FORM A
MONITORING AND MAINTANCE OF CAP AREAS FOR fYNOP ANNUAL POST-REMEDIATION CARE PLAN ACTIVITIES

This form is used to document the results of annual post-remediation care activities for engineering and institutional controls at the Former York Naval Ordnance Plant (fYNOP) in York, Pennsylvania. These activities are to be performed in accordance with the procedures in the approved Pennsylvania Land Recycling and Environmental Remediation Standards Act (Act 2) Final Report and Post-Remediation Care Plan (PRCP) contained in Appendix J of the Final Report.

The activities covered by this form include reviewing low altitude aerial photographs using unmanned aircraft system (drone) technology and conducting a walk-over inspection to monitor integrity of cap areas in accordance with Section 4.3.1 in the PRCP. This form also includes interviewing property representatives to document maintenance of cap areas in accordance with Section 5.1 in the PRCP.

Which property does this form cover?

- ☑ East Campus property.
- ☐ West Campus property.

Aerial Photograph Information

Date photographs taken: March 14, 2024
Company taking photographs: Hydro-Terra Group
Equipment used: DJI Zenmuse XZ5S Camera & DJI Matrice 200 Drone
Elevation of camera above ground surface: 400 feet
Weather conditions: 61F, Sunny/Clear Skies, 1 mph wind from SW with 2 mph gusts
Georeferencing Method: 3D ground control points taken with Trimble Da2
Number of photographs taken: 1058 (East and West Campus)

Please include copies of the aerial photographs with this completed form. [One (1) summary/site aerial photograph provided only]

Do the aerial photographs cover the current cap area shown on the attached plate for the property?

- ☑ Yes.
- ☐ No. If no, describe the cap area(s) not included in the photographs and reason(s) why not included.

Did the aerial photograph review identify evidence of changes (e.g., damage, repair, replacement, alteration to type of material, and coverage size) to cap areas on the property shown on the current cap area plate?

- ☑ No.
- ☐ Yes. If yes, describe the changes to cap area(s) and/or where they are not present.

Walk-Over Inspection Information

Date of walk-over inspection: 3/14/2024
Company performing the inspection: Hydro-Terra Group (HTG)
Name of inspector: Emily Wade
Weather conditions: 61F, Sunny/Clear Skies, 1 mph wind from SW with 2 mph gusts
Number of photographs taken: 17

Please include copies of photographs taken during the inspection with this completed form.

Were all changes to cap areas identified by the aerial photograph assessment also inspected?

- ☑ Not applicable. No changes were identified by the aerial photograph assessment.
- ☐ Yes.
- ☐ No. If no, describe the items identified during aerial photograph assessment that were not observed during the inspection and why they were not observed.

Did the inspection include the entire cap area shown on the current cap area plate for the property?

- ☑ Yes.
- ☐ No. If no, describe the cap area(s) not included in the inspection and reason(s) why not included.

Did the inspection identify evidence of changes (e.g., damage, repair, replacement, alteration to type of material, and coverage size) to cap areas on the property?

- ☑ No.
- ☐ Yes. If yes, describe the changes to cap area(s) and/or where they are not present.

Interview Information

Date of interview: 2/10/25
Company performing the interview: Hydro-Terra Group
Name of interviewer: Rodney Myers, Hydro-Terra Group
Name of person interviewed: Tim Scripko, Harley-Davidson

Did the interview identify changes to cap area(s) and/or material(s) on the property?

- ☐ No.
- ☑ Yes. If yes, describe the changes to cap area(s) and/or material(s).

New interior machine pits constructed within the northern end of Building 3.

Did the interview identify maintenance of cap area(s) on the property?

- ☐ No.
- ☑ Yes. If yes, summarize the cap maintenance activity(s).

New stormwater utility construction along south side of Building 3; Sinkhole repair near Building 70; and new interior machine pits constructed within the northern end of Building 3.

Note: The following maintenance section of this form does not need to be completed if no changes to cap area(s) and type(s) were identified during the aerial photograph review, walk-over inspection, or interview activities.

Cap Maintenance Activity Reporting

Describe the maintenance activity(s) performed to repair and/or replace the disturbed portion(s) of the cap area(s), the date the maintenance was completed, the company that performed the maintenance, the construction details and material specifications used in accordance with Appendix B of the PRCP (Construction Details for Caps) and identify the location(s) on a figure.

10-21-24 through 10-25-24 –Kinsley Construction installed a new stormwater inlet and stormwater piping along the sidewalk curb south of Building 3. The existing asphalt cap was removed, and soil was excavated along the sidewalk curb for the installation of a new stormwater inlet and stormwater pipe. The stormwater pipe and inlet were installed, and stone was used to backfill around the inlet and stormwater pipe. The thickness of the stone was approximately ten (10) inches above the stormwater pipe and topped with six inches of asphalt (binder and topcoat) and the seams were sealed. This replacement cap matches the previous cap and conforms with Appendix B of the PRCP. See Hydro-Terra Group Building 3 Stormwater Utility Soil Characterization Report dated November 15, 2024.

11-7-24 through 11-8-24 – Stewart and Tate excavated a small sinkhole located south of the western corner of the roll off lean to structure. Asphalt was removed and the area where the sinkhole was located was excavated. The excavation area was lined with geofabric, backfilled with reverse grade stone, and topped with a minimum of 6 inches of asphalt. This replacement cap matched the previous cap and conforms with Appendix B of the PRCP. See Hydro-Terra Group Building 70 Sinkhole Repair and Soil Characterization Report dated December 11, 2024.

12-12-24 through 12-30-24 – C&D Rigging removed concrete floor and excavated two small pits within the north end of Building 3 to construct equipment vaults measuring approximately 5’ x 5.5’ x 13” deep, and 6.8’ x 10’ x 13” deep. The new pits bottoms were constructed with 6-inches of concrete, which is thinner than the surrounding concrete floor, but conforms with Appendix B of the PRCP.

Other Observations

Did the aerial photograph review and/or inspection activities identify evidence of intrusive activities (areas of disturbance) on the property?

- ☑ No.
- ☐ Yes. If yes, describe the activities and identity the estimated extent/location on a figure.

Were other noteworthy observations related to annual post-remediation care activities identified during the aerial photograph review and/or inspection activities on the property?

☐ No.

☑ Yes. If yes, describe the observations.

A small area of asphalt is beginning to break apart east of the roll off lean to structure, near Building 70. The cap is still intact and is in conformance, but this area should be monitored for additional damage.

Monitoring and Maintenance of Cap Areas Form Prepared By:

Hydro-Terra Group
Company Name

Rodney Myers, CHMM - Sr. Program Manager
Company Representative / Title

4/3/2025
Signature / Date

Consultant- fYNOP Team Member
Relationship to Owner of the Property

West Campus Boundary
East Campus Boundary

400 200 0 400
Scale in Feet

Former York Naval Ordnance Plant

1425 & 1445 Eden Road York, PA 17402

Hydro-Terra Group
www.hydro-terra.com

fYNOP Cleanup

March 14, 2024
Drone Imagery

drawn:	LPS	04/05/24	figure:
checked:	EMW	04/05/24	5
approved:	RGM	04/05/24	

J:\Harley-Davidson\Job - 2024 fYNOP Cap Inspection\Maps\2024 fYNOP Cap Direct Contact.aprx

Coordinate System: NAD 1983 2011 StatePlane Pennsylvania South FIPS 3702 Ft US

15 November 2024

Mr. Timothy Scripko
EHS – Sr. Generalist
Harley-Davidson Motor Company Operations, Inc.
1425 Eden Road
York, PA 17402

www.hydro-terra.com

Re: Building 3 Stormwater Utility Soil Characterization
Harley-Davidson Motor Company Operations, Inc.
1425 Eden Road, York Pennsylvania

Dear Mr. Scripko:

Hydro-Terra Group (HTG) provided a qualified environmental professional and environmental soil characterization services for the Building 3 Stormwater Utility Project area at the Harley-Davidson Motor Company Operations, Inc. (Harley-Davidson) facility in York, Pennsylvania. This report provides the results of the qualified environmental professional and characterization of the soil recently removed from the utility construction area.

The Building 3 stormwater utility work included the installation of a new stormwater inlet and stormwater piping along the sidewalk curb south of Building 3 (**Figure 1**). The utility and excavation work was conducted by Kinsley Construction, a Harley-Davidson contractor. Emily Wade (HTG) was the qualified environmental professional who monitored worker activity, inspected and scanned the excavated soil with a photoionization detector (PID), which is used to detect volatile organic compounds (VOCs) in the soil, and collected a representative sample of the excess soil for characterization. Contractors conducting this work excavated and stockpiled excess soil on-site following the utility installation work (**Figure 2**).

The former York Naval Ordnance Plant (fYNOP) Post Remediation Care Plan (PRCP) sets forth guidelines for the maintenance and repair of permanent direct-contact prevention caps, which includes the area of the Building 3 stormwater utility work. As described in the PRCP, caps are needed to prevent direct contact with underlying soils. If a cap is damaged or removed, it must be replaced in accordance with requirements described in the PRCP.

Inspection Summary

HTG was contracted as a qualified environmental professional to oversee the contractor and excavation work. The contractor milled the asphalt in the excavation area and hauled the millings offsite to an asphalt recycling plant. HTG inspected the excavated soil for staining or odors and scanned the soil with a PID. No staining or odors were observed in the excavated soil. The soil excavated soil was scanned with a PID and all PID readings were 0.0 ppm. Below is a table with PID readings collected during the excavation work.

Date	Time	PID Reading (ppm)
10/22/2024	11:40	0
10/22/2024	14:05	0
10/23/2024	7:45	0
10/23/2024	8:30	0
10/23/2024	9:20	0
10/23/2024	10:25	0
10/23/2024	11:45	0
10/23/2024	13:33	0
10/23/2024	14:25	0

The contractor installed a new stormwater inlet and piping to connect the new inlet to an existing inlet to the west (**Figure 1**). The utility installation area is located south of the main plant entrance. After the stormwater utilities were installed, the excavation area was backfilled with ten inches of stone and topped with six inches of asphalt (binder and topcoat). The cap area that was removed for the installation work was replaced with acceptable cap material meeting the minimum thickness and quality for direct contact prevention identified in the PRCP. Excavated soil was stockpile in the upper 80 (northern portion of the site) (**Figure 2**). Photos of the stormwater utility work and asphalt installation are provided in **Appendix A**.

