

ATTACHMENT 1

STATEMENT OF WORK

CLINE AVENUE SITE  
GARY, INDIANA

October 2016

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**BACKGROUND**

This Statement of Work (SOW) provides for Interim Measures, and a Design Investigation/Focused Feasibility Study (DI/FFS), which includes a Groundwater Study, to be completed by Glenn Springs Holding (GSH), pursuant to the Administrative Order on Consent (Order) executed between Oxy USA, Inc., (OXY) and the United States Environmental Protection Agency (USEPA), to contain any release of oil or oil sheen in the Cline Avenue Ditch (Ditch) located on the east side of Cline Avenue, north of Gary Avenue, in Gary, Indiana. Unless otherwise noted in this SOW, capitalized terms shall have the same meaning as set forth in the Order.

USEPA has been collecting oil sheen and product with absorbent booms and pads (Oil Booming Activities). The locations of the Oil Booming Activities are along an approximately 800-foot stretch of the Ditch starting at the culvert north of Gary Avenue and at the culvert terminus south of Gary Avenue (Figure 1.0) and including the boom at the outfall to the Grand Calumet river. The following sections of this SOW provide an outline of the Work to be completed and the anticipated schedule of completion of those activities by GSH.

**I. INTRODUCTION AND PURPOSE**

The purpose of this SOW is to set forth requirements for implementation of the Work to be performed at the Site pursuant to the Order. The Work includes the following tasks:

- 1) Performance of the Oil Booming Activities currently being implemented by the USEPA and its contractor to contain oil; and
- 2) A DI/FFS, which will include a Groundwater Study and an evaluation of more permanent containment methods, including an underflow or weir damn option, to prevent oil from entering the Ditch and proposal of an appropriate alternative. EPA anticipates that GSH will evaluate containment methods including a barrier wall or a more cost-effective alternative offering comparable protection.

The Work listed above will be performed by GSH according to the schedule outlined in Section VI.

## **II. DESCRIPTION OF THE WORK**

GSH shall implement the Work to meet the performance standards and specifications set forth in the Order and this SOW. The Work includes the development of Work Plans, implementation of those plans, and reporting of results.

The following plans will be prepared by GSH:

- Interim Measures Work Plan for Operation and Maintenance of Oil Booming Activities (IM Plan);
- DI/FFS Work Plan (including Groundwater Study Work Plan); and
- Health and Safety Plan.

The following field work will be completed by GSH at the Site upon approval of the above plans:

- Oil Booming Activities and related operations at the Site;
- Site Investigations for the Groundwater Study and collection of design data to support the DI/FFS.

Upon completion of the design investigations, GSH will prepare a DI/FFS Report which will identify response measures to prevent oil from entering the Ditch.

The Work described above shall be conducted pursuant to the approved Order and related Work Plans. GSH shall provide appropriate oversight of the work through assignment of an employee or third-party contractor.

The approved plans shall be implemented in accordance with the schedule approved by USEPA. This SOW, and any subsequent modifications, is incorporated into and fully enforceable under the terms of the Order.

## **III. SUPPORTING PLANS AND REPORTS FOR INTERIM MEASURES**

The documents listed in this section are documents which must be prepared and submitted as outlined in Section VI of this SOW.

### **A. Interim Measures Work Plan for Operation and Maintenance of Oil Booming Activities**

The IM Plan documents the procedures used to inspect the Ditch for oil sheen and the procedures for the placement, collection, and off-site disposal of absorbent booms and

pads. The IM Plan identifies the frequency of inspections, collection of oil booming material, the disposal of that material, and routine reporting. The locations of the Oil Booming Activities and the methods are outlined in the IM Plan.

