



## **PREFERRED PLAN**

**FOR THE REMEDIATION OF THE  
OPERABLE UNIT 5  
DIAMOND SHAMROCK PAINESVILLE WORKS SITE  
PAINESVILLE, LAKE COUNTY, OHIO**



([www.google.com/maps](http://www.google.com/maps), 2015)

**Ohio Environmental Protection Agency  
Division of Environmental Response and Revitalization  
Northeast District Office  
July 2015**

<b>Ohio EPA's Division of Environmental Response and Revitalization (DERR) - Assessment, Cleanup &amp; Reuse Section Remedial Response Program</b>			<b>Preferred Plan For the Remediation of the Diamond Shamrock Painesville Works Site - Operable Unit 5 Painesville, Lake County, Ohio</b>		
<b>THE REMEDIAL RESPONSE PROCESS</b>					
<b>(1)</b> Preliminary Assessment & Site Inspection <b>[Completed]</b>	<b>(2)</b> Remedial Investigation & Feasibility Study <b>[Completed]</b>	<b>(3)</b> Remedy Selection (Preferred Plan & Decision Document)	<b>(4)</b> Remedial Design	<b>(5)</b> Remedial Action	<b>(6)</b> Remedy Operation, Maintenance & Monitoring

### Ohio EPA Announces Preferred Plan

This Preferred Plan identifies the preferred remedial alternative to address contaminated soil and ground water at Operable Unit 5 (OU5) of the Diamond Shamrock Painesville Works Site (Site) and provides the rationale for this preference. The Preferred Plan also includes summaries of other remedial alternatives evaluated for use at OU5. The primary goal is to inform the public about the background and problems posed by OU5, and what the Agency proposes to do to clean up OU5.

Ohio EPA will select a final remedy for OU5 after reviewing and considering all information submitted during the public comment period for this Preferred Plan. Ohio EPA may modify the preferred remedial alternative or select another alternative presented in this Preferred Plan based on new information or public comments. Therefore, the public is encouraged to review and comment on all of the remedial alternatives presented in this Preferred Plan. Once the final remedial alternative is selected, it will be presented in a Decision Document for the project which will be available in the locations noted below.

Ohio EPA is issuing this Preferred Plan in a manner consistent with Section 300.430(f)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). It summarizes information found in detail in the remedial investigation and feasibility study reports and other documents contained in the administrative record file for OU5. Ohio EPA encourages the public to review these documents to gain a better understanding of OU5 and the activities that have been conducted at OU5.

**Public Comment Period:** *July 27, 2015 through September 4, 2015.* Ohio EPA will accept written comments on the Preferred Plan during the public comment period.

**Public Meeting:** Ohio EPA will hold a public meeting to explain the Preferred Plan. Oral and written comments will be accepted at this meeting, which will be held on August 27, 2015 at 6:00 PM at the Painesville Township Hall, 55 Nye Road, Painesville, Ohio 44077.

**Additional Information:** Available from **(1)** Ohio EPA's Northeast District Office, located at 2110 E. Aurora Road, Twinsburg, Ohio 44087, (330) 963-1200 and **(2)** locally from the information repositories at the Morley Public Library, 184 Phelps Street, Painesville, Ohio 44077, (440) 352-3383 and the Fairport Harbor Public Library, 335 Vine Street, Fairport Harbor, Ohio 44077, (440) 354-8191. Information can also be found on the Diamond Shamrock Community Relations Team web site at [www.dsart.com](http://www.dsart.com).

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## TABLE OF ACRONYMS

AOC	Area of Concern
ARAR	Applicable or Relevant and Appropriate Requirements
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COC	Contaminant of Concern
DERR	Division of Environmental Response and Revitalization
ERA	Ecological Risk Assessment
FS	Feasibility Study
HI	Hazard Index
HQ	Hazard Quotient
MCL	Maximum Contaminant Level
NCP	National Contingency Plan
O&M	Operation and Maintenance
PEC	Probable Effects Concentration
PPB	Parts Per Billion
PPM	Parts Per Million
PRG	Preliminary Remediation Goal
PRP	Potentially Responsible Party
RA	Remedial Action
RAO	Remedial Action Objective
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RG	Remediation Goal
RI	Remedial Investigation
TDC	Technical Decision Compendium
TEC	Threshold Effects Concentration
WQS	Water Quality Standards

## 1.0 EXECUTIVE SUMMARY

On September 27, 1995, Chemical Land Holdings, Inc., Maxus Energy Corporation, Occidental Chemical Corporation, Painesville Township Board of Trustees, Uniroyal Chemical Company, Village of Fairport Harbor, and the Painesville PRP Group entered into Director's Final Findings and Orders (DFFOs) with Ohio EPA to investigate and develop remedial alternatives for the Diamond Shamrock Painesville Works Site (Site; see Figure 1, Site Location Map), and anywhere contamination may have migrated. Chemical Land Holdings, Inc., Maxus Energy Corporation, Occidental Chemical Corporation, Painesville Township Board of Trustees, Village of Fairport Harbor, and the Painesville PRP Group are also subject to a U.S. District Court Judicial Consent Order ("Consent Order"), effective on October 4, 2005, which required the continued implementation of the requirement of the DFFOs to investigate contamination at the Site, including OU5. OU5 is subject to both the DFFOs and the Consent Order. Accordingly, the term "Orders" is used to refer to both the DFFOs and the Consent Order.

The Painesville PRP Group developed Phase I and Phase II Remedial Investigation (RI) Work Plans, pursuant to the Orders, to determine where contamination exists at the Site<sup>1</sup> and at what concentrations. The Phase I RI Work Plan was approved by Ohio EPA in August 1997 and the Phase II RI Work Plan was approved by Ohio EPA in August 2000, to investigate the Site for potential contamination of soil, ground water, surface water and indoor air.

The Phase I and Phase II RI Reports were approved by Ohio EPA on July 25, 1999 and September 22, 2003, respectively. These reports documented the existence of contamination within the Site boundaries which would require clean up. The primary contaminants of concern (COCs) within OU5 are presented in Table 2, Areas of Contamination within Operable Unit 5, of this Preferred Plan, and include: aluminum and polycyclic aromatic hydrocarbons (such as benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, manganese, and vanadium). Additional details concerning the health risks associated with each primary COC are located in Appendix B, Primary Contaminants of Concern.

A human health risk assessment, approved by Ohio EPA on April 14, 2011, defines the concentrations of contamination at OU5 which could impact human health. An ecological risk assessment for potential impacts to contaminated soil was not conducted for OU5, since the property is used for active commercial purposes, providing little to no areas for terrestrial ecological receptors to exist. However, human health and ecological risk assessments were conducted for the Grand River and human health risks were incorporated into the human health risk assessment for OU5. The current and future health risks posed by OU5 result from: direct surface and subsurface contact with contaminated soils and fill, direct contact and ingestion of contaminated ground water, direct contact and ingestion of surface water and sediments from the Grand River, ingestion of fish, and volatilization of contaminants to outdoor air.

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<sup>1</sup> Unless otherwise stated, the term "Site" refers to the entire Diamond Shamrock Painesville Works Site, including OU5.

Based on this information, it was determined that remedial alternatives needed to be developed in order to address human health risks posed by OU5. On August 16, 2011, Ohio EPA approved a Feasibility Study (FS) report, which identified potential remedial alternatives for OU5. As part of the FS, a number of Remedial Action Objectives (RAOs) for OU5 were developed to ensure protectiveness of human health and the environment.

All of the documents referenced above can be found in the public repositories noted above.

This Preferred Plan summarizes information on the range of remedial alternatives evaluated, identifies Ohio EPA's preferred remedial alternative, and explains the reasons for selection of the preferred remedial alternative. The Preferred Plan, which forms the basis for the Decision Document (*i.e.*, the final remedy decision), is based on the Ohio EPA-approved RI and FS reports completed by the Painesville PRP Group.

Ohio EPA's preferred remedial alternative should yield a permanent solution for risks associated with the contaminated media at OU5. The expectations for the preferred alternative include:

- Reduction of human health risks to within acceptable limits, and protection of human health and the environment from exposure to COCs in soil and ground water (See Figures 3 and 4), which are above acceptable limits.
- Short and long-term protection of public health and the environment.
- Compliance with applicable or relevant and appropriate requirements (ARARs).
- Cost-effectiveness and limitation of expenses to what is necessary to achieve the preferred alternative expectations.

The major component of the preferred remedial alternative includes the maintenance of an established Environmental Covenant (EC), which prohibits residential land use and the use of ground water within OU5.

Ohio EPA finds that these measures will protect public health and the environment by reducing risk to acceptable levels once the RAOs have been achieved.

## **2.0 SUMMARY OF SITE CONDITIONS**

### **2.1 Site History**

OU5 is located at 950 Elm Street, Painesville, Lake County, Ohio, as shown in Figure 1, Site Location Map and Figure 2, Site Map. The approximately 2.887-acre OU is bordered to the north, east and west by Operable Unit 14 (OU14) of the Diamond Shamrock Painesville Works Site, and to the south by a residential neighborhood.

A list of owners, operators and/or disposers that may have contributed to the contamination at OU5 is shown in Table 1, Owners, Operators and/or Disposers.

