down.

If there are any questions, please do not hesitate to contact me.

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Ph: (201) 335-9300; Fax: (201) 335-9301

Yours very truly,
HENNINGSON, DURHAM & RICHARDSON ARCHITECTURE AND ENGINEERING, P.C.

John M. Guzewich
Project Manager

Enc.

cc: Ellie Fordham, Town of Orangetown (by e-mail)
Glenn S. Pantel, Esq., Drinker Biddle & Reath (by e-mail)
Joseph N. Schmidt, Esq., Drinker Biddle & Reath (by e-mail)
Steven Kolitch, Orangeburg Holdings LLC (by e-mail)

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Appendix C

Excavation Documentation

HDR Project No. 147-39743

VIA E-MAIL AND REGULAR MAIL

August 4, 2014

George Heitzman, Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation, BURC
625 Broadway
Albany, NY 12233-7014

RE: Voluntary Cleanup Program
Volunteer: Orangeburg Holdings, LLC
Site Name: Former Orangeburg Pipe Manufacturing Facility
Site #: V-00579-3 Index #: W3-0930-02-07

Dear Mr. Heitzman:

I represent Orangeburg Holdings, LLC (the "Volunteer") at the above-described site. I am writing to inform you of planned repair work by Lowe's in the parking lot at the Lowe's Home Center located at the site. The work, which is described in the attached July 23, 2014 letter by Lowe's, will entail removal of some curbing and pavers by Lowe's, to be replaced with structural fill and stamped asphalt. As noted in this July 23rd letter, the historic fill will not be excavated by Lowe's during this repair work.

The Declaration of Covenants and Restrictions for the site states that: "…unless prior written approval by the New York State Department of Environmental Conservation… is first obtained, there shall be no construction…that results in the disturbance or excavation of the Property, which threatens the integrity of the soil cap, or which results in unacceptable human exposure to contaminated soils." Based on our review, the proposed work by Lowe's does not trigger the need for your agency's approval. However, as a courtesy, we feel that it is best to notify you of the planned repairs by Lowe's at the site for your records.

One Blue Hill Plaza, 12th Floor
P.O. Box 1509
Pearl River, NY 10965-8509
T 845.735.8300 F 845.735.7466

If there are any questions, please do not hesitate to contact me.

HENNINGSON, DURHAM & RICHARDSON ARCHITECTURE AND ENGINEERING, P.C.

Sincerely,

John M. Guzewich
Project Manager

Enc.

cc: Orangeburg Holdings, LLC
Glenn S. Pantel, Esq.
Joseph N. Schmidt, Jr., Esq.
Jamie Verrigni, NYSDEC

One Blue Hill Plaza, 12th Floor
P.O. Box 1509
Pearl River, NY 10965-8509
T 845.735.8300 **F** 845.735.7466

Real Estate, Engineering & Construction
1605 Curtis Bridge Rd. Wilkesboro, NC 28697
Phone: (336) 658-xxxx Fax: (336) 658-xxxx

July 23, 2014

Mr. John M. Guzewich
HDR
1 Blue Hill Plaza, 12th Floor
Pearl River, NY 10965

RE: Lowe's of Orangeburg, NY
Asphalt Repair Work

Dear Mr. Guzewich:

As discussed, Lowe's intends to commence parking lot repairs, at the above referenced store, on or about August 18, 2014. The scope of work is as follows – remove the existing recessed curb and brick paver detail along the front sidewalk and between curbed islands, install new compacted base material on top of the existing sub-base to the required elevation and install new stamped asphalt to match the current detail design. As discussed, at no time will the existing sub-base be excavated below the existing cap materal, with all work being performed above the existing sub-base.

Please contact me with any questions.

Sincerely,

Gurney Buchanan
Construction Manager

Cc: File

LOWES, ORANGETOWN – Wastewater projected flow calculations

AVE. DAILY FLOW = (RETAIL AREA x 0.1 GPD/SF)
= (139,910 x 0.1 GPD/SF)
= 13,991 GPD

PROJECTED FLOW WAS CALCULATED IN ACCORDANCE WITH THE N.Y.D.E.C. CRITERIA.

NOTE:
ROADWAY CLOSURES TO BE COORDINATED BY THE CONTRACTOR THROUGH THE TOWN.

GENERAL NOTES:

1. APPLICANT: LOWE'S COMPANIES INC.
P.O.BOX 1111
NORTH WILKESBORO, NC 28656

OWNER: ORANGEBURGE HOLDING L.L.C.
411 ROUTE 17 SOUTH
SUITE 110
HASBROUCK HEIGHTS, NJ 07604

DISTRICTS:
School District: South Orangetown
Fire District: Orangeburgh Fire Department
Water: Town of Orangetown
Lighting: Town of Orangetown
Sewer: Orangetown Sewer District
Zoning District: LI-Light Industrial

2. THIS PLAN REFERENCES A TOPOGRAPHIC & LOCATION SURVEY PREPARED BY:
CONTROL POINT ASSOCIATES, INC.
778 MOUNTAIN BLVD.
WATCHUNG, NJ 07060
CPA FILE #C00097

3. ZONING SUMMARY:

ZONE: LI-LIGHT INDUSTRIAL DISTRICT
RETAIL SALES(PERMITTED USE)
PROPERTY: TAX MAP #74.15, BLOCK 1, LOTS 3 & 4

4. ZONING REQUIREMENTS(CC ZONE):

	REQUIRED	EXISTING	PROPOSED
MIN. LOT AREA:	2 ACRES	538,812 SF(12.39 ACRES)	524,027 SF(12.05 ACRES)
MIN. LOT WIDTH:	150'	870.13'	870.13'
MIN. LOT FRONTAGE:	150'	695.13'	695.13'
MIN. BUILDING SETBACKS:			
FRONT YARD:	50'	86.75'	50'
REAR YARD:	50'	N/A	N/A
SIDE YARD:			
EACH:	50'	117.10'	50'
BOTH:	100'	607.44'	204.5'
MAX. BUILDING HEIGHT:	1 STORY	1 STORY	1 STORY
MAX. F.A.R.:	0.50(269,910.5 SF)	0.017(9138 SF)	MAIN BUILDING– 135,479 SF CONCRETE AGRICULTURAL 4,431 SF GARDEN CENTER– 0.258(139,910 SF)

PARKING REQUIREMENTS:

	REQUIRED	EXISTING	PROPOSED
MIN. STALL SIZE:	9'x18'	10'x20'	9'x18'
MIN. AISLE WIDTH:	22'	24'	24'
MIN. NUMBER OF SPACES @ 1 SPACE/200 SF	700 SPACES	N/A	600 SPACES (Y) 600 SPACES + 109 FUTURE SPACES = 709 SPACES
MIN. NUMBER OF LOADING BERTHS @ 1 BERTH/25,000 SF	6 BERTHS	N/A	9 BERTHS

1. ASPHALT PARKING LOT TO BE STRIPED WITH 4" WIDE PAINTED WHITE LINES AS INDICATED. CONCRETE PAVED AREAS TO BE PAINTED YELLOW. PAINT SHALL BE SHERWIN WILLIAMS "PROMAR TRAFFIC MARKING".
2. CONTRACTOR SHALL COORDINATE AND COMPLY WITH ALL UTILITY COMPANIES INVOLVED IN PROJECT AND PAY ALL REQUIRED FEES AND COSTS.
3. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
4. ALL RADII SHALL BE 4' UNLESS OTHERWISE NOTED.
5. ALL CONCRETE SIDEWALKS AND APRONS SHALL RECEIVE CONSTRUCTION JOINTS AT 25'-0" O.C. UNLESS OTHERWISE NOTED.
6. FOR SITE UTILITIES, SEE SITE UTILITIES PLAN.
7. THE SOILS REPORT AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND IN CASE OF CONFLICT SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER CONSTRUCTION MANAGER OF ANY DISCREPANCY BETWEEN SOILS REPORT & PLANS, ETC?
8. THE PROPERTY SURVEY SHALL BE CONSIDERED A PART OF THESE PLANS.
9. ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
10. SOLID WASTE TO BE DISPOSED OF BY CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
11. ALL EXCAVATED UNSUITABLE MATERIAL MUST BE TRANSPORTED TO AN APPROVED DISPOSAL LOCATION.
12. CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION AND SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS, AS WELL AS ADDITIONAL PROVISIONS TO ASSURE STABILITY OF CONTIGUOUS STRUCTURES, AS FIELD CONDITIONS DICTATE.
13. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
14. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY.
15. SITE CLEARING SHALL INCLUDE THE LOCATION AND REMOVAL OF ALL UNDERGROUND TANKS, PIPES, VALVES ETC.
16. THE LOCATIONS OF UNDERGROUND FACILITIES SHOWN ON THESE PLAN ARE BASED ON FIELD SURVEYS AND LOCAL UTILITY COMPANY RECORDS. IT SHALL BE THE CONTRACTORS FULL RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES TO LOCATE THEIR FACILITIES PRIOR TO STARTING CONSTRUCTION
17. ALL EXISTING ITEMS ARE TO REMAIN UNLESS OTHERWISE NOTED ON THE DEMOLITION PLAN.
18. ALL CURB RADII ARE 3' UNLESS OTHERWISE NOTED.
19. LOCATIONS OF EASEMENTS ARE SHOWN AS DEPICTED ON THE SURVEY PREPARED BY: ROBERT R. RAINEFIELD, LAND AND BOUNDARY CONSULTANT
20. BUILDING AREA INFORMATION PROVIDED BY PERRY M. PETRILLO ARCHITECTS.
21. A PRE-CONSTRUCTION MEETING MUST BE ARRANGED AT LEAST ONE (1) WEEK PRIOR TO THE COMMENCEMENT OF ANY WORK.
22. ALL UTILITIES, INCLUDING ELECTRIC AND TELEPHONE SERVICE, SHALL BE INSTALLED UNDERGROUND.
23. SIDEWALKS AND CURBS SHALL BE INSTALLED IN ACCORDANCE WITH THE HIGHWAY DEPARTMENT SPECIFICATIONS FOR SIDEWALKS AND CURBS.
24. THIS PLAN DOES NOT CONFLICT WITH THE COUNTY OFFICIAL MAP AND HAS BEEN APPROVED IN THE MANNER SPECIFIED BY SECTION 239K OF THE GENERAL MUNICIPAL LAWS OF THE STATE OF NEW YORK.
25. CERTIFICATE OF OCCUPANCY SHALL NOT BE REQUESTED FROM THE TOWN OF ORANGETOWN BUILDING DEPARTMENT UNTIL RESULTS OF INFILTRATION AND EXFILTRATION TESTS FOR SANITARY SEWERS ARE CERTIFIED BY A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER AND APPROVED BY THE DIRECTOR, DIVISION OF SEWERS.
26. ZONING BOARD VARIANCE, ZBA No. 00-27, RECIEVED 4/5/00 FOR THIS PROJECT.

LOWE'S
HOME IMPROVEMENT RETAIL CENTER

TOTAL BUILDING AREA
135,479 SF

GREENBUSH ROAD (60' WIDE)
STEVENS WAY
HIGHVIEW AVE (60' WIDE)
COMMERCIAL STREET
SEE DETAIL SHEET 4
NEW YORK STATE HIGHWAY ROUTE 303 (80' WIDE)

COVERED AREA OF AGRICULTURAL GARDEN CENTER = 4,431 SF

LOT 74.15-1-21
THE FLINTKOTE CORPORATION
Mr. Dexter C. Kindberg
c/o Genstar Pacific Corporation
Suite 620, 2555 East Chapman Avenue
Fullerton, CA 92631

LOT 74.15-1-2
THE FLINTKOTE CORPORATION
Mr. Dexter C. Kindberg
c/o Genstar Pacific Corporation
Suite 620, 2555 East Chapman Avenue
Fullerton, CA 92631

LOT 74.15-1-9
MATURINO, PATRICIA &
DELUCA, LAURA AND GREGORY
183 Route 303
Orangeburg, NY 10962

LOT 74.15-1-8
PARNUNO, MARY
434 Ehrhardt Road
Pearl River, NY 10965

LOT 74.15-1-7
KIDSTOPOULOS, HARALAMBOS
203 Route 303
Orangeburg, NY 10962

LOT 74.15-1-6
EXLEC COMPANY
4 Clinton Square
Syracuse, NY

LOT 74.15-1-5
TI CURNCE AVENUE CORPORATION
219 Route 303
Orangeburg, NY 10962

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

CUSTOMER LOADING CANOPY
SCALE: 1" = 30'

I HEREBY CERTIFY THAT I AM THE OWNER OF RECORD OF THE SITE HEREIN DEPICTED AND THAT I CONCUR WITH THE PLAN:

OWNER

Rev.	Date	Comment	BY
26	1/28/03	REV. PER WATER COMPANY COMMENTS	BJN
25	1/14/03	REV. PER UTILITY COMMENTS	DTN
24	11/21/02	SHOW ADDITIONAL SEWER IMPROVEMENTS	BJN
23	10/14/02	REV. SEWER LOC. PER TWDP. COMMENTS	BJN
22	09/25/02	REV. PER FIELD CHANGE	SK
21	7/23/02	REV. PER MUNICIPAL COMMENTS	CT
20	5/20/02	REV. PER CLIENT COMMENTS	GR
19	11/09/01	REV. PER CLIENT COMMENTS	JMD
18	9/27/01	REV. PER STEVENS WAY PROFILE	MAR
17	7/17/01	REV. PER CLIENT COMMENTS	JA
16	5/10/01	REV. FOR CONSTRUCTION	JA
15	5/1/01	REV. PER O.E.M.E. COMMENTS	GR
14	4/23/01	REV. PER MUNICIPAL COMMENTS	JA
13	4/02/01	REV. PER CLIENT COMMENTS	CT
12	3/16/01	REV. PER MUN. APPROVAL CONDITIONS	JA
11	1/29/01	REV. PER MUNICIPAL COMMENTS	CT
10	12/29/00	REV. PER MUNICIPAL ENG. COMMENTS	JA
9	12/27/00	REVISED PARKING COUNTS	JA
8	12/11/00	REVISED PER CLIENT COMMENTS	GR
7	12/08/00	REVISED PER PLANNING BOARD	GR
6	11/14/00	REVISED PER ACADEMY MEETING	G.S.
5	10/19/00	REVISED LIGHTING	DLK
4	8/31/00	REVISED PARKING AREA	DLK
3	6/30/00	REVISED CONC. HEADWALL	TP
2	6/9/00	REV. PER CLIENT COMMENTS	DLK
1	5/18/00	PER CLIENT REQUEST	DLK

BOHLER ENGINEERING, P.C.
• CIVIL & CONSULTING ENGINEERS • PROJECT MANAGERS • ENVIRONMENTAL & SITE PLANNERS • MUNICIPAL ENGINEERS •
1120 WELSH ROAD, SUITE 200, NORTH WALES, PENNSYLVANIA 19454, (215) 393-8300
776 MOUNTAIN BLVD., WATCHUNG, NEW JERSEY 07060, (908) 668-8300
70 EAST SUNRISE HIGHWAY, SUITE 609, VALLEY STREAM, NEW YORK 11581, (516) 872-2000

PROJECT: LOWE'S COMPANIES, INC.
PROPOSED DEVELOPMENT
TAX MAP 74.15, BLOCK 1, LOTS 3 & 4
NYSH ROUTE 303, TOWN OF ORANGETOWN
ROCKLAND COUNTY, NEW YORK

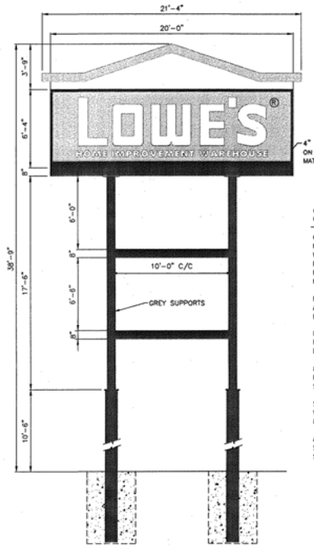
TITLE: SITE PLAN

J.G. JAWORSKI
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 35618
PENNSYLVANIA LICENSE No. 47943
NEW YORK LICENSE No. 075707
CONNECTICUT LICENSE No. 20811
MASSACHUSETTS LICENSE No. 40835

G.S. GALLAS
N.Y. PROFESSIONAL L.S. LIC.#50124
I HERE BY CERTIFY THAT THE BOUNDARY AND EASEMENT LINES SHOWN ARE BASED UPON A SURVEY PREPARED IN THE FIELD UNDER MY SUPERVISON, AND TO THE BEST OF MY KNOWLEDGE BELIEF, AND INFORMATION, THAT THE SURVEY WAS PERFORMED IN ACCORDANCE WITH CURRENTLY ACCEPTED ACCURACY STANDARDS.

SCALE: (H) 1"=50' (V)
DATE: 5/16/00
DRAWN BY: G.S.
PROJECT No: J000803
CHECKED BY: KLH
CAD I.D.: J00803SS26
SHEET No: 3 OF 18
REV. No. 26
CONSTRUCTION CHECK DATE

BJN 1-28-03



SIGN NOTES

6'-0" X 20'-0" DOUBLE FACE INTERNALLY ILLUMINATED SIGN CABINET OF SIGNCOMP WIDE BODY ALUMINUM EXTRUSION W/ 2 1/4" FLEX FACE RETAINERS (HINGE ABLE) CABINET FINISHED IN ACRYLIC URETHANE ENAMEL TO MATCH PMS 430 GREY.

FACES OF FLEXFACE MATERIAL W/ COLORS APPLIED VIA HEAT TRANSFER PROCESS:2114 BLUE BKGD. W/WHITE COPY.

INTERNAL ILLUMINATION BY HIGH OUTPUT FLUORESCENT LAMPS POWERED BY LOW TEMP BALLASTS ALL WIRING U.L. APPROVED.

