KEYSTONE SITE ENVIRONMENTAL SOIL AND GROUNDWATER FINDINGS AND CONCLUSIONS

SAIC Project 01-1633-00-1952-007

Prepared for:

Harley-Davidson Motor Company Operations, Inc.
York, PA

February 2003

6310 Allentown Boulevard, Harrisburg, PA 17112 • (717) 901-8100 • (800) 944-6778

KEYSTONE SITE ENVIRONMENTAL
SOIL AND GROUNDWATER FINDINGS AND CONCLUSIONS

SAIC Project 01-1633-00-1952-007

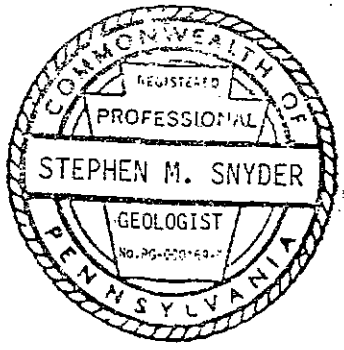
Prepared for:

Harley-Davidson Motor Company Operations, Inc.
York, PA

By:

Science Applications International Corporation
6310 Allentown Boulevard
Harrisburg, PA 17112
(717) 901-8100

February 2003



Respectfully submitted,

Stephanie Pulaski
Project Geologist

Stephen M. Snyder, P.G.
Project Director

Rodney G. Myers
Project Manager

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

LIST OF ACRONYMS

ALSI	Analytical Laboratory Services
COC	constituents of concern
DEP	Department of Environmental Protection
EI	Environmental Inspector
EPA	Environmental Protection Agency
GPS	global positioning system
HDPE	high density polyethylene
NETT	north end test track
PCB	polychlorinated biphenyls
PCE	tetrachloroethene
PID	photoionization detector
PP metals	priority pollutant metals
PVC	polyvinyl chloride
QA	quality assurance
RI/FS	remedial investigation/feasibility study
SETT	southeastern test track
TCA	1,1,1-trichloroethane
TCE	trichloroethylene
TCLP	Toxicity Characteristic Leaching Procedure
TPH	total petroleum hydrocarbon
VOC	volatile organic compound

1.0 BACKGROUND

Harley-Davidson Motor Company Operations, Inc. (Harley-Davidson) is in the process of expanding its facility in Springettsbury Township. The expansion, known as the Keystone Project, was the construction of a new Softail production facility. The new facility has been constructed in the eastern portion of the site, in the vicinity of the former test track. Durr Industries Inc. (Durr), Harley-Davidson's General Contractor (GC), and their subcontractors were responsible for excavation and construction of the new manufacturing building. Figure 1 provides a site location reference for the subject work.

Harley-Davidson has been performing remedial environmental activities at the site since 1986. A Site-Wide Remedial Investigation/Feasibility Study (RI/FS) was initiated in 1998 and is presently ongoing. The objectives of the Site-Wide RI/FS are to evaluate potential sources of groundwater impacts, determine the fate and transport characteristics of known constituents of concern (COCs) in groundwater, and evaluate the risk that the COCs pose to human health and the environment. The results of the investigation are to be used to evaluate and define remedies that will minimize risks to human health and the environment.

Previous remedial activities at the site have indicated that the primary COCs due to concentration, frequency, and potential for off-site migration are chlorinated solvents, including tetrachloroethene (PCE), trichloroethene (TCE), 1,1,1-trichloroethane (TCA), and degradation products of those compounds. The distribution of these constituents in groundwater suggests that they have originated from multiple sources.

Other COCs encountered on the property, but at a lesser frequency, include benzene, ethylbenzene, xylenes, lead, hexavalent chromium, nickel, PCBs, and cyanide. These substances appear to be restricted to specific source locations, several of which have already been subjected or are being subjected to remedial actions.

This report summarizes the results of environmental planning, inspections and monitoring performed during the Softail construction activities.

2.0 INTRODUCTION

Due to the extent of planned excavation for construction of the manufacturing facility, several environmental concerns needed to be addressed. Based on past site activities, the following environmental concerns posed design and construction issues: excavation of potentially contaminated soils, exposure to contaminated groundwater, and groundwater seepage. In order to assist Harley-Davidson with the environmental concerns related to the Softail plant, two local consultant firms were hired. An environmental engineer from Buchart-Horn was hired to assist with environmental designs and supervise environmental construction. The environmental engineer was responsible for supervision of daily construction activities relating to environmental issues, including, but not limited to: acting as a liaison between the project team and the Harley-Davidson environmental engineer, verifying field construction met the design, providing direction concerning decontamination, waste segregation, sampling, and manual operation of the groundwater collection system. A potential existed to encounter contaminated soil or groundwater during excavation activities. Harley-Davidson employed SAIC to assist with environmental planning and to act as an Environmental Inspector (EI) during site preparation and excavation activities. An SAIC EI was to be present during all clearing, grubbing and excavations. The responsibilities of the EI included visually inspecting newly uncovered subsurface material and screening with a photoionization detector (PID) any soils which were visually stained to identify suspected contaminated areas; limiting access to identified suspected contaminated areas; providing laboratory results to Harley-Davidson and site contractors from suspected contaminated areas; and providing consultation to Harley-Davidson on the disposition of excavated materials suspected of being contaminated. The EI was also responsible for collection of environmental samples to assist Harley-Davidson in characterizing waste materials suspected of being contaminated and for other environmental consulting, as needed. Daily monitoring logs were to be kept and all field notes recorded in bound logbooks. Copies of weekly (or biweekly) progress reports associated with the environmental inspections are provided in Appendix A.

2.1 Preliminary Engineering Evaluation

Prior to beginning on-site work, SAIC reviewed various design information and provided historical environmental information to assist in overall project planning. Based on past history, and because it was not possible to confirm or deny the presence of contamination within the construction boundaries, SAIC developed a memorandum describing the environmental concerns for the project (see Appendix D). Harley-Davidson incorporated this information into their contract document (as Attachment J) for construction work at Keystone. Attachment J pertained to items such as the need for an Environmental Inspector, a Contractor Health and Safety Plan, and management of contaminated materials.

Because of the possibility for the excavation of contaminated soil, SAIC reviewed health and safety issues and concerns. Due to the potential for excavation of contaminated soils, a storage pad was designed for interim storage of any contaminated soils or soils that were suspected of being contaminated. The pad was constructed of six inches of sand (AASHTO No. 10), followed by a 40 millimeter (mm) rubber liner, then another layer of sand covered with a 3-inch by 3-inch geocell for stability. The storage pad was constructed in a 100 feet by 200 feet area, surrounded by a silt fence. During the course of excavations on the site, 225 cubic yards of suspect soil was stockpiled on this pad. By stockpiling suspect material on this pad, excavation work could progress without waiting for sampling and analysis results to be obtained.

Additionally, because of the need to treat potentially contaminated water during the construction work, SAIC designed and installed a temporary frac tank. The purpose of this tank was to provide temporary storage of contaminated water (excavation water or decontamination water) prior to treatment and to allow any solids to separate from the water prior to treatment. A 20,000-gallon tank was installed near an existing underground discharge pipe which carried contaminated groundwater from an area of active groundwater extraction to an existing on-site groundwater treatment plant. Temporary electric power was connected to the tank to power pumps and controls needed to integrate with the existing on-site treatment system.

Due to the potential for shallow groundwater to be encountered, SAIC prepared illustrations of historical groundwater elevations in comparison to construction and excavation planned elevations. Cut/fill plans were reviewed to try to minimize potential impacts to shallow groundwater. A groundwater interceptor trench and shallow drain was designed as a result of this evaluation. These plans were reviewed with the general contractor for installation as part of site preparation activities.

In addition, it was determined that portions of the planned stormwater drains would also be influenced by potentially contaminated groundwater. In an effort to protect groundwater from discharging into stormwater, SAIC assisted in evaluating options and preparing specifications for installing the stormwater piping in the areas of potential impact. This included specifications for special piping and the application of non-shrink grout to all manhole and inlet penetrations so as to prevent future groundwater infiltration.

3.0 TOPSOIL EVALUATION

SAIC characterized site topsoil anticipated for stockpiling and possible off-site removal. This topsoil covered an area of approximately 1,300,000 square feet. The excess topsoil was anticipated for off-site disposal at a local quarry. The purpose of the sampling was to verify that soil leaving the site as fill could be used in an unrestricted manner.

The draft "Safe Fill" regulations [Pennsylvania Residual Waste regulations, Title 25, Part I, Subpart D, Article VIII, Chapter 287] provide appropriate guidance for determining if soil can be used in an unrestricted manner as fill. The Safe Fill criteria include (1) no knowledge of past activity relative to contamination; (2) no staining, odors or sensory nuisances; and (3) obtaining the proposed Safe Fill numerical standards. The Safe Fill policy has incorporated the statewide health standards (SHS) adopted under the Land Recycling Program (Act 2 of Pennsylvania) in developing the Safe Fill numerical standards.

Based on knowledge of past activities and the presence of contamination elsewhere, property-wide COCs include volatile organic compounds (VOCs), metals, and cyanide. Sampling to meet the Safe Fill numerical standard requires a minimum of 12 samples for each 3,000 yd^3. Of these 12 samples, 3 grab samples are required for total VOC analyses and 3 composites (of 4 samples each) are required for total metals analysis. Using this approach, approximately 1 sample per 1,000 yd^3 is submitted for analysis. The numerical standards are provided in Tables 1 and 2 for inorganic and organic constituents, respectively.

3.1 Sampling Methodology

Topsoil sampling was conducted from September 13 through 18, 2001. The sampling was conducted prior to removal using a systematic random sampling approach. Using this approach, a randomly selected coordinate was identified near the southwest corner of the construction area to orient a systematic grid over the area requiring topsoil removal. Assuming an average excavation depth of 6 inches, an area (grid) measuring 116' by 116' represents 250 yd^3 of topsoil, and four of these grid areas represent 1,000 yd^3.

The area requiring topsoil removal was divided into 116' x 116' grids that were oriented in a north-south and east-west pattern. An auto-level and tape measure was used to set up the grid area. Each grid was marked with push flags. Composite sampling grid boundaries (representing 1,000 yd^3 of topsoil) were identified by selecting four adjoining 116' x 116' sampling grids. As shown on Figure 2, 43 grid boundary areas were identified within the area anticipated for topsoil removal. Sampling was not conducted in Grid Areas 13 or 14 because these areas were outside of designated construction zones. Therefore, only 41 composite grid areas were sampled. Individual sampling locations were flagged at predetermined coordinates using a Global Positioning System (GPS), tape measure and transit. Grid intersections were identified by row-column (alphanumeric) sampling identifiers (Figure 2).

Soil samples were collected at each grid location using a 3-inch stainless steel bucket auger. Sampling locations were moved slightly if asphalt or other obstructions were present at the grid intersection. One soil sample was collected from an average depth of 6 inches from each 250 yd^3 grid square using SAIC Field Technical Procedure (FTP) 525, attached. Soil from each sampling location was briefly described and screened with a photoionization detector (PID). Sampling information was recorded in a field logbook, and actual sampling locations were documented using a GPS and transferred to a suitable site map (Figure 2).

Soil from four adjoining grid locations was composited and submitted to Analytical Laboratory Services Inc. (ALSI) for total priority pollutant metals and cyanide by EPA methods 6010B and 9012, respectively. One grab sample was collected from one of the four adjoining grids for total VOC analysis in accordance with EPA method 5035 (Encore method). Analysis for total VOCs was conducted by EPA method 8260B. Samples collected for VOCs were biased based on the highest PID screening data (if detected) from the four sampling locations within each sampling grid. If there were no differences (or detections) based on PID screening, the VOC sampling location was randomly selected from one of the four composite sampling grid locations (see Figure 2 for VOC sampling locations).

The bucket auger was decontaminated between grid sampling locations to avoid cross contamination between samples. Decontamination involved washing the auger with water, Alconox, and a scrub brush. Quality assurance (QA) samples, including daily trip samples for VOCs and 5% blind duplicate samples were collected during the sampling.

3.2 Results of Analysis

Analysis of the topsoil samples was conducted by ALSI. A summary of the laboratory analytical results from this sampling is presented on Table 3. A Complete Laboratory Package (CLP), including laboratory analysis reports, chain-of-custody, case narrative, and raw analytical information is available upon request. As shown on Table 3, none of the soil sampling results exceeded the "Safe Fill" numerical standards.

Metals are naturally present in soil and were detected in all of the soil samples. None of the detected metals were found above the Safe Fill numerical standards. Several samples showed low (but measurable) concentrations of volatile organic compounds (VOCs). Toluene, methylene chloride, and trichloroethene (TCE) were detected in several samples throughout the sample set. There is some indication that low (estimated) concentrations of toluene and methylene chloride identified in these samples may be a laboratory-related artifact. The only detection of TCE was in Grid Area 3 (sample location A5). Cyanide was detected in composite samples collected only in grid areas 3, 7, 12, 18, and 19. These grid areas are located along the southern construction zone and the south perimeter boundary road. Topsoil from each of these five grid areas were designated to remain onsite. Since there is documentation of dust suppression activities using waste solvents along the south perimeter boundary road, the topsoil from these five grid areas does not meet the requirements for a Safe Fill determination.

3.3 Topsoil Removal Inspection

Topsoil removal was part of site construction activities being conducted by Harley-Davidson's general contractor, Durr Industries, Inc. and their excavation subcontractor, Kinsley, Inc. Topsoil removal began on September 26, 2001. On-site stockpiling of topsoil was completed on

October 6, 2001. SAIC conducted environmental inspections of the topsoil removal. Large earth-moving equipment, including up to four pans were used to remove the topsoil within the characterized area. Environmental inspection activities included scanning of the excavated soil with a PID and visual inspections for staining, discoloration or unusual conditions. All inspection results were recorded in a field logbook. No elevated PID readings or unusual conditions were observed during any of the topsoil removal work in the characterized areas.

Because of the low detections of TCE and cyanide found along the southern edge of the construction area, Harley-Davidson directed that all topsoil removed from grid areas 3, 7, 12, 18, and 19 remain for on-site use only. Topsoil within these five grids was stockpiled separately from that removed from other areas of the construction site and was used during site restoration work for this project.

Based on the results of the sampling, analysis and on-site inspections, the Safe Fill criteria were met for all topsoil anticipated for off-site use. All sampling data were below the "Safe Fill" numerical standards. There is no knowledge of past activity (relative to contamination) regarding the topsoil removed and stockpiled for off-site use. No staining, odors, or sensory nuisances were observed during the removal of the subject topsoil at the site. Therefore, based on the number of samples collected, up to 36,000 yd^3 of this topsoil has been demonstrated to be acceptable for unrestricted off-site use.

3.4 Disposition of Unused Topsoil

Most of the topsoil that passed Safe Fill requirements was not needed to complete final site restoration and was hauled off-site to York Silica Sand in Springettsbury Township, Pennsylvania. The remainder of the topsoil was stockpiled along the southern property boundary. Because of the low detections of TCE and cyanide found along the southern edge of the construction area, Harley-Davidson directed that all topsoil removed from grid areas 3, 7, 12, 18, and 19 remain for on-site use only. Topsoil within these five grids was stockpiled separately from that removed from other areas of the construction site and will be used during site restoration work for this project.

4.0 SUBSOIL SAMPLING AND ANALYSIS

SAIC was requested by Harley-Davidson to characterize excess subsoil and rock anticipated for removal from the construction site. The purpose of the sampling was to verify that any material leaving the site as fill could be used in an unrestricted manner. Subsoil identified for off-site removal was inspected to confirm that no staining, odors, or sensory nuisances were present and then was sampled for comparison to the Safe Fill numerical standards. Excavation of all subsurface materials, whether used for on-site backfill or stockpiled as excess, was observed by the EI, and suspicious materials were identified, segregated, and sampled using biased sampling procedures.

During the project, bedrock was encountered which was designated for off-site removal. In preparation for rock removal, SAIC reviewed site blasting plans and inspected and monitored boreholes advanced for blasting purposes. Due to the presence of elevated PID readings associated with the removal of blasted bedrock, some additional sampling and data review was required. This information is further discussed in Section 5.3, below. In addition, SAIC facilitated an inspection by the Pennsylvania Department of Environmental Protection (DEP) in order to review and confirm approval of selected stockpiles which had failed Safe Fill criteria for use as daily cover at a local landfill.

Based on knowledge of past activities and the presence of contamination elsewhere, property-wide contaminants of concern include volatile organic compounds (VOCs), metals, and cyanide. Sampling to meet the Safe Fill numerical standard requires a minimum of 12 samples for each 3,000 yd^3. Of these 12 samples, 3 grab samples are required for total VOC analyses and 3 composites (of 4 samples each) are required for total metals analysis. Using this approach, approximately 1 sample per 1,000 yd^3 is submitted for analysis. The numerical standards are provided in Tables 1 and 2 for inorganic and organic constituents, respectively.

4.1 Sampling Methodology

Subsoil sampling was conducted from December 3, 2001, through February 21, 2002. Approximately 70,000 yd^3 of soil were excavated and stockpiled. As the soil was excavated, it was

stockpiled in approximately 5,000 yd^3 piles on-site using large earth moving equipment (pans). Fourteen such piles were created. An SAIC representative monitored both soil excavation and placement activities. If observed, soil with staining, odors, or elevated (non-background) PID readings were segregated and designated for on-site use only.

The pile sampling was conducted using a systematic grab sampling approach. The sampling approach consisted of collecting a representative sample of the material placed on the pile following every 18th pan load (250 yd^3). Soil from four (250 yd^3) subsamples was composited and submitted for inorganic analyses. A randomly selected grab sample was collected for VOCs from each 1,000-yd^3 batch. Samples are identified based on Pile number and consecutive 1,000-yd^3 batch number (i.e. Pile1, Batch 1).

The rock pile sampling was conducted intermittently beginning November 19, 2001, through January 17, 2002. Approximately 6,000 yd^3 of rock were excavated and stockpiled in anticipation of off-site disposal. The sampling approach consisted of collecting a representative sample for every 1,000 yd^3 of material placed on the stockpile. Because the rock itself cannot be analyzed for inorganic and organic constituents using the typical EPA methodology, soil associated with the rock was sampled. The soil was sampled using the same procedures as the subsoil sampling. Soil from four (250 yd^3) subsamples was composited and submitted for inorganic analyses. A randomly selected grab sample was collected for VOCs from each 1,000-yd^3 batch.

4.2 Results of Analysis

One sample from each 1,000 yd^3 of subsoil or rock was analyzed for total VOCs (EPA method 5035/8260B), total priority pollutant metals, and total cyanide by ALSI. A summary of the laboratory analytical results from the subsoil sampling is presented on Table 4. Table 5 provides a summary of the rock pile sampling results. Although all inorganic analysis results are shown, only organic compounds which were detected in one or more of the samples from each media are shown on the summary tables. A complete, CLP-like data package, including laboratory analysis reports, chain-of-custody, case narrative, and raw analytical information is available upon request.

Metals are naturally present in soil and were detected in all of the soil samples. Thallium, selenium, and arsenic were detected above the Safe Fill numerical standards in Stockpile 3. Arsenic also exceeded the "Safe Fill" numerical standards in Stockpiles 6, 8, 11, 12, and 14 (see Table 4). Cyanide was detected in samples from Stockpiles 3, 6, 8, 10, 11, and 14. Safe Fill standards do not include cyanide.

As a result of this sampling, Stockpile Nos. 3, 6, and 12 were designated for on-site use only, and were not hauled off-site. However, based on the following reasons, including an evaluation of site environmental information, results of the sampling, analysis and on-site inspections, there is no indication that arsenic found in these samples is a result of contamination:

- There is no knowledge of past activity (relative to arsenic contamination) in this portion of the site.
- No staining, odors, or sensory nuisances were observed during the excavation and stockpiling of the subject subsoil at the site.
- Arsenic is not a COC, based on current RI/FS investigations.
- There are no impacts to groundwater associated with arsenic at this site.
- The concentration of arsenic found in these samples is within the common range for U.S. soils of 1 to 50 milligrams per kilogram (mg/kg) (John Wiley & Sons, 1979).

Although other metals have been identified as site-related COCs (i.e. chromium and nickel), these metals were not found in elevated concentrations in these samples. In addition, the topsoil within the construction area (including the area from which the soils of concern were derived) was sampled and characterized prior to removal. None of the metals tested in the topsoil were above the Safe Fill numerical standards. Therefore, the source of arsenic in these samples is likely related to the parent material at this site and its associated soil weathering processes.

Six soil samples were collected from the rock stockpile. Based on the results of the sampling, analysis and on-site inspections, the Safe Fill criteria were met for all rock anticipated for off-site use. All sampling data were below the "Safe Fill" numerical standards (see Table 5).

4.3 Subsoil/Rock Removal Inspection

Subsoil removal (cutting) and filling were part of site construction activities being conducted by Harley-Davidson's general contractor, Durr Industries, Inc. and their excavation subcontractors. Subsoil excavation began following topsoil removal in October 2001. Subsoil and rock was removed in order to obtain the required building grade and elevation. Cutting activities were focused primarily along the eastern half of the Keystone project site (see Figure 1), whereas filling occurred primarily along the western half of the building site. SAIC conducted environmental inspections of all subsoil and rock removal work. Large earth-moving equipment, including pans and bulldozers, were used to remove the subsoil within the characterized area. Some blasting was required to remove shallow rock areas. Environmental inspection activities included scanning of the excavated soil with a PID and visual inspections for staining, discoloration or unusual conditions. All inspection results were recorded in a field logbook. A summary of the weekly observations, areas of potential concern, and sampling activity are provided in the project progress reports (Appendix A).

Based on the results of the sampling, analysis and on-site inspections, the Safe Fill criteria were met for all subsoil retained for on-site use. All sampling data for this soil were below the "Safe Fill" numerical standards.

4.4 Disposition of Unused Subsoil/Rock

Stockpiling of excess subsoil was completed in April 2002. Excavated soil and rock which could not be used on-site were stockpiled temporarily on-site (in fourteen piles of approximately 5,000 cubic yard size) sampled, and subsequently hauled off-site. Table 6 provides a summary of the subsoil disposition.

5.0 SUSPECT SOIL INVESTIGATIONS

As introduced above, the EI, in conjunction with the Environmental Engineer, was responsible for identifying and investigating any environmentally suspicious areas during the construction efforts. Several areas of suspected contamination were encountered during excavation work at the site. Areas of suspicion were typically identified by visual evidence of staining and/or elevated PID readings. Typically, a soil sample was collected in the suspect area to verify the environmental conditions. Figure 3, attached, illustrates the locations of samples collected for analysis. These locations were identified with a hand-held GPS unit. Each area where suspect soil samples were collected is described below.

5.1 Building 58 Trench

A sample was collected from suspect soils encountered while installing a silt fence around the western perimeter of the construction site. The soil was located beneath asphalt and was stained red. There were no elevated PID measurements associated with the soil. A grab sample, "Building 58 Trench" was collected and submitted to ALSI for total petroleum hydrocarbons (TPH) analysis by EPA Method 418.1 and Total Priority Pollutant Metals.

Results of the laboratory analysis determined TPH concentrations of 2,300 mg/kg. No elevated levels of metals were detected (Table 7). The soil does not meet the Safe Fill determination criteria, however, because one of the initial criteria is that the soil not contain staining, odors, or sensory nuisances. Therefore, the material was left in-situ and not removed from the site.

5.2 Southeast Test Track Area

Suspect soils were encountered during subsoil excavation near the southeastern end of the former southeast test track (SETT). The soils had a greenish color, and it was unknown if the coloration was natural. A grab sample, "SETT 10-01-01" was collected and analyzed for Priority Pollutant metals and cyanide. Because volatiles were not detected with a PID, a sample was not analyzed for VOCs.

Laboratory analysis indicated background levels of metals and non-detection of cyanide (Table 7). It was determined that the greenish color to the material was of natural origin.

5.3 Southeast Corner

A suspect soil area was encountered in the upper section of the overflow parking lot area (50 feet wide by 400 feet long) located along the east perimeter boundary of the project site. Stained soils and an unusual odor were observed during subsoil removal. A PID was used to scan the soils and measured a peak of 77 parts per million (ppm). The area had recently been blasted to break up shallow bedrock, and there was concern that blasting residual may be the cause of the staining and odor. An initial sample [SE Corner 11-15-01] was pulled from the area on November 15, 2001, from the suspect area. VOC analysis of this sample indicated low (estimated) concentrations of benzene, toluene, ethylbenzene and methylene chloride [all less than 20 micrograms per kilogram (µg/kg)] and low concentrations of total metals. With the exception of methylene chloride [a potential laboratory contaminant], these VOCs are generally associated with petroleum, and (according to the RI) are not contaminants of concern associated with site soil.

Because this suspect soil area is entirely within a blasting zone conducted recently in this area, one potential source of the VOCs is residual blasting agent. According to the blasting agent MSDS, the blasting material consisted of ammonium nitrate and diesel fuel. Therefore, an effort was attempted to confirm if this was a potential source of the VOCs. A test-pit inspection was completed on November 20, 2001, to investigate the potential depth and extent of the suspect area. Based on four test pits completed, elevated PID readings in the soil, ranging up to 98 ppm were exhibited from the existing surface to the depth of planned excavation (roughly 10 - 11 feet below existing grade). Similar odors were observed from at least two of the test pits. Soil removed from the test pits (approximately 8 cubic yards, each) were underlain and covered with plastic. The material was primarily rock, mixed with soil (ranging from 10 to 40% by volume). Soil samples were collected from the bottom of 3 of the test pits (Sample Ids: SE Corner, Northern Sampling, and Western Side, respectively).

Samples from two test pits in the suspect area, having elevated PID readings, and representing the approximate final grade elevation, and one sample from a test pit outside the blast zone (Location 4) was collected for analyses as follows:

- Total Priority Pollutant VOCs by GC/MS (EPA method 8260).
- GC Fingerprint for Petroleum Compounds [C-10 through C-28] by EPA method 8015.
- Total Nitrogen (N).
- Total Nitrate-N.
- Total Ammonia-N.

The results of the additional testing are summarized in Table 7 and indicate the following:

- Low levels of petroleum-related VOCs were observed in each of the samples collected from the test pits. None of the estimated concentrations were above Safe Fill Limits.
- Low concentrations of a new constituent (Acrylonitrile, was observed in 2 of the test pits (SE Corner, and Northern Sampling). Acrylonitrile is not associated with any known former usage and is not a contaminant of concern associated with site soil. This chemical is also not identified on any of the blasting agent MSDS forms. None of the estimated concentrations were above Safe Fill Limits.
- Chlorinated solvents (TCE and cis 1,2-DCE), which were absent in the shallow suspect area (SE Corner 11-15-01), were observed at low concentrations in each of the deeper test pit samples. Both of these VOCs are contaminants of concern associated with site soil and are not identified on any of the blasting agent MSDS forms. None of the estimated concentrations were above Safe Fill Limits.
- The GC fingerprint analysis did not report any quantifiable levels of petroleum products, but levels of hydrocarbons typical to fuel oil, lube oil and grease were observed below the reporting limits in the first test pit (SE Corner).

- Low levels of nitrogen were observed in the three test pit samples, with very low levels of ammonia nitrogen found in the first sample (SE Corner). No nitrate-nitrogen was found in any of the samples.

Therefore, there is no conclusive evidence that low levels of regulated constituents found in this suspect area are from residual blasting activity. The source of the odors and staining has not been determined. The materials excavated from this area were used on-site as fill. Grading in this area has not been completed.

5.4 North End of Test Track

The North End of the Test Track area (NETT), located in the northern end of the site, has been identified as a potential source area for contamination in the Site-Wide RI/FS, and additional studies are slated for this area. Prior to excavation activity, Harley-Davidson made the decision that all excavated material from this area would not be eligible to leave the site under Safe Fill regulations and, if necessary, would be stockpiled in a secure area to await alternative disposal options.

Several suspect areas were encountered while excavating in the NETT area. Swale C (a planned stormwater conveyance) is located entirely within the NETT area. Metal debris including drum lids, rebar, pipe, metal sheeting, chain-link fencing, and other miscellaneous scraps were encountered during Swale C excavation. Concrete chunks, cinder blocks, asphalt pieces, refractory brick, and fly ash were also commonly uncovered. PID readings in the excavated material were generally under 10 ppm. On September 24, 2001, stained soil was observed. A maximum PID measurement of 67 ppm was obtained while scanning the soil. A soil sample (Swale 9-24-01) was collected and submitted to ALSI for analysis of VOCs and PP Metals. These soils were moved to the engineered soil stockpile area on-site.

Laboratory analysis determined only background concentrations of metals and low levels (0.67 mg/kg) of TCE. No other VOCs were identified. All detected compound concentrations were below Safe Fill standards (Table 7).

Based on the PID readings, past history of contamination in the NETT, and low level concentration of metals and TCE, it was decided that in order to protect stormwater from cross contamination the swale would need to be lined. SAIC provided engineering support and a design document for this liner. The design called for a 60-mil HDPE liner, which was to be placed along the entire swale. SAIC prepared and facilitated competitive bids for installing this liner and then provided field inspection to verify proper installation. The liner was covered with R-3 rip rap to protect the liner and assure proper drainage of the swale.

5.5 Other Areas

Other areas of staining and/or elevated PID measurements were observed during the installation of construction road within the north test track area, during installation of the frac tank pad and utilities, Box Culvert B, and the groundwater force main. Samples collected from material excavated at the Box Culvert B (Sample ID: Box Culvert B, Box Culvert B Stockpile) were submitted to ALSI and analyzed for VOCs, PP Metals, and CN. All results were below the Safe Fill standard (see Table 7). No in-situ samples were collected from the frac tank or roadway. A composite waste sample was collected from soils removed from the frac tank pad area. These results are discussed below.

6.0 WASTE HANDLING

Excavated suspect soils that exhibited staining or elevated PID measurements were stockpiled on the contaminated soil stockpile pad, constructed in the southwest corner of the project site. The soil piles were sampled for evaluating disposal options. SAIC also provided a summary of potential facilities for handling and final disposition of these wastes. Soil from each suspect area was kept in separate piles. The samples collected from each soil pile on the stockpile pad were identified as Box Culvert, PB-3, Frac tank, and Swale C (see Table 7). All samples were submitted to ALSI for analysis of VOCs, PP Metals, and CN. The PB-3 and Frac tank samples contained 0.34 and 1.2 mg/kg of cyanide, respectively. All other results for all samples were below the Safe Fill standard. These soils were approved for disposal at Modern Landfill as a non-hazardous waste. Envirite of Pennsylvania, Inc., transported the material to Modern Landfill from October 30 to November 1, 2002 (See Table 8).

7.0 WATER SAMPLING

During excavation activities, SAIC routinely monitored area groundwater levels and checked for the presence of springs or seeps in work areas. Several water samples were collected as a result of these efforts. Water sampling locations are shown on Figure 3. A summary of the results of the water sampling is provided on Table 9.

A groundwater seep was observed along the northeast corner of the site, along a steep bank. This water was analyzed for VOCs, the main contaminant of concern associated with site groundwater. As shown on Table 9, elevated concentrations of several VOCs were detected in this sample. These VOCs included trichloroethene (TCE) and tetrachloroethene (PCE), known site contaminants. The concentration of TCE (8.4 micrograms per liter [µg/l]) is above the EPA federal drinking water standard. Due to the presence of these contaminants, the seep area was barricaded and additional erosion protection was implemented.

Water was also observed within an excavation along the northwest corner of the building foundation in early June. Because the source of the water was uncertain, a sample was collected for VOC analysis. The results of this analysis showed undetectable concentrations of TCE or PCE, but estimated (low) concentrations of ethylbenzene, methylene, chloride and toluene. None of the estimated concentrations were above the regulatory thresholds.

8.0 SUBSTATION INSTALLATION

A substation was planned for construction in the northeast area of the site (see Figure 3). As part of the planning process, SAIC reviewed potential construction sites and identified locations of past environmental concern in this area of the site. During construction, SAIC, as the site Environmental Inspector, monitored all excavation activities for indications of contamination. This included monitoring the soils for staining or odors, and scanning excavated soil with a PID for VOCs. Only one area exhibited elevated PID measurements and was located along the northeast corner of the substation. The soil was located adjacent to an existing asphalt road, approximately 1 foot below grade. The soil was stained dark gray, and a slight odor was apparent. The odor in the soil dissipated rapidly and, within a half-hour of excavation, VOCs could not be detected with the PID. No further excavation was required in this area for the substation construction, and no further action was taken to delineate the extent of VOCs. No samples of soil or water were collected from this area during the construction efforts.

8.1 Utility Pole Installation

SAIC provided environmental inspection services during installation of utility poles for conduit of power from the new substation to locations elsewhere on the property. The locations of the new utility poles were in areas of known and suspect environmental concern. A small auger rig was used to drill the boreholes required to set the utility poles. Average depths of the boreholes ranged from 8 to 10 feet below grade. Most of the utility pole locations exhibited no evidence of environmental concern. One location in the north test track area exhibited staining and elevated PID measurements. This location [353342E, 4427420N (UTM)] is along the western side of the construction entrance road. Maximum PID measurements were approximately 100 ppm in the soil. No soil samples were taken. The soil was placed into five 55-gallon drums and transported to Modern Landfill.

9.0 SANITARY SEWER INSTALLATION

SAIC characterized soils in the vicinity of the sanitary sewer installation associated with the construction site. The area of investigation included approximately 450 feet of a planned 10-inch diameter sanitary sewer that crosses a portion of the adjacent U.S. Army Reserve Center property. As part of the approach to confirm the environmental conditions in the vicinity of the planned sewer line, several borings and test pits were planned in advance of the construction work. In addition, SAIC provided on-site Environmental Inspection as the sanitary sewer line was excavated and installed. This included monitoring of the soils for staining or odors and scanning the soils for VOCs with a photoionization detector (PID).

Table 10, attached, is a summary of laboratory analytical results from sampling soil from several preliminary Geoprobe® borings and test pits in the sewer easement area, located along the south edge of the construction site. This sampling was conducted on July 11 and 12, 2002. The soil conditions encountered in the borings and test pits are documented on the logs included in Appendix B. The logs include lithologic descriptions of subsurface materials encountered, the results of the field inspections, PID screenings, and sample depths.

As shown on Table 10, a number of inorganic and organic compounds were detected in the soil samples collected from the borings and test pits. None of the detected compounds exceeded the Safe Fill, DEP Act 2, or EPA risk-based concentrations. The locations of these samples are shown on Figure 4, which is located in the southeastern corner of the site, and is shown superimposed on an aerial photograph taken in 1996.

Excavation and installation of the sewer line commenced following review of the initial sampling data. On August 16, 2002, elevated PID readings were observed during excavation. A grab sample was collected at the base of the trench excavation (approx. 7 feet below ground surface) near the center of the area marked by north, south, east, and west on Figure 4, using an Encore sampler. The sample was submitted to ALSI for VOC analysis only by Method 8260B. A number of organic compounds were detected in this sample, including an elevated concentration [1,800 mg/kg] of tetrachloroethene (PCE) (Table 10). In order to complete the sewer installation, soil, which had

elevated PID readings, was segregated and stockpiled on-site. A sample from the on-site stockpile was collected on August 27, 2002, for total and TCLP-extractable VOCs. The analytical result is shown on Table 10 (attached). These results indicate the presence of PCE in the soil, but no PCE was detected in the TCLP extract.

Due to the presumed presence of a larger area of contamination coincident with a historical area of environmental concern (the Historic Perimeter Road in the Southern Property Boundary Area), SAIC pursued further investigation, and remediation of this are under a separate project through the York Remediation Trust fund.

10.0 GROUNDWATER COLLECTION SYSTEM

As part of the environmental inspection-related activities at the site, SAIC assisted with groundwater planning and design needs for the project. Based on historical sampling, groundwater within the vicinity of the construction site was known to be impacted with VOCs and was determined to be located coincident with planned subsurface work. In addition, based on preliminary hydrogeologic evaluations, the building foundation and surrounding construction area was determined to be within the influence of site groundwater. Therefore, preliminary planning included provisions to divert, treat, and handle groundwater encountered during the project.

10.1 Frac Tank System

Due to the concern that groundwater may be encountered during excavations, a plan was established to allow for proper handling during construction. A Frac tank was installed to serve as a temporary holding tank for all groundwater encountered during construction. The Frac tank was connected to an existing transfer line to the on-site groundwater treatment plant. The Frac tank was installed with a control system to allow for ease in transferring of the groundwater to the on-site groundwater treatment plant. The system was installed from October 17 through 22, 2001, and was used to hold approximately 1,500 gallons of groundwater. During installation of the Frac tank, some stained soil and elevated PID readings were noted. The readings ranged from 0 ppm to 700 ppm. Soils exhibiting over 250 ppm were transported to the contaminated soil stockpile pad. The Frac tank system was removed on April 2, 2002, once the permanent groundwater collection system was in place and functioning with temporary power.

10.2 Permanent Groundwater Collection System

The permanent groundwater collection system for the Softail site consists of the toe drain, a deep drain, and a capture well. All three components of the groundwater collection system are designed to flow to a lift station. From the lift station, the groundwater is transported via underground piping to the groundwater treatment facility located in Building 41. Please

reference drawings GW-1 thru GW- 4 attached in Appendix C for additional details regarding this system.

