#### **EPC** Engineering & Testing

#### Geotechnical • Environmental • Materials Engineering

539 Garfield Avenue Duluth, Minnesota 55802 (218) 727-1239 (218) 727-1248 fax

May 1, 2007 EPC # 05E0034

Mr. Steve Willis Plant Manager Koppers Inc. P.O. Box 397 Superior, Wisconsin 54880

Re:

**Decommissioning Report** 

Koppers Inc.

Superior, Wisconsin

Dear Mr. Willis:

Enclosed is the Decommissioning Report for the treating process, equipment and buildings for the Koppers Inc. Superior, Wisconsin facility. The decommissioning activities took place between July 5, 2006 and January 12, 2007 and generally followed the Decommissioning Plan submitted to the Wisconsin Department of Natural Resources (WDNR) on April 19, 2006

The Report is comprised of text, photographs and other supporting documentation.

As an independent registered professional engineer in the State of Wisconsin, this information is, to the best of my knowledge, true, complete, and accurate.

BRIAN E

MCVEAN

ENGINEER

28673

Sincerely,

EPC Engineering & Testing

Brian E. McVean, P.E. Principal Engineer

Enclosure:

As stated

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# Decommissioning Report for the Treating Process, Equipment, and Buildings at Koppers Inc. Superior, WI Facility

May 1, 2007

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#### **ATTACHMENTS**

- A Select Photographs
- B April 17, 2006 Decommission Plan
- C WDNR Communications
- D Laboratory Analytical Reports
  E Demolition and Scrap Shipment Documentation

#### 1.0 INTRODUCTION

Koppers Inc. (Koppers) has ceased wood treating operations at its Superior, Wisconsin facility. This Decommissioning Report (Report) is being submitted to the Wisconsin Department of Natural Resources (WDNR) to document decommissioning activities and obtain closure approval on the regulated drip pad. Decommissioning activities at the facility were completed in accordance with the April 17, 2006, Plan for Decommissioning Treating Process, Equipment, and Buildings at Koppers Inc. Superior, Wisconsin Facility (Plan), previously submitted to the WDNR. For convenience, this Report follows the outline of the Plan.

This Report is organized into six main sections, as follows.

- Introduction This section provides an overview of the facility's current operations, environmental investigation/remediation activities, and approach to decommissioning/closure.
- 2. General Schedule A general schedule for decommissioning/closure activities.
- 3. Permits The status of existing permits is provided.
- 4. Wood Treating Facility Decommissioning Discussion on closure activities for the drip pad, remaining treating solutions and listed wood treating wastes. This includes documentation of the procedures used to deal with residuals, tanks, concrete and brick.
- 5. Other Other decommissioning activities, not addressed in the Plan or not impacted by wood treating, is discussed.
- 6. Waste Inventory and Manifests Summary tables and information regarding waste types, quantities, destinations and manifests/receipts.

Included with this Report is supporting documentation consisting of photographs (Attachment A), communications, and laboratory analytical reports. Waste manifests, weigh slips, receipts, etc., associated with the facility decommissioning/closure are summarized in Section 6.0 of this Report and are retained by Koppers.

#### 1.1 Facility Current Operations

Koppers ceased wood treatment operations at the Superior facility on November 18, 2005. On April 19, 2006, a Decommissioning Plan was submitted to the WDNR. This Plan is included as Attachment B. No wood treating is currently being conducted at the facility, which is currently used for receiving, storing and transferring untreated wood. Remaining structures on-site consist of the main office and garage/shop.

#### 1.2 Active Facility Environmental Investigation/Remediation

Beginning in 1982, two clay-lined wastewater impoundments were used at the facility for wastewater treatment. A Closure and Post-Closure Plan for these impoundments was submitted to the WDNR by a prior owner in August 1987. A Conditional Closure and Long-Term Care Plan

Approval was provided by the WDNR in October 1987. All wastes were removed from these impoundments by August 1988 as K001 listed hazardous waste, but it was determined that K001 constituents remained and therefore the impoundments were closed as a landfill. Closure activities were completed in August 1989 and documented in a Construction Documentation Surface Impoundment Closure Report that was submitted to the WDNR (November 1989). Because the State had not yet received authorization to implement the 1984 Hazardous and Solid Waste Amendments (HSWA), the U.S. EPA issued the HSWA portion of the permit for the facility in September 1988, which included the need to investigate the nature and extent of releases from solid waste management units (SWMUs). In September 1995, the WDNR issued a modification to the Closure and Long-Term Care Approval, which included provisions for state authorized site-wide corrective action for releases from SWMUs, under the State's newly acquired HSWA authority. In October 1996, the WDNR issued a Conditional Closure and Long-Term Care Approval Modification that provided additional requirements for the site-wide corrective action activities. The site-wide corrective action activities are being performed pursuant to the Closure and Long-Term Care Plan Approval and a Hazardous Waste Facility Operation License issued by the WDNR in 1990.