**B. Design Investigation/Focused Feasibility Work Plan**

Additional site specific data related to groundwater flow direction, groundwater quality, and oil thickness will be obtained. A work plan will be submitted which describes the additional piezometers/monitoring wells, water levels, oil thickness, sampling and analyses proposed. Additional Site specific data, related to the design of more permanent methods to prevent oil from entering the Ditch at the Site, are required to complete the Focused Feasibility Study Report. These data may include fluid level measurements, geotechnical soil data, land survey information and other physical data. The additional data will be used for developing preliminary designs for applicable response measures that could be used to prevent oil from discharging into the subject 800 foot length of the Ditch.

GSH shall submit for USEPA review and approval a DI/FFS Work Plan outlining the field work to be completed to support the Focused Feasibility Study. The DI/FFS Work Plan will identify locations of data points, methods to be used and a schedule of implementation.

**D. Health and Safety Plan (HASP)**

GSH shall submit for USEPA review and approval a HASP which is designed to protect on-site personnel and area residents from potential hazards posed by performance of the on-Site work under the Order. The HASP shall be prepared consistent with USEPA's Standard Operating Safety Guide (PUB 9285.1-03, PB 92-963414, June 1992). In addition, the HASP shall comply with all currently applicable Occupational Safety and Health Administration (OSHA) regulations found at 29 CFR 1910 and 1926. GSH shall incorporate changes to the HASP recommended by USEPA and shall implement the plan during the performance of the on-Site work required by the Order.

**E. Design Investigation/Focused Feasibility Study**

GSH shall develop a DI/FFS summarizing the groundwater conditions and proposing certain containment measures to prevent oil from entering the Ditch along the subject 800 feet of the Ditch. The evaluation of applicable measures will begin while the design investigations are being performed. The analyses of alternatives will be completed once all the design investigation data have been received.

The Focused Feasibility Study Report will contain the following sections:

- 1.0 Introduction and Purpose
- 2.0 Groundwater Conditions

- 3.0 Background and Design Investigation Results
- 4.0 Response Action Objectives and Goals
- 5.0 Identification and Screening of Alternatives
- 6.0 Description of Alternatives
- 7.0 Evaluation of Alternatives
- 8.0 Description of and Rationale of the Proposed Action.

In general the action objectives and goals to be considered include:

- Provide protection of human health and the environment
- Comply with applicable local, State, and Federal regulations
- Mitigate or eliminate oil from entering the Ditch
- Provide practical, cost-effective actions
- Utilize actions that may be implemented and completed in an expeditious timeframe, where applicable

The alternatives will be evaluated based upon the following criteria which will be consistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), as listed below:

- Effectiveness
- Implementability
- Costs
- Risks

#### **IV. OFF-SITE SHIPMENTS**

Before shipping any hazardous substances, pollutants, or contaminants from the Site to an off-site location, GSH shall confirm certification that the receiving facility is operating in compliance with the requirements of 40 CFR 300.440. GSH shall only send hazardous substances, pollutants, or contaminants from the Site to an off-site facility that complies with the requirements of the statutory provision and regulation cited in the preceding sentence.

#### **V. ROUTINE REPORTING**

GSH shall submit a written progress report, either by hard copy or electronically, to USEPA concerning actions undertaken pursuant to the Order by the last calendar day of each month, starting with the month following the effective date of the Order, until

termination of the Order or completion of construction of any ultimate containment system. These reports shall describe all significant developments during the preceding period, including the actions performed and any problems encountered, data received during the reporting period, and the developments anticipated during the next reporting period, including a schedule of actions to be performed, anticipated problems, and planned resolutions of past or anticipated problems.

In addition, as part of the IM Plan, GSH will submit status reports of these operations on a quarterly basis. These status reports will summarize the inspections of the ditch, collection of absorbent material and disposal information.

GSH shall submit 2 copies of all plans, reports or other submissions required by the Order, or any approved work plan. Upon request by USEPA, GSH shall submit such documents in electronic form.