<u>Sampling Summary</u>

The Pennsylvania Department of Environmental Protection (PADEP) Management of Fill Policy (Document No. 258-2182-773, January 16, 2021) provides procedures and numerical standards for sampling material to determine whether it can be classified as "clean fill". According to this guidance, clean fill includes soil, rock, stone, gravel, used asphalt, brick, block or concrete from construction and demolition activities that is separate from other waste and recognizable as such, and is defined as uncontaminated, non-water-soluble, non-decomposable, inert solid material used to level an area or bring an area to grade. The term does not include materials placed in or on the waters of the Commonwealth, or fill that has been blended, mixed or treated with the purpose of meeting the definition of "clean fill" and that without being blended, mixed or treated would fail to meet the numeric limits identified in the definition of "uncontaminated material" contained in the policy.

HTG collected soil samples from the stockpiled soil generated from the Building 3 utility installation activities on October 23, 2024 for environmental testing in accordance with the PADEP Management of Fill guidance. The sampling was conducted as follows:

- HTG completed environmental sampling at eight sampling locations from the on-site stockpiles. Two (2) composite soil samples were collected – each composite represented four (4) sub-sampling locations, and these 4 subsamples were mixed together for non-volatile compound sampling.
- Two biased discrete soil samples were collected for analysis of total volatile organic compounds (VOCs) based on discoloration, staining, odors, and/or elevated PID readings.
- A quality assurance/quality control trip blank sample and temperature blank, consisting of reagent water, was also retained from the laboratory, and accompanied the samples during

collection, transportation and shipment back to the laboratory. The trip blank was tested for VOCs only, to assess the potential for cross-contamination. The temperature blank was used to confirm that the samples were adequately cooled during sample transport to the laboratory.

All samples were packed on ice in a cooler and shipped to Eurofins Lancaster Laboratories Environmental, LLC (ELLE), Leola, PA. Based on the known history of operations on-site, the following constituents of concern were tested:

- Total VOCs by U.S. Environmental Protection Agency (EPA) method 8260.
- Total semi-volatile organic compounds (SVOCs) by EPA method 8270 and 8270 SIM.
- Total Priority Pollutant metals by EPA method 6010 and 7471 (for mercury)
- Hexavalent chromium by EPBA method 7196
- Total polychlorinated biphenyls (PCBs) by EPA method 8082
- Total cyanide by EPA method 9012

Analytical Results

The final laboratory report is attached with the results of the soil testing (ELLE Lab Report No. 410-193575-1, **Appendix B**). **Table 1** (attached) provides a summary of the tested compounds, with comparison to their respective PADEP Clean Fill Concentration Limits (CFCLs), Regulated Fill Concentration Limits (RFCLs), and the PADEP nonresidential (NR) state-wide health standard Medium Specific Concentrations (MSC). Samples are identified in **Table 1** with the sampling location IDs HD-Bldg 3-SS-1 and HD-Bldg 3-SS-2. Although there were some laboratory data qualifiers included with the reported results, there were no significant quality assurance/quality control issues with the sampling, sample delivery, or analyses, and thus the data set is considered usable for interpretation.

According to the Management of Fill Policy, CFCL is defined as the concentrations of regulated substances that do not exceed the numeric values specified in Table 3 [Medium- Specific Concentrations (MSCs) for Organic Regulated Substances in Soil] and Table 4 [MSCs for Inorganic Regulated Substances in Soil] of Appendix A in 25 Pa. Code Chapter 250 (relating to administration of land recycling program). The applicable CFCL numeric limit is determined by comparison of the Generic Soil to Groundwater Value (numeric values based on generic leaching modeling for soils at residential properties overlying used aquifers with total dissolved solids at concentrations less than or equal to 2500 mg/L) with the Direct Contact numeric value for soils at residential properties, and selection of the lower of the two values. RFCLs are defined similarly, with exception that the applicable numeric limit is determined by comparison of the Generic Soil to Groundwater Value for soils at non-residential properties overlying used aquifers with total dissolved solids at concentrations less than or equal to 2500 mg/L, with the Direct Contact Non-Residential Value for soils at non-residential properties; and selection of the lower of those two values.

Below is a summary of the soil analytical testing results (refer to **Table 1** for details).

<ins>Metals and Inorganics</ins>: Inorganic metal compounds antimony, arsenic, beryllium, cadmium, chromium (III), copper, lead, mercury, nickel, selenium, thallium and zinc were detected in the discrete soil samples. Chromium (VI), cyanide, and silver were not detected in any of the

samples. The detected metals naturally occur in soil. All of the detected metal sample results were significantly lower than their respective CFCL or RFCLs, except for arsenic. The CFCL for arsenic is 12 mg/kg and the RFCL and NR MSC is 29 mg/kg. HD-Bldg 3-SS-1 and HD-Bldg 3-SS-2 arsenic results were 12 mg/kg and 13 mg/kg, respectively.

VOCs: No VOC compounds were detected in the samples.

SVOCs: Both soil samples contained detectable levels of polycyclic aromatic hydrocarbon (PAH) compounds. PAHs are a class of SVOC chemicals that occur naturally in coal, crude oil, and gasoline, and are associated with asphalt. Priority PAH compounds include naphthalene, acenaphthylene, acenaphthene, fluorene, anthracene, phenanthrene, fluoranthene, pyrene, chrysene, benz[a]anthracene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, indeno[1,2,3-cd]pyrene, benzo[g,h,i]perylene, and dibenz[a,h]anthracene. Both samples exhibiting these detectable PAHs were below their CFCLs, RFCLs and NR MSCs. Other non-PAH, SVOC compounds were not detected in the samples.

PCBs: No PCB compounds were detected in the samples.

Conclusions

Based on the analytical results and comparisons to the CFCL, RFCL and NR MSC numerical standards, the soil removed and stockpiled from the Building 3 Stormwater Utility Project area does not meet the numerical standards identified by PADEP for CFCL. However, this soil meets the PADEP NR State-wide Health standards and is below the RFCL limits. Therefore, this soil can remain on-site without a cap, or it may be disposed of off-site at a licensed facility. The soil cannot be removed from the site as Clean Fill.

Please contact us if you have further questions regarding this report.

Respectfully submitted,
HYDRO-TERRA GROUP

Emily Wade
Sr. Geologist/Project Manager

Rodney G. Myers, CHMM, Sr. Program Manager

cc: Ralph Goila (AMO)

Figures

Figure 1 – Stormwater inlet and pipe installation area shown in red rectangle.

Figure 2 – Excavated soil stockpile location shown in red rectangle.

Tables

Table 1
Clean Fill Criteria Soil Summary
Building 7 31 Stormwater Utility Area Soil Sampling
BAE Systems, York PA

REGULATED SUBSTANCE	CASRN	Clean Fill Limit*	Regulated Fill Limit	PADEP NR MSC	Results HD-Bldg 3-SS-1	Q	Results HD-Bldg 3-SS-2	Q
Metals/Inorganic Compounds								
ANTIMONY	7440-36-0	27	27	27	**0.42**		**0.24**	
ARSENIC	7440-38-2	12	29	29	**12**		**13**	
BERYLLIUM	7440-41-7	320	320	320	**1.1**		**0.97**	
CADMIUM	7440-43-9	38	38	38	**0.052**	J	**0.046**	J
CHROMIUM (III)	16065-83-1	190000	190000	190000	**46**		**81**	
CHROMIUM (VI)	18540-29-9	37	180	180	0.17	U	0.17	U
COPPER	7440-50-8	7200	43000	43000	**21**		**17**	
CYANIDE	57-12-5	130	200	200	0.21	U	0.2	U
LEAD	7439-92-1	450	450	450	**19**		**24**	
MERCURY	7439-97-6	10	10	10	**0.086**		**0.047**	J
NICKEL	7440-02-0	650	650	650	**23**		**17**	
SELENIUM	7782-49-2	26	26	26	**0.44**		**0.78**	J
SILVER	7440-22-4	84	84	84	0.039	U	0.036	U
THALLIUM	7440-28-0	2.2	14	14	**0.34**		**0.25**	
ZINC	7440-66-6	12000	12000	12000	**72**		**47**	
Volatile Organic Compounds (VOCs)								
TRICHLOROETHANE, 1,1,1-	71-55-6	7.2	7.2	7.2	0.00085	U	0.00075	U
TETRACHLOROETHANE, 1,1,2,2-	79-34-5	0.026	0.13	0.13	0.00085	U	0.00075	U
TRICHLOROETHANE, 1,1,2-	79-00-5	0.15	0.15	0.15	0.00074	U	0.00065	U
DICHLOROETHANE, 1,1-	75-34-3	0.75	3.9	3.9	0.00085	U	0.00075	U
DICHLOROETHYLENE, 1,1-	75-35-4	0.19	0.19	0.19	0.00085	U	0.00075	U
TRICHLOROBENZENE, 1,2,4-	120-82-1	27	27	27	0.0053	U	0.0047	U
DIBROMO-3-CHLOROPROPANE, 1,2-	96-12-8	0.0092	0.0092	0.0092	0.00085	U	0.00075	U
DIBROMOETHANE, 1,2- [ETHYLENE DIBROMIDE]	106-93-4	0.0012	0.0012	0.0012	0.00074	U	0.00065	U
DICHLOROBENZENE, 1,2-	95-50-1	59	59	59	0.00095	U	0.00084	U
DICHLOROETHANE, 1,2-	107-06-2	0.1	0.1	0.1	0.00063	U	0.00056	U
DICHLOROPROPANE, 1,2-	78-87-5	0.11	0.11	0.11	0.00085	U	0.00075	U
DICHLOROBENZENE, 1,3-	541-73-1	61	61	61	0.0011	U	0.00093	U
DICHLOROBENZENE, 1,4- [P-]	106-46-7	10	10	10	0.00095	U	0.00084	U
METHYL ETHYL KETONE [2-BUTANONE]	78-93-3	76	76	76	0.0021	U	0.0019	U
METHYL N-BUTYL KETONE [2-HEXANONE]	591-78-6	1.6	6.4	6.4	0.0026	U	0.0023	U
METHYL ISOBUTYL KETONE (MIBK) [4-METHYL-2-PENTANONE]	108-10-1	43	120	120	0.0021	U	0.0019	U
ACETONE	67-64-1	350	980	980	**0.019**	J	**0.016**	J
BENZENE	71-43-2	0.13	0.13	0.13	0.00085	U	0.00075	U
BROMODICHLOROMETHANE [DICHLOROBROMOMETHANE]	75-27-4	2.7	2.7	2.7	0.00074	U	0.00065	U
TRIBROMOMETHANE [BROMOFORM]	75-25-2	3.5	3.5	3.5	0.0053	U	0.0047	U
BROMOMETHANE	74-83-9	0.54	0.54	0.54	0.0011	U	0.00093	U
CARBON DISULFIDE	75-15-0	130	530	530	0.00085	U	0.00075	U
CARBON TETRACHLORIDE	56-23-5	0.26	0.26	0.26	0.00085	U	0.00075	U
CHLOROBENZENE	108-90-7	6.1	6.1	6.1	0.00095	U	0.00084	U
CHLOROETHANE	75-00-3	450	1900	1900	0.0011	U	0.00093	U
CHLOROFORM	67-66-3	2	2	2	0.00085	U	0.00075	U
CHLOROMETHANE	74-87-3	0.38	0.38	0.38	0.0011	U	0.00093	U
DICHLOROETHYLENE, CIS-1,2-	156-59-2	1.6	1.6	1.6	0.00085	U	0.00075	U
DICHLOROPROPENE, CIS-1,3-	10061-01-5	0.12	0.48	0.48	0.00063	U	0.00056	U
CYCLOHEXANE	110-82-7	17000	6900	6900	0.00095	U	0.00084	U
CHLORODIBROMOMETHANE	124-48-1	2.5	2.5	2.5	0.00053	U	0.00047	U
DICHLORODIFLUOROMETHANE (FREON 12)	75-71-8	100	100	100	0.0011	U	0.00093	U
ETHYL BENZENE	100-41-4	46	46	46	0.0011	U	0.00093	U
TRICHLORO-1,2,2-TRIFLUOROETHANE, 1,1,2- (Freon 113)	76-13-1	3400	10000	10000	0.00095	U	0.00084	U
CUMENE [ISOPROPYL BENZENE]	98-82-8	600	2500	2500	0.0016	U	0.0014	U
METHYL ACETATE	79-20-9	650	1800	1800	0.0011	U	0.00093	U
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	0.28	0.28	0.28	0.00085	U	0.00075	U
METHYLCYCLOHEXANE	108-87-2	NA	NA	NA	0.00085	U	0.00075	U
DICHLOROMETHANE [METHYLENE CHLORIDE]	75-09-2	0.076	0.076	0.076	0.0021	U	0.0019	U
STYRENE	100-42-5	24	24	24	0.00095	U	0.00084	U
TETRACHLOROETHYLENE (PCE)	127-18-4	0.43	0.43	0.43	0.0016	U	0.0014	U
TOLUENE	108-88-3	44	44	44	0.0011	U	0.00093	U
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	2.3	2.3	2.3	0.00085	U	0.00075	U
DICHLOROPROPENE, TRANS-1,3-	10061-02-6	0.12	0.48	0.48	0.00063	U	0.00056	U
TRICHLOROETHYLENE (TCE)	79-01-6	0.17	0.17	0.17	0.00085	U	0.00075	U
TRICHLOROFLUOROMETHANE [FLUROTRICHLOROMETHANE]	75-69-4	87	87	87	0.0011	U	0.00093	U
VINYL CHLORIDE	75-01-4	0.027	0.027	0.027	0.00085	U	0.00075	U
XYLENES (TOTAL)	1330-20-7	990	990	990	0.00074	U	0.00065	U

