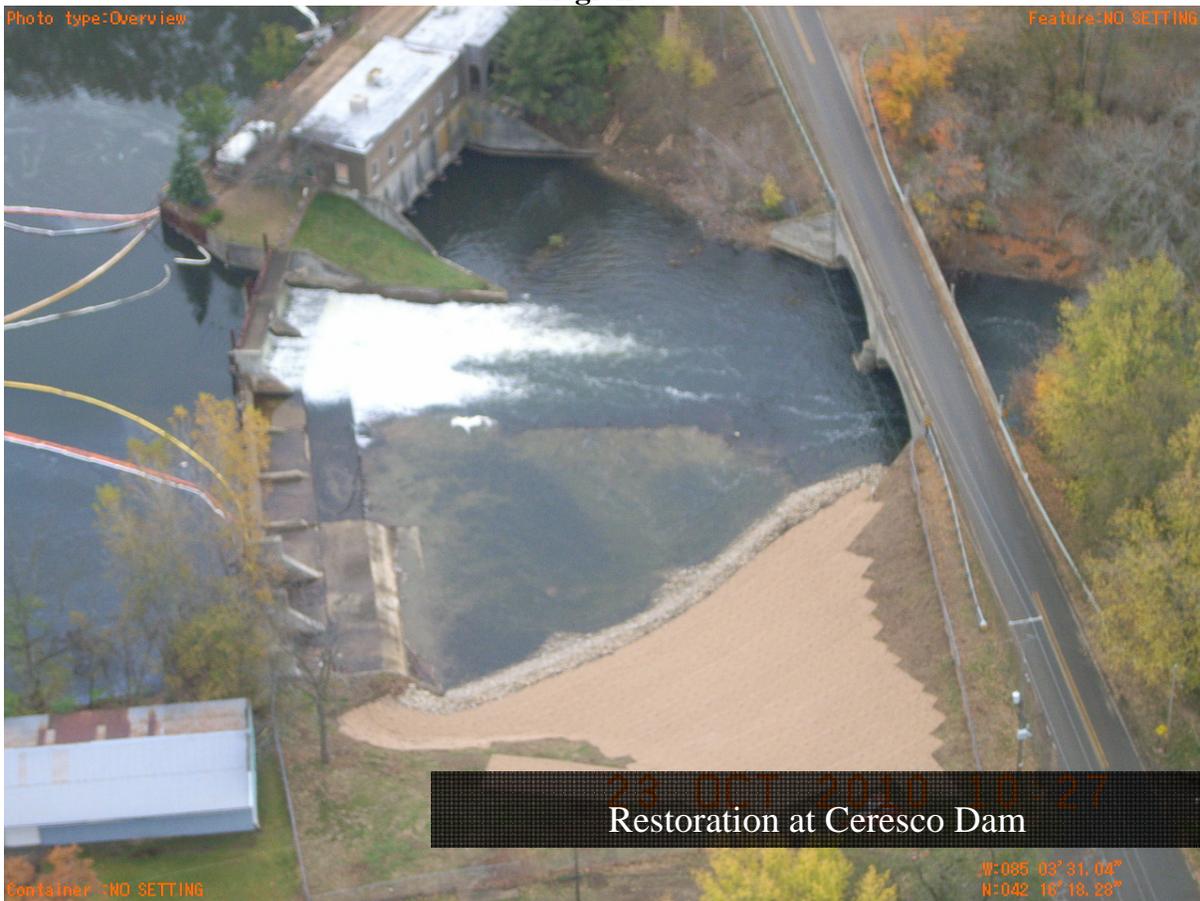


US EPA ARCHIVE DOCUMENT

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



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V



Subject: SITREP # 70
Kalamazoo River/Enbridge Spill
Z5JS
Marshall, MI
Latitude: 42.2395273 Longitude: -84.9662018

US EPA ARCHIVE DOCUMENT

To: Lt. Paul Baker, Kalamazoo County Sheriff's Office
 James Rutherford, Calhoun County Public Health Department
 Durk Dunham, Calhoun County Emergency Management
 Brian Whitsett, Michigan State Police, Emergency Mgt.
 Greg Danneffel, MDNRE
 Mike McKenzie, City of Battle Creek
 Susan Hedman, U.S. EPA Regional Administrator
 Rebecca Humphries, MDNRE

