

US EPA ARCHIVE DOCUMENT

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION V
POLLUTION/SITUATION REPORT #86



**KALAMAZOO RIVER/ENBRIDGE SPILL – REMOVAL
SITE # Z5JS
MARSHALL, MICHIGAN
LATITUDE: 42.2395273 LONGITUDE: -84.9662018**



MP 9.0 11: Excavated Soil Hauling/Winching

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 Management.
 Mark DuCharme, MDNRE
 Mike McKenzie, City of Battle Creek
 Susan Hedman, U.S. EPA Regional Administrator
 James Sygo, MDNRE

From: Ralph Dollhopf, U.S. EPA, Federal On-Scene Coordinator
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Date: 02/15/2011

Reporting Period: 12:00 hours 02/08/2011 through 12:00 hours 02/14/2011

1. Site Data

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
Demobilization Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:	E10527	Reimbursable Account:	

2. Previous Response Actions and Response Governance

See SITREP #51 for a comprehensive description of preliminary operations. Previous response actions performed to date may be found in Situation Reports (SITREPs) #1 through #85.

Governance for the project is provided by the U.S. Environmental Protection Agency (U.S. EPA) Federal On-Scene Coordinator (FOSC) and the Michigan Department of Natural Resources and the Environment (MDNRE). The Operational Period covered in this report is: 02/08/2011 12:00 through 02/14/2011 12:00.

3. Operations

This current operational phase of the response consists of: 1) Operations and Maintenance (O&M); 2) Drinking/Groundwater Monitoring; 3) Decontamination; and 4) Other Operations.

3.1 Operations and Maintenance (O&M)

Teams inspected O&M locations. In general, team activities included an inspection of containment boom to ensure proper placement and effectiveness. Additionally, winter O&M operations (i.e., frost driving, ice-road construction, excavation) continued. Teams performed inspection for readily visible contamination. A summary of significant actions for this period is presented in Table 1.

Table 1 – O&M Actions

Activity	Number of Locations	Location (MP)
Sheen and/or Product Observation	8	8.50 L1; 9.00 I1; 10.50 L2; 11.25 R1; 11.25 R2; 11.75 R1; 15.00 L1; 19.25 L1
Site Access Plans Approved	0	
Excavation Work Plans Approved	1	15.00
Access Road Construction/Frost Driving	2	9.00 I1; 11.25 R1
Aqua Barrier Installation	6	9.0 I1; 10.50 L2; 11.50 R1; 11.75 R1; 15.00 L1; 19.25 L1
Pre-Excavation Activities (i.e., dewatering)	3	9.00 I1; 10.50 L2; 11.75 R1
Excavation	4	9.0 I1; 10.50 L2; 11.50 R1; 11.75 R1

A summary of the quantity of sites in the O&M process as reported by Enbridge is summarized below.

Table 2 – O&M Maintenance and Monitoring Areas

O&M Process	Area Status
	2/14/2011
Active	6
Monitoring	35
Recommended to Cleared	9
Signed Off	51

3.2 Drinking and Groundwater Monitoring

Drinking water well sampling of 42 wells was performed during this period by Enbridge under MDNRE and public health agencies oversight.

3.3 Decontamination

Equipment and boom that were decontaminated during this operational period as reported by Enbridge is presented below.

Table 3 - Equipment Decontamination

Location/Media	Total	February 2011						
		14	13	12	11	10	9	8
Frac Tanks	2	0	0	0	0	0	1	1
Vac Trucks-Tankers	0	0	0	0	0	0	0	0
Roll-Off Boxes	0	0	0	0	0	0	0	0
Yellow Iron - Light	0	0	0	0	0	0	0	0
Yellow Iron - Heavy	0	0	0	0	0	0	0	0
Marine Vessels	1	0	0	0	1	0	0	0
Vehicles	0	0	0	0	0	0	0	0
Boom (feet)	600	100	0	0	250	250	0	0

N/R = Not reported by Enbridge.

3.4 Additional Operations

3.4.1 Air Operations

There were 3 over-flights for situational awareness during this operational period. Air Operations personnel observed and documented O&M progress in all operational areas; and continued to investigate/report areas of interest, ice jams, oil mobilization and decontamination.

3.4.2 Environmental Compliance and Oversight

Continued waste management characterization, documentation and coordination. Coordination with the MDNRE continues, particularly with regards to MDNRE concurrence of work contemplated by Enbridge in ecologically sensitive areas during winter operations.