**TABLE 1 OWNERS, OPERATORS AND/OR DISPOSERS**

<b>Owners, Operators and/or Disposers</b>	<b>Property Usage</b>	<b>Period</b>
Diamond Shamrock Painesville Works	Vacant Land	~1912 - 1996
Nacelle Land Holdings, Inc.	Office Building	1996 - 1999
James Nicholson	Equipment and Material Storage Yard	1999 - 2007
Elm Street Truck Depot, LLC	Equipment and Material Storage Yard	2007 - Present

OU5, currently owned by Elm Street Truck Depot, LLC, is used for the storage of trucks, equipment, and materials (e.g., soil, gravel, solid wastes, etc.). James Nicholson, a previous operator who owned OU5 from 1999 through 2007, utilized the OU for the storage of trucks, equipment and materials. Mr. Nicholson placed and graded fill from a former road base across the surface of the OU and created a stockpile of the same material on the western portion of the OU. This led to the release of contaminants, including but not limited to, aluminum, benzo(a)pyrene and vanadium.

## **2.2 Site Characteristics and Investigation**

Pursuant to the 1995 DFFOs and the 2005 Federal Judicial Consent Order for the RI/FS, the Painesville PRP Group submitted RI and FS reports, which were approved by Ohio EPA DERR on July 25, 1999 (Phase I RI), October 22, 2003 (Phase II RI) and August 16, 2011 (OU5 FS). The RI/FS activities identified the nature and extent of contamination at the Site, and, as necessary, developed alternatives to address the contamination. The investigation also provided a description of Site geology, topography, hydrogeology and other Site characteristics.

The RI consisted of sampling soil, subsurface soil and stockpiled fill materials for Target Analyte List (TAL) metals; Target Compound List (TCL) volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), and pesticides; and hexavalent chromium, cyanide, total organic carbon (TOC) and pH. OU5 is currently used for commercial/industrial purposes (i.e., the storage of trucks, trailers, equipment, solid waste and construction and fill materials). Elm Street separates OU5 from the residential neighborhood. The reasonably anticipated future land use for OU5 presented by the Painesville PRP Group and current owner, and concurred with by Ohio EPA and interested stakeholders, is commercial/industrial (i.e., non-residential).

A human health risk assessment was developed to estimate the chance of health problems occurring if no cleanup action were taken at OU5. Please refer to the RI and FS reports for more detailed information. These reports, along with other site-related materials, are located in the information repositories at the Morley and Fairport Harbor public libraries, the DSCRT web site ([www.dscrt.com](http://www.dscrt.com)) and in Ohio EPA's Northeast District Office.

The Phase I and Phase II RI reports, prepared between 1997 and 2002 by SECOR International, Inc., on behalf of the Painesville PRP Group, indicated that OU5 met unrestricted residential risk-based standards for surface and subsurface soils, and that only a ground water use restriction would be required. However, in 2006, during the end of the feasibility study report phase of the RI/FS for OU5, it was discovered that the property owner (James Nicholson) placed several feet of fill material across the surface and created a stockpile of material on the western portion of OU5.

The Painesville PRP Group, on the request of Ohio EPA, performed additional surface and subsurface sampling of soil and fill material across OU5 in 2006. The fill material, which consisted of former road base from the Argonne Street road construction project, contained the following COCs: aluminum, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, manganese, and vanadium. The stockpiled material contained aluminum, benzo(a)pyrene, and vanadium. Based on this sampling, it was determined that OU5 no longer met residential standards, but did meet commercial/industrial risk-based standards.

Prior to the submittal of the Phase I RI Work Plan to Ohio EPA, the Agency agreed with the Painesville PRP Group that characterization of ground water for potable purposes would not be necessary. This determination was based on limited ground water yields and poor ground water quality across the entire Site. Instead, the Painesville PRP Group committed to evaluating ground water as a source of contamination to Lake Erie and the Grand River. They also agreed to place ground water use restrictions on all of the OUs within the Site, to eliminate the potential for ground water use in the future.

### **2.3 Interim or Removal Actions Taken to Date**

No interim or removal actions were performed within OU5.

### **2.4 Summary of Site Risks**

As part of the RI/FS, a baseline risk assessment was conducted, and approved by Ohio EPA on April 14, 2011, to evaluate current and potential future risks to human receptors as the result of exposure to contaminants present at OU5. The results demonstrated that the existing contaminants in environmental media pose or potentially pose unacceptable risks and/or hazards to human receptors sufficient to trigger the need for remedial actions. Additional information on the primary COCs can be found in **Appendix B**.

#### **2.4.1 Risks to Human Health**

The risk assessment for human health is an estimate of the likelihood of potential health problems occurring if no remedial actions were taken at OU5. To estimate baseline risk, a four-step process is undertaken.

**Step 1. Data Collection and Evaluation (of Contamination):** The concentrations of contaminants at the site as well as any past scientific studies on the effects these contaminants have had on people are reviewed. Comparisons of site-specific

concentrations of COCs and concentrations reported in past studies help determine which contaminants are most likely to pose the greatest threat to human health.

**Step 2. Exposure Assessment:** The different ways that people might be exposed to the COCs, the concentrations that people might be exposed to, and the potential frequency and duration of exposure are evaluated. A reasonable maximum exposure scenario is calculated, which portrays the highest level of human exposure that could reasonably be expected to occur.

**Step 3. Toxicity Assessment (of Potential Health Dangers):** The information from Step 2 is combined with data on the toxicity of each COC to assess potential health risks. Two types of risk are considered: cancer risk and non-cancer risk. The likelihood of any kind of cancer resulting from a site is expressed as a probability of 1 in 100,000, or  $1 \times 10^{-5}$ . In other words, for every 100,000 people that could be exposed, one extra case of cancer may occur as a result of exposure to site COCs. For non-cancer health effects, a hazard index (HI) or hazard quotient (HQ) is calculated (quotient refers to the effects of an individual COC, whereas index refers to the combined effects of all of the COCs). The key concept here is that a "threshold level" (measured as an HQ or HI of 1) exists below which non-cancer health effects are not expected to occur to exposed populations or individuals.

**Step 4. Risk Characterization:** A determination is made as to whether site risks are substantial enough to cause potential health problems for people at or near the site. The potential risks from the individual pathways (e.g., inhalation, direct contact, ingestion, etc.), and individual chemicals as appropriate, are added together to determine the total cumulative risk to human health.

Human health risk assessments for OU5 and the Grand River were prepared to evaluate potential impacts to human health posed by COCs in soils, stockpiled material, sediments, ground water, surface water, air, and fish for the following exposure pathways:

Soils:

Ingestion  
Dermal Contact  
Particulate Emissions to Outdoor Air  
Volatile Emissions to Indoor Air  
Volatile Emissions to Outdoor Air

Stockpiled Material:

Ingestion  
Dermal Contact  
Particulate Emissions to Outdoor Air  
Volatile Emissions to Indoor Air  
Volatile Emissions to Outdoor Air

Ground Water:

Source of Contaminants to Grand River and Lake Erie  
Volatile Emissions to Indoor Air

Grand River Surface Water, Sediment and Fish<sup>2</sup>:

Ingestion of Fish  
Ingestion of Surface Water  
Ingestion of Sediment  
Dermal Contact with Surface Water  
Dermal Contact with Sediment

Human health exposure to contaminants in ground water via ingestion was not determined, due to an inability for ground water within the Site, including OU5, to be used for potable purposes, based on low quality and yield.

Human health risks were calculated for OU5 receptors, which included the commercial/industrial worker, adult and child resident and construction/excavation worker. These human health risks included exposure to Grand River surface water, sediment and fish, as applicable. Excess lifetime cancer risk (ELCR) and the non-cancer hazard index (HI) were determined for each of the receptors. ELCR values which exceed  $1 \times 10^{-5}$  and HI values which exceed 1 trigger the need for remedial action.

**Cumulative Receptor Exposures**

Receptor	ELCR (cancer)	HI (non-cancer)	Exceedances?
Adult-Resident	$2 \times 10^{-5}$	0.21	Yes ELCR
Child-Resident	$3 \times 10^{-5}$	0.91	Yes ELCR
Commercial/Industrial Worker	$1 \times 10^{-5}$	0.06	No Both
Construction/Excavation Worker	$2 \times 10^{-6}$	0.12	No Both

Based on this analysis, although the HI (non-cancer risk) is not exceeded for either the adult or child resident, the ELCR (cancer risk) is exceeded for both receptors. Therefore, without remediation, OU5 cannot be used for residential purposes. However, neither the HI nor the ELCR are exceeded for the commercial/industrial worker or construction/excavation worker, resulting in an ability to use the property for commercial or industrial purposes without remediation or restriction. The ELCR and HI are not exceeded for indoor air risk for any of the receptors.

**2.4.2 Risks to Ecological Receptors**

An Ecological Risk Assessment (ERA) was not conducted as part of the RI for OU5, due to the lack of a terrestrial habitat, which would support ecological receptors. Risks posed by

<sup>2</sup> Grand River exposure pathways were only evaluated for future residents.

Grand River contaminants to ecological receptors were evaluated separately under the *Baseline Ecological Risk Assessment for the Grand River*.

### 3.0 REMEDIAL ACTION OBJECTIVES

An FS, to define and analyze appropriate remedial alternatives for OU5, was completed with Ohio EPA oversight and was approved by Ohio EPA on August 16, 2011.

