

# **EXHIBIT 7**

## Environmental Plans & Specifications

# Endpoint Solutions

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September 13, 2023

**Subject: Summary of Existing Site Conditions**

Application for Exemption to Construct on a Historic Fill Site  
Hartland Quarry Apartments  
644, 700 & 701 West Capitol Drive, Hartland, Wisconsin  
BRRTS #: 02-68-118316, 03-68-001111, 03-68-205411 / FID#: 268315630, 268554330

Dear Greg:

This information is being presented in support of an *Application for Exemption to Construct on a Historic Fill Site (Application for Exemption)* for the property located at 644, 700 & 701 West Capitol Drive, in the Village of Hartland, Waukesha County, Wisconsin (the "Site" or "subject property"), as depicted on the attached **Figure 1**. The bounds of the Site are depicted on **Figure 2**.

## BACKGROUND

### QUARRYING OPERATIONS

The subject property is the former location of the Hartland Quarry, as well as the Tews and LaFarge concrete batch plants. Palmer Sand & Gravel reportedly mined sand and gravel for use as road gravel from the subject property from the 1930s to the 1960s. Once the easily accessible deposits of road gravel were removed, operation of the subject property transitioned to use as a concrete batch plant. Based on a review of historic aerial photographs obtained from the Waukesha County Interactive Mapping Site ([www.waukeshacounty.gov/interactivemap](http://www.waukeshacounty.gov/interactivemap)), quarrying operations appeared to extend across the entire subject property, as well as onto the adjoining property to the west of the subject property, currently being considered for development by Kwik Trip. Observations on the historic aerial photographs indicate fill materials have been accepted and placed on the subject property since the 1970s. Reportedly, the fill materials deposited on the Site consisted primarily of soil and concrete from local roadway construction projects. A significant stockpile of concrete slabs and concrete truck washout residuals are observed to the north of the former batch plant location. The extent of quarrying operations is depicted on the 1941, 1950 and 1963 aerial photographs presented as **Figures 3, 4 and 5**, respectively.

### PAST ENVIRONMENTAL RELEASE LISTINGS

The subject property is identified on the Wisconsin Department of Natural Resources (WDNR) Bureau for Remediation and Redevelopment Tracking System (BRRTS) database as being the location of two (2) closed leaking underground storage tank (LUST) cases (BRRTS Nos. 03-68-001111 and 03-68-205411) and one (1) closed environmental repair program (ERP) case (BRRTS No. 02-68-118316). A summary of the closed LUST and ERP cases is provided below.

## BRRTS No. 03-68-001111 – Closed LUST Case

This LUST case was opened on October 26, 1990, following the removal of one (1) 10,000-gallon diesel fuel UST. According to documentation included in the WDNR case file, the 10,000-gallon diesel UST was located to the west of the cement silo in the southwest portion of the subject property. Obvious indications of contamination were noted during the UST removal and contaminated soils were excavated from the area surrounding the former UST and stockpiled for future disposal. Confirmation samples collected from the excavation sidewalls and base did not contain any detectable concentrations of petroleum constituents. Therefore, on April 14, 1992, the WDNR indicated that no further investigation or remedial action was necessary.

## BRRTS No. 02-68-118316 – Closed ERP Case

On September 9, 1996, the WDNR opened an ERP case due to a release of approximately 700-gallons of “Daraset” (a calcium nitrate mixture) to an unpaved surface on the subject property. Based on a review of the photographs contained within the ERP case file, the spill occurred in the southwest portion of the subject property adjacent to the cement silo. The subject property owner contracted with an emergency response contractor to recover the released product and any impacted runoff. In addition, the subject property owner excavated the soil impacted by the release for offsite disposal. On January 6, 1998, the WDNR indicated the response to the release was adequate, all contaminated material had been addressed and no further remediation was necessary.

## BRRTS No. 03-68-205411 – Closed LUST Case

On October 18, 1998, the WDNR opened a LUST case due to the discovery of obvious petroleum contamination in soil on the subject property during the installation of an underground water supply pipe. It was assumed the petroleum contamination was released from a 3,000-gallon diesel UST, two (2) 275-gallon fuel oil aboveground storage tanks (ASTs) or a railroad tanker car that was utilized to store fuel oil at the subject property. It should be noted, the location of the contamination discovered in 1998 was also in close proximity to the contamination associated with the removal of the 10,000-gallon diesel UST discovered in 1990.

In response to the discovery of petroleum contamination during the installation of the water supply pipe, ten (10) soil probes (P-1 through P-10) and eight (8) soil borings (B-1 through B-8) were advanced, and seven (7) groundwater monitoring wells (MW-2 through MW-8) were constructed. Soil samples were screened in the field for the presence of volatile organic compounds (VOCs) using a photo-ionization detector (PID) and selected samples were submitted for laboratory analysis diesel range organics (DRO), petroleum VOCs (PVOCs) and polycyclic aromatic hydrocarbons (PAHs). In addition, groundwater samples from two (2) probe locations (P-7 and P-10) and five (5) monitoring wells (MW-3 through MW-6) were also submitted for laboratory VOC and PAH analysis.

Elevated concentrations of DRO, VOC constituents and PAH constituents were detected in samples collected from the following locations:

- Six (6) to eight (8)-feet below the ground surface (ft bgs) at the probe P-1 location;
- Eight (8) to ten (10)-feet bgs and 16 to 18-feet bgs at the probe P-3 location;
- Six (6) to eight (8)-feet bgs at the probe P-4 location;

- Six (6) to eight (8)-feet bgs and ten (10) to 12-feet bgs at the probe P-5 location;
- Eight (8) to ten (10)-feet bgs at the probe P-6 location;
- Six (6) to eight (8)-feet bgs and 14 to 16-feet bgs at the probe P-10 location; and,
- Six (6) to seven and one-half (7.5)-feet bgs and 11 to 12.5-feet bgs at the boring B-5 location.

The groundwater analytical results indicated an elevated concentration of naphthalene which exceeded its Wisconsin Administrative Code (WAC) Chapter NR 140 preventive action limit (PAL) in the grab sample collected from the probe P-10 location. Additionally, the concentrations of benzo(b)fluoranthene and benzo(g,h,i)perylene exceeded their respective WAC Chapter NR 140 enforcement standards (ES), while the concentration of benzo(k)fluoranthene exceeded its PAL, in the sample collected from monitoring well MW-5.

In November 1999, the WDNR approved the closure of the LUST case following the filing of a groundwater use restriction with the Waukesha County Register of Deeds and the abandonment of all of the groundwater monitoring wells. No remediation was required to address the residually contaminated soil discovered during the investigation activities.

A figure depicting the locations of the closed ERP and LUST cases is attached as **Figure 6**.

## EXISTING SITE CONDITIONS

The subject property currently consists of offices and shop buildings located in the southwest portion of the Site currently utilized by BSIT, a bulk aggregate transportation company. The central portion of the subject property consists of a former aggregate pit which has been partially reclaimed with concrete slabs, concrete washout and soils reportedly transported from Village of Hartland roadway projects. The perimeter portions of the subject property generally consist of undeveloped natural areas which generally slope up to the pre-quarry ground surface on the adjoining properties. The current conditions on the subject property are depicted on the attached **Figure 6**.

## PROPOSED DEVELOPMENT SUMMARY

Three Leaf Partners is proposing to redevelop the subject property with a total of ten (10) stacked flats (SF) apartment buildings containing 24 units in each, ten (10) detached garages, three (3) townhouse (TH) buildings with nine (9) units in each, a club house with a pool and five (5) stormwater control ponds. All of the townhouse and stacked flat buildings are designed as slab-on-grade structures with integrated attached garage spaces for two (2) vehicles per townhouse unit and one (1) vehicle for ten (10) of the 24 units in each of the stacked flat buildings. Each stacked flat building will also include a detached garage with room for 14 vehicles. The proposed redevelopment will also include paved parking and drive areas, as well as landscaped areas between the structures.

The proposed layout of the development contains a main arterial which extends to the north-northeast from the intersection with Capitol Drive on the southern portion of the Site. The arterial acts as the “spine” of the development completed as a cul-de-sac at the northeastern extent. The three (3) townhouse buildings (TH1, TH2 and TH3) and the Clubhouse are located at the southern extent of the Site with TH1, TH2 and the Clubhouse located to the west of the main arterial and TH3 located to the east of the main arterial. Six (6) of the ten (10) stacked flat units are located on the east and west sides of the main arterial. Buildings SF1, SF2 and SF3 are located on the west side of the main arterial, while

buildings SF8, SF9 and SF10 are located on the east side of the main arterial. The remaining four (4) stacked flat buildings (SF4, SF5, SF6 and SF7) are located to the north of the terminal cul-de-sac of the main arterial. The proposed redevelopment plan is depicted on the attached **Figure 7**.

Overall, the grading plan for the proposed redevelopment generally involves significant material movement to create a developable site. Generally, the majority of cuts are located in the southwestern portion of the Site with the majority of fills located in the northeastern portion of the Site. Maximum cuts and fills within the buildable portions of the Site generally range between approximately 42-feet of cuts to approximately 28-feet of fills. A Cut/Fill map is attached as **Figure 8**.

Due to the overall size of the Site and the proposed mass grading activities resulting in significant cuts and fills across the Site, we have provided a breakdown of the grading plan by individual building in the table below.

<b>Building</b>	<b>Grading Plan</b>
TH1	12 to 33-ft cuts
TH2	9-ft cut at the southwest corner to 8-ft fill at the northeast corner
Clubhouse	Approximately 1-ft fill across the pad
TH3	At grade at the north end to 10-ft fill at the south end
SF1	1-ft fill at the southeast corner to 41-ft cut at the northwest corner
SF2	12-ft fill at the northeast corner to 42-ft cut at the southwest corner
SF3	10 to 18-ft fill
SF4	15 to 21-ft fill
SF5	14 to 19-ft fill
SF6	20-ft fill in the west central portion of the pad to 3-ft cut at the southeast corner
SF7	16 to 28-ft fill
SF8	27-ft fill in the northeast corner to 14-ft cut in the southeast corner
SF9	9 to 14-ft cut
SF10	5 to 16-ft cut

The main arterial extends approximately 1,550-ft from the centerline of Capitol Drive to the terminus of the cul-de-sac in the northern portion of the Site. The grading necessary to prepare for the proposed roadway profile along the 1,550-ft length can be subdivided into six (6) main areas.

- The first approximately 300-ft from the Capitol Drive centerline requires minimal fills to approximately 6.5-ft cuts.
- The next approximately 300-ft long interval (300 to 600-ft from the Capitol Drive centerline) requires minimal grading with no cuts to approximately 0.4-ft fills.
- The next approximately 200-ft long interval (600 to 800-ft from the Capitol Drive centerline) requires fills ranging between approximately 6.3 to 20.4-ft.
- The next approximately 200-ft long interval (800 to 1,000-ft from the Capitol Drive centerline) requires minimal grading with no cuts to approximately 2.4-ft fills.

- The next approximately 150-ft long interval (1,000 to 1,150-ft from the Capitol Drive centerline) requires fills ranging between approximately 3 to 9-ft.
- The final approximately 400-ft long interval (1,150 to 1,550-ft from the Capitol Drive centerline) requires fills between approximately 15 to 19-ft.

As previously discussed, the soil fill materials and area of runoff sedimentation illustrated as the yellow and magenta on **Figure 6** will be excavated to native, processed to remove large inclusions, evaluated for suitability for use as engineered fill, placed and compacted. Investigative activities have indicated the fill soils depicted in the yellow area approach approximately ten (10) feet in thickness. In addition, the construction debris consisting of concrete and asphalt as depicted in the red area on **Figure 6** will be excavated and crushed onsite for use as engineered fill. The construction debris will be evaluated during processing to remove unsuitable materials (reinforcing rods, contamination, organic debris, etc.) prior to crushing to an appropriate gradation for use as general engineered fill on the Site. The remainder of the cut areas to be used for engineered fill will consist of native soils primarily located along the west edge of the Site as well as from beneath the pavements in the developed southern portion of the Site.

## SITE EVALUATION ACTIVITIES

In April 2023, Three Leaf Partners retained Endpoint to assist with environmental due diligence as part of potentially purchasing and redeveloping the subject property. Subsequently, the following scope-of-work was performed to further evaluate the subsurface conditions on the subject property in the interest of redevelopment.

### TEST PITS – APRIL 2023

Based on the physical conditions of the subject property, as well as the need to evaluate the physical properties of the soils for foundation support, GeoTest, Inc. (GeoTest) was retained by Three Leaf Partners. To further evaluate the subsurface conditions on the subject property, GeoTest proposed to excavate a series of nine (9) test pits (TP-1 through TP-9) through the apparent fill materials which were placed on the subject property following the quarrying operations. Besides providing an opportunity to evaluate the physical characteristics of the fill materials, the test pits also allowed measurements of the general thickness of the fill materials to be performed.

On April 17, 2023, Endpoint accompanied GeoTest during the test pit exploration process to visually evaluate the soils, as well as collect representative samples of the materials from each test pit location for laboratory testing for VOCs, PAHs, metals and polychlorinated biphenyls (PCBs). During these assessment activities, a total of ten (10) composite samples were submitted for analysis.

According to the descriptions of the soils encountered at each test pit location prepared by a geotechnical engineer, no fill materials were encountered at the test pit TP-1, TP-2, TP-3, TP-6, TP-8 and TP-9 locations. A description of the fill materials encountered at the remaining test pit locations is provided below.

- Concrete and asphalt rubble with some metal, along with trace amounts of wood, brick, sand and gravel soil were encountered to a depth of at least 11.3 feet bgs at the TP-4 location.
- Approximately three (3) feet of concrete fragments in a sand and gravel matrix were encountered at the TP-5 location.

- At least eight (8) feet of fill comprised of gravel (61.8%), sand (35.3%) and silt with occasional cobbles and boulders was encountered at the TP-6 location.
- Approximately nine (9) feet of fine to coarse sand with some gravel fill, likely from local roadway projects, was encountered at the TP-7 location.
- Approximately five and one-half (5.5) feet of clayey silt runoff deposits from the adjacent bluff and concrete fill area were encountered at the TP-8 location.

During these assessment activities, a total of ten (10) composite samples consisting of the surficial fill or native soils at each test pit location were submitted for analysis. Additionally, a sample of the underlying native soils from test pit TP-7 was also submitted for laboratory analysis. The sample of the fill materials from test pit TP-7 was identified as sample TP-7A, while the sample of the underlying native soil was identified as sample TP-7B. The locations of the test pits are depicted on the attached **Figures 9 and 10**. The *Geotechnical Subsurface Investigation Report* (GeoTest, May 4, 2023) is attached as **Appendix A**.

## RESULTS

### Soil Conditions

The nine (9) test pits were excavated to depths ranging between approximately five and one-half (5.5) to approximately 11-foot bgs. In general, fill materials encountered during the test pit activities consisted of fine sand, fine to coarse sand and gravel, as well as rubble consisting of concrete and asphalt with minor and sporadic inclusions of wood and metal within the sand & gravel matrix. Native soils encountered beneath the fill materials consisted of fine to coarse sand, fine to coarse sand and gravel, as well as fine to coarse gravel and clayey silt.

### VOC Results

- No VOC constituents were detected in any of the composite samples of fill materials and native soils submitted for analysis.

### PAH Results

- No PAH constituents were detected in eight (8) of the ten (10) composite samples submitted for analysis. These samples included the native soils from the TP-1, TP-2, TP-3, TP-6 TP-7, TP-8 and TP-9 locations and the fill sample from the TP-5 location. Numerous PAH constituents were detected in the sample of fill materials submitted from the TP-4 location. The concentration of chrysene reported in this sample exceeded its soil-to-groundwater exposure pathway residual contaminant level (RCL) established by the WDNR. Numerous PAH constituents were also detected in the sample of fill materials submitted from the TP-7 location. The concentrations of benzo(b)fluoranthene and chrysene reported in this sample exceeded their respective soil-to-groundwater exposure pathway RCLs established by the WDNR.

### Metals Results

All of the samples submitted for metals analysis contained detectable concentrations of several metals. Six (6) of the ten (10) samples submitted reported concentrations which exceeded soil-to-groundwater pathway, non-industrial direct contact and industrial direct contact RCLs and background threshold

values (BTVs) established by the WDNR. A description of each test pit sample in which a regulatory standard for metals was exceeded is presented below.

- The sample of the native soil submitted from TP-1 contained a concentration of arsenic which exceeded its soil-to-groundwater exposure pathway and non-industrial direct contact RCLs but below its BTV, and cadmium which exceeded its soil-to-groundwater exposure pathway RCL and its BTV.
- The sample of the native soil from the TP-2 location contained a concentration of cadmium which exceeded its soil-to-groundwater exposure pathway RCL and its BTV.
- The sample of the fill material submitted from the TP-4 location contained a concentration of arsenic which exceeded its soil-to-groundwater exposure pathway and non-industrial direct contact RCLs, but below its BTV.
- The sample of fill material submitted from the TP-7 location (sample TP-7A) contained a concentration of cadmium which exceeded its soil-to-groundwater exposure pathway RCL and BTV.
- The sample of native soil underlying the fill materials at the TP-7 location (sample TP-7B) contained a concentration of arsenic which exceeded its soil-to-groundwater exposure pathway, non-industrial and industrial direct contact RCLs but below its BTV, and a concentration of cadmium which exceeded its soil-to-groundwater exposure pathway and non-industrial direct contact RCLs and its BTV.
- The sample of native soil submitted from the TP-8 location contained a concentration of arsenic which exceeded its soil-to-groundwater exposure pathway, non-industrial and industrial direct contact RCLs but below its BTV, and a concentration of cadmium which exceeded its soil-to-groundwater exposure pathway and non-industrial direct contact RCLs and its BTV.

### PCB Results

- No PCB constituents were detected in any of the composite samples of fill materials and native soils submitted for analysis.

Results of the samples submitted from the test pit evaluation are summarized in **Tables A.2.a, A.2.b, A.2.c and A.2.d** included in the *Report of Results for the Site-Wide Fill Test Pit Sampling and Analysis* (Endpoint, May 12, 2023) is attached in **Appendix B**.

### **PHASE II EA – FORMER LUST CASE AREA – AUGUST 2023**

As part of the redevelopment activities, it is anticipated that mass grading activities will be required. Additionally, it was determined that development of one (1) of the townhouse buildings (TH2) and the clubhouse will be located in close proximity to the extent of residual petroleum contamination at the time the LUST case was closed in 1999. Therefore, further assessment was recommended in the former LUST case areas to ensure future residents of the subject property will be adequately protected from direct-contact exposures with contaminated soils and/or from the migration of contaminated vapors into the indoor air of the buildings, as well as to provide direction to the earthwork contractor

ultimately responsible for mass grading activities to ensure contaminated materials are being managed properly.

On August 18, 2023, Endpoint advanced six (6) soil borings (SB-1 through SB-6) to further evaluate the residual impacts allowed to remain in-place as part of the former LUST cases. The SB-1, SB-4, SB-5 and SB-6 soil borings were advanced along the outer extents of the soil and groundwater contamination plumes, while the SB-2 and SB-3 soil borings were advanced within the center of the contaminant plumes. The locations of the soil borings are presented on the attached **Figure 11**.

Soil borings SB-3, SB-4, SB-5 and SB-6 were advanced with a direct-push drill rig to the termination depths of the borings, ranging from approximately 15 to 20-feet bgs. In order to provide additional geotechnical information in the vicinity of the proposed town homes, soil borings SB-1 and SB-2 were advanced using dual-tube methods with spilt spoon samples collected following Standard Penetration Testing methods. During the advancement of the soil borings, two (2) soil samples were collected from each boring. The soil samples were collected and submitted for laboratory analysis of petroleum VOCs and naphthalene (PVOC+N) constituents.

### Geologic Profile

In general, fill materials were encountered in all six (6) borings advanced in the former LUST area from the ground surface to depths ranging from approximately eight (8) to 17-feet bgs. The fill materials generally consisted of light brown, medium grained silty sand with a trace of gravel. Native soils were encountered beneath the fill materials and consisted of gray, medium grained sand.

Following the advancement of the soil borings, temporary groundwater monitoring well screens were installed in soil borings SB-2, SB-4, SB-5 and SB-6 in an attempt to collect grab groundwater samples. While the soil profile at each of the soil boring locations included water bearing seams, none of the soil borings equipped with temporary well screens produced sufficient groundwater for sampling after 48 hours. Subsequently, the well casings were removed, and the boreholes were properly backfilled with bentonite chips and patched with either asphalt or concrete. Soil Boring Logs and Borehole Abandonment Forms are included in **Appendix C**.

### Laboratory Analytical Results

- No PVOC+N constituents were detected above standard laboratory detection limits in either of the soil samples submitted for analysis from the SB-1, SB-3, SB-4, SB-5 and SB-6 soil boring locations and in the sample submitted from the one (1) to two and one-half (2.5)-foot bgs interval at the SB-2 location.
- Multiple PVOC+N constituents were detected in the soil sample collected from six (6) to seven and one-half (7.5)-foot bgs interval at the soil boring SB-2 location. Specifically, naphthalene was detected at a concentration that exceeds its non-industrial direct contact RCL, while 1,2,4-trimethylbenzene was reported at a concentration that exceeds its soil-to-groundwater pathway RCL. All other detected constituents were present at concentrations below their applicable RCLs.

The tabulated results from the former LUST case area investigation activities are summarized on **Table – A.1.a**. Copies of the analytical results and chain-of-custody are included in **Appendix D**.

## **DISCUSSION**

### **TEST PITS**

Overall, results of the analyses performed on the composite samples submitted from the test pits indicate a lack of widespread significant contamination. None of the samples contained detectable concentrations of any VOC or PCB constituents, and eight (8) of the ten (10) samples submitted did not contain any detectable concentrations of PAH constituents. Detected concentrations of contaminants above published RCLs were limited to metals (arsenic and/or cadmium) in the samples submitted from TP-1, TP-2, the native soils at TP-7 (sample TP-7B) and TP-8, but no results exceeded the arsenic BTV. The samples submitted from TP-4 and the fill soils at TP-7 (sample TP-7A) contained concentrations of chrysene and/or benzo(b)fluoranthene in excess of their respective RCLs. It should be noted that only the concentrations of cadmium reported in the samples collected from TP-1, TP-2 the native soils at TP-7 (sample TP-7B) and TP-8 exceeded the established BTV for cadmium.

Based on these results, as well as the historical use of the Site as a concrete batch plant which accepted fill materials from local road construction projects, and the likelihood of those fill materials to contain small inclusions of asphalt pavement and/or millings, it is our opinion that the elevated PAH constituent concentrations are isolated random detections and are not specifically indicative of a release of contaminants at these locations. Based on the relatively low concentrations of PAH constituents and metals detected, active remediation of the contaminated soils is not recommended. However, soils containing elevated concentrations above RCLs and BTVs will require proper management on-Site during redevelopment. Specifically, the four (4) samples which contained detections of arsenic were the only samples that exceeded direct contact RCLs; however, none of these concentrations exceeded the established BTV for arsenic; therefore, it may be necessary to place these soils beneath an exposure barrier.

### **FORMER LUST CASE INVESTIGATION**

Based on the results from the investigation activities completed in the former LUST case areas in the southwest portion of the subject property, residual contamination is present in the Site soils at concentrations that exceed RCLs. Specifically, PVOC+N constituents were detected at the SB-2 boring location from the six (6) to seven and one-half (7.5)-foot bgs interval at concentrations that exceeded their industrial direct-contact and soil-to-groundwater pathway RCLs. However, it is important to note that PVOC+N constituents were not detected in the soil samples collected from any other boring locations at concentrations above standard laboratory detection limits. Based on these results, the residual soil contamination associated with the former LUST cases is minimal and will not impact the proposed redevelopment activities.

The area of residual soil contamination in association with the closed LUST case is located in the northeastern portion of the TH2 footprint and extends into the landscaped area with sidewalks and a paved driveway to the surface parking lot for the Clubhouse located southeast of TH2. The delineated extent of residual soil contamination extends approximately 141-feet to the southwest from the northeast corner of the TH2 footprint and approximately 42-feet northwest from the northeast corner of the TH2 footprint. The yard grade (YG) for TH2 has been set at 978-ft above mean sea level (amsl). The extent of the area of residual soil contamination is located within the portion of the TH2 footprint that will require fill to establish the proposed yard grade. The depth to obvious contamination in the soil borings completed historically and recently was consistently six (6) ft bgs and deeper. The ground

surface elevation at the soil boring locations impacted by the petroleum contamination is approximately 971 ft amsl, as such, the top of the residually contaminated soils are located below 965 ft amsl approximately.

Assuming the footings for all of the buildings at the Site will be established four (4) ft below the proposed yard grade, the footing subgrade elevation for TH2 is assumed to be 974 ft amsl. Based on the discussion above, we expect approximately nine (9)-ft of separation between the top of the residual petroleum contamination and the bottom of the footings and approximately 13-ft of separation between the residual petroleum contamination and the bottom of the floor slab.

Utilities within the area of residual contamination include a storm water pipe which conveys surface runoff from inlets in the parking lot to the north of TH2, in the driveway to the parking lot to the north of TH2, in the driveway to the parking lot for the Clubhouse to the south of TH2 and two (2) inlets within the Clubhouse parking lot to the south of TH2, as well as a branch water main that supplies TH1, TH2, SF1 and a fire hydrant located north of TH2. The storm water captured by the five (5) inlets discharges to the storm water pond located to the south of the Clubhouse. Per the civil engineer, the inverts for the storm sewer conveyance pipe through the area of residual contamination will range between 969.36 ft amsl and 971.08 ft amsl, a minimum of approximately 4.36-ft above the residual contamination.

The proposed water supply lines will be installed a minimum of four (4)-ft below the final finished grade. The water supply lateral is proposed to enter the north side of TH2 near the northeast corner of the building, with the lateral also extending to the north side of TH1 to the west of TH2. Invert elevations provided for the water supply pipes on the north side of TH2 range between approximately 968 ft amsl and 969.5 ft amsl. As such the water supply lines near the area of the residual contamination will be a minimum of approximately three (3) feet above the residually contaminated soils.

Sanitary sewer laterals associated with TH1 and TH2 are proposed to exit the south ends of the building directly to the municipal main located in West Capitol Drive. As such, the sanitary sewer laterals will not be impacted by the residually contaminated soils associated with the former LUST case. The underground utilities in the vicinity of the residual contamination associated with the former LUST case are depicted on **Figure 12**.

## **MATERIAL MANAGEMENT PLAN**

It is our understanding that as part of the redevelopment activities on the subject property, the fill materials which are present will be excavated, processed to remove large inclusions and to homogenize the materials, placed and compacted as engineered fill. Geotechnical investigation activities have indicated fills on the Site include a large volume of construction debris, including concrete and asphalt rubble in an approximate area as depicted in orange on **Figure 6** and an approximate area of compacted soil fill, depicted in yellow on **Figure 6**, that was reportedly imported from local right-of-way construction projects. Based on a review of the *Geotechnical Subsurface Investigation Report* prepared by GeoTest, the on-site soil and fill materials are suitable for reuse as engineered fill, assuming the processed materials do not exceed three (3)-inches in size and are placed in eight (8) to ten (10)-inch loose lifts and compacted.

An experienced environmental professional will be onsite throughout the earthwork activities to evaluate the character of fill materials excavated for processing, as well as the native soils in the cut areas for any obvious indications of contamination. It is estimated that 400,000 cubic yards (cy) of fill

soil, and native soils will be handled during Site grading activities. In addition, it is estimated 55,000 to 60,000 cy of construction debris will be processed (crushed) for reuse as engineered fill. Additionally, it is estimated approximately 21,000 cy of usable fill material will be generated by crushing the existing pavements for reuse.

Per Wisconsin Administrative Code (WAC) Chapter NR 718.12(1), the WDNR provides the following sampling frequency as a guideline: one (1) sample for the first 600 cy with an additional sample for each additional 300 cy. Based on the estimated 400,000 cy of soils to be moved on the Site in preparation for redevelopment, this would result in the need to collect and analyze approximately 1,333 individual samples. However, of the 400,000 cy of soil that requires to be moved to establish the proposed Site grades, approximately 50,000 cy consists of the fill materials from local construction projects within the road rights-of-ways, as depicted in yellow on **Figure 6**, which results in approximately 166 samples to be collected and analyzed. As the sampling performed to-date indicates the fill soils placed within the yellow area on **Figure 6** were relatively consistent in character and did not contain any significant concentrations of contaminants, we propose the sample frequency be revised at the Site to one (1) sample per every 1,000 cy of fill materials within the yellow area outlined on **Figure 6**. This will result in approximately 50 samples being collected and submitted for analysis for PAHs and the eight (8) RCRA metals from this area.

We do not expect the required excavations for Townhome Building #2 (TH2) to extend deep enough to encounter the residual petroleum contaminated soils; however, it should be noted that a total of 43 soil samples (31 in 1999 and 12 in 2023) have been submitted for analysis from the former LUST area. Based on the sampling frequency described in WAC Chapter NR 718.12(1), up to approximately 37,000 cy could be managed within the former LUST area. However, even if the entire area of residual petroleum contaminated soils were excavated to a depth of 20 ft bgs, only approximately 12,000 cy would be affected; therefore, it is our opinion sufficient sampling has been performed within the former LUST area per WAC Chapter NR 718.12(1).

Based on the discussions provided in the previous sections, a summary of the material management tasks proposed at the Site includes the following.

- Based on the known depths of residual contamination within the former LUST area and the proposed Site plan, petroleum impacted soils will not be excavated or moved on or off the Site.
- Historically placed fill materials identified within the yellow shaded area on **Figure 6** will be excavated, processed and reused as compacted engineered fill on the Site. However, as these fill materials are currently located within one (1) of the areas on the Site that require the most engineered fill, the historic fill materials will not be placed at a depth greater than they were excavated from. **Figure 13** provides an overlay of the various existing material types on the proposed cut/fill plan.
- Additionally, as the area where the historical fill soils will be reused as engineered fill will require significant additional fill material to establish the proposed site grades, the historic fill materials will not be relocated within the upper four (4) ft direct contact zone.
- An experienced environmental professional will utilize visual and olfactory observations during earthwork activities to identify potentially contaminated materials and undesirable fill materials.

- Roll-off dumpsters and stockpiles will be utilized as necessary to segregate potentially contaminated materials and undesirable fill materials to allow for proper characterization and disposal to occur.
- If areas of contamination are identified during earthwork activities, besides segregating the materials for proper characterization and disposal, the location of the source area of the contaminated materials will be recorded via survey equipment and depending on the size and relative concentration of the contamination, appropriate sidewall and base confirmation samples may be collected to document residual conditions.

## OTHER CONSIDERATIONS

### METHANE GAS

Soil borings and test pits advanced throughout the Site did not identify significant quantities of buried organic matter (natural or anthropogenic) which could act as a source of methane during decomposition. While minor inclusions of lumber were observed within the construction debris deposits, the Site preparation activities will include excavation, sorting and crushing of the construction debris for use as engineered fill. During this process, inclusions of organic materials such as wood, etc. will be removed and segregated for offsite disposal. Therefore, based on the results of the assessment activities completed to date and the proposed processing plan for the construction debris, the generation of methane in the subsurface is not considered an issue of concern for the proposed redevelopment at the Site.

### CONTAMINATED VAPORS

Based on the results of the test pit activities, no VOC constituents were detected in any of the soil samples submitted for analysis from the Site-wide historic fill or native soils. Therefore, based on available data, it is not anticipated that adverse subsurface vapors are present in the former quarry area and no further assessment of the vapor migration pathway is recommended.

Based on our review of the design for the proposed redevelopment, a portion of the TH2 building will overlie the area of residual contamination associated with the former LUST case. According to WDNR RR-800 vapor intrusion guidance document, vapor investigations are recommended if a building structure has less than five (5)-feet of separation (vertical or horizontal) from residual petroleum contaminated soil that has the potential for off-gassing. The residual petroleum contaminated soil was consistently encountered at an elevation of approximately 965 ft amsl. The yard grade for building TH2 has been established at elevation 978 ft amsl; therefore, the residual contaminated soils will be located approximately 13-feet below the finished floor slab elevation in TH2. Samples of soils collected from the existing ground surface to six (6) ft bgs did not detect any VOC constituents and the northern portion of the TH2 building pad will require the placement of up to nine (9) feet of fill sourced from other portions of the Site where VOC constituents have never been detected. Based on the nine (9) to 13-feet of separation between the residual contaminated soil and the footing subgrade elevations and the finished floor elevation, respectively, it is our opinion the potential for vapor intrusion associated with petroleum constituents will not exist post-development. As such, additional assessment of the vapor intrusion pathway and vapor intrusion mitigation measures are not required in the area of the former LUST case, specifically in building TH2.

## UTILITY LINES ACTING AS CONDUITS

Underground utilities including a looped water main, water main laterals, a sanitary sewer main and laterals and storm sewer conveyance piping will be installed at the Site. The water main and sanitary sewer will connect to municipal mains located within the Capitol Drive right-of-way. Storm sewers will discharge to a series of infiltration basins, as well as two (2) detention ponds in the southern portion of the Site which will discharge a limited flow to a municipal main within the Capitol Drive right-of-way.

Proposed underground utilities bisecting the area of residual petroleum contamination associated with the former LUST case are limited to storm sewer piping and water supply laterals. Based on our review of the civil engineering design drawings, neither the storm sewer conveyance piping or the water laterals will be installed within the contaminated soils. While the bottom of the storm sewer conveyance piping will be located within four (4) vertical feet of the residually contaminated soils, the storm sewer conveyance piping does not enter into any structures. The storm sewer conveyance piping simply conveys storm water from inlet structures within paved areas to an open pond. Furthermore, while groundwater was not encountered within the recent soil borings advanced in the LUST area, historically groundwater was encountered between 15 to 20 ft bgs, which is well below the proposed invert elevations for the storm water conveyance piping and the proposed bottom of manhole structures. Therefore, it is our opinion the storm sewer conveyance piping proposed to bisect the residual petroleum contamination in the former LUST area will not act as a preferential pathway for the migration of contaminated groundwater or the migration of petroleum vapors into structures.

While the water lateral associated with TH2 will also enter into TH1 and SF1, the water laterals will be located at least three (3) feet above the residual contaminated soil. The service entrance will occur through the foundation wall beneath the slab-on-grade with seals installed between the water service pipe and the concrete foundation wall and slab-on-grade, thereby providing a double seal between the exterior and the building interior.

## DEWATERING

Based on the results from the test pits, as well as the soil borings advanced within the former LUST case areas, shallow groundwater was not encountered within 20-feet bgs. Therefore, it is not anticipated that groundwater will be encountered during construction.

## WORKER EXPOSURE

Based on the results of the investigation activities completed to date, contaminant concentrations of significant concern have not been identified. Therefore, assuming proper precautions are exercised during earthwork activities, it is not anticipated that additional protection beyond Level D personal protective equipment (PPE) will be required.

## SETTLEMENT PROBLEMS

It is our understanding that the fill materials which are present on the subject property will be picked-up, processed, re-placed and compacted as engineered fill. Based on a review of the *Geotechnical Subsurface Investigation Report* (GeoTest), the on-site soil and fill materials are suitable for re-use as engineered fill, assuming the processed materials do not exceed three (3)-inches in size and are placed in eight (8) to ten (10)-inch loose lifts, compacted and field density tested. Additionally, it is our understanding that the proposed buildings can be supported by conventional, shallow spread footings. Therefore, potential settlement issues have not been identified based on the information to date.

WATER SUPPLY WELLS

The Site is located within the Village of Hartland Water Utility area of service. According to the Village of Hartland Waterworks 2022 Consumer Confidence Report, the Village obtains its drinking water from five (5) potable water wells. Therefore, potable water on the subject property will be provided from the local municipality. As the proposed redevelopment of the subject property will utilize municipally supplied water, ingestion of any residual contaminants is not a complete exposure pathway and therefore will not impact the future occupants of the subject property.

**CLOSING**

We trust the information contained in this summary along with the attachments is sufficient for the WDNR to approve the *Application for Exemption to Construct on a Historic Fill Site*. A completed Form 4400-226 is attached in **Appendix E**. If you have any questions regarding this submission, please do not hesitate to contact me at 414-858-1202.

**CERTIFICATION**

I, Robert A. Cigale, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Sincerely,

**Endpoint Solutions**

  
Robert A. Cigale, P.G.  
Principal Consultant

  
Travis J. Manser  
Associate Consultant

cc: John Ford – Three Leaf Partners  
David Hanson – WDNR

**ATTACHMENTS**

Figures  
Tables  
Appendix A  
Appendix B  
Appendix C  
Appendix D  
Appendix E

## **FIGURES**

FIGURE 1 – SITE LOCATION MAP

FIGURE 2 – SITE PLAN

FIGURE 3 – 1941 AERIAL PHOTO

FIGURE 4 – 1950 AERIAL PHOTO

FIGURE 5 – 1963 AERIAL PHOTO

FIGURE 6 – EXISTING SITE CONDITIONS

FIGURE 7 – PROPOSED REDEVELOPMENT PLAN

FIGURE 8 – CUT-FILL PLAN

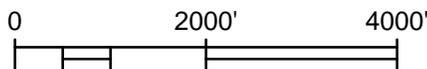
FIGURE 9 – SOUTH TEST PIT LOCATIONS

FIGURE 10 – NORTH TEST PIT LOCATIONS

FIGURE 11 – LUST AREA SOIL BORING LOCATIONS

FIGURE 12 – UNDERGROUND UTILITIES IN FORMER LUST AREA

FIGURE 13 – EXISTING MATERIAL TYPES ON CUT-FILL PLAN



## LOCATION MAP

700 WEST CAPITOL DRIVE  
HARTLAND, WISCONSIN

**Endpoint Solutions**

6871 S. Lovers Lane  
Franklin, WI 53132

Phone: (414) 427-1200

Fax: (414) 427-1259

DRAWN BY: MLP

DATE: 09/06/2023

REVIEWED BY: RAC

PROJECT NO: 843-001-007

Figure 1

P:\Three Leaf Partners - 843\001 - Hartland\CAD\001-007\FIG 01\_843-001-007\_Location Map.dwg

SOURCE: USGS

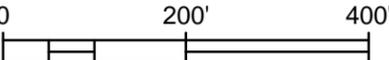


P:\Three Leaf Partners - 843\001 - Hartland\CAD\001-007\FIG 02\_843-001-007\_Site Plan.dwg

83

SOURCE: WAUKESHA COUNTY GIS

 SUBJECT PROPERTY  
 HISTORIC SAMPLE LOCATIONS

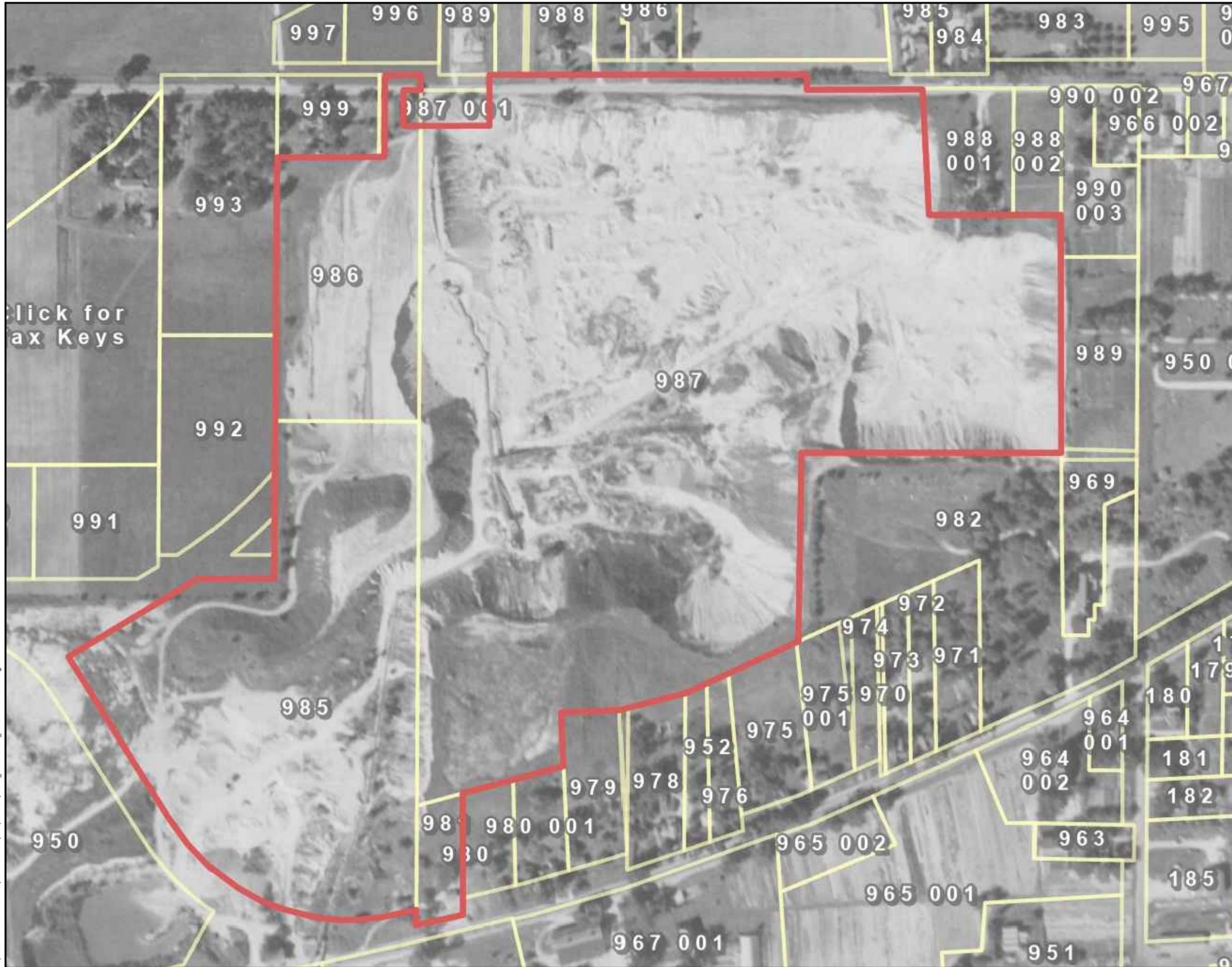
  


**SITE PLAN**

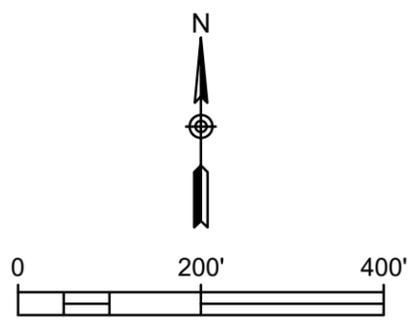
700 WEST CAPITOL DRIVE  
HARTLAND, WISCONSIN

**Endpoint Solutions**  
 6871 S. Lovers Lane  
 Franklin, WI 53132  
 Phone: (414) 427-1200      Fax: (414) 427-1259  
 DRAWN BY: MLP      DATE: 09/06/2023  
 REVIEWED BY: RAC      PROJECT NO: 843-001-007      Figure 2





 SUBJECT PROPERTY



**1950 AERIAL PHOTO**

700 WEST CAPITOL DRIVE  
HARTLAND, WISCONSIN

**Endpoint Solutions**

6871 S. Lovers Lane  
Franklin, WI 53132

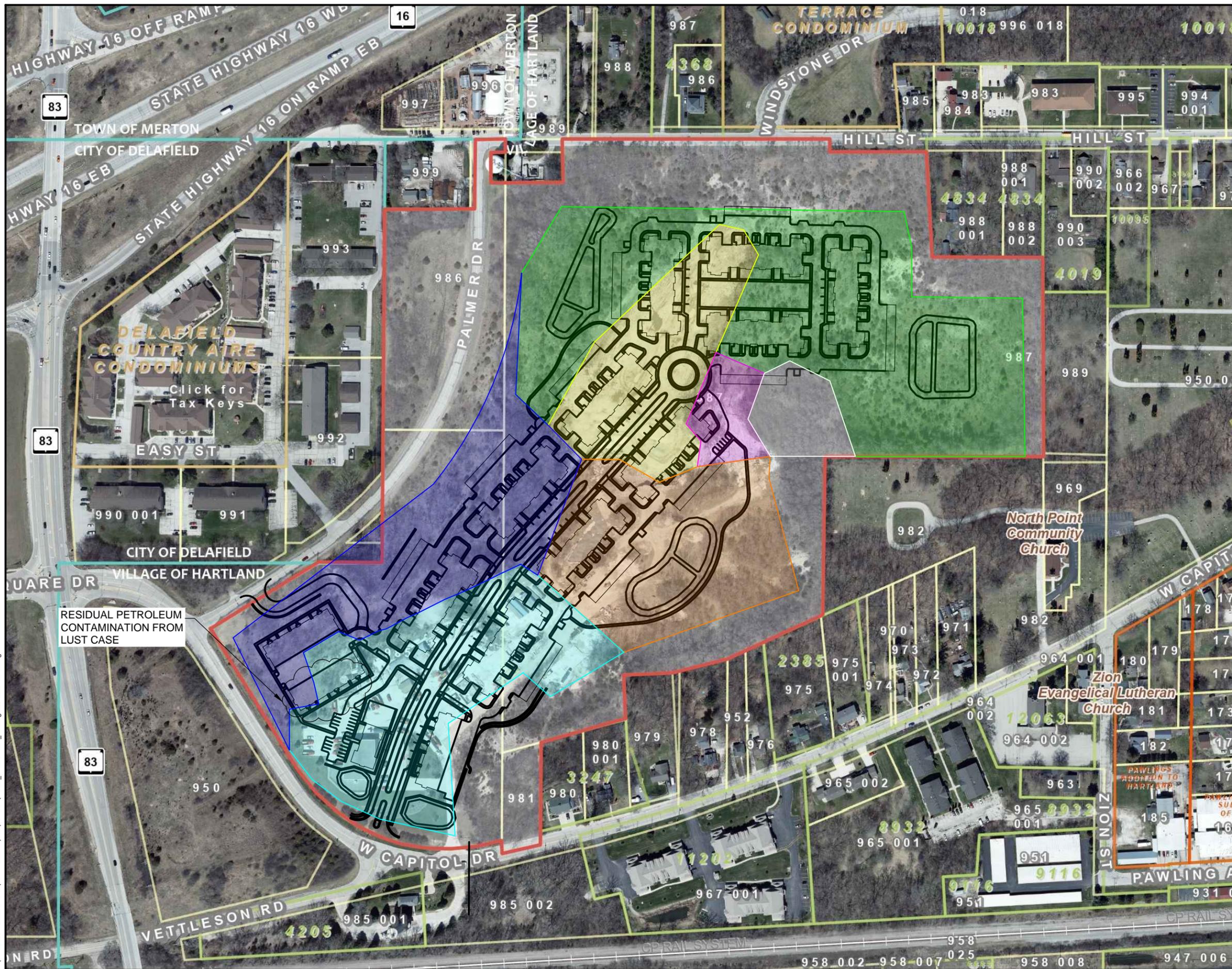
Phone: (414) 427-1200      Fax: (414) 427-1259

DRAWN BY: MLP      DATE: 09/06/2023  
REVIEWED BY: RAC      PROJECT NO: 843-001-007

Figure 4

P:\Three Leaf Partners - 843\001 - Hartland\CAD\001-007\FIG 04\_843-001-007\_Aerial Photo 1950.dwg





- SUBJECT PROPERTY
- NATIVE SOILS - PIT BASE
- SOFT CLAY/SILT SEDIMENT
- COMPACTED IMPORTED SOIL FILL
- CONSTRUCTION DEBRIS FILL
- BUILDING & PAVEMENTS
- NATIVE PIT BOTTOM OR NOT QUARRIED



NOT TO SCALE

### EXISTING SITE CONDITIONS

700 WEST CAPITOL DRIVE  
HARTLAND, WISCONSIN

**Endpoint Solutions**

6871 S. Lovers Lane  
Franklin, WI 53132

Phone: (414) 427-1200      Fax: (414) 427-1259

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REVIEWED BY: RAC      PROJECT NO: 843-001-007

Figure 6

P:\Three Leaf Partners - 843\001 - Hartland\CAD\001-007\FIG 06\_843-001-007\_Existing Site Conditions.dwg

SOURCE: GEOTEST

P:\Three Leaf Partners - 843\001 - Hartland\CAD\001-007\FIG 07\_843-001-007\_Proposed Redevelopment Plan.dwg



TOTAL LOT: 45.73 ACRES +/-  
 DEVELOPABLE AREA: 27.2 ACRES +/-

SUMMARY	
STACKED FLATS (2 STORIES) =	240 UNITS
COVERED PARKING =	240 STALLS
DRIVEWAY PARKING =	240 STALLS
STREET PARKING =	48 STALLS
TOWNHOMES (2 STORIES) =	27 UNITS
COVERED PARKING =	54 STALLS
DRIVEWAY PARKING =	54 STALLS
SURFACE PARKING =	6 STALLS
CLUBHOUSE VISITOR PARKING =	19 STALLS
<b>TOTAL UNITS =</b>	<b>267 UNITS</b>



NOT TO SCALE

**PROPOSED REDEVELOPMENT PLAN**

700 WEST CAPITOL DRIVE  
 HARTLAND, WISCONSIN



6871 S. Lovers Lane  
 Franklin, WI 53132

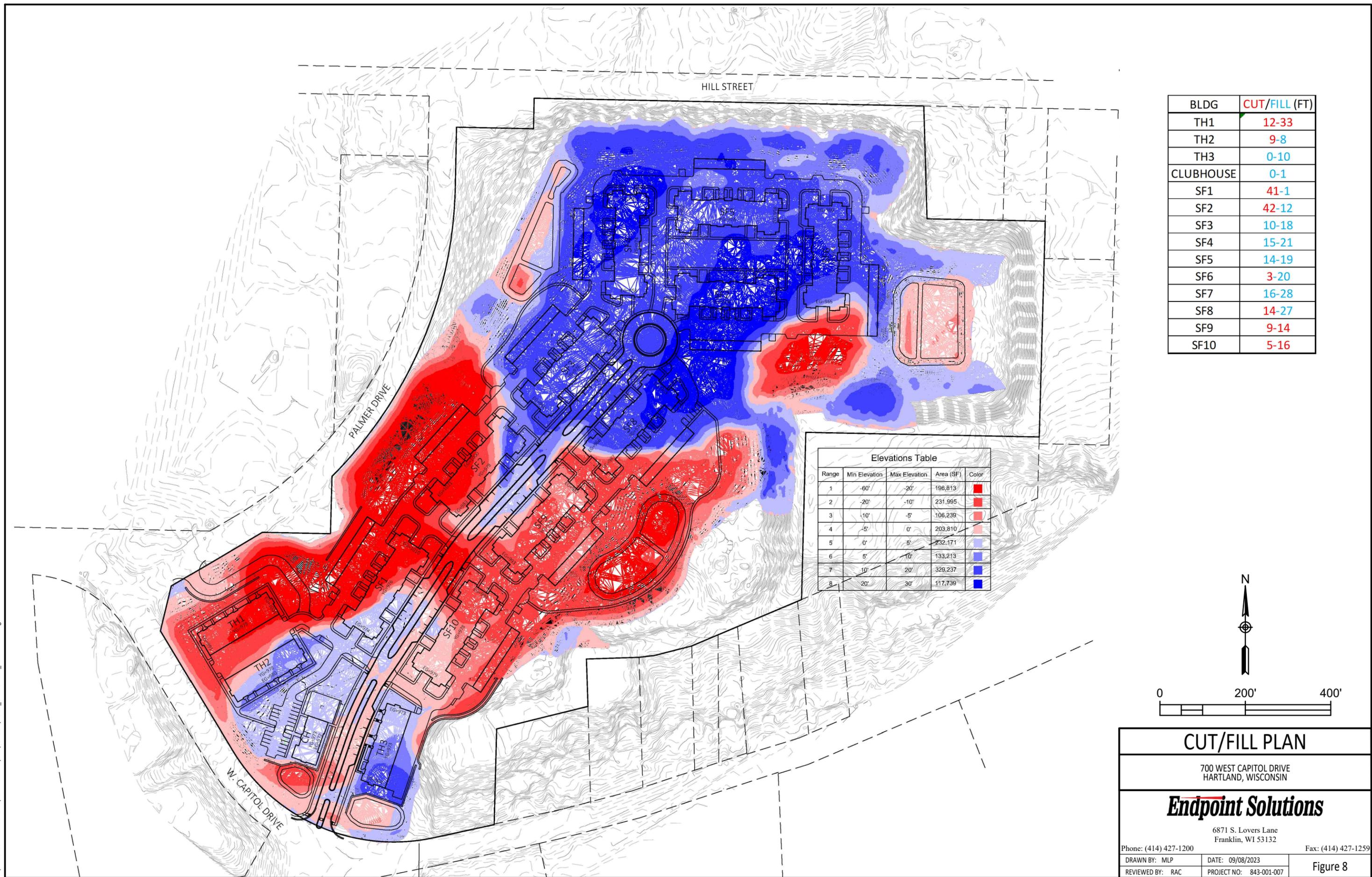
Phone: (414) 427-1200      Fax: (414) 427-1259

DRAWN BY: MLP	DATE: 09/08/2023	Figure 7
REVIEWED BY: RAC	PROJECT NO: 843-001-007	

SOURCE: GEOTEST

P:\Three Leaf Partners - 843\001 - Hartland\CAD\001-007\FIG 08\_843-001-007\_Cut-Fill Plan.dwg

SOURCE:PAYNE & DOLAN



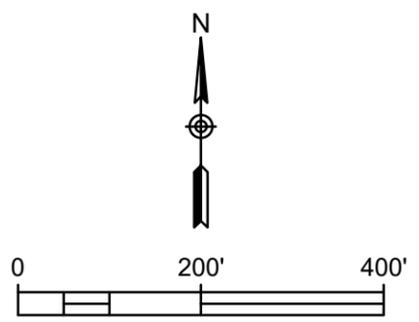
HILL STREET

PALMER DRIVE

W. CAPITOL DRIVE

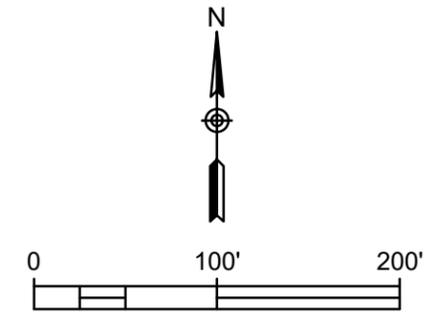
Range	Min Elevation	Max Elevation	Area (SF)	Color
1	-60'	-20'	196,813	Red
2	-20'	-10'	231,995	Red
3	-10'	-5'	106,239	Red
4	-5'	0'	203,810	Red
5	0'	5'	232,171	Light Blue
6	5'	10'	133,213	Blue
7	10'	20'	329,237	Dark Blue
8	20'	30'	117,739	Dark Blue

BLDG	CUT/FILL (FT)
TH1	12-33
TH2	9-8
TH3	0-10
CLUBHOUSE	0-1
SF1	41-1
SF2	42-12
SF3	10-18
SF4	15-21
SF5	14-19
SF6	3-20
SF7	16-28
SF8	14-27
SF9	9-14
SF10	5-16



<b>CUT/FILL PLAN</b>		
700 WEST CAPITOL DRIVE HARTLAND, WISCONSIN		
<b>Endpoint Solutions</b>		
6871 S. Lovers Lane Franklin, WI 53132		
Phone: (414) 427-1200      Fax: (414) 427-1259		
DRAWN BY: MLP	DATE: 09/08/2023	Figure 8
REVIEWED BY: RAC	PROJECT NO: 843-001-007	

P:\Three Leaf Partners - 843\001 - Hartland\CAD\001-007\FIG 09\_843-001-007\_South Test Pit Locations.dwg



### SOUTH TEST PIT LOCATIONS

700 WEST CAPITOL DRIVE  
HARTLAND, WISCONSIN

**Endpoint Solutions**

6871 S. Lovers Lane  
Franklin, WI 53132

Phone: (414) 427-1200      Fax: (414) 427-1259

DRAWN BY: MLP	DATE: 09/08/2023
REVIEWED BY: RAC	PROJECT NO: 843-001-007

Figure 9

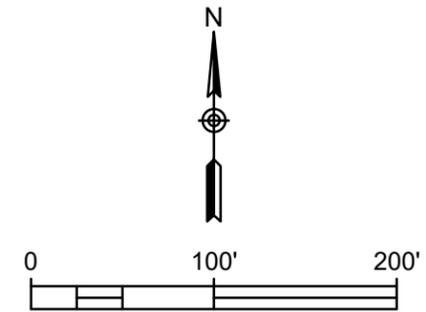


TEST PIT 6  
 EXISTING GRADE = 956.82  
 DEPTH = 8.14'

TEST PIT 7  
 EXISTING GRADE = 958.36  
 DEPTH = 10.38'

TEST PIT 9  
 EXISTING GRADE = 961.29  
 DEPTH = 6.58'

TEST PIT 8  
 EXISTING GRADE = 946.97  
 DEPTH = 6.18'



**NORTH TEST PIT LOCATIONS**

700 WEST CAPITOL DRIVE  
 HARTLAND, WISCONSIN

**Endpoint Solutions**

6871 S. Lovers Lane  
 Franklin, WI 53132

Phone: (414) 427-1200

Fax: (414) 427-1259

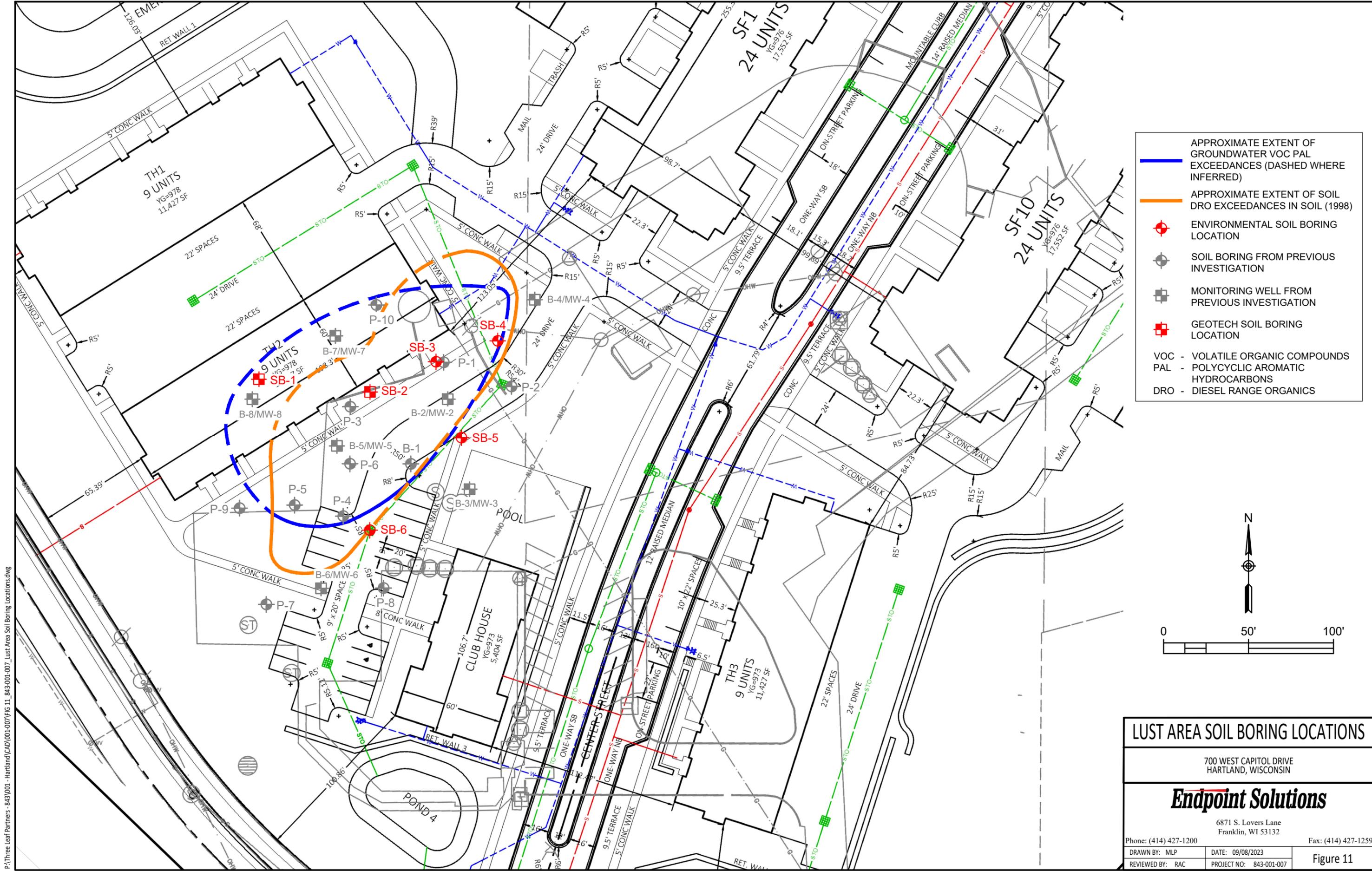
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DATE: 09/08/2023

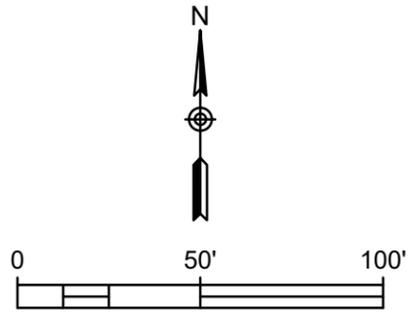
REVIEWED BY: RAC

PROJECT NO: 843-001-007

Figure 10



- APPROXIMATE EXTENT OF GROUNDWATER VOC PAL EXCEEDANCES (DASHED WHERE INFERRED)
- APPROXIMATE EXTENT OF SOIL DRO EXCEEDANCES IN SOIL (1998)
- ENVIRONMENTAL SOIL BORING LOCATION
- SOIL BORING FROM PREVIOUS INVESTIGATION
- MONITORING WELL FROM PREVIOUS INVESTIGATION
- GEOTECH SOIL BORING LOCATION
- VOC - VOLATILE ORGANIC COMPOUNDS
- PAL - POLYCYCLIC AROMATIC HYDROCARBONS
- DRO - DIESEL RANGE ORGANICS



**LUST AREA SOIL BORING LOCATIONS**

700 WEST CAPITOL DRIVE  
HARTLAND, WISCONSIN

**Endpoint Solutions**

6871 S. Lovers Lane  
Franklin, WI 53132

Phone: (414) 427-1200      Fax: (414) 427-1259

DRAWN BY: MLP	DATE: 09/08/2023	Figure 11
REVIEWED BY: RAC	PROJECT NO: 843-001-007	

P:\Three Leaf Partners - 843\001 - Hartland\CAD\001-007\FIG 11\_843-001-007\_Lust Area Soil Boring Locations.dwg



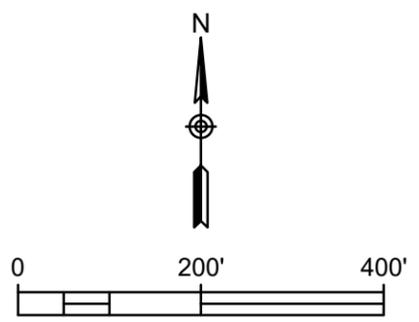
P:\Three Leaf Partners - 843\001 - Hartland\CAD\001-007\FIG 13\_843-001-007\_Existing Material Types on Cut/Fill.dwg

SOURCE:PAYNE & DOLAN



- NATIVE SOILS - PIT BASE
- RUNOFF SEDIMENTS FROM CONSTRUCTION DEBRIS
- COMPACTED IMPORTED SOIL FROM LOCAL ROADWAY PROJECTS
- CONSTRUCTION DEBRIS
- NATIVE - NOT QUARRIED
- DEVELOPED PORTION OF SITE
- NATIVE SOIL - PIT BOTTOM OR NOT QUARRIED

Range	Min Elevation	Max Elevation	Area (SF)	Color
1	-60'	-20'	196,813	Red
2	-20'	-10'	231,995	Red
3	-10'	-5'	106,239	Red
4	-5'	0'	203,810	Red
5	0'	5'	232,171	Light Blue
6	5'	10'	133,213	Blue
7	10'	20'	329,237	Blue
8	20'	30'	117,739	Blue



**MATERIAL TYPES ON CUT/FILL**

700 WEST CAPITOL DRIVE  
HARTLAND, WISCONSIN

**Endpoint Solutions**

6871 S. Lovers Lane  
Franklin, WI 53132

Phone: (414) 427-1200      Fax: (414) 427-1259

DRAWN BY: MLP	DATE: 09/08/2023	Figure 13
REVIEWED BY: RAC	PROJECT NO: 843-001-007	

**TABLES**

TABLE A.1.A - LUST AREA SOIL PVOC+N RESULTS

**Table A.1.a**  
**Soil Analytical Results - PVOCs and Naphthalene**

644, 700 & 701 West Capitol Drive  
Hartland, Wisconsin

PVOCs (ug/kg)	Industrial Direct Contact RCL	Non-Industrial Direct Contact RCL	Soil to Groundwater Pathway RCL	Boring ID, Sample Depth, Date of Advancement, Saturation											
				SB-1		SB-2		SB-3		SB-4		SB-5		SB-6	
				3-5.5' 8/18/2023 Unsaturated	8-10' 8/18/2023 Unsaturated	1-2.5' 8/18/2023 Unsaturated	6-7.5' 8/18/2023 Unsaturated	2' 8/18/2023 Unsaturated	10' 8/18/2023 Unsaturated	2' 8/18/2023 Unsaturated	7' 8/18/2023 Unsaturated	2' 8/18/2023 Unsaturated	7' 8/18/2023 Unsaturated	2' 8/18/2023 Unsaturated	10' 8/18/2023 Unsaturated
Benzene	<b>7,070</b>	<u>1,600</u>	<i>5.1</i>	<12.3	<13.4	<14.5	<177	<13.2	<14.1	<13.2	<14.1	<12.6	<14.1	<12.8	<13.7
Ethylbenzene	<b>35,400</b>	<u>8,020</u>	<i>1,570</i>	<12.3	<13.4	<14.5	1,210	<13.2	<14.1	<13.2	<14.1	<12.6	<14.1	<12.8	<13.7
Methyl-tert-butyl-ether (MTBE)	<b>282,000</b>	<u>63,800</u>	<i>27</i>	<15.2	<16.6	<17.9	<218	<16.3	<17.4	<16.4	<17.5	<15.6	<17.4	<15.8	<16.9
Naphthalene	<b>24,100</b>	<u>5,520</u>	<i>658.2</i>	<16.1	<17.6	<19.0	<b>27,900</b>	<17.3	<18.5	<17.4	<18.5	<16.5	<18.5	<16.8	<17.9
Toluene	<b>818,000</b>	<u>818,000</u>	<i>1,107.2</i>	<13.0	<14.2	<15.3	<187	<13.9	<15.0	<14.0	<15.0	<13.4	<14.9	<13.5	<14.5
1,2,4-Trichlorobenzene	<b>113,000</b>	<u>24,000</u>	<i>408</i>	<15.4	<16.8	<18.1	<b>13,600</b>	<16.5	<17.7	<16.6	<17.7	<15.8	<17.6	<16.0	<17.1
1,2,3-Trichlorobenzene	<b>934,000</b>	<u>62,600</u>	-----	<16.6	<18.2	<19.6	515 "J"	<17.8	<19.1	<17.9	<19.1	<17.1	<19.0	<17.3	<18.5
Xylene (Total)	<b>260,000</b>	<u>260,000</u>	<i>3,960</i>	<37.3	<40.8	<43.9	1,040 "J"	<40.0	<42.8	<40.2	<42.9	<38.3	<42.7	<38.8	<41.4

- 1) PVOc - Petroleum Volatile Organic Compound
- 2) ug/kg - micrograms per kilogram
- 3) RCL - Residual Contaminant Level
- 4) ----- - Standard not established
- 5) J - Estimated concentration at or above the limit of detection (LOD) and below the limit of quantitation (LOQ).
- 6) Italicized result indicates a Soil-to-Groundwater Pathway RCL exceedance
- 7) Underlined result indicates a Non-Industrial Direct Contact RCL exceedance
- 8) Bold result indicates a Industrial Direct Contact RCL exceedance

**APPENDIX A**

GEOTECHNICAL SUBSURFACE INVESTIGATION REPORT

May 4, 2023

John Ford  
President  
Three Leaf Partners  
504 W. Juneau Avenue  
Milwaukee WI, 53203



Subject: Geotechnical Subsurface Investigation  
Hartland Quarry Apartments  
700/701 W. Capitol Drive, Hartland, Wisconsin

Dear Mr. Ford:

GeoTest, Inc. (GeoTest) has prepared this geotechnical engineering report related to the above-referenced project. This report describes the subsurface exploration and laboratory testing programs and presents recommendations regarding foundation support of the proposed structures, construction of floor slabs, pavements, and stormwater management systems, bluff stabilization, and includes other construction considerations. All environmental-related services are being provided by others.

### **Project Description**

Three Leaf Partners is proposing to develop the property located at 700/701 W. Capitol Drive in the Village of Hartland, Wisconsin. The location of the project is illustrated in Figure 1 in Appendix A. The boundaries of the combined 45-acre property are illustrated in Figure 2 in Appendix A.

The proposed development consists of eighteen separate buildings, including a single-story club house, two- and three-story apartment buildings (some slab-on-grade and some with below-grade parking), and single-story garage buildings. The development will also include parking and drive paved areas and multiple stormwater management devices. The proposed development is illustrated in Figure 3 in Appendix A.

Structural loads have not been provided. However, we anticipate that column and wall loads will not exceed 300 kips and 5 kips per linear foot, respectively.

The finished floor elevations for the new buildings have not been provided but are expected to vary across the property. The preliminary civil engineering plans indicate cuts and fills of up to 15 feet are anticipated to achieve the final site grades.

The stormwater management facilities are designed, on a preliminary basis, to consist of four infiltration ponds. The entire development will be internally drained.

The perimeter bluffs currently have slopes steeper than 1h:1v, with many sections close to 0.75h:1v. The proposed development plan assumes the final slopes will be designed for 2h:1v.

### **Property History**

To develop an appropriate geotechnical scope of work for this project, research and a site walk-through were completed. The research included reviewing local well logs (available from Waukesha County), a past environmental investigation report (produced by Drake Environmental, Inc.), and construction materials testing reports (produced by Gestra Engineering, Inc.). The Well logs and Drake and Gestra documents are included in Appendix B.

We interviewed individuals familiar with past activities at the property, including Jason Palmer with Cass Custom Crushing and Ed Troxell with Riv/Crete Ready Mix. We also toured the property with Jason and Ed, along with employees from Walbec Group, the project's civil engineering consultant.

The geologic setting at the property was described as granular (primarily sand and gravel) glacial deposits. The property was mined for road gravel from the 1930's to the 1960's (known as Palmer Sand & Gravel), after which it became a concrete plant under multiple company names. The concrete plant operations were located in the southwest corner of the property but are no longer active.

The property owners began accepting fill materials in the 1970's, which still occurs. Most of the fills appear to consist of soil and concrete wastes, but also occasional inert materials that include asphalt, building materials, wood, and metal. It is currently being used as an operational base for a trucking company and to store construction equipment.

Most of the property perimeter was lined with bluffs formed by past mining operations. Although the property's ground surface was near the adjacent property elevations in the southwest corner, the remaining elevation differences were as high as 85 feet. Therefore, an integral aspect of the development plan includes addressing the substantial perimeter embankments, not only for safety but also to maximize the buildable area.

Two areas that were unusual, with an unknown history, were the apparent overburden stockpiled soils forming the north boundary of the former concrete plant area at the southwest corner of the property, and the bluff peninsula in the east portion of the former pit that extends northward from the south property boundary. It was believed that the overburden stockpiled soils were placed as a buffer between the adjacent residential area to the west and to serve as a ramp for trucks to unload into a crusher. No one had an explanation for why the bluff peninsula was not excavated during the

mining operations, other than maybe they were unsuitable for production. These two areas were identified for evaluation, in addition to the overall pit base and bluffs.

### **Scope of Work**

#### **Geotechnical Subsurface Exploration**

The research identified five areas with different soils and materials to be targeted for evaluation. These areas (described below) are illustrated on Figure 4 in Appendix A. This figure does not illustrate the bluff areas, although they also warranted evaluation.

- Industrial Development Area (including the apparent overburden stockpiled soils)
- Construction Debris Fill
- Soft Clay/Silt Sediment
- Compacted Imported Soil Fill
- Native Soils – Pit Base

The following geotechnical exploration program was developed to evaluate these areas:

- Nine test pits were excavated to depths of about 6 to 11 feet.
- Nineteen surface samples were collected from the perimeter bluffs.

The approximate sampling locations are identified on the Sampling Location Diagram (Figure 5) in Appendix A. Representative samples from the test pits and bluffs were collected in buckets and returned to GeoTest for laboratory testing and classification.

The test pit locations, the ground surface elevations at the test pits, and their depths were measured by a Walbec surveyor at the time they were excavated. Their locations and the elevation/depth data are represented on two figures provided by Walbec, which are included in Appendix B.

#### **Laboratory Testing**

The laboratory testing program consisted of the following:

- Modified Proctor testing of four samples.
- Grain Size Analyses of twenty-three samples.
- Atterberg Limits testing of one sample.

All laboratory results are presented in reports included in Appendix C.

In addition, a GeoTest geotechnical engineer examined and visually classified each sample, based on texture and plasticity, in accordance with the Unified Soil Classification System (USCS). General notes and a description of the USCS

classification system are included in Appendix C. The soil descriptions are presented in this report.

The recovered soil samples will be retained for 60 days after the date of this report. Unless other instructions as to their disposition are received, they will be discarded at that point.

### **Soil and Groundwater Conditions**

The following narrative is a generalization of the subsurface conditions encountered on the property. Please recognize that the conditions can vary in areas between the sample locations.

#### **Subsurface Conditions**

The dominant geology on the property was described as well-grade granular glacial deposits, consisting of sand and gravel with variable percentages of fines (clay and silt), along with occasional cobbles and boulders. Differences from these native deposits included the placement of imported fill soils and man-made materials, primarily concrete in various forms.

The results of the test pit and bluff sampling programs are presented below. Following that information, the five ground surface areas are discussed.

*Test Pits* - The GeoTest test pit exploration program was designed to evaluate the subsurface conditions at each of the five areas where different soils or materials were expected. The following table summarizes the soils/materials encountered at the test pits.

<b>Test Pit</b>	<b>Depth, ft</b>	<b>Description</b>
TP-1 & TP-2 <sup>1</sup>	0-6.4	SC-SM: Fine to coarse sand, some gravel, little clay and silt, occasional cobbles and boulders; brown; moist (32.8% gravel, 43.6% sand, 23.6% fines) – appeared to be native soil deposits.
TP-3 <sup>3</sup>	0-5.6	SW-SM: Fine to coarse sand and gravel, few clay and silt, occasional cobbles; brown; moist (43.0% gravel, 46.4% sand, 12.6% fines) – appeared to be native soil deposits.
TP-4 <sup>2</sup>	0-11.3	FILL (Rubble): Concrete and asphalt fragments, metal, wood, intermixed sand and gravel.
TP-5 <sup>2</sup>	0-3	FILL (Rubble): Concrete fragments intermixed sand and gravel.
TP-5 <sup>3</sup>	3-9.1	FILL (SP-SM): Fine sand, little medium to coarse sand, little gravel, few silt; brown; moist (20.7% gravel, 66.9% sand, 12.4% fines) – appeared to be fill soils.
TP-6 <sup>4</sup>	8.1	GW: Fine to coarse gravel, some fine to coarse sand, trace silt, occasional cobbles and boulders; brown; moist (61.8% gravel, 35.3% sand, 2.9% fines) – appeared to be native soil deposits.

TP-7 <sup>5</sup>	0-9	FILL (SW-SM): Fine to coarse sand, some gravel, few silt; brown; moist – compacted fill (tested by Gestra) that originated from a local utility construction project.
TP-7 <sup>4</sup>	9-10.4	GW: Fine to coarse gravel, some fine to coarse sand, trace silt, occasional cobbles and boulders; brown; moist – appeared to be native soil deposits.
TP-8 <sup>6</sup>	0-5.5	SEDIMENT (CL-ML): Clayey silt, trace fine sand; orange-brown; saturated; soft – appeared to be sediment run-off from the adjacent bluff peninsula and concrete fill area.
TP-8 <sup>4</sup>	5.5-6.2	GW: Fine to coarse gravel, some fine to coarse sand, trace silt, occasional cobbles and boulders; brown; moist – appeared to be native soil deposits.
TP-9	6.6	GW: Fine to coarse gravel, some fine to coarse sand, few silt, occasional cobbles and boulders; brown; moist (56.2% gravel, 37.0% sand, 6.8% fines) – appeared to be native soil deposits.

Notes:

- 1- The samples from TP-1 and TP-2 were composited because these soils are expected to be excavated and reused as an engineered fill.
- 2- No sample was collected because these materials will be segregated, and the soil and concrete will be crushed for reuse as an engineered fill.
- 3- This sample was subjected to the Modified Proctor test because it is projected to be excavated and reused as an engineered fill.
- 4- This sample was not subjected to the Modified Proctor test because it will not be excavated for reuse as an engineered fill.
- 5- This sample was not tested because it will not be excavated for reuse as an engineered fill (the Gestra field density test results passed).
- 6- This sample was not tested because it should be excavated and is not suitable for reuse as an engineered fill.

*Bluff Samples* - The samples collected from the perimeter bluffs were subjected to Grain Size Analyses (sieve testing) to understand the grain size distribution and determine certain material coefficients that can be used in slope stability analyses. The following table summarizes the distribution of gravel, sand, and fines.

Bluff Sample	Percent Gravel	Percent Sand	Percent Fines	USCS Class
1	54.9	44.0	1.1	GW
2	0.0	3.2	96.8	CL
3	55.1	38.6	6.3	GW-GM
4	56.3	40.6	3.1	GW
5	36.1	57.4	6.5	SW-SM
6	28.5	62.2	9.3	SW-SM
7	8.0	84.3	7.7	SW-SM
8	11.5	57.6	30.9	SM

9	9.4	61.7	28.9	SM
10	42.7	47.9	9.4	SW-SM
11	11.6	61.4	27.0	SM
12	20.1	69.1	10.8	SW-SM
13	54.6	40.9	4.5	GW-GM
14	18.5	45.6	35.9	SM
15	29.5	52.3	18.2	SM
16	13.5	62.1	24.4	SC
17	9.3	67.4	23.3	SC
18	42.4	43.9	13.7	SM
19	42.9	46.2	10.9	SM

In summary, the above results indicate that the bluff soils are almost entirely granular and vary in their fine content. Only one sample was a fine soil (clay), present along the south side of the bluff peninsula in the east portion of the property that extends from the south property boundary. The majority of the bluff soils met the OSHA definition of Type C, which requires a minimum slope of 1.5h:1v. Some areas met Type B, which require a minimum slope of 1h:1v.

*Industrial Development Area* - The boring logs generated by Drake during their environmental investigation indicated that the soils present in the southwest portion of the property primarily consisted of layered sands, with variable clay, silt, and gravel content. Occasional silt layers were also noted. Most of the soil to depths of 10 to 15 feet was described as fill or possible fill, which could have been placed to facilitate the existing development, including backfill in the former underground storage tank (UST) cavities.

The Drake boring logs indicated the granular soils exhibited very loose to very dense relative densities, with N-values ranging from 1 to 72. The lowest values (less than 5) were located at the former UST cavity. Excluding the UST backfill soils, all N-values (except two) exceeded 10 and averaged 32. The relatively uniform and high N-values suggest most of the soils are likely native deposits and not fills.

Two test pits were excavated (TP-1 and TP-2) and two bluff samples (B18 and B19) were collected to evaluate the nature of the apparent overburden stockpiled soils. The test pit and bluff samples were similar in nature, and all appeared to be native soil. A visual evaluation of the soils making up this area concluded that there is a combination of both native glacial deposits and fills soils that make up this higher ground.

One test pit (TP-3) was excavated to determine if the former concrete plant area is underlain by native or fill soils. This sample appeared to be native and were similar to the samples from TP-1 and TP-2.

*Construction Debris Fill Area* – Two test pits (TP-4 and TP-5) were excavated in this area. As anticipated, the materials at TP-4 were mostly buried concrete rubble and concrete truck washouts. The profile also included other inert materials, such as asphalt, metal, wood, and intermixed sand and gravel soil. The fill extended deeper than could be excavated. The materials at TP-5 consisted of concrete rubble overlying fine sand fill. The sand fill likely is the remnant of a stockpile created during the past mining and concrete plant operations.

*Compacted Soil Fill Area* - The soils placed in this area are represented by the Gestra documents and the sample from TP-7. This soil was imported from a local utility construction project by Musson Brothers and described as sandy gravel. We were told that the soil was placed in 1-foot lifts and compacted. Gestra tested them for compaction at three surface locations, which passed the 95% specification. The test pit exposed soils also described as sand and gravel fill to a depth of about 9 feet overlying native sand and gravel. The test pit walls remained vertical, and the soil appeared to be dense and well compacted.

*Soft Clay/Silt Sediment* – The soils in this area are represented by the sample from TP-8. They appeared to have accumulated as run-off from the adjacent higher finger bluff and concrete rubble fill areas. They were fine grained clay and silt that were saturated. While traversing this area with the backhoe, it sank about 3 feet, prompting the decision to excavate the test pit. The soft, saturated sediments extended to a depth of about 5.5 feet and overlay native sand and gravel soil.

*Native Soils – Pit Base Area* – Two test pits (TP-6 and TP-9) were excavated in the areas believed to be the final base of the original mining pit. These two samples were similar in nature and both described as mostly well-graded gravel with some sand and trace to few silt fines. These soils were also similar to bluff samples B1, B3, B4, and B13, where the original pit was terminated due to property boundary restrictions.

#### Groundwater Conditions

Free groundwater was not encountered in any of the test pits. Groundwater was noted in the Drake report at depths of 8 to 10 feet. The nearby potable well reports indicated the depth to groundwater ranged from 55 to 135 feet, from ground surface elevations up to 85 feet above the pit base. Based on this data, the normal groundwater table likely exists at a depth of about 10 to 20 feet below the pit base.

Fluctuations in the groundwater table elevation should be expected with variations in precipitation, evapotranspiration, surface runoff, etc. Also, shallow perched groundwater conditions should be expected where relatively permeable granular soils are underlain by relatively impermeable cohesive soils, especially following precipitation events.

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### **Analysis and Recommendations**

There are eight primary issues that should be considered when planning this project.

- Fill materials exist on the property. The fills vary from construction soil placed in the developed area, UST backfill, construction rubble, compacted imported soil, and general grading materials. Other than the compacted imported soil, most other fills are not suitable for support of engineered fill and structural elements.
- Most building foundations will bear upon engineered fill placed to raise low areas of the property. It will be important to plan for sufficient quality-control measures during site grading and construction to ensure competent bearing conditions.
- Saturated clay and silt soils exist in the “Sediment” area, which are highly sensitive to construction activity and are not suitable for the support of engineered fill and structural elements.
- The compacted imported soil area only had three field density tests. Additional testing should be conducted to confirm they are consistent and suitable for the support of engineered fill and structural elements.
- Unexpected materials or items could be buried on the property that would not be suitable for reuse, such as construction equipment, organic material such as timber and vegetation.
- Subsurface elements related to past developments exist, including foundations, slabs, and utilities. These features should be identified and removed within structural areas.
- Although not encountered during this evaluation, it is possible that clay and silt soils could be encountered during the site improvement activities. These soil types are sensitive to moisture variations and could cause construction challenges and schedule delays.
- Although the perimeter bluffs vary in soil type, they should all be uniformly designed for safety and stability.

#### **Foundation Support**

Once the property has been properly prepared (described below), the proposed buildings can be supported on conventional, shallow spread footings. The foundations can likely be designed using an allowable bearing capacity value of 3,000 psf to 6,000 psf, depending on the final grades and localized bearing conditions. Properly designed and constructed footings should experience total and differential settlements of less than 1 inch and  $\frac{3}{4}$  inch, respectively.

Traditionally, perimeter footings and interior footings in unheated areas should bear at a depth of at least 48 inches below the final exterior grade to provide adequate frost protection. If desired, exterior footings can bear at shallower depths by following ASCE 32-01 (American Society of Civil Engineers, Design and Construction of Frost-Protected Shallow Foundations, 2001). Interior footings not subject to frost can bear directly beneath the floor slab.

### Seismic Design

The soil conditions present at a site are utilized in determining the Seismic Design Category (SDC) for structures. Part of selecting the SDC is determining the Site Class for the soils, which categorizes common soil conditions into broad classes, where typical ground motion attenuation and amplification effects are assigned. Site Class is determined based on the average properties of the soil within 100 feet of the ground surface. Geotechnical engineers use a variety of parameters to characterize the engineering properties of these soils, including general soil classifications (e.g., hard rock, soft clay, etc.), N-values, and laboratory testing.

Site Class A includes hard rock that is typically found only in the eastern United States. The types of rock typically found in the western states include various volcanic deposits, sandstones, shales, and granites that commonly have the characteristic appropriate to either Site Class B or C. Sites with very dense sands and gravels or very stiff to hard clay deposits also may qualify as Site Class C. Sites with relatively stiff cohesive or medium dense non-cohesive soils, including mixtures of clays, silts, and sands, are categorized as Site Class D. Site Class D is the most common site class throughout the United States. Sites along rivers or other waterways underlain by deep soft clay deposits are categorized as Site Class E. Sites where soils are subject to liquefaction or other ground instabilities are categorized as Site Class F and site-specific analyses are required.

Based on the types of soils present at the boring locations at this property, and their apparent engineering properties, Site Class D is assigned to the site, as defined in the International Building Code (2015) Section 1613.

### Floor Slab Support

The expected final subgrade soils should be suitable for support of concrete floor slabs. However, the floor slab areas should be proof-rolled and soft areas removed or improved prior to the placement of base course materials. An average subgrade modulus value of 150 pounds per cubic inch (pci) is appropriate.

### Below-grade Walls

A coefficient of friction of 0.35 may be used with dead load forces for wall footings that bear on suitable (as defined in the geotechnical report) native soils or engineered fill.

The lateral earth pressure value ranges presented below assume that the walls are vertical, that a clean, free-draining granular fill (P200 <6%) is used as backfill within 2 feet behind the wall, the backfill condition at the ground surface is level, and that adequate drainage is provided to prevent the buildup of hydrostatic pressures.

<b>Retaining Wall Design Parameters</b>	
Soil Unit Weight	140 pcf
Angle of Internal Friction	35°
Soil Cohesion	0 psf
<b>Earth Pressure Coefficient</b>	
At Rest Design Parameters	0.46
Active Design Parameters	0.30
Passive Design Parameters	3.35

We recommend using a minimum safety factor of 2.0 in passive earth pressure calculations, ignoring the upper 2 feet of soil in frost protected areas and 4 feet of soil in other areas. For walls that are free to rotate at least 0.001 times the height of the wall, such as a temporary earth retention system and retaining walls, an active earth pressure condition will develop. For walls that will be restrained, such as permanent below-grade walls, an at-rest condition will develop. For walls that rotate towards the soil, a passive condition will develop. Below-grade and retaining wall design should also consider surface and subgrade surcharge loading.

Special attention should be employed during placement of backfill against below-grade and retaining walls. Inadequate placement and compaction of backfill will result in at-grade structural elements and slab/pavement settlement and distress. To achieve a balance between minimizing excessive pressures against the walls during construction and reducing the settlement of the wall backfill, the granular backfill should be compacted to at least 90 percent of the maximum dry density obtained in accordance with ASTM Specification D1557, Modified Proctor Method. Where backfill supports structural elements, sidewalks, or pavements, the upper 4 feet should be compacted to 95% of the maximum dry density (Modified Proctor). Lifts of 4 to 6 inches can be effective in achieving compaction requirements.

