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November 3, 2010

Mr. Jim Baumann Special Assistant to Bureau Director Bureau of Watershed Management Wisconsin Department of Natural Resources 101 S. Webster Street, Box 7921 Madison, WI 53707-7921

#### Re: Transmittal of Operable Unit 1 (OU1)/Segment 7 Sediment Trap Remedial Documentation Report Hayton Area Remediation Project

Dear Mr. Baumann:

Enclosed is one hard copy of the OU1/Segment 7 Sediment Trap Remedial Documentation Report, Hayton Area Remediation Project. An electronic copy of the report is also being transmitted to you on the enclosed CD.

Per paragraph K.1. of the Consent Order (Consent Order No. 2004-COEE-010; Facility ID No. WID006116529) issued by the WDNR for HARP, a hard copy of this document is being provided to the designated parties with previously noted exceptions.

Please contact me at (312) 578-0870, extension 8486 with any questions.

Sincerely,

CTRC

Christopher D. Harvey, PE Program Manager

Enclosure (1 hard copy and 1 electronic copy of OU1/Segment 7 Sediment Trap Remedial Documentation Report, Hayton Area Remediation Project)

- cc: Mr. S. Jason Smith/Tecumseh Products Co. Paris, TN (electronic transmittal only) Ms. Jean Greensley/USEPA Region V – Chicago (with enclosure)
  - Ms. Deborah Johnson/WDNR Madison (with enclosure)
  - Mr. Curtis Toll/Greenberg Traurig LLP Philadelphia (electronic transmittal only)
  - Mr. Steven Geydoshek/AIG New York (with enclosure)
  - Mr. Carl Reitenbach/AIG Philadelphia (with enclosure)



## OU1/Segment 7 Sediment Trap Remedial Documentation Report



## Hayton Area Remediation Project New Holstein, Wisconsin

November 2010

Prepared by: TRC Chicago, Illinois

## OU1/Segment 7 Sediment Trap Remedial Documentation Report

Hayton Area Remediation Project New Holstein, Wisconsin

Prepared by:



230 W Monroe Street, Suite 510 Chicago, Illinois 60606

TRC Project No. 107927

November 2010

## **CONSTRUCTION CERTIFICATION**

I, Paymon Danesh, acting as the TRC Site Engineer for the Hayton Area Remediation Project (HARP), hereby certify to the U.S. Environmental Protection Agency and the Wisconsin Department of Natural Resources (WDNR), that to the best of my knowledge, the remedial activities at Operable Unit 1 Segment 7 (OU1/Segment 7) have been completed pursuant to the TRC work plan<sup>1</sup> submitted to WDNR with one deviation.

#### **Deviations:**

(1) TRC anticipated the total volume of excavation would be approximately 300 cubic yards. The approximate volume of excavation was 1,034 cubic yards.

invironmental Corporation

Paymon Danesh Engineer

<sup>&</sup>lt;sup>1</sup> OU1/Segment 7 Sediment Trap Excavation Work Plan. Submitted on October 12, 2009.

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## 1.0 INTRODUCTION

The Hayton Area Remediation Project (HARP) consists of Hayton Millpond; Pine Creek, which discharges into the pond; Jordan Creek, a tributary to Pine Creek; and a portion of the watershed of Jordan Creek including drainage ditches in farm fields, all in Calumet County, Wisconsin. HARP involves the remediation of sediments impacted with polychlorinated biphenyls (PCBs). HARP has been divided into four Operable Units (OUs), based largely on contaminant distribution and stream morphology. OU1 consists of the drainage ditches northeast of New Holstein, and that portion of Jordan Creek from the drainage ditch system to the confluence of Jordan Creek and Pine Creek. OU2 includes Pine Creek from the confluence of Jordan Creek and Pine Creek to Honeymoon Hill Road. OU3 consists of Pine Creek from Honeymoon Hill Road to Quarry Road. OU4 consists of Pine Creek from Quarry Road to the Hayton Millpond.

Investigation and excavation activities were conducted in OU1/Segment 7 from 2004 to 2010 to identify and remove PCB-impacted sediments and soil. In 2010 these activities were conducted by TRC Environmental Corporation (TRC) on behalf of Tecumseh Products Company (TPC). Excavation activities were provided by the Environmental Quality Company (EQ) and laboratory services were provided by Environmental Chemistry Consulting Services, Inc. (ECCS).

### 1.1 OU1/Segment 7 Sediment Trap Response Actions

In August and September 2004, a sediment trap was constructed in Jordan Creek at OU1/Segment 7, Reach 4. The location of the sediment trap is shown on Figure 1. The sediment trap utilizes the enlarged creek cross-section resulting from excavation of contaminated sediment and overbank deposits. The purpose of the sediment trap is to evaluate the effectiveness of upstream remediation activities in OU1 by monitoring the sediments that accumulate in the sediment trap.

As indicated in the *Hayton Area Remediation Project (HARP) 2005 Work Plan*, TRC completed an annual assessment and sampling event at the sediment trap in October 2005, in accordance with the Sediment Trap Management Plan submitted to the Wisconsin Department of Natural Resources (WDNR) as Appendix F of the January 2005 Remedial Documentation Report. On November 17, 2005, TRC submitted the *HARP OU1 Sediment Trap Sediment Thickness Assessment and Sampling for Polychlorinated Biphenyls (PCBs)* to WDNR, which presented the results of the sediment trap assessment. Analytical results indicated that total PCB concentrations at seven locations ranged from 2.0 to 38 mg/kg. Since sediment was measured at thicknesses greater than 0.25 feet within the OU1 sediment trap, and the analytical results for total PCB concentrations were greater than the 2002 Reach 1 and 2 levels (1.5 to 3.7 mg/kg),

TRC's response action consisted of preparing a plan to address the PCB impacts within the sediment trap.

The HARP OU1/Segment 7 Sediment Trap Response Action Plan (TRC 2006) specified activities to address the impacted sediment within the sediment trap. TRC's plan of action consisted of sediment excavation in 2006, followed by additional assessment of the accumulation of sediment within the sediment trap in 2007. Excavation of accumulated sediment in the sediment trap was completed in August 2006, as documented in the OU1/Segment 7 & OU2/Upper Remedial Documentation Report (TRC 2007).

The creek bed was excavated to remove soft sediment along the length of the sediment trap until "native" materials were encountered. Materials on the excavated creek bed floor ranged from light brown or gray clay, sandy clay, clayey sand with ½-inch sized stone, and continuous bedrock. The excavation depth ranged from 0.5 to 2.0 feet, with an average depth of approximately 1.0 to 1.5 feet. Approximately 961 tons of material (693 cubic yards) were excavated from the sediment trap. This quantity does not include disposed stabilization and construction materials that were imported to the site.

Eight PRV floor samples were collected from various locations along the floor of the excavation. All results indicated total PCB concentrations below 1.0 mg/kg. A ninth sample location was not collected in transect 4 because the excavation depth extended to bedrock.

TRC completed additional sediment thickness and sampling assessments of accumulated sediment in the OU1/Segment 7 sediment trap in May 2007, September 2008 and May 2009. During the May 2007 monitoring event, results indicated sediment thicknesses exceeded 0.25 feet in four locations. Samples were collected in the four locations with total PCB concentrations ranging from 3.3 to 4.3 mg/kg. Results from the September 2008 monitoring event indicated sediment thicknesses exceeded 0.25 feet in seven locations. PCB concentrations at the seven locations ranged from 4.1 mg/kg to 23 mg/kg, an increase from the May 2007 sample results. The May 2009 sediment thickness and sampling assessment is summarized in Section 1.2.

### 1.2 OU1/Segment 7 Sediment Trap Excavation Work Plan

As outlined in the *HARP OU1/Segment 7 Sediment Trap Response Action Plan* (TRC 2009a), TRC conducted a sediment thickness and sampling assessment of the OU1/Segment 7 sediment trap on May 28, 2009. Results from this monitoring event showed sediment thickness exceeded 0.25 feet in nine of 16 poling locations. PCB concentrations at the nine locations ranged from 2.1 mg/kg to 26 mg/kg.

The WDNR approval of the 2009 Action Plan included several conditions of approval. One condition specified that if the sediment depth and PCB concentrations found in the 2009 sediment thickness and sampling assessment exceeded the applicable 2002 concentrations as specified in the agreement for management of the sediment trap between TPC, WDNR and United States Environmental Protection Agency (EPA), TRC shall promptly submit applications to WDNR for state permits to remove accumulated sediment from the sediment trap.

Since results of the 2009 sediment thickness and sampling assessment exceed applicable 2002 Reach 1 and 2 concentrations (1.5 to 3.7 mg/kg total PCBs), TRC prepared the *OU1/Segment 7 Sediment Trap Excavation Work Plan* (TRC 2009b) to address and remove the accumulated impacted sediment in the sediment trap.

Wisconsin Statutes Chapter 30 permits 3-NE-2002-8-0161LB, -0162LB, -0163LB and -0164LB were issued by WDNR on August 24, 2002 for the original remedial activities in OU1/Segment 7 that were completed in 2004. Amendments and extensions to the permit were issued by WDNR on August 10, 2006 and again on February 10, 2010, for excavation activities pertaining to the OU1/Segment 7 Sediment Trap. The original and amended permits IP-NE-2009-8-05433, 05434, 05435, and 05436 are included in Appendix A.

## 2.0 OU1/SEGMENT 7 SEDIMENT TRAP RESPONSE ACTION

This section outlines construction activities associated with the implementation of the Excavation Work Plan. Activities included site preparation, remedial excavation and disposal, collection of post-remedial verification samples (PRV), and installation of postconstruction erosion control measures.

### 2.1 Site Preparation

### 2.1.1 Mobilization

EQ, the construction subcontractor, mobilized to the site during the week of July 12, 2010 to unload and prepare earthmoving vehicles, flow diversion equipment and other materials in preparation for excavation work that began on July 27, 2010.

### 2.1.2 Access Route

An access route was constructed in 2004 for the original excavation. A portion of the access route was left intact following the excavation activities in 2004. The access route enters the site from Tecumseh Road and follows along the east side of the creek bank. The access route consists of geotextile underlying a 12-inch deep layer of <sup>3</sup>/<sub>4</sub>-inch or smaller crushed stone, which was placed and compacted. Figure 2 indicates the area occupied by the existing access road. The existing access route was used for the excavation activities without the need to install additional routes.

### 2.1.3 Flow Diversion

Flow diversion was used to temporarily divert the flow of Jordan Creek around the excavation area, allowing the in-channel sediment to dry prior to excavation.

A track-mounted excavator was used to dig out a sump approximately 20 feet north of where Tecumseh Road intersects Jordan Creek, near the culvert. A flexible 6inch polyvinyl chloride (PVC) suction hose was lowered into the sump. A check dam was installed immediately downstream of the sump. The check dam was constructed of 1ton sand bags constructed of geotextile fabric, which were lowered into the creek by a backhoe.

PVC hose was used to divert the flow of Jordan Creek. The specification sheet for the hose is shown in Appendix D. The flexible 6-inch diameter hose was delivered onsite in rolls and unrolled to make the diversion pipeline. The hose was attached to two 6" diesel pumps, and extended northeast from the upstream sump for approximately 950 feet, to the downstream discharge point.

The discharge point of the diversion pipeline was located downstream of the rock cross vane that establishes the OU1/Segment 7 sediment trap. An energy dissipater was placed at the discharge point to minimize scour and erosion as diverted water was discharged over the ground surface. The energy dissipater consisted of a 15-foot by 15-foot geotextile mat overlain with a pile of 4- to 8-inch sized stone at the discharge point. The ground slopes gently E-NE from the dissipater pile. The stream bank near the energy dissipater was inspected each workday for scouring. No scouring of the stream bank was detected during daily inspections.

The flow diversion system was tested intermittently on July 26, 2010 and fully operational on July 27, 2010. The existing cross vane at the end of the sediment trap had to be temporarily compromised in order to allow the creek to adequately drain via gravity flow. Once all of the water that could be emptied via gravity flow had been drained, a second check dam was constructed at the end of the sediment trap. The check dam was of identical construction to the check dam installed immediately downstream of the sump. A total of six 1-ton sand bags were utilized for the check dams. The flow diversion system operated continuously from July 27, 2010 to July 30, 2010.

One total suspended solids (TSS) sample was collected at the diversion discharge point on July 28, 2010. The sample was collected in a 1-L plastic jar and was prepared and analyzed by ECCS using EPA Method 160.2. Table 2-1 contains a summary of the TSS analytical result and the complete laboratory report is included in Appendix B.

 Table 2-1.
 Stream Bypass Discharge TSS Sampling Summary

Sample	Sample	Total Suspended Solids		
Date	Time	(TSS) (mg/L)		
7/28/10	15:15	<4.0		

In addition, turbidity samples were collected twice per day for each work day of operation. The samples were collected upstream of the pump intake to downstream from where the diversion discharge was returned to the stream. All results were below the target action level of  $\leq$ 25 NTUs. Table 2-2 contains a summary of the turbidity results.

Sample Date	Sample Time	Upstream Turbidity (NTU)	Downstream Turbidity (NTU)	Difference (NTU)
7/27/2010	06:45	Not collected	8.2	<25
7/27/2010	15:10	Not collected	6.6	<25
7/28/2010	07:30	Not collected	8.4	<25
7/28/2010	15:15	Not collected	9.3	<25
7/29/2010	07:50	Not collected	7.1	<25
7/29/2010	11:55	Not collected	8.1	<25
7/30/2010	07:30	Not collected	5.2	<25

 Table 2-2.
 Stream Bypass Discharge Turbidity Sampling Summary

#### 2.1.4 Excavation Area Dewatering

Due to the uneven grade of the creek bed, areas of ponded water developed in the sediment trap that would not drain adequately via gravity flow. TRC used a portable pump connected to a dewatering treatment system to drain these ponded areas. The pump was placed in low spots that would effectively collect the accumulated water. The treatment system consisted of a bank of bag filters followed by a two stage carbon filtration unit. Specification sheets for the treatment system are shown in Appendix D. The treatment system effluent was discharged at the same location as the bypass system. When in operation, the typical flow rate of the discharge was 15 gallons per minute. The dewatering system was only operated during regular work hours.

The dewatering system operated on July 28, 2010, with a cumulative run time of approximately 19 hours. Effluent water was analyzed for total PCBs to evaluate treatment. One dewatering system effluent sample was collected in a 1-L amber jar, then prepared and analyzed by ECCS using EPA Method SW846 8082. Total PCB concentrations were below the WDNR-approved limit of  $\leq 0.25 \ \mu g/L$  total PCBs that was established for the dewatering system. Table 2-3 contains a summary of the analytical results, and the complete laboratory report is in Appendix B.

			Polychlorinated Biphenyls (µg/L)						
Sample Name	Collection Date	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
Water 7-28-10	7/28/10	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.25

 Table 2-3. Dewatering System Discharge Sampling Summary

#### 2.1.5 Waste Profiling

On February 8, 2010, Veolia recertified the OU1/Segment 7 special waste for direct disposal at the Veolia Hickory Meadows landfill in Hilbert, Wisconsin (the landfill), based on the 2006 waste profile result. The previous waste profile result was reported in the *HARP OU1/Segment 7 and OU2/Upper Remedial Documentation Report* (TRC 2007). Materials with PCB concentrations greater than or equal to 50 mg/kg are not permitted for disposal at the landfill. No additional waste profile analysis was required prior to starting excavation activities. A copy of the recertification letter is included in Appendix C.

#### 2.2 Excavation and Disposal

Excavation at the sediment trap was conducted from July 27, 2010 through July 30, 2010. The sediment trap was excavated using a CAT 3258 long-reach excavator. The creek bed was excavated to the depth necessary to remove soft sediment until reaching "native" materials. The excavation depth ranged from 0.3 to 3.0 feet, with an average depth of approximately 1.0 foot. Materials on the creek bed floor ranged from light brown or gray clay, sandy clay, clayey sand with 1/2-inch sized stone, and continuous bedrock. Approximately 1,433.45 tons (1,034 cubic yards) of material were excavated.

The temporary flow diversion and the dewatering system had removed the standing water from the areas to be excavated. However, most of the excavated materials remained sufficiently moist to require stabilization prior to disposal. Excavation materials were stabilized by mixing them in the creek bed with clean imported fly ash. This stabilized material was loaded directly from the creek into dump trucks, which then proceeded to the landfill for disposal. Loose soil attached to the tires and sides of the dump trucks were removed prior to leaving the site. The access point onto Tecumseh Road was regularly inspected and kept clean of excavation debris.

Accumulated excavation material was temporarily staged at the site while waste profile samples for the landfill were being analyzed. The total amount of material disposed at the landfill from the OU1/Segment 7 sediment trap, including imported fly ash for stabilization and construction materials (primarily sandbags for the check dams and stone for the energy dissipater) was 1,617 tons, or approximately 1,166 cubic yards. The specification sheet for fly ash is shown in Appendix D. The material was disposed offsite between August 2 and August 4, 2010. Table 2-4 summarizes the quantities of material sent to the landfill from OU1/Segment 7 during the course of the project. Appendix C contains copies of the Veolia waste manifests.

Date Truckloads		Tons	Average Bulk Density <sup>1</sup>	Cubic Yards
08/02/2010	08/02/2010 36		1.38647	632.25
08/03/2010	08/03/2010 27		1.38647	476.30
08/04/2010 4		79.82	1.38647	57.57
TOTAL	<b>67 1,616.80</b> 1.38647		1.38647	1,166.12
Less stabilization materials <sup>2</sup>		- 168.35		
Less construction	on materials <sup>2</sup>	- 15.00		
TOTAL (excav	vated materials) <sup>2</sup>	1,433.45	1.38647	1,033.88

Table 2-4. OU1/Segment 7 Waste Disposal Summary

<sup>1</sup> The average bulk density (tons per cubic yard) was calculated from the 2007 OU1/Segment 7 sediment trap excavation. Applied bulk density samples were not collected by Veolia in August 2010.

<sup>2</sup> Approximate values based on quantities of stone, sand, and fly ash delivered for use at the OU1/Segment 7 construction site. All such materials were ultimately disposed at the landfill.

## 2.3 Post Remedial Verification Sampling

As an independent means of verifying the thoroughness of removal, seven PRV sediment samples were collected from various locations along the floor of the excavation. Floor samples were collected from a 6-inch interval below the excavation floor. PRV sampling locations were at or near the locations used in 2007, which were selected by TRC with input from WDNR, and are indicated on Figure 2. Two PRV sample locations (T3-PRV1 and T4-PRV1) were omitted because the excavation depth extended to bedrock. Samples were collected in clean 4-ounce glass jars using a stainless steel trowel which was decontaminated between samples. Samples were then prepared and analyzed by ECCS using EPA Methods SW846 3541 and SW846 8082 respectively. The PRV soil sample results are shown in Table 2-5. All results indicated total PCB concentrations below the in-channel sediment remedial target level of <1.0 mg/kg.

On July 30, 2010, the flow diversion system was shut off and dismantled. The upstream and downstream check dams were removed to allow Jordan Creek to flow

through the sediment trap. The stone and sand bags that were used for the check dams and flow diversion system were disposed at the landfill.

				Polychlorinated Biphenyls (mg/kg)						
Sample Name	Collection Date	Solids (%)	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
T1 PRV1	07/29/10	82.3	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
T1 PRV2	07/29/10	85.4	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
T2 PRV1	07/29/10	90.8	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
T2 PRV2	07/29/10	87.8	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
T2 PRV3	07/29/10	84.0	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
T3 PRV1				No sample was collected as sediment was excavated to bedrock.						
T3 PRV2	07/29/10	91.2	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
T3 PRV3	07/29/10	89.1	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
T4 PRV1				No sampl	e was colle	cted as sedi	iment was e	excavated to	bedrock.	

Table 2-5. OU1/Segment 7 Sediment Trap Post Remedial Verification Sampling Results

## 2.4 Erosion Control

Some portions of the bank slopes were disturbed during in-channel sediment excavation. This occurred where the excavator required a closer position in order to reach in-channel sediment near the opposite bank, or where minor grading of the banks became necessary following in-channel excavation to create smooth transitions between depth changes for streambank protection. Soil was also disturbed in the areas that were used for the flow diversion pumping equipment and the energy dissipater.

Seed and erosion control mat (ECM) were installed on the exposed banks of the sediment trap and other disturbed areas. Two types of ECM were used. A single-net, 100% biodegradable, agricultural straw mat was used for flat floodplain areas. The ECM consists of a 100% biodegradable coconut fiber. A woven, 100% biodegradable, coir (coconut) fiber mat was used for bank slopes. Biodegradable wooden stakes were used to fasten the ECM. The seed mixture consisted of a combination of fast growing species for quick soil protection and perennial species for longer soil protection until native species return to the site. The composition of the seed mixture is also included in Appendix D. The specification sheets for the seed mix, ECM and ECM wooden stakes are shown in Appendix D.

In order to facilitate the temporary flow diversion, the cross vane at the downstream end of the sediment trap had to be temporarily compromised to allow adequate drainage of the sediment trap. The cross vane was restored shortly after the flow diversion was shut off.

## 2.5 Demobilization

TRC demobilized from the site on August 4, 2010.

## 2.6 Photo Log

Appendix E contains a photo log that documents the activities described in this report.

## 3.0 OU1/SEGMENT 7 SEDIMENT TRAP MONITORING

From April 2010 through July 2010, TRC conducted the remediation of OU1 upstream of the OU1/Segment 7 sediment trap, as described in the *Remedial Action Plan* – OU1 (TRC 2010). Condition 32 of the USEPA approval of the *Remedial Action Plan* – OU1 stated that after the completion of remedial activities in OU1, sedimentation jars must be placed in the agricultural ditches and Jordan Creek to collect sediment for the purpose of determining the effectiveness of the cleanup. The samples are to be analyzed when the jars are full or prior to November 1, 2010.

On August 31, 2010, TRC deployed sedimentation jars at the five locations specified in Condition 32 of the USEPA approval letter. TRC will collect and analyze the samples in November 2010 and evaluate the results. TRC and WDNR will collaboratively determine the next course of action, which may include further in-channel monitoring or sampling from the OU1/Segment 7 sediment trap.

#### 4.0 REFERENCES

- Ann Arbor Technical Services. *Technical Memorandum: HARP OU1/Segment 7* Sediment Trap Management Plan. October 21, 2004.
- TRC Environmental Corp. *Hayton Area Remediation Project (HARP) 2005 Work Plan.* Submitted February 11, 2005. Approved by WDNR on March 21, 2005.
- TRC Environmental Corp. Sediment Thickness Assessment and Sampling for Polychlorinated Biphenyls (PCBs). HARP OU1 Sediment Trap. Submitted November 17, 2005.
- TRC Environmental Corp. HARP OU1/Segment 7 Sediment Trap Response Action Plan. Submitted March 16, 2006. Approved by USEPA on July 24, 2006. Approved by WDNR with amendments and clarifications on May 9, 2006.
- TRC Environmental Corp. *HARP OU1/Segment 7 & OU2/Upper Remedial Documentation Report.* Submitted February 5, 2007.
- TRC Environmental Corp. Hayton Area Remediation Project (HARP) Quality Assurance Project Plan, Revision 2. June 2008.
- TRC Environmental Corp. HARP OU1/Segment 7 Sediment Trap Response Action Plan. Submitted April 8, 2009.
- TRC Environmental Corp. *HARP OU1/Segment 7 Sediment Trap Excavation Work Plan*. Submitted October 12, 2009. Approved by WDNR on June 14, 2010

FIGURES



S:\CAD FILES\YEAR 2010 DRAWINGS\107927 - TECUMSEH\031-10-107927.DWG





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#### APPROXIMATE SHORELINE

HISTORIC SHORELINE (2004) PRIOR TO SEDIMENT TRAP CONSTRUCTION

HISTORIC CENTERLINE OF STREAM (2004) PRIOR TO SEDIMENT TRAP CONSTRUCTION



EXISTING ACCESS ROADS



SAMPLE NAME						
DEPTH	TOTAL PCBs					
(INCHES)	(mg/kg)					



EXCAVATION AREA DEPTH TO NATIVE MATERIAL (0.5–3.0 FT)



ARMORED STREAM BANK (4–8" STONE)

SEED MIXTURE AND EROSION CONTROL MAT



N/A

ENERGY DISSIPATER PILE (GEOTEXTILE OVERLAIN BY 4-8" STONE)

NOT APPLICABLE. EXCAVATION TO BEDROCK



#### OU1/SEGMENT 7 SEDIMENT TRAP EXCAVATION AND SAMPLING MAP

HAYTON AREA REMEDIATION PROJECT NEW HOLSTEIN, WISCONSIN

DRAWN BY:
PROJECT NO:
<b>C</b> TRC

SPA	DATE:				
107927	DWG FILE:				
230 WEST MONROE STREET					
SUITE 510					
CHICAGO, ILLI	NOIS 60606				
312-578-0870					

10/06/2010

032-10-107927 FIGURE

2







DJECT NO:	107927	DWG FILE:	033-10-1079
ATDO	230 WEST MO SUITE 510	NROE STREET	FIGUR
CIRC	CHICAGO, ILLI 312-578-0870	NOIS 60606	3

PROJECT NO:

APPENDIX A

**CHAPTER 30 PERMITS** 



## State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor Matthew J. Frank, Secretary Ronald W. Kazmierczak, Regional Director Northeast Region Headquarters 2984 Shawano Avenue Green Bay, Wisconsin 54313-6727 Telephone 920-662-5100 FAX 920-662-5413 TTY Access via relay - 711

February 10, 2010

IP-NE-2009-8-05433, 05434, 05435, 05436

Paymon Danesh TRC Environmental Corporation 230 W. Monroe St., Suite 510 Chicago, IL 60606

Dear Mr. Danesh:

We have reviewed your application for a permit to replace riprap on the bed of, grade on the bank of, change the course of, and remove materials from the bed of Jordan Creek, located in the Town of New Holstein, Calumet County. You will be pleased to know your application is approved with a few limitations.

