

POLREP 02

Malone #1 Abandoned Oil Well

Near Griffen Road

Near Schultz, Pleasants County, WV 26170

Lat. 39.34802

Long. -81.24593

FPN: E12314

Site ID: Z3LW

REPONSE AUTHORITY: Oil Pollution Act (OPA)

Attn: EPA RRC3
WVDEP D. Gilbert
EPA G. Heston
USCG J. Hahn
USCG NPFC

I. SITUATION (as of 10/24/12)

EVENT: Completion of Field Activity

- A. The subject Site consists of one (1) abandoned and leaking oil well located in Pleasants County, West Virginia. The subject well has been reported to have discharged an unknown amount of oil and threatened to discharge an additional and unknown amount of oil into an unnamed tributary of Cow Creek which is a tributary of the Ohio River, a navigable waterway.
- B. Following a report from a private land owner, West Virginia Department of Environmental Protection (WVDEP) Office of Oil and Gas conducted an initial inspection of the well on April 24, 2012. WVDEP observed the condition of the well and confirmed the potential of discharge of oil into Cow Creek.
- C. WVDEP found that the well was not identified on any mapping available to WVDEP. WVDEP initiated a search for information about the well and any potentially responsible parties. WVDEP conducted initial identification and evaluation of the potentially Responsible Party(ies) for the subject well within, among other places, the Pleasants County courthouse and the WVDEP Office of Oil and Gas. Records relating to the driller or likely last operator of the well were not specifically identified. There were no records specific to an oil facility at this property or location. The last operator of this well was not known to exist. The operator immediately prior to abandonment of the well was not specifically known. At that time, a Responsible Party was not identified.
- D. On July 17, 2012, WVDEP identified this abandoned and leaking oil well to the EPA On- Scene Coordinator (OSC). The OSC requested continued monitoring of the well location and defensive actions as needed until an onsite inspection could be completed and a search for a Responsible Party concluded. WVDEP requested the OSC to consider the subject well for federal response actions.
- E. On August 2, 2012, the OSC obtained initial funds from the OSLTF (via CANAPS). An initial project ceiling of \$6,000 was established and FPN E12314 was assigned to the case. For the purpose of the FPN, a discharge of 100 gallons was estimated.
- F. On August 6, 2012, the OSC met with WVDEP and the EPA START contractor at

the subject Site. The OSC conducted a preliminary assessment at the Malone #1 Well location. The well was audibly bubbling gas through a column of oil and leaking over the surface of the ground-level casing. The well appeared to have previously discharged (based upon consideration of the appearance of vegetation downgradient to the well), and oil was at the time of the inspection at the lip of the visible casing, migrating from the casing and disappearing into the ground into a variety of cracks. The ground sloped steeply from the well toward an unnamed tributary of Cow Creek, which is a tributary of the Ohio River. Oil had not reached flowing water at the time of the assessment. The Ohio River is a navigable waterway.

- G. The location of the potential discharge into Cow Creek was reported by WVDEP to be within 500 feet of a drinking water source. There were 10-20 people residing within 1,000 feet of the well. Based upon consideration of the location and geographical aspects of the well, its proximity to the obvious surface water pathway to the Ohio River, and its abandoned and leaking condition, the OSC determined that Malone Well #1 continues to pose a substantial threat of discharge of oil into the navigable waters of the United States. The amount of such discharge could not be definitively estimated. Similar situations evaluated by the WVDEP and OSC indicated that a discharge of 10 BBLs is plausible.
- H. WVDEP had a contract mechanism, but not the resources to conduct actions other than continued monitoring and defensive actions should a discharge occur. The OSC agreed to facilitate necessary actions to abate the substantial threat of discharge of oil posed by the Malone #1 abandoned oil well should the search for a viable Responsible Party indicate that such assistance is needed.
- I. Under the direction of the OSC, START complemented WVDEP's initial PRP investigation at the Pleasants County Courthouse. Neither START nor WVDEP could find any documentation to verify the last known operator of the well. Following review of the deed and title documentation, the OSC could not determine a viable Responsible Party.
- J. The current FPN Ceiling was insufficient for completion of actions at the Malone #1 Abandoned Oil Well Site. The anticipated funding necessary to complete the above actions exceeded the existing FPN Ceiling. WVDEP provided a cost estimate to the OSC for operations required to properly plug this abandoned leaking oil well; the cost estimate was for \$75,205.
- K. On August 8, 2012, in agreement with the cost estimate, the OSC requested and received a FPN ceiling increase in the amount of \$104,000, raising the total FPN to \$110,000, for WVDEP and its contractors to complete the Removal Action at the Site. A PRFA in the amount of \$80,205 was issued to WVDEP to complete this action. A SOW, including mobilization of equipment to the Site, the safety of the workers and rig placement, along with plugging operations, disposal of oil-contaminated soils, booms, and debris, and restoration of the Site, was discussed and agreed to by both WVDEP and the OSC.
- L. WVDEP entered an access agreement with the property owner to perform the required removal actions at the Site.

