U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Cline Ave Ditch Oil Sheen Site - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: **POLREP #8**
Progress
Cline Ave Ditch Oil Sheen Site

Gary, IN
Latitude: 41.6203911 Longitude: -87.4313772

To: NPFC Coast Guard , USCG
Don Laisure, USCG
Marguerite Matera, NOAA
Wayne Babcock, U.S. Department of Interior
Robert Burr, U.S. Department of Interior
Sam Borries, U.S. EPA
Mick Hans, U.S. EPA
Carol Ropski, U.S. EPA
Anne Remek, IDEM
Jacob Hassan, us epa
Jaime Brown, U.S. EPA
Ryan Groves, IDEM
Gilbert Mijarez, USCG
Tom Krueger, USEPA
Diana Mally, USEPA
Gillian Asque, USEPA

From:
Date: 6/18/2018
Reporting Period: 3/22/218 - 6/18/2018

1. Introduction

1.1 Background

Site Number:	Z5KF	**Contract Number:**	
D.O. Number:	0059	**Action Memo Date:**	
Response Authority:	OPA	**Response Type:**	Emergency
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	3/21/2011	**Start Date:**	3/21/2011
Demob Date:		**Completion Date:**	
CERCLIS ID:		**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:	E11513	**Reimbursable Account #:**	

1.1.1 Incident Category

1.1.2 Site Description

The Site consists of two vacant parcels (40-0150-002 and 40-0150-011). A roadway ditch runs along the west site of the site. The site was previously overgrown with vegetation and had areas of standing water. An approximately 24 acre area of the property was historically used to dispose of tank pit bottoms. A large portion of the site is now owned by the gary airport and is divided by a new railway that was relocated through the site. There is an ongoing release of oil to the ditch, which flows south for about 1/2 mile before releasing to the Grand Calumet, ultimately connecting to Lake Michigan.

1.1.2.1 Location

The Site is located along a drainage ditch at the intersection of Gary Avenue and Cline Avenue in Gary, Lake County, Indiana. The Site is located in an industrial area and is bordered by an electrical substation and Gary-Chicago Airport Expansion) to the north and east, Cline Avenue to the west, and Gary Avenue to the south.

1.1.2.2 Description of Threat

On January 10, 2011, the National Response Center (NRC) (Report No. 964208) received a call that oil sheen was observed in the Cline Avenue Ditch north of the intersection of Cline Avenue and Gary Avenue in Gary, Lake County, Indiana. British Petroleum (BP) investigated whether one of their pipelines underlying the Site was leaking. As a precaution, BP consultants, Heritage Environmental, placed absorbent boom in the ditch to remove the sheen and prevent contaminants from migrating to the nearby Grand Calumet River. Samples were collected of the spent absorbent boom from the ditch and analyzed for disposal

parameters. Analytical results from a water sample collected by BP indicated that the sheen was not consistent with crude oil and is a mixture of components suspected to be a distillate and lube oil.

Oil is continuously releasing to a roadside ditch from the walls at multiple points and possibly from beneath, along Cline Ave. in Gary, IN. The sheen is visible for approximately 500 ft, at which point in enters a culvert underground. The sheen is once again visible in the Grand Calumet River at the point of discharge approximately, one half mile from the culvert. The Grand Calument flows into Lake Michigan approximately five miles from the discharge point.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

On March 21, 2011, the United States Environmental Protection Agency (U.S. EPA) and their Emergency and Rapid Response Services (ERRS) contractor, Environmental Restoration, LLC (ER), mobilized to the Site to place absorbent boom in locations where sheen was observed in the ditch. Four areas were observed with oil sheen, with the most upstream location observed at approximately 41°37'13.76" north latitude and 87°25'52.84" west longitude and the furthest downstream location observed at two outfalls that discharge from the ditch into the Grand Calumet River.

On April 1, 2011, U.S. EPA, ERRS, and WESTON START, mobilized to the Site to replace used absorbent boom in the ditch and conduct sampling activities. A total of 7 sheen samples (SHN01 through SHN07) and 3 soil samples (SOIL02, SOIL05, and SOIL06) were collected in and along the ditch. The sheen and soil samples were submitted to the U.S. Coast Guard (USCG) Marine Safety Laboratory (MSL) for fingerprinting (forensic oil) analysis. In addition, the soil samples were submitted to STAT Analysis Corporation (STAT) for analyses of total petroleum hydrocarbons (TPH) as gasoline range organic (GRO), diesel range organic (DRO), and extended range organic (ERO).