From: Ralph Dollhopf, U.S. EPA Incident Commander
 Stephen Wolfe, U.S. EPA On-Scene Coordinator
 Jeff Kimble, U.S. EPA Deputy Incident Commander
 Mark Durno, U.S. EPA Deputy Incident Commander

Date: 10/23/2010

Reporting Period: 0700 hours 10/21/2010 to 0700 hours 10/23/2010

1 Introduction

1.1 Background

1.1.1 Site History

Background Information

Site Number:	Z5JS	Contract Number:	
D.O. Number:		Action Memo Date:	
Response Authority:	OPA	Response Type:	Emergency
Response Lead:	PRP	Incident Category:	Removal Action
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	

1.1.2 Preliminary Site Inspection and Response Activities

See SITREP #51 for a comprehensive description of preliminary operations.

1.2 Incident Objective and Command Emphasis

The following incident objectives and command emphasis are taken from the IAP for the Operational Period October 20, 2010, at 0700 to October 24, 2010, at 0700.

Incident Objectives

1. Ensure health and safety of the public and response and recovery personnel.
2. Ensure effective transition of regulatory oversight of the oil impacted areas from EPA to MDNRE jurisdiction as appropriate.

3. Maintain the isolation of the Kalamazoo River from all the up-gradient source areas.
4. Contain and recover oil and contaminated vegetation in Talmadge Creek and Kalamazoo River.
5. Maintain effective unified communications with cooperating and assisting agencies and the public.
6. Perform remediation and restoration of all affected public and private areas of river and river systems.
7. Provide protection of environmentally and culturally sensitive areas including wildlife and historic properties.
8. Protect threatened and endangered species and continue to recover and rehabilitate injured wildlife.
9. Continue to collect, coordinate, manage, and communicate environmental and public health data including maintenance of Joint Information Center function.

Command Emphasis

1. Maintain systematic and adequate DECON/demobilization of project resources.
2. Continue recovery of submerged oil and sediment in the Kalamazoo River with prioritization of the Ceresco Dam area, Mill Pond area, and Morrow Lake Delta area.
3. Continue implementation of the long-term booming strategy per the O&M plan.

2 Current Activities

2.1 Operations Section

2.1.1 Narrative

This operational phase of the response consists of: 1) Submerged Oil Recovery; 2) Long Term Operations and Maintenance (O&M); 3) Drinking and Groundwater Studies; and 4) Decontamination.

2.1.2 Submerged Oil Recovery

Submerged Oil Recovery Task Force (SOTF)

- Continued aeration, flushing, and shallow recovery operations in the Ceresco Dam area LDB, at Locations B4.5, B5, MP21.5 and in the Morrow Lake Delta.
- Completed submerged oil recovery operations at 20 locations to date with areas inspected and approved by EPA.
- EPA signed-off at MP21.5, MP36.75, MP37.75.
- The SOTF progress is outlined in Table 1.

Table 1 - Submerged Oil Task Force Progress

Submerged Oil Recovery Process	Percent Complete	Cumulative Sections Completed	
		10/22	10/21
Assessment	100%	20	20
Containment	100%	18	18
Work Plan	100%	18	18
Clean-up	87%	20	20
Inspection/Sign-Off	78%	18	18

Ceresco Dam Dredging Task Force

- Completed dredging at Area 5.75NW.
- Continued noise, air, and turbidity monitoring. No exceedances of air or noise levels were reported during this operational period. The downstream turbidity monitor was not functioning as of 0700 October 22.
- Continued dredging operations with two dredge units. Cutterhead dredge was demobilized on October 22, 2010.
- The dredging progress is depicted in Figure 1.



Figure 1 - Ceresco Dam Dredging Progress

2.1.3 Long Term Operations and Maintenance (O&M)

- Completed sediment basin installation at Location B4.7/B4.8.
- Continued removal of sediments within Talmadge Creek at Locations B4.7 to B5.1.
- Removed boom and sheen machine from Mill Ponds and at Ceresco Dam.
- Completed mechanical excavation and mop-up at MP10.8.
- EPA inspected O&M at 63 locations and relayed observations and recommendations to Enbridge.
- The O&M process is documented in Table 2 and Figures 2-4.

