

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 #8  
Kalamazoo River/Enbridge Spill  
Z5JS  
Marshall, MI  
Latitude: 42.2395273 Longitude: -84.9662018

**To:** Richard Fuller, Kalamazoo County Sheriff's Office  
James Rutherford, Calhoun County Public Health  
Durk Dunham, Calhoun County Emergency Management  
F/LT Bonnie Kanicki Wilson, Michigan State Police, Emergency Mgt.  
Gregory Dannefield, Michigan Department of Natural Resources  
Leon Zupan, Enbridge  
James Rutherford, Calhoun County Health Department

Connie Gibson, Calhoun County Sheriffs office  
Cheryl Vosburg, City of Marshall  
David Chung, U.S. EPA  
Jason El-Zein, U.S. EPA  
Duty Officer, NRC  
Michael Chezik, US Department of Interior  
Linda Nachowicz, US EPA  
OSLTF USCG, USCG  
Jill Slaght, 7th district of Michigan  
Ken Brock, 7th District of Michigan  
Bruce Vanotteren, MDNRE  
Brian Pierzina, PHMSA Central Region  
Thomas Hemminger, USCG Grand Haven  
Ronna Beckmann, U.S. EPA  
CAPT Stephen Torpey, USCG  
Scott Corbin, Allegan County EMA Director

**From:** Ralph Dollhopf, US EPA Incident Commander  
Stephen Wolfe, US EPA On-Scene Coordinator  
Jeffrey Kimble, US EPA Deputy Incident Commander  
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**Date:** 08/02/10

**Reporting Period:** 08/02/10 0700 hrs. to 08/03/10 0700 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 the Kalamazoo River. The response site is along the River running from Marshall, Michigan to Battle Creek, Michigan. The River is bordered by marshland, residential properties, farm land, and commercial properties for the approximate 30 mile stretch of the affected river.

#### **1.1.2.1 Location**

Spill location origin is in Marshall, Michigan, in a wetland adjacent to Talmadge Creek and extends 30 miles down the Kalamazoo River.

#### **1.1.2.2 Description of Threat**

Western Canadian crude oil was released from the pipeline and has entered a navigable waterway.

### **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 at the confluence to the Kalamazoo River. Containment boom has been along the Kalamazoo River and Talmadge Creek. Boom has also been deployed in Morrow Lake.

## **2. Current Activities**

### **2.1 Operations Section**

#### **2.1.1 Narrative**

The spill impact extends from the pipeline break to the dam at the end of Morrow Lake and has been geographically divided into Divisions. There are five divisions with Division A being the pipeline break area and including Talmadge Creek area and Division E being the westernmost area where there is active protection points and monitoring.

#### **Shoreline Branch**

The Branch will continue shoreline washing downstream of B5 and clean up near Ceresco Dam.

#### **Monitoring Branch**

The Monitoring Branch collected 68 surface water samples, 1 oil sample, 2 sediment samples, 16 potable water samples and numerous air quality samples for H<sub>2</sub>S, VOCs and benzene.

The Divisions are split into two Branches, with the East Branch housing Divisions A and B. Divisions A and B were the most severely impacted.

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

#### **US EPA**

In Division A U.S. EPA and MDNRE Office of Criminal Investigations (OCI) entered the Hot Zones in Division A. and conducted air monitoring for VOCs, LEL and benzene. All levels within the Hot Zone were under 5.0 ppm. All levels outside the Hot Zone were below 0.5. Contractors had constructed a staging area for impacted soil consisting of a bermed area covered with poly sheeting. Contractors began excavating heavily impacted soil surrounding the pipeline and pumping oil and water from the excavations. Contractors continued collecting oil at established collection points.

In Division B, Contractors continued vacuuming oil from collection points in Division B.

#### **Enbridge**

In Division A Enbridge is approximately 25% complete on excavation and installing three mat rows.

In Division B, Enbridge changed out sorbent boom as needed and continued recovery with vac-trucks and skimmers.