The USCG MSL fingerprinting analysis was inconclusive. Per the Oil Sample Analysis Report dated April 21, 2011, the sheen samples SHN01, SHN02, SHN05, SHN06 and soil samples SOIL02, SOIL05, SOIL06 were representative of spilled oil. The analyses indicated that these samples contained an intermediate to heavy mixture of petroleum hydrocarbons. Volatile organic compounds (VOCs) were present in these samples, which indicate that the samples are only slightly to moderately evaporatively weathered. These samples are all related to each other through a common source of petroleum oil; however, each sample had a unique PAH fingerprint which indicates they are not all from the same exclusive chemical source. Sheen samples SHN03, SHN04, and SHN07 did not contain a quantity of petroleum oil sufficient for comparison purposes. The analytical results from STAT were as follows:

- TPH GRO results ranged from 0.72 to 110 milligrams per kilogram (mg/kg)
- TPH DRO results ranged from 42,000 to 80,000 mg/kg
- TPH ERO results ranged from 38,000 to 100,000 mg/kg

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

On December 8th, 2016, EPA entered into a RCRA 7003 order with OXY USA, Inc, The work to be performed by Oxy are as follows:

1. Implement the ongoing interim measures work plan that includes the monitoring, booming and disposal of waste material generated from the Cline Ave Ditch site

2. Conduct a design investigation and focused feasibility study for the site

2.1.2 Response Actions to Date

Oxy USA has assumed the role of overseeing the boom monitoring and maintenance operations. This is typically done on a weekly basis. However, starting in May 2018, the PRPs increased the frequency to twice a week to account for increased vegetation being collected in the booms.

A status update on the RCRA 7003 order on the deliverables is as follows:

DI/FFS Work Plan was submitted to EPA on 2/28/17. Based on conversations with EPA, the DI/FFS was divided into two plans and finalized on 5/17/17.

Field work on the supplement Groundwater Study and the DI was initiated on 5/18/17.

The DI report was submitted to EPA on 9/21/17. Based on comments, OXY and their contractor GHD conducted additional groundwater work and submitted the revised work on 11/24/17.

A site status meeting was held on February 8th with IDEM, Oxy USA and GHD to discuss the ongoing response activities and the findings in the DI report. The investigation shows that the LNAPL is relatively immobile except for three saturated areas along the eastern embankment of the ditch. The LIF model shows that the heavily saturated soils are most likely the source of oil discharging to the ditch. This is corroborated with the LNAPL found in the piezometers the three historical seep locations. Currently, there are only two active seeps into the ditch. A very limited LIF investigation was also done on the western embankment of the ditch. Results from show that there is very little saturated oil on that side of the ditch in that area. Also, based on observations, it appears that ebullition from the ditch is also contributing to the release of oil into the water column. A Dart analysis was attempted but due to the tiled construction of the ditch, the PRP was not able to collect mid-channel information on the distribution of LNAPL within the channel. Based on the LIF 3D model and field observations, the PRP does believe that there is the potential for saturated sediment LNAPL pockets in the ditch.

EPA and IDEM completed the evaluation of the DI report in mid-April 2018.

On April 27th, EPA authorized the PRP to begin work on the focused feasibility study to identify and

evaluate potential remedies for the site. EPA received this report on June 13, 2018. EPA and IDEM are currently evaluating the study and are planning a meeting with the PRP during the second week of July to discuss comments.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

Oxy USA is identified as a PRP

2.1.4 Progress Metrics

Waste manifests can be provided by the OSC upon request.

2.2 Planning Section

2.2.1 Anticipated Activities

A meeting will be scheduled in mid- July to discuss comments on the FFS.

2.2.1.1 Planned Response Activities

Continued boom maintenance is scheduled twice weekly, and will until a remedy is selected and implemented.

2.2.1.2 Next Steps

Consolidate comments on the FFS. Schedule a meeting to discuss proposed remedies for the site.

2.2.2 Issues

None.

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
TAT/START	$20,000.00	$16,500.00	$3,500.00	17.50%
Intramural Costs				
Total Site Costs	$20,000.00	$16,500.00	$3,500.00	17.50%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

3.1 Unified Command

3.2 Cooperating Agencies

US EPA
Indiana Department of Environmental Management (IDEM)
Indiana Department of Transportation, Gary Sub-Division (INDOT)
US Fish and Wildlife Agency
Gary Airport Authority
Glen Springs Holding
GHD

4. Personnel On Site

EPA - 3
IDEM - 2
IDNR - 2
The Nature Conservancy - 1

5. Definition of Terms

DI - Design Investigation
FFS - Focused Feasibility Study
AOC - Administrative Order on Consent
LIF - Laser Induced Fluorescence
Dart - Dart system is designed to quickly and inexpensively screen for polycyclic aromatic hydrocarbons (PAHs) in sediments and similar soft soils, where LIF, traditional soil boring, and other mechanized sampling are difficult, if not impossible

6. Additional sources of information

6.1 Internet location of additional information/report

6.2 Reporting Schedule

As needed

7. Situational Reference Materials

No information available at this time.