Table 2 – O&M Maintenance and Monitoring Areas

O&M Process	Cumulative Sections Completed	
	10/22	10/21
Active	16	16
Monitoring	39	39
Cleared	4	7
Signed Off	32	29

C

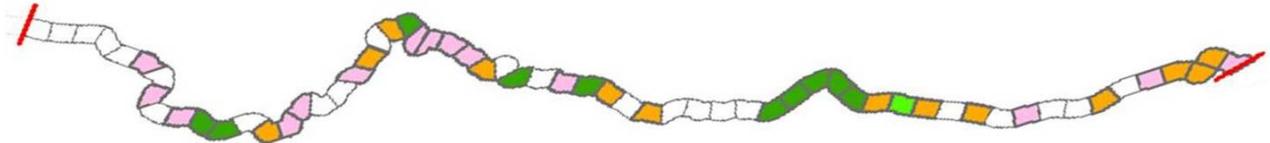


Figure 2 - Division C O&M Areas

D

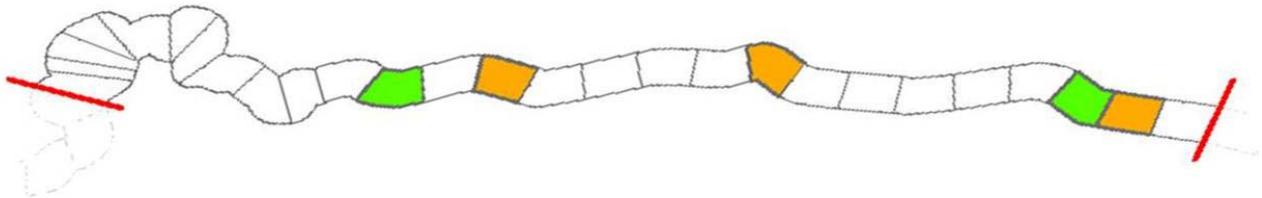


Figure 3 - Division D O&M Areas

E

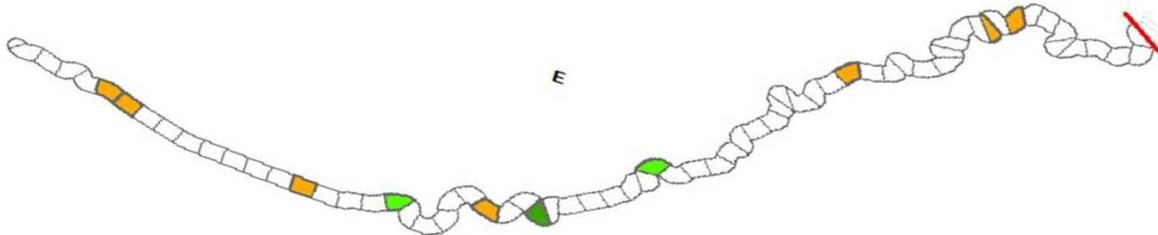


Figure 4 - Division E O&M Areas

2.1.4 Drinking and Groundwater Studies

- Completed rising and falling head slug testing in Target Areas TA-6, TA-7 and TA-8.
- Collected depth to water measurements at all locations in Target Areas 1 to 8.
- Received all analytical groundwater data.
- Preparing final groundwater report.

2.1.5 Decontamination

- Equipment and boom that was Deconned during this operational period is outlined in Table 3.

Table 3 - Equipment Decon Totals

	10/22	10/21
Frac Tanks	3	4
Vac Trucks-Tankers	5	3
Roll-Off Boxes	2	3
Yellow Iron - Light	0	1
Yellow Iron - Heavy	4	2
Marine Vessels	0	1
Vehicles	1	0
Daily Total	15	14

Boom (feet)	1,500	3,600
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2.1.6 Additional Operations

Air Ops

- During this operational period, there were 3 overflights.
- Air Ops observed and documented cleanup progress in all operational areas.
- Air Ops continued to investigate areas of interest and report on hot spots, oil mobilization, O&M, and Decon.

Environmental Compliance and Oversight

- Responded to sites of continued O&M concern.
- Prepared waste management area close-out plans.
- Continued waste management characterization, documentation, and coordination.
- Continued remedial investigation of Divisions A1 through A4.
- Began remedial investigation at MP13.25.

Monitoring Branch

- Conducted real-time air monitoring near excavation and dredging operations and in community areas. No readings in excess of background levels were reported during this operational period.
- Eliminated Tedlar bag sampling.
- Samples reported by Enbridge are provided in Table 4.

