

**United States Environmental Protection Agency
Region IV
POLLUTION REPORT**

Date: Thursday, April 26, 2007

From: Art Smith

To: Shane Hitchcock, EPA Region 4 Bob Smith, USCG NPFC
Robert Francis, KYDEP

Subject: Polrep No. 4 and Final
SM Maple Lease/Rogers Fork Crude Oil Discharge
Pitts, KY
Latitude: 37.7322000
Longitude: -83.8911000

POLREP No.:	4	Site #:	Z4KS
Reporting Period:	12/06/2007 through 04/26/2007		
Start Date:	11/20/2006	Response Authority:	OPA
Mob Date:	11/17/2006	Response Type:	Emergency
Demob Date:	4/23/2007	NPL Status:	Non NPL
Completion Date:	4/28/2007	Incident Category:	Removal Action
CERCLIS ID #:		Contract #	
RCRIS ID #:		Reimbursable Account #	Z4KS
FPN#	E07407		

Site Description

On 11/15/06, the Kentucky Department for Environmental Protection (KDEP) was notified of a potential crude oil spill in a mountain stream in rural Estill County, Kentucky. The crude oil discharged directly into the Rogers Fork to Cow Creek, which flows directly into the Kentucky River in Ravenna, KY. The Kentucky River is a navigable water of the United States.

KDEP's Environmental Response Team (KDEP ERT) responded on 11/15, and identified the source of the oil discharge to be coming from multiple springs or seeps originating from the mountainside approximately 0.25 mi. uphill of the pond. KDEP mobilized PECCO, Inc. of Nicholasville, KY to respond and mitigate the oil discharge. KDEP also filed NRC Report No. 818332 on 11/15. On 11/16, OSC Smith was dispatched by the Region 4 Phone Duty Officer to further investigate the source of the discharge and monitor cleanup efforts.

Because of the complexity in determining the source of the discharge, and the continued need to mitigate the threatened discharge of oil into navigable waters, EPA obtained a Federal Project Number and funding in the amount of \$50,000 from the National Pollution Funds Center (NPFC) on 11/20. The purpose of the funding was to issue a Pollution Removal Funding Authorization to KDEP for purposes of continuing the oil removal action and to launch an investigation into the cause of the discharge.

On 11/22, EPA met with the KDEP and the KY Oil and Gas Division (KDOG) to review the progress of the investigation and cleanup. Based on field recon performed by KDEP, the focus shifted to two active production wells on the S.M. Maple Lease, located upgradient of the 2 seep locations. The S.M. Maple Lease is owned and operated by United American Energy, Inc. (UAE). UAE has contracted with Arrowhead Enterprises of KY, Inc. (Arrowhead), to manage production on the Maple Lease. EPA's subsequent attempts to have the current owner/operator voluntarily cease production and inspect these wells were unsuccessful.

Because of the need for additional investigation, and in order to continue response actions for an extended period, the OSC requested that NPFC approve an increase of an additional \$130,000 to the FPN ceiling. NPFC concurred with the request and increased the total FPN ceiling to \$180,000 for this incident.

From 11/27-11/29, OSC Smith was onscene to oversee field activities in response to this incident. On 11/27, the OSC, the EPA START contractor and the KDEP Division of Water/Groundwater Branch rep convened to go over specific conductance testing performed on this date by KDEP. Using a conductivity meter, KDEP's results showed that the 2 oil-producing seeps exhibited an average value of 3,230

umhos/cm. Testing at 3 other springs in the area considered to be representative of background conditions revealed an average value of about 370 umhos/cm. This was interpreted by the OSC to be a strong indication that the oil-producing seeps contain an elevated amount of brine. (Brine is found in the fluids generated in the oil production process). Due to the close proximity of the active production wells on the S.M. Maple Lease which are upgradient of the oil-bearing seeps, and the absence of oil and brine seeping from the subsurface or other abandoned wells at elevations lower than that of the oil-producing seeps, the OSC concluded that the cause of the oil discharge was from the active oil production facility owned and operated by United American Energy (UAE).

Under the delegated authority of the Clean Water Act Section 311(c), the OSC issued an Administrative Order on 11/29/2006 to UAE and Arrowhead requiring the Respondents to:

- Immediately cease all oil production and underground injection activities on active wells where the surface elevations are equal to or above identified oil discharge locations.
- Immediately assume responsibility for continued containment, collection, and offsite recycling/treatment/disposal of recovered oil product and debris at the Pitts Road containment basin.
- Submit a Work Plan (including a schedule) detailing procedures for measurement of fluid levels in all producing wells where the surface elevations are equal to or above that of the previously identified oil discharges and the inspection/evaluation of all gathering lines serving these wells.

As of 11/29 @ 1700 hrs. EST, all oil production was shut down on the affected portions of the Maple Lease. However, UAE declined to accept responsibility for active containment and collection of the oil discharge, until such time as the investigation of the facility is completed. Upon receipt of this information, the OSC terminated the PRFA issued to KDEP, and issued a verbal Task Order to the Region 4 Emergency and Rapid Response Services (ERRS) contractor CMC, Inc. on 11/30 for purposes of stabilizing the oil discharge and removal of oil product emanating from the seeps.

Current Activities

On 12/20/06, OSC Smith prepared an OPA 90 Removal Project Plan (RPP) for approval by the USCG National Pollution Funds Center (NPFC) for more funding needed to support ongoing removal activities. USCG NPFC granted EPA's request for a ceiling increase, establishing a new budget of \$340,000 for this removal action.

On 02/01/07, OSC Smith transmitted EPA's comments on the Potentially Responsible Party's (PRP's) Work Plan for investigation of the integrity of wells and flow lines. On 02/26, OSC Smith met with UAE representatives at the KDEP offices in Frankfort, KY to coordinate oversight of response actions conducted by UAE, who had reported a second spill from the same oil production facility at a different location on 11/29/2006. The OSC approved field work including integrity testing of all wells and flow lines at the facility which are at or above the elevation of the oil-bearing seeps. In addition, EPA tasked START to collect oil and water samples in an attempt to connect the oil production facility to the discharge into the Rogers Fork watershed. EPA tasked EPA's Environmental Response Team (EPA ERT) with performing the analytical services necessary to fingerprint the environmental samples.

On 03/04, field work commenced implementing the Work Plan, and EPA's START contractor was onscene to document the investigation. START collected oil and water samples from the facility and the seep, as well as background water samples from nearby springs.

On 03/12, testing performed by the Responsible Party (RP) to investigate the cause of the oil spill revealed a leaking flow line connected to the production well closest to the seep where oil was first discovered. A 1-1/2 inch long tear in the 2" diameter poly pipe buried nearly 3 feet below ground was photographed by START for documentation purposes. The investigation was terminated at that point, pending receipt of acknowledgement of responsibility by UAE for the 11/15/06 discharge.

In a letter submitted to EPA on 04/12, UAE acknowledged responsibility for the oil discharge into the Rogers Fork watershed, which was originally discovered in November 2006. In a companion document prepared by UAE's consultant Delta Environmental which detailed the findings of the site investigation, UAE concluded that the leak probably occurred within 3 days of the time that the oil had surfaced at the spring. This was corroborated by the fact that the oil discharge from the seep slowed dramatically once oil production was halted in December 2006. EPA's records for recovery of oil product further support this finding. Over 650 gallons of crude oil product had been collected by the EPA ERRS contractor CMC, Inc. from December 2006 through March 2007. However, the majority of this oil was collected in December 2006, as less than 50 gallons of oil were recovered during the month of January 2007, and practically no oil was recovered during the month of February 2007.

On 04/25/07, the OSC met with UAE and KDEP to transition the oversight of the remaining response activities response to KDEP for final cleanup and restoration of the site. KDEP approved UAE's Corrective Action Plan on 04/28/07.

Planned Removal Actions

At this point, the OSC considers the oil removal action to be complete, pursuant to Section 300.320 (b) of the NCP. Therefore, no further federal action is warranted. UAE will continue to remove oil and remediate the site under the direction and oversight of KDEP.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	\$180,000.00	\$46,983.00	\$133,017.00	73.90%
PRFA (KYDEP)	\$80,000.00	\$41,043.00	\$38,957.00	48.70%
RST/START	\$35,000.00	\$26,572.00	\$8,428.00	24.08%
REAC	\$15,000.00	\$3,639.00	\$11,361.00	75.74%
Intramural Costs				
USEPA - Direct (Region, HQ)	\$23,000.00	\$7,883.00	\$15,117.00	65.73%
USEPA - InDirect	\$7,000.00	\$5,662.00	\$1,338.00	19.11%
Total Site Costs				
	\$340,000.00	\$131,782.00	\$208,218.00	61.24%

* 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.

response.epa.gov/rogersfork

POLREP #4 Last Updated 5/10/2007