#### VI. SUMMARY OF MAJOR DELIVERABLES/SCHEDULE

A summary of the project schedule, plan development and reporting requirements contained in this SOW is presented below:

| <u>Submission</u>                     | <u>Due Date</u>                                    |
|---------------------------------------|----------------------------------------------------|
| 1. IM Plan for Oil Booming Activities | Included as Attachment 2 to AOC                    |
| 2. DI/FFS Work Plan                   | 60 days from signed AOC                            |
| 3. Health and Safety Plan             | 15 days from signed AOC                            |
| 4. Initiate Groundwater Study         | 21 days from approved Work Plan                    |
| 5. Initiate DI/FFS                    | 21 days after approval of DI/FFS Work Plan         |
| 6. Monthly Progress Reports           | End of Month                                       |
| 7. Quarterly Status Reports           | 15 <sup>th</sup> of month following end of quarter |
| 8. DI/FFS Report                      | 180 days from approved DI/FFS Workplan             |





figure 1.0

**SITE LAYOUT**  
**CLINE AVENUE DITCH**  
*Gary, Lake County, Indiana*







# **ATTACHMENT 2**

## **INTERIM MEASURES WORK PLAN FOR OIL BOOMING ACTIVITIES**

**CLINE AVENUE SITE  
GARY, INDIANA**

**Prepared For:  
GLENN SPRINGS HOLDINGS**

**OCTOBER 2016**

**REF. NO. 080439(1)**

This report is printed on recycled paper.

**INTERIM MEASURES WORK PLAN  
FOR OIL BOOMING ACTIVITIES**

**CLINE AVENUE SITE  
GARY, INDIANA**

**Prepared For:  
GLENN SPRINGS HOLDINGS**

**REF. NO. 080439 (1)**

CRA 200016 QSF-013 - Rev. 8 - 07/29/2009

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- FIGURE 2.1        SITE LAYOUT AND OIL BOOM LOCATIONS

## 1.0 INTRODUCTION

This Interim Measures Plan (IM Plan) for Oil Booming Activities has been prepared for the Cline Avenue Site (Site) by Conestoga-Rovers & Associates (CRA), on behalf of Glenn Springs Holdings (GSH). This IM Plan is attached to and incorporated into the Administrative Order on Consent (AOC or Order) between Oxy USA, Inc., (OXY) and the United States Environmental Protection Agency (USEPA).

As required in the SOW, this IM Plan presents the operation, maintenance, and near-term care requirements associated with each component of the current measures for the ditch located at the Site. Major aspects of this effort include:

- Development of a health and safety plan
- Mobilization
- Weekly inspections
- Oil Booming Activities
- Accumulation and disposal of petroleum waste
- Reporting

## 1.1 SITE DESCRIPTION

The Site is located near the northeast corner of the intersection of Gary Avenue and Cline Avenue (Route 912) in Gary, Lake County, Indiana. The Site is bordered (approximately) by a rail line and the airport property to the north and east, Gary Avenue to the south, and Cline Avenue to the west. The Site location is presented on Figure 1.1.

A drainage ditch is located along the east side of Cline Avenue (Ditch). Petroleum sheen has been observed in the Ditch, and it is believed that the sheen enters the Ditch at multiple points on the eastern bank. Groundwater flow direction is reportedly generally to the south and west.

USEPA and its operations contractors are currently performing oil booming activities which include maintaining oil absorbent boom materials (oil booming) at the Site to control oil sheen in the Ditch.

## 2.0 O&M COMPONENTS

The purpose of this section of the IM Plan is to describe the actions to be taken by GSH to continue the Interim Measures currently being performed by the USEPA and its contractors at the Site.