Drainage should be provided behind below-grade walls to prevent the buildup of hydrostatic pressures. We recommend that free-draining granular drainage aggregate be placed within 2 feet behind the back face of the walls.

A relatively impermeable barrier at the ground surface is recommended, such as a minimum 2-foot-thick clay cap or Bituminous or Portland cement concrete (i.e., walkways and drives) to minimize surface water infiltration into backfill against walls. The impermeable barrier should slope away from the structure at a minimum 2 percent grade.

#### Engineered Fill, Wall, and Utility Trench Backfill

The on-site soil and materials (if processed properly) can be reused as engineered fill. All engineered fill, wall, and utility trench backfill should consist of inorganic materials,

free of debris, not exceed 3 inches in size, and should be placed in 8 to 10-inch loose lifts compacted to a minimum of 95 percent of the maximum dry density (Modified Proctor). If the engineered fills are less than 7 feet in thickness, they should be moisture conditioned to be within +/- 3% of the optimum moisture content. Where engineered fills exceed 7 feet, they should be moisture conditioned to be at the optimum moisture to + 3% above.

Pavement Design

The Wisconsin Asphalt Pavement Association (WAPA) Design Guide should be utilized to design the new asphalt surface parking areas. Traffic Class I was assumed for parking areas that are mainly used by light passenger vehicles and Traffic Class II for medium-loaded drive areas.

The minimum pavement section should consist of the following:

<b>Material</b>	<b>Traffic Class I</b>	<b>Traffic Class II</b>	<b>WisDOT Specification</b>
Asphalt Surface Course	2 inches	2 inches	Section 460
Asphalt Binder Course	2 inches	2.5 inches	Section 460
Dense Graded Base Course	8 inches	10 inches	Section 305

The pavement sections above are not intended to support on-going construction traffic. Also, the pavement sections presented above should not be used for areas that experience heavy truck traffic, equipment or truck parking areas, entrances and exit aprons, or trash-dumpster loading zones. In these areas, a Portland Cement Concrete (PCC) pavement should be used. The PCC layer thickness is recommended to be 7 inches with a minimum of 6-inch-thick crushed stone base course. The reinforcement details for PCC layers and final pavement section should be designed by the project design engineer.

These recommendations assume the subgrade is prepared as described in this report. Additional corrective action may be warranted at the time of construction, depending on the site conditions. If any clay or silt soils exist in pavement areas, it may be beneficial to install a geotextile fabric (e.g., GEOTEX 315) as a separating layer between such a subgrade and the base course after the subgrade has been evaluated by proof-roll testing.

Stormwater Management

Three stormwater management devices are proposed for the development. Based on the soil descriptions at two of those areas (TP-6 and TP-9), the prevailing soils were classified as “Coarse Sand and Gravel”. Consequently, the devices would be exempt from the Wisconsin Department of Natural Resources (WDNR) infiltration requirements. The estimated static infiltration rate based on the Standard 1002 – Table 2 would be 3.60 inches per hour (in/hr).

### Bluff Stability

The prevailing soil type making up the perimeter bluffs is described as sand and gravel that meet the OSHA definition for Type C. Some soils meet the Type B description, but they are not consistent. Therefore, the bluffs should be designed for minimum slopes of 1.5h:1v for safety and stability.

### Construction Considerations

Because of the presence of undocumented fill on the property, extra caution should be exercised during construction. All poor soil/fills should be stripped from structural and engineered fill areas prior to any construction activities. Additional effort should also be taken to identify the former UST cavities, which were likely backfilled with soils that are not suitable for the support of engineered fill and structural elements. The exposed subgrade soils and all engineered fills should be observed, tested, and documented by a representative of the geotechnical engineer. Large structural areas, such as building footprints and beneath engineered fill and pavements, should be proof-rolled to identify low-strength or disturbed areas that need to be removed or improved.

Footing excavations and all engineered fill subgrade soils should be evaluated to confirm the bearing materials are consistent with those identified in this report and anticipated by the geotechnical and structural engineers. If unanticipated conditions are encountered, the geotechnical and structural engineers should be notified immediately. All footing pads must bear upon suitable native soils or engineered fill soils that have been confirmed in the field by a representative of the geotechnical engineer. Where unsuitable bearing soils, such as organic, disturbed, wet, frozen, or low-strength (less than the design bearing capacity) soils are encountered, the excavation should be extended to competent bearing soil. If extended, the footing pads can be constructed at the base of the excavations, or the excavations can be backfilled with clean, crushed stone or lean concrete.

Buried structural elements from past developments exist. Therefore, efforts should be taken during site grading to identify all existing structural elements and undocumented fills. Existing foundations should be removed to a depth of at least 4 feet below proposed foundations. Existing concrete slabs below a depth of 4 feet should be removed or broken into minimum 1-foot pieces to avoid water pooling. Utilities may also exist that could require abandonment.

It is unlikely that excavations will encounter groundwater. However, if any do or if perched water is encountered, filtered sump pumps and drawing water from sump pits should be adequate to remove water that collects in excavations. Excavated sump pits should be lined with a geotextile and filled with open-graded, free-draining aggregate.

Surface water should not be allowed to be collected in excavations or on prepared subgrades during or after construction. Areas should be sloped to facilitate removal of

collected surface runoff. Positive site drainage should be provided to reduce infiltration of surface water around the perimeter of structures and within pavement areas.

Excavation walls may need to be sloped or braced for stability and safety reasons. The Owner and Contractor should be aware of, and become familiar with, applicable local, state, and federal safety regulations, including current OSHA Excavation and Trench Safety Standards. Construction-site safety generally is the responsibility of the Contractor, who should also be responsible for the means, methods, and sequencing of construction operations.

The Contractor should be aware that slope height, slope inclination, or excavation depths should in no case exceed those specified in local, state, or federal safety regulations, (e.g., OSHA Health and Safety Standards for Excavations, 29 CFR Part 1926), or successor regulations. The on-site soils are generally considered Type C soils when applying the OSHA regulations. Such regulations are strictly enforced, and if they are not followed, the Owner, Contractor, and/or earthwork Subcontractor(s) could be liable for substantial penalties.

### **General Qualifications**

The services provided by GeoTest on this project were performed with the degree of skill and care typically performed by other members of the geotechnical engineering profession, practicing in this locale, at this time. No other warranty, expressed or implied, is given.

We appreciate the opportunity to provide geotechnical engineering services for this project. If you have any questions, or require any further assistance, please feel free to contact us.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael D. Frede".

Michael D. Frede, P.E.  
Technical Director/Senior Engineer



## Appendix A

Figure 1 – Site Location Diagram

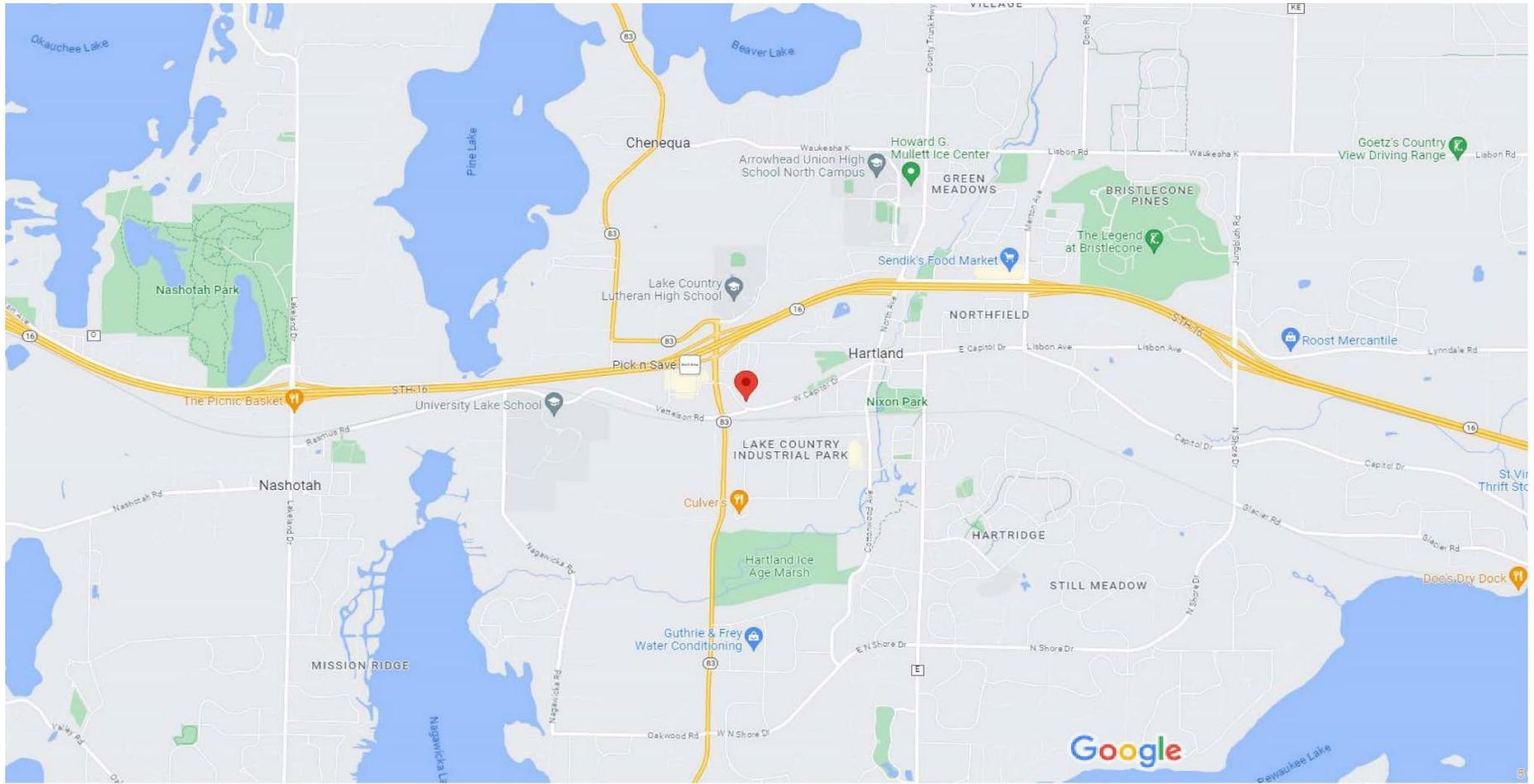
Figure 2 – Property Boundary Diagram

Figure 3 – Proposed Development Diagram

Figure 4 – Geotechnical Areas of Interest Diagram

Figure 5 – Sampling Location Diagram





Map data ©2023 Google 2000 ft



**Project Name:** Hartland Quarry Apartments  
**Project Location:** 700/701 W. Capitol Drive  
Hartland, Wisconsin  
Waukesha County

**Project No.:** 7708  
**Date:** 4/29/23  
**Drawn By:** MDF  
**Scale:** NTS

**FIGURE 1**  
**Site Location**  
**Diagram**



Legend

- Municipal Boundary\_2K
- Parcel\_Dimension\_2K
- Note\_Text\_2K
- Lots\_2K
  - Lot
  - Unit
  - General Common Element
  - Or lot
- Simultaneous Conveyance
  - Assessor Plat
  - CS#
  - Condominium
  - Subdivision
- Cartline\_2K
  - EA-Easement\_Line
  - PL-DA
  - PL-Excluded\_Tk\_Line
  - PL-Meandere\_Line
  - PL-Note
  - PL-Tk
  - PL-Tk\_Line
  - <all other utilities>
- Railroad\_2K



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Notes:

Printed: 2/14/2023



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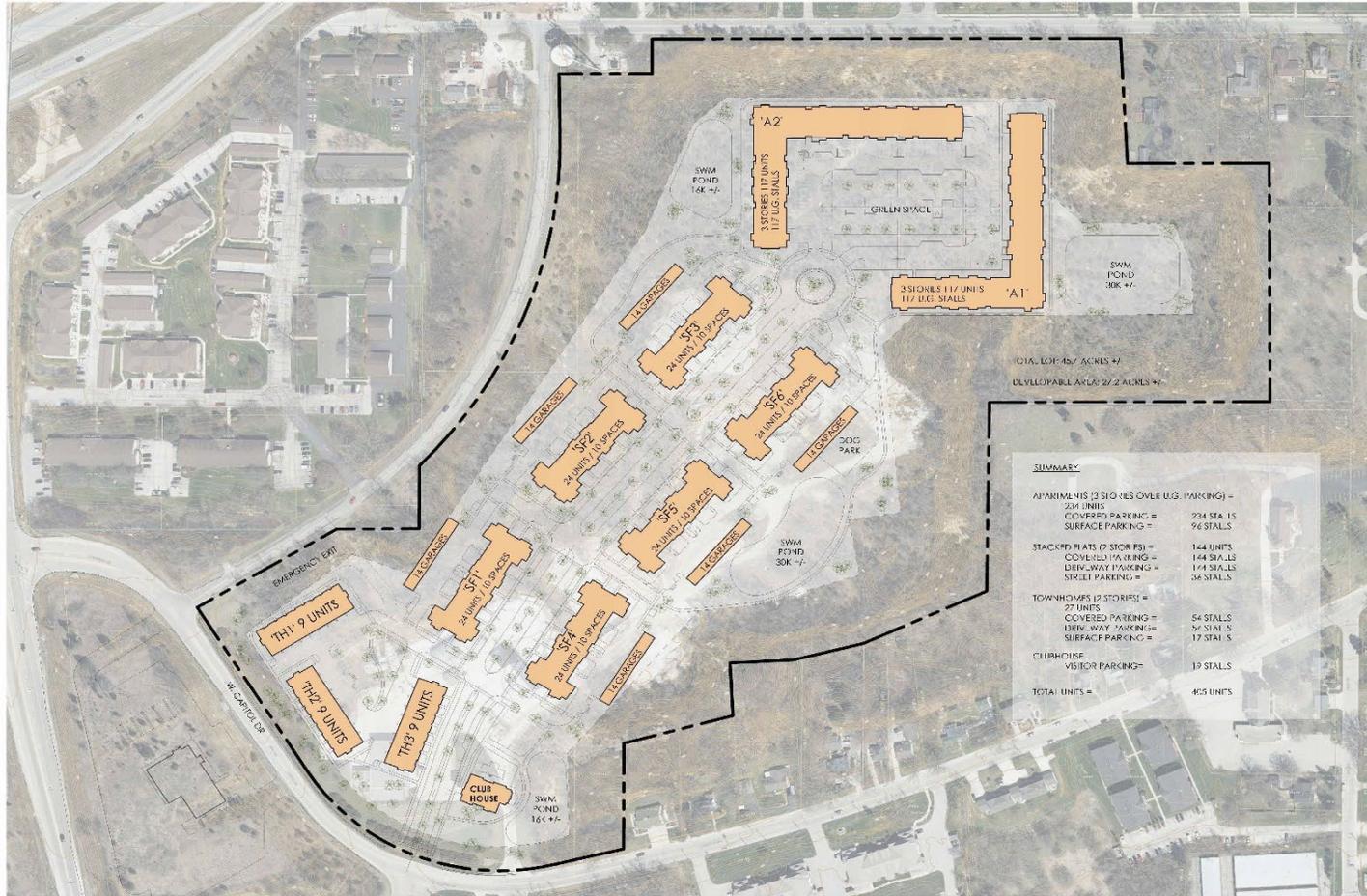
**FIGURE 2**  
**Property Boundary**  
**Diagram**



**JLA**  
ARCHITECTS  
MADISON | MILWAUKEE | DENVER  
JLA-AP.COM

JLA PROJECT NUMBER: 22-013

**HARTLAND QUARRY APARTMENTS**  
Plan Commission Submittal



ARCHITECTURAL SITE PLAN  
1" = 100'

**PROGRESS DOCUMENTS**

These documents reflect progress and in final form may be subject to change, including modifications. Use at the user's own risk. Copies without date and title should not be used for final bidding or construction related purposes.

DATE OF ISSUE: 04/11/2024

REVISION SCHEDULE

NO. | DESCRIPTION | DATE

SHEET TITLE

ARCHITECTURAL SITE LAYOUT PLAN

SHEET NUMBER

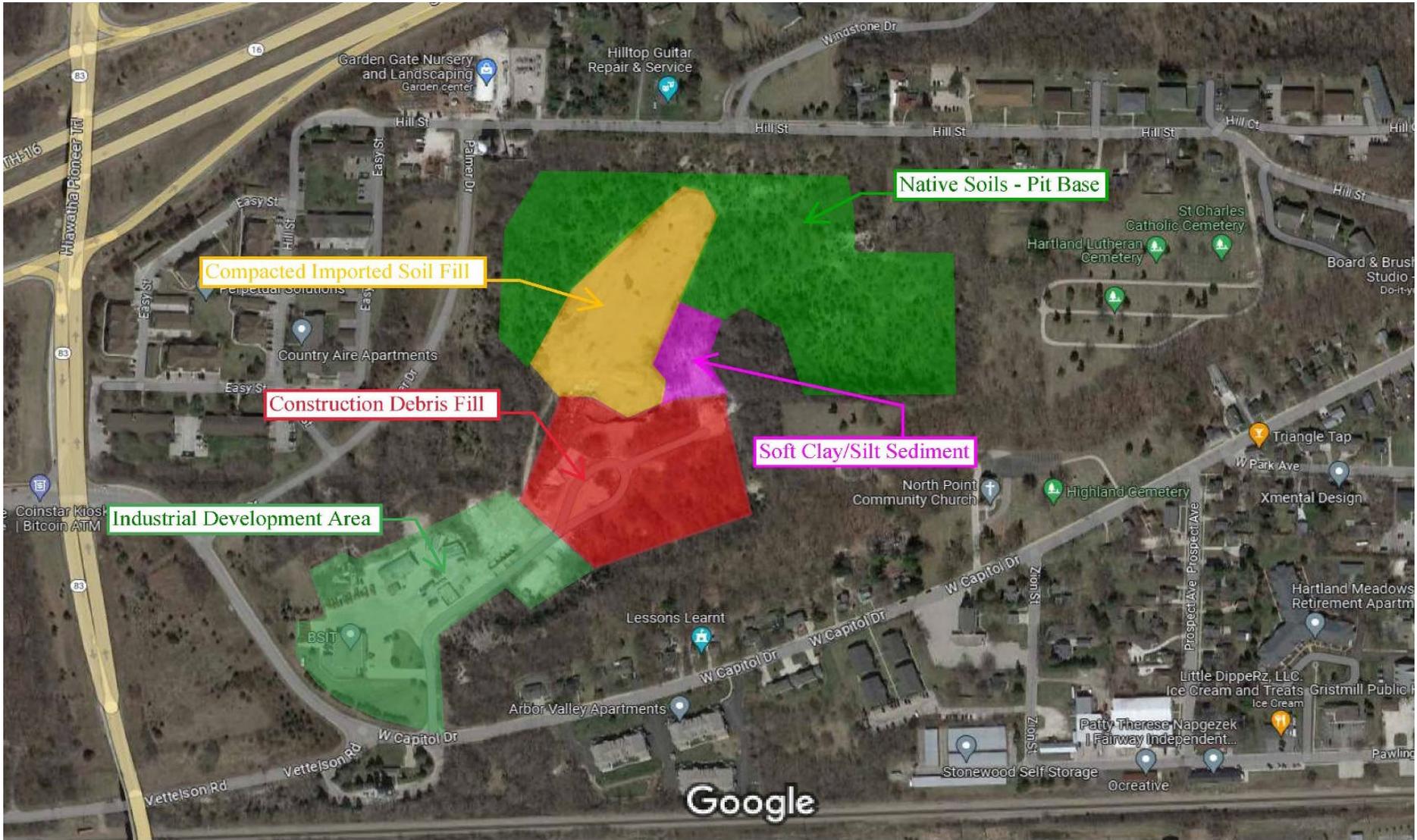
ASP-100



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Waukesha County

**Project No.:** 7708  
**Date:** 4/29/23  
**Drawn By:** MDF  
**Scale:** NTS

**FIGURE 3**  
**Proposed**  
**Development**  
**Diagram**



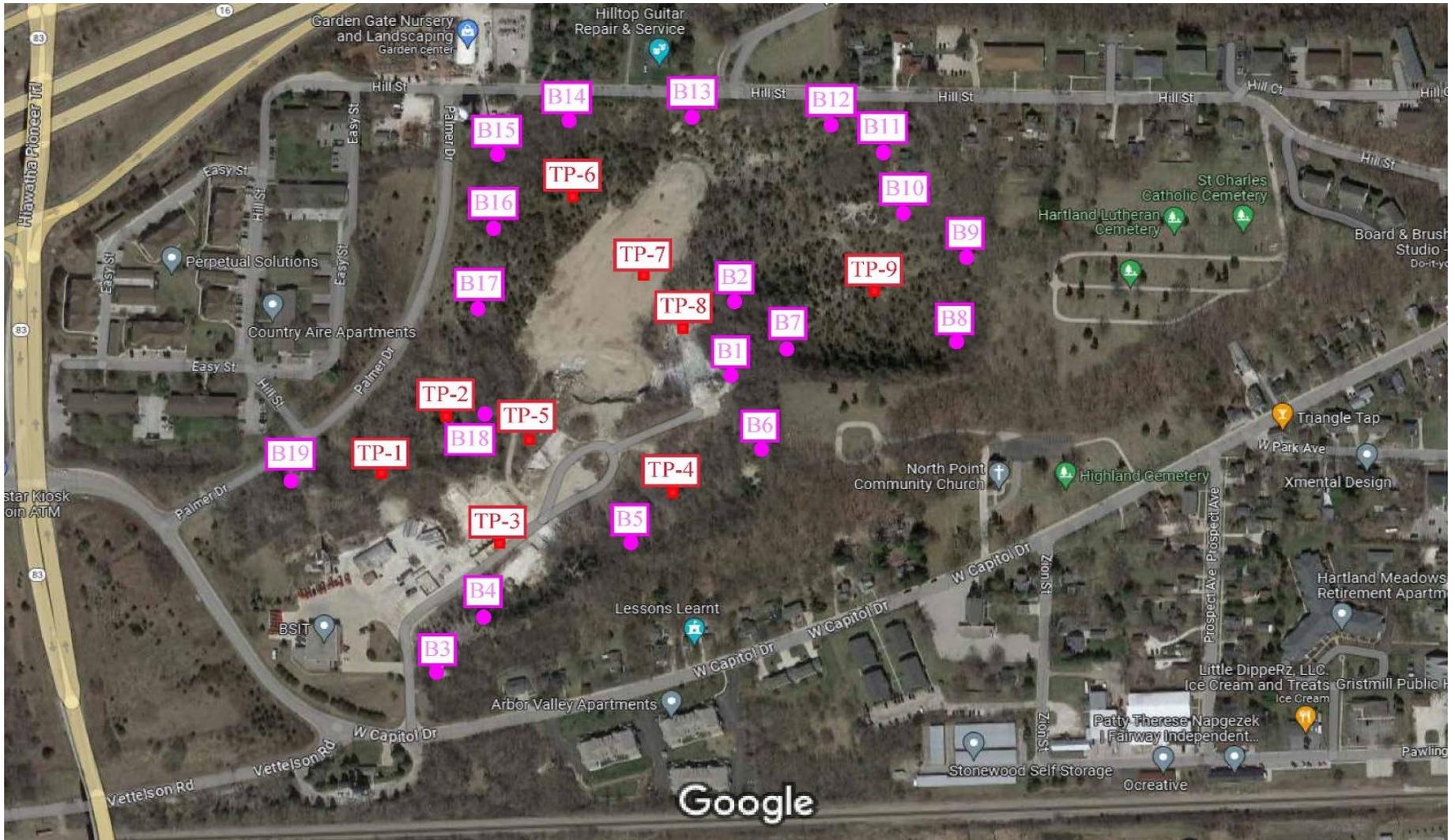
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**Scale:** NTS

**FIGURE 4**  
**Geotechnical Areas**  
**of Interest Diagram**



- Test Pit Locations
- Bluff Samples

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**Date:** 4/29/23  
**Drawn By:** MDF  
**Scale:** NTS

**FIGURE 5**  
**Sampling Location**  
**Diagram**



## Appendix B

### Well Logs

- 8KM754\_WCR
- 8KM755\_WCR
- 8KM756\_WCR
- 8NM185\_WCR
- 8NN038\_WCR
- IJ288\_WCR

### Drake Environmental Geologic Information

- Diagrams
- Boring Logs

### Gestra Laboratory Reports

- Proctor Analysis (D1557)
- Field Density Testing

### Walbec Test Pit Survey Diagrams

- Test Pits 1 through 5
- Test Pits 6 through 9



WELL CONSTRUCTOR'S REPORT

WISCONSIN STATE BOARD OF HEALTH

Wel 6

1. COUNTY Waushara CHECK ONE  Town  Village  City NAME DeLafield

2. LOCATION (Number and Street or 1/4 section, section, township and range. Also give subdivision name, lot and block numbers when available) N 1/4 Sec 3 T 7 N R 18 E. RECEIVED

3. OWNER AT TIME OF DRILLING Robert Steinman JUN 24 1966

4. OWNER'S COMPLETE MAIL ADDRESS Hill St Hartland Wisc

5. Distance in feet from well to nearest: (Record answer in appropriate block)

BUILDING	SANITARY SEWER	FLOOR DRAIN	FOUNDATION DRAIN	LINE WATER DRAIN
	C. I.	TILE	C. I.	TILE
			SEWER CONNECTED	INDEPENDENT
			C. I.	TILE

CLEAR WATER DRAIN	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILO	ABANDONED WELL	SINK HOLE
C. I.	TILE							
			60	75				

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

6. Well is intended to supply water for: Home Service Station

7. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
6"	Surface	268			

10. FORMATIONS

Kind	From (ft.)	To (ft.)
Sand & gravel Brown	Surface	120
Gray sand & gravel	120	170
Clay & sand	170	233
Sand & gravel	233	268

8. CASING, LINER, CURBING, AND SCREEN

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6"	standard steel	Surface	268

9. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
Surface		



11. MISCELLANEOUS DATA

Yield test: 12 Hrs. at 12 GPM

Depth from surface to normal water level 120 ft.

Depth to water level when pumping 130 ft.

Well construction completed on May 11 1966

Well is terminated 8 inches  above  below final grade

Well disinfected upon completion  Yes  No

Well sealed watertight upon completion  Yes  No

Water sample sent to Madison laboratory on: May 11 1966

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumphouses, access pits, etc., should be given on reverse side.

SIGNATURE [Signature] Registered Well Driller COMPLETE MAIL ADDRESS Hartland Wisc

Please do not write in space below

COLIFORM TEST RESULT	GAS - 24 HRS.	GAS - 48 HRS.	CONFIRMED	REMARKS
				plot 752104

1. COUNTY Waushara CHECK ONE  Town  Village  City NAME Delafield

2. LOCATION (Number and Street or 1/4 section, section, township and range. Also give subdivision name, lot and block numbers when available.)  
Hartland HY 16 & Hill St T1N R18 E NW 1/4 Sec 3

3. OWNER AT TIME OF DRILLING Bob Steinman

4. OWNER'S COMPLETE MAIL ADDRESS Hartland Wisc

RECEIVED

5. Distance in feet from well to nearest: (Record answer in appropriate block)

BUILDING	SANITARY SEWER	FLOOR DRAIN	FOUNDATION DRAIN	WASTE WATER DRAIN
C. I.	TILE	C. I.	SEWER CONNECTED	INDEPENDENT
10				11/1/1966

CLEAR WATER DRAIN	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILO	ABANDONED WELL	SINK
C. I.	TILE							SECRET
	60		70					ENCLOSURE

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

6. Well is intended to supply water for: Service Station

7. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
6	Surface	268			

10. FORMATIONS

Kind	From (ft.)	To (ft.)
Surface		
Sand & gravel	-	120
Down sand & gravel	120	140
Gray sand & gravel	140	170
Gray clay & sand	170	185
Brown sand	185	225
Gray sand & clay	225	233
Brown sand & gravel	233	268

8. CASING, LINER, CURBING, AND SCREEN

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6	Standard steel	Surface	268

9. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
Surface		



Well construction completed on April 13 1966

Well is terminated 6 inches  above  below final grade

Well disinfected upon completion  Yes  No

Well sealed watertight upon completion  Yes  No

11. MISCELLANEOUS DATA

Yield test: 6 Hrs. at 20 GPM

Depth from surface to normal water level 104 ft.

Depth to water level when pumping 120 ft.

Water sample sent to Madison laboratory on: April 13 1966

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumphouses, access pits, etc., should be given on reverse side.

SIGNATURE [Signature] Registered Well Driller COMPLETE MAIL ADDRESS Hartland Wisc

Please do not write in space below

COLIFORM TEST RESULT	GAS - 24 HRS.	GAS - 48 HRS.	CONFIRMED	REMARKS
				plot 762103

NW, Sec 3 T7N R18E

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH  
See Instructions on Reverse Side

1. County Waubesa Town  Hartland  
Village   
City  Check one and give name

2. Location SW 1/4 NW 1/4 Sec 3 T7N R18E  
Name of street and number of premise or Section, Town and Range numbers

3. Owner  or Agent  Hartland Washed Sand & Gravel  
Name of individual, partnership or firm

4. Mail Address Hartland  
Complete address required

5. From well to nearest: Building 10 ft; sewer — ft; drain — ft; septic tank — ft;  
dry well or filter bed — ft; abandoned well — ft.

6. Well is intended to supply water for: Office

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
6	0	77			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6	Std Steel	0	78'5"

9. GROUT:

Kind	From (ft.)	To (ft.)

11. MISCELLANEOUS DATA:

Yield test: 3 Hrs. at 10 GPM.  
Depth from surface to water-level: 55 ft.  
Water-level when pumping: 58 ft.  
Water sample was sent to the state laboratory at:  
Madison on 19  
City

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
Gravel	0	77

RECEIVED  
NOV 2 1950  
F.N.V.

Construction of the well was completed on:  
Jan 6 1950

The well is terminated — inches  
 above, below  the permanent ground surface.

Was the well disinfected upon completion?  
Yes  No

Was the well sealed watertight upon completion?  
Yes  No

H. A. BUTLER  
WELL CONTRACTOR

Signature \_\_\_\_\_ Registered Well Driller DELAFIELD, WIS. Complete Mail Address \_\_\_\_\_  
Please do not write in space below

Rec'd \_\_\_\_\_ No. \_\_\_\_\_  
Ans'd \_\_\_\_\_  
Interpretation \_\_\_\_\_



10 ml 10 ml 10 ml 10 ml 10 ml  
Gas—24 hrs. \_\_\_\_\_  
48 hrs. \_\_\_\_\_  
Confirm \_\_\_\_\_  
B. Coli \_\_\_\_\_

Examiner \_\_\_\_\_

1. COUNTY Waukesha CHECK ONE  Town  Village  City NAME Delafield

2. LOCATION (Number and Street or 1/4 section, section, township and range. Also give subdivision name, lot and block numbers when available.)  
 SW, NW, NW 1/4 Section 3 T 7N R 18 E PER APPROVAL LETTER Sw, NW, NW, Sec 3

3. OWNER AT TIME OF DRILLING Hegas Construction Co. (W.F. Hegas + Linda D. Hegas, Owners)

4. OWNER'S COMPLETE MAIL ADDRESS Route #1, Box #63, Delafield, Wis

5. Distance in feet from well to nearest:  
 BUILDING C.I. SANITARY SEWER TILE C.I. TILE FLOOR DRAIN C.I. TILE FOUNDATION DRAIN SEWER CONNECTED INDEPENDENT WASTE WATER DRAIN C.I. TILE  
 (Record answer in appropriate block) 18 ✓ ✓ 45 ✓ ✓ ✓ ✓

CLEAR WATER DRAIN C.I. TILE SEPTIC TANK PRIVY SEEPAGE PIT ABSORPTION FIELD BARN SILO ABANDONED WELL SINK HOLE  
 ✓ ✓ 306 ✓ ✓ 330 ✓ ✓ ✓ Perm Well #88024

6. OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)  
None Well #3

7. Well is intended to supply water for:  
2 Apartment Houses Misc #26

9. DRILLHOLE				10. FORMATIONS				
Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)	Kind	From (ft.)	To (ft.)
10	Surface	20				Clay top soil	Surface	8
6	20	120				Gravel	8	104

8. CASING, LINER, CURBING, AND SCREEN			
Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
10	ASTM-A53 Grade B	Surface	20
6	ASTM-A53 Grade B 1.280 P/E welded jts	20	106
6	Silica Brass screen	106	120

7. GROUT OR OTHER SEALING MATERIAL			
Kind	From (ft.)	To (ft.)	
Cement slurry	Surface	20	

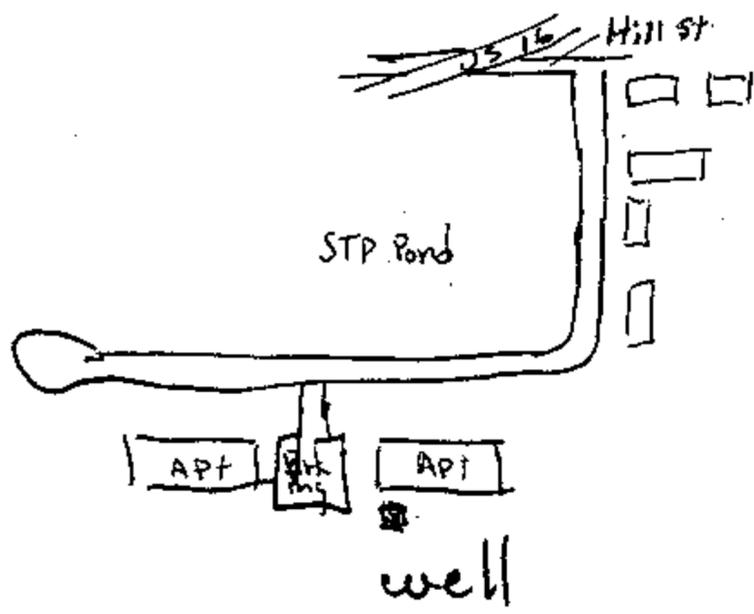
11. MISCELLANEOUS DATA  
 Yield test: 24 Hrs. at 60 GPM Well is terminated 20 inches  above  below final grade  
 Depth from surface to normal water level 87 ft. Well disinfected upon completion  Yes  No  
 Depth to water level when pumping 88'-6" ft. Well sealed watertight upon completion  Yes  No

Water sample sent to Madison laboratory on: 10/26 1968

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE Linda D. Hegas COMPLETE MAIL ADDRESS Rte. 1, Waukesha, Wis.  
Gregg Bollhagen Registered Well Driller

COLIFORM TEST RESULT GAS - 24 HRS. GAS - 48 HRS. CONFIRMED REMARKS  
10 Capacity Well. Approved 12-1-68 SEE OTHER SIDE plot 702105 cc: M.E. Ostrom  
Delafield 12-8-68



8

A/E 934  
 D > 520  
 < 814  
 W - 87  


---

 847 + 10/68  
  
 775  


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 159

**WELL CONSTRUCTOR'S REPORT**  
 Wel-6.

WHITE COPY - DIVISION'S COPY  
 GREEN COPY - DRILLER'S COPY  
 YELLOW COPY - OWNER'S COPY

STATE OF WISCONSIN  
 DEPARTMENT OF NATURAL RESOURCES  
 Box 450  
 Madison, Wisconsin 53701

1. COUNTY: WAUKESHA CHECK ONE:  Town  Village  City NAME: MERTON

2. LOCATION (Number and Street or 1/4 section, section, township and range. Also give subdivision name, lot and block numbers when available.)  
N. 48 W. 30756 HILL ST. TOWN OF MERTON. T8N R18E

3. OWNER AT TIME OF DRILLING: WAGEN REALTY CO. SE, SE, SW, SW, Sec. 34

4. OWNER'S COMPLETE MAIL ADDRESS: 318 LAKE RD, OCONOMOWOC, WIS.

5. Distance in feet from well to nearest: (Record answer in appropriate block)

BUILDING	SANITARY SEWER		FLOOR DRAIN		FOUNDATION DRAIN		WASTE WATER DRAIN	
	C. I.	TILE	C. I.	TILE	SEWER CONNECTED	INDEPENDENT	C. I.	TILE
8	40	-	60	-	-	-	45	-

CLEAR WATER DRAIN	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILO	ABANDONED WELL	SINK HOLE
-	-	70	-	95	-	-	-	-

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

6. Well is intended to supply water for: FURNITURE STORE

7. DRILLHOLE						10. FORMATIONS			
Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)	Kind	From (ft.)	To (ft.)	
<del>6</del>	Surface		UNKNOWN			UNKNOWN	Surface	126	
	Redrill					SAND	126	160	

8. CASING, LINER, CURBING, AND SCREEN			
Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6	NEW BLK. STEEL	Surface	134
	T&C . 0.280		
6	UNKNOWN	134	260

9. GROUT OR OTHER SEALING MATERIAL		
Kind	From (ft.)	To (ft.)
UNKNOWN	Surface	<del>134</del>



11. MISCELLANEOUS DATA

Yield test: 8 Hrs. at 10 GPM

Well construction completed on Aug 29 1974

Well is terminated 8 inches  above  below final grade

Depth from surface to normal water level 135 ft. Well disinfected upon completion  Yes  No

Depth to water level when pumping 135 ft. Well sealed watertight upon completion  Yes  No

Water sample sent to Madison, WIS. laboratory on: Sept 16 1974

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumphrooms, access pits, etc., should be given on reverse side.

SIGNATURE: Dennis Hartman Registered Well Driller COMPLETE MAIL ADDRESS: 5100 N. 56 ST. MILWAUKEE, WIS.

COLIFORM TEST RESULT: See letter driller's file GAS - 24 HRS. GAS - 48 HRS. CONFIRMED: 9/29/74 REMARKS: plot 782049

SEP 17 1974 OCT 2 1974

WELL CONSTRUCTOR'S REPORT  
FORM 3300-15

STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES  
Box 450  
Madison, Wisconsin 53701

NOTE  
WHITE COPY - DIVISION'S COPY  
GREEN COPY - DRILLER'S COPY  
YELLOW COPY - OWNER'S COPY

1. COUNTY WAUKESHA CHECK ONE  Town  Village  City NAME MERTON

2. LOCATION - 1/4 Section Section Township Range  
SE, SE, SW SW 34 8N 18E  
OR - Grid or street no. Street name  
N. 48 W 30756 HILL ST  
AND - If available subdivision name, lot & block no.  
SE, SE, SW, SW Sec 34

3. OWNER AT TIME OF DRILLING  
WASEN REALTY CO.  
ADDRESS  
318 LAKE RD.  
POST OFFICE  
DEONOMOUC, WIS

4. Distance in feet from well to nearest:  
(Record answer in appropriate block)

BUILDING	SANITARY SEWER	FLOOR DRAIN	FOUNDATION DRAIN	WASTE WATER DRAIN
C.I.	C.I.	C.I.	SEWER CONNECTED	C.I.
TILE	TILE	TILE	INDEPENDENT	TILE
<u>8</u>	<u>40</u>	<u>60</u>	<u>-</u>	<u>45</u>

CLEAR WATER DRAIN	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILLO	ABANDONED WELL	SINK HOLE
C.I.	TILE							
<u>-</u>	<u>-</u>	<u>70</u>	<u>-</u>	<u>95</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

5. Well is intended to supply water for: STORE FURNITURE

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
	Surface	<u>REDRILL</u>			

7. CASING, LINER, CURBING, AND SCREEN

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
<u>6</u>	<u>UNKNOWN</u>	Surface	<u>126</u>
<u>6" New, Steel, BLK, TFC</u>	<u>0.280</u>	<u>126</u>	<u>260</u>

9. FORMATIONS

Kind	From (ft.)	To (ft.)
<u>UNKNOWN</u>	Surface	<u>126</u>
<u>SAND</u>	<u>126</u>	<u>160</u>
<u>HARD PAW</u>	<u>160</u>	<u>205</u>
<u>GRAVEL</u>	<u>205</u>	<u>260</u>

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
<u>X</u>	Surface	<u>X</u>

10. TYPE OF DRILLING MACHINE USED

<input checked="" type="checkbox"/> Cable Tool	<input type="checkbox"/> Direct Rotary	<input type="checkbox"/> Reverse Rotary
<input type="checkbox"/> Rotary - air w/drilling mud	<input type="checkbox"/> Rotary - hammer with drilling mud & air	<input type="checkbox"/> Jetting with Air <input type="checkbox"/> Water

Well construction completed on aug 29 1974

11. MISCELLANEOUS DATA

Yield test: 8 Hrs. at 10 GPM

Depth from surface to normal water level 135 ft.

Depth to water level when pumping 135 ft.

Well is terminated 8 inches  above  below final grade

Well disinfected upon completion  Yes  No

Well sealed watertight upon completion  Yes  No

Water sample sent to Madison, Wis laboratory on: Sept 16 1974

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE Henry Hartman Registered Well Driller COMPLETE MAIL ADDRESS 5100 N. 56 St. Milwaukee, Wis

COLIFORM TEST RESULT WK 31760-2 REV. 3-71

GAS - 24 HRS.	GAS - 48 HRS.	CONFIRMED	REMARKS
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<b>Well Construction Report</b> <b>WISCONSIN UNIQUE WELL NUMBER</b>				<b>IJ288</b>		<b>Drinking Water and Groundwater - DG/5</b> Department of Natural Resources, Box 7921 Madison WI 53707				Form 3300-077A			
Property Owner GARDEN GATE NURSERY					Phone #			<b>1. Well Location</b>			Fire # (if avail.)		
Mailing Address N48 W30756 HILL ST					Town of MERTON			Street Address or Road Name and Number					
City HARTLAND					State WI		Zip Code 53029				N48 W30756 HILL ST		
County Waukesha		Co. Permit #		Notification #		Completed 06-22-1995		Subdivision Name		Lot #	Block #		
Well Constructor (Business Name) MICHAEL HARTMAN				Lic. # 436	Facility ID # (Public Wells)			Latitude / Longitude in Decimal Degree (DD) 43.1059 °N -88.3586 °W		Method Code GCD013			
Address W82 N28280 MARSHALL HARTLAND WI 53029				Well Plan Approval #			SW	SW	Section 34	Township 8 N	Range 18 E		
				Approval Date (mm-dd-yyyy)			or Govt Lot #		2. Well Type Replacement		of previous unique well # constructed in		
Hicap Permanent Well #		Common Well #		Specific Capacity 0.8			Reason for replaced or reconstructed well ? OUT OF WATER						
<b>3. Well serves</b> 1 # of NURSERY				Hicap Well ? No		Non-community		Hicap Property ? No		Heat Exchange ___ # of drillholes			
				Hicap Potable ?		Construction Type Drilled							
<b>4. Potential Contamination Sources - ON REVERSE SIDE</b>													
<b>5. Drillhole Dimensions and Construction Method</b>						<b>8. Geology</b>							
Dia. (in.)	From (ft.)	To (ft.)	Upper Enlarged Drillhole			Lower Open Bedrock			Geology Codes	8. Geology Type, Caving/Noncaving, Color, Hardness, etc...		From (ft.)	To (ft.)
6	Surface	278	Rotary - Mud Circulation .....						C	CLAY		Surface	10
			Rotary - Air .....						Y	SAND @ GRAVEL		10	50
			Rotary - Air & Foam .....						P	HARDPAN		50	90
			Drill-Through Casing Hammer						S	SAND		90	125
			Reverse Rotary						P	HARDPAN		125	145
			Cable-tool Bit ___in. dia...						Y	SAND @ GRAVEL		145	170
			Dual Rotary .....						P	HARDPAN		170	250
			Temp. Outer Casing ___in. dia						Y	SAND @ GRAVEL		250	278
			Removed? ___depth ft. (If NO explain on back side)										
<b>6. Casing, Liner, Screen</b>						<b>9. Static Water Level</b>			<b>11. Well Is</b>				
Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly			From (ft.)	To (ft.)	120 ft. below ground surface			18 in. above grade				
6	0 280 A 53 GRB SAWHILL STEEL WELDED			Surface	278	<b>10. Pump Test</b>			Developed ? Yes				
Dia. (in.)	Screen type, material & slot size			From (ft.)	To (ft.)	Pumping level 180 ft. below surface			Disinfected ? Yes				
						Pumping at 50 GP M for 4 Hrs.			Capped ? Yes				
						Pumping Method ?							
<b>7. Grout or Other Sealing Material</b>						<b>12. Notified Owner of need to fill &amp; seal ?</b>							
Method MOUNDED						Filled & Sealed Well(s) as needed? No							
Kind of Sealing Material		From (ft.)	To (ft.)	# Sacks Cement		PUMP MAN TO DO							
CRUMBLES DRILL		Surface	0			<b>13. Constructor / Supervisory Driller</b>			Lic #	Date Signed			
						MH				06-26-1995			
						Drill Rig Operator			Lic or Reg #	Date Signed			
						MA							

**4a. Potential Contamination Sources**Is the well located in floodplain ? No

Type	Qualifier	Distance	Type	Qualifier	Distance
Building Overhang		9	Collector Sewer - San or Storm		90
			Sewer - Building Sanitary		40

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 10-10-1995

Created by: HFRC LOAD

Updated On: 07-12-2019

Updated by: PARCEL\_MATCH

HILL STREET

U.S. HWY 16

PALMER DRIVE

WEST

LAFARGE - WISCONSIN DIVISION  
PROPERTY

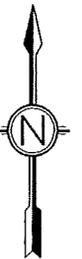
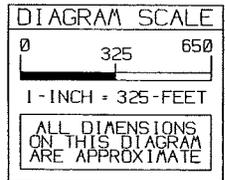
PROPERTY  
BOUNDARY

INVESTIGATION  
AREA

SEE  
FIGURE 3

CAPITOL DRIVE

C. A. S. P. & P. RAILROAD



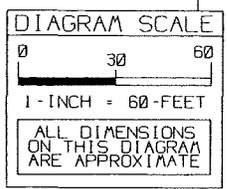
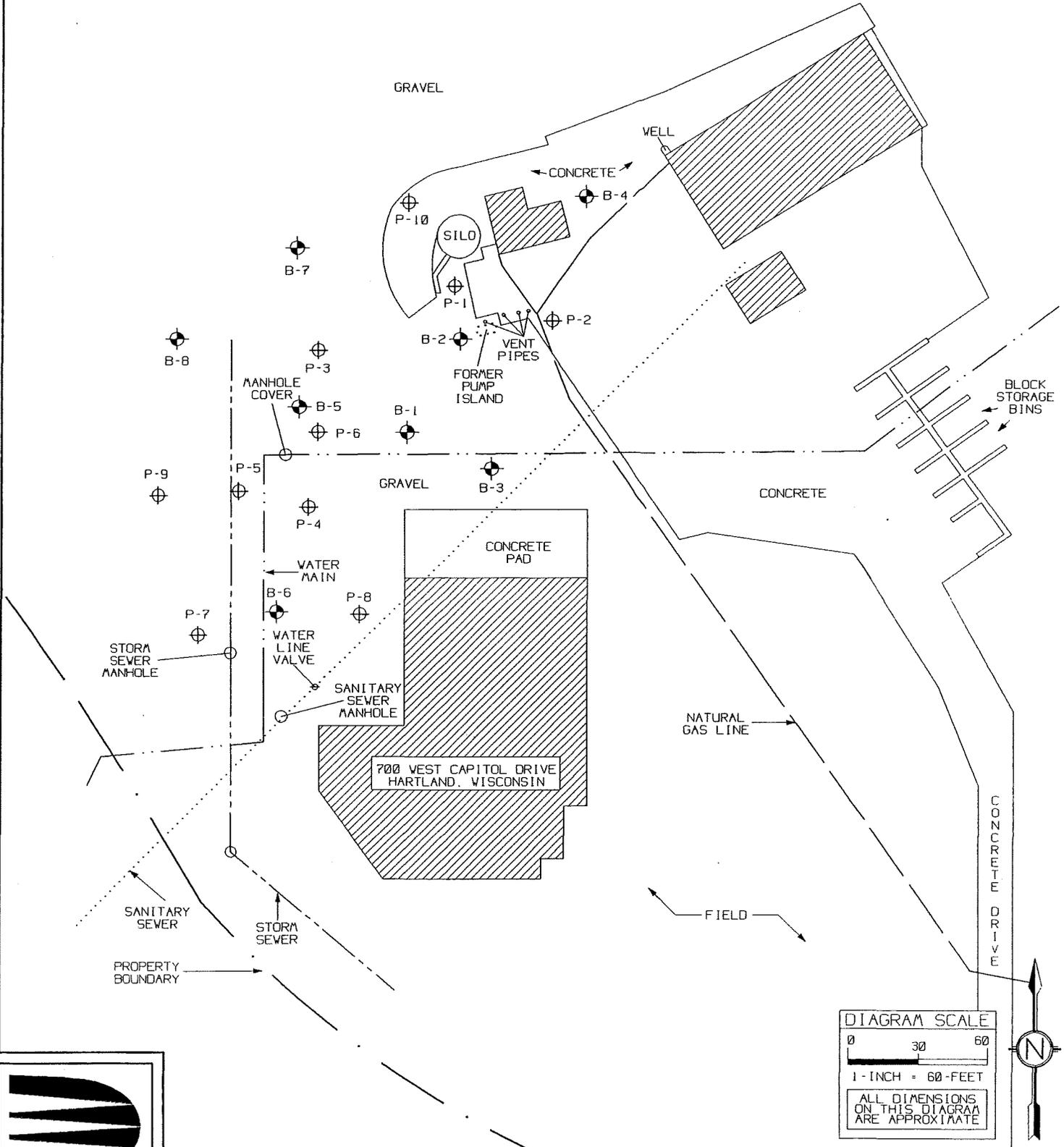
LAFARGE - HARTLAND  
REMEDIAL INVESTIGATION

PROJECT NO. J98109	PA DWF
DRAWN BY JMM DATE: 11/18/98	
CHKD BY <i>DWF</i> DATE: <i>12-2-98</i>	
APRVD BY <i>MT</i>	DATE: <i>7-9-99</i>

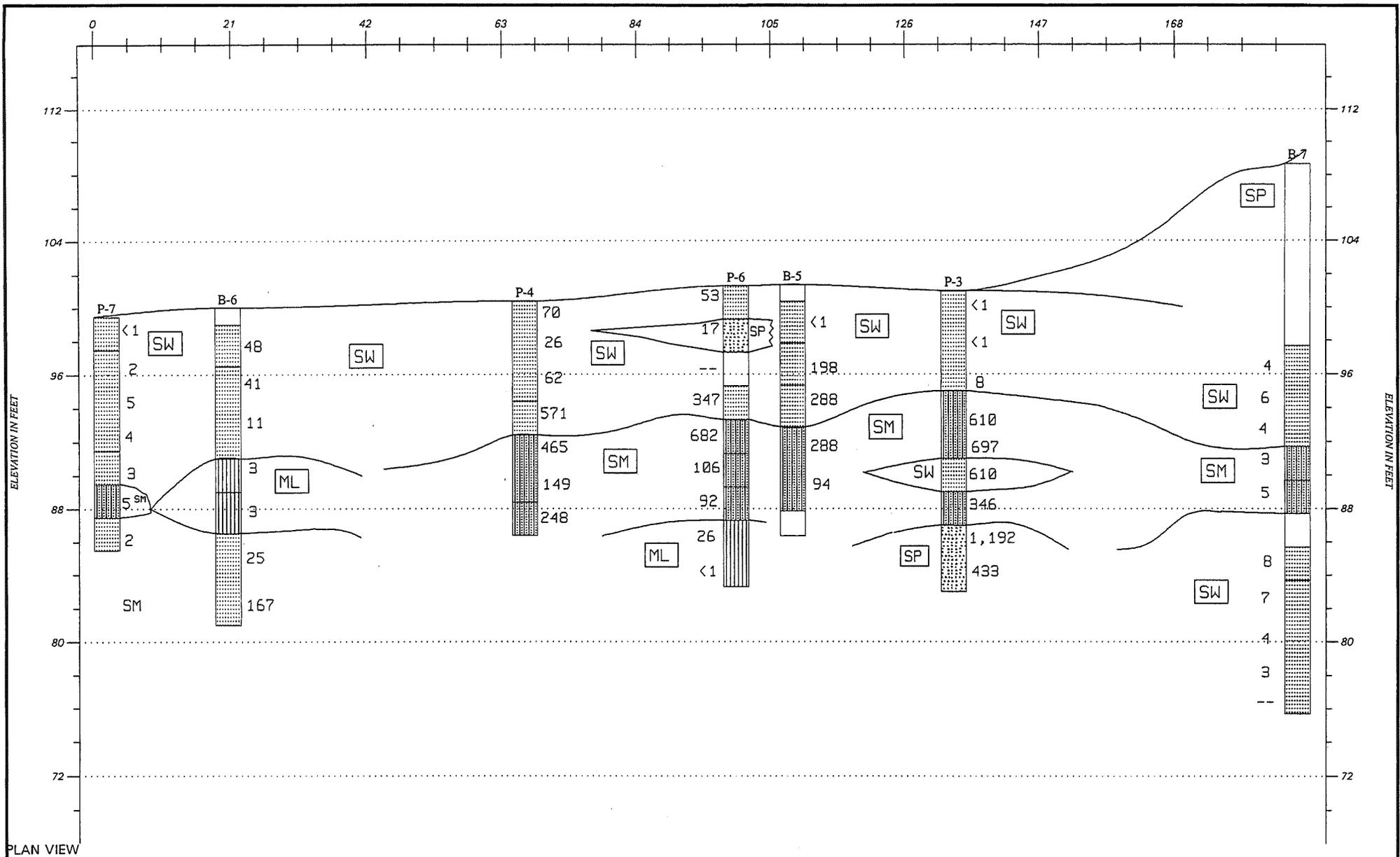
LOCATION  
DIAGRAM

FIGURE
2

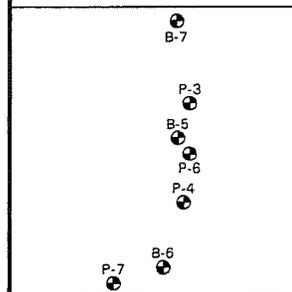
⊕ = PROBEHOLE LOCATION  
 ⊕ = BORING LOCATION



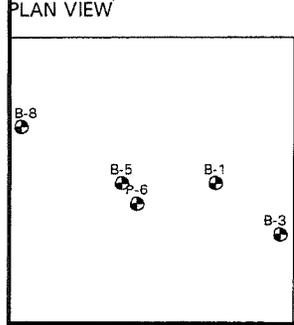
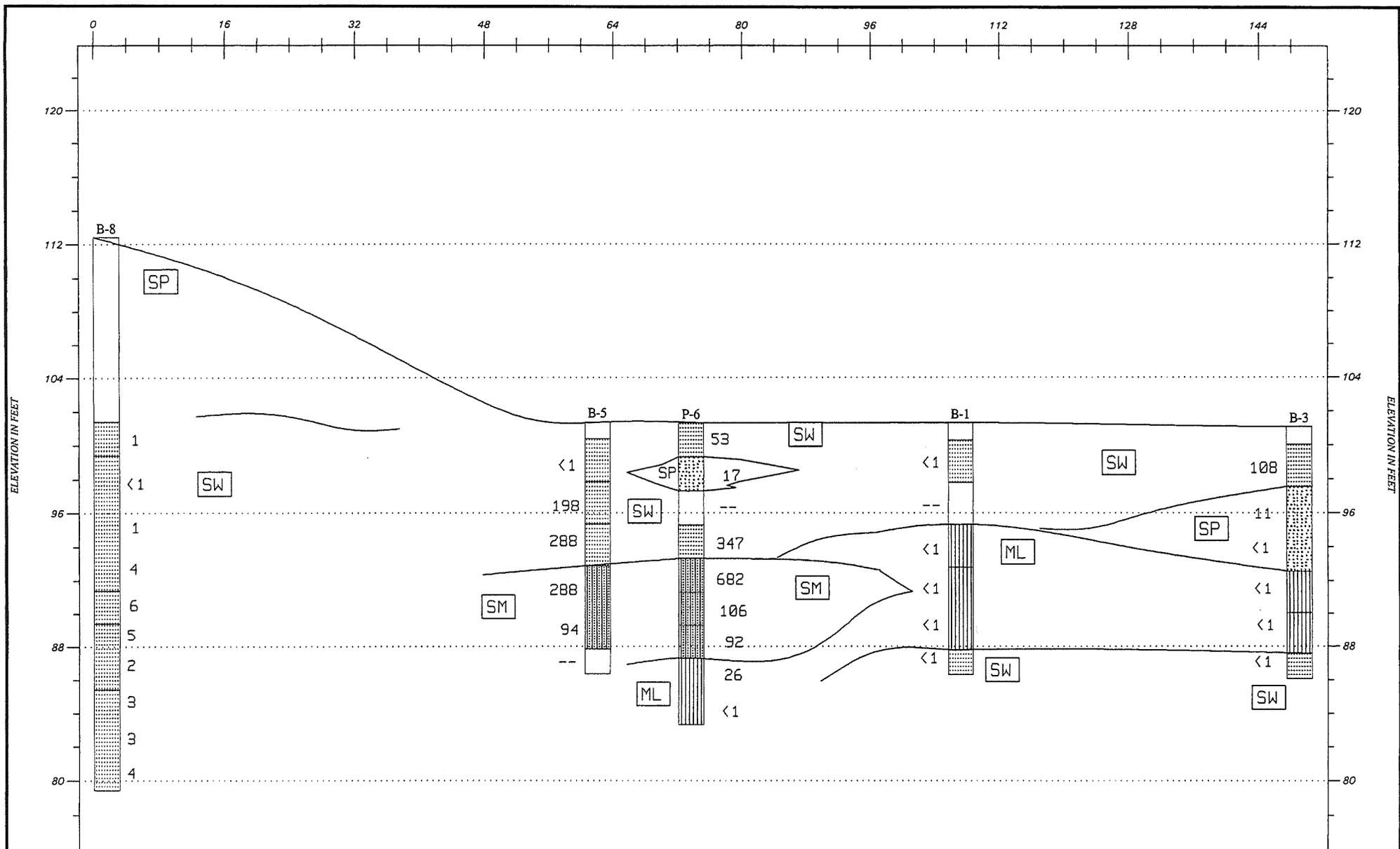
LAFARGE - HARTLAND REMEDIAL INVESTIGATION	PROJECT NO. J98109 PA DVF	PROBEHOLE AND BORING LOCATIONS DIAGRAM	FIGURE
	DRAWN BY JAM DATE: 07/30/99		4
	CHKD BY <i>DVF</i> DATE 7-21-99		
	APRVD BY <i>TLO</i> DATE 9-21-99		



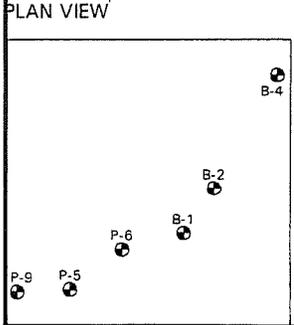
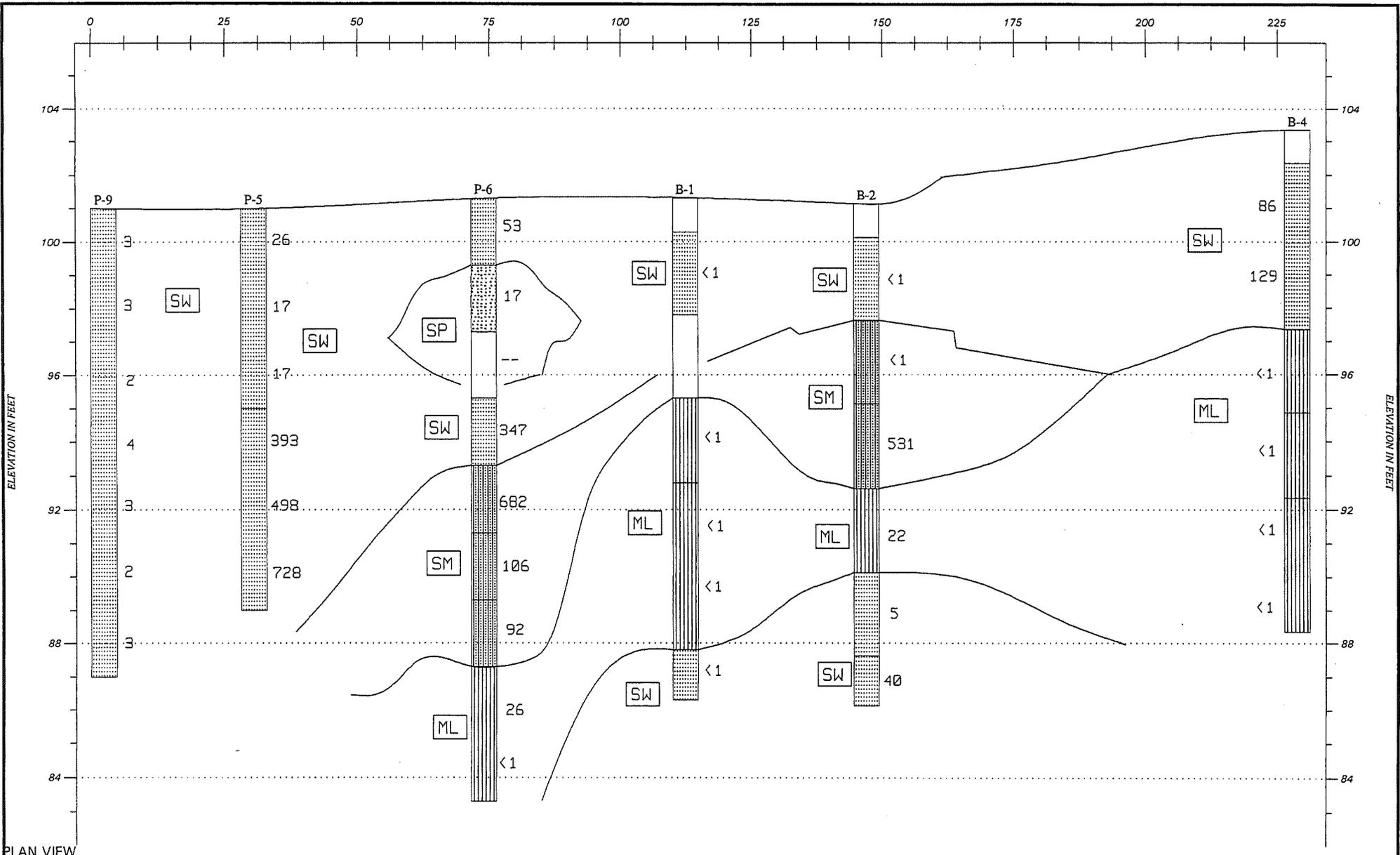
PLAN VIEW



DRAKE ENVIRONMENTAL, INC.		
GEOLOGICAL CROSS SECTION		
HORIZONTAL SCALE: 1" = (proportional)	FIELD TECHNICIAN	DATE DRAWN
VERTICAL SCALE: 1" = 8'	TJO	8/23/1999
LAFARGE - HARTLAND		
PROJECT NUMBER: J98109		FIGURE NUMBER
		6

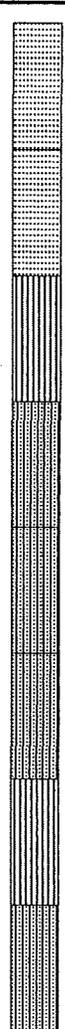


<b>DRAKE ENVIRONMENTAL, INC.</b>		
GEOLOGICAL CROSS SECTION		
HORIZONTAL SCALE: 1"=(proportional)'	FIELD TECHNICIAN	DATE DRAWN
VERTICAL SCALE: 1"=8'	TJO	8/23/1999
LAFARGE - HARTLAND		
PROJECT NUMBER: J98109		FIGURE NUMBER
		7



DRAKE ENVIRONMENTAL, INC.		
GEOLOGICAL CROSS SECTION		
HORIZONTAL SCALE: 1" = (proportional)	FIELD TECHNICIAN	DATE DRAWN
VERTICAL SCALE: 1" = 4'	TJO	8/22/1999
LAFARGE - HARTLAND		
PROJECT NUMBER: J98109		FIGURE NUMBER
		8

PROJECT NAME LAFARGE - HARTLAND		FIELD TEC TJO	DRAWN BY DWP	PROBE NUMBER
CLIENT LAFARGE - WISCONSIN DIVISION		PROJECT NUMBER J98109		<b>P-1</b>
LOCATION 700 W CAPITOL DR, HARTLAND, WI NW 1/4 NW 1/4 SEC 3 T7N R18E		LOCATION DESCRIPTION 25 FEET NE OF FORMER UST		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0					MEDIUM TO COARSE SAND WITH SILTY FINE SAND AND FINE TO COARSE GRAVEL, TRACE ROOTS - YELLOWISH BROWN (10YR 5/4) - MOIST TO WET (FILL)	SW	<1	
1	1	PR	--	--				
2					MEDIUM TO COARSE SAND, WITH FINE SAND; FEW FINE TO COARSE GRAVEL - YELLOWISH BROWN (10YR 5/4) - MOIST (FILL), FINE SANDY SILT TO SILTY CLAY; FEW MEDIUM TO COARSE SAND, DAMP TO MOIST (POSSIBLE FILL)	SW	<1	
3	2	PR	--	--				
4					SILT, TRACE COARSE SAND TO FINE GRAVEL - DARK YELLOWISH BROWN (10YR 4/6) - DAMP (POSSIBLE FILL)	ML	17	
5	3	PR	--	--				
6					SILTY FINE TO MEDIUM SAND, TRACE COARSE SAND AND FINE GRAVEL - GRAYISH BROWN (10YR 5/2) - DAMP, PETROLEUM ODOR (POSSIBLE FILL)	SM	*2260	
7	4	PR	--	--				
8					SILTY FINE TO MEDIUM SAND, TRACE COARSE SAND, TRACE FINE GRAVEL - GRAYISH BROWN (10YR 5/2) - DAMP TO MOIST, PETROLEUM ODOR (POSSIBLE FILL)	SM	1,073	
9	5	PR	--	--				
10					SILTY FINE SAND TO FINE SANDY SILT, TRACE COARSE SAND - YELLOWISH BROWN (10YR 5/4) - MOIST TO WET, SLIGHT ODOR	SM	70	
11	6	PR	--	--				
12					FINE SANDY SILT, TRACE COARSE SAND AND FINE GRAVEL - YELLOWISH BROWN (10YR 5/4) - WET	ML	17	
13	7	PR	--	--				
14					SILTY FINE SAND, TRACE MEDIUM AND COARSE SAND, TRACE FINE GRAVEL - YELLOWISH BROWN (10YR 5/4) - MOIST, PETROLEUM ODOR	SM	*365	
15	8	PR	--	--				
16					PROBEHOLE TERMINATED AT 16.0 FEET			
17								
18								
19								
20								
21								

NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.

DRILLING DATE: 1-25-99	DRILL RIG: Geoprobe Model 5400	NOTES *SUBMITTED FOR LABORATORY ANALYSIS
DRILLED BY: UNDERGROUND POWER CORP.		
BORING DRILLED WITH GEOPROBE 2' INTERVALS		
PROBEHOLE ABANDONED WITH BENTONITE		
GROUND SURFACE AT 0.0 DURING DRILLING		
GROUNDWATER AT APPROX 10' DURING DRILLING		



PROJECT NAME LAFARGE - HARTLAND		FIELD TEC TJO	DRAWN BY DWF	PROBE NUMBER
CLIENT LAFARGE - WISCONSIN DIVISION		PROJECT NUMBER J98109		P-2
LOCATION 700 W CAPITOL DR, HARTLAND, WI NW 1/4 NW 1/4 SEC 3 T7N R18E		LOCATION DESCRIPTION 30 FEET EAST OF FORMER UST		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0					8 INCHES CONCRETE			
1					SILTY FINE SAND, FEW MEDIUM TO COARSE SND, TRACE FINE GRAVEL - YELLOWISH BROWN (10YR 5/4) - DAMP (FILL)	SM		
2	1	PR	--	--			<1	
3					FINE SAND, TRACE MEDIUM TO COARSE SAND, TRACE FINE GRAVEL - YELLOWISH BROWN (10YR 5/6) - DAMP (FILL)	SW		
4	2	PR	--	--			<1	
5					SILTY FINE SAND, TRACE MEDIUM TO COARSE SAND AND FINE GRAVEL - PALE BROWN (10YR 6/3) - DAMP (FILL)	SM		
6	3	PR	--	--			<1	
7					SILTY FINE SAND, TRACE MEDIUM TO COARSE SAND AND FINE GRAVEL - PALE BROWN (10YR 6/3) - DAMP (FILL), LITTLE RECOVERY	SM		
8	4	PR	--	--			*<1	
9					SILTY FINE SAND, FINE MEDIUM TO COARSE SAND AND FINE GRAVEL - YELLOWISH BROWN (10YR 5/4) - WET, FILL	SM		
10	5	PR	--	--	FINE SANDY SILT, TRACE COARSE SAND - YELLOWISH BROWN (10YR 5/4) - WET	ML		<1
11					FINE SANDY SILT, TRACE COARSE SAND AND FINE GRAVEL - BROWN (10YR 5/3)	ML		
12	6	PR	--	--	SILTY CLAY, TRACE SILT, TRACE COARSE SAND AND FINE GRAVEL - DARK GRAY (10YR 4/1) - MOIST TO WET	CL		*<1
13					PROBEHOLE TERMINATED AT 13.0 FEET			
14								
15								
16								
17								
18								
19								
20								
21								



NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.		
DRILLING DATE: 1-25-99	DRILL RIG: Geoprobe Model 5400	NOTES *SUBMITTED FOR LABORATORY ANALYSIS
DRILLED BY: UNDERGROUND POWER CORP.		
BORING DRILLED WITH GEOPROBE 2' INTERVALS		
PROBEHOLE ABANDONED WITH BENTONITE		
GROUND SURFACE AT 0.0 DURING DRILLING		
GROUNDWATER AT APPROX 9' DURING DRILLING		

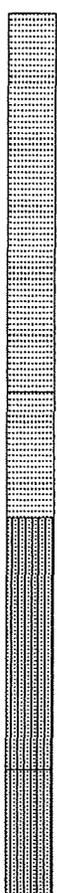


PROJECT NAME LAFARGE - HARTLAND		FIELD TEC TJO	DRAWN BY DWF	PROBE NUMBER
CLIENT LAFARGE - WISCONSIN DIVISION		PROJECT NUMBER J98109		<b>P-3</b>
LOCATION 700 W CAPITOL DR, HARTLAND, WI NW 1/4 NW 1/4 SEC 3 T7N R18E		LOCATION DESCRIPTION 70 FEET WEST OF FORMER UST		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0					MEDIUM TO COARSE SAND WITH SILTY FINE SAND AND FINE TO COARSE GRAVEL, TRACE ROOTS - YELLOWISH BROWN (10YR 5/4) - MOIST TO WET (FILL)	SW	<1	
1	1	PR	--	--				
2								
3	2	PR	--	--			<1	
4								
5	3	PR	--	--			8	
6					SILTY FINE SAND WITH MEDIUM SAND, TRACE COARSE SAND AND FINE GRAVEL - GRAY BROWN (10YR 5/2) - WET, PETROLEUM ODOR (FILL)	SM	610	
7	4	PR	--	--				
8								
9	5	PR	--	--			*697	
10					FINE TO MEDIUM SAND, TRACE COARSE SAND AND FINE GRAVEL - GRAYISH BROWN (10YR 5/2) - WET, PETROLEUM ODOR (FILL)	SW	610	
11	6	PR	--	--				
12					SILTY FINE SAND, FEW MEDIUM SAND, TRACE COARSE SAND AND FINE GRAVEL, TRACE FINE SANDY SILT - YELLOWISH BROWN (10YR 5/4) - WET, PETROLEUM ODOR (FILL)	SM	346	
13	7	PR	--	--				
14					PEA GRAVEL, TRACE SILTY FINE AND MEDIUM SAND - DARK GRAY TO VERY DARK GRAY (10YR 3.5/1) - WET, PETROLEUM ODOR (FILL)	SP	1,192	
15	8	PR	--	--				
16								
17	9	PR	--	--			*433	
18					PROBEHOLE TERMINATED AT 18.0 FEET			
19								
20								
21								

NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.		
DRILLING DATE: 1-25-99	DRILL RIG: Geoprobe Model 5400	NOTES *SUBMITTED FOR LABORATORY ANALYSIS
DRILLED BY: UNDERGROUND POWER CORP.		
BORING DRILLED WITH GEOPROBE 2' INTERVALS		
PROBEHOLE ABANDONED WITH BENTONITE		
GROUND SURFACE AT 0.0 DURING DRILLING		
GROUNDWATER AT APPROX 7' DURING DRILLING		

PROJECT NAME LAFARGE - HARTLAND		FIELD TEC TJO	DRAWN BY DWF	PROBE NUMBER
CLIENT LAFARGE - WISCONSIN DIVISION		PROJECT NUMBER J98109		P-4
LOCATION 700 W CAPITOL DR, HARTLAND, WI NW 1/4 NW 1/4 SEC 3 T7N R18E		LOCATION DESCRIPTION 100 FEET SW OF FORMER UST		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0								
1	1	PR	--	--	MEDIUM TO COARSE SAND WITH SILTY FINE SAND AND FINE TO COARSE GRAVEL, TRACE ROOTS - YELLOWISH BROWN (10YR 5/4) - MOIST TO WET (FILL)	SW	70	
2								
3	2	PR	--	--			26	
4								
5	3	PR	--	--			62	
6								
7	4	PR	--	--	FINE SAND WITH MEDIUM TO COARSE SAND, TRACE FINE GRAVEL - GREYISH BROWN (10YR 5/2) - MOIST, PETROLEUM ODOR, WET	SW	*571	
8								
9	5	PR	--	--	SILTY FINE SAND, TRACE COARSE SAND AND FINE GRAVEL - YELLOWISH BROWN (10YR 5/4) - MOIST, PETROLEUM ODOR (FILL)	SM	465	
10								
11	6	PR	--	--			149	
12								
13	7	PR	--	--	SILTY FINE SAND TO SANDY SILT, TRACE COARSE SAND AND FINE GRAVEL - YELLOWISH BROWN (10YR 5/4) - MOIST, PETROLEUM ODOR, FILL	SM	*248	
14					PROBEHOLE TERMINATED AT 14.0 FEET			
15								
16								
17								
18								
19								
20								
21								

NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.

DRILLING DATE: 1-25-99	DRILL RIG: Geoprobe Model 5400	NOTES *SUBMITTED FOR LABORATORY ANALYSIS
DRILLED BY: UNDERGROUND POWER CORP.		
BORING DRILLED WITH GEOPROBE 2' INTERVALS		
PROBEHOLE ABANDONED WITH BENTONITE		
GROUND SURFACE AT 0.0 DURING DRILLING		
GROUNDWATER AT APPROX. DURING DRILLING		

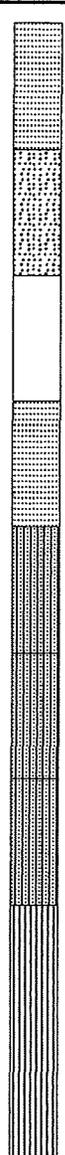


PROJECT NAME LAFARGE - HARTLAND		FIELD TEC TJO	DRAWN BY DWF	PROBE NUMBER
CLIENT LAFARGE - WISCONSIN DIVISION		PROJECT NUMBER J98109		<b>P-5</b>
LOCATION 700 W CAPITOL DR, HARTLAND, WI NW 1/4 NW 1/4 SEC 3 T7N R18E			LOCATION DESCRIPTION 110 FEET SW OF FORMER UST	

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0					MEDIUM TO COARSE SAND WITH SILTY FINE SAND AND FINE TO COARSE GRAVEL, TRACE ROOTS - YELLOWISH BROWN (10YR 5/4) - MOIST TO WET (FILL)	SW	26	
1	1	PR	--	--				
2								
3	2	PR	--	--				
4								
5	3	PR	--	--				
6					MEDIUM TO COARSE SAND, WITH SILTY FINE SAND AND FINE GRAVEL - GRAYISH BROWN (10YR 5/2) - MOIST TO WET, PETROLEUM ODOR (FILL)	SW	*393	
7	4	PR	--	--				
8								
9	5	PR	--	--				
10								
11	6	PR	--	--				
12					PROBEHOLE TERMINATED AT 12.0 FEET			
13								
14								
15								
16								
17								
18								
19								
20								
21								

<b>NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.</b>		
DRILLING DATE: 1-25-99	DRILL RIG: Geoprobe Model 5400	<b>NOTES</b> *SUBMITTED FOR LABORATORY ANALYSIS
DRILLED BY: UNDERGROUND POWER CORP.		
BORING DRILLED WITH GEOPROBE 2' INTERVALS		
PROBEHOLE ABANDONED WITH BENTONITE		
GROUND SURFACE AT 0.0 DURING DRILLING		
GROUNDWATER AT APPROX. DURING DRILLING		

PROJECT NAME LAFARGE - HARTLAND		FIELD TEC TJO	DRAWN BY DWF	PROBE NUMBER
CLIENT LAFARGE - WISCONSIN DIVISION		PROJECT NUMBER J98109		<b>P-6</b>
LOCATION 700 W CAPITOL DR, HARTLAND, WI NW 1/4 NW 1/4 SEC 3 T7N R18E		LOCATION DESCRIPTION 80 FEET SW OF FORMER UST		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0					MEDIUM TO COARSE SAND WITH SILTY FINE SAND AND FINE TO COARSE GRAVEL, TRACE ROOTS - YELLOWISH BROWN (10YR 5/4) - MOIST TO WET (FILL)	SW	53	
1	1	PR	--	--				
2					FINE GRAVEL, TRACE FINE SAND - YELLOWISH BROWN (10YR 5/4) -DAMP (FILL)	SP	17	
3	2	PR	--	--				
4					NO RECOVERY		--	
5	3	PR	--	--				
6					FINE TO COARSE SAND, TRACE FINE GRAVEL - YELLOWISH BROWN (10YR 5/4) - MOIST TO WET, PETROLEUM ODOR (FILL)	SW	347	
7	4	PR	--	--				
8					SILTY FINE SAND, TRACE MEDIUM AND COARSE SAND - YELLOWISH BROWN (10YR 5/4) - MOIST, PETROLEUM ODOR (FILL)	SM	*682	
9	5	PR	--	--				
10					SILTY FINE SAND, TRACE MEDIUM TO COARSE SAND AND FINE GRAVEL - GRAYISH BROWN (10YR 5/2) - WET, PETROLEUM ODOR (FILL)	SM	106	
11	6	PR	--	--				
12					SILTY FINE SAND, TRACE FINE SANDY SILT, TRACE MEDIUM TO COARSE SAND AND FINE GRAVEL - GRAYISH BROWN (10YR 5/2) - WET, PETROLEUM ODOR (FILL)	SM	92	
13	7	PR	--	--				
14					FINE SANDY SILT, TRACE MEDIUM TO COARSE SAND AND FINE GRAVEL - YELLOWISH BROWN (10YR 5/4) - WET	ML	26	
15	8	PR	--	--				
16								
17	9	PR	--	--			*<1	
18					PROBEHOLE TERMINATED AT 18.0 FEET			
19								
20								
21								

NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.