Table 1
Clean Fill Criteria Soil Summary
Building 7 31 Stormwater Utility Area Soil Sampling
BAE Systems, York PA

REGULATED SUBSTANCE	CASRN	Clean Fill	Regulated Fill	PADEP NR MSC	Results	Q	Results	Q
		Limit*	Limit		HD-Bldg 3-SS-1		HD-Bldg 3-SS-2	
Semi-Volatile Organic Compounds (SVOCs)								
ACENAPHTHENE	83-32-9	2600	4700	4700	0.00084	U	0.0008	U
ACENAPHTHYLENE	208-96-8	2400	6600	6600	0.00042	U	0.0004	U
ANTHRACENE	120-12-7	350	350	350	0.00084	U	0.0008	U
BENZO[A]ANTHRACENE	56-55-3	6.1	130	130	0.00084	U	0.0008	U
BENZO[A]PYRENE	50-32-8	4.2	12	46	0.00084	U	0.0008	U
BENZO[B]FLUORANTHENE	205-99-2	3.5	76	76	**0.00086**	J	**0.0014**	J
BENZO[GHI]PERYLENE	191-24-2	180	180	180	0.00084	U	**0.0012**	J
BENZO[K]FLUORANTHENE	207-08-9	3.5	76	76	0.00084	U	0.0008	U
CHRYSENE	218-01-9	35	230	230	**0.00078**	J	**0.0012**	J
DIBENZO[A,H]ANTHRACENE	53-70-3	1	22	22	0.00084	U	0.0008	U
FLUORANTHENE	206-44-0	3200	3200	3200	**0.0011**	J	**0.0013**	J
FLUORENE	86-73-7	2800	3800	3800	0.00084	U	0.0008	U
INDENO[1,2,3-CD]PYRENE	193-39-5	3.5	76	76	0.00084	U	**0.001**	J
NAPHTHALENE	91-20-3	25	25	25	0.0017	U	**0.0019**	J
PHENANTHRENE	85-01-8	10000	10000	10000	**0.0017**	J	**0.0024**	J
PYRENE	129-00-0	2200	2200	2200	**0.00092**	J	**0.0011**	J
TOTAL Polycyclic Aromatic Hydrocarbons [PAHs] (Sum of 16 Cmps)					**0.01504**		**0.0175**	
BIPHENYL, 1,1-	92-52-4	0.37	1.5	1.5	0.021	U	0.020	U
TRICHLOROPHENOL, 2,4,5-	95-95-4	2100	5900	5900	0.021	U	0.020	U
TRICHLOROPHENOL, 2,4,6-	88-06-2	10	28	28	0.021	U	0.020	U
DICHLOROPHENOL, 2,4-	120-83-2	1	1	1	0.025	U	0.024	U
DIMETHYLPHENOL, 2,4-	105-67-9	30	83	83	0.021	U	0.020	U
DINITROPHENOL, 2,4-	51-28-5	0.78	2.1	2.1	0.530	U	0.500	U
DINITROTOLUENE, 2,4-	121-14-2	0.05	0.21	0.21	0.042	U	0.040	U
DINITROTOLUENE, 2,6- (2,6-DNT)	606-20-2	0.013	0.053	0.053	0.021	U	0.020	U
CHLORONAPHTHALENE, 2-	91-58-7	6000	17000	17000	0.017	U	0.016	U
CHLOROPHENOL, 2-	95-57-8	4.4	4.4	4.4	0.021	U	0.020	U
BIS(2-CHLORO-ISOPROPYL)ETHER (2,2'-oxybis[1-chloropropane)	108-60-1	8	8	8	0.025	U	0.024	U
METHYLNAPHTHALENE, 2-	91-57-6	25	100	100	0.0063	U	0.0059	U
CRESOL, O- [2-METHYLPHENOL]	95-48-7	28	81	81	0.025	U	0.024	U
NITROANILINE, O- [2-]	88-74-4	0.002	0.0079	0.0079	0.021	U	0.02	U
NITROPHENOL, 2-	88-75-5	5.7	16	16	0.025	U	0.024	U
DICHLOROBENZIDINE, 3,3-	91-94-1	7.7	30	30	0.21	U	0.200	U
NITROANILINE, M- [3-]	99-09-2	NA	NA	NA	0.042	U	0.040	U
CRESOL, 4,6-DINITRO-O-	534-52-1	0.21	0.59	0.59	0.21	U	0.200	U
BROMOPHENYL PHENYL ETHER, 4-	101-55-3	NA	NA	NA	0.021	U	0.020	U
CRESOL, P-CHLORO-M- [4-CHLORO-3-METHYLPHENOL]	59-50-7	720	2000	2000	0.025	U	0.024	U
CHLOROANILINE, P- [4-]	106-47-8	0.42	1.8	1.8	0.042	U	0.040	U
CHLOROPHENOL PHENYL ETHER, 4-	7005-72-3	NA	NA	NA	0.021	U	0.020	U
CRESOL, P- [3 & 4 METHYLPHENOL]	106-44-5	4	11	11	0.021	U	0.020	U
NITROANILINE, P- [4-]	100-01-6	0.49	2.1	2.1	0.042	U	0.040	U
NITROPHENOL, 4-	100-02-7	4.1	4.1	4.1	0.21	U	0.200	U
Acetophenone	98-86-2	190	520	520	0.021	U	0.020	U
ATRAZINE	1912-24-9	0.13	0.13	0.13	0.084	U	0.079	U
BENZALDEHYDE	100-52-7	NA	NA	NA	0.042	U	0.040	U
BIS(2-CHLOROETHOXY)METHANE	111-91-1	2.6	7.6	7.6	0.021	U	0.020	U
BIS(2-CHLOROETHYL)ETHER	111-44-4	0.0045	0.023	0.023	0.021	U	0.020	U
BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	130	130	130	0.084	U	0.079	U
BUTYLBENZYL PHTHALATE	85-68-7	2900	10000	10000	0.084	U	0.079	U
CAPROLACTAM	105-60-2	NA	NA	NA	0.042	U	0.040	U
CARBAZOLE	86-74-8	21	89	89	0.021	U	0.020	U
DIBENZOFURAN	132-64-9	90	250	250	0.021	U	0.020	U
DIETHYL PHTHALATE	84-66-2	880	2400	2400	0.084	U	0.079	U
DIMETHYL PHTHALATE	131-11-3	NA	NA	NA	0.084	U	0.079	U
DIBUTYL PHTHALATE, N-	84-74-2	1400	4000	4000	0.084	U	0.079	U
OCTYL PHTHALATE, DI-N- (Di-n-octyl phthalate)	117-84-0	2200	10000	10000	0.084	U	0.079	U
HEXACHLOROBENZENE	118-74-1	0.96	0.96	0.96	0.021	U	0.020	U
HEXACHLOROBUTADIENE	87-68-3	10	42	42	0.025	U	0.024	U
HEXACHLOROCYCLOPENTADIENE	77-47-4	91	91	91	0.21	U	0.200	U
HEXACHLOROETHANE	67-72-1	0.56	0.56	0.56	0.042	U	0.040	U
ISOPHORONE	78-59-1	1.9	1.9	1.9	0.021	U	0.020	U
NITROBENZENE	98-95-3	0.052	0.27	0.27	0.021	U	0.020	U
NITROSODI-N-PROPYLAMINE, N-	621-64-7	0.00035	0.0068	0.0018	0.042	U	0.040	U
NITROSODIPHENYLAMINE, N-	86-30-6	3	110	15	0.021	U	0.020	U
PENTACHLOROPHENOL	87-86-5	5	5	5	0.084	U	0.079	U
PHENOL	108-95-2	33	33	33	0.021	U	0.020	U
Polychlorinated Biphenyls (PCBs)		**2**	**50**					
PCB-1016 (AROCLOR)	12674-11-2	15	190	190	0.0067	U	0.0063	U
PCB-1221 (AROCLOR)	11104-28-2	0.16	0.68	0.68	0.0067	U	0.0063	U
PCB-1232 (AROCLOR)	11141-16-5	0.13	0.54	0.54	0.0067	U	0.0063	U
PCB-1242 (AROCLOR)	53469-21-9	4	17	17	0.0067	U	0.0063	U
PCB-1248 (AROCLOR)	12672-29-6	9.3	46	46	0.0067	U	0.0063	U
PCB-1254 (AROCLOR)	11097-69-1	4.4	64	64	0.008	U	0.0076	U
PCB-1260 (AROCLOR)	11096-82-5	9.3	46	46	0.008	U	0.0076	U

All concentrations in mg/kg

CASRN - Chemical Abstracts Service Registry Number: a unique numerical identifier assigned to every chemical substance

Q - Analytical Result Qualifier: No qualifier = Detected at Results concentration

U - Undetected at the corresponding method detection level

J - Estimated concentration

NA - Not available

Detected compounds are shown in **bold.**

Detected values exceeding the Clean Fill Limit are shown in yellow highlight.