As part of the RI/FS process, RAOs were developed in accordance with Section 300.430 of the NCP, pursuant to the federal Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), 42 U.S.C. §9601 et seq., as amended, and U.S. EPA guidance (*i.e.*, RI/FS Guidance (EPA/540/G-89/004, and others). The RAOs are goals that a remedy should achieve in order to ensure protection of human health and the environment.

The RAOs for the site include those listed in Table 2, Remedial Action Objectives:

<b>TABLE 2 REMEDIAL ACTION OBJECTIVES</b>	
<b>Ground Water</b>	
<b>Human Health Risk</b>	Prevent ingestion/direct contact of ground water across OU5 containing contaminants in excess of MCLs or, for COCs lacking MCLs, risk-based unrestricted potable use standards.
<b>Soil</b>	
<b>Human Health Risk</b>	Prevent direct contact with soil located across OU5, containing carcinogens (including volatile and semi-volatile chemicals, pesticide, PCBs and metals) in excess of a total excess lifetime cancer risk greater than $1 \times 10^{-5}$ .
<b>Human Health Risk</b>	Prevent direct contact with soil located across OU5, below the applicable minimum points of compliance, containing non-carcinogens (including volatile and semi-volatile chemicals, pesticide, PCBs and metals) in excess of a HQ or HI greater than 1.

OU5 is currently used for commercial/industrial purposes and the current property owner has stated that he does not plan to change the future use. In order to solidify this intent, the property owner has placed an EC on the property which restricts OU5 to commercial or industrial land use, prohibits the extraction of ground water for any purpose except environmental investigation, monitoring or remediation, and prohibits the construction of new ground water wells (see Appendix C). The risk assessment documented that OU5 currently meets commercial and industrial risk-based standards. Ground water was eliminated as a human health pathway, based on a lack of receptors, poor quality and low yields. Therefore, remediation goals were not established for OU5.

### 4.0 SUMMARY OF REMEDIAL ALTERNATIVES

A total of three (3) remedial alternatives were considered in the FS, as identified in Table 3, Summary of Site Remedial Alternatives. A brief description of the major features of each of

the remedial alternatives follows. More detailed information about these alternatives can be found in the FS report.

TABLE 3 SUMMARY OF SITE REMEDIAL ALTERNATIVES		
Media	Alternative	Description of Remedial Alternative
Soil		
	S1	No action
	S2	Maintenance of Existing Environmental Covenant
	S3	Removal of Fill Material
Groundwater		
	G1	No Action
	G2	Maintenance of Existing Environmental Covenant

#### 4.1 No Action Alternatives (S1 and G1)

The “no action alternatives” for soil and ground water have been included in a single section for efficiency. The NCP requires evaluation of a no action alternative to establish a baseline for the comparison of other remedial alternatives. Under this alternative, no remedial activities or monitoring are conducted at the site to prevent exposure to contaminated media.

#### 4.2 Soil Alternatives

##### Alternative S2: Maintenance of Existing Environmental Covenant

An EC was placed on the property by Elm Street Truck Depot, LLC, the current property owner, on April 3, 2014 (see Appendix C, OU5 Environmental Covenant). The EC restricts the property to industrial and commercial land use only and prohibits the use of ground water for any purpose except for the investigation, monitoring or remediation. The construction of new ground water wells is also prohibited. These restrictions satisfy the RAOs for soils, presented in Table 2, by severing the direct contact pathways for the residential receptor. Soils currently meet risk-based standards for industrial uses and do not require remediation. Per paragraph 6 of the EC and pursuant to ORC § 5301.85, the EC is binding upon current and subsequent property owners and cannot be unilaterally removed. The current and subsequent owners are required to submit written documentation to Ohio EPA and the city of Painesville on an annual basis, confirming that the use limitations remain in place and that the owner is in compliance.

Estimated Capital Cost	\$ 0
Estimated O&M Cost	\$ 0
Estimated Present Worth Cost	\$ 0
Estimated Construction Time	None
Estimated Time to Achieve RAOs	Currently Meets RAOs

### Alternative S3: Removal of Fill Material

This alternative would require the removal and appropriate off-site disposal of all fill placed on the property. Following removal of the approximately 7,700 cubic yards of material, sampling and a post-removal risk assessment would be conducted to confirm that the property is in compliance with residential risk-based standards. An EC would be required to prohibit the use of ground water. This alternative would comply with the RAOs provided in Table 2, because at the end of implementation, the property would meet residential risk-based standards and the EC would render the ground water use pathway incomplete. The cost estimate and time required for implementation of alternative S3, which appear below, were derived by Haley & Aldrich, consultant for the Painesville PRP Group, and appear in appendix B of the FS.

Estimated Capital Cost	\$ 452,500
Estimated O&M Cost	\$ 0
Estimated Present Worth Cost	\$ 452,500
Estimated Construction Time	9 to 15 months
Estimated Time to Achieve RAOs	9 to 15 months

### **4.3 Groundwater Alternatives**

#### Alternative G2: Maintenance of Existing Environmental Covenant

As stated in section 4.2, Soil Alternatives, an EC was placed on OU5 in 2014, which limits the property to commercial and industrial use only and prohibits the use of ground water for any purposes other than investigation, monitoring and remediation. This alternative complies with the RAO for ground water by restricting use, which prevents direct contact and ingestion by human receptors.

Estimated Capital Cost	\$ 0
Estimated O&M Cost	\$ 0
Estimated Present Worth Cost	\$ 0
Estimated Construction Time	None
Estimated Time to Achieve RAOs	Currently meets RAOs

## **5.0 COMPARISON AND EVALUATION OF ALTERNATIVES**

### **5.1 Evaluation Criteria**

Ohio EPA considers eight criteria, as outlined in the NCP, to evaluate the various remedial alternatives individually and compare them with each other in order to select a remedy. A more detailed analysis of the remedial alternatives can be found in the FS report. The eight evaluation criteria, including the threshold, balancing and modifying criteria are shown below in **Table 4 Remedial Alternative Evaluation Criteria**.

**TABLE 4 REMEDIAL ALTERNATIVE EVALUATION CRITERIA**

<b>Threshold Criteria (2)</b>
<b>Overall Protection of Public Health and the Environment</b> - determines whether an alternative eliminates, reduces, or controls threats to public health and the environment through institutional controls, engineering controls, treatment, etc.
<b>Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)</b> - evaluates whether the alternative meets federal and state environmental statutes, regulations, and other requirements that pertain to the site, or whether a waiver is justified.
<b>Balancing Criteria (5)</b>
<b>Long-Term Effectiveness and Permanence</b> – evaluates the ability of an alternative to maintain protection of human health and the environment over time.
<b>Reduction of Toxicity, Mobility, or Volume of Contaminants Through Treatment</b> – evaluates the amount of contamination present, the ability of the contamination to move in the environment, and the use of treatment to reduce harmful effects of the principal contaminants.
<b>Short-Term Effectiveness</b> – evaluates the length of time needed to implement an alternative and the risks the alternative poses to workers, residents, and the environment during implementation.
<b>Implementability</b> – evaluates the technical and administrative feasibility of implementing the alternative, including factors such as the relative availability of goods and services.
<b>Cost</b> – includes estimated capital and annual operation and maintenance costs, as well as present worth cost. Present worth cost is the total cost of an alternative over time in terms of today's dollar value. Cost estimates are expected to be accurate within a range of +50 to -30 percent.
<b>Modifying Criterion (1)</b>
<b>Community Acceptance</b> – considers whether the local community agrees with Ohio EPA's analyses and preferred alternative. Comments received on the Preferred Plan are an important indicator of community acceptance.

Evaluation Criteria 1 and 2 are threshold criteria required for acceptance of an alternative. Any acceptable remedy must comply with both of these criteria. Evaluation Criteria 3 through 7 are the balancing criteria used to select the best remedial alternative(s) identified in the Preferred Plan. Evaluation Criteria 8, community acceptance, is evaluated through public comment on the alternatives received during the comment period.

## **5.2 Analysis of Evaluation Criteria**

This section examines how each of the evaluation criteria is applied to each of the remedial alternatives listed in Section 4.0 and compares how the alternatives achieve the evaluation criteria.

## Overall Protection of Human Health and the Environment

Evaluation of the overall protectiveness of the alternatives focused on whether each alternative achieves adequate protection of human health and the environment and identifies how site risks posed through each pathway being addressed are eliminated, reduced or controlled by the alternative. This evaluation also includes consideration of whether the alternative poses any unacceptable short-term or cross-media impacts.

**Soil Alternatives:** The EC, as presented in alternative S2, insures that OU5 meets residential human health risk based standards by prohibiting all but commercial and industrial use of the property. Alternative S3 is protective of human health and the environment by removing all soils that are in excess of residential risk-based standards and disposing them off-site.

**Groundwater Alternatives:** The EC, as presented in alternative G2, insures that human health is protected by restricting the use of ground water within OU5.

The “no action alternative” would not meet this criterion because it would leave soils exposed which would cause excess risk to residential receptors. It would also potentially permit excess risk due to contact and ingestion of ground water<sup>3</sup>. Since the “no action alternatives” do not meet the two threshold criteria (overall protection of human health and the environment, and compliance with applicable or relevant and appropriate requirements), they were eliminated from consideration under the remaining criteria.

## Compliance with ARARs

**Soil Alternatives:** ARARs would be met for soil alternatives S2 and S3 through either the maintenance of the existing EC or the removal of fill material from the OU.