DRILLING DATE: 1-25-99	DRILL RIG: Geoprobe Model 5400	NOTES *SUBMITTED FOR LABORATORY ANALYSIS
DRILLED BY: UNDERGROUND POWER CORP.		
BORING DRILLED WITH GEOPROBE 2' INTERVALS		
PROBEHOLE ABANDONED WITH BENTONITE		
GROUND SURFACE AT 0.0 DURING DRILLING		
GROUNDWATER AT APPROX 10' DURING DRILLING		



PROJECT NAME LAFARGE - HARTLAND		FIELD TEC TJO	DRAWN BY DWF	PROBE NUMBER
CLIENT LAFARGE - WISCONSIN DIVISION		PROJECT NUMBER J98109		<b>P-7</b>
LOCATION 700 W CAPITOL DR, HARTLAND, WI NW 1/4 NW 1/4 SEC 3 T7N R18E		LOCATION DESCRIPTION 170 FEET SW OF FORMER UST		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0					MEDIUM TO COARSE SAND, WITH SILTY FINE SAND AND FINE TO COARSE GRAVEL, TRACE ROOTS - YELLOWISH BROWN (10YR 5/4) - MOIST TO WET (FILL)	SW	1	
1	1	PR	--	--				
2					FINE TO MEDIUM SAND, TRACE COARSE SAND AND FINE GRAVEL - YELLOWISH BROWN (10YR 5/4) - MOIST (FILL)	SW	2	
3	2	PR	--	--				
4								
5	3	PR	--	--			5	
6								
7	4	PR	--	--			*4	
8					FINE TO MEDIUM SAND, TRACE COARSE SAND AND FINE GRAVEL, BLACK SILTY SAND LAYER - YELLOWISH BROWN (10YR 5/4) - MOIST (FILL)	SW	3	
9	5	PR	--	--				
10					FINE SILTY SAND, TRACE COARSE SAND AND FINE GRAVEL - LIGHT YELLOWISH BROWN (10YR 6/4) - MOIST (FILL)	SM	5	
11	6	PR	--	--				
12					FINE SAND, TRACE MEDIUM TO COARSE SAND AND FINE GRAVEL - YELLOWISH BROWN (10YR 5/4) - WET (FILL)	SW	2	
13	7	PR	--	--				
14					PROBEHOLE TERMINATED AT 14.0 FEET			
15								
16								
17								
18								
19								
20								
21								

<b>NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.</b>		
DRILLING DATE: 1-26-99	DRILL RIG: Geoprobe Model 5400	NOTES *SUBMITTED FOR LABORATORY ANALYSIS
DRILLED BY: UNDERGROUND POWER CORP.		
BORING DRILLED WITH GEOPROBE 2' INTERVALS		
PROBEHOLE ABANDONED WITH BENTONITE		
GROUND SURFACE AT 0.0 DURING DRILLING		
GROUNDWATER AT APPROX 12' DURING DRILLING		



PROJECT NAME LAFARGE - HARTLAND		FIELD TEC TJO	DRAWN BY DWF	PROBE NUMBER
CLIENT LAFARGE - WISCONSIN DIVISION		PROJECT NUMBER J98109		<b>P-8</b>
LOCATION 700 W CAPITOL DR, HARTLAND, WI NW 1/4 NW 1/4 SEC 3 T7N R18E		LOCATION DESCRIPTION 130 FEET SW OF FORMER UST		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0								
1	1	PR	--	--	FINE TO MEDIUM SAND, TRACE COARSE SAND AND FINE GRAVEL - DARK YELLOWISH BROWN (10YR 4/4) - MOIST (FILL)	SW	*55	
2								
3	2	PR	--	--	FINE SAND, TRACE MEDIUM TO COARSE SAND AND FINE GRAVEL - YELLOWISH BROWN (10YR 5/4) - MOIST (FILL)	SW	8	
4								
5	3	PR	--	--			4	
6								
7	4	PR	--	--	FINE SAND, TRACE MEDIUM TO COARSE SAND AND FINE GRAVEL - YELLOWISH BROWN (10YR 5/4) - MOIST (FILL), LITTLE RECOVERY	SW	*4	
8								
9	5	PR	--	--			3	
10								
11	6	PR	--	--	FINE SILTY SAND TO SANDY SILT, TRACE MEDIUM AND COARSE SAND, TRACE FINE GRAVEL - YELLOWISH BROWN (10YR 5/4) - MOIST TO WET (FILL)	SM	2	
12								
13	7	PR	--	--	SILTY FINE TO MEDIUM SAND, TRACE COARSE SAND, TRACE FINE GRAVEL - YELLOWISH BROWN (10YR 5/4) - WET, FILL	SM	3	
14					PROBEHOLE TERMINATED AT 14.0 FEET			
15								
16								
17								
18								
19								
20								
21								

<b>NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.</b>		
DRILLING DATE: 1-26-99	DRILL RIG: Geoprobe Model 5400	<b>NOTES</b> *SUBMITTED FOR LABORATORY ANALYSIS
DRILLED BY: UNDERGROUND POWER CORP.		
BORING DRILLED WITH GEOPROBE 2' INTERVALS		
PROBEHOLE ABANDONED WITH BENTONITE		
GROUND SURFACE AT 0.0 DURING DRILLING		
GROUNDWATER AT APPROX 11' DURING DRILLING		



PROJECT NAME LAFARGE - HARTLAND		FIELD TEC TJO	DRAWN BY DWF	PROBE NUMBER
CLIENT LAFARGE - WISCONSIN DIVISION		PROJECT NUMBER J98109		<b>P-9</b>
LOCATION 700 W CAPITOL DR, HARTLAND, WI NW 1/4 NW 1/4 SEC 3 T7N R18E		LOCATION DESCRIPTION 150 FEET SW OF FORMER UST		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0					FINE TO MEDIUM SAND, TRACE COARSE SAND AND FINE GRAVEL - YELLOWISH BROWN (10YR 5/4) - DAMP TO MOIST (FILL)	SW		
1	1	PR	--	--			3	
2								
3	2	PR	--	--			3	
4								
5	3	PR	--	--			2	
6								
7	4	PR	--	--	*4			
8								
9	5	PR	--	--	3			
10								
11	6	PR	--	--	2			
12								
13	7	PR	--	--	3			
14					PROBEHOLE TERMINATED AT 14.0 FEET			
15								
16								
17								
18								
19								
20								
21								

<b>NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.</b>		
DRILLING DATE: 1-26-99	DRILL RIG: Geoprobe Model 5400	NOTES *SUBMITTED FOR LABORATORY ANALYSIS
DRILLED BY: UNDERGROUND POWER CORP.		
BORING DRILLED WITH GEOPROBE 2' INTERVALS		
PROBEHOLE ABANDONED WITH BENTONITE		
GROUND SURFACE AT 0.0 DURING DRILLING		
GROUNDWATER AT APPROX. DURING DRILLING		



PROJECT NAME LAFARGE - HARTLAND		FIELD TEC TJO	DRAWN BY DWF	PROBE NUMBER
CLIENT LAFARGE - WISCONSIN DIVISION		PROJECT NUMBER J98109		<b>P-10</b>
LOCATION 700 W CAPITOL DR, HARTLAND, WI NW 1/4 NW 1/4 SEC 3 T7N R18E		LOCATION DESCRIPTION 65 FEET NW OF FORMER UST		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0					FINE TO MEDIUM SAND, TRACE COARSE SAND AND FINE GRAVEL - GRAY (10YR 5/1) - WET, CEMENT ODOR (FILL)	SW		
1	1	PR	--	--			351	
2					SILTY FINE SAND, TRACE MEDIUM TO COARSE SAND AND FINE GRAVEL - GRAY (10YR 6/1) - WET, CEMENT ODOR (FILL)	SM		
3	2	PR	--	--			381	
4								
5	3	PR	--	--			483	
6					SILTY FINE SAND, TRACE MEDIUM TO COARSE SAND AND FINE GRAVEL - GRAY (10YR 6/1) - WET, CEMENT AND PETROLEUM ODOR (FILL)	SM		
7	4	PR	--	--			*723	
8					FINE SILTY SAND, FEW MEDIUM TO COARSE SAND AND FINE GRAVEL - VERY DARK GRAYISH BROWN (10YR 3/2) - WET, PETROLEUM ODOR (FILL)	SM		
9	5	PR	--	--			767	
10					FINE TO MEDIUM SILTY SAND, TRACE COARSE SAND - GRAY (10YR 5/1) - WET, PETROLEUM ODOR (FILL)	SM		
11	6	PR	--	--			307	
12								
13	7	PR	--	--			398	
14								
15	8	PR	--	--			*556	
16					PROBEHOLE TERMINATED AT 16.0 FEET			
17								
18								
19								
20								
21								

<b>NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.</b>		
DRILLING DATE: 1-26-99	DRILL RIG: Geoprobe Model 5400	NOTES *SUBMITTED FOR LABORATORY ANALYSIS
DRILLED BY: UNDERGROUND POWER CORP.		
BORING DRILLED WITH GEOPROBE 2' INTERVALS		
PROBEHOLE ABANDONED WITH BENTONITE		
GROUND SURFACE AT 0.0 DURING DRILLING		
GROUNDWATER AT APPROX. DURING DRILLING		



PROJECT NAME LAFARGE - HARTLAND		FIELD TEC TJO	DRAWN BY DWF	BORING NUMBER
CLIENT LAFARGE - WISCONSIN DIVISION		PROJECT NUMBER J98109		<b>B-1</b>
LOCATION 700 W CAPITOL DR, HARTLAND, WI NW 1/4 NW 1/4 SEC 3 T7N R18E		LOCATION DESCRIPTION 75'N, 4'E OF NW CORNER OF BLDG		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0								
1	1	SS	22	--	FINE TO COARSE SAND, FINE TO MEDIUM GRAVEL (PEA GRAVEL) - YELLOWISH BROWN (10YR 5/4) - MOIST (FILL)	SW	<1	
2								
3								
4	2	SS	--	--	NO RECOVERY		--	
5								
6								
7	3	SS	15	--	FINE SANDY SILT TO SILTY SAND, TRACE MEDIUM SAND, FINE TO MEDIUM GRAVEL - YELLOWISH BROWN (10YR 5/4) - MOIST TO WET (FILL)	ML	*<1	
8								
9	4	SS	33	--	FINE SANDY SILT TO SILTY SAND, TRACE MEDIUM SAND, FINE TO MEDIUM GRAVEL - YELLOWISH BROWN (10YR 5/4) - MOIST (FILL)	ML	<1	
10								
11								
12	5	SS	31	--			<1	
13								
14	6	SS	25	--	FINE TO COARSE SAND, FINE TO MEDIUM GRAVEL (PEA GRAVEL) - YELLOWISH BROWN (10YR 5/4) - MOIST	SW	<1	
15					BOREHOLE TERMINATED AT 15.0 FEET			
16								
17								
18								
19								
20								
21								

NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.		
DRILLING DATE: 3-8-99	DRILL RIG: FOREMOST MOBILE	NOTES *SAMPLE SUBMITTED FOR LABORATORY ANALYSIS SS = SPLIT SPOON
DRILLED BY: BRIOHN ENVIRONMENTAL CONTRACTORS		
BORING DRILLED WITH 4.25 INCH I.D. HSA		
BOREHOLE BACKFILLED WITH BENTONITE		
GROUND SURFACE AT 101.30 DURING DRILLING		



PROJECT NAME LAFARGE - HARTLAND		FIELD TEC TJO	DRAWN BY DWF	BORING NUMBER
CLIENT LAFARGE - WISCONSIN DIVISION		PROJECT NUMBER J98109		B-2
LOCATION 700 W CAPITOL DR, HARTLAND, WI NW 1/4 NW 1/4 SEC 3 T7N R18E		LOCATION DESCRIPTION 105'N, 25'E OF NW CRNR OF BLDG		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0								
1	1	SS	72	--	FINE TO COARSE SAND, FINE TO MEDIUM GRAVEL (PEA GRAVEL) - YELLOWISH BROWN (10YR 5/4) - MOIST (FILL)	SW	<1	
2								
3								
4	2	SS	19	--	SILTY FINE SAND TO FINE SANDY SILT, TRACE MEDIUM TO COARSE SAND, TRACE COARSE GRAVEL - YELLOWISH BROWN (10YR 5/4) - DAMP (FILL)	SM	<1	
5								
6								
7	3	SS	20	--	SILTY FINE SAND TO FINE SANDY SILT, TRACE MEDIUM TO COARSE SAND, TRACE COARSE GRAVEL - YELLOWISH BROWN (10YR 5/4) - DAMP (FILL), SLIGHT ODOR, VERY LITTLE RECOVERY	SM	531	
8								
9	4	SS	16	--	FINE SANDY SILT, TRACE MEDIUM TO COARSE SAND - YELLOWISH BROWN (10YR 5/4) - MOIST TO WET (FILL)	ML	*22	
10								
11								
12	5	SS	18	--	FINE TO COARSE SAND, FINE TO MEDIUM GRAVEL (PEA GRAVEL) - YELLOWISH BROWN (10YR 5/4) - WET (FILL)	SW	5	
13								
14	6	SS	16	--	FINE TO COARSE SAND, FINE TO MEDIUM GRAVEL (PEA GRAVEL) - YELLOWISH BROWN (10YR 5/4) - WET (FILL), SLIGHT ODOR	SW	*40	
15					BOREHOLE TERMINATED AT 15.0 FEET			
16								
17								
18								
19								
20								
21								

NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.		
DRILLING DATE: 3-8-99	DRILL RIG: FOREMOST MOBILE	NOTES *SAMPLE SUBMITTED FOR LABORATORY ANALYSIS SS = SPLIT SPOON WELL SET AT 15' WITH 10' SCREEN DNR UID #JN379
DRILLED BY: BRIOHN ENVIRONMENTAL CONTRACTORS		
BORING DRILLED WITH 4.25 INCH I.D. HSA		
BOREHOLE BACKFILLED WITH BENTONITE		
GROUND SURFACE AT 101.13 DURING DRILLING		



PROJECT NAME LAFARGE - HARTLAND		FIELD TEC TJO	DRAWN BY DWF	BORING NUMBER
CLIENT LAFARGE - WISCONSIN DIVISION		PROJECT NUMBER J98109		<b>B-3</b>
LOCATION 700 W CAPITOL DR, HARTLAND, WI NW 1/4 NW 1/4 SEC 3 T7N R18E		LOCATION DESCRIPTION 48'N, 38'E OF NW CORNR OF BLDG		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0								
1	1	SS	5	--	FINE TO COARSE SAND, FINE TO MEDIUM GRAVEL (PEA GRAVEL) - YELLOWISH BROWN (10YR 5/4) - WET (FILL)	SW	*108	
2								
3								
4	2	SS	1	--	MEDIUM GRAVEL, WET (FILL)	SP	11	
5								
6								
7	3	SS	1	--			<1	
8								
9	4	SS	21	--	FINE SANDY SILT TO SILTY FINE SAND, TRACE MEDIUM TO COARSE SAND, TRACE FINE GRAVEL - YELLOWISH BROWN (10YR 5/4) - DAMP (FILL)	ML	<1	
10								
11	5	SS	41	--	FINE SANDY SILT TO SILTY FINE SAND, TRACE MEDIUM TO COARSE SAND, TRACE FINE TO COARSE GRAVEL - YELLOWISH BROWN (10YR 5/4) - WET (FILL)	ML	<1	
12								
13								
14	6	SS	41	--	FINE SAND, TRACE MEDIUM TO COARSE GRAVEL, DAMP (FILL)	SW	<1	
15					BOREHOLE TERMINATED AT 15.0 FEET			
16								
17								
18								
19								
20								
21								

<b>NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.</b>		
DRILLING DATE: 3-8-99	DRILL RIG: FOREMOST MOBILE	<b>NOTES</b> *SAMPLE SUBMITTED FOR LABORATORY ANALYSIS SS = SPLIT SPOON WELL SET AT 15' WITH 10' SCREEN DNR UID #JN378
DRILLED BY: BRIOHN ENVIRONMENTAL CONTRACTORS		
BORING DRILLED WITH 4.25 INCH I.D. HSA		
GROUND SURFACE AT 101.06 DURING DRILLING		



PROJECT NAME LAFARGE - HARTLAND		FIELD TEC TJO	DRAWN BY DWF	BORING NUMBER
CLIENT LAFARGE - WISCONSIN DIVISION		PROJECT NUMBER J98109		B-4
LOCATION 700 W CAPITOL DR, HARTLAND, WI NW 1/4 NW 1/4 SEC 3 T7N R18E		LOCATION DESCRIPTION 15' N OF NE CORNER OF SILO BLDG		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0								
1								
2	1	SS	47	--	FINE TO COARSE SAND, FINE TO MEDIUM GRAVEL (PEA GRAVEL), COARSE GRAVEL - YELLOWISH BROWN (10YR 5/4) - MOIST (FILL), CEMENT ODOR	SW	86	
3								
4	2	SS	27	--			*129	
5								
6								
7	3	SS	34	--	FINE SANDY SILT, TRACE SILTY CLAY, TRACE MEDIUM TO COARSE SAND, TRACE FINE TO MEDIUM GRAVEL - BROWN (10YR 5/3) - DAMP (FILL)	ML	<1	
8								
9	4	SS	9	--	FINE SANDY SILT, TRACE SANDY CLAY, TRACE MEDIUM SAND AND FINE GRAVEL - BROWN (10YR 5/3) - WET	ML	<1	
10								
11								
12	5	SS	14	--	FINE SANDY SILT TO SILTY CLAY, TRACE MEDIUM TO COARSE SAND AND FINE GRAVEL - BROWN (10YR 5/3) - WET	ML	<1	
13								
14	6	SS	21	--			<1	
15					BOREHOLE TERMINATED AT 15.0 FEET			
16								
17								
18								
19								
20								
21								

NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.		
DRILLING DATE: 3-8-99	DRILL RIG: FOREMOST MOBILE	<b>NOTES</b> *SAMPLE SUBMITTED FOR LABORATORY ANALYSIS SS = SPLIT SPOON WELL SET AT 15' WITH 10' SCREEN DNR UID #JN377
DRILLED BY: BRIOHN ENVIRONMENTAL CONTRACTORS		
BORING DRILLED WITH 4.25 INCH I.D. HSA		
GROUND SURFACE AT 103.36 DURING DRILLING		



PROJECT NAME LAFARGE - HARTLAND		FIELD TEC TJO	DRAWN BY DWF	BORING NUMBER
CLIENT LAFARGE - WISCONSIN DIVISION		PROJECT NUMBER J98109		<b>B-5</b>
LOCATION 700 W CAPITOL DR, HARTLAND, WI NW 1/4 NW 1/4 SEC 3 T7N R18E		LOCATION DESCRIPTION 75'N, 45'W OF NW CORNR OF BLDG		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0								
1	1	SS	38	--	FINE TO COARSE SAND, FINE TO MEDIUM GRAVEL (PEA GRAVEL) - YELLOWISH BROWN (10YR 5/4) - DAMP	SW	<1	
2								
3								
4	2	SS	38	--	FINE TO COARSE SAND, FINE TO MEDIUM GRAVEL (PEA GRAVEL) - YELLOWISH BROWN (10YR 5/4) - MOIST	SW	198	
5								
6								
7	3	SS	9	--	FINE TO COARSE SAND, FINE TO MEDIUM GRAVEL (PEA GRAVEL) - YELLOWISH BROWN (10YR 5/4) - MOIST, ODOR	SW	*288	
8								
9	4	SS	3	--	FINE SILTY SAND, TRACE MEDIUM TO COARSE SAND, TRACE FINE GRAVEL - BROWN (10YR 5/3) - WET (FILL), ODOR	SM	288	
10								
11								
12	5	SS	28	--			*94	
13								
14	6	SS	22	--	NO RECOVERY		--	
15					BOREHOLE TERMINATED AT 15.0 FEET			
16								
17								
18								
19								
20								
21								

NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.

DRILLING DATE: 3-8-99	DRILL RIG: FOREMOST MOBILE	NOTES *SAMPLE SUBMITTED FOR LABORATORY ANALYSIS SS = SPLIT SPOON WELL SET AT 15' WITH 10' SCREEN DNR UID #JK522
DRILLED BY: BRIOHN ENVIRONMENTAL CONTRACTORS		
BORING DRILLED WITH 4.25 INCH I.D. HSA		
GROUND SURFACE AT 101.37 DURING DRILLING		



PROJECT NAME LAFARGE - HARTLAND		FIELD TEC TJO	DRAWN BY DWF	BORING NUMBER
CLIENT LAFARGE - WISCONSIN DIVISION		PROJECT NUMBER J98109		<b>B-6</b>
LOCATION 700 W CAPITOL DR, HARTLAND, WI NW 1/4 NW 1/4 SEC 3 T7N R18E		LOCATION DESCRIPTION 15'S, 55'W OF NW CORNR OF BLDG		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0								
1	1	SS	30	--	FINE TO MEDIUM SAND, TRACE COARSE SAND, TRACE FINE GRAVEL - DARK BROWN (10YR 4/3) - DAMP (FILL)	SW	48	
2								
3								
4	2	SS	30	--	FINE TO MEDIUM SAND, TRACE COARSE SAND, TRACE FINE GRAVEL - YELLOWISH BROWN (10YR 5/4) - DAMP (FILL)	SW	41	
5								
6								
7	3	SS	51	--			11	
8								
9	4	SS	16	--	FINE SANDY SILT, TRACE COARSE SAND TO FINE GRAVEL - BROWN (10YR 5/3) - MOIST TO WET	ML	*3	
10								
11	5	SS	18	--	FINE SANDY SILT TO SILTY FINE SAND, TRACE COARSE SAND AND FINE GRAVEL - BROWN (10YR 5/3) - 3 INCH SEAM, SILT, TRACE SILTY CLAY - DARK GRAY (10YR 4/1) - MOIST	ML	3	
12								
13								
14	6	SS	28	--	FINE SAND, MEDIUM TO COARSE SAND, TRACE FINE GRAVEL - BROWN (10YR 5/3) - MOIST	SW	25	
15								
16								
17	7	SS	30				*167	
18								
19					BOREHOLE TERMINATED AT 19.0 FEET			
20								
21								

<b>NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.</b>		
DRILLING DATE: 3-26-99	DRILL RIG: FOREMOST MOBILE	NOTES *SAMPLE SUBMITTED FOR LABORATORY ANALYSIS SS = SPLIT SPOON WELL SET AT 19' WITH 10' SCREEN DNR UID #JK523
DRILLED BY: BRIOHN ENVIRONMENTAL CONTRACTORS		
BORING DRILLED WITH 4.25 INCH I.D. HSA		
GROUND SURFACE AT 100.02 DURING DRILLING		



PROJECT NAME LAFARGE - HARTLAND		FIELD TEC TJO	DRAWN BY DWF	BORING NUMBER
CLIENT LAFARGE - WISCONSIN DIVISION		PROJECT NUMBER J98109		<b>B-7</b>
LOCATION 700 W CAPITOL DR, HARTLAND, WI NW 1/4 NW 1/4 SEC 3 T7N R18E		LOCATION DESCRIPTION 145'N, 46'W OF NW CRNR OF BLDG		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0					BLIND DRILLED TO 11.0 FEET			
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12	1	SS	9	--	FINE SAND TO SILTY FINE SAND WITH MEDIUM TO COARSE SAND AND FINE GRAVEL - YELLOWISH BROWN (10YR 5/4) - MOIST	SW	4	
13								
14	2	SS	10	--			6	
15								
16	3	SS	26	--			4	
17								
18	4	SS	43	--	SILTY FINE SAND, TRACE MEDIUM TO COARSE SAND, TRACE FINE GRAVEL - YELLOWISH BROWN (10YR 5/4) - MOIST	SM	3	
19								
20	5	SS	26	--	SILTY FINE SAND, TRACE MEDIUM TO COARSE SAND - PALE BROWN (10YR 6/3) - MOIST	SM	5	
21								

NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.		
DRILLING DATE: 3-26-99	DRILL RIG: TRACKED ATV	NOTES *SAMPLE SUBMITTED FOR LABORATORY ANALYSIS SS = SPLIT SPOON WELL SET AT 33' WITH 15' SCREEN DNR UID #JK524
DRILLED BY: BRIOHN ENVIRONMENTAL CONTRACTORS		
BORING DRILLED WITH 4.25 INCH I.D. HSA		
GROUND SURFACE AT 108.71 DURING DRILLING		



PROJECT NAME LAFARGE - HARTLAND		FIELD TEC TJO	DRAWN BY DWF	BORING NUMBER
CLIENT LAFARGE - WISCONSIN DIVISION		PROJECT NUMBER J98109		<b>B-7</b>
LOCATION 700 W CAPITOL DR, HARTLAND, WI NW 1/4 NW 1/4 SEC 3 T7N R18E		LOCATION DESCRIPTION 145'N, 46'W OF NW CRNR OF BLDG		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
21					NO RECOVERY		--	
22	6	SS	35	--			--	
23								
24	7	SS	18	--	FINE SAND TO SILTY FINE SAND WITH MEDIUM TO COARSE SAND AND FINE GRAVEL - YELLOWISH BROWN (10YR 5/4) - MOIST	SW	*8	
25								
26	8	SS	32	--	FINE SAND, TRACE MEDIUM TO COARSE SAND, WET	SW	7	
27								
28	9	SS	14	--			4	
29								
30	10	SS	12	--			*3	
31								
32	11	SS	--	--			--	
33					BOREHOLE TERMINATED AT 33.0 FEET			
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								

NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.



PROJECT NAME LAFARGE - HARTLAND		FIELD TEC TJO	DRAWN BY DWF	BORING NUMBER
CLIENT LAFARGE - WISCONSIN DIVISION		PROJECT NUMBER J98109		<b>B-8</b>
LOCATION 700 W CAPITOL DR, HARTLAND, WI NW 1/4 NW 1/4 SEC 3 T7N R18E		LOCATION DESCRIPTION 105'N, 98'W OF NW CRNR OF BLDG		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0					BLIND DRILLED TO 11.0 FEET			
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12	1	SS	57	--	FINE SAND WITH MEDIUM TO COARSE SAND, TRACE FINE GRAVEL - LIGHT GRAY (10YR 7/2) - DAMP	SW	1	
13								
14	2	SS	68	--	FINE SAND TO FINE SILTY SAND, TRACE MEDIUM TO COARSE SAND, TRACE FINE GRAVEL - BROWN (10YR 5/3) - DAMP	SW	<1	
15								
16	3	SS	53	--			1	
17								
18	4	SS	51	--			4	
19								
20	5	SS	49	--			*6	
21								

NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.

DRILLING DATE: 3-26-99	DRILL RIG: TRACKED ATV	NOTES *SAMPLE SUBMITTED FOR LABORATORY ANALYSIS SS = SPLIT SPOON WELL SET AT 33' WITH 15' SCREEN DNR UID #JK525
DRILLED BY: BRIOHN ENVIRONMENTAL CONTRACTORS		
BORING DRILLED WITH 4.25 INCH I.D. HSA		
GROUND SURFACE AT 112.42 DURING DRILLING		



PROJECT NAME LAFARGE - HARTLAND		FIELD TEC TJO	DRAWN BY DWF	BORING NUMBER
CLIENT LAFARGE - WISCONSIN DIVISION		PROJECT NUMBER J98109		<b>B-8</b>
LOCATION 700 W CAPITOL DR, HARTLAND, WI NW 1/4 NW 1/4 SEC 3 T7N R18E		LOCATION DESCRIPTION 105'N, 98'W OF NW CRNR OF BLDG		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
21	6	SS	50	--	FINE SAND, TRACE MEDIUM TO COARSE SAND, TRACE FINE GRAVEL - BROWN (10YR 5/3) - MOIST, LITTLE RECOVERY	SW	5	
22								
23	7	SS	52	--	FINE TO MEDIUM SAND WITH COARSE SAND, TRACE FINE GRAVEL - BROWN (10YR 5/3) - MOIST	SW	2	
24								
25								
26	8	SS	58	--			3	
27	9	SS	54	--	FINE SAND, TRACE MEDIUM AND COARSE SAND - BROWN (10YR 5/3) - WET	SW	3	
28								
29								
30	10	SS	--	--			*4	
31	11	SS	--	--			--	
32								
33								
34	BOREHOLE TERMINATED AT 33.0 FEET							
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								

NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.



Report On: Proctor

Lab No: 20-06843

Report No: 20-06843

Project No: 20072-40

Cust No: 0111

Page 1 of 1

Client: Musson Brothers, Inc.  
Bob Draths  
1522 Pearl St.  
Waukesha, WI 53186

Project: Sunnyslope Dr. Storm Sewer, Sanitary  
Sewer and Water Main.

Engineer: Ruckert Mielke

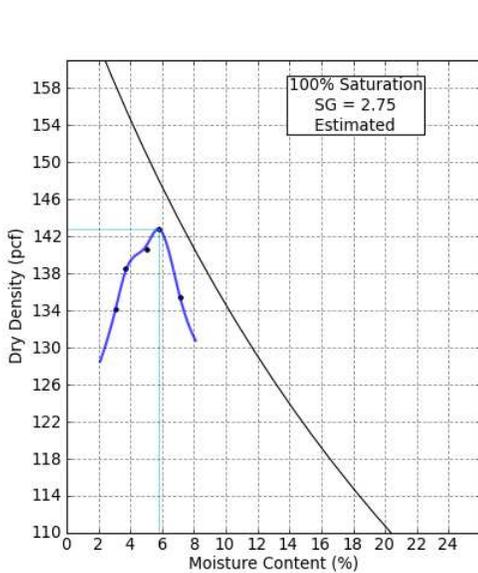
Report Date: 08/11/2020

Location: Fill Site

Sample Date: 08/11/2020

Material: Trench Spoils

Sampled By: Max Piehl



% Moisture	Dry Density Lbs./Cu.Ft.
3.1	134.1
3.7	138.6
5.0	140.6
5.8	142.8
7.1	135.5
5.8	142.8
Optimum	Maximum

Color: Brown  
Description: sandy gravel

Desc of Rammer: Mechanical

Preparation Method: Dry

Oversized Material:

Test Method (As Applicable): AASHTO T-180, AASHTO T-99, ASTM D-1557, ASTM D-1559, ASTM D-2041, ASTM D-558, ASTM D-698 Method-C

Orig: Musson Brothers, Inc. Attn: Bob Draths  
(1-ec copy)  
1-ec Ruckert Mielke Attn: Peter Gesch  
1-cc Laboratory

Respectfully Submitted,

Andrew Davis, Project Manager



# FIELD DENSITY REPORT

GESTRA Engineering, Inc.  
 191 W. Edgerton Avenue  
 Milwaukee, WI 53207  
 Phone 414-933-7444  
 Fax 414-933-7844

General Information					
Project Name:	Sunnyslope Drive	Report to:	City of Hartland	Page:	1 of 1
Project Number:	20072-40	Contractor:	Musson Brothers	Date:	8/4/2020
Project Location:	Hartland, WI	Technician:	Max Piehl	Total hrs on Job:	1.3
Proctor Type:	Modified ASTM D1557	Time Arrive:	11:45 AM	Travel Time:	1.2
Req.Compaction:	95%	Time Depart:	1:05 PM	Milage (R/T):	64

Test Locations:						
Test #	General Test Area	Reference	Distance from Ref (ft)		Elevation (ft)	Rod Depth (in)
			N/S	E/W		
1	Fill Site	SW Corner of Site				6
2	Fill Site	NE Corner of Site				6
3	Fill Site	E Side of Site				6

Test Results:								
Test #	Proctor Number	Field Moisture (%)	Moisture Difference (%)	Wet Density (lb/ft³)	Dry Density (lb/ft³)	Compaction (%)	Pass / Fail	Retest Number
1	1	8.1	2.3	150.9	139.5	98%	Pass	
2	1	8.8	3.0	148.0	136.0	95%	Pass	
3	1	6.7	0.9	144.2	135.1	95%	Pass	

Nuclear Gauge & Proctor Information					
Brand:	CPN	Serial Number:	8972	Standard Density Count:	
Model:	MC1DRP	Test Mode:	Direct	Standard Moisture Count:	
Proctor #	Soil Description		Max Dry Density (lb/ft³)	Gravel Content (%)	Optimum Moisture (%)
1	Spoils from Sunnyslope Dr.		142.8		5.8

Remarks:	
SG = Subgrade	
Reviewed by:	A. Davis







## Appendix C

### Laboratory Reports

- Modified Proctor (D1557) & Grain Size Analysis (D6913)
  - TP-1/TP-2 - composite
  - TP-3
  - TP-5
  - B6/B7 - composite (Grain Size Analysis below)
  
- Grain Size Analysis (D6913)
  - TP-6
  - TP-9
  - B1
  - B2 (including Atterberg Limits (D4318))
  - B3
  - B4
  - B5
  - B6
  - B7
  - B8
  - B9
  - B10
  - B11
  - B12
  - B13
  - B14
  - B15
  - B16
  - B17
  - B18
  - B19
  
- General Notes
  
- USCS Description





# Material Test Report

Report #: CSPL-000001-00

**West Allis**  
2135 S. 116th Street  
West Allis, WI 53227  
Phone: 888-436-8378  
Fax: 414-321-8359

**Client:**  
Three Leaf Partners  
504 W Juneau Avenue  
Milwaukee, WI 53203

**Project:**  
7708  
Hartland Quarry Apartments  
700/701 Capitol Drive  
Hartland, WI

## Sample Information

**Sample Date:** 04/17/2023  
**Sample No:** 7157  
**Source:** Jobsite  
**Supplier:** Client  
**Sampled By:** Michael Frede  
**Sample From:** Test Pit  
**Sampling Method:** Not Provided  
**Field ID:** TP-1 + TP-2 Combined  
**Application:** Test Pit  
**Visual Description:** Light Brown Silty Sand with few Gravel  
**Specification:**

## Sieve Analysis Data

ASTM C136/C117

Sieve Size	% Passing	Upper/Lower Limits
2 in (50 mm)	100.0	
1-1/2 in (37.5 mm)	100.0	
1-1/4 in (31.75 mm)	93.7	
1 in (25 mm)	91.7	
3/4 in (19 mm)	86.4	
1/2 in (12.5 mm)	79.5	
3/8 in (9.5 mm)	75.3	
No 4 (4.75 mm)	67.2	
No 10 (2 mm)	60.9	
No 20 (850 µm)	55.5	
No 40 (425 µm)	47.5	
No 60 (250 µm)	38.1	
No 100 (150 µm)	30.1	
No 140 (106 µm)	26.3	
No 200 (75 µm)	23.6	

**Test Completed Date:** 04/21/2023

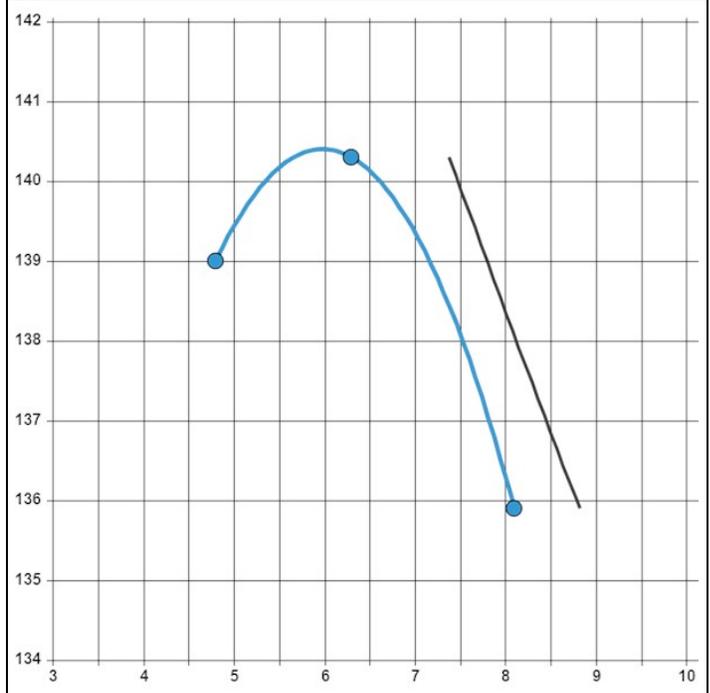
**Test Completed By:** Abdel Deif

## Laboratory Compaction Data (Proctor)

ASTM D1557

**Maximum Dry Density (lb/ft³):** 140.4

**Optimum Moisture (%):** 6.0



**Compaction Method:** B (ASTM D1557)

**Type of Rammer:** Manual

**Est. Specific Gravity:** 2.70

**Oversize Correction Needed:** Yes

## Plasticity Details

ASTM D4318

**Liquid Limit (LL):**                      **Plastic Limit (PL):**

**Plasticity Index (PI):**

Intiaz Ahmed, Laboratory Manager

Apr 27, 2023



**West Allis**  
2135 S. 116th Street  
West Allis, WI 53227  
Phone: 888-436-8378  
Fax: 414-321-8359

**Client:**  
Three Leaf Partners  
504 W Juneau Avenue  
Milwaukee, WI 53203

**Project:**  
7708  
Hartland Quarry Apartments  
700/701 Capitol Drive  
Hartland, WI

## Sample Information

**Sample Date:** 04/17/2023  
**Sample No:** 7158  
**Source:** Jobsite  
**Supplier:** Client  
**Sampled By:** Michael Frede  
**Sample From:** Test Pit  
**Sampling Method:** Not Provided  
**Field ID:** TP-3  
**Application:** Test Pit  
**Visual Description:** Brown Sand and Gravel, trace Silt  
**Specification:**

## Sieve Analysis Data

ASTM C136/C117

Sieve Size	% Passing	Upper/Lower Limits
2 in (50 mm)	100.0	
1-1/2 in (37.5 mm)	100.0	
1-1/4 in (31.75 mm)	93.4	
1 in (25 mm)	90.7	
3/4 in (19 mm)	84.0	
1/2 in (12.5 mm)	75.2	
3/8 in (9.5 mm)	69.6	
No 4 (4.75 mm)	57.0	
No 10 (2 mm)	47.6	
No 20 (850 µm)	40.3	
No 40 (425 µm)	32.0	
No 60 (250 µm)	23.0	
No 100 (150 µm)	17.3	
No 140 (106 µm)	14.9	
No 200 (75 µm)	12.6	

**Test Completed Date:** 04/25/2023

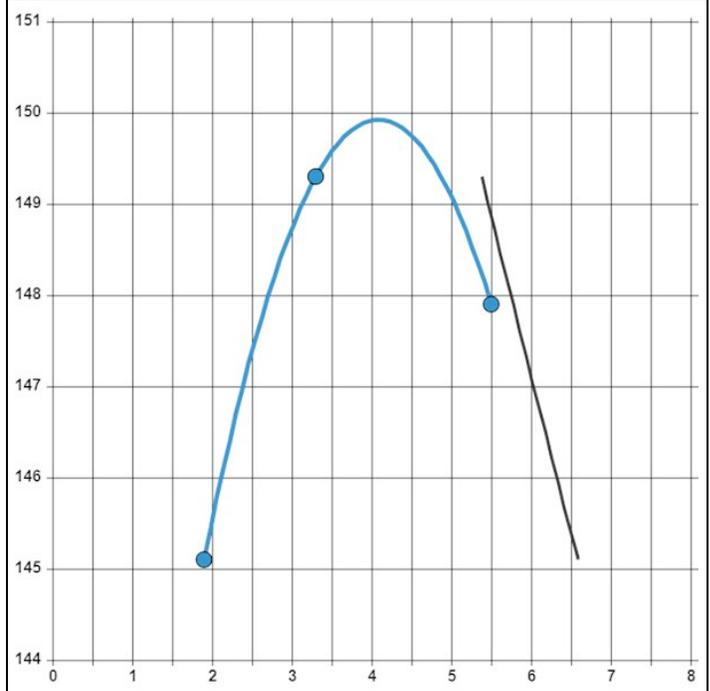
**Test Completed By:** Abdel Deif

## Laboratory Compaction Data (Proctor)

ASTM D1557

**Maximum Dry Density (lb/ft³):** 150.0

**Optimum Moisture (%):** 4.1



**Compaction Method:** C (ASTM D1557)  
**Type of Rammer:** Manual  
**Est. Specific Gravity:** 2.75  
**Oversize Correction Needed:** Yes

## Plasticity Details

ASTM D4318

**Liquid Limit (LL):**                      **Plastic Limit (PL):**  
**Plasticity Index (PI):**

Intiaz Ahmed, Laboratory Manager  
Apr 27, 2023



# Material Test Report

Report #: CSPL-000003-00

**West Allis**  
2135 S. 116th Street  
West Allis, WI 53227  
Phone: 888-436-8378  
Fax: 414-321-8359

**Client:**  
Three Leaf Partners  
504 W Juneau Avenue  
Milwaukee, WI 53203

**Project:**  
7708  
Hartland Quarry Apartments  
700/701 Capitol Drive  
Hartland, WI

## Sample Information

**Sample Date:** 04/17/2023  
**Sample No:** 7159  
**Source:** Jobsite  
**Supplier:** Client  
**Sampled By:** Michael Frede  
**Sample From:** Test Pit  
**Sampling Method:** Not Provided  
**Field ID:** TP-5  
**Application:** Test Pit  
**Visual Description:** Brown Silty Sand with few Gravel  
**Specification:**

## Sieve Analysis Data

ASTM C136/C117

Sieve Size	% Passing	Upper/Lower Limits
2 in (50 mm)	100.0	
1-1/2 in (37.5 mm)	100.0	
1-1/4 in (31.75 mm)	97.6	
1 in (25 mm)	95.1	
3/4 in (19 mm)	92.8	
1/2 in (12.5 mm)	88.6	
3/8 in (9.5 mm)	85.6	
No 4 (4.75 mm)	79.3	
No 10 (2 mm)	73.6	
No 20 (850 µm)	68.2	
No 40 (425 µm)	60.0	
No 60 (250 µm)	43.6	
No 100 (150 µm)	24.4	
No 140 (106 µm)	17.0	
No 200 (75 µm)	12.4	

**Test Completed Date:** 04/24/2023

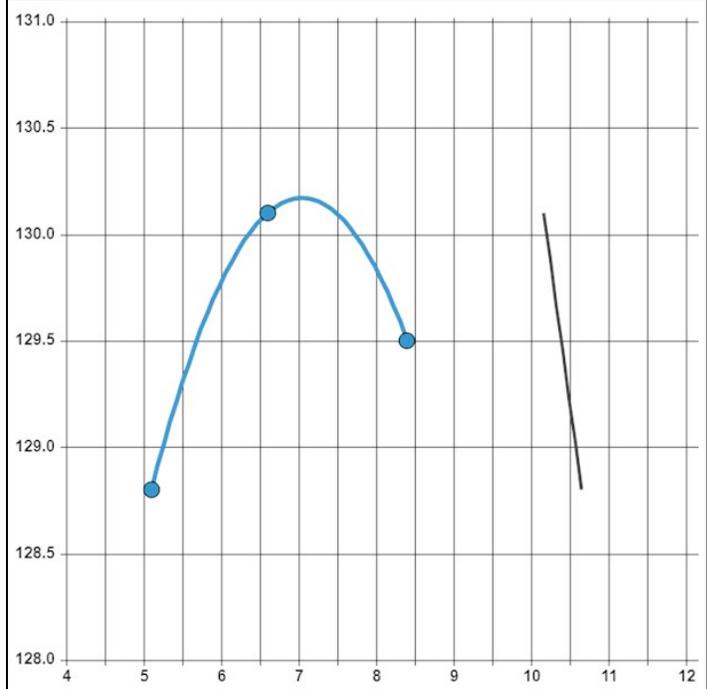
**Test Completed By:** Abdel Deif

## Laboratory Compaction Data (Proctor)

ASTM D1557

**Maximum Dry Density (lb/ft³):** 130.2

**Optimum Moisture (%):** 7.1



**Compaction Method:** A (ASTM D1557)  
**Type of Rammer:** Manual  
**Est. Specific Gravity:** 2.65  
**Oversize Correction Needed:** Yes

## Plasticity Details

ASTM D4318

**Liquid Limit (LL):**                      **Plastic Limit (PL):**  
**Plasticity Index (PI):**

Intiaz Ahmed, Laboratory Manager  
Apr 27, 2023

**West Allis**  
 2135 S. 116th Street  
 West Allis, WI 53227  
 Phone: 888-436-8378  
 Fax: 414-321-8359

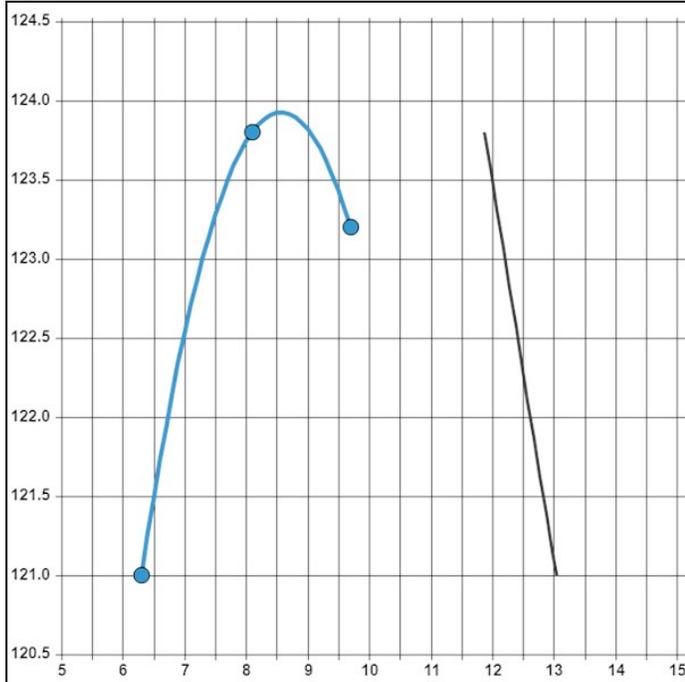
**Client:**  
 Three Leaf Partners  
 504 W Juneau Avenue  
 Milwaukee, WI 53203

**Project:**  
 7708  
 Hartland Quarry Apartments  
 700/701 Capitol Drive  
 Hartland, WI

## Sample Information

<b>Sample Date:</b>	04/18/2023	<b>Sample Number:</b>	7190
<b>Sample From:</b>	Test Pit	<b>Field ID:</b>	Bluff 6 + 7 Combined
<b>Sample Location :</b>	Onsite	<b>Sampled By:</b>	Michael Frede

## Test Results



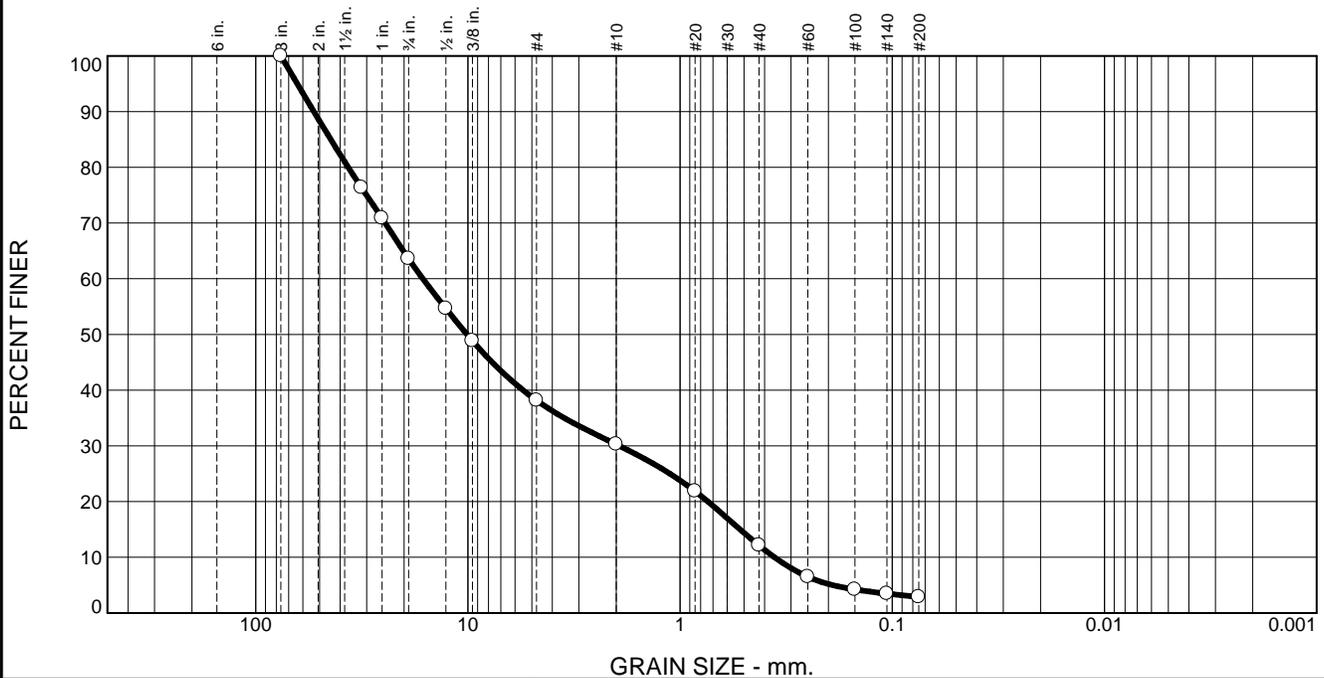
### Sample Photo



<b>Oversize Correction Needed:</b>	Yes	<b>Visual Description:</b>	Dark Brown Silty Clay with Organic
<b>Maximum Dry Density (lb/ft³):</b>	<b>123.9</b>	<b>Compaction Method Used:</b>	A (ASTM D1557)
<b>Optimum Moisture (%):</b>	<b>8.5</b>	<b>Type of Rammer Used:</b>	Manual
<b>Test Date:</b>	04/25/2023	<b>Sp. Gravity (Est):</b>	2.60
<b>Lab Technician:</b>	Abdel Deif		

Intiaz Ahmed, Laboratory Manager  
 Apr 27, 2023

# Sieve Analysis Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	36.4	25.4	7.9	18.2	9.2	2.9	

Test Results (ASTM C136 & ASTM C117)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
1 1/4"	76.4		
1"	70.9		
3/4"	63.6		
1/2"	54.7		
3/8"	48.9		
#4	38.2		
#10	30.3		
#20	21.9		
#40	12.1		
#60	6.5		
#100	4.2		
#140	3.5		
#200	2.9		

\* (no specification provided)

**Material Description**

Brown sand and gravel

**Atterberg Limits (ASTM D 4318)**

PL= \_\_\_\_\_ LL= \_\_\_\_\_ PI= \_\_\_\_\_

**Classification**

USCS (D 2487)= \_\_\_\_\_ AASHTO (M 145)= \_\_\_\_\_

**Coefficients**

D<sub>90</sub>= 53.2485      D<sub>85</sub>= 44.3097      D<sub>60</sub>= 16.3112  
D<sub>50</sub>= 10.1019      D<sub>30</sub>= 1.9347      D<sub>15</sub>= 0.5218  
D<sub>10</sub>= 0.3589      C<sub>u</sub>= 45.45      C<sub>c</sub>= 0.64

**Remarks**

F.M.=5.82

Date Received: 4/17/23      Date Tested: 4/27/23

Tested By: Luke Emery

Checked By: Imtiaz Ahmed

Title: Lab Manager

Source of Sample: TP      Depth: Onsite  
Sample Number: 6

Date Sampled: 4/17/23

**GeoTest, Inc.**

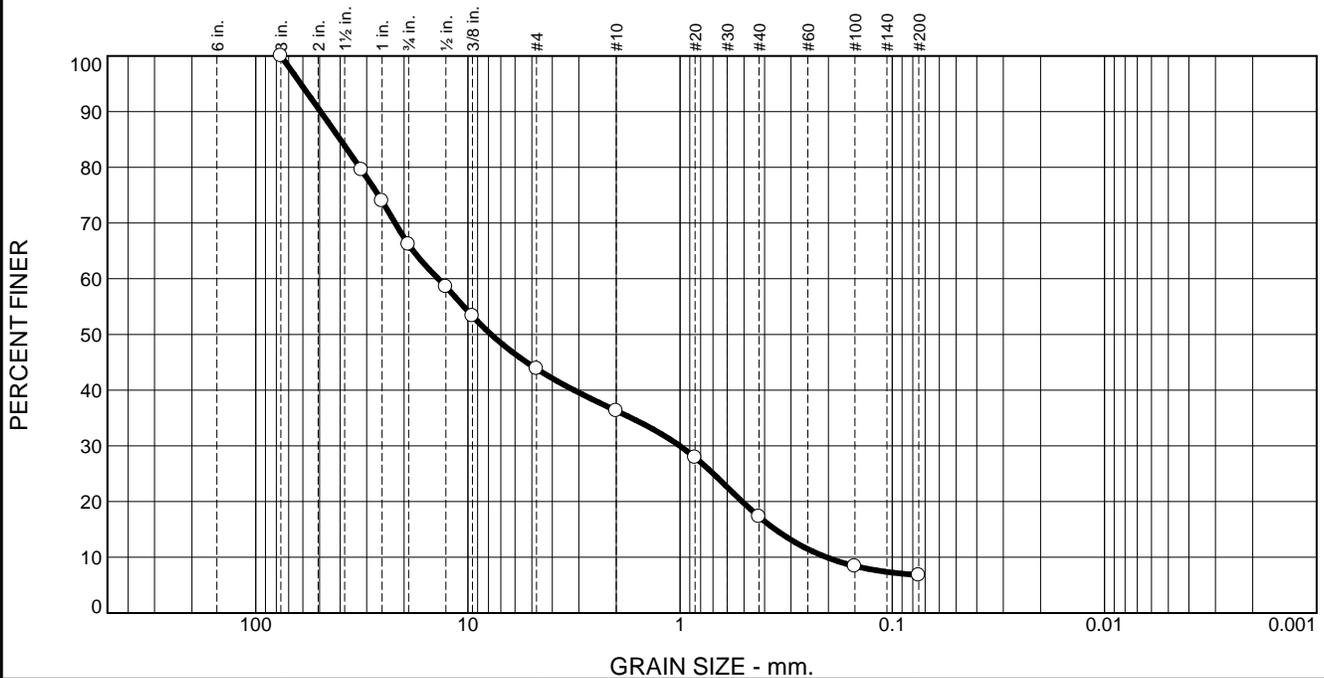
Client: Three Leaf Partners  
Project: Hatland Quarry Apartments

**West Allis, WI**

Project No: 7708

Test No 7160-6836

# Sieve Analysis Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	33.8	22.4	7.5	19.0	10.5	6.8	

Test Results (ASTM C136 & ASTM C117)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
1 1/4"	79.5		
1"	74.0		
3/4"	66.2		
1/2"	58.6		
3/8"	53.3		
#4	43.8		
#10	36.3		
#20	27.9		
#40	17.3		
#100	8.4		
#200	6.8		

\* (no specification provided)

**Material Description**

Brown sand and gravel

**Atterberg Limits (ASTM D 4318)**

PL= \_\_\_\_\_ LL= \_\_\_\_\_ PI= \_\_\_\_\_

**Classification**

USCS (D 2487)= \_\_\_\_\_ AASHTO (M 145)= \_\_\_\_\_

**Coefficients**

D<sub>90</sub>= 49.4912      D<sub>85</sub>= 39.9751      D<sub>60</sub>= 13.8034  
D<sub>50</sub>= 7.7767      D<sub>30</sub>= 1.0033      D<sub>15</sub>= 0.3560  
D<sub>10</sub>= 0.2043      C<sub>u</sub>= 67.57      C<sub>c</sub>= 0.36

**Remarks**

F.M.=5.39

Date Received: 4/17/23      Date Tested: 4/27/23

Tested By: Luke Emery

Checked By: Imtiaz Ahmed

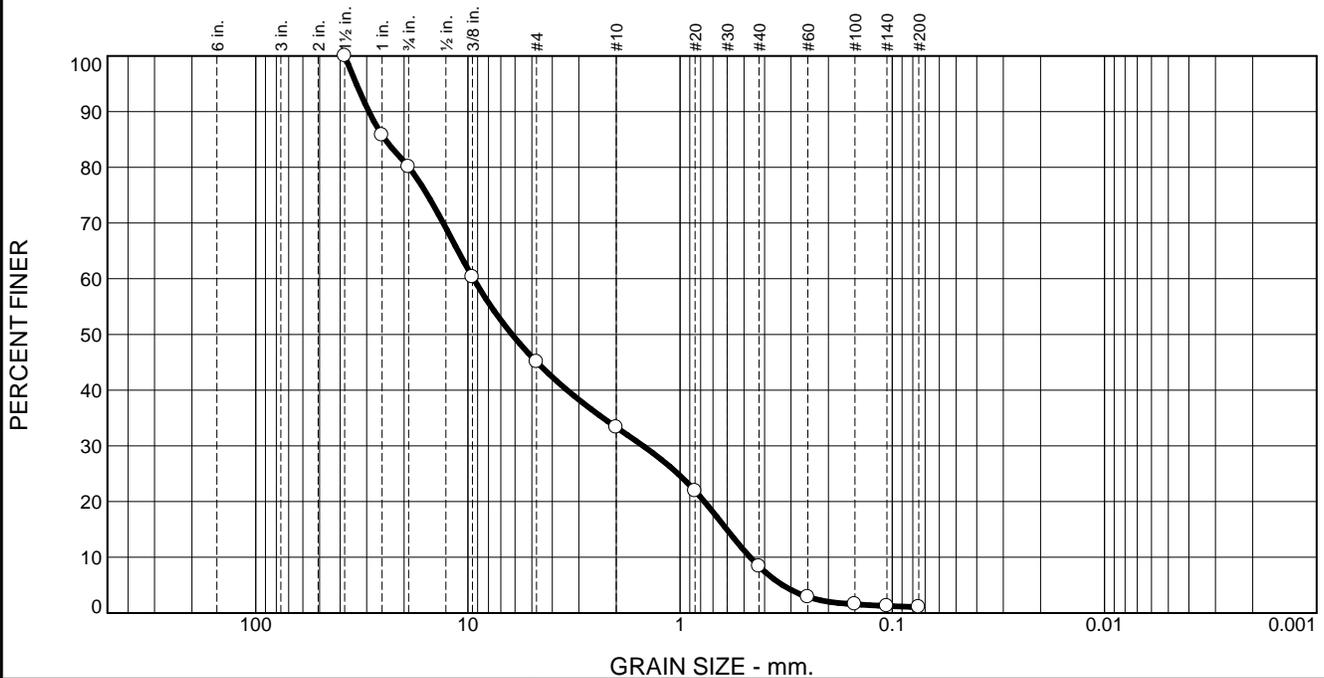
Title: Lab Manager

Source of Sample: TP      Depth: Onsite  
Sample Number: 9

Date Sampled: 4/17/23

<b>GeoTest, Inc.</b>  <b>West Allis, WI</b>	<b>Client:</b> Three Leaf Partners <b>Project:</b> Hatland Quarry Apartments  <b>Project No:</b> 7708 <b>Test No</b> 7162-6838
---	---

# Sieve Analysis Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	19.9	35.0	11.8	24.9	7.3	1.1	

Test Results (ASTM D6913 & ASTM D1140)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
1-1/2"	100.0		
1"	85.8		
3/4"	80.1		
3/8"	60.3		
#4	45.1		
#10	33.3		
#20	21.9		
#40	8.4		
#60	2.9		
#100	1.6		
#140	1.3		
#200	1.1		

\* (no specification provided)

**Material Description**

Brown f to c sand

**Atterberg Limits (ASTM D 4318)**

PL= \_\_\_\_\_ LL= \_\_\_\_\_ PI= \_\_\_\_\_

**Classification**

USCS (D 2487)= \_\_\_\_\_ AASHTO (M 145)= \_\_\_\_\_

**Coefficients**

D<sub>90</sub>= 29.3003      D<sub>85</sub>= 24.5860      D<sub>60</sub>= 9.4124  
D<sub>50</sub>= 6.1982      D<sub>30</sub>= 1.4946      D<sub>15</sub>= 0.6023  
D<sub>10</sub>= 0.4674      C<sub>u</sub>= 20.14      C<sub>c</sub>= 0.51

**Remarks**

F.M.=5.32

Date Received: 4/17/23      Date Tested: 4/19/23

Tested By: Hiten Soni

Checked By: Imtiaz Ahmed

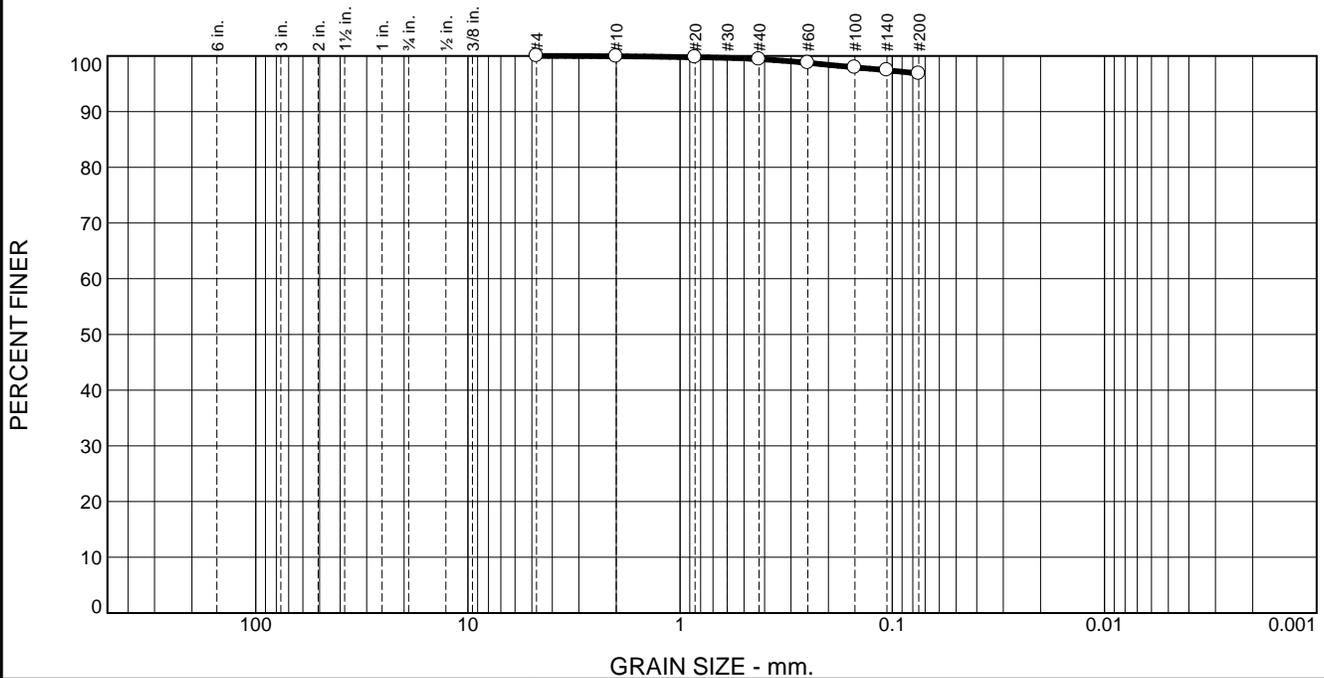
Title: Lab Manager

Source of Sample: Bluff      Depth: Onsite  
Sample Number: 1

Date Sampled: 4/17/23

<p><b>GeoTest, Inc.</b></p> <p><b>West Allis, WI</b></p>	<p>Client: Three Leaf Partners</p> <p>Project: Hatland Quarry Apartments</p> <p>Project No: 7708</p> <p style="text-align: right;">Test No</p>
--	--

# Sieve Analysis Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.1	0.5	2.6	96.8	

Test Results (ASTM D6913 & ASTM D1140)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
#4	100.0		
#10	99.9		
#20	99.8		
#40	99.4		
#60	98.8		
#100	97.9		
#140	97.4		
#200	96.8		

\* (no specification provided)

**Material Description**

Brown lean clay

**Atterberg Limits (ASTM D 4318)**

PL= 22.5                      LL= 34.7                      PI= 12.2

**Classification**

USCS (D 2487)= CL                      AASHTO (M 145)= A-6(13)

**Coefficients**

D<sub>90</sub>=                      D<sub>85</sub>=                      D<sub>60</sub>=  
D<sub>50</sub>=                      D<sub>30</sub>=                      D<sub>15</sub>=  
D<sub>10</sub>=                      C<sub>u</sub>=                      C<sub>c</sub>=

Remarks

F.M.=0.04

Date Received: 4/17/23                      Date Tested: 4/19/23

Tested By: Hiten Soni

Checked By: Imtiaz Ahmed

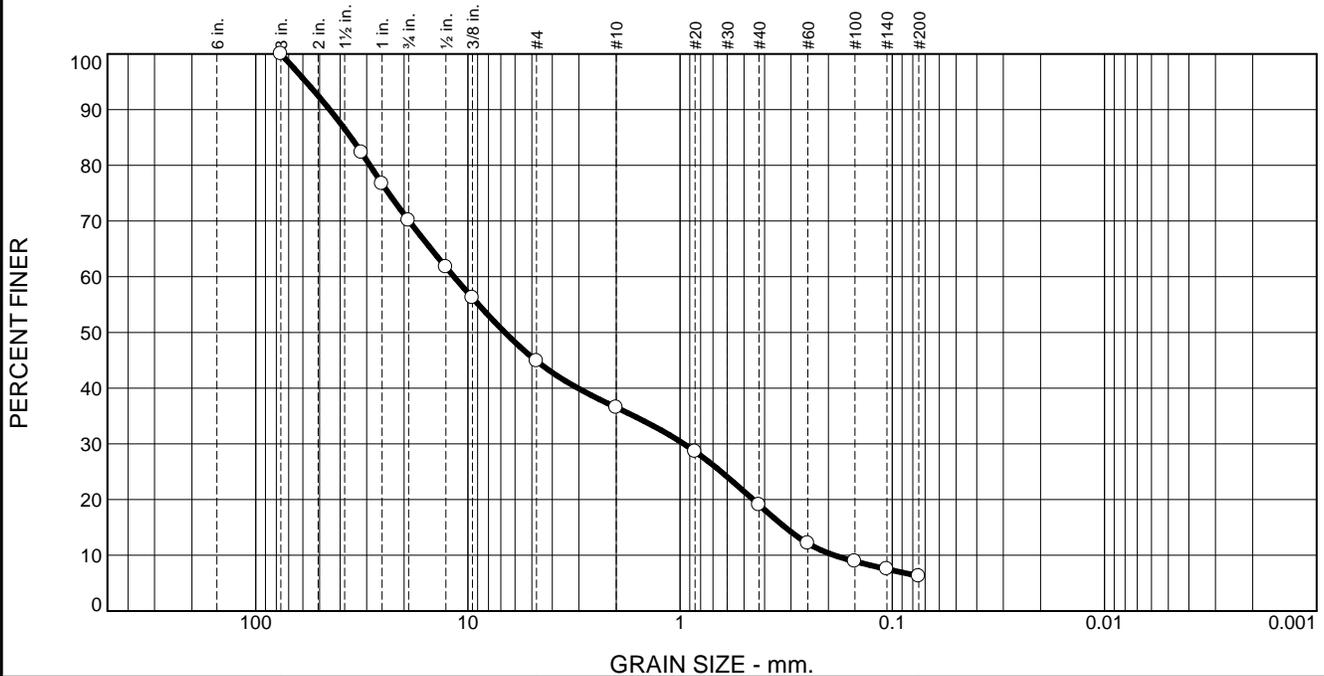
Title: Lab Manager

Source of Sample: Bluff                      Depth: Onsite  
Sample Number: 2

Date Sampled: 4/17/23

<b>GeoTest, Inc.</b>  <b>West Allis, WI</b>	<b>Client:</b> Three Leaf Partners <b>Project:</b> Hatland Quarry Apartments  <b>Project No:</b> 7708 <b>Test No</b> 7164-6840
---	---

# Sieve Analysis Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	29.9	25.2	8.4	17.4	12.8	6.3	

Test Results (ASTM C136 & ASTM C117)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
1 1/4"	82.3		
1"	76.7		
3/4"	70.1		
1/2"	61.7		
3/8"	56.2		
#4	44.9		
#10	36.5		
#20	28.6		
#40	19.1		
#60	12.1		
#100	8.9		
#140	7.5		
#200	6.3		

\* (no specification provided)

**Material Description**

Brown sand and gravel

**Atterberg Limits (ASTM D 4318)**

PL= \_\_\_\_\_ LL= \_\_\_\_\_ PI= \_\_\_\_\_

**Classification**

USCS (D 2487)= \_\_\_\_\_ AASHTO (M 145)= \_\_\_\_\_

**Coefficients**

D<sub>90</sub>= 44.8239      D<sub>85</sub>= 35.5744      D<sub>60</sub>= 11.6219  
D<sub>50</sub>= 6.6981      D<sub>30</sub>= 0.9602      D<sub>15</sub>= 0.3195  
D<sub>10</sub>= 0.1880      C<sub>u</sub>= 61.82      C<sub>c</sub>= 0.42

**Remarks**

F.M.=5.25

Date Received: 4/18/23      Date Tested: 4/27/23

Tested By: Craig Englund

Checked By: Imtiaz Ahmed

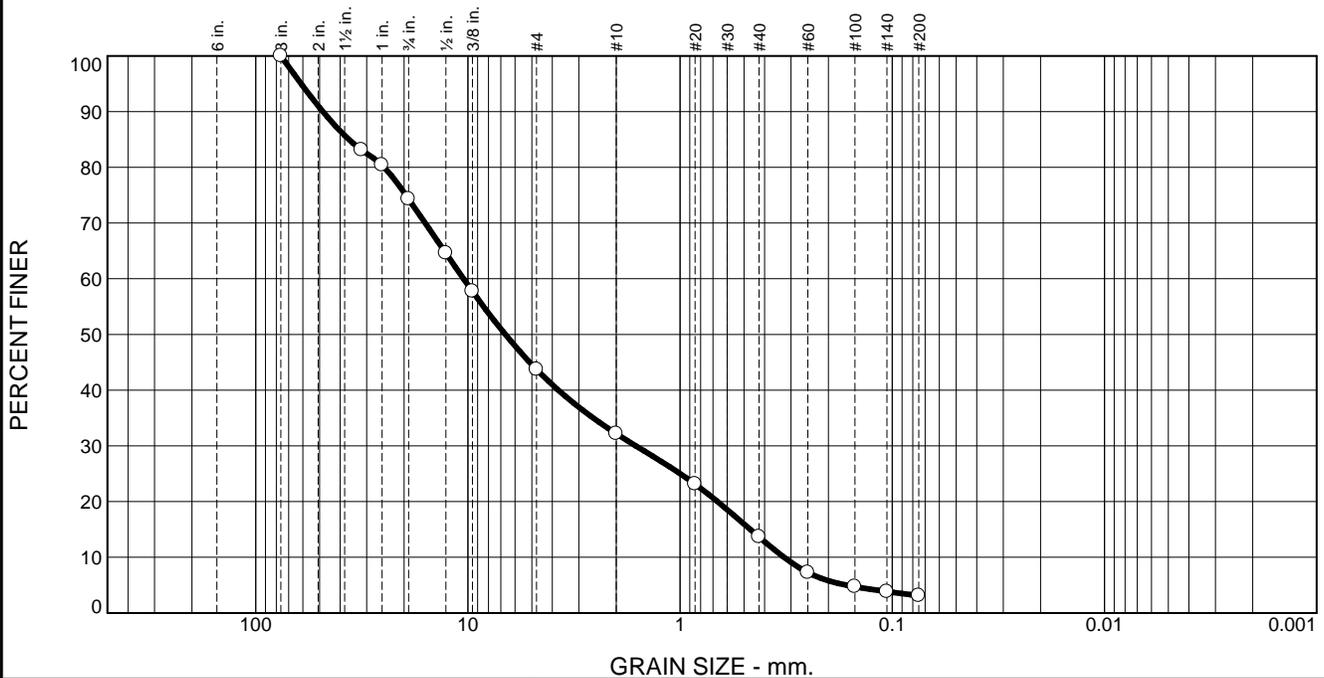
Title: Lab Manager

Source of Sample: Bluff      Depth: Onsite  
Sample Number: 3

Date Sampled: 4/18/23

<b>GeoTest, Inc.</b>  <b>West Allis, WI</b>	<b>Client:</b> Three Leaf Partners <b>Project:</b> Hatland Quarry Apartments  <b>Project No:</b> 7708 <b>Test No</b> 7173-6848
---	---

# Sieve Analysis Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	25.7	30.6	11.5	18.5	10.6	3.1	

Test Results (ASTM C136 & ASTM C117)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
1 1/4"	83.1		
1"	80.4		
3/4"	74.3		
1/2"	64.6		
3/8"	57.7		
#4	43.7		
#10	32.2		
#20	23.1		
#40	13.7		
#60	7.3		
#100	4.7		
#140	3.8		
#200	3.1		

\* (no specification provided)

**Material Description**

Brown sand and gravel

**Atterberg Limits (ASTM D 4318)**

PL= \_\_\_\_\_ LL= \_\_\_\_\_ PI= \_\_\_\_\_

**Classification**

USCS (D 2487)= \_\_\_\_\_ AASHTO (M 145)= \_\_\_\_\_

**Coefficients**

D<sub>90</sub>= 48.2763      D<sub>85</sub>= 36.4131      D<sub>60</sub>= 10.4876  
D<sub>50</sub>= 6.6655      D<sub>30</sub>= 1.6184      D<sub>15</sub>= 0.4670  
D<sub>10</sub>= 0.3238      C<sub>u</sub>= 32.39      C<sub>c</sub>= 0.77

**Remarks**

F.M.=5.45

Date Received: 4/18/23      Date Tested: 4/27/23

Tested By: Craig Englund \_\_\_\_\_

Checked By: Imtiaz Ahmed \_\_\_\_\_

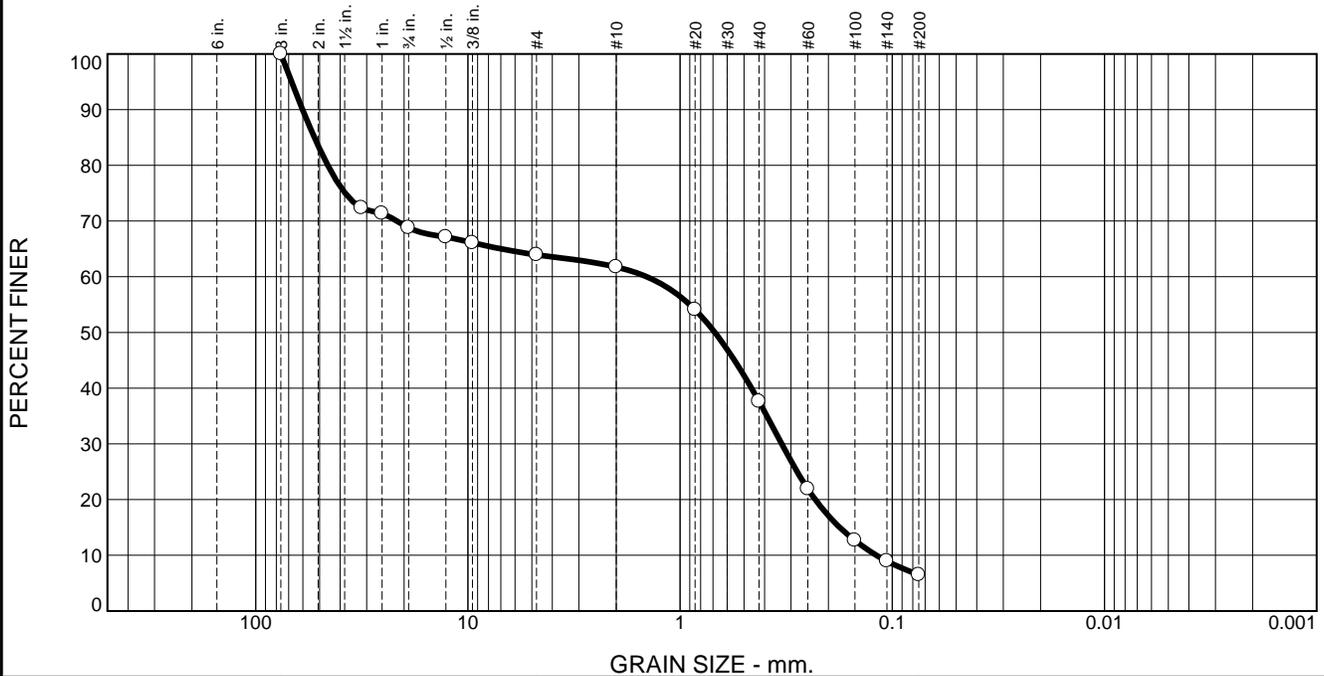
Title: Lab Manager \_\_\_\_\_

Source of Sample: Bluff      Depth: Onsite  
Sample Number: 4

Date Sampled: 4/18/23

<p><b>GeoTest, Inc.</b></p> <p><b>West Allis, WI</b></p>	<p><b>Client:</b> Three Leaf Partners</p> <p><b>Project:</b> Hatland Quarry Apartments</p> <p><b>Project No:</b> 7708</p>	<p><b>Test No</b> 7174-6849</p>
--	---	---------------------------------

# Sieve Analysis Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	31.2	4.9	2.2	24.1	31.1	6.5	

Test Results (ASTM C136 & ASTM D1140)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
1 1/4"	72.3		
1"	71.3		
3/4"	68.8		
1/2"	67.1		
3/8"	66.1		
#4	63.9		
#10	61.7		
#20	54.1		
#40	37.6		
#60	21.9		
#100	12.7		
#140	8.9		
#200	6.5		

\* (no specification provided)

**Material Description**

Dark Brown sand and gravel

**Atterberg Limits (ASTM D 4318)**

PL= \_\_\_\_\_ LL= \_\_\_\_\_ PI= \_\_\_\_\_

**Classification**

USCS (D 2487)= \_\_\_\_\_ AASHTO (M 145)= \_\_\_\_\_

**Coefficients**

D<sub>90</sub>= 60.1653      D<sub>85</sub>= 52.9287      D<sub>60</sub>= 1.4365  
D<sub>50</sub>= 0.6859      D<sub>30</sub>= 0.3320      D<sub>15</sub>= 0.1768  
D<sub>10</sub>= 0.1188      C<sub>u</sub>= 12.09      C<sub>c</sub>= 0.65

**Remarks**

F.M.=4.19

Date Received: 4/18/23      Date Tested: 4/27/23

Tested By: Craig Englund \_\_\_\_\_

Checked By: Imtiaz Ahmed \_\_\_\_\_

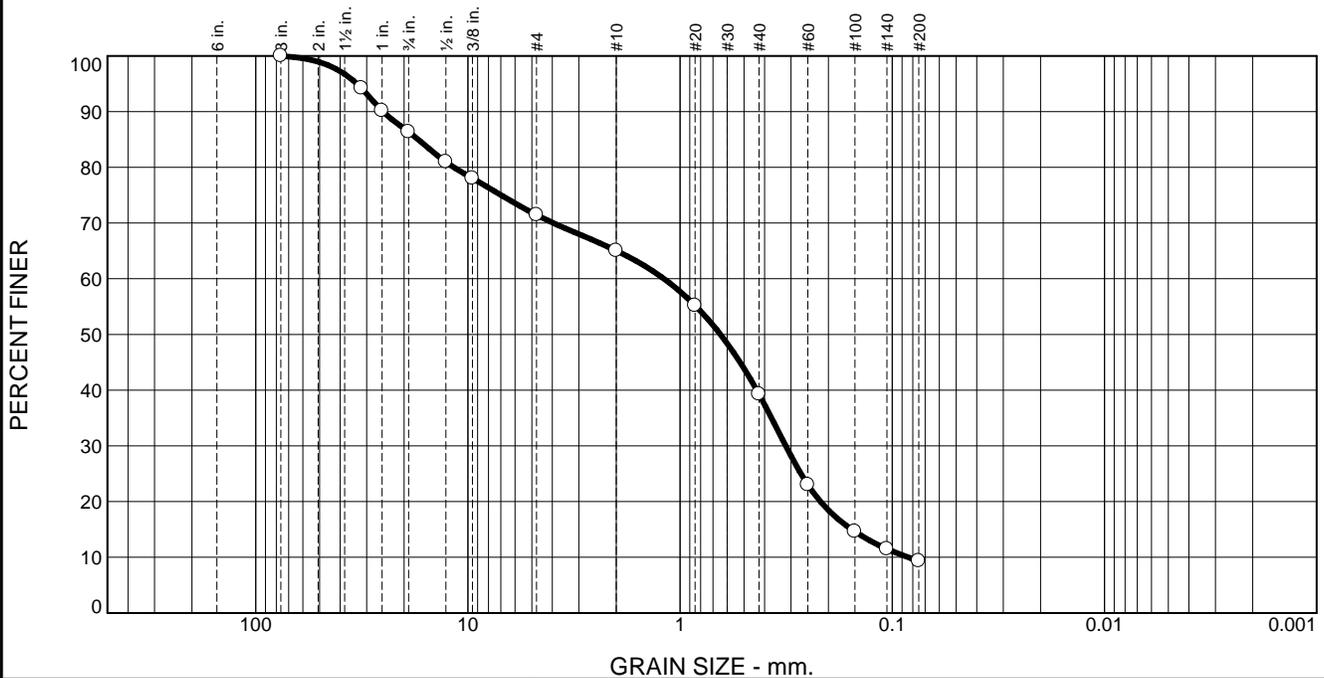
Title: Lab Manager \_\_\_\_\_

Source of Sample: Bluff      Depth: Onsite  
Sample Number: 5

Date Sampled: 4/18/23

<p><b>GeoTest, Inc.</b></p> <p><b>West Allis, WI</b></p>	<p><b>Client:</b> Three Leaf Partners</p> <p><b>Project:</b> Hatland Quarry Apartments</p> <p><b>Project No:</b> 7708</p>	<p><b>Test No</b> 7175-6850</p>
--	---	---------------------------------

# Sieve Analysis Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	13.6	14.9	6.5	25.7	30.0	9.3	

Test Results (ASTM C136 & ASTM C117)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
1 1/4"	94.2		
1"	90.2		
3/4"	86.4		
1/2"	81.0		
3/8"	78.0		
#4	71.5		
#10	65.0		
#20	55.2		
#40	39.3		
#60	23.0		
#100	14.6		
#140	11.5		
#200	9.3		

\* (no specification provided)

**Material Description**

Brown sand and gravel

**Atterberg Limits (ASTM D 4318)**

PL= \_\_\_\_\_ LL= \_\_\_\_\_ PI= \_\_\_\_\_

**Classification**

USCS (D 2487)= \_\_\_\_\_ AASHTO (M 145)= \_\_\_\_\_

**Coefficients**

D<sub>90</sub>= 25.1604      D<sub>85</sub>= 17.1823      D<sub>60</sub>= 1.1920  
D<sub>50</sub>= 0.6455      D<sub>30</sub>= 0.3180      D<sub>15</sub>= 0.1553  
D<sub>10</sub>= 0.0841      C<sub>u</sub>= 14.17      C<sub>c</sub>= 1.01

**Remarks**

F.M.=3.50

Date Received: 11/18/23      Date Tested: 4/27/23

Tested By: Luke Emery

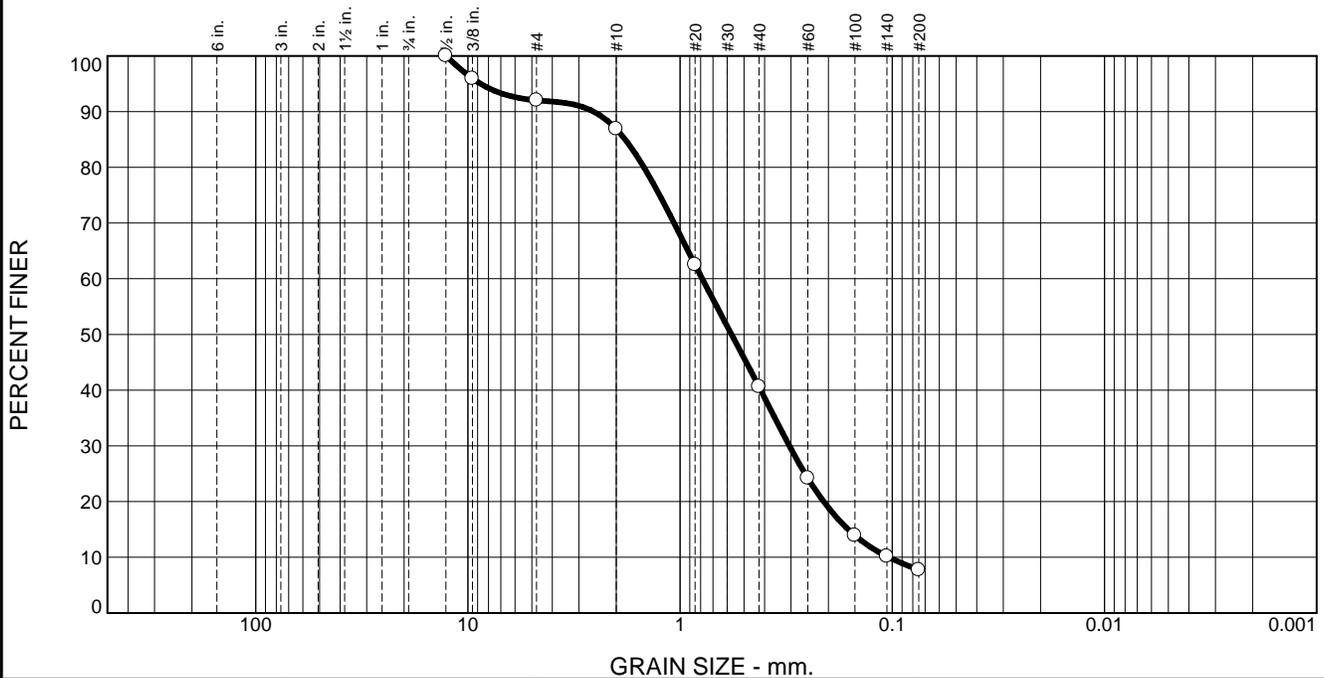
Checked By: Imtiaz Ahmed

Title: Lab Manager

Source of Sample: Bluff      Depth: Onsite      Date Sampled: 11/18/23  
Sample Number: 6

<b>GeoTest, Inc.</b>  <b>West Allis, WI</b>	<b>Client:</b> Three Leaf Partners <b>Project:</b> Hatland Quarry Apartments  <b>Project No:</b> 7708 <b>Test No</b> 7176-6851
---	---

# Sieve Analysis Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	8.0	5.1	46.3	32.9	7.7	

Test Results (ASTM D6913 & ASTM D1140)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
1/2"	100.0		
3/8"	95.9		
#4	92.0		
#10	86.9		
#20	62.5		
#40	40.6		
#60	24.2		
#100	13.9		
#140	10.2		
#200	7.7		

**Material Description**

Brown f to c sand

**Atterberg Limits (ASTM D 4318)**

PL= \_\_\_\_\_ LL= \_\_\_\_\_ PI= \_\_\_\_\_

**Classification**

USCS (D 2487)= \_\_\_\_\_ AASHTO (M 145)= \_\_\_\_\_

**Coefficients**

D<sub>90</sub>= 2.5558      D<sub>85</sub>= 1.8143      D<sub>60</sub>= 0.7865  
D<sub>50</sub>= 0.5722      D<sub>30</sub>= 0.3055      D<sub>15</sub>= 0.1615  
D<sub>10</sub>= 0.1040      C<sub>u</sub>= 7.56      C<sub>c</sub>= 1.14

**Remarks**

F.M.=2.55

---

Date Received: 4/18/23      Date Tested: 4/27/23

Tested By: Luke Emery

Checked By: Imtiaz Ahmed

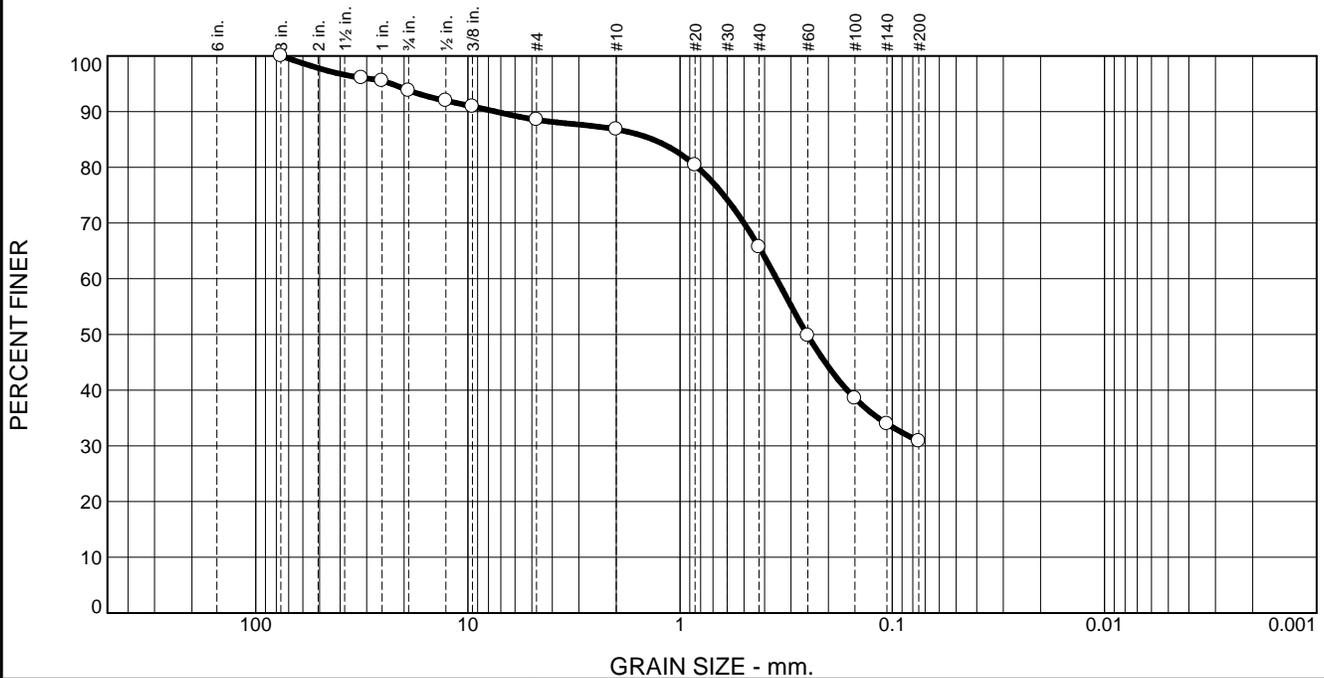
Title: Lab Manager

\* (no specification provided)

Source of Sample: Bluff      Depth: Onsite      Date Sampled: 4/18/23  
Sample Number: 7

<b>GeoTest, Inc.</b>  <b>West Allis, WI</b>	<b>Client:</b> Three Leaf Partners <b>Project:</b> Hatland Quarry Apartments  <b>Project No:</b> 7708 <b>Test No</b> 7177-6852
---	---

# Sieve Analysis Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	6.2	5.3	1.7	21.1	34.8	30.9	

Test Results (ASTM C136 & ASTM C117)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
1 1/4"	96.1		
1"	95.5		
3/4"	93.8		
1/2"	92.0		
3/8"	90.9		
#4	88.5		
#10	86.8		
#20	80.4		
#40	65.7		
#60	49.8		
#100	38.5		
#140	34.0		
#200	30.9		

\* (no specification provided)

**Material Description**

Brown sand and gravel

**Atterberg Limits (ASTM D 4318)**

PL= \_\_\_\_\_ LL= \_\_\_\_\_ PI= \_\_\_\_\_

**Classification**

USCS (D 2487)= \_\_\_\_\_ AASHTO (M 145)= \_\_\_\_\_

**Coefficients**

D<sub>90</sub>= 7.4064      D<sub>85</sub>= 1.3432      D<sub>60</sub>= 0.3512  
D<sub>50</sub>= 0.2518      D<sub>30</sub>= \_\_\_\_\_      D<sub>15</sub>= \_\_\_\_\_  
D<sub>10</sub>= \_\_\_\_\_      C<sub>u</sub>= \_\_\_\_\_      C<sub>c</sub>= \_\_\_\_\_

Remarks

F.M.=1.91

Date Received: 4/18/23      Date Tested: 4/27/23

Tested By: Craig Englund \_\_\_\_\_

Checked By: Imtiaz Ahmed \_\_\_\_\_

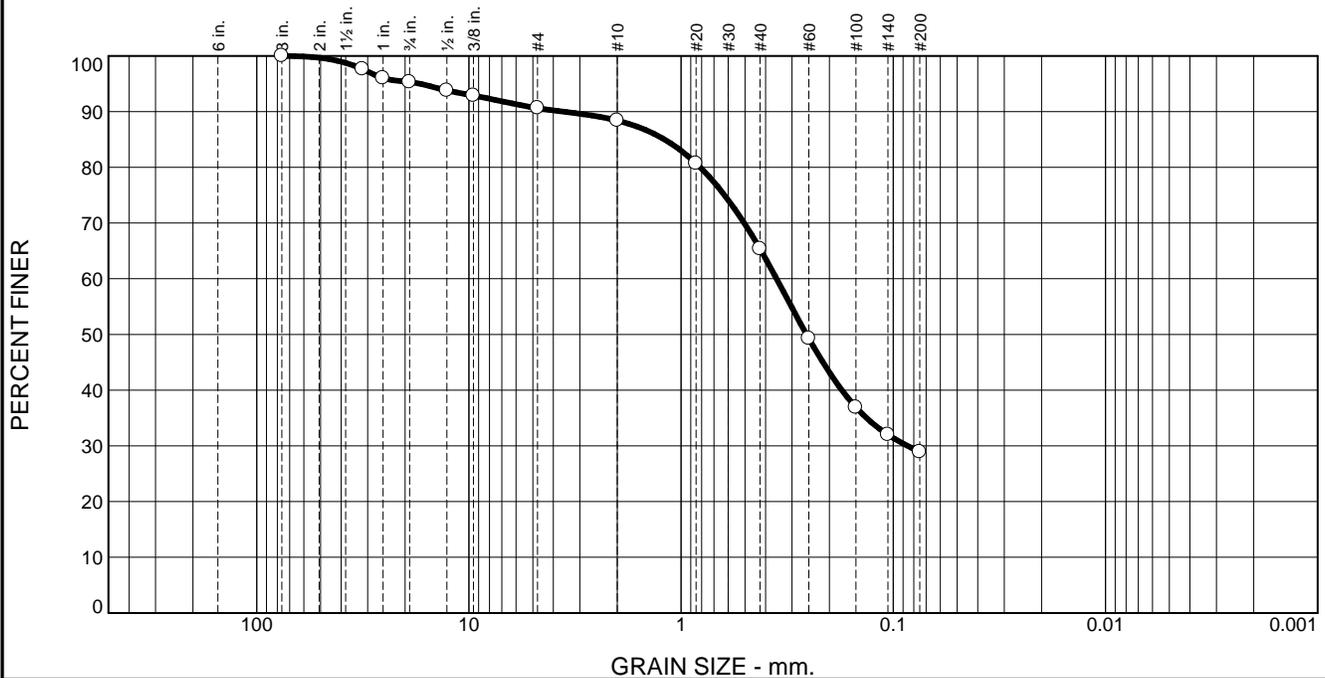
Title: Lab Manager \_\_\_\_\_

Source of Sample: Bluff      Depth: Onsite  
Sample Number: 8

Date Sampled: 4/18/23

<p style="font-size: 1.2em; margin: 0;"><b>GeoTest, Inc.</b></p> <p style="font-size: 1.2em; margin: 0;"><b>West Allis, WI</b></p>	<p>Client: Three Leaf Partners</p> <p>Project: Hatland Quarry Apartments</p> <p>Project No: 7708</p> <p style="text-align: right;">Test No 7178-6853</p>
--	--

# Sieve Analysis Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	4.7	4.7	2.2	23.0	36.5	28.9	

Test Results (ASTM C136 & ASTM C117)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
1 1/4"	97.6		
1"	96.0		
3/4"	95.3		
1/2"	93.8		
3/8"	92.9		
#4	90.6		
#10	88.4		
#20	80.7		
#40	65.4		
#60	49.3		
#100	36.9		
#140	32.0		
#200	28.9		