### 2.1 HEALTH AND SAFETY PLAN

The Health and Safety Plan (HASP) for all activities during the O&M period comprises a series of precautions and procedures that need to be considered during the various aspects of the O&M activities. In general, health and safety precautions should be exercised during the following activities:

- General inspection and maintenance activities
- Oil Booming Activities
- Waste consolidation activities
- Other activities conducted on site

The HASP for the Oil Booming Activities shall be provided under separate cover and will comply with applicable OSHA requirements. With respect to specific health and safety issues such as personal protective equipment (PPE) and training required, these will depend upon the task being conducted (e.g., there are different requirements for personnel performing inspections than for personnel performing maintenance work on the booming equipment, where they may come in contact with waste materials). Those personnel that have the potential to be exposed to hazardous materials will be required to have training in accordance with OSHA 1910.120 and follow the HASP prepared by the O&M Contractor. CRA Services will be contracted to provide various O&M services during the O&M period and will be responsible for their personnel while at the Site, including development of site-specific health and safety plans that will include all necessary health and safety requirements.

### 2.1.1 **HEALTH AND SAFETY PRECAUTIONS DURING GENERAL MAINTENANCE ACTIVITIES**

Site inspections and maintenance shall generally consist of non-intrusive activities (i.e., no contact with waste material at the Site). The O&M Contractor shall ensure that their workers are aware of O&M requirements, trained to operate equipment, and exercise reasonable safety precautions when conducting work on the Site.

Non-intrusive maintenance activities during the O&M period will include, but are not limited to, the following items:

- Booming system inspection and maintenance
- Site management reporting activities

The general health and safety precautions that should be considered during this phase of activities are:

- Operate equipment in strict accordance with manufacturer's specifications and direction
- Be mindful of equipment pathways and radius of operation
- Wash hands before eating or drinking
- Wear appropriate PPE for tasks

### 2.1.2 **HEALTH AND SAFETY PRECAUTIONS FOR OIL BOOMING PROGRAM**

The following lists some of the precautions to be taken during Oil Booming Activities:

- Use the manufacturer's procedures for oil boom collection equipment
- Wash and rinse hands before eating or drinking
- Wear appropriate PPE for tasks

If a situation arises which is suspected to be hazardous, leave the immediate area of potential threat immediately and notify the Project Manager.



## 2.2 MOBILIZATION

It is anticipated that equipment storage, drums, roll off boxes, and other materials will be stored at the Site in a location where the USEPA currently maintains their supplies. This location is found at the northeast corner of Cline Avenue and Gary Avenue (Figure 2.1). Mobilization activities shall include:

- Contracting and mobilizing a 10-cubic-yard roll off box to the Site
- Obtaining and storing suitable oil collection booms and pads to collect surface oil/sheen from multiple seep exit locations along the Ditch
- Coordinating personal and ancillary equipment and supplies as required to perform O&M work tasks

## 2.3 WEEKLY SITE INSPECTIONS

Two CRA technicians will inspect the conditions of the Ditch weekly. Inspections will determine the following status conditions:

- Current saturation level of deployed oil boom products
- If deployed oil booms need to be replaced or changed out
- If additional oil boom placement is required
- If additional seep areas are causing a sheen in the Ditch
- Status of the remaining capacity of the roll off box storing non-hazardous waste products

Currently, the location of oil booms, pads, and other adsorbent material maintained by the USEPA are in place at five points along the subject length of the Ditch. These locations are generally presented on Figure 2.1.

## 2.4 OIL BOOMING ACTIVITIES

Expected Site activities will include:

- Maintenance of a Health and Safety Plan
- Provision of appropriate PPE materials, including tyveks suits, nitrile gloves, and garbage bags for PPE disposal
- Inspect the Site once a week utilizing two CRA technicians
- Use booms, pads, and other adsorbent materials to collect surface oil/sheen from multiple locations near the seeps along the Ditch (north of the culvert) and at the outfall to the Grand Calumet river, making necessary adjustments based upon Site observations
- The booms will be replaced based upon flows and seasonal conditions assumed to average one to two locations changed out per week
- The spent booms will go into a 10-yard roll off box staged on Site until full
- Schedule the roll off box to be replaced when it is full
- It is expected that the waste materials will be hauled away for disposal as non-hazardous waste as necessary or appropriate
- Required record keeping including field log books, waste records and manifests, and routine reporting to the USEPA
- Consider the potential design and implementation of an underflow dam or weir
- Appropriate disposal of waste material

## 2.5 CONTINGENCY FOR HIGH FLOW CONDITIONS

If higher than normal water level conditions occur in the Ditch, then the inspection frequency will be increased.