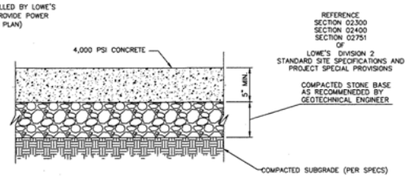
8" X 10" DEEP X 20'-0" HORIZON. PLATE COVER FABRICATED OF ALUM. TUBE FRAME W/.080 SIDES AND FACES.

SIGN CABINET MOUNTED ON (2) 8" X 10" X 1/4" WALL STEEL POSTS. (2) HORIZON. CROSSBEAMS OF 8" X 10" X 1/4" WALL STEEL.

ACTUAL FOOTINGS & STEEL POST SIZE TO BE DETERMINED BY SIGN MANUFACTURER.

LOWE'S ROAD SIGN DETAIL

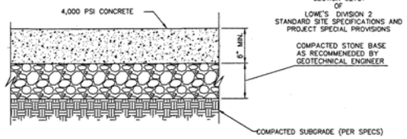
NOTE: SIGN SUPPLIED & INSTALLED BY LOWE'S ELECTRICAL CONTRACTOR TO PROVIDE POWER HOOK-UP. (SEE SITE LIGHTING PLAN)



STANDARD DUTY CONCRETE PAVEMENT SECTION

NOT TO SCALE

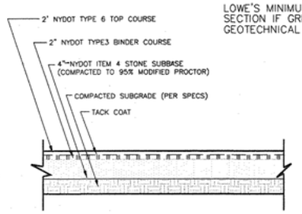
LOWE'S MINIMUM PAVEMENT SECTION IF GREATER THAN GEOTECHNICAL ENGINEERS RECOMMENDATION



HEAVY DUTY CONCRETE PAVEMENT SECTION

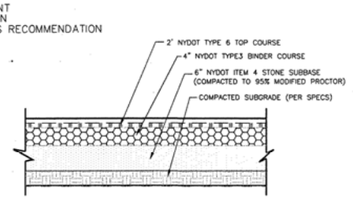
NOT TO SCALE

LOWE'S MINIMUM PAVEMENT SECTION IF GREATER THAN GEOTECHNICAL ENGINEERS RECOMMENDATION



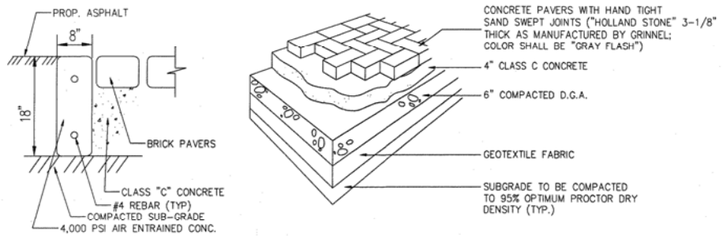
STANDARD ASPHALT PAVING

NOT TO SCALE



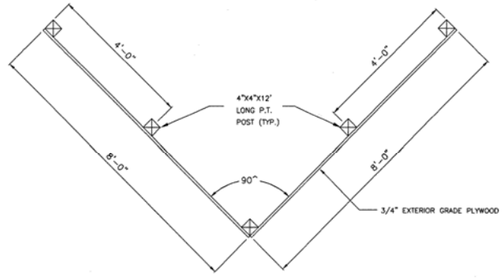
HEAVY DUTY ASPHALT PAVING

NOT TO SCALE

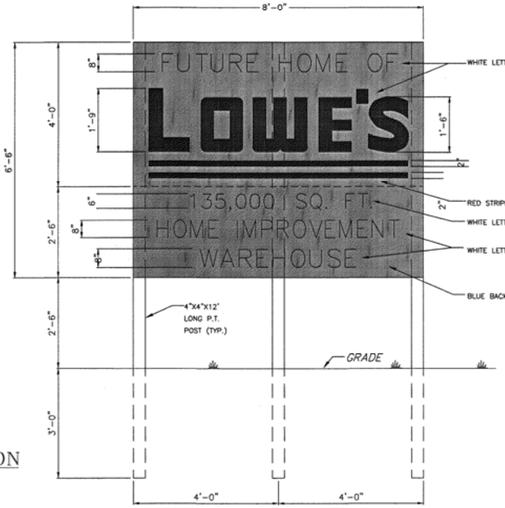


CONCRETE PAVER CROSSWALK DETAIL.

NTS



PLAN

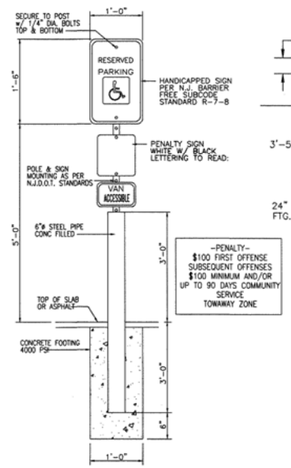


ELEVATION

NOTE: CONTRACTOR TO FURNISH AND INSTALL SIGN WHEN GRADING COMMENCES. SEE EROSION CONTROL PLAN FOR LOCATION.

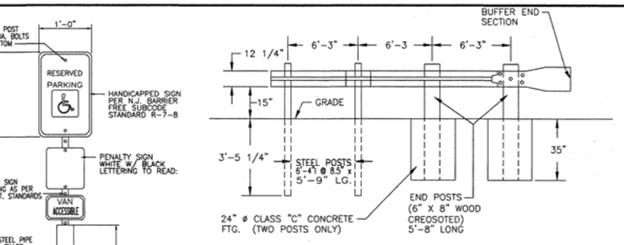
FUTURE HOME SIGN

(NOT APPROVED BY ACABOR)



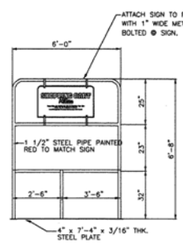
POLE MOUNTED HANDICAPPED PARKING SIGN DETAIL

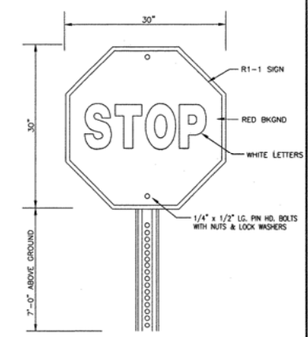
NOT TO SCALE



GUIDE RAIL DETAIL

NOT TO SCALE

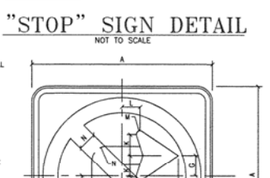




"STOP" SIGN DETAIL

NOT TO SCALE

NOTES:
- ALL LETTERING SHALL BE WHITE.
- THE WORDS "SHOPPING CART" IS FOLIO EXTRA BOLD, "RETURN" IS FREEHAND 575 OR FREECON, BODY COPY IS HELVETICA BOLD.
- THE LETER "R" IN THE WORD "RETURN" HAS A BLUE OUTLINE TO SEPARATE IT FROM THE "T" IN THE WORD "SHOPPING".
- BACK GROUND COLOR IS PMS 280 BLUE.
- STRIPE ACROSS THE BOTTOM IS PMS 200 RED.
- SIGN TO BE ALUMINUM.



COLOR :		
ARROW AND BORDER	BLACK	(NON-REFLECTORIZED)
CIRCLE AND DIAGONAL	RED	(REFLECTORIZED)
BACKGROUND	WHITE	(REFLECTORIZED)

(A) JUSTIFICATION. THE NO RIGHT TURN SIGN SHALL BE AUTHORIZED FOR USE AS PROVIDED IN SECTION 615.B2 OF THIS TITLE (RELATING TO TURN PROHIBITION SIGNS).

(B) PLACEMENT. THE SIGN SHALL BE PLACED AT THE NEAR RIGHT-HAND CORNER OF THE INTERSECTION. AN AUXILLIARY SIGN WITH THE SAME MESSAGE MAY BE USED IN ADVANCE OF THE INTERSECTION.

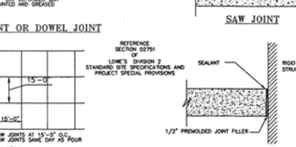
(C)SIZE. THE STANDARD SIZE OF SIGN SHALL BE 24 INCHES BY 24 INCHES FOR POST-MOUNTED SIGNS AND 30 INCHES BY 30 INCHES FOR OVERHEAD INSTALLATIONS. THE STANDARD SIZE FOR EXPRESSWAYS SHALL BE 36 INCHES BY 36 INCHES.

SIGN SIZE	MAR-GIN	BOR-DER	BLANK STD
24x24	3/8	3/8	B3-24
30x30	1/2	3/4	B3-30
36x36	3/8	7/8	B3-36
48x48	3/4	1 1/4	B3-48

SIGN SIZE	DIMENSIONS A	B	C	D	E	F	G	H	J	K	L	M	N
24x24	24	10 1/2	8 1/2	1	1 1/2	2 1/2	6 1/2	2 3/4	5 1/16	3/8	2 7/8	2 7/16	2
30x30	30	13 1/2	10 7/8	1	1 7/8	3 1/8	8 1/8	3 7/16	6 9/16	1/2	3 7/8	3 1/8	2 1/2
36x36	36	15 1/2	12 3/4	2	1/4	3	9	3 3/4	7 7/8	9/16	4 5/16	3 5/8	3
48x48	48	21 1/2	17	3	5	13	13	15 1/2	10 1/8	3/4	5 3/4	4 7/8	4

NO RIGHT TURN SIGN

NOT TO SCALE



CONSTRUCTION JOINT OR DOWEL JOINT

SAW JOINT

PLAN VIEW

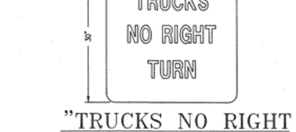
CONCRETE PAVEMENT

ISOLATION JOINT

PROVIDE ISOLATION JOINT WHERE CONCRETE PAVEMENT ABUTS A RIGID STRUCTURE

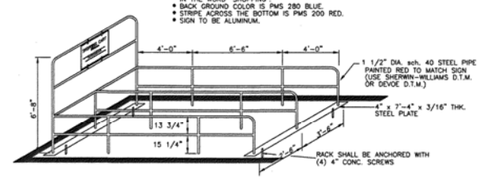
CONCRETE PAVEMENT JOINT DETAILS

NOT TO SCALE



CONCRETE WHEEL STOP DETAIL

NOT TO SCALE



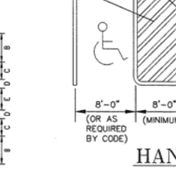
NOTE: FURNISHED AND INSTALLED BY LOWE'S

2 STALL CART RETURN RACK DETAIL

NOT TO SCALE

"TRUCKS NO RIGHT TURN" SIGN

NOT TO SCALE



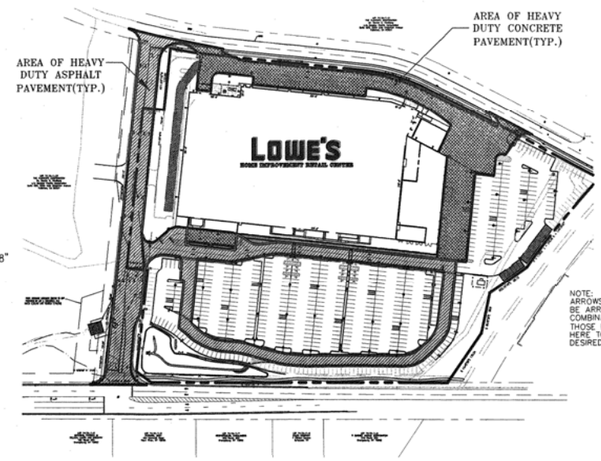
SIGN SIZE	DIMENSIONS A	B	C	D	E	F	G	H	J	SERIES K	LINES L	J	BLANK STD
30X30	30	6-1/2	4	2	5	14-1/2	12-1/2	9-3/4	10	7-7/8	D	D	B3-30
36X36	36	7-1/2	5	2-1/2	6	17-1/2	15	12	12-3/8	9-13/16	D	D	B3-36
48X48	48	11	6	3	8	25-1/2	20	14-1/2	15	11-3/4	D	D	B3-48

"DO NOT ENTER" SIGN

NOT TO SCALE

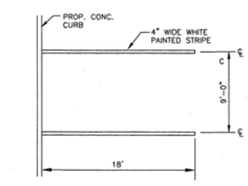
HANDICAPPED STALL MARKING

NOT TO SCALE



HEAVY DUTY PAVEMENT LOCATION PLAN

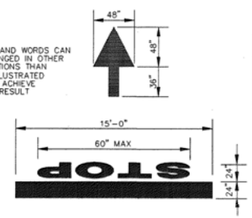
NOT TO SCALE



STRIPING DETAIL

NOT TO SCALE

NOTE: ARROWS AND WORDS CAN BE ARRANGED IN OTHER COMBINATIONS THAN THOSE ILLUSTRATED HERE TO ACHIEVE DESIRED RESULT



PAINTED ARROW & STOP BAR DETAIL

NOT TO SCALE

I HEREBY CERTIFY THAT I AM THE OWNER OF RECORD OF THE SITE HEREIN DEPICTED AND THAT I CONCUR WITH THE PLAN:

OWNER

Rev.	Date	Comment	BY
21	7/25/02	REV. PER MUNICIPAL COMMENTS	CT
20	5/20/02	REV. PER CLIENT COMMENTS	GR
19	11/09/01	REV. PER CLIENT COMMENTS	JKO
18	9/27/01	REV. STEVENS WAY PROFILE	MAR
17	7/17/01	REV. PER CLIENT COMMENTS	JA
16	5/10/01	REV. FOR CONSTRUCTION	JA
15	5/1/01	REV. PER D.E.M.E. COMMENTS	GR
14	4/23/01	REV. PER MUNICIPAL COMMENTS	JA
13	4/02/01	REV. PER CLIENT COMMENTS	CT
12	3/16/01	REV. PER MUN. APPROVAL CONDITIONS	JA
11	1/29/01	REV. PER MUNICIPAL COMMENTS	CT
10	12/29/00	REV. PER MUNICIPAL ENG. COMMENTS	JA
9	12/27/00	REVISED PARKING COUNTS	JA
8	12/11/00	REVISED PER CLIENT COMMENTS	GR
7	12/08/00	REVISED PER PLANNING BOARD	GR
6	11/14/00	REVISED PER ACABOR MEETING	C.S.
5	10/19/00	REVISED LIGHTING	DLK
4	9/31/00	REVISED PARKING AREA	DLK
3	9/30/00	REVISED CONC. HEADWALL	TP
2	9/9/00	REV. PER CLIENT COMMENTS	DLK
1	5/18/00	PER CLIENT REQUEST	DLK

BOHLER ENGINEERING, P.C.

• CIVIL & CONSULTING ENGINEERS • PROJECT MANAGERS • ENVIRONMENTAL & SITE PLANNERS • MUNICIPAL ENGINEERS •

1120 WELSH ROAD, SUITE 200, NORTH WALES, PENNSYLVANIA 19454, (215) 393-8300

776 MOUNTAIN BLVD., WATCHUNG, NEW JERSEY 07060, (908) 668-8300

70 EAST SUNRISE HIGHWAY, SUITE 609, VALLEY STREAM, NEW YORK 11581, (516) 872-2000

PROJECT: LOWE'S COMPANIES, INC.
PROPOSED DEVELOPMENT
TAX MAP 74.15, BLOCK 1, LOTS 3 & 4,
NYSH ROUTE 303, TOWN OF ORANGETOWN
ROCKLAND COUNTY, NEW YORK

TITLE: DETAILS

L.H. BOHLER — PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 27410
PENNSYLVANIA LICENSE No. 37184
NEW YORK LICENSE No. 63409
CONNECTICUT LICENSE No. 17518
MASSACHUSETTS LICENSE No. 37025

G.S. [illegible] — N.Y. PROFESSIONAL [illegible] LIC. No. 050324

I HEREBY [illegible] THE LINES SHOWN HEREON ARE CORRECTLY DESIGNED IN THE FIELD AND [illegible] TO THE BEST OF MY KNOWLEDGE AND BELIEF. THE SURVEY WAS PERFORMED IN [illegible] AND IS CURRENTLY ACCEPTED ACCURACY [illegible]

SCALE: (H) NOTED (V) — DATE: 5/16/00 — SHEET No: 11 OF 18

DRAWN BY: DLK — PROJECT No: J000803

CHECKED BY: KLH — CAD I.D. #: J00803SD-21

CONSTRUCTION CHECK — DATE — REV. No. 21

ENG 9

Guzewich, John M.

From: Verrigni, Jamie L (DEC) <jamie.verrigni@dec.ny.gov>
Sent: Monday, August 11, 2014 11:17 AM
To: Guzewich, John M.
Cc: Bassell, Stuart E.; Schmidt Jr., Joseph N.; Pantel, Glenn S; Steven Kolitch (E-mail 2); Steven Kolitch (E-mail); Candiloro, James (DEC)
Subject: RE: Orangeburg Lowes Site Parking Lot Repairs - NYSDEC Site #: V-00579-3

John,

Thank you for providing notification on the Orangeburg Lowe's Site parking lot repairs. A hard copy of this letter is not necessary.

I am in the process of reviewing the Periodic Review Report (PRR).

Jamie

Jamie L. Verrigni
Environmental Engineer
NYS Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau C, Section A
625 Broadway, 11th Floor
Albany, NY 12233-7014
Phone: (518) 402-9662
Fax: (518) 402-9679
Jamie.verrgini@dec.ny.gov

From: Guzewich, John M. [mailto:John.Guzewich@hdrinc.com]
Sent: Monday, August 04, 2014 6:49 PM
To: Heitzman, George (DEC)
Cc: Bassell, Stuart E.; Schmidt Jr., Joseph N.; Pantel, Glenn S; Steven Kolitch (E-mail 2); Steven Kolitch (E-mail); Verrigni, Jamie L (DEC)
Subject: Orangeburg Lowes Site Parking Lot Repairs - NYSDEC Site #: V-00579-3

George, Jamie,

Hope you are doing well. Enclosed is a letter from Lowe's outlining some pavement repair activities Lowe's is going to conduct at the site. Based on our conversations with the Lowe's representative and the repairs outlined in their letter to us, they are not going to excavate through the existing cap to make the repairs to the pavement. However, we wanted to make you aware of these activities at the site. They have a tentative start date of August 18th for these repair activities. If you require a hard copy of this letter let me know and I will send it along.

