

United States Environmental Protection Agency
Region V
POLLUTION REPORT

Date: Friday, December 19, 2008

From: Mike Ribordy

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Subject: Ongoing Time-Critical Removal Activities
Kalamazoo River OU5 - Plainwell Impoundment
Plainwell, MI
Latitude: -85.6683500
Longitude: -42.4554300

POLREP No.:	9	Site #:	059BBB05
Reporting Period:	10/05/2008 - 12/06/2008	D.O. #:	
Start Date:		Response Authority:	CERCLA
Mob Date:		Response Type:	Time-Critical
Demob Date:		NPL Status:	NPL
Completion Date:		Incident Category:	Removal Action
CERCLIS ID #:		Contract #	
RCRIS ID #:			

Site Description

In 2007, over 37,000 cubic yards or 1,059 truckloads of PCB-contaminated sediment were removed from the river and nearby banks. This includes removal areas 1, 2, 3A and B, 4A and B, 5, 6A and B, 7 and 8. They have completed work in the Phase 1 coffer dam area with construction of the western water diversion structure (Phase 1 coffer dam), which maintains the current flow of the river over the eastern spillway area. This allowed workers to dredge behind the dam, build a water control structure, and remove the portion of the dam in the former powerhouse area.

So far in 2008, workers have removed sediment and restored banks along some 3,000 feet of riverbank including areas 9A and B, 10A and B, 11A and B, 12A and B, and 13B. Work has been completed on mid-channel areas A, B, and C, removal of the Phase 1 cofferdam, and construction of the Phase 2 cofferdam system just upstream of the eastern portion (spillway) of the dam. As of December 3, 2008, some 79,905 cubic yards or 2,283 truckloads of PCB-contaminated sediment have been removed this year. The water control structure, which was constructed during Phase 1, is in the process of being decommissioned. This will allow the Kalamazoo River to flow freely through the new western channel, past what was once the Plainwell Dam.

Excavated Kalamazoo River sediment is being sent off-site to commercial landfills for disposal. Sediment with PCBs above the 50 ppm level will continue to be sent off-site to Environmental Quality Co.'s Wayne Disposal Landfill in Belleville, Mich. Sediment with less than 50 ppm PCBs, which is considered nonhazardous waste, will continue to be sent to Allied Waste's C and C Landfill near Marshall, Michigan and their Ottawa Farms Landfill near Coopersville, Michigan.

See Pollution Report #1 for additional information.

Current Activities

During the week ending October 11, 2008, Terra continued to excavate sediment and soil from the Phase 2 Cofferdam area and the floodplain of Area 13B. Terra also removed the sheet piling from Mid-Channel A, and proceeded with the excavation of sediment from the north side of Mid-Channel A and the nearshore portion of Area 12A. Terra continued to turn stockpiled TSCA sediments/soil; load out sediment from Staging Area 5S; and process and load out non-TSCA sediment/soil from Staging Area 4N. Terra also shipped 24 total loads of non-TSCA-level sediment/soil (1,186.50 tons) to the Ottawa Farms Landfill in Coopersville, MI, and shipped 16 loads of TSCA-level sediment/soil (769.39 tons) to

the Wayne Disposal Site 2 Landfill in Belleville, MI.

The King Company continued to build the bridge from Area 13A/Phase II Cofferdam area to the island, in order to gain access to the water control structure. While working under the utility line, Terra provided spotter support to King.

Arcadis collected eight sediment samples from the TSCA section of Area 13B (TS20212 through TS20219). Arcadis split one of these samples, TS20215, with START. One sample, TS20219, which Arcadis collected from Grid 7 of Area 13B, exceeded the cleanup criteria for sediment with a detection of 12,000 µg/kg. The analytical results for the remaining Arcadis and split sediment samples indicated PCB levels below the cleanup criteria for sediment.

Arcadis also collected two water samples from the Kalamazoo River (TS30086 and TS30087) and one rinsate sample from the equipment that Arcadis used to collect the water samples from the river (TS30088). The analytical results for the water samples did not indicate detectable levels of PCBs. Arcadis collected no water treatment samples during this week.

Arcadis also collected one wipe sample from a vacuum truck [VT-67 (100908)]. The analytical results for the wipe sample did not indicate detectable levels of PCBs.

Arcadis also performed turbidity monitoring, on the Kalamazoo River, near Mid-Channel Area A. All of the downstream results were less than twice the upstream results.

CDM, the consultant for MDEQ, collected six core samples from the south side of Mid-Channel A. At a minimum, MDEQ submitted for analysis the first six inches of each core sample.