*From 25 Pa. Code Chapter 250, Appendix A, Tables 3 (organic) and 4 (inorganics)

- MSCs for Regulated Substances in Soil (last updated November 20, 2021)

APPENDIX A

Photographs

Photo 1: Photo looking east at existing stormwater inlet. Asphalt in utility installation area was milled.

Photo 2: Excavation area where new stormwater inlet will be installed.

Photo 3: Installation of new stormwater inlet.

Photo 4: Photo looking west as stormwater utility excavation trench.

Photo 5: Photo looking west at new stormwater inlet, concrete repairs to sidewalk curb, and stormwater pipe trench.

Photo 6: Stone backfill over stormwater installed stormwater pipe.

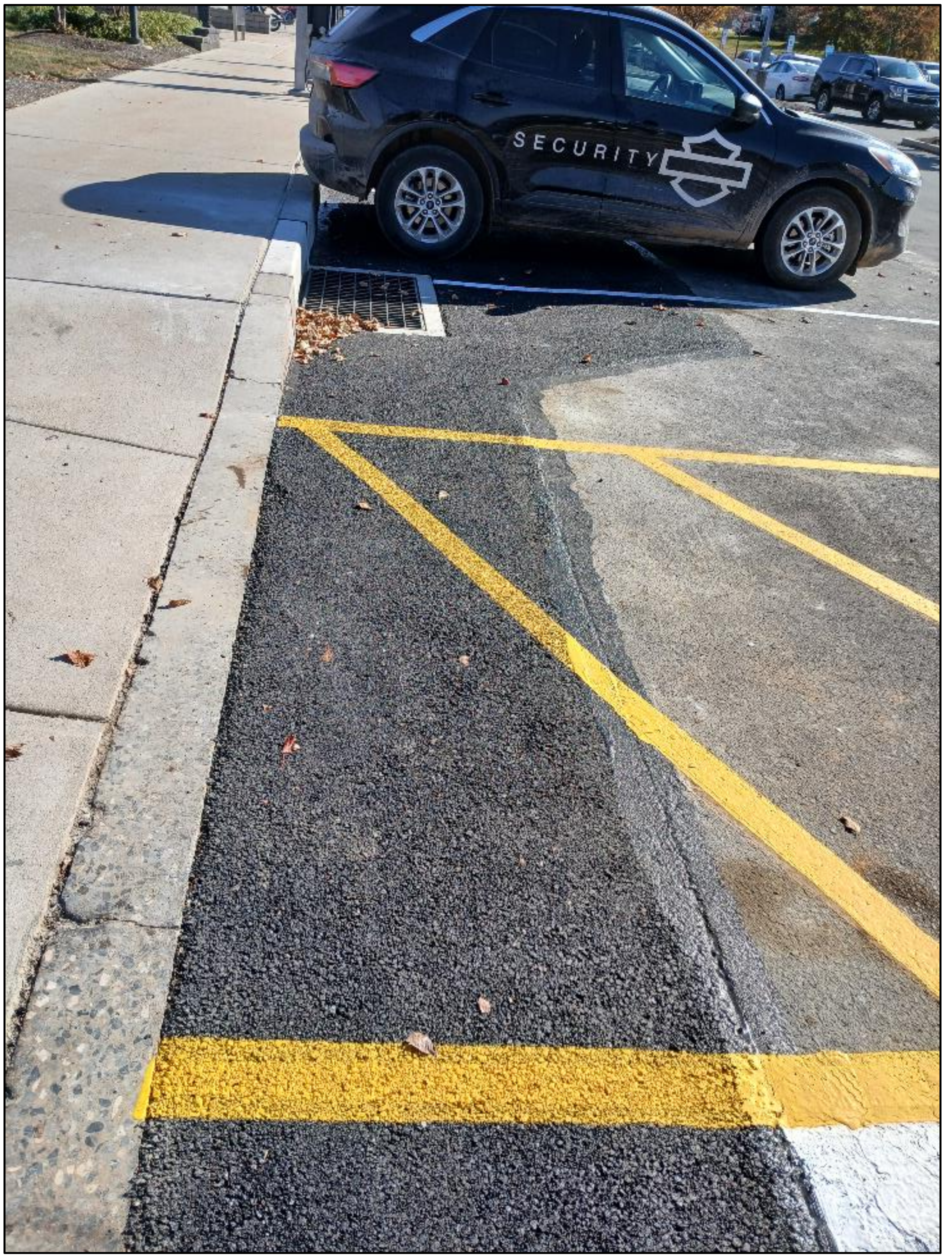


Photo 7: Photo looking east at asphalt installed around new stormwater inlet. Seam between new and old asphalt was sealed.

Photo 8: Photo looking east at existing stormwater inlet and piping trench that connect the new inlet. Asphalt is installed and the seams are sealed.

Photo 9: Photo looking north at excavated soil stockpile in the upper 80.

11 December 2024

Mr. Timothy Scripko
EHS – Sr. Generalist
Harley-Davidson Motor Company Operations, Inc.
1425 Eden Road
York, PA 17402

Re: Building 70 Sinkhole Repair and Soil Characterization
Harley-Davidson Motor Company Operations, Inc.
1425 Eden Road, York Pennsylvania

Dear Mr. Scripko:

Hydro-Terra Group (HTG) provided qualified environmental professional and environmental soil characterization services in response to a sinkhole that developed near Building 70 at the Harley-Davidson Motor Company Operations, Inc. (Harley-Davidson) facility in York, Pennsylvania (**Figure 1**). This report provides the results of the repair/restoration and qualified environmental professional monitoring and soil characterization activities.

The Building 70 sinkhole repair work included excavation of soil until structurally stable soil was encountered. Non-woven geotextile fabric was placed along the limits of the excavation area, the excavation area was backfilled with reverse grade rock backfill, and the asphalt cap was replaced. The sinkhole repair work was conducted by Stewart & Tate, Inc. (Stewart & Tate). Emily Wade (HTG) was the qualified environmental professional who monitored worker activity, inspected and scanned the excavated soil with a photoionization detector (PID), which is used to detect volatile organic compounds (VOCs) in the soil, and collected a representative sample of the excess soil for characterization. Contractors conducting this work excavated and stockpiled excess soil on-site near the sinkhole repair work area. The location of the Building 70 repair area is shown on **Figure 2**.

The former York Naval Ordnance Plant (fYNOP) Post Remediation Care Plan (PRCP) sets forth guidelines for the maintenance and repair of permanent direct-contact prevention caps, which includes guidelines for repairs to sinkholes (see **Appendix A**). As described in the PRCP, caps are needed to prevent direct contact with underlying soils. If a cap is damaged or removed, it must be replaced in accordance with requirements described in the PRCP.

Inspection Summary

HTG was contracted as a qualified environmental professional to oversee the contractor and excavation work. Stewart & Tate removed the asphalt in the excavation area and excavated soil until structurally sound material was encountered. The asphalt and excavated material were staged on-site near the sinkhole repair area. HTG inspected the excavated soil for staining or odors and scanned the soil with a PID. No staining or odors were observed in the excavated soil. The excavated soil was scanned with a PID and all PID readings were 0.0 ppm. Below is a table with PID readings collected during the excavation work.

Date	Time	PID Reading (ppm)
11/7/2024	9:10	0
11/7/2024	9:15	0
11/7/2024	9:30	0
11/7/2024	9:35	0
11/7/2024	9:40	0

The contractor excavated an area approximately seven (7) feet deep and seven (7) feet long by five (5) feet wide in size. The repair work followed the sinkhole repair specification identified in the PRCP (**Appendix A**). Geotextile fabric was installed along the limits of the excavation. The excavation was backfilled with reversed grade rock starting at the bottom using R4 stone, R2 stone, gravel, and topped with four inches of asphalt. The asphalt cap that was replaced is an acceptable PRCP cap material meeting the minimum thickness and quality for direct contact prevention. Excavated soil was stockpiled near the repair work. Photos of the sinkhole repair work and asphalt installation are provided in **Appendix B**.

<u>Sampling Summary</u>

The Pennsylvania Department of Environmental Protection (PADEP) Management of Fill Policy (Document No. 258-2182-773, January 16, 2021) provides procedures and numerical standards for sampling material to determine whether it can be classified as “clean fill”. According to this guidance, clean fill includes soil, rock, stone, gravel, used asphalt, brick, block or concrete from construction and demolition activities that is separate from other waste and recognizable as such, and is defined as uncontaminated, non-water-soluble, non-decomposable, inert solid material used to level an area or bring an area to grade. The term does not include materials placed in or on the waters of the Commonwealth, or fill that has been blended, mixed or treated with the purpose of meeting the definition of “clean fill” and that without being blended, mixed or treated would fail to meet the numeric limits identified in the definition of “uncontaminated material” contained in the policy.

HTG collected soil samples from the stockpiled soil generated from the Building 70 sinkhole repair activities on November 13, 2024 for environmental testing in accordance with the PADEP Management of Fill guidance. The sampling was conducted as follows:

- HTG completed environmental sampling at eight sampling locations from the on-site stockpiles. Two (2) composite soil samples were collected – each composite represented four (4) sub-sampling locations, and these 4 subsamples were mixed together for non-volatile compound sampling.

