

US EPA ARCHIVE DOCUMENT

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION V
POLLUTION/SITUATION REPORT #211



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

US EPA ARCHIVE DOCUMENT



Dredging Operations in the Morrow Lake Neck (07/30/2014)

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From: Jeffrey Kimble, U.S. EPA, Federal On-Scene Coordinator
Date: 08/29/2014
Operational Periods: 0700 hours 07/21/2014 through 0700 hours 07/28/2014
 0700 hours 07/28/2014 through 0700 hours 08/04/2014
Reporting Period: 0700 hours 07/21/2014 through 0700 hours 08/04/2014

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 Divisions/Groups: 1) Water Operations; 2) Morrow Lake; and 3) Waste Management.

2.1 Water Operations Group

- Enbridge continued to monitor and maintain the E4 containment system in the Morrow Lake Delta throughout the reporting period.
- Enbridge continued to monitor and maintain the Ceresco pilot channel containment. River margin restoration work continued throughout the reporting period.
- Monthly Walling tube sampling and reinstallation was conducted on July 28 – 30, 2014 in accordance with the 2013 Submerged Oil Removal and Assessment Work Plan.
- On July 31, 2014, a sheen response was conducted in the Morrow Lake North Cove in response to observations of spontaneously appearing sheen in the area.

2.2 Morrow Lake Division

- On-water dredging activities in the Morrow Lake Delta/Neck and at the MP 36.10 sediment trap were conducted throughout the reporting period with four to five dredges. Morrow Lake Delta dredge pad operations also continued throughout the reporting period. As of the close of the reporting period, approximately 67,772 cubic yards of impacted materials were removed from the Morrow Lake Delta, representing approximately 71% of the required dredging. Approximately 128,000,000 gallons of water have been treated and discharged in accordance with Enbridge's NPDES permit during the 2014 dredging operations in the Morrow Lake Division.
- Enbridge continued daily dredge pad perimeter air monitoring for particulates throughout the reporting period. U.S. EPA also conducted periodic perimeter air monitoring for particulates. No exceedances of the MDCH or U.S. EPA 24-hour average concentration for particulates occurred during the reporting period related to dredge pad operations.
- Enbridge continued daily air monitoring using a 5-gas meter throughout the community immediately adjacent and east of the Morrow Lake Delta dredge pad. U.S. EPA conducted air monitoring within the community using handheld particulate monitoring units.

2.3 Waste Management Division

- Enbridge completed decommissioning and site restoration activities at the Frac Tank City decontamination pad.
- Transportation and disposal of dredged sediment from the Del Tank began on July 22, 2014 and continued throughout the reporting period.
- Cumulative quantities of soil, debris, and liquid shipped off-site during the response are presented in Tables 1 and 2.
- 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 3.

3. Planning Section

3.1 Situation Unit

- During the reporting period, overflights were conducted on July 23 and 30, 2014 to document all operational areas and river conditions, including locations of sheening. Photographs were taken and distributed to project participants in a weekly Situation Update photograph log and during the weekly 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. Development of the HDM and sediment transport model continued throughout the reporting period.

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 5.

5. *Finance*

- The current National Pollution Funds Center (NPFC) ceiling is \$69.25 million. Approximately 91.3% of the ceiling has been spent through August 3, 2014. The latest average 14-day burn rate was \$22,761 per day. These cost summaries reflect only U.S. EPA-funded expenditures for the incident. A summary of these expenses is presented in Table 6.

6. *Scientific Support Coordination Group (SSCG)*

- No activities were conducted during this operational period.

7. *Participating Entities*

- U.S. EPA and MDEQ continued meeting 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. The Stakeholder group did not meet during this reporting period.
- 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 7.

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 - Soil and Debris Shipped Off Site (as of 08/03/2014)

Waste Stream	Cumulative	Disposal Facility
<i>Haz Soil (yd³)</i>	19,644	<i>Envirosafe (Oregon, OH)</i>
Non-Haz Soil (yd ³)	266,365	SET/C&C
Non-Haz Soil (yd ³)	4,476	SET/Ottawa County Farms
Non-Haz Soil (yd ³)	14,673	SET/WM Westside
<i>Non-Haz Soil & Debris (yd³) (Excluding 2010 Ceresco Dredge)</i>	64,815	<i>Westside Recycling (Three Rivers, MI)</i>
<i>Non-Haz Soil (yd³) (2010 Ceresco Dredge Only)</i>	5,562	<i>EQ/Republic (Marshall, MI)</i>
<i>Haz Debris (yd³)</i>	12,075	<i>EQ/Michigan Disposal (Wayne, MI) and Republic (Marshall, MI)</i>
Non-Haz Household Debris (ton)	2,538	SET/C&C
Non-Haz Impacted Debris (ton)	15,543	

Shaded and italicized items are discontinued waste streams.