In support of this design, SAIC provided some construction support, including review of monitoring software (RSView versus Wonderware) and installation of a motorized valve and flow meter in the groundwater treatment room (Building 41) for monitoring and control of flow from the dewatering system (lift station). In addition, some controls-related support was required to modify the existing treatment system software in order to accept and store data and to incorporate alarm controls for these new installations.

10.3 Toe Drain System

The northeast corner of the Softail site was identified as the area with the most potential for groundwater to be encountered during the project. To aid in dewatering of the area, a toe drain was installed at the bottom of the slope cut. This was designed to collect groundwater from this area, thus lowering the groundwater levels and minimizing surface discharges downgradient of the toe drain. The toe drain was constructed as a shallow trench drain filled with gravel and 4-inch perforated PVC piping. The toe drain trench was lined with geotextile fabric to minimize sedimentation of the piping. An impermeable layer was placed on top of the trench to reduce infiltration of surface water into the drain. The toe drain was connected to the permanent groundwater collection system so that long-term groundwater control for the northeast corner of the site would be addressed.

10.4 Deep Trench Drain

The deep trench drain was installed along the eastern perimeter of the building due to the high probability of groundwater levels encountering proposed excavation grades in this area. The deep trench drain is sloped to drain by gravity to the lift station. The depth varies from 22 feet to 26 feet. Four cleanouts were installed along the 760-foot length of piping. The deep trench drain was constructed of perforated PVC piping in a trench filled with coarse gravel. Prior to

installation of the piping and drainage course, the trench was lined with a geotextile fabric to minimize sediment mixing with the gravel.

10.5 Capture Well

The capture well and force main were installed in the paint sludge pit area of the new plant. The capture well was installed in this area to protect the area from groundwater infiltration. The paint sludge pit area consists of a 27-foot deep pit used to house the paint sludge holding tank. The capture well was installed 7 feet deeper than the pit so that the well could be programmed to begin pumping prior to the groundwater level reaching the elevation of the bottom of the pit. A force main was installed to transfer groundwater captured in the well to the lift station. The force main was installed with a slope towards the lift station so that groundwater does not sit in the line after the well pump stops running.

10.6 Lift Station

The lift station is located on the north of the site. The lift station is designed to convey groundwater to the existing groundwater treatment plant in the northwestern corner of the main plant. The lift station was operated manually and powered by a generator for nearly a year. In January 2003, permanent power was supplied to the lift station from the Softail facility. Currently, the lift station is operated manually via a circuit breaker on the north wall of the Softail plant, but once the system is finalized, the pumping operations will be controlled remotely.

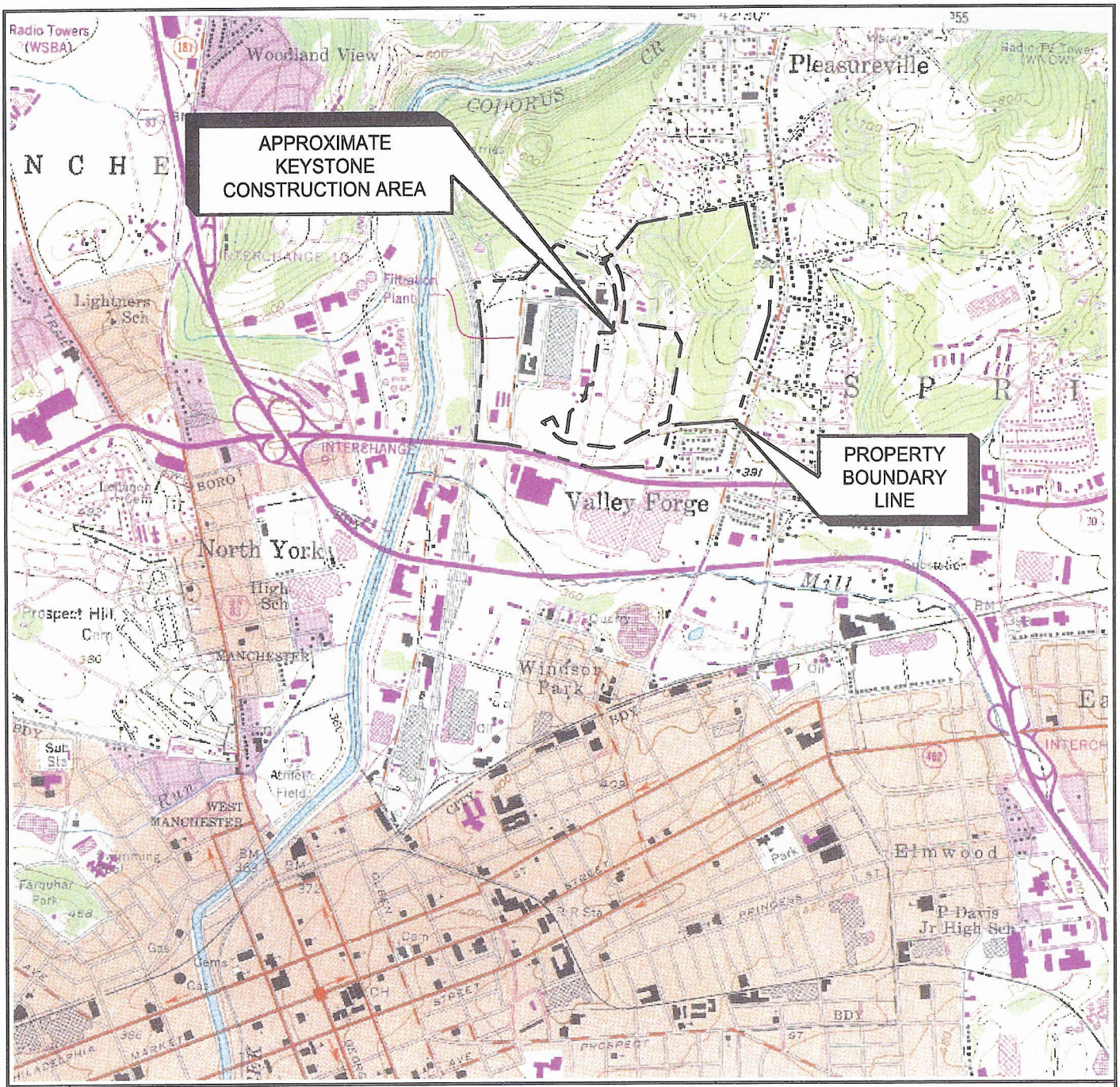
Due to a utility interference, a 150-foot section of the force main from the lift station to the existing 3-inch gravity line needed to be modified. This section of piping was lowered 8 feet to accommodate a box culvert used for stormwater management. During the work to accomplish this task, a strong odor became evident. PID measurements in the breathing zone were never above 0 ppm, despite the strong odor. PID readings in the soil ranged from 0 ppm to 264 ppm. Personnel were removed from the general area, and the odors in the area were allowed to

dissipate prior to work beginning again. Due to the strong odors and high PID readings in the soil, approximately 40 yds^3 of soil were removed and transported to the contaminated soil pad.

11.0 WATERPROOFING OF THE STORMWATER PIPING

The stormwater system design contained in Bid Pack 12 was reviewed and proposed invert elevations were compared to 10 years of groundwater level records. Sections of the system that had design invert elevations below groundwater table contours were designated to be water tight to prevent infiltration of groundwater into the stormwater system. If groundwater were to enter the stormwater system, it would be conveyed rapidly to surface water discharge points. Waterproofing of the storm sewer system prevents surface discharge of contaminants contained in the groundwater. Drawings designating the areas that require waterproof construction and specifications of acceptable materials were prepared by SAIC. These drawings, C-5 and C-6, are included in Appendix C.

FIGURES



NOTE: BASE MAP FROM THE YORK PA., USGS 7 1/2 MIN TOPOGRAPHIC QUADRANGLE (PR 1990).

2000' 0 2000'

SCALE IN FEET

N

QUADRANGLE LOCATION

HARLEY-DAVIDSON INC.
YORK FACILITY

SITE LOCATION MAP

drawn RAM	checked RGM	approved	figure no. 1
date 09/05/01	date 2/28/03	date	
job no. 01-1633-00-1952-007		file no. 01952-001-A	

SAIC Science Applications International Corporation
An Employee-Owned Company

LEGEND

- ⊕ MW 22 — EXISTING MONITORING WELL LOCATION AND IDENTIFIER
- Ⓐ MW 42 — ABANDONED MONITORING WELL LOCATION AND IDENTIFIER
- ○ A1 — TOPSOIL SAMPLE LOCATION AND IDENTIFIER
- ● B1 — TOPSOIL VOC (GRAB) SAMPLE LOCATION AND IDENTIFIER
- 1 — TOPSOIL COMPOSITE SAMPLING GRID BOUNDARY AND IDENTIFIER
- — — — PROPERTY BOUNDARY

NOTE:

EACH GRID AREA TO 6–INCH DEPTH REPRESENTS 1,000 CUBIC YARDS OF TOPSOIL. EACH GRID AREA WAS SAMPLED FOR METALS BY COMPOSITING ALL TOPSOIL SAMPLE LOCATIONS WITHIN EACH GRID BOUNDARY. ONE GRAB SOIL SAMPLE WAS COLLECTED FOR VOCs FROM EACH GRID AREA.

N

200' 0 200'

SCALE IN FEET

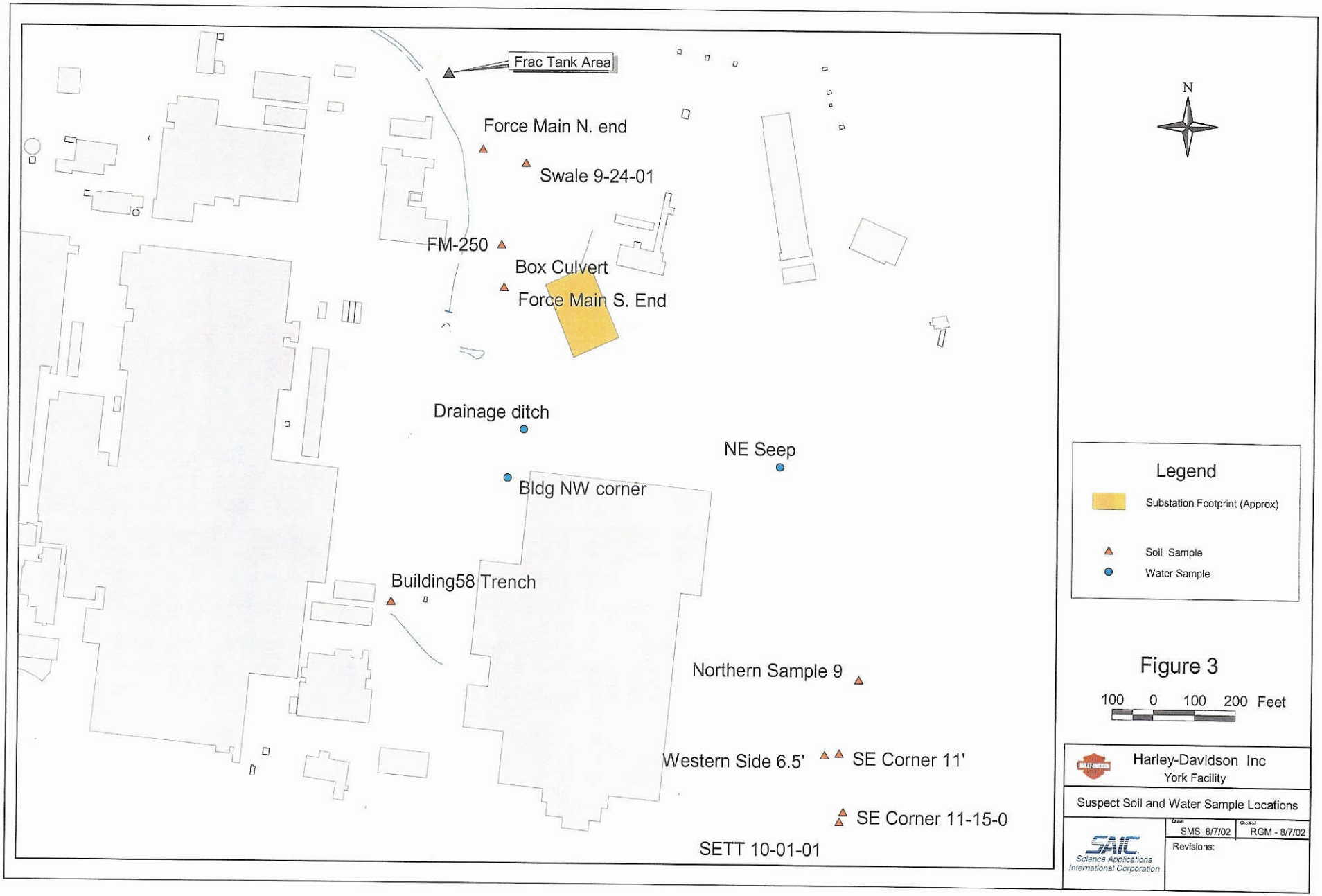
LIMIT OF DISTURBANCE

HARLEY–DAVIDSON INC.
YORK FACILITY

KEYSTONE TOPSOIL SAMPLING LOCATIONS

drawn RAM	checked RGM	approved SMS	figure no. 2
date 09/25/01	date 11/16/01	date 11/16/01	
job no. 01–1633–00–1952–107		file no. 01952–TSL–B	

SAIC Science Applications International Corporation
An Employee–Owned Company


Frac Tank Area
Force Main N. end
Swale 9-24-01
FM-250
Box Culvert
Force Main S. End
Drainage ditch
NE Seep
Bldg NW corner
Building58 Trench
Northern Sample 9
Western Side 6.5'
SE Corner 11'
SE Corner 11-15-0
SETT 10-01-01
N
Legend
Substation Footprint (Approx)
Soil Sample
Water Sample
Figure 3
100 0 100 200 Feet
Harley-Davidson Inc
York Facility
Suspect Soil and Water Sample Locations
SAIC
Science Applications International Corporation
Drawn SMS 8/7/02
Checked RGM - 8/7/02
Revisions:

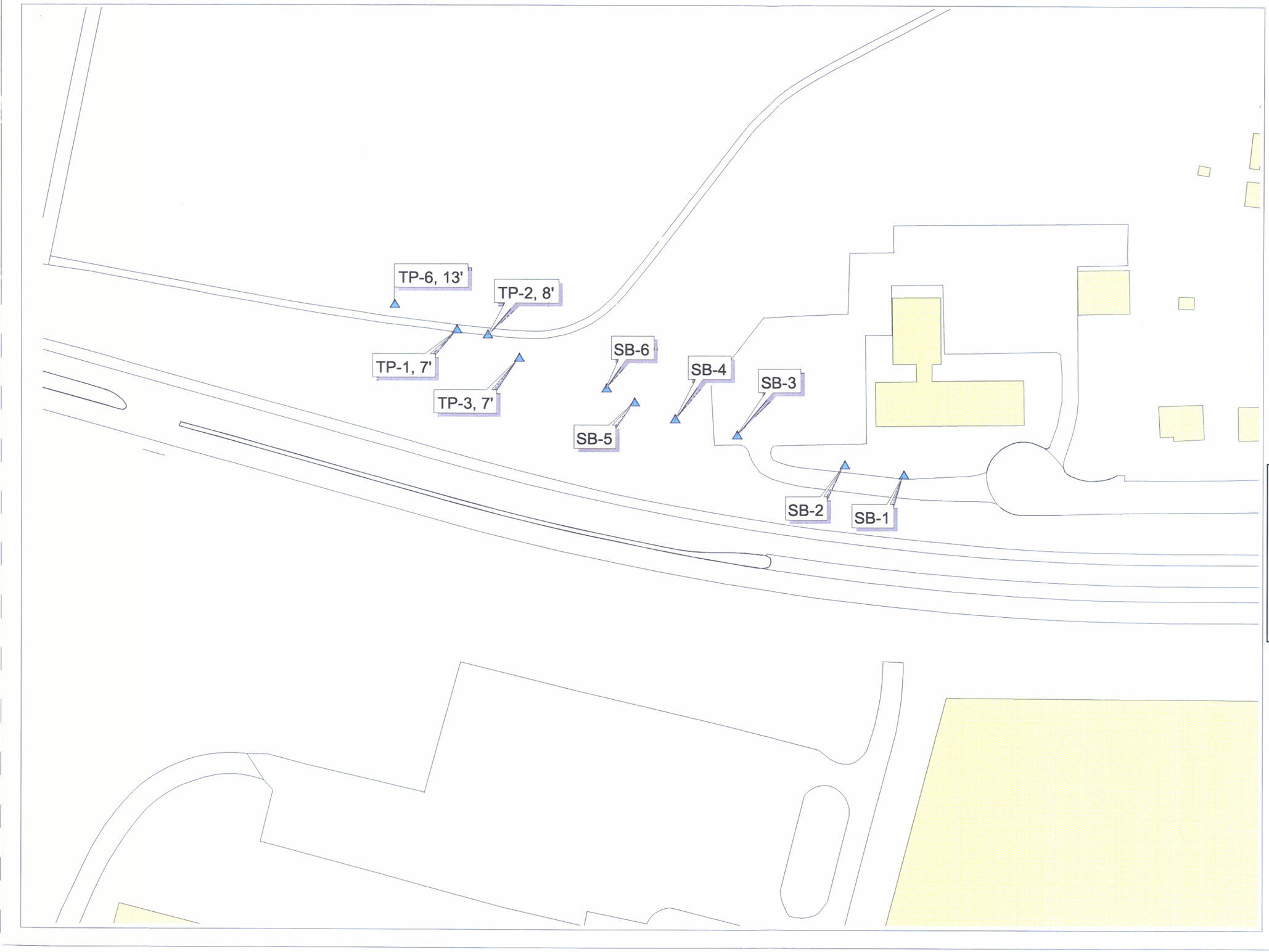


Figure 4

100 0 100 Feet

Harley-Davidson, Inc
York Facility

Sanitary Sewer Installation
Soil Sample Locations

Drawn	Checked
Revisions	

TABLES

Table 1
Safe Fill Numerical Standards for Metals
Harley-Davidson Motor Company Operations, Inc.
York Facility

Regulated Substance	Residential Direct Contact RDC mg/kg	Residential Generic Value RGV mg/kg	Safe Fill[1] *(Lower of RDC to RGV)* mg/kg
ALUMINUM[1]	190,000	na	190,000
ANTIMONY	88	27	27
ARSENIC (c)[1]	12	5	12
BARIUM	15000	8200	8200
BERYLLIUM	440	320	320
BORON	20000	6.7	6.7
CADMIUM	110	38	38
CHLORIDES[3]	na	na	250 mg/L
CHROMIUM III	190,000	190000	19000
CHROMIUM VI	660	190	190
COBALT	13000	24	24
COPPER	8100	36000	4300[2]
IRON	66000	na	66000
LEAD	500	450	450
MANGANESE	31000	na	31000
MERCURY	19	10	10
NICKEL	4400	650	650
SELENIUM	1100	26	26
SILVER	1100	84	84
THALLIUM	15	14	14
TIN	130000	240	240
VANADIUM	1500	26000	1500
ZINC	66000	12000	7500[2]

[1] Lower of the residential direct contact or residential generic value from the statewide health standards (SHS) of Act 2 regulations
[2]Due to the plant toxicity of copper and zinc, safe fill numeric values are based on the 40 CFR Part 503 regulations
[3]Required for dredged material only.
na- not applicable

Table 2
Safe Fill Numerical Standards for Organic Related Substances
Harley-Davidson Motor Company Operations, Inc.
York Facility

Compound/Contaminant	CASRN	SHS1 (residential, used aquifer, TDS <2500mg/L)				Safe Fill	Is Safe Fill Number Based on Generic Value?
		Residential Direct Contact Soil MSC[2] mg/kg		Soil to Groundwater Pathway Numeric Value Residential Generic Value mg/kg		Lower of RDC to RGV mg/kg	
ACENAPHTHENE	83-32-9	13000.00	G	2700	E	2700.00	1
ACENAPHTHYLENE	208-96-8	13000.00	G	2500	E	2500.00	1
Acephate	30560-19-1	880.00	G	0.84	E	0.84	1
ACETALDEHYDE	75-07-0	140.00	N	0.23	E	0.23	1
ACETONE	67-64-1	10000.00	C	41	E	41.00	1
ACETONITRILE	75-05-8	1100.00	C	19	E	19.00	1
ACETOPHENONE	98-86-2	10000.00	C	200	E	200.00	1
ACETYLAMINOFLUORENE, 2- (2AAF)	53-96-3	4.70	G	0.069	E	0.06900	1
ACROLEIN	10-702-8	0.38	N	0.00062	E	0.00062	1
ACRYLAMIDE	79-06-1	4.00	G	0.00057	E	0.00057	1
ACRYLIC ACID	79-10-7	19.00	N	0.051	E	0.05100	1
ACRYLONITRILE	107-13-1	4.70	N	0.0088	E	0.0088	1
ALACHLOR	15972-60-8	220.00	G	0.077	E	0.077	1
ALDICARB	116-06-3	220.00	G	0.120	E	0.12	1
ALDRIN	309-00-2	1.10	G	0.100	E	0.10	1
ALLYL ALCOHOL	107-18-6	330.00	N	0.580	E	0.58	1
AMINOBIPHENYL, 4-	92-67-1	0.85	G	0.00120	E	0.00	1
AMITROLE	61-82-5	19.00	G	0.0280	E	0.028	1
Ammonia	7664-41-7	1900.00	N	330	E	330.00	1
Ammonium sulfamate	7773-06-0	44000.00	G	22	E	22.00	1
ANILINE	62-53-3	19.00	N	0.160	E	0.16	1
ANTHRACENE*	120-12-7	66000.00	G	350	E	350.00	1
ATRAZINE	1912-24-9	81.00	G	0.130	E	0.13	1
Baygon (Propoxur)	114-26-1	880.00	G	0.033	E	0.033	1
Benomyl	17804-35-2	11000.00	G	20.000	E	20.00	1
Bentazon	25057-89-0	6600.00	G	12.000	E	12.00	1
BENZENE*	71-43-2	41.00	N	0.130	E	0.13	1
Benzidine	92-87-5	0.08	G	0.000032	E	0.00	1
BENZO[A]ANTHRACENE*	56-55-3	25.00	G	80	E	25.00	0
BENZO[A]PYRENE*	50-32-8	2.50	G	46	E	2.50	0
BENZO[B]FLUORANTHENE*	205-99-2	25.00	G	120	E	25.00	0
BENZO[GHI]PERYLENE*	191-24-2	13000.00	G	180	E	180.00	1
BENZO[K]FLUORANTHENE	207-08-9	250.00	G	600	E	250.00	0
BENZOIC ACID	65-85-0	190000.00	C	2900	E	2900.00	1
Benzotrichloride	98-07-7	1.40	G	0.00057	E	0.00057	1
BENZYL ALCOHOL	100-51-6	10000.00	C	400	E	400.00	1
BENZYL CHLORIDE	100-44-7	6.40	N	0.051	E	0.051	1
BHC, ALPHA-	319-84-6	2.80	G	0.046	E	0.046	1
BHC, BETA-	319-85-7	9.90	G	0.22	E	0.22	1
BHC, DELTA-	319-86-8	130.00	G	11	E	11.00	1
BHC, GAMMA (LINDANE)	58-89-9	14.00	G	0.0710	E	0.071	1
Biphenyl, 1,1-	92-52-4	11000.00	G	20	E	20.00	1
BIS(2-CHLOROETHYL)ETHER	111-44-4	0.96	N	0.00390	E	0.00	1
BIS(2-CHLORO-ISOPROPYL)ETHER	108-60-1	32.00	N	8	E	8.00	1
BIS(CHLOROMETHYL)ETHER	542-88-1	0.01	N	0.000010	E	0.000010	1
BIS[2-ETHYLHEXYL] PHTHALATE	117-81-7	1300.00	G	130	E	130.00	1
Bisphenol A	80-05-7	11000.00	G	20	E	20.00	1
Bromacil	314-40-9	29000.00	G	0.89	E	0.89	1
Bromochloromethane	74-97-5	2900.00	G	1	E	1.00	1
BROMODICHLOROMETHANE	75-27-4	8.60	N	3.4	E	3.40	1

Table 2
Safe Fill Numerical Standards for Organic Related Substances
Harley-Davidson Motor Company Operations, Inc.
York Facility

Compound/Contaminant	CASRN	SHS1 (residential, used aquifer, TDS <2500mg/L)				Safe Fill	Is Safe Fill Number Based on Generic Value?
		Residential Direct Contact Soil MSC[4] mg/kg		Soil to Groundwater Pathway Numeric Value Residential Generic Value mg/kg		Lower of RDC to RGV mg/kg	
BROMOMETHANE	74-83-9	95.00	N	0.540	E	0.54	1
Bromoxynil	1689-84-5	4400.00	G	8.1	E	8.10	1
Bromoxynil octanoate	1689-99-2	4400.00	G	0.89	E	0.89	1
Butadiene, 1,3-	106-99-0	5.30	G	0.0017	E	0.00	1
BUTYL ALCOHOL, N-	71-36-3	6600.00	N	12	E	12.00	1
butylate	2008-41-5	10000.00	C	3.9	E	3.90	1
Butylebenzene, n-	104-51-8	2200.00	G	4.1	E	4.10	1
Butylbenzene, sec-	135-98-8	2200.00	G	4.1	E	4.10	1
Butylbenzene, tert-	98-06-6	2200.00	G	4.1	E	4.10	1
BUTYLBENZYL PHTHALATE	85-68-7	10000.00	C	10000	C	10000.00	0
CAPTAN	133-06-2	5100.00	G	12	E	12.00	1
CARBARYL	63-25-2	22000.00	G	42	E	42.00	1
Carbazole	86-74-8	900.00	G	0.37	E	0.37	1
CARBOFURAN	1563-66-2	1100.00	G	0.870	E	0.87	1
CARBON DISULFIDE	75-15-0	10000.00	C	160	E	160.00	1
CARBON TETRACHLORIDE	56-23-5	21.00	N	0.26	E	0.26	1
Carboxin	5234-68-4	22000.00	G	7.8	E	7.80	1
Chloramben	133-90-4	3300.00	G	1.1	E	1.10	1
CHLORDANE	57-74-9	51.00	G	49	E	49.00	1
Chloro-1, 1-difluoroethane, 1-	75-68-3	190000.00	C	1600	E	1600.00	1
CHLORO-1-PROPENE, 3- (ALLYL CHLORIDE)	107-05-1	19.00	N	0.065	E	0.07	1
Chloroacetophenone, 2-	532-27-4	1.90	G	0.0034	E	0.00	1
CHLOROANILINE, P-	106-47-8	880.00	G	19	E	19.00	1
CHLOROBENZENE	108-90-7	4400.00	G	3.4	E	3.40	1
CHLOROBENZILATE	510-15-6	66.00	G	1.6	E	1.60	1
Chlorbutane, 1-	109-69-3	10000.00	C	170	E	170.00	1
CHLORODIBROMOMETHANE	124-48-1	12.00	N	3.2	E	3.20	1
Chlorodifluoromethane	75-45-6	190000.00	C	1.1	E	1.10	1
~~CHLOROETHANE~~	75-00-3	~~6200.00~~	[C] G	~~5~~	~~E~~	5.00	4
CHLOROETHYL VINYL ETHER, 2-	[110-75-8]	1700.00	[N]	3.1	~~E~~	3.10	1
CHLOROFORM	67-66-3	14.00	N	2.5	E	2.50	1
CHLORONAPHTHALENE, 2-	91-58-7	18000.00	G	6200	E	6200.00	1
Chloronitrobenzene, p-	100-00-5	990.00	G	0.41	E	0.41	1
CHLOROPHENOL, 2-	95-57-8	330.00	N	4.4	E	4.40	1
CHLOROPRENE	126-99-8	130.00	N	0.45	E	0.45	1
Chloropropane, 2-	75-29-6	1900.00	N	0.45	E	0.45	1
Chlorothalonil	1897-45-6	1600.00	G	3.1	E	3.10	1
Chlorotoluene, o-	95-49-8	4400.00	G	1.1	E	1.10	1
CHLORPYRIFOS	2921-88-2	660.00	G	23	E	23.00	1
Chlorsulfuron	64902-72-3	11000.00	G	20	E	20.00	1
Chlorthanl-dimethyl (Dacthal) (DCPA)	1861-32-1	2200.00	G	4.4	E	4.40	1
CHRYSENE*	218-01-9	2500.00	G	230	E	230.00	1
CRESOL(S)	1319-77-3	330.00	N	0.85	E	0.85	1
Cresol, m- (3-methylphenol)	95-48-7	10000.00	C	20	E	20.00	1
Cresol, o- (2-methylphenol)	108-39-4	10000.00	C	20	E	20.00	1
Cresol, p- (4-methylphenol)	106-44-5	1100.00	G	2	E	2.00	1
CRESOL, P-CHLORO-M-	59-50-7	1100.00	G	37	E	37.00	1
CROTONALDEHYDE	4170-30-3	9.40	G	0.00099	E	0.00	1
Crotonaldehyde, trans	123-73-9	9.40	G	0.0039	E	0.00	1

Table 2
Safe Fill Numerical Standards for Organic Related Substances
Harley-Davidson Motor Company Operations, Inc.
York Facility

Compound/Contaminant	CASRN	SHS1 (residential, used aquifer, TDS <2500mg/L)				Safe Fill	Is Safe Fill Number Based on Generic Value?
		Residential Direct Contact Soil MSC[2] mg/kg		Soil to Groundwater Pathway Numeric Value Residential Generic Value mg/kg		Lower of DDC to RGV mg/kg	
CUMENE (ISOPROPYL BENZENE)*	98-82-8	7300.00	N	790	E	790.00	1
CYCLOHEXANONE	108-94-1	10000.00	C	1400	E	1400.00	1
Cyfluthrin	68359-37-5	5500.00	G	0.011	E	0.01	1
Cyromazine	66215-27-8	1700.00	G	3	E	3.00	1
DDD, 4,4'-	72-54-8	75.00	G	6.8	E	6.80	1
DDE, 4,4'-	72-55-9	53.00	G	41	E	41.00	1
DDT, 4,4'-	50-29-3	53.00	G	110	E	53.00	0
Di(2-ethylhexyl)adipate	103-23-1	10000.00	C	4.4	C	4.40	1
DIALLATE	2303-16-4	18.00	N	0.15	E	0.15	1
Diaminotoluene, 2,4-	95-80-7	5.60	G	0.0023	E	0.00	1
DIAZINON	333-41-5	200.00	G	0.082	E	0.08	1
DIBENZO[A,H]ANTHRACENE	53-70-3	2.50	G	41	E	2.50	0
DIBROMO-3-CHLOROPROPANE, 1,2-	96-12-8	3.80	N	0.0091	E	0.01	1
Dibromobenzene, 1,4-	106-37-6	2200.00	G	4.1	E	4.10	1
DIBROMOETHANE, 1,2- (ETHYLENE DIBROMIDE)	106-93-4	0.21	G	0.0012	E	0.00	1
DIBROMOMETHANE	74-95-3	670.00	N	3.7	E	3.70	1
DI-N-BUTYLPHTHALATE, N-	84-74-2	10000.00	C	1500	E	1500.00	1
Dichloro-2-butene, 1,4-	764-41-0	91000.00	N	0.00018	E	0.00	1
DICHLOROBENZENE, 1,2-	95-50-1	3800.00	N	60	E	60.00	1
DICHLOROBENZENE, 1,3-	541-73-1	60.00	N	61	E	60.00	0
DICHLOROBENZENE, P-	106-46-7	750.00	G	10	E	10.00	1
DICHLOROBENZIDINE, 3,3'-	91-94-1	40.00	G	8.4	E	8.40	1
DICHLORODIFLUOROMETHANE (FREON 12)	75-71-8	3800.00	N	100	E	100.00	1
DICHLOROETHANE, 1,1-	75-34-3	200.00	N	0.65	E	0.65	1
DICHLOROETHANE, 1,2-	107-06-2	12.00	N	0.1	E	0.10	1
DICHLOROETHYLENE, 1,1-	75-35-4	6.40	N	0.19	E	0.19	1
DICHLOROETHYLENE, CIS-1,2-*	156-59-2	670.00	N	1.6	E	1.60	1
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	1300.00	N	2.3	E	2.30	1
DICHLOROMETHANE (METHYLENE CHLORIDE)	75-09-2	680.00	N	0.075	E	0.08	1
DICHLOROPHENOL, 2,4-	120-83-2	660.00	G	1	E	1.00	1
DICHLOROPHENOXYACETIC ACID, 2,4- (2,4-D)	94-75-7	2200.00	G	1.8	E	1.80	1
Dichloropropane, 1,2-	78-87-5	18.00	N	0.11	E	0.11	1
Dichloropropene,1,3-	542-75-6	8.60	N	0.013	E	0.013	1
DICHLOROPROPIONIC ACID (DALAPON), 2,2-	75-99-0	2000.00	N	5.3	E	5.30	1
DICHLORVOS	62-73-7	62.00	G	0.012	E	0.0120	1
Dicyclopentadiene	77-73-6	6600.00	G	0.0061	E	0.0061	1
DIELDRIN	60-57-1	1.10	G	0.11	E	0.11	1
DIETHYL PHTHALATE	84-66-2	10000.00	C	160	E	160.00	1
Diflubenzuron	35367-38-5	4400.00	G	2.2	E	2.20	1
DIMETHOATE	60-51-5	44.00	G	0.28	E	0.28	1
Dimethoxybenzidine, 3,3-	119-90-4	1300.00	G	0.52	E	0.52	1
DIMETHYLAMINOAZOBENZENE, P-	60-11-7	3.90	G	0.037	E	0.04	1
Dimethylaniline, N,N-	000121-69-7	440.00	G	0.81	E	0.81	1
Dimethylbenzidine, 3,3-	000119-93-7	1.90	G	0.0008	E	0.00080	1
~~DIMETHYLHYDRAZINE, 1,1-~~	~~[57-14-7]~~	~~0.64~~	~~[N]~~	~~0.00097~~	~~E~~	0.00097	~~1~~
DIMETHYLPHENOL, 2,4-	105-67-9	4400.00	G	31	E	31.00	1
DINITROBENZENE, 1,3-	99-65-0	22.00	G	0.049	E	0.05	1
DINITROPHENOL, 2,4-	51-28-5	440.00	G	0.21	E	0.21	1

Table 2
Safe Fill Numerical Standards for Organic Related Substances
Harley-Davidson Motor Company Operations, Inc.
York Facility

Compound/Contaminant	CASRN	SHS1 (residential, used aquifer, TDS <2500mg/L)				Safe Fill	Is Safe Fill Number Based on Generic Value?
		Residential Direct Contact Soil MSC[2] mg/kg		Soil to Groundwater Pathway Numeric Value Residential Generic Value mg/kg		Lower of RDC to RGV mg/kg	
DINITROTOLUENE, 2,4-	121-14-2	58.00	G	0.05	E	0.05	1
DINITROTOLUENE, 2, 6,- (2,6-DNT)	606-20-2	220.00	G	1.1	E	1.10	1
DINOSEB	88-85-7	220.00	G	0.29	E	0.29	1
DIOXANE, 1,4-	123-91-1	41.00	N	0.073	E	0.07	1
Diphenamid	957-51-7	6600.00	G	2.2	E	2.20	1
DIPHENYLAMINE	122-39-4	5500.00	G	12	E	12.00	1
DIPHENYLHYDRAZINE, 1,2-	122-66-7	22.00	G	0.15	E	0.15	1
DIQUAT	85-00-7	480.00	G	0.24	E	0.24	1
DISULFOTON	298-04-4	2.70	N	0.08	E	0.08	1
DIURON	330-54-1	440.00	G	0.87	E	0.87	1
Endosulfan	115-29-7	1300.00	G	0.64	E	0.64	1
ENDOSULFAN I (ALPHA)	959-98-8	1300.00	G	110	E	110.00	1
ENDOSULFAN II (BETA)	33213-65-9	1300.00	G	130	E	130.00	1
ENDOSULFAN SULFATE	1031-07-8	1300.00	G	72	E	72.00	1
ENDOTHALL	145-73-3	4400.00	G	4.2	E	4.20	1
ENDRIN	72-20-8	66.00	G	5.4	E	5.40	1
EPICHLOROHYDRIN	106-89-8	19.00	N	0.056	E	0.056	1
Ethephon	16672-87-0	1100.00	G	2	E	2.00	1
ETHION	563-12-2	110.00	G	39	E	39.00	1
ETHOXYETHANOL, 2- (EGEE)	110-80-5	3800.00	[C] N	7.8	E	7.80	1
ETHYL ACETATE	141-78-6	10000.00	C	220	E	220.00	1
ETHYL ACRYLATE	140-88-5	23.00	N	0.12	E	0.12	1
ETHYL BENZENE*	100-41-4	10000.00	C	46	E	46.00	1
Ethyl dipropylthiocarbamate, S- (EPTC)	759-94-4	5500.00	G	10	E	10.00	1
ETHYL ETHER	60-29-7	10000.00	C	53	E	53.00	1
Ethyl methacrylate	97-63-2	20000.00	G	9.7	E	9.70	1
ETHYLENE GLYCOL	107-21-1	10000.00	C	85	E	85.00	1
Ethylene thiourea (ETU)	96-45-7	18.00	G	0.033	E	0.03	1
Ethyl p-nitrophenyl phenylphosphorothioate	2104-64-5	2.20	G	0.0041	E	0.0041	1
FENAMIPHOS	22224-92-6	55.00	G	0.17	E	0.17	1
Fenvalerate (Pydrin)	51630-58-1	5500.00	G	0.94	E	0.94	1
Fluometuron (Fluometron in EPA Feb'96)	2164-17-2	2900.00	G	1	E	1.00	1
FLUORANTHENE	206-44-0	8800.00	G	3300	E	3300.00	1
FLUORENE*	86-73-7	8800.00	G	380	E	380.00	1
FLUOROTROCHLOROMETHANE (FREON 11)	75-69-4	10000.00	C	90	E	90.00	1
FONOFOS	944-22-9	140.00	N	2.8	E	2.80	1
FORMALDEHYDE	50-00-0	24.00	N	12	E	12.00	1
FORMIC ACID	64-18-6	10000.00	C	210	E	210.00	1
Fosetyl-Al	039148-24-8	190000.00	C	1200	E	1200.00	1
Furan	110-00-9	220.00	G	0.11	E	0.11	1
FURFURAL	98-01-1	660.00	G	1.2	E	1.20	1
GLYPHOSATE	1071-83-6	22000.00	G	630	E	630.00	1
HEPTACHLOR	76-44-8	4.00	G	0.68	E	0.68	1
HEPTACHLOR EPOXIDE	1024-57-3	2.00	G	1	E	1.00	1
HEXACHLOROBENZENE	118-74-1	11.00	G	0.96	E	0.96	1
HEXACHLOROBUTADIENE	87-68-3	44.00	G	1.2	E	1.20	1
HEXACHLOROCYCLOPENTADIENE	77-47-4	1500.00	G	91	E	91.00	1
HEXACHLOROETHANE	67-72-1	220.00	G	0.56	E	0.56	1