USEPA and START documented sloughing that was occurring along the north shoreline, particularly in Areas 12A and 13A.

During the week ending October 18, 2008, Terra continued to excavate sediment from the Phase 2 Cofferdam area, and finished the excavation of soil from the floodplain of Area 13B. Terra continued to process and load out non-TSCA sediment/soil from Staging Area 4N. Terra began restoration activities in Areas 11A, 12A, and 13B. Terra shipped 61 total loads of non-TSCA-level sediment/soil (3,180.44 tons) to the Ottawa Farms Landfill in Coopersville, MI.

The King Company finished the bridge from Area 13A/Phase II Cofferdam area to the island, in order to gain access to the water control structure. King also prepared to decommission the water control structure.

Arcadis collected five water samples from the wastewater treatment system located at Staging Area 4N (W_SA4N_Influ_0019, W_SA4N_MidA_0019, W_SA4N_MidB_0019, W_SA4N_EffluA_0019, and W_SA4N_EffluB_0019), and three water samples from the wastewater treatment system located at Staging Area 5S (W_SA5S_Influ_0020, W_SA5S_MidB_0017, and W_SA5S_EffluB_0017). The analytical results for the Arcadis water treatment samples indicated PCB levels below the cleanup criteria for water.

Arcadis also collected two water samples from the Kalamazoo River (TS30090 and TS30091), one duplicate water sample (TS30089), and one rinsate sample from the equipment that Arcadis used to collect the water samples from the river (TS30092). The analytical results for the water samples did not indicate detectable levels for PCBs.

Arcadis collected three wipe samples, one from a vacuum truck [VT-1 (101808)], and one each from two fractional tanks [FRAC-255870 (101708) and FRAC-254813 (101808)]. One sample, VT-1 (101808), had a detection of 0.2 µg/100 cm². The analytical results for the remaining wipe samples did not indicate PCB levels above detection.

Arcadis collected fifteen sediment/soil samples from Area 13B (TS20220 through TS20234). One sample, TS20230, was a resample from Grid 7, which previously exceeded the cleanup criteria for sediment. The grid was reexcavated, then resampled. The analytical results for the Arcadis sediment samples indicated PCB levels below the cleanup criteria for sediment.

Arcadis also performed turbidity monitoring on the Kalamazoo River near Mid-Channel Area A (on October 13, 2008) and Area 13A (on October 14 through 17, 2008). All of the downstream results were less than twice the upstream results.

CDM conducted extensive sampling that covered the extent of the Site.

At the direction of the U.S. EPA, START collected four sediment samples from a sand bar located immediately downstream of the Plainwell Dam spillway (APS-101508-Spillway-01 through APS-101508-Spillway-04). During the flooding, sandy deposits settled just over the spillway. To ensure that these deposits did not contain contaminated materials, U.S. EPA directed START to sample the sediments. The analytical results for the START sediment samples indicated PCB levels below the cleanup criteria for sediment.

During the week ending October 25, 2008, Arcadis collected five water samples from the wastewater treatment system located at Staging Area 4N (W_SA4N_Influ_0020, W_SA4N_MidA_0020, W_SA4N_MidB_0020, W_SA4N_EffluA_0020, and W_SA4N_EffluB_0020) and three water samples from the wastewater treatment system located at Staging Area 5S (W_SA5S_Influ_0021, W_SA5S_MidB_0018, and W_SA5S_EffluB_0018). The analytical results for the remaining effluent water treatment samples indicated PCB levels below the cleanup criteria for water.

Arcadis collected six wipe samples from the Terra roll-off dumpsters [RO-199 (102308), RO-171 (102308), RO-267 (102308), RO-170 (102308), RO-20-05 (102308), and RO-B3 (102308)]. The analytical results for the wipe samples did not indicate PCB levels above detection.

Arcadis collected six sediment/soil samples from Area 13A (TS20235 through TS20240), and split one sample and one split duplicate, both from TS20235, with START. (Note: The START-designated names for these samples are APS-102108-44-SD/TS20235 and APS-102108-44-DP/TS20235). The analytical results for the Arcadis sediment samples and split samples indicated PCB levels below the cleanup criteria for sediment.

Arcadis also collected one nine-point composite sample from the underburden material that was stockpiled from Area 12A (TS10005). The soil was to be utilized as onsite fill. However, before results of the sample analysis were returned, Terra decided to haul the material offsite for disposal.