If weekly inspections identify an increased discharge of oil into the Ditch, then additional oil booms, pads, or other adsorbent materials will be deployed to ensure that released oil is contained. Additional booms may be necessary to partition the Ditch into smaller segments to better manage oil sheen. If these additional measures fail to address the increased discharge, GSH and USEPA will evaluate whether additional measures are appropriate at the Ditch prior to the potential construction of a containment wall or other containment option. After this evaluation, additional measures may be performed either on COOPCO's initiative with prior approval by USEPA, or upon request by USEPA.

## 2.6 WASTE CONSOLIDATION ACTIVITIES

Waste consolidation activities are expected to include:

- Storing spent booms in a 10-yard roll off box on Site until full
- Scheduling the roll off box to be replaced when it is full

## 2.7 REPORTING

Consistent with the SOW, the results of the routine Site inspections conducted by CRA will be reported to GSH and to the USEPA through "Progress Reports" and "Status Reports." Progress and Status Reports will cover the previous period (e.g., reporting period) of Site O&M activities. Progress Reports will be issued on a monthly basis, and Status Reports will be issued on a quarterly basis and cover 3 months of Oil Booming Activities. The Progress Reports will contain, at a minimum, the following:

- Dates of inspections
- Dates of adsorbent removal and replacement
- Volume of waste material stored on-Site
- Volume of waste materials sent off-Site
- Observations of site conditions

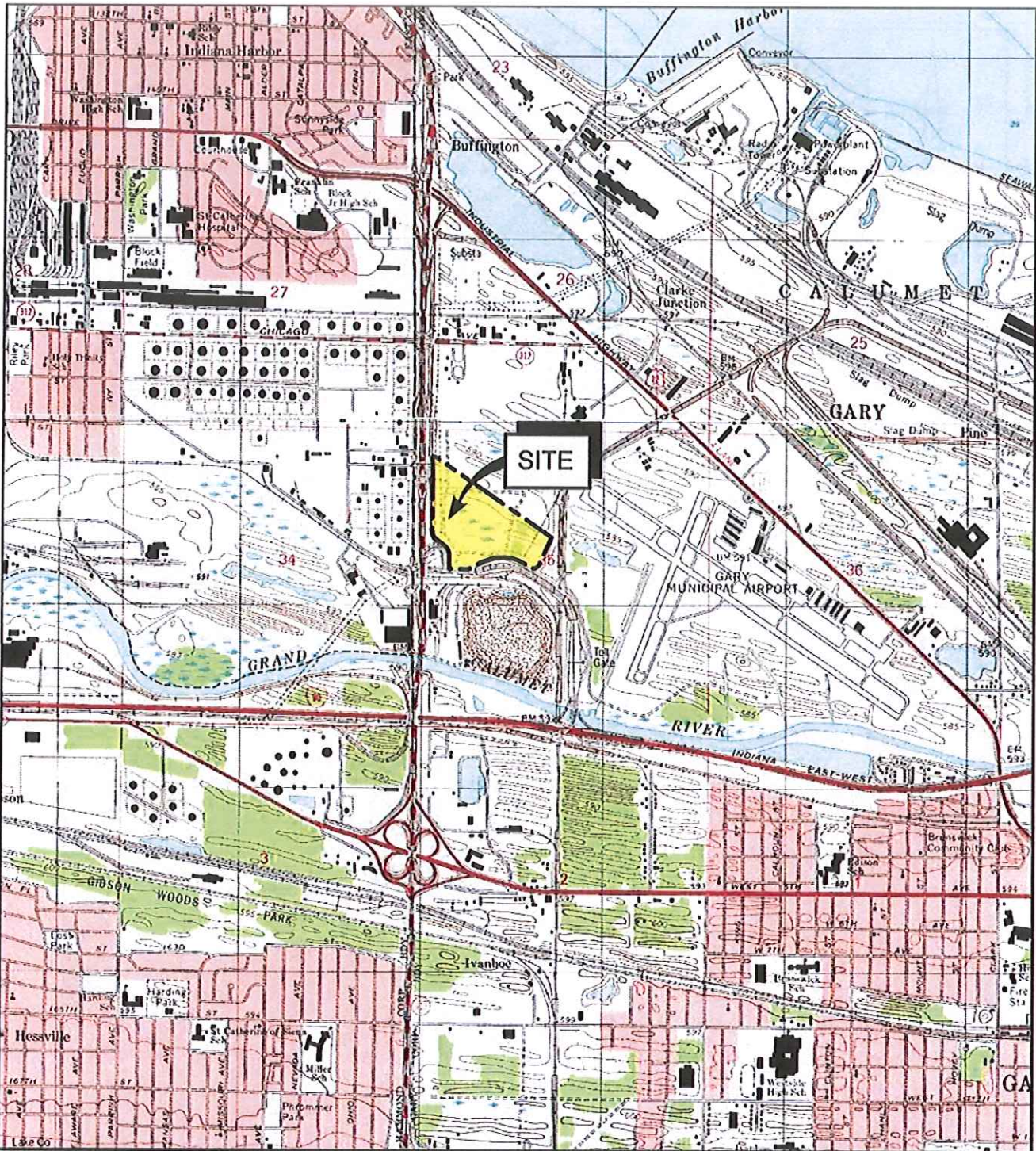
Site safety documentation in the Progress and Status Reports will consist of tailgate safety meeting reports and documentation of site safety incidents.