Table 2
Safe Fill Numerical Standards for Organic Related Substances
Harley-Davidson Motor Company Operations, Inc.
York Facility

Compound/Contaminant	CASRN	SHS1 (residential, used aquifer, TDS <2500mg/L)				Safe Fill	Is Safe Fill Number Based on Generic Value?
		Residential Direct Contact		Soil to Groundwater Pathway Numeric Value		Lower of RDC to NGV	
		Soil MSC*		Residential Generic Value			
		mg/kg		mg/kg		mg/kg	
HEXANE	110-54-3	3600.00	N	510	E	510.00	1
Hexythiazox (Savey)	78587-05-0	5500.00	G	5.6	E	5.60	1
Hydrazine/Hydrazine sulfate	302-01-2	0.06	N	0.000097	E	0.00	1
Hydroquinone	123-31-9	8800.00	G	17	E	17.00	1
INDENO[1,2,3-CD]PYRENE*	193-39-5	25.00	G	7000	E	25.00	0
Iprodione	36734-19-7	8800.00	G	17	E	17.00	1
ISOBUTYL ALCOHOL	78-83-1	10000.00	C	76.00	E	76.00	1
ISOPHORONE	78-59-1	10000.00	C	1.9	E	1.90	1
KEPONE	143-50-0	1.10	G	0.56	E	0.56	1
MALATHION	121-75-5	1400.00	N	67	E	67.00	1
MALEIC HYDRAZIDE	123-33-1	110000.00	G	47	E	47.00	1
Maneb	12427-38-2	1100.00	G	2	E	2.00	1
Merphos oxide	78-48-8	6.60	G	0.012	E	0.01	1
METHACRYLONITRILE	126-98-7	13.00	N	0.031	E	0.03	1
Methamidophos	10265-92-6	11.00	G	0.02	E	0.02	1
METHANOL	67-56-1	10000.00	C	58	E	58.00	1
METHOMYL	16752-77-5	5500.00	G	3.2	E	3.20	1
METHOXYCHLOR	72-43-5	1100.00	G	630	E	630.00	1
Methoxyethanol, 2-	109-86-4	220.00	G		E	220.00	1
Methyl acetate	79-20-9	10000.00	C	410	E	410.00	1
Methyl acrylate	96-33-3	6600.00	G	12	E	12.00	1
METHYL CHLORIDE	74-87-3	180.00	N	0.038	E	0.04	1
METHYL ETHYL KETONE (2-BUTANONE)	78-93-3	10000.00	C	53	E	53.00	1
METHYL ISOBUTYL KETONE	108-10-1	1500.00	N	2.9	E	2.90	1
METHYL METHACRYLATE	80-62-6	10000.00	C	26	E	26.00	1
METHYL METHANESULFONATE	66-27-3	180.00	G	0.083	E	0.08	1
METHYL PARATHION	298-00-0	17.00	N	0.42	E	0.42	1
Methyl styrene (mixed isomers)	25013-15-4	1300.00	G	2.4	E	2.40	1
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	10000.00	C	0.28	E	0.28	1
Methylene bis(2-chloroaniline), 4,4'-	101-14-4	140.00	G	0.057	E	0.06	1
METHYLNAPHTHALENE, 2-	91-57-6	4400.00	G	2900	E	2900.00	1
Methyle styrene, alpha	98-83-9	15000.00	G	7.6	E	7.60	1
NAPHTHALENE*	91-20-3	4400.00	G	5	E	5.00	1
NAPHTHYLAMINE, 1-	134-32-7	9.90	G	0.3	E	0.30	1
NAPHTHYLAMINE, 2-	91-59-8	9.90	G	0.012	E	0.01	1
Napropamide	15299-99-7	22000.00	G	41	E	41.00	1
NITROANILINE, M-	99-09-2	13.00	G	0.033	E	0.03	1
NITROANILINE, O-	88-74-4	13.00	G	0.037	E	0.04	1
NITROANILINE, P-	100-01-6	13.00	G	0.031	E	0.03	1
NITROBENZENE	98-95-3	110.00	G	0.79	E	0.79	1
NITROPHENOL, 2-	88-75-5	1800.00	G	5.9	E	5.90	1
NITROPHENOL, 4-	100-02-7	1800.00	G	4.2	E	4.20	1
NITROPROPANE, 2-	79-46-9	0.12	N	0.00026	E	0.00	1
NITROSODIETHYLAMINE, N-	55-18-5	0.01	N	0.000018	E	0.00	1
NITROSODIMETHYLAMINE, N-	62-75-9	0.02	N	0.000041	E	0.00	1
Nitroso-di-n-butylamine, N-	924-16-3	3.30	G	0.0003	E	0.00	1
NITROSODI-N-PROPYLAMINE, N-	621-64-7	2.60	G	0.0013	E	0.00	1
NITROSODIPHENYLAMINE, N-	86-30-6	3700.00	G	20	E	20.00	1
Nitroso-N-ethylurea, N-	759-73-9	0.13	G	0.000052	E	0.00	1
OCTYL PHTHALATE, DI-N-	117-84-0	4400.00	G	10000	C	4400.00	0

Table 2
Safe Fill Numerical Standards for Organic Related Substances
Harley-Davidson Motor Company Operations, Inc.
York Facility

Compound/Contaminant	CASRN	SHS1 (residential, used aquifer, TDS <2500mg/L)				Safe Fill	Is Safe Fill Number Based on Generic Value?
		Residential Direct Contact Soil MSC[4] mg/kg		Soil to Groundwater Pathway Numeric Value Residential Generic Value mg/kg		Lower of RDC to RGV mg/kg	
OXAMYL (VYDATE)	23135-22-0	5500.00	G	2.6	E	2.60	1
PARATHION	56-38-2	1300.00	G	130	E	130.00	1
PCB-1016 (AROCLOR)	12674-11-2	15.00	G	70	E	15.00	0
PCB-1221 (AROCLOR)	11104-28-2	36.00	G	0.62	E	0.62	1
PCB-1232 (AROCLOR)	11141-16-5	36.00	G	0.52	E	0.52	1
PCB-1242 (AROCLOR)	53469-21-9	36.00	G	16	E	16.00	1
PCB-1248 (AROCLOR)	12672-29-6	9.90	G	18	E	9.90	0
PCB-1254 (AROCLOR)*	11097-69-1	4.40	G	75	E	4.40	0
PCB-1260 (AROCLOR)	11096-82-5	30.00	G	110	E	30.00	0
Pebulate	1114-71-2	10000.00	C	20	E	20.00	1
PENTACHLOROBENZENE	608-93-5	180.00	G	230	E	180.00	0
PENTACHLORONITROBENZENE	82-68-8	69.00	G	5	E	5.00	1
PENTACHLOROPHENOL	87-86-5	150.00	G	5	E	5.00	1
PHENACETIN	62-44-2	8100.00	G	12	E	12.00	1
PHENANTHRENE	85-01-8	66000.00	G	10000	E	10000.00	1
PHENOL	108-95-2	130000.00	G	66	E	66.00	1
PHENYLENEDIAMINE, M-	108-45-2	1300.00	G	3.1	E	3.10	1
Phenylphenol,2-	90-43-7	9200.00	G	3.8	E	3.80	1
PHORATE	298-02-2	13.00	N	0.41	E	0.41	1
PHTHALIC ANHYDRIDE	85-44-9	190000.00	C	2300	E	2300.00	1
Picloram	1918-02-1	15000.00	G	5.6	E	5.60	1
PRONAMIDE	23950-58-5	17000.00	G	3	E	3.00	1
Propanil	709-98-8	1100.00	G	2	E	2.00	1
Propham	122-42-9	4400.00	G	8.1	E	8.10	1
Propylbenzene, n-	103-65-1	2200.00	G	4.1	E	4.10	1
PROPYLENE OXIDE	75-56-9	75.00	G	0.048	E	0.05	1
PYRENE*	129-00-0	6600.00	G	2200	E	2200.00	1
PYRIDINE	110-86-1	67.00	N	0.11	E	0.11	1
Quinoline	91-22-5	1.50	G	0.00061	E	0.00	1
Quizalofop (Assure)	76578-14-8	2000.00	G	3.3	E	3.30	1
Ronnel	299-84-3	11000.00	G	20	E	20.00	1
SIMAZINE	122-34-9	150.00	G	0.16	E	0.16	1
STRYCHNINE	57-24-9	66.00	G	0.9	E	0.90	1
STYRENE	100-42-5	10000.00	C	24	E	24.00	1
Tebuthiuron	34014-18-1	15000.00	G	5.6	E	5.60	1
Terbacil	5902-51-2	2900.00	G	1	E	1.00	1
TERBUFOS	13071-79-9	1.70	N	0.13	E	0.13	1
Tetrachlorobenzene, 1,2,4,5-	95-94-3	66.00	G	0.12	E	0.12	1
TETRACHLORODIBENZO-P-DIOXIN, 2,3,7,8- (TCDD)	1746-01-6	0.00	G	0.032	E	0.000120	0
Tetrachloroethane, 1,1,1,2-	630-20-6	690.00	G	0.78	E	0.78	1
Tetrachloroethane, 1,1,2,2-	79-34-5	5.50	N	0.023	E	0.02	1
TETRACHLOROETHYLENE (PCE)	127-18-4	340.00	G	0.43	E	0.43	1
TETRACHLOROPHENOL, 2,3,4,6-	58-90-2	6600.00	G	450	E	450.00	1
TETRAETHYL LEAD	78-00-2	0.02	G	0.0046	E	0.00	1
Tetraethyldithiopyrophosphate	3689-24-5	33.00	N	0.054	E	0.05	1
Thiofanox	39196-18-4	66.00	G	0.12	E	0.12	1
THIRAM	137-26-8	1100.00	G	47	E	47.00	1
TOLUENE*	108-88-3	7600.00	N	44	E	44.00	1
TOLUIDINE, M-	108-44-1	75.00	G	0.13	E	0.13	1
TOLUIDINE, O-	95-53-4	75.00	G	0.32	E	0.32	1

Table 2
Safe Fill Numerical Standards for Organic Related Substances
Harley-Davidson Motor Company Operations, Inc.
York Facility

Compound/Contaminant	CASRN	SHS1 (residential, used aquifer, TDS <2500mg/L)				Safe Fill	Is Safe Fill Number Based on Generic Value?
		Residential Direct Contact Soil MSC[2] mg/kg		Soil to Groundwater Pathway Numeric Value Residential Generic Value mg/kg		Lower of RDC to RGV mg/kg	
TOLUIDINE, P-	106-49-0	94.00	G	0.32	E	0.32	1
TOXAPHENE	8001-35-2	16.00	G	1.2	E	1.20	1
Triallate	2303-17-5	2900.00	G	5.2	E	5.20	1
TRIBROMOMETHANE (BROMOFORM)	75-25-2	290.00	N	4.3	E	4.30	1
Trichloro-1,2,2-trifluoroethane, 1,1,2-	76-13-1	190000.00	C	920	E	920.00	1
TRICHLOROBENZENE, 1,2,4-	120-82-1	2200.00	G	28	E	28.00	1
TRICHLOROBENZENE, 1,3,5-	108-70-3	1300.00	G	31	E	31.00	1
TRICHLOROETHANE, 1,1,1-*	71-55-6	4400.00	G	7.2	E	7.20	1
TRICHLOROETHANE, 1,1,2-	79-00-5	20.00	N	0.15	E	0.15	1
TRICHLOROETHYLENE (TCE)*	79-01-6	190.00	N	0.17	E	0.17	1
TRICHLOROPHENOL, 2,4,5-	95-95-4	22000.00	G	2300	E	2300.00	1
TRICHLOROPHENOL, 2,4,6-	88-06-2	1600.00	G	17	E	17.00	1
TRICHLOROPHENOXYACETIC ACID, 2,4,5- (2,4,5-T)	93-76-5	2200.00	G	1.5	E	1.50	1
TRICHLOROPHENOXYPROPIONIC ACID, 2,4,5- (2,4,5-TP)	93-72-1	1800.00	G	22	E	22.00	1
Trichloropropane, 1,1,2-	598-77-6	1100.00	G	2	E	2.00	1
TRICHLOROPROPANE, 1,2,3-	96-18-4	0.16	N	3.3	E	0.16	0
Trichloropropene, 1,2,3-	96-19-5	1100.00	G	2	E	2.00	1
Trifluralin	1582-09-8	1700.00	G	0.056	E	0.06	1
Trimethylbenzene, 1,3,4- (Trimethylbenzene, 1,2,4-)	95-63-6	110.00	N	0.18	E	0.18	1
Trimethylbenzene, 1,3,5-	108-67-8	110.00	N	0.18	E	0.18	1
Trinitrotoluene, 2,4,6-	118-96-7	110.00	G	0.022	E	0.02	1
VINYL ACETATE	108-05-4	3800.00	N	6.5	E	6.50	1
Vinyl bromide (Bromoethene)	593-60-2	160.00	G	0.016	E	0.02	1
VINYL CHLORIDE	75-01-4	1.30	N	0.27	E	0.27	1
WARFARIN	81-81-2	66.00	G	2.6	E	2.60	1
XYLENES (TOTAL)*	1330-20-7	8300.00	N	850	E	850.00	1
Zineb	12122-67-7	11000.00	G	20	E	20.00	1

305

Total No. of Organic Regulated Substances with Generic Values < Direct Contact (out of a total 323 substances)
SHS - Statewide Health Standards
*For screening of petroleum hyrocarbons from airborne pollution at a site, if only those contaminants are of concern
[1] Residential SHS (used aquifer, TDS less than or equal to 2500 mg/l) developed under the land recycling program of Act 2.
[2]MSC - Medium Specific Concentration
[3]Lower of RGV compared to RDV
E - Number calculated by the soil to groundwater equation in Section 250.308

TABLE 3
Keystone Soil Data
Topsoil Sampling Results
Harley-Davidson Motor Company Operations, Inc., York Facility

Parameter/Units	Safe Fill Numerical Standard (mg/kg)	SS-1 0-0.5 190003-1	SS-2 0-0.5 190115-1	SS-3 0-0.5 190115-2	SS-4 0-0.5 190003-2	SS-5 0-0.5 190115-4	SS-6 0-0.5 190115-5	SS-7 0-0.5 190115-6	SS-8 0-0.5 190115-7	SS-9 0-0.5 190115-8	SS-10 0-0.5 190213-1	SS-11 0-0.5 190213-2	SS-12 0-0.5 190213-3	SS-15 0-0.5 190213-4	SS-16 0-0.5 190213-5	SS-17 0-0.5 190213-6	SS-18 0-0.5 190213-7	SS-19 0-0.5 190213-8	SS-20 0-0.5 190213-9	SS-21 0-0.5 190213-10	SS-22 0-0.5 190213-11	SS-23 0-0.5 190213-12	SS-24 0-0.5 190214-1	SS-25 0-0.5 190214-2	SS-26 0-0.5 190214-3	SS-27 0-0.5 190214-4
Metals/Inorganics (mg/kg)																										
Antimony	27	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO	ND	ND	ND
Arsenic	12	6.5	6.4	5.9	6.1	5.2	6.1	5.3	6.2	8.5	7.5	6.3	6.2	7.5	6.2	8.3	6.2	5.3	7.4	5.4	5.3	6.8	7.5	6.4	5.3	6.3
Beryllium	320	ND	ND	ND	ND	ND	ND	NO	ND	ND	0.94	ND	ND	ND	ND	ND	ND	ND	NO	ND	ND	ND	1.2	ND	ND	NO
Cadmium	38	ND	ND	1.7	ND	NO	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.2	ND	ND	NO	ND	ND	ND	NO	ND	NO	ND
Chromium	19,000	26	23	30	22	20	18	25	26	33	23	18	19	25	22	47	23	20	26	24	23	26	21	18	21	29
Copper	4,300	17	15	26	15	8.2	8.2	13	9.9	12	13	8.4	10	12	10	16	10	13	14	11	11	13	15	11	12	14
Lead	450	47	44	100	31	26	24	53	32	33	28	30	26	30	24	28	22	33	26	26	17	22	30	27	22	27
Mercury	10	NO	0.07	0.25	0.051	ND	0.084	0.16	0.081	0.062	0.052	0.052	0.082	ND	ND	ND	ND	0.058	NO	0.074	ND	NO	0.06	0.06	NO	0.063
Nickel	650	14	14	16	18	12	9.2	13	15	21	16	13	12	16	15	16	12	14	16	13	12	16	16	14	12	14
Selenium	26	ND	ND	ND	3	2.1	ND	NO	ND	ND	2.8	ND	ND	ND	ND	ND	ND	3.1	3.2	3.2	3.2	3	3.3	2.1	NO	ND
Silver	84	1.8	ND	ND	ND	ND	ND	NO	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO	NO	ND	ND	NO	ND	ND	NO	ND
Thallium	14	5.5	6.4	5.5	6	5.2	6.1	NO	5.2	ND	7.6	6.3	7.2	ND	6.2	NO	5.3	6.3	NO	4.3	NO	6.8	8.6	5.4	7.3	6.3
Zinc	7,500	120	83	170	70	49	39	57	59	76	62	53	48	67	53	55	44	54	55	43	39	49	54	49	45	49
Cyanide	NR	ND	ND	0.031	ND	NO	ND	0.37	ND	ND	ND	ND	0.27	ND	ND	ND	0.69	0.32	NO	NO	NO	ND	ND	ND	NO	NO
Detected Organics (mg/kg)																										
Methylene Chloride	0.08	ND	0.033J	0.069J	0.026J	ND	0.031J	NO	ND	ND	0.029J	0.058J	0.073J	ND	0.037J	ND	NO	0.068J	0.044J	0.026J	0.022J	0.036J	ND	ND	0.033J	0.045J
Toluene	44	0.058J	0.046J	ND	0.037J	NO	ND	NO	ND	ND	0.064	0.055J	0.072	0.053J	0.049J	0.039J	0.042J	0.053J	0.046J	0.039J	0.046J	0.046J	0.043J	0.051J	0.041J	0.045J
Trichloroethene (TCE)	0.17	ND	ND	0.053J	ND	NO	ND	NO	ND	ND	NO	ND	ND	ND	ND	ND	NO	NO	NO	ND	ND	ND	ND	ND	NO	NO

NR = Not Reported
ND = Not Detected
J = Estimated value

TABLE 3
Keystone Soil Data
Topsoil Sampling Results
Harley-Davidson Motor Company Operations,

Parameter/Units	Safe Fill Numerical Standard (mg/kg)	SS-28 0-0.5 190214-5	SS-29 0-0.5 190214-6	SS-30 0-0.5 190214-7	SS-31 0-0.5 190214-8	Dup 1 0-0.5 190214-9	SS-32 0-0.5 190385-7	SS-33 0-0.5 190385-8	SS-34 0-0.5 190385-9	SS-35 0-0.5 190385-10	SS-36 0-0.5 190385-11	SS-37 0-0.5 190385-12	Dup 2 0-0.5 190385-1	SS-38 0-0.5 190385-6	SS-39 0-0.5 190385-5	SS-40 0-0.5 190385-4	SS-41 0-0.5 190385-1	SS-42 0-0.5 190385-2	SS-43 0-0.5 190385-3	ACT 2 NON-RESIDENTIAL MEDIUM-SPECIFIC CONCENTRATIONS: Direct Contact, Subsurface Soil (2 - 15 Feet)	ACT 2 NON-RESIDENTIAL MEDIUM-SPECIFIC CONCENTRATIONS: SOIL to GW - USED AQUIFER (TDS <=2500 mg/L) Vadose Zone Soil	ACT 2 NON-RESIDENTIAL MEDIUM-SPECIFIC CONCENTRATIONS: SOIL to GW - USED AQUIFER (TDS <=2500 mg/L) Saturated Soil	EPA RISK-BASED CONCENTRATIONS Industrial Soil
Metals/Inorganics (mg/kg)																							
Antimony	27	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	190,000	27	2.7	820
Arsenic	12	7.1	7.3	5.3	5.7	7.1	7	7.9	8	7.7	8.3	5.4	6.2	6.3	6.9	9.7	5.2	6.5	7.9	190,000	150	15	3.8
Beryllium	320	0.81	ND	ND	1.5	0.95	ND	ND	ND	1.4	1.6	ND	ND	ND	1.2	1.4	ND	1.2	1.6	190,000	320	32	4,100
Cadmium	38	0.51	ND	ND	ND	0.53	0.67	3.3	0.062	ND	0.63	0.55	0.054	ND	0.53	0.62	ND	ND	0.62	190,000	38	3.8	1,000
Chromium	19,000	23	24	18	18	21	24	22	24	18	16	19	23	20	19	17	15	19	16	190,000	970[1]	97[1]	6,100
Copper	4,300	10	12	10	9	10	14	18	13	9.2	11	12	9.1	9.8	9.3	9.7	9.6	9.8	12	190,000	36,000	3,600	82,000
Lead	450	22	27	20	20	22	36	29	25	29	31	32	19	93	30	38	26	30	31	190,000	450	45	--
Mercury	10	ND	0.076	ND	ND	ND	0.084	0.052	0.071	0.074	0.063	ND	0.065	0.055	0.062	0.053	ND	0.064	0.087	190,000	10	1	--
Nickel	650	14	13	13	12	13	14	14	16	13	15	11	12	12	13	12	9.5	13	14	190,000	650	65	41,000
Selenium	26	ND	2.1	ND	1.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	190,000	26	5	10,000
Silver	84	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	190,000	84	10	10,000
Thallium	14	ND	6.3	7.4	6.6	1.2	1.9	2.1	3.1	3.2	4.2	1.8	2.7	2.2	2.1	3	ND	2	3.1	190,000	14	1.4	140
Zinc	7,500	45	52	41	39	47	70	50	54	48	47	52	38	79	47	50	47	47	47	190,000	12,000	1,200	610,000
Cyanide	NR	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	190,000	200	20	41,000
Detected Organics (mg/kg)																							
Methylene Chloride	0.08	ND	ND	0.040J	0.041J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
Toluene	44	0.041J	0.053J	0.059J	0.059J	0.044J	ND	0.034J	ND	ND	ND	ND	ND	0.041J	0.047J	ND	0.047J	0.057J	ND				
Trichloroethene (TCE)	0.17	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,100	0.5	0.5	520

NR = Not Reported
ND = Not Detected
J = Estimated value

TABLE 4
Keystone Soil Data
Subsoil Sampling Results
Harley-Davidson Motor Company Operations, Inc., York Facility

Parameter/Units	Safe Fill Numerical Standard (mg/kg)	Stockpile No. - Batch No. Sample Date Sample ID(s)	Soil Sample 1-1 12/3/2001 195920-1, -2	Soil Sample 1-2 12/3/2001 195920-3, -4	Soil Sample 1-3 12/3/2001 195920-5, -6	Soil Sample 1-4 12/3/2001 195920-7, -8	Soil Sample 1-5 12/3/2001 195920-9, -10
Metals/Inorganics (mg/kg)							
Antimony	27		ND	ND	ND	ND	ND
Arsenic	12		9.1	8.3	10	11	10
Beryllium	320		1.6	1.2	1.8	1.6	1.4
Cadmium	38		1.1	0.97	1.1	1.4	1.3
Chromium	19,000		13	14	17	12	62
Copper	4,300		21	17	19	19	14
Lead	450		20	16	26	18	15
Mercury	10		0.095	0.08	0.067	0.13	0.099
Nickel	650		26	17	26	28	15
Selenium	26		ND	ND	ND	ND	ND
Silver	84		ND	ND	ND	ND	ND
Thallium	14		ND	ND	ND	ND	ND
Zinc	7,500		71	52	68	79	53
Cyanide	NR		ND	ND	ND	ND	ND
Detected Organics (mg/kg)							
Benzene	0.13		ND	ND	ND	ND	ND
Bromomethane	0.54		0.063 J	0.061 J	0.050 J	0.054 J	0.049 J
Chloromethane (Methyl Chloride)	0.04		ND	ND	ND	ND	ND
Chlorobenzene	3.4		ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.60		ND	ND	ND	ND	ND
Ethylbenzene	46		ND	ND	ND	ND	ND
Methylene Chloride	0.08		0.018 J	ND	0.019 J	0.018 J	0.019 J
Toluene	44		0.016 J	0.016 J	0.017 J	0.014 J	0.018 J

NR = Not Reported
ND = Not Detected
J = Estimated value
B = Constituent found in associated QA blank
NA = Not Analyzed

TABLE 5
Keystone Soil Data
Rockpile Sampling Results
Harley-Davidson Motor Company Operations, Inc., York Facility

Parameter/Units	Safe Fill Numerical Standard (mg/kg)	Location/Sample Name Sample Date Lab Sample ID	Rock Pile Screenings 11/19/2001 195125-1	Rock Pile Sample 2 11/28/2001 195628-1	Rock Pile Sample 3 11/29/2001 195710-1	Rock Pile 011702A 1/17/2002 199014-1	Rock Pile 011702B 1/17/2002 199014-2	Rock Pile 011702C 1/17/2002 199014-3
Metals/Inorganics (mg/kg)								
Antimony	27		ND	ND	ND	ND	ND	ND
Arsenic	12		3	6.2	9.9	3.4	4.5	4.4
Beryllium	320		ND	1.2	1.1	ND	1.1	ND
Cadmium	38		1.5	0.74	0.73	ND	ND	ND
Chromium	19,000		9.2	12	10	10	11	9.7
Copper	4,300		8.1	11	15	4.5	6.9	5.3
Lead	450		2	7.7	10	2.2	5.7	3.5
Mercury	10		ND	ND	ND	ND	ND	ND
Nickel	650		13	13	13	10	14	9.7
Selenium	26		ND	ND	ND	ND	ND	ND
Silver	84		1	ND	ND	1.5	1.5	1.3
Thallium	14		ND	ND	ND	ND	ND	ND
Zinc	7,500		23	24	21	21	31	15
Cyanide	NR		ND	ND	ND	ND	ND	ND
Detected Organics (mg/kg)								
Chlorobenzene	3.4		ND	ND	0.012 J	ND	ND	ND
Ethylbenzene	46		0.010 J	ND	0.022 J	ND	ND	ND
Tetrachloroethene (PCE)	0.43		0.016 J	ND	ND	ND	ND	ND
Toluene	44		ND	0.027 J	0.018 J	0.0097 J	ND	ND

NR = Not Reported
ND = Not Detected
J = Estimated value

Table 6
Subsoil Disposition Summary
Harley-Davidson Motor Company Operations, Inc., York Facility

Stockpile Number	Pass/Fail	Final Disposition
1	Pass	York Silica Sand Quarry, York, PA
2	Pass	York Silica Sand Quarry, York, PA
3	Fail	On-site reuse
4	Pass	Kinsley's Orchard Business Park, Emigsville, PA
5	Pass	Kinsley's Orchard Business Park, Emigsville, PA
6	Fail	On-site reuse
7	Pass	Kinsley's Orchard Business Park, Emigsville, PA
8	Fail	Modern Landfill, York, PA (Daily cover use)
9	Pass	Kinsley's Orchard Business Park, Emigsville, PA
10	Pass	Kinsley's Orchard Business Park, Emigsville, PA
11	Fail	Modern Landfill, York, PA (Daily cover use)
12	Fail	On-site reuse
13	Pass	Kinsley's Orchard Business Park, Emigsville, PA
14	Fail	Modern Landfill, York, PA (Daily cover use)

TABLE 7
Keystone Soil Data
Suspect Soil Sampling Results
Harley-Davidson Motor Company Operations, Inc., York Facility

Parameter/Units	Location/ID Sample Date Laboratory ID	Bldg 58 Trench 9/24/2001 190628-1	Swale 9-24-01 9/24/2001 190857-1	Box Culvert B 1,2 4/29/2002 206444-1	PB-3 1,2 4/29/2002 206444-2	Frac Tank 1,2 4/29/2002 206444-3	Swale C 1,2 4/29/2002 206444-4	SETT 10-1-01 10/1/2001 191484-1	SE Corner 11-15-01 11/15/2001 194915-1	SE Corner 11 11/21/2001 195223-1
Metals/Inorganics (mg/kg)										
Antimony		ND	ND	ND	ND	ND	ND	ND	ND	NA
Arsenic		ND	4	8.3	8.5	6.5	5.3	5.5	3.2	NA
Beryllium		ND	ND	ND	ND	ND	ND	ND	1.1	NA
Cadmium		ND	1.3	ND	ND	2.4	1.6	ND	4.7	NA
Chromium		4.3	39	86	20	38	45	18	6.3	NA
Copper		7.5	26	20	10	12	28	7.7	4.2	NA
Lead		5.7	70	24	24	27	60	8.7	5.2	NA
Mercury		ND	0.09	ND	ND	0.090	0.082	ND	ND	NA
Nickel		5.4	12	11	7.3	9.8	12	12	7.4	NA
Selenium		ND	ND	ND	ND	ND	ND	ND	19	NA
Silver		ND	ND	ND	ND	ND	ND	1.6	ND	NA
Thallium		ND	1.8	ND	ND	ND	ND	ND	ND	NA
Zinc		27	87	67	41	60	77	26	18	NA
Detected Organics (mg/kg)										
Acrylonitrile		NA	ND	ND	ND	ND	ND	NA	ND	0.0022 J
Benzene		NA	ND	ND	ND	ND	ND	NA	0.018 J	0.0004 J
Chloromethane (Methyl Chloride)		NA	ND	ND	ND	ND	ND	NA	ND	ND
cis 1,2-Dichloroethene		NA	ND	ND	ND	ND	ND	NA	ND	0.0009 J
Ethylbenzene		NA	ND	0.037 J	0.0095 J	ND	ND	NA	0.013 J	ND
Methylene Chloride		NA	ND	ND	ND	ND	ND	NA	0.018 J	0.0005 J
Tetrachloroethene (PCE)		NA	ND	ND	ND	ND	ND	NA	ND	ND
Toluene		NA	ND	ND	ND	ND	ND	NA	0.016 J	0.0007 J
Trichloroethene (TCE)		NA	0.067	ND	ND	ND	ND	NA	ND	0.0002 J
Vinyl Chloride		ND	ND	ND	ND	ND	ND	ND	ND	ND
Petroleum Hydrocarbons (mg/kg)		2,300	NA	NA	NA	NA	NA	NA	NA	NA
GC Fingerprint (mg/kg)		NA	NA	NA	NA	NA	NA	NA	NA	ND[1]
Ammonia-Nitrogen (mg/kg)		NA	NA	NA	NA	NA	NA	NA	NA	6.2
Nitrate (mg/kg)		NA	NA	NA	NA	NA	NA	NA	NA	ND
Total Nitrogen (mg/kg)		NA	NA	NA	NA	NA	NA	NA	NA	37

ND = Not detected
NA = Not analyzed
[1] Low levels of hydrocarbons from nC-10 to nC-20 observed (typical to fuel oil); and nC-24 to nC-38 (typical to lube oils, grease & tar) observed.
[2] Unidentified hydrocarbons were observed eluting after nC-24. No comparisons couls be made to standards due to low levels.
[3] Unidentified hydrocarbons were observed eluting after nC-24. No comparisons couls be made to standards due to low levels.

TABLE 7
Keystone Soil Data
Suspect Soil Sampling Results
Harley-Davidson Motor Company Operations, Inc., York Facility

Parameter/Units	Location/ID Sample Date Laboratory ID	Northern Sampling 9' 11/21/2001 195223-2	Western Side 6.5' 11/21/2001 195223-3	Box Culvert Stockpile 3/26/2002 203929-1	Box Culvert 'B' 3/26/2002 203929-2	Force Main S. End 6/6/2002 209380-1	Force Main N. End 6/6/2002 209380-2	FM-250 6/12/2002 209747-1
Metals/Inorganics (mg/kg)								
Antimony		NA	NA	ND	ND	ND	ND	ND
Arsenic		NA	NA	4.8	5.7	5	5.9	9.8
Beryllium		NA	NA	ND	ND	ND	ND	ND
Cadmium		NA	NA	ND	ND	ND	ND	0.61
Chromium		NA	NA	26	22	19	24	29
Copper		NA	NA	11	10	11	9.8	12
Lead		NA	NA	11	13	19	13	31
Mercury		NA	NA	ND	ND	ND	ND	ND
Nickel		NA	NA	8.2	5.7	10	9.8	8.5
Selenium		NA	NA	ND	ND	ND	2	7.3
Silver		NA	NA	ND	ND	ND	ND	ND
Thallium		NA	NA	ND	ND	ND	ND	ND
Zinc		NA	NA	30	36	37	32	46
Cyanide		NA	NA	ND	ND			0.49
Detected Organics (mg/kg)								
Acrylonitrile		0.0079 J	ND	ND	NA	ND	ND	ND
Benzene		0.010 J	ND	ND	NA	ND	.64 J	0.0002 J
Chloromethane (Methyl Chloride)		ND	ND	ND	NA	ND	ND	ND
cis 1,2-Dichloroethene		0.0011 J	0.0006 J	ND	NA	ND	ND	0.001 J
Ethylbenzene		0.0006 J	ND	ND	NA	ND	ND	0.0007 J
Methylene Chloride		0.0006 J	0.0006 J	ND	NA	2.3 J	3.2 J	0.0011 J
Tetrachloroethene (PCE)		ND	ND	ND	NA	ND	2 J	0.0013 J
Toluene		0.0049 J	0.0004 J	ND	NA	0.24 J	1.6 J	0.0004 J
Trichloroethene (TCE)		0.0003 J	ND	ND	NA	ND	10	0.0043
Vinyl Chloride		ND	ND	ND	ND	ND	.51 J	ND
Petroleum Hydrocarbons (mg/kg)		NA	NA	NA	NA	NA	NA	NA
GC Fingerprint (mg/kg)		ND[2]	ND[3]					
Ammonia-Nitrogen (mg/kg)		ND	ND					
Nitrate (mg/kg)		ND	ND					
Total Nitrogen (mg/kg)		53	42					

ND = Not detected
NA = Not analyzed
[1] Low levels of hydrocarbons from nC-10 to nC-20 observed (typical to fuel oil); and nC-24 to nC-38 (typical to lube oils, grease & tar) observed.
[2] Unidentified hydrocarbons were observed eluting after nC-24 No comparisons couls be made to standards due to low levels.
[3] Unidentified hydrocarbons were observed eluting after nC-24. No comparisons couls be made to standards due to low levels.