If you require additional information please let me know.

I have taken over the project management responsibilities from Stu Bassell for this site. Stu indicated he submitted the Periodic Review Report for the site in April. Have you had a chance to review the PRR yet?

Regards,
John

John M. Guzewich
Project Manager

HDR

1 Blue Hill Plaza, 12th Floor
Pearl River, NY 10965
D 845.735.8300 x252 **M** 845.548.5493
john.guzewich@hdrinc.com

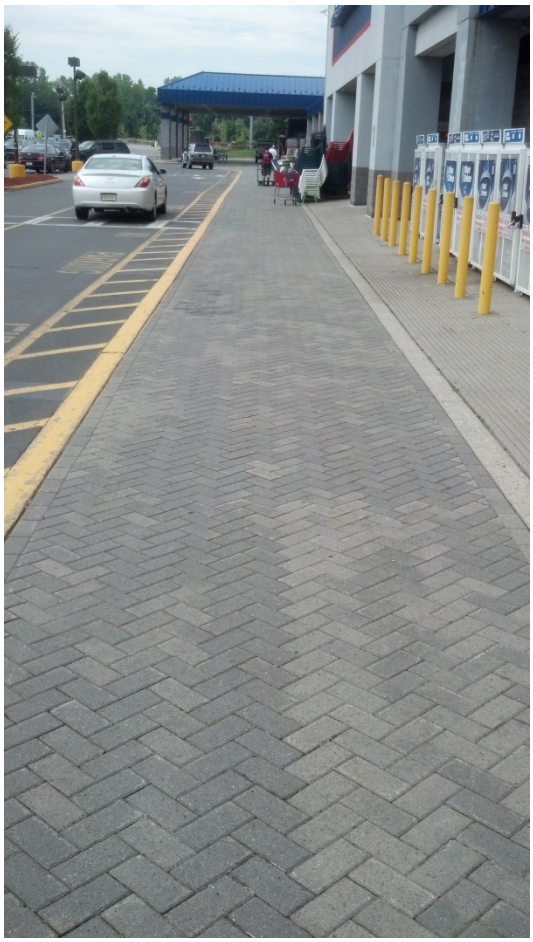
hdrinc.com/follow-us

FORMER ORANGEBURG PIPE MANUFACTURING FACILITY – LOWE'S SITE

NYSDEC Site #: V-00579-3

NYSDEC Index #: W3-0930-02-07

PHOTO LOG – PAVERS REMOVAL ACTIVITY – AUGUST 2014



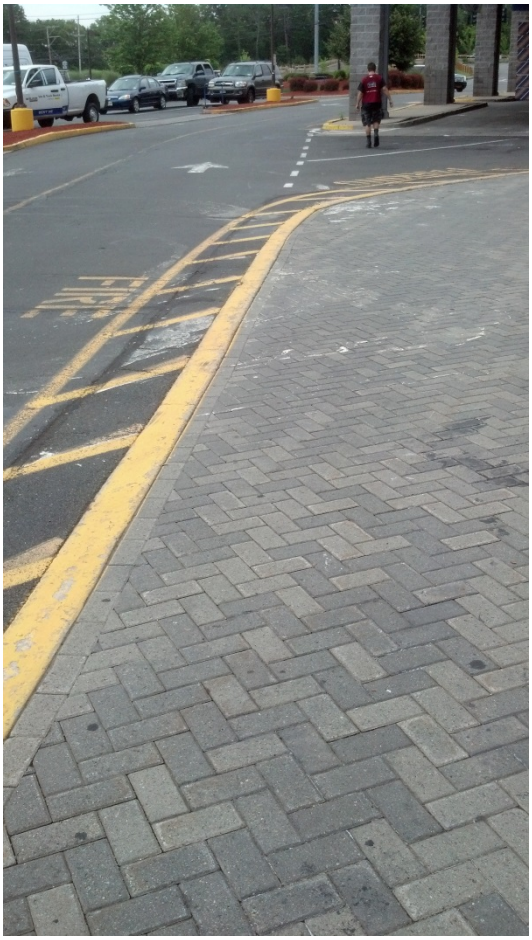
Photos of Paver Areas – Before Removal

FORMER ORANGEBURG PIPE MANUFACTURING FACILITY – LOWE'S SITE

NYSDEC Site #: V-00579-3

NYSDEC Index #: W3-0930-02-07

PHOTO LOG – PAVERS REMOVAL ACTIVITY – AUGUST 2014



Photos of Paver Areas – Before Removal

FORMER ORANGEBURG PIPE MANUFACTURING FACILITY – LOWE'S SITE

NYSDEC Site #: V-00579-3

NYSDEC Index #: W3-0930-02-07

PHOTO LOG – PAVERS REMOVAL ACTIVITY – AUGUST 2014

Photos of Paver Areas – After Replacement

Guzewich, John M.

From: Burns, Patrick - Richard P <Patrick.P.Burns@Lowes.com>
Sent: Wednesday, March 11, 2015 8:19 AM
To: Guzewich, John M.
Cc: Andrew Gerardi
Subject: RE: Orangeburg, NY Front Apron Concrete replacements

John, we are removing & replacing a few concrete flags on the front apron areas this week and I thought you should stop by for a environmental compliance overview inspection. We are staying above subgrade but it's best to keep you in the loop. Also, the Orangeburg, NY Health Dept. stopped by yesterday and had no cause for concern.

The big GC project is delayed until fall.

Thanks again.

R. Patrick Burns
Regional Facilities Manager
North Division- Region 7
Lowe's Home Centers, Inc.
60 Saltaire Drive
Old Lyme, CT 06371

Office: 860 434-7752
Fax: 860 434 7753
Cell: 860 805-3989

From: Guzewich, John M. [mailto:John.Guzewich@hdrinc.com]
Sent: Wednesday, February 18, 2015 9:10 AM
To: Burns, Patrick - Richard P
Subject: RE: Orangeburg, NY garden center project_letter

Patrick,
Thanks for the quick response. I will send this on to the DEC. Is there a tentative schedule for this work to start? I live a couple of miles from this store and would like to drop by and document the work with a couple of photos like I did last year.

John

John M. Guzewich

D 201.335.9371 **M** 845.548.5493

hdrinc.com/follow-us

From: Burns, Patrick - Richard P [mailto:Patrick.P.Burns@Lowes.com]
Sent: Tuesday, February 17, 2015 5:49 PM
To: Guzewich, John M.
Cc: 'Andrew Gerardi'
Subject: RE: Orangeburg, NY garden center project_letter

John,
Thank you for guidance and assistance with communicating with the NYSDEC. Attached is the letter you requested.

R. Patrick Burns
Regional Facilities Manager
North Division- Region 7

Lowe's Home Centers, Inc.
60 Saltaire Drive
Old Lyme, CT 06371

Office: 860 434-7752
Fax: 860 434 7753
Cell: 860 805-3989

From: Guzewich, John M. [mailto:John.Guzewich@hdrinc.com]
Sent: Monday, February 16, 2015 11:32 AM
To: Burns, Patrick - Richard P
Cc: 'Andrew Gerardi'
Subject: RE: Orangeburg, NY garden center project

Patrick,
Thanks for the drawings. Looks pretty straight forward.

Would you be able to provide a letter on Lowe's letterhead to us outlining the work to be done that indicates you are only removing and replacing the concrete floor slab in the outdoor garden center area and you will not be digging into the cap at all? The compacted sub-grade below the concrete slab will remain in place such that the impacted soil below the cap will not be exposed or disturbed as part of this work.

I have included a letter that Gurney sent to me last year for the paver replacement work that was conducted last year.

We can then forward this letter on to the DEC to let them know what work is going to be conducted at the site and show that the integrity of the cap will be maintained such that no special precautions and/or monitoring would be required as part of the Site Management Plan for this work activity.

Thank you,
John

John M. Guzewich

D 201.335.9371 **M** 845.548.5493

hdrinc.com/follow-us

From: Burns, Patrick - Richard P [mailto:Patrick.P.Burns@Lowes.com]
Sent: Friday, February 13, 2015 12:34 PM
To: Guzewich, John M.
Cc: 'Andrew Gerardi'
Subject: FW: Orangeburg, NY garden center project

John, nice to meet you.

Attached are the GC plans submitted to the Building Dept. for permit. The scope is we are removing & replacing approximately 7,500sf of 5" concrete slab. There will be no subsurface work. It is a straight out remove & replace.

Please consider to notify the NYSDEC explaining the work activities to be conducted. If possible please confirm.

Thank you for your time & consideration,

R. Patrick Burns
Regional Facilities Manager
North Division- Region 7
Lowe's Home Centers, Inc.
60 Saltaire Drive
Old Lyme, CT 06371

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Guzewich, John M.

From: Burns, Patrick - Richard P <Patrick.P.Burns@Lowes.com>
Sent: Wednesday, March 11, 2015 8:31 AM
To: Guzewich, John M.
Subject: RE: Orangeburg, NY Front Apron Concrete replacements

Today is better. I think we will not be there tomorrow

R. Patrick Burns
Regional Facilities Manager
North Division- Region 7
Lowe's Home Centers, Inc.
60 Saltaire Drive
Old Lyme, CT 06371

Office: 860 434-7752
Fax: 860 434 7753
Cell: 860 805-3989

From: Guzewich, John M. [mailto:John.Guzewich@hdrinc.com]
Sent: Wednesday, March 11, 2015 8:29 AM
To: Burns, Patrick - Richard P
Subject: RE: Orangeburg, NY Front Apron Concrete replacements

When did they start? Will they be working tomorrow AM or should I try and stop by this afternoon to make sure I see some of the work?

John

John M. Guzewich

D 201.335.9371 **M** 845.548.5493

hdrinc.com/follow-us

From: Burns, Patrick - Richard P [mailto:Patrick.P.Burns@Lowes.com]
Sent: Wednesday, March 11, 2015 8:26 AM
To: Guzewich, John M.
Subject: RE: Orangeburg, NY Front Apron Concrete replacements

It's a 2-3 day task

R. Patrick Burns
Regional Facilities Manager
North Division- Region 7
Lowe's Home Centers, Inc.
60 Saltaire Drive
Old Lyme, CT 06371

Office: 860 434-7752
Fax: 860 434 7753
Cell: 860 805-3989

From: Guzewich, John M. [mailto:John.Guzewich@hdrinc.com]
Sent: Wednesday, March 11, 2015 8:25 AM

To: Burns, Patrick - Richard P
Subject: RE: Orangeburg, NY Front Apron Concrete replacements

Patrick,
Thank you for letting me know about this new work. Will they be working on it for the next couple of days?

I sent the information into the NYSDEC about the concrete slab replacement plan for the outdoor garden area and they had no comments so you are all set for that work.

John M. Guzewich

D 201.335.9371 **M** 845.548.5493

hdrinc.com/follow-us

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John M. Guzewich

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North Division- Region 7
Lowe's Home Centers, Inc.
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Sent: Friday, February 13, 2015 12:34 PM
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Thank you for your time & consideration,

R. Patrick Burns
Regional Facilities Manager
North Division- Region 7
Lowe's Home Centers, Inc.
60 Saltaire Drive
Old Lyme, CT 06371

Office: 860 434-7752
Fax: 860 434 7753
Cell: 860 805-3989

From: Andrew Gerardi [mailto:ajg@chschwertner.com]
Sent: Wednesday, February 11, 2015 12:06 PM
To: Burns, Patrick - Richard P
Subject: Orangeburg

Pat-
Please confirm with DEP

Andrew Gerardi
Vice President
C.H. Schwertner & Son

25 Rock Hill Road
Bala Cynwyd, PA 19004
O: 610.667.4773
M: 610.389.5433

vcard | www.chschwertner.com

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FORMER ORANGEBURG PIPE MANUFACTURING FACILITY – LOWE'S SITE
NYSDEC Site #: V-00579-3
NYSDEC Index #: W3-0930-02-07

PHOTO LOG – CONCRETE APRON REMOVAL ACTIVITY – APRIL 2015

Photos of Concrete Apron Area – During Removal

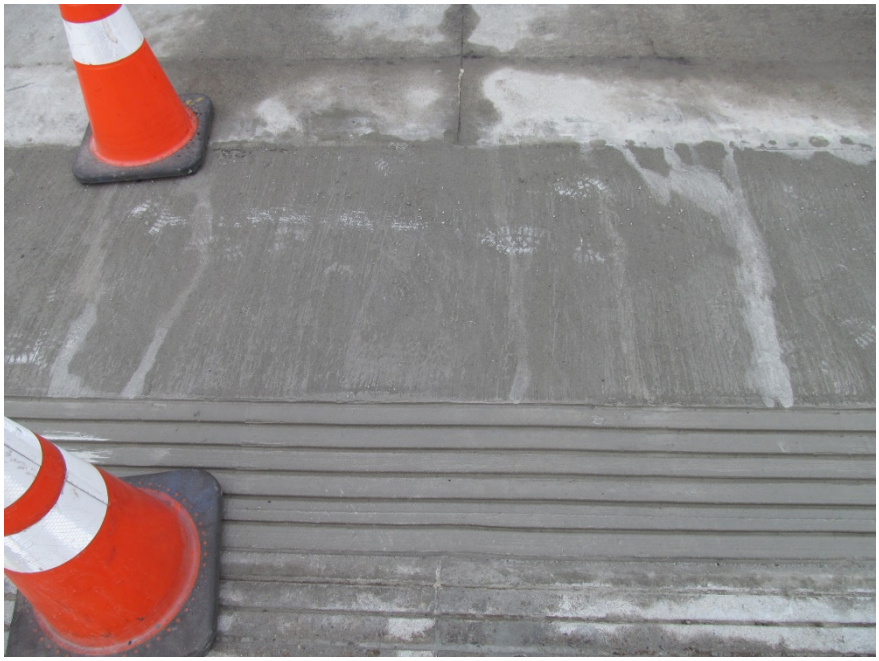
FORMER ORANGEBURG PIPE MANUFACTURING FACILITY – LOWE'S SITE

NYSDEC Site #: V-00579-3

NYSDEC Index #: W3-0930-02-07

PHOTO LOG – CONCRETE APRON REMOVAL ACTIVITY – APRIL 2015

Photos of Concrete Apron Area – During Removal



Photos of Concrete Apron Area – After Concrete Replacement

Guzewich, John M.

From: Burns, Patrick - Richard P <Patrick.P.Burns@Lowes.com>
Sent: Friday, February 13, 2015 12:34 PM
To: Guzewich, John M.
Cc: 'Andrew Gerardi'
Subject: FW: Orangeburg, NY garden center project
Attachments: Lowe's of Orangeburg, NY - GC Slab Replacement.pdf

John, nice to meet you.

Attached are the GC plans submitted to the Building Dept. for permit. The scope is we are removing & replacing approximately 7,500sf of 5" concrete slab. There will be no subsurface work. It is a straight out remove & replace.

Please consider to notify the NYSDEC explaining the work activities to be conducted. If possible please confirm.

Thank you for your time & consideration,

R. Patrick Burns
Regional Facilities Manager
North Division- Region 7
Lowe's Home Centers, Inc.
60 Saltaire Drive
Old Lyme, CT 06371

Office: 860 434-7752
Fax: 860 434 7753
Cell: 860 805-3989

From: Andrew Gerardi [mailto:ajg@chschwertner.com]
Sent: Wednesday, February 11, 2015 12:06 PM
To: Burns, Patrick - Richard P
Subject: Orangeburg

Pat-
Please confirm with DEP

Andrew Gerardi
Vice President
C.H. Schwertner & Son

25 Rock Hill Road
Bala Cynwyd, PA 19004
O: 610.667.4773
M: 610.389.5433

vcard | www.chschwertner.com

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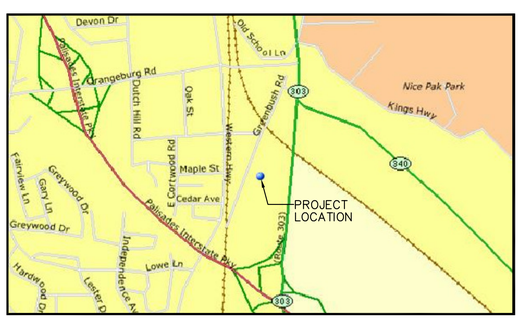
RETROFIT PROJECT
LOWE'S OF ORANGEBURG

INDEX OF DRAWINGS:

ORANGEBURG, NEW YORK
206 ROUTE 303

ARCHITECTS PROJECT # 64000347

LOCATOR MAP:



PROJECT INFORMATION:

PROJECT INFORMATION:

NAME OF PROJECT:	LOWE'S OF ORANGEBURG
ADDRESS:	206 ROUTE 303 ORANGEBURG, NY 10962
PROPOSED USE:	RETAIL SALE OF HOME IMPROVEMENT ITEMS

DESIGNERS OF RECORD:

ARCHITECTURAL:	JAMES A. HAILEY	(913) 262-9095

BUILDING CODE SUMMARY:

- SUMMARY OF THE PROJECT
  THIS PROJECT INVOLVES THE ALTERATION/ADDTITIONS TO AN EXISTING LOWE'S HOME IMPROVEMENT WAREHOUSE.
- APPLICABLE BUILDING CODES
  BUILDING 2010 NEW YORK STATE BUILDING CODE
- OCCUPANCY CLASSIFICATION
  MERCANTILE GROUP M
  "...INCLUDES, AMONG OTHERS, BUILDING AND STRUCTURES OR A PORTION THEREOF, FOR THE DISPLAY AND SALE OF MERCHANDISE, AND INVOLVES STOCKS OF GOODS, WARES OR MERCHANDISE INCIDENTAL TO SUCH PURPOSES AND ACCESSIBLE TO THE PUBLIC."
- CONSTRUCTION TYPE
  TYPE II-B (NONCOMBUSTIBLE)
  NOTE: THIS BUILDING IS DESIGNED TO BE FULLY SPRINKLED AS REQUIRED BY DRAWINGS AND SPECIFICATIONS SECTION 13916.

