

US EPA ARCHIVE DOCUMENT

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
Kalamazoo River/Enbridge Spill - Removal POLREP-SITREP



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region V



**Subject:** POLREP #10  
Kalamazoo River/Enbridge Spill  
Z5JS  
Marshall, MI  
Latitude: 42.2395273 Longitude: -84.9662018

**To:** Richard Fuller, Kalamazoo County Sheriff's Office  
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**From:** Ralph Dollhopf, U.S. EPA Incident Commander  
 Stephen Wolfe, U.S. EPA On-Scene Coordinator  
 Jeffrey Kimble, U.S. EPA Deputy Incident Commander  
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**Date:** 08/04/10

**Reporting Period:** 08/03/10 1900 hrs. to 08/04/10 1900 hrs.

**1. Introduction**

**1.1 Background**

<b>Site Number:</b>	Z5JS	<b>Contract Number:</b>	
<b>D.O. Number:</b>		<b>Action Memo Date:</b>	
<b>Response Authority:</b>	OPA	<b>Response Type:</b>	Emergency
<b>Response Lead:</b>	PRP	<b>Incident Category:</b>	Removal Assessment
<b>NPL Status:</b>	Non NPL	<b>Operable Unit:</b>	
<b>Mobilization Date:</b>	7/26/2010	<b>Start Date:</b>	7/26/2010
<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>	E10527	<b>Reimbursable Account #:</b>	

**1.1.1 Incident Category**

## Emergency Response -- Pipeline Rupture

### **1.1.2 Site Description**

A 30-inch pipeline ruptured, releasing crude oil (NRC report of 19,500 barrels) into a culvert leading to Talmadge Creek. Talmadge Creek is a tributary to the Kalamazoo River. The response site is along the Kalamazoo River running from Marshall, Michigan to Battle Creek, Michigan. The Kalamazoo River is bordered by marshland and developed properties for the approximately 30 mile stretch of the response site.

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

Approximately 30 miles of the Kalamazoo River have been impacted. The Kalamazoo River experienced flooding before and after the spill. The river levels have fallen and stranded oil in some backwaters and wetlands. Talmadge Creek has been boomed off at the confluence to the Kalamazoo River. Containment and absorbent boom has been deployed along the Kalamazoo River and Talmadge Creek. Containment and absorbent boom have also been deployed in Morrow Lake.

## **2. Current Activities**

### **2.1 Operations Section**

#### **2.1.1 Narrative**

The response site extends from the pipeline break to the dam at the end of Morrow Lake and has been geographically divided into five Divisions, A to E, with Division A starting at the pipeline break and ending at Morrow Lake in Division E. The Divisions are split into two Branches, with the East Branch covering Divisions A and B and The West Branch covering Divisions C, D and E. The Divisions are further broken down into collection points that are denoted by division letter then collection point number (i.e. C3 refers to collection point three within Division C).

The Operations Section also has a Shoreline Branch, Monitoring Branch and Air Ops Branch that conduct activities in all the Divisions.

#### **Shoreline Branch**

Enbridge shoreline operations continued in C2 to C5; and 400 yards of shoreline was cleaned today by 1430. Significant time was allocated to changing out absorbent boom. Enbridge continued working on gaining access to the Baker Estates trailer park in Battle Creek.

## **Monitoring Branch**

Enbridge collected 28 surface water samples, 20 potable water samples, 16 24-hour grab air samples, 4 mini-summa air samples, 18 air grab samples, and 22 passive dosimeter samples. Real-time monitoring for benzene and VOCs is on-going.

## **Air Ops Branch**

Enbridge conducted three over flights today.

## **River Branch East Divisions A and B**

### **EPA**

In Division A, air monitoring was conducted in the hot zone for VOCs, LEL and benzene. Air monitoring was also conducting outside the Hot Zone and all levels observed were below 0.5 ppm for benzene.

### **Enbridge**

In Division A, Enbridge continued the excavation and dewatering of soil in the pipeline area. Enbridge constructed a second contaminated soil staging area and continued collecting oil at collection points.

In Division B, Enbridge continued excavation and swamp mat installation; and completed holding cells. Enbridge continued with oil/water removal via vacuum trucks with skimmers, and also conducted boom maintenance.

## **River Branch West**

### **EPA**

At location C0, ERRS deployed containment boom at Dibble and continued to switch out soiled sorbent boom as needed. ERRS continued vacuum truck operations, skimmer, and boom maintenance operations.

At location D2.5, ERRS re-positioned some containment boom to divert oil to the north bank of the Kalamazoo River for collection. ERRS continued bagging oiled vegetation and debris collecting in diversion booms and continued vacuum operations as needed.