TABLE 8
Manifest Log for the Removal of Soil from the Engineered Soil Stockpile Pad
Harley-Davidson Motor Company Operations, Inc., York Facility

Shipment Date	Manifest No.	Weight (tons)
10/30/2002	13063	17.5
10/30/2002	13064	18.08
10/30/2002	13065	16.48
10/30/2002	13067	17.6
10/30/2002	13069	12.99
10/31/2002	13070	15.35
10/31/2002	13073	14.97
10/31/2002	13074	21.53
10/31/2002	13075	18.92
10/31/2002	13076	18.13
11/1/2002	19366	16.62
11/1/2002	19365	15.14
11/1/2002	19367	18.93
	Total tons	222.24

TABLE 9
Water Sampling Results Summary
Harley-Davidson Motor Company Operations, Inc., York Facility

Parameter/Units	EPA Maximum Contaminant Limit (µg/l)	Location/ID Sample Date Laboratory ID	NE Seep 4/11/2002 205332-1	Bldg. NW Corner 6/5/2002 209155-1
Detected Organics (µg/l)				
Ethylbenzene	**70**		0.2 J	0.2 J
Methylene Chloride	**5**		1.1 J	1.1 J
Tetrachloroethene (PCE)	**5**		3.8	ND
1,1,1-Trichloroethane	**200**		3	ND
Toluene	**1,000**		0.2 J	0.2 J
Trichloroethene (TCE)	**5**		8.4	ND

ND - Not detected
NA - Not analyzed

TABLE 10
Summary of Soil Sample Results
Sanitary Sewer Installation - South Perimeter Boundary
Harley-Davidson Motor Company Operations, Inc., York Facility

Parameter/Units	Safe Fill Numerical Standard (mg/kg)	Sample Name / Northing / Easting / Sample Date / Sample ID(s)	SB 1 4427247 353794 7/11/2002 212009-1	SB 2 4427251 353775 7/11/2002 212009-2	SB-3 4427252 353740 7/11/2002 212009-3	SB-4 4427258 353720 7/11/2002 212009-4	SB-5 4427274 353707 7/11/2002 212009-5	SB-6 4427279 353698 7/11/2002 212009-6	Trip Blank 7/11/2002 212009-6	TP-1, 7' 4427300 353850 7/12/2002 212189-1	TP 2, 8' 4427298 353860 7/12/2002 212188-2	TP 3, 7' 4427290 353870 7/12/2002 212189-3	TP-6, 13' 4427309 353830 7/12/2002 212189-4	ACT 2 RESI-DENTIAL Direct Contact. Soil (0 - 15 Feet)	ACT 2 NON-RESIDENTIAL MEDIUM-SPECIFIC CONCENTRATIONS				EPA RISK-BASED CONCENTRATIONS	
															Direct Contact. Surface Soil (0 - 2 Feet)	Direct Contact. Subsurface Soil (2 - 15 Feet)	SOIL to GW - USED AQUIFER		Industrial Soil [ingestion]	Residential Soil [ingestion]
																	100 x GW MSC	Generic		
Metals/Inorganics (mg/kg)																				
Antimony	27		ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	88	1,100	190,000	0.6	27	820	31
Arsenic	12		ND	2.3	4.4	7.3	8.4	9.2	NA	9.7	4	5.7	12	12	53	190,000	5	150	3.8	0.43
Beryllium	320		1.2	ND	ND	ND	1	ND	NA	ND	1	ND	ND	4.2	18	190,000	0.4	320	41,000	160
Cadmium	38		ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	110	1,400	190,000	0.5	38	1,000/2,000	39/78
Chromium	19,000		18	19	25	29	22	28	NA	17	21	28	17	1,100	14,000	190,000	10/51	970/19,000	6,100/RES[1]	230
Copper	4,300		6	6	7.7	15	15	13	NA	8.7	10	11	17	190,000	190,000	190,000	100	38,000	82,000	3,100
Lead	450		12	12	22	23	21	20	NA	13	17	18	22	500	1,000	190,000	0.5	450	--	--
Mercury	10		ND	ND	ND	0.091	0.110	0.061	NA	ND	ND	0.130	0.120	19	240	190,000	0.2	10	--	--
Nickel	650		12	11	15	17	26	18	NA	12	19	16	8.4	4,400	56,000	190,000	10	650	41,000	1,600
Selenium	26		ND	ND	ND	ND	ND	2.2	NA	ND	ND	ND	ND	1,100	14,000	190,000	5	26	10,000	390
Silver	84		ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	1,100	14,000	190,000	10	84	10,000	390
Thallium	14		ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	18	220	190,000	0.2	14	140	5.5
Zinc	7,500		41	35	51	50	33	29	NA	23	30	31	29	66,000	190,000	190,000	200	12,000	610,000	23,000
Cyanide	NR		0.42	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	4,400	56,000	190,000	20	200	41,000	1,600
Detected Organics (mg/kg)																				
Benzene	0.13		0.00016J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	41	210	240	0.5	0.13	100	12
Bromoform	4.3		0.00095J	0.00062J	ND	ND	ND	ND	ND	ND	ND	ND	ND	290	1,500	1,700	10	4.4	720	81
cis-1,2-Dichloroethene	1.69		0.00058JB	0.00064JB	0.00067JB	0.00056JB	0.00052JB	ND	ND	0.0005JB	ND	ND	0.0004JB	670	1,900	2,100	7	1.6	20,000	780
Methylene Chloride	0.08		0.002JB	0.0017JB	0.0019JB	0.0015JB	0.002JB	ND	0.0006J	0.0007JB	0.0008JB	0.0007JB	0.0006JB	580	3,500	4,000	0.5	0.076	760	85
Tetrachloroethene	0.43		0.00095JB	0.00032JB	0.00026JB	0.00027JB	0.00024JB	ND	ND	ND	ND	ND	ND	340	1,500	3,300	0.5	0.43	110	12
Toluene	44		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7,600	10,000	10,000	100	44	410,000	16,000
1,1,1-Trichloroethane	7.2		ND	0.00015JB	ND	ND	ND	ND	ND	ND	ND	ND	ND	10,000	10,000	10,000	20	7.2	570,000	22,000
Trichloroethene	0.17		0.0012JB	0.00095JB	0.001JB	0.00084JB	0.0011JB	ND	ND	0.0007JB	0.0009JB	0.0005JB	0.0005JB	190	970	1,100	0.5	0.17	14	1.6
1,1-Dichloroethene	0.19		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.4	33	38	0.7	0.19		

NR = Not Reported
ND = Not Detected
J = Estimated value
B = Constituent found in associated QA blank
NA = Not Analyzed

APPENDIX A

Project Progress Reports

PROGRESS REPORT

Keystone Environmental Inspection Activities
Harley-Davidson Motor Company
York, Pennsylvania
SAIC Project No. 01-1633-00-1952-007

Reporting Period: Week of 4Sept01 – 21Sept01

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Mobilization of equipment	• Mobilized several pans & misc. equipment
• Fence installation	• Completed fence/gate installation
• Tree removal and mulching	• Removed and chipped trees (Kinsley/Zwiger)
• General site preparations	• Conducted site surveying (LSC) • Initiated silt fence installation
• H&S training and orientation	• Conducted H&S Orientation (Dürr) and conducted 40-hr OSHA training (Kinsley)
SAIC	
• Complete SAIC Site Safety and Health Plan (SSHP)	• Reviewed Dürr Site Safety Manual, Completed/submitted SAIC SSHP • Completed Dürr H&S Orientation • reviewed draft Kinsley SSHP
• Mobilize equipment	• Mobilized equipment (Gator, GPS, PID, water tape, soil sampling equipment/supplies)
• Site orientation, office setup, meet General and Sub-Contractors	• Completed
• Install Keystone groundwater treatment plumbing/equipment	• Initiated installation of groundwater treatment equipment (Trtmt. Bldg) and SiteBoss controls
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings
• Excavation monitoring/inspection	• Inspected silt fence trenching
	• Conducted daily water level and precipitation measurements & submitted graph • Marked abandoned well locations • Prepared topsoil and subsoil SAPs • Established topsoil sampling grid and completed sampling

SAIC Personnel On-Site: Stephanie Pulaski, Rodney Myers, Bruce Wappman, Larry Smith, Alex Govelovich, Matt Root

General Contractor/Subcontractors: Dürr, Kinsley (w/ Security Fence [fence installation], LSC [surveyor], and Zwiger [tree removal]).

Visitors: None.

Meetings Conducted: Daily H&S; Site Walk-over (9/4/01); Dürr Site Specific H&S Orientation (9/6/01)

Areas of Environmental Concern Identified: Minor area of red staining found 9/20/01 beneath asphalt along western edge of site (near Bldg 58) during silt fence trenching. Approximately 1 cu. yd. area covered with polyethylene sheeting.

Samples Collected: Approximately 150 topsoil locations were sampled (see attached map with grid) from 9/13/01 – 9/18/01. Fourty-one (41) composite samples plus 6 quality control (QC) samples were submitted for analysis in accordance with the Topsoil SAP. Analyses for total VOCs, metals and Cyanide were requested for 5-day turn-around. One sample of stained soil near Bldg. 58 was collected and submitted for total petroleum hydrocarbons (TPH) and total metals 9/20/01.

Analytical Data Received: SS-1 and SS-2 (see attached summary).

Groundwater Handling:

	This Period	Contract To-Date
Groundwater Removed (gallons):	0	0
Groundwater Treated (gallons):	0	0

Issues and Concerns: A location for the frac tank was preliminarily identified, but needs to be coordinated with installation of the access road and security gate. Groundwater handling not anticipated until near end of October or beginning of November.

Health and Safety: None. Harley-Davidson requested that SAIC provide action level information to Dürr (9/13/01).

Quality Control: None.

Work Schedule: Weekend work schedule anticipated starting 10/6/01.

Action Items: None.

Work Planned for Next Week (24Sept01-28Sept01):

General Contractor/Subcontractor(s)

- Silt fence and erosion control (swale/berm) installations.
- Initiate topsoil removal/stockpiling.
- Initiate access road preparations.
- Construct soil staging and decontamination areas.

SAIC

- Receive/review topsoil sampling data and prepare "Safe Fill" Determination report.
- Excavation monitoring - topsoil removal and road installation preparations (3 persons anticipated).
- Continue Keystone Groundwater treatment preparations.

PROGRESS REPORT
Keystone Environmental Inspection Activities
Harley-Davidson Motor Company
York, Pennsylvania
SAIC Project No. 01-1633-00-1952-007

Reporting Period: Week of 24Sept01 – 28Sept01

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Site Preparations - Silt fence, erosion control (swale/berm) installations and access road preparations	• Completed super silt fence installation. • Began swale construction along access road • Initiated access roadway preparation.
• Construct soil staging and decontamination areas	• None
• Initiate topsoil removal/stockpiling	• Began topsoil removal along eastern edge of site
• H&S orientation	• Conducted H&S Orientation (Dürr)
SAIC	
• H&S Monitoring	• Conducted daily H&S Monitoring; provided copies of breathing and background PID readings
• Site orientation	• Two persons completed Dürr H&S Orientation
• Install Keystone groundwater treatment plumbing/equipment	• Reviewed location for frac tank (needs to be coordinated with access road construction)
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings
• Excavation monitoring/inspection	• Inspected super silt fence trenching • Inspected topsoil removal (eastern end of site) • Inspected swale excavation and access road preparation
	• Conducted daily water level and precipitation measurements • Transmitted topsoil sampling data summaries • Demarcated topsoil areas to remain onsite

SAIC Personnel On-Site: Stephanie Pulaski, Rodney Myers, Charles Klinger, Matt Root

General Contractor/Subcontractors: Dürr, Kinsley (w/ Super Silt fence installer, LSC [surveyor]).

Visitors: None.

Meetings Conducted: Daily H&S; Dürr Site Specific H&S Orientation (9/24/01)

Areas of Environmental Concern Identified: Second minor area of red staining found 9/24/01 beneath asphalt along western edge of site (near Bldg 58) during silt fence trenching. Approximately 1 cu. yd. area covered with polyethylene sheeting. Soil excavated from swale in the North Test Track area.

Samples Collected: One sample of soil was collected from the swale [Swale 9/24/01] in the North Test Track area and submitted for total VOCs, metals and cyanide 9/24/01.

Analytical Data Received: SS-3 through SS-43; and Bldg 58 Trench sample (see attached summaries).

Groundwater Handling:

	This Period	Contract To-Date
Groundwater Removed (gallons):	0	0
Groundwater Treated (gallons):	0	0

Issues and Concerns: A location for the frac tank was preliminarily identified, but needs to be coordinated with installation of the access road and security gate. Decontamination water will be containerized in a temporary 450-gallon poly tank, prior to the frac tank installation. Groundwater handling is not anticipated until near the end of October or the beginning of November.

Health and Safety: A contaminated soil staging area has not been constructed. A decontamination area has not been prepared. Due to inadequate contractor H&S preparations, work was stopped on 9/27/01. No field activities were conducted on 9/28/01.

Quality Control: None.

Work Schedule: Site work is expected to resume on Monday, 10/1/01. Weekend work schedule anticipated starting 10/6/01.

Action Items: None.

Work Planned for Next Week (24Sept01-28Sept01):

General Contractor/Subcontractor(s)

- Continue erosion control (swale/berm) installations.
- Continue topsoil removal/stockpiling.
- Continue access road preparations.
- Construct soil staging and decontamination areas.

SAIC

- Prepare "Safe Fill" Determination report for topsoil (upon receipt of laboratory data package)
- Excavation monitoring - topsoil removal and road installation preparations.
- Continue Keystone Groundwater treatment preparations.

PROGRESS REPORT

Keystone Environmental Inspection Activities
Harley-Davidson Motor Company
York, Pennsylvania
SAIC Project No. 01-1633-00-1952-007

Reporting Period: Week of 01Octt01 – 06Oct01

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Site Preparations - erosion control (swale/berm) installations	• Completed swale "C" cuts; began swale "A" installation beginning at the southwest corner of the site. • Began construction of a sediment detention basin.
• Access road preparations	• Completed roadway cuts in North Test Track area; laid down subbase and rock.
• Construct soil staging and decontamination areas	• Constructed and removed equipment decontamination area following access road excavations.
• Topsoil removal/stockpiling	• Completed topsoil removal 10/6/01.
SAIC	
• H&S Monitoring	• Conducted daily H&S Monitoring; provided copies of breathing and background PID readings.
• Site orientation	• Two addl. persons completed Dürr H&S Orientation
• Install Keystone groundwater treatment plumbing/equipment	• Confirmed location for frac tank (needs to be coordinated with access road construction)
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings
• Excavation monitoring/inspection	• Inspected topsoil removal • Inspected subsoil removal • Inspected air-track drilling • Inspected swale excavation and access road preparations • Inspected water line (utility) excavation
	• Conducted water level and precipitation measurements • Transmitted soil sampling data summaries

SAIC Personnel On-Site: Stephanie Pulaski, Rodney Myers, Matt Root, Shawn Eichelberger, Paul Yesconis

General Contractor/Subcontractors: Dürr, Kinsley (w/ Driller [J. Roy Inc.]), Stuart & Tate Inc., NuTec, Enviroscan.

Visitors: Ralph Golia (URS) – 10/5/01.

Meetings Conducted: Daily H&S; Dürr Site Specific H&S Orientation (10/4/01); URS meeting 10/5/01.

Areas of Environmental Concern Identified: An area of discolored rock was identified in subsoil east of the Test Track. No elevated PID readings were observed, and a sample was collected. Elevated PID readings were observed by a contractor during excavation of Swale "A". SAIC investigated but could not confirm these elevated readings. The contractor's instrument was rezeroed. Elevated PID readings were observed along the ditch and in shallow surface water near swale "C" in the North Test Track area. A surface water sample was collected upgradient from swale "C". Elevated PID readings were observed during the initial drilling in the southeast area of the site (Grade stake 5088). Elevated readings were observed down-hole, but not in the breathing zone.

Samples Collected: One discolored soil/rock subsoil sample was collected just east of the Test Track [10/1/01], and was submitted for total metals and cyanide. A surface water sample from the ditch near swale "C" was collected on 10/5/01 for total VOC analysis.

Analytical Data Received: One "Swale" soil sample collected 9/24/01 (see attached summary).

Groundwater Handling:	This Period	Contract To-Date
Groundwater Removed (gallons):	0	0
Groundwater Treated (gallons):	0	0

Issues and Concerns: Drilling to top of rock began 10/5/01. Drilling equipment was not decontaminated between locations when perched water and elevated PID readings were observed. A sink-hole was observed near the west central portion of the test track on 10/5 and 10/6. This area should be investigated and secured to protect workers and equipment. Work continues to progress with little to no notification of changes to work scope and schedules.

Health and Safety: See sink-hole concerns, above. Rock blasting was discussed as a possible work activity for the week of 10/8/01. Special health and safety procedures should be in place and communicated to all parties prior to these activities.

Quality Control: None.

Work Schedule: Weekend work began 10/6/01, but it is uncertain if this routine will continue. SAIC was notified on 10/5/01 that daily work schedules would be changed to 7:00 am to 7:00 pm, beginning the week of 10/8/01.

Action Items: SAIC was requested to provide specifications for a liner to be installed in swale "C", along the access road. This information should be provided by 10/8/01. SAIC was also asked to provide a portable gas chromatograph (GC) to be able to conduct onsite analysis of groundwater for VOCs. Details and costs will be provided to management for approval.

Work Planned for Next Week (08Oct01-14Oct01):

General Contractor/Subcontractor(s)

- Continue erosion control (swale/berm) installations.
- Continue subsoil removal and filling.
- Complete access road preparations.
- Offsite topsoil removal.
- Rock blasting?

SAIC

- Prepare "Safe Fill" Determination report for topsoil (upon receipt of laboratory data package)
- Excavation monitoring - subsoil removal and road installation preparations.
- Drilling inspection?
- Continue Keystone Groundwater treatment preparations.

PROGRESS REPORT

Keystone Environmental Inspection Activities
Harley-Davidson Motor Company
York, Pennsylvania
SAIC Project No. 01-1633-00-1952

Reporting Period: Week of 08Octt01 – 12Oct01

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Site Preparations - erosion control (swale/berm) installations	• Continued swale "A" excavation and installation. • Completed construction of sediment trap No. 1 (southwest corner).
• Access road preparations	• None.
• Construct soil staging area	• Began construction of contaminated soil stockpile area in southwest corner of site.
• Subsoil removal and filling.	• Repaired sinkhole (w/ guidance from Nutec). • Continued subsoil removal and filling using up to 6 pans.
• Offsite Topsoil removal	• Began removal of clean topsoil from site (566 trucks).
SAIC	
• H&S Monitoring	• Conducted daily H&S Monitoring; provided copies of breathing and background PID readings.
• Install Keystone groundwater treatment plumbing/equipment	• Installed treatment room flow meter and EQ tank motorized valve.
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings.
• Excavation monitoring/inspection	• Inspected sinkhole excavation/repair. • Inspected soil stockpile excavation /construction. • Inspected subsoil removal. • Inspected swale "A" excavation.
	• Provided preliminary costs for a geotextile liner to be placed in swale "C". • Conducted water level and precipitation measurements. • Transmitted soil & water sampling data summaries.

SAIC Personnel On-Site: Stephanie Pulaski, Rodney Myers, Charles Klinger, Paul Yesconis

General Contractor/Subcontractors: Dürr, Kinsley (w/ LSC [surveyor], J. Roy [blasting]), Nutec, Enviroscan

Visitors: None.

Meetings Conducted: Daily H&S. Keystone group general meeting.

Areas of Environmental Concern Identified: Elevated PID readings were identified in soil excavated from Swale A (near the southeast corner of the site). Following further investigation, no significant extent or source was identified.

Samples Collected: None.

Analytical Data Received: A summary of the results of one soil sample [SETT 10-1-01B], collected from a discolored rock/subsoil area just southeast of the former test track was submitted to Harley-Davidson. This sample was submitted for total metals and cyanide only. The results of a surface water sample, from the ditch just upgradient of swale "C" (collected on 10/5/01), was reported to be undetected for total priority pollutant volatile organic compounds (VOCs).

Estimated Offsite Soil Shipments*:	This Period	Contract To-Date
Topsoil (cubic yards[yd^3])	7,075	7,075
Subsoil (yd^3)	0	0

Groundwater Handling:	This Period	Contract To-Date
Groundwater Removed (gallons):	0	0
Groundwater Treated (gallons):	0	0

Issues and Concerns: See below.

Health and Safety: Rock blasting is anticipated to begin on 10/17/01. Special health and safety procedures should be in place and communicated to all parties prior to these activities.

Quality Control: None.

Work Schedule: Twelve hour shifts and Saturday work anticipated to began 10/15/01.

Action Items: SAIC was asked to provide a portable gas chromatograph (GC) to be able to conduct onsite analysis of groundwater for VOCs. This equipment will be provided on an as-needed basis. SAIC was also asked to provide input regarding the influence of blasting on site groundwater flow.

Work Planned for Next Week (15Oct01-20Oct01):

General Contractor/Subcontractor(s)

- Continue erosion control (swale/berm) installations.
- Continue subsoil removal and filling.
- Complete contaminated soil stockpile preparation.
- Continue offsite topsoil removal.
- Initiate rock blasting.

SAIC

- Prepare "Safe Fill" Determination report for topsoil (upon receipt of laboratory data package)
- Excavation monitoring - subsoil removal and road/swale installation preparations.
- Bedrock drilling inspection.
- Continue Keystone Groundwater treatment preparations (frac tank pad installation).

* Offsite soil volumes estimated based on approximately 12.5 yd^3 per loaded truck taken off-site.

PROGRESS REPORT

Keystone Environmental Inspection Activities
Harley-Davidson Motor Company
York, Pennsylvania
SAIC Project No. 01-1633-00-1952

Reporting Period: Week of 15Oct01 – 20Oct01

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Site Preparations - erosion control (swale/berm) installations	• Completed swale "A" excavation and installation. • Initiated swale "B" excavation and installation. • Initiated construction of Sediment trap No. 2. • Removed sanitary sewer manholes in south area.
• Access road preparations	• None.
• Construct soil staging area	• Completed construction of contaminated soil stockpile staging area in southwest corner of site.
• Subsoil excavation and filling.	• Continued subsoil excavation and filling using up to 6 pans.
• Drilling/Rock Blasting.	• Prepared/submitted blasting plan.
• Offsite Topsoil removal	• Continued removal of clean topsoil from site (approx. 494 trucks).
SAIC	
• H&S Monitoring	• Conducted daily H&S Monitoring; provided copies of breathing and background PID readings.
• Install Keystone groundwater treatment plumbing/equipment	• Installed pad for frac tank placement (Stuart & Tate).
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings. • Stuart & Tate attended H&S orientation meeting.
• Excavation monitoring/inspection	• Inspected soil stockpile excavation /construction. • Inspected subsoil excavation. • Inspected swale "A" and swale "B" excavations.
• Support/Consulting Services	• Provided specifications for a geotextile/geomembrane liner to be placed in swale "C". • Conducted water level and precipitation measurements. • Provided letter regarding geologic/hydrogeologic considerations of rock blasting activities; reviewed J. Roy blasting plan. • Provided a proposal and rationale for use of a portable GC to perform onsite analysis of water for VOCs.

SAIC Personnel On-Site: Stephanie Pulaski, Rodney Myers, Charles Klinger, Matt Root

General Contractor/Subcontractors: Dürr, Kinsley (w/ LSC [surveyor]), Stuart & Tate (excavation)

Visitors: None.

Meetings Conducted: Daily H&S.

Areas of Environmental Concern Identified: None.

Samples Collected: None.

Analytical Data Received: None.

Estimated Offsite Soil Shipments*:	This Report Period	Contract To-Date
Topsoil (cubic yards[yd^3])	6,175	13,250
Subsoil (yd^3)	0	0

Groundwater Handling:	This Period	Contract To-Date
Groundwater Removed (gallons):	0	0
Groundwater Treated (gallons):	0	0

Issues and Concerns: See below.

Health and Safety: Rock blasting is anticipated to begin on 10/22/01. Special health and safety procedures should be in place and communicated to all parties prior to these activities.

Quality Control: None.

Work Schedule: Ten hour shifts and Saturday work anticipated week of 10/22/01.

Action Items: None.

Work Planned for Next Week (22Oct01-27Oct01):

General Contractor/Subcontractor(s)

- Complete erosion control (swale/berm/sediment trap) installations.
- Continue subsoil removal and filling.
- Continue offsite topsoil removal.
- Initiate rock blasting.

SAIC

- Prepare "Safe Fill" Determination report for topsoil (upon receipt of laboratory data package)
- Excavation monitoring - subsoil removal and road/swale installation preparations.
- Bedrock drilling inspections.
- Continue Keystone Groundwater treatment preparations (frac tank delivery and trenching of utilities).

* Offsite soil volumes estimated based on approximately 12.5 yd^3 per loaded truck taken off-site.

PROGRESS REPORT

Keystone Environmental Inspection Activities
Harley-Davidson Motor Company
York, Pennsylvania
SAIC Project No. 01-1633-00-1952

Reporting Period: Week of 22Oct01 – 27Oct01

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Site Preparations - erosion control (swale/berm) installations	• Continued swale "B" excavation and installation. • Completed construction of Sediment trap No. 2. • Seeded/mulched both sediment traps. • Demolished smoke house and test track observation booth.
• Access road preparations	• None.
• Subsoil excavation and filling.	• Continued subsoil excavation and filling using up to 8 pans. • Began rock ripping with D8.
• Drilling/Rock Blasting.	• Drilled approximately 138 holes along eastern portion of site. • Blasted first grid (100 holes) on 10/26/01.
• Offsite Topsoil removal	• Removed additional topsoil near Sediment trap No.2. • Continued removal of clean topsoil from site (approx. 548 trucks).
SAIC	
• H&S Monitoring	• Conducted daily H&S Monitoring; provided copies of breathing and background PID readings.
• Keystone groundwater treatment	• Completed frac tank pad and utility installation (Stuart & Tate). • Delivered 21,000 gal. frac tank (Adler) on 10/22/01.
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings.
• Excavation monitoring/inspection	• Inspected subsoil excavation. • Inspected swale "B" excavations. • Inspected Sediment Trap No. 2 excavation. • Inspected electric utility excavation.
• Support/Consulting Services	• Conducted water level and precipitation measurements.

SAIC Personnel On-Site: Stephanie Pulaski, Rodney Myers, Charles Klinger, Paul Yesconis

General Contractor/Subcontractors: Dürr, Kinsley (w/ J. Roy [Blasting], D&H Laboratories [density testing], I.B. Abel [electric utility]), Stuart & Tate (excavation)

Visitors: None.

Meetings Conducted: Daily H&S.

Areas of Environmental Concern Identified: Small area (approximately 4 yds) of soil with elevated PID readings removed from utility trench excavation to frac tank and placed on the contaminated soil stockpile pad.

Samples Collected: None.

Analytical Data Received: None.

Estimated Offsite Soil Shipments*:	This Report Period	Contract To-Date
Topsoil (cubic yards[yd^3])	6,850	20,100
Subsoil (yd^3)	0	0

Groundwater Handling:	This Period	Contract To-Date
Groundwater Removed (gallons):	0	0
Groundwater Treated (gallons):	0	0

Note: Kinsley removed about 600 gallons of water from 2 electric manholes. This water along with water from previous decontamination efforts was placed into the frac tank for treatment.

Issues and Concerns: See below:

Health and Safety: None.

Quality Control: None.

Work Schedule: *Ten hour shifts and Saturday work anticipated week of 10/29/01.*

Action Items: None.

Work Planned for Next Week (29Oct01-03Nov01):

General Contractor/Subcontractor(s)

- Complete erosion control (swale/berm) installations.
- Continue subsoil removal and filling.
- Complete offsite topsoil removal.
- Continue rock blasting/ripping.

SAIC

- Prepare "Safe Fill" Determination report for topsoil (upon receipt of laboratory data package)
- *Excavation monitoring - subsoil removal and site preparations.*
- Bedrock drilling inspections.
- Continue Keystone Groundwater treatment preparations (connection of utilities).

* Offsite soil volumes estimated based on approximately 12.5 yd^3 per loaded truck taken off-site.

PROGRESS REPORT

Keystone Environmental Inspection Activities
Harley-Davidson Motor Company
York, Pennsylvania
SAIC Project No. 01-1633-00-1952

Reporting Period: Week of 29Oct01 – 3Nov01

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Site Preparations - erosion control (swale/berm) installations	• Completed swale "B" excavation and installation.
• Access road preparations	• Working near swale B.
• Subsoil excavation and filling.	• Continued subsoil excavation and filling using up to 8 pans. • Continued rock ripping with D8.
• Drilling/Rock Blasting.	• Blasted second grid (75 holes) on 10/30/01. • Completed drilling third grid (72 holes) along eastern portion of site.
• Offsite Topsoil removal	• Completed removal of clean topsoil from site (approx. 60 trucks) on 10/29/01.
SAIC	
• H&S Monitoring	• Conducted daily H&S Monitoring; provided copies of breathing and background PID readings.
• Keystone groundwater treatment	• Completed installation of motorized valve and calibration of flow meter at treatment building. • Completed SiteBoss controls, communications and data tracking of Keystone groundwater collection line.
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings.
• Excavation monitoring/inspection	• Inspected subsoil excavation. • Inspected swale "B" excavations. • Inspected electric utility excavations. • Monitored topsoil removal near western (union) entrance.
• Support/Consulting Services	• Conducted water level and precipitation measurements.

SAIC Personnel On-Site: Stephanie Pulaski, Rodney Myers, Charles Klinger

General Contractor/Subcontractors: Dürr, Kinsley (w/ J. Roy [Blasting], B,S&T Laboratories [density testing], I.B. Abel [electric utility])

Visitors: None.

Meetings Conducted: Daily H&S.

Areas of Environmental Concern Identified: None.

Samples Collected: None.

Analytical Data Received: None. Laboratory electronic data deliverable (EDD) and CLP-like data package received from previous topsoil sampling and analysis.

Estimated Offsite Soil Shipments*:	This Report Period	Contract To-Date
Topsoil (cubic yards[yd^3])	750	20,850
Subsoil (yd^3)	0	0

Groundwater Handling:	This Period	Contract To-Date
Groundwater Removed (gallons):	0	0
Groundwater Treated (gallons):	0	0

Note: Kinsley removed an additional 180 gallons of water from 2 electric manholes on 10/31/01. This was placed into the frac tank for treatment.

Issues and Concerns: None.

Health and Safety: None.

Quality Control: None.

Work Schedule: None.

Action Items: None.

Work Planned for Next Week (5Nov01-10Nov01):

General Contractor/Subcontractor(s)
- Continue subsoil removal and filling.
- Continue rock blasting/ripping.

SAIC
- Prepare "Safe Fill" Determination report for topsoil (upon review of laboratory data package)
- Excavation monitoring - subsoil removal and site preparations.
- Bedrock drilling inspections.

* Offsite soil volumes estimated based on approximately 12.5 yd^3 per loaded truck taken off-site.

PROGRESS REPORT

Keystone Environmental Inspection Activities
Harley-Davidson Motor Company
York, Pennsylvania
SAIC Project No. 01-1633-00-1952

Report No. 8

Reporting Period: Week of 5Nov01 – 10Nov01

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Site Preparations - erosion control (swale/berm) installations	• Began fence installation for non-union parking area. • Mulch laid for foot path to non-union parking area.
• Access road preparations	• None.
• Subsoil excavation and filling.	• Continued subsoil excavation and filling using up to 8 pans. • Continued rock ripping with D8.
• Drilling/Rock Blasting.	• Started drilling Grid 4.
• Utility installations	• Worked on electric utility near trailers (Hendricks line).
SAIC	
• H&S Monitoring	• Conducted daily H&S Monitoring; provided copies of breathing and background PID readings.
• Keystone groundwater treatment	• None.
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings. • Meeting to review electric substation location options.
• Excavation monitoring/inspection	• Inspected subsoil excavation
• Support/Consulting Services	• Conducted water level and precipitation measurements.

SAIC Personnel On-Site: Stephanie Pulaski, Rodney Myers

General Contractor/Subcontractors: Dürr, Kinsley (w/ J. Roy [Blasting], LSC (surveyor), B,S&T Laboratories [density testing], I.B. Abel [electric utility], Security Fence)

Visitors: Steve Snyder (review of electric substation location options).

Meetings Conducted: Daily H&S.

Areas of Environmental Concern Identified: A small area of wetness was encountered during excavation of soil just east of the building pad. No elevated PID readings were observed in any of this soil, and no groundwater was encountered.

Samples Collected: None.

Analytical Data Received: None.

Estimated Offsite Soil Shipments*:	This Report Period	Contract To-Date
Topsoil (cubic yards[yd^3])	0	20,850
Subsoil (yd^3)	0	0

Groundwater Handling:	This Period	Contract To-Date
Groundwater Removed (gallons):	0	0
Groundwater Treated (gallons):	0	0

Issues and Concerns: See below.

Health and Safety: Continued dry conditions require a greater focus on dust control measures.

Quality Control: None.

Work Schedule: None.

Action Items: SAIC was requested to review storm water pipe requirements in Bid Pack No. 12 and provide recommendations regarding areas potentially impacted by groundwater. A recommendation is scheduled to be delivered on November 13, 2001.

SAIC was requested to provide environmental input regarding the planned location of an electric substation. An initial meeting was conducted on Friday, November 9, 2001. A follow-up meeting is scheduled for Monday, November 12, 2001.

Work Planned for Next Week (12Nov01-17Nov01):

General Contractor/Subcontractor(s)

- Continue subsoil removal and filling.
- Complete rock blasting (contingent upon receipt of township permit).
- Continue rock ripping.

SAIC

- Prepare "Safe Fill" Determination report for topsoil (upon review of laboratory data package).
- Complete frac tank connections.
- Excavation monitoring - subsoil removal and site preparations.
- Bedrock drilling inspections (as needed).

* Offsite soil volumes estimated based on approximately 12.5 yd^3 per loaded truck taken off-site.

PROGRESS REPORT

Keystone Environmental Inspection Activities
Harley-Davidson Motor Company
York, Pennsylvania
SAIC Project No. 01-1633-00-1952

Reporting Period: Week of 12Nov01 – 17Nov01

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Site Preparations - erosion control (swale/berm) installations	• Continued fence installation for non-union parking area. • Began foot-bridge construction to non-union parking area.
• Access road preparations	• None.
• Subsoil excavation and filling.	• Continued subsoil excavation and filling using up to 8 pans. • Continued rock ripping with D8. • Began off-site rock removal (80 loads).
• Drilling/Rock Blasting.	• Completed blasting (through Grid 4).
• Utility installations	• Worked on electric utility near trailers (Hendricks line). • Installed (2) electric poles.
SAIC	
• H&S Monitoring	• Conducted daily H&S Monitoring; provided copies of breathing and background PID readings.
• Keystone groundwater treatment	• None.
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings. • *Meeting to review electric substation location options.*
• Excavation monitoring/inspection	• Inspected subsoil excavation. • Inspected rock removal. • Inspected electric pole installation.
• Support/Consulting Services	• Conducted water level and precipitation measurements. • See Action Items, below.

SAIC Personnel On-Site: Stephanie Pulaski, Matt Root, Charles Klinger, Rodney Myers

General Contractor/Subcontractors: Dürr, Kinsley (w/ J. Roy [Blasting], LSC (surveyor), B,S&T Laboratories [density testing], I.B. Abel [electric utility], Security Fence)

Visitors: Steve Snyder (review of electric substation location options).

Meetings Conducted: *Daily H&S; electric substation meeting (Nov. 12); suspect soil meeting (Nov. 15).*

Areas of Environmental Concern Identified: Soil removed from installation of a utility pole near Gate 6 exhibited elevated PID readings. Soil removed from the hole (approximately 1 cubic yard) was transported to the contaminated soil stockpile pad, and covered with plastic. An area of suspect soil was encountered during excavation of soil east of the building pad on Thursday and Friday (11/15 & 11/16). Elevated PID readings were observed in several isolated locations, and excavation was halted within the general area (approximately 50' x 400').

Samples Collected: One suspect soil sample (SE corner 11-15-01) was collected in the suspect area, east of the building pad. Final analytical results are expected by November 26, 2001.

Analytical Data Received: None.

Estimated Offsite Soil Shipments:	This Report Period	Contract To-Date
Topsoil (cubic yards[yd^3])*	0	20,850
Subsoil (yd^3)	0	0
Rock (yd^3)	800	800

Groundwater Handling:	This Period	Contract To-Date
Groundwater Removed (gallons):	0	0
Groundwater Treated (gallons):	0	0

Issues and Concerns: See below.

Health and Safety: Continued dry conditions require a greater focus on dust control measures.

Work Schedule: Anticipate short work-week (w/o 11/19) due to holiday.

Action Items:

- SAIC was requested to review storm water pipe requirements in Bid Pack No. 12 and provide recommendations regarding areas potentially impacted by groundwater. A recommendation was delivered on November 14, 2001. Updated drawings, illustrating groundwater prone areas were submitted on November 15, 2001.
- SAIC was requested to provide environmental input regarding the planned location of an electric substation. An initial meeting was conducted on Friday, November 9, 2001. A follow-up meeting was conducted onsite Monday, November 12, 2001 to field verify a potential new location.
- SAIC was requested to provide a plan for sampling of a significant quantity (approx. 60,000 cubic yards) of excess subsoil, anticipated for removal to an off-site quarry as part of the Keystone project. A Sampling and Analysis Plan, to meet draft "Safe Fill" regulations was submitted on November 14, 2001. This plan was approved for use on Thursday, November 15, 2001.
- Groundwater analytical results from the June 2001 sampling were provided to Harley-Davidson for two wells.
- Per Harley-Davidson request, SAIC provided guidance regarding offsite shipment of rock to a local quarry.
- Per Harley-Davidson request, SAIC prepared bid specifications and solicited bids to construct a storm water swale, geosynthetic liner, and energy dissipater for swale C. Bids should be received by Wednesday Nov. 21, 2001.

Work Planned for Next Week (19Nov01-21Nov01): [Note shorter week, due to holiday schedule]

General Contractor/Subcontractor(s)

- Site preparations (topsoil removal) from new non-union parking area.
- Continue subsoil removal and filling.
- Continue rock ripping, offsite removal.

SAIC

- Excavation monitoring - subsoil removal and site preparations.
- *Initiate suspect area test-pit investigation.*
- Continue precipitation and depth to groundwater measurements.
- Submit draft "Safe Fill" Determination report for topsoil.

