

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
BP Terminal Indianapolis - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region V

**Subject:** POLREP #48  
Progress  
BP Terminal Indianapolis  
Z5K6  
Indianapolis, IN  
Latitude: 39.8027163 Longitude: -86.2160273

**To:** Matt Mankowski, U.S. EPA  
Carolyn Bohlen, U.S. EPA  
Bill Wagner, U.S. EPA  
Yolanda Bouchee-Cureton, U.S. EPA  
Doug Winder, U.S. EPA  
USCG PolRep Distribution, USCG  
John Maritote, U.S. EPA  
Patrick Ryan, USCG  
Mark Cochran, Cincinnati Finance Center  
Jaime Brown, ERS4

**From:** Paul Atkociunas, On-Scene Coordinator

**Date:** 9/17/2015

**Reporting Period:** August 15, 2015 to September 14, 2015

**1. Introduction**

**1.1 Background**

<b>Site Number:</b>	Z5K6	<b>Contract Number:</b>	
<b>D.O. Number:</b>		<b>Action Memo Date:</b>	
<b>Response Authority:</b>	OPA	<b>Response Type:</b>	PRP Oversight
<b>Response Lead:</b>	PRP	<b>Incident Category:</b>	Removal Action
<b>NPL Status:</b>	Non NPL	<b>Operable Unit:</b>	
<b>Mobilization Date:</b>		<b>Start Date:</b>	11/14/2011
<b>Demob Date:</b>		<b>Completion Date:</b>	
<b>CERCLIS ID:</b>		<b>RCRIS ID:</b>	
<b>ERNS No.:</b>		<b>State Notification:</b>	
<b>FPN#:</b>	E11504	<b>Reimbursable Account #:</b>	

**1.1.1 Incident Category**

Manufacturing/processing/maintenance - oil and gas storage

**1.1.2 Site Description**

The BP Indianapolis Terminal (the site) began operating as a petroleum storage and distribution facility since 1941.

The site consists of an administrative building, service garage, petroleum distribution rack, miscellaneous warehouse and pumping station sheds, oil/water separator, underground storage tanks (UST) and aboveground storage tanks (AST), which contain gasoline, diesel, ethanol, furnace oil, and heating oil. AST capacity ranges from 672,000 to 3,360,000 gallons, with a total capacity exceeding 18,000,000 gallons.

**1.1.2.1 Location**

The site is a 41-acre bulk terminal located at 2500 North Tibbs Avenue in Indianapolis, Marion County, Indiana, 46222. Site coordinates are 39.8027163 degrees north latitude and 86.2160273 degrees west longitude. The site is bordered by commercial property to the north; shopping plaza to the northeast; Ferguson Industrial Plastics Division and a fire station to the east; undeveloped property to the south; and Little Eagle Creek to the west.

**1.1.2.2 Description of Threat**

Environmental investigations conducted by BP and its consultants documented that there are petroleum-related groundwater impacts from benzene, toluene, ethylbenzene, xylenes (BTEX), methyl tertiary butyl ether (MTBE), naphthalene, ethanol, and polynuclear aromatic hydrocarbons (PAH) including benzo(a)anthracene, benzo(a)pyrene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene beneath the site. Light Non-Aqueous Phase Liquid (LNAPL) and dissolved-phase contamination have been found in a shallow aquifer beneath the Site and at seeps along Little Eagle Creek.

**1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results**

Refer to previous Pollution Reports (PolReps).

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Narrative

The site was previously in the Voluntary Remediation Program (VRP) of the Indiana Department of Environmental Management (IDEM). IDEM referred the site to the U.S. Environmental Protection Agency (EPA) on December 13, 2010. On November 14, 2011, EPA executed an Administrative Order by Consent (AOC) under Section 311 of the Clean Water Act. The AOC requires BP to implement removal measures to prevent migration of petroleum hydrocarbon impacted groundwater into Little Eagle Creek.

