U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Stackyard Hollow - Removal Polrep

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**Region III**

**Subject:** **POLREP #2**
**Preliminary Assessment**
**Stackyard Hollow**
**Z3MD**
**Wheeling, WV**
**Latitude: 40.0772533 Longitude: -80.7054597**

**To:**
**From:** Michael Towle, On-Scene Coordinator
**Date:** 9/12/2014
**Reporting Period:** through 09/12/14

## 1. Introduction

### 1.1 Background

| | | | |
|---|---|---|---|
| **Site Number:** | Z3MD | **Contract Number:** | |
| **D.O. Number:** | | **Action Memo Date:** | |
| **Response Authority:** | OPA | **Response Type:** | Time-Critical |
| **Response Lead:** | EPA | **Incident Category:** | Removal Assessment |
| **NPL Status:** | | **Operable Unit:** | |
| **Mobilization Date:** | | **Start Date:** | 1/14/2014 |
| **Demob Date:** | | **Completion Date:** | |
| **CERCLIS ID:** | | **RCRIS ID:** | |
| **ERNS No.:** | | **State Notification:** | WVDEP |
| **FPN#:** | E14302 | **Reimbursable Account #:** | |

#### 1.1.1 Incident Category

Oil discharge from an unknown source

#### 1.1.2 Site Description

The subject Site consists of a discharge of oil into a flowing tributary (Stackyard Hollow) of Wheeling Creek located in Ohio County, West Virginia. The tributary is mapped Stackyard Hollow and exists (at the location of the discharge) within a box culvert constructed over the flowing water. Stackyard Hollow discharges to Wheeling Creek which is a tributary of the Ohio River in Wheeling, WV.

##### 1.1.2.1 Location

The discharge of oil is located in a box culvert beneath a residence located along Joan Street, Wheeling, Ohio County, WV 26003.

##### 1.1.2.2 Description of Threat

A discharge of oil from an unknown source continues to enter the waters of Stackyard Hollow.

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

The OSC was contacted by WVDEP and was requested to assist in an assessment of the Site. The OSC obtained an FPN (E14302) on January 13, 2014, with an $8,000 ceiling, and arranged for a visit to the discharge location on January 14, 2014, with the WVDEP. The property owner was present and provided access to the interior of the nearby residential dwelling. The conditions noted in this POLREP were observed. Additional assessment was required before a source of the oil discharge could be identified.

The discharge has resulted in an unknown amount of oil into a flowing tributary (Stackyard Hollow) of Wheeling Creek, tributary to the Ohio River and a navigable waterway. The OSC estimates no more than about one gallon of oil was observable within the pipe, upon the walls of the culvert, the floor of the residence, and/or upon the water on January 14, 2014. The source of the oil discharge is not known but is continuous. Abandoned oil wells, component to an abandoned oil production facility, are known to also intermittently discharge their wellbore contents at / near the subject discharge. As such, the OSC further estimates that an additional 5 BBLs of oil could discharge if the source is determined to be an improperly plugged well or other portion of a facility near the discharge. The situation poses a substantial threat of

discharge of oil into or upon the adjoining shorelines of the navigable waters of the United States. The size classification of this discharge of oil is expected to be minor. The OSC and WVDEP are unclear if the amount of oil will increase or decrease over time. A well or source of the discharge is not evident.

WVDEP initially checked records of WVDEP Office of Oil and Gas and found that numerous wells were drilled in the area of the discharge, but a well at the point of discharge was not noted. WVDEP has also plugged oil wells in the vicinity of the discharge. There is not at this time any known connection between an abandoned oil well or facility and the discharge of oil into Stackyard Hollow. WVDEP continues their information search efforts.

The OSC and WVDEP agreed upon the need for additional assessment of the discharge, the need to identify a source (e.g., facility or well), if any, and the need to identify a Responsible Party for the discharge, if any. WVDEP requested the OSC's assistance in this matter. The OSC raised the FPN ceiling to $40,000 on January 15, 2014, to enable an assessment. A NRC Report was made. The Report # is 1071182.

