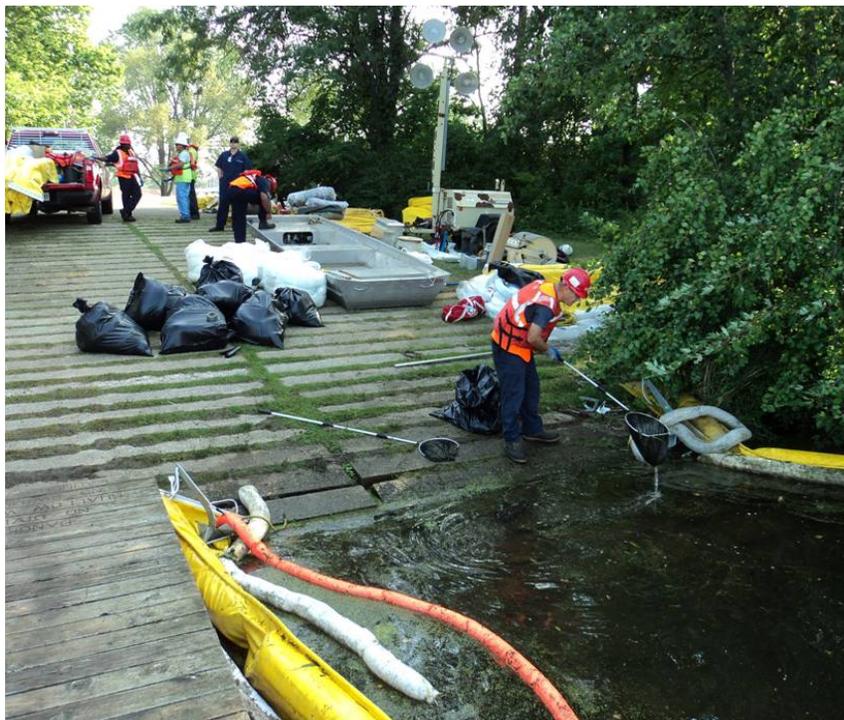


US EPA ARCHIVE DOCUMENT

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



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V



Subject: POLREP #11
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 Danneffel, Michigan Department of Natural Resources
 James Rutherford, Calhoun County Health Department
 Leon Zupan, Enbridge
 Susan Hedman, U.S. EPA Regional Administrator
 Rebecca Humphries, MDNRE
 Jim Sygo, MDNRE
 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, U.S. Department of Interior
 Linda Nachowicz, U.S. 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, U.S. EPA Incident Commander
 Stephen Wolfe, U.S. EPA On-Scene Coordinator
 Jeffrey Kimble, U.S. EPA Deputy Incident Commander
 Mark Durno, U.S. EPA Deputy Incident Commander

Date: 08/05/10

Reporting Period: 08/04/10 1900 hrs. to 08/05/10 1900 hrs.

1. Introduction

1.1 Background

Site Number:	Z5JS	Contract Number:	
D.O. Number:		Action Memo Date:	
Response Authority:	OPA	Response Type:	Emergency
Response Lead:	PRP	Incident Category:	Removal Assessment
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	7/26/2010	Start Date:	7/26/2010
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:	E10527	Reimbursable Account #:	

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.

1.2 Incident Objectives and Command Emphasis

Incident Objectives

- 1) Ensure health and safety of the public and response & recovery personnel.
- 2) Maintain the isolation of Talmadge Creek and Kalamazoo River from the source area.
- 3) Contain and recover oil and contaminated vegetation in Talmadge Creek and Kalamazoo River.
- 4) Maintain effective unified communications with cooperating & assisting agencies and the public.
- 5) Perform remediation & restoration of all affected public & private areas of river & river systems
- 6) Provide protection of environmentally and culturally sensitive areas including wildlife and historic properties.
- 7) Identify threatened species & continue to recover & rehabilitate injured wildlife.
- 8) Set up an effective claims process and information centers in Marshall.
- 9) Complete an outline for contingency plans.
- 10) Continue to operate a Joint Information Center.
- 11) Establish a process to collect, coordinate, manage and communicate environmental and public health data.
- 12) Obtain input from DNRE to help establish protocols to guide cleanup of environmentally impacted areas.