REVISIONS
◇ PRE-BID SET ISSUE DATE △ POST BID SET ISSUE DATE

DATE	DESCRIPTION

NOT FOR CONSTRUCTION

B|R|R
ARCHITECT OF RECORD: JAMES A. HAILEY
6700 ANTIOCH PLAZA, SUITE 300, MERRIAM, KANSAS 66204

LOWE'S HOME CENTERS, INC.
1605 CURTIS BRIDGE ROAD
REEC DOCK
WILKESBORO, NC 28697
336.658.4000 (V) 336.658.7138 (F)

LOWE'S

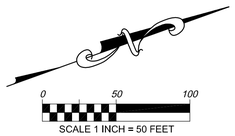
TITLE SHEET

ADDITIONS & ALTERATIONS TO:
LOWE'S OF ORANGEBURG
ORANGEBURG, NEW YORK

PROJECT No: 64000347 | DRAWN BY: BLN | CHECKED BY:

STORE NUMBER:	#1192
ORIGINAL ISSUE DATE:	02/05/15
PERMIT SET ISSUE DATE:	02/06/15

DRAWING NUMBER:
T-1



DEMOLITION NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND REMOVAL OF THE STRUCTURES LOCATED ON THIS SITE.

2. DEMOLITION SHALL BE PERFORMED IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS.

3. ALL DEBRIS SHALL BE REMOVED FROM THE SITE AND DELIVERED TO A LICENSED TRANSFER STATION OR LANDFILL.

4. CONTRACTOR WILL NOTIFY ALL PERTINENT UTILITY COMPANIES 48 HOURS PRIOR TO ANY DEMOLITION WORK. ALL DEMOLITION WORK SHALL BE COORDINATED WITH LOCAL UTILITY COMPANIES TO MINIMIZE IMPACTS ON UTILITY DOWN TIME.

5. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION IF SAID UTILITIES BECOME DISTURBED OR DAMAGED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPAIR OR REPLACE SAID UTILITIES AT THE CONTRACTORS EXPENSE AND PER THE LOCAL GOVERNING AUTHORITIES AND/OR AGENCIES' REQUIREMENTS AND SPECIFICATION

REFERENCE:

1. EXISTING SITE DEVELOPMENT PLANS PREPARED BY BOHLER ENGINEERING, P.C. INCLUDING "SITE PLAN" DATED 01/28/03 AND "DRAINAGE AND UTILITY PLAN" DATED 03/28/03.

SITE NOTES:

1. LOWE'S PARCEL: 12.03 ACRES
   PARCEL OWNER: ORANGEBURG HOLDING L.C.C.
   411 ROUTE 17 SOUTH, STE 110
   HASBROUCK HEIGHTS, NJ 07604

2. BUILDING AREA (SQUARE FEET):
   EXISTING: 135,196± SF

3. VARIANCES REQUIRED: NONE

4. ALL EXISTING BUILDING AND SITE INFORMATION SHOWN ON THIS PLAN IS REPRESENTED BASED ON USE OF THE LISTED REFERENCES.

5. ANY NEW PAVEMENT SECTIONS THAT ARE TO BE REPLACED SHALL MATCH THE EXISTING PAVEMENT SECTION AND MATERIAL SPECIFICATIONS.

6. ANY EXISTING STRIPING, WHICH IS TO REMAIN IN PLACE AND WHICH MAY BECOME OBSCURED OR DAMAGED DUE TO THE CONSTRUCTION OF IMPROVEMENTS, SHALL BE REPLACED AND/OR REPAINTED AS NECESSARY.

7. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING LANDSCAPING DURING CONSTRUCTION, UNLESS SHOWN OTHERWISE ON THIS PLAN. IF SAID LANDSCAPING BECOMES DISTURBED OR DAMAGED DURING CONSTRUCTION OR AS A RESULT OF CONSTRUCTION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPAIR OR REPLACE SAID LANDSCAPING AS PER LOCAL GOVERNING AUTHORITIES' AND/OR AGENCIES' REQUIREMENTS AND SPECIFICATIONS.

8. CONTRACTOR IS RESPONSIBLE FOR THE PROPOSED SITE IMPROVEMENTS RELATED TO THIS ADDITION. THE ARCHITECT DID NOT PERFORM THE ORIGINAL SITE DESIGN OR SURVEY AND ACCEPTS NO RESPONSIBILITY FOR EXISTING SITE CONDITIONS OR FEATURES THAT WERE DESIGNED AND BUILT PREVIOUS TO THE PREPARATION OF THESE PLANS.

9. THE CONTRACTOR IS RESPONSIBLE FOR SECURING APPROVAL,FOR ALL PROPOSED TEMPORARY CONSTRUCTION STAGING AND WORK AREAS, FROM ALL REQUIRED MUNICIPAL DEPARTMENTS, PRIOR TO COMMENCEMENT OF SAID STAGING OR CONSTRUCTION.

10. ALL DIMENSIONS ARE TO FACE OF FENCE UNLESS OTHERWISE NOTED.

11. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH DIVISION 2 OF LOWE'S STANDARD SITE SPECIFICATIONS.

GREENBUSH ROAD

STEVENS WAY

NEW-YORK STATE HIGHWAY ROUTE 303

LOWE'S

BUILDING AREA = 135,196± SF

5" CONCRETE SLAB TO MATCH ADJACENT (APPROX 7000 SF)

PROJECT LIMITS

EXISTING FENCE TO REMAIN

EXISTING METAL CANOPY TO REMAIN

EXISTING SHADE STRUCTURE TO REMAIN

EXISTING CONCRETE PAVEMENT

EXISTING ASPHALT PAVEMENT

EXISTING CONCRETE PAVEMENT

LOADING ZONE

ONLY

N18.56'44"E 322.88

R = 388.9 L = 139.42

N39.29'10"E 113.57

N40.26'14"E 304.42

R = 7788.0 L = 242.46 A = 7.43'34.97"

S22.19'46"E 88.16

S 65.45'29"E 90.0

S 43.45'29"E 132.24

S 13.01'00" W 672.74

N71.03'16"W 133.60

N18.56'44"E 45.00

N71.03'16"W 340.00

S18.56'44"W 45.00

N71.03'16"W 249.89

174.25±

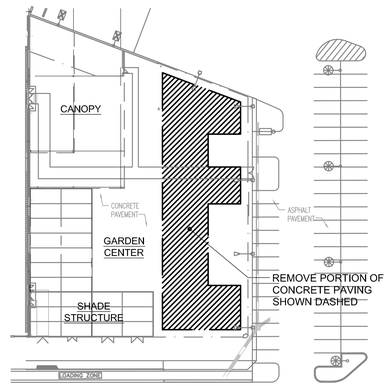
53.00'±

SCALE: 1"=50'-0"

SITE PLAN

NOTES:

- THIS SITE CONTAINS HISTORICAL FILL WHICH WHICH IS REGULATED MATERIAL SUBJECT TO NEW YORK STATE DEPART. OF LABOR INDUSTRIAL CODE RULE 56; ALONG W/OTHER REGULATIONS AND RESTRICTIONS.
- CONTRACTOR SHALL COMPLY W/ALL APPLICABLE CODES, REGULATIONS AND RESTRICTIONS , INCLUDING, BUT NOT LIMITED TO, THE SOIL MANAGEMENT PLAN PREPARED BY HDR/LMS DATED OCTOBER 2006. NYSDEC SITE #-V-00579-3
- CONTRACTOR AND LOWE'S PROJECT MANAGER ARE RESPONSIBLE FOR REVIEWING AND IMPLEMENTING THE SITE SOILS AND MANAGEMENT PLAN PRIOR TO BIO AND CONSTRUCTION.



SCALE: 1"=50'-0"

DEMOLITION SITE PLAN

REVISIONS

◇ PRE-BID SET ISSUE DATE △ POST BID SET ISSUE DATE

DATE	DESCRIPTION

NOT FOR CONSTRUCTION

B|R|R
ARCHITECT OF RECORD: JAMES A. HAILEY
6700 ANTIOCH PLAZA, SUITE 300, MERRIAM, KANSAS 66204

LOWE'S HOME CENTERS, INC.
1605 CURTIS BRIDGE ROAD
REEC DOCK
WILKESBORO, NC 28697
336.658.4000 (V) 336.658.7138 (F)

LOWE'S

SITE PLAN AND DEMOLITION PLAN

ADDITIONS & ALTERATIONS TO:
LOWE'S OF ORANGEBURG
ORANGEBURG, NEW YORK

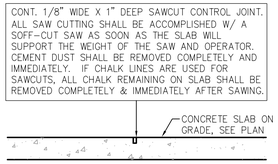
PROJECT No: 64000347 | DRAWN BY: BLN | CHECKED BY:

STORE NUMBER:	#1192
ORIGINAL ISSUE DATE:	02/05/15
PERMIT SET ISSUE DATE:	02/06/15

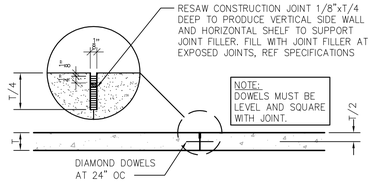
DRAWING NUMBER:

SP-1

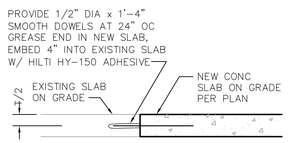
Feb 10, 2015 - 8:02am - USER brian.nelson
O:\Commercial\Retail\Lowe's\2015\Orangeburg, NY #1192 (Retrofit), 64000347\500 Construction Documents\SP1-ORNY.dwg



SAWCUT CONTROL JOINT



CONSTRUCTION JOINT (CONST JOINT)



CONSTRUCTION JOINT AT EXISTING SLAB

CONCRETE NOTES:

1 CONCRETE SHALL BE PROPORTIONED, MIXED AND PLACED IN ACCORDANCE WITH ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE," AND ACI 301, " SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS." ANY ADMIXTURES MUST BE APPROVED BY THE STRUCTURAL ENGINEER.

2 MINIMUM 28 DAY COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 4000 PSI FOR SLABS AND WALLS AND 3000 PSI FOR ALL OTHER CONCRETE WORK. NOMINAL SLUMP SHALL BE 4".

3 PROVIDE ISOLATION JOINTS IN SLABS AS FOLLOWS:
BETWEEN SLABS ON GRADE AND FOUNDATION WALLS
BETWEEN SLABS AND INSERTS SUCH AS PIPES
AROUND STEEL COLUMNS AT SPREAD FOOTINGS

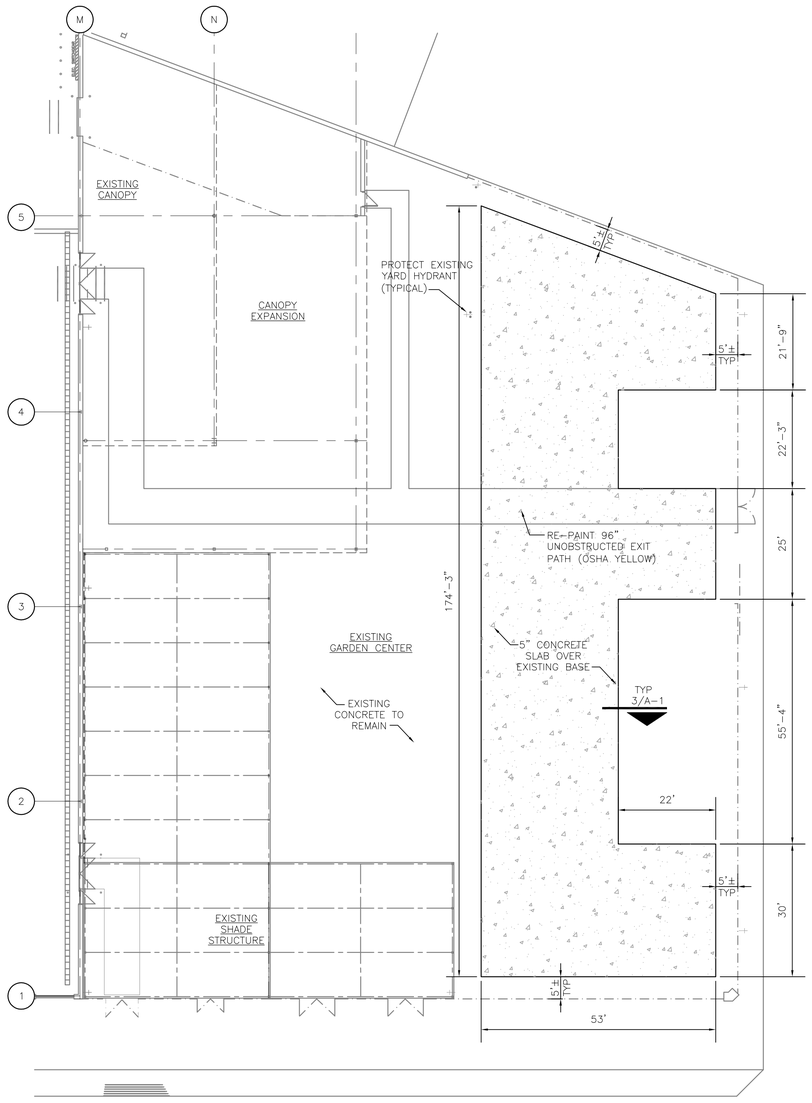
4 PROVIDE CONTRACTION JOINTS IN CONTINUOUS FLOOR SLABS ON GROUND IN A SQUARE PATTERN LOCATED AT NOT MORE THAN 12' O.C. IN BOTH DIRECTIONS.

5 HORIZONTAL CONCRETE FLATWORK EXPOSED TO THE WEATHER SHALL BE AIR ENTRAINED. TOTAL AIR CONTENT (PERCENT BY VOLUME OF CONCRETE) SHALL BE NOT LESS THAN 5 PERCENT OR MORE THAN 7 PERCENT.

6 DO NOT CAST CONCRETE IN WATER OR ON FROZEN GROUND.

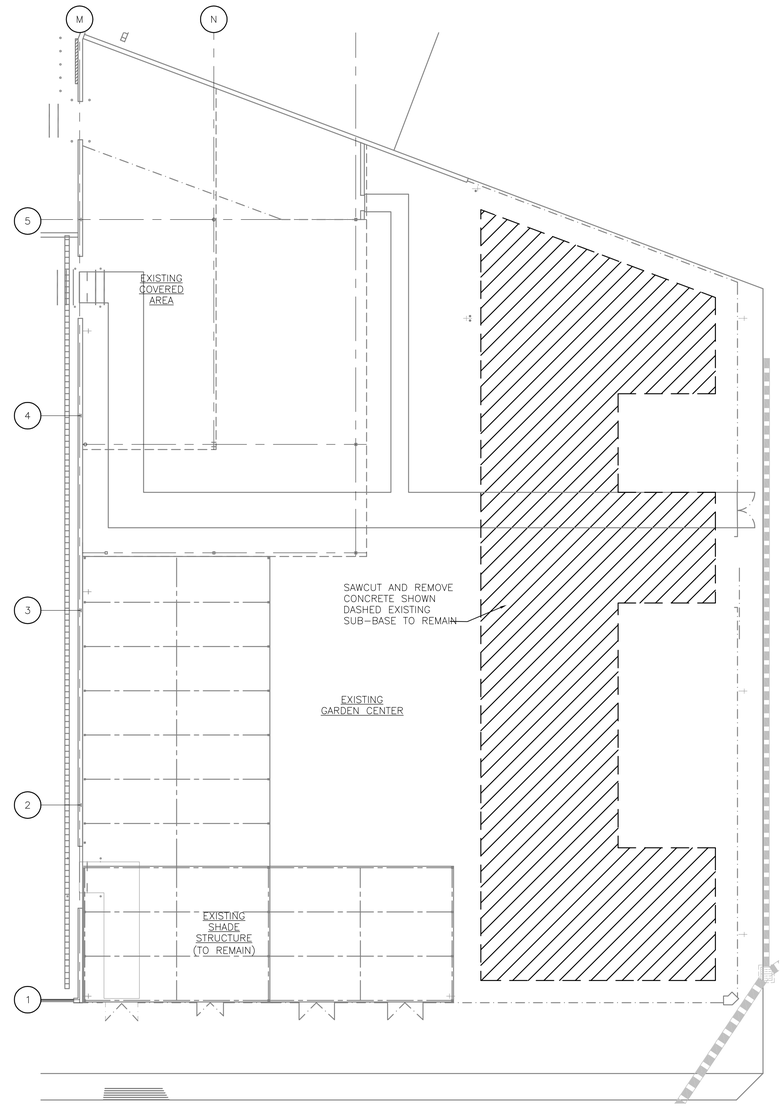
3 TYP. CONTROL JNTS

SCALE: 3/4"=1'-0"



2 ENLARGED PLAN

SCALE: 1/16"=1'-0"



1 DEMOLITION PLAN

SCALE: 1/16"=1'-0"

Feb 10, 2015 - 8:03am - USER brian.nelson
O:\Commercial\Retail\Lowe's\2015\Orangeburg, NY #1192 (Retrofit), 64000347\500 Construction Documents\A1-ORNY.dwg

REVISIONS
◇ PRE-BID SET ISSUE DATE △ POST BID SET ISSUE DATE

DATE	DESCRIPTION

NOT FOR CONSTRUCTION

B|R|R
ARCHITECT OF RECORD: JAMES A. HAILEY
6700 ANTIOCH PLAZA, SUITE 300, MERRIAM, KANSAS 66204

LOWE'S HOME CENTERS, INC.
1605 CURTIS BRIDGE ROAD
REEC DOCK
WILKESBORO, NC 28697
336.658.4000 (V) 336.658.7138 (F)

LOWE'S

DEMOLITION PLAN, ENLARGED PLAN AND DETAILS

ADDITIONS & ALTERATIONS TO:
LOWE'S OF ORANGEBURG
ORANGEBURG, NEW YORK

PROJECT No: 64000347 | DRAWN BY: BLN | CHECKED BY:

STORE NUMBER:	#1192
ORIGINAL ISSUE DATE:	02/05/15
PERMIT SET ISSUE DATE:	02/06/15

DRAWING NUMBER:
A-1

HDR Project No. 147-39743

VIA E-MAIL AND REGULAR MAIL

February 20, 2015

George Heitzman, Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation, BURC
625 Broadway
Albany, NY 12233-7014

RE: Voluntary Cleanup Program
Volunteer: Orangeburg Holdings, LLC
Site Name: Former Orangeburg Pipe Manufacturing Facility
Site #: V-00579-3 Index #: W3-0930-02-07

Dear Mr. Heitzman:

I represent Orangeburg Holdings, LLC (the "Volunteer") at the above-described site. I am writing to inform you of planned repair work by Lowe's in the outdoor Garden Center area at the Lowe's Home Center located at the site. The work, which is described in the attached February 17, 2014 letter by Lowe's, will entail removal of a section of the floor slab (~7500 sq ft) in the outdoor Garden Center area. Lowe's will be replacing this slab with a new concrete slab. As noted in this February 17th letter, the cap and the historic fill will not be excavated or disturbed by Lowe's during this repair work.