Koppers, in agreement with the WDNR, has decided to close the drip track as part of the site wide RCRA closure, rather than under the drip track regulations. An investigation of the soil and groundwater under/adjacent to the drip track was initiated in November 2006. Results of the investigation will be submitted to the WDNR under separate cover.

#### 1.3 Approach for Decommissioning

Koppers completed decommissioning activities in accordance with the April 17, 2006 (Plan). More detailed information on the decommissioning activities is included in subsequent sections of this Report. Variations or additions to the Plan are also included with this Report. As mentioned in the Plan, particular attention was paid to the management of listed hazardous waste within a 90-day time frame, in order to meet allowable hazardous waste accumulation requirements.

#### 2.0 GENERAL SCHEDULE

Facility decommissioning/closure and activities began on July 5, 2006 and were completed by January 12, 2007. Numerous communications/updates with WDNR personnel were made throughout the decommissioning/closure activities. Select communications with the WDNR are included in Attachment C.

#### 3.0 PERMITS

The following provides an update of the status of the facility's permits.

#### 3.1 Air Quality Permit (No. 816009810-S02)

On July 10, 2006 Koppers notified the Air Management staff of the WDNR's Superior, Wisconsin office and requested termination of the air quality permit. The Permit was subsequently terminated on July 11, 2006.

3.2 Process Wastewater Conditional Approval for Modifications to Wastewater Pretreatment System (State Approval No. 95-0013 and Exemption No. 99-DMR-716)

Systems covered by this approval and exemption were not utilized during decommissioning. All the equipment that comprised the approved pre-treatment system was cleaned and subsequently removed. Water generated during the decommissioning process was either shipped to the City of Superior POTW, under city-issued Permit #2006KOP1, or handled by Clean Harbors as FO34 waste.

#### 3.3 Boiler Water Discharge General Permit (WI-0044938-5)

Prior to removal of the gas-fired boiler covered by the permit, notification regarding the decommissioning of the facility was submitted to the Northern Region of the WDNR on July 10, 2006. Koppers received notification on July 11, 2006 that the permit was terminated.

#### 3.4 Stormwater Discharge General Permit (WI-S067849-2)

Koppers continues to operate under this permit and is in discussion with the WDNR about how the facility decommissioning/closure affects the existing permit. Koppers understands that this Notice must be approved by the Department in order for General Permit obligations of Koppers to cease.

#### 4.0 WOOD TREATING FACILITY DECOMMISSIONING/CLOSURE

Facility decommissioning included disposal of the following types of waste:

- ✓ Hazardous Waste K001 –Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote or pentachlorophenol. This bottom sediment sludge is a listed hazardous waste both federally (40 CFR Part 261) and in Wisconsin (Chapter NR 661).
- ✓ Hazardous Waste F034 Wastewaters (except those that have not come into contact with
  process contaminants), process residuals, preservative drippage and spent formulations
  from wood preserving processes generated at plants that use creosote formulations. This
  listing does not include K001 bottom sediment sludge from the treatment of wastewaters
  from wood preserving processes that use creosote or pentachlorophenol. Creosote-related
  wood treating wastes are listed hazardous wastes both federally (40 CFR Part 261) and in
  Wisconsin (Chapter NR 661).
- ✓ Asbestos Waste Construction and Demolition material with Asbestos Containing Material (ACM) must be stored, transported and disposed in accordance with chs. NR 500 to 538, Wis. Adm. Code.

It should be noted that historically the facility utilized pentachlorophenol as a treating solution (reportedly last used in 1979). As a part of Koppers' decommissioning/closure approach, the need for designating waste as F032 or equipment cleaning to eliminate the F032 waste code in accordance with Chapter NR 661.35(2) was not required because any materials encountered as a waste or equipment that managed pentachlorophenol in the past was regulated as a hazardous waste F034 as described in the F032 listing at NR 661.31 or recycled as exempt scrap metal in accordance with Chapter NR 661.04(1).

#### 4.1 Product

Koppers removed and transported its remaining treating solution (approximately 30,000 gallons) as a commercial chemical product to another wood treating facility in November 2005 prior to decommissioning activities.

#### 4.2 Drip Pad

The drip pad at the Superior facility was lined with concrete in the late 1970s/early 1980s. As part of the construction of an extension and expansion of the drip pad in the early 1990s, soils were excavated to a depth of two to three feet in the extension/expansion area. The drip pad at Superior became subject to federal regulation under 40 CFR 265, Subpart W, in the early 1990s and subsequently in the mid-1990s under Chapter NR 656 in Wisconsin. Wisconsin NR 656 was updated to NR 665 during 2006, however the drip pad was not operated after November of 2005. Therefore, the drip pad was operated by Koppers at the facility under 40 CFR Part 265, Subpart W and Wisconsin Chapter NR 656 requirements, since those rules became effective.

This drip pad was operated as a temporary accumulation unit by removing all wastes within a 90-day time frame, in addition to the other requirements listed for drip pads at Chapter 615.05(4)(b)(4), and as a consequence was specifically exempted from certain regulations, as listed at NR 656.04(2) and NR 656.08(1).