* Offsite soil volumes estimated based on approximately 12.5 yd^3 per loaded truck taken off-site.

PROGRESS REPORT

Keystone Environmental Inspection Activities
Harley-Davidson Motor Company
York, Pennsylvania
SAIC Project No. 01-1633-00-1952

Reporting Period: Week of 19Nov01 – 21Nov01

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Site Preparations - erosion control (swale/berm) installations	• Continued foot-bridge construction to non-union parking area. • Removed and stockpiled topsoil for non-union parking area. • Placed gravel for non-union parking lot. • Installed and repaired silt fence. • Began placement of topsoil on western slopes.
• Access road preparations	• None.
• Subsoil excavation and filling.	• Continued subsoil excavation and filling using up to 4 pans. • Continued rock ripping with D8. • Continued off-site rock removal (45 loads). • Conducted test-pit investigations within suspect soil area using track hoe.
• Utility installations	• Worked on northern electric utility (near Bldg 52).
SAIC	
• H&S Monitoring	• Conducted daily H&S Monitoring; provided copies of breathing and background PID readings.
• Keystone groundwater treatment	• None.
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings.
• Excavation monitoring/inspection	• Inspected subsoil excavation. • Inspected rock removal. • Oversaw test pit investigation/monitoring and sampling in suspect soil area.
• Support/Consulting Services	• Conducted water level and precipitation measurements. • See Action Items, below.

SAIC Personnel On-Site: Stephanie Pulaski, Shawn Eichelberger, Rodney Myers

General Contractor/Subcontractors: Dürr, Kinsley

Visitors: Ralph Golia (URS Corp) – review of suspect soil area; Representatives from Stewart & Tate Inc. and Pavex Inc. to inspect Swale "C"; Representative from Tectonics – inspected slopes (for Kinsley).

Meetings Conducted: Daily H&S; Onsite meeting to discuss handling of suspect soil area (Nov. 19).

Areas of Environmental Concern Identified: An area of suspect soil was encountered during excavation of soil east of the building pad on Thursday and Friday (11/15 & 11/16). Elevated PID readings were observed in several isolated locations, and excavation was halted within the general area (approximately 50' x 400'). Investigations continued this week on Monday and Tuesday.

Samples Collected: One soil sample (Rock Pile screenings 11-19-01) was collected from material which was segregated from rock prior to its removal to a local quarry. Three soil samples (SE Corner, 11'; Northern sample, 9'; and Western Side, 6.5') were collected from test pits conducted in the suspect area, east of the building pad. Final analytical results for the test pit sampling are expected by November 28, 2001.

Analytical Data Received: Preliminary laboratory (VOC) data from soil sample (SE corner 11-15-01) were reviewed with Harley-Davidson on November 19, 2001.

Estimated Offsite Shipments:	This Report Period	Contract To-Date
Topsoil (cubic yards[yd^3])*	0	20,850
Subsoil (yd^3)	0	0
Rock (yd^3)**	450	1,250

Groundwater Handling:	*This Period*	*Contract To-Date*
Groundwater Removed (gallons):	0	0
Groundwater Treated (gallons):	0	0

Issues and Concerns: See below.

Health and Safety: Continued dry conditions require a greater focus on dust control measures.

Work Schedule: Anticipate reduced work force early next week.

Action Items:

- Per Harley-Davidson request, SAIC prepared bid specifications and solicited bids to construct a storm water swale, geosynthetic liner, and energy dissipater for swale C. Site inspections were facilitated with two bidders on Monday, November 19, 2001. Bids are due on Wednesday Nov. 21, 2001.
- SAIC was requested to provide recommendations regarding the suspect soil area. SAIC recommended that additional investigation be conducted, and that additional samples be collected and analyzed to determine contaminant source, concentration, volumes, and potential handling options/costs for this area. Harley-Davidson approved the recommendation on Tuesday, November 20, 2001. Three additional soil samples were collected and submitted to the laboratory.
- SAIC was requested to assist in locating an alternate location on the Harley-Davidson site to place excess subsoil/topsoil material from the Keystone excavation work. One proposed location was identified in the field on Wednesday, November 21, 2001. GPS coordinates for this location were collected, and will be mapped to determine the potential volume of fill, and to assist in identifying any environmental concerns.
- SAIC was requested to provide additional environmental input regarding several proposed options for relocating an electric substation near the north test track area. SAIC was requested to identify any sampling that would be needed to clear the area for construction.

Work Planned for Next Week (26Nov01-1Dec01):

General Contractor/Subcontractor(s)

- Site preparations – complete new (non-union) parking lot construction.
- Continue subsoil removal and filling.
- Begin onsite stockpiling of subsoil (for onsite use).
- Continue rock ripping, offsite removal.

SAIC

- Excavation monitoring - subsoil removal and site preparations.
- Continue precipitation and depth to groundwater measurements.

* Offsite soil volumes estimated based on approximately 12.5 yd^3 per loaded truck taken off-site.
** Offsite rock volumes estimated based on approximately 10 yd^3 per loaded truck taken off-site.

PROGRESS REPORT

Keystone Environmental Inspection Activities
Harley-Davidson Motor Company
York, Pennsylvania
SAIC Project No. 01-1633-00-1952

Reporting Period: Week of 26Nov01 – 01Dec01

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Site Preparations	• Completed foot-bridge construction to non-union parking area. • Continued placement of topsoil on western slopes.
• Subsoil excavation and filling.	• Continued off-site rock removal (150 loads).
• Utility installations	• Excavated and reinforced electric manholes on western side of site.
SAIC	
• H&S Monitoring	• Conducted daily H&S Monitoring; provided copies of breathing and background PID readings.
• Keystone groundwater treatment	• None.
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings.
• Excavation monitoring/inspection	• Inspected rock removal. • Oversaw manhole excavations.
• Support/Consulting Services	• Conducted water level and precipitation measurements. • See Action Items, below.

SAIC Personnel On-Site: Stephanie Pulaski

General Contractor/Subcontractors: Dürr, Kinsley (w/ LSC [surveyors]).

Visitors: Steve Snyder, Rodney Myers (SAIC) – review of suspect soil area data.

Meetings Conducted: Daily H&S; Onsite meeting to discuss handling of suspect soil area (Nov. 30).

Areas of Environmental Concern Identified: Pending review of sampling data and options, an area of suspect soil located east of the building pad (approximately 50' x 400') remains excluded to further excavation.

Samples Collected: Two soil samples (Rock Pile Samples No. 2 & 3) were collected from material which was segregated from rock prior to its removal to a local quarry.

Analytical Data Received: Laboratory results of a soil sample (Rock Pile Screenings) collected from material segregated from rock prior to its removal off-site was reviewed with Harley-Davidson [see attached summary]. Final Laboratory data from four soil samples collected in the suspect soil area (SE corner 11-15-01, SE Corner 11', Northern Sampling 9', and Western Side 6.5') were reviewed with Harley-Davidson on November 30, 2001 [see attached summary].

Estimated Offsite Shipments:	This Report Period	Contract To-Date
Topsoil (cubic yards[yd^3])*	0	20,850
Subsoil (yd^3)	0	0
Rock (yd^3)**	1,500	2,750

Groundwater Handling:	This Period	Contract To-Date
Groundwater Removed (gallons):	0	0
Groundwater Treated (gallons):	0	0

Issues and Concerns: None.

Action Items:

- SAIC reviewed bids to construct a storm water swale, geosynthetic liner, and energy dissipater for swale C. Per discussion with Harley-Davidson, this work will be directed to the General Contractor.
- SAIC met with Harley-Davidson to discuss the suspect soil area. The results of sampling in this area were reviewed, and options for handling were considered. Handling in accordance with "Safe Fill" regulations was considered the most favorable option, and is under consideration by Harley-Davidson.
- SAIC provided a map of the proposed location to stockpile excess soil onsite.
- SAIC provided an interpretation of the potential environmental impact to proposed Electric Substation area 4, based on a review of available aerial photographs near the north test track area. An estimate of costs to investigate this area was also provided.

Work Planned for Next Week (03Dec01-08Dec01):

General Contractor/Subcontractor(s)

- Site preparations – move topsoil pile to southwest corner of site; continue placement of topsoil.
- Continue subsoil removal and filling.
- Begin onsite stockpiling of subsoil (for onsite and off-site use).
- Continue rock ripping, offsite removal.

SAIC

- Excavation monitoring - subsoil removal and site preparations.
- Continue precipitation and depth to groundwater measurements.
- Begin sampling stockpiled subsoil (for off-site use).

* Offsite soil volumes estimated based on approximately 12.5 yd^3 per loaded truck taken off-site.
** Offsite rock volumes estimated based on approximately 10 yd^3 per loaded truck taken off-site.

PROGRESS REPORT

Keystone Environmental Inspection Activities
Harley-Davidson Motor Company
York, Pennsylvania
SAIC Project No. 01-1633-00-1952

Reporting Period: Week of 03Dec01 – 08Dec01

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Site Preparations	• Moved topsoil pile to southwest corner of site.
• Subsoil excavation and filling.	• Began stockpiling subsoil for off-site removal. • Began stockpiling subsoil (approximately 11,000 cubic yards) at new on-site area (north of Bldg. 30). • Continued rock ripping and stockpiling. • Continued onsite filling near electric manholes (western site area).
• Utility installations	• Continued reinforcing and extending electric manholes on western side of site.
SAIC	
• H&S Monitoring	• Conducted daily H&S Monitoring; provided copies of breathing and background PID readings.
• Keystone groundwater treatment	• Connected electric and installed pumps to frac tank.
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings (including biweekly Keystone mtg.).
• Excavation monitoring/inspection	• Inspected subsoil excavation. • Sampled stockpiles for off-site removal. • Inspected rock removal.
• Support/Consulting Services	• Conducted water level and precipitation measurements. • See Action Items, below.

SAIC Personnel On-Site: Stephanie Pulaski, Matt Root, Andrew Steffe, Bryan McGee, Rodney Myers

General Contractor/Subcontractors: Dürr, Kinsley (w/ I. B. Abel [electric utility], LSC [surveyors]).

Visitors: None.

Meetings Conducted: Daily H&S; Keystone meeting.

Areas of Environmental Concern Identified: Pending review of sampling data and options, an area of suspect soil located east of the building pad (approximately 50' x 400') remains excluded to further excavation.

Samples Collected: Eleven soil samples (Soil Sample 1-1; 1-2; 1-3; 1-4; 1-5; 2-1; 2-2; 2-3; 2-4; 2-5; and 3-1) representing 1,000 cubic yards (cy) each, were collected during placement of three (5,000 cy) onsite stockpiles for anticipated off-site removal.

Analytical Data Received: Laboratory results of two soil samples (Rock Pile Samples No. 2 & 3) collected from material segregated from rock prior to its removal off-site was reviewed with Harley-Davidson [see attached summary].

Estimated Offsite Shipments:	This Report Period	Contract To-Date
Topsoil (cubic yards[yd^3])*	0	20,850
Subsoil (yd^3)	0	0
Rock (yd^3)**	0	2,750

Groundwater Handling:	This Period	Contract To-Date
Groundwater Removed (gallons):	0	0
Groundwater Treated (gallons):	0	0

Note: approximately 1,200 – 1,600 gallons of water were removed from electric manholes this report period, and were transferred to the frac tank for treatment.

Issues and Concerns: *Due to the lack of DEP approvals, shipments to the local quarry have been stopped.*

Action Items:

- Harley-Davidson requested SAIC to provide a list of potential off-site disposal facilities for consideration in processing hazardous and/or non-hazardous wastes from this project.

Work Planned for Next Week (10Dec01-15Dec01):

General Contractor/Subcontractor(s)

- Site preparations.
- Continue subsoil removal and filling.
- Continue onsite stockpiling of subsoil (for onsite and off-site use).
- Continue rock ripping, offsite removal (pending authorization).
- Foundation contract (Bid Pack No.4) to be initiated.

SAIC

- Excavation monitoring - subsoil removal; site preparations; foundation excavation.
- Continue precipitation and depth to groundwater measurements.
- Continue sampling stockpiled subsoil (for off-site use).
- Complete frac tank connections.

* Offsite soil volumes estimated based on approximately 12.5 yd^3 per loaded truck taken off-site.
** Offsite rock volumes estimated based on approximately 10 yd^3 per loaded truck taken off-site.

PROGRESS REPORT

Keystone Environmental Inspection Activities
Harley-Davidson Motor Company
York, Pennsylvania
SAIC Project No. 01-1633-00-1952

Reporting Period: Week of 17Dec01 – 29Dec01

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Site Preparations	• Continued adding topsoil to slopes. • Began regrading in Swale C.
• Subsoil excavation and filling.	• Continued stockpiling subsoil for off-site removal.
• Utility installations	• Excavated and installed northern portion of force main to lift station.
SAIC	
• H&S Monitoring	• Conducted daily H&S Monitoring; provided copies of breathing and background PID readings.
• Keystone groundwater treatment	• Completed connections for frac tank.
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings.
• Excavation monitoring/inspection	• Inspected subsoil excavation. • Sampled stockpiles for off-site removal.
• Support/Consulting Services	• Conducted water level and precipitation measurements. • See Action Items, below.

SAIC Personnel On-Site: Stephanie Pulaski, Charles Klinger, Bryan McGee, Rodney Myers

General Contractor/Subcontractors: Dürr, Kinsley (w/ I. B. Abel [electric utility], LSC [surveyors]).

Visitors: None.

Meetings Conducted: *Daily H&S; Keystone meeting.*

Areas of Environmental Concern Identified: Pending review of sampling data and options, an area of suspect soil located east of the building pad (approximately 50' x 400') remains excluded to further excavation. Pending review of sampling data and options, stockpile No. 3 cannot be transported offsite. A small area near north end of force main excavation exhibited elevated PID readings. A small quantity (____) of soil was transported to the contaminated soil stockpile.

Samples Collected: Ten soil samples (Soil Sample 4-1; 4-2; 4-3; 4-4; 4-5; 5-1; 5-2; 5-3; 5-4; & 5-5) representing 1,000 cubic yards (cy) each, were collected during placement of two (5,000 cy) onsite stockpiles for anticipated off-site removal.

Analytical Data Received: None.

Estimated Offsite Shipments:	This Report Period	Contract To-Date
Topsoil (cubic yards[yd^3])*	0	20,850
Subsoil (yd^3)	0	0
Rock (yd^3)**	0	2,750

Groundwater Handling:	This Period	Contract To-Date
Groundwater Removed (gallons):	0	0
Groundwater Treated (gallons):	0	0

Issues and Concerns: Due to the lack of DEP approvals, shipments to the local quarry have been stopped.

Action Items:

- Harley-Davidson requested SAIC to provide a list of potential off-site disposal facilities for consideration in processing hazardous and/or non-hazardous wastes from this project. This list is in progress.
- A letter was submitted on December 18, 2001 to notify the DEP of the planned treatment and discharge of groundwater from the Keystone site under existing NPDES permit PA 0085677.

Work Planned for Next Week (24Dec01-29Dec01):

General Contractor/Subcontractor(s)

- Site preparations.
- Remove onsite stockpiles (No. 1 & 2) to Orchard Park Site (Kinsley).
- Foundation contract (Bid Pack No.4) to be continued – force main trenching, foundation excavation.
- Swale "C" liner.

SAIC

- Excavation monitoring - subsoil removal; site preparations; foundation excavation, utility (force main) excavation, Swale "C" excavation.
- Continue precipitation and depth to groundwater measurements.
- Continue sampling stockpiled subsoil (for off-site use).

* Offsite soil volumes estimated based on approximately 12.5 yd^3 per loaded truck taken off-site.
** Offsite rock volumes estimated based on approximately 10 yd^3 per loaded truck taken off-site.

PROGRESS REPORT

Keystone Environmental Inspection Activities
Harley-Davidson Motor Company
York, Pennsylvania
SAIC Project No. 01-1633-00-1952

Reporting Period: Week of 03Dec01 – 14Dec01

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Site Preparations	• Moved topsoil pile to southwest corner of site.
• Subsoil excavation and filling.	• Began stockpiling subsoil for off-site removal. • Stockpiled subsoil (approximately 13,500 cubic yards total) at on-site area (north of Bldg. 30). • Continued rock ripping and stockpiling. • Continued onsite filling near electric manholes (western site area).
• Utility installations	• Continued reinforcing and extending electric manholes on western side of site.
SAIC	
• H&S Monitoring	• Conducted daily H&S Monitoring; provided copies of breathing and background PID readings.
• Keystone groundwater treatment	• Connected electric and installed pumps to frac tank.
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings (including biweekly Keystone mtg.).
• Excavation monitoring/inspection	• Inspected subsoil excavation. • Sampled stockpiles for off-site removal. • Inspected rock removal.
• Support/Consulting Services	• Conducted water level and precipitation measurements. • See Action Items, below.

SAIC Personnel On-Site: Stephanie Pulaski, Matt Root, Andrew Steffe, Bryan McGee, Shawn Eichelberger, Rodney Myers

General Contractor/Subcontractors: Dürr, Kinsley (w/ I. B. Abel [electric utility], LSC [surveyors]).

Visitors: None.

Meetings Conducted: Daily H&S; Keystone meeting.

Areas of Environmental Concern Identified: Pending review of sampling data and options, an area of suspect soil located east of the building pad (approximately 50' x 400') remains excluded to further excavation. Pending review of sampling data and options, stockpile No. 3 cannot be transported offsite.

Samples Collected: Fifteen soil samples (Soil Sample 1-1; 1-2; 1-3; 1-4; 1-5; 2-1; 2-2; 2-3; 2-4; 2-5; 3-1,3-2; 3-3; 3-4; 3-5) representing 1,000 cubic yards (cy) each, were collected during placement of three (5,000 cy) onsite stockpiles for anticipated off-site removal.

Analytical Data Received: Laboratory results from sampling of onsite subsoil Stockpiles Nos. 1, 2, and 3 (one sample only) was reviewed with Harley-Davidson [see attached summaries].

Estimated Offsite Shipments:	This Report Period	Contract To-Date
Topsoil (cubic yards[yd^3])*	0	20,850
Subsoil (yd^3)	0	0
Rock (yd^3)**	0	2,750

Groundwater Handling:	This Period	Contract To-Date
Groundwater Removed (gallons):	0	0
Groundwater Treated (gallons):	0	0

Note: approximately 1,200 – 1,600 gallons of water were removed from electric manholes this report period, and were transferred to the frac tank for treatment.

Issues and Concerns: Due to the lack of DEP approvals, shipments to the local quarry have been stopped.

Action Items:

- Harley-Davidson requested SAIC to provide a list of potential off-site disposal facilities for consideration in processing hazardous and/or non-hazardous wastes from this project. This list is in progress.
- A draft letter is in progress to notify the DEP of the planned treatment and discharge of groundwater from the Keystone site under existing NPDES permit PA 0085677.

Work Planned for Next Week (17Dec01-22Dec01):

General Contractor/Subcontractor(s)

- Site preparations.
- Continue subsoil removal and filling.
- Continue onsite stockpiling of subsoil (for onsite and off-site use).
- Continue rock ripping, offsite removal (pending authorization).
- Foundation contract (Bid Pack No.4) to be initiated – force main trenching, foundation excavation.
- Swale "C" excavation.

SAIC

- Excavation monitoring - subsoil removal; site preparations; foundation excavation, utility (force main) excavation, Swale "C" excavation.
- Continue precipitation and depth to groundwater measurements.
- Continue sampling stockpiled subsoil (for off-site use).
- Complete frac tank connections.

* Offsite soil volumes estimated based on approximately 12.5 yd^3 per loaded truck taken off-site.
** Offsite rock volumes estimated based on approximately 10 yd^3 per loaded truck taken off-site.

PROGRESS REPORT

Keystone Environmental Inspection Activities
Harley-Davidson Motor Company
York, Pennsylvania
SAIC Project No. 01-1633-00-1952

Reporting Period: Week of 10Dec01 – 14Dec01

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Site Preparations	•
• Subsoil excavation and filling.	• Stockpiling subsoil for off-site removal. • Finished stockpiling subsoil (approximately 13,500 cubic yards total) at on-site area (north of Bldg. 30). • Continued onsite filling near electric manholes (western site area).
• Utility installations	• Continued reinforcing and extending electric manholes on western side of site.
SAIC	
• H&S Monitoring	• Conducted daily H&S Monitoring; provided copies of breathing and background PID readings.
• Keystone groundwater treatment	• None.
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings (including weekly Keystone mtg.).
• Excavation monitoring/inspection	• Inspected subsoil excavation. • Sampled stockpiles for off-site removal.
• Support/Consulting Services	• Conducted water level and precipitation measurements. • See Action Items, below.

SAIC Personnel On-Site: Stephanie Pulaski, Shawn Eichelberger

General Contractor/Subcontractors: Dürr, Kinsley (w/ I. B. Abel [electric utility], LSC [surveyors]).

Visitors: None.

Meetings Conducted: Daily H&S; Keystone meeting.

Areas of Environmental Concern Identified: Pending review of sampling data and options, stockpile No. 3 cannot be transported offsite.

Samples Collected: Four soil samples (Soil Samples 3-2; 3-3; 3-4; 3-5) representing 1,000 cubic yards (cy) each, were collected during placement of one (5,000 cy) onsite stockpile (No. 3) for anticipated off-site removal.

Analytical Data Received: Laboratory results from sampling of onsite subsoil Stockpiles Nos. 1, 2, and 3 (one sample) was reviewed with Harley-Davidson [see attached summaries].

Estimated Offsite Shipments:	This Report Period	Contract To-Date
Topsoil (cubic yards[yd^3])*	0	20,850
Subsoil (yd^3)	0	0
Rock (yd^3)**	0	2,750

Groundwater Handling:	This Period	Contract To-Date
Groundwater Removed (gallons):	0	0
Groundwater Treated (gallons):	0	0

Issues and Concerns: Due to the lack of DEP approvals, shipments to the local quarry have been stopped.

Action Items:

- Harley-Davidson requested SAIC to provide a list of potential off-site disposal facilities for consideration in processing hazardous and/or non-hazardous wastes from this project. This list is in progress.
- A draft letter is in progress to notify the DEP of the planned treatment and discharge of groundwater from the Keystone site under existing NPDES permit PA 0085677.

Work Planned for Next Week (17Dec01-22Dec01):

General Contractor/Subcontractor(s)

- Site preparations.
- Continue subsoil removal and filling.
- Continue onsite stockpiling of subsoil (for onsite and off-site use).
- Continue rock ripping, offsite removal (pending authorization).
- Foundation contract (Bid Pack No.4) to be initiated – force main trenching, foundation excavation.
- Swale "C" excavation.

SAIC

- Excavation monitoring - subsoil removal; site preparations; foundation excavation, utility (force main) excavation, Swale "C" excavation.
- Continue precipitation and depth to groundwater measurements.
- Continue sampling stockpiled subsoil (for off-site use).
- Complete frac tank connections.

* Offsite soil volumes estimated based on approximately 12.5 yd^3 per loaded truck taken off-site.
** Offsite rock volumes estimated based on approximately 10 yd^3 per loaded truck taken off-site.

PROGRESS REPORT

Keystone Environmental Inspection Activities
Harley-Davidson Motor Company
York, Pennsylvania
SAIC Project No. 01-1633-00-1952

Reporting Period: Week of 17Dec01 – 28Dec01

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Site Preparations	• Continued adding topsoil to slopes. • Began regrading in Swale C.
• Subsoil excavation and filling.	• Continued stockpiling subsoil for off-site removal. • Began off-site removal of subsoil (Stockpile No. 1 & 2) to Kinsley's Orchard Business Park site.
• Utility installations	• Completed installation of force main to lift station. • Began excavation of lift station.
SAIC	
• H&S Monitoring	• Conducted daily H&S Monitoring; recorded breathing and background PID readings.
• Keystone groundwater treatment	• Completed connections for frac tank.
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings.
• Excavation monitoring/inspection	• Inspected subsoil excavations. • Sampled stockpiles for off-site removal.
• Support/Consulting Services	• Conducted water level and precipitation measurements. • See Action Items, below.

SAIC Personnel On-Site: Stephanie Pulaski, Charles Klinger, Bryan McGee, Paul Yesconis, Shawn Eichelberger, Rodney Myers

General Contractor/Subcontractors: Dürr, Kinsley (w/ I. B. Abel [electric utility], LSC [surveyors], BS&T [density measurement], Interlock [rebar]).

Visitors: None.

Meetings Conducted: Daily H&S.

Areas of Environmental Concern Identified: Pending review of sampling data and options, stockpile No. 3 cannot be transported offsite. A small area near the north end of force main excavation exhibited elevated PID readings. A small quantity (approximately 5 cubic yards) of soil was transported to the contaminated soil stockpile.

Samples Collected: Ten soil samples (Soil Sample 4-1; 4-2; 4-3; 4-4; 4-5; 5-1; 5-2; 5-3; 5-4; & 5-5) representing 1,000 cubic yards (cy) each, were collected during placement of two (5,000 cy) onsite stockpiles for anticipated off-site removal.

Analytical Data Received: Reanalysis results from soil Sample 3-1 were received (see attached summary).

Estimated Offsite Shipments:	This Report Period	Contract To-Date
Topsoil (cubic yards[yd^3])*	0	20,850
Subsoil (yd^3)*	6,563	6,563
Rock (yd^3)**	0	2,750

Groundwater Handling:	This Period	Contract To-Date
Groundwater Removed (gallons):	0	0
Groundwater Treated (gallons):	0	0

Issues and Concerns: Due to the lack of DEP approvals, shipments to the local quarry have been stopped.

Action Items:

- Harley-Davidson requested SAIC to provide a list of potential off-site disposal facilities for consideration in processing hazardous and/or non-hazardous wastes from this project. A draft list of potential hazardous and non-hazardous facilities will be submitted under separate cover.
- A letter was submitted on December 18, 2001 to notify the DEP of the planned treatment and discharge of groundwater from the Keystone site under existing NPDES permit PA 0085677.

Work Planned for Next Week (31Dec01-04Jan02):

General Contractor/Subcontractor(s)

- Site preparations.
- Remove onsite stockpile (No. 2) to Orchard Business Park Site (Kinsley).
- Foundation contract (Bid Pack No.4) to be continued – Lift station installation, foundation excavation.
- Swale "C" liner installation.

SAIC

- Excavation monitoring - subsoil removal; site preparations; foundation excavation, utility (lift station) excavation, Swale "C" excavation.
- Continue precipitation and depth to groundwater measurements.
- Continue sampling stockpiled subsoil (for off-site use).

* Offsite soil volumes estimated based on approximately 12.5 yd^3 per loaded truck taken off-site.
** Offsite rock volumes estimated based on approximately 10 yd^3 per loaded truck taken off-site.

PROGRESS REPORT

Keystone Environmental Inspection Activities
Harley-Davidson Motor Company
York, Pennsylvania
SAIC Project No. 01-1633-00-1952

Reporting Period: Week of 02Jan02 – 04Jan02

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Site Preparations	• Dug anchor trenches along Swale C.
• Subsoil excavation and filling.	• Continued stockpiling subsoil for off-site removal. • Completed off-site removal of subsoil (Stockpile No. 2) to Kinsley's Orchard Business Park site.
• Utility installations	• Continued installation of lift station.
SAIC	
• H&S Monitoring	• Conducted daily H&S Monitoring; recorded breathing and background PID readings.
• Keystone groundwater treatment	• None.
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings.
• Excavation monitoring/inspection	• Inspected subsoil excavations. • Sampled stockpiles for off-site removal.
• Support/Consulting Services	• Conducted water level and precipitation measurements. • See Action Items, below.

SAIC Personnel On-Site: Stephanie Pulaski, Paul Yesconis

General Contractor/Subcontractors: Dürr, Kinsley (w/ I. B. Abel [electric utility], LSC [surveyors], BS&T [density measurement], Interlock [rebar]).

Visitors: None.

Meetings Conducted: Daily H&S.

Areas of Environmental Concern Identified: Pending review of sampling data and options, stockpile No. 4 cannot be transported offsite. A significant quantity of debris was encountered during excavation of the eastern anchor trench adjacent to Swale C. Approximately 25 cubic yards of soil/debris was transported to the contaminated soil stockpile.

Samples Collected: Four soil samples (Soil Sample 6-1; 6-2; 6-3; 6-4) representing 1,000 cubic yards (cy) each, were collected during placement of one (4,000 cy) onsite stockpile for anticipated off-site removal.

Analytical Data Received: Soil Sample analysis results from soil Stockpiles 4 & 5 were received (see attached summaries).

Estimated Offsite Shipments:	This Report Period	Contract To-Date
Topsoil (cubic yards[yd^3])*	0	20,850
Subsoil (yd^3)*	3,925	10,488
Rock (yd^3)**	0	2,750

Groundwater Handling:	This Period	Contract To-Date
Groundwater Removed (gallons):	0	0
Groundwater Treated (gallons):	0	0

Issues and Concerns: Due to the lack of DEP approvals, shipments to the local quarry have been stopped.

Action Items:

- Harley-Davidson requested SAIC to provide a list of potential off-site disposal facilities for consideration in processing hazardous and/or non-hazardous wastes from this project. A draft list of potential hazardous and non-hazardous facilities will be submitted under separate cover.
- Bid specifications for providing electrical controls and power to the new lift station were requested from Harley-Davidson.

Work Planned for Next Week (07Jan02-13Jan02):

General Contractor/Subcontractor(s)

- Site preparations.
- Remove onsite stockpile (No. 5) to Orchard Business Park Site (Kinsley).
- Foundation contract (Bid Pack No.4) to be continued – Lift station installation, foundation excavation, begin sludge pit and deep groundwater collection trench excavation.

SAIC

- Excavation monitoring - subsoil removal; site preparations; foundation excavation, utility (lift station) excavation, deep groundwater trench excavation, sludge pit excavation.
- Continue precipitation and depth to groundwater measurements.
- Continue sampling stockpiled subsoil (for off-site use).

* Offsite soil volumes estimated based on approximately 12.5 yd^3 per loaded truck taken off-site.
** Offsite rock volumes estimated based on approximately 10 yd^3 per loaded truck taken off-site.

PROGRESS REPORT

Keystone Environmental Inspection Activities
Harley-Davidson Motor Company
York, Pennsylvania
SAIC Project No. 01-1633-00-1952

Reporting Period: Week of 02Jan02 – 12Jan02

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Site Preparations	• Dug anchor trenches along Swale C.
• Subsoil excavation and filling.	• Continued stockpiling subsoil for off-site removal. • Continued off-site removal of subsoil (Stockpile No. 2 & 5) to Kinsley's Orchard Business Park site.
• Utility installations	• Continued installation of lift station. • Began installation of deep drain.
SAIC	
• H&S Monitoring	• Conducted daily H&S Monitoring; recorded breathing and background PID readings.
• Keystone groundwater treatment	• None.
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings.
• Excavation monitoring/inspection	• Inspected subsoil excavations. • Inspected sludge pit and interior foundation pier excavations. • Inspected Swale C anchor trench installation.
• Support/Consulting Services	• Sampled stockpiles for off-site removal. • Conducted water level and precipitation measurements. • See Action Items, below.

SAIC Personnel On-Site: Stephanie Pulaski, Paul Yesconis, Rodney Myers, Steve Snyder, Barry Shirk

General Contractor/Subcontractors: Dürr, Kinsley (w/ I. B. Abel [electric utility], LSC [surveyors], BS&T [density measurement], Interlock [rebar]).

Visitors: DEP (Anthony Kar and Daniel Lapato) and Modern Landfill (Jim Kuhn and Fred Kober).

Meetings Conducted: Daily H&S; A meeting was conducted between Harley, SAIC, Nutec and I. B. Abel on January 7, 2001 to discuss electrical controls. The DEP and representatives from Modern Landfill visited the site on Jan. 8, 2002 to inspect stockpile 3.

Areas of Environmental Concern Identified: A significant quantity of debris was encountered during excavation of the eastern anchor trench adjacent to Swale C. Approximately 25 cubic yards of soil/debris was transported to the contaminated soil stockpile.

Samples Collected: Eight soil samples (Soil Sample 6-1; 6-2; 6-3; 6-4; 7-1; 7-2; 7-3; 7-4) representing 1,000 cubic yards (yd^3) each, were collected during placement of two stockpiles for anticipated off-site removal.

Analytical Data Received: Soil Sample analysis results from soil Stockpiles 4, 5 & 6 were received (see attached summaries).

Estimated Offsite Shipments:	This Report Period	Contract To-Date
Topsoil (cubic yards[yd^3])*	0	20,850
Subsoil (yd^3)*	6,463	13,025
Rock (yd^3)**	0	2,750

Groundwater Handling:	This Period	Contract To-Date
Groundwater Removed (gallons):	0	0
Groundwater Treated (gallons):	0	0

Issues and Concerns: Due to the lack of DEP approvals, shipments to the local quarry have been stopped. Based upon their inspection, the DEP has granted approval to Modern Landfill to accept onsite subsoil material as daily cover. Therefore, Kinsley was authorized to begin removing stockpile 3 to Modern Landfill. A bill of lading will be required for each truck of material, as proof of delivery to the landfill.

Action Items:

- Harley-Davidson requested SAIC to provide a list of potential off-site disposal facilities for consideration in processing hazardous and/or non-hazardous wastes from this project. Various qualification packages have been received. A draft list of potential waste disposal facilities is in preparation.
- SAIC was requested to design and construct the electrical power and control system for the groundwater dewatering system. This work will include installation of floats in the lift station, the control panel for the system (mounted at the lift station), alarming, connection to the existing groundwater control system, and permanent power connection which will be fed via an existing connection to Bldg. 41. SAIC was also requested to prepare a specification for installation of a well-head and water meter pit near the sludge pit.
- Information regarding proposed changes to the lift station was provided to SAIC for review/comment. Information about vendors who provide chemical protection of concrete was also provided.
- Information regarding installation of the Swale C geotextile in cold temperatures was provided upon request.
- A summary of pros and cons for use of various wastewater monitoring/control software was requested from SAIC. A summary of RSView® and Wonderware® features will be provided to Harley on January 15, 2002.
- SAIC was asked (1/11/02) to review specifications on the filter fabric proposed for the deep groundwater trench.

Work Planned for Next Week (14Jan02-19Jan02):

General Contractor/Subcontractor(s)

- Site preparations.
- Remove onsite stockpile (No. 4) to Orchard Business Park Site (Kinsley).
- Foundation contract (Bid Pack No.4) to be continued – Lift station installation, foundation excavation, sludge pit and deep groundwater collection trench excavation.
- Utility contract (Bid Pack 11 & 12) to be initiated – i.e. stormwater, sanitary sewer, gas installations.

SAIC

- Excavation monitoring - subsoil removal; site preparations; foundation excavation, utility (lift station) excavation, deep groundwater trench excavation, sludge pit excavation; utility pole; Swale C excavation.
- Continue precipitation and depth to groundwater measurements.
- Continue sampling stockpiled subsoil (for off-site use).

* Offsite soil volumes estimated based on approximately 12.5 yd^3 per loaded truck taken off-site.
** Offsite rock volumes estimated based on approximately 10 yd^3 per loaded truck taken off-site.

PROGRESS REPORT

Keystone Environmental Inspection Activities
Harley-Davidson Motor Company
York, Pennsylvania
SAIC Project No. 01-1633-00-1952

Reporting Period: Week of 14Jan02 – 26Jan02

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Site Preparations	• Relocated and installed new trailers. • Began excavation of stormwater basin No. 2.
• Subsoil excavation and filling.	• Continued stockpiling subsoil for off-site removal. • Continued off-site removal of subsoil (Stockpile No. 4, 5 & 7) to Kinsley's Orchard Business Park site. • Continued footer and interior pier excavation. • Completed sludge pit excavation.
• Utility installations	• Continued installation of deep drain. • Began excavation/installation of 48" stormwater pipe. • Began excavation/installation of 42" stormwater pipe. • Began excavation/installation of 8" domestic water line.
SAIC	
• H&S Monitoring	• Conducted daily H&S Monitoring; recorded breathing and background PID readings.
• Keystone groundwater treatment	• None.
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings.
• Excavation monitoring/inspection	• Inspected subsoil excavations. • Inspected sludge pit excavation. • Inspected interior pier and exterior foundation footer excavations. • Inspected utility excavations and stormwater basin No. 2 excavations.
• Support/Consulting Services	• Sampled stockpiles anticipated for off-site removal. • Conducted water level and precipitation measurements. • See Action Items, below.

SAIC Personnel On-Site: Stephanie Pulaski, Paul Yesconis, Matt Logan, Rodney Myers, Steve Snyder

General Contractor/Subcontractors: Dürr, Kinsley (w/ LSC [surveyors], BS&T [density measurement], Interlock [rebar]), Stewart & Tate, Inc.

Visitors: Springettsbury Township; Chip Gearhart (Earth Products Inc.?)

Meetings Conducted: Daily H&S; Weekly scheduling meeting.

Areas of Environmental Concern Identified: None.

Samples Collected: Eleven soil samples (Soil Sample 8-1; 8-2; 8-3; 8-4; 8-5; 9-1; 10-1; 10-2 and (3) rockpile screening samples) representing 1,000 cubic yards (yd^3) each, were collected during placement of four stockpiles for anticipated off-site removal.

Analytical Data Received: Soil Sample analysis results from soil Stockpiles 7 & 8, and rockpile screening samples were received (see attached summaries).