The Declaration of Covenants and Restrictions for the site states that: "…unless prior written approval by the New York State Department of Environmental Conservation… is first obtained, there shall be no construction…that results in the disturbance or excavation of the Property, which threatens the integrity of the soil cap, or which results in unacceptable human exposure to contaminated soils." Based on our review, the proposed work by Lowe's does not trigger the need for your agency's approval. However, as a courtesy, we feel that it is best to notify you of the planned repairs by Lowe's at the site for your records.

1 International Boulevard, 10th Floor,
Suite 1000
Mahwah, NJ 07495-0027-8509
T 201.335.9300 F 201.335.9301

If there are any questions, please do not hesitate to contact me.

HENNINGSON, DURHAM & RICHARDSON ARCHITECTURE AND ENGINEERING, P.C.

Sincerely,

John M. Guzewich
Project Manager

Enc.

cc: Orangeburg Holdings, LLC
Glenn S. Pantel, Esq.
Joseph N. Schmidt, Jr., Esq.
Jamie Verrigni, NYSDEC

1 International Boulevard, 10th Floor,
Suite 1000
Mahwah, NJ 07495-0027-8509
T 201.335.9300 **F** 201.335.9301

Mailing Address: Lowe's Home Centers, Inc.,
P.O. Box 1111, North Wilkesboro, NC 28656-0001

Shipping Address: Customer Support Center – West
1605 Curtis Bridge Rd. – REEC Dock, Wilkesboro, NC 28697

Telephone: 336-658-4000
Fax: 336-658-3257

February 17, 2015

Direct Mailing to:
R. Patrick Burns
c/o Lowe's
60 Saltaire Drive
Old Lyme, CT 06371

Mr. John M. Guzewich
HDR
1 Blue Hill Plaza 12th Floor
Pearl River, NY 10965

RE: Lowe's Orangeburg, NY
Garden Center Concrete Repairs

Dear Mr. Guzewich,

We have a small concrete repair & replacement project planned in 2015. With your approval, we plan to remove and replace the concrete floor slab in the outdoor garden center area. At no time will the existing sub base material be excavated below the existing cap material. The existing compacted sub-grade material below the concrete slab will remain in place such that the impacted soil below the cap will not be exposed or disturbed as part of this work.

Thank you for your assistance in this matter. Should you have any questions, feel free to contact me at (860) 805-3989.

Sincerely,

R. Patrick Burns

R. Patrick Burns
Regional Facility Manager
LOWE'S HOME CENTERS INC.

Cc:

Guzewich, John M.

From: Burns, Patrick - Richard P <Patrick.P.Burns@Lowes.com>
Sent: Wednesday, March 11, 2015 8:19 AM
To: Guzewich, John M.
Cc: Andrew Gerardi
Subject: RE: Orangeburg, NY Front Apron Concrete replacements

John, we are removing & replacing a few concrete flags on the front apron areas this week and I thought you should stop by for a environmental compliance overview inspection. We are staying above subgrade but it's best to keep you in the loop. Also, the Orangeburg, NY Health Dept. stopped by yesterday and had no cause for concern.

The big GC project is delayed until fall.

Thanks again.

R. Patrick Burns
Regional Facilities Manager
North Division- Region 7
Lowe's Home Centers, Inc.
60 Saltaire Drive
Old Lyme, CT 06371

Office: 860 434-7752
Fax: 860 434 7753
Cell: 860 805-3989

From: Guzewich, John M. [mailto:John.Guzewich@hdrinc.com]
Sent: Wednesday, February 18, 2015 9:10 AM
To: Burns, Patrick - Richard P
Subject: RE: Orangeburg, NY garden center project_letter

Patrick,
Thanks for the quick response. I will send this on to the DEC. Is there a tentative schedule for this work to start? I live a couple of miles from this store and would like to drop by and document the work with a couple of photos like I did last year.

John

John M. Guzewich

D 201.335.9371 **M** 845.548.5493

hdrinc.com/follow-us

From: Burns, Patrick - Richard P [mailto:Patrick.P.Burns@Lowes.com]
Sent: Tuesday, February 17, 2015 5:49 PM
To: Guzewich, John M.
Cc: 'Andrew Gerardi'
Subject: RE: Orangeburg, NY garden center project_letter

John,
Thank you for guidance and assistance with communicating with the NYSDEC. Attached is the letter you requested.

R. Patrick Burns
Regional Facilities Manager
North Division- Region 7

Lowe's Home Centers, Inc.
60 Saltaire Drive
Old Lyme, CT 06371

Office: 860 434-7752
Fax: 860 434 7753
Cell: 860 805-3989

From: Guzewich, John M. [mailto:John.Guzewich@hdrinc.com]
Sent: Monday, February 16, 2015 11:32 AM
To: Burns, Patrick - Richard P
Cc: 'Andrew Gerardi'
Subject: RE: Orangeburg, NY garden center project

Patrick,
Thanks for the drawings. Looks pretty straight forward.

Would you be able to provide a letter on Lowe's letterhead to us outlining the work to be done that indicates you are only removing and replacing the concrete floor slab in the outdoor garden center area and you will not be digging into the cap at all? The compacted sub-grade below the concrete slab will remain in place such that the impacted soil below the cap will not be exposed or disturbed as part of this work.

I have included a letter that Gurney sent to me last year for the paver replacement work that was conducted last year.

We can then forward this letter on to the DEC to let them know what work is going to be conducted at the site and show that the integrity of the cap will be maintained such that no special precautions and/or monitoring would be required as part of the Site Management Plan for this work activity.

Thank you,
John

John M. Guzewich

D 201.335.9371 **M** 845.548.5493

hdrinc.com/follow-us

From: Burns, Patrick - Richard P [mailto:Patrick.P.Burns@Lowes.com]
Sent: Friday, February 13, 2015 12:34 PM
To: Guzewich, John M.
Cc: 'Andrew Gerardi'
Subject: FW: Orangeburg, NY garden center project

John, nice to meet you.

Attached are the GC plans submitted to the Building Dept. for permit. The scope is we are removing & replacing approximately 7,500sf of 5" concrete slab. There will be no subsurface work. It is a straight out remove & replace.

Please consider to notify the NYSDEC explaining the work activities to be conducted. If possible please confirm.

Thank you for your time & consideration,

R. Patrick Burns
Regional Facilities Manager
North Division- Region 7
Lowe's Home Centers, Inc.
60 Saltaire Drive
Old Lyme, CT 06371

NOTICE: All information in and attached to the e-mails below may be proprietary, confidential, privileged and otherwise protected from improper or erroneous disclosure. If you are not the sender's intended recipient, you are not authorized to intercept, read, print, retain, copy, forward, or disseminate this message. If you have erroneously received this communication, please notify the sender immediately by phone (704-758-1000) or by e-mail and destroy all copies of this message electronic, paper, or otherwise.

By transmitting documents via this email: Users, Customers, Suppliers and Vendors collectively acknowledge and agree the transmittal of information via email is voluntary, is offered as a convenience, and is not a secured method of communication; Not to transmit any payment information E.G. credit card, debit card, checking account, wire transfer information, passwords, or sensitive and personal information E.G. Driver's license, DOB, social security, or any other information the user wishes to remain confidential; To transmit only non-confidential information such as plans, pictures and drawings and to assume all risk and liability for and indemnify Lowe's from any claims, losses or damages that may arise from the transmittal of documents or including non-confidential information in the body of an email transmittal. Thank you.

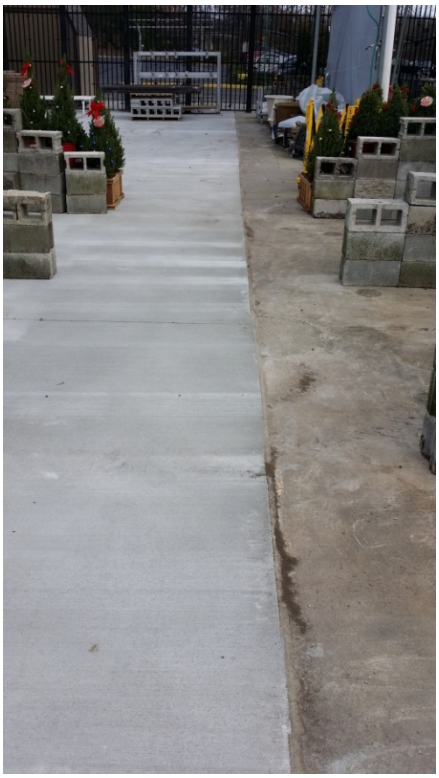
FORMER ORANGEBURG PIPE MANUFACTURING FACILITY – LOWE'S SITE

NYSDEC Site #: V-00579-3

NYSDEC Index #: W3-0930-02-07

PHOTO LOG – GARDEN CENTER SLAB REMOVAL – NOV 2015

Photos of Garden Center area concrete slab replacement



Appendix D

IC/EC Certification

Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. V00579

Site Name Former Orangeburg Pipe Mfg-Lowe's Site

Site Address: Route 303 Zip Code: 10962
City/Town: Orangetown
County: Rockland
Site Acreage: 12.4

Reporting Period: March 28, 2014 to March 28, 2017

	YES	NO
1. Is the information above correct? correct address is 206 Route 303	☐	☒
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☒
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☒
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☒
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☒

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	☒	☐
7. Are all ICs/ECs in place and functioning as designed?	☒	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____
Signature of Owner, Remedial Party or Designated Representative Date

SITE NO. V00579 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
0740150001003	Orangeburg Holdings, LLC	Ground Water Use Restriction Soil Management Plan Landuse Restriction

NOW, THEREFORE, Orangeburg Holdings, LLC, for itself and its successors and/or assigns, covenants that:

First, the Property subject to this Declaration of Covenants and Restrictions, is as shown on a map attached to this declaration as Appendix "B" and made a part hereof, and consists of the real property described by etes and bounds on Appendix "A".

Second, unless prior written approval by the New York State Department of Environmental Conservation or, if the Department shall no longer exist, any New York State agency or agencies subsequently created to protect the environment of the State and the health of the State's citizens, hereinafter referred to as "the Relevant Agency," is first obtained, there shall be no construction, use or occupancy of the Property that results in the disturbance or excavation of the Property, which threatens the integrity of the soil cap, or which results in unacceptable human exposure to contaminated soils.

Third, the owner of the Property shall maintain the cap covering the Property by maintaining its grass cover or, after obtaining the written approval of the Relevant Agency, by capping the Property with another material.

Fourth, the owner of the Property shall prohibit the Property fiom ever being used for purposes other than for restricted commercial use excluding day care, child care and medical care uses without the express written waiver of such prohibition by the Relevant Agency.

Fifth, the owner of the Property shall prohibit the use of the groundwater underlying the Property without treatment rendering it safe for drinking water or industrial purposes, as appropriate, unless the user first obtains permission to do so from the Relevant Agency.

Sixth, the owner of the Property shall continue in full force and effect any institutional and engineering controls required under the Agreement and maintain such controls unless the owner first obtains permission to discontinue such controls from the Relevant Agency.

Seventh, this Declaration is and shall be deemed a covenant that shall run with the land and shall be binding upon all future owners of the Property, and shall provide that the owner, and its successors and assigns, consents to enforcement by the Relevant Agency of the prohibitions and restrictions that Paragraph X of the Agreement requires to be recorded, and hereby covenants not to contest the authority of the Relevant Agency to seek enforcement.

Eighth, any deed of conveyance of the Property, or any portion thereof, shall recite, unless the Relevant Agency has consented to the termination of such covenants and resrictions, that said conveyance is subject to this Declaration of Covenants and Restrictions.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
0740150001003	Cover System

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
X	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
X	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____

Signature of Owner, Remedial Party or Designated Representative Date

IC CERTIFICATIONS
SITE NO. V00579

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Steven Kolitch (print name) at c/o ILY Properties 505 Main St. - Unit 318, Hackensack, NJ 07601 (print business address),

am certifying as Owner's designated representative (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

Date 6/15/17

IC/EC CERTIFICATIONS

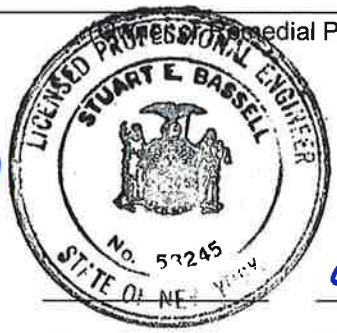
Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Stuart E. Bassell, P.E. at HDR Engineering* 711 Westchester Avenue, White Plains, NY 10604-3504,
print name print business address

am certifying as a Professional Engineer for the Owner (Owner/Remedial Party)



6/15/17

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification | Stamp (Required for PE) | Date

Appendix E

Field Data Sheets

HDR Crew Chief Report Page ___ of ___

Crew Chief; Donald Kassell	Project; Loew's Orangeburg
Crew Members; Steve Niero	Project Number: 147 - 39743
Vehicle(s) Used: F-250	Survey; Well Sampling
Boats Used;	Project Manager; John Guzewich

Crew Chief Report (complete after survey):

Survey Start Date/End Date; 7/16/14	Survey Start/End Time: 0630-1730

Describe Details Below:	Yes	No
Sampling gear working properly (if no, describe in comments)	yes	
Was downtime incurred (# hrs) (If yes, describe in comments)	yes	
Any incidents, accidents or pertinent observations (describe)	yes	
Field Meters Calibrated	yes	
Chain-of Custody completed	Yes	
Samples signed over – Nanuet Lab		no
-Outside Lab	yes	

	From	To
Boat usage (dates):		
Engine Hours:		
Boat Location:		
Radio Logs:		

Were the following forms completed and submitted?	Yes	No
Boat Log:		
Vehicle Log:	yes	
Equipment Usage Sheet:	yes	

Comments/Observations:

All wells were purged with a whale pump except MW07-29 and MW03-28, they were purged with a bailer. Each well had its own dedicated tubing. The pump was cleaned between each well. The purge water from MW03-27S, MW03-27D, 14S, 14D, 11D, and 18D, was put into a drum and discharged in the floor sump in the treatment building. MW03-26 which is on Greenbush road, was damaged, it appears that there was some road maintenance done, the well cap was damaged. We had to dig out the well cap. All wells were sampled with a Teflon bailer except MW07-29 which was sampled with a 1.25' poly bailer.Each well had its own dedicated bailer. We lost a little time , the trucks battery died we had to get somebody to give us a jump. We sampled the treatment plant. The samples were picked up by Hampton / Clarke on Thursday.

Date: 7/16/14
Crew: DR SMK
Site: LOWER
Operation:

HDR/LMS

FIELD DATA SHEET FOR SURFACE WATER/LEACHATE

Job No: 147-39743

pH No. / ~~ORP~~ No.: 10-05 - 10-10
Temp. / Diss. O_2:
Turbidity Meter No:
Velocity Meter No:
Cond. Meter No.

STATION ID	TIME (HHMM)	SAMPLE DEPTH (ft)	TOTAL DEPTH (ft)	TEMP (°C) / DO	pH / ORP	COND. (µmhos/cm)	TURB. (NTUs)	FLOW MEAS.	SAMPLE BOTTLES				COMMENTS
									SAMPLE PARAMETERS	BOT. Nos.	SAMPLE PARAMETERS	BOT. Nos.	
INF.	1600				6.4 / 6.4								See CHAIN OF CUSTODY

Job: 147-39743
Survey: Lowes
Crew: DK SJN

HDR
NANUET LABORATORY
FIELD METER CALIBRATION DATA SHEET

DATE	TIME	METER NO.	CERTIFIED THERM. #: (°C)	THERMISTOR (°C)	EXPECTED VALUE*		OBSERVED VALUE*		ADJUSTED TO*		% DIFF.	ANALYST	COMMENTS
7/16/14	1550	pH 10-05			7/10	4	7.1/100	4.3	7.0/10.0	4.0		SJN	
↓	↓	10-10			7/10	4	7.3/9.8	3.9	7.2/10.2	4.0			

*For DO and pH meter calibrations, record adjustments (include % and mg/L readings for DO meter calibration).