Table 4 – Samples Collected By Enbridge

Sample Type	Number Collected	
	10/22	10/21
Tedlar Bag *	-	32
Mini SUMMA *	10	18
Surface Water	28	23
Private Well Samples	-	8
Groundwater Samples	-	-
Sediment Samples	10	12
Ceresco Dewatering Samples	10	1
Submerged Oil Task Force Samples	-	-
Soil Samples	-	-
Sheen Samples	-	-
Other	-	-

* As observed by the EPA with data reported for previous day

† Estimated value.

- Sampling and monitoring events conducted by EPA personnel during this operational period are reported in 5.

Table 5 – Sampling and Monitoring Events by EPA as Reported in Scribe

Sample Type	Number Collected	
	10/22	10/21
Air Monitoring Results	114	112
Tedlar Bags	-	-
SUMMA canisters	-	-
Sediment	-	-
Surface Water	1	1

Landowner Environmental Issues

Environmental issues from citizens have been raised throughout the response. These issues have been brought to the attention of the EPA directly, through MNDRE or through Enbridge. The EPA contacts the concerned citizen and evaluates the situation or concern. A log of the issue is maintained for each issue addressed. Citizen environmental issues are represented in Table 6.

Table 6 – Landowner Environmental Issues

Issues to Date	Issues Undergoing Evaluation	Issues Considered Addressed
14	1	13

2.1.7 Progress Metrics

All progress metrics in Section 2.1.7 are as reported by Enbridge unless otherwise indicated.

Boom Report

Table 7 - Boom Report

	10/22	10/21
Number of Locations	19	19
Boom Deployed (feet)	112,024	106,669

Table 8 - Soil and Debris Shipped Off Site

Waste Stream*	Cumulative [†]	10/21	10/20
Haz Soil (yd ³) ^a	15,344	0	0
Non Haz Soil (yd ³) ^b	53,903	630	1,194
Haz Debris (yd ³) ^c	12,075	0	0
Non Haz Household Debris (ton)	74	0	6
Non Haz Impacted Debris (ton) ^c	1,332	0	0

* Information for water (other than daily quantity shipped) is reported in other tables below. Quantity awaiting disposal is estimated.

† Due to the auditing of waste manifests, cumulative quantities may not reconcile with previous reports.

a. Haz soil (benzene impacted) is being transported to EnviroSAFE (Oregon, OH).

b. Non Haz soil is being sent to Westside Recycling (Three Rivers, MI) and EQ/Republic (Marshall, MI).

c. Roll-off boxes containing waste sorbents, boom, pads, plastic, PPE, and oiled vegetation and biomass are being sent to EQ facility (Michigan Disposal) in Wayne, MI and Republic (Marshall, MI).

Oil/Water Recovery Tracking:

Note: Some of the values in the tables below have been audited and reconciled by Enbridge and may not correlate with previously reported values.

Table 9 - Oil water collected by location 10/21 0700

Location	Cumulative (gallons)
Division A	5,560,643
Division B	4,969,165
Division C	1,435,450
Division D	123,690
Division E	50,530
Decon	426,260
Other Locations*	352,083
TOTAL	12,917,821

* Includes Frac, DECON, and Wildlife Center.

Table 10 - Oil water Separation 10/22

Enbridge Facility in Griffith, IN (gallons)	
Oil	766,288
Other Material	1,405,525
TOTAL	2,171,813

Table 11 - Oil/Water Remaining On-Site (Gallons)

Oil/Water Collected	12,917,821
Oil/Water Shipped Off-Site	11,969,051
OIL/WATER REMAINING ON-SITE	948,770

Table 12 - Liquid Shipped Off-site

Oil/Water leaving Site	Destination	Quantity Shipped		
		Cumulative†	10/21	10/20
Haz Water	Dynecol, Detroit, MI	2,776,388	8,500	29,500
Oil/Water	Enbridge Facility, Griffith, IN	2,171,813	-	-
Treated Non Haz Water	Liquid Industrial Waste Services, Holland, MI	370,200	-	-
Treated Non Haz Water	Plummer, Kentwood, MI	4,546,925	70,000	50,000
Haz Water	Safety Kleen ^a	825	-	-
Treated Non Haz Water *	Dynecol, Detroit, MI	134,200	-	-
Treated Non Haz Water *	Battle Creek POTW	1,968,700	-	-
Totals		11,969,051	78,500	79,500

* Treated Non Haz Water no longer sent to this location.
 † Cumulative quantities may not reconcile with previous reports (due to auditing).
 a. New Age lab water and methanol mix generated by mobile laboratory.