Command Objectives

- 1) Continue efforts to remove oil from pipeline break zone.
- 2) Emphasize efforts for shore cleanup including Ceresco Dam.
- 3) Maintain continuous comprehensive on-water/analytical sheen monitoring, investigation, reporting and recovery at Morrow Lake.
- 4) Evaluate, identify, and implement relocation options for residents outside the evacuation zone with emphasis on Baker Estates work zone.
- 5) Complete and implement operating procedures for epi investigations.
- 6) Finalize and implement Unified Command operating procedures.
- 7) Resolve issues with hotline implementation.
- 8) Develop an interagency protocol to ensure that all agencies requiring involvement in the investigation and removal of the pipeline break section are advised of the timing and progression of that activity.

1.3 Strategic Considerations

- 1) EPA will review the Response Plan submitted by Enbridge with support from EPA ERT, MDNRE, USCG, NOAA, USFW and Calhoun County.
- 2) EPA will work with Enbridge to develop the transition plans for Logistics and Procurement functions to Enbridge from EPA.
- 3) EPA and Enbridge will finalize operational plans for removal of the ruptured section of affected pipeline.

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).

River Branch East Divisions A and B

EPA

EPA and START entered the Hot Zones in Division A and conducted air monitoring for VOCs, LEL and benzene. All levels outside the Hot Zone were below 0.5 for benzene.

EPA removed two skimmers from the lower boom collection due to less oil coming from B1. At location B3, EPA confirmed with safety that a PFD was required within 6 ft of the creek. At location B4, the sorbent boom lining the creek was trapping oil and prevented oil from flowing into a skimmer for removal.

Enbridge

In Division A, Enbridge continued dewatering operations. Enbridge continued excavating contaminated soil from the pipeline area and placed it on staging pads. The pipeline fracture was uncovered at approximately 0500. Enbridge continued collecting oil at collection points with vacuum trucks.

In Division B, Enbridge continued vacuuming and padding oil from collection points. Enbridge excavated soil surrounding Tallmadge Creek in Division B1 and brought contaminated soil to the staging area. Workers continued placing track mats for access to Tallmadge Creek for oiled soil excavation.

River Branch West

EPA

At location C0, EPA observed the deployment of sorbent boom at Dibble Road and the deployment of containment and sorbent boom at G-Drive overnight. EPA also observed the construction of a boom decontamination area and vac truck, skimmer and boom maintenance operations.

A USCG team observed operations at locations C0, C2, C3, C5, C6, C4, C2, and C1. Operations at location C1 were not conducted due to safety requiring a railing on the wall next to the pond. The boom deployment at C2 was not effective due to a 'J' configuration and a strong current. Booming methods at locations C0, C4, C5, C6 and C3 appeared to be working.

A USCG team noted that sheen was coming from oiled vegetation along the banks at locations C0, C2, C3, C4, C5 and C6.

START conducted oversight duties related to the boom operations taking place at locations D0.5, D1, D2, D2.5, D3, and D5. Booms at location D0.5 appeared to be saturated with oil and had a sheen emanating from the boom material. Also, the containment boom at location D.5 was covered with oil. Boom location D4 was only accessible by water and, as a result, did not have a vacuum truck.

During these activities, START conducted air monitoring at these locations. Air monitoring results at each location were 0.00 ppm benzene and 0.00 ppm for VOCs. In addition, no H₂S was detected.

At location D2.5, EPA observed the re-positioning of containment boom. Boom remained in place to divert oil to the north bank of the Kalamazoo River for collection. EPA observed continued bagging of oiled vegetation and debris collecting in diversion booms and oil vacuuming as needed.