**Groundwater Alternatives:** ARARs would be met for ground water alternative G2 by prohibiting extraction through maintenance of the existing EC.

## Long-Term Effectiveness and Permanence

**Soil Alternatives:** Soil alternative S2, maintenance of the existing EC, is effective and permanent due to requirements established by ORC § 5301.85. Soil alternative S3, is also effective and permanent due to the removal of all soils which are in excess of residential risk-based standards.

<sup>3</sup> However, because the EC is already in place on the property, the “no action alternative” is not an option.

**Groundwater Alternatives:** Ground water alternative G2, maintenance of the existing EC, is effective and permanent due to requirements established by ORC § 5301.85.

### Reduction of Toxicity, Mobility or Volume by Treatment

**Soil Alternatives:** No treatment is required under alternative S2. Treatment would also not be performed under alternative S3. Instead, the approximately 7,700 cubic yards of soils would be disposed off-site at a location which would accept soils that do not meet residential standards (e.g., municipal landfill, fill on a commercial or industrial property, etc.).

**Groundwater Alternatives:** No treatment is required under alternative G2.

### Short-Term Effectiveness

**Soil Alternatives:** The EC required under alternative S2 is already in place and meets the short-term effectiveness criterion. Alternative S3 will take approximately nine (9) to 15 months to implement. During implementation, fugitive dust and surface water runoff could present additional risk, as could activities related to the transportation and disposal of the soil at an off-site facility.

**Groundwater Alternatives:** The EC required under G2 is already in place and meets the short-term effectiveness criterion.

### Implementability

**Soil Alternatives:** Alternative S2 is currently in place and does not require any form of implementation. Alternative S3 is more difficult to implement and will require maintenance of fugitive dust, surface water run-off control, and permits to haul soils from OU5 on existing residential roads. It would also require the removal of an estimated 7,700 cubic yards of soils and performance of additional soil sampling and a post-removal risk assessment, to confirm that the property meets residential risk based standards.

**Groundwater Alternatives:** Alternative G2 is currently in place and does not require any form of implementation.

## Cost

**Soil Alternatives:** Alternative S2 is currently in place and has no associated costs. Alternative S3 is estimated to cost \$452,500 to implement.

**Groundwater Alternatives:** Alternative G2 is currently in place and has no associated costs.

## Community Acceptance

Community acceptance of the preferred alternative will be evaluated after the public comment period ends. All comments will be summarized and responded to by the Agency in a Responsiveness Summary, attached to the Decision Document issued by the Director of Ohio EPA (after the Preferred Plan), and which provides the final remedy selection.

### 5.3 Summary of Evaluation Criteria

A summary of the evaluation of the site remedial alternatives is included in **Table 5 Evaluation of Site Remedial Alternatives**.

TABLE 5 EVALUATION OF SITE REMEDIAL ALTERNATIVES								
Remedial Alternatives	Threshold Criteria		Balancing Criteria				Modifying Criteria	
	1. Protects Human Health & Environment	2. Compliance with ARARs	3. Long Term Effectiveness	4. Reduces T, M and/or V by Treatment	5. Short Term Effectiveness	6. Implementable		7. Costs
Soil								
Alternative S2	■	■	■	□	■	■	■	N/A
Alternative S3	■	■	■	□	□	■	■	N/A
Groundwater								
Alternative G2	■	■	■	□	■	■	■	N/A
■ = Fully Meets Criteria      ■ = Partially Meets Criteria      □ = Does Not Meet Criteria								

## 6.0 OHIO EPA'S PREFERRED ALTERNATIVE

Ohio EPA's preferred remedial alternative for OU5 of the Diamond Shamrock Painesville Works Site is a combination of Soil Alternative S2 and Ground Water Alternative G2. This

preferred remedial alternative may change in response to Ohio EPA's consideration of public comment or new information.

The soil alternative was selected over the other soil alternatives because the EC is currently in place and requires no time to implement. There is no cost associated with the selected soil alternative. The ground water alternative was selected for the same reasons.

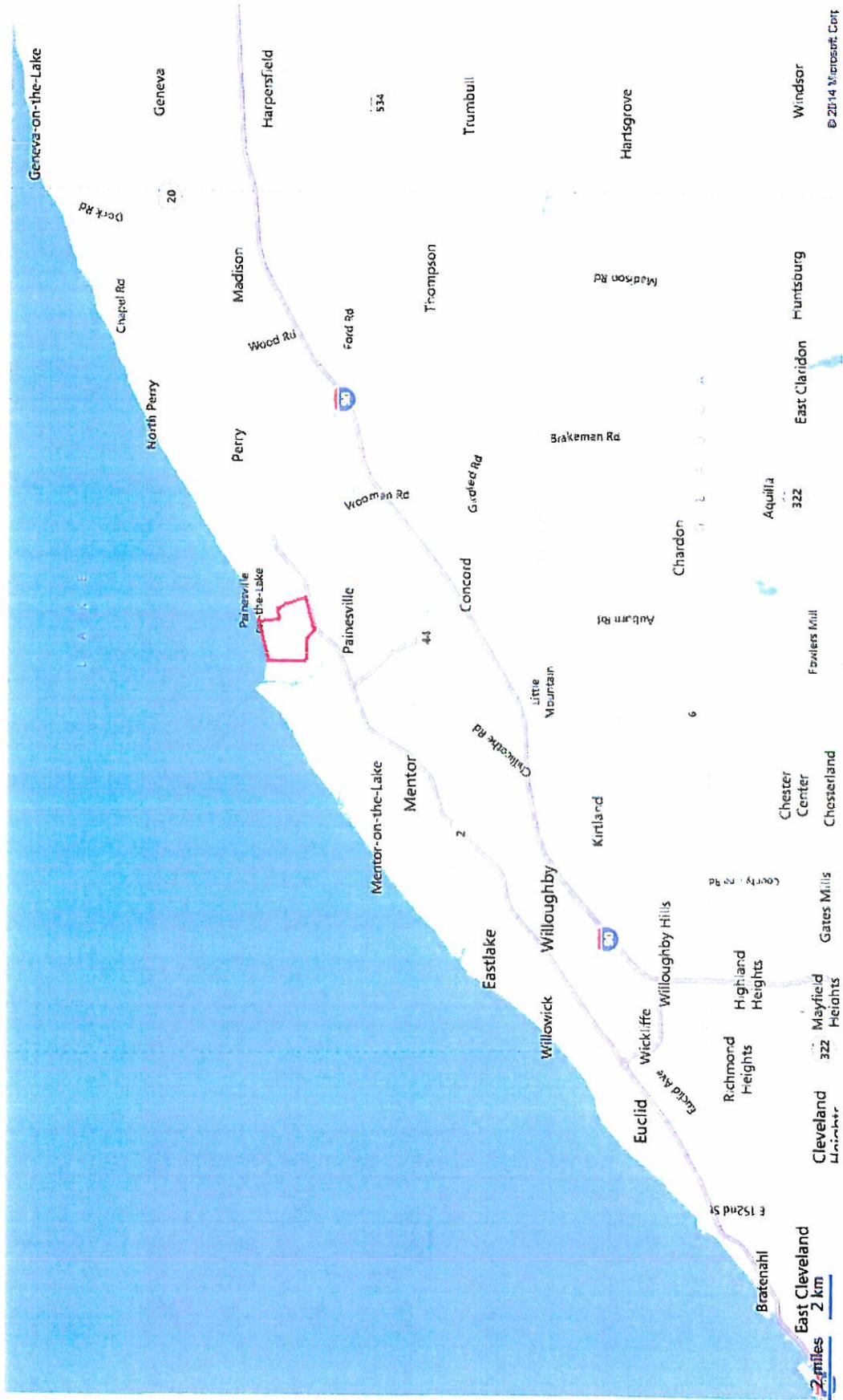
#### Performance Standard

- The performance standard is met when the restrictions identified in the existing EC are continually enforced, such that the RAOs for the various media are met, until such institutional controls are no longer necessary.

Based on information presently available, it is Ohio EPA's current judgment that the preferred remedial alternative best satisfies the criteria defined in Table 5, 'Evaluation of Site Remedial Alternatives'. The EC, which is currently in place, satisfies requirements for both soils and ground water. ORC § 5301.85 and ORC § 5301.90 prohibit the unilateral removal of the EC from the property by current and future owners.