I am attaching a copy of your permit which lists the conditions which must be followed. A copy of the permit must be posted for reference at the project site. Please read your permit conditions carefully so that you are fully aware of what is expected of you.

Please note you are required to submit photographs of the completed project within 7 days after you've finished construction. This helps both of us to document the completion of the project and compliance with the permit conditions.

# Your next step will be to notify me of the date on which you plan to start construction and again after your project is complete.

If you have any questions about your permit, please call me at (920) 662-5466.

Sincerely

Jon Brand Water Management Specialist Green Bay Basin

cc: Nick Domer - Corps of Engineers Jim Baumann – Bureau of Watershed Management, Madison (e-copy) Julie Heuvelman-Calumet County Zoning (e-copy) Mike Disher- Calumet County Conservation Warden (e-copy) Steve Hogler – Fishery Biologist, Two Rivers (e-copy) Marlene Thede-Town Clerk, New Holstein (e-copy) Dennis Steiner, N2180 Honeymoon Hill Road, New Holstein, WI 53061 WMS File



# STATE OF WISCONSINRiprap, Grading, Change Stream Course, Dredging PERMITDEPARTMENT OF NATURAL RESOURCESIP-NE-2009-8-05433, 05434, 05435, 05436

Paymon Danesh, TRC Environmental Corporation, is hereby granted under Section 30.12(3m), 30.19(4), 30.195 and 30.20(2), Wisconsin Statutes, a permit to replace riprap on the bed of, grade on the bank of, change the course of, and remove materials from the bed of Jordan Creek, located in the Town of New Holstein, Calumet County, also described as the in the SE1/4 of the SW1/4 of Section 2, and in the W1/2 of the NW1/4 of Section 11, Township 17 North, Range 20 East, subject to the following conditions:

#### **GENERAL PERMIT CONDITIONS**

- 1. You must notify Jon Brand at phone (920) 662-5466 before starting construction and again not more than 5 days after the project is complete.
- 2. You must complete the project as described on or before March 1, 2013. If you will not complete the project by this date, you must submit a written request for an extension prior to the expiration date of the permit. Your request must identify the requested extension date and the reason for the extension. A permit extension may be granted, for good cause, by the Department. You may not begin or continue construction after the original permit expiration date unless the Department grants a new permit or permit extension in writing.
- 3. This permit does not authorize any work other than what you specifically describe in your application and plans, and as modified by the conditions of this permit. If you wish to alter the project or permit conditions, you must first obtain written approval of the Department.
- 4. You are responsible for obtaining any permit or approval that may be required for your project by local zoning ordinances and by the U.S. Army Corps of Engineers before starting your project.
- 5. Upon reasonable notice, you shall allow access to your project site during reasonable hours to any Department employee who is investigating the project's construction, operation, maintenance or permit compliance.
- 6. The Department may modify or revoke this permit if the project is not completed according to the terms of the permit, or if the Department determines the activity is detrimental to the public interest.
- 7. You must post a copy of this permit at a conspicuous location on the project site, visible from the waterway, for at least five days prior to construction, and remaining at least five days after construction. You must also have a copy of the permit and approved plan available at the project site at all times until the project is complete.
- 8. Your acceptance of this permit and efforts to begin work on this project signify that you have read, understood and agreed to follow all conditions of this permit.
- 9. You must submit a series of photographs to the Department, within one week of completion of work on the site. The photographs must be taken from different vantage points and depict all work authorized by this permit.

- 10. You, your agent, and any involved contractors or consultants may be considered a party to the violation pursuant to Section 30.292, Wis. Stats., for any violations of Chapter 30, Wisconsin Statutes or this permit.
- 11. Construction shall be accomplished in such a manner as to minimize erosion and siltation into surface waters. Erosion control measures such as silt fence and straw bales must meet or exceed the standards in the Wisconsin Construction Site Best Management Practices Handbook.
- 12. All equipment used for the project including but not limited to tracked vehicles, barges, boats, silt or turbidity curtain, hoses, sheet pile and pumps shall be de-contaminated for invasive and exotic viruses and species prior to use and after use.

The following steps should be taken <u>every time</u> you move your equipment to avoid transporting invasive and exotic viruses and species. To the extent practicable, equipment and gear used on infested waters should not be used on other non-infested waters.

- 1. Inspect and remove aquatic plants, animals, and mud from your equipment.
- 2. **Drain all water** from your equipment that comes in contact with infested waters, including but not limited to tracked vehicles, barges, boats, silt or turbidity curtain, hoses, sheet pile and pumps
- 3. **Dispose** of aquatic plants, animals in the trash. Never release or transfer aquatic plants, animals or water from one waterbody to another.
- 4. Wash your equipment with hot (>104° F) and/or high pressure water OR allow your equipment to Dry thoroughly for 5 days.

#### INDIVIDUAL PERMIT CONDITIONS

- 13. Erosion control measures must be in place at the end of each working day.
- 14. Erosion control measures must be inspected, and any necessary repairs or maintenance performed. Inspections must be completed after every rainfall exceeding 1/2 inch and additionally as needed to minimize soil erosion into the waterway.
- 15. Erosion control measures shall meet or exceed the technical standards for erosion control approved by the Department under subchapter V. of <u>chapter NR 151</u>.
- 16. This permit has been issued with the understanding that any construction equipment used is the right size to do the job, and can be brought to and removed from the project's site without unreasonable harm to vegetative cover or fish or wildlife habitat.
- 17. Bottom materials must be removed by equipment, which is designed to minimize the amount of sediment that can escape into the water. Equipment must be properly sized so that excavation conforms to the plans submitted and allows the work to be done from the banks rather than in the waterway.

- 18. Removal must not exceed 320 cubic yards as specified in the application and plans dated October 14, 2009 and modified on January 11, 2010.
- 19. You must dredge to the dimensions and elevations shown on your approved plans dated October 14, 2009 and modified on January 11, 2010.
- 20. All contaminated dredged materials must be disposed of at an approved solid or hazardous waste disposal site/facility.
- 21. You must not deposit or store any of the removed materials in any wetland or below the ordinary high watermark of any waterway. All removed materials must be placed out of the floodway of any stream.
- 22. You must restrict the removal of vegetative cover and exposure of bare ground to the minimum amount necessary for construction.
- 23. You must supply a copy of this permit to every contractor associated with this project.
- 24. You are not allowed to do construction during periods of high water levels <u>or between</u> <u>March 1<sup>st</sup> and May 1<sup>st</sup> of any calendar year.</u>
- 25. Trucks used to haul contaminated material off-site must be sealed, and the tires clean to prevent the spread of contaminants to public roads. Public roads must be kept clean and free of contaminated material.
- 26. At the completion of the project, permanent vegetation shall be established adjacent to the waterway according to the plans submitted.
- 27. Prior to any activities associated with this permit, TRC shall receive written access agreements from all impacted/riparian property owners. Copies of these agreements shall be submitted to the Department.
- 28. Dredging activities proposed to occur in the two drainage ditches (identified in the January 11, 2100 addendum as OU1 agricultural drainage ditches) that enter Jordan Creek from the west and are, in part, west of Honeymoon Hill Road shall be completed prior to locations approved by this permit.

#### **FINDINGS OF FACT**

- 1. Paymon Danesh, TRC Environmental Corporation, has filed an application for a permit to place riprap on the bed of, grade on the bank of, change the course of, and remove materials from the bed of Jordan Creek, located in the Town of New Holstein, Calumet County, also described as the SE1/4, SW1/4, Section 2, and the W1/2, of the NW1/4 of Section 11, T17N, R20E.
- 2. The project will consist of removing PCB-contaminated sediments from the bed and bank area of the creek. The creek will be temporarily diverted to allow for dry excavation of the contaminated sediments from the existing sediment trap. Sediments will be stabilized by mixing with fly ash, then loaded into trucks with covers and transported to an approved solid waste disposal facility. Straw wattle and erosion mat will be used to stabilize the seeded banks and overbank until vegetation is established. Additional dredging of contaminated

sediments will occur upstream (south) from Tecumseh Road to the point at which the second agricultural drainage ditch enters Jordan Creek from the west. Stream diversion will also take place in this section of the waterway. Total distance of project area is approximately 4,610 feet. Approximately 320 cubic yards of contaminated sediments will be removed from all locations.

- 3. On January 11, 2010 TRC submitted to the Department an addendum to the initial proposal to include the dredging of additional contaminated sediments upstream (south) of Tecumseh Road on Jordan Creek.
- 4. The Department has completed an investigation of the project site and has evaluated the project as described in the application and plans.
- 5. The proposed project, if constructed in accordance with this permit will not adversely affect water quality, will not increase water pollution in surface waters and will not cause environmental pollution as defined in s. 283.01(6m), Wis. Stats.
- 6. The proposed project will not adversely impact wetlands if constructed in accordance with this permit.
- The Department of Natural Resources and the applicant have completed all procedural requirements and the project as permitted will comply with all applicable requirements of Sections 1.11, 30.12(3m), 30.19(4), 30.195, and 30.20(2), Wisconsin Statutes and Chapters NR 102, 103, 115, 116, 117, 150, 299, 328, 341, and 345 of the Wisconsin Administrative Code.

#### CONCLUSIONS OF LAW

1. The Department has authority under the above indicated Statutes and Administrative Codes, to issue a permit for the construction and maintenance of this project.

#### NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that the Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions shall be filed. For judicial review of a decision pursuant to sections 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review shall name the Department of Natural Resources as the respondent.

To request a contested case hearing of any individual permit decision pursuant to section 30.209, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources, P.O. Box 7921, Madison, WI, 53707-7921. The petition shall be in writing, shall be dated and signed by the petitioner, and shall include as an attachment a copy of the decision for which administrative review is sought. If you are not the applicant, you must simultaneously provide a copy of the petition to the applicant. If you wish to request a stay of the project, you must provide information, as outlined below, to show that a stay is necessary to prevent significant adverse impacts or irreversible harm to the environment. The filing of a request for a contested case hearing is not a prerequisite for judicial review and does not extend the 30-day period for filing a petition for judicial review. If you are not the permit applicant, you must provide a copy of the petition to the permit applicant at the same time that you serve the petition on the Department.

A request for contested case hearing must meet the requirements of section 30.209, Wis. Stats., and section NR 310.18, Wis. Adm. Code, and must include the following information:

- 1. A description of the Department's action or inaction which is the basis for the request; and,
- 2. A description of the objection to the decision that is sufficiently specific to allow the department to determine which provisions of Chapter 30, Wis. Stats., may be violated; and
- 3. A description of the facts supporting the petition that is sufficiently specific to determine how you believe the project may result in a violation of Chapter 30, Wis. Stats.; and,
- 4. Your commitment to appear at the contested case hearing, if one is granted and present information supporting your objection.
- 5. If the petition contains a request for a stay of the project, the petition must also include information showing that a stay is necessary to prevent significant adverse impacts or irreversible harm to the environment.

Dated at Northeast Region Headquarters, Green Bay, Wisconsin on February 10, 2010.

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES For the Secretary

Joń Brand Water Management Specialist



## State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor Scott Hassett, Secretary Ronald W. Kazmlerczak, Regional Director Northeast Region Headquarters 2984 Shawano Ave. PO Box 10448 Green Bay, Wisconsin 54307-0448 Telephone 920-662-5100 FAX 920-662-5413 TTY 920-662-5112

August 10, 2006

3-NE-2002-8-0161LB, 0612LB, 0163LB, 0164LB

Martina Schlauch Jones Program Manager TRC Environmental Corporation 10 South Riverside Plaza, Suite 1770 Chicago, IL 60606

Dear Madam:

Re: Amendment/Extension to Permit for Shore Stabilization, Grading, Changing Stream Course and Dredging, Jordan Creek, Calumet County

We have reviewed your request to amend/extend permit #'s 3-NE-2002-8-0161LB, 0162LB, 0163LB, 0 0164LB, which are permits to for shore stabilization, grading, changing stream course and dredging - Jordan Creek, Town of New Holstein, Calumet County.

Your request is approved with certain conditions and limitations. Attached is a copy of the Permit Amendment/Extension containing new conditions, along with a copy of your original permit which is still in effect unless otherwise noted.

If you have any questions about this permit amendment, please call me at 920-662-5466.

Sincere

Yon Brand Water Management Specialist Lower Fox Basin

CC:

Nick Domer - U.S. Army Corps of Engineers Calumet County Planning Department Mike Disher – Calumet County Conservation Warden Jim Baumann – Bureau of Watershed Management WMS File



#### STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

#### PERMIT AMENDMENT/EXTENSION 3-NE-2002-8-0161LB, 0162LB, 0163LB, 0164LB

#### PERMIT AMENDMENT/EXTENSION

TRC Environmental Corporation, former permitee being Tecumseh Products Company, is hereby granted under Sections 30.12(1), 30.19(1g)(c), 30.195 and 30.20, Wisconsin Statutes, an amendment/extension to permit numbers 3-NE-2002-8-0161LB, 0162LB, 0163LB, 0164LB, which authorized placement of shore stabilization material and grading in excess of 10,000 square feet on the bank of, changing the stream course of, and removal (dredging) of bed material from Jordan Creek, located in the SE¼-SW¼ S2, T17N, R20E, Town of New Holstein, Calumet County. This is an approved amendment/extension to allow additional dredging and extend the project timetable beyond the expiration date of September 15, 2006. The applicant is bound by the conditions of the original permit and by any conditions of this amendment/extension.

#### AMENDED/EXTENDED PERMIT CONDITIONS

- 1. All original permit conditions remain in effect, except where modified by the amended/extended permit conditions below.
- Removal of bed material from the location identified as Operable Unit 1 Segment 7 (OUI/Segment 7) at the existing sediment trap shall not to exceed 400 cubic yards for any calendar year. During the period of project activities further removal of bed material from this location may be needed. If required, additional material may be removed from the location until September 15, 2008.
- 3. Placing shore stabilization material and grading on the bank in excess of 10,000 square feet on the bank of, and changing the stream course of Jordan Creek is hereby extended until September 15, 2008.

#### FINDINGS OF FACT

- 1. TRC Environmental Corporation, former permitee being Tecumseh Products Company, filed a request with the Department on July 24, 2006 for an amendment/extension of permit for placing shore stabilization material and grading in excess of 10,000 square feet on the bank of, changing the stream course of, and removing material (dredge) from the bed of Jordan Creek, located in the SE¼-SW¼ S2, T17N, R20E, Town of New Holstein, Calumet County under Sections 30.12(1), 30.19(1g)(c), 30.195, 30.20, Wisconsin Statutes.
- 2. Tecumseh Products Company was granted Permit Numbers 3-NE-2002-8-0161LB, 0162LB, 0163LB, 0164LB for the purpose of placing shore stabilization material (riprap) and grading in excess of 10,000 square feet on the bank of, changing the stream course of, and removing material (dredging) from the bed of Jordan Creek. The activities have been conducted in conjunction the Hayton Area Remediation Project, New Holstein, Wisconsin.

- 3. TRC Environmental Corporation, former permitee being Tecumseh Products Company, filed a request to amend/extend the original permit on July 24, 2006 to place shore stabilization material and grade in excess of 10,000 square feet on the bank of, change the stream course of, and remove additional material (dredge) from the bed of Jordan Creek at the location identified as OU1/Segment 7 sediment trap.
- 4. The Department has determined that the proposed amendment/extension to the permit will not affect the Findings of Fact and Conclusions of Law of the original permit. A copy of the original permit is attached to this amendment.

#### CONCLUSIONS OF LAW

- 1. The Department has authority under Sections 30.12(1), 30.19(1g)(c), 30.195, 30.20, Wisconsin Statutes, and the foregoing Findings of Fact, to issue an order granting the permit amendment/extension requested.
- 2. The Department has complied with Section 1.11, Wisconsin Statutes and NR 150, Wisconsin Administrative Code.

#### NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that the Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions shall be filed.

To request a contested case hearing pursuant to section 227.42, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources, P.O. Box 7921, Madison, WI, 53707-7921.

A request for contested case hearing must follow the form prescribed in section NR 2.05(5), Wis. Adm. Code, and must include the following information:

- 1. A description of the Department's action or inaction which is the basis for the request;
- 2. The substantial interest of the petitioner which is injured in fact or threatened with injury by the Department's action or inaction;
- 3. Evidence of legislative intent that this interest is not to be protected;
- 4. An explanation of how the Injury to the petitioner is different in kind or degree from the injury to the general public caused by the Department's action or inaction;
- 5. That there is a dispute of material fact, and what the disputed facts are;
- 6. The statute or administrative rule other than s. 227.42, Wis. Stats., which accords a right to a hearing.

This notice is provided pursuant to section 227.48(2), Wis. Stats.

Dated at Northeast Region Headquarters, Wisconsin on August 10, 2006.

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

For the Segretary By

Jon Brand Water Management Specialist Lower Fox Basin



## State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Scott McCallum, Governor Darrell Bazzell, Secretary Ronald W. Kazmierczak, Regional Director Mishicot Field Office 2220 E. CHY V Mishicot, Wisconsin 54228 Telephone 920-755-4942 FAX 920-755-4981

August 24, 2002

3-NE-2002-8-0161LB, 0162LB, 0163LB, & 0164LB

Tecumseh Products Company Attn: Kerry DeKeyser 1604 Michigan Avenue New Holstein, WI 53061

Dear Sir:

We have reviewed your application for a permit to remove materials from the bed of Jordan Creek, to relocate a portion of the creek, to excavate and grade along the banks of the creek, and to do shoreline stabilization work on the banks of the creek, located in the Town of New Holstein, Calumet County. You will be pleased to know your application is approved with a few limitations.

I am attaching a copy of your permit, which lists the conditions, which must be followed. A copy of the permit must be posted for reference at the project site. Please read your permit conditions carefully so that you are fully aware of what is expected of you.

Please note you are required to submit photographs of the completed project within 7 days after you've finished construction. This helps both of us to document the completion of the project and compliance with the permit conditions.

Your next step will be to notify me of the date on which you plan to start construction and again after your project is complete.

If you have any questions about your permit, please call me at 920-755-4942.

Sincerely,

Michael Hanaway Water Management Specialist

cc: Dick Koch - NER
Warden – Jeremy Cords
Green Bay, U.S. Army Corps of Engineers
Calumet County Zoning Administrator
WEISS, BERZOWSKI, BRADY & DONAHUE, Attn: Scott Fleming, 700 N. Water Street,
Milwaukee, WI 53202-4273
George Engel, N811 Irish Road, New Holstein, WI 53061
Jim Baumann – WT/2
Earth Tech


## STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

### Dredging PERMIT 3-NE-2002-8-0161 -- 0164LB

Tecumseh Products Company is hereby granted under Section 30.20, Wisconsin Statutes, a permit to remove materials from the bed of Jordan Creek, to relocate a portion of the creek, to excavate and grade along the banks of the creek, and to do shoreline stabilization work on the banks of the creek Town of New Holstein, Calumet County, also described as the SE¼-SW¼ S2, T17N, R20E, subject to the following conditions:

### PERMIT

- 1. You must notify Michael Hanaway at phone 920-755-4942 before starting construction and again not more than 5 days after the project is complete.
- 2. You must complete the project as described on or before September 15, 2004. If you will not complete the project by this date, you must submit a written request for an extension prior to the expiration date of the permit. Your request must identify the requested extension date and the reason for the extension. The Department may grant a permit extension, for good cause. You may not begin or continue construction after the original permit expiration date unless the Department grants a new permit or permit extension in writing.
- 3. This permit does not authorize any work other than what you specifically describe in your application and final plans, and as modified by the conditions of this permit. If you wish to alter the project or permit conditions, you must first obtain written approval of the Department.
- 4. You are responsible for obtaining any permit or approval that may be required for your project by local zoning ordinances or by the U.S. Army Corps of Engineers before starting your project.
- 5. Upon reasonable notice, you shall allow access to your project site during reasonable hours to any Department employee who is investigating the project's construction, operation, maintenance or permit compliance.
- 6. The Department may modify or revoke this permit if the project is not completed according to the terms of the permit, or if the Department determines the activity is detrimental to the public interest.
- 7. You must post a copy of this permit at a conspicuous location on the project site, visible from the waterway, for at least five days prior to construction, and remaining at least five days after construction. You must also have a copy of the permit and approved plan available at the project site at all times until the project is complete.
- 8. Your acceptance of this permit and efforts to begin work on this project signify that you have read, understood and agreed to follow all conditions of this permit.
- 9. You must submit a series of photographs to the Department, within one week of completion of work on the site. The photographs must be taken from different vantage points and depict all work authorized by this permit.

- 10. You, your agent, and any involved contractors or consultants may be considered a party to the violation pursuant to Section 30.292, Wis. Stats., for any violations of Chapter 30, Wisconsin Statutes or this permit.
- 11. Construction shall be accomplished in such a manner as to minimize erosion and siltation into surface waters. Erosion control measures such as silt fence and straw bales must meet or exceed the standards in the Wisconsin Construction Site Best Management Practices Handbook.
- 12. Erosion control measures must be inspected, and any necessary repairs or maintenance performed. Inspections must be completed after every rainfall exceeding 1/2 inch and additionally as needed to minimize soil erosion into the waterway.
- 13. You are not allowed to do construction during periods of high water levels or between April 1 and July 1 of any calendar year.
- 14. You must not deposit or store any of the graded or excavated materials in any wetland or below the ordinary high water mark of any waterway. All graded materials must be placed out of the floodway of any stream. Contaminated materials must be disposed of at an approved solid waste disposal site.
- 15. You must restrict the removal of vegetative cover and exposure of bare ground to the minimum amount necessary for construction.
- 16. At the completion of the project, a buffer strip of permanent vegetation shall be established adjacent to the waterway according to the plans submitted.
- 17. Trucks used to haul contaminated material off-site must be sealed, and the tires clean to prevent the spread of contaminants to public roads. Public roads must be kept clean and free of contaminated spoils.

## FINDINGS OF FACT

- 1. Tecumseh Products Company has filed an application for a permit to remove materials from the bed of Jordan Creek, to relocate a portion of the creek, to excavate and grade along the banks of the creek, and to do shoreline stabilization work on the banks of the creek located in the Town of New Holstein, Calumet County, also described as in the SE¼ of the SW¼ of Section 2, Township 17 North, Range 20 East.
- 2. The project will consist of removal of contaminated sediments from the bed and bank area of the creek, to relocate a portion of the creek, to excavate and grade along the banks of the creek, and to do shoreline stabilization work on the banks of the creek. The removed materials will be hauled to approved solid waste disposal facilities. Disturbed areas will be restored and vegetated as part of the project.
- 3. The Department has completed an investigation of the project site and has evaluated the project as described in the application and plans.

- 4. The proposed project, if constructed in accordance with this permit will not adversely affect water quality, will not increase water pollution in surface waters and will not cause environmental pollution as defined in s. 283.01(6m), Wis. Stats.
- 5. The proposed project will impact wetlands if constructed in accordance with this permit.
- The Department of Natural Resources and the applicant have completed all procedural requirements and the project as permitted will comply with all applicable requirements of Sections 1.11, 30.12, 30.19, 30.195, & 30.20, Wisconsin Statutes and Chapters NR 102, 103, 115, 116, 117, 150, 299 of the Wisconsin Administrative Code.

### CONCLUSIONS OF LAW

1. The Department has authority under the above indicated Statutes and Administrative Codes, to issue a permit for the construction and maintenance of this project.

### NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that the Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions shall be filed.

To request a contested case hearing pursuant to section 227.42, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources, P.O. Box 7921, Madison, WI, 53707-7921.

A request for contested case hearing must follow the form prescribed in section NR 2.05(5), Wis. Adm. Code, and must include the following information:

- 1. A description of the Department's action or inaction which is the basis for the request;
- 2. The substantial interest of the petitioner which is injured in fact or threatened with injury by the Department's action or inaction;
- 3. Evidence of legislative intent that this interest is not to be protected;
- 4. An explanation of how the injury to the petitioner is different in kind or degree from the injury to the general public caused by the Department's action or inaction;
- 5. That there is a dispute of material fact, and what the disputed facts are;
- 6. The statute or administrative rule other than s. 227.42, Wis. Stats., which accords a right to a hearing.

This notice is provided pursuant to section 227.48(2), Wis. Stats.

Dated at Mishicot Service Center, Wisconsin on August 24, 2002.