- Two biased discrete soil samples were collected for analysis of total VOCs based on discoloration, staining, odors, and/or elevated PID readings.
- A quality assurance/quality control trip blank sample and temperature blank, consisting of reagent water, was also retained from the laboratory, and accompanied the samples during collection, transportation and shipment back to the laboratory. The trip blank was tested for VOCs only, to assess the potential for cross-contamination. The temperature blank was used to confirm that the samples were adequately cooled during sample transport to the laboratory.

All samples were packed on ice in a cooler and shipped to Eurofins Lancaster Laboratories Environmental, LLC (ELLE), Leola, PA. Based on the known history of operations on-site, the following constituents of concern were tested:

- Total VOCs by U.S. Environmental Protection Agency (EPA) method 8260.
- Total semi-volatile organic compounds (SVOCs) by EPA method 8270 and 8270 SIM.
- Total Priority Pollutant metals by EPA method 6010 and 7471 (for mercury)
- Hexavalent chromium by EPBA method 7196
- Total polychlorinated biphenyls (PCBs) by EPA method 8082
- Total cyanide by EPA method 9012

Analytical Results

The final laboratory report is attached with the results of the soil testing (ELLE Lab Report No. 410-196427-1, **Appendix C**). **Table 1** (attached) provides a summary of the tested compounds, with comparison to their respective PADEP Clean Fill Concentration Limits (CFCLs), Regulated Fill Concentration Limits (RFCLs), and the PADEP nonresidential (NR) state-wide health standard Medium Specific Concentrations (MSCs). Samples are identified in **Table 1** with the sampling location IDs Bldg 70 Sinkhole-SS-1 and Bldg 70 Sinkhole-SS-2. Although there were some laboratory data qualifiers included with the reported results, there were no significant quality assurance/quality control issues with the sampling, sample delivery, or analyses, and thus the data set is considered usable for interpretation.

According to the Management of Fill Policy, CFCL is defined as the concentrations of regulated substances that do not exceed the numeric values specified in Table 3 [Medium-Specific Concentrations (MSCs) for Organic Regulated Substances in Soil] and Table 4 [MSCs for Inorganic Regulated Substances in Soil] of Appendix A in 25 Pa. Code Chapter 250 (relating to administration of land recycling program). The applicable CFCL numeric limit is determined by comparison of the Generic Soil to Groundwater Value (numeric values based on generic leaching modeling for soils at residential properties overlying used aquifers with total dissolved solids at concentrations less than or equal to 2500 mg/L) with the Direct Contact numeric value for soils at residential properties, and selection of the lower of the two values. RFCLs are defined similarly, with exception that the applicable numeric limit is determined by comparison of the Generic Soil to Groundwater Value for soils at non-residential properties overlying used aquifers with total dissolved solids at concentrations less than or equal to 2500 mg/L, with the Direct Contact Non-Residential Value for soils at non-residential properties; and selection of the lower of those two values.

Below is a summary of the soil analytical testing results (refer to **Table 1** for details).

> <u>Metals and Inorganics</u>: Inorganic metal compounds antimony, arsenic, beryllium, cadmium, chromium (III), copper, cyanide, lead, mercury, nickel, selenium, silver, thallium and zinc were detected in the discrete soil samples. Hexavalent chromium (VI) was not detected in any of the samples. The detected metals naturally occur in soil. All of the detected metal and inorganic sample results were significantly lower than their respective CFCL, RFCL, and NR MSCs.
>
> <u>VOCs</u>: Acetone was the only VOC detected in the samples. The detection is significantly lower than the CFCL, RFCL, and NR MSCs.
>
> <u>SVOCs</u>: Both soil samples contained detectable levels of polycyclic aromatic hydrocarbon (PAH) compounds. PAHs are a class of SVOC chemicals that occur naturally in coal, crude oil, and gasoline, and are associated with asphalt. Priority PAH compounds include naphthalene, acenaphthylene, acenaphthene, fluorene, anthracene, phenanthrene, fluoranthene, pyrene, chrysene, benz[a]anthracene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, benzo[a]pyrene, indeno[1,2,3-cd]pyrene, benzo[g,h,i]perylene, and dibenz[a,h]anthracene. Only the Bldg 70 Sinkhole-SS-1 sample exceeded the CFCLs MSCs for four compounds (benzo[a]pyrene [6.3 mg/kg], benzo[b]fluoranthene [7.3 mg/kg] , dibenz[a,h]anthracene [1.1 mg/kg] , and indeno[1,2,3-cd]pyrene [4.7 mg/kg]). The CFCL are 4.2 mg/kg, 3.5 mg/kg, 1 mg/kg, and 3.5 mg/kg, respectively. Bldg 70 Sinkhole- SS-2 sample detected these PAHs below their CFCLs, RFCLs, and NR MSCs. Other non-PAH, SVOC compounds were not detected in the samples except 2-methylnaphthalene, carbazole, and dibenzofuran (only Bldg 70 Sinkhole-SS-2 sample). However, these detections were below their respective CFCLs, RFCLs, and NR MSCs.
>
> <u>PCBs</u>: No PCB compounds were detected in the samples.

Conclusions

Based on the analytical results and comparisons to the CFCL, RFCL and NR MSC numerical standards, the soil removed and stockpiled from the Building 70 Sinkhole Repair work does not meet the numerical standards identified by PADEP for Clean Fill. However, this soil meets the PADEP NR State-wide Health standards and is below the RFCL limits. Therefore, this soil can remain on-site without a cap, or it may be disposed of off-site at a licensed facility. The soil cannot be removed from the site as Clean Fill.

Please contact us if you have further questions regarding this report.

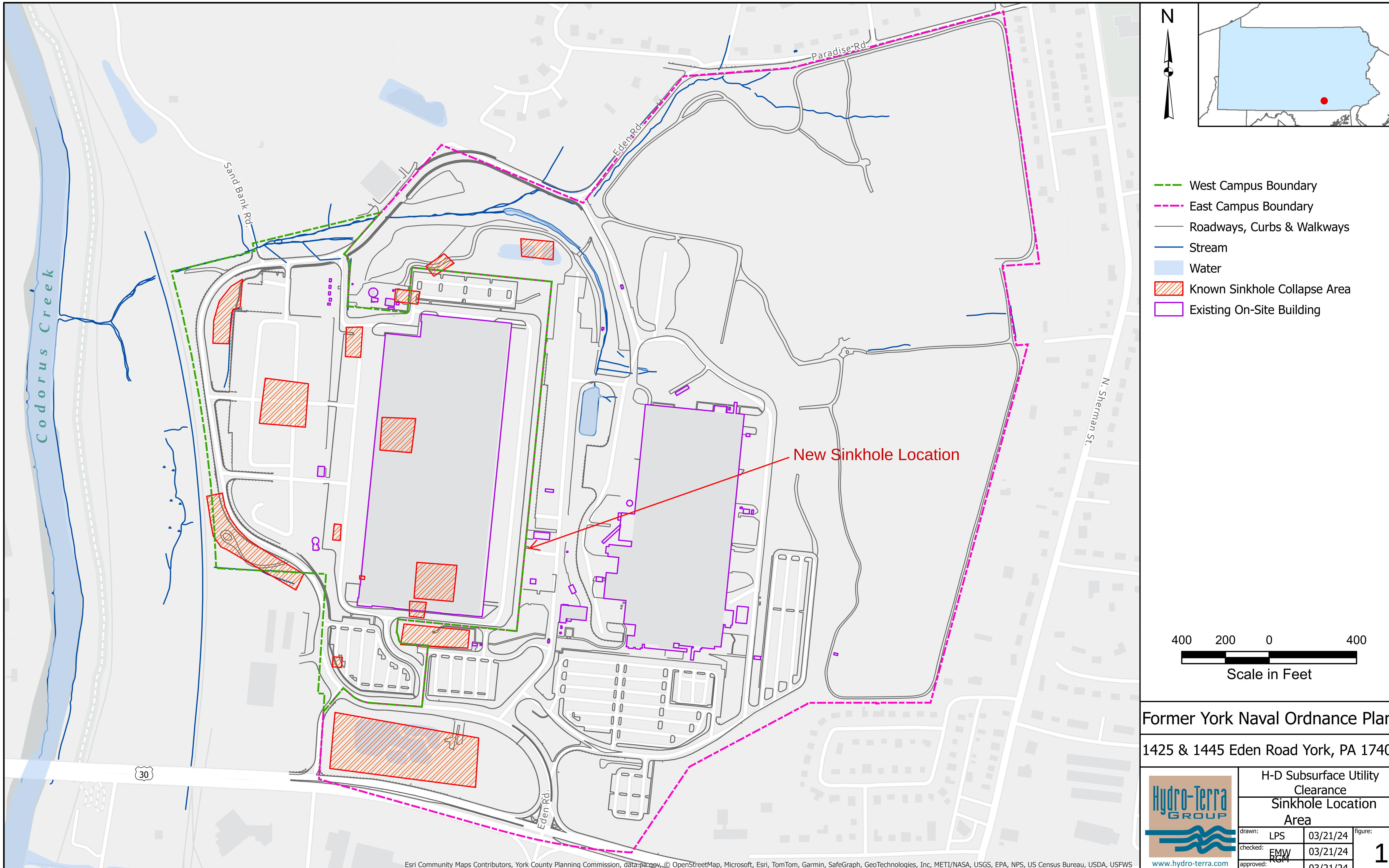
Respectfully submitted,
HYDRO-TERRA GROUP

Emily Wade
Sr. Geologist/Project Manager

Rodney G. Myers, CHMM, Sr. Program Manager

cc: Ralph Golia (AMO)

Figures



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Coordinate System: NAD 1983 2011 StatePlane Pennsylvania South FIPS 3702 Ft US