Koppers completed decommissioning/closure of the drip pad in accordance with the April 17, 2006 Plan. In general, and with the agreement of the WDNR, the drip pad concrete was cleaned, tested, and coated and left in place. The drainage portion of the drip pad system was also cleaned and closed. Additionally, Koppers performed soil and groundwater testing adjacent to the drip pad as part of a "Clean Closure" approval request. The field samples were collected in November 2006. Koppers will submit the results of the testing to the WDNR under a separate report.

As discussed in the April 2006 Plan, contamination underneath the drip pad is being addressed pursuant to the facility Closure and Long-Term Care Plan Approval.

#### 4.2.1 Drip Pad Decommissioning/Closure

Koppers followed the cleaning technology protocol listed for hazardous debris at Chapter NR 668.45 in accordance with the April 17, 2006 Plan. Solids on the drip pad were removed for off-site disposal as F034 hazardous waste.

A physical extraction technology listed in Table 1 of NR 668.45 was utilized to clean the concrete to a visually clean surface. The drip pad was power washed multiple times with a Hotsy Power Washer (rated at 200 ° F, and 3500 psi) using potable water. Wash water was collected for management and disposed of off-site at the POTW or by Clean Harbors as FO34 waste. Residues/solids from the physical extraction process were collected and managed as F034 hazardous waste.

After the physical extraction process, the pad was rinsed one more time to remove dust/dirt and a rinse test was then performed. Potable water was sprayed over the entire surface of the drip pad and samples were collected at each of the sump locations. The samples were then combined and a composite sample was obtained and transported to Test America (Buffalo Grove, Illinois) under standard chain-of-custody procedures. The rinsate, which was very clear, was analyzed for arsenic and chromium (EPA Method 6010B) and polynuclear aromatic hydrocarbons (PAH) (EPA Method 8310). The metals were not detected above the reporting limits. Four PAH compounds were detected above the reporting limits, namely Benzo (a) anthracene, Benzo (a) pyrene, Benzo (b) flouranthene and chrysene at 0.322 ug/l, 0.178 ug/l, 0.612 ug/l and 1.26 ug/l, respectively. The drip pad/concrete surface was determined to be "clean". The analytical laboratory report for the rinsate test is included with this Report in Attachment D.

Following the rinsate testing, the wastewater collection piping was rinsed, capped and abandoned in-place. The pipe outlets from the drip pad sumps were filled with concrete and the sumps were also filled with concrete to match the existing level of the drip pad at each collection sump location. Cracks and chips in the concrete were filled with True Bond epoxy.

Each of the ground sumps along the drip pad were filled with clean sand and then capped with new concrete.

After decommissioning the wastewater collection components, the entire drip pad was then sealed with OverKrete ® E 100S (with a permeability of  $< 1 \times 10^{-10}$  cm/sec) which meets the permeability requirements of 40 CFR, part 265, Subpart W.

Because the drip pad has not been officially closed by the WDNR, a licensed professional engineer completed the annual inspection/certification on December 6, 2006 in accordance with 40 CFR, part 265, Subpart W. A copy of the certification was sent to the WDNR and is on file at Koppers' facility.

#### 4.3 TANKS, RESIDUALS, AND CONCRETE

#### 4.3.1 Tanks

All tanks containing wood treating solutions or associated with the wastewater system had their contents removed, were cleaned by power washing with the same equipment as the drip pad (Section 4.2.1), and cut up for scrap in accordance with Chapter NR 661.04(1). Residuals removed from the tanks were solidified with fly ash (from a local concrete supplier) and sawdust, and managed as F034 or K001 hazardous waste, as applicable. The tank metal was then recycled as scrap metal by SIMKO Superior Ltd, Superior, Wisconsin.

Koppers required its contractor to supply information documenting that the metal is being sent to a recycler and recycled, to document compliance with the terms of the State scrap metal exemption. This documentation is summarized in Section 6 of this Report.

#### 4.3.2 Residuals

All listed wood treating related residuals were managed in accordance with the applicable hazardous waste management requirements. Residuals included materials removed from tanks, containment areas, the drip pad, or as a result of decontamination of metal, concrete or brick. Documentation and manifests are summarized in Section 6.

#### 4.3.3 Concrete

Concrete containment associated with the wood treating process, cylinder basement and tank farm area, and hazardous waste accumulation areas, all of which are not considered part of the drip pad

system, were cleaned and decommissioned. Any solids present were removed for off-site disposal as F034 hazardous waste. Surfaces were then power washed (Section 4.2.1) to obtain a visually clean appearance. Wash water was disposed off site by Clean Harbors as FO34 waste or sent to the POTW for management. Residues from the cleaning process were also managed as F034 hazardous waste.

The concrete floor and dike walls of the tank farm were left in place and were subsequently covered with clean sand fill and ultimately sealed with a surface layer of new concrete.