#### 2.1.2 Response Actions to Date

During the reporting period, BP conducted the following actions:

- Collected groundwater samples from eight extraction wells which were submitted for laboratory analysis for total and dissolved iron (Fe) on August 28, 2015.
- Collected a groundwater sample at the manifold from EW-8 located within the system trailer which was submitted for laboratory analysis of Fe on August 28, 2015.
- Analytical results were compared to the results from the July 13, 2015 sampling event;
- Conducted the monthly manual light non-aqueous phase liquid (LNAPL) recovery on September 1, 2015;
- Received the results from total and dissolved Fe analysis for groundwater samples collected at the eight extraction wells and manifold on September 3, 2015 and started preliminary analysis;
- Changed to 50 micron bag filters (replacing the previously used 25 micron filters) on September 7, 2015 to increase operational time between bag filter replacements.
- Installed a new float assembly in the EQ tank on September 10, 2015; and,
- Began the Third Quarter Groundwater Sampling event on September 14, 2015.

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

EPA executed Docket No. V-W-11 C-984, an AOC with BP on November 14, 2011.

#### 2.1.4 Progress Metrics

On September 8, 2014, BP submitted a data package for the design of a Modified GWET system in accordance with the AOC. EPA provided comments and BP submitted a Revised Modified GWET system data package. On October 27, 2014, EPA approved the design in the Modified GWET Data Package, which is incorporated and fully enforceable under the AOC.

Milestone	Date Due	Date Done
Effective Date (ED)	11/14/2011	11/14/2011
LNAPL Recovery, Quarterly Creek & MW Sampling	11/14/2011	11/14/2011
Contractor Notification	11/21/2011	11/21/2011
Project Coordinator Notification	11/21/2011	11/21/2011
HASP Submittal	12/6/2011	12/6/2011
QAPP Submittal	12/6/2011	12/6/2011
HASP/QAPP Approval (HQA)		1/5/2012
HASP/QAPP Revisions	1/13/2012	1/13/2012
LNAPL Recovery, Creek Sampling Locations Notification, Quarterly MW Sampling	1/27/2012	1/27/2012
Creek and Groundwater Sampling Locations Revisions	2/17/2012	2/21/2012
Creek Sampling Location Approval (CS)		2/21/2012
Monthly Creek Sampling	3/6/2012	3/6/2012
On-Site Construction	12/14/2011	8/30/2011
Construction Complete	3/19/2012	3/19/2012
Investigation Work Plan	2/12/2012	2/12/2012
Revised Work Plan	4/13/2012	4/13/2012
Investigation Complete (IC)		
- Supplemental soil characterization		6/18/2012
- Supplemental groundwater characterization		6/22/2012
- Supplemental surface water characterization (normal flow)		10/8/2012
- Supplemental surface water characterization (low flow)		6/27/2012
- Supplemental sediment characterization		6/27/2012
- Natural Resources Assessment		8/19/2013
- Sediment toxicity testing and analysis (benthic testing)		8/19/2013
- Aquifer testing		10/20/2012
Investigation Report	1/28/2013	1/28/2013
Investigation Report Approval (IRA)		1/21/2014
Removal Work Plan	3/24/2014	3/24/2014
Removal Work Plan Approval (RWA)		6/9/2014
Removal		
Final Report		

### 2.2 Planning Section

#### 2.2.1 Anticipated Activities

The following sections discuss planned response activities and next steps.

### 2.2.1.1 Planned Response Activities

During the next reporting period, BP will:

- Repair float assembly in the equalization tank.
- Complete the Third Quarter Groundwater event;
- Continue to provide oversight and documentation support to the OSC;
- Perform the Little Eagle Creek monthly surface water sampling event, weather and stream levels permitting;
- Continue demonstration of effectiveness of upgraded system;
- Continue monthly LNAPL recovery and operation and maintenance (O&M) of the groundwater extraction and Treatment (GWET) system and;
- Continue to evaluate the groundwater chemistry entering the GWET system to assist in improving operational time.