\* (no specification provided)

**Material Description**

Brown sand and gravel

**Atterberg Limits (ASTM D 4318)**

PL= \_\_\_\_\_ LL= \_\_\_\_\_ PI= \_\_\_\_\_

**Classification**

USCS (D 2487)= \_\_\_\_\_ AASHTO (M 145)= \_\_\_\_\_

**Coefficients**

D<sub>90</sub>= 3.6204      D<sub>85</sub>= 1.1979      D<sub>60</sub>= 0.3550  
D<sub>50</sub>= 0.2564      D<sub>30</sub>= 0.0857      D<sub>15</sub>= \_\_\_\_\_  
D<sub>10</sub>= \_\_\_\_\_      C<sub>u</sub>= \_\_\_\_\_      C<sub>c</sub>= \_\_\_\_\_

**Remarks**

F.M.=1.83

Date Received: 4/18/23      Date Tested: 4/27/23

Tested By: Craig Englund

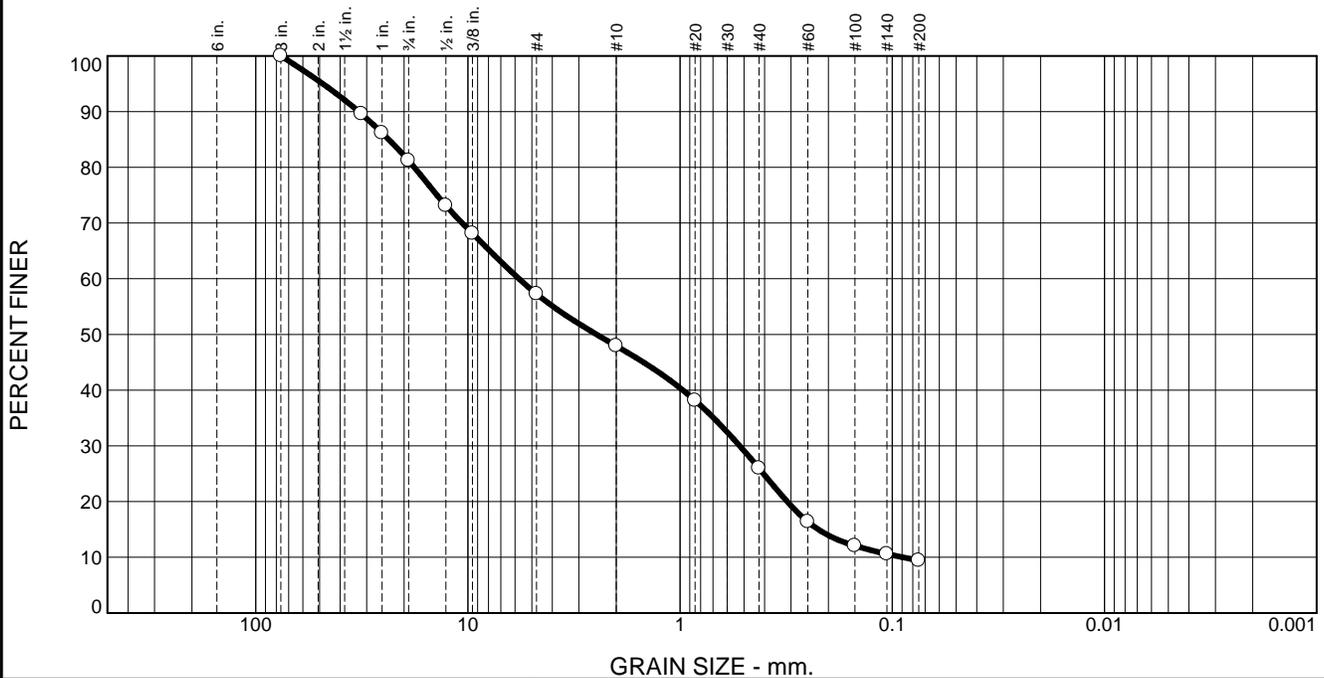
Checked By: Imtiaz Ahmed

Title: Lab Manager

Source of Sample: Bluff      Depth: Onsite      Date Sampled: 4/18/23  
Sample Number: 9

<b>GeoTest, Inc.</b>  <b>West Allis, WI</b>	<b>Client:</b> Three Leaf Partners <b>Project:</b> Hatland Quarry Apartments  <b>Project No:</b> 7708 <b>Test No</b> 7179-6854
---	---

# Sieve Analysis Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	18.8	23.9	9.4	21.9	16.6	9.4	

Test Results (ASTM C136 & ASTM C117)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
1 1/4"	89.6		
1"	86.2		
3/4"	81.2		
1/2"	73.1		
3/8"	68.1		
#4	57.3		
#10	47.9		
#20	38.2		
#40	26.0		
#60	16.4		
#100	12.1		
#140	10.6		
#200	9.4		

\* (no specification provided)

**Material Description**

Brown sand and gravel

**Atterberg Limits (ASTM D 4318)**

PL= \_\_\_\_\_ LL= \_\_\_\_\_ PI= \_\_\_\_\_

**Classification**

USCS (D 2487)= \_\_\_\_\_ AASHTO (M 145)= \_\_\_\_\_

**Coefficients**

D<sub>90</sub>= 32.6990      D<sub>85</sub>= 23.6371      D<sub>60</sub>= 5.7505  
D<sub>50</sub>= 2.4748      D<sub>30</sub>= 0.5236      D<sub>15</sub>= 0.2235  
D<sub>10</sub>= 0.0894      C<sub>u</sub>= 64.32      C<sub>c</sub>= 0.53

**Remarks**

F.M.=4.46

Date Received: 4/18/23      Date Tested: 4/27/23

Tested By: Craig Englund

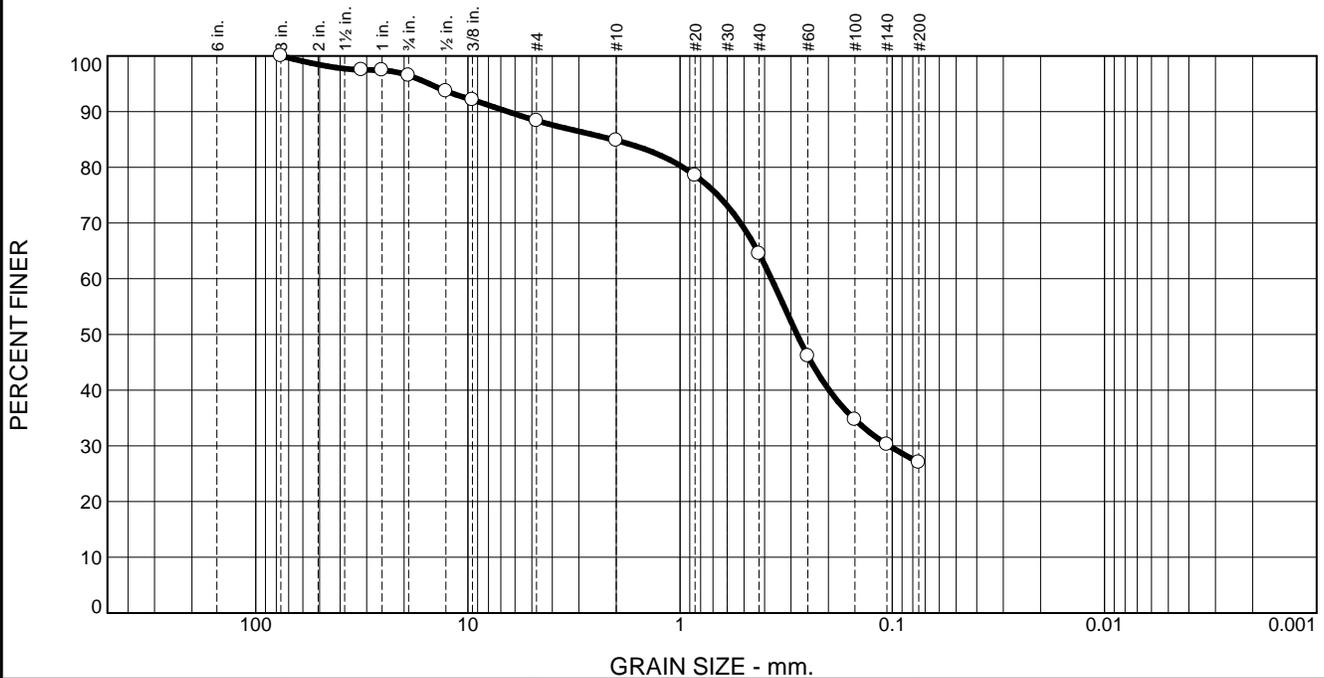
Checked By: Imtiaz Ahmed

Title: Lab Manager

Source of Sample: Bluff      Depth: Onsite      Date Sampled: 4/18/23  
Sample Number: 10

<b>GeoTest, Inc.</b>  <b>West Allis, WI</b>	<b>Client:</b> Three Leaf Partners <b>Project:</b> Hatland Quarry Apartments  <b>Project No:</b> 7708 <b>Test No</b> 7180-6855
---	---

# Sieve Analysis Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	3.5	8.1	3.6	20.3	37.5	27.0	

Test Results (ASTM C136 & ASTM C117)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
1 1/4"	97.5		
1"	97.4		
3/4"	96.5		
1/2"	93.7		
3/8"	92.1		
#4	88.4		
#10	84.8		
#20	78.5		
#40	64.5		
#60	46.1		
#100	34.7		
#140	30.3		
#200	27.0		

**Material Description**

Brown sandy silt, little topsoil

**Atterberg Limits (ASTM D 4318)**

PL= \_\_\_\_\_ LL= \_\_\_\_\_ PI= \_\_\_\_\_

**Classification**

USCS (D 2487)= \_\_\_\_\_ AASHTO (M 145)= \_\_\_\_\_

**Coefficients**

D<sub>90</sub>= 6.4931      D<sub>85</sub>= 2.0810      D<sub>60</sub>= 0.3712  
D<sub>50</sub>= 0.2810      D<sub>30</sub>= 0.1034      D<sub>15</sub>= \_\_\_\_\_  
D<sub>10</sub>= \_\_\_\_\_      C<sub>u</sub>= \_\_\_\_\_      C<sub>c</sub>= \_\_\_\_\_

Remarks

F.M.=1.98

---

Date Received: 4/18/23      Date Tested: 4/27/23

Tested By: Craig Englund

Checked By: Imtiaz Ahmed

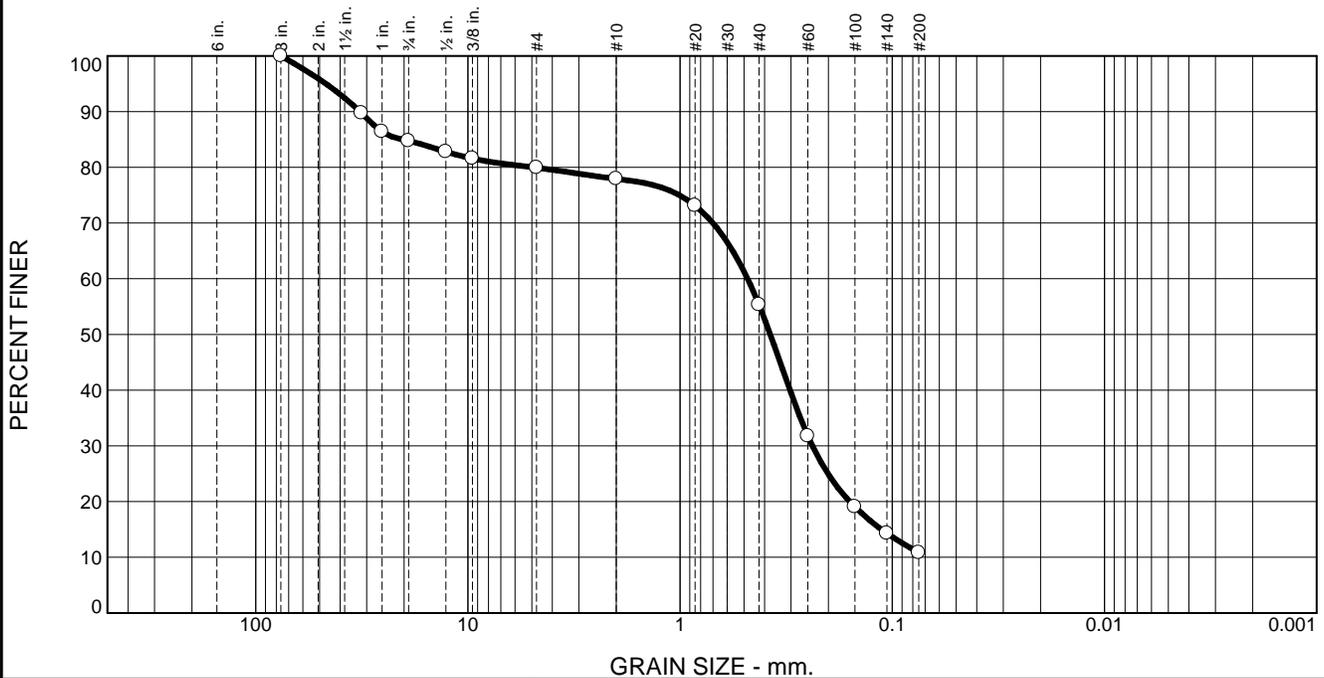
Title: Lab Manager

\* (no specification provided)

Source of Sample: Bluff      Depth: Onsite      Date Sampled: 4/18/23  
Sample Number: 11

<b>GeoTest, Inc.</b>  <b>West Allis, WI</b>	<b>Client:</b> Three Leaf Partners <b>Project:</b> Hatland Quarry Apartments  <b>Project No:</b> 7708 <b>Test No</b> 7181-6856
---	---

# Sieve Analysis Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	15.3	4.8	2.0	22.6	44.5	10.8	

Test Results (ASTM C136 & ASTM C117)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
1 1/4"	89.7		
1"	86.4		
3/4"	84.7		
1/2"	82.8		
3/8"	81.6		
#4	79.9		
#10	77.9		
#20	73.1		
#40	55.3		
#60	31.8		
#100	19.1		
#140	14.3		
#200	10.8		

\* (no specification provided)

**Material Description**

Brown sand and gravel

**Atterberg Limits (ASTM D 4318)**

PL= \_\_\_\_\_ LL= \_\_\_\_\_ PI= \_\_\_\_\_

**Classification**

USCS (D 2487)= \_\_\_\_\_ AASHTO (M 145)= \_\_\_\_\_

**Coefficients**

D<sub>90</sub>= 32.2820      D<sub>85</sub>= 20.4121      D<sub>60</sub>= 0.4808  
D<sub>50</sub>= 0.3760      D<sub>30</sub>= 0.2379      D<sub>15</sub>= 0.1125  
D<sub>10</sub>= \_\_\_\_\_      C<sub>u</sub>= \_\_\_\_\_      C<sub>c</sub>= \_\_\_\_\_

**Remarks**

F.M.=2.82

Date Received: 4/18/23      Date Tested: 4/27/23

Tested By: Craig Englund \_\_\_\_\_

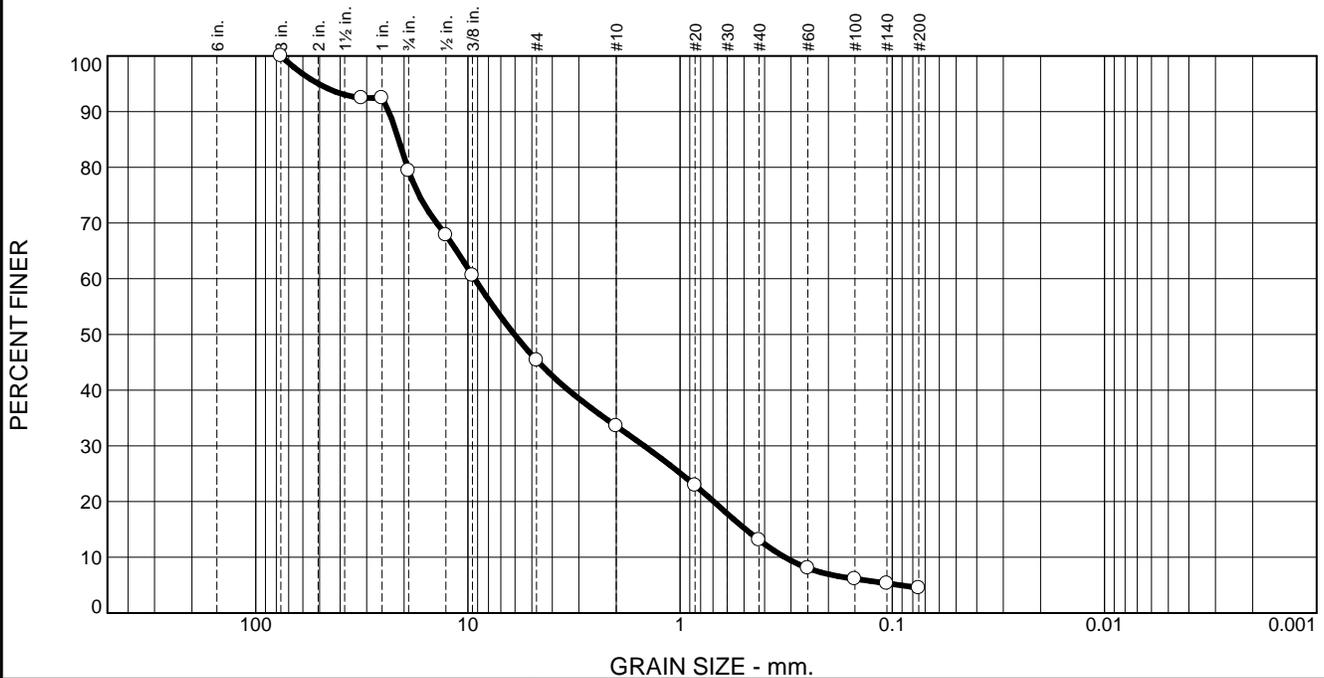
Checked By: Imtiaz Ahmed \_\_\_\_\_

Title: Lab Manager \_\_\_\_\_

Source of Sample: Bluff      Depth: Onsite      Date Sampled: 4/18/23  
Sample Number: 12

<b>GeoTest, Inc.</b>  <b>West Allis, WI</b>	<b>Client:</b> Three Leaf Partners <b>Project:</b> Hatland Quarry Apartments  <b>Project No:</b> 7708 <b>Test No</b> 7182-6857
---	---

# Sieve Analysis Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	20.6	34.0	11.8	20.5	8.6	4.5	

Test Results (ASTM C136 & ASTM C117)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
1 1/4"	92.5		
1"	92.5		
3/4"	79.4		
1/2"	67.8		
3/8"	60.6		
#4	45.4		
#10	33.6		
#20	22.9		
#40	13.1		
#60	8.0		
#100	6.1		
#140	5.3		
#200	4.5		

\* (no specification provided)

**Material Description**

Brown sand and gravel, little topsoil

**Atterberg Limits (ASTM D 4318)**

PL= \_\_\_\_\_ LL= \_\_\_\_\_ PI= \_\_\_\_\_

**Classification**

USCS (D 2487)= \_\_\_\_\_ AASHTO (M 145)= \_\_\_\_\_

**Coefficients**

D<sub>90</sub>= 23.5441      D<sub>85</sub>= 21.2405      D<sub>60</sub>= 9.3029  
D<sub>50</sub>= 6.0393      D<sub>30</sub>= 1.4790      D<sub>15</sub>= 0.4908  
D<sub>10</sub>= 0.3207      C<sub>u</sub>= 29.01      C<sub>c</sub>= 0.73

**Remarks**

F.M.=5.25

Date Received: 4/18/23      Date Tested: 4/27/23

Tested By: Craig Englund

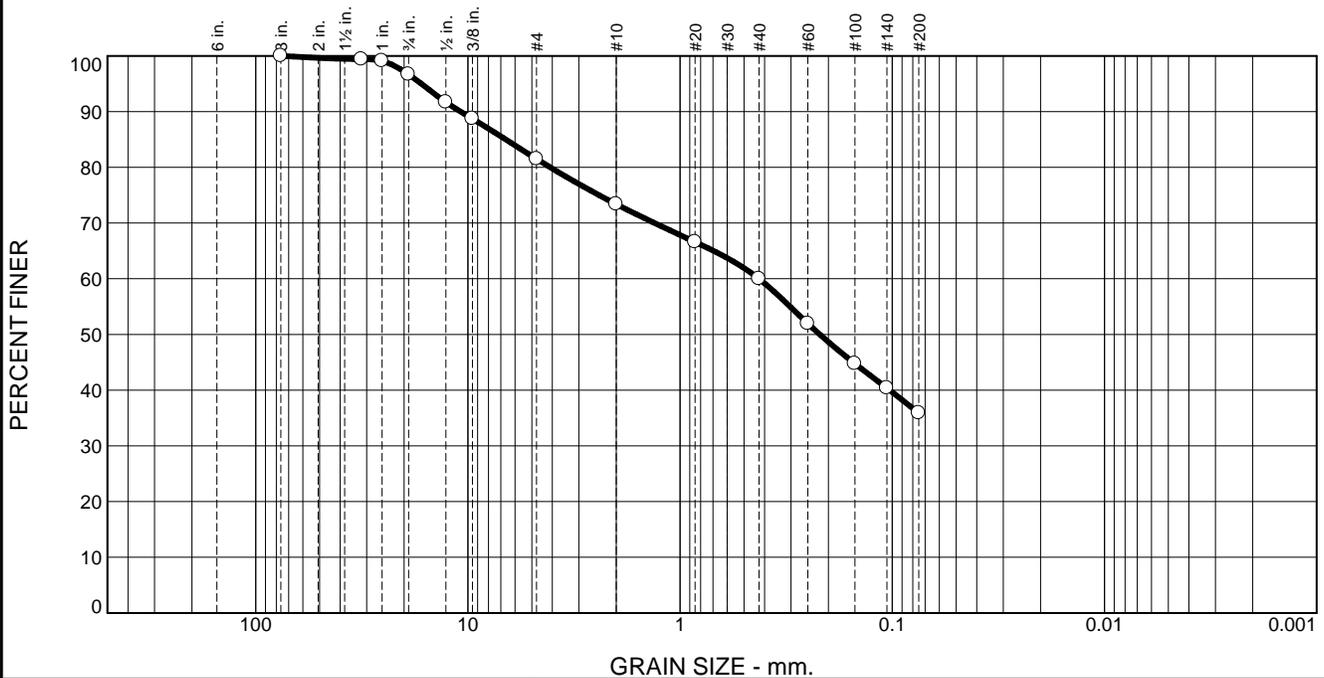
Checked By: Imtiaz Ahmed

Title: Lab Manager

Source of Sample: Bluff      Depth: Onsite      Date Sampled: 4/18/23  
Sample Number: 13

<b>GeoTest, Inc.</b>  <b>West Allis, WI</b>	<b>Client:</b> Three Leaf Partners <b>Project:</b> Hatland Quarry Apartments  <b>Project No:</b> 7708 <b>Test No</b> 7183-6858
---	---

# Sieve Analysis Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	3.3	15.2	8.1	13.4	24.1	35.9	

Test Results (ASTM C136 & ASTM C117)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
1 1/4"	99.4		
1"	99.1		
3/4"	96.7		
1/2"	91.7		
3/8"	88.7		
#4	81.5		
#10	73.4		
#20	66.6		
#40	60.0		
#60	52.0		
#100	44.8		
#140	40.4		
#200	35.9		

\* (no specification provided)

**Material Description**

Brown sand and gravel

**Atterberg Limits (ASTM D 4318)**

PL= \_\_\_\_\_ LL= \_\_\_\_\_ PI= \_\_\_\_\_

**Classification**

USCS (D 2487)= \_\_\_\_\_ AASHTO (M 145)= \_\_\_\_\_

**Coefficients**

D<sub>90</sub>= 10.8312      D<sub>85</sub>= 6.6383      D<sub>60</sub>= 0.4254  
D<sub>50</sub>= 0.2195      D<sub>30</sub>= \_\_\_\_\_      D<sub>15</sub>= \_\_\_\_\_  
D<sub>10</sub>= \_\_\_\_\_      C<sub>u</sub>= \_\_\_\_\_      C<sub>c</sub>= \_\_\_\_\_

Remarks

F.M.=2.26

Date Received: 4/18/23      Date Tested: 4/27/23

Tested By: Craig Englund \_\_\_\_\_

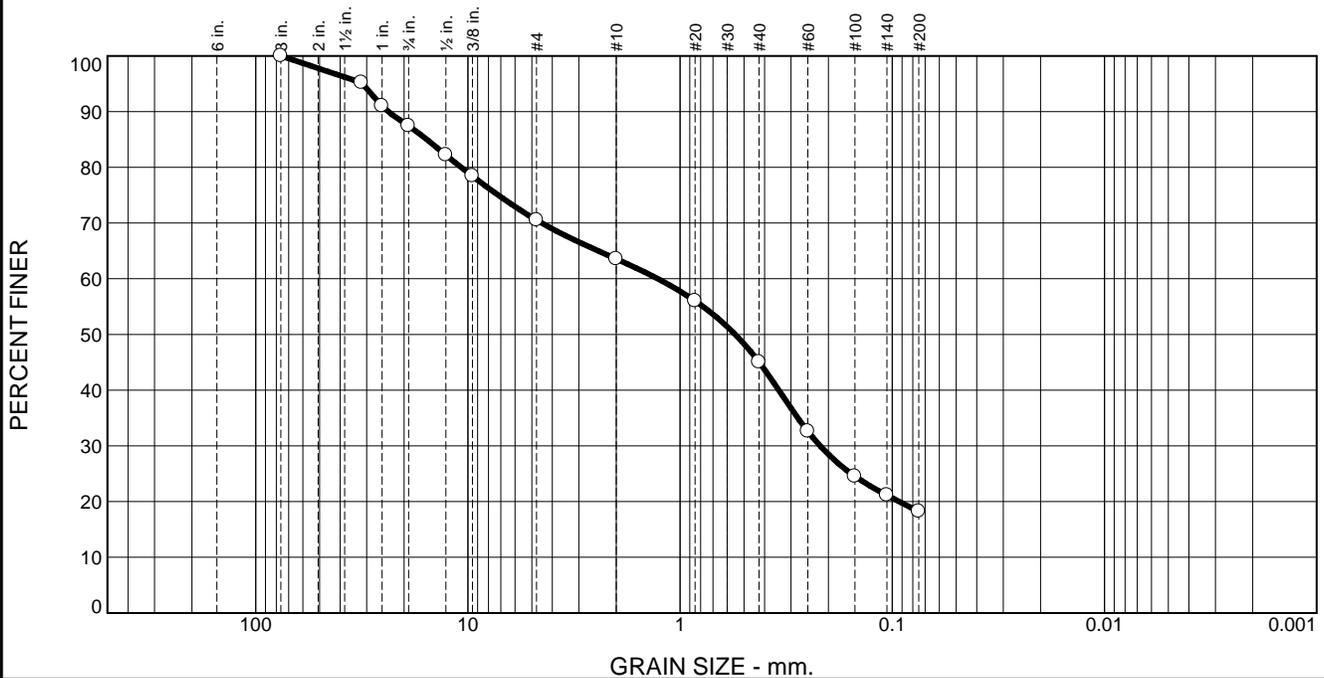
Checked By: Imtiaz Ahmed \_\_\_\_\_

Title: Lab Manager \_\_\_\_\_

Source of Sample: Bluff      Depth: Onsite      Date Sampled: 4/18/23  
Sample Number: 14

<b>GeoTest, Inc.</b>  <b>West Allis, WI</b>	<b>Client:</b> Three Leaf Partners <b>Project:</b> Hatland Quarry Apartments  <b>Project No:</b> 7708 <b>Test No</b> 7184-6859
---	---

# Sieve Analysis Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	12.6	16.9	6.9	18.5	26.9	18.2	

Test Results (ASTM C136 & ASTM C117)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
1 1/4"	95.2		
1"	91.0		
3/4"	87.4		
1/2"	82.2		
3/8"	78.4		
#4	70.5		
#10	63.6		
#20	56.0		
#40	45.1		
#60	32.6		
#100	24.5		
#140	21.1		
#200	18.2		

\* (no specification provided)

**Material Description**

Brown sand and gravel

**Atterberg Limits (ASTM D 4318)**

PL= \_\_\_\_\_ LL= \_\_\_\_\_ PI= \_\_\_\_\_

**Classification**

USCS (D 2487)= \_\_\_\_\_ AASHTO (M 145)= \_\_\_\_\_

**Coefficients**

D<sub>90</sub>= 23.7282      D<sub>85</sub>= 15.6351      D<sub>60</sub>= 1.2733  
D<sub>50</sub>= 0.5496      D<sub>30</sub>= 0.2188      D<sub>15</sub>= \_\_\_\_\_  
D<sub>10</sub>= \_\_\_\_\_      C<sub>u</sub>= \_\_\_\_\_      C<sub>c</sub>= \_\_\_\_\_

**Remarks**

F.M.=3.31


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Date Received: 4/18/23      Date Tested: 4/27/23

Tested By: Craig Englund

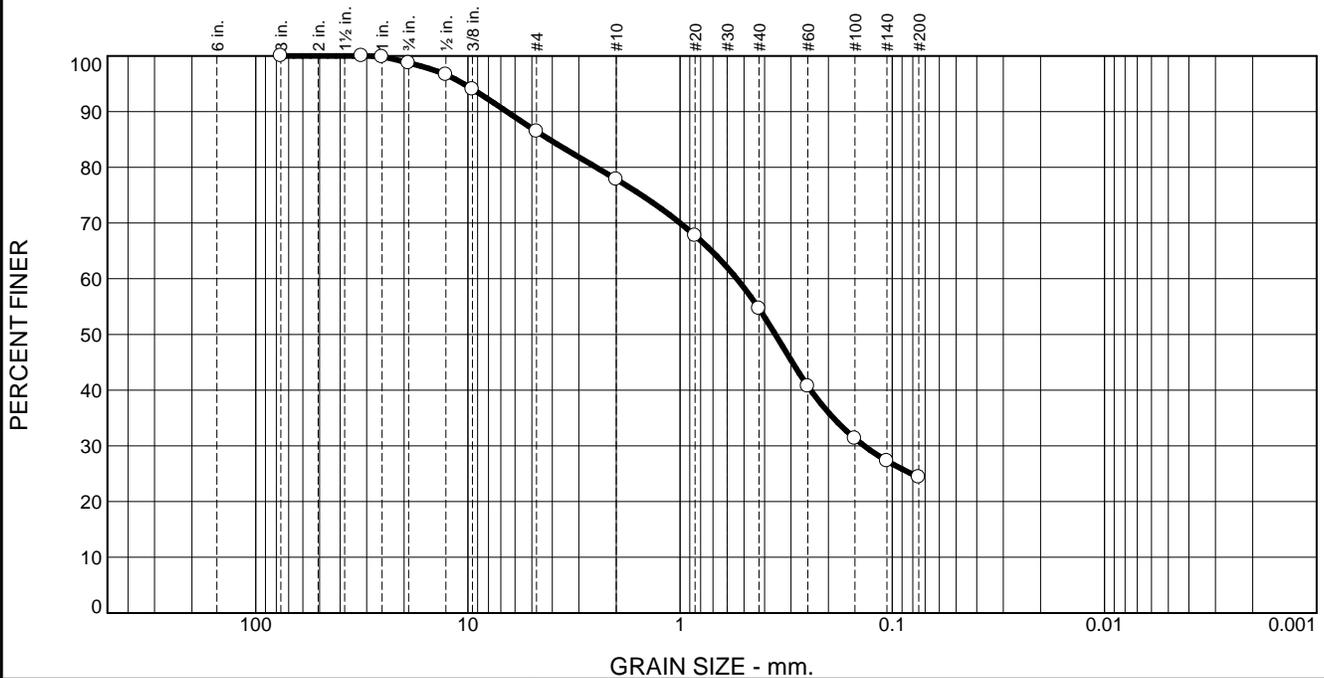
Checked By: Imtiaz Ahmed

Title: Lab Manager

Source of Sample: Bluff      Depth: Onsite      Date Sampled: 4/18/23  
Sample Number: 15

<b>GeoTest, Inc.</b>  <b>West Allis, WI</b>	<b>Client:</b> Three Leaf Partners <b>Project:</b> Hatland Quarry Apartments  <b>Project No:</b> 7708	<b>Test No</b> 7185-6860
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# Sieve Analysis Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	1.3	12.2	8.6	23.3	30.2	24.4	

Test Results (ASTM C136 & ASTM C117)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
1 1/4"	100.0		
1"	99.8		
3/4"	98.7		
1/2"	96.6		
3/8"	94.0		
#4	86.5		
#10	77.9		
#20	67.7		
#40	54.6		
#60	40.7		
#100	31.3		
#140	27.3		
#200	24.4		

\* (no specification provided)

**Material Description**

Brown clay with gravel

**Atterberg Limits (ASTM D 4318)**

PL= \_\_\_\_\_ LL= \_\_\_\_\_ PI= \_\_\_\_\_

**Classification**

USCS (D 2487)= \_\_\_\_\_ AASHTO (M 145)= \_\_\_\_\_

**Coefficients**

D<sub>90</sub>= 6.5592      D<sub>85</sub>= 4.1299      D<sub>60</sub>= 0.5399  
D<sub>50</sub>= 0.3558      D<sub>30</sub>= 0.1356      D<sub>15</sub>= \_\_\_\_\_  
D<sub>10</sub>= \_\_\_\_\_      C<sub>u</sub>= \_\_\_\_\_      C<sub>c</sub>= \_\_\_\_\_

**Remarks**

F.M.=2.30

Date Received: 4/18/23      Date Tested: 4/27/23

Tested By: Craig Englund \_\_\_\_\_

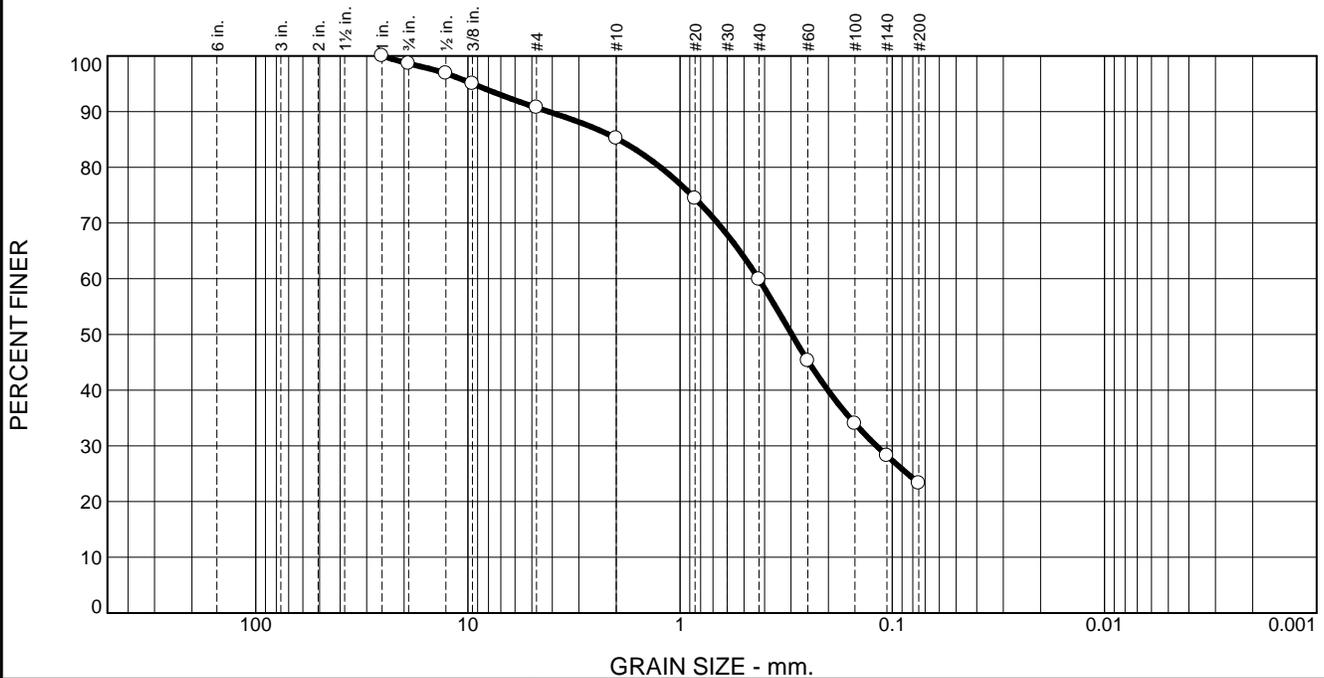
Checked By: Imtiaz Ahmed \_\_\_\_\_

Title: Lab Manager \_\_\_\_\_

Source of Sample: Bluff      Depth: Onsite      Date Sampled: 4/18/23  
Sample Number: 16

<b>GeoTest, Inc.</b>  <b>West Allis, WI</b>	<b>Client:</b> Three Leaf Partners <b>Project:</b> Hatland Quarry Apartments  <b>Project No:</b> 7708 <b>Test No</b> 7186-6861
---	---

# Sieve Analysis Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	1.4	7.9	5.5	25.3	36.6	23.3	

Test Results (ASTM D6913 & ASTM D1140)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
1"	100.0		
3/4"	98.6		
1/2"	96.9		
3/8"	95.0		
#4	90.7		
#10	85.2		
#20	74.4		
#40	59.9		
#60	45.3		
#100	34.0		
#140	28.2		
#200	23.3		

**Material Description**

Brown clay

**Atterberg Limits (ASTM D 4318)**

PL= \_\_\_\_\_ LL= \_\_\_\_\_ PI= \_\_\_\_\_

**Classification**

USCS (D 2487)= \_\_\_\_\_ AASHTO (M 145)= \_\_\_\_\_

**Coefficients**

D<sub>90</sub>= 4.1716      D<sub>85</sub>= 1.9521      D<sub>60</sub>= 0.4269  
D<sub>50</sub>= 0.2976      D<sub>30</sub>= 0.1187      D<sub>15</sub>= \_\_\_\_\_  
D<sub>10</sub>= \_\_\_\_\_      C<sub>u</sub>= \_\_\_\_\_      C<sub>c</sub>= \_\_\_\_\_

Remarks

F.M.=1.98

Date Received: 4/18/23      Date Tested: 4/28/23

Tested By: Craig Englund \_\_\_\_\_

Checked By: Imtiaz Ahmed \_\_\_\_\_

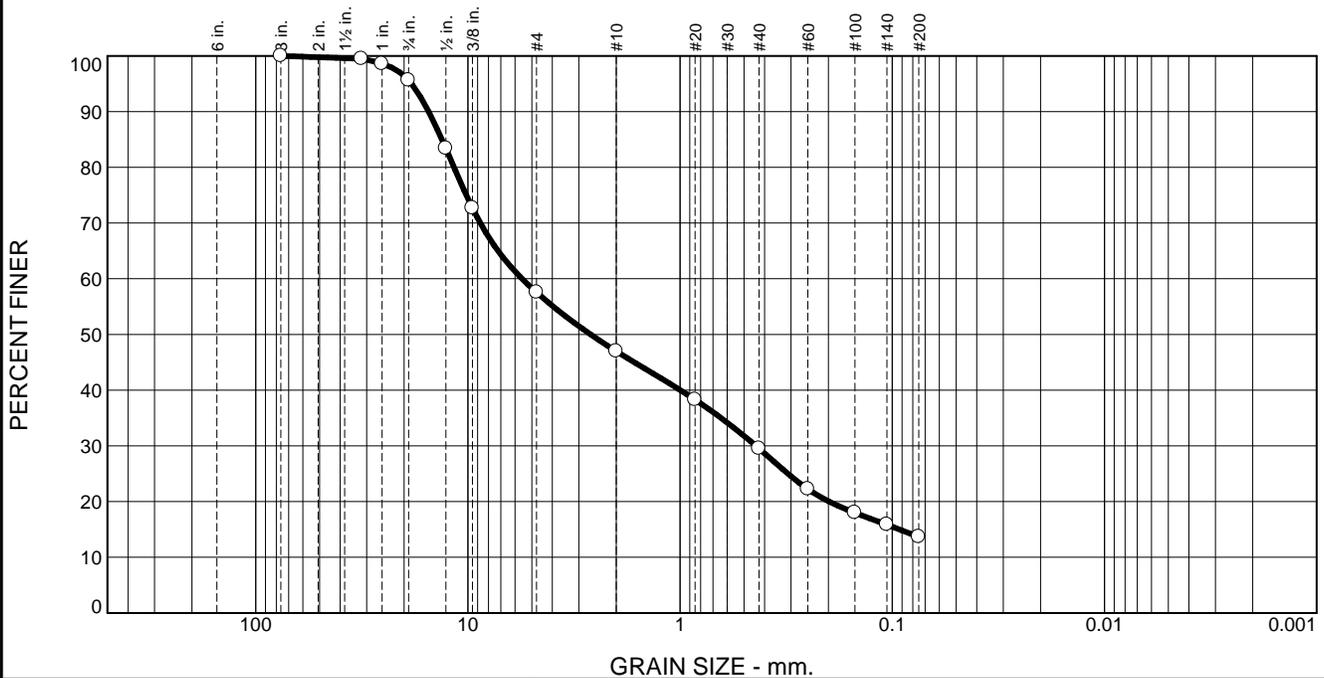
Title: Lab Manager \_\_\_\_\_

\* (no specification provided)

Source of Sample: Bluff      Depth: Onsite      Date Sampled: 4/18/23  
Sample Number: 17

<b>GeoTest, Inc.</b>  <b>West Allis, WI</b>	<b>Client:</b> Three Leaf Partners <b>Project:</b> Hatland Quarry Apartments  <b>Project No:</b> 7708 <b>Test No</b> 7187-6862
---	---

# Sieve Analysis Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	4.4	38.0	10.6	17.5	15.8	13.7	

Test Results (ASTM C136 & ASTM C117)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
1 1/4"	99.5		
1"	98.6		
3/4"	95.6		
1/2"	83.4		
3/8"	72.7		
#4	57.6		
#10	47.0		
#20	38.3		
#40	29.5		
#60	22.2		
#100	18.0		
#140	15.8		
#200	13.7		

\* (no specification provided)

**Material Description**

Brown sand and gravel

**Atterberg Limits (ASTM D 4318)**

PL= \_\_\_\_\_ LL= \_\_\_\_\_ PI= \_\_\_\_\_

**Classification**

USCS (D 2487)= \_\_\_\_\_ AASHTO (M 145)= \_\_\_\_\_

**Coefficients**

D<sub>90</sub>= 15.3163      D<sub>85</sub>= 13.2611      D<sub>60</sub>= 5.5607  
D<sub>50</sub>= 2.6404      D<sub>30</sub>= 0.4391      D<sub>15</sub>= 0.0926  
D<sub>10</sub>= \_\_\_\_\_      C<sub>u</sub>= \_\_\_\_\_      C<sub>c</sub>= \_\_\_\_\_

**Remarks**

F.M.=4.07

Date Received: 4/18/23      Date Tested: 4/28/23

Tested By: Craig Englund

Checked By: Imtiaz Ahmed

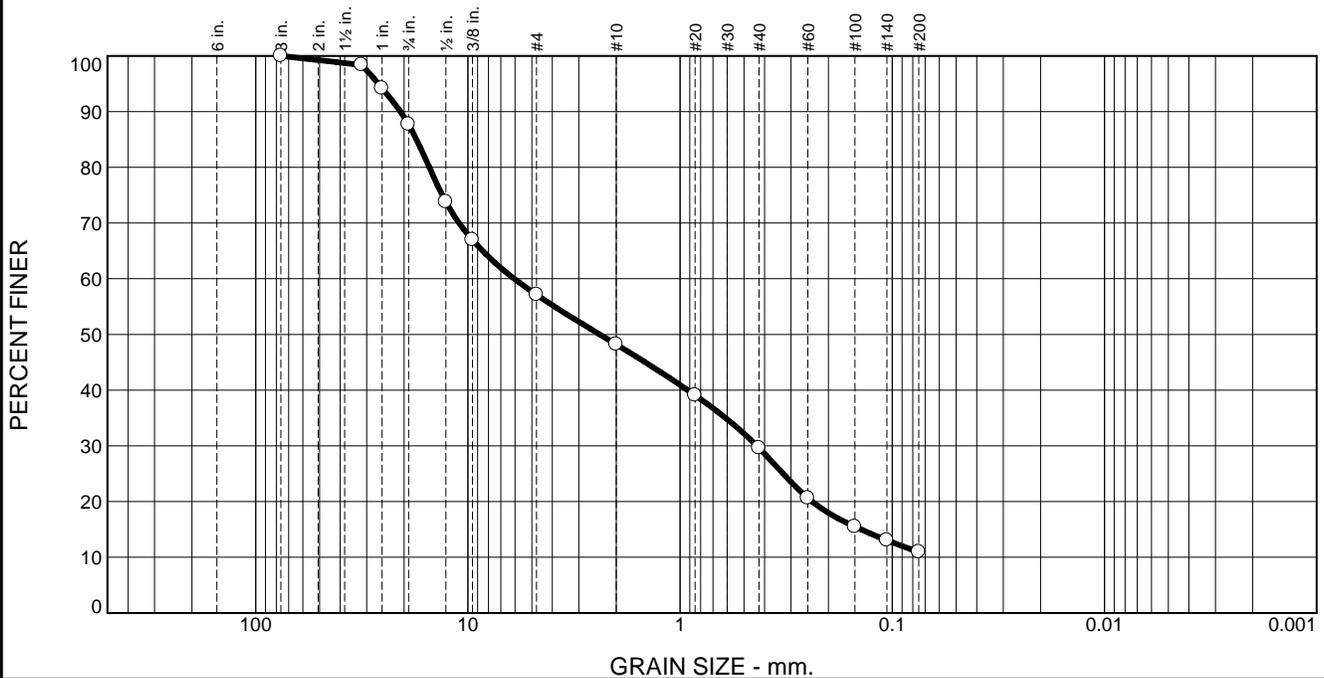
Title: Lab Manager

Source of Sample: Bluff      Depth: Onsite  
Sample Number: 18

Date Sampled: 4/18/23

<p><b>GeoTest, Inc.</b></p> <p><b>West Allis, WI</b></p>	<p>Client: Three Leaf Partners</p> <p>Project: Hatland Quarry Apartments</p> <p>Project No: 7708</p> <p style="text-align: right;">Test No 7188-6863</p>
--	--

# Sieve Analysis Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	12.3	30.6	8.9	18.6	18.7	10.9	

Test Results (ASTM C136 & ASTM C117)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
3"	100.0		
1 1/4"	98.4		
1"	94.2		
3/4"	87.7		
1/2"	73.8		
3/8"	67.0		
#4	57.1		
#10	48.2		
#20	39.1		
#40	29.6		
#60	20.6		
#100	15.5		
#140	13.1		
#200	10.9		

\* (no specification provided)

**Material Description**

Brown sand and gravel with topsoil

**Atterberg Limits (ASTM D 4318)**

PL= \_\_\_\_\_ LL= \_\_\_\_\_ PI= \_\_\_\_\_

**Classification**

USCS (D 2487)= \_\_\_\_\_ AASHTO (M 145)= \_\_\_\_\_

**Coefficients**

D<sub>90</sub>= 20.7905      D<sub>85</sub>= 17.4838      D<sub>60</sub>= 6.0538  
D<sub>50</sub>= 2.3916      D<sub>30</sub>= 0.4347      D<sub>15</sub>= 0.1404  
D<sub>10</sub>= \_\_\_\_\_      C<sub>u</sub>= \_\_\_\_\_      C<sub>c</sub>= \_\_\_\_\_

**Remarks**

F.M.=4.23

Date Received: 4/18/23      Date Tested: 4/28/23

Tested By: Craig Englund \_\_\_\_\_

Checked By: Imtiaz Ahmed \_\_\_\_\_

Title: Lab Manager \_\_\_\_\_

Source of Sample: Bluff      Depth: Onsite      Date Sampled: 4/18/23  
Sample Number: 19

<b>GeoTest, Inc.</b>  <b>West Allis, WI</b>	<b>Client:</b> Three Leaf Partners <b>Project:</b> Hatland Quarry Apartments  <b>Project No:</b> 7708 <b>Test No</b> 7189-6864
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**APPENDIX B**

REPORT OF RESULTS – SITE-WIDE FILL TEST PIT SAMPLING AND ANALYSIS

# Endpoint Solutions

6871 South Lovers Lane  
Franklin, WI 53132  
Telephone: (414) 427-1200  
Fax: (414) 427-1259  
[www.endpointcorporation.com](http://www.endpointcorporation.com)

Mr. John Ford  
President  
Three Leaf Partners  
504 West Juneau Avenue  
Milwaukee, WI 53203

May 12, 2023

**Subject: Report of Results – Site-Wide Fill Test Pit Sampling and Analysis**  
Hartland Quarry Apartments  
644, 700 & 701 West Capitol Drive, Hartland, Wisconsin

Dear John:

As part of Phase II Environmental Assessment (EA) activities, Endpoint Solutions Corp. (Endpoint) worked with GeoTest, Inc. during the excavation of test pits at the Hartland Quarry Apartment project site located at 644, 700 & 701 West Capitol Drive, in the Village of Hartland, Waukesha County, Wisconsin (the “subject property”). The subject property is the former location of the Hartland Quarry, as well as the Tews and LaFarge concrete plants. The extent of the subject property is depicted on **Figure 1**. While GeoTest, Inc. excavated test pits across the subject property to evaluate the physical characteristics of the fill materials, Endpoint visually evaluated the fill materials for obvious indications of contamination (visual and olfactory) and collected samples for laboratory chemical analysis.

## BACKGROUND

### HISTORIC AERIAL PHOTOS

Based on a review of historic aerial photographs obtained from the Waukesha County Interactive Mapping Site ([www.waukeshacounty.gov/interactivemap](http://www.waukeshacounty.gov/interactivemap)), quarrying operations were active on the subject property at the time of the earliest aerial photograph in 1941. Quarrying operations appeared to extend across the entire subject property, and also onto the adjoining property to the west of the subject property currently being considered for development by Kwik Trip. By circa 1970, quarrying operations on the subject property appear to have been completed based on the observation of vegetation maturing across the northern portions of the subject property.

By 1963, several structures were observed in the southwest portion of the subject property, and between 1995 and 2000, the current structure was developed in the far southwestern portion of the subject property. A copy of the historic aerial photographs referenced herein are attached in **Appendix A**.

### SITE RECONNAISSANCE

On April 14, 2023, representatives of Endpoint met with representatives of GeoTest, Inc., Three Leaf Partners, Walbec Group and Mr. Ed Troxler to perform a walking reconnaissance of the subject property. Currently, the subject property consists of the offices and shop buildings for BSIT, a bulk aggregate transportation company, and a former aggregate pit which has been partially reclaimed with concrete slabs, concrete washout and reportedly soils transported from Village of Hartland sewer utility projects.

## **SCOPE OF WORK**

Based on the findings of non-soil (waste) inclusions in the surficial fills on the adjoining property to the west of the subject property, the apparent depth of quarrying operations as evidenced by the historic aerial photographs and the time period of the quarrying and filling operations, it is quite likely that various non-soil (waste) materials were included in the soil materials deposited on the subject property. Additionally, during the walking reconnaissance, a five (5) gallon bucket containing used oil filters was observed protruding from the ground surface in a vegetated portion of the subject property. Lastly, it is reported that pieces of equipment were likely buried on the subject property.

While it is impossible to evaluate the entire volume of fill historically placed on the subject property prior to mass grading activities, it is possible to attempt to identify areas of potential concern using historic aerial photos, interviews with knowledgeable persons, reconnaissance of the subject property and visual assessment and sample analysis during test pits advanced as part of the geotechnical evaluation.

Therefore, based on the physical conditions of the subject property and the need to evaluate the physical properties of the soils for foundation support, GeoTest, Inc. proposed to excavate a series of nine (9) test pits (**TP-1 through TP-9**) through the apparent fill materials. Besides providing an opportunity to evaluate the physical characteristics of the fill materials, the test pits were also to provide an indication of the general thickness of the fill materials. Endpoint accompanied GeoTest, Inc. during the test pit exploration process to visually evaluate the soils as well as to collect representative samples of the materials from each test pit location for laboratory testing for volatile organic compounds (VOCs) polycyclic aromatic hydrocarbons (PAHs), metals and polychlorinated biphenyls (PCBs). During these assessment activities, a total of nine (9) samples representing a composite sample of the fill materials from each test pit was submitted for analysis. Additionally, a sample of the underlying native soils from test pit TP-7 was also submitted for laboratory analysis. The sample of the fill materials from test pit TP-7 l was identified as sample TP-7A, while the sample of the underlying native soil was identified as sample TP-7B.

## **RESULTS**

### **SOIL CONDITIONS**

Based on the *Geotechnical Subsurface Investigation Report* prepared by GeoTest, Inc. (May 4, 2023), fill materials have been accepted at the subject property since the 1970s. Reportedly, the fill materials accepted consisted primarily of soil and concrete; however, occasional inert materials such as asphalt, miscellaneous building materials, wood and metal have also been accepted.

The nine (9) test pits were excavated to depths ranging between approximately 5.5 to 11.3 feet below the ground surface (ft bgs). The locations of the test pits are depicted on **Figure 4** provided by GeoTest, Inc. Native soils at the subject property consisted of fine to coarse sand, fine to coarse sand and gravel, fine to coarse gravel and clayey silt. Fill materials consisted of fine sand, fine to coarse sand and gravel, and rubble consisting of concrete, asphalt, wood and metal pieces in a sand & gravel matrix.

**VOC RESULTS**

No VOC constituents were detected in any of the composite samples of fill materials and native soils submitted for analysis. The VOC results are summarized in **Table A.2.a**.

**PAH RESULTS**

No PAH constituents were detected in eight (8) of the ten (10) composite samples submitted for analysis. These samples included the native soils from the TP-1, TP-2, TP-3, TP-6 TP-7, TP-8 and TP-9 locations and the fill sample from the TP-5 location. Numerous PAH constituents were detected in the sample of fill materials submitted from the TP-4 location. The concentration of chrysene reported in this sample exceeded its soil-to-groundwater exposure pathway residual contaminant level (RCL) established by the Wisconsin Department of Natural Resources (WDNR). Numerous PAH constituents were also detected in the sample of fill materials submitted from the TP-7 location. The concentrations of benzo(b)fluoranthene and chrysene reported in this sample exceeded their respective soil-to-groundwater exposure pathway RCLs established by the WDNR.

The PAH results are summarized in **Table A.2.b**.

**METALS RESULTS**

All of the samples submitted for metals analysis contained detected concentrations of several metals. Six (6) of the ten (10) samples submitted reported concentrations which exceeded soil-to-groundwater pathway, non-industrial direct contact and industrial direct contact RCLs and background threshold values (BTVs) established by the WDNR.

- The sample of the native soil submitted from TP-1 contained a concentration of arsenic which exceeded its soil-to-groundwater exposure pathway and non-industrial direct contact RCLs but below its BTV, and cadmium which exceeded its soil-to-groundwater exposure pathway RCL and its BTV.
- The sample of the native soil from the TP-2 location contained a concentration of cadmium which exceeded its soil-to-groundwater exposure pathway RCL and its BTV.
- The sample of the fill material submitted from the TP-4 location contained a concentration of arsenic which exceeded its soil-to-groundwater exposure pathway and non-industrial direct contact RCLs but below its BTV.
- The sample of fill material submitted from the TP-7 location contained a concentration of cadmium which exceeded its soil-to-groundwater exposure pathway RCL and BTV.
- The sample of native soil underlying the fill materials at the TP-7 location contained a concentration of arsenic which exceeded its soil-to-groundwater exposure pathway, non-industrial and industrial direct contact RCLs but below its BTV, and a concentration of cadmium which exceeded its soil-to-groundwater exposure pathway and non-industrial direct contact RCLs and its BTV.
- The sample of native soil submitted from the TP-8 location contained a concentration of arsenic which exceeded its soil-to-groundwater exposure pathway, non-industrial and

industrial direct contact RCLs but below its BTV, and a concentration of cadmium which exceeded its soil-to-groundwater exposure pathway and non-industrial direct contact RCLs and its BTV.

The metal results are summarized in **Table A.2.c**.

#### **PCB RESULTS**

No PCB constituents were detected in any of the composite samples of fill materials and native soils submitted for analysis. The PCB results are summarized in **Table A.2.d**.

A copy of the analytical results and chain-of-custody form are attached in **Appendix A**.

#### **DISCUSSION**

Overall, results of the analyses performed on the composite samples submitted from the test pits indicate a lack of widespread significant contamination. None of the samples contained detectable concentrations of any VOC or PCB constituents, and eight (8) of the ten (10) samples submitted did not contain any detectable concentrations of PAH constituents. Detected concentrations of contaminants above published RCLs were limited to metals (arsenic and/or cadmium) in the samples submitted from TP-1, TP-2, the native soils at TP-7 (sample TP-7B) and TP-8, but no results exceeded the arsenic BTV. The samples submitted from TP-4 and the fill soils at TP-7 (sample TP-7A) contained concentrations of chrysene and/or benzo(b)fluoranthene in excess of their respective RCLs. It should be noted that only the concentrations of cadmium reported in the samples collected from TP-1, TP-2 the native soils at TP-7 (sample TP-7B) and TP-8 exceeded the established BTV for cadmium.

#### **RECOMMENDED NEXT STEPS**

Based on the lack of VOC and PCB contamination in the test pit samples submitted, volatile vapor migration should not be a concern except potentially in the area of the former leaking underground storage tank (LUST) area in the extreme southern portion of the Site, not evaluated as part of the test pit scope of work. In addition, based on the relatively low concentrations of PAH constituents and metals detected, it is unlikely remedial measures will be required; however, the WDNR would require the soils containing elevated concentrations above RCLs and BTVs to be properly managed on the Site during redevelopment. The four (4) samples which contained detectable concentrations of arsenic were the only samples which exceeded direct contact RCLs (non-industrial and industrial); however, none of these concentrations exceeded the BTV established for arsenic; therefore, it may be necessary to place these soils beneath an exposure barrier. The exposure barrier can consist of buildings, pavements or layers of clean, non-contaminated soil.

As the Site has received extensive amounts of fill materials, the WDNR will require the preparation and submission of an Application to Construct on a Historic Fill Site (the "Application for Exemption"). The Application for Exemption is submitted to both the WDNR Remediation & Redevelopment (R&R) program as well as the Waste Management Program. Vapor intrusion is the greatest concern for both programs (volatile vapors for the R&R program and methane for the Waste Management program). As stated above, it is our opinion there is no widespread concern for

volatile vapor migration beyond the LUST area and none of the test pits encountered major quantities of buried organic matter which could act as a source of methane during decomposition.

Please note, while the test pit sampling did not identify widespread contamination at the Site, our visual observations during the initial Site reconnaissance did identify the presence of a five (5) gallon bucket containing used oil filters. It is likely that other non-soil types of materials have been randomly buried at the Site which may have the potential to cause environmental concerns. Therefore, we recommend an environmental professional be onsite during the earthwork activities to document the procedures as will be required by the approved Application for Exemption, as well as to identify any non-soil items of concern that would require specialized disposal as well as proper management of potentially impacted soils.

**CLOSING**

We trust this document and its attachments provide the level of information necessary to present to city representatives as part of the approval process. If you have any questions, please feel free to contact me directly.

Sincerely,

***Endpoint Solutions***

  
Robert A. Cigale, P.G.  
Principal Consultant

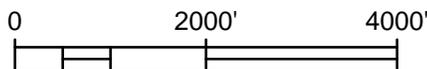
**ATTACHMENTS**

Figures  
Appendix A

**FIGURES**

FIGURE 1 – SITE LOCATION MAP

FIGURE 4 – TEST PIT LOCATIONS



## LOCATION MAP

700 WEST CAPITOL DRIVE  
HARTLAND, WISCONSIN

**Endpoint Solutions**

6871 S. Lovers Lane  
Franklin, WI 53132

Phone: (414) 427-1200

Fax: (414) 427-1259

DRAWN BY: MLP

DATE: 04/12/2023

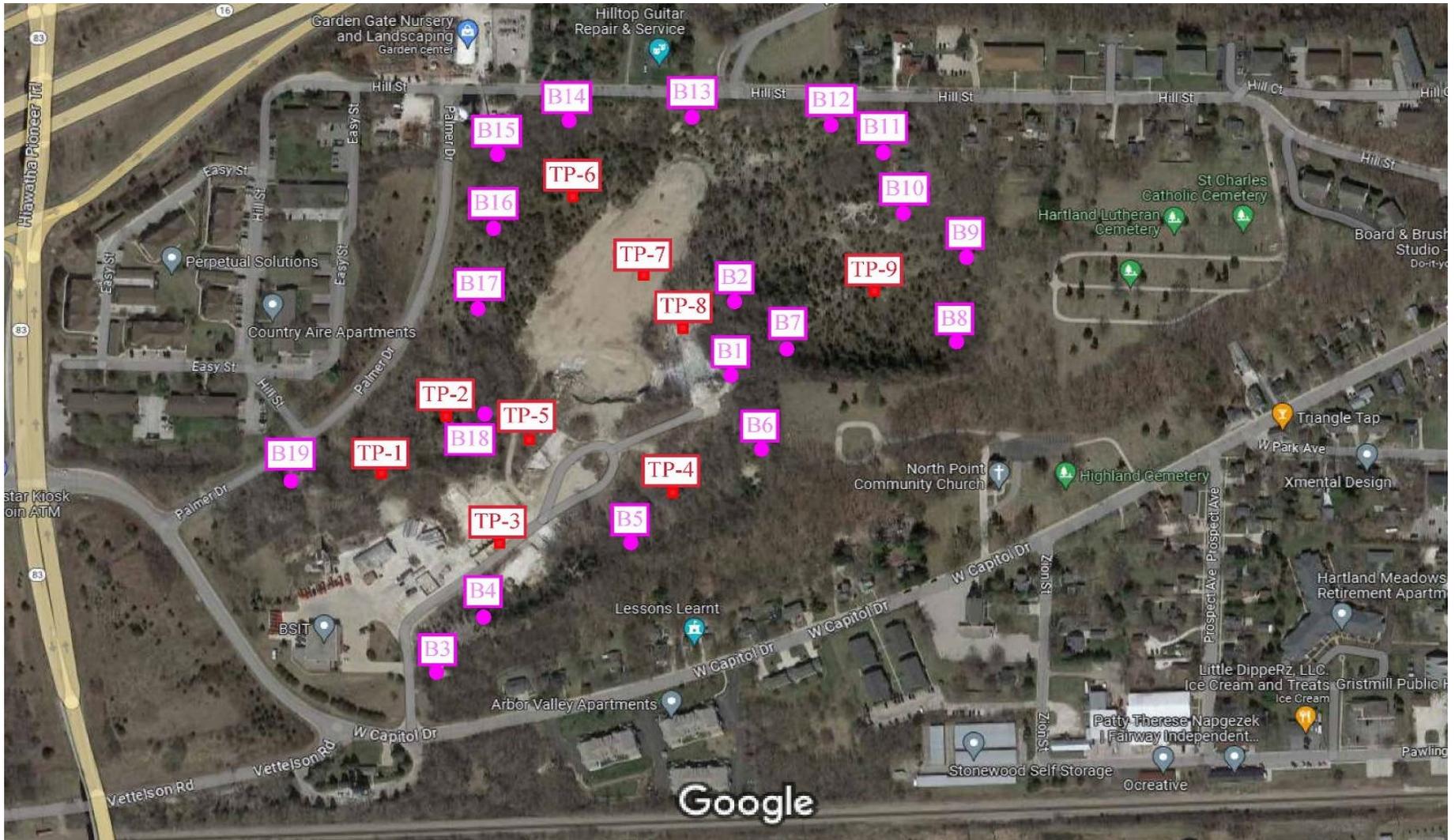
REVIEWED BY: RAC

PROJECT NO: 843-001-001

Figure 1

P:\Three Leaf Partners - 843\001 - Hartland\CAD\001-001\FIG 01\_843-001-001\_Location Map.dwg

SOURCE: USGS



- Test Pit Locations
- Bluff Samples

Imagery ©2023 CNES / Airbus, Maxar Technologies, U.S. Geological Survey, USDA/FPAC/GEO, Map data ©2023



**Project Name:** Hartland Quarry Apartments  
**Project Location:** 700/701 W. Capitol Drive  
Hartland, Wisconsin  
Waukesha County

**Project No.:** 7708  
**Date:** 4/29/23  
**Drawn By:** MDF  
**Scale:** NTS

**FIGURE 4**  
**Sampling Location**  
**Diagram**

**TABLES**

TABLES A.2.A – SOIL VOC RESULTS

TABLES A.2.B – SOIL PAH RESULTS

TABLES A.2.C – SOIL METALS RESULTS

TABLES A.2.D – SOIL PCB RESULTS

**Table A.2.a**  
**Soil Analytical Results - VOCs**

644, 700 & 701 West Capitol Drive  
Hartland, Wisconsin

VOCs (mg/kg)	Industrial Direct Contact RCL	Non-Industrial Direct Contact RCL	Soil to Groundwater Pathway RCL	Sample ID, Date of Collection, Soil Type, Relative Water Content										
				TP-1 Composite 4/17/2023 Native Unsaturated	TP-2 Composite 4/17/2023 Native Unsaturated	TP-3 Composite 4/17/2023 Native Unsaturated	TP-4 Composite 4/17/2023 Fill Unsaturated	TP-5 Composite 4/17/2023 Fill Unsaturated	TP-6 Composite 4/17/2023 Native Unsaturated	TP-7A Composite 4/17/2023 Fill Unsaturated	TP-7B Composite 4/17/2023 Native Unsaturated	TP-8 Composite 4/17/2023 Native Unsaturated	TP-9 Composite 4/17/2023 Native Unsaturated	
				Benzene	7.07	1.6	0.0051	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Bromobenzene	679	342	-----	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Bromodichloromethane	1.83	0.418	0.0003	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046
Bromoform	113	25.4	0.0023	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035
tert-Butylbenzene	183	183	-----	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
sec-Butylbenzene	145	145	-----	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
n-Butylbenzene	108	108	-----	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029
Carbon Tetrachloride	4.03	0.916	0.0039	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032
Chlorobenzene	761	370	-----	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027
Chloroethane	2,120	2,120	0.2266	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chloroform	1.98	0.454	0.0033	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032
Chloromethane	669	159	0.0155	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064
2-Chlorotoluene	907	907	-----	<0.034	<0.034	<0.034	<0.034	<0.034	<0.034	<0.034	<0.034	<0.034	<0.034	<0.034
4-Chlorotoluene	253	253	-----	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031
1,2-Dibromo-3-chloropropane	0.092	0.008	0.0002	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055
Dibromodichloromethane	530	126	0.032	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038
1,4-Dichlorobenzene	16.4	3.74	0.144	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035
1,3-Dichlorobenzene	297	297	1.1528	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036
1,2-Dichlorobenzene	376	376	1.168	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026
Dichlorodifluoromethane	530	126	3.0863	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046
1,2-Dichloroethane	2.87	0.652	0.0028	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042
1,1-Dichloroethane	22.2	5.06	0.4834	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
1,1-Dichloroethene	1,190	320	0.005	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049
cis-1,2-Dichloroethene	2,340	156	0.0412	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027
trans-1,2-Dichloroethene	1,850	1,560	0.0626	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
1,2-Dichloropropane	15	3.4	0.0033	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
1,3-Dichloropropane	1,490	1,490	-----	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031
trans-1,3-Dichloropropene	1,510	1,510	0.0003	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027
cis-1,3-Dichloropropene	1,210	1,210	0.0003	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035
Di-isopropyl ether	2,260	2,260	-----	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028
1,2-Dibromoethane (EDB)	0.221	0.05	-----	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Ethylbenzene	35.4	8.02	1.57	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023
Hexachlorobutadiene	7.19	1.63	-----	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isopropylbenzene (Cumene)	268	268	-----	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035
p-Isopropyltoluene	162	162	-----	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Methylene Chloride	1,150	61.8	0.0026	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methyl-tert-butyl-ether (MTBE)	282	63.8	0.027	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036
Naphthalene	24.1	5.52	0.6582	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
n-Propylbenzene	264	264	-----	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
1,1,2,2-Tetrachloroethane	3.6	0.810	0.0002	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
1,1,1,2-Tetrachloroethane	12.3	2.78	0.0534	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041
Tetrachloroethene (PCE)	145	33	0.0045	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039
Toluene	818	818	1.1072	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031
1,2,4-Trichlorobenzene	113	24	0.408	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045
1,2,3-Trichlorobenzene	934	62.6	-----	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18
1,1,1-Trichloroethane	640	640	0.1402	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
1,1,2-Trichloroethane	7.01	1.59	0.0032	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037
Trichloroethene (TCE)	8.41	1.3	0.0036	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039
Trichlorofluoromethane	1,230	1,230	-----	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066
1,2,4-Trimethylbenzene	219	219	0.6890	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035
1,3,5-Trimethylbenzene	182	182		<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031
Vinyl Chloride	2.08	0.067	0.0001	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036
m&p-Xylene	260	260	3.96	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062
o-Xylene				<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03

- 1) VOC - Volatile Organic Compound
- 2) mg/kg - milligrams per kilogram
- 3) RCL - Residual Contaminant Level
- 4) ----- - Standard not established

**Table A.2.b  
Soil Analytical Results - PAHs**

644, 700 & 701 West Capitol Drive  
Hartland, Wisconsin

PAHs (mg/kg)	Industrial Direct Contact RCL	Non-Industrial Direct Contact RCL	Soil to Groundwater Pathway RCL	Sample ID, Date of Collection, Soil Type, Relative Water Content									
				TP-1 Composite 4/17/23	TP-2 Composite 4/17/23	TP-3 Composite 4/17/23	TP-4 Composite 4/17/23	TP-5 Composite 4/17/23	TP-6 Composite 4/17/23	TP-7A Composite 4/17/23	TP-7B Composite 4/17/23	TP-8 Composite 4/17/23	TP-9 Composite 4/17/23
				Native Unsaturated	Native Unsaturated	Native Unsaturated	Fill Unsaturated	Fill Unsaturated	Native Unsaturated	Fill Unsaturated	Native Unsaturated	Native Unsaturated	
Acenaphthene	45,200	3,590	-----	<0.0118	<0.0118	<0.0118	<0.0118	<0.0118	<0.0118	0.012 "J"	<0.0118	<0.0118	<0.0118
Acenaphthylene	-----	-----	-----	<0.0149	<0.0149	<0.0149	<0.0149	<0.0149	<0.0149	0.083	<0.0149	<0.0149	<0.0149
Anthracene	100,000	17,900	<i>196.9492</i>	<0.0105	<0.0105	<0.0105	0.02 "J"	<0.0105	<0.0105	0.049	<0.0105	<0.0105	<0.0105
Benzo(a)anthracene	20.8	1.14	-----	<0.0164	<0.0164	<0.0164	0.083	<0.0164	<0.0164	0.241	<0.0164	<0.0164	<0.0164
Benzo(a)pyrene	2.11	0.115	<i>0.47</i>	<0.0137	<0.0137	<0.0137	0.064	<0.0137	<0.0137	0.34	<0.0137	<0.0137	<0.0137
Benzo(b)fluoranthene	21.1	1.15	<i>0.2390</i>	<0.0144	<0.0144	<0.0144	0.121	<0.0144	<0.0144	<i>0.43</i>	<0.0144	<0.0144	<0.0144
Benzo(g,h,i)perylene	-----	-----	-----	<0.0151	<0.0151	<0.0151	0.109	<0.0151	<0.0151	0.42	<0.0151	<0.0151	<0.0151
Benzo(k)fluoranthene	211	11.5	-----	<0.0199	<0.0199	<0.0199	0.055 "J"	<0.0199	<0.0199	0.194	<0.0199	<0.0199	<0.0199
Chrysene	2,110	115	<i>0.0721</i>	<0.0162	<0.0162	<0.0162	<i>0.101</i>	<0.0162	<0.0162	<i>0.283</i>	<0.0162	<0.0162	<0.0162
Dibenzo(a,h)anthracene	2.11	0.115	-----	<0.0151	<0.0151	<0.0151	<0.0151	<0.0151	<0.0151	0.063	<0.0151	<0.0151	<0.0151
Fluoranthene	30,100	2,390	<i>88.8778</i>	<0.013	<0.013	<0.013	0.138	<0.013	<0.013	0.205	<0.013	<0.013	<0.013
Fluorene	30,100	2,390	<i>14.8299</i>	<0.0136	<0.0136	<0.0136	<0.0136	<0.0136	<0.0136	<0.0136	<0.0136	<0.0136	<0.0136
Indeno(1,2,3-cd)pyrene	21.10	1.15	-----	<0.0163	<0.0163	<0.0163	0.075	<0.0163	<0.0163	0.304	<0.0163	<0.0163	<0.0163
1-Methyl naphthalene	72.7	17.6	-----	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096
2-Methyl naphthalene	3,010	239	-----	<0.0193	<0.0193	<0.0193	<0.0193	<0.0193	<0.0193	<0.0193	<0.0193	<0.0193	<0.0193
Naphthalene	24.1	5.52	<i>0.6582</i>	<0.0219	<0.0219	<0.0219	<0.0219	<0.0219	<0.0219	<0.0219	<0.0219	<0.0219	<0.0219
Phenanthrene	-----	-----	-----	<0.0124	<0.0124	<0.0124	0.065	<0.0124	<0.0124	0.065	<0.0124	<0.0124	<0.0124
Pyrene	22,600	1,790	<i>54.5455</i>	<0.0135	<0.0135	<0.0135	0.11	<0.0135	<0.0135	0.215	<0.0135	<0.0135	<0.0135

- 1) PAHs - Polycyclic Aromatic Hydrocarbons
- 2) mg/kg - milligrams per kilogram
- 3) RCL - Residual Contaminant Level
- 4) ----- - Standard not established
- 5) "J" - Indicates estimated result between the limit of detection (LOD) and the limit of quantitation (LOQ)
- 6) Italicized result indicates Soil-to-Groundwater Pathway RCL exceedance
- 7) Orange highlighted result indicates Soil-to-Groundwater Pathway RCL exceedance

**TABLE A.2.c**  
**Soil Analytical Table - Metals**  
644, 700 & 701 West Capitol Drive  
Hartland , Wisconsin

Metals (mg/kg)	Industrial Direct Contact RCL	Non-Industrial Direct Contact RCL	Soil to Groundwater Pathway RCL	Background Threshold Value	Sample ID, Date of Collection, Soil Type, Relative Water Content									
					TP-1	TP-2	TP-3	TP-4	TP-5	TP-6	TP-7A	TP-7B	TP-8	TP-9
					Composite Unsaturated 4/17/2023 Native	Composite Unsaturated 4/17/2023 Native	Composite Unsaturated 4/17/2023 Native	Composite Unsaturated 4/17/2023 Fill	Composite Unsaturated 4/17/2023 Fill	Composite Unsaturated 4/17/2023 Native	Composite Unsaturated 4/17/2023 Fill	Composite Unsaturated 4/17/2023 Native	Composite Unsaturated 4/17/2023 Native	Composite Unsaturated 4/17/2023 Native
Arsenic	<b>3</b>	<u>0.677</u>	<i>0.584</i>	8	1.32 "J"	<1.08	<1.08	1.43 "J"	<1.08	<1.08	<1.08	<b>6.39</b>	<b>6.98</b>	<1.08
Barium	<b>100,000</b>	<u>15,300</u>	<i>164.8</i>	364	53.8	43.2	12.8	47.8	7.73	11.4	37.9	32.7	41.8	3.93 "J"
Cadmium	<b>985</b>	<u>71.1</u>	<i>0.752</i>	1	1.08	1.03	0.559	0.678	0.405	0.456	<i>0.831</i>	<b>2.08</b>	<b>2.47</b>	0.215 "J"
Chromium, total	-----	-----	<i>360,000</i>	44	9.30	8.53	3.72	5.47	2.59	4.21	7.24	7.74	9.85	2.32
Lead	<b>800</b>	<u>400</u>	<i>27</i>	52	4.82	4.18	2.32	17.2	1.11 "J"	1.32 "J"	6.20	12.1	15.3	0.925 "J"
Mercury	<b>3.13</b>	<u>3.13</u>	<i>0.208</i>	-----	0.0775 "J"	<0.0426	<0.0426	<0.0426	<0.0426	<0.0426	<0.0426	<0.0426	<0.0426	<0.0426
Selenium	<b>5,840</b>	<u>391</u>	<i>0.52</i>	-----	<1.29	<1.29	<1.29	<1.29	<1.29	<1.29	<1.29	<1.29	<1.29	<1.29
Silver	<b>5,840</b>	<u>391</u>	<i>0.8491</i>	-----	<0.112	<0.112	<0.112	<0.112	<0.112	<0.112	<0.112	<0.112	<0.112	<0.112

- 1) mg/kg - milligrams per kilogram
- 2) RCL - Residual Contaminant Level
- 3) ----- - Standard not established
- 4) "J" - Indicates estimated result between the limit of detection (LOD) and the limit of quantitation (LOQ)
- 5) Bold result indicates a Industrial Direct Contact RCL exceedance
- 6) Underlined result indicates Non-Industrial Direct Contact RCL exceedance
- 7) Italicized result indicates Soil-to-Groundwater Pathway RCL exceedance
- 8) Gray shaded result indicates background threshold exceedance

**TABLE A.2.d**  
**Soil Analytical Results - PCBs**

644, 700 & 701 West Capitol Drive  
Hartland, Wisconsin

PCBs (mg/kg)	Industrial Direct Contact RCL	Non-Industrial Direct Contact RCL	Soil to Groundwater Pathway RCL	Background Threshold Value	Sample ID, Date of Collection, Soil Type, Relative Water Content									
					TP-1 Composite Unsaturated Native 4/17/23	TP-2 Composite Unsaturated Native 4/17/23	TP-3 Composite Unsaturated Native 4/17/23	TP-4 Composite Unsaturated Fill 4/17/23	TP-5 Composite Unsaturated Fill 4/17/23	TP-6 Composite Unsaturated Native 4/17/23	TP-7A Composite Unsaturated Fill 4/17/23	TP-7B Composite Unsaturated Native 4/17/23	TP-8 Composite Unsaturated Native 4/17/23	TP-9 Composite Unsaturated Native 4/17/23
Aroclor 1016	28	4.11	0.0094	----	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036
Aroclor 1221	0.883	0.213	0.0094	----	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Aroclor 1232	0.792	0.19	0.0094	----	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032
Aroclor 1242	0.972	0.235	0.0094	----	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032	<0.0032
Aroclor 1248	0.975	0.236	0.0094	----	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036
Aroclor 1254	0.988	0.239	0.0094	----	<0.0041	<0.0041	<0.0041	<0.0041	<0.0041	<0.0041	<0.0041	<0.0041	<0.0041	<0.0041
Aroclor 1260	1	0.243	0.0094	----	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007

mg/kg - milligrams per kilogram

PCBs - Polychlorinated biphenyls

RCL - Residual Contaminant Level

---- - Standard not established

"J" - Indicates estimated result between the limit of detection (LOD) and the limit of quantitation (LOQ)

**APPENDIX A**

ANALYTICAL RESULTS

CHAIN-OF-CUSTODY

# Synergy Environmental Lab, INC.

1990 Prospect Ct., Appleton, WI 54914 \*P 920-830-2455 \* F 920-733-0631

TRAVIS MANSER  
ENDPOINT SOLUTIONS  
6871 SOUTH LOVER'S LANE  
FRANKLIN, WI 53132

Report Date 04-May-23

Project Name HARTLAND QUARRY  
Project # TBD "843"

Invoice # E42281

Lab Code 5042281A  
Sample ID TP-1  
Sample Matrix Soil  
Sample Date 4/17/2023

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	81.6	%			1	5021		4/19/2023	ZJW	1
Inorganic										
Metals										
Arsenic, Total	1.32 "J"	mg/kg	1.08	3.6	1	6010B		4/25/2023	SL	1
Barium, Total	53.8	mg/kg	2.08	6.93	1	6010B		4/25/2023	SL	1
Cadmium, Total	1.08	mg/kg	0.0743	0.248	1	6010B		4/25/2023	SL	1
Chromium, Total	9.30	mg/kg	0.115	0.386	1	6010B		4/25/2023	SL	1
Lead, Total	4.82	mg/kg	0.588	1.96	1	6010B		4/25/2023	SL	1
Mercury, Total	0.0775 "J"	mg/kg	0.0426	0.142	1	7471		4/26/2023	SL	1
Selenium, Total	< 1.29	mg/kg	1.29	4.29	1	6010B		4/25/2023	SL	1
Silver, Total	< 0.112	mg/kg	0.112	0.376	1	6010B		4/25/2023	SL	1
Organic										
PAH SIM										
Acenaphthene	< 0.0118	mg/kg	0.0118	0.045	1	M8270C	4/26/2023	4/26/2023	NJC	1
Acenaphthylene	< 0.0149	mg/kg	0.0149	0.057	1	M8270C	4/26/2023	4/26/2023	NJC	1
Anthracene	< 0.0105	mg/kg	0.0105	0.04	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(a)anthracene	< 0.0164	mg/kg	0.0164	0.063	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(a)pyrene	< 0.0137	mg/kg	0.0137	0.053	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(b)fluoranthene	< 0.0144	mg/kg	0.0144	0.055	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(g,h,i)perylene	< 0.0151	mg/kg	0.0151	0.058	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(k)fluoranthene	< 0.0199	mg/kg	0.0199	0.077	1	M8270C	4/26/2023	4/26/2023	NJC	1
Chrysene	< 0.0162	mg/kg	0.0162	0.062	1	M8270C	4/26/2023	4/26/2023	NJC	1
Dibenzo(a,h)anthracene	< 0.0151	mg/kg	0.0151	0.058	1	M8270C	4/26/2023	4/26/2023	NJC	1
Fluoranthene	< 0.013	mg/kg	0.013	0.05	1	M8270C	4/26/2023	4/26/2023	NJC	1
Fluorene	< 0.0136	mg/kg	0.0136	0.052	1	M8270C	4/26/2023	4/26/2023	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.0163	mg/kg	0.0163	0.063	1	M8270C	4/26/2023	4/26/2023	NJC	1
1-Methyl naphthalene	< 0.0096	mg/kg	0.0096	0.037	1	M8270C	4/26/2023	4/26/2023	NJC	1
2-Methyl naphthalene	< 0.0193	mg/kg	0.0193	0.074	1	M8270C	4/26/2023	4/26/2023	NJC	1

**Project Name** HARTLAND QUARRY  
**Project #** TBD "843"

**Invoice #** E42281

**Lab Code** 5042281A  
**Sample ID** TP-1  
**Sample Matrix** Soil  
**Sample Date** 4/17/2023

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Naphthalene	< 0.0219	mg/kg	0.0219	0.084	1	M8270C	4/26/2023	4/26/2023	NJC	1
Phenanthrene	< 0.0124	mg/kg	0.0124	0.048	1	M8270C	4/26/2023	4/26/2023	NJC	1
Pyrene	< 0.0135	mg/kg	0.0135	0.052	1	M8270C	4/26/2023	4/26/2023	NJC	1
<b>PCB'S</b>										
PCB-1016	< 0.0036	mg/kg	0.0036	0.012	1	EPA 8082A		4/29/2023	SL	1
PCB-1221	< 0.004	mg/kg	0.004	0.013	1	EPA 8082A		4/29/2023	SL	1
PCB-1232	< 0.0032	mg/kg	0.0032	0.011	1	EPA 8082A		4/29/2023	SL	1
PCB-1242	< 0.0032	mg/kg	0.0032	0.011	1	EPA 8082A		4/29/2023	SL	1
PCB-1248	< 0.0036	mg/kg	0.0036	0.012	1	EPA 8082A		4/29/2023	SL	1
PCB-1254	< 0.0041	mg/kg	0.0041	0.014	1	EPA 8082A		4/29/2023	SL	1
PCB-1260	< 0.007	mg/kg	0.007	0.023	1	EPA 8082A		4/29/2023	SL	1
<b>VOC's</b>										
Benzene	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
Bromobenzene	< 0.04	mg/kg	0.04	0.16	1	8260B		4/21/2023	CJR	1
Bromodichloromethane	< 0.046	mg/kg	0.046	0.19	1	8260B		4/21/2023	CJR	1
Bromoform	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
tert-Butylbenzene	< 0.033	mg/kg	0.033	0.14	1	8260B		4/21/2023	CJR	1
sec-Butylbenzene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
n-Butylbenzene	< 0.029	mg/kg	0.029	0.12	1	8260B		4/21/2023	CJR	1
Carbon Tetrachloride	< 0.032	mg/kg	0.032	0.13	1	8260B		4/21/2023	CJR	1
Chlorobenzene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
Chloroethane	< 0.1	mg/kg	0.1	0.41	1	8260B		4/21/2023	CJR	1
Chloroform	< 0.032	mg/kg	0.032	0.13	1	8260B		4/21/2023	CJR	1
Chloromethane	< 0.064	mg/kg	0.064	0.26	1	8260B		4/21/2023	CJR	1
2-Chlorotoluene	< 0.034	mg/kg	0.034	0.14	1	8260B		4/21/2023	CJR	1
4-Chlorotoluene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
1,2-Dibromo-3-chloropropane	< 0.055	mg/kg	0.055	0.22	1	8260B		4/21/2023	CJR	1
Dibromochloromethane	< 0.038	mg/kg	0.038	0.16	1	8260B		4/21/2023	CJR	1
1,4-Dichlorobenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
1,3-Dichlorobenzene	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
1,2-Dichlorobenzene	< 0.026	mg/kg	0.026	0.11	1	8260B		4/21/2023	CJR	1
Dichlorodifluoromethane	< 0.046	mg/kg	0.046	0.19	1	8260B		4/21/2023	CJR	1
1,2-Dichloroethane	< 0.042	mg/kg	0.042	0.17	1	8260B		4/21/2023	CJR	1
1,1-Dichloroethane	< 0.033	mg/kg	0.033	0.13	1	8260B		4/21/2023	CJR	1
1,1-Dichloroethene	< 0.049	mg/kg	0.049	0.2	1	8260B		4/21/2023	CJR	1
cis-1,2-Dichloroethene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
trans-1,2-Dichloroethene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,2-Dichloropropane	< 0.04	mg/kg	0.04	0.16	1	8260B		4/21/2023	CJR	1
1,3-Dichloropropane	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
trans-1,3-Dichloropropene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
cis-1,3-Dichloropropene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
Di-isopropyl ether	< 0.028	mg/kg	0.028	0.11	1	8260B		4/21/2023	CJR	1
EDB (1,2-Dibromoethane)	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
Ethylbenzene	< 0.023	mg/kg	0.023	0.096	1	8260B		4/21/2023	CJR	1
Hexachlorobutadiene	< 0.1	mg/kg	0.1	0.42	1	8260B		4/21/2023	CJR	1
Isopropylbenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
p-Isopropyltoluene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
Methylene chloride	< 0.1	mg/kg	0.1	0.42	1	8260B		4/21/2023	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
Naphthalene	< 0.12	mg/kg	0.12	0.38	1	8260B		4/21/2023	CJR	1
n-Propylbenzene	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
1,1,2,2-Tetrachloroethane	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1