The treating building basement was cleaned per above, and filled to grade with new concrete, uncontaminated building demolition materials, and clean sand. After being filled, the entire treating building area was then covered with a surface layer of new concrete.

#### 4.3.4 Brick

Several areas of the treating building were visually identified as being contaminated with creosote compounds. Upon completion of cleaning and pressure washing, a composite of the stained brick was sent under chain-of-custody procedures to Braun Intertec in Bloomington, Minnesota for analysis. The brick was analyzed for TCLP metals (EPA Method 6010B/7470A) Semi-volatiles (EPA Method 8270C), and Volatiles (EPA Method 8260B) and a copy of the laboratory report was submitted to the WDNR and is included in Attachment D. Results indicated very low-level detections for four of the metals and nine of the semi-volatile compounds. A joint decision between Koppers and the WDNR was made to remove (via sandblasting) the stained portions of the brick surface and then dispose of the brick as a road base aggregate.

The stained areas were isolated off with the use of scaffolding, lumber and plastic prior to the walls being sandblasted. These areas included: the walls and ceiling of the cylinder door area; portions of the ceiling above the cylinders in the treating building; and portions of the southeast, southwest and southern wall of the treating building. The sand and stained brick material removed was collected and manifested for off site disposal as F034 hazardous waste. Photographs documenting the stain removal areas (before and after) were taken and some of these photos are included with this Report. The cleaned brick was then taken to Lakehead Blacktop of Superior, Wisconsin to be crushed and reused as road base aggregate.

#### 5.0 OTHER

For the remaining portion of the facility, standard demolition activities were conducted. Other notable decommissioning activities include the following.

Asbestos assessment and abatement activities were completed as part of the demolition. Asbestos was removed from cylinder # 1 and the A & B Mill prior to demolition. Surveys, notifications and removal/abatement were performed in accordance with WDNR Air Management guidelines. Surveys/assessments were performed by Twin Ports Testing of Superior, Wisconsin and PSI of St. Paul, Minnesota; abatement/removal was completed by Envirotech Remediation Services of Two Harbors, Minnesota and EBN of Virginia, Minnesota; asbestos demolition waste was sent to Lakehead Blacktop's demolition landfill and asbestos removed prior to demolition was sent to Clean Harbors Lone Mountain, Waynoka, Oklahoma.

Odd-lot chemicals, including miscellaneous boiler chemicals, paint, petroleum, etc., were lab packed by Clean Harbors and disposed of off site. Approximately 4500 pounds were shipped to Clean Harbors in El Dorado, Arkansas.

#### 6.0 WASTE INVENTORY AND MANIFESTS

An inventory summary of the waste types, quantities, destinations and manifest identification derived from the decommissioning and closure of the facility is included below. Correspondence and documentation associated with demolition and scrap shipments are included in Attachment E.

#### SHIPMENTS SENT TO LAKEHEAD BLACKTOP, SUPERIOR, WI

Date	Brick/Concrete	Demolition	Total Loads
10/30/06	4	3	7
10/31/06	2	5	7
11/01/06	8	0	8
11/02/06	1	2	3
12/21/06	8	2	10
12/22/06	6	0	6
12/27/06	11	6	17
12/28/06	12	9	21
12/29/06	7	3	10
Totals	59	30	89

### SHIPMENTS SENT TO CITY OF SUPERIOR POTW

Date	Manifest	Quantity (gals)	
4/11/2006	WIK281903	5000	
•	WIK281902	5000	1
	WIK281905	5000	
	WIK281906	5000	1
	WIK281907	5000	]
5/10/2006	WIK533637	5500	
	WIK533602	5500	
	WIK533601	5500	1
	WIK281909	5500	1
	WIK281904	5600	
	WIK281908	5500	1
5/19/2006	WIK533636	5500	
	WIK533635	5500	
	WIK533634	5500	]
	WIK533638	5500	]
	WIK533639	5500	
5/26/2006	WIK533603	5500	
	WIK533608	5500	
	WIK533609	5500	
	WIK533610	5500	
	WIK533640	5500	
7/20/2006	WIK533604	6000	
	WIK533605	5000	
	WIK533606	5500	
	WIK533607	5500	
	WIK533613	5500	
	WIK533611	5500	
9/21/2006	180419JJK	5500	
	180420JJK	5500	
[	180421JJK	5500	
	180422JJK	5500	
10/10/2006	180423JJK	5500	
	180424JJK	5500	
	180425JJK	5500	
	180426JJK	5500	
	180441JJK	5500	
	Total	195600	gals