Revised: 2/08

HDR Well Sampling Log

Date:	7/16/2014
Crew:	DK SJN
Job No:	147 - 39743
Project:	Loew's Orangeburg Well Sampling
Project Site:	Loew's Orangeburg

Meters used

Temperature;	N/A
pH:	N/A
Conductivity:	N/A
Orp	N/A
Dissoved Oxygen:	N/A
Turbidity:	N/A

WELL DATA: PURGE

Well ID no.	MW03 - 11S 7/14
Well Condition:	good
Well Depth/Diameter	15.3' / 2"
Well Casing Type:	pvc
Screened Interval:	10.5' - 15.5'
Casing Ht./Lock No.:	curb box
Reference Point:	top of pvc
Depth to Water (DTW):	10.8'
Oil Interface Detection:	Y N (N/A)
Water Column Ht./Vol.:	4.5' / 0.765 gallon
Purge Estimate:	0.765 x 3 = 2.3 gallons
Purge Method(s):	whale pump
Purge Date:	7/16/2014
Purge Time(s)	1103-1104
Depth(s):	bottom
Rates (gpm):	1
Purged Volume:	1 gallon
DTW After Purging:	dry
Yield Rate:	(L) M H
Purge Observations:	slightly turbid

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Well Data; Sampling

DTW Before Sampling;	11.91'
Sample Date/Time:	7/16/14 / 1215
Sampling Method:	teflon bailer
Sampling Depth(s):	mid depth
DTW After Sampling:	
Analytical Lab(s):	Hampton / Clarke
Sampling Observations:	slightly turbid

SAMPLE CHEMISTRIES

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter
8260				

Comments	
Air Temperature ©	22
Weather Conditions:	cloudy
Crew Chief Signature:	DONALD KASSELL
Date:	7/18/2014

HDR Well Sampling Log

Date:	7/16/2014
Crew:	DK SJN
Job No:	147 - 39743
Project:	Loew's Orangeburg Well Sampling
Project Site:	Loew's Orangeburg

Meters used

Temperature;	N/A
pH:	N/A
Conductivity:	N/A
Orp	N/A
Dissoved Oxygen:	N/A
Turbidity:	N/A

WELL DATA: PURGE

Well ID no.	MW03- 11D 7/14
Well Condition:	good
Well Depth/Diameter	25.9' / 2"
Well Casing Type:	pvc
Screened Interval:	15.5' - 25.5'
Casing Ht./Lock No.:	curb box
Reference Point:	top of pvc
Depth to Water (DTW):	11.3
Oil Interface Detection:	Y N (N/A)
Water Column Ht./Vol.:	14.6' / 2.5 gallons
Purge Estimate:	2.5 x 3 = 7.5 gallons
Purge Method(s):	whale pump
Purge Date:	7/16/2014
Purge Time(s)	1057 - 1100
Depth(s):	bottom
Rates (gpm):	1
Purged Volume:	3 gallons
DTW After Purging:	dry
Yield Rate:	(L) M H
Purge Observations:	turbid to clear

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Well Data; Sampling

DTW Before Sampling;	12.8'
Sample Date/Time:	7/16/14 / 1137
Sampling Method:	teflon bailer
Sampling Depth(s):	mid depth
DTW After Sampling:	
Analytical Lab(s):	Hampton / Clarke
Sampling Observations:	clear

SAMPLE CHEMISTRIES

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter
8260				

Comments

Air Temperature ©	22
Weather Conditions:	cloudy

Crew Chief Signature: Donald Kassell

Date: 7/18/2014

HDR Well Sampling Log

Date:	7/16/2014
Crew:	DK SJN
Job No:	147 - 39743
Project:	Loew's Orangeburg Well Sampling
Project Site:	Loew's Orangeburg

Meters used

Temperature;	N/A
pH:	N/A
Conductivity:	N/A
Orp	N/A
Dissoved Oxygen:	N/A
Turbidity:	N/A

WELL DATA: PURGE

Well ID no.	MW03 - 12S 7/14
Well Condition:	good
Well Depth/Diameter	13.5' / 2"
Well Casing Type:	pvc
Screened Interval:	8.5' - 13.5'
Casing Ht./Lock No.:	curb box
Reference Point:	top of pvc
Depth to Water (DTW):	well is dry no sample
Oil Interface Detection:	Y N N/A
Water Column Ht./Vol.:	
Purge Estimate:	
Purge Method(s):	
Purge Date:	
Purge Time(s)	
Depth(s):	
Rates (gpm):	
Purged Volume:	
DTW After Purging:	
Yield Rate:	L M H
Purge Observations:	

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Comments

Well Data; Sampling

DTW Before Sampling;	
Sample Date/Time:	
Sampling Method:	
Sampling Depth(s):	
DTW After Sampling:	
Analytical Lab(s):	
Sampling Observations:	no sample

SAMPLE CHEMISTRIES

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter

Air Temperature ©	22
Weather Conditions:	cloudy

Crew Chief Signature: DONALD KASSELL

Date: 7/18/2014

HDR Well Sampling Log

Date:	7/16/2014
Crew:	DK SJN
Job No:	147 - 39743
Project:	Loew's Orangeburg Well Sampling
Project Site:	Loew's Orangeburg

Meters used

Temperature;	N/A
pH:	N/A
Conductivity:	N/A
Orp	N/A
Dissoved Oxygen:	N/A
Turbidity:	N/A

WELL DATA: PURGE

Well ID no.	MW03-12D 7/14
Well Condition:	good
Well Depth/Diameter	21.0' / 2"
Well Casing Type:	pvc
Screened Interval:	11.0' - 21.0'
Casing Ht./Lock No.:	curb box
Reference Point:	top of pvc
Depth to Water (DTW):	10.91'
Oil Interface Detection:	Y N (N/A)
Water Column Ht./Vol.:	10.09' / 1.7 gallon
Purge Estimate:	1.7 x 3 = 5.1 gallons
Purge Method(s):	whale pump
Purge Date:	7/16/2014
Purge Time(s)	1000 - 1004
Depth(s):	bottom- mid
Rates (gpm):	1
Purged Volume:	4 gallons
DTW After Purging:	dry
Yield Rate:	(L) M H
Purge Observations:	slightly turbid

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Well Data; Sampling

DTW Before Sampling;	10.97'
Sample Date/Time:	7/16/14 / 1030
Sampling Method:	teflon bailer
Sampling Depth(s):	mid depth
DTW After Sampling:	
Analytical Lab(s):	Hampton / Clarke
Sampling Observations:	clear

SAMPLE CHEMISTRIES

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter
8260				

Comments

Air Temperature ©	22
Weather Conditions:	cloudy

Crew Chief Signature: DONALD KASSELL

Date: 7/18/2014

HDR Well Sampling Log

Date:	7/16/2014	**Meters used**	
Crew:	DK SJN	Temperature;	N/A
Job No:	147 - 39743	pH:	N/A
Project:	Loew's Orangeburg Well Sampling	Conductivity:	N/A
		Orp	N/A
		Dissoved Oxygen:	N/A
Project Site:	Loew's Orangeburg	Turbidity:	N/A

WELL DATA: PURGE		**Well Data; Sampling**	
Well ID no.	MW03- 14S 7/14	DTW Before Sampling;	9.61'
Well Condition:	good	Sample Date/Time:	7/16/14 / 0925
Well Depth/Diameter	24.3' / 2"	Sampling Method:	teflon bailer
Well Casing Type:	pvc	Sampling Depth(s):	mid depth
Screened Interval:	14.0' - 24.0'	DTW After Sampling:	
Casing Ht./Lock No.:	curb box	Analytical Lab(s):	Hampton / Clarke
Reference Point:	top of pvc		
Depth to Water (DTW):	9.58'	Sampling Observations:	slightly turbid
Oil Interface Detection:	Y N (N/A)		
Water Column Ht./Vol.:	14.55' / 2.47 gallons		
Purge Estimate:	2.47 x 3 = 7.4 gallons	**SAMPLE CHEMISTRIES**	
Purge Method(s):	Whale pump		
Purge Date:	7/16/2014		
Purge Time(s)	0852 - 0855		
Depth(s):	bottom		
Rates (gpm):	1.25		
Purged Volume:	4.5 gallons		
DTW After Purging:	dry		
Yield Rate:	(L) M H		
Purge Observations:	turbid		

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter
8260				

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Comments	
Air Temperature ©	22
Weather Conditions:	cloudy
Crew Chief Signature:	DONALD KASSELL
Date:	7/18/2014

HDR Well Sampling Log

Date:	7/16/2014
Crew:	DK SJN
Job No:	147 - 39743
Project:	Loew's Orangeburg Well Sampling
Project Site:	Loew's Orangeburg

Meters used

Temperature;	N/A
pH:	N/A
Conductivity:	N/A
Orp	N/A
Dissoved Oxygen:	N/A
Turbidity:	N/A

WELL DATA: PURGE

Well ID no.	MW03 - 14D 7/14
Well Condition:	good
Well Depth/Diameter	33.33' / 2"
Well Casing Type:	pvc
Screened Interval:	28.0' - 33.0'
Casing Ht./Lock No.:	curb box
Reference Point:	top of pvc
Depth to Water (DTW):	9.3'
Oil Interface Detection:	Y N (N/A)
Water Column Ht./Vol.:	24.03' / 4.08 gallons
Purge Estimate:	4.08 x 3 = 12.24 gallons
Purge Method(s):	Whale pump
Purge Date:	7/16/2014
Purge Time(s)	0902-0910
Depth(s):	bottom - mid
Rates (gpm):	1.25
Purged Volume:	12,5 gallons
DTW After Purging:	23.71'
Yield Rate:	L M (H)
Purge Observations:	turbid to clear

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Well Data; Sampling

DTW Before Sampling;	9.72'
Sample Date/Time:	7/16/14 / 0935
Sampling Method:	teflon bailer
Sampling Depth(s):	mid depth
DTW After Sampling:	
Analytical Lab(s):	Hampton / Clarke
Sampling Observations:	clear

SAMPLE CHEMISTRIES

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter
8260				

Comments

Air Temperature ©	22
Weather Conditions:	cloudy
Crew Chief Signature:	DONALD KASSELL
Date:	7/18/2014

HDR Well Sampling Log

Date:	7/16/2014	**Meters used**	
Crew:	DK SJN	Temperature;	N/A
Job No:	147 - 39743	pH:	N/A
Project:	Loew's Orangeburg Well Sampling	Conductivity:	N/A
		Orp	N/A
		Dissoved Oxygen:	N/A
Project Site:	Loew's Orangeburg	Turbidity:	N/A

WELL DATA: PURGE		**Well Data; Sampling**	
Well ID no.	MW03 - 18S	DTW Before Sampling;	7.12'
Well Condition:	good	Sample Date/Time:	7/16/14 / 1445
Well Depth/Diameter	10.81' / 2"	Sampling Method:	teflon bailer
Well Casing Type:	pvc	Sampling Depth(s):	surface
Screened Interval:	4.0' - 11.0'	DTW After Sampling:	
Casing Ht./Lock No.:	curb box	Analytical Lab(s):	Hampton / Clarke
Reference Point:	top of pvc		
Depth to Water (DTW):	6.91'	Sampling Observations:	clear
Oil Interface Detection:	Y N (N/A)		
Water Column Ht./Vol.:	3.9' / 0.663 gallon		
Purge Estimate:	0.663 x 3 = 2 gallons	**SAMPLE CHEMISTRIES**	
Purge Method(s):	whale pump		
Purge Date:	7/16/2014		
Purge Time(s)	1417 - 1419		
Depth(s):	bottom to mid		
Rates (gpm):	1		
Purged Volume:	2 gallons		
DTW After Purging:	7.15'		
Yield Rate:	L M (H)		
Purge Observations:	clear to turbid		

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter
8260				

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Comments;

Air Temperature ©	25
Weather Conditions:	partly sunny

Crew Chief Signature: DONALD KASSELL

Date: 7/18/2014

HDR Well Sampling Log

Date:	7/16/2014
Crew:	DK SJN
Job No:	147 - 39743
Project:	Loew's Orangeburg Well Sampling
Project Site:	Loew's Orangeburg

Meters used

Temperature;	N/A
pH:	N/A
Conductivity:	N/A
Orp	N/A
Dissoved Oxygen:	N/A
Turbidity:	N/A

WELL DATA: PURGE

Well ID no.	MW03-18D 7/14
Well Condition:	good
Well Depth/Diameter	34.71' / 2"
Well Casing Type:	pvc
Screened Interval:	30.5' - 34.7'
Casing Ht./Lock No.:	curb box
Reference Point:	top of pvc
Depth to Water (DTW):	6.79'
Oil Interface Detection:	Y N N/A
Water Column Ht./Vol.:	27.92' / 4.7 gallons
Purge Estimate:	4.7 x 3 = 14.1 gallons
Purge Method(s):	whale pump
Purge Date:	7/16/2014
Purge Time(s)	1400-1404
Depth(s):	bottom
Rates (gpm):	1
Purged Volume:	4 gallons
DTW After Purging:	dry
Yield Rate:	L M H
Purge Observations:	clear to turbid slight petroleum odor

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Well Data; Sampling

DTW Before Sampling;	12.11'
Sample Date/Time:	7/16/14 / 1437
Sampling Method:	teflon bailer
Sampling Depth(s):	mid depth
DTW After Sampling:	
Analytical Lab(s):	Hampton / Clarke
Sampling Observations:	clear

SAMPLE CHEMISTRIES

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter
8260				

Comments;

Air Temperature ©	25
Weather Conditions:	partly sunny

Crew Chief Signature:

Date: 7/18/2014

HDR Well Sampling Log

Date:	7/16/2014
Crew:	DK SJN
Job No:	147 - 39743
Project:	Loew's Orangeburg Well Sampling
Project Site:	Loew's Orangeburg

Meters used

Temperature;	N/A
pH:	N/A
Conductivity:	N/A
Orp	N/A
Dissoved Oxygen:	N/A
Turbidity:	N/A

WELL DATA: PURGE

Well ID no.	MW03-25 7/14
Well Condition:	good
Well Depth/Diameter	17.3' / 2"
Well Casing Type:	pvc
Screened Interval:	7.0' - 17.0'
Casing Ht./Lock No.:	curb box
Reference Point:	top of pvc
Depth to Water (DTW):	5.6'
Oil Interface Detection:	Y N (N/A)
Water Column Ht./Vol.:	11.7' / 2 gallons
Purge Estimate:	2 x 3 = 6 gallons
Purge Method(s):	whale pump
Purge Date:	7/16/2014
Purge Time(s)	1501 - 1506
Depth(s):	mid depth
Rates (gpm):	1
Purged Volume:	6 gallons
DTW After Purging:	6.64'
Yield Rate:	L M (H)
Purge Observations:	turbid to clear

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Comments;

Well Data; Sampling

DTW Before Sampling;	6.91'
Sample Date/Time:	7/16/14 / 1520
Sampling Method:	teflon bailer
Sampling Depth(s):	mid depth
DTW After Sampling:	
Analytical Lab(s):	Hampton / Clarke
Sampling Observations:	slightly turbid

SAMPLE CHEMISTRIES

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter
8260				

Air Temperature ©	25
Weather Conditions:	partly sunny

Crew Chief Signature: DONALD TASSELL

Date: 7/18/2014

HDR Well Sampling Log

Date:	7/16/2014
Crew:	DK SJN
Job No:	147 - 39743
Project:	Loew's Orangeburg Well Sampling
Project Site:	Loew's Orangeburg

Meters used

Temperature;	N/A
pH:	N/A
Conductivity:	N/A
Orp	N/A
Dissoved Oxygen:	N/A
Turbidity:	N/A

WELL DATA: PURGE

Well ID no.	MW03 - 26 7/14
Well Condition:	see below
Well Depth/Diameter	17.9' / 2"
Well Casing Type:	pvc
Screened Interval:	3.0' ' 18.0'
Casing Ht./Lock No.:	curb box
Reference Point:	top of pvc
Depth to Water (DTW):	3.2'
Oil Interface Detection:	Y N (N/A)
Water Column Ht./Vol.:	14.7' / 2.5 gallons
Purge Estimate:	2.5 x 3 = 7.5 gallons
Purge Method(s):	whale pump
Purge Date:	7/16/2014
Purge Time(s)	1335- 1340
Depth(s):	bottom
Rates (gpm):	1.25
Purged Volume:	6.5 gallons
DTW After Purging:	dry
Yield Rate:	(L) M H
Purge Observations:	turbid

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Well Data; Sampling

DTW Before Sampling;	7.17'
Sample Date/Time:	7/16/14 / 1400
Sampling Method:	teflon bailer
Sampling Depth(s):	mid depth
DTW After Sampling:	
Analytical Lab(s):	Hampton / Clarke
Sampling Observations:	slightly turbid

SAMPLE CHEMISTRIES

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter
8260				

Comments: Well is on Greenbush road, there appears to have been road work. The curb box cover is damaged. We had to dig out the well cap

Air Temperature ©	22
Weather Conditions:	cloudy

Crew Chief Signature: DONALD KASSELL

Date: 7/18/2014

HDR Well Sampling Log

Date:	7/16/2014
Crew:	DK SJN
Job No:	147 - 39743
Project:	Loew's Orangeburg Well Sampling
Project Site:	Loew's Orangeburg

Meters used

Temperature;	N/A
pH:	N/A
Conductivity:	N/A
Orp	N/A
Dissoved Oxygen:	N/A
Turbidity:	N/A

WELL DATA: PURGE

Well ID no.	MW03-27S 7/14
Well Condition:	good
Well Depth/Diameter	24.30' / 2"
Well Casing Type:	pvc
Screened Interval:	14.6' / 24.6'
Casing Ht./Lock No.:	curb box
Reference Point:	top of pvc
Depth to Water (DTW):	10.2'
Oil Interface Detection:	Y N (N/A)
Water Column Ht./Vol.:	14.1 / 2.397 gallon
Purge Estimate:	2.397 x 3 = 7 gallons
Purge Method(s):	Whale pump
Purge Date:	7/16/2014
Purge Time(s)	0749 - 0754
Depth(s):	bottom- mid
Rates (gpm):	1.25
Purged Volume:	7 gallons
DTW After Purging:	10.8'
Yield Rate:	L M (H)
Purge Observations:	slightly turbid