Estimated Offsite Shipments:	This Report Period	Contract To-Date
Topsoil (cubic yards[yd^3])*	0	20,850
Subsoil (yd^3)*	9,377	22,402
Rock (yd^3)**	0	2,750

Groundwater Handling:	This Period	Contract To-Date
Groundwater Removed (gallons):	0	0
Groundwater Treated (gallons):	0	0

Issues and Concerns: Due to the lack of DEP approvals, shipments to the local quarry have been stopped. Based upon their inspection, the DEP has granted approval to Modern Landfill to accept onsite subsoil material (Stockpile No. 3) as daily cover. Stockpile Nos. 6 and 8 are also under consideration for use as daily cover material. A bill of lading will be required for each truck of material, as proof of delivery to the landfill.

Action Items:

- Harley-Davidson requested SAIC to provide a list of potential off-site disposal facilities for consideration in processing hazardous and/or non-hazardous wastes from this project. Various qualification packages have been received. A draft list of potential waste disposal facilities is in preparation.
- SAIC was requested to design and construct the electrical power and control system for the groundwater dewatering system. This work will include installation of floats in the lift station, the control panel for the system (mounted at the lift station), alarming, connection to the existing groundwater control system, and permanent power connection which will be fed via an existing connection to Bldg. 41. SAIC was also requested to prepare a specification for installation of a well-head and water meter pit for the sludge pit well. A proposal for these services was submitted to Harley-Davidson.
- A summary of pros and cons for use of various wastewater monitoring/control software was requested from SAIC. A summary of RSView® and Wonderware® features were provided to Harley-Davidson.
- SAIC was asked (1/11/02) to review specifications on the filter fabric proposed for the deep groundwater trench. Specifications were reviewed and approved.

Work Planned for Next Week (28Jan02-02Feb02):

General Contractor/Subcontractor(s)

- Site preparations.
- Remove onsite stockpile (No. 7) to Orchard Business Park Site (Kinsley).
- Foundation contract (Bid Pack No.4) to be continued – Lift station installation, foundation excavation, sludge pit and deep groundwater collection trench excavations.
- Utility contract (Bid Pack 11 & 12) to be continued – i.e. stormwater basin, stormwater piping, domestic water, and sanitary sewer installations.

SAIC

- Excavation monitoring - subsoil removal; site preparations; foundation excavation, utility (lift station) excavation, deep groundwater trench excavation, toe drain excavation; Swale C liner installation.
- Continue precipitation and depth to groundwater measurements.
- Continue sampling stockpiled subsoil (for off-site use).

* Offsite soil volumes estimated based on approximately 12.5 yd^3 per loaded truck taken off-site.
** Offsite rock volumes estimated based on approximately 10 yd^3 per loaded truck taken off-site.

PROGRESS REPORT

Keystone Environmental Inspection Activities
Harley-Davidson Motor Company
York, Pennsylvania
SAIC Project No. 01-1633-00-1952

Reporting Period: Week of 28Jan02 – 9Feb02

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Site Preparations	• Continued excavation of stormwater basin No. 2. • Completed installation of Swale "C" liner.
• Subsoil excavation and filling.	• Continued stockpiling subsoil and rock for off-site removal. • Continued off-site removal of subsoil (Stockpile No. 7) to Kinsley's Orchard Business Park site. • Continued footer and interior pier excavation. • Sludge pit construction.
• Utility installations	• Completed installation of the Toe Drain. • Continued installation of deep drain. • Completed excavation/installation of 48" stormwater pipe. • Excavation/installation of 42" stormwater pipe. • Began excavation/installation of 36" stormwater pipe. • Began excavation/installation of 24" stormwater pipe. • Began excavation/installation of 18" stormwater pipe. • Excavation/installation of 8" domestic water line. • Began excavation/installation of fire protection line. • Began excavation/installation of 8" sanitary sewer pipe.
SAIC	
• H&S Monitoring	• Conducted daily H&S Monitoring; recorded breathing and background PID readings.
• Keystone groundwater treatment	• None.
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings.
• Excavation monitoring/inspection	• Inspected subsoil excavations. • Inspected interior pier and exterior foundation footer excavations. • Inspected utility excavations and stormwater basin No. 2 excavations. • Inspected groundwater extraction well installation (near sludge pit). • Inspected toe drain and deep drain installations. • Inspected Swale "C" liner installation.
• Support/Consulting Services	• Sampled stockpiles anticipated for off-site removal. • Conducted water level and precipitation measurements. • See Action Items, below.

SAIC Personnel On-Site: Stephanie Pulaski, Paul Yesconis, Matt Logan, Rodney Myers and Steve Snyder

General Contractor/Subcontractors: Dürr, Kinsley (w/ LSC [surveyors], BS&T [density measurement], Interlock [rebar], and Hallaton [Swale C installers]), Stewart & Tate, Inc.

Visitors: Springettsbury Township (footer installation inspection).

Meetings Conducted: Daily H&S; Weekly scheduling meeting.

Areas of Environmental Concern Identified: None.

Samples Collected: Seven soil samples (Soil Sample 10-3, 10-4, 10-5, 11-1, 11-2, 11-3, and 12-1 representing 1,000 cubic yards (yd^3) each, were collected during placement of three stockpiles for anticipated off-site removal.

Analytical Data Received: Soil Sample analysis results from soil Stockpiles 9 & 10 were received (see attached summary).

Estimated Offsite Shipments:	This Report Period	Contract To-Date
Topsoil (cubic yards[yd^3])*	0	20,850
Subsoil (yd^3)*	1,513	23,914
Rock (yd^3)**	0	2,750

Groundwater Handling:	This Period	Contract To-Date
Groundwater Removed (gallons):	0	0
Groundwater Treated (gallons):	0	0

Issues and Concerns: Two small sinkholes were identified during excavation of stormwater basin No. 2. Stewart & Tate are being advised by NuTec to address this issue. Due to the lack of DEP approvals, shipments to the local quarry have been stopped. Based upon Harley-Davidson request, the DEP has granted approval to Modern Landfill to accept onsite subsoil material from Stockpiles No. 3, 6, & 8 as daily cover. A bill of lading will be required for each truck of material, as proof of delivery to the landfill.

Action Items:

- Harley-Davidson requested SAIC to provide a list of potential off-site disposal facilities for consideration in processing hazardous and/or non-hazardous wastes from this project. A draft list of potential waste disposal facilities was reviewed with Harley-Davidson.
- SAIC was requested to design and construct the electrical power and control system for the groundwater dewatering system. This work will include installation of floats in the lift station, the control panel for the system (mounted at the lift station), alarming, connection to the existing groundwater control system, and permanent power connection which will be fed via an existing connection to Bldg. 41. SAIC was also requested to prepare a specification for installation of a wellhead and water meter pit for the sludge pit well. A proposal for these services was submitted to Harley-Davidson. Duane Reeve called Steve Snyder to ask that work not be performed until issues are resolved with Dürr.
- SAIC drafted a letter to the PADEP on Harley-Davidson's behalf to request approval of Stockpile No. 8 as daily cover at Modern Landfill. Harley-Davidson submitted the letter on February 1, 2002; approval was received verbally by PADEP.

Work Planned for Next Week (11Feb02-17Feb02):

General Contractor/Subcontractor(s)

- Site preparations.
- Remove onsite stockpile (No. 3, 6, & 8) to Modern Landfill.
- Remove onsite stockpile (No. 9) to Orchard Business Park Site (Kinsley).
- Foundation contract (Bid Pack No.4) to be continued – Lift station installation, foundation & pier excavations, sludge pit and deep groundwater collection trench excavations; completion of Swale "C".
- Utility contract (Bid Pack 11 & 12) to be continued – i.e. stormwater basin, stormwater piping, domestic water, fire protection line and sanitary sewer installations.

SAIC

- Excavation monitoring - subsoil removal; site preparations; foundation excavation, utility (lift station) excavation, deep groundwater trench excavation, Swale C installation completion.
- Continue precipitation and depth to groundwater measurements.
- Continue sampling stockpiled subsoil (for off-site use).

* Offsite soil volumes estimated based on approximately 12.5 yd^3 per loaded truck taken off-site.
** Offsite rock volumes estimated based on approximately 10 yd^3 per loaded truck taken off-site.

PROGRESS REPORT

Keystone Environmental Inspection Activities
Harley-Davidson Motor Company
York, Pennsylvania
SAIC Project No. 01-1633-00-1952

Reporting Period: Week of 11Feb02 – 22Feb02

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Site Preparations	• Completed stormwater basin No. 2. • Began stormwater basin No. 1 enlargement. • Continued placement of topsoil in some areas.
• Subsoil excavation and filling.	• Continued stockpiling subsoil and rock for off-site removal. • Continued off-site removal of subsoil (Stockpile Nos. 9 &10) and rock to Kinsley's Orchard Business Park site. • Removed subsoil stockpile No. 8 to Modern Landfill. • Continued footer and interior pier excavations.
• Utility installations	• Completed installation of the deep drain. • Completed excavation/installation of 42" stormwater pipe. • Continued excavation/installation of 36" stormwater pipe. • Began installation of 30" stormwater pipe. • Continued excavation/installation of 24" stormwater pipe. • Continued excavation/installation of 18" stormwater pipe. • Continued installation of 8" domestic water line. • Continued excavation/installation of fire protection line. • Continued excavation/installation of 8" sanitary sewer pipe. • Began excavation/installation of 12" stormwater pipe. • Lift station connected; piping pressure tested; pump installed.
SAIC	
• H&S Monitoring	• Conducted daily H&S Monitoring; recorded breathing and background PID readings.
• Keystone groundwater treatment	• None.
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings.
• Excavation monitoring/inspection	• Inspected subsoil excavations. • Inspected interior pier and exterior foundation footer excavations. • Inspected utility excavations and stormwater basin No. 2 excavations. • Inspected deep drain installations.
• Support/Consulting Services	• Sampled stockpiles anticipated for off-site removal. • Conducted water level and precipitation measurements. • See Action Items, below.

SAIC Personnel On-Site: Stephanie Pulaski, Paul Yesconis, Charles Klinger, Rodney Myers and Steve Snyder

General Contractor/Subcontractors: Dürr, Kinsley (w/ LSC [surveyors], BS&T [density measurement], Interlock [rebar]), Stewart & Tate, Inc. (w/ Leader Heights [landscapers])

Visitors: Springettsbury Township (footer installation inspection).

Meetings Conducted: Daily H&S; Weekly scheduling meeting.

Areas of Environmental Concern Identified: None.

Samples Collected: Fourteen soil samples (Soil Samples 11-4, 11-5, 12-2, 12-3, 13-1, 13-2, 13-3, 13-4, 13-5, 14-1, 14-2, 14-3, 14-4, & 14-5) representing 1,000 cubic yards (yd^3) each, were collected during placement of four stockpiles for anticipated off-site removal.

Analytical Data Received: Soil Sample analysis results from soil Stockpile Nos. 10 & 11 were received (see attached summaries).

Estimated Offsite Shipments:	This Report Period	Contract To-Date
Topsoil (cubic yards[yd^3])*	0	20,850
Subsoil (yd^3)*	8,392	32,306
Rock (yd^3)**	870	3,620

Groundwater Handling:	This Period	Contract To-Date
Groundwater Removed (gallons):	0	0
Groundwater Treated (gallons):	0	0

Issues and Concerns: Due to the lack of DEP approvals, shipments to the local quarry have been stopped. Based upon Harley-Davidson request, the DEP has granted approval to Modern Landfill to accept onsite subsoil material from Stockpiles No. 3, 6, & 8 as daily cover. Stockpiles No. 3 & 6 have since been designated to remain on-site. Two samples from Stockpile No. 11 exceeded the Safe Fill Numerical Standard for arsenic (see attached summary). Per Harley-Davidson request, this data was provided to Modern Landfill and the PADEP to initiate a request for approval for use as daily cover at Modern Landfill. A bill of lading will be required for each truck of material, as proof of delivery to the landfill. Daily contractor coordination meetings were discontinued in lieu of weekly (3-week look-ahead) meetings. Due to inconsistencies in maintaining and coordinating these schedules, the daily meetings have resumed.

Action Items:

- SAIC was requested to design and construct the electrical power and control system for the groundwater dewatering system. This work will include installation of floats in the lift station, the control panel for the system (mounted at the lift station), alarming, connection to the existing groundwater control system, and permanent power connection which will be fed via an existing connection to Bldg. 41. SAIC was also requested to prepare a specification for installation of a wellhead and water meter pit for the sludge pit well. A proposal for these services was submitted to Harley-Davidson. Duane Reeve called Steve Snyder to ask that work not be performed until issues are resolved with Dürr.

- Per Harley-Davidson request, SAIC provided data from Stockpile No. 11 to Modern Landfill and the PADEP to initiate a request for approval for use as daily cover at Modern Landfill. A formal request from the landfill to PADEP is anticipated.

Work Planned for Next Period (25Feb02-09Mar02):

General Contractor/Subcontractor(s)

- Site preparations.
- Remove onsite stockpile (No. 11) to Modern Landfill.
- Remove onsite stockpile (No. 12, 13, 14) to Orchard Business Park Site (Kinsley).
- Foundation contract (Bid Pack No.4) to be continued – Lift station connections, foundation & pier excavations.
- Utility contract (Bid Pack 11 & 12) to be continued – i.e. stormwater basin, stormwater piping, domestic water, fire protection line and sanitary sewer installations.
- Initiate sampling/processing of contaminated soil stockpile.

SAIC

- Excavation monitoring - subsoil removal; site preparations; foundation excavation, utility excavations.
- Continue precipitation and depth to groundwater measurements.
- Continue sampling stockpiled subsoil (for off-site use).

* Offsite soil volumes estimated based on approximately 12.5 yd^3 per loaded truck taken off-site.
** Offsite rock volumes estimated based on approximately 10 yd^3 per loaded truck taken off-site.

PROGRESS REPORT

Keystone Environmental Inspection Activities
Harley-Davidson Motor Company
York, Pennsylvania
SAIC Project No. 01-1633-00-1952

Reporting Period: Week of 25Feb02 – 8Mar02

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Site Preparations	• Completed stormwater basin No. 1 enlargement & seeding. • Continued placement of topsoil in some areas. • Began Bid Pack No. 5 – steel erection.
• Subsoil excavation and filling.	• Continued off-site removal of subsoil (Stockpile Nos. 11 & 13) to Modern Landfill and Kinsley's Orchard Business Park site, respectively. • Continued footer and interior pier excavations.
• Utility installations	• Continued excavation/installation of 30" stormwater pipe. • Continued excavation/installation of 24" stormwater pipe. • Continued excavation/installation of 18" stormwater pipe. • Continued excavation/installation of fire protection line. • Continued excavation/installation of 8" sanitary sewer pipe.
SAIC	
• H&S Monitoring	• Conducted daily H&S Monitoring; recorded breathing and background PID readings.
• Keystone groundwater treatment	• None.
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings.
• Excavation monitoring/inspection	• Inspected subsoil excavations. • Inspected interior pier and exterior foundation footer excavations. • Inspected utility excavations and stormwater basin No. 1 excavations.
• Support/Consulting Services	• Conducted water level and precipitation measurements. • See Action Items, below.

SAIC Personnel On-Site: Stephanie Pulaski, Paul Yesconis, Rodney Myers and Steve Snyder

General Contractor/Subcontractors: Dürr (w/ Powell Steel), Kinsley (w/ LSC [surveyors], BS&T [density measurement], Interlock [rebar]), Stewart & Tate, Inc. (w/ Leader Heights [landscapers])

Visitors: Springettsbury Township (footer installation inspection).

Meetings Conducted: Daily H&S; Weekly scheduling meeting; paint sludge pit well design and stormwater waterproofing meeting was conducted on March 4, 2002.

Areas of Environmental Concern Identified: None.

Samples Collected: None. One sample from stockpile No. 12 was submitted for reanalysis.

Analytical Data Received: Soil Sample analysis results from soil Stockpile Nos. 12, 13 & 14 were received (see attached summaries).

Estimated Offsite Shipments:	This Report Period	Contract To-Date
Topsoil (cubic yards[yd^3])*	0	20,850
Subsoil (yd^3)*	7,614	39,920
Rock (yd^3)**	0	3,620

Groundwater Handling:	This Period	Contract To-Date
Groundwater Removed (gallons):	0	0
Groundwater Treated (gallons):	0	0

Issues and Concerns: Due to the lack of DEP approvals, shipments to the local quarry have been stopped. Based upon Harley-Davidson request, the DEP has granted approval to Modern Landfill to accept onsite subsoil material from Stockpiles No. 3, 6, 8, & 11 as daily cover. Stockpiles No. 3 & 6 have since been designated to remain on-site. Soil stockpile No. 14 is under consideration for acceptance by Modern Landfill for daily cover. Dusty conditions continue to be a concern during dry weather conditions. During excavation of stormwater basin No. 1, an existing well (MW-88) was bumped and slightly damaged. This well must be protected, any damage repaired, and an extension added to avoid future impacts from this basin.

Action Items:

- SAIC was requested to design and construct the electrical power and control system for the groundwater dewatering system. This work will include installation of floats in the lift station, the control panel for the system (mounted at the lift station), alarming, connection to the existing groundwater control system, and a permanent power connection that will be fed via an existing connection to Bldg. 41. SAIC was also requested to prepare a specification for installation of a wellhead and water meter pit for the sludge pit well. A proposal for these services was submitted to Harley-Davidson. Duane Reeve called Steve Snyder to ask that work not be performed until issues are resolved with Dürr.
- SAIC was requested to provide a proposal for investigation of the planned sanitary sewer easement on the U.S. Army Reserve facility. A draft of this proposal was submitted to Harley-Davidson on March 8, 2002.

Work Planned for Next Period (11Mar02-22Mar02):

General Contractor/Subcontractor(s)

- Site preparations.
- Remove onsite stockpiles (No. 11 & 14) to Modern Landfill.
- Foundation contract (Bid Pack No.4) to be continued – Lift station connections, foundation & pier excavations.
- Utility contract (Bid Pack 11 & 12) to be continued – i.e. stormwater basin, stormwater piping, domestic water, fire protection line, gas line and sanitary sewer installations.
- Continue Bid Pack No. 5 – steel erection.
- Begin blasting of rock upper (east) parking lot for grade and for installation of stormwater sewer pipe.
- Initiate sampling/processing of contaminated soil stockpile.

SAIC

- *Excavation monitoring - subsoil removal; site preparations; foundation excavation, utility excavations.*
- Continue precipitation and depth to groundwater measurements.
- Continue sampling stockpiled subsoil (for off-site use).

* Offsite soil volumes estimated based on approximately 12.5 yd^3 per loaded truck taken off-site.
** Offsite rock volumes estimated based on approximately 10 yd^3 per loaded truck taken off-site.

PROGRESS REPORT

Keystone Environmental Inspection Activities
Harley-Davidson Motor Company Operations, Inc. Report No. 19
York, Pennsylvania
SAIC Project No. 01-1633-00-1952

Reporting Period: Week of 11Mar02 – 23Mar02

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Site Preparations	• Continued Bid Pack No. 5– steel erection sequences 3 & 9.
• Subsoil excavation and filling.	• Finished off-site removal of subsoil (Stockpile Nos. 11 & 13) to Modern Landfill and Kinsley's Orchard Business Park site, respectively. • Continued footer and interior pier excavations.
• Utility installations	• Drill and blast bedrock; install 12" stormwater pipe. • Continued excavation/installation of 30" stormwater pipe. • Finished excavation/installation of 24" stormwater pipe. • Continued excavation/installation of 18" stormwater pipe. • Continued excavation/installation of 12" stormwater pipe. • Continued excavation/installation of fire protection line. • Finishedexcavation/installation of 8" sanitary sewer pipe. • Finished excavation/installation of 10" sanitary sewer pipe. • Performed tightness testing of lift station force main following repairs at break near outlet of stormwater basin No. 3. • Excavation/installation of natural gas line.
SAIC	
• H&S Monitoring	• Conducted daily H&S Monitoring; recorded breathing and background PID readings.
• Keystone groundwater treatment	• None.
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings.
• Excavation monitoring/inspection	• Inspected subsoil excavations. • Inspected interior pier and exterior foundation footer excavations. • Inspected utility excavations and stormwater basin No. 3 excavations.
• Support/Consulting Services	• Conducted water level and precipitation measurements. • See Action Items, below.

SAIC Personnel On-Site: Stephanie Pulaski, Paul Yesconis, Charles Klinger, and Rodney Myers

General Contractor/Subcontractors: Dürr (w/ Powell Steel), Kinsley (w/ LSC [surveyors], BS&T [density measurement], Interlock [rebar]), Stewart & Tate, Inc. (w/D.C.Guelich Inc [drillers]

Visitors: Springettsbury Township (footer installation inspection).

Meetings Conducted: Daily H&S.

Areas of Environmental Concern Identified: A leak on the blasting drill rig was discovered by SAIC. A small quantity (<1 cu. yd) of soil was affected. The soil was scooped up and placed on the contaminated soil stockpile pad. Two truckloads of soil from the Box culvert 'B' installation was also stockpiled on the pad.

Samples Collected: None.

Analytical Data Received: Reanalysis results from soil Stockpile No. 12 was received (see attached summary).

Estimated Offsite Shipments:	*This Report Period*	*Contract To-Date*
Topsoil (cubic yards[yd^3])*	0	20,850
Subsoil (yd^3)*	2,713	44,899
Rock (yd^3)**	0	3,620

Note: The total subsoil volume reflected in the contract-to-date column reflects an additional 2,266 yd^3 not reported in the last progress report (No. 18).

Groundwater Handling:	This Period	Contract To-Date
Groundwater Removed (gallons):	0	0
Groundwater Treated (gallons):	0	0

Issues and Concerns: Due to the lack of DEP approvals, shipments to the local quarry have been stopped. Based upon Harley-Davidson request, the DEP has granted approval to Modern Landfill to accept onsite subsoil material from Stockpiles No. 3, 6, 8, 11, & 14 as daily cover. Stockpiles No. 3 & 6 have since been designated to remain on-site. Dusty conditions continue to be a concern during dry weather conditions. A design change is needed to address the lift station force main, which was encountered during excavation for culvert box 'B' on 3/23/02. The covers on several stockpiles in the soil staging area were observed in poor condition. These covers should be repaired/replaced and the area regularly inspected and maintained as needed.

Action Items:

- SAIC was requested to design and construct the electrical power and control system for the groundwater dewatering system. This work will include installation of floats in the lift station, the control panel for the system (mounted at the lift station), alarming, connection to the existing groundwater control system, and a permanent power connection that will be fed via an existing connection to Bldg. 41. SAIC was also requested to prepare a specification for installation of a wellhead and water meter pit for the sludge pit well. A proposal for these services was submitted to Harley-Davidson. Duane Reeve called Steve Snyder to ask that work not be performed until issues are resolved with Dürr.
- SAIC was requested to provide a proposal for investigation of the planned sanitary sewer easement on the U.S. Army Reserve facility. The proposal for this work was submitted to Harley-Davidson on March 14, 2002.
- SAIC was requested to provide a proposal for environmental inspection during installation of the planned electrical sub-station.

Work Planned for Next Period (25Mar02-05Apr02):

General Contractor/Subcontractor(s)

- Site preparations.
- Remove onsite stockpiles (No. 14) to Modern Landfill.
- Foundation contract (Bid Pack No.4) to be continued – Lift station connections, foundation & pier excavations.
- Utility contract (Bid Pack 11 & 12) to be continued – i.e. stormwater piping, fire protection line, gas line and sanitary sewer installations.
- Continue Bid Pack No. 5 – steel erection.
- Continue blasting of rock upper (east) parking lot for grade and for installation of stormwater sewer pipe.

SAIC

- Excavation monitoring - subsoil removal; site preparations; foundation excavation, utility excavations.
- Continue precipitation and depth to groundwater measurements.
- Continue sampling stockpiled subsoil (for off-site use).
- Initiate sampling/processing of contaminated soil stockpile.
- Environmental oversight of the substation pad excavation/installation.

* Offsite soil volumes estimated based on approximately 12.5 yd^3 per loaded truck taken off-site.
** Offsite rock volumes estimated based on approximately 10 yd^3 per loaded truck taken off-site.

PROGRESS REPORT
Keystone Environmental Inspection Activities
Harley-Davidson Motor Company Operations, Inc. Report No. 20
York, Pennsylvania
SAIC Project No. 01-1633-00-1952

Reporting Period: Week of 25Mar02 – 06Apr02

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Site Preparations	• Continued Bid Pack No. 5– steel erection sequences 3, 9 & 10. • Began topsoil removal and preparations for substation construction. • Drilling in preparation for further blasting of bedrock in the overflow parking area.
• Subsoil excavation and filling.	• Continued off-site removal of subsoil (Stockpile No. 14) to Modern Landfill. • Continued excavating footers, interior piers, scrap tunnel and press/pit excavations.
• Utility installations	• Finished excavation/installation of 18" and 24" stormwater pipe. • Began excavation for 36" stormwater pipe in the electrical substation area. • Began excavation/installation of fire protection line in substation area; continued elsewhere. • Finished excavation/installation of natural gas line. • Excavated and installed box culvert B and swale • Excavation and installation of downspouts.
SAIC	
• H&S Monitoring	• Conducted daily H&S Monitoring; recorded breathing and background PID readings.
• Keystone groundwater treatment	• The frac tank was pumped, emptied, cleaned, and disassembled. All water was discharged to the onsite treatment system. • Pumping from the lift station was tested and initiated. SAIC provided support to make temporary electric connections and a portable generator to power the pump. All water was discharged to the onsite treatment system.
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings.
• Excavation monitoring/inspection	• Began inspection of electrical substation construction including topsoil removal, fencing and stormwater preparations. • Inspected subsoil excavations. • Inspected interior pier and exterior foundation footer excavations. • Inspected Schuler pit and scrap tunnel excavations. • Inspected utility excavations and box culvert B installation.
• Support/Consulting Services	• Conducted water level and precipitation measurements. • See Action Items, below.

SAIC Personnel On-Site: Stephanie Pulaski, Paul Yesconis, Charles Klinger, Matt Logan and Rodney Myers

General Contractor/Subcontractors: Dürr (w/ Powell Steel), Kinsley (w/ LSC [surveyors], BS&T [density measurement], Interlock [rebar]), Stewart & Tate, Inc. (w/D.C.Guelich Inc [drillers])

Visitors: None.

Meetings Conducted: Daily H&S.

Areas of Environmental Concern Identified:

- A leak was observed at a connection from the frac tank to the force main and gravity drain connection to the groundwater treatment system. The leak was repaired.
- A seep was observed along the slope in the northeast corner of the site on April 5, 2002.

Samples Collected: Two soil samples were collected from the culvert box 'B' area..

Analytical Data Received: Results from the culvert box 'B' area soil sampling were received (see attached summary).

Estimated Offsite Shipments:	This Report Period	Contract To-Date
Topsoil (cubic yards[yd^3])*	0	20,850
Subsoil (yd^3)*	2,900	47,799
Rock (yd^3)**	0	3,620

Groundwater Handling:	This Period	Contract To-Date
Groundwater Removed (gallons):	2,320	2,320
Groundwater Treated (gallons):	2,320	2,320

Issues and Concerns:

- Soil shipments to Modern landfill have been stopped. The material is no longer considered suitable for use as daily cover due to the high percentage of rock to soil and the large size of the rock fragments. At this point in time no soil or rock has approval from Harley to leave the site. Approximately 2,000 yards of this material remain from Stockpile No. 14, and an undetermined amount will be generated following blasting.
- A design change is needed to address the lift station force main, which was encountered during excavation for culvert box 'B' on 3/23/02. The lift station does not have permanent power, or controls established.
- The covers on several stockpiles in the soil staging area were observed in poor condition. These covers should be repaired/replaced and the area regularly inspected and maintained as needed.

Issues and Concerns (continued):

- A seep was observed along the slope in the northeast corner of the site on April 5, 2002. Due to the potential for encountering contaminated groundwater from this seep, the area has been staked and caution ribbon has been placed around the area to keep personnel and equipment out of this suspect area. The seep has not migrated beyond the existing toe drain, and will be monitored for any change.

Action Items:

- SAIC was requested to design and construct the electrical power and control system for the groundwater dewatering system. This work will include installation of floats in the lift station, the control panel for the system (mounted at the lift station), alarming, connection to the existing groundwater control system, and a permanent power connection that will be fed via an existing connection to Bldg. 41. SAIC was also requested to prepare a specification for installation of a wellhead and water meter pit for the sludge pit well. A proposal for these services was submitted to Harley-Davidson. Various issues are being reviewed.
- SAIC was requested to provide a proposal for investigation of the planned sanitary sewer easement on the U.S. Army Reserve facility. A proposal for this work was submitted to Harley-Davidson on March 14, 2002.
- SAIC was authorized to begin inspection of the electrical sub-station construction activities on March 28, 2002.

Work Planned for Next Period (06Apr02-19Apr02):

General Contractor/Subcontractor(s)

- Site preparations.
- Foundation contract (Bid Pack No.4) to be continued – Lift station connections, foundation & pier excavations.
- Utility contract (Bid Pack 11 & 12) to be continued – i.e. stormwater piping, fire protection line, gas line and sanitary sewer installations.
- Continue Bid Pack No. 5 – steel erection.
- Continue blasting of rock upper (east) parking lot for grade and for installation of stormwater sewer pipe.

SAIC

- Excavation monitoring - subsoil removal; blasting; site preparations; foundation excavation, utility excavations.
- Continue precipitation and depth to groundwater measurements.
- Continue sampling stockpiled subsoil (for off-site use).
- Initiate sampling/processing of contaminated soil stockpile.
- Environmental oversight of the substation pad excavation/installation.

* Offsite soil volumes estimated based on approximately 12.5 yd^3 per loaded truck taken off-site.
** Offsite rock volumes estimated based on approximately 10 yd^3 per loaded truck taken off-site.

PROGRESS REPORT

Keystone Environmental Inspection Activities
Harley-Davidson Motor Company Operations, Inc. Report No. 21
York, Pennsylvania
SAIC Project No. 01-1633-00-1952

Reporting Period: Week of 08Apr – 21Apr02

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Site Preparations	• Continued Bid Pack No. 5– steel erection. • Finished site preparations for substation construction. • Blasted bedrock in the overflow parking area. • Removed and stockpiled blasted material from the overflow parking area.
• Subsoil excavation and filling.	• Continued excavating footers, interior piers, scrap tunnel and press/pit excavations. • Finished filling substation to final grade.
• Utility installations	• Finished excavation for 36" stormwater pipe in the electrical substation area. • Finished excavation/installation of fire protection line in substation area; finished elsewhere. • Finished excavation and installation of domestic water connection at Eden Road • Continued excavation and installation of downspouts.
SAIC	
• H&S Monitoring	• Conducted daily H&S Monitoring; recorded breathing and background PID readings.
• Keystone groundwater treatment	• The frac tank was removed from the site. • A rental generator was mobilized to power the lift station. • Periodic manual water level measurements and pumping from the lift station continued. All water was discharged to the onsite treatment system.
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings.
• Excavation monitoring/inspection	• Inspected subsoil excavations. • Inspected interior pier and exterior foundation footer excavations. • Inspected Schuler pit and scrap tunnel excavations. • Inspected utility excavations.
• Support/Consulting Services	• Conducted water level and precipitation measurements. • See Action Items, below.

SAIC Personnel On-Site: Stephanie Pulaski, Paul Yesconis, Charles Klinger, Stephen Snyder

General Contractor/Subcontractors: Dürr (w/ Powell Steel), Kinsley (w/ LSC [surveyors] and J.Roy [blasters], BS&T [density measurement], Interlock [rebar]), Stewart & Tate, Inc

Visitors: None.

Meetings Conducted: Daily H&S; meeting on 4/8/02 to review various design issues and inspect seep.

Areas of Environmental Concern Identified:

- A seep was observed along the slope in the northeast corner of the site on April 5, 2002. Additional seeps in this area have been observed as rains continue.

Samples Collected: One water sample was collected from the seep in the northeast corner of the slope.

Analytical Data Received: Results from the seep water sample were received (see attached copy of laboratory report).

Estimated Offsite Shipments:	This Report Period	Contract To-Date
Topsoil (cubic yards[yd^3])*	0	20,850
Subsoil (yd^3)*	0	47,799
Rock (yd^3)**	0	3,620

Groundwater Handling:	This Period	Contract To-Date
Groundwater Removed (gallons):	3,100	5,420
Groundwater Treated (gallons):	3,100	5,420

Issues and Concerns:

- A seep discovered in the northeast corner of the slope above the toe drain is expanding and more wet areas are becoming evident. The water collected from the seep was analyzed for VOCs was found to contain trichloroethene (TCE), tetrachloroethene (PCE), and 1,1,1-trichlorethane (1,1,1-TCA). The TCE was detected above the EPA drinking water standard.
- Drillers anticipated to mobilize to the electrical substation area were not OSHA trained for hazardous waste operations.
- Soil shipments to Modern landfill have been stopped. The material is no longer considered suitable for use as daily cover due to the high percentage of rock to soil and the large size of the rock fragments. At this point in time no soil or rock has approval from Harley to leave the site. Approximately 2,000 yards of this material remain from Stockpile No. 14, and an undetermined amount will be generated following blasting.
- A design change is needed to address the lift station force main, which was encountered during excavation for culvert box 'B' on 3/23/02.
- The lift station does not have permanent power, or controls established. SAIC has been using a rental generator to pump water from the lift station to the groundwater treatment system when manual water level measurements in the lift station are above the deep drain elevation.
- The covers on several stockpiles in the soil staging area were observed in poor condition. These covers should be repaired/replaced and the area regularly inspected and maintained as needed.

Action Items:

- SAIC was requested to design and construct the electrical power and control system for the groundwater dewatering system. This work will include installation of floats in the lift station, the control panel for the system (mounted at the lift station), alarming, connection to the existing groundwater control system, and a permanent power connection that will be fed via an existing connection to Bldg. 41. SAIC was also requested to prepare a specification for installation of a wellhead and water meter pit for the sludge pit well. A proposal for these services was submitted to Harley-Davidson. Various issues are being reviewed. SAIC was contacted by NuTec on April 16, 2002 to complete the design for the groundwater control system. A cost estimate was provided to NuTec, and verbal authorization was given for SAIC to proceed.
- SAIC provided reviews of various design issues associated with the Keystone dewatering system. This work in included review of the force main modifications, manhole, and blow-off designs.
- SAIC was requested to provide a proposal for investigation of the planned sanitary sewer easement on the U.S. Army Reserve facility. A proposal for this work was submitted to Harley-Davidson on March 14, 2002.
- Stockpiles and waste located on the engineered soil stockpile area were mapped and measured.

Work Planned for Next Period (22Apr02-04May02):

General Contractor/Subcontractor(s)

- Site preparations.
- Foundation contract (Bid Pack No.4) to be continued – Lift station connections, foundation & pier excavations.
- Utility contract (Bid Pack 11 & 12) to be continued – i.e. stormwater piping
- Continue Bid Pack No. 5 – steel erection.

SAIC

- Excavation monitoring - subsoil removal; site preparations; foundation excavation, utility excavations.
- Continue precipitation and depth to groundwater measurements..
- Continue sampling stockpiled subsoil (for off-site use).
- Initiate sampling/processing of contaminated soil stockpile.
- Environmental oversight of the substation pad drilling/excavation/installation.

* Offsite soil volumes estimated based on approximately 12.5 yd^3 per loaded truck taken off-site.
** Offsite rock volumes estimated based on approximately 10 yd^3 per loaded truck taken off-site.

PROGRESS REPORT

Keystone Environmental Inspection Activities
Harley-Davidson Motor Company Operations, Inc.
York, Pennsylvania
SAIC Project No. 01-1633-00-1952

Reporting Period: Week of 22Apr – 4May02

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Site Preparations	• Continued Bid Pack No. 5– steel erection. • Began seeding and matting of eastern upper and lower slopes.
• Subsoil excavation and filling.	• Continued excavating footers, interior piers, and press/pit excavations.
• Utility installations	• Began installation of building grounding. • Finished installation and backfilling around gas meter pit. • Continued excavation and installation of downspouts. • Finished excavation/installation of 12" stormwater pipe in the overflow parking. • Excavation and installation of force main and electrical conduit from lift station to sludge pit.
SAIC	
• H&S Monitoring	• Conducted daily H&S Monitoring; recorded breathing and background PID readings.
• Keystone groundwater treatment	• A rental generator was mobilized to power the lift station. • Periodic manual water level measurements from the lift station continued. No water was discharged to the onsite treatment system during this reporting period.
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings.
• Excavation monitoring/inspection	• Inspected subsoil excavations. • Inspected interior pier and exterior foundation footer excavations. • Inspected Schuler pit and scrap tunnel excavations. • Inspected utility excavations.
• Support/Consulting Services	• Conducted water level and precipitation measurements. • See Action Items, below.

SAIC Personnel On-Site: Stephanie Pulaski, Matt Logan, Stephen Snyder

General Contractor/Subcontractors: Dürr (w/ Powell Steel), Columbia Gas, Kinsley (w/ LSC [surveyors], Davis [landscapers], BS&T [density measurement], Interlock [rebar]), Barton Electrical, Stewart & Tate, Inc (w/ Leader Height Nursery [landscapers]

Visitors: None.