3.4.3 Monitoring Branch

Under MDNRE direction, potable water, groundwater, soil, sediment and surface water sampling were performed in accordance with the existing U.S. EPA-approved Sampling and Analysis Plan (SAP) (adopted by MDNRE) and a reduced sampling frequency as approved by the MDNRE.

Samples reported by Enbridge are provided below.

Table 4 – Samples Collected By Enbridge

Sample Type	Total	February 2011						
		14	13	12	11	10	9	8
Surface Water	7	4	0	0	0	0	0	3
Private Well Samples	42	7	0	0	11	9	9	8
Groundwater Samples	0	0	0	0	0	0	0	0
Sediment Samples	145	42	0	0	21	23	27	32
Soil Samples	1	1	0	0	0	0	0	0

4. Landowner Environmental Issues

Landowner environmental issues, as reported by Enbridge for this period are represented below.

Table 5 – Landowner Environmental Issues

Issues this Period	Issues Undergoing Evaluation	Issues Considered Addressed
15	0	15

5. Progress Metrics

Progress metrics reported in this section are as reported by Enbridge.

Table 6 - Boom and Aqua Dam Report

Metric	February 2011						
	14	13	12	11	10	9	8
# Locations	26	26	26	26	26	26	26
Boom Deployed (ft)	8,700	8,700	8,700	8,700	8,700	8,700	8,700
# Locations	NR	NR	NR	11	9	9	9
Aqua Dam Deployed (ft)	1,690	1,690	1,690	1,230	970	970	970

NR = Not Reported by Enbridge

Table 7 - Soil and Debris Shipped Off Site as of 2/14/2011

Waste Stream	Cumulative	Disposal Facility
Haz Soil (yd ³)	19,644	Envirosafe (Oregon, OH)
Non-Haz Soil & Debris (yd ³) (Excluding Ceresco Dredge)	66,225	Westside Recycling (Three Rivers, MI); Terra/C&C and EQ/Republic (Marshall, MI)
Non-Haz Soil (yd ³) (Ceresco Dredge Only)	5,562	
Haz Debris (yd ³)	12,075	EQ/Michigan Disposal (Wayne, MI) and Republic (Marshall, MI)
Non-Haz Household Debris (ton)	236	EQ/Republic (Marshall, MI)
Non-Haz Impacted Debris (ton)	1,564	

Table 8 – Oil/Water Collected by Location (as of 2/14/2011)

Location	Cumulative (gallons)
Division A	5,338,315
Division B	4,834,782
Division C	1,532,706
Division D	114,906
Division E	47,438
Decontamination	98,627
Other Locations*	982,440
Total	13,958,214

* Decontamination Operations, Wildlife Center Operations, Sediment Trap Cleaning, Hydro-Vacuuming.

Table 9 – Oil/Water Separation 2/14/2011 (Enbridge Facility in Griffith, IN)

Item	Cumulative (gallons)
Oil	766,288
Other Material	1,405,525
Total	2,171,813

Table 10 - Oil/Water Remaining On-Site 2/14/2011

Item	Cumulative (gallons)
Oil/Water Collected	13,958,214
Oil/Water Shipped Off-Site	13,943,137
Oil/Water Remaining On-Site	15,077

Table 11 - Liquid Shipped Off-site as of 2/14/2011

Stream	Destination Company	Destination Location	Cumulative Volume (gallons) †
Hazardous Water	Dynecol	Detroit, MI	3,954,579
Oil/Water	Enbridge Facility	Griffith, IN	2,171,813
Treated Non-Haz Water	Liquid Industrial Waste	Holland, MI	370,200
Treated Non-Haz Water	Plummer	Kentwood, MI	4,976,140
Hazardous Water	Safety Kleen ^a		825
Non-Haz Water	Dynecol	Detroit, MI	35,800
Treated Non-Haz Water*	Dynecol	Detroit, MI	150,700
Treated Non-Haz Water*	Battle Creek POTW	Battle Creek, MI	1,968,700
Non-Haz Water	Battle Creek POTW	Battle Creek, MI	206,720
Sludge			467,660
Total			13,943,137

* 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.

6. Support Operations

6.1 Environmental Unit

Nothing to report.

6.2 Data Management Unit

Continued importing preliminary and validated analytical results into Scribe, exporting daily briefings; and processing and printing maps as requested. Database management is being done in Vernon Hills and/or Houston.

6.3 Documentation Unit

Continued organization and archiving of electronic and paper files.

6.4 Safety

There was a near-miss incident at the excavation site located at MP-9.0 I1, where excavated soils are transported to a staging area by winching a loaded Morooka Crawler up and down the side of a steep embankment. On February 12, one of the tow straps used to winch the crawler broke while the crawler was being winched on the hill. The crawler slid down the hill in an uncontrolled manner. No one was injured. Safety personnel continue to investigate the near-miss and make appropriate recommendations.