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Well Data; Sampling

DTW Before Sampling;	10.3'
Sample Date/Time:	7/16/14 / 0820
Sampling Method:	teflon bailer
Sampling Depth(s):	mid depth
DTW After Sampling:	
Analytical Lab(s):	Hampton / Clarke
Sampling Observations:	clear

SAMPLE CHEMISTRIES

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter
8260				

Comments:

Air Temperature ©	22
Weather Conditions:	cloudy

Crew Chief Signature: DONALD KASSELL

Date: 7/18/2014

HDR Well Sampling Log

Date:	7/16/2014
Crew:	DK SJN
Job No:	147 - 39743
Project:	Loew's Orangeburg Well Sampling
Project Site:	Loew's Orangeburg

Meters used

Temperature;	N/A
pH:	N/A
Conductivity:	N/A
Orp	N/A
Dissoved Oxygen:	N/A
Turbidity:	N/A

WELL DATA: PURGE

Well ID no.	MW03-27D 7/14
Well Condition:	good
Well Depth/Diameter	34.0' / 2"
Well Casing Type:	pvc
Screened Interval:	29.0' - 34.0'
Casing Ht./Lock No.:	curb box
Reference Point:	top of pvc
Depth to Water (DTW):	8.7'
Oil Interface Detection:	Y N (N/A)
Water Column Ht./Vol.:	25.3' - 4.3 gallons
Purge Estimate:	4.3 x 3 = 12.9 gallons
Purge Method(s):	Whale pump
Purge Date:	7/16/2014
Purge Time(s)	0759-0809
Depth(s):	bottom- mid
Rates (gpm):	1.25
Purged Volume:	13 gallons
DTW After Purging:	11.12'
Yield Rate:	L M (H)
Purge Observations:	turbid to clear

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Well Data; Sampling

DTW Before Sampling;	9.17'
Sample Date/Time:	7/16/14 / 0830
Sampling Method:	teflon bailer
Sampling Depth(s):	mid depth
DTW After Sampling:	
Analytical Lab(s):	Hampton / Clarke
Sampling Observations:	slightly turbid

SAMPLE CHEMISTRIES

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter
8260				

Comments:

Air Temperature ©	22
Weather Conditions:	cloudy

Crew Chief Signature: DONALD KASSELL

Date: 7/18/2014

HDR Well Sampling Log

Date:	7/16/2014
Crew:	DK SJN
Job No:	147 - 39743
Project:	Loew's Orangeburg Well Sampling
Project Site:	Loew's Orangeburg

Meters used

Temperature;	N/A
pH:	N/A
Conductivity:	N/A
Orp	N/A
Dissoved Oxygen:	N/A
Turbidity:	N/A

WELL DATA: PURGE

Well ID no.	MW03 - 28 7/14
Well Condition:	good
Well Depth/Diameter	15.87' / 2"
Well Casing Type:	pvc
Screened Interval:	6.0' - 16.0'
Casing Ht./Lock No.:	curb box
Reference Point:	top of pvc
Depth to Water (DTW):	6.4'
Oil Interface Detection:	Y N (N/A)
Water Column Ht./Vol.:	9.46' / 1.6 gallons
Purge Estimate:	1.6 x 3 = 4.8 gallons
Purge Method(s):	bailer
Purge Date:	7/16/2014
Purge Time(s)	1247 - 1302
Depth(s):	surface
Rates (gpm):	
Purged Volume:	5 gallons
DTW After Purging:	7.11'
Yield Rate:	L M (H)
Purge Observations:	clear to turbid

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Well Data; Sampling

DTW Before Sampling;	6.87'
Sample Date/Time:	7/16/14 / 1315
Sampling Method:	teflon bailer
Sampling Depth(s):	mid depth
DTW After Sampling:	
Analytical Lab(s):	Hampton / Clarke
Sampling Observations:	slightly turbid

SAMPLE CHEMISTRIES

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter
8260				

Comments

Air Temperature ©	22
Weather Conditions:	cloudy

Crew Chief Signature: DONALD KASSELL

Date: 7/18/2014

HDR Well Sampling Log

Date:	7/16/2014	**Meters used**	
Crew:	DK SJN	Temperature;	N/A
Job No:	147 - 39743	pH:	N/A
Project:	Loew's Orangeburg Well Sampling	Conductivity:	N/A
		Orp	N/A
		Dissoved Oxygen:	N/A
Project Site:	Loew's Orangeburg	Turbidity:	N/A

WELL DATA: PURGE		**Well Data; Sampling**	
Well ID no.	MW07 - 29 7/14	DTW Before Sampling;	8.11'
Well Condition:	good	Sample Date/Time:	7/16/14 / 1155
Well Depth/Diameter	13.28' / 1.25"	Sampling Method:	teflon bailer
Well Casing Type:	pvc	Sampling Depth(s):	surface
Screened Interval:	4.0 - 14.0'	DTW After Sampling:	
Casing Ht./Lock No.:	curb box	Analytical Lab(s):	Hampton / Clarke
Reference Point:	top of pvc		
Depth to Water (DTW):	4.12'	Sampling Observations:	clear
Oil Interface Detection:	Y N (N/A)		
Water Column Ht./Vol.:	9.16' / 0.7328		
Purge Estimate:	0.7328 X 3 = 2.2 gallons	**SAMPLE CHEMISTRIES**	
Purge Method(s):	bailer		
Purge Date:	7/16/2014		
Purge Time(s)	1128- 1136		
Depth(s):	surface		
Rates (gpm):			
Purged Volume:	2.2 gallons		
DTW After Purging:	12.91'		
Yield Rate:	L M (H)		
Purge Observations:	clear to turbid		

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter
8260				

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Comments

Air Temperature ©	22
Weather Conditions:	cloudy

Crew Chief Signature: DONALD KASSELL

Date: 7/18/2014

HDR Crew Chief Report Page ___of ___

Crew Chief; Donald Kassell	Project; Lowe's Orangeburg
Crew Members; MHH	Project Number: 147 - 39743
Vehicle(s) Used: Transit Van	Survey; Well Sample
Boats Used;	Project Manager; John Guzewich

Crew Chief Report (complete after survey):

Survey Start Date; 7/14/15	Survey Start/End Time: 0630- 1430

Describe Details Below:	**Yes**	**No**		**From**	**To**
Sampling gear working properly (if no, describe in comments)	yes		Boat usage (dates):		
			Engine Hours:		
Was downtime incurred (# hrs) (If yes, describe in comments)	yes		Boat Location:		
			Radio Logs:		
Any incidents, accidents or pertinent observations (describe)	yes		Were the following forms completed and submitted?	**Yes**	**No**
Field Meters Calibrated		no	Boat Log:		
Chain-of Custody completed	yes		Vehicle Log:	yes	
Samples signed over – Nanuet Lab		no	Equipment Usage Sheet:	yes	
-Outside Lab	yes				

Comments/Observations:

All wells were purged with a whale pump, except MW-29 which was purged with a bailer. Each well had its own dedicated tubing, the pump was cleaned between each well. The purge water from MW03-14S, MW03-27S, MW03-27D, MW03-18D, and MW03-12D, was put in a drum and discharged into the floor sump in the old treatment building. The wells were sampled with a disposable Teflon bailer, except MW07-29 which was sampled with a 1.25" bailer. Each well had its own dedicated bailer. The samples were picked up by Hampton / Clarke on 7/15/15.

HDR WELL SAMPLING LOG

Date:	7/14/2015	**Meters used**	
Crew:	DK MHH	Temperature:	N/A
Job No:	147-39743	pH:	N/A
Project:	Lowe's Orangeburg Well Sampling	Conductivity:	N/A
		Orp	N/A
		Dissoved Oxygen:	N/A
Project Site:	Lowe's Orangeburg	Turbidity:	N/A

WELL DATA: PURGE		**WELL DATA: SAMPLING**	
WELL ID no:	MW03-11S 7/15	DTW Before Sampling;	12.01'
Well Condition:	good	Sample Date/Time:	7/14/15 / 1205
Well Depth/Diameter:	15.3' / 2"	Sampling Method:	teflon bailer
Well Casing Type:	pvc	Sampling Depth(s):	surface
Screened Interval:	10.5 - 15.3'	DTW After Sampling:	
Casing Ht./Lock No.:	curb box	Analytical Lab(s):	Hampton / Carke
Reference Point:	top of pvc		
Depth to Water (DTW):	11.56'	Sampling Observations:	clear
Water Column Ht./Vol.:	3.74' / 0.6358 gallon		
Purge Estimate:	0.6358 x 3 = 1.9 gallon		
Purge Method(s):	Whale pump	**SAMPLE CHEMISTRIES**	
Purge Date:	7/14/2015		
Purge Time(s)	1058 - 1100		
Depth(s):	bottom		
Rates (gpm):	1.5		
Purged Volume:	0.75		
DTW After Purging:	dry		
Yield Rate:	(L) M H		
Purge Observations:	slightly turbid		

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter
8260				

Oil Interface; Y N (N/A)

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Comments:

Air Temperature (°C):	24
Weather Conditions:	cloudy

Crew Chief Signature: DONAID KASSELL

Date: 7/14/2015

HDR WELL SAMPLING LOG

Date:	7/14/2015
Crew:	DK MHH
Job No:	147-39743
Project:	Lowe's Orangeburg Well Sampling
Project Site:	Lowe's Orangeburg

Meters used

Temperature:	N/A
pH:	N/A
Conductivity:	N/A
Orp	N/A
Dissoved Oxygen:	N/A
Turbidity:	N/A ,

WELL DATA: PURGE

WELL ID no:	MW03-MW-12S 7/15
Well Condition:	good
Well Depth/Diameter:	13.5' / 2"
Well Casing Type:	pvc
Screened Interval:	8.5 - 13.5
Casing Ht./Lock No.:	curb box
Reference Point:	top of pvc
Depth to Water (DTW):	well is dry - no sample
Water Column Ht./Vol.:	
Purge Estimate:	
Purge Method(s):	
Purge Date:	
Purge Time(s)	
Depth(s):	
Rates (gpm):	
Purged Volume:	
DTW After Purging:	
Yield Rate:	L M H
Purge Observations:	

Oil Interface; Y N N/A

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Comments:

WELL DATA: SAMPLING

DTW Before Sampling;	
Sample Date/Time:	
Sampling Method:	
Sampling Depth(s):	
DTW After Sampling:	
Analytical Lab(s):	
Sampling Observations:	

SAMPLE CHEMISTRIES

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter

Air Temperature (^{0}C):	24
Weather Conditions:	cloudy

Crew Chief Signature: DONALD KASSELL

Date: 7/14/2015

HDR WELL SAMPLING LOG

Date:	7/14/2015
Crew:	DK MHH
Job No:	147-39743
Project:	Lowe's Orangeburg Well Sampling
Project Site:	Lowe's Orangeburg

Meters used

Temperature:	N/A
pH:	N/A
Conductivity:	N/A
Orp	N/A
Dissoved Oxygen:	N/A
Turbidity:	N/A

WELL DATA: PURGE

WELL ID no:	MW03-12D 7/15
Well Condition:	good
Well Depth/Diameter:	21.0' / 2"
Well Casing Type:	pvc
Screened Interval:	11.0 - 21.0'
Casing Ht./Lock No.:	curb box
Reference Point:	top of pvc
Depth to Water (DTW):	11.02'
Water Column Ht./Vol.:	9.98' / 1.7 gallon
Purge Estimate:	1.7 x 3 = 5.1 gallons
Purge Method(s):	Whale pump
Purge Date:	7/14/2015
Purge Time(s)	1004- 1011
Depth(s):	bottom
Rates (gpm):	0.75
Purged Volume:	4.9 gallons
DTW After Purging:	dry
Yield Rate:	(L) M H
Purge Observations:	slightly turbid to turbid

Oil Interface; Y N (N/A)

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Comments:

WELL DATA: SAMPLING

DTW Before Sampling;	11.72'
Sample Date/Time:	7/14/15 / 1035
Sampling Method:	teflon bailer
Sampling Depth(s):	mid depth
DTW After Sampling:	
Analytical Lab(s):	Hampton / Carke
Sampling Observations:	clear

SAMPLE CHEMISTRIES

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter
8260				

Air Temperature (^{0}C):	**24**
Weather Conditions:	cloudy

Crew Chief Signature: DONALD KASSELL

Date: 7/14/2015

HDR WELL SAMPLING LOG

Date:	7/14/2015	**Meters used**	
Crew:	DK MHH	Temperature:	N/A
Job No:	147-39743	pH:	N/A
Project:	Lowe's Orangeburg Well Sampling	Conductivity:	N/A
		Orp	N/A
		Dissoved Oxygen:	N/A
Project Site:	Lowe's Orangeburg	Turbidity:	N/A

WELL DATA: PURGE		**WELL DATA: SAMPLING**	
WELL ID no:	MW03-14S 7/15	DTW Before Sampling;	10.04
Well Condition:	good	Sample Date/Time:	7/14/15 / 0945
Well Depth/Diameter:	24.3' / 2"	Sampling Method:	teflon bailer
Well Casing Type:	pvc	Sampling Depth(s):	mid depth
Screened Interval:	14' - 24.3'	DTW After Sampling:	
Casing Ht./Lock No.:	curb box	Analytical Lab(s):	Hampton / Clarke
Reference Point:	top of pvc		
Depth to Water (DTW):	9.83'	Sampling Observations:	slightly turbid
Water Column Ht./Vol.:	14.47' / 2.5 gallons		
Purge Estimate:	2.5 x 3 = 7.5 gallons		
Purge Method(s):	Whale pump	**SAMPLE CHEMISTRIES**	
Purge Date:	7/14/2015		
Purge Time(s)	0917-0919 / 0924- 0926		
Depth(s):	bottom		
Rates (gpm):	1.25		
Purged Volume:	5 gallons		
DTW After Purging:	dry		
Yield Rate:	(L) M H		
Purge Observations:	slightly turbid		
	Oil Interface; Y N (N/A)		

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter
8260				

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Comments:

Air Temperature (°C):	24
Weather Conditions:	cloudy

Crew Chief Signature: DONALD KASSELL

Date: 7/14/2015

HDR WELL SAMPLING LOG

Date:	7/14/2015	**Meters used**	
Crew:	DK MHH	Temperature:	N/A
Job No:	147-39743	pH:	N/A
Project:	Lowe's Orangeburg Well Sampling	Conductivity:	N/A
		Orp	N/A
		Dissoved Oxygen:	N/A
Project Site:	Lowe's Orangeburg	Turbidity:	N/A

WELL DATA: PURGE		**WELL DATA: SAMPLING**	
WELL ID no:	MW03-18S 7/15	DTW Before Sampling;	8.57'
Well Condition:	good	Sample Date/Time:	7/14/15 - 1315
Well Depth/Diameter:	10.81' / 2"	Sampling Method:	teflon bailer
Well Casing Type:	pvc	Sampling Depth(s):	surface
Screened Interval:	4.0' - 10.81'	DTW After Sampling:	
Casing Ht./Lock No.:	curb box	Analytical Lab(s):	Hampton / Carke
Reference Point:	top of pvc		
Depth to Water (DTW):	8.53'	Sampling Observations:	clear
Water Column Ht./Vol.:	2.28' / 0.3876 gallon		
Purge Estimate:	0.3876 x 3 = 1.7 gallon		
Purge Method(s):	Whale pump	**SAMPLE CHEMISTRIES**	
Purge Date:	7/14/2015		
Purge Time(s)	1300 - 1302		
Depth(s):	surface		
Rates (gpm):	1		
Purged Volume:	1.7 gallon		
DTW After Purging:	8.9'		
Yield Rate:	L M H		
Purge Observations:	slightly turbid		

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter
8260				

Oil Interface; Y N N/A

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Comments:

Air Temperature (°C):	**24**
Weather Conditions:	cloudy

Crew Chief Signature: DONALD HASSELL

Date: 7/14/2015

HDR WELL SAMPLING LOG

Date:	7/14/2015
Crew:	DK MHH
Job No:	147-39743
Project:	Lowe's Orangeburg Well Sampling
Project Site:	Lowe's Orangeburg

Meters used

Temperature:	N/A
pH:	N/A
Conductivity:	N/A
Orp	N/A
Dissoved Oxygen:	N/A
Turbidity:	N/A

WELL DATA: PURGE

WELL ID no:	MW03-18D 7/15
Well Condition:	good
Well Depth/Diameter:	34.71' / 2"
Well Casing Type:	pvc
Screened Interval:	30.5'- 34.7'
Casing Ht./Lock No.:	curb box
Reference Point:	top of pvc
Depth to Water (DTW):	6.85'
Water Column Ht./Vol.:	27.86' / 4.7 gallons
Purge Estimate:	4.7 x 3 = 14 gallons
Purge Method(s):	Whale pump
Purge Date:	7/14/2015
Purge Time(s)	1243 - 1248 / 1253-1254
Depth(s):	bottom
Rates (gpm):	1
Purged Volume:	6 gallons
DTW After Purging:	dry
Yield Rate:	(L) M H
Purge Observations:	slightly turbid petroleum odor

Oil Interface; Y N (N/A)

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Comments:

WELL DATA: SAMPLING

DTW Before Sampling;	12.51'
Sample Date/Time:	7/14/15 / 1330
Sampling Method:	teflon bailer
Sampling Depth(s):	mid depth
DTW After Sampling:	
Analytical Lab(s):	Hampton / Carke
Sampling Observations:	slightly turbid

SAMPLE CHEMISTRIES

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter
8260				

Air Temperature (^{0}C):	**24**
Weather Conditions:	cloudy

Crew Chief Signature: DONALD KASSEL

Date: 7/14/2015

HDR WELL SAMPLING LOG

Date:	7/14/2015
Crew:	DK MHH
Job No:	147-39743
Project:	Lowe's Orangeburg Well Sampling
Project Site:	Lowe's Orangeburg