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES For the Secretary

By

Michael Hanaway Water Management Specialist **APPENDIX B** 

LABORATORY REPORTS



2525 Advance Road Madison, WI 53718 608.221.8700 Phone 608.221.4889 Fax

04 August 2010

Christopher Harvey TRC Environmental Corporation, Inc. 230 W Monroe St, Suite 2300 Chicago, IL 60606 RE: HARP - OU-1 PRV

Enclosed are the results of analyses for samples received by the laboratory on 07/29/2010 09:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Japping Esona



Project Manager: Christopher Harvey

08/04/2010

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date & Time Sampled	Date Received
Water 7-28-10	A103106-01	Water	07/28/2010 15:15	07/29/2010

Code	Description	Number	Expires
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2010

ECCS

Chicago IL, 60606

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The results in this report apply to the samples analyzed in accordance with the chain of custody document. These results are in compliance with the NELAC Standards. This analytical report must be reproduced in its entirety.

2525 Advance Road Madison, WI 53718 608.221.8700 Phone 608.221.4889 Fax

TRC Environmental Corporation, Inc.	Project: HARP - OU-1 PRV	
230 W Monroe St, Suite 2300	Project Number: MRD-TRC-SEG7	Reported:
Chicago IL, 60606	Project Manager: Christopher Harvey	08/04/2010

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Matrix (	Codes	Custody Se	eál: Wreser	nt/Abse	ent	Intact	/Not In	tact	Seal #	#s		Receipt Temp:	<u></u>	<u></u>
A=Air S=Soil W=	=Water O=Other	Shipped Vi	ia: WU	IK I	n							Temp Blank Y N UNT CE		

CodeDescriptionNumberExpiresWDNRWisconsin Certification under NR 14911328911008/31/2010

The results in this report apply to the samples analyzed in accordance with the chain of custody document. These results are in compliance with the NELAC Standards. This analytical report must be reproduced in its entirety.

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2525 Advance Road Madison, WI 53718 608.221.8700 Phone 608.221.4889 Fax

TRC Environmental Corporation, Inc.	Project: HARP - OU-1 PRV	
230 W Monroe St, Suite 2300	Project Number: MRD-TRC-SEG7	Reported:
Chicago IL, 60606	Project Manager: Christopher Harvey	08/04/2010

		W	ater 7-28	8-10					
		A103	3106-01 (	Water)					
Analyte	Result	LOD	LOQ	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
			ECCS						
Polychlorinated Biphenyls by EPA Method	1 8082								
PCB-1016	ND	0.052	0.13	ug/L	1	08/02/2010	08/03/2010	PCBs BY EPA 8082	
PCB-1221	ND	0.052	0.25	ug/L	1	08/02/2010	08/03/2010	PCBs BY EPA 8082	
PCB-1232	ND	0.052	0.13	ug/L	1	08/02/2010	08/03/2010	PCBs BY EPA 8082	
PCB-1242	ND	0.052	0.13	ug/L	1	08/02/2010	08/03/2010	PCBs BY EPA 8082	
PCB-1248	ND	0.052	0.13	ug/L	1	08/02/2010	08/03/2010	PCBs BY EPA 8082	
PCB-1254	ND	0.052	0.13	ug/L	1	08/02/2010	08/03/2010	PCBs BY EPA 8082	
PCB-1260	ND	0.068	0.13	ug/L	1	08/02/2010	08/03/2010	PCBs BY EPA 8082	
Total PCBs	ND	0.068	0.25	ug/L	1	08/02/2010	08/03/2010	PCBs BY EPA 8082	
Surrogate: Decachlorobiphenyl		100 %	51.3	-150		08/02/2010	08/03/2010	PCBs BY EPA 8082	
Surrogate: Tetrachloro-meta-xylene		77.6 %	35.1	-141		08/02/2010	08/03/2010	PCBs BY EPA 8082	
Classical Chemistry Parameters									
Total Suspended Solids	ND	4.00	40.0	mg/L	1	08/04/2010	08/04/2010	EPA 160.2	

Code	Description	Number	Expires
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2010

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TRC Environmental Corporation, Inc.Project: HARP - OU-1 PRV230 W Monroe St, Suite 2300Project Number: MRD-TRC-SEG7Reported:Chicago IL, 60606Project Manager: Christopher Harvey08/04/2010

# Polychlorinated Biphenyls by EPA Method 8082 - Quality Control

ECCS

Analyte	Result	LOD	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
Batch A008009 - EPA 3511											
					D 14	00/02/2010		00/02/2010	\ \		
BIARK (A008009-BLKI)	ND	0.052	0.12	/1	Prepared: (	08/02/2010	Analyzed:	08/03/2010	)		
PCB-1016	ND	0.052	0.13	ug/L							
PCB-1221	ND	0.052	0.25	ug/L							
PCB-1232	ND	0.052	0.13	ug/L							
PCB-1242	ND	0.052	0.13	ug/L							
PCB-1248	ND	0.052	0.13	ug/L							
PCB-1254	ND	0.052	0.13	ug/L							
PCB-1260	ND	0.068	0.13	ug/L							
Surrogate: Decachlorobiphenyl	0.839			ug/L	0.7500		112	51.3-150			
Surrogate: Tetrachloro-meta-xylene	0.510			ug/L	0.7500		68.0	35.1-141			
LCS (A008009-BS1)					Prepared: (	08/02/2010	Analyzed:	08/03/2010	)		
PCB-1254	7.36	0.052	0.13	ug/L	7.500		98.1	70-130			
Surrogate: Decachlorobiphenvl	0.577			ug/L	0.7500		76.9	51.3-150			
Surrogate: Tetrachloro-meta-xylene	0.348			ug/L	0.7500		46.4	35.1-141			
LCS (A008009-BS2)					Prepared: (	08/02/2010	Analyzed:	08/03/2010	)		
PCB-1254	7.57	0.052	0.13	ug/L	7.500		101	70-130			
Sumorata: Dagablanchinhamil	0 061			ug/I	0 7500		115	51 2 150			
Surrogate: Tetrachloro meta vylana	0.801			ug/L ua/I	0.7500		64.0	35 1 141			
Surrogaie. Terrachioro-meta-xytene	0.487			ug/L	0.7500		04.9	55.1-141			

Code	Description	Number	Expires
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2010

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### **Classical Chemistry Parameters - Quality Control**

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Analyte	Result	LOD	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifiers
Batch A008022 - Default Prep GenChem											
Blank (A008022-BLK1)					Prepared &	& Analyzed	: 08/04/2010				
Total Suspended Solids	ND	4.00	40.0	mg/L							
Duplicate (A008022-DUP1)	S	ource: A1	03106-01		Prepared &	& Analyzed	: 08/04/2010				
Total Suspended Solids	ND	4.00	40.0	mg/L		ND				10	

Code	Description	Number	Expires
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2010

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Jessica Esser, Project Manager

2525 Advance Road



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2525 Advance Road Madison, WI 53718 608.221.8700 Phone 608.221.4889 Fax

hicago IL, 60606	Project Manager: Christopher Harvey	08/04/2010
30 W Monroe St, Suite 2300	Project Number: MRD-TRC-SEG7	Reported:
RC Environmental Corporation, Inc.	Project: HARP - OU-1 PRV	

### **Qualifiers and Definitions**

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the limit of detection.
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LOD	Limit of Detection
LOQ	Limit of Quantitation

Code	Description	Number	Expires
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2010

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2525 Advance Road Madison, WI 53718 608.221.8700 Phone 608.221.4889 Fax

01 August 2010

Christopher Harvey TRC Environmental Corporation, Inc. 230 W Monroe St, Suite 2300 Chicago, IL 60606 RE: HARP - OU-1 PRV

Enclosed are the results of analyses for samples received by the laboratory on 07/30/2010 07:38. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jobard Good



Project: HARP - OU-1 PRV Project Number: MRD-TRC-SEG7 Project Manager: Christopher Harvey

Reported:

08/01/2010

# ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
T2 PRV2	A103107-01	Soil	07/29/2010	07/30/2010
T2 PRV3	A103107-02	Soil	07/29/2010	07/30/2010
T3 PRV2	A103107-03	Soil	07/29/2010	07/30/2010
T1 PRV1	A103107-04	Soil	07/29/2010	07/30/2010
T1 PRV2	A103107-05	Soil	07/29/2010	07/30/2010
T2 PRV1	A103107-06	Soil	07/29/2010	07/30/2010
T3 PRV3	A103107-07	Soil	07/29/2010	07/30/2010

Code	Description	Number	Expires
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2010

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orporation, Inc.	Project: HARP - OU-1 PRV	
te 2300	Project Number: MRD-TRC-SEG7	Reported:
	Project Manager: Christopher Harvey	08/01/2010

		T2 P	RV2				Date Sampled	
		A103107-	01 (Soil)				07/29/2010 08:2	0
Analyte	Result	Reporting Limit	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
			ECCS					
Polychlorinated Biphenyls by EPA Met	hod 8082							
PCB-1016	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1221	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1232	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1242	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1248	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1254	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1260	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
Total PCBs	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
Surrogate: Decachlorobiphenyl		96.5 %	69.4-16	5	07/30/2010	07/30/2010	PCBs BY EPA 8082	
Surrogate: Tetrachloro-meta-xylene		90.2 %	81.5-14	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
Classical Chemistry Parameters								
% Solids	87.8	0.00	% by Weight	1	07/30/2010	08/01/2010	% Calculation	

Code	Description	Number	Expires
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2010

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Project: HARP - OU-1 PRV Project Number: MRD-TRC-SEG7 Project Manager: Christopher Harvey

**Reported:** 08/01/2010

		T2 P1 A103107-	RV3 •02 (Soil)				Date Sampled 07/29/2010 08:3	0
Analyte	Result	Reporting Limit	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
			ECCS					
Polychlorinated Biphenyls by EPA Me	thod 8082							
PCB-1016	ND	0.12	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1221	ND	0.12	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1232	ND	0.12	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1242	ND	0.12	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1248	ND	0.12	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1254	ND	0.12	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1260	ND	0.12	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
Total PCBs	ND	0.12	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
Surrogate: Decachlorobiphenyl		95.4 %	69.4-1	65	07/30/2010	07/30/2010	PCBs BY EPA 8082	
Surrogate: Tetrachloro-meta-xylene		88.9 %	81.5-1	41	07/30/2010	07/30/2010	PCBs BY EPA 8082	
Classical Chemistry Parameters								
% Solids	84.0	0.00	% by Weight	1	07/30/2010	08/01/2010	% Calculation	

Code	Description	Number	Expires
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2010

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Project: HARP - OU-1 PRV Project Number: MRD-TRC-SEG7 Project Manager: Christopher Harvey

**Reported:** 08/01/2010

		T3 P A103107-	RV2 03 (Soil)				Date Sampled 07/29/2010 11:4	I 40
Analyte	Result	Reporting Limit	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
			ECCS					
Polychlorinated Biphenyls by EPA Met	hod 8082							
PCB-1016	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1221	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1232	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1242	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1248	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1254	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1260	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
Total PCBs	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
Surrogate: Decachlorobiphenyl		100 %	69.4-1	65	07/30/2010	07/30/2010	PCBs BY EPA 8082	
Surrogate: Tetrachloro-meta-xylene		90.5 %	81.5-1	41	07/30/2010	07/30/2010	PCBs BY EPA 8082	
Classical Chemistry Parameters								
% Solids	91.2	0.00	% by Weight	1	07/30/2010	08/01/2010	% Calculation	

Code	Description	Number	Expires
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2010

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Project: HARP - OU-1 PRV Project Number: MRD-TRC-SEG7 Project Manager: Christopher Harvey

**Reported:** 08/01/2010

		T1 P1 A103107-	RV1 04 (Soil)				oled 13:40	
Analyte	Result	Reporting Limit	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
			ECCS					
Polychlorinated Biphenyls by EPA Me	thod 8082							
PCB-1016	ND	0.12	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1221	ND	0.12	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1232	ND	0.12	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1242	ND	0.12	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1248	ND	0.12	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1254	ND	0.12	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1260	ND	0.12	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
Total PCBs	ND	0.12	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
Surrogate: Decachlorobiphenyl		99.6 %	69.4-10	55	07/30/2010	07/30/2010	PCBs BY EPA 8082	
Surrogate: Tetrachloro-meta-xylene		89.8 %	81.5-14	41	07/30/2010	07/30/2010	PCBs BY EPA 8082	
Classical Chemistry Parameters								
% Solids	82.3	0.00	% by Weight	1	07/30/2010	08/01/2010	% Calculation	

Code	Description	Number	Expires
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2010

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Project: HARP - OU-1 PRV Project Number: MRD-TRC-SEG7 Project Manager: Christopher Harvey

**Reported:** 08/01/2010

		T1 P1 A103107-	RV2 05 (Soil)				Date Sampled 07/29/2010 13:4	pled 13:45	
Analyte	Result	Reporting Limit	Units	Dilution	Prepared	Analyzed	Method	Qualifiers	
			ECCS						
Polychlorinated Biphenyls by EPA Me	thod 8082								
PCB-1016	ND	0.12	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082		
PCB-1221	ND	0.12	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082		
PCB-1232	ND	0.12	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082		
PCB-1242	ND	0.12	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082		
PCB-1248	ND	0.12	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082		
PCB-1254	ND	0.12	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082		
PCB-1260	ND	0.12	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082		
Total PCBs	ND	0.12	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082		
Surrogate: Decachlorobiphenyl		101 %	69.4-10	55	07/30/2010	07/30/2010	PCBs BY EPA 8082		
Surrogate: Tetrachloro-meta-xylene		90.3 %	81.5-14	41	07/30/2010	07/30/2010	PCBs BY EPA 8082		
Classical Chemistry Parameters									
% Solids	85.4	0.00	% by Weight	1	07/30/2010	08/01/2010	% Calculation		

Code	Description	Number	Expires
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2010

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Project: HARP - OU-1 PRV Project Number: MRD-TRC-SEG7 Project Manager: Christopher Harvey

**Reported:** 08/01/2010

		T2 P A103107-	RV1 06 (Soil)				oled 13:55	
Analyte	Result	Reporting Limit	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
			ECCS					
Polychlorinated Biphenyls by EPA Met	hod 8082							
PCB-1016	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1221	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1232	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1242	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1248	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1254	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1260	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
Total PCBs	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
Surrogate: Decachlorobiphenyl		102 %	69.4-1	65	07/30/2010	07/30/2010	PCBs BY EPA 8082	
Surrogate: Tetrachloro-meta-xylene		92.0 %	81.5-1	41	07/30/2010	07/30/2010	PCBs BY EPA 8082	
Classical Chemistry Parameters								
% Solids	90.8	0.00	% by Weight	1	07/30/2010	08/01/2010	% Calculation	

Code	Description	Number	Expires
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2010

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Project: HARP - OU-1 PRV Project Number: MRD-TRC-SEG7 Project Manager: Christopher Harvey

**Reported:** 08/01/2010

		T3 P A103107-	RV3 •07 (Soil)				ed 4:05	
Analyte	Result	Reporting Limit	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
			ECCS					
Polychlorinated Biphenyls by EPA Me	thod 8082							
PCB-1016	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1221	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1232	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1242	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1248	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1254	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
PCB-1260	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
Total PCBs	ND	0.11	mg/kg dry	1	07/30/2010	07/30/2010	PCBs BY EPA 8082	
Surrogate: Decachlorobiphenyl		103 %	69.4-1	65	07/30/2010	07/30/2010	PCBs BY EPA 8082	
Surrogate: Tetrachloro-meta-xylene		92.8 %	81.5-1	41	07/30/2010	07/30/2010	PCBs BY EPA 8082	
Classical Chemistry Parameters								
% Solids	89.1	0.00	% by Weight	1	07/30/2010	08/01/2010	% Calculation	

Code	Description	Number	Expires
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2010

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Project: HARP - OU-1 PRV Project Number: MRD-TRC-SEG7 Project Manager: Christopher Harvey 2525 Advance Road Madison, WI 53718 608.221.8700 Phone 608.221.4889 Fax

**Reported:** 08/01/2010

### Polychlorinated Biphenyls by EPA Method 8082 - Quality Control

ECCS

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch A007097 - EPA 3570										
Blank (A007097-BLK1)				Prepared &	Analyzed	: 07/30/201	0			
PCB-1016	ND	0.10	mg/kg wet							
PCB-1221	ND	0.10	mg/kg wet							
PCB-1232	ND	0.10	mg/kg wet							
PCB-1242	ND	0.10	mg/kg wet							
PCB-1248	ND	0.10	mg/kg wet							
PCB-1254	ND	0.10	mg/kg wet							
PCB-1260	ND	0.10	mg/kg wet							
Total PCBs	ND	0.10	mg/kg wet							
Surrogate: Decachlorobiphenyl	0.115		mg/kg wet	0.1200		96.2	69.4-165			
Surrogate: Tetrachloro-meta-xylene	0.109		mg/kg wet	0.1200		90.8	81.5-141			
LCS (A007097-BS1)				Prepared &	Analyzed	: 07/30/201	0			
PCB-1254	2.01	0.10	mg/kg wet	2.000		101	70-130		20	
Surrogate: Decachlorobiphenyl	0.117		mg/kg wet	0.1200		97.3	69.4-165			
Surrogate: Tetrachloro-meta-xylene	0.110		mg/kg wet	0.1200		91.5	81.5-141			
Matrix Spike (A007097-MS1)	Sou	rce: A103107	-03	Prepared &	Analyzed	: 07/30/201	0			
PCB-1254	2.21	0.11	mg/kg dry	2.193	ND	101	60-140		20	
Surrogate: Decachlorobiphenyl	0.133		mg/kg dry	0.1316		101	69.4-165			
Surrogate: Tetrachloro-meta-xylene	0.116		mg/kg dry	0.1316		88.5	81.5-141			
Matrix Spike Dup (A007097-MSD1)	Sou	rce: A103107	/-03	Prepared &	Analyzed	: 07/30/201	0			
PCB-1254	2.08	0.11	mg/kg dry	2.193	ND	95.1	60-140	5.90	20	
Surrogate: Decachlorobiphenyl	0.124		mg/kg dry	0.1316		94.0	69.4-165			
Surrogate: Tetrachloro-meta-xylene	0.113		mg/kg dry	0.1316		85.9	81.5-141			

Code	Description	Number	Expires
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2010

ECCS

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Project: HARP - OU-1 PRV Project Number: MRD-TRC-SEG7 Project Manager: Christopher Harvey

**Reported:** 08/01/2010

## **Classical Chemistry Parameters - Quality Control**

ECCS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch A008001 - % Solids										
Duplicate (A008001-DUP1)	Sourc	e: A103107-	07	Prepared: (	07/30/2010	Analyzed: (	08/01/2010			
% Solids	89.3	0.00 %	6 by Weight		89.1			0.193	20	

Code	Description	Number	Expires
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2010

ECCS

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Project: HARP - OU-1 PRV Project Number: MRD-TRC-SEG7 Project Manager: Christopher Harvey 2525 Advance Road Madison, WI 53718 608.221.8700 Phone 608.221.4889 Fax

Reported:

08/01/2010

### **Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis. If the word 'dry' does not appear after the units, results are reported on an as-is basis.

RPD Relative Percent Difference

Code	Description	Number	Expires
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2010

ECCS

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The results in this report apply to the samples analyzed in accordance with the chain of custody document. These results are in compliance with the NELAC Standards. This analytical report must be reproduced in its entirety.



2525 Advance Road Madison, WI 53718 608.221.8700 Phone 608.221.4889 Fax

10 August 2010

Christopher Harvey TRC Environmental Corporation, Inc. 230 W Monroe St, Suite 2300 Chicago, IL 60606 RE: HARP - OU-1 PRV

Enclosed are the results of analyses for samples received by the laboratory on 08/05/2010 12:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jobard Good



**Reported:** 08/10/2010

# ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OU1 Sed Trap Road 1	A103210-01	Soil	08/03/2010	08/05/2010
OU1 Sed Trap Road 2	A103210-02	Soil	08/03/2010	08/05/2010
DUP 48	A103210-03	Soil	08/03/2010	08/05/2010

Samples were received at the laboratory at 26.1 degrees celsius.

Code	Description	Number	Expires
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2010

ECCS

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Project: HARP - OU-1 PRV Project Number: MRD-TRC-SEG7 Project Manager: Christopher Harvey

**Reported:** 08/10/2010

	0	U1 Sed Ti A103210-	rap Road 1 01 (Soil)				Date Sampled 08/03/2010 13:4	1 40
Analyte	Result	Reporting Limit	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
			ECCS					
Polychlorinated Biphenyls by EPA Me	thod 8082							
PCB-1016	ND	0.11	mg/kg dry	1	08/09/2010	08/09/2010	PCBs BY EPA 8082	
PCB-1221	ND	0.11	mg/kg dry	1	08/09/2010	08/09/2010	PCBs BY EPA 8082	
PCB-1232	ND	0.11	mg/kg dry	1	08/09/2010	08/09/2010	PCBs BY EPA 8082	
PCB-1242	ND	0.11	mg/kg dry	1	08/09/2010	08/09/2010	PCBs BY EPA 8082	
PCB-1248	ND	0.11	mg/kg dry	1	08/09/2010	08/09/2010	PCBs BY EPA 8082	
PCB-1254	ND	0.11	mg/kg dry	1	08/09/2010	08/09/2010	PCBs BY EPA 8082	
PCB-1260	ND	0.11	mg/kg dry	1	08/09/2010	08/09/2010	PCBs BY EPA 8082	
Total PCBs	ND	0.11	mg/kg dry	1	08/09/2010	08/09/2010	PCBs BY EPA 8082	
Surrogate: Decachlorobiphenyl		93.3 %	69.4-1	165	08/09/2010	08/09/2010	PCBs BY EPA 8082	
Surrogate: Tetrachloro-meta-xylene		101 %	81.5-1	141	08/09/2010	08/09/2010	PCBs BY EPA 8082	
Classical Chemistry Parameters								
% Solids	93.4	0.00	% by Weight	1	08/08/2010	08/09/2010	% Calculation	

Code	Description	Number	Expires
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2010

ECCS

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TRC Environmental Corporation, Inc. 230 W Monroe St, Suite 2300 Chicago IL, 60606

Project: HARP - OU-1 PRV Project Number: MRD-TRC-SEG7 Project Manager: Christopher Harvey

	OU1 Sed Trap Road 2   Date Sample     A103210-02 (Soil)   08/03/2010 13		Date Samplec 08/03/2010 13::	ed :50				
Analyte	Result	Reporting Limit	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
			ECCS					
Polychlorinated Biphenyls by EPA Me	thod 8082							
PCB-1016	ND	0.11	mg/kg dry	1	08/09/2010	08/09/2010	PCBs BY EPA 8082	
PCB-1221	ND	0.11	mg/kg dry	1	08/09/2010	08/09/2010	PCBs BY EPA 8082	
PCB-1232	ND	0.11	mg/kg dry	1	08/09/2010	08/09/2010	PCBs BY EPA 8082	
PCB-1242	ND	0.11	mg/kg dry	1	08/09/2010	08/09/2010	PCBs BY EPA 8082	
PCB-1248	ND	0.11	mg/kg dry	1	08/09/2010	08/09/2010	PCBs BY EPA 8082	
PCB-1254	ND	0.11	mg/kg dry	1	08/09/2010	08/09/2010	PCBs BY EPA 8082	
PCB-1260	ND	0.11	mg/kg dry	1	08/09/2010	08/09/2010	PCBs BY EPA 8082	
Total PCBs	ND	0.11	mg/kg dry	1	08/09/2010	08/09/2010	PCBs BY EPA 8082	
Surrogate: Decachlorobiphenyl		97.5 %	69.4-1	65	08/09/2010	08/09/2010	PCBs BY EPA 8082	
Surrogate: Tetrachloro-meta-xylene		98.9 %	81.5-1	41	08/09/2010	08/09/2010	PCBs BY EPA 8082	
Classical Chemistry Parameters								
% Solids	94.4	0.00	% by Weight	1	08/08/2010	08/09/2010	% Calculation	

Code	Description	Number	Expires
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2010

ECCS

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Project: HARP - OU-1 PRV Project Number: MRD-TRC-SEG7 Project Manager: Christopher Harvey

**Reported:** 08/10/2010

		DUI A103210-	9 48 03 (Soil)				Date Sampled 08/03/2010 00:0	0
Analyte	Result	Reporting Limit	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
			ECCS					
Polychlorinated Biphenyls by EPA Met	hod 8082							
PCB-1016	ND	0.11	mg/kg dry	1	08/09/2010	08/09/2010	PCBs BY EPA 8082	
PCB-1221	ND	0.11	mg/kg dry	1	08/09/2010	08/09/2010	PCBs BY EPA 8082	
PCB-1232	ND	0.11	mg/kg dry	1	08/09/2010	08/09/2010	PCBs BY EPA 8082	
PCB-1242	ND	0.11	mg/kg dry	1	08/09/2010	08/09/2010	PCBs BY EPA 8082	
PCB-1248	ND	0.11	mg/kg dry	1	08/09/2010	08/09/2010	PCBs BY EPA 8082	
PCB-1254	ND	0.11	mg/kg dry	1	08/09/2010	08/09/2010	PCBs BY EPA 8082	
PCB-1260	ND	0.11	mg/kg dry	1	08/09/2010	08/09/2010	PCBs BY EPA 8082	
Total PCBs	ND	0.11	mg/kg dry	1	08/09/2010	08/09/2010	PCBs BY EPA 8082	
Surrogate: Decachlorobiphenyl		91.6 %	69.4-1	65	08/09/2010	08/09/2010	PCBs BY EPA 8082	
Surrogate: Tetrachloro-meta-xylene		96.3 %	81.5-1	41	08/09/2010	08/09/2010	PCBs BY EPA 8082	
Classical Chemistry Parameters								
% Solids	94.5	0.00	% by Weight	1	08/08/2010	08/09/2010	% Calculation	