**Project Name** HARTLAND QUARRY  
**Project #** TBD "843"

**Invoice #** E42281

**Lab Code** 5042281A  
**Sample ID** TP-1  
**Sample Matrix** Soil  
**Sample Date** 4/17/2023

	<b>Result</b>	<b>Unit</b>	<b>LOD</b>	<b>LOQ</b>	<b>Dil</b>	<b>Method</b>	<b>Ext Date</b>	<b>Run Date</b>	<b>Analyst</b>	<b>Code</b>
1,1,1,2-Tetrachloroethane	< 0.041	mg/kg	0.041	0.17	1	8260B	4/21/2023	4/21/2023	CJR	1
Tetrachloroethene	< 0.039	mg/kg	0.039	0.16	1	8260B	4/21/2023	4/21/2023	CJR	1
Toluene	< 0.031	mg/kg	0.031	0.13	1	8260B	4/21/2023	4/21/2023	CJR	1
1,2,4-Trichlorobenzene	< 0.045	mg/kg	0.045	0.18	1	8260B	4/21/2023	4/21/2023	CJR	1
1,2,3-Trichlorobenzene	< 0.18	mg/kg	0.18	0.56	1	8260B	4/21/2023	4/21/2023	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.12	1	8260B	4/21/2023	4/21/2023	CJR	1
1,1,2-Trichloroethane	< 0.037	mg/kg	0.037	0.15	1	8260B	4/21/2023	4/21/2023	CJR	1
Trichloroethene (TCE)	< 0.039	mg/kg	0.039	0.16	1	8260B	4/21/2023	4/21/2023	CJR	1
Trichlorofluoromethane	< 0.066	mg/kg	0.066	0.27	1	8260B	4/21/2023	4/21/2023	CJR	1
1,2,4-Trimethylbenzene	< 0.035	mg/kg	0.035	0.14	1	8260B	4/21/2023	4/21/2023	CJR	1
1,3,5-Trimethylbenzene	< 0.031	mg/kg	0.031	0.13	1	8260B	4/21/2023	4/21/2023	CJR	1
Vinyl Chloride	< 0.036	mg/kg	0.036	0.15	1	8260B	4/21/2023	4/21/2023	CJR	1
m&p-Xylene	< 0.062	mg/kg	0.062	0.25	1	8260B	4/21/2023	4/21/2023	CJR	1
o-Xylene	< 0.03	mg/kg	0.03	0.12	1	8260B	4/21/2023	4/21/2023	CJR	1
SUR - 1,2-Dichloroethane-d4	106	Rec %			1	8260B	4/21/2023	4/21/2023	CJR	1
SUR - 4-Bromofluorobenzene	91	Rec %			1	8260B	4/21/2023	4/21/2023	CJR	1
SUR - Dibromofluoromethane	94	Rec %			1	8260B	4/21/2023	4/21/2023	CJR	1
SUR - Toluene-d8	100	Rec %			1	8260B	4/21/2023	4/21/2023	CJR	1

**Project Name** HARTLAND QUARRY  
**Project #** TBD "843"

**Invoice #** E42281

**Lab Code** 5042281B  
**Sample ID** TP-2  
**Sample Matrix** Soil  
**Sample Date** 4/17/2023

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	82.9	%			1	5021		4/19/2023	ZJW	1
Inorganic										
Metals										
Arsenic, Total	< 1.08	mg/kg	1.08	3.6	1	6010B		4/25/2023	SL	1
Barium, Total	43.2	mg/kg	2.08	6.93	1	6010B		4/25/2023	SL	1
Cadmium, Total	1.03	mg/kg	0.0743	0.248	1	6010B		4/25/2023	SL	1
Chromium, Total	8.53	mg/kg	0.115	0.386	1	6010B		4/25/2023	SL	1
Lead, Total	4.18	mg/kg	0.588	1.96	1	6010B		4/25/2023	SL	1
Mercury, Total	< 0.0426	mg/kg	0.0426	0.142	1	7471		4/26/2023	SL	1
Selenium, Total	< 1.29	mg/kg	1.29	4.29	1	6010B		4/25/2023	SL	1
Silver, Total	< 0.112	mg/kg	0.112	0.376	1	6010B		4/25/2023	SL	1
Organic										
PAH SIM										
Acenaphthene	< 0.0118	mg/kg	0.0118	0.045	1	M8270C	4/26/2023	4/26/2023	NJC	1
Acenaphthylene	< 0.0149	mg/kg	0.0149	0.057	1	M8270C	4/26/2023	4/26/2023	NJC	1
Anthracene	< 0.0105	mg/kg	0.0105	0.04	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(a)anthracene	< 0.0164	mg/kg	0.0164	0.063	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(a)pyrene	< 0.0137	mg/kg	0.0137	0.053	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(b)fluoranthene	< 0.0144	mg/kg	0.0144	0.055	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(g,h,i)perylene	< 0.0151	mg/kg	0.0151	0.058	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(k)fluoranthene	< 0.0199	mg/kg	0.0199	0.077	1	M8270C	4/26/2023	4/26/2023	NJC	1
Chrysene	< 0.0162	mg/kg	0.0162	0.062	1	M8270C	4/26/2023	4/26/2023	NJC	1
Dibenzo(a,h)anthracene	< 0.0151	mg/kg	0.0151	0.058	1	M8270C	4/26/2023	4/26/2023	NJC	1
Fluoranthene	< 0.013	mg/kg	0.013	0.05	1	M8270C	4/26/2023	4/26/2023	NJC	1
Fluorene	< 0.0136	mg/kg	0.0136	0.052	1	M8270C	4/26/2023	4/26/2023	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.0163	mg/kg	0.0163	0.063	1	M8270C	4/26/2023	4/26/2023	NJC	1
1-Methyl naphthalene	< 0.0096	mg/kg	0.0096	0.037	1	M8270C	4/26/2023	4/26/2023	NJC	1
2-Methyl naphthalene	< 0.0193	mg/kg	0.0193	0.074	1	M8270C	4/26/2023	4/26/2023	NJC	1
Naphthalene	< 0.0219	mg/kg	0.0219	0.084	1	M8270C	4/26/2023	4/26/2023	NJC	1
Phenanthrene	< 0.0124	mg/kg	0.0124	0.048	1	M8270C	4/26/2023	4/26/2023	NJC	1
Pyrene	< 0.0135	mg/kg	0.0135	0.052	1	M8270C	4/26/2023	4/26/2023	NJC	1
PCB'S										
PCB-1016	< 0.0036	mg/kg	0.0036	0.012	1	EPA 8082A		4/29/2023	SL	1
PCB-1221	< 0.004	mg/kg	0.004	0.013	1	EPA 8082A		4/29/2023	SL	1
PCB-1232	< 0.0032	mg/kg	0.0032	0.011	1	EPA 8082A		4/29/2023	SL	1
PCB-1242	< 0.0032	mg/kg	0.0032	0.011	1	EPA 8082A		4/29/2023	SL	1
PCB-1248	< 0.0036	mg/kg	0.0036	0.012	1	EPA 8082A		4/29/2023	SL	1
PCB-1254	< 0.0041	mg/kg	0.0041	0.014	1	EPA 8082A		4/29/2023	SL	1
PCB-1260	< 0.007	mg/kg	0.007	0.023	1	EPA 8082A		4/29/2023	SL	1
VOC's										
Benzene	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
Bromobenzene	< 0.04	mg/kg	0.04	0.16	1	8260B		4/21/2023	CJR	1
Bromodichloromethane	< 0.046	mg/kg	0.046	0.19	1	8260B		4/21/2023	CJR	1
Bromoform	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
tert-Butylbenzene	< 0.033	mg/kg	0.033	0.14	1	8260B		4/21/2023	CJR	1
sec-Butylbenzene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
n-Butylbenzene	< 0.029	mg/kg	0.029	0.12	1	8260B		4/21/2023	CJR	1
Carbon Tetrachloride	< 0.032	mg/kg	0.032	0.13	1	8260B		4/21/2023	CJR	1

**Project Name** HARTLAND QUARRY  
**Project #** TBD "843"

**Invoice #** E42281

**Lab Code** 5042281B  
**Sample ID** TP-2  
**Sample Matrix** Soil  
**Sample Date** 4/17/2023

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Chlorobenzene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
Chloroethane	< 0.1	mg/kg	0.1	0.41	1	8260B		4/21/2023	CJR	1
Chloroform	< 0.032	mg/kg	0.032	0.13	1	8260B		4/21/2023	CJR	1
Chloromethane	< 0.064	mg/kg	0.064	0.26	1	8260B		4/21/2023	CJR	1
2-Chlorotoluene	< 0.034	mg/kg	0.034	0.14	1	8260B		4/21/2023	CJR	1
4-Chlorotoluene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
1,2-Dibromo-3-chloropropane	< 0.055	mg/kg	0.055	0.22	1	8260B		4/21/2023	CJR	1
Dibromochloromethane	< 0.038	mg/kg	0.038	0.16	1	8260B		4/21/2023	CJR	1
1,4-Dichlorobenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
1,3-Dichlorobenzene	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
1,2-Dichlorobenzene	< 0.026	mg/kg	0.026	0.11	1	8260B		4/21/2023	CJR	1
Dichlorodifluoromethane	< 0.046	mg/kg	0.046	0.19	1	8260B		4/21/2023	CJR	1
1,2-Dichloroethane	< 0.042	mg/kg	0.042	0.17	1	8260B		4/21/2023	CJR	1
1,1-Dichloroethane	< 0.033	mg/kg	0.033	0.13	1	8260B		4/21/2023	CJR	1
1,1-Dichloroethene	< 0.049	mg/kg	0.049	0.2	1	8260B		4/21/2023	CJR	1
cis-1,2-Dichloroethene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
trans-1,2-Dichloroethene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,2-Dichloropropane	< 0.04	mg/kg	0.04	0.16	1	8260B		4/21/2023	CJR	1
1,3-Dichloropropane	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
trans-1,3-Dichloropropene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
cis-1,3-Dichloropropene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
Di-isopropyl ether	< 0.028	mg/kg	0.028	0.11	1	8260B		4/21/2023	CJR	1
EDB (1,2-Dibromoethane)	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
Ethylbenzene	< 0.023	mg/kg	0.023	0.096	1	8260B		4/21/2023	CJR	1
Hexachlorobutadiene	< 0.1	mg/kg	0.1	0.42	1	8260B		4/21/2023	CJR	1
Isopropylbenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
p-Isopropyltoluene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
Methylene chloride	< 0.1	mg/kg	0.1	0.42	1	8260B		4/21/2023	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
Naphthalene	< 0.12	mg/kg	0.12	0.38	1	8260B		4/21/2023	CJR	1
n-Propylbenzene	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
1,1,2,2-Tetrachloroethane	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,1,1,2-Tetrachloroethane	< 0.041	mg/kg	0.041	0.17	1	8260B		4/21/2023	CJR	1
Tetrachloroethene	< 0.039	mg/kg	0.039	0.16	1	8260B		4/21/2023	CJR	1
Toluene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
1,2,4-Trichlorobenzene	< 0.045	mg/kg	0.045	0.18	1	8260B		4/21/2023	CJR	1
1,2,3-Trichlorobenzene	< 0.18	mg/kg	0.18	0.56	1	8260B		4/21/2023	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,1,2-Trichloroethane	< 0.037	mg/kg	0.037	0.15	1	8260B		4/21/2023	CJR	1
Trichloroethene (TCE)	< 0.039	mg/kg	0.039	0.16	1	8260B		4/21/2023	CJR	1
Trichlorofluoromethane	< 0.066	mg/kg	0.066	0.27	1	8260B		4/21/2023	CJR	1
1,2,4-Trimethylbenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
1,3,5-Trimethylbenzene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
Vinyl Chloride	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
m&p-Xylene	< 0.062	mg/kg	0.062	0.25	1	8260B		4/21/2023	CJR	1
o-Xylene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
SUR - Dibromofluoromethane	95	Rec %			1	8260B		4/21/2023	CJR	1
SUR - Toluene-d8	100	Rec %			1	8260B		4/21/2023	CJR	1
SUR - 1,2-Dichloroethane-d4	99	Rec %			1	8260B		4/21/2023	CJR	1
SUR - 4-Bromofluorobenzene	90	Rec %			1	8260B		4/21/2023	CJR	1

**Project Name** HARTLAND QUARRY  
**Project #** TBD "843"

**Invoice #** E42281

**Lab Code** 5042281C  
**Sample ID** TP-3  
**Sample Matrix** Soil  
**Sample Date** 4/17/2023

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	86.1	%			1	5021		4/19/2023	ZJW	1
Inorganic										
Metals										
Arsenic, Total	< 1.08	mg/kg	1.08	3.6	1	6010B		4/25/2023	SL	1
Barium, Total	12.8	mg/kg	2.08	6.93	1	6010B		4/25/2023	SL	1
Cadmium, Total	0.559	mg/kg	0.0743	0.248	1	6010B		4/25/2023	SL	1
Chromium, Total	3.72	mg/kg	0.115	0.386	1	6010B		4/25/2023	SL	1
Lead, Total	2.32	mg/kg	0.588	1.96	1	6010B		4/25/2023	SL	1
Mercury, Total	< 0.0426	mg/kg	0.0426	0.142	1	7471		4/26/2023	SL	1
Selenium, Total	< 1.29	mg/kg	1.29	4.29	1	6010B		4/25/2023	SL	1
Silver, Total	< 0.112	mg/kg	0.112	0.376	1	6010B		4/25/2023	SL	1
Organic										
PAH SIM										
Acenaphthene	< 0.0118	mg/kg	0.0118	0.045	1	M8270C	4/26/2023	4/26/2023	NJC	1
Acenaphthylene	< 0.0149	mg/kg	0.0149	0.057	1	M8270C	4/26/2023	4/26/2023	NJC	1
Anthracene	< 0.0105	mg/kg	0.0105	0.04	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(a)anthracene	< 0.0164	mg/kg	0.0164	0.063	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(a)pyrene	< 0.0137	mg/kg	0.0137	0.053	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(b)fluoranthene	< 0.0144	mg/kg	0.0144	0.055	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(g,h,i)perylene	< 0.0151	mg/kg	0.0151	0.058	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(k)fluoranthene	< 0.0199	mg/kg	0.0199	0.077	1	M8270C	4/26/2023	4/26/2023	NJC	1
Chrysene	< 0.0162	mg/kg	0.0162	0.062	1	M8270C	4/26/2023	4/26/2023	NJC	1
Dibenzo(a,h)anthracene	< 0.0151	mg/kg	0.0151	0.058	1	M8270C	4/26/2023	4/26/2023	NJC	1
Fluoranthene	< 0.013	mg/kg	0.013	0.05	1	M8270C	4/26/2023	4/26/2023	NJC	1
Fluorene	< 0.0136	mg/kg	0.0136	0.052	1	M8270C	4/26/2023	4/26/2023	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.0163	mg/kg	0.0163	0.063	1	M8270C	4/26/2023	4/26/2023	NJC	1
1-Methyl naphthalene	< 0.0096	mg/kg	0.0096	0.037	1	M8270C	4/26/2023	4/26/2023	NJC	1
2-Methyl naphthalene	< 0.0193	mg/kg	0.0193	0.074	1	M8270C	4/26/2023	4/26/2023	NJC	1
Naphthalene	< 0.0219	mg/kg	0.0219	0.084	1	M8270C	4/26/2023	4/26/2023	NJC	1
Phenanthrene	< 0.0124	mg/kg	0.0124	0.048	1	M8270C	4/26/2023	4/26/2023	NJC	1
Pyrene	< 0.0135	mg/kg	0.0135	0.052	1	M8270C	4/26/2023	4/26/2023	NJC	1
PCB'S										
PCB-1016	< 0.0036	mg/kg	0.0036	0.012	1	EPA 8082A		4/29/2023	SL	1
PCB-1221	< 0.004	mg/kg	0.004	0.013	1	EPA 8082A		4/29/2023	SL	1
PCB-1232	< 0.0032	mg/kg	0.0032	0.011	1	EPA 8082A		4/29/2023	SL	1
PCB-1242	< 0.0032	mg/kg	0.0032	0.011	1	EPA 8082A		4/29/2023	SL	1
PCB-1248	< 0.0036	mg/kg	0.0036	0.012	1	EPA 8082A		4/29/2023	SL	1
PCB-1254	< 0.0041	mg/kg	0.0041	0.014	1	EPA 8082A		4/29/2023	SL	1
PCB-1260	< 0.007	mg/kg	0.007	0.023	1	EPA 8082A		4/29/2023	SL	1
VOC's										
Benzene	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
Bromobenzene	< 0.04	mg/kg	0.04	0.16	1	8260B		4/21/2023	CJR	1
Bromodichloromethane	< 0.046	mg/kg	0.046	0.19	1	8260B		4/21/2023	CJR	1
Bromoform	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
tert-Butylbenzene	< 0.033	mg/kg	0.033	0.14	1	8260B		4/21/2023	CJR	1
sec-Butylbenzene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
n-Butylbenzene	< 0.029	mg/kg	0.029	0.12	1	8260B		4/21/2023	CJR	1
Carbon Tetrachloride	< 0.032	mg/kg	0.032	0.13	1	8260B		4/21/2023	CJR	1

**Project Name** HARTLAND QUARRY  
**Project #** TBD "843"

**Invoice #** E42281

**Lab Code** 5042281C  
**Sample ID** TP-3  
**Sample Matrix** Soil  
**Sample Date** 4/17/2023

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Chlorobenzene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
Chloroethane	< 0.1	mg/kg	0.1	0.41	1	8260B		4/21/2023	CJR	1
Chloroform	< 0.032	mg/kg	0.032	0.13	1	8260B		4/21/2023	CJR	1
Chloromethane	< 0.064	mg/kg	0.064	0.26	1	8260B		4/21/2023	CJR	1
2-Chlorotoluene	< 0.034	mg/kg	0.034	0.14	1	8260B		4/21/2023	CJR	1
4-Chlorotoluene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
1,2-Dibromo-3-chloropropane	< 0.055	mg/kg	0.055	0.22	1	8260B		4/21/2023	CJR	1
Dibromochloromethane	< 0.038	mg/kg	0.038	0.16	1	8260B		4/21/2023	CJR	1
1,4-Dichlorobenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
1,3-Dichlorobenzene	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
1,2-Dichlorobenzene	< 0.026	mg/kg	0.026	0.11	1	8260B		4/21/2023	CJR	1
Dichlorodifluoromethane	< 0.046	mg/kg	0.046	0.19	1	8260B		4/21/2023	CJR	1
1,2-Dichloroethane	< 0.042	mg/kg	0.042	0.17	1	8260B		4/21/2023	CJR	1
1,1-Dichloroethane	< 0.033	mg/kg	0.033	0.13	1	8260B		4/21/2023	CJR	1
1,1-Dichloroethene	< 0.049	mg/kg	0.049	0.2	1	8260B		4/21/2023	CJR	1
cis-1,2-Dichloroethene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
trans-1,2-Dichloroethene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,2-Dichloropropane	< 0.04	mg/kg	0.04	0.16	1	8260B		4/21/2023	CJR	1
1,3-Dichloropropane	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
trans-1,3-Dichloropropene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
cis-1,3-Dichloropropene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
Di-isopropyl ether	< 0.028	mg/kg	0.028	0.11	1	8260B		4/21/2023	CJR	1
EDB (1,2-Dibromoethane)	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
Ethylbenzene	< 0.023	mg/kg	0.023	0.096	1	8260B		4/21/2023	CJR	1
Hexachlorobutadiene	< 0.1	mg/kg	0.1	0.42	1	8260B		4/21/2023	CJR	1
Isopropylbenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
p-Isopropyltoluene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
Methylene chloride	< 0.1	mg/kg	0.1	0.42	1	8260B		4/21/2023	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
Naphthalene	< 0.12	mg/kg	0.12	0.38	1	8260B		4/21/2023	CJR	1
n-Propylbenzene	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
1,1,2,2-Tetrachloroethane	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,1,1,2-Tetrachloroethane	< 0.041	mg/kg	0.041	0.17	1	8260B		4/21/2023	CJR	1
Tetrachloroethene	< 0.039	mg/kg	0.039	0.16	1	8260B		4/21/2023	CJR	1
Toluene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
1,2,4-Trichlorobenzene	< 0.045	mg/kg	0.045	0.18	1	8260B		4/21/2023	CJR	1
1,2,3-Trichlorobenzene	< 0.18	mg/kg	0.18	0.56	1	8260B		4/21/2023	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,1,2-Trichloroethane	< 0.037	mg/kg	0.037	0.15	1	8260B		4/21/2023	CJR	1
Trichloroethene (TCE)	< 0.039	mg/kg	0.039	0.16	1	8260B		4/21/2023	CJR	1
Trichlorofluoromethane	< 0.066	mg/kg	0.066	0.27	1	8260B		4/21/2023	CJR	1
1,2,4-Trimethylbenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
1,3,5-Trimethylbenzene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
Vinyl Chloride	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
m&p-Xylene	< 0.062	mg/kg	0.062	0.25	1	8260B		4/21/2023	CJR	1
o-Xylene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
SUR - 4-Bromofluorobenzene	94	Rec %			1	8260B		4/21/2023	CJR	1
SUR - Dibromofluoromethane	92	Rec %			1	8260B		4/21/2023	CJR	1
SUR - 1,2-Dichloroethane-d4	97	Rec %			1	8260B		4/21/2023	CJR	1
SUR - Toluene-d8	100	Rec %			1	8260B		4/21/2023	CJR	1

**Project Name** HARTLAND QUARRY  
**Project #** TBD "843"

**Invoice #** E42281

**Lab Code** 5042281D  
**Sample ID** TP-4  
**Sample Matrix** Soil  
**Sample Date** 4/17/2023

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	79.8	%			1	5021		4/19/2023	ZJW	1
Inorganic										
Metals										
Arsenic, Total	1.43 "J"	mg/kg	1.08	3.6	1	6010B		4/25/2023	SL	1
Barium, Total	47.8	mg/kg	2.08	6.93	1	6010B		4/25/2023	SL	1
Cadmium, Total	0.678	mg/kg	0.0743	0.248	1	6010B		4/25/2023	SL	1
Chromium, Total	5.47	mg/kg	0.115	0.386	1	6010B		4/25/2023	SL	1
Lead, Total	17.2	mg/kg	0.588	1.96	1	6010B		4/25/2023	SL	1
Mercury, Total	< 0.0426	mg/kg	0.0426	0.142	1	7471		4/26/2023	SL	1
Selenium, Total	< 1.29	mg/kg	1.29	4.29	1	6010B		4/25/2023	SL	1
Silver, Total	< 0.112	mg/kg	0.112	0.376	1	6010B		4/25/2023	SL	1
Organic										
PAH SIM										
Acenaphthene	< 0.0118	mg/kg	0.0118	0.045	1	M8270C	4/26/2023	4/26/2023	NJC	1
Acenaphthylene	< 0.0149	mg/kg	0.0149	0.057	1	M8270C	4/26/2023	4/26/2023	NJC	1
Anthracene	0.02 "J"	mg/kg	0.0105	0.04	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(a)anthracene	0.083	mg/kg	0.0164	0.063	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(a)pyrene	0.064	mg/kg	0.0137	0.053	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(b)fluoranthene	0.121	mg/kg	0.0144	0.055	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(g,h,i)perylene	0.109	mg/kg	0.0151	0.058	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(k)fluoranthene	0.055 "J"	mg/kg	0.0199	0.077	1	M8270C	4/26/2023	4/26/2023	NJC	1
Chrysene	0.101	mg/kg	0.0162	0.062	1	M8270C	4/26/2023	4/26/2023	NJC	1
Dibenzo(a,h)anthracene	< 0.0151	mg/kg	0.0151	0.058	1	M8270C	4/26/2023	4/26/2023	NJC	1
Fluoranthene	0.138	mg/kg	0.013	0.05	1	M8270C	4/26/2023	4/26/2023	NJC	1
Fluorene	< 0.0136	mg/kg	0.0136	0.052	1	M8270C	4/26/2023	4/26/2023	NJC	1
Indeno(1,2,3-cd)pyrene	0.075	mg/kg	0.0163	0.063	1	M8270C	4/26/2023	4/26/2023	NJC	1
1-Methyl naphthalene	< 0.0096	mg/kg	0.0096	0.037	1	M8270C	4/26/2023	4/26/2023	NJC	1
2-Methyl naphthalene	< 0.0193	mg/kg	0.0193	0.074	1	M8270C	4/26/2023	4/26/2023	NJC	1
Naphthalene	< 0.0219	mg/kg	0.0219	0.084	1	M8270C	4/26/2023	4/26/2023	NJC	1
Phenanthrene	0.065	mg/kg	0.0124	0.048	1	M8270C	4/26/2023	4/26/2023	NJC	1
Pyrene	0.11	mg/kg	0.0135	0.052	1	M8270C	4/26/2023	4/26/2023	NJC	1
PCB'S										
PCB-1016	< 0.0036	mg/kg	0.0036	0.012	1	EPA 8082A		4/29/2023	SL	1
PCB-1221	< 0.004	mg/kg	0.004	0.013	1	EPA 8082A		4/29/2023	SL	1
PCB-1232	< 0.0032	mg/kg	0.0032	0.011	1	EPA 8082A		4/29/2023	SL	1
PCB-1242	< 0.0032	mg/kg	0.0032	0.011	1	EPA 8082A		4/29/2023	SL	1
PCB-1248	< 0.0036	mg/kg	0.0036	0.012	1	EPA 8082A		4/29/2023	SL	1
PCB-1254	< 0.0041	mg/kg	0.0041	0.014	1	EPA 8082A		4/29/2023	SL	1
PCB-1260	< 0.007	mg/kg	0.007	0.023	1	EPA 8082A		4/29/2023	SL	1
VOC's										
Benzene	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
Bromobenzene	< 0.04	mg/kg	0.04	0.16	1	8260B		4/21/2023	CJR	1
Bromodichloromethane	< 0.046	mg/kg	0.046	0.19	1	8260B		4/21/2023	CJR	1
Bromoform	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
tert-Butylbenzene	< 0.033	mg/kg	0.033	0.14	1	8260B		4/21/2023	CJR	1
sec-Butylbenzene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
n-Butylbenzene	< 0.029	mg/kg	0.029	0.12	1	8260B		4/21/2023	CJR	1
Carbon Tetrachloride	< 0.032	mg/kg	0.032	0.13	1	8260B		4/21/2023	CJR	1

**Project Name** HARTLAND QUARRY  
**Project #** TBD "843"

**Invoice #** E42281

**Lab Code** 5042281D  
**Sample ID** TP-4  
**Sample Matrix** Soil  
**Sample Date** 4/17/2023

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Chlorobenzene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
Chloroethane	< 0.1	mg/kg	0.1	0.41	1	8260B		4/21/2023	CJR	1
Chloroform	< 0.032	mg/kg	0.032	0.13	1	8260B		4/21/2023	CJR	1
Chloromethane	< 0.064	mg/kg	0.064	0.26	1	8260B		4/21/2023	CJR	1
2-Chlorotoluene	< 0.034	mg/kg	0.034	0.14	1	8260B		4/21/2023	CJR	1
4-Chlorotoluene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
1,2-Dibromo-3-chloropropane	< 0.055	mg/kg	0.055	0.22	1	8260B		4/21/2023	CJR	1
Dibromochloromethane	< 0.038	mg/kg	0.038	0.16	1	8260B		4/21/2023	CJR	1
1,4-Dichlorobenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
1,3-Dichlorobenzene	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
1,2-Dichlorobenzene	< 0.026	mg/kg	0.026	0.11	1	8260B		4/21/2023	CJR	1
Dichlorodifluoromethane	< 0.046	mg/kg	0.046	0.19	1	8260B		4/21/2023	CJR	1
1,2-Dichloroethane	< 0.042	mg/kg	0.042	0.17	1	8260B		4/21/2023	CJR	1
1,1-Dichloroethane	< 0.033	mg/kg	0.033	0.13	1	8260B		4/21/2023	CJR	1
1,1-Dichloroethene	< 0.049	mg/kg	0.049	0.2	1	8260B		4/21/2023	CJR	1
cis-1,2-Dichloroethene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
trans-1,2-Dichloroethene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,2-Dichloropropane	< 0.04	mg/kg	0.04	0.16	1	8260B		4/21/2023	CJR	1
1,3-Dichloropropane	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
trans-1,3-Dichloropropene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
cis-1,3-Dichloropropene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
Di-isopropyl ether	< 0.028	mg/kg	0.028	0.11	1	8260B		4/21/2023	CJR	1
EDB (1,2-Dibromoethane)	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
Ethylbenzene	< 0.023	mg/kg	0.023	0.096	1	8260B		4/21/2023	CJR	1
Hexachlorobutadiene	< 0.1	mg/kg	0.1	0.42	1	8260B		4/21/2023	CJR	1
Isopropylbenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
p-Isopropyltoluene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
Methylene chloride	< 0.1	mg/kg	0.1	0.42	1	8260B		4/21/2023	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
Naphthalene	< 0.12	mg/kg	0.12	0.38	1	8260B		4/21/2023	CJR	1
n-Propylbenzene	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
1,1,2,2-Tetrachloroethane	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,1,1,2-Tetrachloroethane	< 0.041	mg/kg	0.041	0.17	1	8260B		4/21/2023	CJR	1
Tetrachloroethene	< 0.039	mg/kg	0.039	0.16	1	8260B		4/21/2023	CJR	1
Toluene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
1,2,4-Trichlorobenzene	< 0.045	mg/kg	0.045	0.18	1	8260B		4/21/2023	CJR	1
1,2,3-Trichlorobenzene	< 0.18	mg/kg	0.18	0.56	1	8260B		4/21/2023	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,1,2-Trichloroethane	< 0.037	mg/kg	0.037	0.15	1	8260B		4/21/2023	CJR	1
Trichloroethene (TCE)	< 0.039	mg/kg	0.039	0.16	1	8260B		4/21/2023	CJR	1
Trichlorofluoromethane	< 0.066	mg/kg	0.066	0.27	1	8260B		4/21/2023	CJR	1
1,2,4-Trimethylbenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
1,3,5-Trimethylbenzene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
Vinyl Chloride	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
m&p-Xylene	< 0.062	mg/kg	0.062	0.25	1	8260B		4/21/2023	CJR	1
o-Xylene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
SUR - 1,2-Dichloroethane-d4	101	Rec %			1	8260B		4/21/2023	CJR	1
SUR - 4-Bromofluorobenzene	93	Rec %			1	8260B		4/21/2023	CJR	1
SUR - Dibromofluoromethane	93	Rec %			1	8260B		4/21/2023	CJR	1
SUR - Toluene-d8	99	Rec %			1	8260B		4/21/2023	CJR	1

**Project Name** HARTLAND QUARRY  
**Project #** TBD "843"

**Invoice #** E42281

**Lab Code** 5042281E  
**Sample ID** TP-5  
**Sample Matrix** Soil  
**Sample Date** 4/17/2023

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	82.9	%			1	5021		4/19/2023	ZJW	1
Inorganic										
Metals										
Arsenic, Total	< 1.08	mg/kg	1.08	3.6	1	6010B		4/25/2023	SL	1
Barium, Total	7.73	mg/kg	2.08	6.93	1	6010B		4/25/2023	SL	1
Cadmium, Total	0.405	mg/kg	0.0743	0.248	1	6010B		4/25/2023	SL	1
Chromium, Total	2.59	mg/kg	0.115	0.386	1	6010B		4/25/2023	SL	1
Lead, Total	1.11 "J"	mg/kg	0.588	1.96	1	6010B		4/25/2023	SL	1
Mercury, Total	< 0.0426	mg/kg	0.0426	0.142	1	7471		4/26/2023	SL	1
Selenium, Total	< 1.29	mg/kg	1.29	4.29	1	6010B		4/25/2023	SL	1
Silver, Total	< 0.112	mg/kg	0.112	0.376	1	6010B		4/25/2023	SL	1
Organic										
PAH SIM										
Acenaphthene	< 0.0118	mg/kg	0.0118	0.045	1	M8270C	4/26/2023	4/26/2023	NJC	1
Acenaphthylene	< 0.0149	mg/kg	0.0149	0.057	1	M8270C	4/26/2023	4/26/2023	NJC	1
Anthracene	< 0.0105	mg/kg	0.0105	0.04	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(a)anthracene	< 0.0164	mg/kg	0.0164	0.063	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(a)pyrene	< 0.0137	mg/kg	0.0137	0.053	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(b)fluoranthene	< 0.0144	mg/kg	0.0144	0.055	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(g,h,i)perylene	< 0.0151	mg/kg	0.0151	0.058	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(k)fluoranthene	< 0.0199	mg/kg	0.0199	0.077	1	M8270C	4/26/2023	4/26/2023	NJC	1
Chrysene	< 0.0162	mg/kg	0.0162	0.062	1	M8270C	4/26/2023	4/26/2023	NJC	1
Dibenzo(a,h)anthracene	< 0.0151	mg/kg	0.0151	0.058	1	M8270C	4/26/2023	4/26/2023	NJC	1
Fluoranthene	< 0.013	mg/kg	0.013	0.05	1	M8270C	4/26/2023	4/26/2023	NJC	1
Fluorene	< 0.0136	mg/kg	0.0136	0.052	1	M8270C	4/26/2023	4/26/2023	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.0163	mg/kg	0.0163	0.063	1	M8270C	4/26/2023	4/26/2023	NJC	1
1-Methyl naphthalene	< 0.0096	mg/kg	0.0096	0.037	1	M8270C	4/26/2023	4/26/2023	NJC	1
2-Methyl naphthalene	< 0.0193	mg/kg	0.0193	0.074	1	M8270C	4/26/2023	4/26/2023	NJC	1
Naphthalene	< 0.0219	mg/kg	0.0219	0.084	1	M8270C	4/26/2023	4/26/2023	NJC	1
Phenanthrene	< 0.0124	mg/kg	0.0124	0.048	1	M8270C	4/26/2023	4/26/2023	NJC	1
Pyrene	< 0.0135	mg/kg	0.0135	0.052	1	M8270C	4/26/2023	4/26/2023	NJC	1
PCB'S										
PCB-1016	< 0.0036	mg/kg	0.0036	0.012	1	EPA 8082A		4/29/2023	SL	1
PCB-1221	< 0.004	mg/kg	0.004	0.013	1	EPA 8082A		4/29/2023	SL	1
PCB-1232	< 0.0032	mg/kg	0.0032	0.011	1	EPA 8082A		4/29/2023	SL	1
PCB-1242	< 0.0032	mg/kg	0.0032	0.011	1	EPA 8082A		4/29/2023	SL	1
PCB-1248	< 0.0036	mg/kg	0.0036	0.012	1	EPA 8082A		4/29/2023	SL	1
PCB-1254	< 0.0041	mg/kg	0.0041	0.014	1	EPA 8082A		4/29/2023	SL	1
PCB-1260	< 0.007	mg/kg	0.007	0.023	1	EPA 8082A		4/29/2023	SL	1
VOC's										
Benzene	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
Bromobenzene	< 0.04	mg/kg	0.04	0.16	1	8260B		4/21/2023	CJR	1
Bromodichloromethane	< 0.046	mg/kg	0.046	0.19	1	8260B		4/21/2023	CJR	1
Bromoform	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
tert-Butylbenzene	< 0.033	mg/kg	0.033	0.14	1	8260B		4/21/2023	CJR	1
sec-Butylbenzene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
n-Butylbenzene	< 0.029	mg/kg	0.029	0.12	1	8260B		4/21/2023	CJR	1
Carbon Tetrachloride	< 0.032	mg/kg	0.032	0.13	1	8260B		4/21/2023	CJR	1

**Project Name** HARTLAND QUARRY  
**Project #** TBD "843"

**Invoice #** E42281

**Lab Code** 5042281E  
**Sample ID** TP-5  
**Sample Matrix** Soil  
**Sample Date** 4/17/2023

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Chlorobenzene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
Chloroethane	< 0.1	mg/kg	0.1	0.41	1	8260B		4/21/2023	CJR	1
Chloroform	< 0.032	mg/kg	0.032	0.13	1	8260B		4/21/2023	CJR	1
Chloromethane	< 0.064	mg/kg	0.064	0.26	1	8260B		4/21/2023	CJR	1
2-Chlorotoluene	< 0.034	mg/kg	0.034	0.14	1	8260B		4/21/2023	CJR	1
4-Chlorotoluene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
1,2-Dibromo-3-chloropropane	< 0.055	mg/kg	0.055	0.22	1	8260B		4/21/2023	CJR	1
Dibromochloromethane	< 0.038	mg/kg	0.038	0.16	1	8260B		4/21/2023	CJR	1
1,4-Dichlorobenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
1,3-Dichlorobenzene	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
1,2-Dichlorobenzene	< 0.026	mg/kg	0.026	0.11	1	8260B		4/21/2023	CJR	1
Dichlorodifluoromethane	< 0.046	mg/kg	0.046	0.19	1	8260B		4/21/2023	CJR	1
1,2-Dichloroethane	< 0.042	mg/kg	0.042	0.17	1	8260B		4/21/2023	CJR	1
1,1-Dichloroethane	< 0.033	mg/kg	0.033	0.13	1	8260B		4/21/2023	CJR	1
1,1-Dichloroethene	< 0.049	mg/kg	0.049	0.2	1	8260B		4/21/2023	CJR	1
cis-1,2-Dichloroethene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
trans-1,2-Dichloroethene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,2-Dichloropropane	< 0.04	mg/kg	0.04	0.16	1	8260B		4/21/2023	CJR	1
1,3-Dichloropropane	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
trans-1,3-Dichloropropene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
cis-1,3-Dichloropropene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
Di-isopropyl ether	< 0.028	mg/kg	0.028	0.11	1	8260B		4/21/2023	CJR	1
EDB (1,2-Dibromoethane)	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
Ethylbenzene	< 0.023	mg/kg	0.023	0.096	1	8260B		4/21/2023	CJR	1
Hexachlorobutadiene	< 0.1	mg/kg	0.1	0.42	1	8260B		4/21/2023	CJR	1
Isopropylbenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
p-Isopropyltoluene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
Methylene chloride	< 0.1	mg/kg	0.1	0.42	1	8260B		4/21/2023	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
Naphthalene	< 0.12	mg/kg	0.12	0.38	1	8260B		4/21/2023	CJR	1
n-Propylbenzene	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
1,1,2,2-Tetrachloroethane	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,1,1,2-Tetrachloroethane	< 0.041	mg/kg	0.041	0.17	1	8260B		4/21/2023	CJR	1
Tetrachloroethene	< 0.039	mg/kg	0.039	0.16	1	8260B		4/21/2023	CJR	1
Toluene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
1,2,4-Trichlorobenzene	< 0.045	mg/kg	0.045	0.18	1	8260B		4/21/2023	CJR	1
1,2,3-Trichlorobenzene	< 0.18	mg/kg	0.18	0.56	1	8260B		4/21/2023	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,1,2-Trichloroethane	< 0.037	mg/kg	0.037	0.15	1	8260B		4/21/2023	CJR	1
Trichloroethene (TCE)	< 0.039	mg/kg	0.039	0.16	1	8260B		4/21/2023	CJR	1
Trichlorofluoromethane	< 0.066	mg/kg	0.066	0.27	1	8260B		4/21/2023	CJR	1
1,2,4-Trimethylbenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
1,3,5-Trimethylbenzene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
Vinyl Chloride	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
m&p-Xylene	< 0.062	mg/kg	0.062	0.25	1	8260B		4/21/2023	CJR	1
o-Xylene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
SUR - Dibromofluoromethane	93	Rec %			1	8260B		4/21/2023	CJR	1
SUR - 1,2-Dichloroethane-d4	101	Rec %			1	8260B		4/21/2023	CJR	1
SUR - 4-Bromofluorobenzene	94	Rec %			1	8260B		4/21/2023	CJR	1
SUR - Toluene-d8	98	Rec %			1	8260B		4/21/2023	CJR	1

Project Name HARTLAND QUARRY  
 Project # TBD "843"

Invoice # E42281

Lab Code 5042281F  
 Sample ID TP-6  
 Sample Matrix Soil  
 Sample Date 4/17/2023

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	88.3	%			1	5021		4/19/2023	ZJW	1
Inorganic										
Metals										
Arsenic, Total	< 1.08	mg/kg	1.08	3.6	1	6010B		4/25/2023	SL	1
Barium, Total	11.4	mg/kg	2.08	6.93	1	6010B		4/25/2023	SL	1
Cadmium, Total	0.456	mg/kg	0.0743	0.248	1	6010B		4/25/2023	SL	1
Chromium, Total	4.21	mg/kg	0.115	0.386	1	6010B		4/25/2023	SL	1
Lead, Total	1.32 "J"	mg/kg	0.588	1.96	1	6010B		4/25/2023	SL	1
Mercury, Total	< 0.0426	mg/kg	0.0426	0.142	1	7471		4/26/2023	SL	1
Selenium, Total	< 1.29	mg/kg	1.29	4.29	1	6010B		4/25/2023	SL	1
Silver, Total	< 0.112	mg/kg	0.112	0.376	1	6010B		4/25/2023	SL	1
Organic										
PAH SIM										
Acenaphthene	< 0.0118	mg/kg	0.0118	0.045	1	M8270C	4/26/2023	4/26/2023	NJC	1
Acenaphthylene	< 0.0149	mg/kg	0.0149	0.057	1	M8270C	4/26/2023	4/26/2023	NJC	1
Anthracene	< 0.0105	mg/kg	0.0105	0.04	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(a)anthracene	< 0.0164	mg/kg	0.0164	0.063	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(a)pyrene	< 0.0137	mg/kg	0.0137	0.053	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(b)fluoranthene	< 0.0144	mg/kg	0.0144	0.055	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(g,h,i)perylene	< 0.0151	mg/kg	0.0151	0.058	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(k)fluoranthene	< 0.0199	mg/kg	0.0199	0.077	1	M8270C	4/26/2023	4/26/2023	NJC	1
Chrysene	< 0.0162	mg/kg	0.0162	0.062	1	M8270C	4/26/2023	4/26/2023	NJC	1
Dibenzo(a,h)anthracene	< 0.0151	mg/kg	0.0151	0.058	1	M8270C	4/26/2023	4/26/2023	NJC	1
Fluoranthene	< 0.013	mg/kg	0.013	0.05	1	M8270C	4/26/2023	4/26/2023	NJC	1
Fluorene	< 0.0136	mg/kg	0.0136	0.052	1	M8270C	4/26/2023	4/26/2023	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.0163	mg/kg	0.0163	0.063	1	M8270C	4/26/2023	4/26/2023	NJC	1
1-Methyl naphthalene	< 0.0096	mg/kg	0.0096	0.037	1	M8270C	4/26/2023	4/26/2023	NJC	1
2-Methyl naphthalene	< 0.0193	mg/kg	0.0193	0.074	1	M8270C	4/26/2023	4/26/2023	NJC	1
Naphthalene	< 0.0219	mg/kg	0.0219	0.084	1	M8270C	4/26/2023	4/26/2023	NJC	1
Phenanthrene	< 0.0124	mg/kg	0.0124	0.048	1	M8270C	4/26/2023	4/26/2023	NJC	1
Pyrene	< 0.0135	mg/kg	0.0135	0.052	1	M8270C	4/26/2023	4/26/2023	NJC	1
PCB'S										
PCB-1016	< 0.0036	mg/kg	0.0036	0.012	1	EPA 8082A		4/29/2023	SL	1
PCB-1221	< 0.004	mg/kg	0.004	0.013	1	EPA 8082A		4/29/2023	SL	1
PCB-1232	< 0.0032	mg/kg	0.0032	0.011	1	EPA 8082A		4/29/2023	SL	1
PCB-1242	< 0.0032	mg/kg	0.0032	0.011	1	EPA 8082A		4/29/2023	SL	1
PCB-1248	< 0.0036	mg/kg	0.0036	0.012	1	EPA 8082A		4/29/2023	SL	1
PCB-1254	< 0.0041	mg/kg	0.0041	0.014	1	EPA 8082A		4/29/2023	SL	1
PCB-1260	< 0.007	mg/kg	0.007	0.023	1	EPA 8082A		4/29/2023	SL	1
VOC's										
Benzene	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
Bromobenzene	< 0.04	mg/kg	0.04	0.16	1	8260B		4/21/2023	CJR	1
Bromodichloromethane	< 0.046	mg/kg	0.046	0.19	1	8260B		4/21/2023	CJR	1
Bromoform	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
tert-Butylbenzene	< 0.033	mg/kg	0.033	0.14	1	8260B		4/21/2023	CJR	1
sec-Butylbenzene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
n-Butylbenzene	< 0.029	mg/kg	0.029	0.12	1	8260B		4/21/2023	CJR	1
Carbon Tetrachloride	< 0.032	mg/kg	0.032	0.13	1	8260B		4/21/2023	CJR	1

**Project Name** HARTLAND QUARRY  
**Project #** TBD "843"

**Invoice #** E42281

**Lab Code** 5042281F  
**Sample ID** TP-6  
**Sample Matrix** Soil  
**Sample Date** 4/17/2023

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Chlorobenzene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
Chloroethane	< 0.1	mg/kg	0.1	0.41	1	8260B		4/21/2023	CJR	1
Chloroform	< 0.032	mg/kg	0.032	0.13	1	8260B		4/21/2023	CJR	1
Chloromethane	< 0.064	mg/kg	0.064	0.26	1	8260B		4/21/2023	CJR	1
2-Chlorotoluene	< 0.034	mg/kg	0.034	0.14	1	8260B		4/21/2023	CJR	1
4-Chlorotoluene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
1,2-Dibromo-3-chloropropane	< 0.055	mg/kg	0.055	0.22	1	8260B		4/21/2023	CJR	1
Dibromochloromethane	< 0.038	mg/kg	0.038	0.16	1	8260B		4/21/2023	CJR	1
1,4-Dichlorobenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
1,3-Dichlorobenzene	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
1,2-Dichlorobenzene	< 0.026	mg/kg	0.026	0.11	1	8260B		4/21/2023	CJR	1
Dichlorodifluoromethane	< 0.046	mg/kg	0.046	0.19	1	8260B		4/21/2023	CJR	1
1,2-Dichloroethane	< 0.042	mg/kg	0.042	0.17	1	8260B		4/21/2023	CJR	1
1,1-Dichloroethane	< 0.033	mg/kg	0.033	0.13	1	8260B		4/21/2023	CJR	1
1,1-Dichloroethene	< 0.049	mg/kg	0.049	0.2	1	8260B		4/21/2023	CJR	1
cis-1,2-Dichloroethene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
trans-1,2-Dichloroethene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,2-Dichloropropane	< 0.04	mg/kg	0.04	0.16	1	8260B		4/21/2023	CJR	1
1,3-Dichloropropane	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
trans-1,3-Dichloropropene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
cis-1,3-Dichloropropene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
Di-isopropyl ether	< 0.028	mg/kg	0.028	0.11	1	8260B		4/21/2023	CJR	1
EDB (1,2-Dibromoethane)	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
Ethylbenzene	< 0.023	mg/kg	0.023	0.096	1	8260B		4/21/2023	CJR	1
Hexachlorobutadiene	< 0.1	mg/kg	0.1	0.42	1	8260B		4/21/2023	CJR	1
Isopropylbenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
p-Isopropyltoluene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
Methylene chloride	< 0.1	mg/kg	0.1	0.42	1	8260B		4/21/2023	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
Naphthalene	< 0.12	mg/kg	0.12	0.38	1	8260B		4/21/2023	CJR	1
n-Propylbenzene	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
1,1,2,2-Tetrachloroethane	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,1,1,2-Tetrachloroethane	< 0.041	mg/kg	0.041	0.17	1	8260B		4/21/2023	CJR	1
Tetrachloroethene	< 0.039	mg/kg	0.039	0.16	1	8260B		4/21/2023	CJR	1
Toluene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
1,2,4-Trichlorobenzene	< 0.045	mg/kg	0.045	0.18	1	8260B		4/21/2023	CJR	1
1,2,3-Trichlorobenzene	< 0.18	mg/kg	0.18	0.56	1	8260B		4/21/2023	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,1,2-Trichloroethane	< 0.037	mg/kg	0.037	0.15	1	8260B		4/21/2023	CJR	1
Trichloroethene (TCE)	< 0.039	mg/kg	0.039	0.16	1	8260B		4/21/2023	CJR	1
Trichlorofluoromethane	< 0.066	mg/kg	0.066	0.27	1	8260B		4/21/2023	CJR	1
1,2,4-Trimethylbenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
1,3,5-Trimethylbenzene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
Vinyl Chloride	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
m&p-Xylene	< 0.062	mg/kg	0.062	0.25	1	8260B		4/21/2023	CJR	1
o-Xylene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
SUR - 1,2-Dichloroethane-d4	97	Rec %			1	8260B		4/21/2023	CJR	1
SUR - 4-Bromofluorobenzene	92	Rec %			1	8260B		4/21/2023	CJR	1
SUR - Dibromofluoromethane	93	Rec %			1	8260B		4/21/2023	CJR	1
SUR - Toluene-d8	100	Rec %			1	8260B		4/21/2023	CJR	1

**Project Name** HARTLAND QUARRY  
**Project #** TBD "843"

**Invoice #** E42281

**Lab Code** 5042281G  
**Sample ID** TP-7A  
**Sample Matrix** Soil  
**Sample Date** 4/17/2023

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	89.9	%			1	5021		4/19/2023	ZJW	1
Inorganic										
Metals										
Arsenic, Total	< 1.08	mg/kg	1.08	3.6	1	6010B		4/25/2023	SL	1
Barium, Total	37.9	mg/kg	2.08	6.93	1	6010B		4/25/2023	SL	1
Cadmium, Total	0.831	mg/kg	0.0743	0.248	1	6010B		4/25/2023	SL	1
Chromium, Total	7.24	mg/kg	0.115	0.386	1	6010B		4/25/2023	SL	1
Lead, Total	6.20	mg/kg	0.588	1.96	1	6010B		4/25/2023	SL	1
Mercury, Total	< 0.0426	mg/kg	0.0426	0.142	1	7471		4/26/2023	SL	1
Selenium, Total	< 1.29	mg/kg	1.29	4.29	1	6010B		4/25/2023	SL	1
Silver, Total	< 0.112	mg/kg	0.112	0.376	1	6010B		4/25/2023	SL	1
Organic										
PAH SIM										
Acenaphthene	0.012 "J"	mg/kg	0.0118	0.045	1	M8270C	4/26/2023	4/26/2023	NJC	1
Acenaphthylene	0.083	mg/kg	0.0149	0.057	1	M8270C	4/26/2023	4/26/2023	NJC	1
Anthracene	0.049	mg/kg	0.0105	0.04	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(a)anthracene	0.241	mg/kg	0.0164	0.063	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(a)pyrene	0.34	mg/kg	0.0137	0.053	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(b)fluoranthene	0.43	mg/kg	0.0144	0.055	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(g,h,i)perylene	0.42	mg/kg	0.0151	0.058	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(k)fluoranthene	0.194	mg/kg	0.0199	0.077	1	M8270C	4/26/2023	4/26/2023	NJC	1
Chrysene	0.283	mg/kg	0.0162	0.062	1	M8270C	4/26/2023	4/26/2023	NJC	1
Dibenzo(a,h)anthracene	0.063	mg/kg	0.0151	0.058	1	M8270C	4/26/2023	4/26/2023	NJC	1
Fluoranthene	0.205	mg/kg	0.013	0.05	1	M8270C	4/26/2023	4/26/2023	NJC	1
Fluorene	< 0.0136	mg/kg	0.0136	0.052	1	M8270C	4/26/2023	4/26/2023	NJC	1
Indeno(1,2,3-cd)pyrene	0.304	mg/kg	0.0163	0.063	1	M8270C	4/26/2023	4/26/2023	NJC	1
1-Methyl naphthalene	< 0.0096	mg/kg	0.0096	0.037	1	M8270C	4/26/2023	4/26/2023	NJC	1
2-Methyl naphthalene	< 0.0193	mg/kg	0.0193	0.074	1	M8270C	4/26/2023	4/26/2023	NJC	1
Naphthalene	< 0.0219	mg/kg	0.0219	0.084	1	M8270C	4/26/2023	4/26/2023	NJC	1
Phenanthrene	0.065	mg/kg	0.0124	0.048	1	M8270C	4/26/2023	4/26/2023	NJC	1
Pyrene	0.215	mg/kg	0.0135	0.052	1	M8270C	4/26/2023	4/26/2023	NJC	1
PCB'S										
PCB-1016	< 0.0036	mg/kg	0.0036	0.012	1	EPA 8082A		4/29/2023	SL	1
PCB-1221	< 0.004	mg/kg	0.004	0.013	1	EPA 8082A		4/29/2023	SL	1
PCB-1232	< 0.0032	mg/kg	0.0032	0.011	1	EPA 8082A		4/29/2023	SL	1
PCB-1242	< 0.0032	mg/kg	0.0032	0.011	1	EPA 8082A		4/29/2023	SL	1
PCB-1248	< 0.0036	mg/kg	0.0036	0.012	1	EPA 8082A		4/29/2023	SL	1
PCB-1254	< 0.0041	mg/kg	0.0041	0.014	1	EPA 8082A		4/29/2023	SL	1
PCB-1260	< 0.007	mg/kg	0.007	0.023	1	EPA 8082A		4/29/2023	SL	1
VOC's										
Benzene	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
Bromobenzene	< 0.04	mg/kg	0.04	0.16	1	8260B		4/21/2023	CJR	1
Bromodichloromethane	< 0.046	mg/kg	0.046	0.19	1	8260B		4/21/2023	CJR	1
Bromoform	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
tert-Butylbenzene	< 0.033	mg/kg	0.033	0.14	1	8260B		4/21/2023	CJR	1
sec-Butylbenzene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
n-Butylbenzene	< 0.029	mg/kg	0.029	0.12	1	8260B		4/21/2023	CJR	1
Carbon Tetrachloride	< 0.032	mg/kg	0.032	0.13	1	8260B		4/21/2023	CJR	1

**Project Name** HARTLAND QUARRY  
**Project #** TBD "843"

**Invoice #** E42281

**Lab Code** 5042281G  
**Sample ID** TP-7A  
**Sample Matrix** Soil  
**Sample Date** 4/17/2023

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Chlorobenzene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
Chloroethane	< 0.1	mg/kg	0.1	0.41	1	8260B		4/21/2023	CJR	1
Chloroform	< 0.032	mg/kg	0.032	0.13	1	8260B		4/21/2023	CJR	1
Chloromethane	< 0.064	mg/kg	0.064	0.26	1	8260B		4/21/2023	CJR	1
2-Chlorotoluene	< 0.034	mg/kg	0.034	0.14	1	8260B		4/21/2023	CJR	1
4-Chlorotoluene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
1,2-Dibromo-3-chloropropane	< 0.055	mg/kg	0.055	0.22	1	8260B		4/21/2023	CJR	1
Dibromochloromethane	< 0.038	mg/kg	0.038	0.16	1	8260B		4/21/2023	CJR	1
1,4-Dichlorobenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
1,3-Dichlorobenzene	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
1,2-Dichlorobenzene	< 0.026	mg/kg	0.026	0.11	1	8260B		4/21/2023	CJR	1
Dichlorodifluoromethane	< 0.046	mg/kg	0.046	0.19	1	8260B		4/21/2023	CJR	1
1,2-Dichloroethane	< 0.042	mg/kg	0.042	0.17	1	8260B		4/21/2023	CJR	1
1,1-Dichloroethane	< 0.033	mg/kg	0.033	0.13	1	8260B		4/21/2023	CJR	1
1,1-Dichloroethene	< 0.049	mg/kg	0.049	0.2	1	8260B		4/21/2023	CJR	1
cis-1,2-Dichloroethene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
trans-1,2-Dichloroethene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,2-Dichloropropane	< 0.04	mg/kg	0.04	0.16	1	8260B		4/21/2023	CJR	1
1,3-Dichloropropane	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
trans-1,3-Dichloropropene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
cis-1,3-Dichloropropene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
Di-isopropyl ether	< 0.028	mg/kg	0.028	0.11	1	8260B		4/21/2023	CJR	1
EDB (1,2-Dibromoethane)	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
Ethylbenzene	< 0.023	mg/kg	0.023	0.096	1	8260B		4/21/2023	CJR	1
Hexachlorobutadiene	< 0.1	mg/kg	0.1	0.42	1	8260B		4/21/2023	CJR	1
Isopropylbenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
p-Isopropyltoluene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
Methylene chloride	< 0.1	mg/kg	0.1	0.42	1	8260B		4/21/2023	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
Naphthalene	< 0.12	mg/kg	0.12	0.38	1	8260B		4/21/2023	CJR	1
n-Propylbenzene	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
1,1,2,2-Tetrachloroethane	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,1,1,2-Tetrachloroethane	< 0.041	mg/kg	0.041	0.17	1	8260B		4/21/2023	CJR	1
Tetrachloroethene	< 0.039	mg/kg	0.039	0.16	1	8260B		4/21/2023	CJR	1
Toluene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
1,2,4-Trichlorobenzene	< 0.045	mg/kg	0.045	0.18	1	8260B		4/21/2023	CJR	1
1,2,3-Trichlorobenzene	< 0.18	mg/kg	0.18	0.56	1	8260B		4/21/2023	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,1,2-Trichloroethane	< 0.037	mg/kg	0.037	0.15	1	8260B		4/21/2023	CJR	1
Trichloroethene (TCE)	< 0.039	mg/kg	0.039	0.16	1	8260B		4/21/2023	CJR	1
Trichlorofluoromethane	< 0.066	mg/kg	0.066	0.27	1	8260B		4/21/2023	CJR	1
1,2,4-Trimethylbenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
1,3,5-Trimethylbenzene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
Vinyl Chloride	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
m&p-Xylene	< 0.062	mg/kg	0.062	0.25	1	8260B		4/21/2023	CJR	1
o-Xylene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
SUR - Dibromofluoromethane	93	Rec %			1	8260B		4/21/2023	CJR	1
SUR - Toluene-d8	100	Rec %			1	8260B		4/21/2023	CJR	1
SUR - 1,2-Dichloroethane-d4	101	Rec %			1	8260B		4/21/2023	CJR	1
SUR - 4-Bromofluorobenzene	93	Rec %			1	8260B		4/21/2023	CJR	1

**Project Name** HARTLAND QUARRY  
**Project #** TBD "843"

**Invoice #** E42281

**Lab Code** 5042281H  
**Sample ID** TP-7B  
**Sample Matrix** Soil  
**Sample Date** 4/17/2023

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	82.8	%			1	5021		4/19/2023	ZJW	1
Inorganic										
Metals										
Arsenic, Total	6.39	mg/kg	1.08	3.6	1	6010B		4/25/2023	SL	1
Barium, Total	32.7	mg/kg	2.08	6.93	1	6010B		4/25/2023	SL	1
Cadmium, Total	2.08	mg/kg	0.0743	0.248	1	6010B		4/25/2023	SL	1
Chromium, Total	7.74	mg/kg	0.115	0.386	1	6010B		4/25/2023	SL	1
Lead, Total	12.1	mg/kg	0.588	1.96	1	6010B		4/25/2023	SL	1
Mercury, Total	< 0.0426	mg/kg	0.0426	0.142	1	7471		4/26/2023	SL	1
Selenium, Total	< 1.29	mg/kg	1.29	4.29	1	6010B		4/25/2023	SL	1
Silver, Total	< 0.112	mg/kg	0.112	0.376	1	6010B		4/25/2023	SL	3
Organic										
PAH SIM										
Acenaphthene	< 0.0118	mg/kg	0.0118	0.045	1	M8270C	4/26/2023	4/26/2023	NJC	1
Acenaphthylene	< 0.0149	mg/kg	0.0149	0.057	1	M8270C	4/26/2023	4/26/2023	NJC	1
Anthracene	< 0.0105	mg/kg	0.0105	0.04	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(a)anthracene	< 0.0164	mg/kg	0.0164	0.063	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(a)pyrene	< 0.0137	mg/kg	0.0137	0.053	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(b)fluoranthene	< 0.0144	mg/kg	0.0144	0.055	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(g,h,i)perylene	< 0.0151	mg/kg	0.0151	0.058	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(k)fluoranthene	< 0.0199	mg/kg	0.0199	0.077	1	M8270C	4/26/2023	4/26/2023	NJC	1
Chrysene	< 0.0162	mg/kg	0.0162	0.062	1	M8270C	4/26/2023	4/26/2023	NJC	1
Dibenzo(a,h)anthracene	< 0.0151	mg/kg	0.0151	0.058	1	M8270C	4/26/2023	4/26/2023	NJC	1
Fluoranthene	< 0.013	mg/kg	0.013	0.05	1	M8270C	4/26/2023	4/26/2023	NJC	1
Fluorene	< 0.0136	mg/kg	0.0136	0.052	1	M8270C	4/26/2023	4/26/2023	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.0163	mg/kg	0.0163	0.063	1	M8270C	4/26/2023	4/26/2023	NJC	1
1-Methyl naphthalene	< 0.0096	mg/kg	0.0096	0.037	1	M8270C	4/26/2023	4/26/2023	NJC	1
2-Methyl naphthalene	< 0.0193	mg/kg	0.0193	0.074	1	M8270C	4/26/2023	4/26/2023	NJC	1
Naphthalene	< 0.0219	mg/kg	0.0219	0.084	1	M8270C	4/26/2023	4/26/2023	NJC	1
Phenanthrene	< 0.0124	mg/kg	0.0124	0.048	1	M8270C	4/26/2023	4/26/2023	NJC	1
Pyrene	< 0.0135	mg/kg	0.0135	0.052	1	M8270C	4/26/2023	4/26/2023	NJC	1
PCB'S										
PCB-1016	< 0.0036	mg/kg	0.0036	0.012	1	EPA 8082A		4/29/2023	SL	1
PCB-1221	< 0.004	mg/kg	0.004	0.013	1	EPA 8082A		4/29/2023	SL	1
PCB-1232	< 0.0032	mg/kg	0.0032	0.011	1	EPA 8082A		4/29/2023	SL	1
PCB-1242	< 0.0032	mg/kg	0.0032	0.011	1	EPA 8082A		4/29/2023	SL	1
PCB-1248	< 0.0036	mg/kg	0.0036	0.012	1	EPA 8082A		4/29/2023	SL	1
PCB-1254	< 0.0041	mg/kg	0.0041	0.014	1	EPA 8082A		4/29/2023	SL	1
PCB-1260	< 0.007	mg/kg	0.007	0.023	1	EPA 8082A		4/29/2023	SL	1
VOC's										
Benzene	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
Bromobenzene	< 0.04	mg/kg	0.04	0.16	1	8260B		4/21/2023	CJR	1
Bromodichloromethane	< 0.046	mg/kg	0.046	0.19	1	8260B		4/21/2023	CJR	1
Bromoform	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
tert-Butylbenzene	< 0.033	mg/kg	0.033	0.14	1	8260B		4/21/2023	CJR	1
sec-Butylbenzene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
n-Butylbenzene	< 0.029	mg/kg	0.029	0.12	1	8260B		4/21/2023	CJR	1
Carbon Tetrachloride	< 0.032	mg/kg	0.032	0.13	1	8260B		4/21/2023	CJR	1

**Project Name** HARTLAND QUARRY  
**Project #** TBD "843"

**Invoice #** E42281

**Lab Code** 5042281H  
**Sample ID** TP-7B  
**Sample Matrix** Soil  
**Sample Date** 4/17/2023

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Chlorobenzene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
Chloroethane	< 0.1	mg/kg	0.1	0.41	1	8260B		4/21/2023	CJR	1
Chloroform	< 0.032	mg/kg	0.032	0.13	1	8260B		4/21/2023	CJR	1
Chloromethane	< 0.064	mg/kg	0.064	0.26	1	8260B		4/21/2023	CJR	1
2-Chlorotoluene	< 0.034	mg/kg	0.034	0.14	1	8260B		4/21/2023	CJR	1
4-Chlorotoluene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
1,2-Dibromo-3-chloropropane	< 0.055	mg/kg	0.055	0.22	1	8260B		4/21/2023	CJR	1
Dibromochloromethane	< 0.038	mg/kg	0.038	0.16	1	8260B		4/21/2023	CJR	1
1,4-Dichlorobenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
1,3-Dichlorobenzene	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
1,2-Dichlorobenzene	< 0.026	mg/kg	0.026	0.11	1	8260B		4/21/2023	CJR	1
Dichlorodifluoromethane	< 0.046	mg/kg	0.046	0.19	1	8260B		4/21/2023	CJR	1
1,2-Dichloroethane	< 0.042	mg/kg	0.042	0.17	1	8260B		4/21/2023	CJR	1
1,1-Dichloroethane	< 0.033	mg/kg	0.033	0.13	1	8260B		4/21/2023	CJR	1
1,1-Dichloroethene	< 0.049	mg/kg	0.049	0.2	1	8260B		4/21/2023	CJR	1
cis-1,2-Dichloroethene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
trans-1,2-Dichloroethene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,2-Dichloropropane	< 0.04	mg/kg	0.04	0.16	1	8260B		4/21/2023	CJR	1
1,3-Dichloropropane	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
trans-1,3-Dichloropropene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
cis-1,3-Dichloropropene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
Di-isopropyl ether	< 0.028	mg/kg	0.028	0.11	1	8260B		4/21/2023	CJR	1
EDB (1,2-Dibromoethane)	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
Ethylbenzene	< 0.023	mg/kg	0.023	0.096	1	8260B		4/21/2023	CJR	1
Hexachlorobutadiene	< 0.1	mg/kg	0.1	0.42	1	8260B		4/21/2023	CJR	1
Isopropylbenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
p-Isopropyltoluene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
Methylene chloride	< 0.1	mg/kg	0.1	0.42	1	8260B		4/21/2023	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
Naphthalene	< 0.12	mg/kg	0.12	0.38	1	8260B		4/21/2023	CJR	1
n-Propylbenzene	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
1,1,2,2-Tetrachloroethane	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,1,1,2-Tetrachloroethane	< 0.041	mg/kg	0.041	0.17	1	8260B		4/21/2023	CJR	1
Tetrachloroethene	< 0.039	mg/kg	0.039	0.16	1	8260B		4/21/2023	CJR	1
Toluene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
1,2,4-Trichlorobenzene	< 0.045	mg/kg	0.045	0.18	1	8260B		4/21/2023	CJR	1
1,2,3-Trichlorobenzene	< 0.18	mg/kg	0.18	0.56	1	8260B		4/21/2023	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,1,2-Trichloroethane	< 0.037	mg/kg	0.037	0.15	1	8260B		4/21/2023	CJR	1
Trichloroethene (TCE)	< 0.039	mg/kg	0.039	0.16	1	8260B		4/21/2023	CJR	1
Trichlorofluoromethane	< 0.066	mg/kg	0.066	0.27	1	8260B		4/21/2023	CJR	1
1,2,4-Trimethylbenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
1,3,5-Trimethylbenzene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
Vinyl Chloride	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
m&p-Xylene	< 0.062	mg/kg	0.062	0.25	1	8260B		4/21/2023	CJR	1
o-Xylene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
SUR - 4-Bromofluorobenzene	96	Rec %			1	8260B		4/21/2023	CJR	1
SUR - Dibromofluoromethane	91	Rec %			1	8260B		4/21/2023	CJR	1
SUR - 1,2-Dichloroethane-d4	102	Rec %			1	8260B		4/21/2023	CJR	1
SUR - Toluene-d8	102	Rec %			1	8260B		4/21/2023	CJR	1

**Project Name** HARTLAND QUARRY  
**Project #** TBD "843"

**Invoice #** E42281

**Lab Code** 5042281I  
**Sample ID** TP-8  
**Sample Matrix** Soil  
**Sample Date** 4/17/2023

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	79.3	%			1	5021		4/19/2023	ZJW	1
Inorganic										
Metals										
Arsenic, Total	6.98	mg/kg	1.08	3.6	1	6010B		4/25/2023	SL	1
Barium, Total	41.8	mg/kg	2.08	6.93	1	6010B		4/25/2023	SL	1
Cadmium, Total	2.47	mg/kg	0.0743	0.248	1	6010B		4/25/2023	SL	1
Chromium, Total	9.85	mg/kg	0.115	0.386	1	6010B		4/25/2023	SL	1
Lead, Total	15.3	mg/kg	0.588	1.96	1	6010B		4/25/2023	SL	1
Mercury, Total	< 0.0426	mg/kg	0.0426	0.142	1	7471		4/26/2023	SL	1
Selenium, Total	< 1.29	mg/kg	1.29	4.29	1	6010B		4/25/2023	SL	1
Silver, Total	< 0.112	mg/kg	0.112	0.376	1	6010B		4/25/2023	SL	1
Organic										
PAH SIM										
Acenaphthene	< 0.0118	mg/kg	0.0118	0.045	1	M8270C	4/26/2023	4/26/2023	NJC	1
Acenaphthylene	< 0.0149	mg/kg	0.0149	0.057	1	M8270C	4/26/2023	4/26/2023	NJC	1
Anthracene	< 0.0105	mg/kg	0.0105	0.04	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(a)anthracene	< 0.0164	mg/kg	0.0164	0.063	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(a)pyrene	< 0.0137	mg/kg	0.0137	0.053	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(b)fluoranthene	< 0.0144	mg/kg	0.0144	0.055	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(g,h,i)perylene	< 0.0151	mg/kg	0.0151	0.058	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(k)fluoranthene	< 0.0199	mg/kg	0.0199	0.077	1	M8270C	4/26/2023	4/26/2023	NJC	1
Chrysene	< 0.0162	mg/kg	0.0162	0.062	1	M8270C	4/26/2023	4/26/2023	NJC	1
Dibenzo(a,h)anthracene	< 0.0151	mg/kg	0.0151	0.058	1	M8270C	4/26/2023	4/26/2023	NJC	1
Fluoranthene	< 0.013	mg/kg	0.013	0.05	1	M8270C	4/26/2023	4/26/2023	NJC	1
Fluorene	< 0.0136	mg/kg	0.0136	0.052	1	M8270C	4/26/2023	4/26/2023	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.0163	mg/kg	0.0163	0.063	1	M8270C	4/26/2023	4/26/2023	NJC	1
1-Methyl naphthalene	< 0.0096	mg/kg	0.0096	0.037	1	M8270C	4/26/2023	4/26/2023	NJC	1
2-Methyl naphthalene	< 0.0193	mg/kg	0.0193	0.074	1	M8270C	4/26/2023	4/26/2023	NJC	1
Naphthalene	< 0.0219	mg/kg	0.0219	0.084	1	M8270C	4/26/2023	4/26/2023	NJC	1
Phenanthrene	< 0.0124	mg/kg	0.0124	0.048	1	M8270C	4/26/2023	4/26/2023	NJC	1
Pyrene	< 0.0135	mg/kg	0.0135	0.052	1	M8270C	4/26/2023	4/26/2023	NJC	1
PCB'S										
PCB-1016	< 0.0036	mg/kg	0.0036	0.012	1	EPA 8082A		4/29/2023	SL	1
PCB-1221	< 0.004	mg/kg	0.004	0.013	1	EPA 8082A		4/29/2023	SL	1
PCB-1232	< 0.0032	mg/kg	0.0032	0.011	1	EPA 8082A		4/29/2023	SL	1
PCB-1242	< 0.0032	mg/kg	0.0032	0.011	1	EPA 8082A		4/29/2023	SL	1
PCB-1248	< 0.0036	mg/kg	0.0036	0.012	1	EPA 8082A		4/29/2023	SL	1
PCB-1254	< 0.0041	mg/kg	0.0041	0.014	1	EPA 8082A		4/29/2023	SL	1
PCB-1260	< 0.007	mg/kg	0.007	0.023	1	EPA 8082A		4/29/2023	SL	1
VOC's										
Benzene	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
Bromobenzene	< 0.04	mg/kg	0.04	0.16	1	8260B		4/21/2023	CJR	1
Bromodichloromethane	< 0.046	mg/kg	0.046	0.19	1	8260B		4/21/2023	CJR	1
Bromoform	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
tert-Butylbenzene	< 0.033	mg/kg	0.033	0.14	1	8260B		4/21/2023	CJR	1
sec-Butylbenzene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
n-Butylbenzene	< 0.029	mg/kg	0.029	0.12	1	8260B		4/21/2023	CJR	1
Carbon Tetrachloride	< 0.032	mg/kg	0.032	0.13	1	8260B		4/21/2023	CJR	1

**Project Name** HARTLAND QUARRY  
**Project #** TBD "843"

**Invoice #** E42281

**Lab Code** 5042281I  
**Sample ID** TP-8  
**Sample Matrix** Soil  
**Sample Date** 4/17/2023

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Chlorobenzene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
Chloroethane	< 0.1	mg/kg	0.1	0.41	1	8260B		4/21/2023	CJR	1
Chloroform	< 0.032	mg/kg	0.032	0.13	1	8260B		4/21/2023	CJR	1
Chloromethane	< 0.064	mg/kg	0.064	0.26	1	8260B		4/21/2023	CJR	1
2-Chlorotoluene	< 0.034	mg/kg	0.034	0.14	1	8260B		4/21/2023	CJR	1
4-Chlorotoluene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
1,2-Dibromo-3-chloropropane	< 0.055	mg/kg	0.055	0.22	1	8260B		4/21/2023	CJR	1
Dibromochloromethane	< 0.038	mg/kg	0.038	0.16	1	8260B		4/21/2023	CJR	1
1,4-Dichlorobenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
1,3-Dichlorobenzene	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
1,2-Dichlorobenzene	< 0.026	mg/kg	0.026	0.11	1	8260B		4/21/2023	CJR	1
Dichlorodifluoromethane	< 0.046	mg/kg	0.046	0.19	1	8260B		4/21/2023	CJR	1
1,2-Dichloroethane	< 0.042	mg/kg	0.042	0.17	1	8260B		4/21/2023	CJR	1
1,1-Dichloroethane	< 0.033	mg/kg	0.033	0.13	1	8260B		4/21/2023	CJR	1
1,1-Dichloroethene	< 0.049	mg/kg	0.049	0.2	1	8260B		4/21/2023	CJR	1
cis-1,2-Dichloroethene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
trans-1,2-Dichloroethene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,2-Dichloropropane	< 0.04	mg/kg	0.04	0.16	1	8260B		4/21/2023	CJR	1
1,3-Dichloropropane	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
trans-1,3-Dichloropropene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
cis-1,3-Dichloropropene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
Di-isopropyl ether	< 0.028	mg/kg	0.028	0.11	1	8260B		4/21/2023	CJR	1
EDB (1,2-Dibromoethane)	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
Ethylbenzene	< 0.023	mg/kg	0.023	0.096	1	8260B		4/21/2023	CJR	1
Hexachlorobutadiene	< 0.1	mg/kg	0.1	0.42	1	8260B		4/21/2023	CJR	1
Isopropylbenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
p-Isopropyltoluene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
Methylene chloride	< 0.1	mg/kg	0.1	0.42	1	8260B		4/21/2023	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
Naphthalene	< 0.12	mg/kg	0.12	0.38	1	8260B		4/21/2023	CJR	1
n-Propylbenzene	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
1,1,2,2-Tetrachloroethane	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,1,1,2-Tetrachloroethane	< 0.041	mg/kg	0.041	0.17	1	8260B		4/21/2023	CJR	1
Tetrachloroethene	< 0.039	mg/kg	0.039	0.16	1	8260B		4/21/2023	CJR	1
Toluene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
1,2,4-Trichlorobenzene	< 0.045	mg/kg	0.045	0.18	1	8260B		4/21/2023	CJR	1
1,2,3-Trichlorobenzene	< 0.18	mg/kg	0.18	0.56	1	8260B		4/21/2023	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,1,2-Trichloroethane	< 0.037	mg/kg	0.037	0.15	1	8260B		4/21/2023	CJR	1
Trichloroethene (TCE)	< 0.039	mg/kg	0.039	0.16	1	8260B		4/21/2023	CJR	1
Trichlorofluoromethane	< 0.066	mg/kg	0.066	0.27	1	8260B		4/21/2023	CJR	1
1,2,4-Trimethylbenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
1,3,5-Trimethylbenzene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
Vinyl Chloride	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
m&p-Xylene	< 0.062	mg/kg	0.062	0.25	1	8260B		4/21/2023	CJR	1
o-Xylene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
SUR - 1,2-Dichloroethane-d4	106	Rec %			1	8260B		4/21/2023	CJR	1
SUR - 4-Bromofluorobenzene	91	Rec %			1	8260B		4/21/2023	CJR	1
SUR - Dibromofluoromethane	93	Rec %			1	8260B		4/21/2023	CJR	1
SUR - Toluene-d8	98	Rec %			1	8260B		4/21/2023	CJR	1

Project Name HARTLAND QUARRY  
 Project # TBD "843"

Invoice # E42281

Lab Code 5042281J  
 Sample ID TP-9  
 Sample Matrix Soil  
 Sample Date 4/17/2023

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	96.3	%			1	5021		4/19/2023	ZJW	1
Inorganic										
Metals										
Arsenic, Total	< 1.08	mg/kg	1.08	3.6	1	6010B		4/25/2023	SL	1
Barium, Total	3.93 "J"	mg/kg	2.08	6.93	1	6010B		4/25/2023	SL	1
Cadmium, Total	0.215 "J"	mg/kg	0.0743	0.248	1	6010B		4/25/2023	SL	1
Chromium, Total	2.32	mg/kg	0.115	0.386	1	6010B		4/25/2023	SL	1
Lead, Total	0.925 "J"	mg/kg	0.588	1.96	1	6010B		4/25/2023	SL	1
Mercury, Total	< 0.0426	mg/kg	0.0426	0.142	1	7471		4/26/2023	SL	1
Selenium, Total	< 1.29	mg/kg	1.29	4.29	1	6010B		4/25/2023	SL	1
Silver, Total	< 0.112	mg/kg	0.112	0.376	1	6010B		4/25/2023	SL	1
Organic										
PAH SIM										
Acenaphthene	< 0.0118	mg/kg	0.0118	0.045	1	M8270C	4/26/2023	4/26/2023	NJC	1
Acenaphthylene	< 0.0149	mg/kg	0.0149	0.057	1	M8270C	4/26/2023	4/26/2023	NJC	1
Anthracene	< 0.0105	mg/kg	0.0105	0.04	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(a)anthracene	< 0.0164	mg/kg	0.0164	0.063	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(a)pyrene	< 0.0137	mg/kg	0.0137	0.053	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(b)fluoranthene	< 0.0144	mg/kg	0.0144	0.055	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(g,h,i)perylene	< 0.0151	mg/kg	0.0151	0.058	1	M8270C	4/26/2023	4/26/2023	NJC	1
Benzo(k)fluoranthene	< 0.0199	mg/kg	0.0199	0.077	1	M8270C	4/26/2023	4/26/2023	NJC	1
Chrysene	< 0.0162	mg/kg	0.0162	0.062	1	M8270C	4/26/2023	4/26/2023	NJC	1
Dibenzo(a,h)anthracene	< 0.0151	mg/kg	0.0151	0.058	1	M8270C	4/26/2023	4/26/2023	NJC	1
Fluoranthene	< 0.013	mg/kg	0.013	0.05	1	M8270C	4/26/2023	4/26/2023	NJC	1
Fluorene	< 0.0136	mg/kg	0.0136	0.052	1	M8270C	4/26/2023	4/26/2023	NJC	1
Indeno(1,2,3-cd)pyrene	< 0.0163	mg/kg	0.0163	0.063	1	M8270C	4/26/2023	4/26/2023	NJC	1
1-Methyl naphthalene	< 0.0096	mg/kg	0.0096	0.037	1	M8270C	4/26/2023	4/26/2023	NJC	1
2-Methyl naphthalene	< 0.0193	mg/kg	0.0193	0.074	1	M8270C	4/26/2023	4/26/2023	NJC	1
Naphthalene	< 0.0219	mg/kg	0.0219	0.084	1	M8270C	4/26/2023	4/26/2023	NJC	1
Phenanthrene	< 0.0124	mg/kg	0.0124	0.048	1	M8270C	4/26/2023	4/26/2023	NJC	1
Pyrene	< 0.0135	mg/kg	0.0135	0.052	1	M8270C	4/26/2023	4/26/2023	NJC	1
PCB'S										
PCB-1016	< 0.0036	mg/kg	0.0036	0.012	1	EPA 8082A		4/29/2023	SL	1
PCB-1221	< 0.004	mg/kg	0.004	0.013	1	EPA 8082A		4/29/2023	SL	1
PCB-1232	< 0.0032	mg/kg	0.0032	0.011	1	EPA 8082A		4/29/2023	SL	1
PCB-1242	< 0.0032	mg/kg	0.0032	0.011	1	EPA 8082A		4/29/2023	SL	1
PCB-1248	< 0.0036	mg/kg	0.0036	0.012	1	EPA 8082A		4/29/2023	SL	1
PCB-1254	< 0.0041	mg/kg	0.0041	0.014	1	EPA 8082A		4/29/2023	SL	1
PCB-1260	< 0.007	mg/kg	0.007	0.023	1	EPA 8082A		4/29/2023	SL	1
VOC's										
Benzene	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
Bromobenzene	< 0.04	mg/kg	0.04	0.16	1	8260B		4/21/2023	CJR	1
Bromodichloromethane	< 0.046	mg/kg	0.046	0.19	1	8260B		4/21/2023	CJR	1
Bromoform	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
tert-Butylbenzene	< 0.033	mg/kg	0.033	0.14	1	8260B		4/21/2023	CJR	1
sec-Butylbenzene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
n-Butylbenzene	< 0.029	mg/kg	0.029	0.12	1	8260B		4/21/2023	CJR	1
Carbon Tetrachloride	< 0.032	mg/kg	0.032	0.13	1	8260B		4/21/2023	CJR	1

**Project Name** HARTLAND QUARRY  
**Project #** TBD "843"

**Invoice #** E42281

**Lab Code** 5042281J  
**Sample ID** TP-9  
**Sample Matrix** Soil  
**Sample Date** 4/17/2023

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Chlorobenzene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
Chloroethane	< 0.1	mg/kg	0.1	0.41	1	8260B		4/21/2023	CJR	1
Chloroform	< 0.032	mg/kg	0.032	0.13	1	8260B		4/21/2023	CJR	1
Chloromethane	< 0.064	mg/kg	0.064	0.26	1	8260B		4/21/2023	CJR	1
2-Chlorotoluene	< 0.034	mg/kg	0.034	0.14	1	8260B		4/21/2023	CJR	1
4-Chlorotoluene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
1,2-Dibromo-3-chloropropane	< 0.055	mg/kg	0.055	0.22	1	8260B		4/21/2023	CJR	1
Dibromochloromethane	< 0.038	mg/kg	0.038	0.16	1	8260B		4/21/2023	CJR	1
1,4-Dichlorobenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
1,3-Dichlorobenzene	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
1,2-Dichlorobenzene	< 0.026	mg/kg	0.026	0.11	1	8260B		4/21/2023	CJR	1
Dichlorodifluoromethane	< 0.046	mg/kg	0.046	0.19	1	8260B		4/21/2023	CJR	1
1,2-Dichloroethane	< 0.042	mg/kg	0.042	0.17	1	8260B		4/21/2023	CJR	1
1,1-Dichloroethane	< 0.033	mg/kg	0.033	0.13	1	8260B		4/21/2023	CJR	1
1,1-Dichloroethene	< 0.049	mg/kg	0.049	0.2	1	8260B		4/21/2023	CJR	1
cis-1,2-Dichloroethene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
trans-1,2-Dichloroethene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,2-Dichloropropane	< 0.04	mg/kg	0.04	0.16	1	8260B		4/21/2023	CJR	1
1,3-Dichloropropane	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
trans-1,3-Dichloropropene	< 0.027	mg/kg	0.027	0.11	1	8260B		4/21/2023	CJR	1
cis-1,3-Dichloropropene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
Di-isopropyl ether	< 0.028	mg/kg	0.028	0.11	1	8260B		4/21/2023	CJR	1
EDB (1,2-Dibromoethane)	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
Ethylbenzene	< 0.023	mg/kg	0.023	0.096	1	8260B		4/21/2023	CJR	1
Hexachlorobutadiene	< 0.1	mg/kg	0.1	0.42	1	8260B		4/21/2023	CJR	1
Isopropylbenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
p-Isopropyltoluene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
Methylene chloride	< 0.1	mg/kg	0.1	0.42	1	8260B		4/21/2023	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
Naphthalene	< 0.12	mg/kg	0.12	0.38	1	8260B		4/21/2023	CJR	1
n-Propylbenzene	< 0.025	mg/kg	0.025	0.1	1	8260B		4/21/2023	CJR	1
1,1,2,2-Tetrachloroethane	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,1,1,2-Tetrachloroethane	< 0.041	mg/kg	0.041	0.17	1	8260B		4/21/2023	CJR	1
Tetrachloroethene	< 0.039	mg/kg	0.039	0.16	1	8260B		4/21/2023	CJR	1
Toluene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
1,2,4-Trichlorobenzene	< 0.045	mg/kg	0.045	0.18	1	8260B		4/21/2023	CJR	1
1,2,3-Trichlorobenzene	< 0.18	mg/kg	0.18	0.56	1	8260B		4/21/2023	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
1,1,2-Trichloroethane	< 0.037	mg/kg	0.037	0.15	1	8260B		4/21/2023	CJR	1
Trichloroethene (TCE)	< 0.039	mg/kg	0.039	0.16	1	8260B		4/21/2023	CJR	1
Trichlorofluoromethane	< 0.066	mg/kg	0.066	0.27	1	8260B		4/21/2023	CJR	1
1,2,4-Trimethylbenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		4/21/2023	CJR	1
1,3,5-Trimethylbenzene	< 0.031	mg/kg	0.031	0.13	1	8260B		4/21/2023	CJR	1
Vinyl Chloride	< 0.036	mg/kg	0.036	0.15	1	8260B		4/21/2023	CJR	1
m&p-Xylene	< 0.062	mg/kg	0.062	0.25	1	8260B		4/21/2023	CJR	1
o-Xylene	< 0.03	mg/kg	0.03	0.12	1	8260B		4/21/2023	CJR	1
SUR - Toluene-d8	101	Rec %			1	8260B		4/21/2023	CJR	1
SUR - 1,2-Dichloroethane-d4	103	Rec %			1	8260B		4/21/2023	CJR	1
SUR - 4-Bromofluorobenzene	92	Rec %			1	8260B		4/21/2023	CJR	1
SUR - Dibromofluoromethane	96	Rec %			1	8260B		4/21/2023	CJR	1

"J" Flag: Analyte detected between LOD and LOQ

LOD Limit of Detection

LOQ Limit of Quantitation

***Code***      ***Comment***

- 1            Laboratory QC within limits.
- 3            The matrix spike not within established limits.

SL denotes sub contract lab - Certification #399089350

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

**Authorized Signature**



A handwritten signature in blue ink, appearing to read "Michael J. Paul", is written over a horizontal line.



**APPENDIX C**

LUST AREA SOIL BORING LOGS

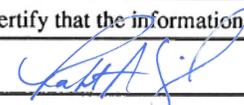
BOREHOLE ABANDONMENT FORMS

Route To: Watershed/Wastewater  Waste Management   
Remediation/Revelopment  Other

Facility/Project Name Hartland Quarry Apartments - Phase II		License/Permit/Monitoring Number		Boring Number SB- 1	
Boring Drilled By: Name of crew chief (first, last) and Firm First Name: Greg Last Name: Wester Firm: Horizon Construction And Exploration		Date Drilling Started 08 / 18 / 2023 m m / d d / y y y y	Date Drilling Completed 08 / 18 / 2023 m m / d d / y y y y	Drilling Method Split Spoon	
WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level Feet MSL	Surface Elevation 974.41 Feet MSL	Borehole Diameter 2 inches
Local Grid Origin <input type="checkbox"/> (estimated: ) or Boring Location <input type="checkbox"/> State Plane N, E		Lat 0 ' "		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
1/4 of 1/4 of Section , T N, R		Long 0 ' "		Feet Feet	
Facility ID	County Waukesha	County Code 6 7	Civil Town/City/ or Village Village of Hartland		

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments	
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
8/18	7 5	5	1 2	FILL: light brown, well graded, loose, Sandy Gravel (GW)						D					
9/18	6 4	3	3 4 5	FILL: light brown, medium graded, medium dense, Sandy Gravel, trace silt (SW)						M					*SB-1 (3.5-5)
13/18	17 12	7	6 7 8 9 10	... Very Moist						VM					*SB-1 (8.5-10)

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature  Firm Endpoint Solutions Corp.