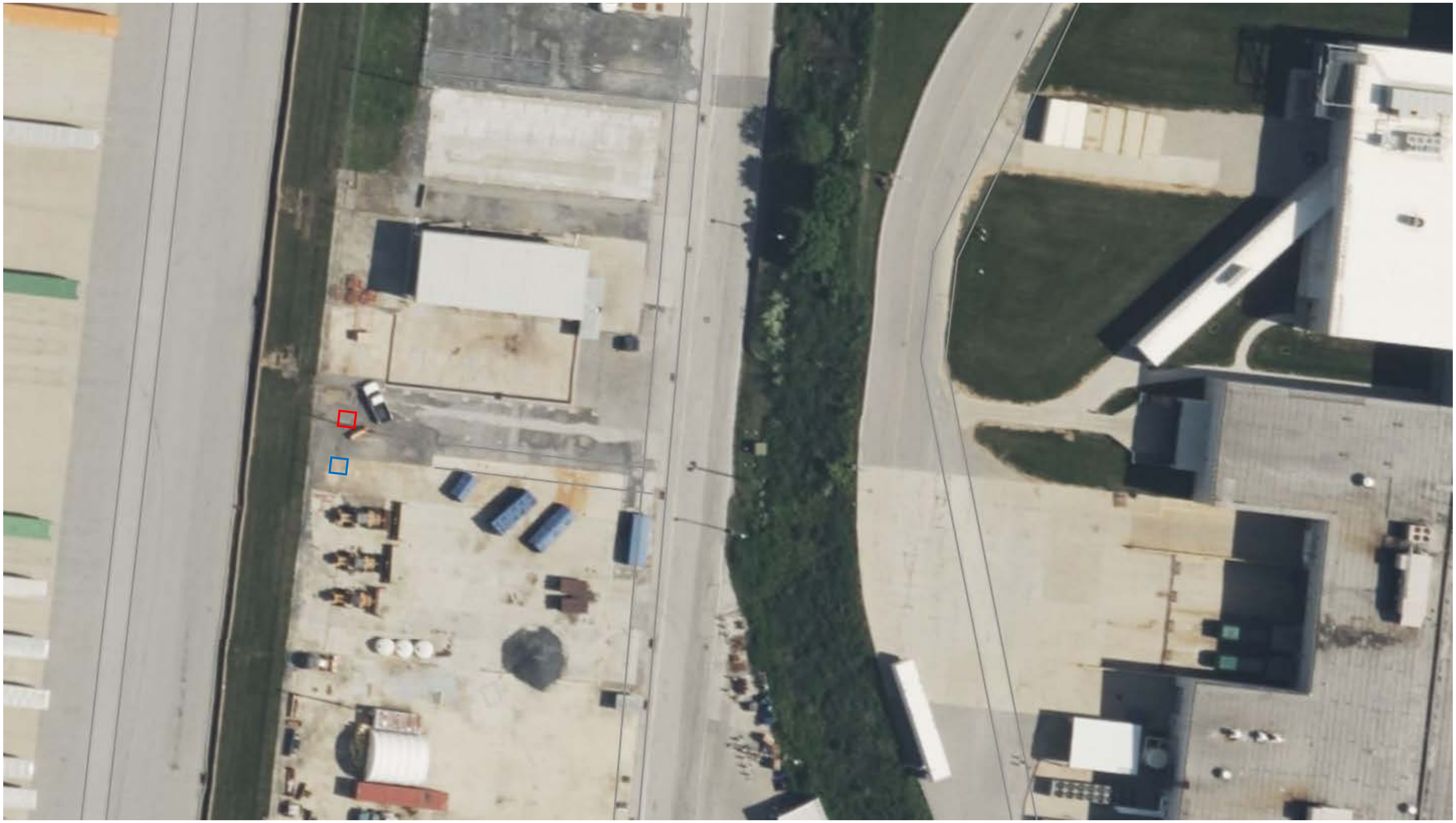


Figure 2 – Sinkhole Repair area shown in Red box. Location of excavated soil stockpile show in Blue box.

Table

Table 1
Clean Fill Criteria Soil Summary
Building 70 Sinkhole Repair Area Soil Sampling
Harley-Davidson Motor Company Operations, Inc., York PA

REGULATED SUBSTANCE	CASRN	Clean Fill Limit*	Regulated Fill Limit	PADEP NR MSC	Results Bldg 70 Sinkhole-SS-1	Q	Results Bldg 70 Sinkhole-SS-2	Q
Metals/Inorganic Compounds								
ANTIMONY	7440-36-0	27	27	27	**0.44**		**0.24**	
ARSENIC	7440-38-2	12	29	29	**8.3**		**3.8**	
BERYLLIUM	7440-41-7	320	320	320	**0.96**		**1.1**	
CADMIUM	7440-43-9	38	38	38	**0.14**		**0.074**	J
CHROMIUM (III)	16065-83-1	190000	190000	190000	**23**		**17**	
CHROMIUM (VI)	18540-29-9	37	180	180	0.15	U	0.16	U
COPPER	7440-50-8	7200	43000	43000	**12**		**8.3**	
CYANIDE	57-12-5	130	200	200	**0.27**	J	0.2	U
LEAD	7439-92-1	450	450	450	**24**		**19**	
MERCURY	7439-97-6	10	10	10	**0.035**	J	**0.036**	J
NICKEL	7440-02-0	650	650	650	**13**		**11**	
SELENIUM	7782-49-2	26	26	26	**0.19**	J	**0.24**	J
SILVER	7440-22-4	84	84	84	0.046	U	**0.054**	J
THALLIUM	7440-28-0	2.2	14	14	**0.18**		**0.23**	
ZINC	7440-66-6	12000	12000	12000	**44**		**41**	
Volatile Organic Compounds (VOCs)								
TRICHLOROETHANE, 1,1,1-	71-55-6	7.2	7.2	7.2	0.00075	U	0.00078	U
TETRACHLOROETHANE, 1,1,2,2-	79-34-5	0.026	0.13	0.13	0.00075	U	0.00078	U
TRICHLOROETHANE, 1,1,2-	79-00-5	0.15	0.15	0.15	0.00066	U	0.00068	U
DICHLOROETHANE, 1,1-	75-34-3	0.75	3.9	3.9	0.00075	U	0.00078	U
DICHLOROETHYLENE, 1,1-	75-35-4	0.19	0.19	0.19	0.00075	U	0.00078	U
TRICHLOROBENZENE, 1,2,4-	120-82-1	27	27	27	0.0047	U	0.0049	U
DIBROMO-3-CHLOROPROPANE, 1,2-	96-12-8	0.0092	0.0092	0.0092	0.00075	U	0.00078	U
DIBROMOETHANE, 1,2- [ETHYLENE DIBROMIDE]	106-93-4	0.0012	0.0012	0.0012	0.00085	U	0.00088	U
DICHLOROBENZENE, 1,2-	95-50-1	59	59	59	0.00057	U	0.00058	U
DICHLOROETHANE, 1,2-	107-06-2	0.1	0.1	0.1	0.00075	U	0.00078	U
DICHLOROPROPANE, 1,2-	78-87-5	0.11	0.11	0.11	0.00094	U	0.00097	U
DICHLOROBENZENE, 1,3-	541-73-1	61	61	61	0.00085	U	0.00088	U
DICHLOROBENZENE, 1,4- [P-]	106-46-7	10	10	10	0.0019	U	0.0019	U
METHYL ETHYL KETONE [2-BUTANONE]	78-93-3	76	76	76	0.0024	U	0.0024	U
METHYL N-BUTYL KETONE [2-HEXANONE]	591-78-6	1.6	6.4	6.4	0.0019	U	0.0019	U
METHYL ISOBUTYL KETONE (MIBK) [4-METHYL-2-PENTANONE]	108-10-1	43	120	120	0.0057	U	0.0058	U
ACETONE	67-64-1	350	980	980	**0.024**	J	**0.02**	J
BENZENE	71-43-2	0.13	0.13	0.13	0.00066	U	0.00068	U
BROMODICHLOROMETHANE [DICHLOROBROMOMETHANE]	75-27-4	2.7	2.7	2.7	0.0047	U	0.0049	U
TRIBROMOMETHANE [BROMOFORM]	75-25-2	3.5	3.5	3.5	0.00094	U	0.00097	U
BROMOMETHANE	74-83-9	0.54	0.54	0.54	0.00075	U	0.00078	U
CARBON DISULFIDE	75-15-0	130	530	530	0.00075	U	0.00078	U
CARBON TETRACHLORIDE	56-23-5	0.26	0.26	0.26	0.00085	U	0.00088	U
CHLOROBENZENE	108-90-7	6.1	6.1	6.1	0.00094	U	0.00097	U
CHLOROETHANE	75-00-3	450	1900	1900	0.00075	U	0.00078	U
CHLOROFORM	67-66-3	2	2	2	0.00094	U	0.00097	U
CHLOROMETHANE	74-87-3	0.38	0.38	0.38	0.00075	U	0.00078	U
DICHLOROETHYLENE, CIS-1,2-	156-59-2	1.6	1.6	1.6	0.00057	U	0.00058	U
DICHLOROPROPENE, CIS-1,3-	10061-01-5	0.12	0.48	0.48	0.00085	U	0.00088	U
CYCLOHEXANE	110-82-7	17000	6900	6900	0.00047	U	0.00049	U
CHLORODIBROMOMETHANE	124-48-1	2.5	2.5	2.5	0.00094	U	0.00097	U
DICHLORODIFLUOROMETHANE (FREON 12)	75-71-8	100	100	100	0.00094	U	0.00097	U
ETHYL BENZENE	100-41-4	46	46	46	0.00066	U	0.00068	U
TRICHLORO-1,2,2-TRIFLUOROETHANE, 1,1,2- (Freon 113)	76-13-1	3400	10000	10000	0.00085	U	0.00088	U
CUMENE [ISOPROPYL BENZENE]	98-82-8	600	2500	2500	0.0014	U	0.0015	U
METHYL ACETATE	79-20-9	650	1800	1800	0.00094	U	0.00097	U
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	0.28	0.28	0.28	0.00075	U	0.00078	U
METHYLCYCLOHEXANE	108-87-2	NA	NA	NA	0.00075	U	0.00078	U
DICHLOROMETHANE [METHYLENE CHLORIDE]	75-09-2	0.076	0.076	0.076	0.0019	U	0.0019	U
STYRENE	100-42-5	24	24	24	0.00085	U	0.00088	U
TETRACHLOROETHYLENE (PCE)	127-18-4	0.43	0.43	0.43	0.0014	U	0.0015	U
TOLUENE	108-88-3	44	44	44	0.00094	U	0.00097	U
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	2.3	2.3	2.3	0.00075	U	0.00078	U
DICHLOROPROPENE, TRANS-1,3-	10061-02-6	0.12	0.48	0.48	0.00057	U	0.00058	U
TRICHLOROETHYLENE (TCE)	79-01-6	0.17	0.17	0.17	0.00075	U	0.00078	U
TRICHLOROFLUOROMETHANE [FLUROTRICHLOROMETHANE]	75-69-4	87	87	87	0.00094	U	0.00097	U
VINYL CHLORIDE	75-01-4	0.027	0.027	0.027	0.00075	U	0.00078	U
XYLENES (TOTAL)	1330-20-7	990	990	990	0.00066	U	0.00068	U
Polychlorinated Biphenyls (PCBs)		**2**	**50**					
PCB-1016 (AROCLOR)	12674-11-2	15	190	190	0.0059	U	0.0063	U
PCB-1221 (AROCLOR)	11104-28-2	0.16	0.68	0.68	0.0059	U	0.0063	U
PCB-1232 (AROCLOR)	11141-16-5	0.13	0.54	0.54	0.0059	U	0.0063	U
PCB-1242 (AROCLOR)	53469-21-9	4	17	17	0.0059	U	0.0063	U
PCB-1248 (AROCLOR)	12672-29-6	9.3	46	46	0.0059	U	0.0063	U
PCB-1254 (AROCLOR)	11097-69-1	4.4	64	64	0.0071	U	0.0076	U
PCB-1260 (AROCLOR)	11096-82-5	9.3	46	46	0.0071	U	0.0076	U