II. ACTIONS

- A. On August 14, 2012, WVDEP and its contractor began mobilization of equipment to the Site. Due to the steeply sloping terrain leading towards the well, a large

- amount of gravel was required to construct a safe access road. A culvert was installed along the access road for proper drainage of runoff.
- B. By August 17, 2012, WVDEP's contractor rigged up on the well. A 12-foot section of pipe was required to replace the bent pipe that existed at the well surface.
 - C. During the week of August 20, 2012, WVDEP's contractor measured in the hole and found a bridge at 243 feet. A sand pump was utilized to clean out the wellbore to 250 feet. The contractor then utilized drilling tools and recovered a large amount of wood shavings; a wooden plug existed in the wellbore, the length unknown. A pit was excavated and lined for collection of the sand pump's oily fluids; approximately 1.5 barrels of oil were recovered from the wellbore. By August 23, 2012, a depth of 310 feet was achieved.
 - D. During the week of August 27, 2012, WVDEP's contractor continued to utilize drilling tools in an attempt to remove the wooden plug situated in the wellbore. The drilling tools continued to hang up in the wellbore, and depth was lost every time the drilling bit was tripped. The wellbore was cleaned out with a sand pump and the contractor switched tools to a cherry picker; half of a well head was recovered, along with a clay plug. Throughout the week, tools were rotated and recovery of portions of the wooden plug, red rock, and clay continued. By August 30, 2012, a depth of 321 feet was achieved.
 - E. Over the Labor Day Holiday, heavy rains occurred on the Site. Upon return to the Site on September 4, 2012, the rig had settled six inches into the ground, and the contractor had to re-level the rig. When operations continued, the depth of hole was measured at 318 feet. A combination of sand pump cleaning operations and drilling with the cherry picker was conducted throughout the remainder of the week. Metal chips were now being recovered from the wellbore. The contractor continued to lose hole upon every tripping attempt. By September 6, 2012, the hole depth was 318 feet, a loss of three feet for the week.
 - F. On September 10, 2012, WVDEP's contractor measured in the hole at 306 feet. Sand pump and drilling operations were again attempted, with unsuccessful results. As a result, WVDEP determined that no additional funds would be wasted to continue drilling operations. WVDEP corresponded with the OSC regarding the decision to cease operations and begin setting the cement plug; the OSC agreed.
 - G. On September 13, 2012, a 45-sack cement plug was set at 315 feet. Over the weekend, the cement plug was lost. The 45-sack cement plug was re-set on September 17, 2012.
 - H. On September 18, 2012, WVDEP's contractor went into the hole at 190 feet and cut the 8-inch pipe that was present in the wellbore. However, it could not be pulled. The hole was then gelled to 130 feet and a cement plug was set from 130 feet to the surface.
 - I. On September 19, 2012, the wellbore was topped off with cement and the monument was set. The API Number, 47-073-2547-P, was welded onto the monument.
 - J. By September 25, 2012, WVDEP's contractor had completed restoration of the Site, including removal of equipment, disposal of oily pit fluids, grading, seeding, fertilizing, and placement of gravel to restore the access road. The Removal Action was complete.
 - K. Throughout the duration of the Removal Action, the OSC and/or START conducted periodic visits to correspond with WVDEP, provide oversight, and document operations at the Site. The last Site visit by START was conducted on September

25, 2012, during which observations were made that the property was restored to a minimum of its original condition. The culvert was not obstructed and no issues were observed. Correspondence was made with the OSC to confirm that WVDEP and its contractor completed all terms set forth in the SOW. The estimated costs for WVDEP and its contractor to date was \$79,599.66.

- L. Photographic documentation was posted on the OSC's website to depict actions that were taken to complete the Removal Action at the Site.

III. FUTURE ACTIONS

- A. WVDEP will obtain all receipts from the surveyor and contractors for services rendered during the Removal Action.
- B. WVDEP will provide final cost documentation to the EPA, to include all associated costs that were incurred during the Removal Action.
- C. An After Action Report will be drafted, to include the initial inspection report, cost estimate, PRFA and SOW, surface owner waiver form, the Notice to Proceed, deed/title search documentation, Pollution Incident Daily Resource Reports, survey and contractor costs, disposal information, WVDEP's plugging documentation, daily sign-in sheets, and photographic documentation. The OSC will provide the report to the USCG for reimbursement of WVDEP funding expended during this Removal Action.
- D. Following reimbursement of WVDEP's funding associated with this Removal Action, no further EPA involvement is expected.

Michael Towle, OSC
EPA Region III
Philadelphia, PA 19103