Meetings Conducted: Daily H&S; Seep discussion (4/23/02)

Areas of Environmental Concern Identified:

- A seep was observed along the slope in the northeast corner of the site on April 5, 2002. Additional seeps in this area have been observed as rains continue.

Samples Collected: Four soil samples were collected from contaminated soil stockpile pad and analyzed for VOCs, priority pollutant metals, and cyanide.

Analytical Data Received: None.

Estimated Offsite Shipments:	This Report Period	Contract To-Date
Topsoil (cubic yards[yd^3])*	0	20,850
Subsoil (yd^3)*	0	47,799
Rock (yd^3)**	0	3,620

Groundwater Handling:	This Period	Contract To-Date
Groundwater Removed (gallons):	0	5,420
Groundwater Treated (gallons):	0	5,420

Issues and Concerns:

- A seep discovered in the northeast corner of the slope above the toe drain is expanding and more wet areas are becoming evident. As a follow-up to a meeting held 4/23/02, additional monitoring will be conducted and additional samples will be collected in locations which were created in several new wet areas along the slope. The collection points are being monitored and will be sampled once adequate water collects.
- Soil shipments to Modern landfill have been stopped. The material is no longer considered suitable for use as daily cover due to the high percentage of rock to soil and the large size of the rock fragments. At this point in time no soil or rock has approval from Harley to leave the site. Approximately 2,000 yards of this material remain from Stockpile No. 14, and approximately 6,000 cubic yards have been generated from the last blasting effort in the overflow parking area.
- A design change is needed to address the lift station force main, which was encountered during excavation for culvert box 'B' on 3/23/02.
- The lift station does not have permanent power, or controls established. SAIC has been using a rental generator to pump water from the lift station to the groundwater treatment system when manual water level measurements in the lift station are above the deep drain elevation.

Action Items:

- SAIC provided a design for the Keystone groundwater dewatering system and sludge pit well controls to NuTec under a separate contract to them for this work.
- SAIC provided reviews of various design issues associated with the Keystone dewatering system. This work in included review of the force main modifications, manhole, and blow-off designs.
- SAIC was requested to provide a proposal for investigation of the planned sanitary sewer easement on the U.S. Army Reserve facility. A proposal for this work was submitted to Harley-Davidson on March 14, 2002.

Work Planned for Next Period (06May02-18May02):

General Contractor/Subcontractor(s)

- Site preparations (Bid Pack No 3) Slope matting and seeding.
- Foundation contract (Bid Pack No.4) to be continued –press pit 3 and 5 excavation, foundation & pier excavations.
- Utility contract (Bid Pack 11 & 12) no work scheduled this period.
- Continue Bid Pack No. 5 – steel erection.
- Building grounding (Bid Pack No. 18) Install grounding cable inside building footprint.

SAIC

- Excavation monitoring - subsoil removal; site preparations; foundation excavation, utility excavations.
- Continue precipitation and depth to groundwater measurements.
- Continue sampling stockpiled subsoil (for off-site use).
- Initiate processing of contaminated soil stockpile.
- Environmental oversight of the substation pad drilling/excavation/installation.

* Offsite soil volumes estimated based on approximately 12.5 yd^3 per loaded truck taken off-site.
** Offsite rock volumes estimated based on approximately 10 yd^3 per loaded truck taken off-site.

PROGRESS REPORT
Keystone Environmental Inspection Activities
Harley-Davidson Motor Company Operations, Inc. Report No. 23
York, Pennsylvania
SAIC Project No. 01-1633-00-1952

Reporting Period: Week of 6May – 17May02

Work Planned	Work Accomplished
General Contractor/Subcontractor(s)	
• Site Preparations	• Continued Bid Pack No. 5– steel erection. • Finished seeding and matting of slopes.
• Subsoil excavation and filling.	• Continued excavating footers.
• Utility installations	• Continued installation of building grounding. •
SAIC	
• H&S Monitoring	• Conducted daily H&S Monitoring; recorded breathing and background PID readings.
• Keystone groundwater treatment	• A rental generator continues to power the lift station. • Periodic manual water level measurements from the lift station continued. • Periodic discharges of water occurred to the onsite treatment system during this reporting period.
• Meetings and Documentation	• Prepared daily reports/documentation & attended various meetings.
• Excavation monitoring/inspection	• Inspected utility excavations.
• Support/Consulting Services	• Conducted water level and precipitation measurements. • See Action Items, below.

SAIC Personnel On-Site: Stephanie Pulaski

General Contractor/Subcontractors: Dürr (w/ Powell Steel), Kinsley (w/ LSC [surveyors], Davis [landscapers], BS&T [density measurement], Interlock [rebar]), Barton Electrical, Stewart & Tate, Inc

Visitors: None.

Meetings Conducted: Daily H&S

Areas of Environmental Concern Identified:

- A seep was observed along the slope in the northeast corner of the site on April 5, 2002. Additional seeps in this area have been observed as rains continue.

Samples Collected: A representative sample of soil from the contaminated soil stockpile was submitted for additional waste processing characteristics (Form U parameters) on May 15, 2002.

Analytical Data Received: Laboratory results of four soil samples collected from the contaminated soil stockpile pad were received on May 6, 2002. One composite (for inorganics) and a grab (VOC) sample was collected from four sources identified below:

Generation date (approx	Source area	Estimated volume	Primary material
Mar-02	Box Culvert B	30 yds^3	soil
Nov-01	PB-3 repair	$1^1/_8$ - 55g drums	soil
Oct-01	Frac tank transfer line	20 yds^3	soil & metal debris
Dec-01	Swale C	74 yds^3	soil, concrete & metal debris

A summary of these results is attached.

Estimated Offsite Shipments:	This Report Period	Contract To-Date
Topsoil (cubic yards[yd^3])*	0	20,850
Subsoil (yd^3)*	0	47,799
Rock (yd^3)**	0	3,620

Groundwater Handling:	This Period	Contract To-Date
Groundwater Removed (gallons):	13,320	18,740
Groundwater Treated (gallons):	13,320	18,740

Issues and Concerns:

- Due to budget constraints, environmental oversight has been restricted to an "as needed/on-call" status. SAIC will typically need a one-day notice, and a minimum of 4-hours of coverage (including travel time/expenses) to respond to an on-call event.
- A seep discovered in the northeast corner of the slope above the toe drain is expanding and more wet areas are becoming evident. As a follow-up to a meeting held 4/23/02, additional monitoring will be conducted and additional samples will be collected in locations which were created in several new wet areas along the slope. The collection points are being monitored and will be sampled once adequate water collects.
- A design change is needed to address the lift station force main, which was encountered during excavation for culvert box 'B' on 3/23/02.
- The lift station does not have permanent power, or controls established. A rental generator has been used to pump water from the lift station to the groundwater treatment system when manual water level measurements in the lift station are above the deep drain elevation.

Action Items:

- SAIC provided a design for the Keystone groundwater dewatering system and sludge pit well controls to NuTec under a separate contract to them for this work.
- SAIC was requested to provide a proposal for investigation of the planned sanitary sewer easement on the U.S. Army Reserve facility. A proposal for this work was submitted to Harley-Davidson on March 14, 2002.

Work Planned for Next Period (20May02-01Jun02):

General Contractor/Subcontractor(s)

- Foundation contract (Bid Pack No.4) to be finished
- Utility contract (Bid Pack 11 & 12) no work scheduled this period.
- Continue Bid Pack No. 5 – steel erection.
- Building grounding (Bid Pack No. 18) Install grounding cable inside building footprint.

SAIC

- General environmental inspection, as requested.
- Environmental oversight of the substation pad drilling/excavation/installation.

* Offsite soil volumes estimated based on approximately 12.5 yd^3 per loaded truck taken off-site.
** Offsite rock volumes estimated based on approximately 10 yd^3 per loaded truck taken off-site.

APPENDIX B

Soil Boring and Test Pit Logs

Science Applications International Corporation
An Employee-Owned Company

H:\JOBS\HARLEY\BORING LOGS.XLS

SOIL BORING LOG

Client: Harley Davidson Motor Company, Inc
Project No.: 01-1633-00-1952-807
Boring/Well No.: SB-1
Location: Sewer Easement
Surface Elevation:
T.O.C. Elev.:

Depth Feet	Blow Counts	Recovery (ft/ft)	Overburden/Lithologic Description	Sample ID/ OVA Screen (ppm)	Graphic Log	Sample Id	Depth Feet	Notes
0							0	
	NA	2.9/4	0.5' Asphalt and sub-base	0				-Soil borings were completed using a Geoprobe with continuous 2" Macrocore sampling. -One Lab sample for VOCs and moisture content were collected at each borehole location.
2	NA		0.5'-4.0': Silty Sand, Dark Brown (2.5Y 4/3)	0			2	
4	NA	0.8/1.0	4.0'-5.0': Silt and Clay, Dark Brown (2.5Y 4/4)	0		SB-1 (4.5-5.0')	4	
6			========== End of Boring @ 5.0'				6	
8							8	
10							10	
12							12	

Driller:	Bob Webb	Well Casing:		Dia.	To	Seal Type: Shur Plug	
Drilling Type/Size:	Geoprobe	Casing Type:	NA			Filter Pack Type:	Quantity:
Logged By:	S. Pulaski (SAIC)	Well Screen:		Dia.	To	Static Water Level:	NA
Drilling Started:	7/11/2002	Screen Type:	NA			Date/Time:	
Drilling Completed:	7/11/2002	Slot Size:	NA			Notes:	
Well Construction:	NA	Grout Type:					

Science Applications International Corporation
An Employee-Owned Company

H:\JOBS\HARLEY\BORING LOGS.XLS

SOIL BORING LOG

Client: Harley Davidson Motor Company, Inc.
Project No.: 01-1633-00-1952-807

Boring/Well No.: SB-2 T.O.C. Elev.:
Location: Sewer Easement
Surface Elevation:

Depth Feet	Blow Counts	Recovery (ft/ft)	Overburden/Lithologic Description	Sample ID/ OVA Screen (ppm)	Graphic Log	Sample Id	Depth Feet	Notes
0							0	
2	NA	3.9/4.0	0.3' Asphalt and sub-base	0			2	-Soil borings were completed using a Geoprobe with continuous 2" Macrocore sampling. -One Lab sample for VOCs and moisture content were collected at each borehole location.
4	NA			0			4	
6	NA	0.8/1.0	0.3'-5.0': Silty Sand wiyh Quartz Fragments, Yellowish Brown (10YR 5/6)	0		SB-2 (4.5-5.0')	6	
8			End of Boring @ 5.0'				8	
10							10	
12							12	

Driller:	Bob Webb	Well Casing:		Dia.	To	Seal Type:	Quantity:
Drilling Type/Size:	Geoprobe	Casing Type:	NA			Filter Pack Type:	Quantity:
Logged By:	S. Pulaski	Well Screen:		Dia.	To	Static Water Level:	NA
Drilling Started:	7/11/2002	Screen Type:	NA			Date/Time:	
Drilling Completed:	7/11/2002	Slot Size:	NA			Notes:	
Well Construction:	NA	Grout Type:	Bentonite	Quantity:		25 Lbs	

Science Applications International Corporation
An Employee-Owned Company

H:\JOBS\HARLEY\BORING LOGS.XLS

SOIL BORING LOG

Client: Harley Davidson Motor Company, Inc.
Project No.: 01-1633-00-1952-807
Boring/Well No.: SB-3
Location: Sewer Easement
Surface Elevation:
T.O.C. Elev.:

Depth Feet	Blow Counts	Recovery (ft/ft)	Overburden/Lithologic Description	Sample ID/ OVA Screen (ppm)	Graphic Log	Sample Id	Depth Feet	Notes
0							0	
2	NA	3.8/4.0	0.3' Topsoil with Quartz Fragments	0			2	-Soil borings were completed using a Geoprobe with continuous 2" Macrocore sampling. -One Lab sample for VOCs and moisture content were collected at each borehole location.
4	NA			0			4	
6	NA	1.0/1.0	0.3'-5.0': Silty Sand with Quartz Cobbles, Yellowish Brown (10YR 5/6)	0		SB-3 (4.5-5.0')	6	
8			End of Boring @ 5.0'				8	
10							10	
12							12	

Driller:	Bob Webb	Well Casing:	Dia. To	Seal Type:	Quantity:
Drilling Type/Size:	Geoprobe	Casing Type:	NA	Filter Pack Type:	Quantity:
Logged By:	S. Pulaski	Well Screen:	Dia. To	Static Water Level:	NA
Drilling Started:	7/11/2002	Screen Type:	NA	Date/Time:	
Drilling Completed:	7/11/2002	Slot Size:	NA	Notes:	
Well Construction:	NA	Grout Type:	Bentonite Quantity:	25 Lbs	

Science Applications International Corporation
An Employee-Owned Company

H:\JOBS\HARLEY\BORING LOGS.XLS

SOIL BORING LOG

Client:	Harley Davidson Motor Company, Inc	Boring/Well No.: SB-4	T.O.C. Elev.:
Project No.:	01-1633-00-1952-807	Location:	Sewer Easement
		Surface Elevation:	Page 1 of 1

Depth Feet	Blow Counts	Recovery (ft/ft)	Overburden/Lithologic Description	Sample ID/ OVA Screen (ppm)	Graphic Log	Sample Id	Depth Feet	Notes
0							0	
2	NA	3.6/4.0	0.0'-0.3': *Topsoil*	0			2	-Soil borings were completed using a Geoprobe with continuous 2" Macrocore sampling. -One Lab sample for VOCs and moisture content were collected at each borehole location.
4			0.3'-7.0': Sandy Silt with quartz rock fragments, light yellowish brown (10YR 5/4)	0			4	
6	NA	3.9/4.0	3.0': Rounded Quartzite Cobbles~3"	0			6	
8				0			8	
10	NA	1.7/2.0	7.0'-10.0': Clayey Silt, Strong Brown (7.5YR 4/6) and Brownish Yellow (10YR 6/6)	0		SB-4 (9.5'-10')	10	
12			End of Boring @ 10.0'				12	

Driller:	Bob Webb	Well Casing:		Dia.	To	Seal Type:	Quantity:
Drilling Type/Size:	Geoprobe	Casing Type:	NA			Filter Pack Type:	Quantity:
Logged By:	S. Pulaski	Well Screen:		Dia.	To	Static Water Level:	NA
Drilling Started:	7/11/2002	Screen Type:	NA			Date/Time:	
Drilling Completed:	7/11/2002	Slot Size:	NA			Notes:	
Well Construction:	NA	Grout Type:	Bentonite	Quantity:		25 Lbs	

Science Applications International Corporation
An Employee-Owned Company

H:\JOBS\HARLEY\BORING LOGS.XLS

SOIL BORING LOG

Client: Harley Davidson Motor Company, Inc
Project No.: 01-1633-00-1952-807

Boring/Well No.: SB-5 T.O.C. Elev.:
Location: Sewer Easement
Surface Elevation:

Depth Feet	Blow Counts	Recovery (ft/ft)	Overburden/Lithologic Description	Sample ID/ OVA Screen (ppm)	Graphic Log	Sample Id	Depth Feet	Notes
0							0	
	NA	3.7/4.0	0.0'-0.3': Grass, Topsoil, Brownish Yellow (10YR 6/6)	0				-Soil borings were completed using a Geoprobe with continuous 2" Macrocore sampling. -One Lab sample for VOCs and moisture content were collected at each borehole location.
2			0.3'-8.0': Silt with quartz rock fragments, Strong Brown (7.5YR 5/6)	0			2	
4	NA	3.8/4.0		0			4	
			5.5': Rounded Quartzite Cobbles					
6				0			6	
8	NA	2.1/2.5	8.0'-10.5': Weathered Quartzite, Fine Grained	0		SB-5 (9.5'-10')	8	
10			========== End of Boring @ 10.5'				10	
12							12	

Driller:	Bob Webb	Well Casing:		Dia.	To	Seal Type:	Quantity:
Drilling Type/Size:	Geoprobe	Casing Type:	NA			Filter Pack Type:	Quantity:
Logged By:	S. Pulaski	Well Screen:		Dia.	To	Static Water Level:	NA
Drilling Started:	7/11/2002	Screen Type:	NA			Date/Time:	
Drilling Completed:	7/11/2002	Slot Size:	NA			Notes:	
Well Construction:	NA	Grout Type:			Quantity:		

Science Applications International Corporation
An Employee-Owned Company

H:\JOBS\HARLEY\BORING LOGS.XLS

SOIL BORING LOG

Client: Harley Davidson Motor Company, Inc
Project No.: 01-1633-00-1952-807

Boring/Well No.: SB-6 T.O.C. Elev.:
Location: Sewer Easement
Surface Elevation:

Depth Feet	Blow Counts	Recovery (ft/ft)	Overburden/Lithologic Description	Sample ID/ OVA Screen (ppm)	Graphic Log	Sample Id	Depth Feet	Notes
0							0	
2	NA	3.8/4.0	0.0'-0.3': Grass, Topsoil with Quartz Fragments, Light Brownish Yellow (10YR 6/6)	0			2	-Soil borings were completed using a Geoprobe with continuous 2" Macrocore sampling. -One Lab sample for VOCs and moisture content were collected at each borehole location.
4			0.3'-5.5': Silt with gravel, Strong Brown (7.5YR 5/6)	0			4	
6	NA	3.9/4.0	5.5'-10.8': Silt with Weathered Quartzite, Dark Yellowish Brown	0			6	
8				0			8	
10	NA	2.8/2.8	========== End of Boring @ 10.8'	0		SB-6 (9.0'-9.5')	10	
12							12	

Driller:	Bob Webb	Well Casing:		Dia.	To	Seal Type:	Quantity:
Drilling Type/Size:	Geoprobe	Casing Type:	NA			Filter Pack Type:	Quantity:
Logged By:	S. Pulaski	Well Screen:		Dia.	To	Static Water Level:	NA
Drilling Started:	7/11/2002	Screen Type:	NA			Date/Time:	
Drilling Completed:	7/11/2002	Slot Size:	NA			Notes:	
Well Construction:	NA	Grout Type:			Quantity:		

Science Applications International Corporation
An Employee-Owned Company

H:\JOBS\HARLEY\BORING LOGS.XLS

SOIL BORING LOG

Client: Harley Davidson Motor Company, Inc
Project No.: 01-1633-00-1952-807

Boring/Well No.: SB-7 T.O.C. Elev.:
Location: Sewer Easement
Surface Elevation: Page 1 of 1

Depth Feet	Blow Counts	Recovery (ft/ft)	Overburden/Lithologic Description	Sample ID/ OVA Screen (ppm)	Graphic Log	Sample Id	Depth Feet	Notes
0							0	
2	NA		0.0'-0.3': Topsoil 0.3'-4.0': Silty fine grained sand quartz rock fragments, light yellowish brown (10YR	0 0		SB-7(4')	2	-Soil borings were completed using a Geoprobe with continuous 2" Macrocore sampling. -One Lab sample for VOCs and moisture content were collected at each borehole location.
4	NA		========== End of Boring @ 4'				4	
6							6	
8							8	
10							10	
12							12	

Driller:	Bob Webb	Well Casing:		Dia.	To	Seal Type:	Quantity:
Drilling Type/Size:	Geoprobe	Casing Type:	NA			Filter Pack Type:	Quantity:
Logged By:	S. Pulaski	Well Screen:		Dia.	To	Static Water Level:	NA
Drilling Started:	8/26/2002	Screen Type:	NA			Date/Time:	
Drilling Completed:	8/26/2002	Slot Size:	NA			Notes:	
Well Construction:	NA	Grout Type:			Quantity:		

Science Applications International Corporation
An Employee-Owned Company

H:\JOBS\HARLEY\BORING LOGS.XLS

SOIL BORING LOG

Client: Harley Davidson Motor Company, Inc
Project No.: 01-1633-00-1952-807

Boring/Well No.: SB-8 T.O.C. Elev.:
Location: Sewer Easement
Surface Elevation:

Depth Feet	Blow Counts	Recovery (ft/ft)	Overburden/Lithologic Description	Sample ID/ OVA Screen (ppm)	Graphic Log	Sample Id	Depth Feet	Notes
0							0	
2	NA		0.0'-0.3': Grass, Topsoil with Quartz Fragments, Light Brownish Yellow (10YR 6/6)	0			2	-Soil borings were completed using a Geoprobe with continuous 2" Macrocore sampling. -One Lab sample for VOCs and moisture content were collected at each borehole location.
4			0.3'-5.5': Silt with gravel, Strong Brown (7.5YR 5/6)	13.6		SB-8(4')	4	
6	NA		5.5'-10.8': Silt with Weathered Quartzite, Dark Yellowish Brown end of boring @ 6.8'	0			6	
8	NA						8	
10							10	
12							12	

Driller:	Bob Webb	Well Casing:		Dia.	To	Seal Type:	Quantity:
Drilling Type/Size:	*Geoprobe*	*Casing Type:*	NA			*Filter Pack Type:*	*Quantity:*
Logged By:	S. Pulaski	Well Screen:		Dia.	To	Static Water Level:	NA
Drilling Started:	8/26/2002	Screen Type:	NA			Date/Time:	
Drilling Completed:	8/26/2002	Slot Size:	NA			Notes:	
Well Construction:	NA	Grout Type:			Quantity:		

Science Applications International Corporation
An Employee-Owned Company

H:\JOBS\HARLEY\BORING LOGS.XLS

SOIL BORING LOG

Client: Harley Davidson Motor Company, Inc
Project No.: 01-1633-00-1952-807

Boring/Well No.: SB-9 T.O.C. Elev.:
Location: Sewer Easement
Surface Elevation: Page 1 of 1

Depth Feet	Blow Counts	Recovery (ft/ft)	Overburden/Lithologic Description	Sample ID/ OVA Screen (ppm)	Graphic Log	Sample Id	Depth Feet	Notes
0							0	
2	NA		0.0'-0.3': Grass, Topsoil with Quartz Fragments, Light Brownish Yellow (10YR 6/6)	0			2	-Soil borings were completed using a Geoprobe with continuous 2" Macrocore sampling. -One Lab sample for VOCs and moisture content were collected at each borehole location.
4			0.3-4: Silt with weathered quartzite, light brownish yellow	11.4		SB-9(4')	4	
6	NA		4-7.2': Silt with Weathered Quartzite, Dark Yellowish Brown ========== End of Boring@ 7.2'	0			6	
8							8	
10	NA						10	
12							12	

Driller:	Bob Webb	Well Casing:	Dia. To	Seal Type:	Quantity:
Drilling Type/Size:	Geoprobe	Casing Type:	NA	Filter Pack Type:	Quantity:
Logged By:	S. Pulaski	Well Screen:	Dia. To	Static Water Level:	NA
Drilling Started:	8/26/2002	Screen Type:	NA	Date/Time:	
Drilling Completed:	8/26/2002	Slot Size:	NA	Notes:	
Well Construction:	NA	Grout Type:	Quantity:		

Science Applications International Corporation
An Employee-Owned Company

H:\JOBS\HARLEY\BORING LOGS.XLS

SOIL BORING LOG

Client: Harley Davidson Motor Company, Inc
Project No.: 01-1633-00-1952-807

Boring/Well No.: SB-10 T.O.C. Elev.:
Location: Sewer Easement
Surface Elevation:

Depth Feet	Blow Counts	Recovery (ft/ft)	Overburden/Lithologic Description	Sample ID/ OVA Screen (ppm)	Graphic Log	Sample Id	Depth Feet	Notes
0							0	
2	NA		0.0'-3.9': Silty fine grained sand quartz rock fragments, light yellowish brown (10YR 5/4), reddish brown and gray quartzite	4.8 0		SB-10(4')	2	-Soil borings were completed using a Geoprobe with continuous 2" Macrocore sampling. -One Lab sample for VOCs and moisture content were collected at each borehole location.
4			End of Boring @ 4.0'				4	
6							6	
8							8	
10							10	
12							12	

Driller:	Bob Webb	Well Casing:		Dia.	To	Seal Type:	Quantity:
Drilling Type/Size:	*Geoprobe*	*Casing Type:*	NA			*Filter Pack Type:*	*Quantity:*
Logged By:	S. Pulaski	Well Screen:		Dia.	To	Static Water Level:	NA
Drilling Started:	8/26/2002	Screen Type:	NA			Date/Time:	
Drilling Completed:	8/26/2002	Slot Size:	NA			Notes:	
Well Construction:	NA	Grout Type:			Quantity:		

Science Applications International Corporation
An Employee-Owned Company

H:\JOBS\HARLEY\BORING LOGS.XLS

SOIL BORING LOG

Client: Harley Davidson Motor Company, Inc
Project No.: 01-1633-00-1952-807

Boring/Well No.: SB-11 T.O.C. Elev.:
Location: Sewer Easement
Surface Elevation:

Depth Feet	Blow Counts	Recovery (ft/ft)	Overburden/Lithologic Description	Sample ID/ OVA Screen (ppm)	Graphic Log	Sample Id	Depth Feet	Notes
0							0	
2	NA		0.0'-4.0': Silty fine grained sand quartz rock fragments, light yellowish brown (10YR 5/4), reddish brown and gray quartzite	47 0		SB-11(4')	2	-Soil borings were completed using a Geoprobe with continuous 2" Macrocore sampling. -One Lab sample for VOCs and moisture content were collected at each borehole location.
4			End of Boring @ 4.0'				4	
6							6	
8							8	
10							10	
12							12	

Driller:	Bob Webb	Well Casing:		Dia.	To	Seal Type:	Quantity:
Drilling Type/Size:	Geoprobe	Casing Type:	NA			Filter Pack Type:	Quantity:
Logged By:	S. Pulaski	Well Screen:		Dia.	To	Static Water Level:	NA
Drilling Started:	7/11/2002	Screen Type:	NA			Date/Time:	
Drilling Completed:	7/11/2002	Slot Size:	NA			Notes:	
Well Construction:	NA	Grout Type:			Quantity:		

Science Applications International Corporation
An Employee-Owned Company

H:\JOBS\HARLEY\BORING LOGS.XLS

Test Pit Log — **Boring/Well No.: TP-1** — **T.O.C. Elev.:**

Client: Harley Davidson Motor Company, Inc — Location: Sewer Easement

Project No.: 01-1633-00-1952-807 — Surface Elevation: —

Depth Feet	Blow Counts	Recovery (ft/ft)	Overburden/Lithologic Description	Sample ID/ OVA Screen (ppm)	Graphic Log	Sample Id	Depth Feet	Notes
0							0	
2	NA		Grass, Topsoil, Roots	0			2	
4	NA		Silt, Yellowish Brown with 60% Quartzite (weathered). Very dry.	0			4	
6				0			6	
8				0		TP-1(7')	8	
10	NA		Total Depth - 7'				10	
12							12	

Driller:		Well Casing:	Dia.	To	Seal Type: Quantity:
Drilling Type/Size:		*Casing Type:*	NA		*Filter Pack Type:* *Quantity:*
Logged By:	S. Pulaski	Well Screen:	Dia.	To	Static Water Level: NA
Drilling Started:		Screen Type:	NA		Date/Time:
Drilling Completed:		Slot Size:	NA		Notes:
Well Construction:	NA	Grout Type:		Quantity:	

Science Applications International Corporation
An Employee-Owned Company

H:\JOBS\HARLEY\BORING LOGS.XLS

Test Pit Log — **Boring/Well No.: TP-2** — **T.O.C. Elev.:**

Client: Harley Davidson Motor Company, Inc — Location: Sewer Easement

Project No.: 01-1633-00-1952-807 — Surface Elevation: —

Depth Feet	Blow Counts	Recovery (ft/ft)	Overburden/Lithologic Description	Sample ID/ OVA Screen (ppm)	Graphic Log	Sample Id	Depth Feet	Notes
0							0	
2	NA		Grass, Topsoil, Roots	0			2	
4	NA		Silt, Yellowish Brown with 60% Quartzite (weathered)	0			4	
6				0			6	
8				0		TP-2(8')	8	
10	NA		Total Depth - 8'				10	
12							12	

Driller:		Well Casing:	Dia. To	Seal Type:	Quantity:
Drilling Type/Size:		Casing Type:	NA	Filter Pack Type:	Quantity:
Logged By:	S. Pulaski	Well Screen:	Dia. To	Static Water Level:	NA
Drilling Started:		Screen Type:	NA	Date/Time:	
Drilling Completed:		Slot Size:	NA	Notes:	
Well Construction:	NA	Grout Type:	Quantity:		

Science Applications International Corporation
An Employee-Owned Company

H:\JOBS\HARLEY\BORING LOGS.XLS

Test Pit Log — **Boring/Well No.: TP-3** — **T.O.C. Elev.:**

Client: Harley Davidson Motor Company, Inc — Location: Sewer Easement

Project No.: 01-1633-00-1952-807 — Surface Elevation: —

Depth Feet	Blow Counts	Recovery (ft/ft)	Overburden/Lithologic Description	Sample ID/ OVA Screen (ppm)	Graphic Log	Sample Id	Depth Feet	Notes
0							0	
2	NA		Grass, Topsoil	0			2	
4			Silt with 60% weathered Quartzite, Yellowish Brown	0			4	
6	NA			0		TP-3(7')	6	
8			==========E nd of Boring@ 7.2'	0			8	
10	NA						10	
12							12	

Driller:		Well Casing:	Dia. To	Seal Type:	Quantity:
Drilling Type/Size:		Casing Type:	NA	Filter Pack Type:	Quantity:
Logged By:	S. Pulaski	Well Screen:	Dia. To	Static Water Level:	NA
Drilling Started:		Screen Type:	NA	Date/Time:	
Drilling Completed:		Slot Size:	NA	Notes:	
Well Construction:	NA	Grout Type:	Quantity:		

Science Applications International Corporation
An Employee-Owned Company

H:\JOBS\HARLEY\BORING LOGS.XLS

Test Pit Log

Boring/Well No.: TP-4 T.O.C. Elev.:

Client: Harley Davidson Motor Company, Inc. Location: Sewer Easement

Project No.: 01-1633-00-1952-807 Surface Elevation: Page 1 of 1

Depth Feet	Blow Counts	Recovery (ft/ft)	Overburden/Lithologic Description	Sample ID/ OVA Screen (ppm)	Graphic Log	Sample Id	Depth Feet	Notes
0							0	
2	NA		Grass, Topsoil, Roots	0			2	
4			Silt with Weathered Quartzite	0			4	
6	NA			0			6	
8			Total Depth- 6'	0			8	
10	NA						10	
12							12	

Driller:		Well Casing:		Dia.	To	Seal Type:	Quantity:
Drilling Type/Size:		Casing Type:	NA			Filter Pack Type:	Quantity:
Logged By:	S. Pulaski	Well Screen:		Dia.	To	Static Water Level:	NA
Drilling Started:		Screen Type:	NA			Date/Time:	
Drilling Completed:		Slot Size:	NA			Notes:	
Well Construction:	NA	Grout Type:			Quantity:		

Science Applications International Corporation
An Employee-Owned Company

H:\JOBS\HARLEY\BORING LOGS.XLS

Test Pit Log

Boring/Well No.: TP-5 T.O.C. Elev.:

Client: Harley Davidson Motor Company, Inc Location: Sewer Easement

Project No.: 01-1633-00-1952-807 Surface Elevation:

Depth Feet	Blow Counts	Recovery (ft/ft)	Overburden/Lithologic Description	Sample ID/ OVA Screen (ppm)	Graphic Log	Sample Id	Depth Feet	Notes
0							0	
2	NA		Grass, Topsoil, Roots	0			2	
4	NA		Silt with Weathered Quartzite	0			4	
6				0			6	
8	NA						8	
10			========== Total Depth - 11.0'				10	
12							12	

Driller:		Well Casing:	Dia. To	Seal Type:	Quantity:
Drilling Type/Size:		Casing Type:	NA	Filter Pack Type:	Quantity:
Logged By:	S. Pulaski	Well Screen:	Dia. To	Static Water Level:	NA
Drilling Started:		Screen Type:	NA	Date/Time:	
Drilling Completed:		Slot Size:	NA	Notes:	
Well Construction:	NA	Grout Type:	Quantity:		

Science Applications International Corporation
An Employee-Owned Company

H:\JOBS\HARLEY\BORING LOGS.XLS

Test Pit Log

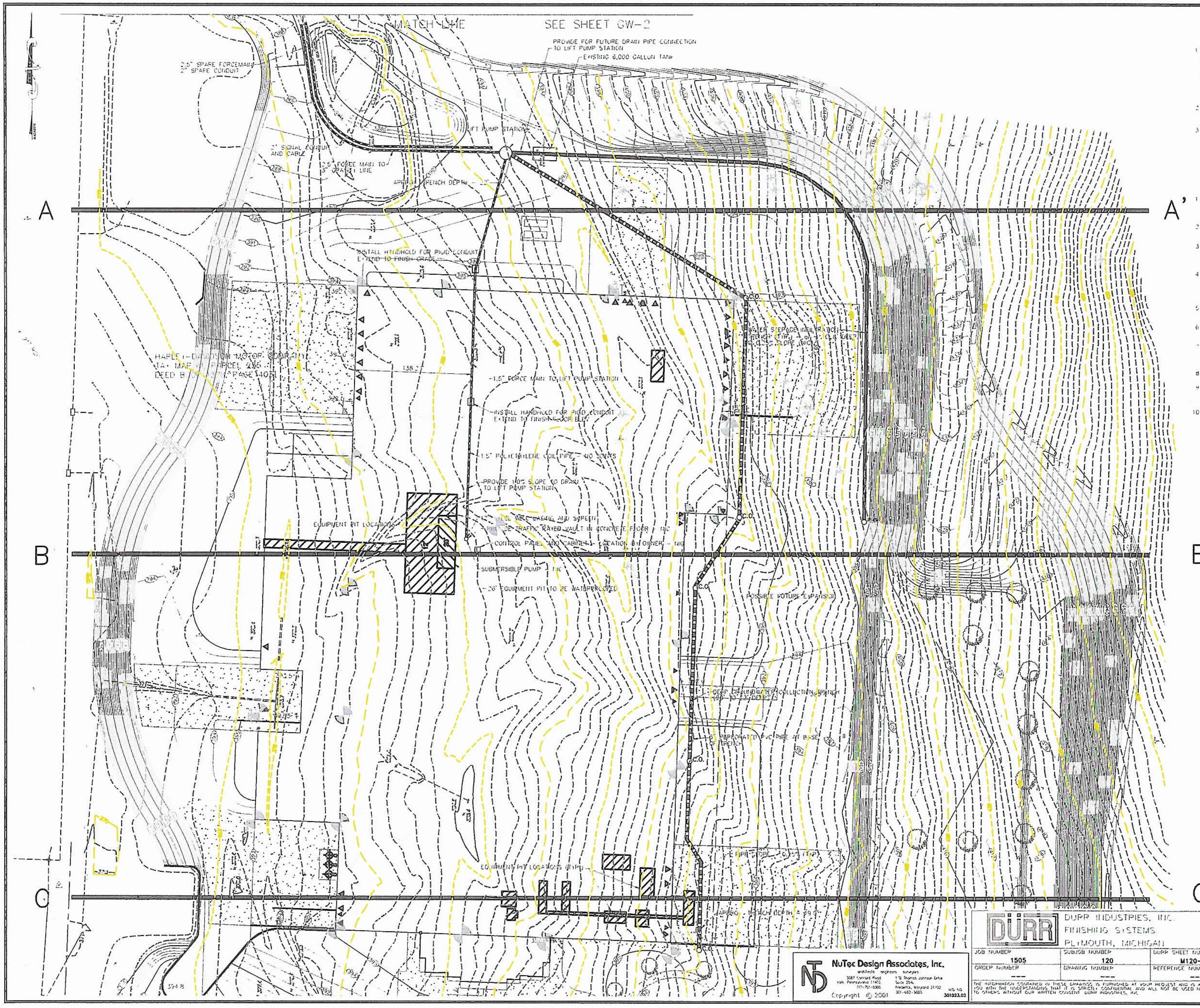
Client: Harley Davidson Motor Company, Inc.
Project No.: 01-1633-00-1952-807
Boring/Well No.: TP-6
Location: Sewer Easement
Surface Elevation:
T.O.C. Elev.:

Depth Feet	Blow Counts	Recovery (ft/ft)	Overburden/Lithologic Description	Sample ID/ OVA Screen (ppm)	Graphic Log	Sample Id	Depth Feet	Notes
0							0	
4	NA		Grass, Topsoil, Roots	0			4	
8			*Silt with Weathered* Quartzite	*0*			8	
12	NA			0			12	
			Total Depth 13'	0		TP-6(13')		
16	NA						16	
20							20	
24							24	

Driller:		Well Casing:	Dia. To	Seal Type:	Quantity:
Drilling Type/Size:		Casing Type:	NA	Filter Pack Type:	Quantity:
Logged By:	S. Pulaski	Well Screen:	Dia. To	Static Water Level:	NA
Drilling Started:		Screen Type:	NA	Date/Time:	
Drilling Completed:		Slot Size:	NA	Notes:	
Well Construction:	NA	Grout Type:	Quantity:		

APPENDIX C

Reference Drawings



SITE NOTES

1. ALL STORMWATER PIPES, INLETS, AND MANHOLES, LOCATED IN THE EAST PARKING LOT TO BE PROVIDED WITH WATERTIGHT JOINTS AS FOLLOWS (NIC)