## SHIPMENTS SENT TO CLEAN HARBORS

		FO34 Sludge		FO34 WW	K001 Sludge		FO34 and	
Date	Manifest	(yds)	KG	(gals)	(yds)	KG	asbestos	Lbs
07/13/06	WIK529883	20	11050					
07/19/06	WIK529893	25	17430					
07/24/06	WIK334656	25	15540					
07/26/06	WIK529892	20	9260					
07/27/06	WIK334659	25	7850					
07/31/06	WIK334661	20	4600					
07/31/06	IL10516990			5500				
08/02/06	IL10516989			5100				
08/02/06	WIK334660	20	14580					
08/07/06	WIK334665	25	12970					
08/08/06	IL10516991			5709				
08/10/06	IL10516992			5743				
08/10/06	WIK334664	25	15840					
08/14/06	WIK529882				25	13070		
08/15/06	IL10516584			5567				
08/17/06	WIK529880				20	11170		
08/21/06	WIK536423						15	4420
08/22/06	WIK529884	20	12850					
08/24/06	WIK529879				20	12990		
08/30/06	WIK529878				20	11420		
09/05/06	375029FLE	25	10750					
09/07/06	375008FLE	20	14770					
09/11/06	679820FLE				20	10710		
09/11/06	679703FLE			5567				
09/13/06	679823FLE				25	14690		
09/25/06	679822FLE				25	11110		
09/25/06	679815FLE			5603				
09/27/06	679821FLE				25	15290		
10/02/06	375010FLE				20	12550		
10/02/06	679827FLE			5638				
10/04/06	681957FLE				25	13340		
10/04/06	679826FLE			5494				
10/09/06	679819FLE	25	7470					
10/09/06	679814FLE			2150				
10/11/06	681984FLE				25	13930		·
10/16/06	679817FLE	20	13600					
10/19/06	681983FLE				25	12840		
10/23/06	681981FLE				25	8830		
10/23/06	679825FLE			5060				
10/26/06	679824FLE			5621				
10/30/06	375011FLE			5560				
11/01/06	375013FLE			4980				
11/30/06	375012FLE			5600				
12/13/06	375093FLE			5200				
12/27/06	679818FLE	25	11070					
	Total		179630			161940		
		340	(KG)	84092	300	(KG)	15	4420
		(yds)	396012.3 (lbs)	(Gals)	(yds)	357012.9 (lbs)	(yds)	(lbs)
		FO34 S		FO34 Water	K001 S		FO34 A	sbestos

# SHIPMENTS SENT TO SIMKO, SUPERIOR, WI

Date	Weigh Slip	Weight (LBS)		
10/02/06	1268	24460	tanks	
10/02/06	1270	28300	tanks	
10/02/06	1271	23840	tanks	
10/02/06	1274	23200	tanks	
10/02/06	1275	20740	tanks	
10/02/06	1278	18340	tanks	
10/02/06	1279	14360	pipe	
10/03/06	1280	16860	pipe	
10/03/06	1282	19560	pipe	
10/03/06	1284	11820	pipe	
10/03/06	1286	36440	trams	
10/03/06	1288	30500	trams	
10/04/06	1296	22620	pipe	
10/04/06	1298	33040	trams	
10/04/06	1301	38520	trams	
10/04/06	1303	27740	trams	
10/04/06	1304	32880	trams	
10/04/06	1306	28660	trams	
10/04/06	1308	19500	pipe	
10/05/06	1311	26340	trams	
10/03/00	1311	7500		
10/05/06	1313	33840	pipe trams	
10/03/06	1453	14600	mill scrap	
10/31/06	1456	27460		
10/31/06	1460	30900	mill scrap	
11/01/06	1469	16140	mill scrap	
			mill scrap	
11/01/06	1470 1472	8460 32240	mill tin	
11/02/06			mill scrap	
11/02/06	1475	6020	tin	
11/02/06	1477	19600	tin	
11/02/06	1478	22820	tin	
11/17/06	1569	850	aluminum	
12/20/06	1692	20020	yard scrap	
12/21/06	1704	34600	treating demo	
12/21/06	1708	18720	treating demo	
12/22/06	1715	18820	treating demo	
12/22/06	1716	20260	treating demo	
12/22/06	1717	20300	treating demo	
12/22/06	1718	16740	treating demo	
12/22/06	1720	34820	treating demo	
12/22/06	1721	31180	treating demo	
12/28/06	1744	46020	treating demo	
12/28/06	1750	20300	treating demo	
12/28/06	1752	17420	treating demo	
12/28/06	1751	25220	treating demo	
12/28/06	1753	40760	treating demo	
12/28/06	1754	37880	treating demo	
12/28/06	1758	43780	treating demo	
12/28/06	1759	24980	treating demo	
12/29/06	1760	44860	treating demo	
12/29/06	1762	45620	treating demo	
12/29/06	1763	42800	treating demo	
12/29/06	1764	37680	treating demo	
12/29/06	1765	24920	treating demo	
Total		810310		

# **ATTACHMENT A**

# SELECT PHOTOGRAPHS

Views of tank farm and treating area during the project.



Tank farm after first week of work.



Tank farm on September 29<sup>th</sup> after several tanks cleaned and removed for scrap.



Treating area view on October 25<sup>th</sup>.



Treating area view on December 29<sup>th</sup>.