Arcadis also collected two water samples from the Kalamazoo River (TS30093 and TS30094) and one rinsate sample from the equipment that Arcadis used to collect the water samples from the river (TS30095). The analytical results for the water samples did not indicate detectable levels for PCBs.

Due to no excavation in the near-shore or mid-channel areas, Arcadis did not conduct turbidity monitoring during the week.

CDM completed the sampling that covered the extent of the Site, and then began to process the collected sample cores.

During the week ending November 1, 2008, Terra continued to excavate sediment/soil from the floodplain of Area 13A, and stockpiled underburden soil from Areas 12A and 13A. The small access road in area 13A was removed to allow for restoration. Terra continued to process and load out non-TSCA sediment/soil from Staging Area 4N. Terra continued to decommission Staging Area 5S; however, the final decommissioning of Staging Area 5S will not occur until Terra is able to decontaminate construction materials and equipment. Terra continued removing the sheet piling from Mid-Channel A, and transported the sheet pilings to Staging Area 5S for decontamination. Terra shipped 42 total loads of non-TSCA-level sediment/soil (2,040.05 tons) to the Ottawa Farms Landfill in Coopersville, MI.

The King Company continued to dismantle the water control structure.

JFNew was onsite to continue restoration activities in Area 10A.

Arcadis collected eleven water samples from the wastewater treatment system located at Staging Area 4N (W_SA4N_Influ_0021, W_SA4N_MidA_0021, W_SA4N_MidB_0021, W_SA4N_EffluA_0021, W_SA4N_EffluB_0021, W_SA4N_Influ_0022, W_SA4N_MidA_0022, W_SA4N_MidB_0022, W_SA4N_EffluA_0022, W_SA4N_EffluB_0022, and W_SA4N_Dup_0004) and three water samples from the wastewater treatment system located at Staging Area 5S (W_SA5S_Influ_0022, W_SA5S_MidB_0019, and W_SA5S_EffluB_0019). The analytical results for the Arcadis effluent water treatment samples indicated PCB levels below the cleanup criteria for water.

Arcadis collected eight sediment samples from Area 13A, which included the TSCA and non-TSCA grids (TS20241 through TS20248). The analytical results for the Arcadis samples indicated PCB levels below the cleanup criteria for sediment.

Arcadis also collected two water samples from the Kalamazoo River (TS30096 and TS30097) and one rinsate sample from the equipment that Arcadis used to collect the water samples from the river (TS30098). The analytical results for the water samples did not indicate detectable levels for PCBs.

Arcadis performed turbidity monitoring on the Kalamazoo River at Area 13A. All of the downstream results were less than twice the upstream results.

CDM completed the processing of the sample cores collected previously.

During the week ending November 8, 2008, Terra continued to load out sediment/soil from Staging Area 4N; pulled sheet piles from the Mid-Channel A area and decontaminated these sheets at Staging Area 5S; excavated underburden soil from Area 13A; and graded topsoil in Area 12A. Terra shipped 55 total loads of non-TSCA-level sediment/soil (2,729.57 tons) to the Ottawa Farms Landfill in Coopersville, MI.

The King Company continued to dismantle the water control structure, while JFNew continued its restoration activities in Areas 11A and 12A.

Arcadis collected three sediment/soil samples from Area 13A (TS220249 through TS20251); three water samples from the water treatment system located at Staging Area 5S (W_SA5S_Influ_0023, W_SA5S_MidB_0020, and W_SA5S_EffluB_0020); two water samples from the Kalamazoo River (TS30099 and TS330100); and one rinsate sample (TS30101). The analytical results for each of these samples indicated PCB levels below the cleanup criteria or, in the case of the surface water and rinsate samples, did not indicate detectable levels of PCBs.

Arcadis also performed turbidity monitoring on the Kalamazoo River. All of the downstream results were less than twice the upstream results.

During the week ending November 15, 2008, Terra continued to load out TSCA-level sediment from Area 13A; excavated underburden soil from Area 13A; continued to decontaminate equipment at Staging Area 5S; continued decommissioning Staging Area 5S; and loaded out and pugged sediment/soil at Staging Area 4N. Terra shipped 63 total loads of non-TSCA-level sediment/soil (3,140.02 tons) to the Ottawa Farms Landfill in Coopersville, MI.

The King Company continued to dismantle the water control structure.

