

US EPA ARCHIVE DOCUMENT

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION V
POLLUTION/SITUATION REPORT #198



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

US EPA ARCHIVE DOCUMENT



Ceresco Pilot Channel Overview (01/29/2014)

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 Christine Kosmowski, Calhoun County Water Resources Commissioner

From: Jeffrey Kimble, U.S. EPA, Federal On-Scene Coordinator

Date: 02/19/2014

Operational Period: 0700 hours 01/20/2014 through 0700 hours 01/27/2014
 0700 hours 01/27/2014 through 0700 hours 02/03/2014

Reporting Period: 0700 hours 01/20/2014 through 0700 hours 02/03/2014

1. Site Data

Site Number:	Z5JS	Response Type:	Emergency
Response Authority:	OPA	Incident Category:	Removal Action
Response Lead:	RP	NPL Status:	Non-NPL
Mobilization Date:	7/26/2010	Start Date:	7/26/2010
FPN#:	E10527		

2. Operations Section

- The organizational response structure consisted of the following Branches: 1) Environmental Field Teams; and 2) Dredge Operations.

2.1 Environmental Field Teams Branch

2.1.1 Science Division

- No activities were performed during this reporting period.

2.1.2 Water Operations Division

- Management of oil sheen and/or globules continued throughout the period. No responses were conducted during this reporting period.

2.1.3 Compliance Division

- As of the close of the reporting period, Enbridge's MDEQ Ceresco Dam removal permit is in review with MDEQ. The public comment period closed on January 24, 2014.

2.2 Dredge Operations Branch

2.2.1 Ceresco, Mill Ponds, Morrow Lake and Sediment Trap Divisions

- Dredging operations at the Mill Ponds impoundment and the MP 36.1 sediment trap remained suspended throughout the reporting period due to icing conditions.
- Sediment removal from the MP 26.0 RDB sediment trap via Toyo pump suction dredging was conducted from January 20 – 23, 2014. Dredging operations were suspended on January 24, 2014 due to winter weather conditions. River ice conditions and safety concerns prevented the completion of dredging at several points. Demobilization of the site was conducted from January 24 – 31, 2014. U.S. EPA considers the MP 26.0 RDB sediment trap dredging work substantially complete as outlined in the Approved Work Plan.
- On January 21, 2013 U.S. EPA met with Enbridge to discuss plans and status of options for continued sediment removal actions at Morrow Lake and Morrow Lake Delta as required by the March 14, 2013 Order.
- Table 1 presents the quantities of water treated at each dredge location during the reporting period. Table 2 presents the estimated dredge waste on-site in Geotube bags, the cumulative estimated dredge waste (cubic yards), and the cumulative waste shipped off-site for disposal (tons).
- Work area air monitoring, dissolved oxygen water quality monitoring, and turbidity water quality monitoring were conducted during dredging activities.

2.2.2 Waste Management Division

- Cumulative quantities of soil, debris, and liquid shipped off-site during the response are presented in Tables 3 and 4.
- The cumulative quantity of recovered oil has been estimated using actual waste stream volumes, analytical data, and physical parameters of oil-containing media. A summary of the estimated volume of recovered oil is presented in Table 5.

3. Planning Section

3.1 Situation Unit

- During the reporting period, overflights were conducted on January 21 and 29, 2014 to document all operational areas and locations of oil sheen and/or globules. Photographs were taken and distributed to project participants in a Situation Update photograph log and during the Consolidated ICS Meeting.

3.2 Environmental Unit

- U.S. EPA, USGS, and the U.S. Army Corps of Engineers held weekly meetings to discuss Hydrodynamic Model (HDM) activities.
- U.S. EPA and USGS compiled summary figures and a written description of preliminary HDM results for the Morrow Delta and Morrow Lake drawdown scenarios and other recovery options for review by the Michigan Department of Natural Resources, U.S. Fish and Wildlife Service, and Enbridge.
- U.S. EPA continued review of oil fingerprinting analytical results from sheen and globule samples collected by Enbridge to determine the presence/absence of Line 6B oil.

