

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 #9
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
 Mark Durno, US EPA Deputy Incident Commander

Date: 08/03/10

Reporting Period: 08/02/10 1900 hrs. to 08/03/10 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, residential properties, farm land, and commercial properties for the approximate 30 mile stretch of the response site.

1.1.2.1 Location

The spill location is in Marshall, Michigan, in a wetland adjacent to Talmadge Creek. The response site extends 30 miles down the Kalamazoo River to Morrow Lake.

1.1.2.2 Description of Threat

Western Canadian (Cold Lake 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 have 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. Division A contains the pipeline break area and includes the Talmadge Creek area. Division B extends to approximately 2 miles downstream of the spill site on the Kalamazoo River. Division C continues to approximately 17 miles downstream from the spill site. Division D continues down to approximately 23 miles downstream of the spill site. Division E continues to Morrow Lake and contains active protection points and monitoring.

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.

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

Shoreline Branch

Shoreline washing operations began in mid-afternoon in Division C.

Monitoring Branch

The Monitoring Branch collected 40 surface water samples, 20 potable water samples and 54 air quality samples for H₂S, VOCs and benzene.

Air Ops Branch

Enbridge Air Ops made four over flights today.

River Branch East Divisions A and B

EPA

In Division A, the EPA entered the Hot Zones conducting air monitoring for VOCs, H₂S, LEL and benzene. All benzene levels within the Hot Zone were under 5.0 ppm. All benzene levels outside the Hot Zone were below 0.5 ppm. Soil excavation was delayed due to groundwater infiltrating the pipeline excavation area. Dewatering wells are being installed to drain the excavation area and permit additional excavation. Vacuuming of oil at established collection points continues.

In Division B, EPA continued vacuuming oil from established collection points. Contaminated soil surrounding Tallmadge Creek in Division B1 was excavated and staged for removal.

Enbridge

In Division A, Enbridge proceeded with excavation for pipeline repair, vaccing at three other locations, and oil recovery in five sections in Division A.

In Division B, Enbridge continued with oil recovery using vac truck and skimmers.

River Branch West

EPA

In Division C, containment boom was deployed at the intersection of 13 Mile Rd and the Kalamazoo River. Vacuum operations and boom maintenance continues.

In Division D, containment boom was positioned to divert oil to the north bank of the Kalamazoo River for collection at D2.5. Bagging of oiled vegetation and debris

collection within the diversion booms, continues. Vacuum operations continue to recover oil.

In Division E, boom maintenance continues in E3. Deflection boom was deployed east of 35th Street bridge. Readjustments were made to various containment boom from Climax Street to 35th street. Polymer boom was deployed as needed.

EPA observed boom in Divisions C and E (C1, E.4.5, E4, E8, E2) and observed the deployment of a skimmer at E2. There was no oil and a nominal, waxy sheen against the boom. EPA observed the deployment of sorbent and snare boom above the dam at C1 and also observed soil washing operations where progress appeared limited.

USCG observed operations at locations E2, D5, D4, D3, D2.5, D3, D0.5, E0.5, E4.5, E2, C5, C6, C3, and C0. Observed operations included boom change-outs, skimming, and vac truck recovery. The boom at 35th Street Bridge and E3 was observed to be ineffective due to improper placement. Free product was observed at location C1. Issues related to ability to flush area versus sensitive vegetation need to be resolved.

USCG oversight personnel also observed CTEH air monitoring/sampling operations.

EPA observed boom operations taking place at locations D2, D3, D4 and conducted air monitoring activities at these boom locations. During these activities, the following air monitoring instruments were used: UltraRAE and MultiRAE.

The Enbridge Safety Officer for Divisions C, D, and E stated that Enbridge is no longer required to wear flame-retardant clothing due to the low LEL levels that have been detected in these divisions for the last three days. No other health and safety concerns were observed.

Air monitoring produced one result for benzene that was above the decision tree action level for benzene at D2 measured at 0.53 ppm using an UltraRAE. The follow-up air monitoring collected at D2 resulted in a benzene level of 0.00 ppm on the UltraRAE.

At E5 and E4, sheen was very evident and tar balls were present along the north shore of Morrow Lake downstream of the last section of boom.

Enbridge

In Division C, general boom maintenance and oil collection continued. Containment boom was installed on the south side of Ceresco Dam.

In Division D containment boom was replaced at all sites for continued collection of oily debris and sheen.

In Division E, general boom modifications and maintenance were made, a snare boom was installed at E4, and oil collection was continued.

An operational taskforce has been dispatched to conduct on-going monitoring and report on investigation and recovery of sheen on Morrow Lake.

The Mud Puppy research vessel (EPA asset) collected samples at five sites. Two types of samples were collected by the Mud Puppy at each location, water column, and surface water. Sediment was not sampled because of equipment issues. The sampler should be fixed tomorrow.

2.1.2 Response Actions to Date

Boom (containment and sorbent), 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.

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.

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.