# Building and tank farm area concrete cap



Concrete poured in basement floor area and door pits after pressure washing.



The start of taking down the building.



Tank farm and treating building area filled with clean sand prior to concrete cap.



View of the treating department site on January 15<sup>th</sup>, 2007.

# Sections of drip pad prior to cleaning



Section A



Section B

# Sections of drip pad after cleaning



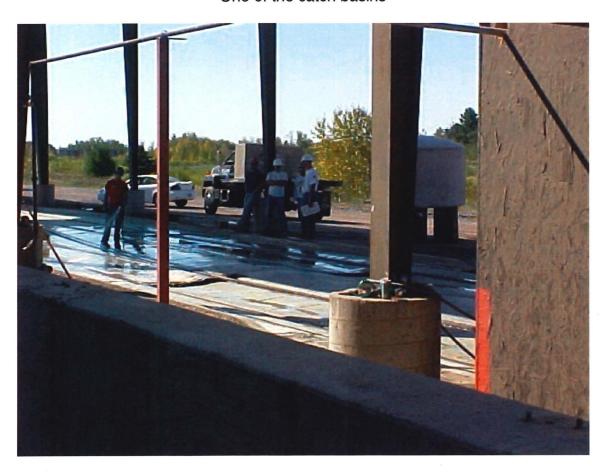
Section A



Section D



One of the catch basins



Collecting rinsate samples from drip pad.

# Closing off the collection system of drip pad



Example of drain line closed off in basin after pressure washing drain line.



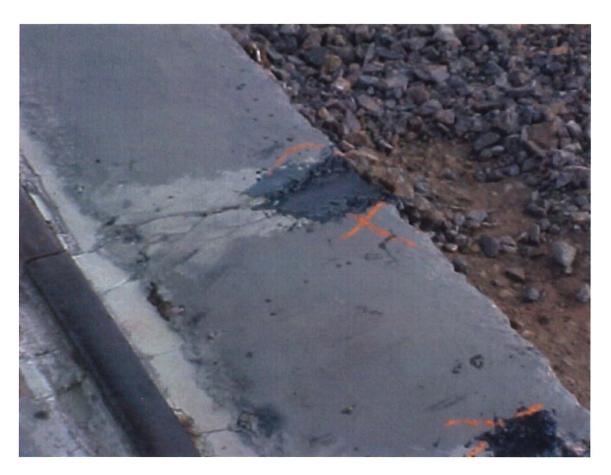
Main sump of drip pad filled with clean sand after pressure washing.



Catch basins filled with concrete to same level as drip pad.



Sumps along drip pad filled with sand and topped with concrete cap to prevent water collection.



True Bond applied to repair cracks in surface of drip pad.

Drip pad coating after meeting rinsate standards for cleanliness



Section A



Section B



Section C



Section D



Section E

# Examples of tank cleaning



Inside of B tank prior to cleaning.



Inside of B tank after cleaning.



Inside of F tank prior to pressure washing.



Inside of F tank after pressure washing.



Inside of small evaporator prior to cleaning.



Inside of small evaporator after cleaning.



Inside of creosote storage tank prior to cleaning.



Inside of creosote storage tank after cleaning.



Inside of big evaporator before cleaning.



Inside of big evaporator after cleaning.

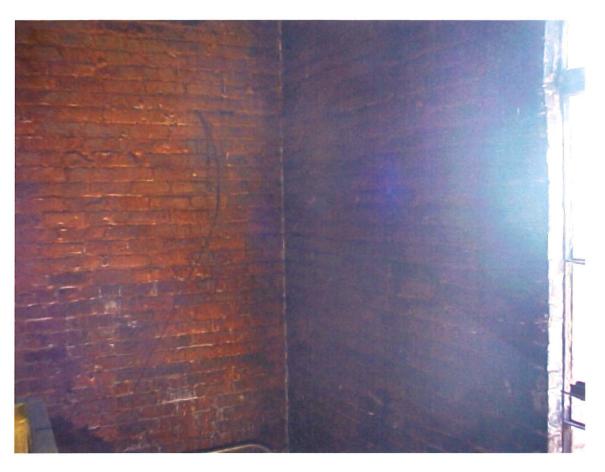
# Examples of Sandblasting Results



Ceiling above air tank prior to sandblasting



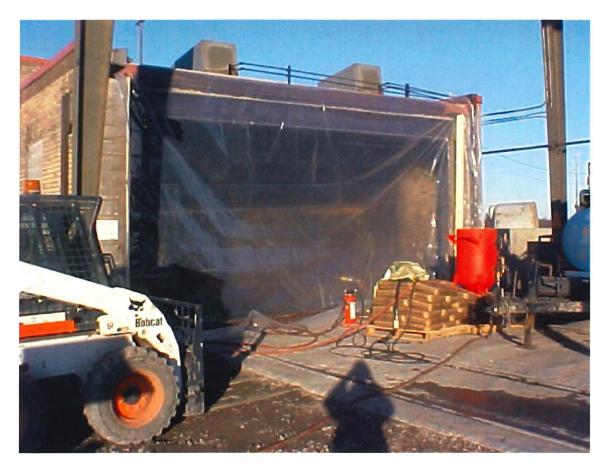
Ceiling above air tank after sandblasting



Southwest corner of treating building prior to sandblasting



Southwest corner of treating building after sandblasting



Example of cylinder door area isolated off prior to sandblasting.