3.3 Documentation Unit

- The Documentation Unit continued organizing and archiving electronic and paper files for post-incident use.

3.4 Resource Unit

- The Resources Unit continued to support production of the Incident Action Plan (IAP), supported the planning efforts of operations, and provided information to Logistics personnel in order to properly prepare and procure resources.

4. *Command*

4.1 Safety Officers

- Enbridge safety personnel continued conducting work-site safety inspections and implementing the plan for integration of public safety and worker safety on the Kalamazoo River.
- The USCG is providing the U.S. EPA with on-site support by monitoring safety throughout all active work areas.

4.2 Public Information

- The number of public inquires reported by Enbridge for this period is presented in Table 7.

5. *Finance*

- The current National Pollution Funds Center (NPFC) ceiling is \$63.25 million. Approximately 94.4% of the ceiling has been spent through February 2, 2014. The latest average 14-day burn rate was \$14,134 per day. These cost summaries reflect only U.S. EPA-funded expenditures for the incident. A summary of these expenses is presented in Table 8.

6. *Scientific Support Coordination Group (SSCG)*

- No activities were conducted during this operational period.

7. *Participating Entities*

- U.S. EPA and MDEQ continued to meet bi-weekly with a group of stakeholders to discuss how to continue to effectively communicate, share information about site progress, and receive feedback about the communication needs of the local communities. During this reporting period, the Stakeholder group met on January 23, 2014.
- For a list of cooperating and assisting agencies, 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 9.

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/>.

10. Clean-up Progress Metrics

Table 1 – Water Treated During Dredging Operations for the Reporting Period

Dredge Location	Water Treated (gal)
Ceresco	415,000
Mill Ponds	0
Sediment Traps	0
Morrow Lake	0

Table 2 – Dredging Waste (as of 02/03/2014)

Waste Stream	Estimated Dredge Waste On-Site in Geotube bags (yd ³)	Waste Transferred to Ceresco Dredge Pad (yd ³)	Cumulative Estimated Dredge Waste (yd ³)	Cumulative Waste Shipped Off-Site for Disposal (tons)
Ceresco Pad Total	2,345*	2,095	120,795	124,077
Mill Ponds	6,743	0	22,433	16,464
Sediment Traps	0	250	12,476	11,080
Morrow Lake Delta	0	0	1,982	544
C0.4/Wildlife Center/C3.2/FTC	N/A	0	904**	191
Total	9,088	2,345*	158,590	152,357

*Estimate of Ceresco Pad waste includes waste from multiple sites as indicated.

**Estimated dredge waste related to oily debris.

Table 3 - Soil and Debris Shipped Off Site (as of 02/02/2014)

Waste Stream	Cumulative	Disposal Facility
<i>Haz Soil (yd³)</i>	<i>19,644</i>	<i>Envirosafe (Oregon, OH)</i>
Non-Haz Soil (yd ³)	205,407	SET/C&C
Non-Haz Soil (yd ³)	4,436	SET/Ottawa County Farms
Non-Haz Soil (yd ³)	14,463	SET/WM Westside
<i>Non-Haz Soil & Debris (yd³) (Excluding 2010 Ceresco Dredge)</i>	<i>64,815</i>	<i>Westside Recycling (Three Rivers, MI)</i>
<i>Non-Haz Soil (yd³) (2010 Ceresco Dredge Only)</i>	<i>5,562</i>	<i>EQ/Republic (Marshall, MI)</i>
<i>Haz Debris (yd³)</i>	<i>12,075</i>	<i>EQ/Michigan Disposal (Wayne, MI) and Republic (Marshall, MI)</i>
Non-Haz Household Debris (ton)	2,250	SET/C&C
Non-Haz Impacted Debris (ton)	13,734	

Shaded and italicized items are discontinued waste streams.