## FIGURES

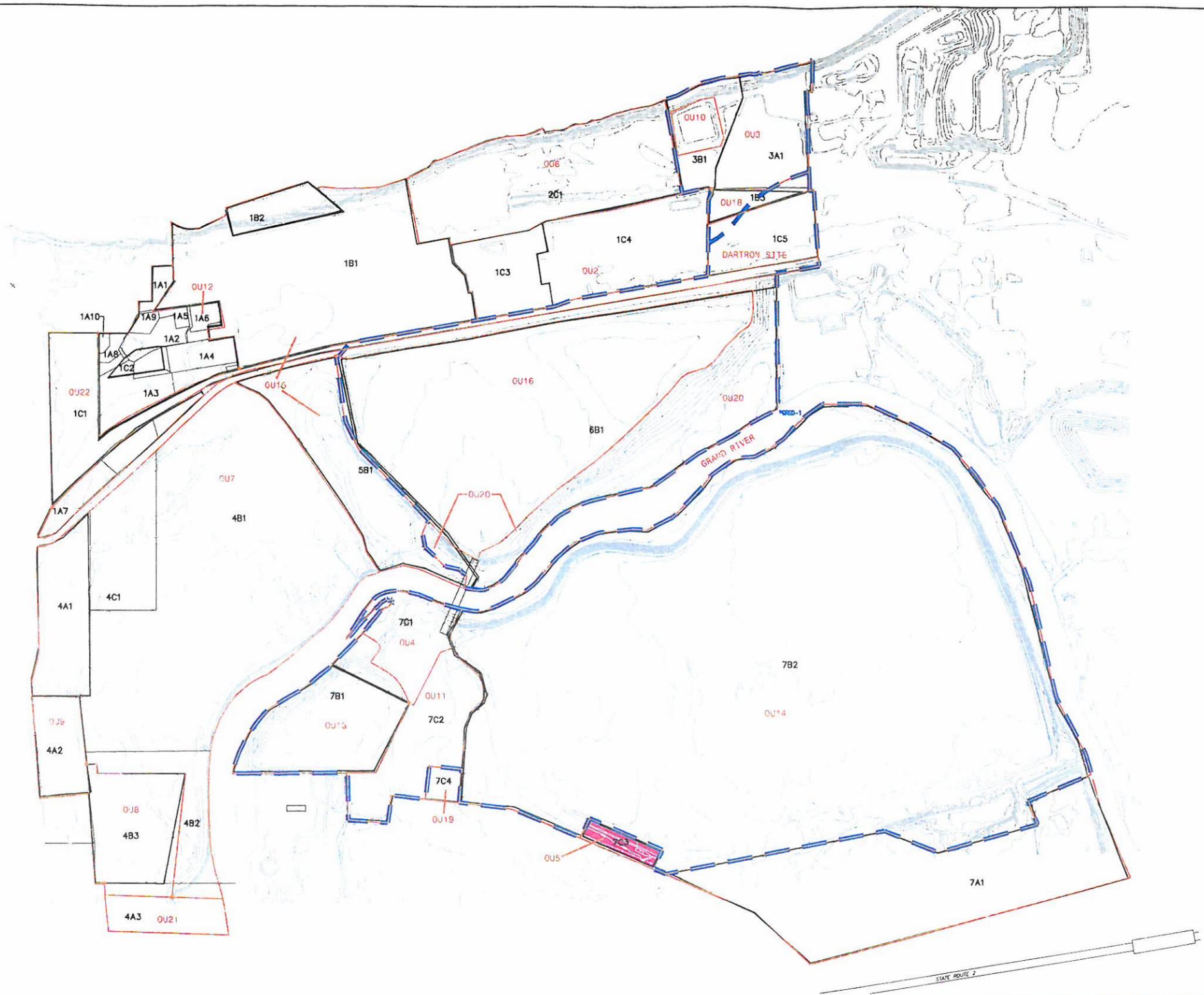
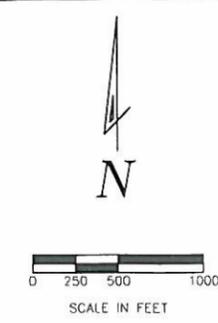
**FIGURE 1 – SITE LOCATION MAP**



# DIAMOND SHAMROCK PAINESVILLE WORKS SITE – LAKE COUNTY, OHIO

(Map modified from Bing Maps, [www.bing.com](http://www.bing.com), 2014)

**FIGURE 2 – SITE OPERABLE UNIT MAP**



- FEASIBILITY STUDY OPERABLE UNITS  
(PARCEL GROUPINGS)**
- OU1N-LAKE- (GROUNDWATER WITHIN PARCELS 3B1, MAJORITY OF 3A1 AND NORTHERN PORTIONS OF 1B3 & 1C5)
  - OU1N-RIVER- (GROUNDWATER WITHIN PARCEL 6B1 AND THE SOUTHERN PORTIONS OF PARCELS 1B3, 1C5 & 3A1)
  - OU1S- GROUNDWATER WITHIN PARCEL 7B2, 7B1, 7C1 & 7C2
  - OU2- 1C3/1C4
  - OU3- 3A1 (MAJORITY OF)/3B1 (MINUS ONE-ACRE SITE)
  - OU4- 7C1 (PORTION OF)
  - OU5- 7C3
  - OU6- 2C1
  - OU7- 4A1/4B1/4B2/4C1/1A7
  - OU8- 4B3
  - OU9- 4A2
  - OU10- ONE-ACRE SITE
  - OU11- 7C2
  - OU12- 1A1/1A2/1A3/1A4/1A5/1A6/1A8/1A9/1A10/1C1/1C2/ (WEST STUDY AREA 1)
  - OU13- 7B1/7C1 (PORTION OF)
  - OU14- 7B2
  - OU15- 1B1/1B2/5B1 (MAJORITY OF)
  - OU16- 6B1 (UPLAND)
  - OU17- 1C5- DARTRON SITE
  - OU18- 1B3/3A1 (PORTION OF)
  - OU19- 7C4
  - OU20- 6B1 (SLOPE/LOWLANDS), 5B1 (PORTION OF) & FAIRPORT-NURSERY ROAD RIGHT-OF-WAY
  - OU21- 4A3
  - OU22- 1C1

**Hull**  
 & Associates, Inc.

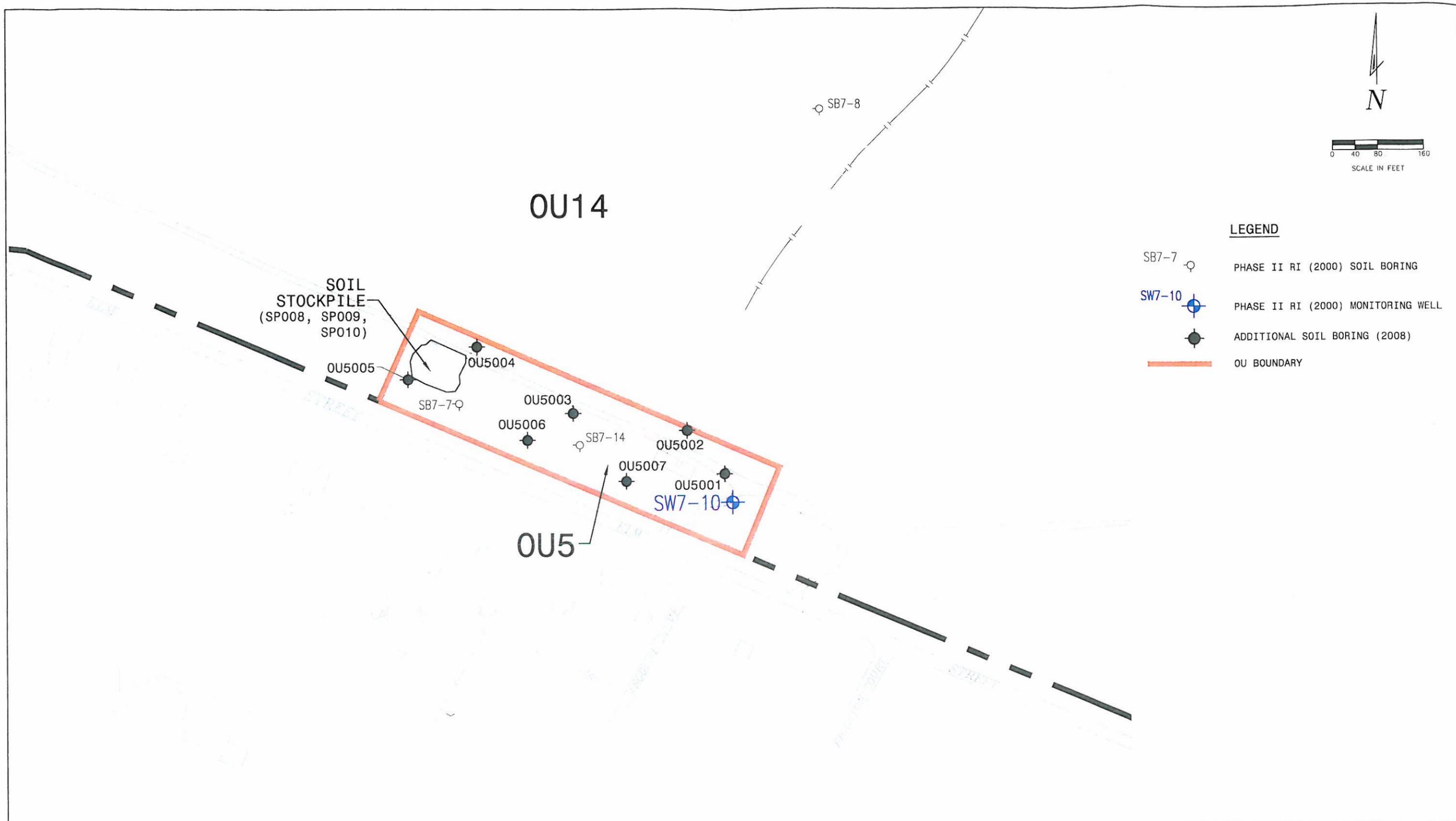
ENGINEERS | GEOLOGISTS | SCIENTISTS | PLANNERS  
 4 HEMISPHERE WAY  
 BEDFORD, OHIO 44146  
 PHONE: (440) 232-9945  
 FAX: (440) 232-9946  
 www.hullinc.com