### 2.7.1 RECORD MAINTENANCE

CRA will maintain all files containing O&M information. The files will include all inspection logs, maintenance records, personnel records, waste manifests and transportation records, and safety incident reports.







BASE SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE;  
HIGHLAND AND WHITING, INDIANA 1991

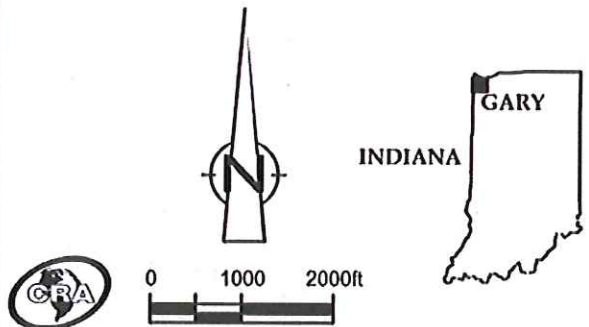


figure 1.1  
SITE LOCATION  
CLINE AVENUE DITCH  
Gary, Lake County, Indiana



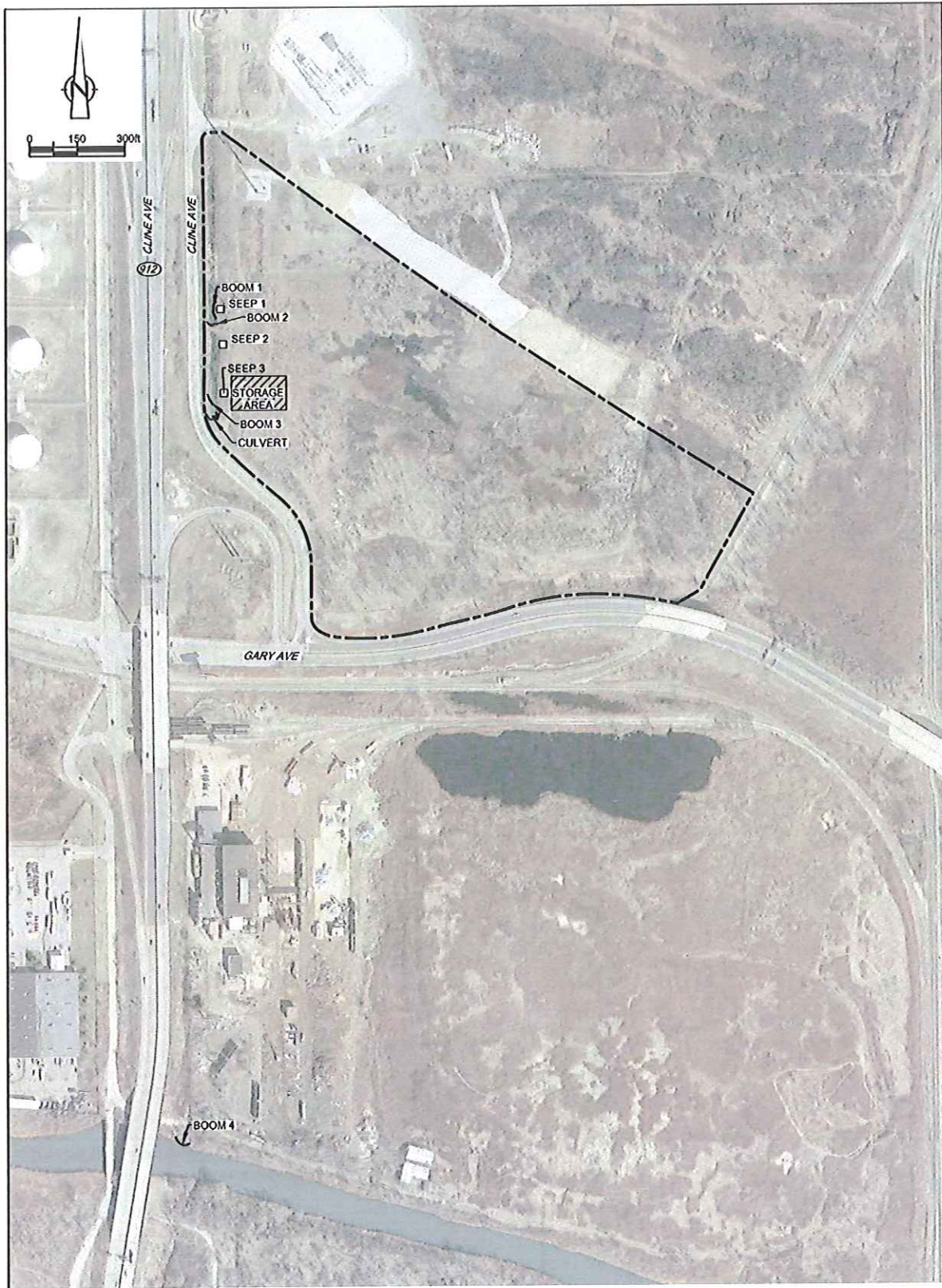


figure 2.1

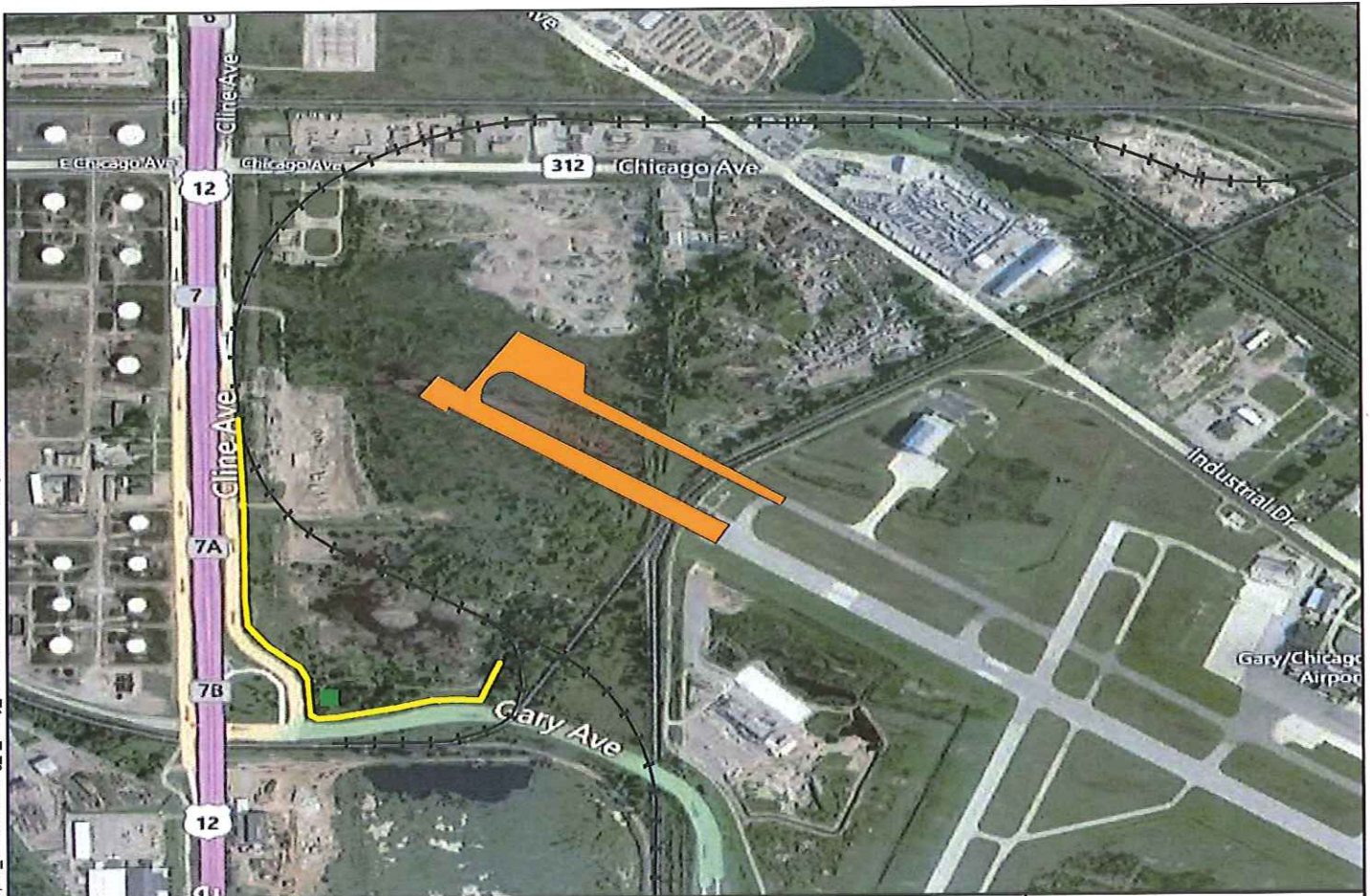
**SITE LAYOUT**  
**CLINE AVENUE DITCH**  
*Gary, Lake County, Indiana*



# ATTACHMENT 3







- Legend**
- EPA Proposed Slurry Wall
  - Oil/Water Separator
  - Airport Expansion
  - + Railroad

Note: Data obtained through digitizing of AECOM Fig 1, project #60181868

0 1,000  
Feet



Prepared for:  
U.S. EPA REGION V

Contract No.: EP-S5-06-04  
TDD: S05-0005-1103-005  
DCN: 1394-



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**Figure 1**  
Proposed Slurry Wall Location  
Gary International Airport  
Cline Ave Ditch Mystery Oil Spill  
Gary, Lake County, Indiana