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.



Route To: Watershed/Wastewater  Waste Management   
Remediation/Revelopment  Other

Facility/Project Name Hartland Quarry Apartments - Phase II		License/Permit/Monitoring Number		Boring Number SB- 2	
Boring Drilled By: Name of crew chief (first, last) and Firm First Name: Greg Last Name: Wester Firm: Horizon Construction And Exploration		Date Drilling Started 08 / 18 / 2023 m m / d d / y y y y	Date Drilling Completed 08 / 18 / 2023 m m / d d / y y y y	Drilling Method Split Spoon	
WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level Feet MSL	Surface Elevation 971.23 Feet MSL	Borehole Diameter 2 inches
Local Grid Origin <input type="checkbox"/> (estimated: ) or Boring Location State Plane N, E		Lat 0 ' "		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
1/4 of 1/4 of Section , T N, R		Long 0 ' "		Feet Feet	
Facility ID	County Waukesha	County Code 6 7	Civil Town/City/ or Village Village of Hartland		

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments	
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
				Concrete											
14/18	7/5	5	1-2	FILL: Tan, medium grained, well graded, medium dense, Silty Sand, trace gravel (SM)						M					*SB-2 (1-2.5)
15/18	6/4/3	4/3	3-5	... Coarse grained ... Pushed rock											
16/18	8/9/13	8/9/13	5-7	... Gray, fine grained, petroleum odor						M					*SB-2 (6-7.5)
18/18	17/12/7	17/12/7	7-10	... wet						W					

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature  Firm  
Endpoint Solutions Corp.

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Route To: Watershed/Wastewater  Waste Management   
Remediation/Revelopment  Other

Facility/Project Name Hartland Quarry Apartments - Phase II		License/Permit/Monitoring Number		Boring Number SB- 3	
Boring Drilled By: Name of crew chief (first, last) and Firm First Name: Greg Last Name: Wester Firm: Horizon Construction And Exploration		Date Drilling Started 08 / 18 / 2023 m m / d d / y y y y	Date Drilling Completed 08 / 18 / 2023 m m / d d / y y y y	Drilling Method Direct Push	
WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level Feet MSL	Surface Elevation 971.23 Feet MSL	Borehole Diameter 2 inches
Local Grid Origin <input type="checkbox"/> (estimated: ) or Boring Location <input type="checkbox"/> State Plane N, E		Lat 0 ' "		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
1/4 of 1/4 of Section , T N, R		Long 0 ' "		Feet Feet	
Facility ID	County Waukesha	County Code 6 7	Civil Town/City/ or Village Village of Hartland		

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1	30/ 60		1	Concrete										*SB-3(2)
			2-4	FILL: Tan, medium grained, well graded, medium dense, Gravely Sand (SW)  ...Light brown										
2	32/ 60		6	FILL: Light brown, medium grained, well graded, medium dense, Silty Sand, trace gravel (SM)										*SB-3(10)
			7-10	... Wet										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature 	Firm Endpoint Solutions Corp.
--	----------------------------------

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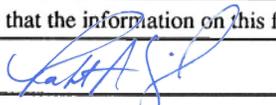


Route To: Watershed/Wastewater  Waste Management   
Remediation/Revelopment  Other

Facility/Project Name Hartland Quarry Apartments - Phase II		License/Permit/Monitoring Number		Boring Number SB- 4	
Boring Drilled By: Name of crew chief (first, last) and Firm First Name: Greg Last Name: Wester Firm: Horizon Construction And Exploration		Date Drilling Started 08 / 18 / 2023 m m / d d / y y y y	Date Drilling Completed 08 / 18 / 2023 m m / d d / y y y y	Drilling Method Direct Push	
WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level Feet MSL	Surface Elevation 972.00 Feet MSL	Borehole Diameter 2 inches
Local Grid Origin <input type="checkbox"/> (estimated: ) or Boring Location State Plane N, E		Lat 0 ' "		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
1/4 of 1/4 of Section , T N, R		Long 0 ' "		Feet Feet	
Facility ID	County Waukesha	County Code 6 7	Civil Town/City/ or Village Village of Hartland		

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1	30/ 60		1	Concrete										*SB-4(2)
			2	FILL: Light brown, medium grained, well graded, medium dense, Gravely Sand (SW)						M				
2	51/ 60		3										*SB-4(7)	
			4	FILL: Light brown, medium grained, well graded, medium dense, Silty Sand, trace gravel (SM)						M				
			5	...Wet										
			6	Gray, medium plastic, very firm, Silty Clay (CL)										
			7											
			8											
			9											
			10											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature  Firm  
Endpoint Solutions Corp.

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Route To: Watershed/Wastewater  Waste Management   
Remediation/Revelopment  Other

Facility/Project Name Hartland Quarry Apartments - Phase II		License/Permit/Monitoring Number		Boring Number SB- 5	
Boring Drilled By: Name of crew chief (first, last) and Firm First Name: Greg Last Name: Wester Firm: Horizon Construction And Exploration		Date Drilling Started 08 / 18 / 2023 m m / d d / y y y y	Date Drilling Completed 08 / 18 / 2023 m m / d d / y y y y	Drilling Method Direct Push	
WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level Feet MSL	Surface Elevation 970.67 Feet MSL	Borehole Diameter 2 inches
Local Grid Origin <input type="checkbox"/> (estimated: ) or Boring Location <input type="checkbox"/> State Plane N, E		Lat 0 ' "		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
1/4 of 1/4 of Section , T N, R		Long 0 ' "		Feet Feet	
Facility ID	County Waukesha	County Code 6 7	Civil Town/City/ or Village Village of Hartland		

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1	30/ 60		1	Concrete										*SB-5(2)
				FILL: Light brown, medium grained, well graded, medium dense, Gravely Sand (SW)										
2	51/ 60		2	FILL: Brown, medium grained, well graded, medium dense, Silty Sand (SM)										*SB-5(7)
				...Wet										
				Brown, medium plastic, very firm, Silty Clay (CL)										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature 	Firm Endpoint Solutions Corp.
--	----------------------------------

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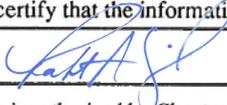


Route To: Watershed/Wastewater  Waste Management   
Remediation/Revelopment  Other

Facility/Project Name Hartland Quarry Apartments - Phase II		License/Permit/Monitoring Number		Boring Number SB- 6	
Boring Drilled By: Name of crew chief (first, last) and Firm First Name: Greg Last Name: Wester Firm: Horizon Construction And Exploration		Date Drilling Started 08 / 18 / 2023 m m / d d / y y y y	Date Drilling Completed 08 / 18 / 2023 m m / d d / y y y y	Drilling Method Direct Push	
WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level Feet MSL	Surface Elevation 971.01 Feet MSL	Borehole Diameter 2 inches
Local Grid Origin <input type="checkbox"/> (estimated: ) or Boring Location <input type="checkbox"/> State Plane N, E		Lat 0 ' "		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
1/4 of 1/4 of Section , T N, R		Long 0 ' "		Feet Feet	
Facility ID	County Waukesha	County Code 6 7	Civil Town/City/ or Village Village of Hartland		

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1	50/ 60		1	Concrete										*SB-6(2)
			2	FILL: Light brown, medium grained, well graded, medium dense, Gravely Sand (SW)						M				
2	52/ 60		3										*SB-6(8)	
			4	FILL: Light brown, medium grained, well graded, medium dense, Silty Sand, trace gravel (SM)						M				
			5	...Wet										
			6											
			7											
			8											
			9											
			10											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature  Firm  
Endpoint Solutions Corp.

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**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

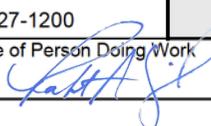
Waste Management       Other: \_\_\_\_\_

1. Well Location Information				2. Facility / Owner Information			
County <b>Waukesha</b>		WI Unique Well # of Removed Well _____		Hicap # <b>SB-1</b>		Facility Name <b>Hartland Quarry</b>	
Latitude / Longitude (see instructions) _____ N _____ W		Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM		Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		Facility ID (FID or PWS) _____	
1/4 / 1/4 or Gov't Lot #		Section		Township <b>N</b>		Range <input type="checkbox"/> E <input type="checkbox"/> W	
Well Street Address <b>644, 700 &amp; 701 West Capitol Drive</b>				Original Well Owner _____			
Well City, Village or Town <b>Village of Hartland</b>				Well ZIP Code <b>53029</b>			
Subdivision Name				Lot #		Present Well Owner _____	
Reason for Removal from Service <b>Soil Borings</b>				WI Unique Well # of Replacement Well _____		Mailing Address of Present Owner _____	
City of Present Owner				State		ZIP Code	

3. Filled & Sealed Well / Drillhole / Borehole Information		4. Pump, Liner, Screen, Casing & Sealing Material			
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input checked="" type="checkbox"/> Borehole / Drillhole		Original Construction Date (mm/dd/yyyy) <b>08/18/2023</b>		Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Liner(s) perforated? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Screen removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Casing left in place? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (specify): _____		If a Well Construction Report is available, please attach.		Was casing cut off below surface? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A If bentonite chips were used, were they hydrated with water from a known safe source? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		Required Method of Placing Sealing Material		Required Method of Placing Sealing Material <input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____	
Total Well Depth From Ground Surface (ft.) <b>15</b>		Casing Diameter (in.) <b>NA</b>		Sealing Materials	
Lower Drillhole Diameter (in.) <b>2</b>		Casing Depth (ft.) <b>NA</b>		<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Sand-Cement (Concrete) Grout <input checked="" type="checkbox"/> Bentonite Chips	
Was well annular space grouted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown		If yes, to what depth (feet)? <b>NA</b>		For Monitoring Wells and Monitoring Well Boreholes Only: <input checked="" type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry	
Depth to Water (feet) <b>NA</b>					

5. Material Used to Fill Well / Drillhole			
From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite Chips	Surface	15	<1 bag

**6. Comments**

7. Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing <b>Endpoint Solutions Corp.</b>		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) <b>08/21/2023</b>	Date Received	Noted By
Street or Route <b>6871 South Lovers Lane Road</b>			Telephone Number <b>( 414 ) 427-1200</b>	Comments	
City <b>Franklin</b>	State <b>WI</b>	ZIP Code <b>53132</b>	Signature of Person Doing Work 	Date Signed <b>08/25/2023</b>	

**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

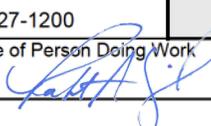
Waste Management       Other: \_\_\_\_\_

1. Well Location Information				2. Facility / Owner Information			
County <b>Waukesha</b>		WI Unique Well # of Removed Well _____		Hicap # <b>SB-1</b>		Facility Name <b>Hartland Quarry</b>	
Latitude / Longitude (see instructions) _____ N _____ W		Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM		Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		Facility ID (FID or PWS) _____	
1/4 / 1/4 or Gov't Lot #		Section		Township <b>N</b>		Range <input type="checkbox"/> E <input type="checkbox"/> W	
Well Street Address <b>644, 700 &amp; 701 West Capitol Drive</b>				Original Well Owner _____			
Well City, Village or Town <b>Village of Hartland</b>				Well ZIP Code <b>53029</b>			
Subdivision Name				Lot #		City of Present Owner	
Reason for Removal from Service <b>Temporary Well</b>				WI Unique Well # of Replacement Well _____		State	
Mailing Address of Present Owner				ZIP Code		_____	

3. Filled & Sealed Well / Drillhole / Borehole Information		4. Pump, Liner, Screen, Casing & Sealing Material			
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input checked="" type="checkbox"/> Borehole / Drillhole		Original Construction Date (mm/dd/yyyy) <b>08/18/2023</b>		Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Liner(s) perforated? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Screen removed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Casing left in place? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (specify): _____		If a Well Construction Report is available, please attach.		Was casing cut off below surface? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A If bentonite chips were used, were they hydrated with water from a known safe source? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		Required Method of Placing Sealing Material		Required Method of Placing Sealing Material <input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____	
Total Well Depth From Ground Surface (ft.) <b>20</b>		Casing Diameter (in.) <b>1</b>		Sealing Materials	
Lower Drillhole Diameter (in.) <b>2</b>		Casing Depth (ft.) <b>20</b>		<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Sand-Cement (Concrete) Grout <input checked="" type="checkbox"/> Bentonite Chips	
Was well annular space grouted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown		Depth to Water (feet) <b>NA</b>		For Monitoring Wells and Monitoring Well Boreholes Only: <input checked="" type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry	

5. Material Used to Fill Well / Drillhole			
From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite Chips	Surface	20	<1 bag

**6. Comments**

7. Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing <b>Endpoint Solutions Corp.</b>		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) <b>08/21/2023</b>	Date Received	Noted By
Street or Route <b>6871 South Lovers Lane Road</b>			Telephone Number <b>( 414 ) 427-1200</b>	Comments	
City <b>Franklin</b>	State <b>WI</b>	ZIP Code <b>53132</b>	Signature of Person Doing Work 	Date Signed <b>08/25/2023</b>	

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**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

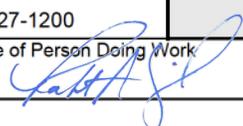
Waste Management       Other: \_\_\_\_\_

1. Well Location Information				2. Facility / Owner Information			
County <b>Waukesha</b>		WI Unique Well # of Removed Well _____		Hicap # <b>SB-3</b>		Facility Name <b>Hartland Quarry</b>	
Latitude / Longitude (see instructions) _____ N _____ W		Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM		Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		Facility ID (FID or PWS) _____	
1/4 / 1/4 or Gov't Lot #		Section		Township <b>N</b>		Range <input type="checkbox"/> E <input type="checkbox"/> W	
Well Street Address <b>644, 700 &amp; 701 West Capitol Drive</b>				Original Well Owner _____			
Well City, Village or Town <b>Village of Hartland</b>				Well ZIP Code <b>53029</b>			
Subdivision Name				Lot #		Mailing Address of Present Owner _____	
Reason for Removal from Service <b>Soil Borings</b>		WI Unique Well # of Replacement Well _____		City of Present Owner		State      ZIP Code	

3. Filled & Sealed Well / Drillhole / Borehole Information		4. Pump, Liner, Screen, Casing & Sealing Material			
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input checked="" type="checkbox"/> Borehole / Drillhole		Original Construction Date (mm/dd/yyyy) <b>08/18/2023</b>		Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Liner(s) perforated? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Screen removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Casing left in place? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (specify): _____		If a Well Construction Report is available, please attach.		Was casing cut off below surface? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A If bentonite chips were used, were they hydrated with water from a known safe source? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		Required Method of Placing Sealing Material <input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____			
Total Well Depth From Ground Surface (ft.) <b>15</b>		Casing Diameter (in.) <b>NA</b>		Sealing Materials <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Sand-Cement (Concrete) Grout <input checked="" type="checkbox"/> Bentonite Chips	
Lower Drillhole Diameter (in.) <b>2</b>		Casing Depth (ft.) <b>NA</b>		For Monitoring Wells and Monitoring Well Boreholes Only: <input checked="" type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry	
Was well annular space grouted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown					
If yes, to what depth (feet)? <b>NA</b>		Depth to Water (feet) <b>NA</b>			

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Bentonite Chips	Surface	15	<1 bag	

**6. Comments**

7. Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing <b>Endpoint Solutions Corp.</b>		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) <b>08/21/2023</b>	Date Received	Noted By
Street or Route <b>6871 South Lovers Lane Road</b>			Telephone Number <b>( 414 ) 427-1200</b>	Comments	
City <b>Franklin</b>	State <b>WI</b>	ZIP Code <b>53132</b>	Signature of Person Doing Work 	Date Signed <b>08/25/2023</b>	

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**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

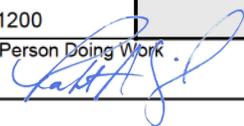
Waste Management       Other: \_\_\_\_\_

1. Well Location Information				2. Facility / Owner Information			
County Waukesha		WI Unique Well # of Removed Well _____		Hicap # SB-4		Facility Name Hartland Quarry	
Latitude / Longitude (see instructions) _____ N _____ W		Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM		Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		Facility ID (FID or PWS) _____	
1/4 / 1/4 or Gov't Lot #		Section		Township N		Range <input type="checkbox"/> E <input type="checkbox"/> W	
Well Street Address 644, 700 & 701 West Capitol Drive				Original Well Owner _____			
Well City, Village or Town Village of Hartland				Present Well Owner _____			
Subdivision Name				Well ZIP Code 53029		Mailing Address of Present Owner _____	
Reason for Removal from Service Temporary Well				WI Unique Well # of Replacement Well _____		City of Present Owner	
State				ZIP Code		_____	

3. Filled & Sealed Well / Drillhole / Borehole Information		4. Pump, Liner, Screen, Casing & Sealing Material			
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input checked="" type="checkbox"/> Borehole / Drillhole		Original Construction Date (mm/dd/yyyy) 08/18/2023		Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Liner(s) perforated? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Screen removed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Casing left in place? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (specify): _____		If a Well Construction Report is available, please attach.		Was casing cut off below surface? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A If bentonite chips were used, were they hydrated with water from a known safe source? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		Required Method of Placing Sealing Material		Required Method of Placing Sealing Material <input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____	
Total Well Depth From Ground Surface (ft.) 15		Casing Diameter (in.) 1		Sealing Materials <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Sand-Cement (Concrete) Grout <input checked="" type="checkbox"/> Bentonite Chips	
Lower Drillhole Diameter (in.) 2		Casing Depth (ft.) 15		For Monitoring Wells and Monitoring Well Boreholes Only: <input checked="" type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry	
Was well annular space grouted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown		Depth to Water (feet) NA			

5. Material Used to Fill Well / Drillhole			
From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Surface	15	<1 bag	

**6. Comments**

7. Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing Endpoint Solutions Corp.		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 08/21/2023	Date Received	Noted By
Street or Route 6871 South Lovers Lane Road			Telephone Number ( 414 ) 427-1200	Comments	
City Franklin	State WI	ZIP Code 53132	Signature of Person Doing Work 	Date Signed 08/25/2023	

**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

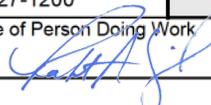
Waste Management       Other: \_\_\_\_\_

1. Well Location Information				2. Facility / Owner Information			
County Waukesha		WI Unique Well # of Removed Well _____		Hicap # SB-5		Facility Name Hartland Quarry	
Latitude / Longitude (see instructions) _____ N _____ W		Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM		Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		Facility ID (FID or PWS) _____	
1/4 / 1/4 or Gov't Lot #		Section		Township N		Range <input type="checkbox"/> E <input type="checkbox"/> W	
Well Street Address 644, 700 & 701 West Capitol Drive				Original Well Owner _____			
Well City, Village or Town Village of Hartland				Present Well Owner _____			
Subdivision Name				Well ZIP Code 53029		Mailing Address of Present Owner _____	
Reason for Removal from Service Temporary Well				WI Unique Well # of Replacement Well _____		City of Present Owner	
Subdivision Name				Lot #		State      ZIP Code	

3. Filled & Sealed Well / Drillhole / Borehole Information		4. Pump, Liner, Screen, Casing & Sealing Material			
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input checked="" type="checkbox"/> Borehole / Drillhole		Original Construction Date (mm/dd/yyyy) 08/18/2023		Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (specify): _____		If a Well Construction Report is available, please attach.		Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		Was casing cut off below surface? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		Liner(s) perforated? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Total Well Depth From Ground Surface (ft.) 15		Casing Diameter (in.) 1		Screen removed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Lower Drillhole Diameter (in.) 2		Casing Depth (ft.) 15		Casing left in place? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Was well annular space grouted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown		If yes, to what depth (feet)? NA		Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Depth to Water (feet) NA		If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		If bentonite chips were used, were they hydrated with water from a known safe source? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		Required Method of Placing Sealing Material <input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____	
Sealing Materials <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Sand-Cement (Concrete) Grout <input checked="" type="checkbox"/> Bentonite Chips		For Monitoring Wells and Monitoring Well Boreholes Only: <input checked="" type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry		From (ft.)      To (ft.)      No. Yards, Sacks Sealant or Volume (circle one)      Mix Ratio or Mud Weight	
5. Material Used to Fill Well / Drillhole Bentonite Chips		Surface      15		<1 bag	

**6. Comments**

\_\_\_\_\_

7. Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing Endpoint Solutions Corp.		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 08/21/2023	Date Received	Noted By
Street or Route 6871 South Lovers Lane Road			Telephone Number ( 414 ) 427-1200	Comments	
City Franklin		State WI	ZIP Code 53132	Signature of Person Doing Work 	Date Signed 08/25/2023

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**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

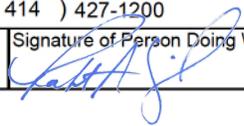
Waste Management       Other: \_\_\_\_\_

1. Well Location Information				2. Facility / Owner Information			
County Waukesha		WI Unique Well # of Removed Well		Hicap # SB-6		Facility Name Hartland Quarry	
Latitude / Longitude (see instructions)		Format Code		Method Code		Facility ID (FID or PWS)	
_____ N _____ W		<input type="checkbox"/> DD <input type="checkbox"/> DDM		<input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		License/Permit/Monitoring #	
¼ / ¼ or Gov't Lot #		Section		Township		Original Well Owner	
_____		_____		Range <input type="checkbox"/> E <input type="checkbox"/> W		Present Well Owner	
Well Street Address 644, 700 & 701 West Capitol Drive				Mailing Address of Present Owner			
Well City, Village or Town Village of Hartland				Well ZIP Code 53029			
Subdivision Name				Lot #		City of Present Owner      State      ZIP Code	

3. Filled & Sealed Well / Drillhole / Borehole Information		4. Pump, Liner, Screen, Casing & Sealing Material			
Reason for Removal from Service Temporary Well		WI Unique Well # of Replacement Well		Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input type="checkbox"/> Monitoring Well		Original Construction Date (mm/dd/yyyy) 08/18/2023		Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input type="checkbox"/> Water Well		If a Well Construction Report is available, please attach.		Liner(s) perforated? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input checked="" type="checkbox"/> Borehole / Drillhole				Screen removed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Construction Type:				Casing left in place? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
<input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug				Was casing cut off below surface? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input type="checkbox"/> Other (specify): _____				Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Formation Type:				Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
<input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock				If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Total Well Depth From Ground Surface (ft.) 15		Casing Diameter (in.) 1		If bentonite chips were used, were they hydrated with water from a known safe source? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Lower Drillhole Diameter (in.) 2		Casing Depth (ft.) 15		Required Method of Placing Sealing Material	
Was well annular space grouted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown				<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped	
If yes, to what depth (feet)? NA		Depth to Water (feet) NA		<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____	
				Sealing Materials	
				<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Concrete	
				<input type="checkbox"/> Sand-Cement (Concrete) Grout <input checked="" type="checkbox"/> Bentonite Chips	
				For Monitoring Wells and Monitoring Well Boreholes Only:	
				<input checked="" type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout	
				<input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry	

5. Material Used to Fill Well / Drillhole			
From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Surface	15	<1 bag	

**6. Comments**

7. Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing Endpoint Solutions Corp.		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 08/21/2023	Date Received	Noted By
Street or Route 6871 South Lovers Lane Road			Telephone Number ( 414 ) 427-1200	Comments	
City Franklin	State WI	ZIP Code 53132	Signature of Person Doing Work 	Date Signed 08/25/2023	

**APPENDIX D**

LUST AREA ANALYTICAL DATA & CHAIN-OF-CUSTODY



August 24, 2023

Ryan Johnson  
Endpoint Solutions  
6871 S Lovers Lane  
Franklin, WI 53132

RE: Project: 843.001.006 THREE LEAF-HARTLND  
Pace Project No.: 40266996

Dear Ryan Johnson:

Enclosed are the analytical results for sample(s) received by the laboratory on August 19, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Dan Milewsky  
dan.milewsky@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

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### **Pace Analytical Services Green Bay**

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

South Carolina Certification #: 83006001

Texas Certification #: T104704529-21-8

Virginia VELAP Certification ID: 11873

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-21-00008

Federal Fish & Wildlife Permit #: 51774A

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40266996001	SB-1 (3-5.5)	Solid	08/18/23 09:40	08/19/23 08:45
40266996002	SB-1 (8-10)	Solid	08/18/23 09:55	08/19/23 08:45
40266996003	SB-2 (1-2.5)	Solid	08/18/23 10:20	08/19/23 08:45
40266996004	SB-2 (6-7.5)	Solid	08/18/23 10:30	08/19/23 08:45
40266996005	SB-3 (2)	Solid	08/18/23 11:30	08/19/23 08:45
40266996006	SB-3 (10)	Solid	08/18/23 11:35	08/19/23 08:45
40266996007	SB-4 (2)	Solid	08/18/23 11:40	08/19/23 08:45
40266996008	SB-4 (7)	Solid	08/18/23 11:45	08/19/23 08:45
40266996009	SB-5 (2)	Solid	08/18/23 12:00	08/19/23 08:45
40266996010	SB-5 (7)	Solid	08/18/23 12:05	08/19/23 08:45
40266996011	SB-6 (2)	Solid	08/18/23 12:50	08/19/23 08:45
40266996012	SB-6 (8)	Solid	08/18/23 12:55	08/19/23 08:45

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### SAMPLE ANALYTE COUNT

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40266996001	SB-1 (3-5.5)	EPA 8260	ALD	11
		ASTM D2974-87	NMK	1
40266996002	SB-1 (8-10)	EPA 8260	ALD	11
		ASTM D2974-87	NMK	1
40266996003	SB-2 (1-2.5)	EPA 8260	ALD	11
		ASTM D2974-87	NMK	1
40266996004	SB-2 (6-7.5)	EPA 8260	ALD	11
		ASTM D2974-87	NMK	1
40266996005	SB-3 (2)	EPA 8260	ALD	11
		ASTM D2974-87	NMK	1
40266996006	SB-3 (10)	EPA 8260	ALD	11
		ASTM D2974-87	NMK	1
40266996007	SB-4 (2)	EPA 8260	ALD	11
		ASTM D2974-87	NMK	1
40266996008	SB-4 (7)	EPA 8260	ALD	11
		ASTM D2974-87	NMK	1
40266996009	SB-5 (2)	EPA 8260	ALD	11
		ASTM D2974-87	NMK	1
40266996010	SB-5 (7)	EPA 8260	ALD	11
		ASTM D2974-87	NMK	1
40266996011	SB-6 (2)	EPA 8260	ALD	11
		ASTM D2974-87	NMK	1
40266996012	SB-6 (8)	EPA 8260	ALD	11
		ASTM D2974-87	NMK	1

PASI-G = Pace Analytical Services - Green Bay

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>40266996001</b>	<b>SB-1 (3-5.5)</b>					
ASTM D2974-87	Percent Moisture	1.6	%	0.10	08/21/23 16:39	
<b>40266996002</b>	<b>SB-1 (8-10)</b>					
ASTM D2974-87	Percent Moisture	6.1	%	0.10	08/21/23 16:39	
<b>40266996003</b>	<b>SB-2 (1-2.5)</b>					
ASTM D2974-87	Percent Moisture	9.7	%	0.10	08/21/23 16:39	
<b>40266996004</b>	<b>SB-2 (6-7.5)</b>					
EPA 8260	Ethylbenzene	1210	ug/kg	743	08/22/23 12:08	
EPA 8260	Naphthalene	27900	ug/kg	3710	08/22/23 12:08	
EPA 8260	1,2,4-Trimethylbenzene	13600	ug/kg	743	08/22/23 12:08	
EPA 8260	1,3,5-Trimethylbenzene	515J	ug/kg	743	08/22/23 12:08	
EPA 8260	Xylene (Total)	1040J	ug/kg	2230	08/22/23 12:08	
ASTM D2974-87	Percent Moisture	8.6	%	0.10	08/21/23 16:39	
<b>40266996005</b>	<b>SB-3 (2)</b>					
ASTM D2974-87	Percent Moisture	5.1	%	0.10	08/21/23 16:39	
<b>40266996006</b>	<b>SB-3 (10)</b>					
ASTM D2974-87	Percent Moisture	8.5	%	0.10	08/21/23 16:39	
<b>40266996007</b>	<b>SB-4 (2)</b>					
ASTM D2974-87	Percent Moisture	5.4	%	0.10	08/21/23 17:45	
<b>40266996008</b>	<b>SB-4 (7)</b>					
ASTM D2974-87	Percent Moisture	8.6	%	0.10	08/21/23 17:45	
<b>40266996009</b>	<b>SB-5 (2)</b>					
ASTM D2974-87	Percent Moisture	2.9	%	0.10	08/21/23 17:45	
<b>40266996010</b>	<b>SB-5 (7)</b>					
ASTM D2974-87	Percent Moisture	8.4	%	0.10	08/21/23 17:46	
<b>40266996011</b>	<b>SB-6 (2)</b>					
ASTM D2974-87	Percent Moisture	3.6	%	0.10	08/21/23 17:46	
<b>40266996012</b>	<b>SB-6 (8)</b>					
ASTM D2974-87	Percent Moisture	6.9	%	0.10	08/21/23 17:46	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

**Sample: SB-1 (3-5.5)**      **Lab ID: 40266996001**      Collected: 08/18/23 09:40      Received: 08/19/23 08:45      Matrix: Solid*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260    Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<12.3	ug/kg	20.7	12.3	1	08/22/23 07:15	08/23/23 11:14	71-43-2	
Ethylbenzene	<12.3	ug/kg	51.7	12.3	1	08/22/23 07:15	08/23/23 11:14	100-41-4	
Methyl-tert-butyl ether	<15.2	ug/kg	51.7	15.2	1	08/22/23 07:15	08/23/23 11:14	1634-04-4	
Naphthalene	<16.1	ug/kg	258	16.1	1	08/22/23 07:15	08/23/23 11:14	91-20-3	
Toluene	<13.0	ug/kg	51.7	13.0	1	08/22/23 07:15	08/23/23 11:14	108-88-3	
1,2,4-Trimethylbenzene	<15.4	ug/kg	51.7	15.4	1	08/22/23 07:15	08/23/23 11:14	95-63-6	
1,3,5-Trimethylbenzene	<16.6	ug/kg	51.7	16.6	1	08/22/23 07:15	08/23/23 11:14	108-67-8	
Xylene (Total)	<37.3	ug/kg	155	37.3	1	08/22/23 07:15	08/23/23 11:14	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	114	%	68-156		1	08/22/23 07:15	08/23/23 11:14	460-00-4	
Toluene-d8 (S)	110	%	69-153		1	08/22/23 07:15	08/23/23 11:14	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	114	%	71-161		1	08/22/23 07:15	08/23/23 11:14	2199-69-1	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	1.6	%	0.10	0.10	1		08/21/23 16:39		

**Sample: SB-1 (8-10)**      **Lab ID: 40266996002**      Collected: 08/18/23 09:55      Received: 08/19/23 08:45      Matrix: Solid*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260    Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<13.4	ug/kg	22.6	13.4	1	08/21/23 07:15	08/21/23 14:34	71-43-2	
Ethylbenzene	<13.4	ug/kg	56.5	13.4	1	08/21/23 07:15	08/21/23 14:34	100-41-4	
Methyl-tert-butyl ether	<16.6	ug/kg	56.5	16.6	1	08/21/23 07:15	08/21/23 14:34	1634-04-4	
Naphthalene	<17.6	ug/kg	282	17.6	1	08/21/23 07:15	08/21/23 14:34	91-20-3	
Toluene	<14.2	ug/kg	56.5	14.2	1	08/21/23 07:15	08/21/23 14:34	108-88-3	
1,2,4-Trimethylbenzene	<16.8	ug/kg	56.5	16.8	1	08/21/23 07:15	08/21/23 14:34	95-63-6	
1,3,5-Trimethylbenzene	<18.2	ug/kg	56.5	18.2	1	08/21/23 07:15	08/21/23 14:34	108-67-8	
Xylene (Total)	<40.8	ug/kg	169	40.8	1	08/21/23 07:15	08/21/23 14:34	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	117	%	68-156		1	08/21/23 07:15	08/21/23 14:34	460-00-4	
Toluene-d8 (S)	114	%	69-153		1	08/21/23 07:15	08/21/23 14:34	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	111	%	71-161		1	08/21/23 07:15	08/21/23 14:34	2199-69-1	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	6.1	%	0.10	0.10	1		08/21/23 16:39		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

Sample: SB-2 (1-2.5) Lab ID: 40266996003 Collected: 08/18/23 10:20 Received: 08/19/23 08:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<14.5	ug/kg	24.3	14.5	1	08/21/23 07:15	08/21/23 14:14	71-43-2	
Ethylbenzene	<14.5	ug/kg	60.7	14.5	1	08/21/23 07:15	08/21/23 14:14	100-41-4	
Methyl-tert-butyl ether	<17.9	ug/kg	60.7	17.9	1	08/21/23 07:15	08/21/23 14:14	1634-04-4	
Naphthalene	<19.0	ug/kg	304	19.0	1	08/21/23 07:15	08/21/23 14:14	91-20-3	
Toluene	<15.3	ug/kg	60.7	15.3	1	08/21/23 07:15	08/21/23 14:14	108-88-3	
1,2,4-Trimethylbenzene	<18.1	ug/kg	60.7	18.1	1	08/21/23 07:15	08/21/23 14:14	95-63-6	
1,3,5-Trimethylbenzene	<19.6	ug/kg	60.7	19.6	1	08/21/23 07:15	08/21/23 14:14	108-67-8	
Xylene (Total)	<43.9	ug/kg	182	43.9	1	08/21/23 07:15	08/21/23 14:14	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	107	%	68-156		1	08/21/23 07:15	08/21/23 14:14	460-00-4	
Toluene-d8 (S)	111	%	69-153		1	08/21/23 07:15	08/21/23 14:14	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	113	%	71-161		1	08/21/23 07:15	08/21/23 14:14	2199-69-1	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	9.7	%	0.10	0.10	1		08/21/23 16:39		

Sample: SB-2 (6-7.5) Lab ID: 40266996004 Collected: 08/18/23 10:30 Received: 08/19/23 08:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<177	ug/kg	297	177	12.5	08/21/23 07:15	08/22/23 12:08	71-43-2	
Ethylbenzene	1210	ug/kg	743	177	12.5	08/21/23 07:15	08/22/23 12:08	100-41-4	
Methyl-tert-butyl ether	<218	ug/kg	743	218	12.5	08/21/23 07:15	08/22/23 12:08	1634-04-4	
Naphthalene	27900	ug/kg	3710	232	12.5	08/21/23 07:15	08/22/23 12:08	91-20-3	
Toluene	<187	ug/kg	743	187	12.5	08/21/23 07:15	08/22/23 12:08	108-88-3	
1,2,4-Trimethylbenzene	13600	ug/kg	743	221	12.5	08/21/23 07:15	08/22/23 12:08	95-63-6	
1,3,5-Trimethylbenzene	515J	ug/kg	743	239	12.5	08/21/23 07:15	08/22/23 12:08	108-67-8	
Xylene (Total)	1040J	ug/kg	2230	536	12.5	08/21/23 07:15	08/22/23 12:08	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	104	%	68-156		12.5	08/21/23 07:15	08/22/23 12:08	460-00-4	S4
Toluene-d8 (S)	115	%	69-153		12.5	08/21/23 07:15	08/22/23 12:08	2037-26-5	S4
1,2-Dichlorobenzene-d4 (S)	149	%	71-161		12.5	08/21/23 07:15	08/22/23 12:08	2199-69-1	S4
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	8.6	%	0.10	0.10	1		08/21/23 16:39		

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## ANALYTICAL RESULTS

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

**Sample: SB-3 (2)** Lab ID: 40266996005 Collected: 08/18/23 11:30 Received: 08/19/23 08:45 Matrix: Solid*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<13.2	ug/kg	22.1	13.2	1	08/22/23 07:15	08/23/23 11:34	71-43-2	
Ethylbenzene	<13.2	ug/kg	55.4	13.2	1	08/22/23 07:15	08/23/23 11:34	100-41-4	
Methyl-tert-butyl ether	<16.3	ug/kg	55.4	16.3	1	08/22/23 07:15	08/23/23 11:34	1634-04-4	
Naphthalene	<17.3	ug/kg	277	17.3	1	08/22/23 07:15	08/23/23 11:34	91-20-3	
Toluene	<13.9	ug/kg	55.4	13.9	1	08/22/23 07:15	08/23/23 11:34	108-88-3	
1,2,4-Trimethylbenzene	<16.5	ug/kg	55.4	16.5	1	08/22/23 07:15	08/23/23 11:34	95-63-6	
1,3,5-Trimethylbenzene	<17.8	ug/kg	55.4	17.8	1	08/22/23 07:15	08/23/23 11:34	108-67-8	
Xylene (Total)	<40.0	ug/kg	166	40.0	1	08/22/23 07:15	08/23/23 11:34	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	109	%	68-156		1	08/22/23 07:15	08/23/23 11:34	460-00-4	
Toluene-d8 (S)	111	%	69-153		1	08/22/23 07:15	08/23/23 11:34	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	112	%	71-161		1	08/22/23 07:15	08/23/23 11:34	2199-69-1	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	5.1	%	0.10	0.10	1		08/21/23 16:39		

**Sample: SB-3 (10)** Lab ID: 40266996006 Collected: 08/18/23 11:35 Received: 08/19/23 08:45 Matrix: Solid*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<14.1	ug/kg	23.7	14.1	1	08/22/23 07:15	08/23/23 11:54	71-43-2	
Ethylbenzene	<14.1	ug/kg	59.3	14.1	1	08/22/23 07:15	08/23/23 11:54	100-41-4	
Methyl-tert-butyl ether	<17.4	ug/kg	59.3	17.4	1	08/22/23 07:15	08/23/23 11:54	1634-04-4	
Naphthalene	<18.5	ug/kg	297	18.5	1	08/22/23 07:15	08/23/23 11:54	91-20-3	
Toluene	<15.0	ug/kg	59.3	15.0	1	08/22/23 07:15	08/23/23 11:54	108-88-3	
1,2,4-Trimethylbenzene	<17.7	ug/kg	59.3	17.7	1	08/22/23 07:15	08/23/23 11:54	95-63-6	
1,3,5-Trimethylbenzene	<19.1	ug/kg	59.3	19.1	1	08/22/23 07:15	08/23/23 11:54	108-67-8	
Xylene (Total)	<42.8	ug/kg	178	42.8	1	08/22/23 07:15	08/23/23 11:54	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	110	%	68-156		1	08/22/23 07:15	08/23/23 11:54	460-00-4	
Toluene-d8 (S)	105	%	69-153		1	08/22/23 07:15	08/23/23 11:54	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	110	%	71-161		1	08/22/23 07:15	08/23/23 11:54	2199-69-1	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	8.5	%	0.10	0.10	1		08/21/23 16:39		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

Sample: SB-4 (2) Lab ID: 40266996007 Collected: 08/18/23 11:40 Received: 08/19/23 08:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<13.2	ug/kg	22.3	13.2	1	08/22/23 07:15	08/23/23 12:13	71-43-2	
Ethylbenzene	<13.2	ug/kg	55.7	13.2	1	08/22/23 07:15	08/23/23 12:13	100-41-4	
Methyl-tert-butyl ether	<16.4	ug/kg	55.7	16.4	1	08/22/23 07:15	08/23/23 12:13	1634-04-4	
Naphthalene	<17.4	ug/kg	278	17.4	1	08/22/23 07:15	08/23/23 12:13	91-20-3	
Toluene	<14.0	ug/kg	55.7	14.0	1	08/22/23 07:15	08/23/23 12:13	108-88-3	
1,2,4-Trimethylbenzene	<16.6	ug/kg	55.7	16.6	1	08/22/23 07:15	08/23/23 12:13	95-63-6	
1,3,5-Trimethylbenzene	<17.9	ug/kg	55.7	17.9	1	08/22/23 07:15	08/23/23 12:13	108-67-8	
Xylene (Total)	<40.2	ug/kg	167	40.2	1	08/22/23 07:15	08/23/23 12:13	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	110	%	68-156		1	08/22/23 07:15	08/23/23 12:13	460-00-4	
Toluene-d8 (S)	114	%	69-153		1	08/22/23 07:15	08/23/23 12:13	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	112	%	71-161		1	08/22/23 07:15	08/23/23 12:13	2199-69-1	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	5.4	%	0.10	0.10	1		08/21/23 17:45		

Sample: SB-4 (7) Lab ID: 40266996008 Collected: 08/18/23 11:45 Received: 08/19/23 08:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<14.1	ug/kg	23.7	14.1	1	08/22/23 07:15	08/22/23 20:18	71-43-2	
Ethylbenzene	<14.1	ug/kg	59.4	14.1	1	08/22/23 07:15	08/22/23 20:18	100-41-4	M1
Methyl-tert-butyl ether	<17.5	ug/kg	59.4	17.5	1	08/22/23 07:15	08/22/23 20:18	1634-04-4	
Naphthalene	<18.5	ug/kg	297	18.5	1	08/22/23 07:15	08/22/23 20:18	91-20-3	
Toluene	<15.0	ug/kg	59.4	15.0	1	08/22/23 07:15	08/22/23 20:18	108-88-3	
1,2,4-Trimethylbenzene	<17.7	ug/kg	59.4	17.7	1	08/22/23 07:15	08/22/23 20:18	95-63-6	
1,3,5-Trimethylbenzene	<19.1	ug/kg	59.4	19.1	1	08/22/23 07:15	08/22/23 20:18	108-67-8	
Xylene (Total)	<42.9	ug/kg	178	42.9	1	08/22/23 07:15	08/22/23 20:18	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	109	%	68-156		1	08/22/23 07:15	08/22/23 20:18	460-00-4	
Toluene-d8 (S)	112	%	69-153		1	08/22/23 07:15	08/22/23 20:18	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	107	%	71-161		1	08/22/23 07:15	08/22/23 20:18	2199-69-1	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	8.6	%	0.10	0.10	1		08/21/23 17:45		

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## ANALYTICAL RESULTS

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

**Sample: SB-5 (2)** Lab ID: 40266996009 Collected: 08/18/23 12:00 Received: 08/19/23 08:45 Matrix: Solid*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<12.6	ug/kg	21.2	12.6	1	08/22/23 07:15	08/23/23 12:33	71-43-2	
Ethylbenzene	<12.6	ug/kg	53.0	12.6	1	08/22/23 07:15	08/23/23 12:33	100-41-4	
Methyl-tert-butyl ether	<15.6	ug/kg	53.0	15.6	1	08/22/23 07:15	08/23/23 12:33	1634-04-4	
Naphthalene	<16.5	ug/kg	265	16.5	1	08/22/23 07:15	08/23/23 12:33	91-20-3	
Toluene	<13.4	ug/kg	53.0	13.4	1	08/22/23 07:15	08/23/23 12:33	108-88-3	
1,2,4-Trimethylbenzene	<15.8	ug/kg	53.0	15.8	1	08/22/23 07:15	08/23/23 12:33	95-63-6	
1,3,5-Trimethylbenzene	<17.1	ug/kg	53.0	17.1	1	08/22/23 07:15	08/23/23 12:33	108-67-8	
Xylene (Total)	<38.3	ug/kg	159	38.3	1	08/22/23 07:15	08/23/23 12:33	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	116	%	68-156		1	08/22/23 07:15	08/23/23 12:33	460-00-4	
Toluene-d8 (S)	122	%	69-153		1	08/22/23 07:15	08/23/23 12:33	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	115	%	71-161		1	08/22/23 07:15	08/23/23 12:33	2199-69-1	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	2.9	%	0.10	0.10	1		08/21/23 17:45		

**Sample: SB-5 (7)** Lab ID: 40266996010 Collected: 08/18/23 12:05 Received: 08/19/23 08:45 Matrix: Solid*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<14.1	ug/kg	23.7	14.1	1	08/22/23 07:15	08/23/23 12:53	71-43-2	
Ethylbenzene	<14.1	ug/kg	59.2	14.1	1	08/22/23 07:15	08/23/23 12:53	100-41-4	
Methyl-tert-butyl ether	<17.4	ug/kg	59.2	17.4	1	08/22/23 07:15	08/23/23 12:53	1634-04-4	
Naphthalene	<18.5	ug/kg	296	18.5	1	08/22/23 07:15	08/23/23 12:53	91-20-3	
Toluene	<14.9	ug/kg	59.2	14.9	1	08/22/23 07:15	08/23/23 12:53	108-88-3	
1,2,4-Trimethylbenzene	<17.6	ug/kg	59.2	17.6	1	08/22/23 07:15	08/23/23 12:53	95-63-6	
1,3,5-Trimethylbenzene	<19.0	ug/kg	59.2	19.0	1	08/22/23 07:15	08/23/23 12:53	108-67-8	
Xylene (Total)	<42.7	ug/kg	177	42.7	1	08/22/23 07:15	08/23/23 12:53	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	119	%	68-156		1	08/22/23 07:15	08/23/23 12:53	460-00-4	
Toluene-d8 (S)	131	%	69-153		1	08/22/23 07:15	08/23/23 12:53	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	116	%	71-161		1	08/22/23 07:15	08/23/23 12:53	2199-69-1	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	8.4	%	0.10	0.10	1		08/21/23 17:46		

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## ANALYTICAL RESULTS

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

**Sample: SB-6 (2)** Lab ID: 40266996011 Collected: 08/18/23 12:50 Received: 08/19/23 08:45 Matrix: Solid*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<12.8	ug/kg	21.5	12.8	1	08/22/23 07:15	08/23/23 13:13	71-43-2	
Ethylbenzene	<12.8	ug/kg	53.7	12.8	1	08/22/23 07:15	08/23/23 13:13	100-41-4	
Methyl-tert-butyl ether	<15.8	ug/kg	53.7	15.8	1	08/22/23 07:15	08/23/23 13:13	1634-04-4	
Naphthalene	<16.8	ug/kg	269	16.8	1	08/22/23 07:15	08/23/23 13:13	91-20-3	
Toluene	<13.5	ug/kg	53.7	13.5	1	08/22/23 07:15	08/23/23 13:13	108-88-3	
1,2,4-Trimethylbenzene	<16.0	ug/kg	53.7	16.0	1	08/22/23 07:15	08/23/23 13:13	95-63-6	
1,3,5-Trimethylbenzene	<17.3	ug/kg	53.7	17.3	1	08/22/23 07:15	08/23/23 13:13	108-67-8	
Xylene (Total)	<38.8	ug/kg	161	38.8	1	08/22/23 07:15	08/23/23 13:13	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	108	%	68-156		1	08/22/23 07:15	08/23/23 13:13	460-00-4	
Toluene-d8 (S)	106	%	69-153		1	08/22/23 07:15	08/23/23 13:13	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	111	%	71-161		1	08/22/23 07:15	08/23/23 13:13	2199-69-1	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	3.6	%	0.10	0.10	1		08/21/23 17:46		

**Sample: SB-6 (8)** Lab ID: 40266996012 Collected: 08/18/23 12:55 Received: 08/19/23 08:45 Matrix: Solid*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<13.7	ug/kg	22.9	13.7	1	08/22/23 07:15	08/23/23 13:33	71-43-2	
Ethylbenzene	<13.7	ug/kg	57.4	13.7	1	08/22/23 07:15	08/23/23 13:33	100-41-4	
Methyl-tert-butyl ether	<16.9	ug/kg	57.4	16.9	1	08/22/23 07:15	08/23/23 13:33	1634-04-4	
Naphthalene	<17.9	ug/kg	287	17.9	1	08/22/23 07:15	08/23/23 13:33	91-20-3	
Toluene	<14.5	ug/kg	57.4	14.5	1	08/22/23 07:15	08/23/23 13:33	108-88-3	
1,2,4-Trimethylbenzene	<17.1	ug/kg	57.4	17.1	1	08/22/23 07:15	08/23/23 13:33	95-63-6	
1,3,5-Trimethylbenzene	<18.5	ug/kg	57.4	18.5	1	08/22/23 07:15	08/23/23 13:33	108-67-8	
Xylene (Total)	<41.4	ug/kg	172	41.4	1	08/22/23 07:15	08/23/23 13:33	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	101	%	68-156		1	08/22/23 07:15	08/23/23 13:33	460-00-4	
Toluene-d8 (S)	104	%	69-153		1	08/22/23 07:15	08/23/23 13:33	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	101	%	71-161		1	08/22/23 07:15	08/23/23 13:33	2199-69-1	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	6.9	%	0.10	0.10	1		08/21/23 17:46		

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**QUALITY CONTROL DATA**

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

QC Batch:	452776	Analysis Method:	EPA 8260
QC Batch Method:	EPA 5035/5030B	Analysis Description:	8260 MSV Med Level Short List
		Laboratory:	Pace Analytical Services - Green Bay

Associated Lab Samples: 40266996002, 40266996003, 40266996004

METHOD BLANK: 2601602 Matrix: Solid

Associated Lab Samples: 40266996002, 40266996003, 40266996004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	<14.9	50.0	08/21/23 11:18	
1,3,5-Trimethylbenzene	ug/kg	<16.1	50.0	08/21/23 11:18	
Benzene	ug/kg	<11.9	20.0	08/21/23 11:18	
Ethylbenzene	ug/kg	<11.9	50.0	08/21/23 11:18	
Methyl-tert-butyl ether	ug/kg	<14.7	50.0	08/21/23 11:18	
Naphthalene	ug/kg	<15.6	250	08/21/23 11:18	
Toluene	ug/kg	<12.6	50.0	08/21/23 11:18	
Xylene (Total)	ug/kg	<36.1	150	08/21/23 11:18	
1,2-Dichlorobenzene-d4 (S)	%	108	71-161	08/21/23 11:18	
4-Bromofluorobenzene (S)	%	109	68-156	08/21/23 11:18	
Toluene-d8 (S)	%	101	69-153	08/21/23 11:18	

LABORATORY CONTROL SAMPLE: 2601603

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	2500	2540	101	70-130	
Ethylbenzene	ug/kg	2500	2570	103	80-120	
Methyl-tert-butyl ether	ug/kg	2500	2340	94	65-130	
Toluene	ug/kg	2500	2480	99	80-120	
Xylene (Total)	ug/kg	7500	7580	101	70-130	
1,2-Dichlorobenzene-d4 (S)	%			108	71-161	
4-Bromofluorobenzene (S)	%			110	68-156	
Toluene-d8 (S)	%			102	69-153	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2601608 2601609

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40266996003 Result	Spike Conc.	Spike Conc.	MS Result						
Benzene	ug/kg	<14.5	1220	1220	1100	1050	90	86	70-130	4	20
Ethylbenzene	ug/kg	<14.5	1220	1220	1100	1050	91	87	80-120	5	20
Methyl-tert-butyl ether	ug/kg	<17.9	1220	1220	1030	1000	85	82	66-130	3	20
Toluene	ug/kg	<15.3	1220	1220	1110	1110	91	91	79-120	0	20
Xylene (Total)	ug/kg	<43.9	3640	3640	3390	3280	93	90	70-130	3	20
1,2-Dichlorobenzene-d4 (S)	%						110	112	71-161		
4-Bromofluorobenzene (S)	%						115	118	68-156		
Toluene-d8 (S)	%						117	110	69-153		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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**QUALITY CONTROL DATA**

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

QC Batch:	452888	Analysis Method:	EPA 8260
QC Batch Method:	EPA 5035/5030B	Analysis Description:	8260 MSV Med Level Short List
		Laboratory:	Pace Analytical Services - Green Bay

Associated Lab Samples: 40266996001, 40266996005, 40266996006, 40266996007, 40266996008, 40266996009, 40266996010, 40266996011, 40266996012

METHOD BLANK: 2601967 Matrix: Solid  
 Associated Lab Samples: 40266996001, 40266996005, 40266996006, 40266996007, 40266996008, 40266996009, 40266996010, 40266996011, 40266996012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	<14.9	50.0	08/22/23 14:06	
1,3,5-Trimethylbenzene	ug/kg	<16.1	50.0	08/22/23 14:06	
Benzene	ug/kg	<11.9	20.0	08/22/23 14:06	
Ethylbenzene	ug/kg	<11.9	50.0	08/22/23 14:06	
Methyl-tert-butyl ether	ug/kg	<14.7	50.0	08/22/23 14:06	
Naphthalene	ug/kg	<15.6	250	08/22/23 14:06	
Toluene	ug/kg	<12.6	50.0	08/22/23 14:06	
Xylene (Total)	ug/kg	<36.1	150	08/22/23 14:06	
1,2-Dichlorobenzene-d4 (S)	%	108	71-161	08/22/23 14:06	
4-Bromofluorobenzene (S)	%	108	68-156	08/22/23 14:06	
Toluene-d8 (S)	%	101	69-153	08/22/23 14:06	

LABORATORY CONTROL SAMPLE: 2601968

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	2500	2750	110	70-130	
Ethylbenzene	ug/kg	2500	2780	111	80-120	
Methyl-tert-butyl ether	ug/kg	2500	2190	87	65-130	
Toluene	ug/kg	2500	2710	108	80-120	
Xylene (Total)	ug/kg	7500	8450	113	70-130	
1,2-Dichlorobenzene-d4 (S)	%			116	71-161	
4-Bromofluorobenzene (S)	%			118	68-156	
Toluene-d8 (S)	%			119	69-153	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2601969 2601970

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40266996008 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Benzene	ug/kg	<14.1	1190	1190	1010	921	85	78	70-130	9	20	
Ethylbenzene	ug/kg	<14.1	1190	1190	1050	911	88	77	80-120	14	20	M1
Methyl-tert-butyl ether	ug/kg	<17.5	1190	1190	890	837	75	71	66-130	6	20	
Toluene	ug/kg	<15.0	1190	1190	1050	971	89	82	79-120	8	20	
Xylene (Total)	ug/kg	<42.9	3570	3570	3230	2870	91	81	70-130	12	20	
1,2-Dichlorobenzene-d4 (S)	%						125	110	71-161			
4-Bromofluorobenzene (S)	%						128	111	68-156			
Toluene-d8 (S)	%						121	103	69-153			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

QC Batch: 452834

Analysis Method: ASTM D2974-87

QC Batch Method: ASTM D2974-87

Analysis Description: Dry Weight/Percent Moisture

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40266996001, 40266996002, 40266996003, 40266996004, 40266996005, 40266996006

SAMPLE DUPLICATE: 2601794

Parameter	Units	40266918001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	29.4	29.2	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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### QUALITY CONTROL DATA

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

QC Batch: 452835

Analysis Method: ASTM D2974-87

QC Batch Method: ASTM D2974-87

Analysis Description: Dry Weight/Percent Moisture

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40266996007, 40266996008, 40266996009, 40266996010, 40266996011, 40266996012

SAMPLE DUPLICATE: 2601806

Parameter	Units	40266972001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	6.3	6.2	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

---

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

DL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

S4 Surrogate recovery not evaluated against control limits due to sample dilution.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40266996001	SB-1 (3-5.5)	EPA 5035/5030B	452888	EPA 8260	452889
40266996002	SB-1 (8-10)	EPA 5035/5030B	452776	EPA 8260	452780
40266996003	SB-2 (1-2.5)	EPA 5035/5030B	452776	EPA 8260	452780
40266996004	SB-2 (6-7.5)	EPA 5035/5030B	452776	EPA 8260	452780
40266996005	SB-3 (2)	EPA 5035/5030B	452888	EPA 8260	452889
40266996006	SB-3 (10)	EPA 5035/5030B	452888	EPA 8260	452889
40266996007	SB-4 (2)	EPA 5035/5030B	452888	EPA 8260	452889
40266996008	SB-4 (7)	EPA 5035/5030B	452888	EPA 8260	452889
40266996009	SB-5 (2)	EPA 5035/5030B	452888	EPA 8260	452889
40266996010	SB-5 (7)	EPA 5035/5030B	452888	EPA 8260	452889
40266996011	SB-6 (2)	EPA 5035/5030B	452888	EPA 8260	452889
40266996012	SB-6 (8)	EPA 5035/5030B	452888	EPA 8260	452889
40266996001	SB-1 (3-5.5)	ASTM D2974-87	452834		
40266996002	SB-1 (8-10)	ASTM D2974-87	452834		
40266996003	SB-2 (1-2.5)	ASTM D2974-87	452834		
40266996004	SB-2 (6-7.5)	ASTM D2974-87	452834		
40266996005	SB-3 (2)	ASTM D2974-87	452834		
40266996006	SB-3 (10)	ASTM D2974-87	452834		
40266996007	SB-4 (2)	ASTM D2974-87	452835		
40266996008	SB-4 (7)	ASTM D2974-87	452835		
40266996009	SB-5 (2)	ASTM D2974-87	452835		
40266996010	SB-5 (7)	ASTM D2974-87	452835		
40266996011	SB-6 (2)	ASTM D2974-87	452835		
40266996012	SB-6 (8)	ASTM D2974-87	452835		

### REPORT OF LABORATORY ANALYSIS

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# CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

40266996

## ALL SHADED AREAS are for LAB USE ONLY

Company: \_\_\_\_\_ Billing Information: \_\_\_\_\_

Address: **SAME** \_\_\_\_\_

Report To: \_\_\_\_\_ Email To: \_\_\_\_\_

Copy To: \_\_\_\_\_ Site Collection Info/Address: \_\_\_\_\_

Customer Project Name/Number: **OS** State: **/** County/City: \_\_\_\_\_ Time Zone Collected: [ ] PT [ ] MT [ ] CT [ ] ET

Phone: \_\_\_\_\_ Site/Facility ID #: \_\_\_\_\_ Compliance Monitoring? [ ] Yes [ ] No

Collected By (print): **Page** Purchase Order #: \_\_\_\_\_ DW PWS ID #: \_\_\_\_\_

Collected By (signature): \_\_\_\_\_ Turnaround Date Required: \_\_\_\_\_ DW Location Code: \_\_\_\_\_

Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day [ ] Hold: \_\_\_\_\_ (Expedite Charges Apply) Field Filtered (if applicable): [ ] Yes [ ] No

Container Preservative Type \*\*: **6 0**

Lab Project Manager: \_\_\_\_\_

\*\* Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other \_\_\_\_\_

Analyses										Lab Profile/Line:
<b>Pboc + N</b> <b>1/2 moisture</b>										<b>Lab Sample Receipt Checklist:</b> Custody Seals Present/Intact Y N NA Custody Signatures Present Y N NA Collector Signature Present Y N NA Bottles Intact Y N NA Correct Bottles Y N NA Sufficient Volume Y N NA Samples Received on Ice Y N NA VOA headspace Acceptable Y N NA USDA Regulated Solids Y N NA Samples in Holding Time Y N NA Residual Chlorine Present Y N NA Cl Strips: _____ Sample pH Acceptable Y N NA pH Strips: _____ Sulfide Present Y N NA Lead Acetate Strips: _____  LAB USE ONLY: Lab Sample # / Comments:

\* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res Cl	# of Ctns
			Date	Time	Date	Time		
SB-6(2)	SL	6	8/18/23	1250				
SB-6(8)	L	1	↓	1255				

Customer Remarks / Special Conditions / Possible Hazards: \_\_\_\_\_

Type of Ice Used: Wet Blue Dry None

Packing Material Used: **①**

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: **2908865**

Samples received via: FEDEX UPS Client Courier Pace Courier

Relinquished by/Company: (Signature) \_\_\_\_\_ Date/Time: **8/18/23 1400** Received by/Company: (Signature) \_\_\_\_\_ Date/Time: \_\_\_\_\_

Relinquished by/Company: (Signature) **OS Logistics** Date/Time: **8/19/23 0845** Received by/Company: (Signature) **S. J. Moore** Date/Time: **8/19/23 0845**

Relinquished by/Company: (Signature) \_\_\_\_\_ Date/Time: \_\_\_\_\_ Received by/Company: (Signature) \_\_\_\_\_ Date/Time: \_\_\_\_\_

Lab Sample Temperature Info:

Temp Blank Received: Y N NA

Therm ID#: \_\_\_\_\_

Cooler 1 Temp Upon Receipt: \_\_\_\_\_ oC

Cooler 1 Therm Corr. Factor: \_\_\_\_\_ oC

Cooler 1 Corrected Temp: \_\_\_\_\_ oC

Comments: \_\_\_\_\_

Trip Blank Received: Y N NA

HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page **2** of 21



### Sample Condition Upon Receipt Form (SCUR)

Project #:

**Client Name:** Endpoint Solutions  
**Courier:**  CS Logistics  Fed Ex  Speedee  UPS  Walco  
 Client  Pace Other: \_\_\_\_\_

**WO# : 40266996**  
  
 40266996

**Tracking #:** \_\_\_\_\_  
**Custody Seal on Cooler/Box Present:**  yes  no **Seals intact:**  yes  no  
**Custody Seal on Samples Present:**  yes  no **Seals intact:**  yes  no  
**Packing Material:**  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_  
**Thermometer Used** SR-109 **Type of Ice:**  Wet  Blue  Dry  None  Meltwater Only

**Cooler Temperature** Uncorr: 0.0 / Corr: 0.0  
**Temp Blank Present:**  yes  no **Biological Tissue is Frozen:**  yes  no  
 Temp should be above freezing to 6°C.  
 Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

**Person examining contents:**  
 Date: 8/19/03 Initials: SG  
 Labeled By Initials: MMS

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- DI VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time: _____
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Correct Type: <u>Pace Green Bay</u> Pace IR, <u>Non-Pace</u>		
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>SL</u>		
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): _____		

**Client Notification/ Resolution:** \_\_\_\_\_ If checked, see attached form for additional comments   
 Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Comments/ Resolution: \_\_\_\_\_

**PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logi**  
 Page 2 of 2

**APPENDIX E**

FORM 4400-226

## Development at Historic Fill Site or Licensed Landfill Exemption Application

Form 4400-226 (R 05/16)

**Notice:** Use of this form is required by the DNR for any application to develop at a historic fill site or licensed landfill pursuant to secs. NR 506.085 and NR 500.08(4), Wis. Adm. Code. The Department will not consider your application unless you provide complete information requested. Personally identifiable information collected will be used to process your application and will also be accessible by request under Wisconsin's Open Records law [ss. 19.31 - 19.39, Wis. Stats.]

**Instructions:** See *Development at Historic Fill Sites and Licensed Landfills: What you need to know* (PUB-RR-683, November 2013) for detailed instructions.

- All Exemption Application materials should be sent to the region where the site is located, as listed on page 6.
- Include \$700 fee payment with this application. If the site is a licensed landfill and the Waste and Materials Management program is doing the review, submit no fee now. You will be sent an invoice upon receipt of this application.
- Determine the appropriate exemption type for the site and check appropriate box below.
- Provide complete information requested for each type of exemption. Include the following attachments:  
**Required:** Summary of Existing and Potential Impacts described in Section V as an attachment, under the seal of a professional engineer or geologist registered to practice in Wisconsin.

**Optional:** Site Visit Summary Comments (Section IX) including any photos, sketches or site visit notes.

### Exemption Type

- Remediation and Redevelopment Program NR 700 Rule Series Process Exemption:** Site with remedial actions conducted in accordance with NR 700 series  
**Required:** Sections I - VI **Optional:** Sections VII - X
- Case-by-Case Evaluation:** Sites with anticipated environmental impacts or wastes of special concerns  
**Required:** Sections I - VI **Optional:** Sections VII - X
- Expedited Exemption:** Site with no expected environmental impact  
**Required:** Sections I - VI and Form 4400-226A Expedited Exemption Application **Optional:** Sections VII - X

### I. Applicant Information

Owner - Last Name 700 West Capitol Drive LLC	First	MI	Phone Number (include area code) (414) 791-3957
Contact Name (if different)			

Tom Beaudry

Street Address 1422 Pearl Street	City Waukesha	State WI	ZIP Code 53186-5604
-------------------------------------	------------------	-------------	------------------------

Developer - Last Name Ford	First John	MI	Phone Number (include area code) (414) 399-0165
-------------------------------	---------------	----	--

Street Address 504 West Juneau Avenue	City Milwaukee	State WI	ZIP Code 53203
--	-------------------	-------------	-------------------

### II. Site Name and Location

Site Name Former Hartland Quarry	Location / Address 644, 700 & 701 West Capitol Drive
-------------------------------------	---

Is the site known by another name(s)? <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown If yes, provide name: _____	<input type="radio"/> City <input type="radio"/> Town <input checked="" type="radio"/> Village of <u>Hartland</u>
--	--

Does the site have a license number? <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown If yes, License Number: _____	State WI	ZIP Code 53029	County Waukesha
---	-------------	-------------------	--------------------

**A. Attach a map with site location and limits of fill/waste disposal area.**

### B. Global Positioning System Coordinates

Latitude	DEG	MIN	SEC	Longitude	DEG	MIN	SEC
043	06	11	43.0000 N	088	21	26	77.0000 W

Describe method for collecting GPS Coordinates  
RR Sites Map

### Program Lead, Fee Status and Regulatory ID Numbers (This area for DNR use only)

<input type="radio"/> Waste Management Bureau	<input type="checkbox"/> Payment Attached	
<input type="radio"/> Remediation and Redevelopment Bureau - Exemption is part of remedy under NR 700 program	Amount	
<input type="radio"/> Fee already paid for review of remedial design report.	\$	
<input type="radio"/> Review of remedial design report not requested and payment is attached.		
Hazardous Waste Facility License ID #: (5 digits)	DNR FID #: (9 digits)	USEPA ID #: (used for both RCRA & CERCLIS #s) (WI+Alpha+9 digits)
Region	Project Manager	Telephone Number

Development at Historic Fill Site or Licensed Landfill Exemption Application

Form 4400-226 (R 05/16)

Page 2 of 6

III. Site Ownership History

Form with fields for Previous Owner - Last Name, First, MI, Telephone Number, Street Address, City, State, ZIP Code, and Responsible Municipal / Private Operator - Last Name (if applicable).

IV. Evaluation of Existing and Potential Impacts. See Development at Historic Fill Sites and Licensed Landfill: Guidance for Investigation and Development at Historic Fill Sites and Licensed Landfill: Potential Problems and Considerations.

- A. Analytical data for the following media have been collected and/or examined before completing this application: 1. Groundwater: Yes No 2. Soil: Yes No 3. Surface water / sediment: Yes No 4. Air: Yes No 5. Methane or other explosive gases: Yes No B. Based on known or suspected sources and wastes, their physical characteristics, containment and geologic environment, do you suspect a release of pollutants to the environment? C. If there is NOT a likelihood of a release of pollutants or evidence of a release, would the impact of the proposed development be likely to cause a release to the environment?

V. Summary of Existing and Potential Impacts. See Development at Historic Fill Sites and Licensed Landfill: Guidance for Investigation and Development at Historic Fill Sites and Licensed Landfill: Potential Problems and Considerations.

Describe the following in an attached narrative under the signature of a qualified professional. Organize, label and package as listed below.

- A. Existing Site Conditions 1. existing site conditions including waste types, 2. potential for impacts, and 3. evaluation of existing impacts. B. Proposed Development Summary. Include explanation for overall site decision. C. Summary of actions to be taken and engineering controls that will prevent or minimize adverse environmental impacts and potential threats to human health and welfare, including worker safety.

VI. Certification of Application Information

I certify that information in this application and all its attachments is true and correct and in conformity with applicable Wis. statutes.

Print / Type Name of Applicant

John T Ford

Applicant Signature

Handwritten signature of John T Ford

Date Signed

9/8/23

# Endpoint Solutions

6871 South Lovers Lane  
Franklin, WI 53132  
Telephone: (414) 427-1200  
Fax: (414) 427-1259  
[www.endpointcorporation.com](http://www.endpointcorporation.com)

Mr. J. Gregory Moll  
Wisconsin Department of Natural Resources  
1027 West St. Paul Avenue  
Milwaukee, WI 53233

January 23, 2024

**Subject: Revised Material Management Plan**  
Hartland Quarry Apartments  
700-701 West Capitol Drive, Hartland, Wisconsin  
BRRTS #: 07-68-550780

Dear Greg:

In an email dated October 25, 2023, on behalf of the Wisconsin Department of Natural Resources (WDNR), you requested that Form 4400-315 be prepared and submitted with the required review fee for a Request to Manage Materials. In a follow-up email dated November 3, 2023, you requested that the submittal include, "clarification on how the proposed 400,000 CY of fill material and soil will be managed is included in the submittal. More detail is needed on the volume of different type of materials to be managed; type of materials, volumes and locations that will be cut; types of material to be used as fill, volumes, and locations for placement; and type of material and volume that may be disposed at a landfill." Finally, during a telephone conference on January 22, 2024, WDNR staff requested that the proposed sampling of the Imported Fill Soils and Runoff Sediments be collected and analyzed prior to the beginning of the proposed management of these soils.

The purpose of this document is to revise the previously submitted Material Management Plan (MMP) Clarifications for the redevelopment of the Former Hartland Quarry site located at 700-701 West Capital Drive, in the Village of Hartland, Waukesha County, Wisconsin (the "Site"). An *Application for Exemption to Construct on a Historic Fill Site* (Application for Exemption) which included a MMP was submitted to the WDNR with the appropriate review fee on September 13, 2023.

## VOLUME OF MATERIALS TO BE MANAGED

The civil engineer for the project (Walbec Group) has estimated approximately 400,000 cubic yards (cy) of material will need to be excavated, transported, placed and compacted to establish the proposed finished Site grades. Currently, the Site grades rise from the south end of the Site at West Capitol Drive to approximately 1,000-feet north where the original quarry floor remains. In order to create a more aesthetic design for the proposed complex, significant cuts (up to 60-feet) of native soils from the southern portion of the Site will be placed on the northern portion of the Site in fill areas (up to 30-feet). The attached **Figure 8** is a Cut/Fill Plan prepared for the Site with cut areas depicted in red and fill areas depicted in blue. The deeper the red indicates the deeper the cut and the deeper the blue indicates the deeper the fill.

Walbec has estimated 400,000 cy of material will be managed during Site grading activities. The total volume includes approximately 77,000 cy of concrete slabs which will be crushed for use as compacted fill, approximately 50,000 cy of fill materials previously placed on the Site sourced from local utility construction projects and the remainder consisting of native sand and gravel from undisturbed portions

of the Site. As the crushing of concrete slabs to aggregate results in an approximately 30% loss of total volume, we estimate the crushed concrete portion of the materials will consist of approximately 54,000 cy. Therefore, we estimate approximately 296,000 cy of native undisturbed sand and gravel will be managed during the Site grading activities.

## TYPES OF CUT MATERIALS, VOLUMES AND LOCATIONS

As depicted on **Figure 8**, the majority of the cuts, as depicted in red, will occur on the southern portion of the Site with cut depths approaching 60-feet in the sidewalls of the Site. Minor areas of cut are also depicted near the northeast corner of the Site associated with an unquarried area and the location of a proposed storm water pond. Based on the exploration and investigation performed at the Site, six (6) general areas delineated by the historical use of the Site and existing material type were identified.

These six (6) general areas are depicted on **Figure 13** and include:

1. Native sand and gravel located in the base of the former quarry (outlined in green);
2. Native sand and gravel in unquarried areas (outlined in dark blue);
3. Native sand and gravel soil present beneath concrete pavement in the developed southern portion of the Site (outlined in light blue);
4. An area of stockpile construction debris consisting of concrete slabs (outlined in orange);
5. A small area of runoff sedimentation on top of the native sand and gravel quarry bottom (outlined in pink); and,
6. An area of compacted fill imported from Village utility construction projects placed on top of the native sand and gravel quarry bottom (outlined in yellow).

Based on **Figure 13**, the majority of the cuts will occur within the dark blue outlined unquarried native sand and gravel sidewalls, the orange outlined area of construction debris consisting of concrete slabs and the northern portion of the light blue outlined concrete covered developed portion of the Site. The isolated cut areas in the northern portion of the Site are located in areas of native undisturbed sand and gravel associated with either unquarried areas or the base of the quarry.

## TYPES OF FILL MATERIALS, VOLUMES AND PLACEMENT LOCATIONS

As depicted on **Figure 8**, the majority of fills will occur in the northern portion of the Site, with fill depths approaching 30-feet in some areas. Minor areas of fill are located in the southern portion of the Site in the vicinity of the following proposed buildings: Townhouse 2 (TH2), Townhouse 3 (TH3) and the Club House (CH). With the exception of the area of compacted imported fill from local utility projects (outlined in yellow on **Figure 13**) and a small area of runoff sedimentation (outlined in pink on **Figure 13**), fill materials will be placed on the native undisturbed sand and gravel quarry base.

With the exception of the concrete rubble located within the orange outlined area and the concrete pavement located within the light blue outlined area that are both proposed to be crushed to aggregate for reuse, the only other non-native soils that are proposed to be managed as part of the Site grading process are the soil fills imported from local utility construction projects (outlined in yellow) and the apparent runoff sedimentation (outlined in pink). While both of these non-native soil materials are located within the overall fill portion of the Site, the geotechnical engineer (Geotest, Inc.) has recommended that due to the unknown compactive effort applied to these fill materials, that these

materials be excavated, placed and recompacted prior to receiving additional fill materials to establish the proposed Site grades. As both of these non-native materials are located within areas that will receive significant volumes of fill (10- to 20-feet in the area of the imported fill materials and 20- to 30-feet in the area of the runoff sediments), these materials will need to be excavated, placed and recompacted prior to being able to place additional fill. As such, these materials will be located at the base of the general fill area beneath 10- to 30-feet of native sand and gravel cut from the southern portion of the Site.

While it is not possible to determine exactly where these materials will ultimately be placed within the northern fill area, Endpoint will work with the Walbec Group to document the lateral extent and elevations that these materials are placed during grading activities. It should be noted the extent of contamination detected in these materials was limited to soil-to-groundwater pathway residual contaminant level (RCL) exceedances. No direct contact (industrial or non-industrial) RL exceedances were noted; however, these materials will ultimately be located approximately 10- to 30-feet below the ground surface post-development. The location of these materials will be detailed in the Construction Documentation Report prepared following the completion of Site grading activities.

## **TYPE OF MATERIAL AND VOLUME THAT MAY BE DISPOSED AT A LANDFILL**

As discussed in the MMP section of the Application for Exemption (September 13, 2023), an experienced environmental professional will be onsite during earthwork activities to monitor the character of the materials being managed, including the concrete rubble to be crushed, the imported fill soils to be excavated, placed and recompacted and the native soils excavated from unquarried areas of the former quarry base. The environmental professional will work with representatives from Walbec and GeoTest to segregate unsuitable materials from reuse as engineered fill. Unsuitable materials will include organic materials such as topsoil, vegetation and wood, metal debris and soils containing obvious indicators of contamination such as staining or odors.

Materials unsuitable for physical reasons (organics, metals, etc.) will be segregated and sorted for offsite disposal. While the largest particle size in the native soils are expected to be cobbles, if boulders are encountered, they will either be segregated for crushing and reuse, offsite removal or use as decorative features of the landscaping plan. Soils containing obvious indicators of contamination will be segregated in protected stockpiles or roll-off boxes, dependent on the volume.

Based on the overall size of the proposed development, we assume sufficient space will be available to continue work in another location while samples of the material in question are analyzed for disposal options. We also recommend that confirmation samples be collected from the edges of the area where contaminated soils were encountered to document the character of the residual soils. All sample locations will be surveyed to Wisconsin State Plane Coordinates with ground surface elevations referenced to the North American Vertical Datum 1988 (NAVD88).

As approximately 50,000 cy of imported fill materials will be excavated, re-placed and compacted as part of the Site grading plan, and as we propose to document the location and depth that these materials are placed, we also propose to collect and submit up to 50 additional soil samples for analysis for polycyclic aromatic hydrocarbons (PAHs) and the eight (8) Resource Conservation and Recovery Act (RCRA) metals. While this results in a sampling frequency of one (1) sample per 1,000 cy, which is less than the WDNr's recommended frequency of one (1) sample per 300 cy, it is our opinion the re-

placement of these soils at the base of an area which will receive another 10- to 30-feet of fill material significantly lessens the potential future risks of these soils to human health and the environment, thereby allowing the reduction in frequency with no reduction in protections.

We propose to collect and analyze the additional samples discussed above prior to initiating the soil processing. We propose to collect a maximum of 50 samples located throughout the areas identified as Compacted Impacted Soils and Runoff Sediments on **Figure 13**. The sample points will be located on an approximately 60-ft grid spacing. Based on existing sampling and survey data, we estimate the Compacted Imported Soils and Runoff Sediments to average approximately five (5) ft thick. We propose to collect a create a composite sample at each location to be submitted for laboratory analysis for PAHs and the RCRA metals. We understand this data will be utilized to manage and document the placement locations of these soils; however, unless exceptional concentrations are detected, it is also our understanding that the results of this sampling will not affect the overall MMP described herein.

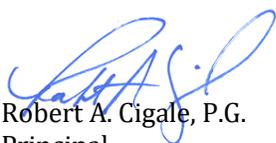
Due to the overall quantity of materials (fill soils, crushed concrete rubble and native sand and gravel) to be managed as part of the Site grading process, it is not possible to estimate the quantity of material which may require landfill disposal at this time.

## **CLOSING**

We trust the information contained in this letter and its attachments further clarifies the Material Management Plan and clarifications previously submitted. As requested, a completed WDNR Form 4400-315 is attached in **Appendix A**. The current deed and Certified Survey Map (CSM) for the Site are attached in **Appendix B**. The remainder of the required attachments were previously submitted with the *Application for Exemption* (September 1, 2023). Additionally, a check for the required WDNR review fee (\$1,350) was submitted with a previous submittal.

Sincerely,

**Endpoint Solutions**

  
Robert A. Cigale, P.G.  
Principal

cc: John Ford – Three Leaf Partners

## **ATTACHMENTS**

Figures  
Appendix A  
Appendix B

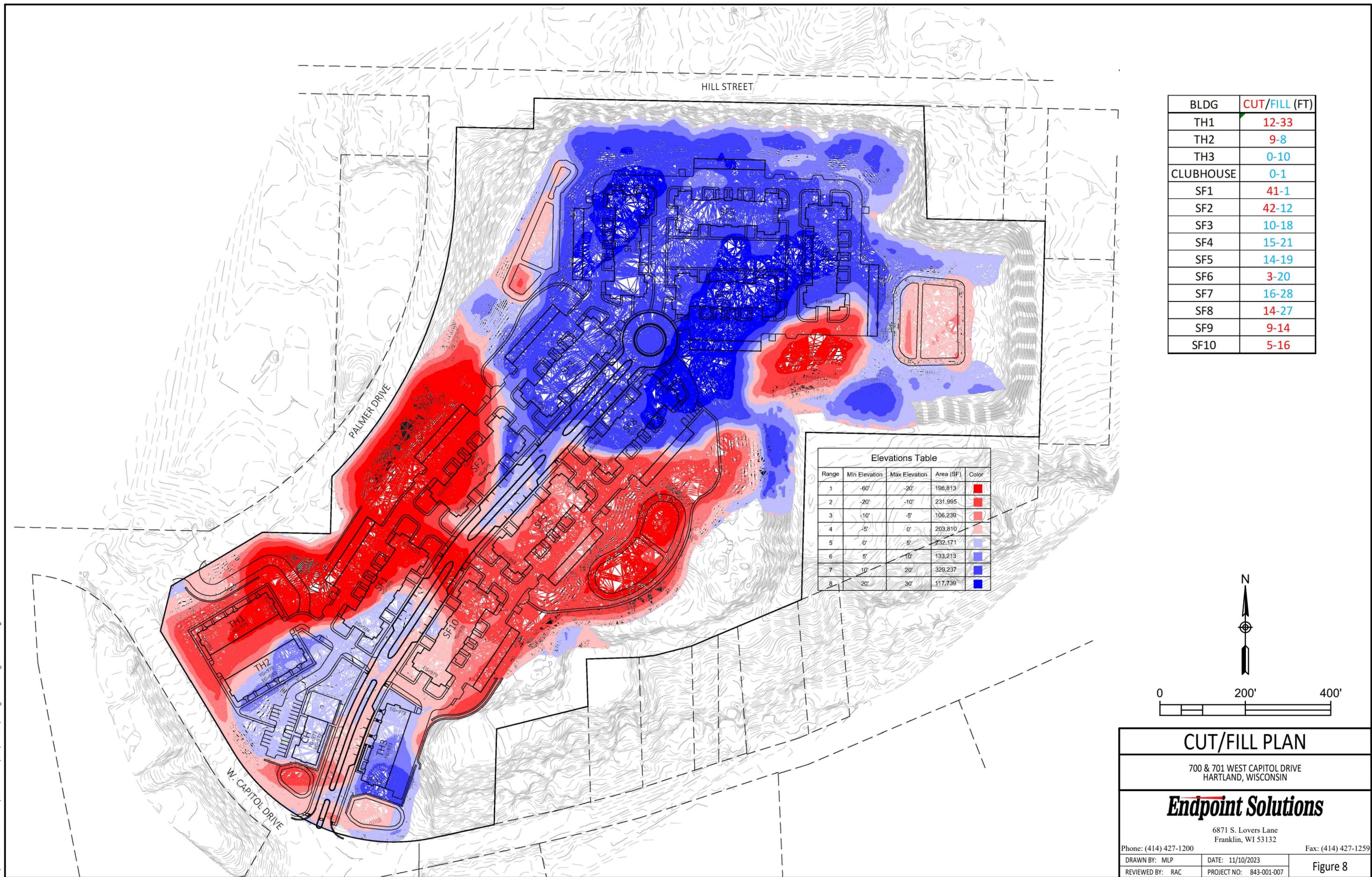
**FIGURES**

FIGURE 8 – CUT/FILL PLAN

FIGURE 13 – MATERIAL TYPES ON CUT/FILL

P:\Three Leaf Partners - 843\001 - Hartland\CAD\001-007\FIG 08\_843-001-007\_Cut-Fill Plan.dwg

SOURCE:PAYNE & DOLAN



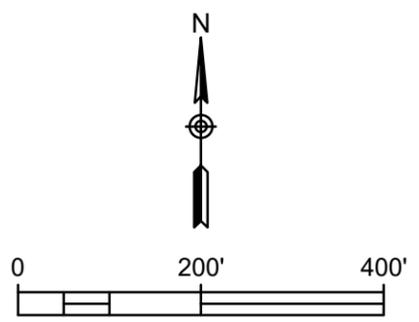
HILL STREET

PALMER DRIVE

W. CAPITOL DRIVE

BLDG	CUT/FILL (FT)
TH1	12-33
TH2	9-8
TH3	0-10
CLUBHOUSE	0-1
SF1	41-1
SF2	42-12
SF3	10-18
SF4	15-21
SF5	14-19
SF6	3-20
SF7	16-28
SF8	14-27
SF9	9-14
SF10	5-16

Range	Min Elevation	Max Elevation	Area (SF)	Color
1	-60'	-20'	196,813	Red
2	-20'	-10'	231,995	Red
3	-10'	-5'	106,239	Red
4	-5'	0'	203,810	Red
5	0'	5'	232,171	Light Blue
6	5'	10'	133,213	Blue
7	10'	20'	329,237	Blue
8	20'	30'	117,739	Blue



<b>CUT/FILL PLAN</b>		
700 & 701 WEST CAPITOL DRIVE HARTLAND, WISCONSIN		
<b>Endpoint Solutions</b>		
6871 S. Lovers Lane Franklin, WI 53132		
Phone: (414) 427-1200      Fax: (414) 427-1259		
DRAWN BY: MLP	DATE: 11/10/2023	Figure 8
REVIEWED BY: RAC	PROJECT NO: 843-001-007	

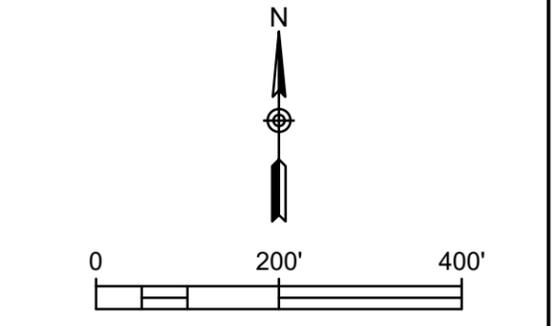
P:\Three Leaf Partners - 843\001 - Hartland\CAD\001-007\FIG 13\_843-001-007\_Existing Material Types on Cut Fill.dwg

SOURCE:PAYNE & DOLAN



- NATIVE SOILS - PIT BASE
- RUNOFF SEDIMENTS FROM CONSTRUCTION DEBRIS
- COMPACTED IMPORTED SOIL FROM LOCAL ROADWAY PROJECTS
- CONSTRUCTION DEBRIS
- DEVELOPED PORTION OF SITE
- NATIVE SOIL - PIT BOTTOM OR NOT QUARRIED

Range	Min Elevation	Max Elevation	Area (SF)	Color
1	-60'	-20'	196,813	Red
2	-20'	-10'	231,995	Red
3	-10'	-5'	106,239	Red
4	-5'	0'	203,810	Red
5	0'	5'	232,171	Blue
6	5'	10'	133,213	Blue
7	10'	20'	329,237	Blue
8	20'	30'	117,739	Blue



**MATERIAL TYPES ON CUT/FILL**

700 & 701 WEST CAPITOL DRIVE  
HARTLAND, WISCONSIN

**Endpoint Solutions**

6871 S. Lovers Lane  
Franklin, WI 53132

Phone: (414) 427-1200      Fax: (414) 427-1259

DRAWN BY: MLP	DATE: 11/10/2023	Figure 13
REVIEWED BY: RAC	PROJECT NO: 843-001-007	

**APPENDIX A**

WDNR FORM 4400-315

# Recommended Template for Request to Manage Materials under Wis. Admin. Code § NR 718.12 or NR 718.15

Form 4400-315 (R 05/19)

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## Section 1 – Purpose of Request

Identify the purpose of the request by checking each box that applies:

- Manage contaminated soil as part of an interim or remedial action or post-closure modification on the same response action site from which it was generated (Wis. Admin. Code §§ NR 718.12 (1) and (2)).
- Manage contaminated soil as part of an interim or remedial action or post-closure modification at a site or facility that is different from the response action site from which it was generated (Wis. Admin. Code §§ NR 718.12 (1) and (2)).
- Manage other solid waste other than contaminated soil, as part of a response action, at the same site from which it was generated (Wis. Admin. Code § NR 718.15).

If none of the above boxes are checked, the proposed materials management activity cannot be exempted from solid waste rules through Wis. Admin. Code ch. NR 718. Management of solid waste material generated as a result of a non-NR 700 action may be allowed after obtaining a “low hazard exemption” from the DNR Waste and Material Management Program. Please see the DNR publication “Exempting Low-Hazard Wastes from Solid Waste Regulations” (PUB-WA 1645), which can be found by visiting [dnr.wi.gov](http://dnr.wi.gov), search “WA1645.”

## Section 2 – Applicable Fees

Fees are assessed for each type of Wis. Admin. Code § NR 718.12 or NR 718.15 request (plus database fee) **per site or facility** where contaminated material is excavated or managed. The below tables are provided to assist you in calculating the appropriate Wis. Admin. Code § NR 749 fee required for the review of your submittal.

Identify the Wis. Admin. Code § NR 749 review fees for this submittal by checking the applicable “On-Site Management Fee” in section A, column D. If material will be managed at a site(s) or facility(ies) other than the response action site, also select the appropriate “Off-Site Management Fee” in section B, and indicate the number of applicable receiving sites in column E. Please send a single check to the regional office managing your request. Specific directions will be detailed in your submittal confirmation.