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Narrative

There is at least one plugged abandoned oil production well near the point of oil discharge at this Site. There are other suspected abandoned oil production wells in the vicinity of the discharge. At this time, additional assessment is necessary before the discharge can be attributed to an abandoned well or an oil facility (or any portion thereof) or any other source. The West Virginia Department of Environmental Protection (WVDEP) has plugged one leaking abandoned well in the vicinity of the discharge.

The discharge is primarily observed as a discharge of oil from an approximate 6-inch diameter pipe entering the culvert constructed over/around Stackyard Hollow along Joan Street. Oil is also seeping through the concrete walls of the culvert. The oil discharges into Stackyard Hollow and forms an oily sheen upon the flowing water exiting the culvert and flowing to Wheeling Creek.

The discharge is also visible as oil seeping up through the floor of the nearest residence. The owner of the residence has placed absorbent material upon the oil. Oil odor is evident.

Oil has been previously observed discharging to Stackyard Hollow near the present discharge. This observation has resulted in the proper plugging by the WVDEP of at least one nearby abandoned oil well. The area has been observed by the WVDEP which documented the present discharge and contacted the OSC. The property owner indicated that the discharge appears to be worsening. WVDEP inspectors also believed that the area of the culvert wall subject to oil seepage is increasing.

#### 2.1.2 Response Actions to Date

A. OSC Lindsey contacted the property owner and discussed activities that EPA intended to conduct on the property. The property owner granted access to EPA and its contractor to conduct such activities.
B. On February 13, 2014, OSC Lindsey and START mobilized to the Site. At this time, the ground was snow covered. The OSC and START assessed the ground surrounding the residence and did not observe any oil on the surface. START attempted to auger into the ground in order to determine if oil would be observed sub-surface, potentially indicating that the source is behind the residence. Due to the frozen ground, START could not achieve a depth of greater than 1.5 inches below the ground surface (bgs). START then utilized a magnetometer to assess the area behind the residence, and a strong signal was achieved near the rear window of the residence, indicative of subsurface metal, possibly pipe. The OSC and START discussed returning to the Site when the ground is not frozen, and demobilized from the Site.
C. On February 26, 2014, OSC Lindsey and START returned to the Site, as the snow had melted. The OSC and START observed the soils to the rear of the residence. No surface oils were observed, and the ground remained frozen; subsurface augering still could not be conducted. The property address and neighboring locations were verified.
D. On April 3, 2014, OSC Lindsey and START mobilized to the Site to continue the investigation. START attempted to bore a soil auger into six locations along the side and rear of the residence. The deepest achievable depth was 19 inches bgs, at a location to the rear of the residence. Depths at the other locations ranged from six to 13 inches bgs. A slight odor was detected in the subsurface soils, but was not speculated to be petroleum-based. At the deepest achievable depth in each auger boring, a rock layer was encountered. No oils were observed in the soils of any of the borings. Also on April 3, 2014, START entered the culvert area to collect measurements of the pipe depth, location, etc. Information pertaining to the location of the pipe suggested that the pipe was at an approximate depth of 28 inches bgs. START attempted to push a metal hand auger into the pipe to observe what may be causing blockage; a large amount of paraffin was recovered. START utilized a tape measure and ran the tape into the pipe; at a distance of 11 feet 10 inches, there was blockage in the pipe. Oil sheen was observed in the waters of the creek. There was a large amount of oil staining on the wall of the culvert, just below the pipe, which was observed to be flush with the concrete wall. The pipe itself was observed to be constructed of metal, in poor condition (rusted), and had a diameter of 5 3/8 inches. Above the culvert, START utilized a magnetometer to estimate the direction of pipe; it was suspected to run beneath the residence. The OSC and START then discussed next steps. The OSC would contact the property owner and request that he is present during the next visit, as START would attempt to energize the pipe to obtain a stronger signal and enter the residence to locate the pipe beneath the structure.
E. On June 4, 2014, OSC Lindsey and START mobilized to the Site and met with the property owner. START connected cables to the pipe to energize it; START utilized the magnetometer, detecting a stronger signal from the pipe, and estimated its location beneath the floor of residence, in the same

room that oil was seeping through the floor. START identified the areas of the floor where the signal was strongest, suggesting the presence of metal, which was speculated to be piping and potentially a well. START did not detect a strong signal on the magnetometer at locations behind the residence.