Example of east exterior wall isolated off prior to sandblasting.

## **ATTACHMENT B**

# APRIL 17, 2006 DECOMMISSIONING PLAN



April 19, 2006

James Ross Waste Management Specialist Wisconsin DNR Northern Region Headquarters 810 W Maple St. Spooner, WI 54801

Koppers Inc. 436 Seventh Avenue Pittsburgh, PA 15219-1800 Tel 412 227 2248 Fax 412 227 2423 Starkpd@koppers.com www.koppers.com

Subject: Plan for Decommissioning Treating Process, Equipment, and Buildings at Koppers Inc.

Dear Mr. Ross:

Koppers Inc. (Koppers) has decided to discontinue wood treatment operations at its Superior, Wisconsin facility. This Plan for Decommissioning (Plan) is being submitted in order to proactively inform the Wisconsin Department of Natural Resources (WDNR) of our intentions and general approach, due to the regulated nature of the treating facility and decommissioning activities.

Koppers intends to cease treating operations in mid- to late-2006 and proceed with decommissioning activities. The objective of the schedule will be to accommodate the management of listed hazardous waste within a 90-day time frame. As discussed in Section 3.0, Koppers will sequence the termination of our permits, as appropriate, during and after the decommissioning activities.

Koppers will continue to conduct industrial activity at this facility; however, Koppers intends the future use to be related to untreated tie storage and trans-loading of ties from trucks to railcars as a support role for other Koppers facilities.

Please feel free to contact me if you have any questions or concerns.

Sincerely,

Pätrick D. Stark

CC:

John Heller

Leslie Hyde

Steve Willis

Jane Patarcity

Koppers 2050

Koppers 1800

Koppers Superior

Beazer

File

# Plan for Decommissioning Treating Process, Equipment, and Buildings at Koppers Inc. Superior, Wisconsin Facility

April 17, 2006

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#### 1.0 INTRODUCTION

Koppers Inc. (Koppers) has decided to discontinue wood treatment operations at its Superior, Wisconsin facility. This Plan for Decommissioning (Plan) is being submitted in order to proactively inform the Wisconsin Department of Natural Resources (WDNR) of our intentions and general approach, due to the regulated nature of the treating facility and decommissioning activities.

This Plan is organized into six main sections, as follows.

- 1. Introduction This section provides an overview of the facility location, history and current operations, and approach to closure.
- 2. General Schedule A tentative general schedule is listed to provide a context for the time frame for closure activities to initiate and the projected duration of activities.
- 3. Permits A general discussion of the existing permits is provided and Koppers' approach to terminate these permitted activities is provided.
- 4. Wood Treating Facility Specific Approach Due to the specific regulatory considerations for wood treating facilities, Koppers' approach to decommissioning the drip pad and dealing with the remaining treating solutions and listed wood treating wastes is discussed. This includes the general approach to deal with any residuals, tanks, and concrete.
- Other Other closure activities are addressed generally and include typical demolition work of ancillary buildings and processes that are unimpacted by the wood treating specific considerations.
- 6. Inventory and Diagram To provide perspective for the closure approach, an inventory and illustration of main tanks, contents, and other structures is provided as information.

#### 1.1 Facility Location

The facility is located approximately five miles southeast of the town of Superior, in Douglas County, at the junction of County Roads A and Z. The facility is approximately 112 acres in size. The treating and office facilities are located near the northern end of the facility, while some supporting facilities are located in the central portion of the facility, and the majority of the remaining property is used for the storage of treated and untreated wood. A facility diagram has been attached for reference that includes a listing of tanks and facilities describing the current usage. The information contained on this drawing is for informational purposes only.

#### 1.2 Facility Processes and History

Pressure-treated railroad cross ties and bridge timbers are produced at the facility. Creosote with a number 6 fuel oil carrier has been the primary preservative used at the facility. However, pentachlorophenol with a petroleum oil carrier was also used as a preservative during the time period of 1955 to 1979. Wood is shipped to the plant pre-cut. It is seasoned at the plant by air drying, steaming, or Boultonizing (conditioning the wood with creosote). Prior to treatment, the wood is loaded onto tram cars, which are pushed into the treating cylinder using a lift truck or similar equipment. The cylinder door is

sealed with a pressure tight door. Treating solution (creosote and fuel oil) is then pumped into the cylinder and pressure applied. At the end of the process, the excess treating solution is pumped out of the cylinder and back to work tanks for reuse. A final vacuum is then applied to remove additional solution from the cylinder and wood, and this solution is also then pumped to the work tanks for reuse. The cylinder door is opened and the trams, loaded with treated wood, are pulled from the cylinder onto the drip pad.