Table 2 - Liquid Shipped Off-Site (as of 08/03/2014)

Stream	Destination Company	Destination Location	Cumulative Volume (gallons)†
Non-Haz Water	Liquid Industrial Waste	Holland, MI	1,557,407
Non-Haz Water	Plummer	Kentwood, MI	936,009
<i>Non-Haz Water</i>	<i>Dynecol</i>	<i>Detroit, MI</i>	<i>981,792</i>
<i>Non-Haz Water</i>	<i>Battle Creek POTW</i>	<i>Battle Creek, MI</i>	<i>1,143,280</i>
<i>Hazardous Water</i>	<i>Dynecol</i>	<i>Detroit, MI</i>	<i>3,594,579</i>
<i>Oil</i>	<i>Enbridge Facility</i>	<i>Griffith, IN</i>	<i>766,288</i>
<i>Other Material</i>			<i>1,405,525</i>
<i>Treated Non-Haz Water</i>	<i>Liquid Industrial Waste</i>	<i>Holland, MI</i>	<i>370,200</i>
<i>Treated Non-Haz Water</i>	<i>Plummer</i>	<i>Kentwood, MI</i>	<i>4,976,140</i>
<i>Hazardous Water</i>	<i>Safety Kleen^a</i>		<i>825</i>
<i>Treated Non-Haz Water</i>	<i>Dynecol</i>	<i>Detroit, MI</i>	<i>150,700</i>
<i>Treated Non-Haz Water</i>	<i>Battle Creek POTW</i>	<i>Battle Creek, MI</i>	<i>1,968,700</i>
Total			17,851,445

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 3 – Estimated Recovered Oil (as of 08/04/2014)

Waste Stream Containing Recovered Oil	Destination Company	Destination Location	Estimated Oil Volume in Waste Stream (gallons)
Soil - Sediment Impacted Soil & Debris	C&C Landfill	Marshall, MI	27,473*
	Envirosafe/ Westside RDF	Oregon, OH	278,665
<i>Geotube Sediment - (Impacted Sediment)</i>	<i>Envirosafe/ Westside RDF</i>	<i>Oregon, OH</i>	<i>1,298</i>
Debris - (Roll Off Boxes with Impacted Sorbents, boom, pads, plastic, PPE, vegetation, and biomass)	EQ Michigan	Belleville, MI	62,516*
<i>Frac Tank City - Influent to Carbon Filtration System</i>	<i>C&C Landfill</i>	<i>Marshall, MI</i>	<i>8,109</i>
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>	<i>90</i>
<i>A-1 Pretreatment System</i>	<i>C&C Landfill</i>	<i>Marshall, MI</i>	<i>9</i>
Oily Water - RPP	Enbridge Facility	Griffith, IN	766,288
Total			1,190,631

Shaded and *italicized* items represent discontinued waste streams.
 *Total updated for analytical received after report generation

Table 4 – Samples Collected By Enbridge

Sample Type	Total	July/August 2014													
		2	1	31	30	29	28	27	26	25	24	23	22	21	20
Surface Water	18	0	0	0	0	0	18	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	36	0	0	9	7	0	0	0	0	4	2	8	0	0	6
Sediment	20	0	0	0	20	0	0	0	0	0	0	0	0	0	0
Soil	40	0	0	0	0	0	0	0	0	1	26	5	8	0	0
Product	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering	34	0	0	0	0	16	0	0	0	0	0	0	0	0	18
Sheen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 5 – Public Inquiries Received by Enbridge

Location/Med	July/August 2014														
	1	31	30	29	28	27	26	25	24	23	22	21	20	19	
Marshall Community Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Oil Spill Public Information Hotline	1	0	1	2	0	0	0	0	0	0	0	0	0	0	
Website	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
Total Public Inquiries	1	0	2	2	0										

Table 6 - Financial Summary (as of 08/03/2014)

Item	Expended (Cumulative)
ERRS Contractors	
<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
Other Contractors	
<i>Lockheed Martin (EPW09031) – TAGA Support</i>	\$ 198,379
<i>Lockheed Martin (EPW09031) -Biodegradability Study</i>	61,917
<i>T&T Bisso (EPA:HS800008)</i>	\$ 882,087
Total Other Contractors	\$ 1,142,383
START Contractor – WESTON (EPS50604)	
T030-Response	\$ 39,445,583
Community Relations	\$ 114,563
T032-Sampling	\$ 161,045
T037-Doc Support	2,074,012
Total START Contractor	\$ 41,795,203
Response Contractor Sub-Totals	\$ 46,201,829
U.S. EPA Funded Costs: Total U.S. EPA Costs	\$ 7,110,734
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	\$ 1,541,517
Cost Documentation/Billing Admin Fee (2.93%)*	\$ 678,790
Total Est. Oil Spill Cost	\$ 63,232,755
Oil Spill Ceiling Authorized by USCG	\$ 69,250,000
Oil Spill Ceiling Available Balance	\$ 6,017,245

Shaded and *italicized* items are discontinued

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

Table 7 - Personnel On-Site

Agency/Entity	August 2014			July 2014										
	3	2	1	31	30	29	28	27	26	25	24	23	22	21
U.S. EPA	0	0	2	3	3	3	3	0	0	1	2	2	2	3
START	1	8	14	14	14	14	14	0	6	14	14	14	14	13
MDEQ	0	1	2	3	4	4	4	0	1	4	10	7	4	4
MDEQ Contractors	0	2	2	3	3	3	3	0	1	1	2	3	3	3
Other Agencies	0	2	2	2	3	3	3	0	3	4	3	3	3	3
Enbridge –Water Ops*	0	0	2	2	2	2	2	0	0	2	2	2	2	2
Enbridge –Delta/Morrow Lake*	6	100	117	115	118	121	117	5	114	116	122	137	126	123
Enbridge – Waste Management*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Enbridge – Office Support*	5	15	33	40	39	40	39	1	15	39	42	44	44	44
Total	12	128	174	182	186	190	185	6	140	181	197	212	198	195

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