Meters used

Temperature:	N/A
pH:	N/A
Conductivity:	N/A
Orp	N/A
Dissoved Oxygen:	N/A
Turbidity:	N/A

WELL DATA: PURGE

WELL ID no:	MW03-27S 7/15
Well Condition:	good
Well Depth/Diameter:	24.30' / 2"
Well Casing Type:	pvc
Screened Interval:	14.6'-24.3'
Casing Ht./Lock No.:	curb box
Reference Point:	top of pvc
Depth to Water (DTW):	10.57'
Water Column Ht./Vol.:	13.73' - 2.3 gallons
Purge Estimate:	2.3 x 3 = 6.9 gallons
Purge Method(s):	Whale pump
Purge Date:	7/14/2015
Purge Time(s)	0804-0808
Depth(s):	bottom - mid
Rates (gpm):	1.5
Purged Volume:	7 gallons
DTW After Purging:	10.67'
Yield Rate:	L M (H)
Purge Observations:	slightly turbid

Oil Interface; Y N (N/A)

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Comments:

WELL DATA: SAMPLING

DTW Before Sampling;	10.59'
Sample Date/Time:	7/14/15 / 0850
Sampling Method:	teflon bailer
Sampling Depth(s):	mid depth
DTW After Sampling:	
Analytical Lab(s):	Hampton / Clarke
Sampling Observations:	slightly turbid

SAMPLE CHEMISTRIES

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter
8260				

Air Temperature (°C):	24
Weather Conditions:	cloudy

Crew Chief Signature: DONALD KASSELL

Date: 7/14/2015

HDR WELL SAMPLING LOG

Date:	7/14/2015
Crew:	DK MHH
Job No:	147-39743
Project:	Lowe's Orangeburg Well Sampling
Project Site:	Lowe's Orangeburg

Meters used

Temperature:	N/A
pH:	N/A
Conductivity:	N/A
Orp	N/A
Dissoved Oxygen:	N/A
Turbidity:	N/A

WELL DATA: PURGE

WELL ID no:	MW03-27D 7/15
Well Condition:	good
Well Depth/Diameter:	34.0' / 2"
Well Casing Type:	pvc
Screened Interval:	29.0' - 34.0'
Casing Ht./Lock No.:	curb box
Reference Point:	top of pvc
Depth to Water (DTW):	9.19'
Water Column Ht./Vol.:	24.81' / 4.2 gallons
Purge Estimate:	4.2 x 3 = 12.6 gallons
Purge Method(s):	Whale pump
Purge Date:	7/14/2015
Purge Time(s)	0818 - 0828
Depth(s):	bottom - mid
Rates (gpm):	1.25
Purged Volume:	13 gallons
DTW After Purging:	14.0'
Yield Rate:	L M (H)
Purge Observations:	turbid to slightly turbid

Oil Interface; Y N (N/A)

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Comments:

WELL DATA: SAMPLING

DTW Before Sampling;	10.17'
Sample Date/Time:	7/14/15 / 0900
Sampling Method:	teflon bailer
Sampling Depth(s):	mid depth
DTW After Sampling:	
Analytical Lab(s):	Hampton / Clarke
Sampling Observations:	slightly turbid

SAMPLE CHEMISTRIES

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter
8260				

Air Temperature (°C):	24
Weather Conditions:	cloudy

Crew Chief Signature: DONALD KASSELL

Date: 7/14/2015

HDR WELL SAMPLING LOG

Date:	7/14/2015	**Meters used**	
Crew:	DK MHH	Temperature:	N/A
Job No:	147-39743	pH:	N/A
Project:	Lowe's Orangeburg Well Sampling	Conductivity:	N/A
		Orp	N/A
		Dissoved Oxygen:	N/A
Project Site:	Lowe's Orangeburg	Turbidity:	N/A

WELL DATA: PURGE		**WELL DATA: SAMPLING**	
WELL ID no:	MW07-29 7/15	DTW Before Sampling;	7.91'
Well Condition:	good	Sample Date/Time:	7/14/15 / 1150
Well Depth/Diameter:	13.28' / 1.25"	Sampling Method:	1.25 bailer
Well Casing Type:	pvc	Sampling Depth(s):	surface
Screened Interval:	4.0' - 13.28'	DTW After Sampling:	
Casing Ht./Lock No.:	curb box	Analytical Lab(s):	Hampton / Carke
Reference Point:	top of pvc		
Depth to Water (DTW):	6.98'	Sampling Observations:	slightly turbid
Water Column Ht./Vol.:	6.3' / 0.504 gallon		
Purge Estimate:	0.504 x 3 =1.5 gallon		
Purge Method(s):	bailer	**SAMPLE CHEMISTRIES**	
Purge Date:	7/14/2015		
Purge Time(s)	1130 - 1140		
Depth(s):	surface		
Rates (gpm):			
Purged Volume:	1.5 gallon		
DTW After Purging:	11		
Yield Rate:	L M (H)		
Purge Observations:	slightly turbid		

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter
8260				

Oil Interface; Y N (N/A)

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Comments:

Air Temperature (°C):	24
Weather Conditions:	cloudy

Crew Chief Signature: DONALD KASSELL

Date: 7/14/2015

HDR WELL SAMPLING LOG

Date: 7/14/16

Crew: SJN MHH

Job No:

Project: Lowes

Project Site:

Meters used

Temperature:

pH:

Conductivity:

Orp

Dissoved Oxygen:

Turbidity:

WELL DATA: PURGE

WELL ID no: MW03 27S

Well Condition;

Well Depth/Diameter: 24.6 / 2

Well Casing Type:

Screened Interval:

Casing Ht./Lock No.:

Reference Point:

Depth to Water (DTW): 11.8

Water Column Ht./Vol.: 12.8 x .17 = 2.2

Purge Estimate: 2.2 x 3 = 6.6

Purge Method(s): Pump

Purge Date: 7/14/16

Purge Time(s) 0749 - 0753

Depth(s):

Rates (gpm):

Purged Volume: 6.6

DTW After Purging: 11.8

Yield Rate: L M H

Purge Observations: slightly turbid @ start

Oil Interface Detection; yes no N/A

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Comments:

WELL DATA: SAMPLING

DTW Before Sampling: 11.8

Sample Date/Time: 7/14/16 0810

Sampling Method: teflon bailer

Sampling Depth(s):

DTW After Sampling: 11.8

Analytical Lab(s):

Sampling Observations:

SAMPLE CHEMISTRIES

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter

Air Temperature (°C):

Weather Conditions:

Crew Chief Signature: Steph Mello

Date: 7/14/16

HDR WELL SAMPLING LOG

Date: 7/14/16

Crew: SJN MHH

Job No:

Project: Lowe's - Orangeburg

Project Site:

Meters used

Temperature:

pH:

Conductivity:

Orp

Dissoved Oxygen:

Turbidity:

WELL DATA: PURGE

WELL ID no: MW03-27D

Well Condition;

Well Depth/Diameter: 34 / 2

Well Casing Type:

Screened Interval:

Casing Ht./Lock No.:

Reference Point:

Depth to Water (DTW): 9.2

Water Column Ht./Vol.: 24.8 x .17 = 4.2

Purge Estimate: 4.2 x 3 = 12.6

Purge Method(s): pump

Purge Date: 7/14/16

Purge Time(s) 0801 - 0814

Depth(s):

Rates (gpm):

Purged Volume: 12.6

DTW After Purging: 10.5

Yield Rate: L M H

Purge Observations: Very turbid to start

Oil Interface Detection; yes no N/A

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Comments:

WELL DATA: SAMPLING

DTW Before Sampling: 10.5

Sample Date/Time: 7/14/16 0823

Sampling Method: teflon bailer

Sampling Depth(s):

DTW After Sampling:

Analytical Lab(s):

Sampling Observations:

SAMPLE CHEMISTRIES

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter

Air Temperature (°C):

Weather Conditions:

Crew Chief Signature: Stephen J Nesse

Date: 7/14/16

HDR WELL SAMPLING LOG

Date: 7/14/16

Crew: SJD MHH

Job No:

Project: Lowe's Orangeburg

Project Site:

Meters used

Temperature:

pH:

Conductivity:

Orp

Dissoved Oxygen:

Turbidity:

WELL DATA: PURGE

WELL ID no: MW03-29

Well Condition;

Well Depth/Diameter: 13.3 / 1"4

Well Casing Type:

Screened Interval:

Casing Ht./Lock No.:

Reference Point:

Depth to Water (DTW): 8.1

Water Column Ht./Vol.: 5.2 X .08 = .416

Purge Estimate: .416 x 3 = 1.2

Purge Method(s): bailer

Purge Date: 7/14/16

Purge Time(s) 1025 - 1040

Depth(s):

Rates (gpm):

Purged Volume: 1.2

DTW After Purging: DRY

Yield Rate: L M H

Purge Observations:

Oil Interface Detection; yes no N/A

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Comments:

WELL DATA: SAMPLING

DTW Before Sampling; 10.0

Sample Date/Time: 7/14/16 1155

Sampling Method: bailer ~~bailer~~ (QA)

Sampling Depth(s):

DTW After Sampling:

Analytical Lab(s):

Sampling Observations:

SAMPLE CHEMISTRIES

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter

Air Temperature (°C):

Weather Conditions:

Crew Chief Signature: Steve Thorne

Date: 7/14/16

HDR WELL SAMPLING LOG

Date:	**Meters used**
Crew:	Temperature:
Job No:	pH:
Project:	Conductivity:
	Orp
	Dissoved Oxygen:
Project Site:	Turbidity:

WELL DATA: PURGE	**WELL DATA: SAMPLING**
WELL ID no: ~~MW03-185~~ MW03-185	DTW Before Sampling: 8.6
Well Condition;	Sample Date/Time: 7/14/16 1225
Well Depth/Diameter: ~~34.7~~ 10.8	Sampling Method: teflon bailer
Well Casing Type:	Sampling Depth(s):
Screened Interval:	DTW After Sampling:
Casing Ht./Lock No.:	Analytical Lab(s):
Reference Point:	
Depth to Water (DTW): ~~8.6~~ 8.6	Sampling Observations:
Water Column Ht./Vol.: ~~26~~ X .17 = ~~4.42~~ .374	
Purge Estimate: ~~4.42~~ X 3 = ~~13.3~~ 1.1	
Purge Method(s): pump	**SAMPLE CHEMISTRIES**
Purge Date: 7/14/16	
Purge Time(s) 1215 - 1217	
Depth(s):	
Rates (gpm):	
Purged Volume: 1.2	
DTW After Purging: 8.6	
Yield Rate: L M H	
Purge Observations: slight sheen	
Oil Interface Detection; yes no N/A	

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Comments:

Air Temperature (^{0}C):

Weather Conditions:

Crew Chief Signature: Steph J Klein

Date: 7/14/16

HDR WELL SAMPLING LOG

Date: 7/14/16

Crew: SJN MHH

Job No:

Project: Lowe's Orangeburg

Project Site:

Meters used

Temperature:

pH:

Conductivity:

Orp

Dissoved Oxygen:

Turbidity:

WELL DATA: PURGE

WELL ID no: MW03 - 18D

Well Condition;

Well Depth/Diameter: 34,7 /2

Well Casing Type:

Screened Interval:

Casing Ht./Lock No.:

Reference Point:

Depth to Water (DTW): 8,25 (8,3)

Water Column Ht./Vol.: 26,4 / 4,5

Purge Estimate: 4,5 x3 13,5

Purge Method(s): pump

Purge Date: 7/14/16

Purge Time(s) 1223-1227 1231-1233

Depth(s):

Rates (gpm):

Purged Volume:

DTW After Purging: 5+2 7' Dry

Yield Rate: L M H

Purge Observations:

Oil Interface Detection; yes no N/A

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Comments:

Crew Chief Signature:

WELL DATA: SAMPLING

DTW Before Sampling; 13,8

Sample Date/Time: 7/14/16 1305

Sampling Method:

Sampling Depth(s):

DTW After Sampling:

Analytical Lab(s):

Sampling Observations:

SAMPLE CHEMISTRIES

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter

Air Temperature (°C):

Weather Conditions:

Date:

HDR WELL SAMPLING LOG

Date: 7/14/16

Crew: SJN MHH

Job No:

Project: Lowe's Orangeburg

Project Site:

Meters used

Temperature:

pH:

Conductivity:

Orp

Dissoved Oxygen:

Turbidity:

WELL DATA: PURGE

WELL ID no: MW03-12D

Well Condition;

Well Depth/Diameter: 21 / 2

Well Casing Type:

Screened Interval:

Casing Ht./Lock No.:

Reference Point:

Depth to Water (DTW): ~~15.4~~ ~~15.9~~ 11.9

Water Column Ht./Vol.: ~~15.9~~ ~~5.1~~ 9.1 x .17 = 1.5

Purge Estimate: 1.5 x 3 = 4.6

Purge Method(s): pump

Purge Date: 7/14/16

Purge Time(s) 0920 - 0922

Depth(s):

Rates (gpm):

Purged Volume: Dry - 2 gallons

DTW After Purging:

Yield Rate: L M H

Purge Observations: clear

Oil Interface Detection; yes no N/A

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Comments:

WELL DATA: SAMPLING

DTW Before Sampling: 15.9

Sample Date/Time: 7/14/16 0950

Sampling Method: teflon bailer

Sampling Depth(s):

DTW After Sampling: 15.9

Analytical Lab(s):

Sampling Observations:

SAMPLE CHEMISTRIES

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter

Air Temperature (°C):

Weather Conditions:

Crew Chief Signature: Steph J Neiro

Date: 7/14/16

HDR WELL SAMPLING LOG

Date: 7/14/16

Crew: SJN MHH

Job No:

Project: Lowe's Orangeburg

Project Site:

Meters used

Temperature:

pH:

Conductivity:

Orp

Dissoved Oxygen:

Turbidity:

WELL DATA: PURGE

WELL ID no: MW03 - 145

Well Condition;

Well Depth/Diameter: 24 2

Well Casing Type:

Screened Interval:

Casing Ht./Lock No.:

Reference Point:

Depth to Water (DTW): 10.9

Water Column Ht./Vol.: 13.1 x .17 = 2.2

Purge Estimate: 2.2 x 3 = 6.6

Purge Method(s): pump

Purge Date: 7/14/16

Purge Time(s) 0840 - 0844 0846 - 0848

Depth(s):

Rates (gpm):

Purged Volume: 7.5 gallons

DTW After Purging: Dry

Yield Rate: L M H

Purge Observations: Turbid
odor - sulfur/petrol?

Oil Interface Detection; yes no N/A

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Comments:

WELL DATA: SAMPLING

DTW Before Sampling: 12.3

Sample Date/Time: 7/14/16 0858

Sampling Method: teflon bailer

Sampling Depth(s):

DTW After Sampling:

Analytical Lab(s):

Sampling Observations:

SAMPLE CHEMISTRIES

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter

Air Temperature (°C):

Weather Conditions:

Crew Chief Signature: Stephen J Mann

Date: 7/14/16

HDR WELL SAMPLING LOG

Date: 7/14/16

Crew: SJN MHH

Job No:

Project: Lowe's Orangeburg

Project Site:

Meters used

Temperature:

pH:

Conductivity:

Orp

Dissoved Oxygen:

Turbidity:

WELL DATA: PURGE

WELL ID no: MW 03 11.5

Well Condition;

Well Depth/Diameter: 15.3 / 2"

Well Casing Type:

Screened Interval:

Casing Ht./Lock No.:

Reference Point:

Depth to Water (DTW): 12.1

Water Column Ht./Vol.: 3.2 x .17 .54

Purge Estimate: .54 x 3 = 1.6

Purge Method(s): pump

Purge Date: 7/14/16

Purge Time(s) 1007 - 1009 1011 - 1012

Depth(s):

Rates (gpm):

Purged Volume:

DTW After Purging: Dry - 1.5 gallons

Yield Rate: L M H

Purge Observations:

Oil Interface Detection; yes no N/A

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

Comments:

Crew Chief Signature: Steph J Mieri

WELL DATA: SAMPLING

DTW Before Sampling: 11.8

Sample Date/Time: 7/14/16 1340

Sampling Method: Teflon bailer

Sampling Depth(s):

DTW After Sampling:

Analytical Lab(s):

Sampling Observations:

SAMPLE CHEMISTRIES

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter

Air Temperature (°C):

Weather Conditions:

Date: 7/14/16

HDR WELL SAMPLING LOG

Date: 7/14/16

Crew: SJN MHH

Job No:

Project: Lowe's - Orangeburg

Project Site:

Meters used

Temperature:

pH:

Conductivity:

Orp

Dissoved Oxygen:

Turbidity:

WELL DATA: PURGE

WELL ID no: MW03 - 125

Well Condition;

Well Depth/Diameter: 13.5 /2

Well Casing Type:

Screened Interval:

Casing Ht./Lock No.:

Reference Point:

Depth to Water (DTW): Dry - 0930

Water Column Ht./Vol.:

Purge Estimate:

Purge Method(s):

Purge Date:

Purge Time(s)

Depth(s):

Rates (gpm):

Purged Volume:

DTW After Purging:

Yield Rate: L M H

Purge Observations:

Oil Interface Detection; yes no N/A

PURGE CHEMISTRIES

Vol.	Temp (°C)	pH	SPC@25	DO	Orp	Turbidity (NTU)

WELL DATA: SAMPLING

DTW Before Sampling;

Sample Date/Time:

Sampling Method:

Sampling Depth(s):

DTW After Sampling:

Analytical Lab(s):

Sampling Observations:

SAMPLE CHEMISTRIES

Status	Temp. (°C)	pH	SPC@25	DO	turb - orp
Start					
End					

Parameters	Inv. No.			Filter

Comments:

No sample collected, well dry

Air Temperature (°C):

Weather Conditions:

Crew Chief Signature: [signature]

Date: 7/14/16