### **River Branch West**

#### **US EPA**

Over flights of Divisions C, D, E were conducted. Boom locations were observed at E3.5, E3, E2.4, E4. Tar balls were noted in Division E (E3).

Air monitoring was conducted using a ppbRAE, multiRAE, and UltraRAE at Division C and D locations (C6, D0.5/C7, and D1).

1,100 feet of boom were deployed at Division C location C6 MP14.8. There were no actionable air monitoring results.

3,420 feet of boom were deployed in Division D with 1,000 feet on standby at locations D0.5 (formerly C7) and D1. Air monitoring was conducted using the ppbRAE with periodic elevated readings, but the elevated readings were not sustained.

## Enbridge

In Division C, Enbridge performed general boom maintenance and oil collection continued. Enbridge realigned boom at C5.

In Division D, Enbridge made general boom modifications and performed maintenance, collected oily debris, and sheen.

In Division E, Enbridge made general boom modifications and performed maintenance and collected oil.

## Air Ops Branch

Air Ops made four over flights today and observations include:

- Ceresco Dam – using snare boom to collect oil.
- Excavation started on pipe – 25% complete.
- Swamp matting has started.

### 2.1.2 Response Actions to Date

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

U.S. EPA and RP contractors, with the support of the U.S. ARMY 51st Civil Support Team, are monitoring and sampling air quality along the river and throughout multiple residential areas. Monitoring equipment being utilized includes UltraRAE, PPB RAE, Multi RAE, Draeger CMS Chip Reader, AreaRAE and Hapsite portable GC/MS. A heavy emphasis is being placed on specific monitoring for benzene as it is a recognized contaminant of concern for this response. Nearly 40,000 monitoring data points have been collected.

Samples were collected for analysis at an off site laboratory from surface water, river and lake water columns and private drinking wells along the length of the impacted areas of the Kalamazoo River and areas downstream of the Morrow Lake Dam. The Mud Puppy boat (U.S. EPA owned asset) also collected samples at five sites. Three types of samples are being collected by the Mud Puppy at each location; 1) sediment, 2) water column, and 3) surface water.

US Fish and Wildlife Service is working with the Wildlife Branch to address wildlife impacts. A rehabilitation center for oiled wildlife has been established. A total of 49 geese, 4 ducks, 6 muskrats, 33 turtles, 2 swans, 1 song bird, 1 hawk, and 2 domestic geese have been recovered and are being cleaned and rehabilitated.

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. U.S. EPA will coordinate with USDOT-PHMSA and NTSB to ensure pipeline repair activities and the environmental and health and safety considerations are accounted for.

The voluntary evacuation issued by Calhoun County Health Department in consultation with Michigan Department of Community Health and Agency for Toxic Substances and Disease Registry 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. Sixty one residences were given notices. Twelve residences evacuated, twenty seven chose to stay and twenty two did not answer. An additional five families from outside the evacuation zone chose to evacuate.

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

Enbridge is the RP.

On 27 July 2010, USEPA 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**

Environmental Unit – The Unified Command approved the following;

- Decision Tree for evaluation of air monitoring data to identify needs for community evacuation
- Decision Tree for guidance to field staff for when to report instrument readings immediately to Planning Section Chief
- Decision Tree for re-occupancy of residents that have been evacuated.

Elevated benzene levels (100 ppb and 500 ppb) were detected near a newly reconfigured oil collection point (B3 MP.9) at 2100 hrs on 08-01-10. These observations indicate the impact of oil collection activities on air quality).

The US EPA continues to respond to odor complaints, including complaints from a trailer park and a daycare center along the Kalamazoo River.

The Calhoun County Health Department has completed testing of 31 residences, with no detection of chemicals that would be associated with the oil release.

The Kalamazoo County has issued a ban on the use of Kalamazoo River for agricultural use and an advisory against use of the river for recreational use east of Morrow Lake dam.

### 2.2.2 Issues

The RP has been informed that a Superfund site (PCB cleanup) is occurring 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. The City of Plainwell, Michigan, has proposed a strategy involving boom diversion and oil collection as a contingency in the event oil impacts the Superfund Site.