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FEASIBILITY STUDY  
 OPERABLE UNIT 5  
**FIGURE 1**  
**OPERABLE UNIT LOCATION MAP**  
 FORMER DIAMOND SHAMROCK PAINESVILLE WORKS SITE  
 PAINESVILLE, LAKE COUNTY, OHIO

PROJECT NO.: TER005	SUBMITTAL DATE: JUNE 2011
CAD DWG FILE: TER005.100.0004 GAC	PLOT DATE: 6/9/11

**FIGURE 3 – OPERABLE UNIT 5 MAP**



<p><b>Hull &amp; Associates, Inc.</b> ENGINEERS   GEOLOGISTS   SCIENTISTS   PLANNERS 4 HEMISPHERE WAY BEDFORD, OHIO 44146 PHONE: (440) 232-9946 FAX: (440) 232-9946 www.hullinc.com © 2011 HULL &amp; ASSOCIATES, INC.</p>		FEASIBILITY STUDY OPERABLE UNIT 5	
		<b>FIGURE 2</b> <b>SITE MAP WITH SAMPLE LOCATIONS</b> FORMER DIAMOND SHAMROCK PAINESVILLE WORKS SITE PAINESVILLE, LAKE COUNTY, OHIO	
PROJECT NO.:	TER005	SUBMITTAL DATE:	JUNE 2011
CAD DWG FILE:	TER005.100.0003	PLOT DATE:	6/2/11

## APPENDICES

## Appendix A Glossary of Terms

<p><b>Administrative Record:</b> All documents that Ohio EPA considered or relied on in selecting a remedial action for a site.</p>
<p><b>Adsorb:</b> The adhesion in an extremely thin layer of molecules (as of gases, solutes, or liquids) to the surfaces of solid bodies or liquids with which they are in contact.</p>
<p><b>Aquifer:</b> An underground geological formation capable of holding and yielding water.</p>
<p><b>Applicable or Relevant and Appropriate Requirements (ARARs):</b> Those rules that strictly apply to remedial activities at the site or those rules whose requirements would help achieve the remedial goals for the site.</p>
<p><b>Baseline Risk Assessment:</b> An evaluation of the risks to humans and the environment posed by a site in the absence of any remedial action, which also determines the extent of cleanup needed to reduce potential risk levels to within acceptable ranges.</p>
<p><b>Carcinogen:</b> A chemical that causes cancer.</p>
<p><b>CERCLA:</b> Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, 42 U.S.C. 9601 et seq. A federal law that regulates cleanup of hazardous substances sites under the U.S. EPA Superfund Program.</p>
<p><b>Contaminants of Concern (COCs):</b> Chemicals identified at the site that are present in concentrations that may be harmful to human health or the environment.</p>
<p><b>Decision Document:</b> A statement issued by the Ohio EPA giving the director's selected remedy for a site and the reasons for its selection.</p>
<p><b>Ecological Receptor:</b> Animals or plant life exposed or potentially exposed to chemicals released from a site.</p>
<p><b>Environmental Covenant (EC):</b> A servitude arising under an environmental response project that imposes activity and use limitations and that meets the requirements established in ORC Section 5301.82.</p>
<p><b>Exposure Pathway:</b> Route by which a chemical is transported from the site to a human or ecological receptor.</p>
<p><b>Feasibility Study (FS):</b> A study conducted to ensure that appropriate remedial alternatives are developed and evaluated such that relevant information concerning the remedial action options can be presented to a decision-maker and an appropriate remedy can be selected.</p>
<p><b>Final Cleanup Levels:</b> Final cleanup levels identified in the Decision Document along with the RAOs and performance standards.</p>
<p><b>Hazardous Substance:</b> A chemical that may cause harm to humans or the environment.</p>
<p><b>Hazardous Waste:</b> A waste product listed or defined by RCRA that may cause harm to humans or the environment.</p>
<p><b>Human Receptor:</b> A person/population exposed to chemicals released at a site.</p>
<p><b>Imminent Threat:</b> A high probability that exposure is occurring.</p>
<p><b>Leachate:</b> Water that collects contaminants as it migrates through wastes, pesticides or fertilizers. Leaching may occur in farming areas and landfills, and may result in hazardous substances entering surface water, ground water, soil or sediment.</p>

<p><b>Maximum Contaminant Level (MCL):</b> The highest level of a contaminant that is allowed in a public drinking water supply. The level is established by U.S. EPA and incorporated into OAC 3745-81-11 and 3745-81-12.</p>
<p><b>Monitoring Well:</b> A well installed to collect ground water samples for the purpose of physical, chemical, or biological analyses to determine the amounts, types, and distribution of contaminants in ground water beneath a site.</p>
<p><b>NCP:</b> National Oil and Hazardous Substances Pollution Contingency Plan, codified at 40 C.F.R. Part 300 (1990), as amended. A framework for remediation of hazardous substance sites specified in CERCLA.</p>
<p><b>Operation and maintenance (O&amp;M):</b> Long-term measures taken at a site, after the initial remedial actions, to assure that a remedy remains protective of human health and the environment.</p>
<p><b>Performance Standard:</b> Measures by which Ohio EPA determines if RAOs are being met.</p>
<p><b>Preferred Plan:</b> The plan that evaluates the preferred remedial alternative chosen by Ohio EPA to remediate the site in a manner that best satisfies the evaluation criteria.</p>
<p><b>Preliminary Remediation Goal (PRG):</b> Initial clean-up goals that (1) are protective of human health and the environment and (2) comply with ARARs. They are developed early in the process (scoping) based on readily available information and are modified to reflect the results of the baseline risk assessment (termed RGs at this point in time). They are also used during the analysis of remedial alternatives in the RI/FS.</p>
<p><b>Present Worth Cost:</b> Estimated current cost, or value, of the future remedial costs to be expended, typically discounted at the current market rate. Provides a solid basis for comparing costs of each of the remedial alternatives.</p>
<p><b>Project Action Level:</b> A concentration for a COC that has been determined by regulation or through a risk assessment to be protective of human health or ecological receptors. This concentration value could be based on a preliminary remediation goal (PRG); a drinking water maximum contaminant level (MCL); or a background concentration (background).</p>
<p><b>RCRA:</b> Resource Conservation and Recovery Act of 1976, as amended, 42 U.S.C. 6901 et seq. A federal law that regulates the handling of hazardous wastes.</p>
<p><b>Remedial Action Objectives (RAOs):</b> Specific remedial goals for reducing risks posed by the site.</p>
<p><b>Remedial Investigation (RI):</b> A study conducted to collect information necessary to adequately characterize the site for the purpose of developing and evaluating effective remedial alternatives.</p>
<p><b>Responsiveness Summary:</b> A summary of all comments received concerning the Preferred Plan and Ohio EPA's response to the comments.</p>
<p><b>Sediment:</b> Topsoil, sand and minerals washed from the land into water, usually after rain or snow melt.</p>
<p><b>Water Quality Criteria:</b> Chemical, physical and biological standards that define whether a body of surface water is unacceptably contaminated. These standards are intended to ensure that a body of water is safe for fishing, swimming and as a drinking water source. These standards can be found in OAC Chapter 3745-1.</p>

## Appendix B Primary Contaminants of Concern

A total of eight (8) primary COCs have been identified that pose the greatest potential risk to human health and the environment at this site. Additional details on each primary COC (from the Agency for Toxic Substances and Disease Registry ([ATSDR Toxicological Profiles](#))) are provided below.

**Aluminum** is naturally occurring and is most abundant metal in the earth's crust. It always appears in combination with other elements and is found in soils, ground water and surface water. Aluminum is used in a wide variety of applications, including water treatment, abrasives and furnace linings. Aluminum is also found in antacids, astringents, buffered aspirin, cosmetics, antiperspirants, and is also a food additive. Exposure is only of concern when high levels of the metal are present. Exposure to aluminum-contaminated dusts may cause lung problems. Brain and bone diseases have been noted in individuals with high levels of aluminum in their bodies due to kidney disease. Studies have not been performed to determine if aluminum causes cancer in humans; however, aluminum has not been found to cause cancer in animals.

**Manganese** is a naturally occurring trace element that is required to maintain health. Manganese is primarily used in steel manufacturing and can be an additive in gasoline. People are exposed to manganese by eating manganese-rich foods (some greens, beans), welding, and through contact, ingestion or inhalation of contaminated soils and sediments. High levels of manganese may cause neurological disorders, lung problems, and birth defects. There have not been enough studies performed to determine if exposure to elevated levels of manganese causes cancer.

**Polycyclic Aromatic Hydrocarbons (PAHs; including: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene and indeno(1,2,3-cd)pyrene)** are created from the incomplete burning of coal, oil, gas, garbage and other organic substances such as tobacco and charbroiled meat. PAHs are usually found in combination with each other and are found in coal tar, crude oil, creosote, roofing tar, medicines, dyes, plastics and pesticides. There are over 100 different chemicals which are grouped under the category of PAHs. People are exposed to PAHs through the air, by directly contacting material contaminated with the substances (e.g., soils) and by ingesting things containing PAHs, such as food. PAHs have been found to cause birth defects and some PAHs are thought to cause cancer.

**Vanadium** is a naturally occurring metal that is usually found in combination with other elements, especially oxygen. Vanadium oxide is used to make steel and small amounts are also used in the manufacturing of rubber, plastics, ceramics, and chemicals. In some forms it has been used as a dietary supplement. Exposure to large amounts of some compounds containing vanadium may lead to nausea, mild diarrhea, and stomach cramps. Exposure to vanadium pentoxide may be related to the development of lung cancer, although U.S. EPA has not classified it as a known carcinogen.