Code	Description	Number	Expires
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2010

ECCS

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Project: HARP - OU-1 PRV Project Number: MRD-TRC-SEG7 Project Manager: Christopher Harvey 2525 Advance Road Madison, WI 53718 608.221.8700 Phone 608.221.4889 Fax

**Reported:** 08/10/2010

# Polychlorinated Biphenyls by EPA Method 8082 - Quality Control ECCS

%REC RPD Reporting Spike Source Limit Units Level %REC RPD Limit Analyte Result Result Limits Notes Batch A008033 - EPA 3570 Prepared & Analyzed: 08/09/2010 Blank (A008033-BLK1) PCB-1016 ND 0.10 mg/kg wet PCB-1221 ND 0.10 mg/kg wet PCB-1232 ND 0.10 mg/kg wet PCB-1242 ND 0.10 mg/kg wet PCB-1248 ND 0.10 mg/kg wet PCB-1254 ND mg/kg wet 0.10 PCB-1260 ND 0.10 mg/kg wet Total PCBs ND 0.10 mg/kg wet Surrogate: Decachlorobiphenyl 0.127 mg/kg wet 0.1200 106 69.4-165 Surrogate: Tetrachloro-meta-xylene 0.137 mg/kg wet 0.1200 114 81.5-141 LCS (A008033-BS1) Prepared & Analyzed: 08/09/2010 PCB-1254 1.97 0.10 mg/kg wet 2.000 98.7 70-130 20 0.118 Surrogate: Decachlorobiphenyl mg/kg wet 0.1200 98.0 69.4-165 Surrogate: Tetrachloro-meta-xylene 0.124 mg/kg wet 0.1200 103 81.5-141 Prepared & Analyzed: 08/09/2010 Matrix Spike (A008033-MS1) Source: A103210-01 PCB-1254 2.27 0.11 mg/kg dry 2.141 ND 106 60-140 20 104 Surrogate: Decachlorobiphenyl 0.133 mg/kg dry 0.1285 69.4-165 Surrogate: Tetrachloro-meta-xylene 0 1 2 8 mg/kg dry 0.1285 100 81.5-141 Prepared & Analyzed: 08/09/2010 Matrix Spike Dup (A008033-MSD1) Source: A103210-01 PCB-1254 2.09 0.11 mg/kg dry 2.141 ND 97.8 60-140 8.06 20 69.4-165 Surrogate: Decachlorobiphenyl 0.121 mg/kg dry 0.1285 94.0 Surrogate: Tetrachloro-meta-xylene 0.126 mg/kg dry 0.1285 98.3 81.5-141

Code	Description	Number	Expires
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2010

ECCS

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Project: HARP - OU-1 PRV Project Number: MRD-TRC-SEG7 Project Manager: Christopher Harvey

**Reported:** 08/10/2010

# **Classical Chemistry Parameters - Quality Control**

ECCS

Analyte	Result	Reporting Limit U	nits	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch A008035 - % Solids										
Duplicate (A008035-DUP1)	Sourc	ce: A103210-03	P	repared: 08	/08/2010 /	Analyzed: 0	8/09/2010			
% Solids	94.4	0.00 % by	Weight		94.5			0.0523	20	
Duplicate (A008035-DUP2)	Sourc	ce: A103215-18	P	repared: 08	/08/2010 /	Analyzed: 0	8/09/2010			
% Solids	68.3	0.00 % by	Weight		67.7			0.742	20	

Code	Description	Number	Expires
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2010

ECCS

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Project: HARP - OU-1 PRV Project Number: MRD-TRC-SEG7 Project Manager: Christopher Harvey 2525 Advance Road Madison, WI 53718 608.221.8700 Phone 608.221.4889 Fax

Reported:

08/10/2010

### **Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis. If the word 'dry' does not appear after the units, results are reported on an as-is basis.

RPD Relative Percent Difference

Code	Description	Number	Expires
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2010

ECCS

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APPENDIX C

VEOLIA WASTE PROFILE AND MANIFESTS



Solid Waste North America

February 8, 2010

Mr. Chris Harvey TRC Environmental Corporation 230 W. Monroe Street Chicago, IL 60606

Re: Recertification Letter

Dear Mr. Harvey:

We are pleased to advise that the special waste listed below was originally approved on 8/27/02, recertified on 08/1/06 and 2/8/2010 for direct disposal at the Veolia ES Hickory Meadows Landfill. The attached profile is your documentation that verifies this waste stream is not a hazardous or unauthorized waste and also verifies approval to accept this waste stream by the Veolia ES Hickory Meadows Landfill as indicated by the signature of our approvals department and our general manager. The waste approval is valid as follows:

<b>TRC Environmental Corporation</b>
OU1 – Segment 7 in Jordan Creek
New Holstein, WI
Dredge Materials
42B
HML02-114
ОТО
Direct Disposal

#### Please note the special conditions for acceptance are as follows:

- 1. Material must meet direct disposal strength requirements and be deemed workable at the landfill.
- 2. Each load must have a manifest signed by an authorized representative or agent of TRC Environmental Corporation accompanying the waste for disposal.

We greatly appreciate the confidence and trust you have placed in selecting Veolia Hickory Meadows Landfill, LLC, to manage your bioremediation and disposal needs. As an additional note, we have fulfilled all Wisconsin DNR regulations and our landfill meets or exceeds the design, construction and operating standards promulgated under 40 CFR 258.

If you have questions or need assistance with additional waste disposal, please do not hesitate to contact us at (920) 853-8553.

Sincerely,

Kari Rabideau Environmental Project Coordinator

> Veolia ES Solid Waste, Inc. Hickory Meadows Landfill, LLC W3105 Schneider Road, Hilbert, WI 54129 tel: 920-853-8553 - fax: 920-853-3513 www.veoliaes.com

..... VEOLIA HICKORY MEADOWS LANDFILL 85 W3105 SCHNEIDER ROAD HILBERT, WI 54129 2 August 2010 6:40 am 920-853-8553 Ticket: 322405 2 August 2010 6:40 am 000358 - 0001 TRC ENVIRONMENTAL CORPORATION Gross Weight 87,000.00 lb Vehicle: 12EB Stored Tare Weight 31,780.00 lb EDLER BROTHERS Net Weight 55,220.00 lb 27.61 TN T TRC OU1 SEGMENT / DREDGE SEDIMENTS Contract: HML02-114 Reference: QuantityUnit Description Rate Tax Total 27.61 TN 42B Dredge Material/PCB's under 50mg/kg t Amount: Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854 85 VEOLIA HICKORY MEADOWS LANDFILL W3105 SCHNEIDER ROAD HILBERT, WI 54129 2 August 2010 6:34 am 920-853-8553 2 August 2010 6:34 am 322404 Ticket: 000358 - 0001 TRC ENVIRONMENTAL CORPORATION Gross Weight 81,460.00 lb Vehicle: 09EB Stored Tare Weight 27,980.00 1b EDLER BROS TRUCKING Net Weight 53,480.00 1b 26.74 TN TRC OU1 SEGMENT / DREDGE SEDIMENTS Contract: HML02-114 Reference: Tax Total Rate QuantityUnit Description 26.74 TN 42B Dredge Material/PCB's under 50mg/kg

14

Net Amount:

HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

Weighmaster: JOAN M QUANDT Driver

VEOLIA HICKORY MEADOWS LANDFILL B5 W3105 SCHNEIDER ROAD HILBERT, WI 54129 1 .... 2 August 2010 6:49 am 920-853-8553 2 August 2010 6:49 am Ticket: 322407 000358 - 0001 TRC ENVIRONMENTAL CORPORATION Vehicle: 15EB Gross Weight 84,160.00 lb EDLER BROS TRUCKING Stored Tare Weight 29,280.00 lb 1 Net Weight 54,880.00 lb 27.44 TN Contract: HML02-114 TRC OU1 SEGMENT / DREDGE SEDIMENTS Reference: QuantityUnit Description Rate Tax Total 27.44 TN 428 Dredge Material/PCB's under 50mg/kg Amount: \*et Weighmaster: JOAN M QUANDT Driver

HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

	VEOLIA HICKORY MEADOWS LANDFILL		B5
	WILDEDT UT FAARD		
4	HILBERT, WI 54129		
-	920-853-8553	2 August 2010	6:44 am
	Ticket: 322406	2 August 2010	6:44 am
-	000358 - 0001 TRC ENVIRONMENTAL CORPORATION	unter unternation of the analysis of the second of	
<i></i>	Vehicle: 10EB Gross Weigh	t 82,740.00 1	þ
	EDLER BROS TRUCKING Stored Tare Weig	ht 28,720.00 ht 54,020.00	15 15 27.01 TN
	Contract: HML02-114 TRC OU1 SEGME Reference:	NT / DREDGE SEI	DIMENTS
1 <sub>1</sub>	OuantityUnit Description Ra 27.01 TN 42B Dredge Material/PCB's under 50mg	te Tax /kg	Total

Net Amount:

Weighmaster: JOAN M QUANDT

Driver A GREAT DAY!!

LICENSE NUMBER: 81-11854

	VEOLIA HICKORY MEADOWS LANDFILL   B5     W3105 SCHNEIDER ROAD   HILBERT, WI 54129     920-853-8553   2 August 2010   7:45 am     Ticket:   322440   7:45 am
201	000358 - 0001 TRC ENVIRONMENTAL CORPORATION
	EDLER BROTHERS EDLER BROTHERS
	Contract: HML02-114 ( TRC OU1 SEGMENT / DREDGE SEDIMENTS Reference:
	QuantityUnit Description Rate Tax Total 24.65 TN 42B Dredge Material/PCB's under 50mg/kg
	Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854
	VEOLIA HICKORY MEADOWS LANDFILL B5 W3105 SCHNEIDER ROAD
	HILBERT, WI 54129   920-853-8553 2 August 2010 7:42 am   Ticket: 322439 2 August 2010 7:42 am   000358 - 0001 TRC ENVIRONMENTAL CORPORATION
	Vehicle: 09EB 00 Gross Weight 81,380.00 lb EDLER BROS TRUCKING Stored Tare Weight 53,400.00 lb Net Weight 53,400.00 lb 26.70 TN
	Contract: HML02-114 TRC OU1 SEGMENT / DREDGE SEDIMENTS Reference:
	QuantityUnit Description Rate Tax Total 26.70 TN 42B Dredge Material/PCB's under 50mg/kg

-

Net Amount: 2 Weighmaster: JOAN M QUANDT Driver Make A GREAT DAY!! LICENSE NUMBER: 81-11854
	VEOLIA HICKORY MEADOWS LANDFILL		В	5	
	W3105 SCHNEIDER ROAD				
	HILBERT, WI 54129				
2	920-853-8553	2 August	2010	7:55	ап
	Ticket: 322445	2 August	2010	7:55	am
	000358 - 0001 TRC ENVIRONMENTAL CORPORATION				
	Vehicle: 15EB 00 Gross Weight EDLER BROS TRUCKING Stored Tare Weigh Net Weigh	t 82,50 nt 29,2 nt 53,2	0.00 lb 80.00 lb 20.00 lb	26.61	. TN
	Contract: HML02-114 TRC OU1 SEGMEN	NT / DRE	DGE SEDI	MENTS	
	QuantityUnit Description Rat 26.61 TN 42B Dredge Material/PCB's under 50mg,	te /kg	Тах Т	otal	

Bret Amount:

Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

VEOLIA HICKORY MEADOWS LANDFILL 85 W3105 SCHNEIDER ROAD HILBERT, WI 54129 920-853-8553 2 August 2010 7:50 am 2 August 2010 7:50 am Ticket: 322442 000358 - 0001 TRC ENVIRONMENTAL CORPORATION 00 Gross Weight 76.620.00 lb Vehicle: 10EB EDLER BROS TRUCKING Stored Tare Weight 28,720.00 lb Net Weight 47,900.00 1b 23.95 TN Contract: HML02-114 TRC OU1 SEGMENT / DREDGE SEDIMENTS Reference: Tax Total QuantityUnit Description Rate 23.95 TN 428 Dredge Material/PCB's under 50mg/kg

Weighmaster: JOAN M QUANDT Driver MA K HAVE A GREAT DAYLY LICENSE NUMBER: 01-11854

VEOLIA HICKORY MEADOWS LANDFILL W3105 SCHNEIDER ROAD	85
920-853-8553 Ticket: 322457 202358 - 2201 TEC ENVIRONMENTAL CORPORATION	2 August 2010 8:51 am 2 August 2010 8:51 am
Vehicle: 12EB 00 Gross Weig EDLER BROTHERS Stored Tare Wei Net Wei	ht 74,560.00 ]b ght 31.780.00 lb ght,42,780.00 lb 21.39 TN
Contract: HML02-114 TRC OU1 SEGM Reference:	ENT / DREDGE SEDIMENTS
QuantityUnit Description R 21.39 TN 42B Dredge Material/PCB's under 50m	ate Tax Total g/kg
N Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854	et Amount:

125

ł

VEOLIA HICKORY MEADOWS LA W3105 SCHNEIDER ROAD	ANDFILL B5
HILBERT, WI 54129	2 August 2010 8:46 am
Ticket: 322454	2 August 2010 8:46 am
000358 - 0001 TRC ENVIRONMENTAL CORPORATION	N
Vehicle: 09EB 00 Gro EDLER BROS TRUCKING Stored	oss Weight 76,680.00 lb Tare Weight 27,980.00 lb Net Weight 48,700.00 lb 24.35 TN
Contract: HML02-114 TRC Reference:	OU1 SEGMENT / DREDGE SEDIMENTS
QuantityUnit Description 24.35 TN 42B Dredge Material/PCB's un	Rate Tax Total nder 50mg/kg
	Net Amount:

Weighmaster: JOAN M QUANDT Driver Mak Ru-HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

VEOLIA HICKORY MEADOWS LANDFILL 85 W3105 SCHNEIDER ROAD HILBERT, WI 54129 920-853-8553 2 August 2010 9:05 am 2 August 2010 9:05 am Ticket: 322465 000358 - 0001 TRC ENVIRONMENTAL CORPORATION 00 Gross Weight 76,300.00 lb Vehicle: 15EB EDLER BROS TRUCKING Stored Tare Weight 29,280.00 lb Net Weight -47,020.00 lb 23.51 TN Contract: HML02-114 TRC OU1 SEGMENT / DREDGE SEDIMENTS Reference: QuantityUnit Description Rate Tax Tota] 23.51 TN 42B Dredge Material/PCB's under 50mg/kg Net Amount: Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854 VEOLIA HICKORY MEADOWS LANDFILL 85 W3105 SCHNEIDER ROAD HILBERT, WI 54129 2 August 2010 8:58 am 920-853-8553 В 2 August 2010 8:58 am 322460 Ticket: 000358 - 0001 TRC ENVIRONMENTAL CORPORATION Vehicle: 10EB 00 Gross Weight 70,100.00 lb Stored Tare Weight 28,720.00 lb EDLER BROS TRUCKING Net Weight 41,380.00 lb 20.69 TN Contract: HML02-114 TRC OU1 SEGMENT / DREDGE SEDIMENTS Reference: QuantityUnit Description Rate Tax Total 42B Dredge Material/PCB's under 50mg/kg 20.69 TN Net Amount: Weighmaster: JOAN M QUANDT Driver

> HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

 VEOLIA HICKORY MEADOWS LANDFILL B5 W3105 SCHNEIDER ROAD HILBERT, WI 54129 920-853-8553 2 August 2010 9:56 am Ticket: 322486 2 August 2010 9:56 am 000358 - 0001 TRC ENVIRONMENTAL CORPORATION
Vehicle: 10EB 00 Gross Weight 75,820.00 lb EDLER BROS TRUCKING Stored Tare Weight 28,720.00 lb Net Weight 47,100.00 lb 23.55 TN
Contract: HML02-114 . TRC OU1 SEGMENT / DREDGE SEDIMENTS Reference:
QuantityUnit Description Rate Tax Total 23.55 TN 42B Dredge Material/PCB's under 50mg/kg
Weighmaster: JOAN M QUANDT Driver MA A HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854
VEOLIA HICKORY MEADOWS LANDFILL B5 W3105 SCHNEIDER ROAD HILBERT, WI 54129 920-853-8553 2 August 2010 9:46 am Ticket: 322482 2 August 2010 9:46 am
000358 - 0001 TRC ENVIRONMENTAL CORPORATION Vehicle: 09EB 00 Gross Weight 73,800.00 lb EDLER BROS TRUCKING Stored Tare Weight 27,980.00 lb Net Weight 45,820.00 lb 22.91 TN
Contract: HML02-114 TRC OU1 SEGMENT / DREDGE SEDIMENTS Reference:
QuantityUnit Description Rate Tax Total 22.91 TN 42B Dredge Material/PCB's under 50mg/kg
Net Amount:
Weighmaster: JOAN M QUANDT Driver Mail Man

JOAN M QUANDT Driver HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

8	VEOLIA HICKORY MEADOWS LANDFILL W3105 SCHNEIDER ROAD HILBERT. WI 54129 920-853-8553 2 August 2010 Ticket: 322487 2 August 2010 000358 - 0001 TRC ENVIRONMENTAL CORPORATION	9:58 am 9:58 am
	Vehicle: 15EB 00 Gross Weight 79.720.00 l EDLER BROS TRUCKING Stored Tare Weight 29.280.00 Net Weight 50,440.00	b 16 16 25.22 TN
	Contract: HML02-114 TRC OU1 SEGMENT / DREDGE SE Reference:	DIMENTS
	QuantityUnit Description Rate Tax 25.22 TN 42B Dredge Material/PCB's under 50mg/kg	Total.
8	Net Amount: Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854	
	VEOLIA HICKORY MEADOWS LANDFILL W3105 SCHNEIDER ROAD HILBERT, WI 54129 920-853-8553 2 August 2010 Ticket: 322484 2 August 2010 000358 - 0001 TRC ENVIRONMENTAL CORPORATION	85 9:51 am 9:51 am
	Vehicle: 12EB 00 Gross Weight 81,320.00 lb EDLER BROTHERS Stored Tare Weight 31,780.00 l Net Weight 49,540.00 l	b b 24.77 TN
	Contract: HML02-114 TRC OU1 SEGMENT / DREDGE SED Reference:	IMENTS
	QuantityUnit Description Rate Tax	Total

Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DATI! LICENSE NUMBER: 81-11854

VEOLIA HICKORY MEADOWS LANDFILL B5 W3105 SCHNEIDER ROAD HILBERT, WI 54129 2 August 2010 920-853-8553 10:57 am Ticket: 322506 2 August 2010 10:57 am 000358 - 0001 TRC ENVIRONMENTAL CORPORATION Vehicle: 10EB 00 Gross Weight 79,960.00 lb Stored Tare Weight ,28,720.00 lb EDLER BROS TRUCKING Net Weight 51,240.00 lb 25.62 TN Contract: HML02-114 TRC OU1 SEGMENT / DREDGE SEDIMENTS Reference: QuantityUnit Description Rate Tax Total 25.62 TN 42B Dredge Material/PCB's under 50mg/kg Net Amount: Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854 85 VEOLIA HICKORY MEADOWS LANDFILL W3105 SCHNEIDER ROAD HILBERT, WI 54129 2 August 2010 10:45 am 920-853-8553 2 August 2010 10:45 am Ticket: 322499 000358 - 0001 TRC ENVIRONMENTAL CORPORATION 00 Gross Weight 76,980.00 lb Vehicle: 09EB Stored Tare Weight 27,980.00 lb EDLER BROS TRUCKING Net Weight 49,000.00 1b 24.50 TN TRC OU1 SEGMENT / DREDGE SEDIMENTS Contract: HML02-114 Reference: Total Rate Tax QuantityUnit Description 42B Dredge Material/PCB's under 50mg/kg 24.50 TN Net Amount: Weighmaster: JOAN M QUANDT Driver

HAVE A GREAT ÓAYII LICENSE NUMBER: 81-11854

VEOLIA HICKORY MEADOWS LANDFILL 85 W3105 SCHNEIDER ROAD HILBERT, WI 54129 920-863-8553 2 August 2010 11:00 am 2 August 2010 11:00 am Ticket: 322508 000358 - 0001 TRC ENVIRONMENTAL CORPORATION Vehicle: 15EB 00 Gross Weight 79,120.00 lb Stored Tare Weight 29,280.00 lb EDLER BROS TRUCKING Net Weight 49,840.00 lb 24.92 TN TRC OU1 SEGMENT / DREDGE SEDIMENTS Contract: HML02-114 Reference: QuantityUnit Description Rate Tax Total 24.92 TN 428 Dredge Material/PCB's under 50mg/kg

Driver Driver

Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

VEOLIA HICKORY MEADOWS LANDFILL 85 W3105 SCHNEIDER ROAD HILBERT, WI 54129 920-853-8553 2 August 2010 10:54 am Ticket: 322503 2 August 2010 10:54 am 000358 - 0001 TRC ENVIRONMENTAL CORPORATION Vehicle: 12E8 00 Gross Weight 90,740.00 lb EDLER BROTHERS Stored Tare Weight 31,780.00 lb Net Weight 58,960.00 1b 29.48 TN Contract: HML02-114 TRC OU1 SEGMENT / DREDGE SEDIMENTS Reference: QuantityUnit Description Rate Tax Total 29.48 TN 42B Dredge Material/PCB's under 50mg/kg

Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

Ticket: 322532 000358 - 0001 TRC	VEOLIA HICKORY M W3105 SCHNE HILBERT, 920-853- ENVIRONMENTAL CO	EADOWS LANDFILL IDER ROAD WI 54129 8553 RPORATION	2 August 2010 2 August 2010	B5 11:51 am 11:51 am
Vehicle: 12EB EDLER B	ROTHERS	00 Gross Weig Stored Tare We Net We	ght 78,320.00 l lght 31,780.00 lght 46,540.00	b 16 16 23.27 TN
Contract: HML02-11 Reference:	4	TRC OU1 SEGN	1ENT / DREDGE SE	DIMENTS
QuantityUnit Des 23.27 TN 42	cription B Dredge Materia)	PCB's under 50r	Rate Tax ng∕kg	Total
Weighmaster: JO	AN M QUANDT Have License M	Driver A GREAT DAY!! WMBER: 81-11854	Net Amount:	
			9	
	VEOLIA HICKORY M W3105 SCHNE HILBERT, U	ADOWS LANDFILL IDER ROAD NI 54129		85
Million manages	920-853-	3553 RPORATION	2 August 2010 2 August 2010	11:46 am 11:46 am
000358 - 0001 TRC				
Vehicle: 09EB EDLER BR	OS TRUCKING	00 Gross Weig Stored Tare Wei Net Wei	ht 76,780.00 lb ght 27,980.00 l ght 48,800.00 l	.b .b 24.40 TN
Contract: HML02-114 Reference: 322531 000358 - 0001 TRC 09EB EDLER BR	OS TRUCKING	00 Gross Weig Stored Tare Wei Net Wei TRC OU1 SEGM	ht 76,780.00 lb ght 27,980.00 l ght 48,800.00 l ENT / DREDGE SEC	b b 24.40 TN DIMENTS
Contract: HML02-114 Reference: QuantityUnit Desc 24.40 TN 42B	OS TRUCKING ription Dredge Material	00 Gross Weig Stored Tare Wei Net Wei TRC OU1 SEGM TRC OU1 SEGM	ht 76,780.00 lE ght 27,980.00 l ght 48,800.00 l ENT / DREDGE SEC ate Tax g/kg	b b 24.40 TN DIMENTS Total

HAVE A GREAT DAY!! LICENSE NUMBER: B1-11854

VEOLIA HICKORY MEADOWS LANDFILL B5 W3105 SCHNEIDER ROAD HILBERT, WI 54129 920-853-8553 2 August 2010 12:00 pm 2 August 2010 12:00 pm Ticket: 322538 000358 - 0001 TRC ENVIRONMENTAL CORPORATION 00 Gross Weight 76,820.00 lb Vehicle: 15EB EDLER BROS TRUCKING Stored Tare Weight 29,280.00 lb Net Weight 47,540.00 lb 23.77 TN TRC OU1 SEGMENT / DREDGE SEDIMENTS Contract: HML02-114 Reference: QuantityUnit Description Rate Tax Total 42B Dredge Material/PCB's under 50mg/kg 23.77 TN Net Amount: Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854 VEOLIA HICKORY MEADOWS LANDFILL 85 W3105 SCHNEIDER ROAD HILBERT, WI 54129 920-853-8553 2 August 2010 11:56 am Ticket: 322536 2 August 2010 11:56 am 000358 - 0001 TRC ENVIRONMENTAL CORPORATION Vehicle: 10EB 00 Gross Weight 72,760.00 1b EDLER BROS TRUCKING Stored Tare Weight 28,720.00 lb Net Weight 44,040.00 1b 22.02 TN Contract: HML02-114 TRC OU1 SEGMENT / DREDGE SEDIMENTS Reference: QuantityUnit Description Rate Tax Total 22.02 TN 42B Dredge Material/PCB's under 50mg/kg Net Amount:

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HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

Driver

Weighmaster: JOAN M QUANDT

VEOLIA HICKORY MEADOWS LANDFILL B5 W3105 SCHNEIDER ROAD HILBERT, WI 54129 2 August 2010 12:51 pm 2 August 2010 12:51 pm 920-853-8553 Ticket: 322551 000358 - 0001 TRC ENVIRONMENTAL CORPORATION 00 Gross Weight 78,240.00 lb Vehicle: 12EB EDLER BROTHERS Stored Tare Weight 31,780.00 lb Net Weight 46,460.00 1b 23.23 TN TRC OU1 SEGMENT / DREDGE SEDIMENTS Contract: HML02-114 ŧ Reference: QuantityUnit Description Rate Tax Total 23.23 TN 42B Dredge Material/PCB's under 50mg/kg Net Amount: Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DAY !! LICENSE NUMBER: 81-11854 7-

	VEOLIA HICKORY M W3105 SCHNE	EADOWS LANDFI IDER ROAD	[LL	I	35	
	HILBERT,	WI 54129				
	920-853-	8553	2 Augue	it 2010	12:44	pm
Ticket: 323	2545		2 Augus	st 2010	12:44	pm
000358 - 0001	TRC ENVIRONMENTAL CO	RPORATION				
Vehicle: 09EB		00 Gross 6	Veight 72.6	60.00 lb	¥1	
EDLI	ER BROS TRUCKING	Stored Tare	Weight 27,	,980.00 1	b	25.5
		Net	Weight 44.	,680,00 1.	b 22.34	ΤN
Contract: HML0	2-114	TRC OU1 S	SEGMENT / DF	EDGE SED	IMENTS	
Reference:			uzeniz nome onemo. I			
QuantityUnit	Description	7	Rate	Тах	Total	
22,34 TN	428 Uredge Material	/PCB's under	50mg/kg			

Weighmaster: JOAN M QUANDT Driver Much Description HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

VEOLIA H W31 H	ICKORY MEADOWS LANDFI 05 SCHNEIDER ROAD ILBERT, WI 54129	LL	85	
Ticket: 322561 000356 - 0001 TRC ENVIRONM	920-853-8553 ENTAL CORPORATION	2 August 2010 2 August 2010	1:00 pm 1:00 pm	
Vehicle: 15EB EDLER BROS TRUCK	00 Gross W ING Stored Tare Net	eight 75,080.00 lb Weight 29,280.00 l Weight ,45,800.00 l	b b 22.90 TN	
Contract: HML02-114	TRC OU1 S	EGMENT / DREDGE SED	IMENTS	
QuantityUnit Description 22.90 TN 42B Dredge	Material/PCB's under	Rate Tax 50mg/kg	Total	
Weighmaster: JOAN M QUANI L:	DT Driver HAVE A GREAT DAY! ICENSE NUMBER: 81-11	Net Amount:	of anger	
				i i
VEOLIA HI W310 HI	CKORY MEADOWS LANDFIL 5 SCHNEIDER ROAD 1 BERT, WI 54129	L B	35	
S Ticket: 322556 000358 - 0001 TRC ENVIRONME	20-853-8553 NTAL CORPORATION	2 August 2010 2 August 2010	12:56 pm 12:56 pm	
Vehicle: 10EB EDLER BROS TRUCKI	00 Gross We NG Stored Tare W Net W	eight 76,280.00 lb Weight 28,720.00 lb Weight 47,560.00 lb	) 23.78 TN	
Contract: H州LØ2-114 Reference:	TRC OU1 SE	EGMENT / DREDGE SEDI	MENTS	
QuantityUnit Description 23.78 TN 42B Dredge M	aterial/PCB's under 8	Rate Tax 1 50mg/kg	otal	
		Net Amount:		
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Weighmaster: JOAN M QUANDT Driver A.A. HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

	VEOLIA HICKORY MEADOWS LANDFILL W3105 SCHNEIDER ROAD HILBERT, WI 54129 920-853-8553 Ticket: 322582 000358 - 0001 TRC ENVIRONMENTAL CORPORATION B5 B5 2 August 2010 1:50 pm 1:50 pm
	Vehicle: 12EB 00 Gross Weight 77,220.00 lb EDLER BROTHERS Stored Tare Weight 31.780.00 lb Net Weight *45,440.00 lb 22.72 TN
×	Contract: HML02-114 TRC OU1 SEGMENT / DREDGE SEDIMENTS Reference:
	QuantityUnit Description
	Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854
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	VEOLIA HICKORY MEADOWS LANDFILL B5 W3105 SCHNEIDER ROAD HILBERT, WI 54129
	920-853-8553 2 August 2010 1:48 pm Ticket: 322581 2 August 2010 1:48 pm 000358 - 0001 TRC ENVIRONMENTAL CORPORATION
	Vehicle: 09EB 00 Gross Weight 77,200.00 lb EDLER BROS TRUCKING Stored Tare Weight 27.980.00 lb Net Weight 49,220.00 lb 24.61 TN
	Contract: HML02-114 TRC OU1 SEGMENT / DREDGE SEDIMENTS Reference:
	QuantityUnit Description Rate Tax Total 24.61 TN 42B Dredge Material/PCB's under 50mg/kg
	Net Amount:
	Weighmaster: JOAN M QUANDT Driver Mak

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LICENSE NUMBER: 81-11854

85 VEOLIA HICKORY MEADOWS LANDFILL W3105 SCHNEIDER ROAD HILBERT, WI 54129 2 August 2010 1:58 pm 920-853-8553 2 August 2010 1:58 pm Ticket: 322585 000358 - 0001 TRC ENVIRONMENTAL CORPORATION 00 Gross Weight 79,840.00 lb Vehicle: 15EB Stored Tare Weight 29,280.00 lb EDLER BROS TRUCKING Net Weight 50,560.00 lb 25.28 TN TRC OU1 SEGMENT / DREDGE SEDJMENTS Contract: HML02-114 Reference: Total Rate Tax QuantityUnit Description 42B Dredge Material/PCB's under 50mg/kg 25.28 TN Net Amount:

Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

B5 VEOLIA HICKORY MEADOWS LANDFILL W3105 SCHNEIDER ROAD HILBERT, WI 54129 2 August 2010 1:56 pm 920-853-8553 2 August 2010 1:56 pm Ticket: 322584 000358 - 0001 TRC ENVIRONMENTAL CORPORATION 00 Gross Weight 72,160.00 lb Vehicle: 10EB Stored Tare Weight 28,720.00 lb EDLER BROS TRUCKING Net Weight 43,440.00 lb 21.72 TN TRC OU1 SEGMENT / DREDGE SEDIMENTS Contract: HML02-114 Reference: Rate Tax Total QuantityUnit Description 21.72 TN 428 Dredge Material/PCB's under 50mg/kg

Net Amount: Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DAYLL LICENSE NUMBER: 81-11854

VEOLIA W	HICKORY MEADOWS LANDFIL 3105 SCHNEIDER ROAD HILBERT, WI 54129	L I	35
Ticket: 322598 000358 - 0001 TRC ENVIRO	MENTAL CORPORATION	2 August 2010 2 August 2010	2:55 pm 2:55 pm
Vehicle: 12EB EDLER BROTHERS	00 Gross We Stored Tare h Net h	ight 79,500.00 lb leight 31,780.00 lb leight,47,720.00 lb	D 23.86 TN
Contract: HML02-114 Reference:	TRC OU1 SE	GMENT / DREDGE SEDI	MENTS
QuantityUnit Description 23.86 TN 42B Dredge	n e Material/PCB's under 5	Rate Tax T Ømg/kg	otal
Weighmaster: JOAN M QUA	NDT Driver HAVE A GREAT DAY!! LICENSE NUMBER: 81-118	Net Amount: RZ 54	alarry.
	, 		
VEOLIA I W3	HICKORY MEADOWS LANDFILL 105 SCHNEIDER ROAD HILBERT, WI 54129	. В!	5
Ticket: 322597 000358 - 0001 TRC ENVIRON	920-853-8553 MENTAL CORPORATION	2 August 2010 2 August 2010	2:52 pm 2:52 pm
Vehicle: 09EB EDLER BROS TRUC	00 Gross Wei KING Stored Tare We Net We	.ght 77,240.00 lb eight 27,980.00 lb eight 49,260.00 lb	24.63 TN
Contract: HML02-114 Reference:	TRC OU1 SEC	MENT / DREDGE SEDI	MENTS
QuantityUnit Description 24.63 TN 42B Dredge	Material/PCB's under 50	Rate Tax To mg/kg	otal
		Net Amount:	

180

Weighmaster: JOAN M QUANDT Driver Mach R HAVE A GREAT DAY!!

LICENSE NUMBER: 81-11854

	VEOLIA HICKORY MEADOWS LANDFILL B5 W3105 SCHNEIDER ROAD HILBERT, WI 54129 920-853-8553 2 August 2010 3:02 pm
	Ticket: 322603 2 August 2010 3:02 pm 000358 - 0001 TRC ENVIRONMENTAL CORPORATION
	Vehicle: 15EB 00 Gross Weight 76.500.00 lb EDLER BROS TRUCKING Stored Tare Weight 29.280.00 lb Net Weight 47,220.00 lb 23.61 TN
	Contract: HML02-114 TRC OU1 SEGMENT / DREDGE SEDIMENTS Reference:
	QuantityUnit Description Rate Tax Total 23.61 TN 42B Dredge Material/PCB's under 50mg/kg
	Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854
	VEOLIA HICKORY MEADOWS LANDFILL B5 W3105 SCHNEIDER ROAD HILBERT, WI 54129
	920-853-8553 2 August 2010 3:00 pm Ticket: 322602 2 August 2010 3:00 pm 000358 - 0001 TRC ENVIRONMENTAL CORPORATION
	Vehicle: 10EB 00 Gross Weight 74,400.00 lb EDLER BROS TRUCKING Stored Tare Weight 28,720.00 lb Net Weight 45,680.00 lb 22.84 TN
	Contract: HML02-114 TRC OU1 SEGMENT / DREDGE SEDIMENTS Reference:
1	QuantityUnit Description Rate Tax Total 22.84 TN 42B Dredge Material/PCB's under 50mg/kg
	Net Amount:
	Unicharacture JOAN M OLIANDI DESUGA AND
	werdoundsets naute i Anutati nitzati Nitz e

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HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

ţ	VEOLIA HJCKORY MEADOWS LANDFILL B5 W3105 SCHNEIDER ROAD HILBERT, WI 54129 920-853-8553 3 August 2010 6:39 am Ticket: 322644 3 August 2010 6:39 am	
	Vehicle: 12EB Gross Weight 77,000.00 lb , EDLER BROTHERS Stored Tare Weight 31,780.00 lb Net Weight 45,220.00 lb 22.61 TN	)# 
	Contract: HML02-114 TRC OU1 SEGMENT / DREDGE SEDIMENTS Reference:	
	QuantityUnit Description Rate Tax Total 22.61 TN 42B Dredge Materiai/PCB's under 50mg/kg	ł
7	Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854	
		*
n.,	VEOLIA HICKORY MEADOWS LANDFILL         B5           W3105 SCHNEIDER ROAD         HILBERT. WI 54129           920-853-8553         3 August 2010         6:37 am           Ticket:         322642         3 August 2010         6:37 am	
	000358 - 0001 TRC ENVIRONMENTAL CORPORATION Vehicle: 09EB Gross Weight 75.400.00 lb EDLER BROS TRUCKING Stored Tare Weight 27,980.00 lb Net Weight 47,420.00 lb 23.71 TN	
4=	Contract: HML02-114 TRC OU1 SEGMENT / DREDGE SEDIMENTS Reference:	
	QuantityUnit Description Rate Tax Total 23.71 TN 42B Dredge Material/PCB's under 50mg/kg	
	Weighmaster: JOAN M QUANDT Driver Man Amount: HAVE A GREAT DAYL	

LICENSE NUMBER: 81--11854

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	VEOLIA HICKORY MEADOWS LANDFIL W3105 SCHNEIDER ROAD HILBERT, WI 54129 920-853-8553 Ticket: 322671 000358 - 0201 TRC ENVIRONMENTAL CORPORATION	L. 4 3 August 2010 3 August 2010	55 7:41 am 7:41 am
	Vehicle: 09EB 00 Gross We EDLER BROS TRUCKING Stored Tare W Net W	ight 70.680.00 lb eight 27.980.00 lt eight 42.700.00 lt	5 21.35 TN
	Contract: HMI02-114 TRC OU1 SE Reference:	GMENT / DREDGE SED:	IMENTS
94U	QuantityUnit Description 21.35 TN 42B Dredge Material/PCB's under 50	Rate Tax 1 Ømg/kg	Fotal
	Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DAY!! LICENSE NUMBER: 81-118	Net Amount:	
	VEOLIA HICKORY MEADOWS LANDFILL W3105 SCHNEIDER ROAD HILBERT, WI 54129	B	5
	920-853-8553 Ticket: 322647 000358 - 0001 TRC ENVIRONMENTAL CORPORATION	3 August 2010 3 August 2010	6:40 am 6:40 am
	Vehicle: 15EB Gross Wei EDLER BROS TRUCKING Stored Tare We Net We	ght 75.640.00 lb ight 29,280.00 lb ight 46,360.00 lb	23.18 TN
	Contract: HML02-114 TRC OU1 SEG Reference:	MENT / DREDGE SEDI	MENTS
	QuantityUnit Description 23.18 TN 42B Dredge Material/PCB's under 50	Rate Tax Te mg/kg	otal
		Net Amount:	

JOAN M QUANDT Driver HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

Weighmaster: JOAN

VEOLIA HICKORY MEADOWS LANDFILL 85 W3105 SCHNEIDER ROAD HILBERT, WI 54129 3 August 2010 7:53 am 920-853-8553 3 August 2010 7:53 am Ticket: 322675 000358 - 0001 TRC ENVIRONMENTAL CORPORATION Vehicle: 15EB 00 Gross Weight 83,480.00 1b EDLER BROS TRUCKING Stored Tare Weight 29,280.00 lb Net Weight 54,200.00 1b 27.10 TN Contract: HML02-114 TRC OU1 SEGMENT / DREDGE SEDIMENTS Reference: QuantityUnit Description Tax Total Rate 27.10 TN 428 Dredge Material/PCB's under 50mg/kg Net Amount: Weighmaster: JOAN M QUANDT Driver

> HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

والمستجورين لاستند بتعت المستار والمشروعات ومعتا المنا

VEOLIA HICKORY MEADOWS LANDFILL W3105 SCHNEIDER ROAD	В5
HILBERT. WI 54129 920-853-8553	3 August 2010 7:47 am
000358 - 0001 TRC ENVIRONMENTAL CORPORATION	S Hugust 2010 7341 um
Vehicle: 12EB 00 Gross Weigh EDLER BROTHERS Stored Tare Weigh Net Weigh	ht 81.360.00 lb ght 31.780.00 lb ght 49,580.00 lb 24.79 TN
Contract: HML02-114 TRC OU1 SEGMI Reference:	ENT / DREDGE SEDIMENTS
QuantityUnit Description Ra 24.79 TN 42B Dredge Material/PCB's under 50m	ate Tax Total g/kg
Weighmaster: JOAN M QUANDT Driver	Amount:

LICENSE NUMBER: 81-11854

VEOLIA HICKORY MEA W3105 SCHNEID HILBERT, WI 920-853-85 Ticket: 322698 000358 - 0001 TRC ENVIRONMENTAL CORP	DOWS LANDFILL ER ROAD 54129 53 3 August 2010 3 August 2010 ORATION	8:49 am 8:49 am 8:49 am
Vehicle: 12E8 EOLER BROTHERS S	00 Gross Weight 84,540.00 ( tored Tare Weight 31.780.00 Net Weight 52,760.00	lb 1b 1b 26.38 TN
Contract: HML02-114 Reference:	TRC OU1 SEGMENT / DREDGE SE	DIMENTS
QuantityUnit Description 26.38 TN 42B Dredge Material/P	Rate Tax CB's under 50mg/kg	Total
Weighmaster: JOAN M QUANDT D HAVE A LICENSE NUM	Net Amount: GREAT DAY!! BER: 8111854	
VEOLIA HICKORY ME W3105 SCHNEI HILBERT, W 920-853-8 Ticket: 322692	ADOWS LANDFILL DER ROAD I 54129 553 3 August 2010	85 8:43 am
000358 - 0001 TRC ENVIRONMENTAL COR	ORATION	8:43 am
Venicle: Ø9EB EDLER BROS TRUCKING S	00 Gross Weight 79,800.00 Stored Tare Weight 27,980.00 Net Weight 51,820.00	15 15 15 25.91 TN
Contract: HMI02-114 Reference:	TRC OU1 SEGMENT / DREDGE S	EDIMENTS
QuantityUnit Description 25.91 TN 42B Dredge Material/P	Rate Tax CB's under 50mg/kg	Total

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Net Amount:

Weighmaster: JOAN M QUANDT Driver Marks HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

VEOLIA HICKORY MEADOWS LANDFILL 85 W3105 SCHNEIDER ROAD HILBERT, WI 54129 3 August 2010 920--853--8553 9:50 am 3 August 2010 9:50 am Ticket: 322712 000358 - 0001 TRC ENVIRONMENTAL CORPORATION Vehicle: 09E8 00 Gross Weight 84.300.00 lb EDLER BROS TRUCKING Stored Tare Weight 27,980.00 )b Net Weight 56.320.00 lb 28.16 TN Contract: HML02-114 TRC OU1 SEGMENT / DREDGE SEDIMENTS Reference: QuantityUnit Description Rate Tax Total 28.16 TN 42B Dredge Material/PCB's under 50mg/kg

Weighmaster: JOAN M QUANDT Driver Man Bunch HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

85 VEOLIA HICKORY MEADOWS LANDFILL W3105 SCHNEIDER ROAD HILBERT, WI 54129 3 August 2010 8:54 am 920-853-8553 3 August 2010 8:54 am Ticket: 322700 000358 - 0001 TRC ENVIRONMENTAL CORPORATION 00 Gross Weight 85,540.00 lb Vehicle: 15EB Stored Tare Weight 29,280.00 lb EDLER BROS TRUCKING Net Weight 56,260.00 lb 28.13 TN TRC OU1 SEGMENT / DREDGE SEDIMENTS Contract: HML02-114 Reference: QuantityUnit Description Rate Tax Total

Net mount:

Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

42B Dredge Material/PCB's under 50mg/kg

28.13 TN

		VEOLIA H W31	ICKORY 05 SCHN	MEADOWS L	ANDFILL AD		B	15	
Ticket:	32271	h a	920-853	WI 54129 -8553	9 3 3	3 August 3 August	2010	10:01	am am
000358 -	0001 TR	ENVIRONM	IENTAL C	ORPORATIO	)N	1169636	Section 1	40.04	
Vehicle:	15E8 EDLER	ROS TRUCK	ING	00 Gr Stored	ross Weigh Tare Weigh Net Weigh	: 79,32 nt 29,2 nt 50,0	0.00 lb 80.00 lb 40.00 lb	25.02	TN
Contract: Reference:	HML02-1:	.A 1		TRC	OU1 SEGMEN	IT / DRE	DGE SEDI	MENTS	
QuantityUr 25.02 T	nit Der FN 43	Cription B Dredge	Materia	l∕PCB's ι	Rat under 50mg/	ce /kg	Тах Т	otal	
					R R	. Amount	•		
Weighmast	cer: J(	AN M QUAN		Driver F A GREAT	parts	<u> </u>		2.5	
		1	TCENSE	NUMBER .	81-11854				

VEOLIA H	HICKORY MEADOWS LANDFILL	B5
W31	105 SCHNEIDER ROAD	
ŀ	HILBERT, WI 54129	
	920853-8553 3	August 2010 9:55 am
Ticket: 322717	3	August 2010 9:55 am
000358 - 0001 TRC ENVIRON	MENTAL CORPORATION	na na sente de la construir de
Vehicle: 12EB	00 Gross Weight	86,280.00 lb
EDLER BROTHERS	Stored Tare Weight	31,780.00 lb
	Net Weight	54,500.00 1b 27.25 TN
Contract: HML02-114	TRC OU1 SEGMENT	/ DREDGE SEDIMENTS
Reference:		
QuantityUnit Description	Rate	Tax Total
27.25 TN 42B Dredge	Material/PCB's under 50mg/k	9
	b I to des	A sea a susse da s
	Tet	Amouriu:

Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DAVID LICENSE NUMBER: 81-11854

B5 VEOLIA HICKORY MEADOWS LANDFILL W3105 SCHNEIDER ROAD HILBERT, WI 54129 3 August 2010 11:14 am 3 August 2010 11:14 am 920-853-8553 Ticket: 322757 000358 - 0001 TRC ENVIRONMENTAL CORPORATION 00 Gross Weight 78,720.00 lb Vehicle: 12EB Stored Tare Weight 31,780.00 lb EDLER BROTHERS Net Weight ,46,940.00 lb 23.47 TN TRC OU1 SEGMENT / DREDGE SEDIMENTS Contract: HML02-114 Reference: Rate Tax Total QuantityUnitDescriptionRate23.47TN42B Dredge Material/PCB's under 50mg/kg Net Amount: Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

VEOLIA HICKORY MEADOWS LANDFIL W3105 SCHNEIDER ROAD					В	5	
HILBERT, WI 54129 920-853-8553	3	A	lugust	: 20	10	11:09	am
Ticket: 322756 000358 - 0001 TRC ENVIRONMENTAL CORPORATION	3	P	Augus	. 20	10	11:02	qui
Vehicle: 09E8 00 Gross Weigh FOLER BROS TRUCKING Stored Tare Weig Net Weig	nt gh gh	; it it	69,54 27,9 41,9	10.0 380. 560.	0 15 00 15 00 15	20.78	ΤN
Contract: HML02-114 TRC OU1 SEGME Reference:	EN	IT	/ DR	EDGE	SED1	MENTS	
QuantityUnit Description Ra 20.78 TN 42B Dredge Material/PCB's under 50mg	at g/	:e /k	g	Tax	T :	otal	
N	et	t	Amoun	t:			
Weighmaster: JOAN M QUANDT Driver	214						

HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

	VEOLIA HICKORY MEADOWS LANDFILL B5 W3105 SCHNEIDER ROAD HILBERT. WI 54129
	Ticket: 322776 3 August 2010 12:17 pm 000358 - 0001 TRC ENVIRONMENTAL CORPORATION
	Vehicle: 09EB 00 Gross Weight 73,040.00 lb EDLER BROS TRUCKING Stored Tare Weight 27,980.00 lb Net Weight 145,060.00 lb 22.53 TN
	Contract: HML02-114 TRC OU1 SEGMENT / DREDGE SEDIMENTS Reference:
	QuantityUnit Description Rate Tax Total 22.53 TN 42B Dredge Material/PCB's under 50mg/kg
	Weighmaster: JOAN M QUANDT Driver Mul
	VEOLIA HICKORY MEADOWS LANDFILL B5 W3105 SCHNEIDER ROAD HILBERT, WI 54129
	Ticket: 322759 3 August 2010 11:18 am 000358 - 0001 TRC ENVIRONMENTAL CORPORATION
ж	Vehicle: 15EB 00 Gross Weight 66.900.00 lb EDLER BROS TRUCKING Stored Tare Weight 29,280.00 lb Net Weight 37,620.00 lb 18.81 TN
	Contract: HML02-114 TRC OU1 SEGMENT / DREDGE SEDIMENTS Reference:
n	QuantityUnit Description Rate Tax Total 18.81 TN 42B Dredge Material/PCB's under 50mg/kg
	Net Amourit:

Weignmaster: JOAN M QUANDT Driver HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

VEOLIA HICKORY MEADOWS LANDFILL W3105 SCHNFIDER ROAD HILBERT, WI 54129	B5	
920-853-8553 Ticket: 322786 000358 - 0001 TRC ENVIRONMENTAL CORPORATION	3 August 2010 12:36 pr 3 August 2010 12:36 pr	n
Vehicle: 15EB 00 Gross Weig EDLER BROS TRUCKING Stored Tare Wei Net Wei	aht 77.760.00 lb ght 29.280.00 lb ght 48,480.00 lb 24.24 TM	1
Contract: HML02-114 r TRC OU1 SEGM Reference:	IENT / DREDGE SEDIMENTS	
QuantityUnit Description R 24.24 TN 42B Dredge Material/PCB's under 50m	ate Tax Total ng/kg	
Weighmaster: JOAN M QUANDI Deine B	et Amount:	
HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854	n de la construction de	

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	VEOLIA HICKORY   W3105 SCHN HILBERT,	MEADOWS LANDFILL FIDER ROAD WI 54129		B5
	920-853-	-8553	3 August 2010	12:28 pm
Ticket: 3227	782		3 August 2010	12:28 pm
000358 - 0001 T	TRC ENVIRONMENTAL CO	ORPORATION		
Vehicle: 12EB EDLER	R BROTHERS	00 Gross Weig Stored Tare Wei Net Wei	ht 90,160.00 ll ght 31,780.00 ] ght 58,380.00 ]	o lb lb 29.19 TN
Contract: HML02- Reference:	-114	TRC OU1 SEGM	ENT / DREDGE SEC	DIMENTS
QuantityUnit D	Description	R	ate Tav	Total
29.19 TN	428 Dredge Material	l/PCB's under 50m	g/kg	10/12612
		N	eדןAmount:	
Weighmaster:	JOAN M QUANDT	Driver	RG.	

HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

	VEOLIA HICKORY MFADOWS LAND W3105 SCHNEIDER ROAD HILBERT, WI 54129	FILL	B5
÷	920-853-8553	3 August 2	010 1:32 pm
	000358 - 0001 TRC ENVIRONMENTAL CORPORATION	o Huyust z	oto fischu
	Vehicle: 12EB 00 Gross EDLER BROTHERS Stored Tar Ne	Weight 82.200. e Weight 31,780 t Weight .50,420	00 lb .00 lb .00 lb 25.21 TN
	Contract: HML02~114 TRC OU1 Reference:	SEGMENT / DREDG	E SEDIMENTS
	QuantityUnit Description 25.21 TN 42B Dredge Material/PCB's unde	Rate Ta r 50mg/kg	x Total
	Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DA LICENSE NUMBER: 81-	Net Amount.: R.Z. Y!! 11854	; 

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C. K. K. K. M. BERN BOOM

VEOLIA HICKORY MEADOWS LANDFILL	B5
W3105 SCHNEIDER ROAD	
HILBERT, WI 54129	
920-853-8553	3 August 2010 1:20 pm
Ticket: 322803	3 August 2010 1:20 pm
000358 - 0001 TRC ENVIRONMENTAL CORPORATION	
Vehicle: 09EB 00 Gross Weig	ht 75,320.00 lb
FOLFR BROS TRUCKING Stored Tare Wei	aht 27,980.00 lb
Net Wei	ght 47,340.00 1b 23.67 TN
	*:
Contract: HML02-114 TRC OU1 SEGM	ENT / DREDGE SEDIMENTS
Reference:	
QuantityUnit Description R	ate Tax Total
23.67 TN 42B Dredge Material/PCB's under 50m	g/kg
— Вланиеть основ аннеристотии саро № в на селоровен сножали в на на селоровен с на на селоровенската с Как	
И	et Amount:
M	1. Re

Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

85 VEOLIA HICKORY MEADOWS LANDFILL W3105 SCHNEIDER ROAD HILBERT, WI 54129 3 August 2010 2:26 pm 920-853-8553 3 August 2010 2:26 pm Ticket: 322825 000358 - 0001 TRC ENVIRONMENTAL CORPORATION 00 Gross Weight 74,960.00 lb Vehicle: 09EB EDLER BROS TRUCKING Stored Tare Weight 27,980.00 lb Net Weight . 46,980.00 1b 23.49 TN TRC OU1 SEGMENT / DREDGE SEDIMENTS Contract: HML02-114 Reference: Rate Tax Total QuantityUnit Description 23.49 TN 42B Dredge Material/PCB's under 50mg/kg Net Amount: Weighmaster: JOAN N QUANDT Driver HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854 B5 FOLTA HICKORY MEADOWS LANDFILL

VEULIA RICHURT PAL	NER ROAD			
WSIES SCHILL	I 54129			
920-853-8	553	3 August	: 2010	1:36 pm
Ticket: 322807 000358 - 0001 TRC ENVIRONMENTAL COR	PORATION	3 August	: 2010	1:36 pm
Vehicle: 15EB EDLER BROS TRUCKING	00 Gross Weigh Stored Tare Weig Net Weig	t 82,53 ht 29,3 ht 53.3	20.00 lb 280.00 lb 240.00 lb	) 26.62 TN
Contract: HML02-114 Reference:	TRC OU1 SEGME	NT / DR	EDGE SED:	IMENTS
QuantityUnit Description 26.62 TN 42B Dredge Material,	Ra /PCB'e under 50mg	te /kg	Тах	[otal
	R	et Amour	1 <b>1.</b> .	

h,

Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

VEOLIA HIC	KORY MEADOWS LAND	FILL		B5
W3105	SCHNEIDER ROAD			
HIL	BFRT, WI 54129			
92	20-853-8553	3 Augu	ist 2010	2:42 pm
Ticket: 322836		3 Augu	ist 2010	2:42 pm
000358 - 0001 TRC ENVIRONMEN	TAL CORPORATION			
Vehicle: 15E8	00 Gross	Weight 84.	800.00 lb	
EDLER BROS TRUCKIN	NG Stored Tar	e Weight 29	9,280.00 1	Ь
	Ne	t Weight - 55	5,520.00 1	b 27.76 Th
Contract: HML02-114 Reference:	TRC OU1	SEGMENT / C	REDGE SED	IMENTS
QuantityUnit Description		Rate	Тах	Tota)
27.76 TN 428 Dredge Ma	aterial/PCB's unde	r 50mg/kg		
2759 of 19 160		Net Amor	int:	
Weichmaster: JOAN M QUANDI	r Driver 🕬	a co		

HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

85 VEOLIA HICKORY MEADOWS LANDFILL W3105 SCHNEIDER ROAD HILBERT, WI 54129 3 August 2010 2:34 pm 920-853-8553 3 August 2010 2:34 pm Ticket: 322828 000358 - 0001 TRC ENVIRONMENTAL CORPORATION 00 Gross Weight 82,120.00 lb Vehicle: 12E8 Stored Tare Weight 31,780.00 lb EDLER BROTHERS Net Weight 50,340.00 lb 25.17 TN TRC OU1 SEGMENT / DREDGE SEDIMENTS Contract: HML02-114 Reference: Tax Total Rate QuantityUnit Description 25.17 TN 42B Dredge Material/PCB's under 50mg/kg

Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

VEOLIA HICKORY MEADOWS LANDFILL 85 W3105 SCHNEIDER ROAD HILBERT, WI 54129 3 August 2010 3:41 pm 920-853-8553 3 August 2010 3:41 pm Ticket: 322854 000358 - 0001 TRC ENVIRONMENTAL CORPORATION 00 Gross Weight 75.380.00 lb Vehicle: 12E8 Stored Tare Weight 31,780.00 lb EDLER BROTHERS Net Weight +43,600.00 15 21.80 TN TRC OU1 SEGMENT / DREDGE SEDIMENTS Contract: HML02-114 Reference: Tax Total QuantityUnit Description Rate 21.80 TN 42B Dredge Material/PCB's under 50mg/kg Amount: Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DAY !! LICENSE NUMBER: 81-11854

Weighmaster: JOAN M QUANDT

B5 VEOLIA HICKORY MEADOWS LANDFILL W3105 SCHNEIDER ROAD HILBERT, WI 54129 3 August 2010 3:35 pm 920-853-8553 3 August 2010 3:35 pm Ticket: 322852 000358 - 0001 TRC ENVIRONMENTAL CORPORATION 00 Gross Weight 72,500.00 lb Vehicle: 09EB EDLER BROS TRUCKING Stored Tare Weight 27,980.00 lb Net Weight 44,520.00 1b 22.26 TN TRC OU1 SEGMENT / DREDGE SEDIMENTS Contract: HML02-114 Reference: Rate Tax Total QuantityUnit Description 22.26 TN 42B Dredge Material/PCB's under 50mg/kg Net Amount:

Driver

HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

45 VEOLIA HICKORY MEADOWS LANDFILL 85 W3105 SCHNEIDER ROAD HILBERT, WI 54129 3 August 2010 920-853-8553 3:44 pm 3 August 2010 Ticket: 3:44 pm 322855 000358 - 0001 TRC ENVIRONMENTAL CORPORATION 00 Gross Weight 72.860.00 1b Vehicle: 15EB EDLER BROS TRUCKING Stored Tare Weight 29,280.00 1b Net Weight + 43,580.00 1b 21.79 TN TRC OU1 SEGMENT / DREDGE SEDIMENTS Contract: HML02-114 Reference: QuantityUnit Description Rate Tax Total 428 Dredge Material/PCB's under 50mg/kg 21.79 TN

Net Amount:

Weighmaster: JOAN M QUANDT

HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

Driver

VEOLIA HICKORY MEADOWS LANDFILL 85 W3105 SCHNEIDER ROAD HILBERT, WI 54129 920-853-8553 4 August 2010 6:45 am Ticket: 322673 4 August 2010 6:45 am 000358 - 0001 TRC ENVIRONMENTAL CORPORATION Vehicle: 15EB Gross Weight 77,500.00 lb EDLER BROS TRUCKING Stored Tare Weight 29,280.00 lb Net Weight , 48,220.00 lb 24.11 TN Contract: HML02-J14 TRC OU1 SEGMENT / DREDGE SEDIMENTS Reference: 144 QuantityUnit Description Rate Tax Total 24.11 TN 420 Dredge Material/PCB's under 50mg/kg Net Amount: Weighmaster: JOAN M QUANDT Driver

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HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

VEOLIA HICKORY MEADOWS LANDFILL W3105 SCHNEIDER ROAD	85
920-853-8553 Ticket: 322869	4 August 2010 6:41 am 4 August 2010 6:41 am
000358 - 0001 TRC ENVIRONMENTAL CORPORATION	
Vehicle: 09EB Gross Weig EDLER BROS TRUCKING Stored Tare Wei Net Wei	ght 72,460.00 lb ight 27,980.00 lb ight 44.480.00 lb 22.24 TN
Contract: HML02-114 TRC OU1 SEG Reference:	MENT / DREDGE SEDIMENTS
QuantityUnit Description F 22.24 TN 42B Dredge Material/PCB's under 50r	Rate Tax Total ng/kg
1	Net Amount:

Weighmaster: JOAN M QUANDT Driver Mach R HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

VEOLIA HICKORY MEADOWS LANDFILL B5 W3105 SCHNEIDER ROAD HILBERT, WI 54129 920-853-8553 4 August 2010 7:58 am Ticket: 322899 4 August 2010 7:58 am 000358 - 0001 TRC ENVIRONMENTAL CORPORATION Vehicle: 15EB 00 Gross Weight 67,060.00 1b EDLER BROS TRUCKING Stored Tare Weight 29,280.00 1b Net Weight 37,780.00 lb 18.89 TN Contract: HML02-114 TRC OU1 SEGMENT / DREDGE SEDIMENTS Reference: QuantityUnit Description Rate Tax Total 18.89 TN 428 Dredge Material/PCB's under 50mg/kg Net Amount: Weighmaster: JOAN M QUANDT Driver HAVE A GREAT DAY !! LICENSE NUMBER: 81-11854 VEGLIA HICKORY MEADOWS LANDFILL **B5** W3105 SCHNEIDER ROAD HILBERT, WI 54129 920-853-8553 4 August 2010 7:44 am 4 August 2010 Ticket: 322897 7:44 am 000358 - 0001 TRC ENVIRONMENTAL CORPORATION Vehicle: Ø9EB 00 Gross Weight 57,140.00 lb Stored Tare Weight 27,980.00 lb EDLER BROS TRUCKING Net Weight 29,150.00 lb 14.58 TN Contract: HML02-114 TRC OU1 SEGMENT / DREUGE SEDIMENTS Reference: QuantityUnit Description Total Rate Tax 14.58 TN 42B Dredge Material/PCB's under 50mg/kg Net Amount:

Driver Machine

HAVE A GREAT DAY!! LICENSE NUMBER: 81-11854

Weighmaster: JOAN M QUANDT

APPENDIX D

SPECIFICATION SHEETS



# **Material and Performance Specification Sheet**

A **tensar** Company

# S75BN Erosion Control Blanket

The short-term single net erosion control blanket shall be a machine-produced mat of 100% agricultural straw with a functional longevity of up to 12 months. (NOTE: functional longevity may vary depending upon climatic conditions, soil, geographical location, and elevation). The blanket shall be of consistent thickness with the straw evenly distributed over the entire area of the mat. The blanket shall be covered on the top side with a 100% biodegradable woven natural organic fiber netting. The netting shall consist of machine directional strands formed from two intertwined yarns with cross directional strands interwoven through the twisted machine strands (commonly referred to as a Leno weave) to form an approximate 0.50 x 1.0 (1.27 x 2.54 cm) mesh. The blanket shall be sewn together on 1.50 inch (3.81 cm) centers with degradable thread.

The S75BN shall meet requirements established by the Erosion Control Technology Council (ECTC) Specification and the US Department of Transportation, Federal Highway Administration's (FHWA) *Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-03 Section 713.17 as a type 2.C Short-term Single Net Erosion Control Blanket.* 

The blanket shall be manufactured with a colored thread stitched along both outer edges (approximately 2-5 inches [5-12.5 cm] from the edge) as an overlap guide for adjacent mats.

Material Content			
Matrix	100% Straw Fiber	0.5 lbs/yd <sup>2</sup> (0.27 kg/m <sup>2</sup> )	
Nettings	Top side only- Leno Woven 100% biodegradable natural organic fiber	9.3 lb/1000 ft² ( 4.5 kg/100 m²) approx. weight	
Thread	Biodegradable		

#### S75BN is available in the following standard roll sizes:

Width	6.67 ft (2.03 m)
Length	108 ft (32.92 m)
Weight ± 10%	46.4 lbs (21.05kg)
Area	80.0 yd <sup>2</sup> (66.9 m <sup>2</sup> )

#### **Index Value Properties:**

Property	Test Method	Typical
Thickness	ASTM D6525	0.24 in (6.1 mm)
Resiliency	ECTC Guidelines	81.4%
Water Absorbency	ASTM D1117	257%
Mass/Unit Area	ASTM 6475	9.99 oz/yd <sup>2</sup> (339.7 g/m <sup>2</sup> )
Swell	ECTC Guidelines	15.7%
Smolder Resistance	ECTC Guidelines	Yes
Stiffness	ASTM D1388	6.92 oz-in
Light Penetration	ECTC Guidelines	9.1%
Tensile Strength –MD	ASTM D6818	187.2 lbs/ft (2.78 kN/m)
Elongation – MD	ASTM D6818	6.7%
Tensile Strength – TD	ASTM D6818	193.2 lbs/ft (2.86 kN/m)
Elongation – TD	ASTM D6818	8.5%

#### Performance Design Values:

Maximum Permissible Shear Stress			
Unvegetated Shear Stress	1.60 lbs/ft <sup>2</sup> (76 Pa)		
Unvegetated Velocity	5.00 ft/s (1.52 m/s)		

Slope Design Data: C Factors				
	Slope Gradients (S)			
Slope Length (L)	≤ 3:1	3:1 – 2:1	≥ 2:1	
≤ 20 ft (6 m)	0.029	NA	NA	
20-50 ft	0.11	NA	NA	
≥ 50 ft (15.2 m)	0.19	NA	NA	

### Bench Scale Testing\* (NTPEP):

Test Method	Parameters	Results	
ECTC Method 2	50 mm (2 in)/hr for 30 min	SLR** = 6.63	
Rainfall	100mm (4 in)/hr for 30 min	SLR** = 7.25	
	150 mm (6 in)/hr for 30 min	SLR** = 7.92	
ECTC Method 3	Shear at 0.50 inch soil loss	2.07 lbs/ft <sup>2</sup>	
Shear Resistance			
ECTC Method 4	Top Soil, Fescue, 21 day	464% improvement of	
Germination	incubation	biomass	
* Bench Scale tests should not be used for design purposes			
** Soil Loss Ratio = Soil loss with Bare Soil/Soil Loss with RECP (soil loss is based on regression analysis)			

Roughness Coefficients- Unveg.		
Flow Depth	Manning's n	
≤ 0.50 ft (0.15 m)	0.055	
0.50 – 2.0 ft	0.055 – 0.021	
≥ 2.0 ft (0.60 m)	0.021	

**Product Participant of:** 



Updated 3/09



155 Andrew Drive, Stockbridge, GA 30281 1 800 760 3215

Tel: 770 506 8211 Fax: 770 506 0391 E-mail: rolanka@rolanka.com web: www.rolanka.com

# Manufacturer's Certificate of Compliance

## TO WHOM IT MAY CONCERN

This is to certify that the **BioD-Mat<sup>®</sup>40** coir blanket is woven from machine twisted coir twines made of bristle coir (the best quality coir) obtained from cured coconut husks. **BioD-Mat<sup>®</sup>40** blankets are manufactured to conform to the following physical properties:

Property	<b>Test Method</b>	BioD-Mat <sup>®</sup> 40
1. Weight	ASTM D 3776	13.6 oz/SY (460 g/m <sup>2</sup> )
<ul> <li>Wide width tensile strength</li> <li>Wet Machine direction</li> <li>Cross direction</li> <li>Dry Machine direction</li> <li>Cross direction</li> </ul>	ASTM D 4595	672 lbs/foot (9.8 kN/m) 648 lbs/foot (958 kN/m) 780 lbs/foot (11.4 kN/m) 744 lbs/foot (10.9 kN/m)
<ol> <li>Elongation at failure</li> <li>Wet Machine direction Cross direction</li> </ol>	ASTM D 4595	30% 28%
4. Open area	Calculated	65%
5. Thickness	ASTM D 1777	0.35 inch (9 mm)
6. Recommended shear stress		3 lbs./sq.ft. (145N/sq.m.)
7. Recommended flow		8 fps (2.4 m/s)
8. Recommend slope		1:1
9. "C" factor		0.003
10. Available roll sizes		3.28 t x 83ft (1m x 25m) 6.5ft x 166ft (2m x 50m) 9.8ft x 165ft (3m x 50m) 13ft x 83ft (4m x 25m)

## RoLanka International, Inc.

Lanka. Santha

Lanka Santha, P.E. C.E.O.



 ERO-TEX
 N94
 W14330
 Garwin
 Mace
 Drive
 Menomonee
 Falls,
 WI
 53051

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 250-9945
 www.ero-tex.net
 866-437-6839
 (Toll Free)
 FAX:
 (262)
 250-9950

 Taylor Creek Restoration Nurseries
 Phone: (608) 897-8641

 17921 Smith Rd, PO Box 256
 Fax: (608) 897-2044

 Brodhead, WI 53520
 Fax: (608) 897-2044

Scientific	Name:	Andropogor	ı Gerardii	
Common	Name:	<b>Big Bluester</b>	m Grass	
Lot Num	ber:	020-D111-0	6	
Origin:	Kendali	, IL		
Purity:	62.11%	l.	Germination:	20
Inert:	27.81%	Î	Dormant Seed:	74
Other:	9.61%		Hard Seed:	
Weed:	0.47%		Total Germ or TZ:	20.00%
Noxious:	Setaria	faberi (54)	Test Date:	2/2/07
PLS:	58.38%			
PLS Weig	ht:	119.52 oz	Bulk Weight:	204.73 oz

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Scientific	Name:	Asclepias Inc	arnata	
Common	Name:	Swamp Milkweed		
Lot Num	ber:	041-p434-07		
Origin:	MN			
Purity:	98.86%		Germination:	29
Inert:	1.14%		Dormant Seed:	52
Other:			Hard Seed:	
Weed:			Total Germ or TZ:	81.00%
Noxious:	none		Test Date:	3/20/08
PLS:	80.08%			
PLS Weig	ht:	3.32 oz	Bulk Weight:	4.15 oz

Taylor Creek Restoration NurseriesPhone: (608) 897-864117921 Smith Rd, PO Box 256Fax: (608) 897-2044Brodhead, WI 53520Fax: (608) 897-2044

Scientific	Name:	Aster Nova	e-Angliae	
Common	Name:	New Engla	nd Aster	
Lot Number:		056-P343-	07	
Origin:	lowa Co	o, WI		
Purity:	91.25%		Germination:	66
Inert:	8.74%		Dormant Seed:	23
Other:			Hard Seed:	
Weed:	0.01%		Total Germ or TZ:	89.00%
Noxious:	none		Test Date:	2/20/08
PLS:	81.21%			
PLS Weight:		1.99 oz	Bulk Weight:	2.45 oz

Taylor Creek Restoration NurseriesPhone: (608) 897-864117921 Smith Rd, PO Box 256Fax: (608) 897-2044Brodhead, WI 53520Fax: (608) 897-2044

Scientific	Name:	Carex Comos	a	
Common	Name:	<b>Bristly Sedge</b>		
Lot Number:		108-P434-07		
Origin:	Rock Co	o, WI		
Purity:	99.10%		Germination:	14
Inert:	0.84%		Dormant Seed:	68
Other:	0.06%		Hard Seed:	
Weed:			Total Germ or TZ:	82.00%
Noxious:	none		Test Date:	1/3/08
PLS:	81.26%			
PLS Weight:		1.99 oz	Bulk Weight:	2.44 oz

Taylor Creek Restoration NurseriesPhone: (608) 897-864117921 Smith Rd, PO Box 256Fax: (608) 897-2044Brodhead, WI 53520Fax: (608) 897-2044

Scientific	Name:	Carex Hys	stricina	
Common Lot Num	Name: ber:	Porcupine	Sedge 07	
Origin:	Rock C	o, WI	•	
Purity:	99.69%	8	Germination:	8
Inert:	0.18%		Dormant Seed:	77
Other:	0.07%		Hard Seed:	
Weed:	0.06%		Total Germ or TZ:	85.00%
Noxious:	none		Test Date:	3/20/08
PLS:	84.74%			
PLS Weight:		1.33 oz	Bulk Weight:	1.53 oz

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Scientific	Name:	Carex Stip	pata	
Common Name:		Common	Fox Sedge	
Lot Number:		137-p434-	07	
Origin:	Dane C	o, WI		
Purity:	92.11%		Germination:	
Inert:	6.96%		Dormant Seed:	83
Other:	0.74%		Hard Seed:	
Weed:	0.19%		Total Germ or TZ:	83.00%
Noxious:	none		Test Date:	11/2/07
PLS:	76.45%			
PLS Weight:		1.33 oz	Bulk Weight:	1.74 oz

Taylor Creek Restoration NurseriesPhone: (608) 897-864117921 Smith Rd, PO Box 256Fax: (608) 897-2044Brodhead, WI 53520Fax: (608) 897-2044

Scientific	Name:	Carex Vul	pinoidea		
Common Name:		Brown Fox Sedge			
Lot Number:		146-P434-07			
Origin:	Dane C	o, WI			
Purity:	95.56%		Germination:	93	
Inert:	4.08%		Dormant Seed:	1	
Other:	0.36%		Hard Seed:		
Weed:			Total Germ or TZ:	94.00%	
Noxious:	none		Test Date:	11/21/07	
PLS:	89.83%				
PLS Weight:		1.99 oz	Bulk Weight:	2.22 oz	

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 Brodhead, WI 53520
 Fax: (608) 897-2044

Scientific	Name:	Elymus Car	nadensis		
Соттоп	Name:	Canada Wi	ld Rye		
Lot Number:		189-Av451-05			
Origin:	certified	ISW, WI			
Purity:	88.41%		Germination:	87	
Inert:	8.61%		Dormant Seed:		
Other:	2.96%		Hard Seed:		
Weed:	0.02%		Total Germ or TZ:	87.00%	
Noxious:	Rumex C	Crispus (10)	Test Date:	4/2/08	
PLS:	76.92%				
PLS Weig	ht:	107.57 oz	Bulk Weight:	139.85 oz	
Haa	ton- (	58-07.41	- Seed mi	, 9	
Taylor Creek Restoration NurseriesPhone: (608) 897-864117921 Smith Rd, PO Box 256Fax: (608) 897-2044Brodhead, WI 53520Fax: (608) 897-2044

Scientific	ientific Name: Eupatorium Maculatum			
Common Name: Spotted J			Pye Weed	
Lot Number:		204-P342-07	, standisk - overdisk soverdisk	
Origin:	Rock/D	ane Co, WI		
Purity:	79.94%	i I	Germination:	
Inert:	20.04%		Dormant Seed:	
Other:	0.01%		Hard Seed:	
Weed:	0.01%		Total Germ or TZ:	80.00%
Noxious:	none		Test Date:	1/9/08
PLS:	63.95%	i i		
PLS Weight:		0.66 oz	Bulk Weight:	1.03 oz

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Scientific	Name:	Helenium Aut	umnale		
Common Name: Lot Number:		Sneezeweed			
		241-p434-07			
Origin:	lowa Co	o, WI			
Purity:	76.00%	ř	Germination:		
Inert:	21.58%		Dormant Seed:		
Other:	2.42%		Hard Seed:		
Weed:			Total Germ or TZ:	88.00%	
Noxious:	none		Test Date:	6/16/08	
PLS:	66.88%				
PLS Weig	ht:	1.33 oz	Bulk Weight:	1.99 oz	

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Scientific Name:		Lolium Muh	liflorum		
Common Name:		Annual Rye Grass			
Lot Number:		306-P338-0	07.1		
Origin:	Oregon				
Purity:	98.00%		Germination:	90	
Inert:	0.90%		Dormant Seed:		
Other:	1.00%		Hard Seed:		
Weed:	0.10%		Total Germ or TZ:	90.00%	
Noxious:	None		Test Date:	9/1/07	
PLS:	88.20%				
PLS Weight:		265.6 oz	Bulk Weight:	301.1 oz	

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Scientific Name:		Mimulus Ring	gens		
Common Name:		Monkey Flow	er		
Lot Number:		319-P560-07			
Origin:	Allamal	cee Co, IA			
Purity:	78.10%		Germination:	7	
Inert:	21.88%		Dormant Seed:	83	
Other:	0.01%		Hard Seed:		
Weed:	0.01%		Total Germ or TZ:	90.00%	
Noxious:	поле		Test Date:	4/22/08	
PLS:	70.29%				
PLS Weight:		0.66 oz	Bulk Weight:	.94 oz	

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Scientific	Name:	Scripus Atr	ovirens		
Common Name: Dark Green			n Rush		
Lot Num	ber:	400-P434-0	07		
Origin:	Dane C	o, WI			
Purity:	99.22%	è.	Germination:		
Inert:	0.78%		Dormant Seed:		
Other:			Hard Seed:		
Weed:			Total Germ or TZ:	83.00%	
Noxious:	none		Test Date:	6/2/08	
PLS:	82.35%				
PLS Weight:		6.64 oz	Bulk Weight:	8.06 oz	

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Scientific Name:		Spartina P	ectinata			
Common Name:		Prairie Cord Grass				
Lot Number:		438-P337-	07			
Origin:	Waush	ara Co, WI				
Purity:	82.74%		Germination:			
Inert:	17.26%		Dormant Seed:			
Other:			Hard Seed:			
Weed:			Total Germ or TZ:	93.00%		
Noxious:	none		Test Date:	9/26/07		
PLS:	77.52%					
PLS Weight:		11.95 oz	Bulk Weight:	15.42 oz		

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Scientific	Name:	Thalictrum [	Dasycarpum			
Common Name:		Purple Meadow Rue				
Lot Number:		451-P341-07				
Origin:	Buffalo	Co, WI				
Purity:	99.81%		Germination:	15		
Inert:	0.19%		Dormant Seed:	75		
Other:			Hard Seed:			
Weed:			Total Germ or TZ:	90.00%		
Noxious:	none		Test Date:	5/1/08		
PLS:	89.83%					
<b>PLS Weig</b>	ht:	1.33 oz	Bulk Weight:	1.48 oz		

 Taylor Creek Restoration Nurseries
 Phone: (608) 897-8641

 17921 Smith Rd, PO Box 256
 Fax: (608) 897-2044

 Brodhead, WI 53520
 Fax: (608) 897-2044

Scientific	Name:	Verbena H	lastata		
Common Name:		Blue Verva	ain		
Lot Number:		459-P434-	-07		
Origin:	Rock C	o, WI			
Purity:	99.16%		Germination:		
Inert:	0.84%		Dormant Seed:		
Other:			Hard Seed:		
Weed:			Total Germ or TZ:	90.00%	
Noxious:	none		Test Date: 6/22/		
PLS:	89.24%	1			
PLS Weight:		3.32 oz	Bulk Weight:	3.72 oz	

 Taylor Creek Restoration Nurseries
 Phone: (608) 897-8641

 17921 Smith Rd, PO Box 256
 Fax: (608) 897-2044

 Brodhead, WI 53520
 Fax: (608) 897-2044

Scientific Name: Ve		Vernonia Fas	ciculata		
Common	Name:	Common Ironweed			
Lot Number:		461-P434-07			
Origin:	Columb	ia Co, WI			
Purity:	97.54%		Germination:		
Inert:	2.46%		Dormant Seed:		
Other:			Hard Seed:		
Weed:			Total Germ or TZ:	93.00%	
Noxious:	none		Test Date:	4/7/08	
PLS:	90.71%				
PLS Weight:		0.66 oz	Bulk Weight:	.73 oz	

### PD1 PVC DISCHARGE HOSE



The Model PD1 is a blue PVC discharge lay-flat hose that resists kinking and twisting. It is designed as a standard duty hose for water discharge in industrial and construction applications, is strong and economical, and rolls up flat for easy storage. Reinforcement includes spiral plies and longitudinal synthetic cords for excellent burst resistance. Other varieties for higher pressures alternate materials are also available.