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. 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 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 have been evacuated, twenty seven chose to stay and twenty two did not answer. An additional five families from outside the evacuation zone chose to evacuate. 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 Environmental Unit participated in the Tactics meeting to coordinate air monitoring activity. A follow-up meeting with EPA, Weston, CTEH, and ATSDR was held to coordinate the input of CTEH daily air monitoring data into Scribe. The Environmental Unit prepared comments on Enbridge Sampling and Analysis Plan for IC signature. The Public Health group were asked to review the GLNPO data on Morrow Lake. The results confirm evidence of oil contamination.

The Public Health group visited Baker Estates and did not detect significant oil odors on either side of the river. The Public Health group recommended that additional sampling be conducted at 3 time intervals overnight and tomorrow morning with the HAP instrument and Tedlar bag samples.

The MDA representative flew over the east end of Morrow Lake and observed that there was no visual evidence of surface water irrigation. However, several high capacity groundwater wells are providing water for crop irrigation and may be hydrologically connected. Data will be collected and analyzed to determine if any zones of depression may exist which could possibly alter groundwater flow away from the river.

Tedlar samples collected at the Play Care Learning Center on 8-2-10 showed low levels of benzene (1.98 ppb and 2.3 ppb), well below the action level (200 ppb) or re-occupancy level (6 ppb).

The EU served as federal representative on both SCAT Teams. The SCAT team made plans to meet at 8 am on Wednesday to continue assessment of shoreline in those Divisions.

The EU followed up on a request from the public meeting on the PCB question about whether benzene in the spilled oil would mobilize PCBs from sediment.

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

Logistic staffing now includes a Deputy LSC.

The Logistics Section arranged for lunch from Wednesday thru Friday.

Logistics has begun locating alternate ICP sites.

Enbridge Boom Report

Number of Locations	32
Boom Deployed (feet)	51,245
Boom Available(feet)	198,720

2.4 Finance Section

A contract has been set up for helicopters to be on call.

Burn Rate	EPA Days start 26 July:			
	Obligation	Est. Spent	Balance	Daily Burn Rate
ERRS				
EQM		\$ 511,389.44		\$64,000
ER , LLC		\$ 432,023.40		\$34,000
LATA-Kemron Remediation		\$ 819,459.29		\$87,000
START				
WESTON		\$ 418,476.47		\$46,000
EPA		\$ 414,471.40		\$44,000
PRFA				
USFWS (PRFA)		\$ 74,445.00		\$11,000
ATSDR (PRFA)		\$ 9,926.00		\$ 1,400
USCG(PRFA)		\$ -		\$ -
SUBTOTAL		\$ 2,680,190.99		\$ 287,400.00
1.1263				
		\$ 3,018,699.12		\$

				323,698.62
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2.4.1 Narrative

The current NPFC issued ceiling (based on 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. 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

The USCG was assigned as the Deputy Safety Officer for this response.

One minor vehicle property damage only accident was reported from last night.

One report was received at the Command Post of an accident involving a fatality or serious injury. Upon investigation it was determined the report referred to a motor vehicle accident involving three vehicles, all operated by persons not associated with the response. The accident occurred near Staging Area 3 of the response. There was no serious injury or fatality in the accident.

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.

Three Assistant Safety Officer were provided by MI-OSHA Disaster Response Team to support the response health and safety effort in the areas of construction safety, general industry safety and industrial hygiene. Three personnel from the OSHA Cleveland Area Office are supporting the effort by providing industrial hygiene support.

The Safety Officer continued to work with Enbridge safety and START contractors towards coordination and completion of unified HASP. Completion of the Enbridge HASP is expected this evening.

2.6 Liaison Officer

The LNO identified assisting and cooperating agencies by entity and designated representative with contact information

The LNO designated a Deputy LNO from the USCG.

The LNO made contact with Emmett Township regarding township interests in the incident area and coordinated inclusion of a township representative in the ICP and local governmental call.

Contact was made with an archaeological expert for the State of Michigan regarding the definition of sites of historical or cultural interest along the affected riverbanks.

2.7 Information Officer

2.7.1 Public Information Officer

The PIO embedded the Toledo Blade for spill site tour with the EPA Regional Administrator. The PIO issued a media release on press conference, ten reporters were in attendance and five callers with questions. The PIO also briefed FOSCs on field media interviews and updated the website with public meeting pictures and facts. The PIO is planning for a second public meeting in Battle Creek on Tuesday, Aug. 10.

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

TOTAL CALLS: 21

Calls were sent to:

Enbridge: 4
EPA: 11
NTSB: 1
County: 5 (Allegan)
State: 4
USF&WS: 2

Most calls were regarding questions about statements made/attributions at the public meeting; wildlife concerns (how to help, how many animals have been saved, etc.); and how to volunteer with clean up.

State of Michigan PIO Activities

The PIO added news headlines/news clips and added updated photos to state website at www.michigan.gov/oilspill. The PIO performed media monitoring and saved the clip search. A DNRE representative spoke with National Wildlife Federation and Toledo Blade at the wildlife rehab center. An MSP representative participated in panel for media briefing

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	36
Enbridge Contractors	354
EPA	42
ERRS	88
START	45
Night crew total	247
Total	812

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.