A. Fee Assessed to Excavate or Manage Soil or Other Solid Waste on the Generating Site or Facility			
A	B	C	D
Action	Action Fee	Database Fee	On-Site Mgmt Fee
MMP as part of Interim Action per NR 708.11, with residual soil CO	\$700	\$300	<input type="checkbox"/> \$1000
MMP as part of Interim Action per NR 708.11, without residual soil CO	\$700	No fee	<input type="checkbox"/> \$700
MMP as part of Remedial Action Plan approval, with residual soil CO	\$1050	\$300	<input checked="" type="checkbox"/> \$1350
MMP as part of a Remedial Action Plan approval without residual soil CO	\$1050	No fee	<input type="checkbox"/> \$1050
Closed Sites: MMP as part of a CO modification action, with residual soil CO	\$1050	\$300	<input type="checkbox"/> \$1350
Closed Sites: MMP as part of a CO modification action, without residual soil CO	\$1050	No fee	<input type="checkbox"/> \$1050
MMP separate from RAP or CO mod, with residual soil CO	\$700	\$300	<input type="checkbox"/> \$1000
MMP separate from RAP or CO mod, without residual soil CO	\$700	No fee	<input type="checkbox"/> \$700

B. Fee Assessed to Manage Soil on a Site or Facility other than the Generating Site or Facility					
A	B	C	D	E	F
Action	Action Fee	Database Fee	Off-Site Mgmt Fee	# of receiving sites subject to action	Total for row
MMP as part of interim action, remedial action, modification to COs, etc., with residual soil CO	\$700	\$300	<input type="checkbox"/> \$1000		
MMP as part of interim action, remedial action, modification to COs, etc., without residual soil CO	\$700	No fee	<input type="checkbox"/> \$700		
Total of Off-Site Management Fee					\$0
<b>Total of On-Site and Off-Site Management Fee</b>					<b>\$1,350</b>

- 1) **MMP** – A Material Management Plan submitted in accordance with Wis. Admin. Code §§ NR 718.12 (1) and (2) or NR 718.15.
- 2) **“With residual soil CO”** - site will have a residual soil continuing obligation (e.g. engineering control, cap, or cover) applied at the generating site or facility at the end of the applicable action; remedial action approval, or approval by an addendum to the closure letter.
- 3) **“Without residual soil CO”** - site that will not have a residual soil continuing obligation applied at the generating site or facility at the end of the applicable action.

## Recommended Template for Request to Manage Materials under Wis. Admin. Code § NR 718.12 or NR 718.15

Form 4400-315 (R 05/19)

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### Section 3 –Property and Contact Information

#### A. Information about the generating site or facility (from which material is proposed to be excavated)

BRRTS #(s) (include Materials Management #s and VPLE #s if assigned)	BRRTS Activity (Site) Name(s)	FID #(s)
0 7 - 6 8 - 5 5 0 7 8 0	Former Hartland Quarry	2 6 8 5 5 4 3 3 0
- - - - -		

#### Response Action Site Address\* (physical, not mailing address)

700 and 701 West Capitol Drive

<b>City*</b> Hartland	<b>State*</b> WI	<b>Parcel ID #(s)</b> 0730987 & 0730985
<b>County*</b> Waukesha		<b>ZIP Code*</b> 53029

<b>WTM Coordinates*</b> X: <u>6</u> <u>5</u> <u>3</u> <u>6</u> <u>9</u> <u>1</u> Y: <u>2</u> <u>9</u> <u>3</u> <u>6</u> <u>2</u> <u>9</u>	<b>Lat/Long Coordinates</b> decimal degrees (min. of 6 digits right of decimal, e.g., -89.123456)* Lat: <u>43.10359</u> Long: <u>-88.35704</u>	<b>Coordinates Represent:</b> <input checked="" type="radio"/> Center of Project <input type="radio"/> Parcel Center
---	---	--

¼* NE	¼* NW	Section* 3	Township* 07 N	Range* 18	<input checked="" type="radio"/> E <input type="radio"/> W
-------	-------	------------	----------------	-----------	--

<b>Current Zoning:</b> Q-1: Quarry/Extractive	<b>Current Land Use:</b> Bulk Aggregate Transport Company
--	--

#### B. Responsible Party (RP) of the generating site or facility

The Wis. Admin. Code §§ NR 718.12 or NR 718.15 approval will be issued to the Wis. Admin. Code NR 700 series responsible party identified below and to the owner of the receiving site or facility, if different than the generating site or facility. If there is more than one responsible party or property owner, include the information requested below for each.

<b>Responsible Party (RP) Name*</b> John Ford	<b>Organization / Business Name</b> Three Leaf Partners, LLC		
<b>Mailing Address*</b> 504 West Juneau Avenue	<b>City*</b> Milwaukee	<b>State*</b> WI	<b>ZIP Code*</b> 53203
<b>Phone # (include area code)*</b> (414) 775-0857	<b>Email*</b> jford@threeleafdevelopment.com		

#### C. Property owner(s) information for generating site or facility if different than RP

Check here if the property owner of the generating site or facility is different than the responsible party, and enter the property owner's information below.

<b>Property Owner Name(s)</b> Tom Beaudry	<b>Organization / Business Name</b> 700 West Capitol Drive LLC		
<b>Mailing Address</b> 1422 Pearl Street	<b>City</b> Waukesha	<b>State</b> WI	<b>ZIP Code</b> 53186-5604
<b>Phone # (include area code)</b> (414) 791-3957	<b>Email</b> tbeaudry@corporatedesigninteriors.com		

#### D. Consultant / contractor information

<b>Consultant / Contractor Name*</b> Bob Cigale	<b>Organization / Business Name*</b> Endpoint Solutions Corp.		
<b>Mailing Address*</b> 6871 South Lovers Lane	<b>City*</b> Franklin	<b>State*</b> WI	<b>ZIP Code*</b> 53132
<b>Phone # (include area code)*</b> (414) 427-1200	<b>Email</b> bob@endpointcorporation.com		

**Recommended Template for Request to Manage Materials  
under Wis. Admin. Code § NR 718.12 or NR 718.15**

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**E. Contact information for questions about this request**

<b>Contact Name</b> Bob Cigale		<b>Organization / Business Name</b> Endpoint Solutions Corp.		
<b>Mailing Address</b> 6871 South Lovers Lane		<b>City</b> Franklin	<b>State</b> WI	<b>ZIP Code</b> 53132
<b>Phone # (include area code)</b> (414) 427-1200	<b>Email</b> bob@endpointcorporation.com			
<b>Relationship to the Requestor (Same, Consultant, Developer, Etc.):</b> Consultant				

**Section 4 – Results of Analyses Performed and Characteristics of Waste**

The following information is necessary for the DNR to review the request for compliance with Wis. Admin. Code §§ NR 718.12 (1) (d) 1., NR 718.12 (2) (b) 2. and NR 718.12 (2) (b) 6. In this section, describe the characteristics of the contaminated soil and/or other solid waste material that will be managed under this plan, describe the sampling activities conducted and demonstrate how it has been adequately characterized. Narrative boxes have a limit of 2500 characters. Please attach additional pages if necessary, clearly labeling the section of the form to which you are responding.

- A. Enter the total volume of contaminated soil and/or other solid waste to be managed (cubic yards) \*:  
50,000
- B. Describe the characteristics of the material proposed to be managed,\* which may include general makeup, physical characteristics, the homogeneity of the material, the proportion of soil to other solid waste, and any other pertinent descriptors.  
Fine to coarse sand fill, some gravel, few silt; brown; moist
- C. Describe the historic and current land use of the generating site or facility where the contaminated soil or other solid waste originates, including how this site or facility is zoned.  
The subject property is the former location of the Hartland Quarry, as well as the Tews and LaFarge concrete batch plants. Palmer Sand & Gravel reportedly mined sand and gravel for use as road gravel from the subject property from the 1930s to the 1960s. Once the easily accessible deposits of road gravel were removed, operation of the subject property transitioned to use as a concrete batch plant. The fill materials deposited on the Site consisted primarily of soil and concrete from local roadway construction projects.  
  
Currently, the subject property currently consists of offices and shop buildings located in the southwest portion of the Site currently utilized by BSIT, a bulk aggregate transportation company. The central portion of the subject property consists of a former aggregate pit which has been partially reclaimed with concrete slabs, concrete washout and soils reportedly transported from Village of Hartland roadway projects. The perimeter portions of the subject property generally consist of undeveloped natural areas which generally slope up to the pre-quarry ground surface on the adjoining properties.
- D. Describe identified contaminants and the source(s). Indicate whether contaminant concentrations exceed Wis. Admin. Code § NR 720 Residual Contaminant Levels.  
Numerous PAH constituents were also detected in the sample of fill materials submitted from the TP-7 location. The concentrations of benzo(b)fluoranthene and chrysene reported in this sample exceeded their respective soil-to-groundwater exposure pathway RCLs established by the WDNR.
- E. Describe the sampling activities conducted to characterize the material including where the samples were collected, how sample locations were chosen, the sampling methods used, and when sampling activities were conducted.  
Based on the physical conditions of the subject property, as well as the need to evaluate the physical properties of the soils for foundation support, GeoTest, Inc. (GeoTest) was retained by Three Leaf Partners. To further evaluate the subsurface conditions on the subject property, GeoTest proposed to excavate a series of nine (9) randomly located test pits (TP-1 through TP-9) through the apparent fill materials which were placed on the subject property following the quarrying operations. Besides providing an opportunity to evaluate the physical characteristics of the fill materials, the test pits also allowed measurements of the general thickness of the fill materials to be performed.

**Recommended Template for Request to Manage Materials  
under Wis. Admin. Code § NR 718.12 or NR 718.15**

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- F. Explain how the sampling activities adequately characterized the contaminated soil or other solid waste proposed to be managed. Indicate whether the samples were analyzed for all contaminants previously identified at the generating site or facility and analyzed for all contaminants potentially present at the site or facility considering current and historic land use. Discuss how samples were collected from areas most likely to be contaminated and from material that will actually be managed under this exemption. Based on the known source of the fill soils being generated by utility construction projects within Village road rights-of-ways, the fill materials were analyzed for the presence of volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs) and RRA metals. No VOC constituents were detected in the fill materials. While numerous PAH constituents were detected, only the concentrations of benzo(b)fluoranthene and chrysene exceeded their respective soil-to-groundwater exposure pathway residual contaminant levels (RCLs). In addition, while the concentration of cadmium exceeded its soil-to-groundwater exposure pathway RCL, the concentration was less than the published background threshold value (BTV).

Based on the source of the material, the presence of low-concentration PAH contamination likely associated with the presence of asphalt inclusions was not unexpected.

- G. Enter the total number of samples collected from this material and analyzed for contaminants of concern.

1

- H. Enter the rate of sample collection per volume. One sample per 50,000 yards of contaminated material.

- i. Wis. Admin. Code § NR 718.12(1)(e) requires that samples collected to characterize soil be collected at a rate of one sample per 100 cubic yards (for the first 600 cubic yards) and one sample for each additional 300 cubic yards of material, with a minimum of two samples. If the DNR pre-approved an alternative sampling plan, describe how the sampling that was conducted complied with a pre-approved plan. Please also provide the date the sampling plan was pre-approved and the name of the DNR staff person who approved the plan.

An experienced environmental professional will be onsite during earthwork activities when the fill materials will be excavated, processed to remove any large inclusions and replaced and compacted in a control manner to create an engineered fill layer. Additional sample collection and analysis will be performed during this process to further evaluate the character of the fill materials. Any fill materials exhibiting obvious visual or olfactory indications of contamination will be removed and segregated during this process.

**Section 5 – Project description/material management plan**

The following information is necessary for the DNR to review the request for compliance with Wis. Admin. Code §§ NR 718.12 (2) (b) (5), (7) and (8). In this section, describe how the contaminated material will be managed, he propose schedule for managing the material, and provide sufficient information to justify that the placement of the contaminated materials will meet the requirements of Wis. Admin. Code §§ NR 726.13 (1) (b) 1. to 5. Narrative boxes have a limit of 2500 characters. Please attach additional pages if necessary, clearly labeling the section of the form to which you are responding.

- A. Describe the material management activities to take place.\* Provide details on how and where the material will be generated, transported and placed. Describe the depth of the proposed excavation of contaminated soil or other solid waste, and the depth that it will be placed at the receiving site or facility. Describe any response actions proposed for the receiving site or facility to address the relocated contaminated material (such as the construction of a cap). Discuss how material management activities will fit in with the overall property remediation and/or redevelopment plans.

The area where the fill soils are currently located will be receiving approximately ten (10) to 30 feet of additional fill to achieve final site grades for the proposed development. As the compactive effort applied to the fill soils could not be quantified, the geotechnical engineer recommended the layer of soil fill be excavated, processed to remove any large inclusions and then replaced and recompacted to create an engineered base for additional fill placement.

During these activities, an experienced environmental professional will be present to evaluate the fill soils for obvious visual or olfactory indications of contamination. If obvious indications of contamination are encountered, those soils will be segregated for further evaluation and offsite disposal. Additionally, samples of the soil fills will be collected and analyzed for PAH and metals content.

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B. Summarize the proposed schedule for implementation of the material management plan including anticipated start and end dates. \*  
The earthwork contractor has estimated approximately 90-days will be required to complete the earthwork activities at the Site. This includes processing and crushing approximately 55,000 to 60,000 cubic yards of concrete slabs for use a general compacted fill, excavating processing, replacement and compaction of approximately 50,000 cubic yards of the fill soils containing low-concentration PAH constituents, and the excavation, placement and compaction of approximately 290,000 cubic yards of native sand & gravel soil to establish proposed design grades. Based on the non-cohesive character of the Site soils, the placement and compaction tasks will not be limited as significantly by the weather. As such, it is proposed that the Site earthwork proceed between approximately January 2024 and March 2024.

---

C. Confirm the proposed material management will comply with Wis. Admin. Code § NR 726.13 (1) (b) 1. through 5. \*

1. The reuse of the fill soils as engineered fill beneath approximately ten (10) to 30 feet of additional fill materials will not pose a threat to public health, safety, or welfare or the environment.
2. The native soils at the site consist primarily of well-draining non-cohesive soils. At present, the groundwater table is located approximately ten (10) to 20 feet below the existing ground surface. Precipitation would need to migrate through approximately 10 to 30 feet of newly placed soils prior to encountering the PAH soil-to-groundwater RCL exceedances and then migrate another ten (10) to 20 ft to reach the groundwater table. Therefore, we do not believe the reuse of the fill soils as proposed would cause a violation of a ch. NR 140 groundwater quality enforcement standard at any applicable point of standards application, except where the department has granted an exemption under s. NR 140.28 for a specific hazardous substance or the criteria under s. NR 726.05 (6) are met.
3. There are no natural surface water bodies located on or near the site; therefore, it is our opinion the reuse of the fill soils would not cause a violation of surface water quality standards in chs. NR 102 to 106.
4. The contaminants in the fill soils will be located approximately 10 to 30 feet beneath the proposed ground surface; therefore, it is our opinion the reuse of the fill soils would not cause a violation of air quality standards contained in chs. NR 400 to 499.
5. The contaminants in the fill soils consist of two (2) PAH constituents which will be located approximately 10 to 30 feet beneath the proposed ground surface; therefore, it is our opinion the reuse of the fill soils would not cause a vapor action level in indoor air to be attained or exceeded.

---

D. Describe any procedures that have been established, or methods that will be used, to identify previously undocumented contamination during the completion of this project (such as instrument field screening, visual inspections, etc.). Also describe any contingency procedures that have been established to address unexpected contamination.  
During these activities, an experienced environmental professional will be present to evaluate the fill soils for obvious visual or olfactory indications of contamination. If obvious indications of contamination are encountered, those soils will be segregated for further evaluation and offsite disposal. We propose to collect and analyze an additional 50 samples of the soil fills for PAH and metals content. Based on an estimate volume of 50,000 cy of fill soils to be excavated, processed and replaced and compacted, this results in a proposed sampling frequency of one (1) sample per 1,000 cy.

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**Recommended Template for Request to Manage Materials  
under Wis. Admin. Code § NR 718.12 or NR 718.15**

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- E. Summarize how the proposed management activities will prevent or minimize adverse environmental impacts and potential threats to human health and welfare, including worker safety, by assessing how all potential exposure and migration pathways of concern, including direct contact exposure, vapor intrusion, ground water, surface water, sediment and any other relevant pathway will be addressed by the proposed management.

At present, the fill soils containing the low-concentration PAH constituents is located at the ground surface with no barrier to prevent direct contact exposures and no vegetation to prevent erosion. Following completion of the Site redevelopment, the fill soils in question will be located approximately ten (10) to 30 feet below the proposed ground surface; thereby eliminating the direct contact exposure pathway.

As previously discussed, the groundwater at the Site is located approximately ten (10) to 20 feet below the existing ground surface; therefore, runoff would be required to migrate through approximately 50 feet of the soil profile to reach the groundwater table. Based on the relatively low concentrations of PAH constituents in the fill soils and the distance water would need to travel to come in contact with the contamination and reach the water table, it is our opinion the risk of groundwater impacts is near zero.

The contaminants of concern include PAH constituents. No VOC constituents were detected in any of the samples collected. As such it is our opinion the vapor intrusion exposure pathway is not complete. Furthermore, the fill soils containing low concentration PAH constituents will be placed approximately ten (10) to 30 feet below the proposed final grade, providing for sufficient clean aerated soils above the contamination to mitigate any potential vapor intrusion risks.

Finally, the earthwork required to excavate, process, replace and compact the fill soils will be performed with construction equipment. Based on the overall depth where the fill soils will be located post-development, there will be no need for any fine grading activities to occur; therefore, all work will be performed by heavy equipment operators in earthwork equipment. As such, the exposures to construction workers will be minimal to zero.

**Section 6 - Receiving site or facility information**

The following information is necessary for the DNR to review the request for compliance with Wis. Admin. Code §§ NR 718.12 (2) (c) 3. In this section, describe the site or facility receiving the material by addressing the following items. Narrative boxes have a limit of 2500 characters. Please attach additional pages if necessary, clearly labeling the section of the form to which you are responding.

- A. Briefly discuss the geology and hydrogeology of the receiving site(s) or facility(ies), including information from any previous remedial investigations, and well logs or well construction records from nearby wells. Please also provide the information requested below, indicating whether the response is based on regional or site-specific information. \*

According to potable well construction details for wells installed in the vicinity of the Site, the general geology in the area consists of primarily of sand and gravel with occasional sandy clay layers. The well construction logs indicate the sand and gravel extends to at least approximately 270 feet.

Depth to Bedrock (ft. below ground surface):	<u>500</u>	<input checked="" type="radio"/> Regional	<input type="radio"/> Site Specific
Bedrock Type:	<input type="radio"/> Sandstone	<input checked="" type="radio"/> Limestone / Dolomite	<input type="radio"/> Metamorphic / Igneous
High Groundwater Level (ft. below ground surface):	<u>50</u>	<input checked="" type="radio"/> Regional	<input type="radio"/> Site Specific
Groundwater Flow Direction:	<u>Southwest</u>	<input type="radio"/> Regional	<input checked="" type="radio"/> Site Specific

- B. Briefly describe any previous environmental site investigations or remedial actions conducted at the receiving site(s) or facility(ies). Describe the environmental condition of the portion of the receiving site(s) or facility(ies) where material will be placed including what contaminants are present, the environmental sampling conducted in that area, and whether identified contaminant concentrations exceed applicable standards. \*

Two (2) leaking underground storage tank (LUST) cases (BRRTS #: 03-68-001111 and 03-68-205411) were opened and subsequently closed with residual contamination remaining at the Site. While the two (2) LUST cases reference separate USTs, the area of the apparent contamination for both LUST cases coincided with the extreme southwesterly portion of the Site. Recent soil sampling completed in the vicinity of the closed LUST cases indicated the presence of elevated concentrations of ethylbenzene, naphthalene, trimethylbenzenes and total xylene at the SB-2 location at a depth of six (6) to seven and one-half (7.5) feet. The concentration of trimethylbenzenes exceeded its soil-to-groundwater RCL and the concentration of naphthalene exceeded its soil -to-groundwater pathway, non-industrial direct contact and direct contact RCLs.

**Recommended Template for Request to Manage Materials  
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The contamination is located greater than four (4) feet beneath the existing ground surface, and the area of the residual LUST contamination will be receiving additional fill to establish proposed grades; therefore, direct contact exposure risks associated with this area of contamination have been addressed. Due to the relatively high concentration of naphthalene detected, a sub-slab passive venting and barrier system will be installed beneath any proposed structures that overlie this area. Details regarding these plans will be submitted under separate cover as a Post-Closure Modification request.

C. Describe any environmentally sensitive areas at or near the receiving site(s) or facility(s) where the contaminated material will be managed.

None - site is a former sand & gravel quarry

D. Describe the historic, current and proposed land use of the receiving site(s) or facility(ies) where the contaminated soil or other solid waste will be managed. How are these site(s) or facility(ies) zoned?

Former sand & gravel quarry and concrete batch plant

E. Identify current uses of all properties adjacent to the receiving site or facility. Check all that apply.

Agricultural	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Industrial	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Recreational	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Residential	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Undeveloped	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Commercial	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Describe "other" property use below:

Church and cemetery located to the east  
Gas station proposed to the southwest

F. Describe any other features of this property not addressed above that influence the suitability of the receiving site(s) or facility(ies) for the disposal of the contaminated soil or other solid waste.

The Site is the location of a former sand & gravel quarry and concrete batch plant. The contaminated soil fill is the result of accepting excavation spoils from Village of Hartland sewer installation projects within the Village roadway right-of-ways. As these many of these roads are paved with asphalt, it is likely the contamination noted is the result of inclusions of small amounts of asphalt in the fill. Overall, the volume of the fill soils consists of approximately 12% of the total amount of material to be excavated, placed and compacted to establish ground surface elevations for the proposed redevelopment. Up to approximately 30-feet of fill will be placed in portions of the Site to establish the ground surface associated with the proposed redevelopment. Specifically, between ten (10) to 30-feet of fill will be placed in the area where the contaminated fill soils are currently located.

Based on the relatively low-level of contamination present and the amount of clean native soils to be placed over the contaminated fill soils, it is our opinion the reuse of these soils onsite will result in a condition that is protective of human health and the environment.

**Section 7 – Locational criteria**

The following information is necessary for the DNR to review the request for compliance with Wis. Admin. Code §§ NR 718.12 (1) (c). Indicate if excavated material will be placed in any of the following locations\*:

- Within a floodplain.
- Within 100 feet of any wetland or critical habitat area.
- Within 300 feet of any navigable river, stream, lake, pond, or flowage.
- Within 100 feet of any on-site water supply well or 300 feet of any off-site water supply well.

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- Within three (3) feet of the high groundwater level.
- At a depth greater than the depth of the original excavation from which the contaminated soil was removed.

If any of the above boxes are checked, an exemption from the indicated criteria must be requested as described below. If none of the above boxes are checked, and the proposed placement of material will not otherwise pose a threat to the public health, safety, or welfare or the environment, the proposed management activities will comply with the location criteria of Wis. Admin. Code § NR 718.12 (1) (c) and you may skip the following question.

Include an explanation of why granting an exemption to the Wis. Admin. Code § NR 718.12 (1) (c) locational criteria will not cause a threat to public health, safety, or welfare or the environment by assessing how all potential exposure and migration pathways of concern, including direct contact exposure, vapor intrusion, ground water, surface water, sediment and any other relevant pathway will be addressed by the proposed management. Consider the quantity and characteristics of the material being managed, the geologic and hydrogeological characteristics of the receiving site or facility, the unavailability of other environmentally suitable alternatives, and whether the activities will comply with other state and federal regulations including other portions of Wis. Admin. Code chs. NR 700 to NR 754.

**Section 8 – Additional information for non-metallic mine receiving sites or facilities**

If the material to be managed is proposed for use in reclaiming a non-metallic mine, the disposal of such a material must be specifically allowed in the mine's reclamation plan. If not, the reclamation plan needs to be modified prior to DNR approving the management of the contaminated soil at the mine. Complete this section if the proposed receiving site or facility is a non-metallic mine.

- A. Current depth to groundwater at facility (feet below ground surface): 250
- B. Has the facility been dewatered to allow mining?  Yes  No

If yes, indicate the expected natural groundwater level when dewatering is terminated (feet below ground surface):

- C. Is material proposed to be placed within 10 feet of the natural water table?  Yes\*  No

If yes, provide information to justify a variance approval under Wis. Admin. Code ch. NR 503.

- D. Include a copy of the reclamation plan indicating the placement of low level contaminated material is acceptable.
- E. Describe any design criteria established for the disposal site, include restrictions on material placement, engineered barrier requirements, etc.  
While the contaminated soils would be "capped" with clean native soils, the contaminated materials would ultimately be located beneath ten (10) to 30 ft of clean soils; therefore, rather than recommending a barrier maintenance plan be established, we recommend the continuing obligations be associated with limitations on the depths of excavations in the areas where the contaminated fills are placed and compacted.

**Section 9 – Continuing obligations at receiving site or facility**

The following information is necessary for the DNR to review the request for compliance with Wis. Admin. Code §§ NR 718.12 (2) (d) and (e). Check the applicable boxes to indicate which continuing obligations will be specifically required to address the material being managed on the receiving site or facility. The associated language will appear in the Wis. Admin. Code ch. NR 718 Approval Letter.

- No Continuing Obligations

## Recommended Template for Request to Manage Materials under Wis. Admin. Code § NR 718.12 or NR 718.15

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Residual Soil Contamination:

If contaminated soil managed under this material management plan is excavated in the future, the property owner at the time of excavation will be responsible for the following:

- determine if contamination is present,
- determine whether the material would be considered solid or hazardous waste,
- ensure that any storage, treatment or disposal is in compliance with applicable statutes and rules.

Contaminated soil may be managed in accordance with Wis. Admin. Code ch. NR 718, with prior DNR approval. In addition, all current and future property owners and occupants of the property and right-of-way holders need to be aware that excavation of the contaminated soil may pose a hazard and as a result special precautions may need to be taken during excavation activities to prevent a health threat to humans. A historic fill exemption is required prior to construction of any structures over fill materials.

Depending on site-specific conditions, construction over contaminated soils or groundwater may also result in vapor migration of contaminants into enclosed structures or migration along underground utility lines. The potential for vapor intrusion and means of mitigation should be evaluated when planning any future redevelopment, and measures should be taken to ensure the continued protection of public health, safety, welfare and the environment at the site.

Maintenance of a cover:

A soil cover/engineered cover/other has been placed over remaining contamination and this cover must be maintained. Inspections will be required, and submittal of inspection reports may be required. Certain activities which would disturb the cover or barrier will be prohibited. If the cover is approved for industrial land use, notification of the DNR is required before changing to a non-industrial use, to determine if the cover will be protective for that use. A maintenance plan is attached, which describes the maintenance activities to be required. If the DNR requires changes to the maintenance plan, an updated maintenance plan must be provided at the completion of the soil disposal action. A map is attached which shows the location of the extent of contaminated materials and the extent of the cover.

Use of Industrial Land Use Soil Standards:

Industrial soil standards have been applied for the site receiving the contaminated materials. The DNR must be notified if the property land use will change from industrial use to a non-industrial land use. Additional investigation and remediation may be required prior to the change in land use to ensure the site conditions are protective for the planned land use.

Vapor: Future Actions to Address Vapor Intrusion:

While vapor intrusion does not currently exist, if a building is constructed on this property, or reconstructed, or if use of a building is changed to a non-industrial use, vapor intrusion may be a concern. The DNR must be notified before construction of a building or changing the use of an existing building to non-industrial use. The use of vapor control technologies or an assessment of the potential for vapor intrusion will be required at that time.

Site specific condition:

Describe the site specific condition:

### Section 10 – Figures

Providing figures as part of the material management plan will allow DNR staff to more quickly evaluate the compliance of the request with the requirements of Wis. Admin. Code §§ NR 718.12 (1) and (2) and NR 718.15. The following are recommended figures to be submitted with this request.

The DNR recommends that all maps are drawn to scale not larger than 1 inch equal to 100 feet and labeled with the site or facility name and address. The location of the property and the specific disposal area should be provided in sufficient detail to allow DNR

## Recommended Template for Request to Manage Materials under Wis. Admin. Code § NR 718.12 or NR 718.15

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personnel to inspect these areas in the future. Providing a "cut/fill" map that clearly depicts how much material will be removed or added to different areas of the involved property(ies) and depicting how material will be moved across the site is also highly recommended. Providing cross sections that depict site conditions before and after material management activities is also recommended.

Attach appropriate figures to this form. Use the following checklist to ensure recommended items are included in the attached figures.

- The boundaries of each property involved in the project as well as named and unnamed roads or access points, buildings and other surface features, underground utilities, land uses on adjacent properties, and known and potential sources of hazardous substances.
- The location of wetlands, critical habitat areas, floodplains, surface water bodies, water supply wells, or other possible receptors located near or within the area where material will be managed.
- The lateral extent and depth of planned excavation, grading, or otherwise disturbed areas.
- The lateral extent and thickness of excavated material placement locations.
- Soil sample locations at the response action site and receiving site(s) or facility(ies). Depict applicable soil contaminant concentration data and sample depths. Indicate the extent of contamination exceeding a RCL.
- Depth to groundwater.
- The extent of any performance standards (such as a barrier or cap) that will be required at the completion of management activities.

### Section 11 - Additional Attachments

The following documents are recommended for inclusion with a Wis. Admin. Code § NR 718.12 or a Wis. Admin. Code § 718.15 request. Indicate which of these documents are included in this request by checking the boxes below.

- A table summarizing the analytical results of all soil/waste samples collected at the generating site or facility that meets the requirements of Wis. Admin. Code § 716.15 (4) (e). Clearly indicate which of these samples were collected from material that is proposed to be managed.
- The analytical package for all samples listed on the above table. The package should include the sample results, chain of custody, sampling methods, and QA/QC data.
- A maintenance plan for any performance standard needed to address the material proposed to be managed. The plan should follow the format found in DNR Form 4400-202, Attachment D.
- A copy of the reclamation plan for the receiving site or facility if it is a nonmetallic mine. Confirm the plan allows for acceptance of contaminated soil by marking relevant plan sections.
- Power of Attorney (if applicable, see Section 12).
- Deed for the property receiving the contaminated material. If a certified survey map or plat map is referenced by this deed then also include those documents.
- Provide a copy of a parcel map depicting the property(ies) boundaries.

**Recommended Template for Request to Manage Materials  
under Wis. Admin. Code § NR 718.12 or NR 718.15**

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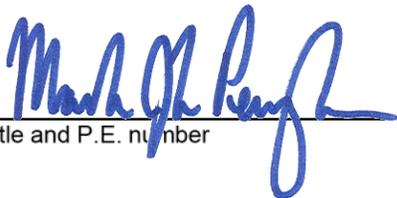
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**Section 12 - Certification Statements**

Wis. Admin. Code ch. NR 712, entitled "Personnel Qualifications for Conducting Environmental Response Actions," establishes minimum standards for experience and professional qualifications for persons who perform certain environmental services. All exemption requests submitted to manage contaminated soil or other solid waste as an interim action or remedial action under Wis. Admin. Code chs. NR 708 or NR 722 must be prepared by, or prepared under, the supervision of a professional engineer per Wis. Admin. Code ch. NR 712. The professional engineer who prepared or supervised this exemption request should complete the following section. This law applies to work conducted under Wis. Admin. Code ch. NR 718, unless specifically exempted.

Per Wis. Admin. Code § NR 712.09 (3) (a), the following certification shall be attached to any submittal that is required to be prepared by, or under the supervision of, a professional engineer under s. NR 712.07 (2), (3) or (5):

"I, Mark J.K. Penzkover, hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."



Signature, title and P.E. number



P.E.

In addition, if the work certified included investigation or evaluation of groundwater conditions, or groundwater related conclusions or recommendations, Wis. Admin. Code § NR 712.09 (3) (b) requires the following certification shall be attached to any submittal that is required to be prepared or to have its preparation supervised by a certified hydrogeologist under s. NR 712.07 (2), (4) or (5):

"I, Robert A. Cigale, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code, or licensed in accordance with the requirements of ch. GHSS 3, Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."



Signature and title

November 11, 2023

Date

**APPENDIX B**

VESTING DEED

CERTIFIED SURVEY MAP

WAUKESHA COUNTY, WI  
REGISTER OF DEEDS  
James R Behrend

Recorded On: 12/27/2019 1:49:46 PM  
Total Fee: \$30.00 Page(s): 3  
Transfer Tax: \$8,175.00

The above recording information verifies that  
this document has been electronically  
recorded and returned to the submitter.

State Bar of Wisconsin Form 1-2003  
WARRANTY DEED

Document Number \_\_\_\_\_ Document Name \_\_\_\_\_  
**THIS DEED**, made between Meyer Material Company, LLC, an Illinois limited liability company, formerly known as Meyer Material Company, an Illinois partnership ("Grantor," whether one or more), and 700 West Capitol Drive, LLC, a Wisconsin limited liability company \_\_\_\_\_ ("Grantee," whether one or more).

Grantor, for a valuable consideration, conveys to Grantee the following described real estate, together with the rents, profits, fixtures and other appurtenant interests, in Waukesha County, State of Wisconsin ("Property") (if more space is needed, please attach addendum):

See attached Exhibit A - Legal Description

Recording Area

Name and Return Address  
700 West Capitol Drive, LLC  
1422 Pearl Street  
Waukesha, WI 53186

See attached Exhibit A

Parcel Identification Number (PIN)

This is not homestead property.  
(is) (is not)

Grantor warrants that the title to the Property is good, indefeasible in fee simple and free and clear of encumbrances except: Municipal and zoning ordinances and agreements entered under them, recorded easements for the distribution of utility and municipal services, recorded building and use restrictions and covenants, and general taxes levied in the year of closing.

Dated December 20, 2019

Meyer Material Company, LLC

\_\_\_\_\_  
(SEAL) Matthew Dantine (SEAL)

\* By: Matthew Dantine, President

\_\_\_\_\_  
(SEAL) \_\_\_\_\_ (SEAL)

AUTHENTICATION

Signature(s) \_\_\_\_\_  
authenticated on \_\_\_\_\_

ACKNOWLEDGMENT

STATE OF Illinois )  
Kane COUNTY ) ss.

\*  
TITLE: MEMBER STATE BAR OF WISCONSIN  
(If not, \_\_\_\_\_  
authorized by Wis. Stat. § 706.06)

Personally came before me on December 18, 2019,  
the above-named Matthew Dantine

to me known to be the person(s) who executed the foregoing  
instrument and acknowledged the same.

THIS INSTRUMENT DRAFTED BY:

Knight Barry Title, Inc. / 1081723  
Elizabeth Scrivner, scrivener

**"OFFICIAL SEAL"**  
Patricia D Jones Bertucci PATRICIA D JONES BERTUCCI  
Notary Public, State of Wisconsin  
My Commission Expires 10/16/2021

(Signatures may be authenticated or acknowledged. Both are not necessary.)

NOTE: THIS IS A STANDARD FORM. ANY MODIFICATIONS TO THIS FORM SHOULD BE CLEARLY IDENTIFIED.

WARRANTY DEED

© 2003 STATE BAR OF WISCONSIN

FORM NO. 1-2003

\* Type name below signatures.

Knight-Barry File # 1081723

## EXHIBIT A

---

### Parcel A:

All that part of the Northwest 1/4 of Section 3, Town 7 North, Range 18 East, Village of Hartland, County of Waukesha, State of Wisconsin, bounded and described as follows:

Commencing at a point on the town line 705.37 feet West of the North 1/4 post of said Section 3; thence West on said section line 819.53 feet to a point; thence South 0° 23' West 1118.17 feet to a point; thence North 88° 21' East 466.6 feet to a point; thence South 0° 47' West 234 feet to a point; thence North 75° 51' East 90.5 feet to a point; thence North 65° 44' East 281.9 feet to a point; thence North 0° 54' East 1200.91 feet to the place of beginning.

EXCEPTING therefrom that part conveyed by Warranty Deed recorded as Document No. 882276.

### Parcel B:

All that part of the Northwest 1/4 of Section 3, Town 7 North, Range 18 East, Village of Hartland, County of Waukesha, State of Wisconsin, bounded and described as follows:

Commencing in the center of the old Milwaukee and Watertown Plank Road at its intersection with the West line of said Section 3; thence North on section line to the Southwest corner of lands heretofore deeded by J.H. Johnson and wife to Gustave Thiel; thence East on South line of said Thiel's land to the Southeast corner thereof; thence South of the West line of land conveyed to Merton Blodgett to the Southwest corner of said Blodgett's land; thence East on said Blodgett's South line to the West line of land owned by Lars Hansen; thence South on said West line of Lars Hansen's land to the center of Plank Road; thence Westerly along the center of said road to the place of beginning.

EXCEPTING therefrom that certain parcel on the South said thereof heretofore conveyed by H. Johnson and wife to Fred G. Simonds, by deed recorded in Volume 130 of Deeds on Page 255 as Document No. 74328.

FURTHER EXCEPTING therefrom those lands conveyed to Louis Hurtgen et ux by deed recorded in Volume 262 of Deeds on Page 613 as Document No. 219227.

FURTHER EXCEPTING therefrom those lands conveyed to State of Wisconsin/Department of Transportation, division of highways by deed recorded in Reel 66, Image 54 as Document No. 871726 and as corrected by deed recorded in Reel 79, Image 579 as Document No. 882105.

### Parcel C:

All that part of the Northwest 1/4 of Section 3, Town 7 North, Range 18 East, Village of Hartland, County of Waukesha, State of Wisconsin, described as follows:

Starting at a point that is 734.5 feet South 0° 27' West of a point on the North line of said Section 3, drawn 1525.2 feet West of the North 1/4 corner of said Section 3; thence South 0° 27' West 672.1 feet; thence South 76° 27' West 315.9 feet; thence North 0° 27' East 748.5 feet; thence East 306.6 feet to the place of beginning.

EXCEPTING therefrom those lands conveyed to State of Wisconsin/Department of Transportation, division of highways by deed recorded in Reel 66, Image 54 as Document No. 871726 and as corrected by deed recorded in Reel 79, Image 579 as Document No. 882105.

### Parcel D:

All that part of the Northwest 1/4 of Section 3, Town 7 North, Range 18 East, Village of Hartland, County of Waukesha, State of Wisconsin, bounded and described as follows, to-wit:

Beginning at a point 1054 feet West and 1104.26 feet South of the North 1/4 post of said Section; thence South 88° 18' West 468.2 feet; thence South 420.4 feet; thence North 74° 42' East 325.19 feet; thence North 3° West 111.4 feet; thence North 87° East 124.3 feet; thence North 3° West 29.5 feet; thence East 36 feet; thence North 210.24 feet more or less to the place of beginning.

## EXHIBIT A

### Parcel E:

All that part of the Northwest 1/4 of Section 3, Town 7 North, Range 18 East, Village of Hartland, County of Waukesha, State of Wisconsin, bounded and described as follows:

Starting at a point on the North line of said Section 3, 1525.2 feet West of the North 1/4 corner of said Section 3; thence South 0° 27' West 735.5 feet; thence West parallel to the North line of said Section 3, 306.6 feet; thence North 0° 27' East 735.5 feet; thence East along the said North line, 306.6 feet to the place of beginning.

EXCEPTING all that part of the Northwest 1/4 of Section 3, Town 7 North, Range 18 East, Town of Delafield, County of Waukesha, State of Wisconsin, bounded and described as follows:

Commencing at the North 1/4 corner of said Section 3, thence West along the section line and the centerline of a public road, 1603.00 feet to the point of beginning of lands herein described; thence South 0° 27' West 174.75 feet; thence West and parallel with the section line and the centerline of aforesaid road, 228.80 feet; thence North 0° 27' East 174.75 feet to the section line and centerline of said road; thence East along said centerline and section line 228.80 feet to the point of beginning.

Also excepting that part conveyed to the Village of Hartland by Warranty Deed recorded as Document No. 882276.

FURTHER EXCEPTING therefrom those lands conveyed to State of Wisconsin/Department of Transportation, division of highways by deed recorded in Reel 66, Image 54 as Document No. 871726 and as corrected by deed recorded in Reel 79, Image 579 as Document No. 882105.

### Parcel F:

That part of the Northwest 1/4 of Section 3, Town 7 North, Range 18 East, Village of Hartland, County of Waukesha, State of Wisconsin, bounded and described as follows:

Commencing at a point on the North line of said Northwest 1/4 of Section 3, said point being 165 feet West of the Stone land mark set at the North 1/4 corner of said Section 3; thence South and parallel with the 1/4 section line as now established 950 feet; thence South 60° 15' West 610 feet; thence North 1201 feet to a point on the North line of said Section, said point being 540 feet West of the place of beginning; thence East on said North line of Section 3 a distance of 540 feet to the place of beginning.

EXCEPTING therefrom those lands conveyed to Hartland Lutheran Cemetery Association by Warranty Deed recorded June 12, 1923 as Document No. 127765.

FURTHER EXCEPTING those lands conveyed to Maurice A. Reeves, Jr. by Deed recorded as Document No. 772613.

### Parcel G:

Part of the Northwest 1/4 of Section 3, Town 7 North, Range 18 East, Village of Hartland, County of Waukesha, State of Wisconsin, bounded and described as follows, to-wit:

Commencing at the North 1/4 post of said Section; thence West along the North line of said Section 1054 feet; thence South 1344 feet; thence West 36 feet; thence South 87° West 124.30 feet; thence South 3° East 111.40 feet; thence South 74° 42' West 221.52 feet to an iron pipe and place of beginning of the land hereinafter described; thence South 74° 42' West 103.67 feet to an iron pipe; thence South 255.67 feet to the center of a public highway; thence North 76° 20' East 102.91 feet along said highway; thence North 258.72 feet to the place of beginning.

For informational purposes only

Property Address: 644, 700 and 701 West Capitol Drive, Hartland, WI 53029

Tax Key No.: HAV 0730.981 (Parcel G), HAV 0730.985 (Parcels B & C), HAV 0730.986 (Parcel E) and HAV 0730.987 (Parcels A, D & F)

**Exhibit G**  
**Survey - ALTA + CSM**

# ALTA/NSPS LAND TITLE SURVEY

**CLIENT**  
Mandel Group

**SITE ADDRESS**  
700, 701 W. Capitol Drive, Village of Hartland, Waukesha County, Wisconsin.

**LEGAL DESCRIPTION**  
Parcel A:  
All that part of the Northwest One-quarter (1/4) of Section Three (3), Township Seven (7) North, Range Eighteen (18) East, Village of Hartland, County of Waukesha, State of Wisconsin, bounded and described as follows:  
Commencing at a point on the town line 705.37 feet West of the North 1/4 post of said Section 3; thence 3 West on said section line 819.53 feet to a point; thence South 0° 23' 21" West 1118.17 feet to a point; thence North 88° 21' East 466.6 feet to a point; thence South 0° 47' West 234 feet to a point; thence North 75° 51' East 90.5 feet to a point; thence North 65° 44' East 281.9 feet to a point; thence North 0° 54' East 1200.91 feet to the place of beginning.  
EXCEPTING therefrom that part conveyed by Warranty Deed recorded as Document No. 882276.

Parcel B:  
All that part of the Northwest One-quarter (1/4) of Section Three (3), Township Seven (7) North, Range Eighteen (18) East, Village of Hartland, County of Waukesha, State of Wisconsin, bounded and described as follows:  
Commencing in the center of the old Milwaukee and Watertown Plank Road at its intersection with the West line of said Section 3; thence North on section line to the Southwest corner of lands heretofore deeded by J.H. Johnson and wife to Gustave Thiel; thence East on South line of said Thiel's land to the Southeast corner thereof; thence South on the West line of land conveyed to Merton Blodgett to the Southwest corner of said Blodgett's land; thence East on said Blodgett's South line to the West line of land owned by Lars Hansen; thence South on said West line of Lars Hansen's land to the center of Plank Road; thence West along the center of said road to the place of beginning.  
EXCEPTING therefrom that certain parcel on the South said thereof heretofore conveyed by H. Johnson and wife to Fred G. Simonds, by deed recorded in Volume 130 of Deeds on Page 255 as Document No. 74328.  
FURTHER EXCEPTING therefrom those lands conveyed to Louis Hurtgen et ux by deed recorded in Volume 262 of Deeds on Page 613 as Document No. 219227.  
FURTHER EXCEPTING therefrom those lands conveyed to State of Wisconsin/Department of Transportation, division of highways by deed recorded in Reel 66, Image 54 as Document No. 871276 and as corrected by deed recorded in Reel 79, Image 579 as Document No. 882105.

Parcel C:  
All that part of the Northwest One-quarter (1/4) of Section Three (3), Township Seven (7) North, Range Eighteen (18) East, Village of Hartland, County of Waukesha, State of Wisconsin, bounded and described as follows:  
Starting at a point that is 734.5 feet South 0° 27' West of a point on the North line of said Section 3, drawn 1525.2 feet West of the North 1/4 corner of said Section 3; thence South 0° 27' West 672.1 feet; thence South 76° 27' West 315.9 feet; thence North 0° 27' East 748.5 feet; thence East 306.6 feet to the place of beginning.  
EXCEPTING therefrom those lands conveyed to State of Wisconsin/Department of Transportation, division of highways by deed recorded in Reel 66, Image 54 as Document No. 871276 and as corrected by deed recorded in Reel 79, Image 579 as Document No. 882105.

Parcel D:  
All that part of the Northwest One-quarter (1/4) of Section Three (3), Township Seven (7) North, Range Eighteen (18) East, Village of Hartland, County of Waukesha, State of Wisconsin, bounded and described as follows:  
Beginning at a point 1054 feet West and 1104.26 feet South of the North 1/4 post of said Section; thence South 88° 18' West 468.2 feet; thence South 42.0 feet; thence North 74° 42' East 325.19 feet; thence North 3° West 111.4 feet; thence North 87° East 124.3 feet; thence North 3° West 29.5 feet; thence East 36 feet; thence North 210.24 feet more or less to the place of beginning.

Parcel E:  
All that part of the Northwest One-quarter (1/4) of Section Three (3), Township Seven (7) North, Range Eighteen (18) East, Village of Hartland, County of Waukesha, State of Wisconsin, bounded and described as follows:  
Starting at a point on the North line of said Section 3, 1525.2 feet West of the North 1/4 corner of said Section 3; thence South 0° 27' West 735.5 feet; thence West parallel to the North line of said Section 3, 306.6 feet; thence North 0° 27' East 735.5 feet; thence South along the said North line, 306.6 feet to the place of beginning.  
EXCEPTING all that part of the Northwest One-quarter (1/4) of Section Three (3), Township Seven (7) North, Range Eighteen (18) East, Town of Delafield, County of Waukesha, State of Wisconsin, bounded and described as follows:  
Commencing at the North 1/4 corner of said Section 3, thence West along the section line and the centerline of a public road, 1603.00 feet to the point of beginning of lands herein described; thence South 0° 27' West 74.75 feet; thence West parallel with the section line and the centerline of aforesaid road, 228.80 feet; thence North 0° 27' East 174.75 feet to the section line and centerline of said road; thence East said centerline and section line 228.80 feet to the point of beginning.  
Also excepting that part conveyed to the Village of Hartland by Warranty Deed recorded as Document No. 882276.  
FURTHER EXCEPTING therefrom those lands conveyed to State of Wisconsin/Department of Transportation, division of highways by deed recorded in Reel 66, Image 54 as Document No. 871276 and as corrected by deed recorded in Reel 79, Image 579 as Document No. 882105.

Parcel F:  
That part of the Northwest One-quarter (1/4) of Section Three (3), Township Seven (7) North, Range Eighteen (18) East, Village of Hartland, County of Waukesha, State of Wisconsin, bounded and described as follows:  
Commencing at a point on the North line of said Northwest 1/4 of Section 3, said point being 165 feet West of the Stone land mark set at the North 1/4 corner of said Section 3; thence South and parallel with the 1/4 section line as now established 950 feet; thence South 60° 15' West 610 feet; thence North 1201 feet to a point on the North line of said Section, said point being 540 feet West of the place of beginning; thence East on said North line of Section 3 a distance of 540 feet to the place of beginning.  
EXCEPTING therefrom those lands conveyed to Hartland Lutheran Cemetery Association by Warranty Deed recorded June 12, 1923 as Document No. 127765.  
FURTHER EXCEPTING those lands conveyed to Maurice A. Reeves, Jr. by Deed recorded as Document No. 772613.

**PARCEL G:**  
All that part of the Northwest One-quarter (1/4) of Section Three (3), Township Seven (7) North, Range Eighteen (18) East, Village of Hartland, County of Waukesha, State of Wisconsin, bounded and described as follows:  
Commencing at the North 1/4 post of said Section; thence West along the North line of said Section 1054 feet; thence South 134.4 feet; thence West 36 feet; thence South 87° West 124.30 feet; thence South 3° East 111.40 feet; thence South 221.52 feet to an iron pipe and place of beginning of the land hereinafter described; thence South 74° 42' West 103.67 feet to an iron pipe; thence South 255.67 feet to the center of a public highway; thence North 76° 20' East 102.91 feet along said highway; thence North 258.72 feet to the place of beginning.

**TO BE KNOWN AS LOT 1 AND LOT 2 OF CERTIFIED SURVEY MAP NO. \_\_\_\_\_**

**TABLE "A" ITEMS**

- According to the flood insurance rate map of the County of Waukesha, Community Panel No. 55133C0176H, effective date of November 5, 2014, this site falls in Zone X (Areas determined to be outside the 0.2% annual chance floodplain).
- The Land Area of the subject property is 2,079,746 square feet or 47,744.4 acres.
- There are 19 regular parking spaces and 0 handicap space marked on this site.
- (b) Evidence of underground utilities existing on or serving the surveyed property as determined by markings requested by the surveyor pursuant to a Diggers Hotline One-call center utility locate. Ticket Number 20224507505 & 20224507513. However, lacking excavation, the exact location of underground features cannot be accurately, completely, and reliably depicted. Client understands only utility lines with imbedded electric tracer wires or utilities made of materials capable of electric connectivity can be marked at the surface and located. Depth of utilities may prohibit their location even with electric connectivity.
- There is no visible evidence of earth moving, building construction or building additions within recent months.
- There are no changes in street right of way lines either completed or proposed, and available from the controlling jurisdiction. Observable evidence of recent street or sidewalk construction or repairs if any, is shown.
- (a) List the current zoning classification, setback requirements, the height and floor space area restrictions, and parking requirements, if any. Identify the date and source of the zoning information.

The zoning information noted below is taken from the municipal code ordinance. It does not reflect all zoning restrictions that may apply. It is not intended to be used in lieu of a comprehensive zoning report as stated in ALTA Table A Item 6(a) nor to be relied on for site development purposes.

Municipal Code: Sec. 46-627. - Yards. (See also section 46-926.)  
Site is zoned: Q-1 (Quarrying/Extractive)  
Yard regulations in the Q-1 district shall be as follows:

- The extractive operation shall have a minimum yard of 200 feet from the right-of-way line of all highways, streets or roads and all exterior property lines.
- Uses accessory to the extractive operations such as offices, parking and unloading areas and stockpiles of materials shall be set back a minimum of 100 feet from the right-of-way line of all highways or roads and all property lines.
- Shore yard: See section 46-16.

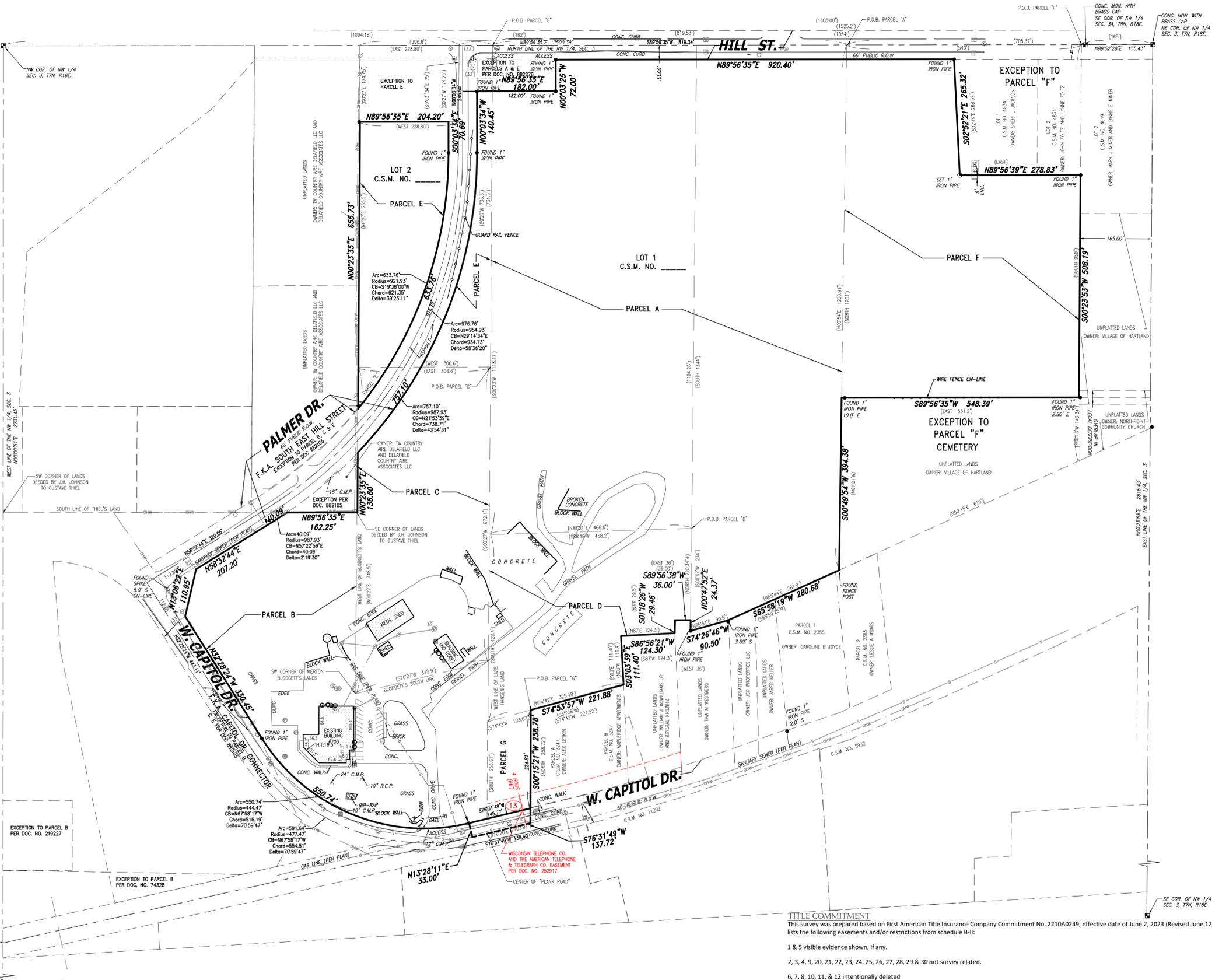
Sec. 46-626. - Building height. (See also section 46-926.)  
No structure, building or parts of a building in the Q-1 district shall exceed 75 feet in height above the original land elevation of the parcel.

TO: Matt Burrow and Mandel Group Properties LLC, or assigns  
First American Title Insurance Company

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes items 1, 2, 3, 4, 6, 7(a), 7(b)(1), 7(c), 8, 9, 11(a), 11(b), 13, 16, 17, 18, 19, and 20(b) of Table A thereof. The field work was completed on January 9, 2023.

Date of Map: January 10, 2023

Signature: Donald C. Chapat  
Professional Land Surveyor  
Registration Number S-1316  
MILWAUKEE, WI

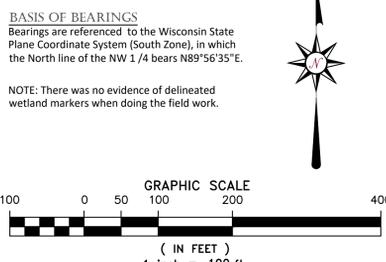
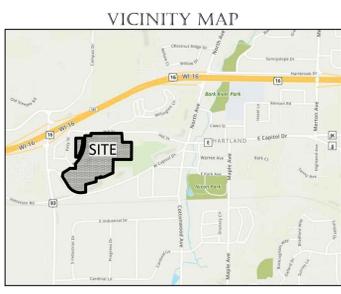


**TITLE COMMITMENT**  
This survey was prepared based on First American Title Insurance Company Commitment No. 2210A0249, effective date of June 2, 2023 (Revised June 12, 2023) which lists the following easements and/or restrictions from schedule B-II:

- 1 & 5 visible evidence shown, if any.
- 2, 3, 4, 9, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29 & 30 not surveyed related.
- 6, 7, 8, 10, 11, & 12 intentionally deleted
- Utility Easement recorded on November 14, 1942 in Volume 331 of Deeds on Page 77, as Document No. 252917. **Affects property by location, shown.**
- Utility Easement recorded on December 12, 1945 in Volume 389 of Deeds on Page 443, as Document No. 281221. **Affects property by location, blanket type.**
- Utility Easement recorded on October 30, 1947 in Volume 453 of Deeds on Page 199, as Document No. 307283. **Affects property by location, blanket type.**
- Utility Easement recorded on April 12, 1955 in Volume 661 of Deeds on Page 602, as Document No. 413799. **Affects property by location, shown.**
- Ground Water Use Restriction recorded on July 20, 2001 as Document No. 2678597. **Affects property by location, blanket type.**
- Conditional Use Permit (Meyer Material/Lafarge Aggregates - 700 W. Capitol Drive) recorded on August 9, 2018 as Document No. 4354978 and modified by Amended Conditional Use Permit (Meyer Material/Lafarge Aggregates - 700 W. Capitol Drive) recorded on October 18, 2018 as Document No. 4366693. **Affects property by location, blanket type.**
- Conditional Use Permit (Ozinga Ready Mix Concrete, Inc. - 700 W. Capitol Drive) recorded on October 18, 2018 as Document No. 4366694. **Affects property by location, blanket type.**
- Informational Note: (a) Warranty Deed recorded on December 27, 2019 as Document No. 4444456 - Vesting Deed
- Matters referenced on an ALTA/NSPS Land Title Survey prepared by Chaput Land Surveys, dated \_\_\_\_\_, 2022, as Drawing No. 3263-far-grb, as follows:
  - Overlap of legal descriptions along the East property line and also the Western portion of insured premises.
  - Overlap of legal descriptions along the East property line of the insured premises (Parcel F) and West property line of the cemetery.

**LEGEND**

● INDICATES FOUND 1" IRON PIPE	○ WALL INDICATOR VALVE	▲ MARSH
○ INDICATES SET 1" IRON PIPE	⊕ POST INDICATOR VALVE	▲ FLAGPOLE
⊕ INDICATES FOUND CHEELED CROSS	⊕ LIGHT POLE	▲ PARKING METER
⊕ SANITARY MANHOLE	⊕ SPOT/YARD LIGHT	▲ SIGN
⊕ SANITARY CLEANOUT OR VENT	⊕ UTILITY POLE	▲ MAILEBOX
⊕ SEPTIC TANK ACCESS COVER	⊕ GUY POLE	▲ RAILROAD CROSSING SIGNAL
⊕ M.I.S. MANHOLE	⊕ GUY WIRE	▲ HANDICAP SPACE
⊕ UNKNOWN MANHOLE	⊕ ELECTRIC MANHOLE	▲ CONFERIOUS TREE
⊕ STORM MANHOLE	⊕ ELECTRIC PEDESTAL	▲ DECIDUOUS TREE
⊕ INLET (ROUND)	⊕ ELECTRIC METER	▲ SANITARY SEWER
⊕ INLET (SQUARE)	⊕ TELEPHONE MANHOLE	▲ STORM SEWER
⊕ CURB INLET	⊕ TELEPHONE PEDESTAL	▲ WATERLINE
⊕ GAS VALVE	⊕ CABLE PEDESTAL	▲ MARKED GAS MAIN
⊕ GAS MANHOLE	⊕ CONTROL BOX	▲ MARKED ELECTRIC
⊕ GAS METER	⊕ FIBER OPTIC PEDESTAL/SIGN	▲ OVERHEAD WIRES
⊕ TRAFFIC LIGHT	⊕ MARKED CABLE TV LINE	▲ MARKED TELEPHONE
⊕ HYDRANT	⊕ MARKED FIBER OPTIC	▲ MARKED CABLE TV LINE
⊕ WATER MANHOLE	⊕ BURIED ELECTRIC SERVICE	▲ BOARD FENCE
⊕ WATER SERVICE CURB STOP	⊕ SOIL BORING/MONITORING WELL	▲ WIRE FENCE
⊕ WELL HEAD	⊕ WATER SURFACE	
⊕ STAND PIPE	⊕ WETLANDS FLAG	



**CHAPUT LAND SURVEYS**  
234 W. Florida Street  
Milwaukee, WI 53204  
414-224-8066  
www.chaputlandsurveys.com

Date	Revision description	
May 15, 2023	Boundary	deb
May 24, 2023	Area-Boundary	deb
June 8, 2023	Area-Boundary	grb
June 14, 2023	updated title commitment	grb

This document is an instrument of professional service, and may be protected by the attorney work product doctrine or attorney-client privilege. The information shown hereon is intended solely for the use of the client and third parties. Drawing No. 3263-far-grb

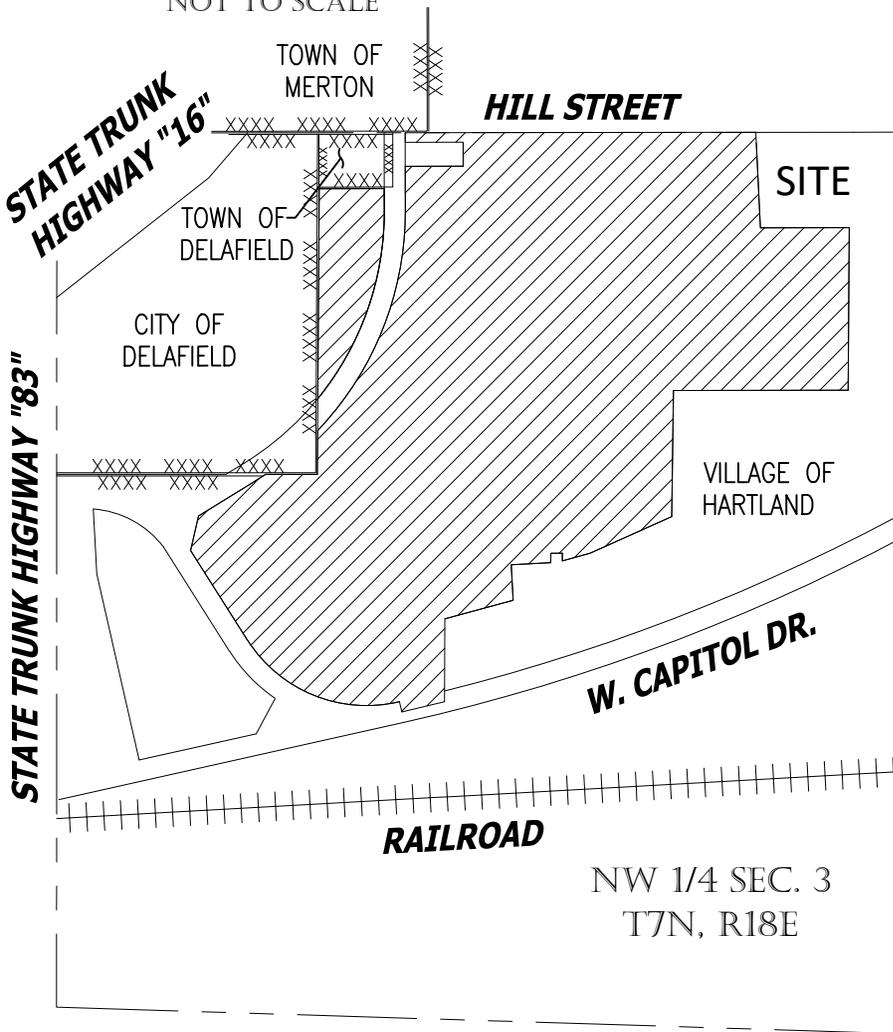
CHAPUT LAND SURVEYS

# CERTIFIED SURVEY MAP NO. \_\_\_\_\_

Being a part of the Northeast 1/4, Southeast 1/4, Southwest 1/4 and Northwest 1/4 of the Northwest 1/4 of Section 3, Township 7 North, Range 18 East, Village of Hartland, Waukesha County, Wisconsin.

## VICINITY MAP

NOT TO SCALE



ZONING  
Q-1 (Quarrying/Extractive)  
TAX KEY NO.:  
HAV 0730981  
HAV 0730985  
HAV 0730986  
HAV 0730987

### NOTES:

1. All measurements have been made to the nearest one-hundredth of a foot.
2. All angular measurements have been made to the nearest one second.
3. Bearings are referenced to the Wisconsin State Plane Coordinate System (South Zone), in which the North line of the NW 1/4 bears N89°56'35"E.
4. According to the flood insurance rate map of the County of Waukesha, Community Panel No. 55133C0176H, effective date of November 5, 2014, this site falls in Zone X (Areas determined to be outside the 0.2% annual chance floodplain)

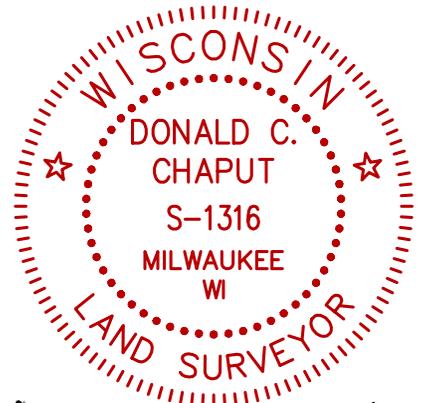
# CHAPUT LAND SURVEYS

234 W. Florida Street  
Milwaukee, WI 53204

414-224-8068  
www.chaputlandsurveys.com

This instrument drafted by Donald C. Chaput, PLS-License No. S-1316

Prepared for:  
700 WEST CAPITOL DRIVE LLC  
1422 Pearl Street  
Waukesha, WI 53186



*Donald C. Chaput*

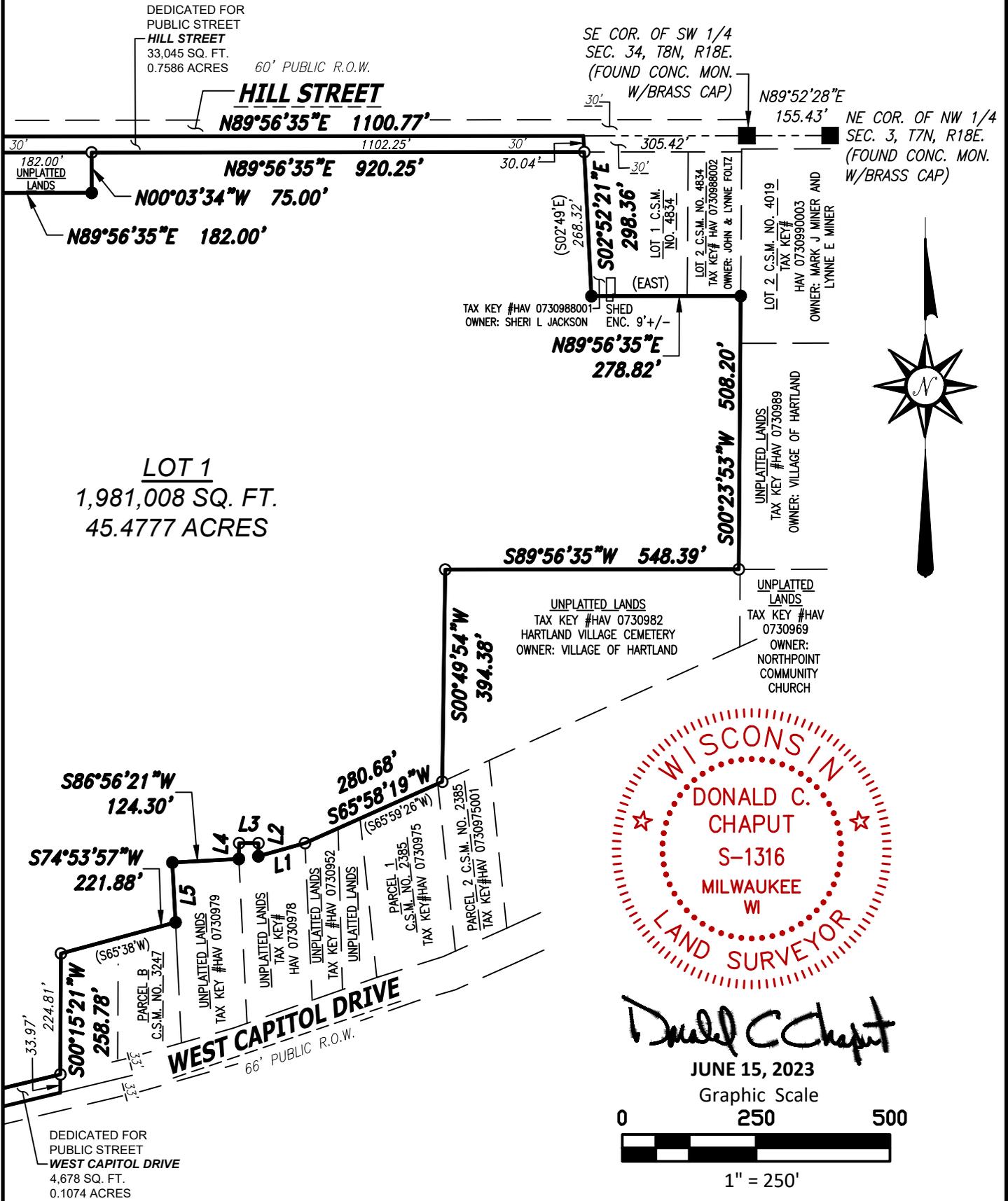
JUNE 15, 2023

DRAFTED BY: ST  
JOB#3263.00  
SHEET 1 OF 7



# CERTIFIED SURVEY MAP NO. \_\_\_\_\_

Being a part of the Northeast 1/4, Southeast 1/4, Southwest 1/4 and Northwest 1/4 of the Northwest 1/4 of Section 3, Township 7 North, Range 18 East, Village of Hartland, Waukesha County, Wisconsin.



# CHAPUT

## LAND SURVEYS

234 W. Florida Street  
 Milwaukee, WI 53204  
 414-224-8068  
 www.chaputlandsurveys.com

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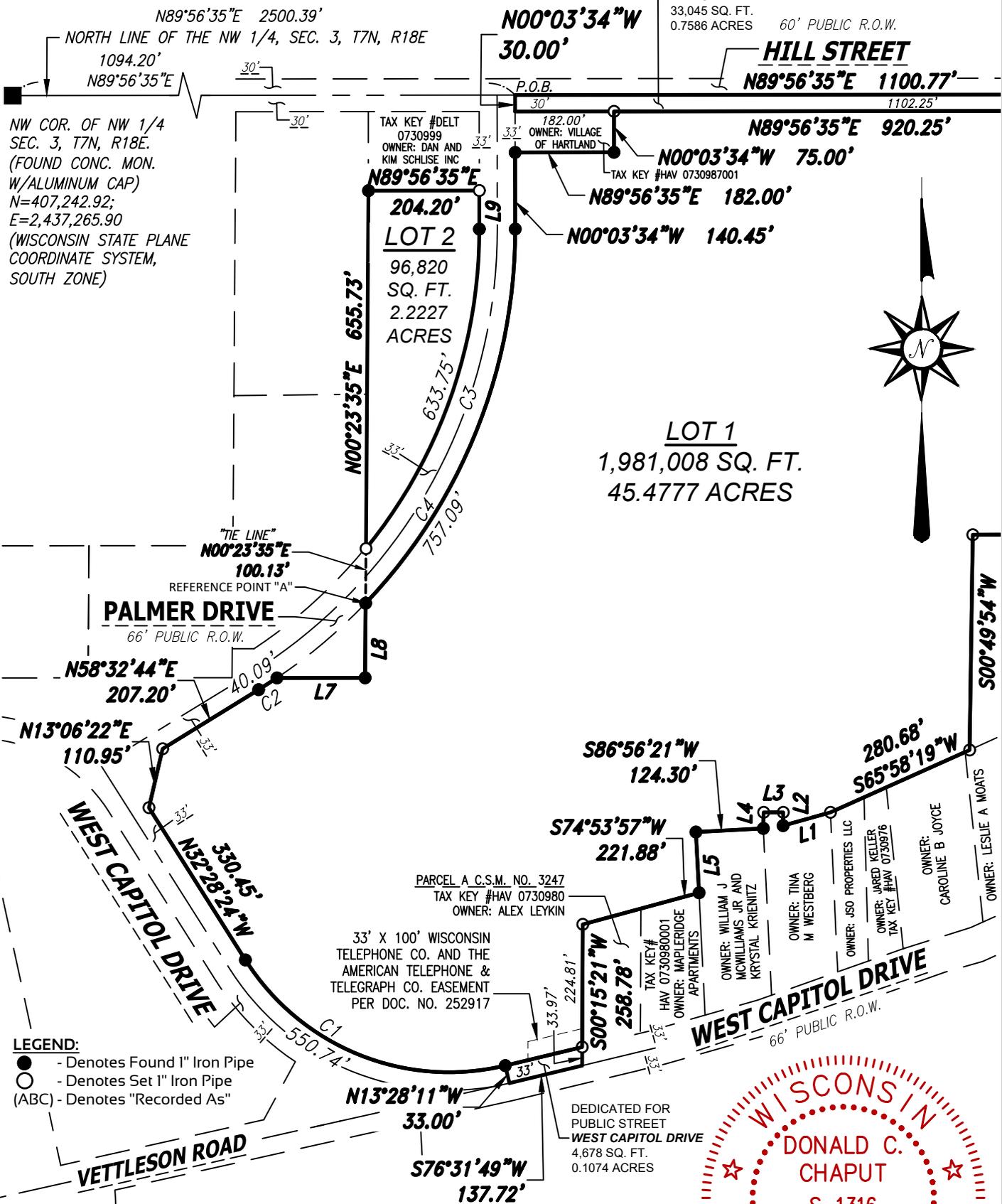
JOB#3263.00  
 SHEET 3 OF 7

# CERTIFIED SURVEY MAP NO. \_\_\_\_\_

Being a part of the Northeast 1/4, Southeast 1/4, Southwest 1/4 and Northwest 1/4 of the Northwest 1/4 of Section 3, Township 7 North, Range 18 East, Village of Hartland, Waukesha County, Wisconsin.

## RECORDED EASEMENT SHOWN FOR REFERENCE ONLY

DEDICATED FOR PUBLIC STREET  
HILL STREET  
33,045 SQ. FT.  
0.7586 ACRES



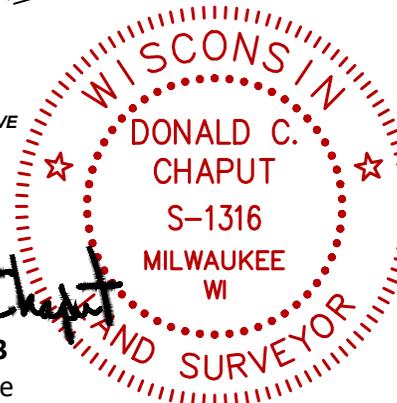
# CHAPUT LAND SURVEYS

234 W. Florida Street  
Milwaukee, WI 53204

414-224-8068  
www.chaputlandsurveys.com

This instrument drafted by Donald C. Chaput, PLS-License No. S-1316

*Donald C. Chaput*  
JUNE 15, 2023  
Graphic Scale  
0 250 500  
1" = 250'



JOB#3263.00  
SHEET 4 OF 7

# CERTIFIED SURVEY MAP NO. \_\_\_\_\_

Being a part of the Northeast 1/4, Southeast 1/4, Southwest 1/4 and Northwest 1/4 of the Northwest 1/4 of Section 3, Township 7 North, Range 18 East, Village of Hartland, Waukesha County, Wisconsin.

## SURVEYOR'S CERTIFICATE

STATE OF WISCONSIN)  
:SS  
MILWAUKEE COUNTY)

I, DONALD C. CHAPUT, Professional Land Surveyor, do hereby certify:

THAT I have surveyed, mapped and divided that part of the Northeast 1/4, Southeast 1/4, Southwest 1/4 and Northwest 1/4 of the Northwest 1/4 of Section 3, Township 7 North, Range 18 East, Village of Hartland, Waukesha County, Wisconsin, described as follows:

Commencing at the northwest corner of the Northwest 1/4 of said Section 3; thence North 89°56'35" East along the north line of said Northwest 1/4 section, 1094.20 feet to the Point of Beginning of lands described hereinafter;

Thence continuing North 89°56'35" East along said north line, 1100.77 feet; thence South 02°52'21" East along the west line of Certified Survey Map No. 4834 a distance of, 298.36 feet; thence North 89°56'35" East along the south line of said Certified Survey Map, 278.82 feet; thence South 00°23'53" West, 508.20 feet; thence South 89°56'35" West, 548.39 feet; thence South 00°49'54" West, 394.38 feet to the north line of Certified Survey Map No. 2385; thence South 65°58'19" West along said north line, 280.68 feet; thence South 74°26'46" West, 90.50 feet; thence North 00°47'52" East, 24.37 feet; thence South 89°56'38" West, 36.00 feet; thence South 01°18'26" West, 29.46 feet; thence South 86°56'21" West, 124.30 feet; thence South 03°03'39" East, 111.40 feet to the north line of Certified Survey Map No. 3247; thence South 74°53'57" West along said north line, 221.88 feet; thence South 00°15'21" West along the west line of said Certified Survey Map, 258.78 feet to the centerline of West Capitol Drive; thence South 76°31'49" West along said centerline, 137.72 feet; thence North 13°28'11" West, 33.00 feet to the north right of way line of said West Capitol Drive and a point of curvature; thence northeasterly 550.74 feet along the arc of said curve to the right and said north right of way line, whose radius is 444.46 feet and whose chord bears North 67°58'17" West, 516.18 feet; thence North 32°28'24" West along said north right of way line, 330.45 feet; thence North 13°06'22" East, 110.95 feet to the southeasterly right of way line of Palmer Drive; thence North 58°32'44" East along said southeasterly right of way line, 207.20 feet to a point of curvature; thence northeasterly 40.09 feet along the arc of said curve to the left and said southeasterly right of way line, whose radius is 987.93 feet and whose chord bears North 57°22'59" East, 40.09 feet; thence North 89°56'35" East, 162.25 feet; thence North 00°23'35" East, 136.60 feet to the aforesaid southeasterly right of way line of Palmer Drive to Reference Point "A" and a point on a curve; thence northeasterly 757.09 feet along the arc of said curve to the left and said southeasterly right of way line, whose radius is 987.93 feet and whose chord bears North 21°53'40" East, 738.70 feet; thence North 00°03'34" West, 140.45 feet; thence North 89°56'35" East, 182.00 feet; thence North 00°03'34" West, 75.00 feet; thence South 89°56'35" West, 182.00 feet; thence North 00°03'34" West, 30.00 feet to the Point of Beginning.

Also

Beginning at Reference Point "A"; thence North 00°23'35" East along a "Tie Line", 100.13 feet to the northwesterly right of way line of Palmer Drive and the Point of Beginning of lands described hereinafter; thence continuing North 00°23'35" East, 655.73 feet; thence North 89°56'35" East, 204.20 feet to the aforesaid northwesterly right of way line of Palmer Drive; thence South 00°03'34" East along said right of way line, 70.70 feet to a point of curvature; thence southwesterly 633.75 feet along the arc of said curve to the right and said northwesterly right of way line, whose radius is 921.93 feet and whose chord bears South 19°38'01" West, 621.34 feet to the Point of Beginning.

Containing 2,115,551 square feet (48.5664 acres) of land Gross and 2,077,828 square feet (47.7004 acres) of land Net more or less.

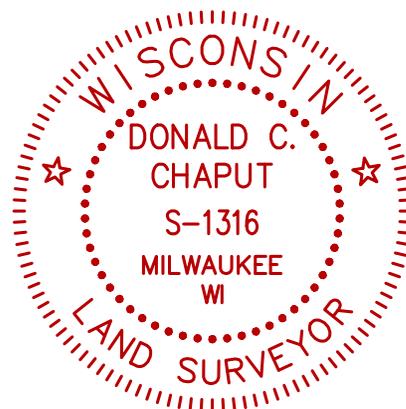
THAT I have made such survey, land division and map by the direction of 700 WEST CAPITOL DRIVE LLC, owner of said land.

THAT such map is a correct representation of all the exterior boundaries of the land surveyed and the land division thereof made.

THAT I have fully complied with the requirements of Chapter 236 of the Wisconsin State Statutes and the Village of Hartland Land Division Ordinance in surveying, mapping and dividing the land within the certified survey map.



DONALD C. CHAPUT  
PROFESSIONAL LAND SURVEYOR S-1316



Date: June 15, 2023

**CHAPUT**  
**LAND SURVEYS**

234 W. Florida Street 414-224-8068  
Milwaukee, WI 53204 www.chaputlandsurveys.com

This instrument drafted by Donald C. Chaput, PLS-License No. S-1316

JOB#3263.00  
SHEET 5 OF 7

CERTIFIED SURVEY MAP NO. \_\_\_\_\_

Being a part of the Northeast 1/4, Southeast 1/4, Southwest 1/4 and Northwest 1/4 of the Northwest 1/4 of Section 3, Township 7 North, Range 18 East, Village of Hartland, Waukesha County, Wisconsin.

OWNER'S CERTIFICATE OF DEDICATION

700 WEST CAPITOL DRIVE LLC, a Limited Liability Company duly organized and existing under and by virtue of the laws of the State of Wisconsin, as owner, does hereby certify that said limited liability company caused the land described on this certified survey map to be surveyed, divided, mapped and dedicated as represented on this certified survey map in accordance with the requirements of the Village of Hartland.

700 WEST CAPITOL DRIVE LLC, as owner, does further certify that this certified survey map is required by s.236.34 of the Wisconsin State Statutes to be submitted to the following for approval: Village of Hartland

IN WITNESS WHEREOF, the said 700 WEST CAPITOL DRIVE LLC has caused these presents to be signed by (name - print) \_\_\_\_\_, (title) \_\_\_\_\_, at (city) \_\_\_\_\_, \_\_\_\_\_ County, Wisconsin, on this \_\_\_\_\_ day of \_\_\_\_\_, 2023.

In the presence of: 700 WEST CAPITOL DRIVE LLC

\_\_\_\_\_  
Name (signature) - Title

STATE OF WISCONSIN)  
\_\_\_\_\_ COUNTY ) SS

Personally came before me this \_\_\_\_\_ day of \_\_\_\_\_, 2023, (name) \_\_\_\_\_, (title) \_\_\_\_\_, of the above named limited liability company, to me known to be the person who executed the foregoing instrument, and to me known to be such \_\_\_\_\_ (title) of said limited liability company, and acknowledged that they executed the foregoing instrument as such officer as the deed of said limited liability, by its authority.

\_\_\_\_\_  
Notary Public  
Name: \_\_\_\_\_  
State of Wisconsin  
My Commission Expires: \_\_\_\_\_

CONSENT OF CORPORATE MORTGAGEE

\_\_\_\_\_, a corporation duly organized and existing under and by virtue of the laws of the State of Wisconsin, mortgagee of the above described land, does hereby consent to the surveying, dividing, mapping and dedication of the land described in the forgoing affidavit of Donald C. Chaput, surveyor, and does hereby consent to the above certification of owners.

IN WITNESS WHEREOF, the said \_\_\_\_\_, has caused these presents to be signed by \_\_\_\_\_, its \_\_\_\_\_, and its corporate seal to be hereunto affixed this \_\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
Date Name - Title

STATE OF WISCONSIN)  
\_\_\_\_\_ COUNTY) SS

Personally came before me this \_\_\_\_\_ day of \_\_\_\_\_, 2023, \_\_\_\_\_, to me known to be the person who executed the foregoing instrument and to me known to be such officer of said corporation and acknowledged the same.

\_\_\_\_\_  
Notary Public  
Name: \_\_\_\_\_  
State of Wisconsin  
My Commission Expires: \_\_\_\_\_



*Donald C. Chaput*

JUNE 15, 2023

**CHAPUT**  
**LAND SURVEYS**

234 W. Florida Street 414-224-8068  
Milwaukee, WI 53204 www.chaputlandsurveys.com

This instrument drafted by Donald C. Chaput, PLS-License No. S-1316

JOB#3263.00  
SHEET 6 OF 7

# CERTIFIED SURVEY MAP NO. \_\_\_\_\_

Being a part of the Northeast 1/4, Southeast 1/4, Southwest 1/4 and Northwest 1/4 of the Northwest 1/4 of Section 3, Township 7 North, Range 18 East, Village of Hartland, Waukesha County, Wisconsin.

### PLAN COMMISSION APPROVAL

Approved by the Plan Commission of the Village of Hartland on this \_\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
Jeffrey Pfannerstill, Chairman

\_\_\_\_\_  
Darlene Igl, Clerk

### VILLAGE BOARD APPROVAL

Approved by the Village Board of the Village of Hartland on this \_\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
Jeffrey Pfannerstill, President

\_\_\_\_\_  
Darlene Igl, Village Clerk



*Donald C. Chaput*

JUNE 15, 2023

### CURVE TABLE

CURVE NO.	LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD LENGTH	TANGENT IN	TANGENT OUT
C1	550.74'	444.46'	070°59'47"	N67°58'17"W	516.18'	S76°31'49"W	N32°28'24"W
C2	40.09'	987.93'	002°19'30"	N57°22'59"E	40.09'	N58°32'44"E	N56°13'14"E
C3	633.75'	921.93'	039°23'09"	S19°38'01"W	621.34'	S00°03'34"E	S39°19'35"W
C4	757.09'	987.93'	043°54'29"	N21°53'40"E	738.70'	N43°50'55"E	N00°03'34"W

### LINE TABLE

LINE NO.	BEARING	DISTANCE
L1	S74°26'46"W	90.50'
L2	N00°47'52"E	24.37'
L3	S89°56'38"W	36.00'
L4	S01°18'26"W	29.46'
L5	S03°03'39"E	111.40'
L6	S76°31'49"W	145.78'
L7	N89°56'35"E	162.25'
L8	N00°23'35"E	136.60'
L9	S00°03'34"E	70.70'

CHAPUT

LAND SURVEYS

234 W. Florida Street      414-224-8068  
Milwaukee, WI 53204      www.chaputlandsurveys.com

This instrument drafted by Donald C. Chaput, PLS-License No. S-1316

JOB#3263.00  
SHEET 7 OF 7

# Endpoint Solutions

6871 South Lovers Lane  
Franklin, WI 53132  
Telephone: (414) 427-1200  
Fax: (414) 427-1259  
[www.endpointcorporation.com](http://www.endpointcorporation.com)

Mr. David Hanson  
Wisconsin Department of Natural Resources  
1027 West St. Paul Avenue  
Milwaukee, WI 53233

January 23, 2024

**Subject: Revised Post Closure Modification Request**  
Hartland Quarry Apartments  
Hartland, Wisconsin  
BRRTS #: 03-68-001111 & 03-68-205411/FID #: 268554330

Dear David:

This Revised Post-Closure Modification (PCM) Request is being submitted per the recommendations made during a telephone conference with Wisconsin Department of Natural Resources (WDNR) staff on January 22, 2024, in regards to the closed leaking underground storage tank (LUST) cases (BRRTS Nos. 03-68-001111 and 03-68-205411) at 700 West Capitol Drive, in the Village of Hartland, Waukesha County, Wisconsin (the "Site" or "subject property"). The Site consists of two (2) contiguous parcels parcel identified as 700 West Capitol Drive and 701 West Capitol Drive, in the Village of Hartland, Waukesha County, Wisconsin (the "Site"). The Site encompasses approximately 44.9-acres. The location of the Site is depicted on **Figure 1**.

The subject property is the former location of the Hartland Quarry, as well as the Tews and LaFarge concrete batch plants. Palmer Sand & Gravel reportedly mined sand and gravel for use as road gravel from the subject property from the 1930s to the 1960s. Once the easily accessible deposits of road gravel were removed, operation of the subject property transitioned to use as a concrete batch plant.