EPA observed operations at locations E3, E3.5, E4, and E4.5. At location E3, EPA observed an air curtain being installed in the river to break up tar flakes, continued boom maintenance, the readjustment of various containment booms from Climax Street to 35th Street, and the deployment of polymer boom to protect the wetland area. At location E4, EPA observed protective boom being installed to the west of existing boom on the shoreline and a light sheen downstream of E4. As of 1630 hours, no sheen had been observed downstream of E4.

At location E3, EPA also observed the installation of a water sparge system.

Enbridge

At Division C, Enbridge tended the booms and worked on cutting oiled lilly pads below the water line. Freestanding oil was at a minimum and most of the sheen appeared to be coming from the shoreline.

At location D1, Enbridge readjusted booms to get better deflection. The skimmer was collecting approximately 90% water.

At location D2, Enbridge collected 15 gallons of oil total (light sheen). Enbridge pulled in 500 ft of sweep boom and added 120 ft of snare boom. At location D3, Enbridge prepared the skimmer for night operations and added 80 ft of absorbent boom. At location D4, Enbridge replaced absorbent boom and added 200 ft of additional boom.

At location D5, Enbridge replaced contaminated boom.

Enbridge bagged about 30 bags of oily debris at each location.

Approximately 2,000 ft of hard boom was lowered in Lake Morrow.

Enbridge observed that morning oil pick up was light, but noticed more sheen in the afternoon – the sheen was more visible, possibly due to sun and shorewashing. Enbridge was preparing an underwater aerator in the afternoon to float oil flakes to the top.

Lake Morrow Task Force

Aerial flights and boat investigations did not locate any sheen.

Branch Operations

Enbridge Operations has a Shoreline Branch, Monitoring Branch, Wildlife Branch and Air Ops Branch that conduct activities in all the Divisions.

Shoreline Branch

Enbridge continued cleanup at Ceresco Dam and conducted water cleanup along the shoreline at the entrance to the river moving towards the dam. One hundred (100) bags of material were removed. Shoreline cleanup continued, with 150 yards of shoreline cleaned in C4. Material and manpower were staged awaiting approval to start Baker Estates mobile home park cleanup.

Monitoring Branch

Focused monitoring programs were implemented around the Baker Estates Trailer Park, the Ceresco dam, Morrow Lake and the leak site. Enbridge collected 31 surface water samples, 26 potable water samples, 7 sediment samples, 16 24-hour grab air samples, 4 air mini-summa samples, 18 air grab samples, and 21 passive dosimeter samples. Additionally, real-time monitoring for benzene and VOCs continued.

Wildlife Branch

USFWS is working with the Wildlife Branch to address wildlife impacts. The wildlife center continued to receive many animals collected along the Kalamazoo River. The outdoor bird recovery area is now fully built and a number of birds (geese, swans and ducks) are now there recovering. A total of 81 birds, 52 turtles and various other mammals and reptiles have been recovered and are being cleaned and/or rehabilitated. To date 12 turtles have been released.

Air Ops Branch

Three over flights were conducted and no sheen was reported on Lake Morrow.

Boom Report

	Enbridge	EPA	TOTALS
Number of Locations	32	5	37
Boom Deployed (feet)	60,735	59,235	119,970
Boom Available(feet)	818,790	52,450	871,240

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.

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 SCAT survey of Lake Morrow reported one tarball with a six inch sheen and another six inch sheen about a quarter mile away on the lake.

SCAT Training was scheduled with NOAA for six to eight MDNRE staff on Monday August 9th at the Marshall IC (High School). SCAT Coordinator Training will take place on Friday, August 6th.

Environmental reports and documentation were drafted. The EU continued editing the Decision Tree for Evacuation and Re-Occupancy in a format for posting on the EPA website and will be presented to the JIC on Friday August 6th. 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 Syndromic Surveillance Team from the Michigan Department of Community Health was mobilized to begin collecting health outcome data.

A total of 19 air samples and 3 surface water samples were taken for this period. None of the air samples exceeded the action levels for benzene. The surface water samples were sent for analysis.