F. Under the direction of the EPA, START procured services of a vendor through subcontract to clean the pipe, contain all oily materials and fluids, and run a camera into the pipe. OSC Towle requested and received an increase in the FPN in order to fund the subcontract; the FPN was increased to $50,000 on August 15, 2014.

G. On August 26, 2014, EPA, WVDEP, START, and START's subcontractor mobilized to the Site. START's subcontractor deployed boom and constructed a containment area downstream from the pipe and oil discharge location; a vacuum truck was staged to collect a discharge of oil, if necessary. The subcontractor then cleaned out the pipe. Materials that were obtained from clean-out operations were paraffin and gravel. Following the initial clean-out, a camera was run into the pipe; the camera showed that the pipe was in poor condition and the camera could not travel more than a distance of approximately 18 feet. Inside the residence, the camera was located in the subsurface along the same "line" that the magnetometer was detecting its signals. The subcontractor then attempted additional cleaning of the pipe. Materials recovered following the second clean-out included glass and what appeared to be construction debris; very little oil was recovered. The camera was again run into the pipe and did not go further than the first attempt. Below in the culvert, the START and it's subcontractor observed that oil staining on the culvert wall surrounded the visible end of the pipe; the oil was not speculated to only be emerging from the pipe itself.

H. Also on August 26, 2014, additional magnetometer investigation by both WVDEP and START detected metal beneath the rear room in the residence, confirming the results from prior investigations. The OSC, WVDEP and the owner discussed the likely need to investigate under the floor of the structure. It was thought that removal of the tiles on the floor would reveal some clues. The property owner then began to tear up the tile in the rear room of the residence. A large crack was detected in the concrete floor; this was suggestive that the oil was seeping through this path of least resistance. At the conclusion of the assessment on this day, START's subcontractor installed a temporary plug into the pipe in the culvert, collected all of the oily materials and placed them into a drum for disposal, and provided a copy of the Bill of Lading to the EPA

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

Historical well maps in the area of Stackyard Hollow identify numerous oil and/or gas wells. However, no historical maps identify a well near the structure at 51 Joan Street. Through a courthouse deed/lease search, the Site was formerly identified as Lot 4 of the Thompson Estate, and there were two leases identified for the land. However, no mention of any particular wells were included in the lease information. Both PRPs, Octo Oil Company and Glenwood Oil and Gasoline Company, no longer exist.

#### 2.1.4 Progress Metrics

| *Waste Stream* | *Medium* | *Quantity* | *Manifest #* | *Treatment* | *Disposal* |
|---|---|---|---|---|---|
| oil | solids | 55-gallon drum | | | X |
| | | | | | |
| | | | | | |

### 2.2 Planning Section

#### 2.2.1 Anticipated Activities

Based upon discussion between EPA, WVDEP and the property owner, additional invetsigation under the floor of the stucture is required in order to properly evaluate the source of the oil, the presence of the pipes, and the reason for the strong magnetic single under the rear room. The property owner agreed to conduct removal of a limited amount of concrete flooring and to notify EPA of findings.

#### 2.2.1.1 Planned Response Activities

#### 2.2.1.2 Next Steps

#### 2.2.2 Issues

The structure is used as a residence for several individuals.

### 2.3 Logistics Section

No information available at this time.

### 2.4 Finance Section

No information available at this time.

### 2.5 Other Command Staff

#### 2.5.1 Safety Officer

EPA or WVDEP present on Site

**2.5.2 Liaison Officer**

**2.5.3 Information Officer**

**3. Participating Entities**

No information available at this time.

**4. Personnel On Site**

2/13/14 - EPA (1), START (1)
2/26/14 - EPA (1), START (1)
6/4/14 - EPA (1), START (2)
6/26/14 - EPA (1), START (2), Property Owner (1)
8/26/14 - EPA (2), WVDEP (2), START (2), START Subcontractor (7)

**5. Definition of Terms**

No information available at this time.

**6. Additional sources of information**

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

**www.epaosc.org/stackyardhollow**

**7. Situational Reference Materials**

No information available at this time.