Can-come with aluminum coupling filtings with (M)NPSM threads and aluminum/brass swivels in standard lengths. Commonly provided with cam and groove or threaded coupling filtings and hose nozzles.

Temperature range is -5F to 170F. Pressure drops above 110F

QTY	INNER DIA OAL FITTINGS		FITTINGS	PRESSURE	WEIGHT	COIL LENGTHS
	(ln)	(In)		(psl)	(lbs/100fl)	(ft)
	1 1/2			80	19	300
	2			80	25	300
	2 1/2			65	30	300
	3			80	36	300
	4		-	70	53	300
	6			60	86	300
	8			35	130	300
	10			35	188	100
	12			35	240	100
	14			30	270	100
	16			30	300	100

NOTES:

Also available in standard duty blue.

### STANDARD FELT LIQUID FILTER BAGS

### FELT FILTER BAGS

- Micron ratings from 1 to 200
- 7 industry standard sizes
- Good chemical compatibility
- High flow low pressure drop media
- Sewn or welded construction

Felt filter bag materials are made from synthetic fibers in polypropylene or polyester. The proper combination of fiber diameters, weights and thickness results in an economical depth type filter media. Potypropylene & polyester bags are supplied willh a glazed finish to reduce fiber migration.



FELT MATERIALS	MICRON RATINGS						
	1	5	10	25	50	100	200
Polyester			•	(0)			
Polypropylene			4				





Choice of metal ring lops or molded Super Seal tops

## Advantages of Felt Filter Media

- High dirl holding capacity
- Ability to remove both solid and gelatinous particles
- Low cost
- Glazed finish on polyester & polypropylene reduces fiber migration

PASKET





Standard felt bags are manufactured from a single layer of needle punched felt.

Standard ring bags have a galvanized steel ring (stainless steel optional) sewn in the lop of the bag. They are supplied with sewn seams standard.

Super Seal molded top filter bags have a plastic top welded to a sewn or all welded filler bag.



All welded bags are available in glazed polypropylene and polyester felt for sizes 1 & 2 with Super Seal molded plastic lops.

Advantages include:

- There are no needle holes hence efficiencies are increased.
- No sewing thread is used resulting in the elimination of the possibility of silicone contamination due to thread.
- The glazed finish and fused edges of the bags greatly reduce or eliminate fiber migration.

Filter bags with molded Super Seal tops require no filter bag hold down devices. As the differential pressure in the application increases, the integrity of the Super Seal improves.

_	Added and a second s					_
	Filter Bag Size	Dlameter (InApprox.)	Lenglh (inches)	Area (fl²)	Maximum Flow (gpm)	
	1	7.25	16.5	2.0	80	
	2	7.25	32	4,5	180	
	3	4.31	8	0.5	20	
	4	4.31	14	1.0	40	
1	7	5.63	15	1.5	60	
	8	5.63	21	2.0	80	
	9	5.63	32	3.0	120	

CENTRE CONTRACTOR AND A DECIMAL AND A DECIMA

FIBERS	COMPATIBILITY*							
	Weak Acids	<b>Sirong</b> Acids	Weak Alkalı	Strong Alkali	Solvents	Temperalure •F Max		
Polyester	Very Good	Good	Good	Poor	Good	300		
Polypropylene	Excellent	Excellent	Excellent	Excellent	Fair	200		

\* Use chart as a guide only Chemical compatibility should be checked for specific fluid.

chipilantin hhire Martoni



SUPER SEAL TOP)

### nikisinkenden naa

The graph shows the  $\triangle P$  produced by a #2 size bag for water, 1 cps @ 68°F. The pressure drop is specific to the type of bag, the micron rating and flow rate for the filter bag only. It does not include the pressure drop caused by the housing & basket.



Bag Size and Viscosity Correction For other than #2 size bags, multiply  $\triangle P$ from above table by the bag size correction factor below to calculate  $\triangle P$ . If viscosity of the tiquid is greater than 1 cps (water @ 68°F), multiply the result by the proper viscosity correction factor.

### **BAG SIZE CORRECTION**

Bag Size	Correction Factor
1	2 25
2	1.00
3	9.00
4	4.50
7	3,00
8	2 25
9	1.50

### **VISCOSITY CORRECTION**

Viscosity CPS	Correction Factor
59	4.5
100	8.3
200	16 G
400	21.1
800	50.0
1000	55.2
1500	77 2
2000	113.6
4000	161.0
6000	250.0
8000	323.0
10,000	420.0

GLOBAL FILTER CORPORATION

Global Filter Corporation 1712 Woodcrest St. NE Cedar Rapids, IA 52402 877-603-1003 toll free 319-743-0220 fax Web: www.globalfiltercorp.com



Making Water and Air Safer and Cleaner

# **CYCLESORB® FPI**

### Description

Calgon Carbon Corporation's CYCLESORB® FPI is a compact, portable liquid treatment unit with all of the essential elements of a full scale carbon adsorption system. Containing 1,000 pounds of granular activated carbon, the CYCLESORB® FPI can treat up to 30 gpm for the removal of dissolved organic contaminants. When treatment is complete, the CYCLESORB® FPI becomes a convenient shipping container which can be returned to Calgon Carbon for safe reactivation of the spent carbon.

The CYCLESORB<sup>®</sup> FP1 is ideal for many low flow or short duration treatment projects including:

- Groundwater contaminated by leaking underground storage tanks
- · Wastewater storage in tanks or lagoons
- · Chemical spills
- Small wastewater or process streams
- · Storage tank or pipeline washing
- Off-spec product batches
- Dechlorination or decolorization
- Pump tests
- · Feasibility or pilot plant studies
- Acid Purification



CYCLESORB® Pipe Rack with two CYCLESORB® FPI Adsorbers

### Features

### Flexibility

The CYCLESORB<sup>3</sup> FP1 treats the liquid downflow through a fixed bed of granular activated carbon and, therefore, can handle varying flows and on/off operating conditions. The units can be arranged in parallel to treat higher flows or can be connected in series to optimize carbon usage.

### **Recommended Design**

The CYCLESORB<sup>9</sup> FP1 has flexible connections to the FRP vessel to eliminate the potential for piping stress on the vessel and a metal frame to protect the FRP vessel from damage during shipping and handling.

#### **Corrosion Resistance**

The CYCLESORB<sup>®</sup> FP1 adsorber is made from fiberglass-wrapped polyethylene. The piping and other accessories are made from industrial plastics able to handle a wide range of corrosive wastewaters or liquids.

### **Higher Operating Pressures**

The CYCLESORB<sup>®</sup> FPI adsorber vessel is rated to 150 psig in accordance with NSF-44 Standards. The pre-piped assembly has a maximum operating pressure of 75 psig at 140°F.

#### Granular Activated Carbon

The CYCLESORB<sup>3</sup> FPI can be provided with 1,000 pounds of selected grades of liquid phase granular activated carbons including both virgin or reactivated grades. A Technical Sales Representative can assist in selecting the most cost-effective carbon for specific applications.

#### Safe Spent Carbon Handling

When treatment is complete, the CYCLESORB<sup>3</sup> FPI becomes the shipping container for the return of the spent carbon to a Calgon Corporation reactivation facility. This feature eliminates the need to handle spent carbon at the site. When returned to Calgon Carbon, the spent carbon is safely reactivated, and all the adsorbed contaminants are thermally destroyed.

### Service or Purchase Options

The CYCLESORB<sup>®</sup> FP1 is available on a service or purchase basis. With the service option, Calgon Carbon Corporation retains ownership of the unit, takes responsibility for inventory and maintenance, and provides a new unit when the exhausted carbon is to be removed so that continuous treatment is assured. If the CYCLESORB<sup>®</sup> FP1 is purchased, Calgon Carbon can provide refill and maintenance service.

### Equipment and Systems

Visit our website at www.calgoncarbon.com, or call 800-422-7266 to learn more about our complete range of products and services, and obtain local contact information.

ES-EB1030-0604

# CYCLESORB® FPI





### **Specifications**

Piping and Accessories

The CYCLESORB® FPI piping consists of Schedule 80 polypropylene piping and polypropylene ball valves. Piping is thermally bonded, and ball valves have threaded unions.

Connections to the system are polypropylene connections as follows:

Influent =  $| \frac{1}{2}$  inch Kamlok

Effluent =  $1\frac{1}{2}$  inch Kamlok

GAC Discharge = 2 Inch NPT

The influent and effluent lines are equipped with 1/2 lnch ball valves for sample and/or vent. The top of the adsorber is equipped with a 75 psig graphite rupture disk on the influent line. Gaskets as required are EPDM rubber.

Wetted Parts Summary-Process Flow Wetted parts are polyethylene, polypropylene, EPDM rubber (gaskets) and graphite (rupture disk).

#### Frome

The CYCLESORB<sup>®</sup> FPI frame is designed to contain and protect the adsorber and piping during operation and transport. The frame is constructed of metal and is  $45'' \times 45'' \times 96''$  high. The frame is equipped with fork channels and may be moved via forklift or lifted with 4-point web slings around corner posts.



# **CYCLESORB® FPI**

### Specifications

Granular activated carbon per unit Maximum operating pressure Pressure relief Vacuum rating Temperature rating Wetted parts materials

Connections

Frame Frame dimensions

Lifting Weights

1,000 lb. (454 kg) 75 pslg (517 kPa) @140°F Graphite rupture disk @ 75 psig Must be protected against vacuum 140°F (60°C) High density polyethylene, polypropylene, PVC, graphite, viton, ethylene propylene rubber 11/2" male Kamlok (inlet/outlet) 1/2" FNPT (sample/vent/drain) 2" FNPT (carbon discharge) Epoxy mastic painted metal 45"x45"x96" height (1,145mm x1,145mm x2,440mm height) Fork lift truck or web slings around corner posts Empty: 560 lb. (255 kg) With dry carbon (ship): 1,560 lb. (710 kg) With wet, drained carbon (return): 2,560 lb. (1,165 kg) Operating: 4,000 lb. (1,820 kg)

### Performance

Pressure drop performance is based upon "general" granular activated carbon in mesh size ranges from 8x30 to 12x40.

Approx. Flow (gpm)	Approx. Pressure Drop (psig)
10	1.0
20	2.5
30	5.0

Note: Above performance based upon average GAC packed bed and clean water; actual conditions may vary.





ES-EB1030-0604 ©Copyright 2004 Calgon Carbon Corporation, all rights reserved.

# CYCLESORB<sup>®</sup> FP1

### **Return for Reactivation**

The CYCLESORB<sup>®</sup>FPI unit serves as a safe and convenient shipping container to return the spent carbon to Calgon Carbon Corporation for reactivation. Spent carbon reactivation is an integral component of the Service Agreement where Calgon Carbon provides a unit with fresh carbon to replace the unit being returned. If the unit is purchased, Calgon Carbon is able to offer exchange services incorporating most of the return and refill elements of the CYCLESORB® Service.

Prior to reactivation, an acceptability test is conducted on a small carbon sample provided with the initial CYCLESORB\* FP1 adsorber, which is exposed to the water or wastewater to simulate spent carbon characteristics. After this test is complete, carbon acceptance documentation is provided to allow return of the Initial and subsequent CYCLESORB® FPI units used in the same service.

When treatment is complete, the CYCLESORB<sup>®</sup> FP1 adsorber is drained of liquid, capped and shipped back to a Calgon Carbon Corporation reactivation facility. The Company's Flexible Service Plan also offers services such as transportation assistance and on-site exchange services. A Technical Sales Representative will be able to review the many options available for purchase, service, return, and carbon exchange.

At the reactivation facility, the spent carbon is thermally reactivated and the adsorbed organic contaminants are destroyed. The CYCLESORB\* FP1 units are cleaned, inspected, maintained, and returned to inventory. CYCLESORB® FPI units are then taken from ready inventory, filled with the specified carbon, and provided to the next service customer for replacement or start of treatment.

### **Precautionary Statement**

Do not strike vessel or subject it to impact, as such practices will damage the structural integrity of the unit. Bolted connections should be inspected prior to operating the system as they may loosen during shipping. The rupture disk must not be plugged or restricted, as the system must be able to relieve overpressurization to prevent component failure or vessel rupture. The installation must include vacuum relief, as vacuum created by a slphon loop or other means will cause collapse of the internal vessel wall. The system includes flexible connections on the inlet and outlet. These flexible connectors should not be replaced by rigid piping, as expansion of the vessel under pressure could cause damage to the piping or the vessel.

### Safety Message

Wet activated carbon preferentially removes oxygen from air. In closed or partially closed containers and vessels, oxygen depletion may reach hazardous levels. If workers are to enter a vessel containing carbon, appropriate sampling and work procedures for potentially low oxygen spaces should be followed, including all applicable Federal and State regulrements.

### Limitations of Liability

The Supplier's llability and the Purchaser's exclusive remedy for any cause of action arising out of this transaction, Including, but not limited to, breach of warranty, negligence and/or indemnification, is expressly limited to a maximum of the purchase price of spare parts or equipment sold hereunder. All claims of whatsoever nature shall be deemed walved unless made in writing within forty-five (45) days of the occurrence giving rise to the claim. In no event shall the Supplier, for any reason or pursuant to any provision of the warranty, be liable for incidental or consequential damages or damages in excess of the purchase price, nor shall the Supplier be liable for loss of profits or fines imposed by governmental agencies.

## Your local office Chemviron Carbon European Operations of Calgon Carbon Corporation Zoning industriel C de Feluy B-7181 Feluy, Belgium Tel; + 32 (0) 64 51 18 11 Fx: + 32 (0) 64 54 15 91 ES-EB1030-0604 @Copyright 2004 Calgon Carbon Corporation, all rights reserved.

Visit our website at www.calgoncarbon.com



GALGON CARBON CORPORATION Calgon Carbon Corporation P.O. Box 717 Pittsburgh, PA USA 15230-0717 I-800-422-7266 Tel: 412-787-6700 Fx: 412-787-6713



# **CERTIFICATION OF CONFORMANCE**

DATE: 2010 Construction Season

This is to certify that **fly ash** produced at Alliant Power's Edgewater 5 plant and marketed by Lafarge North America conforms to the applicable specifications of ASTM C 618 and AASHTO M 295 for Class C Fly Ash.

Edgewater fly ash is approved for use in Portland cement concrete products by the following state(s): Wisconsin.

Conformance data will be provided upon specific request.

Sincerely,

Kenneth G. Kazanis, P.E. Technical Director

LAKES & SEAWAY BUSINESS UNIT 30600 Telegraph Road, Suite 4000, Blngham Farms, MI 48025 Office: (248) 594-1991 Fax: (248) 594-4471



Lafarge North America Chicago Office 20408 W. Renwick Road Lockport, IL 60441 800-323-5949

FLY ASH SOURCE: COMPOSITE DATE: SAMPLE IDENTIFICATION:	EDGEWA 24-Dec-10 ED510122	TER 5 ) to 24-Jan-10 24-0124		
			SPECIFICAT	IONS
			ASTM C 618	AASHTO M 295
CHEMICAL ANALTSIS			CLASS C	CLASS C
SiO <sub>2</sub> (silicon dioxide), %	=	36.36		
Al <sub>2</sub> O <sub>3</sub> (aluminum oxide), %	=	20.05		
Fe <sub>2</sub> O <sub>3</sub> (Iron oxide), %	=	6.23		
SIO <sub>2</sub> +Al <sub>2</sub> O <sub>3</sub> +Fe <sub>2</sub> O <sub>3</sub> , %	=	62.6	50 Min	50 Min
CaO (calcium oxide), %	=	23.86		
MgO (magnesium oxide), %	=	4.67		
SO <sub>3</sub> (sulfur trioxide), %	=	1.66	5.0 Max	5.0 Max
Molsture content, %	=	0.06	3.0 Max	3.0 Max
Loss On Ignition, %	3	0.57	6.0 Max	5.0 Max
Na <sub>2</sub> O (sodium oxide), %	=	1.81		
K₂O (potassium oxide), %	=	0.53		
PHYSICAL ANALYSIS				
Fineness, amount retained				
on #325 sieve, %	=	13.4	34 Max	34 Max
variation, points from average		0	5 Max	5 Max
Density, Mg/m <sup>3</sup>	=	2.71		
variation from average, %	=	0	5 Max	5 Max
Strength Activity Index with Portland Cement				
at 7 days, % of cement control	=	96	75 Min	75 Min
Coment: Lafarge Alpena Type VI				
Water Requirement				
% of cement control	Ξ	94	105 Max	105 Max
Soundness, autoclave expansion or contraction, %	=	0.030	0.8 Max	0.8 Max

We hereby certify that the fly ash represented by the above chemical and physical analysis meets the reduirements of ASTM C 618-05 and AASHTO M 285-05.

PH, A.

Steven R. Butler	
Quality Assurance Manage	r
Lafarge North America	

<u>3/3/2010</u> Report Date

E-copy

ASTM C 618 Note 1 - Finely divided materials may tend to reduce the entrained air content of concrete. Hence, if a mineral admixture is added to any concrete for which entrainment of air is specified, provision should be made to ensure that the specified air content is maintained by air content tests and by use of additional air-entraining admixture or use of an air-entraining admixture in combination with air-entraining hydraulic cement.



31628 Glendale St. Livonia, Michigan 48150 TEL: 734.422.8000 FAX: 734.422.5342 Website. <u>www.rtilab.com</u>

February 11, 2010

Steve Butler Lafarge NA - Lakes & Seaway Business Unit 20408 W Renwick Rd Lockport, Illinois 60441-0089 TEL: (815) 838-4671 FAX (815) 838-4873

RE: Edgewater Before & After - DD 20100128

Order No.: 1001722

Dear Steve Butler:

RTI Laboratories received 6 sample(s) on 1/29/2010 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

This report may only be reproduced in its entirety. Individual pages, reproduced without supporting documentation, do not contain related information and may be misinterpreted by other data reviewers.

Quality control data is within laboratory defined or method specified acceptance limits except if noted.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

-----2

Robert Lynch Manager, Environmental Services 31628 Glendale St. Livonia, Michigan 48150



31628 Glendale SL Livonia, Michigan 48150 TEL: 734.422.8000 FAX: 734.422.5342 Website: <u>www.rtilab.com</u>

### **Case Narrative**

WO#: 1001722 Date: 2/11/2010

CLIENT:	Lafarge NA - Lakes & Seaway Business Un	
Project:	Edgewater Before & After - DD 20100128	

This report in its entirety consists of the documents listed below. All documents contain the RTI Work Order Number assigned to this report.

1. Paginated Report including: Case Narrative, Analytical Results and Applicable Quality Control Summary Reports.

- 2. A Cover Letter that immediately precedes the Paginated Report.
- 3. Paginated copies of the Chain of Custody Documents supplied with this sample set.

Concentrations reported with a J flag in the Qual field are values below the reporting limit (RL) but greater than the established method detection limit (MDL). There is greater uncertainty associated with these results and data should be considered as estimated.

Concentrations reported with an E flag in the Qual field are values that exceed the upper quantification range. There is greater uncertainty associated with these results and data should be considered as estimated.

Any comments or problems with the analytical events associated with this report are noted below.

The EPA has withdrawn the tests for Reactive Cyanide and Reactive Sulfide. There is no guidance nor reference for testing wastes for Cyanide or Sulfide other than for total concentrations. The generator is required to provide a narrative description of the reactivity of the waste according to 40CFR261.23 for the Characteristic of Reactivity.

All sample analyses reported were performed on Toxicity Characteristic Leaching Procedure (TCLP) extracts following procedures specified in SW-846, Method 1311.