Arcadis collected four sediment/soil samples from Area 13A (TS20252 through TS20255); two soil samples from two future monitoring well locations [MW-13 (6-8') and MW-14 (4-6')]; two water samples from the Kalamazoo River (TS30102 and TS30103); and one rinsate sample (TS30104). Arcadis split Sample TS20252 with START. The analytical results for each of these samples indicated PCB levels below the cleanup criteria or, in the case of the surface water and rinsate samples, did not indicate detectable levels of PCBs.

Arcadis also performed turbidity monitoring on the Kalamazoo River. All of the downstream results were less than twice the upstream results. Arcadis also began investigating monitoring well locations by drilling boring holes in different sections of the site (Area 7B, Area 10A, Area 11A, and Area 13A).

During the week ending November 22, 2008, Terra continued to excavated underburden material and hauled this material to Staging Area 4N; pugged sediment/soil at Staging Area 4N; loaded out sediment/soil and the HDPE base material from Staging Area 5S; restored the topsoil staging area located northeast of Staging Area 4N; placed and graded topsoil in Area 13A; continued the restoration of Area 13B; and began leveling the southern end of the island that lies between the water control structure and the Plainwell Dam to an elevation of 705 feet above sea level. Terra shipped 62 total loads of non-TSCA-level sediment/soil (3,055.42 tons) to the Ottawa Farms Landfill in Coopersville, MI.

The King Company continued to dismantle the water control structure.

Arcadis collected five water samples from the water treatment system located at Staging Area 4N (W_SA4N_Influ_0023, W_SA4N_MidA_0023, W_SA4N_MidB_0023, W_SA4N_EffluA_0023, and W_SA4N_EffluB_0023); one wipe sample from a Terra vacuum truck [VT-1(111808)]; two water samples from the Kalamazoo River (TS30105 and TS30106); and one rinsate sample (TS30107). The analytical results for each of these samples indicated PCB levels below the cleanup criteria or, in the case of the surface water and rinsate samples, did not indicate detectable levels of PCBs.

No turbidity monitoring took place during the week.

During the week ending November 29, 2008, Terra continued to place and grade topsoil in Area 13A; continued to level the island between the water control structure and the Plainwell Dam to an elevation of 705 feet above sea level (which included using a ram to break apart a concrete structure located on the island); placed and graded topsoil on the island; and continued to load out sediment/soil from Staging Area 4N. Terra shipped 25 total loads of non-TSCA-level sediment/soil (1,246.26 tons) to the Ottawa Farms Landfill in Coopersville, MI.

The King Company continued to dismantle the water control structure.

Arcadis collected five water samples from the water treatment system located at Staging Area 4N (W_SA4N_Influ_0024, W_SA4N_MidA_0024, W_SA4N_MidB_0024, W_SA4N_EffluA_0024, and W_SA4N_EffluB_0024); three water samples from the Kalamazoo River (TS30108 through TS30110); and one rinsate sample (TS30111). The analytical results for each of these samples indicated PCB levels below the cleanup criteria or, in the case of the surface water and rinsate samples, did not indicate detectable levels of PCBs.

No turbidity monitoring took place during the week.

During the week ending December 6, 2008, Terra began dismantling the bridge that stretches across the Phase 2 Cofferdam area; excavated sediment from the Phase 2 Cofferdam area; loaded out non-TSCA-level sediment/soil and concrete debris from Staging Area 4N; and continued to pug sediment/soil at Staging Area 4N. Terra shipped 21 total loads of non-TSCA-level sediment/soil (1,060.03 tons) to the Ottawa Farms Landfill in Coopersville, MI.

The King Company continued to dismantle the water control structure.

Arcadis did not collect any sediment or water samples and did not conduct turbidity monitoring of the Kalamazoo River.

Planned Removal Actions

See Pollution Report #1.

Next Steps

Continue excavating soil and sediment from the Phase 2 Cofferdam and Area 13A. Continue the removal of the temporary access structure that connected Removal Area 13A to the island area located between the East and West channel of the Former Plainwell Dam. Continue solidifying soil/sediment at Staging Area 4N. Continue loading and transporting soil/sediment material from Staging Area 4N to Allied Waste's C&C Landfill and the Ottawa County Farms Landfill. Continue decommissioning the Water Control Structure (WCS), including removing remaining steel sheeting. Implementation of the groundwater investigation/monitoring program has been postponed until the removal of the WCS is complete and river elevations have equilibrated. Restoration activities will be completed in the Spring.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
RST/START	\$434,000.00	\$324,958.00	\$109,042.00	25.12%
Intramural Costs				
Total Site Costs	\$434,000.00	\$324,958.00	\$109,042.00	25.12%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