Table 4 - Liquid Shipped Off-Site (as of 02/02/2014)

Stream	Destination Company	Destination Location	Cumulative Volume (gallons)†
Non-Haz Water	Liquid Industrial Waste	Holland, MI	1,519,707
Non-Haz Water	Plummer	Kentwood, MI	851,989
<i>Non-Haz Water</i>	<i>Dynecol</i>	<i>Detroit, MI</i>	981,792
<i>Non-Haz Water</i>	<i>Battle Creek POTW</i>	<i>Battle Creek, MI</i>	1,143,280
<i>Hazardous Water</i>	<i>Dynecol</i>	<i>Detroit, MI</i>	3,594,579
<i>Oil</i>	<i>Enbridge Facility</i>	<i>Griffith, IN</i>	766,288
<i>Other Material</i>			1,405,525
<i>Treated Non-Haz Water</i>	<i>Liquid Industrial Waste</i>	<i>Holland, MI</i>	370,200
<i>Treated Non-Haz Water</i>	<i>Plummer</i>	<i>Kentwood, MI</i>	4,976,140
<i>Hazardous Water</i>	<i>Safety Kleen^a</i>		825
<i>Treated Non-Haz Water</i>	<i>Dynecol</i>	<i>Detroit, MI</i>	150,700
<i>Treated Non-Haz Water</i>	<i>Battle Creek POTW</i>	<i>Battle Creek, MI</i>	1,968,700
Total			17,729,725

Shaded and italicized items are discontinued waste streams.

† Cumulative quantities may not reconcile with previous reports (due to auditing).

a New Age lab water and methanol mix generated by mobile laboratory.

Table 5 – Estimated Recovered Oil (as of 02/03/2014)

Waste Stream Containing Recovered Oil	Destination Company	Destination Location	Estimated Oil Volume in Waste Stream (gallons)
Soil Impacted Soil & Debris	C&C Landfill	Marshall, MI	23,814*
	Envirosafe/ Westside RDF	Oregon, OH	278,665
<i>Geotube Sediment - (Impacted Sediment)</i>	<i>Envirosafe/ Westside RDF</i>	<i>Oregon, OH</i>	1,298
Debris - (Roll Off Boxes with Impacted Sorbents, boom, pads, plastic, PPE, vegetation, and biomass)	EQ Michigan	Belleville, MI	56,794*
<i>Frac Tank City - Influent to Carbon Filtration System</i>	<i>C&C Landfill</i>	<i>Marshall, MI</i>	8,109
Frac Tank City - Water	Dynecol	Detroit, MI	46,183
	Liquid Industrial Waste Services, Inc.	Kentwood, MI	
	Plummers Env. Inc.	Holland, MI	
	BC POTW	Battle Creek, MI	
<i>Ceresco Pretreatment System</i>	<i>C&C Landfill</i>	<i>Marshall, MI</i>	90
<i>A-1 Pretreatment System</i>	<i>C&C Landfill</i>	<i>Marshall, MI</i>	9
Oily Water - RPP	Enbridge Facility	Griffith, IN	766,288
Total			1,181,250

Shaded and italicized items represent discontinued waste streams.

*Total updated for analytical received after report generation.

Table 6 – Samples Collected By Enbridge

Sample Type	Total	Feb. 2014	January 2014												
		1	31	30	29	28	27	26	25	24	23	22	21	20	19
Surface Water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private Well	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Groundwater	56	0	9	10	4	0	3	0	0	0	8	8	8	6	0
Sediment	3	0	0	0	0	1	2	0	0	0	0	0	0	0	0
Soil	58	0	5	8	3	4	4	0	0	3	5	8	11	7	0
Product	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering	4	0	2	0	0	0	0	0	0	0	0	2	0	0	0
Sheen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 7 – Public Inquiries Received by Enbridge