Table 1
Clean Fill Criteria Soil Summary
Building 70 Sinkhole Repair Area Soil Sampling
Harley-Davidson Motor Company Operations, Inc., York PA

REGULATED SUBSTANCE	CASRN	Clean Fill	Regulated Fill	PADEP NR MSC	Results	Q	Results	Q
		Limit*	Limit		Bldg 70 Sinkhole-SS-1		Bldg 70 Sinkhole-SS-2	
Semi-Volatile Organic Compounds (SVOCs)								
ACENAPHTHENE	83-32-9	2600	4700	4700	**0.110**		**0.087**	
ACENAPHTHYLENE	208-96-8	2400	6600	6600	**0.490**		**0.360**	
ANTHRACENE	120-12-7	350	350	350	**0.530**		**0.430**	
BENZO[A]ANTHRACENE	56-55-3	6.1	130	130	**5.300**		**1.700**	
BENZO[A]PYRENE	50-32-8	4.2	12	46	**6.300**		**2.100**	
BENZO[B]FLUORANTHENE	205-99-2	3.5	76	76	**7.300**		**2.500**	
BENZO[GHI]PERYLENE	191-24-2	180	180	180	**3.500**		**1.400**	
BENZO[K]FLUORANTHENE	207-08-9	3.5	76	76	**2.900**		**1.100**	
CHRYSENE	218-01-9	35	230	230	**4.000**		**1.400**	
DIBENZO[A,H]ANTHRACENE	53-70-3	1	22	22	**1.100**		**0.410**	
FLUORANTHENE	206-44-0	3200	3200	3200	**7.100**		**3.000**	
FLUORENE	86-73-7	2800	3800	3800	**0.077**		**0.073**	
INDENO[1,2,3-CD]PYRENE	193-39-5	3.5	76	76	**4.700**		**1.600**	
NAPHTHALENE	91-20-3	25	25	25	**0.032**		**0.019**	J
PHENANTHRENE	85-01-8	10000	10000	10000	**0.750**		**0.800**	
PYRENE	129-00-0	2200	2200	2200	**6.000**		**2.700**	
TOTAL Polycyclic Aromatic Hydrocarbons [PAHs] (Sum of 16 Cmps)					**50.189**		**19.679**	
BIPHENYL, 1,1-	92-52-4	0.37	1.5	1.5	0.019	U	0.020	U
TRICHLOROPHENOL, 2,4,5-	95-95-4	2100	5900	5900	0.019	U	0.020	U
TRICHLOROPHENOL, 2,4,6-	88-06-2	10	28	28	0.019	U	0.020	U
DICHLOROPHENOL, 2,4-	120-83-2	1	1	1	0.023	U	0.024	U
DIMETHYLPHENOL, 2,4-	105-67-9	30	83	83	0.019	U	0.020	U
DINITROPHENOL, 2,4-	51-28-5	0.78	2.1	2.1	0.470	U	0.500	U
DINITROTOLUENE, 2,4-	121-14-2	0.05	0.21	0.21	0.038	U	0.040	U
DINITROTOLUENE, 2,6- (2,6-DNT)	606-20-2	0.013	0.053	0.053	0.019	U	0.020	U
CHLORONAPHTHALENE, 2-	91-58-7	6000	17000	17000	0.015	U	0.016	U
CHLOROPHENOL, 2-	95-57-8	4.4	4.4	4.4	0.019	U	0.020	U
BIS(2-CHLORO-ISOPROPYL)ETHER (2,2'-oxybis[1-chloropropane)	108-60-1	8	8	8	0.023	U	0.024	U
METHYLNAPHTHALENE, 2-	91-57-6	25	100	100	**0.014**	J	**0.0091**	J
CRESOL, O- [2-METHYLPHENOL]	95-48-7	28	81	81	0.023	U	0.024	U
NITROANILINE, O- [2-]	88-74-4	0.002	0.0079	0.0079	0.019	U	0.02	U
NITROPHENOL, 2-	88-75-5	5.7	16	16	0.023	U	0.024	U
DICHLOROBENZIDINE, 3,3-	91-94-1	7.7	30	30	0.190	U	0.200	U
NITROANILINE, M- [3-]	99-09-2	NA	NA	NA	0.038	U	0.040	U
CRESOL, 4,6-DINITRO-O-	534-52-1	0.21	0.59	0.59	0.190	U	0.200	U
BROMOPHENYL PHENYL ETHER, 4-	101-55-3	NA	NA	NA	0.019	U	0.020	U
CRESOL, P-CHLORO-M- [4-CHLORO-3-METHYLPHENOL]	59-50-7	720	2000	2000	0.023	U	0.024	U
CHLOROANILINE, P- [4-]	106-47-8	0.42	1.8	1.8	0.038	U	0.040	U
CHLOROPHENOL PHENYL ETHER, 4-	7005-72-3	NA	NA	NA	0.019	U	0.020	U
CRESOL, P- [3 & 4 METHYLPHENOL]	106-44-5	4	11	11	0.019	U	0.020	U
NITROANILINE, P- [4-]	100-01-6	0.49	2.1	2.1	0.038	U	0.040	U
NITROPHENOL, 4-	100-02-7	4.1	4.1	4.1	0.190	U	0.200	U
Acetophenone	98-86-2	190	520	520	0.019	U	0.020	U
ATRAZINE	1912-24-9	0.13	0.13	0.13	0.075	U	0.079	U
BENZALDEHYDE	100-52-7	NA	NA	NA	0.038	U	0.040	U
BIS(2-CHLOROETHOXY)METHANE	111-91-1	2.6	7.6	7.6	0.019	U	0.020	U
BIS(2-CHLOROETHYL)ETHER	111-44-4	0.0045	0.023	0.023	0.019	U	0.020	U
BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	130	130	130	0.075	U	0.079	U
BUTYLBENZYL PHTHALATE	85-68-7	2900	10000	10000	0.075	U	0.079	U
CAPROLACTAM	105-60-2	NA	NA	NA	0.038	U	0.040	U
CARBAZOLE	86-74-8	21	89	89	**0.037**	J	**0.036**	J
DIBENZOFURAN	132-64-9	90	250	250	0.050	U	**0.055**	J
DIETHYL PHTHALATE	84-66-2	880	2400	2400	0.075	U	0.079	U
DIMETHYL PHTHALATE	131-11-3	NA	NA	NA	0.075	U	0.079	U
DIBUTYL PHTHALATE, N-	84-74-2	1400	4000	4000	0.075	U	0.079	U
OCTYL PHTHALATE, DI-N- (Di-n-octyl phthalate)	117-84-0	2200	10000	10000	0.075	U	0.079	U
HEXACHLOROBENZENE	118-74-1	0.96	0.96	0.96	0.019	U	0.020	U
HEXACHLOROBUTADIENE	87-68-3	10	42	42	0.023	U	0.024	U
HEXACHLOROCYCLOPENTADIENE	77-47-4	91	91	91	0.190	U	0.200	U
HEXACHLOROETHANE	67-72-1	0.56	0.56	0.56	0.038	U	0.040	U
ISOPHORONE	78-59-1	1.9	1.9	1.9	0.019	U	0.020	U
NITROBENZENE	98-95-3	0.052	0.27	0.27	0.019	U	0.020	U
NITROSODI-N-PROPYLAMINE, N-	621-64-7	0.00035	0.0068	0.0018	0.038	U	0.040	U
NITROSODIPHENYLAMINE, N-	86-30-6	3	110	15	0.019	U	0.020	U
PENTACHLOROPHENOL	87-86-5	5	5	5	0.075	U	0.079	U
PHENOL	108-95-2	33	33	33	0.019	U	0.020	U

All concentrations in mg/kg

CASRN - Chemical Abstracts Service Registry Number: a unique numerical identifier assigned to every chemical substance

Q - Analytical Result Qualifier: No qualifier = Detected at Results concentration

U - Undetected at the corresponding method detection level

J - Estimated concentration NA - Not available

Detected compounds are shown in **bold.**

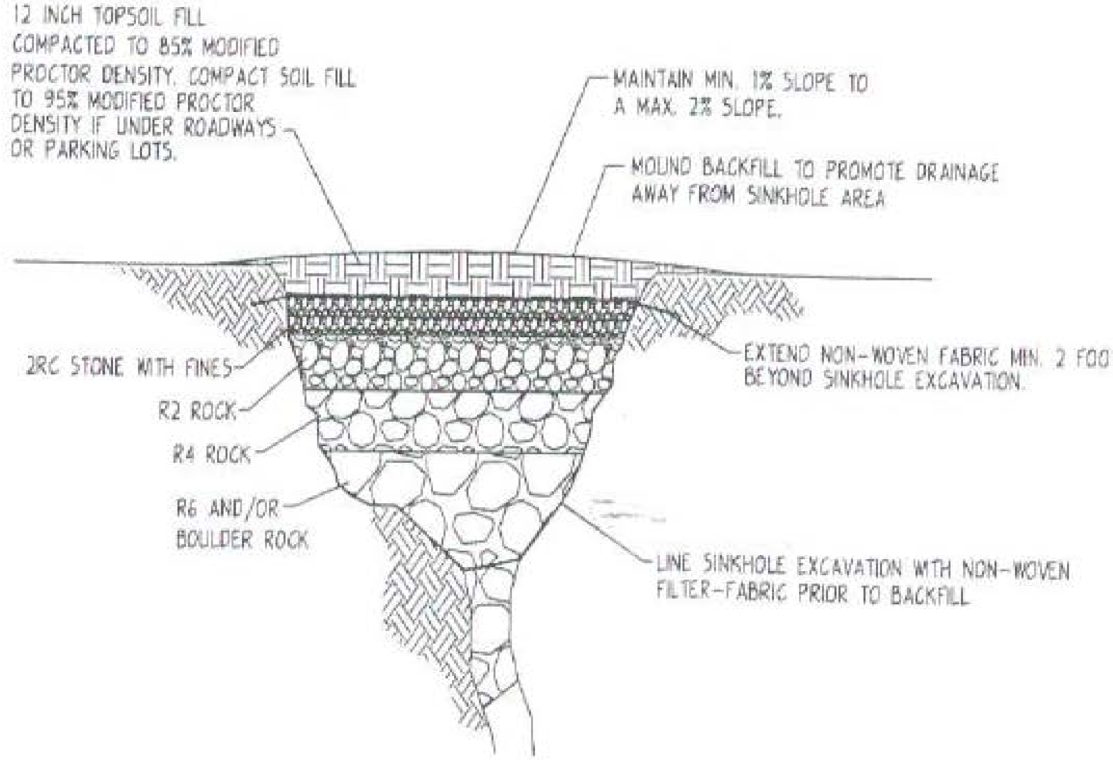
Detected values exceeding the Clean Fill Limit are shown in yellow highlight.