**Appendix C OU5 Environmental Covenant**

To be recorded with Deed  
Records - ORC § 317.08

### ENVIRONMENTAL COVENANT

This Environmental Covenant is entered into by Elm Street Truck Depot, LLC ("Owner") and the Ohio Environmental Protection Agency ("Ohio EPA") pursuant to Ohio Revised Code ("ORC") §§ 5301.80 to 5301.92 for the purpose of subjecting the Property described in section 2 herein ("the Property"), to the activity and use limitations set forth herein.

This Environmental Covenant concerns a portion of the Diamond Shamrock Painesville Works Site, known as Operable Unit 5 (OU5) of the Diamond Shamrock Painesville Works Site. Environmental conditions are presented in the Feasibility Study for OU5, dated June 10, 2011. Prior to addition of soils across the property by the former property owner, James Nicholson, the property met unrestricted residential use risk-based standards. However, following the addition of soils by Mr. Nicholson in 2006, surface and subsurface soils on the property were found to contain metals and polycyclic aromatic hydrocarbons at levels which no longer met unrestricted residential use risk-based standards. The property continued to meet restricted commercial/recreational use risk-based standards for soils. Ground water below the property exceeded Region 9 tap water PRGs for bis(2-ethylhexyl)phthalate and manganese.

Information regarding OU5 may be reviewed by contacting the Records Management Officer for the Division of Environmental Response and Revitalization, at Ohio EPA's Northeast District Office, 2110 East Aurora Road, Twinsburg, Ohio 44087, 330-963-1200, or by contacting Anthony Scheiber, Elm Street Truck Depot, LLC at P.O. Box 1106, Fairport Harbor, Ohio 44077, (440) 477-9211.

Now therefore, Owner of Elm Street Truck Depot, LLC and Ohio EPA agree to the following:

1. Environmental Covenant. This instrument is an environmental covenant developed and executed pursuant to ORC §§ 5301.80 to 5301.92.
2. Property. This Environmental Covenant concerns an approximately 3-acre tract of real property; parcel currently numbered 15-A-020-0-00-009-0 owned by Elm Street Truck Depot, LLC, and located at 950 Elm Street, Painesville, in Lake County Ohio, and more particularly described in Exhibit 1 attached hereto and hereby incorporated by reference herein ("Property").
3. Owner. This Property is owned by Elm Street Truck Depot, LLC ("Owner"),

008167

which is located at P.O. Box 1106, Fairport Harbor, Ohio 44077.

4. Holder. Pursuant to ORC § 5301.81, the holder of this Environmental Covenant (“Holder”) is the Owner listed above.

5. Activity and Use Limitations. As part of the remedial action Owner hereby imposes and agrees to comply with the following activity and use limitations:

A. Commercial or Industrial Land Use Only. The Property is hereby restricted to commercial or industrial land use only. Residential land use of the property is prohibited.

Commercial land use is land use with potential exposure of adult workers during a business day and potential exposures of adults and children who are customers, patrons or visitors to commercial facilities during the business day. Commercial land use has potential exposure of adults to dermal contact with soil, inhalation of vapors and particles from soil and ingestion of soil. Examples of commercial land uses include, but are not limited to warehouses; building supply facilities; retail gasoline stations; automobile service stations; automobile dealerships; retail warehouses; repair and service establishments for appliances and other goods; professional offices; banks and credit unions; office buildings; retail businesses selling food or merchandise; golf courses; hospitals and clinics; religious institutions; hotels; motels; and parking facilities.

Industrial land use is land use with potential exposure of adult workers during a business day and potential exposures of adults and children who are visitors to industrial facilities during the business day. Industrial land use has potential exposure of adults to dermal contact with soil, inhalation of vapors and particles from soil and ingestion of soil. Examples of industrial land uses include, but are not limited to: lumberyards; power plants; manufacturing facilities such as metalworking shops, plating shops, blast furnaces, coke plants, oil refineries, brick factories, chemical plants and plastics plants; assembly plants; non-public airport area; limited access highways; railroad switching yards; and marine port facilities.

B. Prohibition against Ground water Extraction. Ground water located at or underlying the Property shall not be extracted or used for any purpose, potable or otherwise, except for investigation, monitoring or remediation of the ground water or in conjunction with construction or excavation activities or maintenance of subsurface utilities;

- C. Prohibition against Ground water Well Construction. No new ground water wells for potable use may be constructed at the Property.

If any event or action by or on behalf of a person who owns an interest in or holds an encumbrance on the Property, identified in paragraph 11 below, constitutes a breach of the activity and use limitations, Owner or Transferee shall notify Ohio EPA within thirty (30) days of becoming aware of the event or action, and shall remedy the breach of the activity and use limitations within sixty (60) days of becoming aware of the event or action, or such other time frame as may be agreed to by the Owner or Transferee and Ohio EPA.

6. Running with the Land. This Environmental Covenant shall be binding upon the Owner, during the time that the Owner owns the Property or any portion thereof, and upon all assigns and successors in interest, including any Transferee, and shall run with the land, pursuant to ORC § 5301.85, subject to amendment or termination as set forth herein. The term “Transferee,” as used in this Environmental Covenant, shall mean any future owner of any interest in the Property or any portion thereof, including, but not limited to, owners of an interest in fee simple, mortgagees, easement holders, and/or lessees.

7. Compliance Enforcement. Compliance with this Environmental Covenant may be enforced pursuant to ORC § 5301.91. Failure to timely enforce compliance with this Environmental Covenant or the activity and use limitations contained herein by any party shall not bar subsequent enforcement by such party and shall not be deemed a waiver of the party’s right to take action to enforce against any non-compliance. Nothing in this Environmental Covenant shall restrict the Director of Ohio EPA from exercising any authority under applicable law.

8. Rights of Access. Owner hereby grants to Ohio EPA’s authorized representatives and the city of Painesville the right of access to the Property for implementation or enforcement of this Environmental Covenant and shall require such access as a condition of any transfer of the Property or any portion thereof.

9. Compliance Reporting. Owner or any Transferee shall submit to Ohio EPA and the city of Painesville on an annual basis written documentation verifying that the activity and use limitations remain in place and are being complied with.

10. Notice upon Conveyance. Each instrument hereafter conveying any interest in the Property or any portion of the Property shall contain a notice of the activity and use limitations set forth in this Environmental Covenant, and provide the recorded location of this Environmental Covenant. The notice shall be substantially in the following form:

THE INTEREST CONVEYED HEREBY IS SUBJECT TO AN ENVIRONMENTAL COVENANT, DATED \_\_\_\_\_, 20\_\_\_\_, RECORDED IN THE DEED OR OFFICIAL RECORDS OF THE \_\_\_\_\_ COUNTY RECORDER ON \_\_\_\_\_, 20\_\_\_\_, IN [DOCUMENT \_\_\_\_\_, or BOOK\_\_\_\_, PAGE \_\_\_\_\_]. THE ENVIRONMENTAL COVENANT CONTAINS THE FOLLOWING ACTIVITY AND USE LIMITATIONS:

- A. Commercial or Industrial Land Use Only. The Property is hereby restricted to commercial or industrial land use only. Residential land use of the property is prohibited.
- B. Prohibition against Ground water Extraction. Ground water located at or underlying the Property shall not be extracted or used for any purpose, potable or otherwise, except for investigation, monitoring or remediation of the ground water or in conjunction with construction or excavation activities or maintenance of subsurface utilities;
- C. Prohibition against Ground water Well Construction. No new ground water wells for potable use may be constructed at the Property.

Owner or Transferee, if applicable, shall notify Ohio EPA within ten (10) days after each conveyance of an interest in the Property or any portion thereof. The notice shall include the name, address, and telephone number of the Transferee, a copy of the deed or other documentation evidencing the conveyance, and a survey map that shows the boundaries of the property being transferred.

11. Representations and Warranties. Owner hereby represents and warrants to the other signatories hereto:

- A. that the Owner is the sole owner of the Property;
- B. that the Owner holds fee simple title to the Property and the Property is not subject to any interests or encumbrances that conflict with the activity and use limitations set forth in this Environmental Covenant;
- C. that the Owner has the power and authority to enter into this Environmental Covenant, to grant the rights and interests herein provided and to carry out all obligations hereunder;
- D. that this Environmental Covenant will not materially violate or contravene or constitute a material default under any other agreement, document or instrument to which Owner is a party or by which Owner may be bound or affected;

- E. that the Owner has identified all other persons that own an interest in or hold an encumbrance on the Property.

12. Amendment or Termination. This Environmental Covenant may be amended or terminated by consent of all of the following: the Owner or a Transferee, if applicable; and the Director of the Ohio EPA, pursuant to ORC § 5308.82 and 5301.90 and other applicable law. The term, "Amendment," as used in this Environmental Covenant, shall mean any changes to the Environmental Covenant, including the activity and use limitations set forth herein, or the elimination of one or more activity and use limitations when there is at least one limitation remaining. The term, "Termination," as used in this Environmental Covenant, shall mean the elimination of all activity and use limitations set forth herein and all other obligations under this Environmental Covenant.