A temporary warming trend (e.g. temperatures above freezing) has begun and so there is an increased awareness of potential ice melt, which could cause ice jams and flooding that impact O&M activities and areas.

Workers are reminded to wear floatation device when working within 10 feet of the river and to wear appropriate PPE when using a chain saw, face shield, chaps, etc. Safety inspections occurred throughout the operational area.

6.5 Public Information

The public information operation Battle Creek Community Center has been discontinued. The quantity of public inquiries reported by Enbridge for this period is presented below.

Table 12 – Public Inquiries Received by EPA and Enbridge

Location/Media	Total	February 2011						
		14	13	12	11	10	9	8
Marshall Community Center	10	1	0	0	0	3	3	3
Oil Spill Public Information Hotline	15	5	0	0	1	1	2	6
Enbridge Response Website (www.response.enbridgeUS.com)	1	0	0	0	0	1	0	0
Total Public Inquiries	26	6	0	0	1	5	5	9

6.6 Finance

The current NPFC issued ceiling is \$27.6 Million. Approximately 89.7% of the ceiling has been spent through February 12, 2011. As of February 10, 2011, the latest weekday average burn rate was \$21,517 per day. These cost summaries reflect only EPA-funded expenditures for the incident. A summary of these expenses is presented below.

Table 13 - Financial Summary

Item	Expended (Cumulative) as of 2/12/2011
ERRS Contractors	
EQM (EPS50802) T057	\$ 1,250,065
T060	\$ 204,905
LATA (EPS50804) T019	\$ 1,451,396
ER LLC (EPS50905) T040	\$ 723,669
Total ERRS Contractors	\$ 3,630,035
Other Contractors	
Lockheed Martin (EPW09031) – TAGA Support	\$ 150,000
T&T Bisso (EPA:HS800008)	\$ 1,255,000
Total Other Contractors	\$ 1,405,000
START Contractor – WESTON (EPS50604)	
T030-Response	\$ 9,220,870
T032-Sampling	\$ 180,214
T037-Doc Support	\$ 532,886
Total START Contractor	\$ 9,933,970
Response Contractor Sub-Totals	\$ 14,969,005
EPA Funded Costs: Total EPA Costs	\$ 4,934,950
Pollution Removal Funding Agreements – Total Other Agencies	\$ 1,426,909
Sub-Totals	\$ 21,330,864
Indirect Cost (16.00%)	\$ 3,412,938
Total Est. Oil Spill Cost	\$ 24,743,803
Oil Spill Ceiling Authorized by USCG	\$ 27,600,000
Oil Spill Ceiling Available Balance	\$ 2,856,197

7. Participating Entities

A Multi-Agency Coordination (MAC) Group meets weekly regarding the progress of the response. Entities participating in the MAC include:

- U.S. Environmental Protection Agency
- Michigan Department of Natural Resources and the Environment
- Michigan State Police Emergency Management Division
- City of Battle Creek
- City of Marshall
- Calhoun County Public Health Department
- Calhoun County Emergency Management
- Kalamazoo County Sheriff
- Enbridge (Responsible Party)

For a list of cooperating and assisting agencies and the congressional presence, see SITREP #51 (Sections 3.2 and 3.3).

8. Personnel On-Site

Staffing numbers for the entities and agencies active in the response are presented in Table 14.

Table 14 - Personnel On-Site

Agency/Entity	February 2011						
	14	13	12	11	10	9	8
U.S. EPA	6	3	4	4	4	4	4
START	11	9	8	10	10	10	10
Calhoun County Public Health	0	0	0	0	1	0	0
Calhoun County (CC) EM	0	0	0	0	1	0	0
City of Battle Creek	0	0	0	0	1	0	0
City of Marshall	0	0	0	0	1	0	0
Kalamazoo Sheriff	0	0	0	0	0	0	0
MDNRE	5	0	3	6	4	3	3
Michigan State Police EMD	0	0	0	0	0	0	0
NOAA – National Weather	0	0	0	0	0	0	0
USFWS	0	0	0	0	0	0	0
Enbridge – Operations	11	0	0	13	14	2	2
Enbridge – Operations Contractor	109	46	64	106	105	105	102
Enbridge – Field	0	0	0	0	0	0	0
Enbridge – Field Contractors	119	89	94	108	95	89	77
Total	260	147	173	247	236	216	198

9. Source of Additional Information

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