Location/Med	January 2014															
	31	30	29	28	27	26	25	24	23	22	21	20	19	18		
Marshall Community Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Oil Spill Public Information Hotline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Website	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Public Inquiries	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Table 8 - Financial Summary (as of 02/02/2014)

Item	Expended (Cumulative)
<i>ERRS Contractors</i>	
<i>EQM (EPS50802)</i> T057	\$ 1,199,522
T060	\$ 213,636
<i>LATA (EPS50804)</i> T019	\$ 1,161,082
<i>ER LLC (EPS50905)</i> T040	\$ 683,330
Total ERRS Contractors	\$ 3,257,571
<i>Other Contractors</i>	
<i>Lockheed Martin (EPW09031) – TAGA Support</i>	\$ 198,379
<i>Lockheed Martin (EPW09031) -Biodegradability Study</i>	61,886
<i>T&T Bisso (EPA:HS800008)</i>	\$ 882,087
Total Other Contractors	\$ 1,142,352
START Contractor – WESTON (EPS50604)	
T030-Response	\$ 36,946,387
Community Relations	\$ 114,563
T032-Sampling	\$ 161,045
T037-Doc Support	2,064,729
Total START Contractor	\$ 39,286,724
Response Contractor Sub-Totals	\$ 43,693,319
U.S. EPA Funded Costs: Total U.S. EPA Costs	\$ 6,838,387
Pollution Removal Funding Agreements	
Total Other Agencies	\$ 3,637,081
Indirect Cost (16.00%)	\$ 3,520,519
Indirect Cost (8.36%)-payments after 10/1/2011	\$ 1,310,859
Indirect Cost (10.15%)-payments after 10/1/2012	\$ 1,259,260
Cost Documentation/Billing Admin Fee (2.93%)*	\$ 597,311
Total Est. Oil Spill Cost	\$ 59,702,853
Oil Spill Ceiling Authorized by USCG	\$ 63,250,000
Oil Spill Ceiling Available Balance**	\$ 3,547,147

Shaded and *italicized* items are discontinued

* Effective on EPA Enbridge costs billed to USCG for bills issued after 6/5/12.

**USCG personnel may increase to compensate for EPA not having all available funds to fully staff the site to execute the OPA Project Plan as approved through 12/31/2013. USCG personnel will fill gaps in contractor/EPA staff planned resources as appropriate.

Table 9 - Personnel On-Site

Agency/Entity	February 2014		January 2014											
	2	1	31	30	29	28	27	26	25	24	23	22	21	20
U.S. EPA	0	0	2	2	2	1	1	0	0	1	3	3	1	0
START	0	1	9	9	8	8	8	0	0	9	9	9	10	10
MDEQ	0	0	2	3	3	1	2	0	0	3	7	4	4	0
MDEQ Contractors	0	0	0	2	2	1	1	0	0	1	2	2	2	0
Other Agencies	0	2	3	3	3	1	2	0	0	4	3	0	0	2
Enbridge – Environmental Field Teams – Science*	0	4	11	13	18	17	13	3	4	16	18	17	20	17
Enbridge – Environmental Field Teams – Water Ops*	0	0	3	0	0	0	0	3	0	12	12	11	11	11
Enbridge – Dredge Operations – Ceresco*	7	39	44	53	53	24	42	19	12	50	50	56	54	50
Enbridge – Dredge Operations – Mill Ponds*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Enbridge – Dredge Operations – Delta/Morrow Lake*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Enbridge – Dredge Operations – Sediment Traps*	0	2	14	17	25	19	25	6	12	28	29	32	29	25
Enbridge – Waste Management*	0	52	60	63	13	3	2	0	4	88	86	86	83	78
Enbridge – Office Support*	9	17	45	46	36	36	37	5	17	36	39	39	40	35
Total	16	117	193	211	163	111	133	36	49	248	258	259	254	228

*Enbridge Operations and Field include Enbridge and contractors as reported by Enbridge