### 2.3 Logistics Section

Region 5 EPA EOC assisted with additional personnel requests. A contracting officer has arrived to assist with ordering equipment and supplies. The helicopter lease has been obtained.

The Logistics Section is working with Enbridge to develop a traffic plan.

Communications – Installed additional printers. An EPA Traffic Plan, Medical Plan, and Communication Plan were completed.

Number of Locations	<b>37</b>
<b>Boom Deployed (feet)</b>	<b>91,665</b>
<b>Boom Available(feet)</b>	<b>243,745</b>

### 2.4 Finance Section

#### 2.4.1 Narrative

The current NPFC issued ceiling (based on U.S. EPA requests) is \$6 million. The current estimated burn rate is approximately \$5 million every 14 days. The original request that was made for the IA fund was for \$20-25 million for the project, which means it currently stands at one half of the identified and estimated amount which may be needed for this project. U.S. EPA estimates that a ceiling increase will be required in the seven days from the current \$6 million allotment.

US Fish and Wildlife, ATSDR and the USCG have each received a PRFA to cover their activities.

The RP is currently financing the cleanup operations.

### 2.5 Safety Officer

No incidents were reported from overnight operations.

USCG provided an Air Ops assistant safety officer for support of the Enbridge air operations and continued assistance with USCG and MSP air operations.

Enbridge continues to provide on-site safety officers for Divisions A and B, and a roving safety officer for Divisions C/D/E.

The Safety Officer requested three Assistant Safety Officers from OSHA/USCG

The SO continued to work with Enbridge safety and START contractors towards coordination and completion of a unified HASP.

The SO continued review of Weston START HASP for the response activities for the START contractors.

The SO reviewed the pipeline plan.

## **2.6 Liaison Officer**

The Liaison Officer arrived and identified assisting and cooperating agencies by entity, designated representatives, and obtained contact information.

Internal EPA contacts were established regarding local tribal interests in the incident area.

The Liaison Officer contacted Nattawaseppi Huron Band of the Potawatomi (Huron Potawatomi) regarding tribal concerns relating to the Enbridge Pipeline response. The Tribal spokesperson identified air quality at the casino and private residences owned by tribal members along the Kalamazoo River as primary concerns. The Liaison Officer coordinated a visit and ICP and tour of the spill site and response. The Tribal representative indicated that Calhoun County had conducted air quality testing at the casino. The results are pending.

The Liaison Officer contacted Pokagon regarding tribal concerns relating to the Enbridge Pipeline response. The tribal spokesperson identified vulnerabilities for the Pokagon burial mounds on Willow Island on Morrow Lake. The Spokesperson indicated that the level of the lake may submerge mounds which are traditionally dry, and that any core sampling of Willow Island may uncover artifacts. Mr. Parish indicated that the mounds have national historic relevance.

A message was left for Gun Lake Pottawatamie Band detailing the opportunity for Gun Lake to visit the ICP and tour the site response.

The Liaison Officer communicated with local stakeholders regarding sensitive species status.

Congressman Mark Schauer viewed the response area with US EPA and Michigan State Police in a Michigan State Police helicopter. The Congressman will attend the Public Meeting at 1900.

## **2.7 Information Officer**

### **2.7.1 Public Information Officer**

Fox, CBS Channel 6, Channel 8, local radio, Channel 3, and the BC Enquirer covered the release of Rehab-ed turtles.

## **Community Involvement Coordinator**

A community meeting is scheduled for Monday, 02Aug2010 at 7 pm. The location will be the Marshall High School.

## **3. Participating Entities**

### **3.1 Unified Command**

Enbridge (Responsible Party)  
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

### **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>36</b>
Enbridge Contractors	<b>354</b>
EPA	<b>39</b>
ERRS	<b>84</b>
START	<b>45</b>
Night crew total	<b>247</b>
Total	<b>805</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
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
IN	Indiana
JIC	Joint Information Center
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
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.