*From 25 Pa. Code Chapter 250, Appendix A, Tables 3 (organic) and 4 (inorganics)

- MSCs for Regulated Substances in Soil (last updated November 20, 2021)

APPENDIX A

Sinkhole Repair Specification



NOTE: 1. CONTRACTOR TO OVER EXCAVATE ALL DEBRIS, LOOSE AND SLUMPED SOILS, AND FREE ROCK WITHIN LIMITS OF SINK HOLE TO EXTENT POSSIBLE WITHOUT CLOGGING SINK HOLE THROAT.

2. ALL STONE AND ROCK LAYERS TO BE COMPACTED BY THE BEST MEANS PRACTICAL.

3. CONSULT WITH GEOTECHNICAL ENGINEER FOR SPECIFIC DETAILS AND INSTALLATION REQUIREMENTS.

REVERSE GRADED SINK HOLE REMEDIATION DETAIL

NO SCALE

APPENDIX B

Photographs

Photo 1: Sinkhole prior to repair work.

Photo 2: Sinkhole excavated to depth. Stable sidewalls and bottom.

Photo 3: Geotextile fabric installed prior reverse grade stone backfill.

Photo 4: Begin backfill with R4 stone.

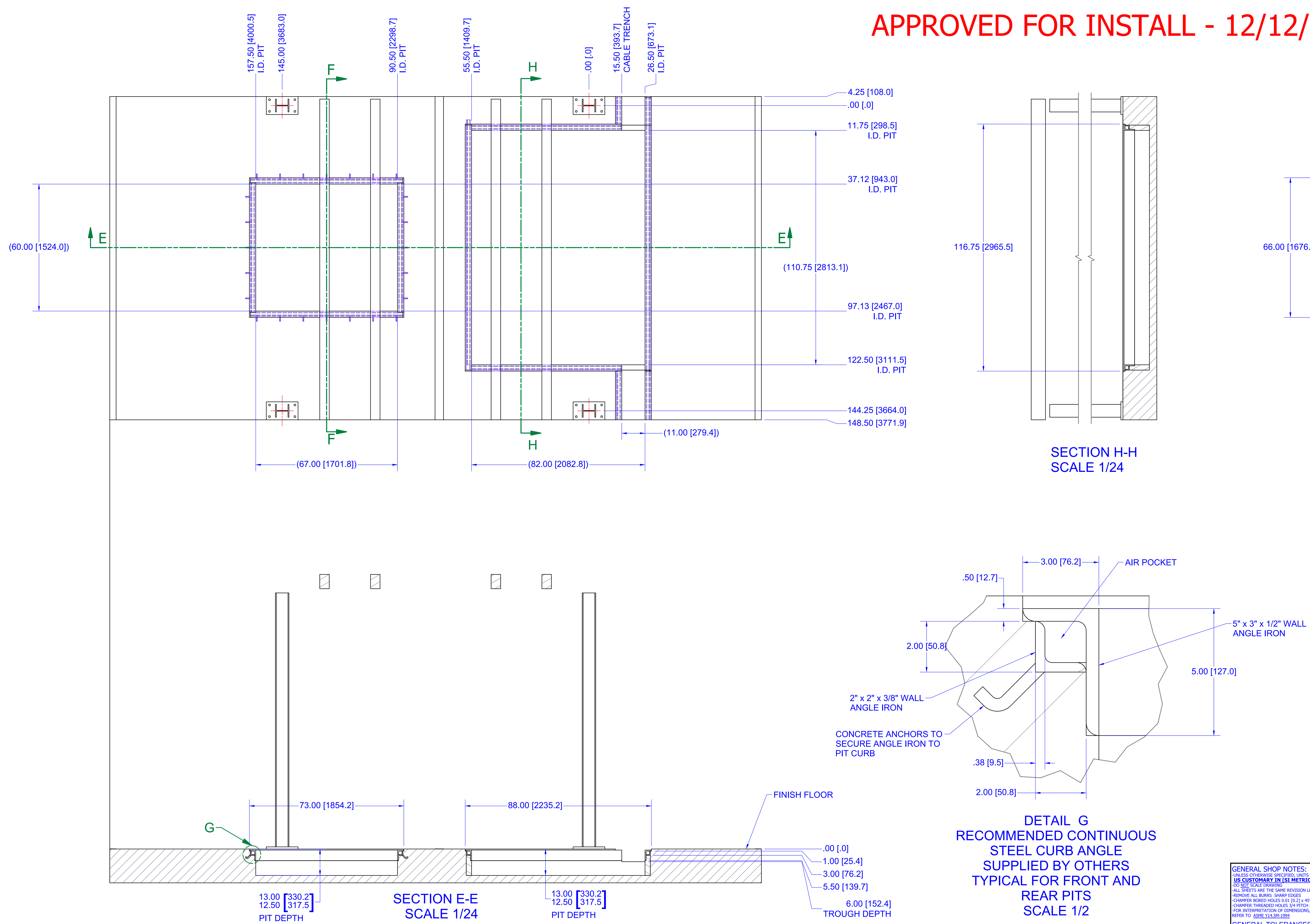
Photo 5: Gravel installed above the R2 stone. Geotextile fabric was folded on top of gravel.

Photo 6: Photo prior installation of asphalt to replace cap.

Photo 7: Asphalt cap installed over sinkhole repair area.

Photo 8: Excavated soil stockpiled south of sinkhole repair area.

APPROVED FOR INSTALL - 12/12/2024 - M. MILLER



GENERAL SHOP NOTES:
-UNLESS OTHERWISE SPECIFIED, UNITS ARE:
US CUSTOMARY IN [SI METRIC mm]
-DO NOT SCALE DRAWING
-ALL SHEETS ARE THE SAME REVISION LEVEL
-REMOVE ALL BURRS SHARP EDGES
-CHAMFER BORED HOLES 0.01 [0.2] x 45°
-CHAMFER THREADED HOLES 3/4 PITCH x 45°
-FOR INTERPRETATION OF DIMENSIONS, REFER TO ASME Y14.5M-1994

GENERAL TOLERANCES:
(UNLESS OTHERWISE SPECIFIED)
.X ± .12 [X ± 3.0]; UNMACHINED (MAJORITY)
.XX ± .015 [.X ± .38]; *Ra = 250 [6.3] RMS
.XXX ± .005 [.XX ± .12]; *Ra = 125 [3.2] RMS
ANGULAR DIMENSIONS ± .12 °

THIRD ANGLE PROJECTION

DRAWN BY ccobb
ENGINEER ccobb
DATE 9/23/2024
SURFACE FINISH *Ra (MACHINED) (MAJORITY)

BURKE E. PORTER MACHINERY CO.
730 PLYMOUTH N.E.
GRAND RAPIDS, MICHIGAN 49505
(616) 234-1200 www.bepco.com

TITLE PIT LAYOUT - H-D NCA - APPROVED					
ITEM (PIN) N/A			DRAWING NUMBER 3805PL511821		
SIZE D	SCALE 1/24	FINISH CODE N/A	MASS 189038 lbmass	SHEET 4 OF 4	REV

MODEL PATH: C:_Vault\Designs\3805\3805PL511821_NEW.iam
MOST SIMILAR TO: N/A
DRAWING PATH: C:_Vault\Designs\3805\3805PL511821_NEW.idw

Kinsley Materials
501 Hokes Mill Road
York, PA 17405
717-846-6711

C+D Rigging - 2077

Ticket No.: 5635874

Date : 12/30/2024 Time: 9:36:29AM
Location : **Kinsley Organic Recycling & Disposal**
Customer : 9936 XS Waste Transport
Order : 47994 2025 Dumping
Phase: 0
P.O. :
Product : DMM Dump Mixed Materials **12.51** Ton

1425 eden rd
Carrier : 0 SELF CARRIERS
Vehicle : XS33 XS33
Received : ______________________

COPY 1 CARRIER

	Pounds	Tons	Metric
Gross	60100	30.05	27.26
Tare	35080 *	17.54 *	15.91*
Net	25020	12.51	11.35

* Manual P. T.

Ordered	0.00		
Received	54.78		
Remaining	-54.78		
Today:	23.20	Loads:	2

Weighmaster: Brandy Gallagher

I, the undersigned, certify that the material described above was used for reclamation fill at Consolidated Quarry and was onsite visually inspected and scanned with a PID, as required. X

Kinsley Materials
501 Hokes Mill Road
York, PA 17405
717-846-6711

C+D Rigging - 4020

Ticket No.: 5635847

Date : 12/30/2024 Time: 6:57:59AM
Location : **Kinsley Organic Recycling & Disposal**
Customer : 9936 XS Waste Transport
Order : 47994 2025 Dumping
Phase: 0
P.O. :
Product : DMM Dump Mixed Materials **10.69** Ton

1425 eden rd
Carrier : 0 SELF CARRIERS
Vehicle : XS33 XS33
Received : ______________________

COPY 1 CARRIER

	Pounds	Tons	Metric
Gross	56460	28.23	25.61
Tare	35080 *	17.54 *	15.91*
Net	21380	10.69	9.70

* Manual P. T.

Ordered	0.00		
Received	42.27		
Remaining	-42.27		
Today:	10.69	Loads:	1

Weighmaster: Brandy Gallagher

I, the undersigned, certify that the material described above was used for reclamation fill at Consolidated Quarry and was onsite visually inspected and scanned with a PID, as required. X

Photo 2: Photo looking west at distressed asphalt located east of the roll box lean to structure. Photo taken March 2024.