At location E3, ERRS continued boom maintenance and re-adjusted various containment booms from Climax Street to 35<sup>th</sup> Street. ERRS also continued to change out sorbent boom as needed.

START conducted oversight duties related to the boom operations taking place at Boom Locations D2, D2.5, D3, and D4. START also conducted air monitoring at these boom

locations. During these activities, an UltraRae 3000 was used to evaluate benzene concentrations in air. Air monitoring results at each location were non-detect for benzene.

EPA observed observations at E0.5, E1, E2, E2.4, E3, E3.5, and E4. Four boats were deployed to Lake Morrow to conduct sheen reconnaissance. As of 1430 hours, there was no sheen observed. The aeration operations to break up tar/oil flakes were observed at E1. Boat decontamination is occurring at location E0.5.

USCG team observed operations at locations C0, C2, C3, C5, C6, C4, C2, and C1. Boom workers noted that some boat operations are not following proper boom-crossing guidelines and causing damage to boom at C0. The boom configuration at location C2 did not appear to be effective.

### **Enbridge**

In Division E, Enbridge continued maintaining and replacing boom at E0.5. At E1, Enbridge continued with aeration operations and continued boom replacement operations. At E2, Enbridge conducted boom re-adjustment to achieve better containment. At E4, Enbridge has a strike team with 6 boats picking up collecting sheen if it is observed. At E5, Enbridge is collected oily debris in the recovery zone.

In Division D, Enbridge installed sweep boom on the backside of all containment booms and continue to collect loose oily river debris.

In Division C, 2 boat crews were on the north side of the dam at C1 cleaning up vegetation and collecting oil. Another boat crew was on the south side assisting oil collection teams. Other boats deployed upstream of the dam and replaced absorbent booms. At C2, C3 and C5, Enbridge continued to collect oil. At C6, Enbridge completed adjusting boom and installed 75 feet of absorbent boom.

### **Lake Morrow Task Force**

Enbridge completed aerial reconnaissance at 0830 and 1400 with no sheen reported. Before the specific task force had been deployed today, 6 boats monitored continuously from beginning of the shift and reported no sheen. The Lake Morrow Task Force was deployed mid-afternoon along with representatives from USCG and USEPA. The group examined the water's surface from the Lake Morrow Public Access point to the dam and no sheen was observed. At E4, sampling occurred 4 times per day with no visible sheen observed.

#### **2.1.2 Response Actions to Date**

Containment boom, sorbent boom, skimming equipment, vacuum trucks and other equipment are being used to support oil collection and removal along Talmadge Creek and the Kalamazoo River. Recovered material is being temporarily stored on-site.

Tanker trucks are transporting the material to a facility owned by the RP with available storage in Griffith, Indiana.

USEPA and RP contractors, with the support of the US Army 51st Civil Support Team, monitored and sampled air quality along the river and throughout multiple residential areas. A heavy emphasis was placed on specific monitoring for benzene as it is a recognized contaminant of concern for this response.

Water samples were collected for analysis from surface water, river and lake water columns, and private drinking wells along the length of the impacted areas of the Kalamazoo River. Water samples were also taken downstream of the Morrow Lake Dam.

USFWS is working with the Wildlife Branch to address wildlife impacts.

The USCG Atlantic Strike Team is on scene to provide assistance with RP and contractor oversight. USCG District 9 staff is on site working with the Incident Management Team.

NTSB and USDOT-PHMSA are on site conducting an investigation of the pipeline incident and are working with the appropriate State, Local, and Federal agencies. Enbridge has been given permission from NTSB to excavate the pipeline break. Due to high water tables and saturated conditions, excavation collapses have hindered progress. EPA will coordinate with USDOT-PHMSA and NTSB to ensure, that during pipeline repair activities, the environmental and health and safety considerations are accounted for.

The voluntary evacuation issued by CCPH in consultation with MDCH and ATSDR remains in effect for several residences located immediately downstream of the spill site along the Talmadge Creek, up to its confluence with the Kalamazoo River. This voluntary evacuation was based on review of air monitoring results for benzene around oil collection areas. Twelve residences have been evacuated, twenty seven chose to stay and twenty two did not answer. The evacuation recommendation remains in effect.

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

Enbridge is the RP.

On July 27, 2010, EPA issued an Administrative Order under section 311(c) of the Clean Water Act to Enbridge. Enbridge is actively addressing all the deliverables of the Order including but not limited to: drafting an overall site work plan; health and safety plan; and sampling and analysis plan.

### **2.2 Planning Section**

The EU responded to a request from the JIC to edit the Decision Tree for Evacuation and Re-occupancy for Benzene in an acceptable format for posting on the EPA website. The EU organized a table of screening levels for all oil-related analytes for surface water,

groundwater, and air to be included with environmental data for the website. A response protocol for responding to odor complaints and requests for drinking water testing was drafted for review.

The EU worked to resolve data management/release and validation issues with EPA Headquarters and the PIO. The EU reviewed data deliverables and validated data from sampling efforts.

The EU met with Entrix, an Enbridge consultant, to discuss SCAT team procedures and the need to have full SCAT team presence on each boat including EPA, MDNRE and an operations representative. The agencies drafted a SCAT work plan and discussed pending work for NOAA, the planning section and the operations section.

The EU also engaged in multiple discussions with ORD to discuss the oil spill and PCBs at the downstream Kalamazoo NPL site.

The EU discussed requirements for lifting the Michigan Department of Agriculture ban on agricultural water use past Morrow Lake.

The EU finalized comments on the Sampling and Analysis Plan from Enbridge.

A total of 12 air samples were taken for this period including 4 in Division B and 7 in Division C. The samples showed either non-detects or levels well below the action level for benzene. A 24-hr composite air sample was collected as well and sent for analysis. One surface water sample was taken (location not specified). This brings the total of EPA analytical samples collected to date to 316.

Two EPA members of SCAT teams were deployed to work on assessments of Morrow Lake including lower river segments of Division E (Team 2) and Division C (Team 1); however Team 1 activities were cancelled due to inclement weather.

The GIS Team shared data with NOAA and developed a procedure to receive data and maps that NOAA is creating for the incident.

The DMU continued to process and upload field data to Scribe, which is then being published to Scribe.Net. The DMU prepared a Data Management Plan for the response that documents the data flow and data SOPs.

### **2.2.2 Issues**

The RP has been informed that a Superfund site with PCB cleanup activity is located on the Kalamazoo River downstream of Morrow Lake (approximately 35 river miles downstream). The RP has been advised to make all efforts necessary to ensure the oil does not reach the Superfund Site. Agencies in Unified Command are working with cooperating and assisting agencies and parties to develop a contingency plan to respond if oil does move past Morrow Lake into the PCB cleanup area.



## 2.3 Logistics Section

Logistics met with Marshall Schools and Enbridge to resolve any facility issues concerning the Walters School building.

### Boom Report

	Enbridge	EPA	TOTALS
<b>Number of Locations</b>	<b>32</b>	<b>5</b>	<b>37</b>
<b>Boom Deployed (feet)</b>	<b>52,116</b>	<b>53,600</b>	<b>105,716</b>
<b>Boom Available(feet)</b>	<b>380,050</b>	<b>56,505</b>	<b>436,555</b>

## 2.4 Finance Section

The current NPFC issued ceiling (based on EPA requests) is \$6 million. Approximately 53% of the ceiling has been spent to date, with a burn rate of \$385,000 per day.

## 2.5 Safety Officer

A unified HASP was completed and submitted to UC for Decision Memo and approval.

Four accidents/injuries were reported by Enbridge in this morning's incident update; none were serious injuries or fatalities.

Enbridge continued to provide continuous on-site safety officers for Divisions A and B, with a roving safety officer to cover Divisions C/D/E. Three Assistant Safety Officers provided by the MI-OSHA Disaster Response Team continued to provide consultative support in Divisions C/D/E.

## 2.6 Liaison Officer

The LNO designated an Assistant LNO from the USCG. LNO is working with the USCG and RESL to have a list of representatives included in the IAP.

The LNO coordinated with city, county, and state entities regarding communications and made contact with the City of Marshall regarding public meetings. The LNO also met with the Sheriff of Calhoun County to discuss inter-county jurisdictional issues and coordinated with HQ regarding the handling of requests from the Michigan Governor's office.

The LNO provided maps to an archaeological expert for the State of Michigan regarding locations of historical and cultural interest sites along the affected riverbanks.

## 2.7 Information Officer

### 2.7.1 Public Information Officer

The PIO embedded the Washington Post with the RA and Deputy OPS for a helicopter tour. The PIO has secured a location for next public meeting in Battle Creek on Tuesday evening, August 10.

### **Oil Spill Response Hotline (888-363-8632) — Incoming Calls**

#### **TOTAL CALLS: 9**

#### **Calls were sent to:**

<b>EPA Public Hotline</b>	<b>2</b>
<b>EPA Media</b>	<b>1</b>
<b>USF &amp; WS</b>	<b>2</b>
<b>DNRE</b>	<b>3</b>
<b>County (Allegan)</b>	<b>1</b>

Several of the calls were from citizens who were concerned about wildlife and the environment. One caller expressed interest in offering financial assistance for bird rehabilitation. Other calls included concerns about Enbridge's prior spill exercises, their clean-up plan and plan to buy affected resident's homes.

#### **State of Michigan PIO Activities**

The PIO answered the media hotline, conducted media monitoring, served as the media liaison for a live media briefing, served as the JIC Manager and developed standardized procedures for JIC operations.

#### **USFWS**

Tours were conducted at the Wildlife Rehab Center with media, Unified Command agencies and local public officials. An on-air interview occurred with a radio station.

#### **Calhoun County**

County representatives brought local concerns regarding the quality of responses at the Enbridge call center to the Unified Command's attention.

#### **Calhoun County Public Health Department**

CCPHD posted Air Quality and Volunteer Fact sheets on the Calhoun County Website and sent out a media advisory regarding Enbridge to its local media list. CCPHD received inquiries from the media regarding evacuation protocols as well as drinking water wells.

### **3. Participating Entities**

### **3.1 Unified Command**

United States Environmental Protection Agency  
Michigan Department of Natural Resources and Environment  
Michigan State Police Emergency Management Division  
Calhoun County Public Health Department  
Calhoun County Emergency Management  
Kalamazoo County Sheriff  
Enbridge (Responsible Party)

### **3.2 Cooperating and Assisting Agencies**

#### **Cooperating Agencies**

Allegan County Emergency Management  
American Red Cross  
Augusta Police Department  
B&B Fire Safety Emergency Response  
Calhoun Conservation District  
Calhoun County Commissioners  
Calhoun County Drain Commission  
Calhoun County Sheriff's Office  
Calhoun County Treasurers Office  
Calhoun Conservation District  
Calhoun Greenation District  
City of Battle Creek, Michigan  
City of Marshall, Michigan  
Federal Energy Regulatory Commission  
Fredonia Township Fire Department  
Huron Potawatomi  
Kalamazoo County Office of Emergency Management  
Kalamazoo Public Safety  
Kalamazoo Watershed Council  
Marshall Township Government and Fire Department  
Marshall Police Department  
Natural Resource Group  
National Transportation Safety Board  
Pipeline Hazardous Materials Safety Administration  
U.S. Coast Guard  
U.S. Department of Commerce, NOAA  
U.S. Department of Transportation  
U.S. Fish & Wildlife Service  
U.S. Department of Labor, OSHA

#### **Congressional Presence**

State Representative Jase Bolger  
 State Representative Kate Segal  
 State Representative Ken Kurtz  
 State Representative Phil Browne  
 State Representative Phyllis Browne  
 State Representative Bob Geuck  
 State Representative Tanya Schuitmaker  
 State Senator Mike Nofs  
 U.S. Congressman Mark Schauer  
 U.S. Senator Carl Levin  
 U.S. Senator Stabenow

**4. Personnel On Site**

These numbers reflect all EPA numbers and River only for Enbridge.

Personnel	Numbers
Enbridge	<b>25</b>
Enbridge Contractors	<b>377</b>
EPA	<b>51</b>
ERRS	<b>88</b>
START	<b>45</b>
Night crew total	<b>247</b>
Total	<b>833</b>

**5. Definition of Terms**

ATSDR Agency for Toxic Substances and Disease Registry  
 CCPH Calhoun County Public Health  
 CIC Community Involvement Coordinator  
 CST Civil Support Team  
 CTEH Center for Toxicology and Environmental Health  
 CWA Clean Water Act  
 DMU Data Management Unit  
 DOC Department of Commerce  
 ERRS Emergency and Rapid Response Contractor  
 FOB Field Observers  
 FPN Federal Project Number  
 GC/MS Gas Chromatograph/Mass Spectroscopy  
 GIS Geographical Information System  
 HASP Health and Safety Plan  
 IAP Incident Action Plan  
 IN Indiana  
 JIC Joint Information Center  
 LEL Lower Explosive Limit

LNO	Liaison Officer
MDNRE	Michigan Department of Natural Resources and Environment
MI	Michigan
MSPEMD	Michigan State Police Emergency Management Division
NRC	National Response Center
NOAA	National Oceanic and Atmospheric Administration
NTSB	National Transportation Safety Board
OSC	On-scene Coordinator
OSHA	Occupational Safety and Health Administration
OSLTP	Oil Spill Liability Trust Fund
PCB	Polychlorinated Biphenyls
PHMSA	Pipeline and Hazardous Materials Administration
PIO	Public Information Officer
RP	Responsible Party
SOP	Standard Operating Procedure
START	Superfund Technical Assessment and Response Team
USCG	United States Coast Guard
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
VOCs	Volatile Organic Compounds

## 6.2 Reporting Schedule

SITREPs have been created daily and will continue until the Incident Commander establishes a different reporting schedule.