The prior owner of the facility, Koppers Company, Inc. (now known as Beazer East, Inc.)<sup>1</sup>, has conducted and is conducting certain investigation and remediation activities regarding corrective action at portions of the facility in cooperation with WDNR. Beginning in 1982, two clay-lined wastewater impoundments were used at the facility for wastewater treatment. A Closure and Post-Closure Plan for these impoundments was submitted to the WDNR in August 1987. A Conditional Closure and Long-Term Care Plan Approval was issued by the WDNR in October 1987. All wastes were removed from these impoundments by August 1988 as K001 listed hazardous waste, but it was determined that some K001 constituents remained and, therefore, the impoundments were closed as a landfill. Closure activities were completed in August 1989 and documented in a Construction Documentation Surface Impoundment Closure Report that was submitted to the WDNR (November 1989). Because the State had not yet received authorization to implement the 1984 Hazardous and Solid Waste Amendments (HSWA), the U.S. EPA issued the HSWA portion of the permit for the facility in September 1988, that included the need to investigate the nature and extent of releases from solid waste management units (SWMUs). In September 1995, the WDNR issued a modification to the Closure and Long-Term Care Approval, which included provisions for state authorized site-wide corrective action for releases from SWMUs, under the State's then newly acquired HSWA authority. In December 1990, a Hazardous Waste Facility Operation License (License) was issued for the site by the WDNR. The License, which expires in 2020, governs long-term care of the closed RCRA surface impoundments. The License has been the WDNR's primary mechanism for managing corrective action activities at the site since the RCRA Part B Corrective Action permit expired in 1998. Koppers and Beazer East, Inc. have cooperated since Koppers acquired the Superior Plant in 1988, and will continue to do so throughout the decommissioning process.

#### 1.3 Approach for Decommissioning

Koppers intends to cease treating operations in mid- to late-2006 and proceed with decommissioning activities. Koppers will, as a general approach, cease treating operations and demolish all buildings, process units, tanks, containment area walls, etc. associated with the wood treatment process at the

<sup>&</sup>lt;sup>1</sup>Until 1988, Koppers Company, Inc. owned and operated the Superior facility. At that time, Beazer PLC acquired all the stock of Koppers Company, Inc. After this acquisition, various assets of Koppers Company, Inc. – including this facility and the "Koppers" name – were sold to a group of Koppers Company managers, who together with other investors, formed Koppers Industries, Inc. After the purchase, Koppers Industries, Inc. continued to operate this facility and eventually changed its name to Koppers, Inc. Meanwhile, the former owner of this facility, Koppers Company, Inc., having sold its right to use the name "Koppers," eventually changed its name to Beazer East, Inc. (Beazer). Thus, Beazer (the former Koppers Company, Inc.) and Koppers (the former Koppers Industries, Inc.) are separate, unrelated entities, with Koppers presently owning and operating the facility. Under the December 1988 asset purchase agreement between Beazer and Koppers, and its amendments, Beazer retains certain responsibilities for environmental conditions and regulatory compliance that pre-date December 29, 1988 and Koppers retains certain responsibilities for environmental conditions and regulatory compliance that post-date December 29, 1988.

facility. The objective of the schedule will be to accommodate the management of listed hazardous waste within a 90-day time frame. As discussed in Section 3.0, Koppers will sequence the termination of our permits, as appropriate, during and after the decommissioning activities.

#### 2.0 GENERAL SCHEDULE

The general schedule for the facility closure and decommissioning activities is tentatively set to begin in mid-2006 and conclude prior to the onset of inclement weather, a currently estimated three-month duration. Note that this is a tentative schedule and Koppers intends to keep the WDNR informed as the schedule may change.

#### 3.0 PERMITS

Currently, the facility operates in accordance with four permits issued by the WDNR. The following provides an overview of these permits and our approach to terminate these permits. There are no general process or RCRA unit closure notification requirements that were identified as a part of Koppers' review of the Wisconsin and federal environmental regulations.

#### 3.1 Air Quality Permit (No. 81 6009810-SOI)

Koppers air quality permit expires on April 25, 2007. A permit renewal application is due between November 25, 2005 and April 25, 2006 (12 to 18 months prior to expiration), which Koppers intends to submit in a timely fashion. The permit does not directly discuss facility shutdown, although it does address planned shutdown of air pollution equipment (Permit Part II, Section 0.2.) and deviation from conditions of the permit (Part II, Section 0.1.). Koppers intends to notify the Air Management Supervisor of the Northern Region of WDNR (the permit issuing region) of our intention to close our treatment operation. The permit indicates notification "in advance" but does not define a time frame. Koppers intends to notify in advance of ceasing treating operations, and upon establishing a more definitive schedule. Koppers will continue to operate in accordance with the requirements for each of the processes/sources listed in the permit, until each process/source ceases to operate during closure activities. Upon decommissioning all permitted processes/sources, