

United States Environmental Protection Agency
Region IV
POLLUTION REPORT

Date: Tuesday, April 29, 2008

From: Art Smith

Subject: Initial Polrep

Lewis Farm/Indian Oil Refinery

Georgetown, KY

Latitude: 38.2221130

Longitude: -84.5493800

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|--------------------------|-------------------------------|----------------------------|----------------|
| POLREP No.: | 1 | Site #: | A4PM |
| Reporting Period: | 04/18/2008 through 04/28/2008 | D.O. #: | |
| Start Date: | 4/18/2008 | Response Authority: | CERCLA |
| Mob Date: | 4/18/2008 | Response Type: | Emergency |
| Demob Date: | | NPL Status: | Non NPL |
| Completion Date: | | Incident Category: | Removal Action |
| CERCLIS ID #: | | Contract # | |
| RCRIS ID #: | | | |

Site Description

The Lewis Farm/Indian Oil Refinery Site is located on Lewis Lane in Georgetown, Scott County, Kentucky. The current land use is as a horse farm, but the site was operated as an oil refinery by the former Indian Oil Company from 1905-1916. In March 2004, a report was filed with the National Response Center (NRC), citing an oily discharge suspected to be originating from a spring at the site into North Elkhorn Creek. In December 2006, the Kentucky Department for Environmental Protection (KDEP) published a CERCLIS preliminary site assessment report. In the report, KDEP cited releases of polycyclic aromatic hydrocarbons (PAHs) and lead at the site. In October 2007, KDEP formally requested EPA Region 4 assistance for evaluating whether the site met criteria under Section 300.415 of the National Contingency Plan for taking a time-critical removal action. This referral was prompted by discovery of a change in land use at the site where a non-profit organization was using the site for recreational purposes.

In November 2007, EPA conducted a sampling investigation at the site, as part of the Removal Site Evaluation (RSE). Based on the results of the sampling investigation, releases of hazardous substances are occurring at the site, or may occur. The contaminated soils pose a potential direct contact threat to the public, which is exacerbated by controls on access to the site, and the proposed change in land use. The spring or seep, which was the subject of the March 2004 NRC Report, was documented during the RSE as releasing a leachate into North Elkhorn Creek on an intermittent basis, as influenced by recharge to the subsurface. EPA subsequently concluded that the site meets criteria for taking a time-critical removal action. This information was communicated to Chevron Corporation ("Chevron"), in a General Notice Letter dated March 27, 2008. Chevron is a Potentially Responsible Party (PRP) for this site.

On April 14, 2008, the OSC was notified by KDEP that a recreational boater had recently complained to the City of Georgetown concerning an oily film deposited on his canoe after traveling by the site along North Elkhorn Creek. A followup investigation by the OSC on April 18, 2008 confirmed that the leachate discharge continued to release unabated into Elkhorn Creek and that a time-critical removal action was necessary in order to mitigate the release. Chevron indicated to EPA that it was unable to conduct the required measures to stabilize the release, and the OSC promptly initiated the removal action under his delegated procurement and programmatic authorities.

Current Activities

The Region 4 Emergency and Rapid Response Services (ERRS) contractor (CMC, Inc.) mobilized to the site on 04/18/08. Actions to control the leachate discharge consisted of the following:

- a) Containing the leachate release at the spring by over-excavating soils and sediment, thus creating a sump where leachate collects and then is pumped to 2-10,000 gallon pools for temporary storage.
- b) Filtering the leachate through sorbent pads designed to capture hydrocarbons, and then through sand and gravel to remove particulates, prior to discharging onto the ground in areas of known soil

contamination, as documented through the RSE.

Containment of the discharge was established on 04/18, and the holding pools were constructed on 04/19. (Pictures of the raw water storage pool, drum filter, and a comparison of raw vs. treated water are provided under the Images tab of the website). Other work performed during this reporting period included clearing and grubbing of work areas, and upgrades to dirt roads and trails to improve access into the work areas.

From observations recorded in the field, the leachate flow rate into the sump ranges from about 5-10 gallons per minute. Each pumping cycle withdraws 80% of the sump volume (260 gallons) plus the recharge (140 gallons per cycle on the average), equaling about 400 gallons per cycle. Assuming that the pump kicks on approximately 1.5 times an hour on average, the average volume of water produced and filtered in a week's time (168 hrs.) equals approximately 100,000 gallons ($400 \times 1.5 \times 168$). All figures are rounded off.

On 04/22, ERRS and the Superfund Technical Assistance and Response Team (START) contractor TN & Associates collected samples of leachate, filtered water and soils which were removed from the spring. The samples will be analyzed for full Target Compound List (TCL) organics and Target Analyte List (TAL) metals. Additional analyses for wet chemistry parameters including pH, Total Suspended Solids, Oil and Grease, Total Petroleum Hydrocarbons, and Chemical Oxygen Demand were also requested. Analytical results are pending completion and documentation of laboratory QA/QC procedures.

On 04/23, KDEP Superfund Branch staff were onsite to document the removal activities performed thus far. The OSC provided an overview of the removal scope of work to KDEP during the site visit.

Planned Removal Actions

EPA's Environmental Response Team (ERT) has been tasked to assist in identifying the source of contamination for the leachate discharge. It is anticipated that both geophysical investigative techniques and trenching will be required to locate the source. Scheduling of this investigative work is pending finalization of the work assignment to ERT's Response Engineering and Analytical Contractor (REAC) Lockheed Martin.

Once the source is identified, mitigation options for addressing the source of leachate generation through stabilization, excavation, or other measures will be developed.

response.epa.gov/lewisfarm