### 2.2.1.2 Next Steps

BP will proceed with the fulfilling the requirements of the AOC.

### 2.2 Issues

During the reporting period, the Pump and Treat system was operational for 59% of the time. Please note, the system averaged a pumping rate of 19.23 gallons per minute (gpm) which exceeds the rate of 8 gpm necessary to sustain hydraulic capture, as calculated in the May 30, 2014 Revised Removal Workplan. The unscheduled down time is described below:

- A high-high alarm on the equalization tank caused the system to shut down on August 16, 22, and 25, 2015. The high-high condition was caused by reduced flow due to particulate loading in the bag filters. The bag filter mesh size was increased on September 7, 2015 to increase the operational time between bag filter replacements.
- A high-high alarm on the equalization tank caused the system to shut down on September 4 and 11, 2015. Based on site observations on September 15, 2015 the high-high condition was caused by a malfunctioning float in the equalization tank. The low float did not engage causing the transfer pump to be inoperable which triggered a high-high.

### 2.3 Logistics Section

Not applicable (NA)

### 2.4 Finance Section

#### 2.4.1 Narrative

Federal Project Number (FPN) E11504 is assigned to this project. On October 22, 2014, EPA submitted an OPA90 Removal Project Plan for the site to the USCG. On February 17, 2015, the ceiling for the Oil Spill Liability Trust Fund (OSLTF) costs for the project were increased from \$249,999 to \$310,000.

#### Estimated Costs \*

	Budgeted	Total To Date	Remaining	% Remaining
<b>Extramural Costs</b>				
U.S. Coast Guard	\$25,604.00	\$25,604.00	\$0.00	0.00%
START - Weston	\$146,500.00	\$146,000.00	\$500.00	0.34%
START - Tetra Tech	\$25,000.00	\$14,500.00	\$10,500.00	42.00%
<b>Intramural Costs</b>				
USEPA - Direct	\$50,000.00	\$40,250.00	\$9,750.00	19.50%
USEPA - InDirect	\$34,575.00	\$29,950.00	\$4,625.00	13.38%
<b>Total Site Costs</b>				
	\$281,679.00	\$256,304.00	\$25,375.00	9.01%

\* 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

#### 2.5.1 Safety Officer

BP is conducting work associated with the AOC at the site under an approved Health and Safety Plan (HASP).

#### 2.6 Liaison Officer

NA

**2.7 Information Officer**

NA

**2.7.1 Public Information Officer**

NA

**2.7.2 Community Involvement Coordinator**

NA

**3. Participating Entities**

**3.1 Unified Command**

NA

**3.2 Cooperating Agencies**

IDEM

Marion County Public Health Department

**4. Personnel On Site**

NA

**5. Definition of Terms**

AOC	Administrative Order by Consent
AST	Aboveground Storage Tank
BTEX	Benzene, toluene, ethylbenzene, xylenes
EPA	Environmental Protection Agency
FPN	Federal Project Number
GWET	Groundwater Extraction and Treatment System
HASP	Health and Safety Plan
IDEM	Indiana Department of Environmental Management
LEL	Lower Explosive Limit
LNAPL	Light Non-Aqueous Phase Liquid
MTBE	Methyl tertiary butyl ether
NA	Not Applicable
O&M	Operation and Maintenance
OSC	On-Scene Coordinator
PAH	Polynuclear aromatic hydrocarbons
PolRep	Pollution Report
PRP	Potentially Responsible Party
START	Superfund Technical Assessment and Response Team
UST	Underground Storage Tank
VRP	Voluntary Remediation Program

**6. Additional sources of information**

**6.1 Internet location of additional information/report**

Additional information can be found at [www.epaosc.org/bpterminalindy](http://www.epaosc.org/bpterminalindy).

**6.2 Reporting Schedule**

The OSC will submit the next PolRep on or about October 16, 2015.

**7. Situational Reference Materials**

NA