31628 Glendale St. Livonia, Michigan 48150 TEL: 734.422.8000 FAX: 734.422.5342 Website: <u>www.rtilab.com</u>

## **Analytical Report**

(cansolidated) WO#: 1001722 Date Reported: 2/11/2010

CLIENT:	Lafarge NA - Lakes & Seaway Business Unit	<b>Collection Date:</b>	1/28/2010 10:00:00 AM
Project:	Edgewater Before & After - DD 20100128		
Lab ID:	1001722-002	Matrix:	SOLID
Client Sample ID	ED5091208-1214		

Analyses	Result	RL Qu	al Units	DF	Date /	alyzed	
INORGANIC ANIONS	GANIC ANIONS SW9056A			Analyst: BV			
Chloride	ND	1.2	mg/L	6	2/9/20	10 12:07:55	PM
Fluoride	4.2	0.60	mg/L	6	2/9/20	10 12:07:55	PM
Nitrate	ND	0.30	mg/L	8	2/9/20	10 12:07:55	PM
Sulfate	15	0.60	mg/L	6	2/9/20	10 12:07:55	PM
CYANIDE			SW9012A			Analyst:	JW
Cyanide	ND	0.010	mg/L	1	2/4/20	10 4:21:00 P	M
METALS, ICP/MS			SW6020A	SW	3020A	Analyst:	AV
Amenic	4.9	3.0	µg/L	10	2/3/20	10 12:50:55	PM
Barium	11,000	50	µg/L	10	2/3/20	10 12:50:55	PM
Barylitum	ND	2.0	µg/L	10	2/3/20	10 12:50:55	PM
Boron	ND	1,000	µg/L	10	2/3/20	10 12:50:55	PM
Cedmium	ND	2.0	µg/L	10	2/3/20	10 12:50:55	PM
Chromium	140	4.0	µg/L	10	2/3/20	10 12:50:55	PM
Cobalt	ND	10	µg/L	10	2/3/20	10 2:16:07 P	M
Copper	ND	10	µg/L	10	2/3/20	10 12:50:55	PM
Iron	ND	200	µg/L	10	2/3/20	10 12:50:55	PM
Lead	0.28	2.0 J	µg/L	10	2/3/20	10 12:50:55	PM
Manganese	ND	10	µg/L	10	2/3/20	10 12:50:55	PM
Nickel	1.9	<b>20</b> J	µg/L	10	2/3/20	10 12:50:55	PM
Selenium	31	10	Mg/L	10	2/3/20	10 12:50:55	PM
Thatium	ND	4.0	µg/L	10	2/3/20	10 12:50:55	PM
Zinc	14	100 J	µg/L	10	2/3/20	10 12:50:55	PM
SILVER AND ANTIMONY, ICP/MS			SW6020A	SW	3020A	Analyst: /	AV
Antimony	3.2	2.5	µg/L	1	2/4/20	10 3:31:09 P	M
Silver	0.50	1.5 J	µg/L	1	2/4/20	10 3:31:09 P	M

Qualifiers: \*/X Value exceeds Maximum Contaminant Level

E Value above quantitation range

J Analyte detected below quantitions limits

ND Not Detected at the Reporting Limit

RL Reporting Detection Lunit

B Analyte detectual as the associated Method Blank

H Holding tanes for preparation or analysis excanded

M Manual Integration used to determine area response

PL Permit Lanut

S Spike Recovery outside accepted recovery londs



31628 Glendale St. Livonia, Michigan 48150 TEL: 734.422.8000 FAX: 734.422.5342 Website: www.rtilab.com

### **Analytical Report**

(consolidated) WO#: 1001722 Date Reported: 2/11/2010

and the second second

CLIENT:	Lafarge NA - Lakes	ess Unit	<b>Collection Date:</b>	lection Date: 1/28/2010 10:00:00 AM		
Project:	Edgewater Before &	0128				
Lab ID:	1001722-002	Matrix		SOLI	D	
Client Sample ID	ED5091208-1214					
Analyses		Result	RL Qual	Units	DF	Date Analyzed
MERCURY				SW7470A		Analyst: AB2
Marcury		ND	0.20	μg/L	1	2/2/2010 4:22:56 PM

Qualifiers:

\*/X Value exceeds Maximum Contamonant Level Value above quantitation range

- E Analyte detected below quantumnon limits 1
- ND Not Determed at the Reporting Limit RL Reporting Detections Limit

- Analyte detected in the associated Method Blank B
- Holding times for preparation or analyzes exceeded н
- Manual Integration used to determine area response м

Permit Lime PL.

5 Spike Racovery cutaxie accepted recovery lumits



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## **Analytical Report**

(consolidated) WO#: 1001722 Date Reported: 2/11/2010

CLIENT:	Lafarge NA - Lakes & Seaway Business Unit	<b>Collection Date:</b>	1/28/2010 10:00:00 AM
Project:	Edgewater Before & After - DD 20100128		
Lab ID:	1001722-004	Matrix:	SOLID
<b>Client Sample ID</b>	ED5091208-1214 (TCLP Extraction)		

Analyses	Result	RL Qu	al Units	DF	Date /	nalyzed
INORGANIC ANIONS			SWE	1056A S	W1311B	Analyst: BV
Chloride	ND	12	mg/L	60	2/9/20	10 12:07:55 PM
Fluoride	6,900	6.0	mg/L	60	2/9/20	10 12:07:55 PM
Nitrate	ND	3.0	mg/L	60	2/8/20	10 12:07:55 PM
Sulfate	18,000	6.0	mg/L	60	2/9/20	10 12:07:55 PM
CYANIDE			SW9	012A		Analyst: JW
Cyanide	ND	0.010	mg/L	1	2/4/20	10 4:21:00 PM
METALS, ICP/MS			SWO	020A S1	N3020A	Analyst: AV
Arsenic	60	3.0	μ <b>ο/L</b>	10	2/3/20	10 11:49:44 AM
Barium	730	50	µg/L	10	2/3/20	10 11:49:44 AM
Baryllium	0.55	2.0	J µg/L	10	2/3/20	10 11:49:44 AM
Boron	9,600	1,000	µg/L	10	2/3/20	10 11:49:44 AM
Cadmium	47	2.0	µg/L	10	2/3/20	10 11:49:44 AM
Chromlum	Π	4.0	µg/L	10	2/3/20	10 11:49:44 AM
Cobelt	120	10	µg/L	10	2/3/20	10 2:34:51 PM
Copper	500	10	µg/L	10	2/3/20	10 11:49:44 AM
fron	ND	200	μ <b>g</b> Λ_	10	2/3/20	10 11:4 <del>0:44</del> AM
Lead	3.6	2.0	µg/L	10	2/3/20	10 11:49:44 AM
Manganese	510	10	µg/L	10	2/3/20	10 11:49:44 AM
Nickel	550	20	have	10	2/3/20	10 11:49:44 AM
Selenium	260	10	µg/L	10	2/3/20	10 11:49:44 AM
Thellium	10	4.0	hð\r	10	2/3/20	10 11:49:44 AM
Zinc	640	100	µg/L	10	2/3/20	10 11:49:44 AM
SILVER AND ANTIMONY, ICP/MS			SWG	020A SV	N3020A	Analyst: AV
Antimony	2.2	0.50	µg/L	1	2/4/20	10 3:03:32 PM
Silver	0.21	0.30	μ <b>g/L</b>	1	2/4/20	10 3:03:32 PM

Qualifiers: "X Value exceeds Maximum Contaminant Level

8 Value above quantumion range

J Analyte detected below quantitation imuts

ND Not Detected at the Reporting Limn

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B Analyte detected in the associated Method Blank

H Holding times for preparation or enalysis exceeded

M Manual Integration used to determine area response

PL Permit Limit

S Spike Recovery outside accepted recovery langts



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## **Analytical Report**

(consolidated) WO#: 1001722 Date Reported: 2/11/2010

2/2/2010 3:57:53 PM

MERCURY				SW7470A		Analyst: AB2
Analyses	Resu	lt RL	Qual	Units	DF	Date Analyzed
Client Sample ID	ED5091208-1214 (TCLP Ext	raction)			-	
Lab ID:	1001722-004			Matrix	: SOLID	)
Project:	Edgewater Before & After - DD 20100128					
CLIENT:	Lafarge NA - Lakes & Seaway Business Unit			<b>Collection Date</b>	1/28/2010 10:00:00 AM	

0.20 J

µg/L

1

0.11

\*/X Value exceeds Maximum Contaminant Level Qualiflers: 8 Ε Value above quantitation range н Analyte detected below quantitation forum J м ND Not Detected at the Reporting Lonat

- RL, Reporting Detection Limit

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Holding taxes for preparation or analysis excanded

Manual Integration used to determine area response

PL Permit Limit

Spike Rentwery outside accepted recovery limits 5



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## **Analytical Report**

(consolidated) WO#: 1001722 Date Reported: 2/11/2010

CLIENT:	Lafarge NA - Lakes & Seaway Business Unit			Collect	<b>Collection Date:</b>		1/28/2010 10:00:00 AM		
Project:	Edgewater Before & After - DD 20100128								
Lab ID:	1001722-006				Matrix:		SOLID		
Client Sample ID	ED5091208-1214 (To	otal Analysis)							
Analyses		Result	RL Q	ual Units	3 82	DF	Date Analyzed		
MERCURY				3	W7471A		Analyst: AB2		
Mercury		1,500	600	µg/Kg		20	2/3/2010 11:40:33 AM		

Qualifiers:

\*/X Value excessis Maximum Contamment Lavel

- E Value excession visitations containing Long E Value above quantitations range J Analysis detection below quantitations knots ND Not Detacted at the Reporting Land RL Reporting Detections Lunat

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### **Material Safety Data Sheet**

### Section 1: PRODUCT AND COMPANY INFORMATION

Product Name(s):	Lafarge Fly Ash and Bottom Ash (Ash)			
Product Identifiers:	Coal Fly Ash, Class F Fly Ash, Class C Fly Ash, Type CI Fly Ash, Type CH Fly Ash, Type F Fly Ash, Lignite Coal Fly Ash, Subbituminous Coal Fly Ash, Anthracite Coal Fly Ash, Bituminous Coal Fly Ash, Bottom Ash, Ash			
Manufacturer: Lafarge North Americ 12950 Worldgate Dri Herndon, VA 20170	Information Telephone Number:ca Inc.703-480-3600 (9am to 5pm EST)ve, Suite 500Emergency Telephone Number: 1-800-451-8346 (3E Hotline)			
Product Use:	Fly Ash and Bottom Ash are used as a supplementary cementitious or pozzo material for cement, concrete and concrete products. It is also used in soil stabiliz and as filler in asphalt and other products that are widely used in construction.			
Note:	This MSDS covers many types of ash. Individual composition of hazardous			

### Section 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component	(By Weight)	CAS Number	OSHA PEL -TWA (mg/m <sup>3</sup> )	ACGIH TLV- TWA (mg/m <sup>3</sup> )	LD <sub>50</sub> (mouse, intraperitoneal)	LC <sub>50</sub>
Fly Ash	<100	68131-74-8	NA	NA	NA	NA
Crystalline Silica	0-10	14808-60-7	[(10) / (%SiO <sub>2</sub> +2)] (R); [(30) / (%SiO <sub>2</sub> +2)] (T)	0.025 (R)	NA	NA
Particulate Not Otherwise Regulated	-	NA	5 (R) 15 (T)	3 (R) 10 (T)	NA	NA

constituents will vary between types of ash.

Note: Fly ash and bottom ash are byproducts from the combustion of coal. Trace amounts of chemicals may be detected during chemical analysis. For example the chemicals identified can include carbon and complex silicates or oxides of aluminum (Al), calcium (Ca), magnesium (Mg), sodium (Na), sulfur (S), potassium (K), titanium (Ti), iron (Fe) and phosphorus (P). Chemical identity: M<sub>x</sub>O<sub>y</sub>•SiO<sub>2</sub> (M = Al, Ca, Mg and other minor metal, with bound silica (SiO<sub>2</sub>)).

Chemical analysis of fly ash and bottom ash also indicate the presence of trace amounts of metals, such as: Arsenic (As), Barium (Ba), Beryllium (Be), Cobalt (Co), Lead (Pb), and Manganese (Mn).

### Section 3: HAZARD IDENTIFICATION





### Section 3: HAZARD IDENTIFICATION (continued)

Emergency Overview:	Ash is a solid, grey/black or brown/tan, odorless powder which may contain solidified masses. It is not combustible or explosive. A single, short-term exposure to the dry powder presents little or no hazard.		
Potential Health Effects:			
Eye Contact:	Airborne dust may cause immediate or delayed irritation or inflammation. Eye contact with large amounts of dry powder or with wet ash can cause moderate eye irritation. Eye exposures require immediate first aid to prevent significant damage to the eye.		
Skin Contact:	Ash may cause dry skin, discomfort, and irritation.		
Inhalation (acute):	Breathing dust may cause nose, throat or lung irritation, including choking, depending on the degree of exposure.		
	Ash may contain trace amounts of ammonia or ammonia bisulfate. Contact with water or moisture can cause the ammonia to be released from ash into the air. Inhalation of ammonia can cause coughing and irritation or burns to the nose, throat and lungs. These effects depend on the concentration of ammonia inhaled.		
Inhalation (chronic):	Risk of injury depends on duration and level of exposure.		
<u>Silicosis</u> :	This product contains crystalline silica. Prolonged or repeated inhalation of respirable crystalline silica from this product can cause silicosis, a seriously disabling and fatal lung disease. See Note to Physicians in Section 4 for further information.		
Carcinogenicity:	Ash is not listed as a carcinogen by IARC or NTP; however, ash contains trace amounts of crystalline silica which is classified by IARC and NTP as known human carcinogen.		
<u>Autoimmune</u> <u>Disease</u> :	Some studies show that exposure to respirable crystalline silica (without silicosis) or that the disease silicosis may be associated with the increased incidence of several autoimmune disorders such as scleroderma (thickening of the skin), systemic lupus erythematosus, rheumatoid arthritis and diseases affecting the kidneys.		
Tuberculosis:	Silicosis increases the risk of tuberculosis.		
<u>Renal Disease</u> :	Some studies show an increased incidence of chronic kidney disease and end-stage renal disease in workers exposed to respirable crystalline silica.		
Ingestion:	Do not ingest ash. Although ingestion of small quantities of ash is not known to be harmful, large quantities can cause distress to the digestive tract.		
Medical Conditions Aggravated by Exposure:	Individuals with lung disease (e.g. bronchitis, emphysema, COPD, pulmonary disease) can be aggravated by exposure.		
Section 4: FIRST AID MEA	ASURES		
Eye Contact:	Rinse eyes thoroughly with water for at least 15 minutes, including under lids, to remove all particles. Seek medical attention for abrasions.		
Skin Contact:	Wash with cool water and a pH neutral soap or a mild skin detergent. Seek medical attention for rash, irritation, and prolonged unprotected exposures to wet ash, cement, cement mixtures or liquids from wet cement.		
Inhalation:	Move person to fresh air. Seek medical attention for discomfort or if coughing or other symptoms do not subside.		



#### Section 4: FIRST AID MEASURES (continued)

Ingestion:	Do not induce vomiting. If conscious, have person drink plenty of water. Seek medical attention or contact poison control center immediately.				
Note to Physician:	The three types of silicosis include:				
	<ul> <li>Simple chronic silicosis – which results from long-term exposure (more than 20 years) to low amounts of respirable crystalline silica. Nodules of chronic inflammation and scarring provoked by the respirable crystalline silica form in the lungs and chest lymph nodes. This disease may feature breathlessness and may resemble chronic obstructive pulmonary disease (COPD).</li> <li>Accelerated silicosis – occurs after exposure to larger amounts of respirable crystalline silica over a shorter period of time (5-15 years). Inflammation, scarring, and symptoms progress faster in accelerated silicosis than in simple silicosis.</li> <li>Acute silicosis – results from short-term exposure to very large amounts of</li> </ul>				

 Acute silicosis – results from short-term exposure to very large amounts of respirable crystalline silica. The lungs become very inflamed and may fill with fluid, causing severe shortness of breath and low blood oxygen levels.

Progressive massive fibrosis may occur in simple or accelerated silicosis, but is more common in the accelerated form. Progressive massive fibrosis results from severe scarring and leads to the destruction of normal lung structures.

### Section 5: FIREFIGHTING MEASURES

Flashpoint & Method: General Hazard:	Non-combustible Avoid breathing dust.	Firefighting Equipment:	Ash poses no fire-related hazard. A SCBA is recommended to limit
Extinguishing Media:	Use extinguishing media appropriate for surrounding fire.		exposures to combustion products when fighting any fire.
		<b>Combustion Products:</b>	None.

### Section 6: ACCIDENTAL RELEASE MEASURES

General: Place spilled material into a container. Avoid actions that cause the ash to become airborne. Avoid inhalation of ash and contact with skin. Wear appropriate protective equipment as described in Section 8. Scrape wet ash and place in container. Allow material to dry or solidify before disposal. Do not wash ash down sewage and drainage systems or into bodies of water (e.g. streams).

Waste Disposal Method: Dispose of ash according to Federal, State, Provincial and Local regulations.

#### Section 7: HANDLING AND STORAGE

General: Keep bulk and bagged ash and dry until used. Stack bagged material in a secure manner to prevent falling. Bagged ash is heavy and poses risks such as sprains and strains to the back, arms, shoulders and legs during lifting and mixing. Handle with care and use appropriate control measures.

Engulfment hazard. To prevent burial or suffocation, do not enter a confined space, such as a silo, bin, bulk truck, or other storage container or vessel that stores or contains ash. Ash can buildup or adhere to the walls of a confined space. The ash can release, collapse or fall unexpectedly.



### Section 7: HANDLING AND STORAGE (continued)

	Properly ground all pneumatic con build-up and static discharge when non-grounded pneumatic conveyar damage to equipment and injury to y	veyance systems. The moving ash through a p ice system. The static workers.	potential exists for static lastic, non-conductive, or discharge may result in
Usage:	Cutting, crushing or grinding harder bearing materials will release re measures of dust control or suppre- described in Section 8 below.	ned cement, concrete of spirable crystalline sili ssion, and Personal Pro	or other crystalline silica- ca. Use all appropriate otective Equipment (PPE)
Housekeeping:	Avoid actions that cause the ash to become airborne during clean-up such as dry sweeping or using compressed air. Use HEPA vacuum or thoroughly wet with water to clean-up dust. Use PPE described in Section 8 below.		
Storage Temperature:	Unlimited.	Storage Pressure:	Unlimited.
Clothing:	Promptly remove and launder clothing that is dusty or wet with ash. Thoroughly wash skin after exposure to dust or wet ash.		

### Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Controls: Use local exhaust or general dilution ventilation or other suppression methods to maintain dust levels below exposure limits.

### Personal Protective Equipment (PPE):

Respiratory Protection:	Under ordinary conditions no respiratory protection is required. Wear a NIOSH approved respirator that is properly fitted and is in good condition when exposed to dust above exposure limits.
Eye Protection:	Wear ANSI approved glasses or safety goggles when handling dust or wet ash to prevent contact with eyes. Wearing contact lenses when using ash, under dusty conditions, is not recommended.

Skin Protection: Wear gloves, boot covers and protective clothing impervious to water to prevent skin contact. Do not rely on barrier creams, in place of impervious gloves. Remove clothing and protective equipment that becomes saturated with wet ash or cement and immediately wash exposed areas.

### Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid (powder).	Evaporation Rate:	NA.
Appearance:	Gray/black or brown/tan powder which may contain solidified masses.	pH (in water):	4-12
Odor:	None.	<b>Boiling Point:</b>	>1000° C
Vapor Pressure:	NA.	Freezing Point:	None, solid.
Vapor Density:	NA.	Viscosity:	None, solid.
Specific Gravity:	2 - 2.9	Solubility in Water:	Slightly (< 5%)



### Section 10: STABILITY AND REACTIVITY

Stability: Stable. Keep dry until use. Avoid contact with incompatible materials.

Incompatibility: Ash is incompatible with acids, ammonium salts and aluminum metal. Ash dissolves in hydrofluoric acid, producing corrosive silicon tetrafluoride gas. Ash reacts with water to form silicates and calcium hydroxide. Silicates react with powerful oxidizers such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride.

Hazardous Polymerization: None. Hazardous Decomposition: None.

### Section 11 and 12: TOXICOLOGICAL AND ECOLOGICAL INFORMATION

For questions regarding toxicological and ecological information refer to contact information in Section 1.

### Section 13: DISPOSAL CONSIDERATIONS

Dispose of waste and containers in compliance with applicable Federal, State, Provincial and Local regulations.

### Section 14: TRANSPORT INFORMATION

This product is not classified as a Hazardous Material under U.S. DOT or Canadian TDG regulations.

### Section 15: REGULATORY INFORMATION

OSHA/MSHA Hazard Communication:	This product is considered by OSHA/MSHA to be a hazardous chemical and should be included in the employer's hazard communication program.
CERCLA/SUPERFUND:	This product is not listed as a CERCLA hazardous substance.
EPCRA SARA Title III:	This product has been reviewed according to the EPA Hazard Categories promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 and is considered a hazardous chemical and a delayed health hazard.
EPRCA SARA Section 313:	This product contains none of the substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.
RCRA:	If discarded in its purchased form, this product would not be a hazardous waste either by listing or characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.
TSCA:	Ash and crystalline silica are exempt from reporting under the inventory update rule.
California Proposition 65:	Crystalline silica (airborne particulates of respirable size) is known by the State of California to cause cancer.
WHMIS/DSL:	Products containing crystalline silica are classified as D2A, E and are subject to WHMIS requirements.



### Section 16: OTHER INFORMATION

### Abbreviations:

- CAPAGE OF MILLION	1 142 +		
>	Greater than	NA	Not Applicable
ACGIH	American Conference of Governmental Industrial Hygienists	NFPA	National Fire Protection Association
CAS No	Chemical Abstract Service number	NIOSH	National Institute for Occupational Safety and Health
	Comprehensive Environmental	NTP	National Toxicology Program
CERCLA	Response, Compensation and Liability Act	OSHA	Occupational Safety and Health Administration
CFR	Code for Federal Regulations	PEL	Permissible Exposure Limit
CL	Ceiling Limit	pН	Negative log of hydrogen ion
DOT	U.S. Department of Transportation	PPE	Personal Protective Equipment
EST	Eastern Standard Time	R	Respirable Particulate
HEPA	High-Efficiency Particulate Air	RCRA	<b>Resource Conservation and Recovery Act</b>
HMIS	Hazardous Materials Identification System	SARA	Superfund Amendments and Reauthorization Act
	International Agency for Research on	т	Total Particulate
	Cancer	TDG	Transportation of Dangerous Goods
LC50	Lethal Concentration	TLV	Threshold Limit Value
LD50	Lethal Dose	TWA	Time Weighted Average (8 hour)
mg/m <sup>3</sup>	Milligrams per cubic meter	MALINIC	Workplace Hazardous Materials
MSHA	Mine Safety and Health Administration	CIMPAN	Information System

This MSDS (Sections 1-16) was revised on March 1, 2008.

An electronic version of this MSDS is available at: www.lafarge-na.com under the Products section.

Lafarge North America Inc. (LNA) believes the information contained herein is accurate; however, LNA makes no guarantees with respect to such accuracy and assumes no liability in connection with the use of the information contained herein which is not intended to be and should not be construed as legal advice or as insuring compliance with any federal, state or local laws or regulations. Any party using this product should review all such laws, rules, or regulations prior to use, including but not limited to US and Canada Federal, Provincial and State regulations.

NO WARRANTY IS MADE, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE.

APPENDIX E

PHOTO LOGS

Project: Name of Site:	Hayton Area Remediation Project OU1/Segment 7 Sediment Trap	Photographer: Location:	John Torke New Holstein, WI	]
<b>Direction:</b> Facing NW <b>Photo Date &amp; Description:</b> 07/2 diversion of flow in Jordan Creek used to excavate soft sediment fro Bedrock was encountered under t downstream end of the sediment	<b>Photo No.: 1</b> 28/2010 – Following the temporary a, a long reach excavator is being tom the bed of Jordan Creek. The sediment layer at the trap.	<b>Direction:</b> n/a <b>Photo Date &amp; Description:</b> 0 <sup>7</sup> the excavation area is pumped a bag filtration and carbon adso outside of the work zone.	<b>Photo No.: 2</b> 7/29/2010 – Accumulated out. The water is processe orption system prior to dise	water in d through charge





Project: Name of Site:	Hayton Area Remediation Project OU1/Segment 7 Sediment Trap	Photographer: Location:	John Torke New Holstein, WI
<b>Direction:</b> Facing NW <b>Photo Date &amp; Description:</b> 07/2 near the downstream end of the set the excavated soft sediment layer clay, and bedrock.	<b>Photo No.: 5</b> 29/2010 – Excavated channel bed ediment trap. The layer beneath varied by location, including sand,	<b>Direction:</b> Facing N <b>Photo Date &amp; Description:</b> 08 excavated sediment from the se off-site disposal at the Veolia H WI.	<b>Photo No.: 6</b> 8/02/2010 – A backhoe loads staged ediment trap into a dump truck for lickory Meadows Landfill in Hilbert,

	Project: Name of Site:	Hayton Area Remediation Project OU1/Segment 7 Sediment Trap	Photographer: John Torke Location: New Holstein, WI
<b>Direction:</b> <b>Photo Dat</b> downstreat following t has been re	Facing NE <b>&amp; Description:</b> 08/0 m end of the OU1/Segn the completion of remedestored.	Photo No.: 7 4/2010 – The cross vane at the nent 7 sediment trap is in place diation. The flow of Jordan Creek	Direction:       Facing N       Photo No.: 8         Photo Date & Description:       08/04/2010 – Seed and erosion control mat were installed along the areas along the creek that were disturbed during construction. This photo was taken near Tecumseh Road at the start of the sediment trap.
			<image/>





	Project: Name of Site:	Hayton Area Remediation Project OU1/Segment 7 Sediment Trap	Photographer: Location:	John Torke New Holstein, WI	
Direction: Photo Dat mat were in disturbed of background	Facing S e & Description: 08/0 nstalled along the areas luring construction. Te d.	<b>Photo No.: 11</b> 5/2010 – Seed and erosion control along the creek that were cumseh Road is shown in the	<b>Direction:</b> Facing NW <b>Photo Date &amp; Description:</b> 08 mat were installed along the are disturbed during construction. T portion of the sediment trap, fac	<b>Photo No.: 12</b> 8/05/2010 – Seed and erosion co as along the creek that were This photo shows the downstrea bing downstream.	ntrol m

200

	Project:	Hayton Area Remediation Project	Photographer: John Torke
	Name of Site:	OU1/Segment 7 Sediment Trap	Location: New Holstein, WI
<b>Direction:</b> <b>Photo Dat</b> mat were i disturbed d vane, facin	Facing W e & Description: 08/0 nstalled along the areas luring construction. Th ag upstream towards the	<b>Photo No.: 13</b> 5/2010 – Seed and erosion control along the creek that were is photo was taken near the cross e sediment trap.	Direction: Facing SW Photo No.: 14 Photo Date & Description: 08/05/2010 – Seed and erosion control mat were installed along the areas along the creek that were disturbed during construction. Tecumseh Road is shown in the background.