## PROPOSED DEVELOPMENT PLAN

Three Leaf Partners is proposing to redevelop the subject property with a total of ten (10) stacked flats (SF) apartment buildings containing 24 units in each, ten (10) detached garages, three (3) townhouse (TH) buildings with nine (9) units in each, a club house with a pool and five (5) stormwater control ponds. All of the townhouse and stacked flat buildings are designed as slab-on-grade structures with integrated attached garage spaces for two (2) vehicles per townhouse unit and one (1) vehicle for eight (8) of the 24 units in each of the stacked flat buildings. Each stacked flat building will also include a detached garage with room for 14 vehicles. The proposed redevelopment will also include paved parking and drive areas, as well as landscaped areas between the structures.

## PAST ENVIRONMENTAL RELEASE LISTINGS

The 700 West Capitol Drive parcel of the subject property is identified on the Wisconsin Department of Natural Resources (WDNR) Bureau for Remediation and Redevelopment Tracking System (BRRTS) database as being the location of two (2) closed leaking underground storage tank (LUST) cases (BRRTS Nos. 03-68-001111 and 03-68-205411) and one (1) closed environmental repair program (ERP) case (BRRTS No. 02-68-118316). This portion of the Site was historically operated as a concrete batching

plant and is currently utilized by BSIT, a bulk aggregate transportation company. A summary of the closed LUST and ERP cases is provided below.

**BRRTS No. 03-68-001111 – CLOSED LUST CASE**

This LUST case was opened on October 26, 1990, following the removal of one (1) 10,000-gallon diesel fuel UST. According to documentation included in the WDNR case file, the 10,000-gallon diesel UST was located to the west of the cement silo in the southwest portion of the subject property. Obvious indications of contamination were noted during the UST removal and contaminated soils were excavated from the area surrounding the former UST and stockpiled for future disposal. Confirmation samples collected from the excavation sidewalls and base did not contain any detectable concentrations of petroleum constituents. Therefore, on April 14, 1992, the WDNR indicated that no further investigation or remedial action was necessary.

**BRRTS No. 02-68-118316 – CLOSED ERP CASE**

On September 9, 1996, the WDNR opened an ERP case due to a release of approximately 700-gallons of “Daraset” (a calcium nitrate mixture) to an unpaved surface on the subject property. Based on a review of the photographs contained within the ERP case file, the spill occurred in the southwest portion of the subject property adjacent to the cement silo. The subject property owner contracted with an emergency response contractor to recover the released product and any impacted runoff. In addition, the subject property owner excavated the soil impacted by the release for offsite disposal. On January 6, 1998, the WDNR indicated the response to the release was adequate, all contaminated material had been addressed and no further remediation was necessary.

**BRRTS No. 03-68-205411 – CLOSED LUST CASE**

On October 18, 1998, the WDNR opened a LUST case due to the discovery of obvious petroleum contamination in soil on the subject property during the installation of an underground water supply pipe. It was assumed the petroleum contamination was released from a 3,000-gallon diesel UST, two (2) 275-gallon fuel oil aboveground storage tanks (ASTs) or a railroad tanker car that was utilized to store fuel oil at the subject property. It should be noted, the location of the contamination discovered in 1998 was also in close proximity to the contamination associated with the removal of the 10,000-gallon diesel UST discovered in 1990.

In response to the discovery of petroleum contamination during the installation of the water supply pipe, ten (10) soil probes (P-1 through P-10) and eight (8) soil borings (B-1 through B-8) were advanced and seven (7) groundwater monitoring wells (MW-2 through MW-8) were constructed. Soil samples were screened in the field for the presence of volatile organic compounds (VOCs) using a photo-ionization detector (PID) and selected samples were submitted for laboratory analysis diesel range organics (DRO), petroleum VOCs (PVOCs) and polycyclic aromatic hydrocarbons (PAHs). In addition, groundwater samples from two (2) probe locations (P-7 and P-10) and five (5) monitoring wells (MW-3 through MW-6) were also submitted for laboratory VOC and PAH analysis.

Elevated concentrations of DRO, VOC constituents and PAH constituents were detected in samples collected from the following locations:

- Six (6) to eight (8)-feet below the ground surface (ft bgs) at the probe P-1 location;

- Eight (8) to ten (10)-feet bgs and 16 to 18-feet bgs at the probe P-3 location;
- Six (6) to eight (8)-feet bgs at the probe P-4 location;
- Six (6) to eight (8)-feet bgs and ten (10) to 12-feet bgs at the probe P-5 location;
- Eight (8) to ten (10)-feet bgs at the probe P-6 location;
- Six (6) to eight (8)-feet bgs and 14 to 16-feet bgs at the probe P-10 location; and,
- Six (6) to seven and one-half (7.5)-feet bgs and 11 to 12.5-feet bgs at the boring B-5 location.

The groundwater analytical results indicated an elevated concentration of naphthalene which exceeded its Wisconsin Administrative Code (WAC) Chapter NR 140 preventive action limit (PAL) in the grab sample collected from the probe P-10 location. Additionally, the concentrations of benzo(b)fluoranthene and benzo(g,h,i)perylene exceeded their respective WAC Chapter NR 140 enforcement standards (ES), while the concentration of benzo(k)fluoranthene exceeded its PAL, in the sample collected from monitoring well MW-5.

In November 1999, the WDNR approved the closure of the LUST case following the filing of a groundwater use restriction with the Waukesha County Register of Deeds and the abandonment of all of the groundwater monitoring wells. No remediation was required to address the residually contaminated soils discovered during the investigation activities.

A figure depicting the locations of the closed ERP and LUST cases is attached as **Figure 2**.

## RECENT INVESTIGATION ACTIVITIES

As part of the redevelopment activities, it is anticipated that mass grading activities will be required. Additionally, it was determined that development of one (1) of the townhouse buildings (TH2) and the clubhouse will be located in close proximity to the extent of residual petroleum contamination at the time the LUST case was closed in 1999. Therefore, further assessment was recommended in the former LUST case areas to ensure future residents of the subject property will be adequately protected from direct-contact exposures with contaminated soils and/or from the migration of contaminated vapors into the indoor air of the buildings, as well as to provide direction to the earthwork contractor ultimately responsible for mass grading activities to ensure contaminated materials are being managed properly.

On August 18, 2023, Endpoint advanced six (6) soil borings (SB-1 through SB-6) to further evaluate the residual impacts allowed to remain in-place as part of the former LUST cases. The SB-1, SB-4, SB-5 and SB-6 soil borings were advanced along the outer extents of the soil and groundwater contamination plumes, while the SB-2 and SB-3 soil borings were advanced within the center of the contaminant plumes. The locations of the soil borings are presented on the attached **Figure 3**.

Soil borings SB-3, SB-4, SB-5 and SB-6 were advanced with a direct-push drill rig to the termination depths of the borings, ranging from approximately 15 to 20-feet bgs. In order to provide additional geotechnical information in the vicinity of the proposed town homes, soil borings SB-1 and SB-2 were advanced using dual-tube methods with spilt spoon samples collected following Standard Penetration Testing methods. During the advancement of the soil borings, two (2) soil samples were collected from

each boring. The soil samples were collected and submitted for laboratory analysis of petroleum VOCs and naphthalene (PVOC+N) constituents.

- No PVOC+N constituents were detected above standard laboratory detection limits in either of the soil samples submitted for analysis from the SB-1, SB-3, SB-4, SB-5 and SB-6 soil boring locations and in the sample submitted from the one (1) to two and one-half (2.5)-foot bgs interval at the SB-2 location.
- Multiple PVOC+N constituents were detected in the soil sample collected from six (6) to seven and one-half (7.5)-foot bgs interval at the soil boring SB-2 location. Specifically, naphthalene was detected at a concentration that exceeds its industrial and non-industrial direct contact and soil-to-groundwater exposure pathway RCLs, while total-trimethylbenzenes were reported at a concentration that exceeds its soil-to-groundwater pathway RCL. All other detected constituents were present at concentrations below their applicable RCLs.

The tabulated results from the former LUST case area investigation activities are summarized on **Table – A.1.a**. Copies of the analytical results and chain-of-custody are included in **Appendix A**.

## **MATERIAL MANAGEMENT PLAN**

A portion of the area where residual contamination associated with the LUST case are located falls within the proposed TH2 building footprint. Based on the Site grading plan, the area where residual contamination is located will require fill to establish proposed grades. In addition, TH2 is designed as a slab-on-grade building with four (4)-ft perimeter frost wall foundations. Therefore, the soil containing residual contamination will not be excavated as part of the redevelopment process.

## **VAPOR INTRUSION**

The concentration of naphthalene reported in the soil sample submitted from the six (6) to seven and one-half (7.5) ft bgs interval at the SB-2 location was reported as 27,900 µg/kg or 27.9 mg/kg. According to WDNR Guidance RR800 – *Addressing Vapor Intrusion and Remediation & Redevelopment Sites in Wisconsin*, naphthalene concentrations in the soil which exceed five (5) mg/kg may be indicative of residual phase NAPL. Based on the depth of these impacts below the existing ground surface and the estimated amount of fill necessary to achieve the proposed design subgrades, we estimate the elevated concentrations of naphthalene will be located approximately 13.5-feet beneath the proposed building. Therefore, it is our opinion vapor intrusion may be a potential threat, and as such, remediation of the source soil is warranted.

## **PROPOSED REMEDIAL EXCAVATION**

Reviewing the historic soil analytical data, as well as the recent sample results, the concentration of naphthalene in the soil sample submitted from the six (6) to seven and one-half (7.5) ft bgs interval at the SB-2 location was the only sample to contain a concentration of a PVOC+N constituent that would cause a vapor intrusion concern. Therefore, we are proposing a remedial excavation with a diameter of approximately 25-ft centered on the soil boring SB-2 location be advanced. The soil sample submitted from the one (1) to two and one-half (2.5)-ft bgs interval at the soil boring SB-2 location did not contain detectable concentrations of any PVOC+N constituents; therefore, we propose that the soils from the

ground surface to approximately five (5)-ft bgs be excavated and stockpiled for reuse as backfill, and the soils from approximately five (5) to ten (10)-ft bgs, or the top of the apparent water table (whichever is shallower) be excavated and transported offsite for disposal at a local Subtitle D landfill.

Following completion of the remedial excavation, we propose to collect and submit confirmation samples from the excavation sidewalls and base (if groundwater is not encountered). The confirmation samples will be analyzed for PVOC+N constituents.

## **POST-REDEVELOPMENT CONDITIONS**

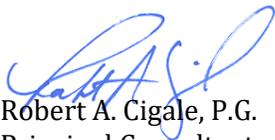
Based on our telephone conference on January 22, 2024, we understand that if the remedial excavation is successful at removing the soils containing concentrations of PVOC+N constituents which pose a vapor intrusion concern, as evidenced by the confirmation samples analytical results, that a sub-slab venting and barrier system will not be required to be installed beneath the TH2 building.

## **CLOSING**

We trust the information provided herein is sufficient for the WDNR to approve the Revised Post-Closure Modification request for 700 Capitol Drive (Former Hartland Quarry). A completed form 4400-237 is attached in **Appendix B**. A check in the amount of \$1,700 for closure review fees and soil and groundwater GIS Registry fees was previously provided with the original submittal. Should you have any questions regarding this request, please feel free to contact me directly at 414-858-1202.

Sincerely,

**Endpoint Solutions**



Robert A. Cigale, P.G.  
Principal Consultant

## **ATTACHMENTS**

Figures

Tables

Appendix A

Appendix B

cc: John Ford – Three Leaf Partners  
Greg Moll - WDNR

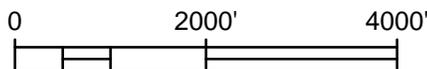
**FIGURES**

FIGURE 1 –LOCATION MAP

FIGURE 2 – SITE PLAN

FIGURE 3 – LUST AREA SOIL BORING LOCATIONS

FIGURE 4 – PROPOSED REMEDIAL EXCAVATION LOCATION



## LOCATION MAP

700 WEST CAPITOL DRIVE  
HARTLAND, WISCONSIN

**Endpoint Solutions**

6871 S. Lovers Lane  
Franklin, WI 53132

Phone: (414) 427-1200

Fax: (414) 427-1259

DRAWN BY: MLP

DATE: 04/12/2023

REVIEWED BY: RAC

PROJECT NO: 843-001-001

Figure 1

P:\Three Leaf Partners - 843\001 - Hartland\CAD\001-001\FIG 01\_843-001-001\_Location Map.dwg

SOURCE: USGS



P:\Three Leaf Partners - Hartland\CAD\001-008\FIG 02\_843-001-008\_Site Plan.dwg

83

SOURCE: WAUKESHA COUNTY GIS

**SUBJECT PROPERTY**

**HISTORIC SAMPLE LOCATIONS**

N

0 200' 400'

**SITE PLAN**

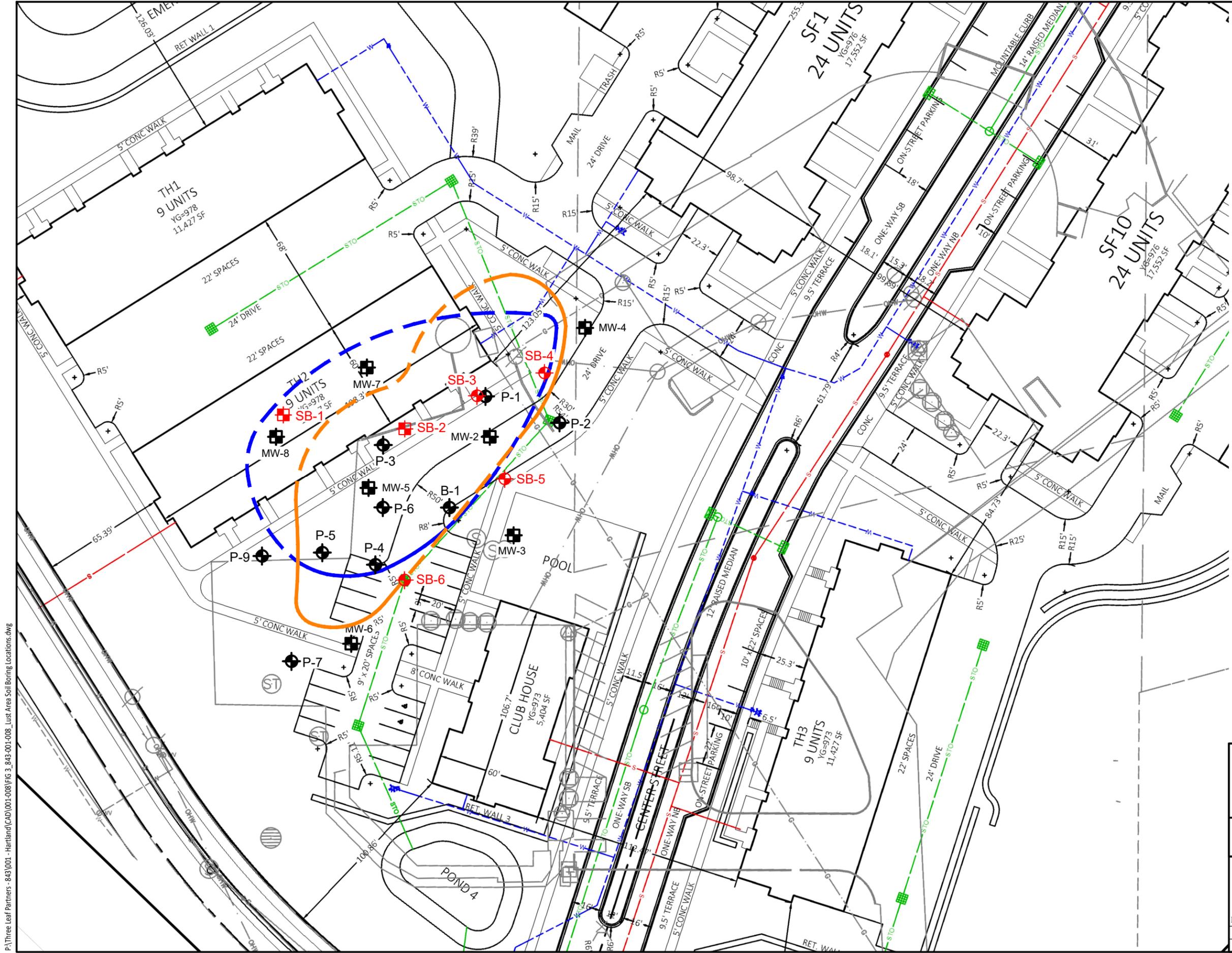
700 WEST CAPITOL DRIVE  
HARTLAND, WISCONSIN

**Endpoint Solutions**

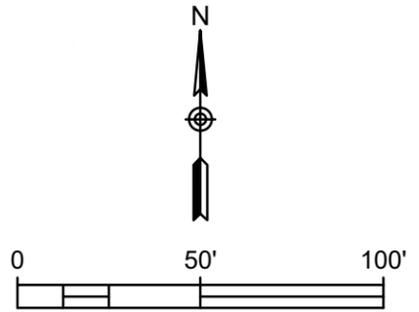
6871 S. Lovers Lane  
Franklin, WI 53132

Phone: (414) 427-1200      Fax: (414) 427-1259

DRAWN BY: MLP	DATE: 11/03/2023	Figure 2
REVIEWED BY: RAC	PROJECT NO: 843-001-008	



- APPROXIMATE EXTENT OF GROUNDWATER VOC PAL EXCEEDANCES (DASHED WHERE INFERRED)
- APPROXIMATE EXTENT OF SOIL DRO EXCEEDANCES IN SOIL (1998)
- ENVIRONMENTAL SOIL BORING LOCATION
- SOIL BORING FROM PREVIOUS INVESTIGATION
- MONITORING WELL FROM PREVIOUS INVESTIGATION
- GEOTECH SOIL BORING LOCATION
- VOC - VOLATILE ORGANIC COMPOUNDS
- PAL - POLYCYCLIC AROMATIC HYDROCARBONS
- DRO - DIESEL RANGE ORGANICS



## LUST AREA SOIL BORING LOCATIONS

700 WEST CAPITOL DRIVE  
HARTLAND, WISCONSIN

**Endpoint Solutions**

6871 S. Lovers Lane  
Franklin, WI 53132

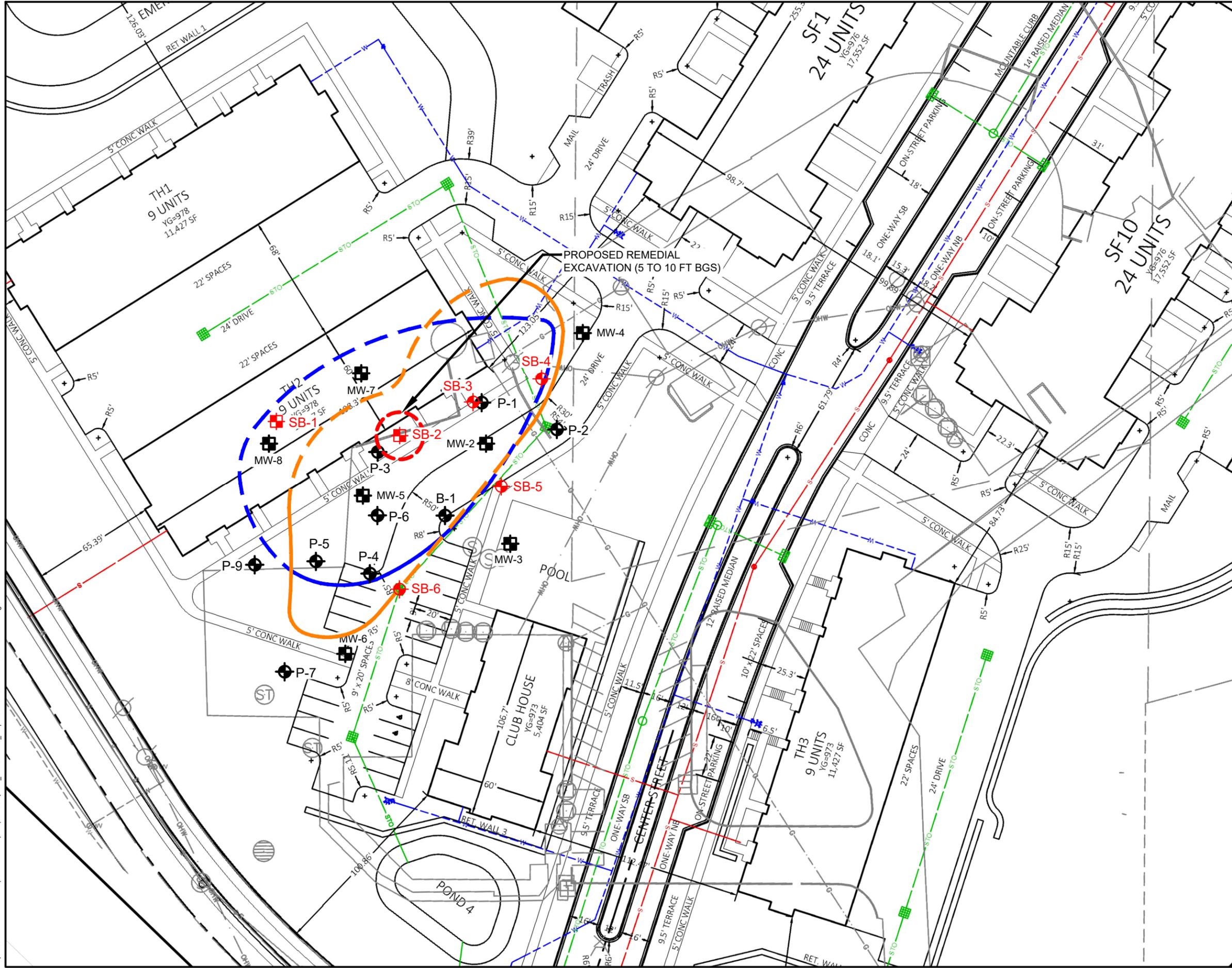
Phone: (414) 427-1200      Fax: (414) 427-1259

DRAWN BY: MLP/SVG	DATE: 11/03/2023
REVIEWED BY: RAC	PROJECT NO: 843-001-008

Figure 3

P:\Three Leaf Partners - 843\001 - Hartland\CAD\001-008\Fig 3\_843-001-008\_Lust Area Soil Boring Locations.dwg

P:\Three Leaf Partners - 843\001 - Hartland\CAD\001-008\Fig 4\_843-001-008\_Proposed Remedial Excavation Location.dwg



APPROXIMATE EXTENT OF GROUNDWATER VOC PAL EXCEEDANCES (DASHED WHERE INFERRED)

APPROXIMATE EXTENT OF SOIL DRO EXCEEDANCES IN SOIL (1998)

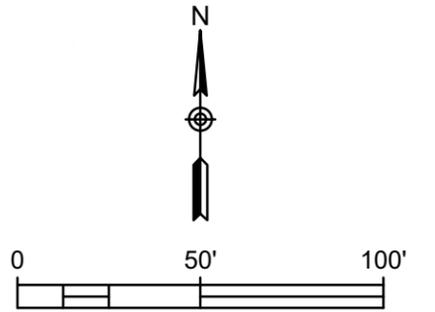
ENVIRONMENTAL SOIL BORING LOCATION

SOIL BORING FROM PREVIOUS INVESTIGATION

MONITORING WELL FROM PREVIOUS INVESTIGATION

GEOTECH SOIL BORING LOCATION

VOC - VOLATILE ORGANIC COMPOUNDS  
 PAL - PREVENTATIVE ACTION LIMIT  
 DRO - DIESEL RANGE ORGANICS



## PROPOSED REMEDIAL EXCAVATION LOCATION

700 WEST CAPITOL DRIVE  
HARTLAND, WISCONSIN

**Endpoint Solutions**

6871 S. Lovers Lane  
Franklin, WI 53132

Phone: (414) 427-1200      Fax: (414) 427-1259

DRAWN BY: MLP	DATE: 01/23/2024
REVIEWED BY: RAC	PROJECT NO: 843-001-008

Figure 4

**TABLES**

TABLE A.1.A – SOIL ANALYTICAL RESULTS – PVOCS & NAPHTHALENE

**Table A.1.a**  
**Soil Analytical Results - PVOCs and Naphthalene**

644, 700 & 701 West Capitol Drive  
Hartland, Wisconsin

PVOCs (ug/kg)	Industrial Direct Contact RCL	Non-Industrial Direct Contact RCL	Soil to Groundwater Pathway RCL	Boring ID, Sample Depth, Date of Advancement, Saturation											
				SB-1		SB-2		SB-3		SB-4		SB-5		SB-6	
				3-5.5' 8/18/2023 Unsaturated	8-10' 8/18/2023 Unsaturated	1-2.5' 8/18/2023 Unsaturated	6-7.5' 8/18/2023 Unsaturated	2' 8/18/2023 Unsaturated	10' 8/18/2023 Unsaturated	2' 8/18/2023 Unsaturated	7' 8/18/2023 Unsaturated	2' 8/18/2023 Unsaturated	7' 8/18/2023 Unsaturated	2' 8/18/2023 Unsaturated	10' 8/18/2023 Unsaturated
Benzene	<b>7,070</b>	<u>1,600</u>	<i>5.1</i>	<12.3	<13.4	<14.5	<177	<13.2	<14.1	<13.2	<14.1	<12.6	<14.1	<12.8	<13.7
Ethylbenzene	<b>35,400</b>	<u>8,020</u>	<i>1,570</i>	<12.3	<13.4	<14.5	1,210	<13.2	<14.1	<13.2	<14.1	<12.6	<14.1	<12.8	<13.7
Methyl-tert-butyl-ether (MTBE)	<b>282,000</b>	<u>63,800</u>	<i>27</i>	<15.2	<16.6	<17.9	<218	<16.3	<17.4	<16.4	<17.5	<15.6	<17.4	<15.8	<16.9
Naphthalene	<b>24,100</b>	<u>5,520</u>	<i>658.2</i>	<16.1	<17.6	<19.0	<b>27,900</b>	<17.3	<18.5	<17.4	<18.5	<16.5	<18.5	<16.8	<17.9
Toluene	<b>818,000</b>	<u>818,000</u>	<i>1,107.2</i>	<13.0	<14.2	<15.3	<187	<13.9	<15.0	<14.0	<15.0	<13.4	<14.9	<13.5	<14.5
1,2,4-Trimethylbenzene	<b>219,000</b>	<u>219,000</u>	<i>689</i>	<15.4	<16.8	<18.1	<b>13,600</b>	<16.5	<17.7	<16.6	<17.7	<15.8	<17.6	<16.0	<17.1
1,3,5-Trimethylbenzene	<b>182,000</b>	<u>182,000</u>		<16.6	<18.2	<19.6	<b>515 "J"</b>	<17.8	<19.1	<17.9	<19.1	<17.1	<19.0	<17.3	<18.5
Xylene (Total)	<b>260,000</b>	<u>260,000</u>	<i>3,960</i>	<37.3	<40.8	<43.9	<b>1,040 "J"</b>	<40.0	<42.8	<40.2	<42.9	<38.3	<42.7	<38.8	<41.4

- 1) PVOc - Petroleum Volatile Organic Compound
- 2) ug/kg - micrograms per kilogram
- 3) RCL - Residual Contaminant Level
- 4) ----- - Standard not established
- 5) J - Estimated concentration at or above the limit of detection (LOD) and below the limit of quantitation (LOQ).
- 6) Italicized result indicates a Soil-to-Groundwater Pathway RCL exceedance
- 7) Underlined result indicates a Non-Industrial Direct Contact RCL exceedance
- 8) Bold result indicates a Industrial Direct Contact RCL exceedance

**APPENDIX A**

ANALYTICAL RESULTS AND CHAIN-OF-CUSTODY



August 24, 2023

Ryan Johnson  
Endpoint Solutions  
6871 S Lovers Lane  
Franklin, WI 53132

RE: Project: 843.001.006 THREE LEAF-HARTLND  
Pace Project No.: 40266996

Dear Ryan Johnson:

Enclosed are the analytical results for sample(s) received by the laboratory on August 19, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Dan Milewsky  
dan.milewsky@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
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## CERTIFICATIONS

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

---

### **Pace Analytical Services Green Bay**

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

South Carolina Certification #: 83006001

Texas Certification #: T104704529-21-8

Virginia VELAP Certification ID: 11873

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-21-00008

Federal Fish & Wildlife Permit #: 51774A

---

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40266996001	SB-1 (3-5.5)	Solid	08/18/23 09:40	08/19/23 08:45
40266996002	SB-1 (8-10)	Solid	08/18/23 09:55	08/19/23 08:45
40266996003	SB-2 (1-2.5)	Solid	08/18/23 10:20	08/19/23 08:45
40266996004	SB-2 (6-7.5)	Solid	08/18/23 10:30	08/19/23 08:45
40266996005	SB-3 (2)	Solid	08/18/23 11:30	08/19/23 08:45
40266996006	SB-3 (10)	Solid	08/18/23 11:35	08/19/23 08:45
40266996007	SB-4 (2)	Solid	08/18/23 11:40	08/19/23 08:45
40266996008	SB-4 (7)	Solid	08/18/23 11:45	08/19/23 08:45
40266996009	SB-5 (2)	Solid	08/18/23 12:00	08/19/23 08:45
40266996010	SB-5 (7)	Solid	08/18/23 12:05	08/19/23 08:45
40266996011	SB-6 (2)	Solid	08/18/23 12:50	08/19/23 08:45
40266996012	SB-6 (8)	Solid	08/18/23 12:55	08/19/23 08:45

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40266996001	SB-1 (3-5.5)	EPA 8260	ALD	11
		ASTM D2974-87	NMK	1
40266996002	SB-1 (8-10)	EPA 8260	ALD	11
		ASTM D2974-87	NMK	1
40266996003	SB-2 (1-2.5)	EPA 8260	ALD	11
		ASTM D2974-87	NMK	1
40266996004	SB-2 (6-7.5)	EPA 8260	ALD	11
		ASTM D2974-87	NMK	1
40266996005	SB-3 (2)	EPA 8260	ALD	11
		ASTM D2974-87	NMK	1
40266996006	SB-3 (10)	EPA 8260	ALD	11
		ASTM D2974-87	NMK	1
40266996007	SB-4 (2)	EPA 8260	ALD	11
		ASTM D2974-87	NMK	1
40266996008	SB-4 (7)	EPA 8260	ALD	11
		ASTM D2974-87	NMK	1
40266996009	SB-5 (2)	EPA 8260	ALD	11
		ASTM D2974-87	NMK	1
40266996010	SB-5 (7)	EPA 8260	ALD	11
		ASTM D2974-87	NMK	1
40266996011	SB-6 (2)	EPA 8260	ALD	11
		ASTM D2974-87	NMK	1
40266996012	SB-6 (8)	EPA 8260	ALD	11
		ASTM D2974-87	NMK	1

PASI-G = Pace Analytical Services - Green Bay

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### SUMMARY OF DETECTION

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>40266996001</b>	<b>SB-1 (3-5.5)</b>					
ASTM D2974-87	Percent Moisture	1.6	%	0.10	08/21/23 16:39	
<b>40266996002</b>	<b>SB-1 (8-10)</b>					
ASTM D2974-87	Percent Moisture	6.1	%	0.10	08/21/23 16:39	
<b>40266996003</b>	<b>SB-2 (1-2.5)</b>					
ASTM D2974-87	Percent Moisture	9.7	%	0.10	08/21/23 16:39	
<b>40266996004</b>	<b>SB-2 (6-7.5)</b>					
EPA 8260	Ethylbenzene	1210	ug/kg	743	08/22/23 12:08	
EPA 8260	Naphthalene	27900	ug/kg	3710	08/22/23 12:08	
EPA 8260	1,2,4-Trimethylbenzene	13600	ug/kg	743	08/22/23 12:08	
EPA 8260	1,3,5-Trimethylbenzene	515J	ug/kg	743	08/22/23 12:08	
EPA 8260	Xylene (Total)	1040J	ug/kg	2230	08/22/23 12:08	
ASTM D2974-87	Percent Moisture	8.6	%	0.10	08/21/23 16:39	
<b>40266996005</b>	<b>SB-3 (2)</b>					
ASTM D2974-87	Percent Moisture	5.1	%	0.10	08/21/23 16:39	
<b>40266996006</b>	<b>SB-3 (10)</b>					
ASTM D2974-87	Percent Moisture	8.5	%	0.10	08/21/23 16:39	
<b>40266996007</b>	<b>SB-4 (2)</b>					
ASTM D2974-87	Percent Moisture	5.4	%	0.10	08/21/23 17:45	
<b>40266996008</b>	<b>SB-4 (7)</b>					
ASTM D2974-87	Percent Moisture	8.6	%	0.10	08/21/23 17:45	
<b>40266996009</b>	<b>SB-5 (2)</b>					
ASTM D2974-87	Percent Moisture	2.9	%	0.10	08/21/23 17:45	
<b>40266996010</b>	<b>SB-5 (7)</b>					
ASTM D2974-87	Percent Moisture	8.4	%	0.10	08/21/23 17:46	
<b>40266996011</b>	<b>SB-6 (2)</b>					
ASTM D2974-87	Percent Moisture	3.6	%	0.10	08/21/23 17:46	
<b>40266996012</b>	<b>SB-6 (8)</b>					
ASTM D2974-87	Percent Moisture	6.9	%	0.10	08/21/23 17:46	

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## ANALYTICAL RESULTS

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

**Sample: SB-1 (3-5.5)**      **Lab ID: 40266996001**      Collected: 08/18/23 09:40      Received: 08/19/23 08:45      Matrix: Solid*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260    Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<12.3	ug/kg	20.7	12.3	1	08/22/23 07:15	08/23/23 11:14	71-43-2	
Ethylbenzene	<12.3	ug/kg	51.7	12.3	1	08/22/23 07:15	08/23/23 11:14	100-41-4	
Methyl-tert-butyl ether	<15.2	ug/kg	51.7	15.2	1	08/22/23 07:15	08/23/23 11:14	1634-04-4	
Naphthalene	<16.1	ug/kg	258	16.1	1	08/22/23 07:15	08/23/23 11:14	91-20-3	
Toluene	<13.0	ug/kg	51.7	13.0	1	08/22/23 07:15	08/23/23 11:14	108-88-3	
1,2,4-Trimethylbenzene	<15.4	ug/kg	51.7	15.4	1	08/22/23 07:15	08/23/23 11:14	95-63-6	
1,3,5-Trimethylbenzene	<16.6	ug/kg	51.7	16.6	1	08/22/23 07:15	08/23/23 11:14	108-67-8	
Xylene (Total)	<37.3	ug/kg	155	37.3	1	08/22/23 07:15	08/23/23 11:14	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	114	%	68-156		1	08/22/23 07:15	08/23/23 11:14	460-00-4	
Toluene-d8 (S)	110	%	69-153		1	08/22/23 07:15	08/23/23 11:14	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	114	%	71-161		1	08/22/23 07:15	08/23/23 11:14	2199-69-1	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	1.6	%	0.10	0.10	1		08/21/23 16:39		

**Sample: SB-1 (8-10)**      **Lab ID: 40266996002**      Collected: 08/18/23 09:55      Received: 08/19/23 08:45      Matrix: Solid*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260    Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<13.4	ug/kg	22.6	13.4	1	08/21/23 07:15	08/21/23 14:34	71-43-2	
Ethylbenzene	<13.4	ug/kg	56.5	13.4	1	08/21/23 07:15	08/21/23 14:34	100-41-4	
Methyl-tert-butyl ether	<16.6	ug/kg	56.5	16.6	1	08/21/23 07:15	08/21/23 14:34	1634-04-4	
Naphthalene	<17.6	ug/kg	282	17.6	1	08/21/23 07:15	08/21/23 14:34	91-20-3	
Toluene	<14.2	ug/kg	56.5	14.2	1	08/21/23 07:15	08/21/23 14:34	108-88-3	
1,2,4-Trimethylbenzene	<16.8	ug/kg	56.5	16.8	1	08/21/23 07:15	08/21/23 14:34	95-63-6	
1,3,5-Trimethylbenzene	<18.2	ug/kg	56.5	18.2	1	08/21/23 07:15	08/21/23 14:34	108-67-8	
Xylene (Total)	<40.8	ug/kg	169	40.8	1	08/21/23 07:15	08/21/23 14:34	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	117	%	68-156		1	08/21/23 07:15	08/21/23 14:34	460-00-4	
Toluene-d8 (S)	114	%	69-153		1	08/21/23 07:15	08/21/23 14:34	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	111	%	71-161		1	08/21/23 07:15	08/21/23 14:34	2199-69-1	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	6.1	%	0.10	0.10	1		08/21/23 16:39		

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## ANALYTICAL RESULTS

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

Sample: SB-2 (1-2.5) Lab ID: 40266996003 Collected: 08/18/23 10:20 Received: 08/19/23 08:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<14.5	ug/kg	24.3	14.5	1	08/21/23 07:15	08/21/23 14:14	71-43-2	
Ethylbenzene	<14.5	ug/kg	60.7	14.5	1	08/21/23 07:15	08/21/23 14:14	100-41-4	
Methyl-tert-butyl ether	<17.9	ug/kg	60.7	17.9	1	08/21/23 07:15	08/21/23 14:14	1634-04-4	
Naphthalene	<19.0	ug/kg	304	19.0	1	08/21/23 07:15	08/21/23 14:14	91-20-3	
Toluene	<15.3	ug/kg	60.7	15.3	1	08/21/23 07:15	08/21/23 14:14	108-88-3	
1,2,4-Trimethylbenzene	<18.1	ug/kg	60.7	18.1	1	08/21/23 07:15	08/21/23 14:14	95-63-6	
1,3,5-Trimethylbenzene	<19.6	ug/kg	60.7	19.6	1	08/21/23 07:15	08/21/23 14:14	108-67-8	
Xylene (Total)	<43.9	ug/kg	182	43.9	1	08/21/23 07:15	08/21/23 14:14	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	107	%	68-156		1	08/21/23 07:15	08/21/23 14:14	460-00-4	
Toluene-d8 (S)	111	%	69-153		1	08/21/23 07:15	08/21/23 14:14	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	113	%	71-161		1	08/21/23 07:15	08/21/23 14:14	2199-69-1	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	9.7	%	0.10	0.10	1		08/21/23 16:39		

Sample: SB-2 (6-7.5) Lab ID: 40266996004 Collected: 08/18/23 10:30 Received: 08/19/23 08:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<177	ug/kg	297	177	12.5	08/21/23 07:15	08/22/23 12:08	71-43-2	
Ethylbenzene	1210	ug/kg	743	177	12.5	08/21/23 07:15	08/22/23 12:08	100-41-4	
Methyl-tert-butyl ether	<218	ug/kg	743	218	12.5	08/21/23 07:15	08/22/23 12:08	1634-04-4	
Naphthalene	27900	ug/kg	3710	232	12.5	08/21/23 07:15	08/22/23 12:08	91-20-3	
Toluene	<187	ug/kg	743	187	12.5	08/21/23 07:15	08/22/23 12:08	108-88-3	
1,2,4-Trimethylbenzene	13600	ug/kg	743	221	12.5	08/21/23 07:15	08/22/23 12:08	95-63-6	
1,3,5-Trimethylbenzene	515J	ug/kg	743	239	12.5	08/21/23 07:15	08/22/23 12:08	108-67-8	
Xylene (Total)	1040J	ug/kg	2230	536	12.5	08/21/23 07:15	08/22/23 12:08	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	104	%	68-156		12.5	08/21/23 07:15	08/22/23 12:08	460-00-4	S4
Toluene-d8 (S)	115	%	69-153		12.5	08/21/23 07:15	08/22/23 12:08	2037-26-5	S4
1,2-Dichlorobenzene-d4 (S)	149	%	71-161		12.5	08/21/23 07:15	08/22/23 12:08	2199-69-1	S4
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	8.6	%	0.10	0.10	1		08/21/23 16:39		

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## ANALYTICAL RESULTS

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

**Sample: SB-3 (2)** Lab ID: 40266996005 Collected: 08/18/23 11:30 Received: 08/19/23 08:45 Matrix: Solid*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<13.2	ug/kg	22.1	13.2	1	08/22/23 07:15	08/23/23 11:34	71-43-2	
Ethylbenzene	<13.2	ug/kg	55.4	13.2	1	08/22/23 07:15	08/23/23 11:34	100-41-4	
Methyl-tert-butyl ether	<16.3	ug/kg	55.4	16.3	1	08/22/23 07:15	08/23/23 11:34	1634-04-4	
Naphthalene	<17.3	ug/kg	277	17.3	1	08/22/23 07:15	08/23/23 11:34	91-20-3	
Toluene	<13.9	ug/kg	55.4	13.9	1	08/22/23 07:15	08/23/23 11:34	108-88-3	
1,2,4-Trimethylbenzene	<16.5	ug/kg	55.4	16.5	1	08/22/23 07:15	08/23/23 11:34	95-63-6	
1,3,5-Trimethylbenzene	<17.8	ug/kg	55.4	17.8	1	08/22/23 07:15	08/23/23 11:34	108-67-8	
Xylene (Total)	<40.0	ug/kg	166	40.0	1	08/22/23 07:15	08/23/23 11:34	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	109	%	68-156		1	08/22/23 07:15	08/23/23 11:34	460-00-4	
Toluene-d8 (S)	111	%	69-153		1	08/22/23 07:15	08/23/23 11:34	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	112	%	71-161		1	08/22/23 07:15	08/23/23 11:34	2199-69-1	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	5.1	%	0.10	0.10	1		08/21/23 16:39		

**Sample: SB-3 (10)** Lab ID: 40266996006 Collected: 08/18/23 11:35 Received: 08/19/23 08:45 Matrix: Solid*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<14.1	ug/kg	23.7	14.1	1	08/22/23 07:15	08/23/23 11:54	71-43-2	
Ethylbenzene	<14.1	ug/kg	59.3	14.1	1	08/22/23 07:15	08/23/23 11:54	100-41-4	
Methyl-tert-butyl ether	<17.4	ug/kg	59.3	17.4	1	08/22/23 07:15	08/23/23 11:54	1634-04-4	
Naphthalene	<18.5	ug/kg	297	18.5	1	08/22/23 07:15	08/23/23 11:54	91-20-3	
Toluene	<15.0	ug/kg	59.3	15.0	1	08/22/23 07:15	08/23/23 11:54	108-88-3	
1,2,4-Trimethylbenzene	<17.7	ug/kg	59.3	17.7	1	08/22/23 07:15	08/23/23 11:54	95-63-6	
1,3,5-Trimethylbenzene	<19.1	ug/kg	59.3	19.1	1	08/22/23 07:15	08/23/23 11:54	108-67-8	
Xylene (Total)	<42.8	ug/kg	178	42.8	1	08/22/23 07:15	08/23/23 11:54	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	110	%	68-156		1	08/22/23 07:15	08/23/23 11:54	460-00-4	
Toluene-d8 (S)	105	%	69-153		1	08/22/23 07:15	08/23/23 11:54	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	110	%	71-161		1	08/22/23 07:15	08/23/23 11:54	2199-69-1	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	8.5	%	0.10	0.10	1		08/21/23 16:39		

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## ANALYTICAL RESULTS

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

Sample: SB-4 (2) Lab ID: 40266996007 Collected: 08/18/23 11:40 Received: 08/19/23 08:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<13.2	ug/kg	22.3	13.2	1	08/22/23 07:15	08/23/23 12:13	71-43-2	
Ethylbenzene	<13.2	ug/kg	55.7	13.2	1	08/22/23 07:15	08/23/23 12:13	100-41-4	
Methyl-tert-butyl ether	<16.4	ug/kg	55.7	16.4	1	08/22/23 07:15	08/23/23 12:13	1634-04-4	
Naphthalene	<17.4	ug/kg	278	17.4	1	08/22/23 07:15	08/23/23 12:13	91-20-3	
Toluene	<14.0	ug/kg	55.7	14.0	1	08/22/23 07:15	08/23/23 12:13	108-88-3	
1,2,4-Trimethylbenzene	<16.6	ug/kg	55.7	16.6	1	08/22/23 07:15	08/23/23 12:13	95-63-6	
1,3,5-Trimethylbenzene	<17.9	ug/kg	55.7	17.9	1	08/22/23 07:15	08/23/23 12:13	108-67-8	
Xylene (Total)	<40.2	ug/kg	167	40.2	1	08/22/23 07:15	08/23/23 12:13	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	110	%	68-156		1	08/22/23 07:15	08/23/23 12:13	460-00-4	
Toluene-d8 (S)	114	%	69-153		1	08/22/23 07:15	08/23/23 12:13	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	112	%	71-161		1	08/22/23 07:15	08/23/23 12:13	2199-69-1	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	5.4	%	0.10	0.10	1		08/21/23 17:45		

Sample: SB-4 (7) Lab ID: 40266996008 Collected: 08/18/23 11:45 Received: 08/19/23 08:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<14.1	ug/kg	23.7	14.1	1	08/22/23 07:15	08/22/23 20:18	71-43-2	
Ethylbenzene	<14.1	ug/kg	59.4	14.1	1	08/22/23 07:15	08/22/23 20:18	100-41-4	M1
Methyl-tert-butyl ether	<17.5	ug/kg	59.4	17.5	1	08/22/23 07:15	08/22/23 20:18	1634-04-4	
Naphthalene	<18.5	ug/kg	297	18.5	1	08/22/23 07:15	08/22/23 20:18	91-20-3	
Toluene	<15.0	ug/kg	59.4	15.0	1	08/22/23 07:15	08/22/23 20:18	108-88-3	
1,2,4-Trimethylbenzene	<17.7	ug/kg	59.4	17.7	1	08/22/23 07:15	08/22/23 20:18	95-63-6	
1,3,5-Trimethylbenzene	<19.1	ug/kg	59.4	19.1	1	08/22/23 07:15	08/22/23 20:18	108-67-8	
Xylene (Total)	<42.9	ug/kg	178	42.9	1	08/22/23 07:15	08/22/23 20:18	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	109	%	68-156		1	08/22/23 07:15	08/22/23 20:18	460-00-4	
Toluene-d8 (S)	112	%	69-153		1	08/22/23 07:15	08/22/23 20:18	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	107	%	71-161		1	08/22/23 07:15	08/22/23 20:18	2199-69-1	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	8.6	%	0.10	0.10	1		08/21/23 17:45		

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## ANALYTICAL RESULTS

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

Sample: SB-5 (2) Lab ID: 40266996009 Collected: 08/18/23 12:00 Received: 08/19/23 08:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<12.6	ug/kg	21.2	12.6	1	08/22/23 07:15	08/23/23 12:33	71-43-2	
Ethylbenzene	<12.6	ug/kg	53.0	12.6	1	08/22/23 07:15	08/23/23 12:33	100-41-4	
Methyl-tert-butyl ether	<15.6	ug/kg	53.0	15.6	1	08/22/23 07:15	08/23/23 12:33	1634-04-4	
Naphthalene	<16.5	ug/kg	265	16.5	1	08/22/23 07:15	08/23/23 12:33	91-20-3	
Toluene	<13.4	ug/kg	53.0	13.4	1	08/22/23 07:15	08/23/23 12:33	108-88-3	
1,2,4-Trimethylbenzene	<15.8	ug/kg	53.0	15.8	1	08/22/23 07:15	08/23/23 12:33	95-63-6	
1,3,5-Trimethylbenzene	<17.1	ug/kg	53.0	17.1	1	08/22/23 07:15	08/23/23 12:33	108-67-8	
Xylene (Total)	<38.3	ug/kg	159	38.3	1	08/22/23 07:15	08/23/23 12:33	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	116	%	68-156		1	08/22/23 07:15	08/23/23 12:33	460-00-4	
Toluene-d8 (S)	122	%	69-153		1	08/22/23 07:15	08/23/23 12:33	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	115	%	71-161		1	08/22/23 07:15	08/23/23 12:33	2199-69-1	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	2.9	%	0.10	0.10	1		08/21/23 17:45		

Sample: SB-5 (7) Lab ID: 40266996010 Collected: 08/18/23 12:05 Received: 08/19/23 08:45 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<14.1	ug/kg	23.7	14.1	1	08/22/23 07:15	08/23/23 12:53	71-43-2	
Ethylbenzene	<14.1	ug/kg	59.2	14.1	1	08/22/23 07:15	08/23/23 12:53	100-41-4	
Methyl-tert-butyl ether	<17.4	ug/kg	59.2	17.4	1	08/22/23 07:15	08/23/23 12:53	1634-04-4	
Naphthalene	<18.5	ug/kg	296	18.5	1	08/22/23 07:15	08/23/23 12:53	91-20-3	
Toluene	<14.9	ug/kg	59.2	14.9	1	08/22/23 07:15	08/23/23 12:53	108-88-3	
1,2,4-Trimethylbenzene	<17.6	ug/kg	59.2	17.6	1	08/22/23 07:15	08/23/23 12:53	95-63-6	
1,3,5-Trimethylbenzene	<19.0	ug/kg	59.2	19.0	1	08/22/23 07:15	08/23/23 12:53	108-67-8	
Xylene (Total)	<42.7	ug/kg	177	42.7	1	08/22/23 07:15	08/23/23 12:53	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	119	%	68-156		1	08/22/23 07:15	08/23/23 12:53	460-00-4	
Toluene-d8 (S)	131	%	69-153		1	08/22/23 07:15	08/23/23 12:53	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	116	%	71-161		1	08/22/23 07:15	08/23/23 12:53	2199-69-1	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	8.4	%	0.10	0.10	1		08/21/23 17:46		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

**Sample: SB-6 (2)** Lab ID: 40266996011 Collected: 08/18/23 12:50 Received: 08/19/23 08:45 Matrix: Solid*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<12.8	ug/kg	21.5	12.8	1	08/22/23 07:15	08/23/23 13:13	71-43-2	
Ethylbenzene	<12.8	ug/kg	53.7	12.8	1	08/22/23 07:15	08/23/23 13:13	100-41-4	
Methyl-tert-butyl ether	<15.8	ug/kg	53.7	15.8	1	08/22/23 07:15	08/23/23 13:13	1634-04-4	
Naphthalene	<16.8	ug/kg	269	16.8	1	08/22/23 07:15	08/23/23 13:13	91-20-3	
Toluene	<13.5	ug/kg	53.7	13.5	1	08/22/23 07:15	08/23/23 13:13	108-88-3	
1,2,4-Trimethylbenzene	<16.0	ug/kg	53.7	16.0	1	08/22/23 07:15	08/23/23 13:13	95-63-6	
1,3,5-Trimethylbenzene	<17.3	ug/kg	53.7	17.3	1	08/22/23 07:15	08/23/23 13:13	108-67-8	
Xylene (Total)	<38.8	ug/kg	161	38.8	1	08/22/23 07:15	08/23/23 13:13	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	108	%	68-156		1	08/22/23 07:15	08/23/23 13:13	460-00-4	
Toluene-d8 (S)	106	%	69-153		1	08/22/23 07:15	08/23/23 13:13	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	111	%	71-161		1	08/22/23 07:15	08/23/23 13:13	2199-69-1	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	3.6	%	0.10	0.10	1		08/21/23 17:46		

**Sample: SB-6 (8)** Lab ID: 40266996012 Collected: 08/18/23 12:55 Received: 08/19/23 08:45 Matrix: Solid*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Short List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<13.7	ug/kg	22.9	13.7	1	08/22/23 07:15	08/23/23 13:33	71-43-2	
Ethylbenzene	<13.7	ug/kg	57.4	13.7	1	08/22/23 07:15	08/23/23 13:33	100-41-4	
Methyl-tert-butyl ether	<16.9	ug/kg	57.4	16.9	1	08/22/23 07:15	08/23/23 13:33	1634-04-4	
Naphthalene	<17.9	ug/kg	287	17.9	1	08/22/23 07:15	08/23/23 13:33	91-20-3	
Toluene	<14.5	ug/kg	57.4	14.5	1	08/22/23 07:15	08/23/23 13:33	108-88-3	
1,2,4-Trimethylbenzene	<17.1	ug/kg	57.4	17.1	1	08/22/23 07:15	08/23/23 13:33	95-63-6	
1,3,5-Trimethylbenzene	<18.5	ug/kg	57.4	18.5	1	08/22/23 07:15	08/23/23 13:33	108-67-8	
Xylene (Total)	<41.4	ug/kg	172	41.4	1	08/22/23 07:15	08/23/23 13:33	1330-20-7	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	101	%	68-156		1	08/22/23 07:15	08/23/23 13:33	460-00-4	
Toluene-d8 (S)	104	%	69-153		1	08/22/23 07:15	08/23/23 13:33	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	101	%	71-161		1	08/22/23 07:15	08/23/23 13:33	2199-69-1	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	6.9	%	0.10	0.10	1		08/21/23 17:46		

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**QUALITY CONTROL DATA**

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

QC Batch:	452776	Analysis Method:	EPA 8260
QC Batch Method:	EPA 5035/5030B	Analysis Description:	8260 MSV Med Level Short List
		Laboratory:	Pace Analytical Services - Green Bay

Associated Lab Samples: 40266996002, 40266996003, 40266996004

METHOD BLANK: 2601602 Matrix: Solid

Associated Lab Samples: 40266996002, 40266996003, 40266996004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	<14.9	50.0	08/21/23 11:18	
1,3,5-Trimethylbenzene	ug/kg	<16.1	50.0	08/21/23 11:18	
Benzene	ug/kg	<11.9	20.0	08/21/23 11:18	
Ethylbenzene	ug/kg	<11.9	50.0	08/21/23 11:18	
Methyl-tert-butyl ether	ug/kg	<14.7	50.0	08/21/23 11:18	
Naphthalene	ug/kg	<15.6	250	08/21/23 11:18	
Toluene	ug/kg	<12.6	50.0	08/21/23 11:18	
Xylene (Total)	ug/kg	<36.1	150	08/21/23 11:18	
1,2-Dichlorobenzene-d4 (S)	%	108	71-161	08/21/23 11:18	
4-Bromofluorobenzene (S)	%	109	68-156	08/21/23 11:18	
Toluene-d8 (S)	%	101	69-153	08/21/23 11:18	

LABORATORY CONTROL SAMPLE: 2601603

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	2500	2540	101	70-130	
Ethylbenzene	ug/kg	2500	2570	103	80-120	
Methyl-tert-butyl ether	ug/kg	2500	2340	94	65-130	
Toluene	ug/kg	2500	2480	99	80-120	
Xylene (Total)	ug/kg	7500	7580	101	70-130	
1,2-Dichlorobenzene-d4 (S)	%			108	71-161	
4-Bromofluorobenzene (S)	%			110	68-156	
Toluene-d8 (S)	%			102	69-153	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2601608 2601609

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40266996003 Result	Spike Conc.	Spike Conc.	MS Result						
Benzene	ug/kg	<14.5	1220	1220	1100	1050	90	86	70-130	4	20
Ethylbenzene	ug/kg	<14.5	1220	1220	1100	1050	91	87	80-120	5	20
Methyl-tert-butyl ether	ug/kg	<17.9	1220	1220	1030	1000	85	82	66-130	3	20
Toluene	ug/kg	<15.3	1220	1220	1110	1110	91	91	79-120	0	20
Xylene (Total)	ug/kg	<43.9	3640	3640	3390	3280	93	90	70-130	3	20
1,2-Dichlorobenzene-d4 (S)	%						110	112	71-161		
4-Bromofluorobenzene (S)	%						115	118	68-156		
Toluene-d8 (S)	%						117	110	69-153		

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**QUALITY CONTROL DATA**

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

QC Batch:	452888	Analysis Method:	EPA 8260
QC Batch Method:	EPA 5035/5030B	Analysis Description:	8260 MSV Med Level Short List
		Laboratory:	Pace Analytical Services - Green Bay

Associated Lab Samples: 40266996001, 40266996005, 40266996006, 40266996007, 40266996008, 40266996009, 40266996010, 40266996011, 40266996012

METHOD BLANK: 2601967 Matrix: Solid  
 Associated Lab Samples: 40266996001, 40266996005, 40266996006, 40266996007, 40266996008, 40266996009, 40266996010, 40266996011, 40266996012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	<14.9	50.0	08/22/23 14:06	
1,3,5-Trimethylbenzene	ug/kg	<16.1	50.0	08/22/23 14:06	
Benzene	ug/kg	<11.9	20.0	08/22/23 14:06	
Ethylbenzene	ug/kg	<11.9	50.0	08/22/23 14:06	
Methyl-tert-butyl ether	ug/kg	<14.7	50.0	08/22/23 14:06	
Naphthalene	ug/kg	<15.6	250	08/22/23 14:06	
Toluene	ug/kg	<12.6	50.0	08/22/23 14:06	
Xylene (Total)	ug/kg	<36.1	150	08/22/23 14:06	
1,2-Dichlorobenzene-d4 (S)	%	108	71-161	08/22/23 14:06	
4-Bromofluorobenzene (S)	%	108	68-156	08/22/23 14:06	
Toluene-d8 (S)	%	101	69-153	08/22/23 14:06	

LABORATORY CONTROL SAMPLE: 2601968

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	2500	2750	110	70-130	
Ethylbenzene	ug/kg	2500	2780	111	80-120	
Methyl-tert-butyl ether	ug/kg	2500	2190	87	65-130	
Toluene	ug/kg	2500	2710	108	80-120	
Xylene (Total)	ug/kg	7500	8450	113	70-130	
1,2-Dichlorobenzene-d4 (S)	%			116	71-161	
4-Bromofluorobenzene (S)	%			118	68-156	
Toluene-d8 (S)	%			119	69-153	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2601969 2601970

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		40266996008	Result	Spike Conc.	Spike Conc.							
Benzene	ug/kg	<14.1	1190	1190	1190	1010	921	85	78	70-130	9	20
Ethylbenzene	ug/kg	<14.1	1190	1190	1190	1050	911	88	77	80-120	14	20 M1
Methyl-tert-butyl ether	ug/kg	<17.5	1190	1190	1190	890	837	75	71	66-130	6	20
Toluene	ug/kg	<15.0	1190	1190	1190	1050	971	89	82	79-120	8	20
Xylene (Total)	ug/kg	<42.9	3570	3570	3570	3230	2870	91	81	70-130	12	20
1,2-Dichlorobenzene-d4 (S)	%							125	110	71-161		
4-Bromofluorobenzene (S)	%							128	111	68-156		
Toluene-d8 (S)	%							121	103	69-153		

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**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

QC Batch: 452834

Analysis Method: ASTM D2974-87

QC Batch Method: ASTM D2974-87

Analysis Description: Dry Weight/Percent Moisture

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40266996001, 40266996002, 40266996003, 40266996004, 40266996005, 40266996006

SAMPLE DUPLICATE: 2601794

Parameter	Units	40266918001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	29.4	29.2	1	10	

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### QUALITY CONTROL DATA

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

QC Batch: 452835

Analysis Method: ASTM D2974-87

QC Batch Method: ASTM D2974-87

Analysis Description: Dry Weight/Percent Moisture

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40266996007, 40266996008, 40266996009, 40266996010, 40266996011, 40266996012

SAMPLE DUPLICATE: 2601806

Parameter	Units	40266972001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	6.3	6.2	1	10	

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## QUALIFIERS

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

DL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

S4 Surrogate recovery not evaluated against control limits due to sample dilution.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 843.001.006 THREE LEAF-HARTLND

Pace Project No.: 40266996

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40266996001	SB-1 (3-5.5)	EPA 5035/5030B	452888	EPA 8260	452889
40266996002	SB-1 (8-10)	EPA 5035/5030B	452776	EPA 8260	452780
40266996003	SB-2 (1-2.5)	EPA 5035/5030B	452776	EPA 8260	452780
40266996004	SB-2 (6-7.5)	EPA 5035/5030B	452776	EPA 8260	452780
40266996005	SB-3 (2)	EPA 5035/5030B	452888	EPA 8260	452889
40266996006	SB-3 (10)	EPA 5035/5030B	452888	EPA 8260	452889
40266996007	SB-4 (2)	EPA 5035/5030B	452888	EPA 8260	452889
40266996008	SB-4 (7)	EPA 5035/5030B	452888	EPA 8260	452889
40266996009	SB-5 (2)	EPA 5035/5030B	452888	EPA 8260	452889
40266996010	SB-5 (7)	EPA 5035/5030B	452888	EPA 8260	452889
40266996011	SB-6 (2)	EPA 5035/5030B	452888	EPA 8260	452889
40266996012	SB-6 (8)	EPA 5035/5030B	452888	EPA 8260	452889
40266996001	SB-1 (3-5.5)	ASTM D2974-87	452834		
40266996002	SB-1 (8-10)	ASTM D2974-87	452834		
40266996003	SB-2 (1-2.5)	ASTM D2974-87	452834		
40266996004	SB-2 (6-7.5)	ASTM D2974-87	452834		
40266996005	SB-3 (2)	ASTM D2974-87	452834		
40266996006	SB-3 (10)	ASTM D2974-87	452834		
40266996007	SB-4 (2)	ASTM D2974-87	452835		
40266996008	SB-4 (7)	ASTM D2974-87	452835		
40266996009	SB-5 (2)	ASTM D2974-87	452835		
40266996010	SB-5 (7)	ASTM D2974-87	452835		
40266996011	SB-6 (2)	ASTM D2974-87	452835		
40266996012	SB-6 (8)	ASTM D2974-87	452835		

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# CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

40266996

## ALL SHADED AREAS are for LAB USE ONLY

Company: \_\_\_\_\_ Billing Information: \_\_\_\_\_

Address: **SAME** \_\_\_\_\_

Report To: \_\_\_\_\_ Email To: \_\_\_\_\_

Copy To: \_\_\_\_\_ Site Collection Info/Address: \_\_\_\_\_

Customer Project Name/Number: **OS** State: **/** County/City: \_\_\_\_\_ Time Zone Collected: [ ] PT [ ] MT [ ] CT [ ] ET

Phone: \_\_\_\_\_ Site/Facility ID #: \_\_\_\_\_ Compliance Monitoring? [ ] Yes [ ] No

Collected By (print): **Page** Purchase Order #: \_\_\_\_\_ DW PWS ID #: \_\_\_\_\_

Collected By (signature): \_\_\_\_\_ Turnaround Date Required: \_\_\_\_\_ DW Location Code: \_\_\_\_\_

Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day [ ] Hold: \_\_\_\_\_ (Expedite Charges Apply) Field Filtered (if applicable): [ ] Yes [ ] No

Container Preservative Type \*\*: **6 0**

Lab Project Manager: \_\_\_\_\_

\*\* Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other \_\_\_\_\_

Analyses										Lab Profile/Line:
<b>Pboc + N</b> <b>1/2 moisture</b>										<b>Lab Sample Receipt Checklist:</b> Custody Seals Present/Intact Y N NA Custody Signatures Present Y N NA Collector Signature Present Y N NA Bottles Intact Y N NA Correct Bottles Y N NA Sufficient Volume Y N NA Samples Received on Ice Y N NA VOA headspace Acceptable Y N NA USDA Regulated Solids Y N NA Samples in Holding Time Y N NA Residual Chlorine Present Y N NA Cl Strips: _____ Sample pH Acceptable Y N NA pH Strips: _____ Sulfide Present Y N NA Lead Acetate Strips: _____
										LAB USE ONLY: Lab Sample # / Comments:
										<b>8/19/23 86</b> <b>011</b> <b>012</b>

\* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res Cl	# of Ctns
			Date	Time	Date	Time		
SB-6(2)	SL	6	8/18/23	1250				
SB-6(8)	L	1	↓	1255				

Customer Remarks / Special Conditions / Possible Hazards: \_\_\_\_\_

Type of Ice Used: Wet Blue Dry None

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Packing Material Used: **①**

Lab Tracking #: **2908865**

Radchem sample(s) screened (<500 cpm): Y N NA

Samples received via: FEDEX UPS Client Courier Pace Courier

Relinquished by/Company: (Signature) \_\_\_\_\_ Date/Time: **8/18/23 1400** Received by/Company: (Signature) \_\_\_\_\_ Date/Time: \_\_\_\_\_

Relinquished by/Company: (Signature) **OS Logistics** Date/Time: **8/19/23 0845** Received by/Company: (Signature) **S. J. Moore** Date/Time: **8/19/23 0845**

Relinquished by/Company: (Signature) \_\_\_\_\_ Date/Time: \_\_\_\_\_ Received by/Company: (Signature) \_\_\_\_\_ Date/Time: \_\_\_\_\_

Lab Sample Temperature Info:

Temp Blank Received: Y N NA

Therm ID#: \_\_\_\_\_

Cooler 1 Temp Upon Receipt: \_\_\_\_\_ oC

Cooler 1 Therm Corr. Factor: \_\_\_\_\_ oC

Cooler 1 Corrected Temp: \_\_\_\_\_ oC

Comments: \_\_\_\_\_

Trip Blank Received: Y N NA

HCL MeOH TSP Other

Non Conformance(s): \_\_\_\_\_ Page **2** of 21

YES / NO of: **2**



### Sample Condition Upon Receipt Form (SCUR)

Project #:

**Client Name:** Endpoint Solutions  
**Courier:**  CS Logistics  Fed Ex  Speedee  UPS  Walco  
 Client  Pace Other: \_\_\_\_\_

**WO# : 40266996**  
  
 40266996

**Tracking #:** \_\_\_\_\_  
**Custody Seal on Cooler/Box Present:**  yes  no **Seals intact:**  yes  no  
**Custody Seal on Samples Present:**  yes  no **Seals intact:**  yes  no  
**Packing Material:**  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_  
**Thermometer Used** SR-109 **Type of Ice:**  Wet  Blue  Dry  None  Meltwater Only

**Cooler Temperature** Uncorr: 0.0 / Corr: 0.0  
**Temp Blank Present:**  yes  no **Biological Tissue is Frozen:**  yes  no

**Person examining contents:**  
 Date: 8/19/03 Initials: SG  
 Labeled By Initials: MMS

Temp should be above freezing to 6°C.  
 Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- DI VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Correct Type: <u>Pace Green Bay</u> Pace IR, <u>Non-Pace</u>		
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>SL</u>		
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

**Client Notification/ Resolution:** \_\_\_\_\_ If checked, see attached form for additional comments   
 Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Comments/ Resolution: \_\_\_\_\_

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logi

**APPENDIX B**

FORM 4400-237

**Notice:** Use this form to request a **written response (on agency letterhead)** from the Department of Natural Resources (DNR) regarding technical assistance, a post-closure change to a site, a specialized agreement or liability clarification for Property with known or suspected environmental contamination. A fee will be required as is authorized by s. 292.55, Wis. Stats., and NR 749, Wis. Adm. Code., unless noted in the instructions below. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31 - 19.39, Wis. Stats.].

## Definitions

**"Property"** refers to the subject Property that is perceived to have been or has been impacted by the discharge of hazardous substances.

**"Liability Clarification"** refers to a written determination by the Department provided in response to a request made on this form. The response clarifies whether a person is or may become liable for the environmental contamination of a Property, as provided in s. 292.55, Wis. Stats.

**"Technical Assistance"** refers to the Department's assistance or comments on the planning and implementation of an environmental investigation or environmental cleanup on a Property in response to a request made on this form as provided in s. 292.55, Wis. Stats.

**"Post-closure modification"** refers to changes to Property boundaries and/or continuing obligations for Properties or sites that received closure letters for which continuing obligations have been applied or where contamination remains. Many, but not all, of these sites are included on the GIS Registry layer of RR Sites Map to provide public notice of residual contamination and continuing obligations.

## Select the Correct Form

This form should be used to request the following from the DNR:

- Technical Assistance
- Liability Clarification
- Post-Closure Modifications
- Specialized Agreements (tax cancellation, negotiated agreements, etc.)

**Do not use this form if one of the following applies:**

- Request for an **off-site liability exemption or clarification** for Property that has been or is perceived to be contaminated by one or more hazardous substances that originated on another Property containing the source of the contamination. Use DNR's Off-Site Liability Exemption and Liability Clarification Application Form 4400-201.
- Submittal of an Environmental Assessment for the **Lender Liability Exemption**, s 292.21, Wis. Stats., **if no response or review by DNR is requested**. Use the Lender Liability Exemption Environmental Assessment Tracking Form 4400-196.
- Request for an **exemption to develop on a historic fill site** or licensed landfill. Use DNR's Form 4400-226 or 4400-226A.
- **Request for closure** for Property where the investigation and cleanup actions are completed. Use DNR's Case Closure - GIS Registry Form 4400-202.

All forms, publications and additional information are available on the internet at: [dnr.wi.gov/topic/Brownfields/Pubs.html](http://dnr.wi.gov/topic/Brownfields/Pubs.html).

## Instructions

1. Complete sections 1, 2, 6 and 7 for all requests. Be sure to provide adequate and complete information.
2. Select the type of assistance requested: Section 3 for technical assistance or post-closure modifications, Section 4 for a written determination or clarification of environmental liabilities; or Section 5 for a specialized agreement.
3. Include the fee payment that is listed in Section 3, 4, or 5, unless you are a "Voluntary Party" enrolled in the Voluntary Party Liability Exemption Program **and** the questions in Section 2 direct otherwise. Information on to whom and where to send the fee is found in Section 8 of this form.
4. Send the completed request, supporting materials and the fee to the appropriate DNR regional office where the Property is located. See the map on the last page of this form. A paper copy of the signed form and all reports and supporting materials shall be sent with an electronic copy of the form and supporting materials on a compact disk. For electronic document submittal requirements see: <http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf>

The time required for DNR's determination varies depending on the complexity of the site, and the clarity and completeness of the request and supporting documentation.

# Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 12/18)

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## Section 1. Contact and Recipient Information

### Requester Information

This is the person requesting technical assistance or a post-closure modification review, that his or her liability be clarified or a specialized agreement and is identified as the requester in Section 7. DNR will address its response letter to this person.

Last Name Ford	First John	MI	Organization/ Business Name Three Leaf Partners
Mailing Address 504 West Juneau Street		City Milwaukee	State WI
		ZIP Code 53203	
Phone # (include area code) (414) 775-0857	Fax # (include area code)	Email jford@threeleafdevelopment.com	

The requester listed above: (select all that apply)

- Is currently the owner
  Is considering selling the Property  
 Is renting or leasing the Property
  Is considering acquiring the Property  
 Is a lender with a mortgagee interest in the Property  
 Other. Explain the status of the Property with respect to the applicant:

### Contact Information (to be contacted with questions about this request)

Select if same as requester

Contact Last Name Ford	First John	MI	Organization/ Business Name Three Leaf Partners
Mailing Address 504 West Juneau Street		City Milwaukee	State WI
		ZIP Code 53203	
Phone # (include area code) (414) 775-0857	Fax # (include area code)	Email jford@threeleafdevelopment.com	

### Environmental Consultant (if applicable)

Contact Last Name Cigale	First Bob	MI	Organization/ Business Name Endpoint Solutions Corp.
Mailing Address 6871 South Lovers Lane		City Franklin	State WI
		ZIP Code 53132	
Phone # (include area code) (414) 427-1200	Fax # (include area code) (414) 427-1259	Email bob@endpointcorporation.com	

### Property Owner (if different from requester)

Contact Last Name Beaudry	First Tom	MI	Organization/ Business Name 700 West Capitol Drive LLC
Mailing Address 1422 Pearl Street		City Waukesha	State WI
		ZIP Code 53186-5604	
Phone # (include area code)	Fax # (include area code)	Email tbeaudry@corporatedesigninteriors.com	

# Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 12/18)

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## Section 2. Property Information

Property Name <b>LaFarge Wisconsin Div</b>		FID No. (if known) <b>268554330</b>	
BRRTS No. (if known) <b>03-68-205411</b>	Parcel Identification Number <b>HAV 0730985</b>		
Street Address <b>700 West Capitol Drive</b>	City <b>Hartland</b>	State <b>WI</b>	ZIP Code <b>53029</b>
County <b>Waukesha</b>	Municipality where the Property is located <input type="radio"/> City <input type="radio"/> Town <input checked="" type="radio"/> Village of <b>Hartland</b>	Property is composed of: <input checked="" type="radio"/> Single tax parcel <input type="radio"/> Multiple tax parcels	Property Size Acres <b>12</b>

1. Is a response needed by a specific date? (e.g., Property closing date) Note: Most requests are completed within 60 days. Please plan accordingly.

No  Yes

Date requested by: 12/01/2023

Reason: Working with Village of Hartland on a PUD overlay and need approval for WDNR as a pre-requisite for Village Board approval

2. Is the "Requester" enrolled as a Voluntary Party in the Voluntary Party Liability Exemption (VPLE) program?

No. **Include the fee that is required for your request in Section 3, 4 or 5.**

Yes. **Do not include a separate fee.** This request will be billed separately through the VPLE Program.

**Fill out the information in Section 3, 4 or 5 which corresponds with the type of request:**

**Section 3. Technical Assistance or Post-Closure Modifications;**

**Section 4. Liability Clarification; or Section 5. Specialized Agreement.**

## Section 3. Request for Technical Assistance or Post-Closure Modification

Select the type of technical assistance requested: **[Numbers in brackets are for WI DNR Use]**

- No Further Action Letter (NFA) (Immediate Actions) - NR 708.09, [183] - **Include a fee of \$350.** Use for a written response to an immediate action after a discharge of a hazardous substance occurs. Generally, these are for a one-time spill event.
- Review of Site Investigation Work Plan - NR 716.09, [135] - **Include a fee of \$700.**
- Review of Site Investigation Report - NR 716.15, [137] - **Include a fee of \$1050.**
- Approval of a Site-Specific Soil Cleanup Standard - NR 720.10 or 12, [67] - **Include a fee of \$1050.**
- Review of a Remedial Action Options Report - NR 722.13, [143] - **Include a fee of \$1050.**
- Review of a Remedial Action Design Report - NR 724.09, [148] - **Include a fee of \$1050.**
- Review of a Remedial Action Documentation Report - NR 724.15, [152] - **Include a fee of \$350**
- Review of a Long-term Monitoring Plan - NR 724.17, [25] - **Include a fee of \$425.**
- Review of an Operation and Maintenance Plan - NR 724.13, [192] - **Include a fee of \$425.**

Other Technical Assistance - s. 292.55, Wis. Stats. [97] (For request to build on an abandoned landfill use Form 4400-226)

- Schedule a Technical Assistance Meeting - **Include a fee of \$700.**
- Hazardous Waste Determination - **Include a fee of \$700.**
- Other Technical Assistance - **Include a fee of \$700.** Explain your request in an attachment.

Post-Closure Modifications - NR 727, [181]

- Post-Closure Modifications: Modification to Property boundaries and/or continuing obligations of a closed site or Property; sites may be on the GIS Registry. This also includes removal of a site or Property from the GIS Registry. **Include a fee of \$1050, and:**
  - Include a fee of \$300 for sites with residual soil contamination; and
  - Include a fee of \$350 for sites with residual groundwater contamination, monitoring wells or for vapor intrusion continuing obligations.

Attach a description of the changes you are proposing, and documentation as to why the changes are needed (if the change to a Property, site or continuing obligation will result in revised maps, maintenance plans or photographs, those documents may be submitted later in the approval process, on a case-by-case basis).

# Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 12/18)

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**Skip Sections 4 and 5 if the technical assistance you are requesting is listed above and complete Sections 6 and 7 of this form.**

## Section 4. Request for Liability Clarification

Select the type of liability clarification requested. Use the available space given or attach information, explanations, or specific questions that you need answered in DNR's reply. Complete Sections 6 and 7 of this form. **[Numbers in brackets are for DNR Use]**

"Lender" liability exemption clarification - s. 292.21, Wis. Stats. [686]

❖ **Include a fee of \$700.**

Provide the following documentation:

- (1) ownership status of the real Property, and/or the personal Property and fixtures;
- (2) an environmental assessment, in accordance with s. 292.21, Wis. Stats.;
- (3) the date the environmental assessment was conducted by the lender;
- (4) the date of the Property acquisition; for foreclosure actions, include a copy of the signed and dated court order confirming the sheriff's sale.
- (5) documentation showing how the Property was acquired and the steps followed under the appropriate state statutes.
- (6) a copy of the Property deed with the correct legal description; and,
- (7) the Lender Liability Exemption Environmental Assessment Tracking Form (Form 4400-196).
- (8) If no sampling was done, please provide reasoning as to why it was **not** conducted. Include this either in the accompanying environmental assessment or as an attachment to this form, and cite language in s. 292.21(1)(c)2., h.-i., Wis. Stats.:
  - h. The collection and analysis of representative samples of soil or other materials in the ground that are suspected of being contaminated based on observations made during a visual inspection of the real Property or based on aerial photographs, or other information available to the lender, including stained or discolored soil or other materials in the ground and including soil or materials in the ground in areas with dead or distressed vegetation. The collection and analysis shall identify contaminants in the soil or other materials in the ground and shall quantify concentrations.
  - i. The collection and analysis of representative samples of unknown wastes or potentially hazardous substances found on the real Property and the determination of concentrations of hazardous waste and hazardous substances found in tanks, drums or other containers or in piles or lagoons on the real Property.

"Representative" liability exemption clarification (e.g. trustees, receivers, etc.) - s. 292.21, Wis. Stats. [686]

❖ **Include a fee of \$700.**

Provide the following documentation:

- (1) ownership status of the Property;
- (2) the date of Property acquisition by the representative;
- (3) the means by which the Property was acquired;
- (4) documentation that the representative has no beneficial interest in any entity that owns, possesses, or controls the Property;
- (5) documentation that the representative has not caused any discharge of a hazardous substance on the Property; and
- (6) a copy of the Property deed with the correct legal description.

Clarification of local governmental unit (LGU) liability exemption at sites with: (select all that apply)

- hazardous substances spills - s. 292.11(9)(e), Wis. Stats. [649];
- Perceived environmental contamination - [649];
- hazardous waste - s. 292.24 (2), Wis. Stats. [649]; and/or
- solid waste - s. 292.23 (2), Wis. Stats. [649].

❖ **Include a fee of \$700, a summary of the environmental liability clarification being requested, and the following:**

- (1) clear supporting documentation showing the acquisition method used, and the steps followed under the appropriate state statute(s).
- (2) current and proposed ownership status of the Property;
- (3) date and means by which the Property was acquired by the LGU, where applicable;
- (4) a map and the ¼, ¼ section location of the Property;
- (5) summary of current uses of the Property;
- (6) intended or potential use(s) of the Property;
- (7) descriptions of other investigations that have taken place on the Property; and
- (8) (for solid waste clarifications) a summary of the license history of the facility.

# Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 12/18)

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## Section 4. Request for Liability Clarification (cont.)

Lease liability clarification - s. 292.55, Wis. Stats. [646]

❖ **Include a fee of \$700 for a single Property, or \$1400 for multiple Properties and the information listed below:**

- (1) a copy of the proposed lease;
- (2) the name of the current owner of the Property and the person who will lease the Property;
- (3) a description of the lease holder's association with any persons who have possession, control, or caused a discharge of a hazardous substance on the Property;
- (4) map(s) showing the Property location and any suspected or known sources of contamination detected on the Property;
- (5) a description of the intended use of the Property by the lease holder, with reference to the maps to indicate which areas will be used. Explain how the use will not interfere with any future investigation or cleanup at the Property; and
- (6) all reports or investigations (e.g. Phase I and Phase II Environmental Assessments and/or Site Investigation Reports conducted under s. NR 716, Wis. Adm. Code) that identify areas of the Property where a discharge has occurred.

General or other environmental liability clarification - s. 292.55, Wis. Stats. [682] - Explain your request below.

❖ **Include a fee of \$700 and an adequate summary of relevant environmental work to date.**

No Action Required (NAR) - NR 716.05, [682]

❖ **Include a fee of \$700.**

Use where an environmental discharge has or has not occurred, and applicant wants a DNR determination that no further assessment or clean-up work is required. Usually this is requested after a Phase I and Phase II environmental assessment has been conducted; the assessment reports should be submitted with this form. This is not a closure letter.

Clarify the liability associated with a "closed" Property - s. 292.55, Wis. Stats. [682]

❖ **Include a fee of \$700.**

- Include a copy of any closure documents if a state agency other than DNR approved the closure.

Use this space or attach additional sheets to provide necessary information, explanations or specific questions to be answered by the DNR.

## Section 5. Request for a Specialized Agreement

Select the type of agreement needed. Include the appropriate draft agreements and supporting materials. Complete Sections 6 and 7 of this form. More information and model draft agreements are available at: [dnr.wi.gov/topic/Brownfields/Igu.html#tabx4](http://dnr.wi.gov/topic/Brownfields/Igu.html#tabx4).

Tax cancellation agreement - s. 75.105(2)(d), Wis. Stats. [654]

❖ **Include a fee of \$700, and the information listed below:**

- (1) Phase I and II Environmental Site Assessment Reports,
- (2) a copy of the Property deed with the correct legal description.

Agreement for assignment of tax foreclosure judgement - s.75.106, Wis. Stats. [666]

❖ **Include a fee of \$700, and the information listed below:**

- (1) Phase I and II Environmental Site Assessment Reports,
- (2) a copy of the Property deed with the correct legal description.

Negotiated agreement - Enforceable contract for non-emergency remediation - s. 292.11(7)(d) and (e), Wis. Stats. [630]

❖ **Include a fee of \$1400, and the information listed below:**

- (1) a draft schedule for remediation; and,
- (2) the name, mailing address, phone and email for each party to the agreement.

# Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 12/18)

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## Section 6. Other Information Submitted

Identify all materials that are included with this request.

Send both a paper copy of the signed form and all reports and supporting materials, and an electronic copy of the form and all reports, including Environmental Site Assessment Reports, and supporting materials on a compact disk.

Include one copy of any document from any state agency files that you want the Department to review as part of this request. The person submitting this request is responsible for contacting other state agencies to obtain appropriate reports or information.

- Phase I Environmental Site Assessment Report - Date: \_\_\_\_\_
- Phase II Environmental Site Assessment Report - Date: \_\_\_\_\_
- Legal Description of Property (required for all liability requests and specialized agreements)
- Map of the Property (required for all liability requests and specialized agreements)

Analytical results of the following sampled media: Select all that apply and include date of collection.

- Groundwater     Soil     Sediment     Other medium - Describe: \_\_\_\_\_

Date of Collection: \_\_\_\_\_

- A copy of the closure letter and submittal materials
- Draft tax cancellation agreement
- Draft agreement for assignment of tax foreclosure judgment
- Other report(s) or information - Describe: Post-Closure Modification Request document

For Property with newly identified discharges of hazardous substances only: Has a notification of a discharge of a hazardous substance been sent to the DNR as required by s. NR 706.05(1)(b), Wis. Adm. Code?

- Yes - Date (if known): \_\_\_\_\_
- No

Note: The Notification for Hazardous Substance Discharge (non-emergency) form is available at:  
[dnr.wi.gov/files/PDF/forms/4400/4400-225.pdf](http://dnr.wi.gov/files/PDF/forms/4400/4400-225.pdf).

## Section 7. Certification by the Person who completed this form

- I am the person submitting this request (requester)
- I prepared this request for: Three Leaf Partners  
Requester Name

I certify that I am familiar with the information submitted on this request, and that the information on and included with this request is true, accurate and complete to the best of my knowledge. I also certify I have the legal authority and the applicant's permission to make this request.

Signature



Date Signed

November 27, 2023

Principal

Title

(414) 858-1202

Telephone Number (include area code)

# Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 12/18)

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## Section 8. DNR Contacts and Addresses for Request Submittals

Send or deliver one paper copy and one electronic copy on a compact disk of the completed request, supporting materials, and fee to the region where the property is located to the address below. Contact a [DNR regional brownfields specialist](#) with any questions about this form or a specific situation involving a contaminated property. For electronic document submittal requirements see: <http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf>.

### DNR NORTHERN REGION

Attn: RR Program Assistant  
Department of Natural Resources  
223 E Steinfest Rd Antigo, WI 54409

### DNR NORTHEAST REGION

Attn: RR Program Assistant  
Department of Natural Resources  
2984 Shawano Avenue  
Green Bay WI 54313

### DNR SOUTH CENTRAL REGION

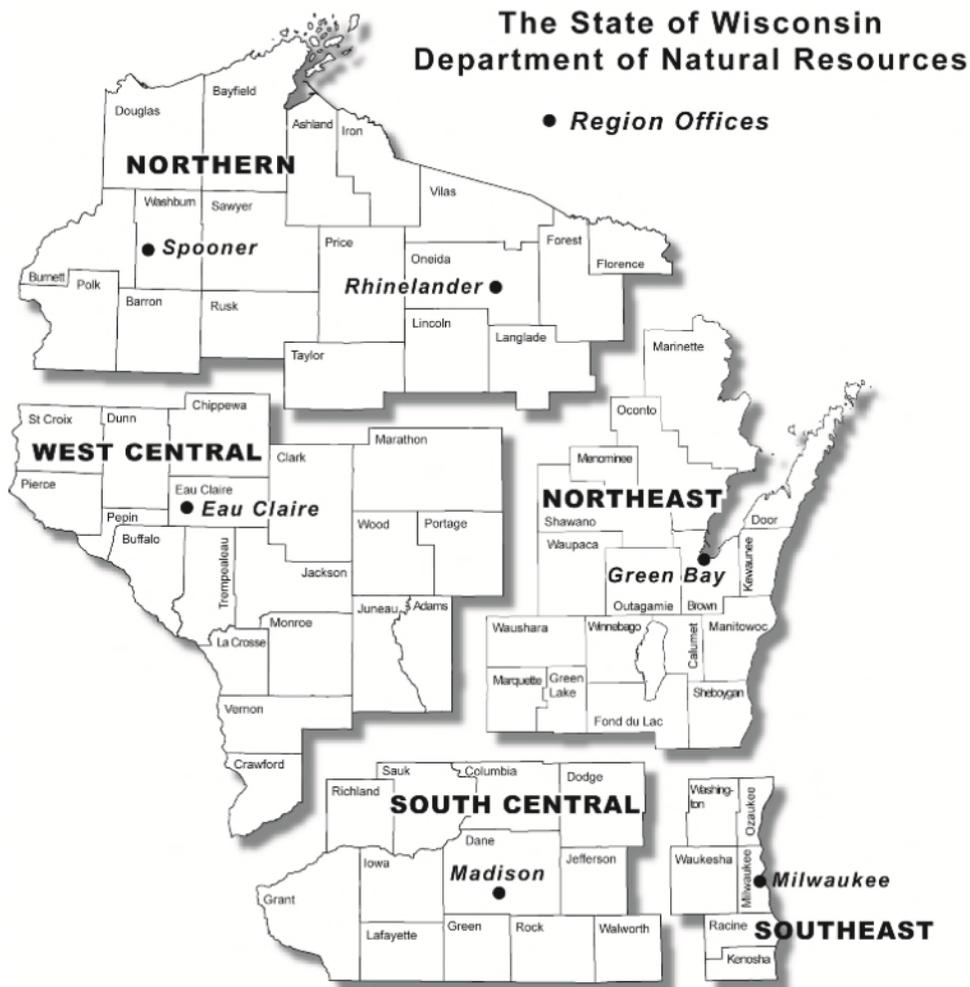
Attn: RR Program Assistant  
Department of Natural Resources  
3911 Fish Hatchery Road  
Fitchburg WI 53711

### DNR SOUTHEAST REGION

Attn: RR Program Assistant  
Department of Natural Resources  
2300 North Martin Luther King Drive  
Milwaukee WI 53212

### DNR WEST CENTRAL REGION

Attn: RR Program Assistant  
Department of Natural Resources  
1300 Clairemont Ave.  
Eau Claire WI 54702



*Note: These are the Remediation and Redevelopment Program's designated regions. Other DNR program regional boundaries may be different.*

DNR Use Only			
Date Received	Date Assigned	BRRTS Activity Code	BRRTS No. (if used)
DNR Reviewer		Comments	
Fee Enclosed? <input type="radio"/> Yes <input type="radio"/> No	Fee Amount \$	Date Additional Information Requested	Date Requested for DNR Response Letter
Date Approved	Final Determination		