2.2 Planning Section

Environmental Unit

- Coordinating with monitoring branch and submerged oil task force.

2.3 Safety Reports

No major incidents or safety concerns were reported during this operational period. This period continues the stretch without a safety incident.

2.4 Liaison Officer

- Nothing to report.

2.5 Public Information Officers

- Received public inquires as outlined in Table 13.

Table 13 – Public Inquiries Received by EPA and Enbridge

Location/Media	Inquiries Received	
	10/21	10/20
Battle Creek Community Center	16	6
Marshall Community Center	11	11
Oil Spill Public Information Hotline	13	12
Enbridge Response Website (www.response.enbridgeUS.com)	6	1
Total Public Inquiries	46	30

2.6 Finance Section

- The current NPFC issued ceiling is 24.6 Million. Approximately, 85.9% of the ceiling has been spent through October 21, 2010, with the latest burn rate of \$86,681 per day. These cost summaries reflect only EPA-funded expenditures for the incident. A summary of these expenses is presented in Table 14.

Table 14 - Financial Summary

ERRS Contractors	Expended (Cumulative)	Estimated Burn Rate	
		10/21	10/20
EQM (EPS50802)	T057 \$ 1,250,065	\$ -	\$ -
	T060 \$ 204,905	\$ -	\$ -
LATA (EPS50804)	\$ 1,451,396	\$ -	\$ -
ER LLC (EPS50905)	\$ 723,669	\$ -	\$ -
Total ERRS Contractors	\$ 3,630,035	\$ -	\$ -
Lockheed Martin (EPW09031) -TAGA Support	\$ 150,000	\$ -	\$ -
T&T Bisso (EPA:HS800008 USCG:HSCG8410A80)	\$ 1,255,000	\$ -	\$ -
START Contractor			
WESTON (EPS50604)	\$ 7,463,944	\$ 48,765	\$ 52,307
Response Contractor Sub-Totals	\$12,498,979	\$ 48,765	\$ 52,307
EPA Funded Costs:			
Total EPA Costs	\$ 4,304,013	\$ 23,620	\$ 23,620
Pollution Removal Funding Agreements:			
Total Other Agencies	\$ 1,416,989	\$ 2,340	\$ 2,340
Sub-Totals	\$18,219,981	\$ 74,725	\$ 78,267
Indirect Cost (16.00%)	\$ 2,915,197	\$ 11,956	\$ 12,523
Total Est. Oil Spill Cost	\$21,135,178	\$ 86,681	\$ 90,790
Oil Spill Ceiling authorized by USCG	\$ 24,600,000		
Oil Spill Ceiling Available Balance	\$ 3,464,822		
	85.9%		

2.7 Response Actions to Date

- Response Actions to date may be found in SITREPs #1 through #69.

3 Participating Entities

3.1 Unified Command

U.S. EPA	Calhoun County Public Health Department
MDNRE	Calhoun County Emergency Management
Michigan State Police Emergency Management Division	Kalamazoo County Sheriff
City of Battle Creek	Enbridge (Responsible Party)

3.2 Cooperating and Assisting Agencies and Congressional Presence

For a list of cooperating and assisting agencies and the congressional presence, see SITREP #51.

4 Personnel On-Site

- Staffing numbers for the various entities and agencies active in the response are presented in Table 15.

Table 15 - Personnel On-Site

Agency/Entity	Number Reported	
	10/22	10/21
EPA	21	23
START	30	32
Calhoun County Public Health	1	1
Calhoun County (CC) EM	2	2
City of Battle Creek	2	2
Kalamazoo Sheriff	2	2
MDNRE	7	8
Michigan State Police EMD	1	1
NOAA - National Weather	1	1
USFWS	0	0
Enbridge ICP	21	21
Enbridge ICP Contractor	264	271
Enbridge	9	10
Enbridge Contractors	581	598
Total	942	972

5 Source of Additional Information

5.1 Additional Information

For additional information, please refer to <http://www.epa.gov/enbridgespill>. For sampling analysis data, please see <http://response.enbridge.com/response/main.aspx?id=13168>.