This Environmental Covenant may be amended or terminated only by a written instrument duly executed by the Director of Ohio EPA and the Owner or Transferee of the Property or portion thereof, as applicable. Within thirty (30) days of signature by all requisite parties on any amendment or termination of this Environmental Covenant, the Owner or Transferee shall file such instrument for recording with the Lake County Recorder's Office, and shall provide a file- and date-stamped copy of the recorded instrument to Ohio EPA.

13. Severability. If any provision of this Environmental Covenant is found to be unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired.

14. Governing Law. This Environmental Covenant shall be governed by and interpreted in accordance with the laws of the State of Ohio.

15. Recordation. Within thirty (30) days after the date of the final required signature upon this Environmental Covenant, Owner shall file this Environmental Covenant for recording, in the same manner as a deed to the Property, with the Lake County Recorder's Office.

16. Effective Date. The effective date of this Environmental Covenant shall be the date upon which the fully executed Environmental Covenant has been recorded as a deed record for the Property with the Lake County Recorder.

17. Distribution of Environmental Covenant. The Owner shall distribute a file- and date-stamped copy of the recorded Environmental Covenant to: Ohio EPA, any other signatories to the Environmental Covenant; and the City of Painesville, Lake County.

18. Notice. Unless otherwise notified in writing by or on behalf of the current owner or Ohio EPA, any document or communication required by this Environmental Covenant shall be submitted to:

As to Ohio EPA:

Division of Environmental Response and Revitalization  
Ohio EPA – Central Office  
50 West Town Street  
Columbus, Ohio 43216  
Attn: DERR Records Management Officer

Or, send electronically to: [records@epa.state.oh.us](mailto:records@epa.state.oh.us)

And

Ohio EPA – Northeast District Office  
2110 East Aurora Road  
Twinsburg, Ohio 44087  
Attn: DERR Site Coordinator for Diamond Shamrock OU5 Site

As to Owner

Anthony Scheiber, Sole Member and President  
Elm Street Truck Depot, LLC  
504 Seventh Street  
Fairport Harbor, Ohio 44077  
440-477-9211

The undersigned represents and certifies that the undersigned is authorized to execute this Environmental Covenant.

**IT IS SO AGREED:**

Elm Street Truck Depot, LLC

*Anthony Scheiber*

Signature of Owner

Anthony Scheiber, sole member Elm Street Truck Depot, LLC

ANTHONY SCHEIBER PRES.

Printed Name and Title

12-11-13

Date

State of Ohio )

County of Lake )

ss:

Before me, a notary public, in and for said county and state, personally appeared Anthony Scheiber \_\_\_\_\_, a duly authorized representative of Elm Street Truck Depot, LLC \_\_\_\_\_, who acknowledged to me that he did execute the foregoing instrument on behalf of Elm Street Truck Depot, LLC \_\_\_\_\_.

IN TESTIMONY WHEREOF, I have subscribed my name and affixed my official seal this 11<sup>th</sup> day of December, 2013.

Notary Public

*James M. Lyons*

JAMES M. LYONS, Attorney at Law  
Notary Public, State of Ohio  
My Commission Has No Expiration Date  
Section 147.03 & C



OHIO ENVIRONMENTAL PROTECTION AGENCY

Craig W. Butler  
Craig W. Butler, Interim Director

2/28/14  
Date

State of Ohio            )  
                                  )        ss:  
County of Franklin    )

Before me, a notary public, in and for said county and state, personally appeared Craig W. Butler, the Interim Director of Ohio EPA, who acknowledged to me that he did execute the foregoing instrument on behalf of Ohio EPA.

IN TESTIMONY WHEREOF, I have subscribed my name and affixed my official seal this 28<sup>th</sup> day of Feb., 2014.  
*February*



Charma Diane Casteel  
Notary Public

CHARMA DIANE CASTEEL  
NOTARY PUBLIC  
STATE OF OHIO  
MY COMMISSION EXPIRES  
May 10, 2014

This instrument prepared by:

James M. Lyons  
240 E. Main St.  
Painesville, Ohio 44077

# Exhibit 1

situated in the City of Painesville, County of Lake and State of Ohio, and known as being a part of Original Painesville Township Lot No. 6, Tract No. 3 and is bounded and described as follows:

Beginning in the centerline of Elm Street at an iron pin stake found marking its intersection with the centerline of State Street, 66 feet in width;

Thence North 12 degrees 39' 53" East, along said centerline of Elm Street, 916.68 feet to an iron pin stake found marking an angle therein;

Thence South 82 degrees 33' 12" East, continuing along said centerline of Elm Street, 995.70 feet to an iron pin stake found marking an angle therein;

Thence South 65 degrees 33' 34 " East, continuing along said centerline of Elm Street, 720.63 feet to a point located North 65 degrees 33' 34" West, a distance of 1614.83 feet from an iron pin stake found marking an angle in said centerline;

Thence North 24 degrees 26' 26" East, perpendicular to said centerline of Elm Street, 30.00 feet to an iron pin stake set in the northerly line of same and the principal point of beginning of the following described parcel of land;

COURSE I: Thence North 26 degrees 23' 31" East, a distance of 178.45 feet to an iron pin stake;

COURSE II: Thence South 67 degrees 08' 13" East, a distance of 543.25 feet to an iron pin stake;

COURSE III: Thence South 57 degrees 17' 44" East, a distance of 135.70 feet to an iron pin stake;

COURSE IV: Thence South 25 degrees 42' 52" West, a distance of 173.84 feet to an iron pin stake set in said northerly line of Elm Street;

COURSE V: Thence North 65 degrees 33' 34" West, along said northerly line of Elm Street, 679.55 feet to the principal point of beginning and containing 2.887 acres of land as surveyed and described in Oct., 1996 by Timothy P. Hadden, Ohio Professional Surveyor No. 6786, of CT Consultants, Inc., be the same more or less, but subject to all legal highways.



Ann M. Radcliffe  
Lake County Recorder

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2014R008167

LAKE COUNTY OHIO  
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008167

## **Preferred Plan Narrative for Newspaper**

Lake County

### **PUBLIC NOTICE Ohio EPA Preferred Plan and Public Meeting**

On July 23, 2015 the Ohio Environmental Protection Agency (Ohio EPA) issued a Preferred Plan for Operable Unit 5 of the Diamond Shamrock Painesville Works Site located at 950 Elm Street, Painesville, Lake County, Ohio, concerning contamination at the site and identifying Ohio EPA's preferred alternative for remediation. A copy of the plan is available at: Ohio EPA Northeast District Office, 2110 East Aurora Road, Twinsburg, Ohio or at [www.epa.ohio.gov](http://www.epa.ohio.gov) or [www.dscrt.com](http://www.dscrt.com). A public hearing on the plan will be conducted as follows: August 27, 2015, at 6:00 pm at the Painesville Township Hall, 55 Nye Road, Painesville, Ohio. All interested parties may attend and comment.

## **Preferred Plan Narrative for Ohio EPA Notices Webpage**

Lake County

**PUBLIC NOTICE**  
**Ohio EPA Issues Preferred Plan for**  
**Operable Unit 5 – Diamond Shamrock Painesville Works Site**  
**Painesville, Ohio**  
**Public Meeting to be Held**

On July 23, 2015, the Ohio Environmental Protection Agency (Ohio EPA) issued a Preferred Plan concerning Operable Unit 5 (OU5) of the Diamond Shamrock Painesville Works Site located at 950 Elm Street, Painesville, Lake County, Ohio. The Preferred Plan summarizes the history of OU5 and the investigation of contamination within the OU, provides an analysis of the feasibility of remedial alternatives, and outlines Ohio EPA's preferred alternative for remediation.

OU5, which is 2.887-acres in size, is located on the southern portion of the Diamond Shamrock Painesville Works Site, adjacent to a closed impounding basin (soup pond). The preferred alternative includes: maintaining the existing environmental covenant (EC), which restricts OU5 to commercial or industrial use only and prohibits the use of ground water for potable and non-potable purposes. Annual reporting requirements are also included as part of the EC.

Ohio EPA will hold a public meeting on August 27, 2015 to answer questions and to accept comments on the Preferred Plan. The public meeting will begin at 6:00 pm at the Painesville Township Hall, located at 55 Nye Road in Painesville. The public meeting will begin with an information session during which Ohio EPA will present a summary of the Preferred Plan and answer questions. After the information session the public can submit oral or written comments for the record regarding the Preferred Plan.

In addition, Ohio EPA will accept written comments through September 4, 2015. Anyone may submit written comments on the Preferred Plan by writing to: Teri Heer, Site Coordinator, Ohio EPA, Northeast District Office, 2110 East Aurora Road, Twinsburg, Ohio 44087. Comments can also be faxed to Teri Heer at (330) 487-0769 or e-mailed to her at [Teri.Heer@epa.ohio.gov](mailto:Teri.Heer@epa.ohio.gov). Ohio EPA will consider all comments submitted during the public comment period before taking a final action.

A copy of the Preferred Plan has been provided to the Morley Public Library, 184 Phelps Street, Painesville, and the Fairport Harbor Public Library, located at 335 Vine Street, Fairport Harbor. The Preferred Plan and related documents are available for review at Ohio EPA's Northeast District Office by calling (330) 963-1200 for an appointment. Electronic copies are available at [www.epa.ohio.gov](http://www.epa.ohio.gov) and [www.ds crt.com](http://www.ds crt.com).