EU, Enbridge, USFWS, and MDNRE shared surface water sampling data to-date and agreed upon lines of communication for review and approval of future sampling plans.

The GIS Team put procedures in place to produce maps for the morning briefings; including maps depicting air monitoring and water sampling completed by operational period. The GIS team received a KML file of NOAA's flyover on August 5, 2010 that included photographs taken during the flight.

The GLNPO MV MUD PUPPY collected surface water, water column, and sediment samples at five locations in the eastern portion of Lake Morrow. The samples were sent for analysis. Sampling crews observed some sheen associated with some of the sediment samples at several locations.

The DMU continued to process and upload field data to Scribe. The DMU continued preparation of a Data Management Plan for the response that documents the data flow and data SOPs.

The Field Observation Teams visited the wildlife center as well as air sampling operations. The teams collected photo documentation and summaries of operations.

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.

MDNRE notified the IC today of a fish kill on the Allegan River, downstream of the oil spill. The kill was most likely associated with the lowering of Allegan Lake as part of the contingency plan in the case oil should reach Allegan Lake. Due to the impacts of the

water level being lowered, MDNRE is planning to raise the lake level to an elevation of 614 feet. This action should prevent additional fish and bivalve impact.

2.3 Logistics Section

Logistics met with Marshall Chamber of Commerce about possible locations and contacts for locating new UCP location.

The State of Michigan Police provided ten 800 mH radios with two banks of chargers for field operations and UCP.

2.4 Finance Section

The current NPFC issued ceiling (based on EPA requests) is \$6 million. Approximately 63% of the ceiling has been spent to date, with a burn rate of \$437,000 per day.

	Est Expended to date	Est Burn Rate
EQM	1,065,000	71,662
LATA	486,659	82,450
ER	400,000	52,925
ERRS Contractors	1,951,659	207,037
WESTON START	657,262	125,200
Federal Agencies	1,076,674	93,665
Sub-Totals	3,685,595	425,902
Indirect Costs (12.6%)	135,661	11,802
Est Total Oil Spill	3,821,255	437,703

2.5 Safety Officer

The Unified HASP was approved by the UC.

Five accidents/injuries were reported by Enbridge: one serious incident during the day requiring transport and hospitalization and four minor incidents overnight.

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

2.6 Liaison Officer

The LNO coordinated an ICP tour and site overflight with local tribes. The LNO facilitated meeting between tribal representatives, the IC and Enbridge regarding concerns unique to the tribes, including repatriation of Native American artifacts and response activities adjacent to the tribal casino.

Maps were provided to tribal representatives for State Historic Preservation Office purposes and for traffic plans near the casino.

The LNO met with legal counsel and defined expectations regarding National Energy Board (Canadian) access to the site.

2.7 Information Officer

2.7.1 Public Information Officer

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

TOTAL CALLS: 14

Calls were sent to:

EPA	7
USF & WS	2
DNRE	1
County	2
State	2

The majority of calls were from citizens who were concerned about wildlife and the environment. Other calls included concerns about relocation, boating and media credentials.

PIO Activities

JIC media hotline answered media and public calls, performed media monitoring for Lake Allegan fish issues (see Section 2.2.2), and provided a media liaison for the live media briefing. The USFWS participated in a media availability/walk through of the rehabilitation center.

News releases were sent to media to announce the daily press briefing and the public meeting in Battle Creek on August 10th at 1900 hours. A Water Issues Fact Sheet and Spill Q&A were published on the EPA Enbridge Spill Web Site. The PIO escorted a Washington Post reporter to the MV MUDPUPPY for a tour of the vessel and orientation to the sampling process at Morrow Pond.

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	75
Enbridge Contractors	709
EPA	68
ERRS	109
START	60
Total	1021

5. Definition of Terms

ATSDR	Agency for Toxic Substances and Disease Registry
CCPH	Calhoun County Public Health
CHD	County Health Department
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
MSPCMD	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.