   PIPES: WATERTIGHT BANDS

   INLETS: NON-SHRINK GROUT, RUBBER O-RINGS, AND MASTIC APPLIED TO EXTERIOR SURFACES

   MANHOLES: NON-SHRINK GROUT, RUBBER O-RINGS, AND MASTIC APPLIED TO EXTERIOR SURFACES

2. ALL STORMWATER TRENCHES TO BE PROVIDED WITH CLAY DIKES SPACED AT 50 FEET INTERVALS TO KEEP COLLECTED GROUNDWATER FROM MIGRATING (NIC)

3. STONE SUBBASES UNDER PAVEMENTS WILL BE DEWATERED VIA UNDERDRAINS AND CONNECTED INTO THE DEEP COLLECTION TRENCH (NIC)

ELECTRICAL NOTES

1. POWER AND SIGNAL CABLES CONDUITS FROM LIFT PUMP STATION TO TEMPORARILY TERMINATE AT LIFT PUMP STATION FOR FUTURE EXTENSION TO CONTROL PANEL AND CABINET TO BE LOCATED IN KEYSTONE BUILDING

2. EXTEND 2.5" FORCE MAIN AND 2" SIGNAL CABLE AND CONDUIT FROM LIFT PUMP STATION TO FORCE MAIN TIE IN LOCATION WITH EXISTING 3" GRAVITY LINE

3. CONTINUE TO EXTEND SIGNAL CABLE THROUGH SPARE CONDUIT AT 3" GRAVITY LINE TIE IN LOCATION TO MASTER CONTROL PANEL LOCATED IN BUILDING 41 CONTROL ROOM

4. EXTEND A SPARE 2.5" FORCE MAIN PIPE AND 2" RIGID ELECTRICAL CONDUIT FROM LIFT PUMP STATION TO FORCE MAIN TIE IN LOCATION WITH EXISTING 3" GRAVITY LINE. PROVIDE TEMPORARY PLUGS AT EACH TERMINAL END

5. ROUTE SIGNAL CONDUIT, GROUNDWATER FORCE MAIN, SPARE CONDUIT, AND SPARE FORCE LIFT PUMP STATION MAIN IN SAME TRENCH

6. KEYSTONE BUILDING CONTROL PANEL AND CABINET LOCATION TO BE DETERMINED BY OWNER. (NIC)

7. POWER AND SIGNAL CABLE AND CONDUIT TO BE EXTENED FROM LIFT PUMP STATION TO CONTROL PANEL LOCATED IN KEYSTONE BUILDING. ROUTE SIGNAL AND POWER CONDUITS IN SAME TRENCH AS FORCE MAIN

8. PROVIDE METALLIC WARNING TAPE IN ALL FORCE MAIN AND CONDUIT TRENCHES

9. FORCE MAIN TO BE SCHEDULE 80 PVC PIPE UNLESS OTHERWISE NOTED. ENCASE IN CONCRETE, 6" MIN. EACH SIDE WHEN UNDERPASSING ROADWAYS OR WALKWAYS

10. RIGID CONDUIT TO BE SCHEDULE 40 PVC PIPE. ENCASE IN CONCRETE, 6" MIN. EACH SIDE WHEN UNDER PASSING ROADWAYS OR WALKWAYS

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft

REV.	DATE	DESCRIPTION
	9 10 01	ISSUED FOR BIDDING

Harley Davidson
MOTOR COMPANY
OPERATIONS, INC.
York, Pennsylvania

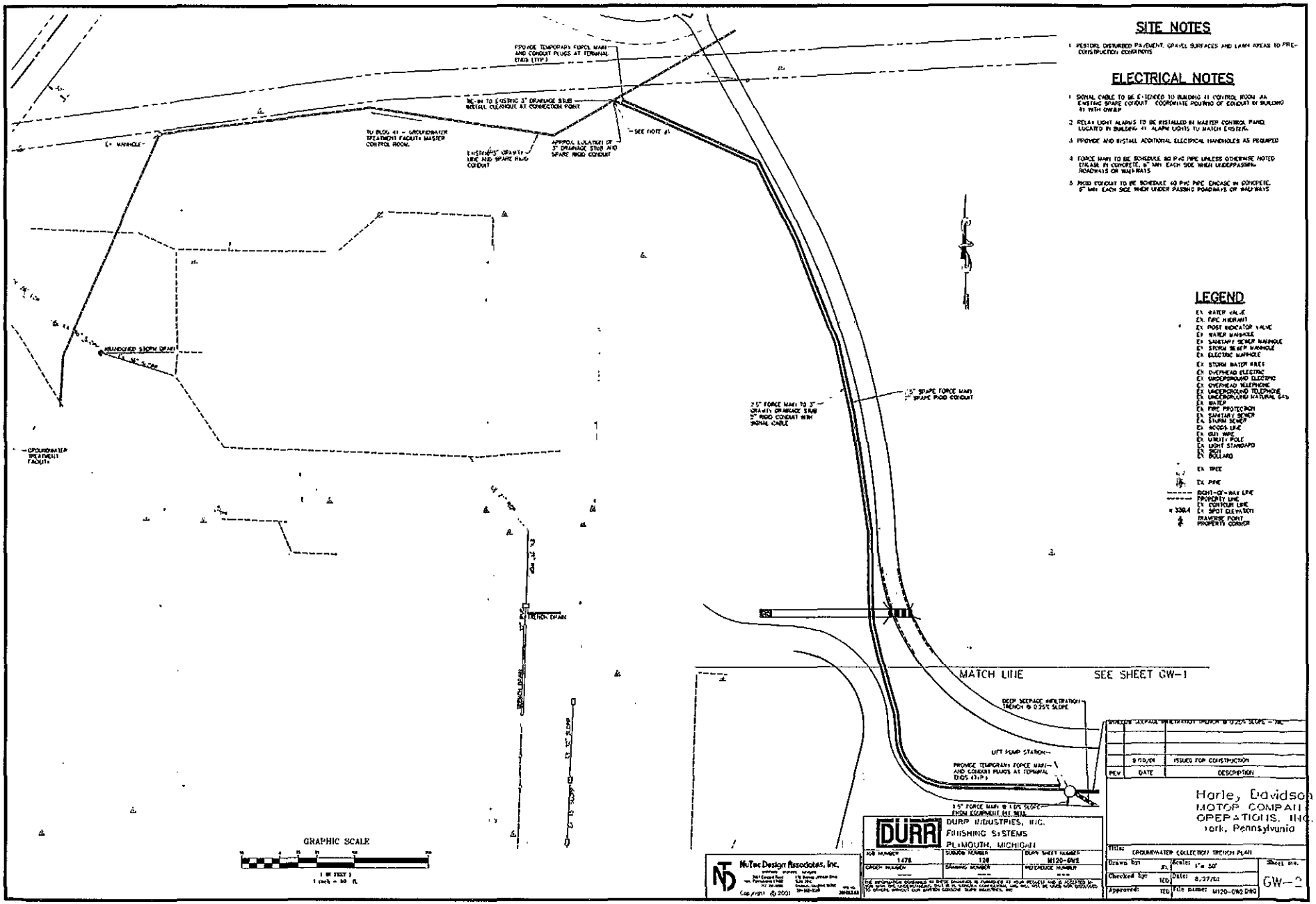
NuTec Design Associates, Inc.
architects engineers surveyors
3687 Concord Road, York, Pennsylvania 17402, 717-751-0300
178 Thomas Johnson Drive, Suite 204, Frederick, Maryland 21702, 301-682-5080
NTD NO. 301023.02

DURR INDUSTRIES, INC.
FINISHING SYSTEMS
PLYMOUTH, MICHIGAN

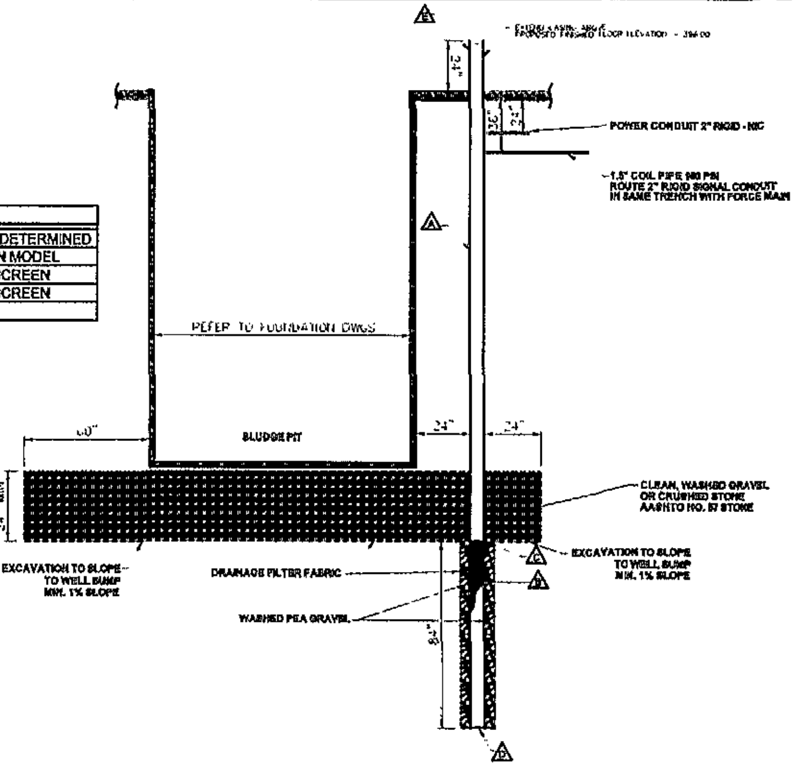
JOB NUMBER	SUBJOB NUMBER	DURR SHEET NUMBER
1505	120	M120-GW1
ORDER NUMBER	DRAWING NUMBER	REFERENCE NUMBER
---	---	---

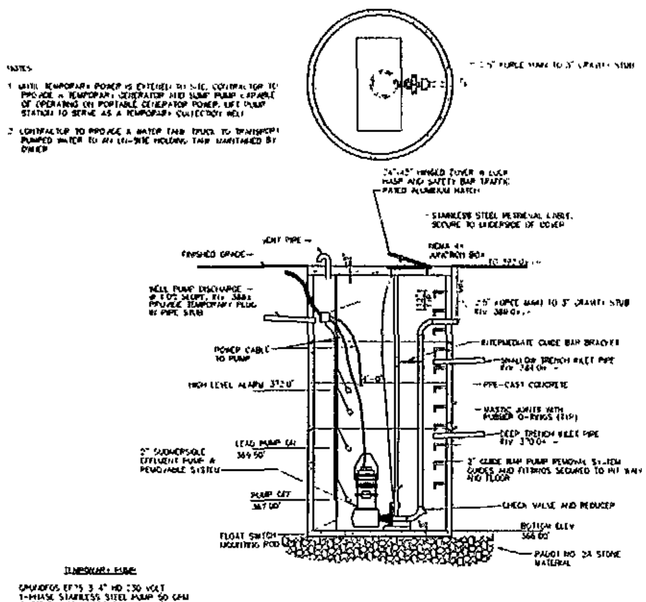
Title: GROUNDWATER COLLECTION TRENCH PLAN

Drawn by: JFL	Scale: 1"= 50'	Sheet no.
Checked by: TED	Date: 8 2 01	GW-1
Approved: TED	File name: M120-GW1.DWG	


SITE NOTES
1 RESTORE DISTURBED PAVEMENT, GRAVEL SURFACES AND LAWN AREAS TO PRE-CONSTRUCTION CONDITIONS
ELECTRICAL NOTES
1 SIGNAL CABLE TO BE EXTENDED TO BUILDING 41 CONTROL ROOM IN EXISTING SPARE CONDUIT COORDINATE ROUTING OF CONDUIT IN BUILDING 41 WITH OWNER
2 RELAY LIGHT ALARMS TO BE INSTALLED IN MASTER CONTROL PANEL LOCATED IN BUILDING 41 ALARM LIGHTS TO MATCH EXISTING
3 PROVIDE AND INSTALL ADDITIONAL ELECTRICAL HANDHOLES AS REQUIRED
4 FORCE MAIN TO BE SCHEDULE 80 PVC PIPE UNLESS OTHERWISE NOTED ENCASE IN CONCRETE, 6" MIN EACH SIDE WHEN UNDERPASSING ROADWAYS OR WALKWAYS
5 RIGID CONDUIT TO BE SCHEDULE 40 PVC PIPE ENCASE IN CONCRETE 6" MIN EACH SIDE WHEN UNDER PASSING ROADWAYS OR WALKWAYS
LEGEND
EX WATER VALVE
EX FIRE HYDRANT
EX POST INDICATOR VALVE
EX WATER MANHOLE
EX SANITARY SEWER MANHOLE
EX STORM SEWER MANHOLE
EX ELECTRIC MANHOLE
EX STORM WATER INLET
EX OVERHEAD ELECTRIC
EX UNDERGROUND ELECTRIC
EX OVERHEAD TELEPHONE
EX UNDERGROUND TELEPHONE
EX UNDERGROUND NATURAL GAS
EX WATER
EX FIRE PROTECTION
EX SANITARY SEWER
EX STORM SEWER
EX WOODS LINE
EX GUY WIRE
EX UTILITY POLE
EX LIGHT STANDARD
EX SIGN
EX BOLLARD
EX TREE
EX FENCE
RIGHT-OF-WAY LINE
PROPERTY LINE
EX CONTOUR LINE
EX SPOT ELEVATION
MONUMENT POINT PROPERTY CORNER
PROVIDE TEMPORARY FORCE MAIN AND CONDUIT PLUGS AT TERMINAL ENDS (TYP.)
TIE-IN TO EXISTING 3" DRAINAGE STUB INSTALL CLEANOUT AT CONNECTION POINT
TO BLDG. 41 - GROUNDWATER TREATMENT FACILITY MASTER CONTROL ROOM
EXISTING 3" GRAVITY LINE AND SPARE RIGID CONDUIT
APPROX. LOCATION OF 3" DRAINAGE STUB AND SPARE RIGID CONDUIT
SEE NOTE #1
E- MANHOLE
ABANDONED STORM DRAIN
GROUNDWATER TREATMENT FACILITY
3" FORCE MAIN TO 3" GRAVITY DRAINAGE STUB 3" RIGID CONDUIT WITH SIGNAL CABLE
3" SPARE FORCE MAIN 3" SPARE RIGID CONDUIT
TRENCH DRAIN
MATCH LINE
SEE SHEET GW-1
DEEP SEEPAGE INFILTRATION TRENCH @ 0.25% SLOPE
LIFT PUMP STATION
PROVIDE TEMPORARY FORCE MAIN AND CONDUIT PLUGS AT TERMINAL ENDS (TYP.)
3" FORCE MAIN @ 1.0% SLOPE FROM EQUIPMENT PIT WELL
GRAPHIC SCALE
1 inch = 50 ft
DURR
DURR INDUSTRIES, INC.
FINISHING SYSTEMS
PLYMOUTH, MICHIGAN
NuTec Design Associates, Inc.
Copyright © 2001
JOB NUMBER 1478
STATION NUMBER 128
DURR SHEET NUMBER M120-GW2
ORDER NUMBER
DRAWING NUMBER
REFERENCE NUMBER
REV DATE DESCRIPTION
8/10/01 ISSUED FOR CONSTRUCTION
Harley Davidson MOTOR COMPANY OPERATIONS, INC. York, Pennsylvania
Title: GROUNDWATER COLLECTION TRENCH PLAN
Drawn by JL
Scale 1" = 50'
Checked by TED
Date 8/27/01
Approved: TED
File number M120-GW2.DWG
Sheet no. GW-2

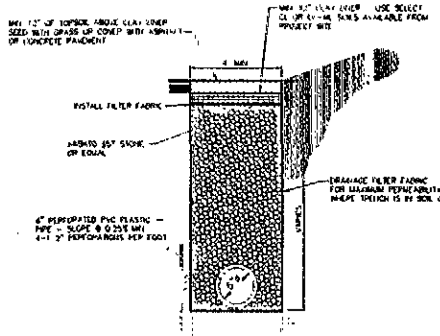
SYMBOL	NOMINAL SIZE	DESCRIPTION	MANUFACTURER/SUPPLIER	MODEL	NOTES
A	12" DIA.	WELDED 304 S.S. PIPE CASING	STAINLESS & ALLOY PIPING	12"	LENGTH OF CASING TO BE DETERMINED
B	40 SLOT 7' SECTION	WELL SCREEN 304 S.S.	USF FILTRATION & SEPARATION	12P	STANDARD CONSTRUCTION MODEL
C	12"	WELDING RING	USF FILTRATION & SEPARATION		PROVIDED BY USF TO FIT SCREEN
D	12"	WELDED SCREEN CAP	USF FILTRATION & SEPARATION		PROVIDED BY USF TO FIT SCREEN
E	12"	WELL SEAL CAP	SIMMINS	12 X 2	





STANDARD PRECAST REINFORCED CONCRETE LIFT STATION

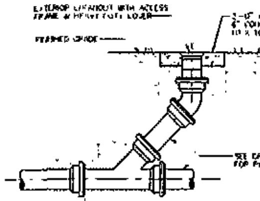
NO SCALE



NOTE: ALL EXCAVATIONS TO BE SUPPORTED PER OSHA TRENCHING AND EXCAVATION REQUIREMENTS.

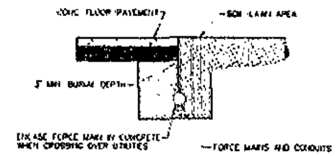
TYPICAL INTERCEPTOR TRENCH DRAIN DETAIL

NO SCALE



EXTERIOR CLEANOUT DETAIL

NO SCALE



CONDUIT AND FORCE MAIN BEDDING DETAIL

NO SCALE

REV	DATE	DESCRIPTION
	9-10-01	ISSUED FOR CONSTRUCTION

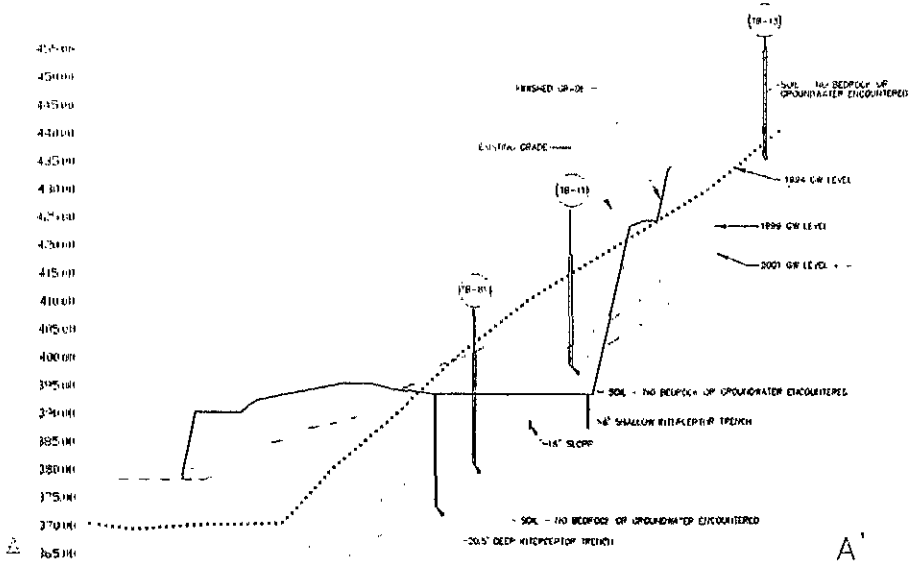
Harley Davidson MOTOR COMPANY OPERATIONS, INC. York, Pennsylvania

DURR INDUSTRIES, INC FINISHING SYSTEMS PLYMOUTH, MICHIGAN

HuTec Design Associates, Inc.

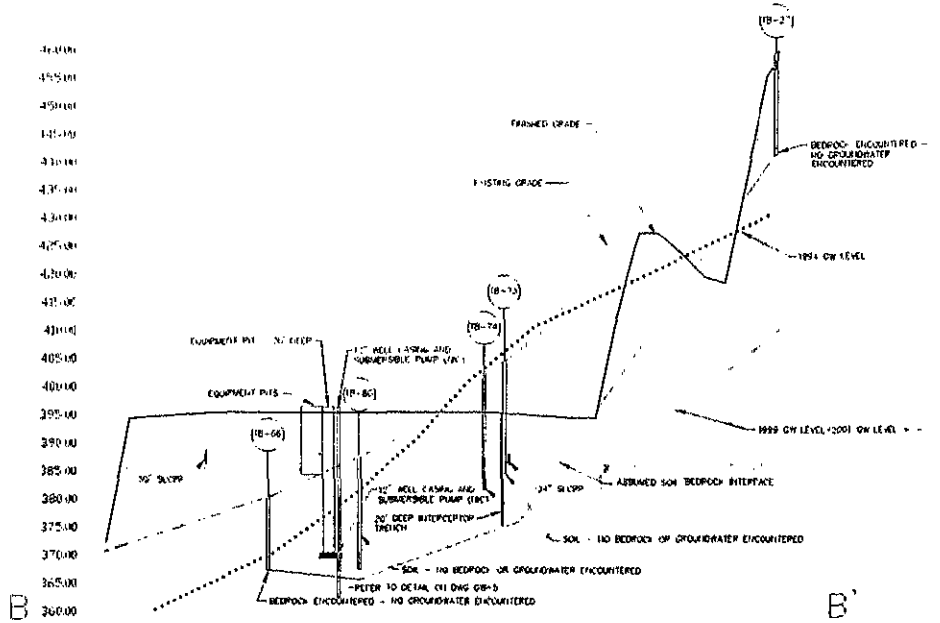
Title: GROUNDWATER COLLECTION TRENCH DETAILS

Drawn by: | Scale: 1" = 50' | Checked by: TED | Date: 8/27/01 | Approved: TED | File Name: M120-GW3.DWG | Sheet no. GW-3



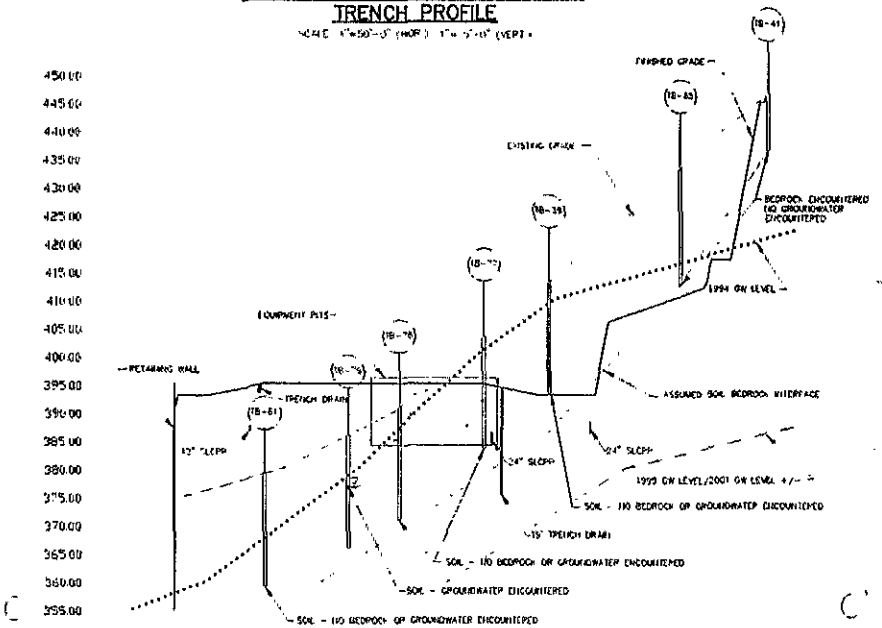
DEEP GROUNDWATER COLLECTION TRENCH PROFILE

SCALE: 1"=50'-0" (HOR.) 1"= 5'-0" (VERT.)



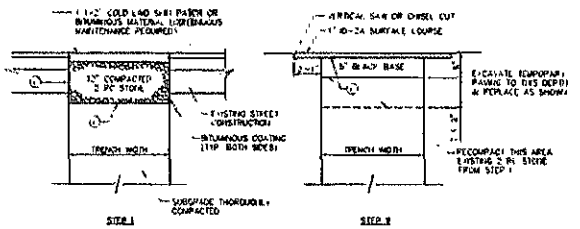
DEEP GROUNDWATER COLLECTION TRENCH PROFILE

SCALE: 1"=50'-0" (HOR.) 1"= 5'-0" (VERT.)



DEEP GROUNDWATER COLLECTION TRENCH PROFILE

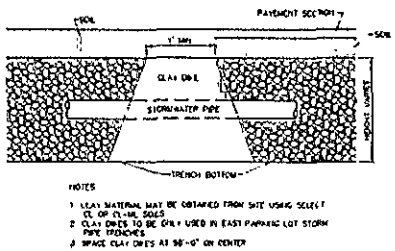
SCALE: 1"=50'-0" (HOR.) 1"= 5'-0" (VERT.)



NOTES
1. ALL BITUMINOUS MATERIAL & BLACK BASE FURNISHED & LAID IN PLACE IN ACCORDANCE WITH PADOT SPECS
2. STEP I MUST PRECEED STEP II
3. STEP II MUST BE COMPLETED WITHIN SIX (6) MONTHS AFTER INSTALLATION OF STEP I
4. (I) - INSPECTION POINTS, BY TOWNSHIP

TRENCH REPAVING DETAIL

NO SCALE



NOTES
1. CLAY MATERIAL MAY BE OBTAINED FROM SITE USING SELECT EXCAVATED MATERIAL SOILS
2. CLAY DIKES TO BE ONLY USED IN EAST PARKING LOT STORM PIPE TRENCHES
3. SPACE CLAY DIKES AT 50'-0" ON CENTER

CLAY DIKE DETAIL FOR STORM PIPE TRENCHES

NO SCALE

(TYP.)

REV	DATE	DESCRIPTION
	5 10 01	ISSUED FOR CONSTRUCTION

Horle, Davidson
MOTOR COMPANY
OPERATIONS, INC.
York, Pennsylvania

TITLE: GROUNDWATER COLLECTION TRENCH PROFILES AND DETAILS

Drawn by:	JFL	Scale: 1"= 50'	Sheet no.
Checked by:	TED	Date: 8/27/01	GW-4
Approved:	TCD	File Name: M120-GW4.DWG	

DURR
DURR INDUSTRIES, INC.
FINISHING SYSTEMS
PLYMOUTH, MICHIGAN

JOB NUMBER	SUBJOB NUMBER	DURR SHEET NUMBER
8478	120	M120-GW4
ORDER NUMBER	DRAWING ISSUED	REFERENCE NUMBER

HuTec Design Associates, Inc.

THE INFORMATION CONTAINED IN THESE DRAWINGS IS PURCHASED AS WORK PRODUCT AND IS ACCEPTED BY YOU WITH THE UNDERSTANDING THAT IT IS STRICTLY CONFIDENTIAL AND SHALL NOT BE USED FOR DISCLOSURE TO OTHERS WITHOUT OUR WRITTEN CONSENT. DURR INDUSTRIES, INC.

APPENDIX D

Keystone Project Environmental Concerns - Memo

Memo

Science Applications International Corporation
An Employee-Owned Company

To: Gail Lione

From: Steve Snyder

CC: Gary Seyler, Sharon Fisher, Brenda Bienkowski, Terry Bossert, Ralph Golia,

Date: July 9, 2001

Re: Keystone Project Environmental Concerns

CONFIDENTIAL

Environmental Conditions

Harley-Davidson Motor Company has been performing remedial environmental activities at the site since 1986. In 1995, Harley-Davidson and the US Government entered into an agreement for past and future environmental expenditures related to historic site use. As part of that agreement, a Site-Wide RI/FS was initiated in 1998 and is presently ongoing. The objectives of the Site-Wide RI/FS are to evaluate potential sources of groundwater impacts, determine the fate and transport characteristics of known constituents of concern (COCs) in groundwater, and evaluate the risk that the COCs pose to human health and the environment. The results of the investigation are to be used to evaluate and define remedies that will minimize risks to human health and the environment.

Previous remedial activities at the site have indicated that the primary COCs due to concentration, frequency, and potential for offsite migration are chlorinated solvents, including tetrachloroethene (PCE), trichloroethene (TCE), and 1,1,1-trichloroethane (TCA) and various degradation products. The distribution of these constituents in groundwater suggests that they have originated from multiple sources. Groundwater beneath the site flows from the northeastern upland area of the site in a westerly direction towards the Codorus Creek.

Other COCs encountered on the property, but at a lesser frequency, include benzene, ethylbenzene, xylenes, lead, hexavalent chromium, nickel, PCBs, and cyanide. These substances appear to be restricted to specific source locations, several of which have already been subjected or are being subjected to remedial actions.

Numerous potential areas of concern have been identified and investigated, and several of these have been remedied. Groundwater extraction is ongoing at the Northeast Property Boundary Area, the West Parking Lot Area, the Building 2 Degreaser/TCA Tank Area, and the north corner of Building 4 (former degreaser area). The combined flow rate from these areas to the groundwater treatment system is approximately 280 gallons per minute. In addition to groundwater extraction, four soil-gas extraction wells located in the north end of Building 4 are in operation to remove volatile organic compounds from the subsoil.

To date, no potential areas of concern have been identified within the proposed excavation boundaries for project Keystone. Based on the site history, however, there is potential for unknown areas of concern to be encountered during Keystone excavation activities.

Environmental Inspector

Harley-Davidson will provide an Environmental Inspector who must be present during all clearing, grubbing and excavations. No excavation of in-situ soil or rock may occur, except in the presence of the Environmental Inspector. The contractor is responsible to communicate with the Environmental Inspector to schedule all excavation work. The contractor shall provide office space for the Environmental Inspector, including a telephone and access to a fax machine and copy machine. A one-week notice must be provided to the Environmental Inspector, if possible, prior to initiating excavation. Previously excavated material that has been screened by the Environmental Inspector is exempt from this requirement.

The Environmental Inspector will inspect newly uncovered subsurface material for indications of contamination. The primary responsibility of the Environmental Inspector is to identify potentially contaminated areas, exclude access to suspected contaminated areas by personnel not covered by the site specific health and safety plan, notify the contractor of the results of laboratory testing, and to direct the handling and disposition of excavated materials suspected of being contaminated.

The Environmental Inspector will have the authority to stop all work in any area suspected of being contaminated, to specify the handling of excavated material suspected of being contaminated, and to exclude access to the suspected area until sampling and analysis is completed or until appropriate procedures are activated.

The contractor is responsible to report to the Environmental Inspector all suspected areas of contamination, unusual odor in the subsurface, liquid, discoloration, and buried materials. Areas where groundwater is encountered or where water seeps from an excavation or excavated area must be brought to the attention of the Environmental Inspector.

Contractor Health and Safety Plan (CHASP) Required

The (Contractor) shall prepare a Site Specific CHASP in a timely manner, so as not to impede the progress of the project, that addresses the potential that hazardous waste, contaminated soil, and contaminated groundwater may be encountered during construction. At a minimum, the Health and Safety Plan must incorporate the following:

- The CHASP must address all applicable components of CFR Title 29 Part 1910.120, dealing with hazardous waste operations and emergency response, and Harley-Davidson's Work Instructions – Contractor Safety Rules and Practices.

- Personnel that have the potential to come in contact or close proximity to waste or contaminated soil or contaminated groundwater, must have HAZWOPER 40-hour training and up-to-date refresher training. Qualifications and training certificates of the contractor (or subcontractors pertaining to this work) must be submitted for approval. These personnel must also be participating in a medical monitoring program, required by OSHA for hazardous operations. Harley-Davidson requires only that personnel that could potentially be near an excavation when contaminated material is encountered or discovered, or that would be involved in excavating,

pumping, or hauling the hazardous materials after discovery, meet these requirements. This could be limited to personnel operating excavating equipment and excavated material hauling equipment, personnel operating dewatering equipment, and any personnel (supervisors, engineers, and surveyors, for instance) that would need to be present during the excavation. Additional requirements may be advisable or required by law, and this agreement does not relieve contractors of the regulatory requirement to provide a safe work place.

- The CHASP will incorporate an acceptable procedure for excavating and handling soils identified by the Harley-Davidson Environmental Inspector as potentially contaminated, without significant delay. The CHASP will include a procedure for upgrading personnel protection levels, and decontamination of equipment and personnel.

- A temporary contaminated soil stockpile area will be provided on the Harley-Davidson site immediately north of the motorcycle test track. If wastes other than contaminated soil are encountered, such as drums, sludges, or residues, the area will be fenced off, and Harley-Davidson will provide a specialized waste management contractor at Harley-Davidson's expense to remove the wastes.

- The contractor must provide PPE (Personal Protective Equipment) and onsite monitoring.

- A Spill and Discharge Control Plan shall be prepared for Harley-Davidson review.

- The CHASP will be submitted to Harley-Davidson for review and approval before clearing and grubbing or excavation may commence.

- Dust Control - The Contractor shall maintain all work areas within confirmed or potentially contaminated areas free from dust, which may contribute to air pollution or migration of chemical hazards. Approved methods of dust control or suppression will include water sprinkling. Dust control shall be performed as the work proceeds whenever a dust nuisance or hazard occurs or at the direction of the Environmental Inspector.

Management of Contaminated Materials

Contaminated materials that may be encountered on site are ground or surface water, buried waste, or soils. The materials may be contaminated with metals (e.g., lead, chromium, nickel, copper, zinc), volatile organic compounds (chlorinated solvents like TCE and PCE, petroleum distillates like xylenes, toluene and benzene), and cyanide. In the event that contaminated materials are encountered, the contractor shall be prepared to handle the materials as specified in this section in a timely manner, so as not to impede progress of the project. Equipment that comes in contact with contaminated materials must be decontaminated prior to working in uncontaminated areas of the site, or prior to leaving the site.

Soil and Rock

- In the event that soil and rock are encountered that are suspected of being contaminated, the contractor will immediately restrict access to the area. The contractor will not conduct work in that area until a plan is developed and agreed to by the Environmental Inspector and the contractor. The contractor shall be prepared in a

timely manner to upgrade personnel protection, to conduct exploratory excavations, to assist in collecting samples, and to excavate and haul the potentially contaminated soil and rock to a temporary stockpile area. Sample analysis costs will be the responsibility of Harley-Davidson.

- The contractor shall be prepared to construct a soil stockpile area and access road in the area designated on Exhibit___. The stockpile area shall be constructed by placing (geosynthetic membrane) on 6 inches of sand (spec). A waterproof cover shall be made available by the contractor to cover stockpiled materials in this area. The contractor shall be responsible to manage these stockpiles until they are removed from the stockpile area.

- The Harley-Davidson Environmental Inspector will determine whether the stockpiled materials may be handled as general fill, or must be processed as waste, and treated or disposed. In the event that the Harley-Davidson Environmental Inspector determines that materials can be handled as general fill, the Harley-Davidson Environmental Inspector shall direct the contractor to remove the stockpiled soil from the temporary soil stockpile area. The soil may then be used as construction fill on site, or as fill off site.

Solid Waste, Containers or Sludges (Buried Wastes)

- In the event that buried wastes are encountered, the contractor will immediately restrict access to the area. The contractor will not conduct work in that area until a plan is developed and agreed to by the Environmental Inspector and the contractor. The contractor shall be prepared to upgrade personnel protection, to conduct exploratory excavations, and to assist in collecting samples.

- Harley-Davidson will determine whether to handle the waste as hazardous, or as non-hazardous debris. In the event that the waste shall be handled as hazardous, Harley-Davidson shall provide a hazardous waste contractor to remove the waste. If the waste shall be handled as non-hazardous debris, the contractor shall properly dispose of the material.

Groundwater and Springs

- In the event that groundwater is encountered in excavations or excavated areas, in the form of seeps or springs, the contractor will immediately restrict access to the area. The contractor will not conduct work in that area until a plan is developed and agreed to by the Environmental Inspector and the contractor. The contractor shall be prepared to upgrade personnel protection, to conduct exploratory excavations, to temporarily contain the groundwater with grading, and to assist in collecting samples.

- The contractor shall provide personnel and equipment to contain and collect contaminated water, and transport it to a portable tank near the wastewater treatment plant in the northeast end of the plant (Building 41). Harley-Davidson shall provide and manage the operation of the portable tank, and shall assume responsibility for the water after it is delivered to the tank.

- The contractor shall take care to minimize the mixing of surface water with the identified contaminated groundwater. In addition, the contractor shall minimize the turbidity and solids content of the contaminated water while pumping and hauling the water.

General/Supplementary Conditions

In addition to Harley-Davidson's Minimum Insurance Requirements for contractors, Harley-Davidson may want to require Environmental Impairment Liability Insurance - $1,000,000 combined single limit.

All plans and procedures shall be prepared and completed in a timely manner, so as not to impede the progress of the project.

Measurement and Payment/Bid Pricing

The following bid pricing categories are suggested to allow flexibility in addressing environmental-related concerns during construction:

- Temporary Facilities – Decontamination Pad installation/removal (Lump Sum)
- Temporary Facilities – Soil Staging Pad and access road (Lump Sum)
- Loading, transportation and onsite staging of contaminated soil (per ton)
- Onsite Screening of contaminated soil (per ton)
- Pumping and onsite containerization of contaminated water (per gallon)
- Decontamination of equipment (per event [when authorized])
- Upgrading to Level C personnel protection, including PPE.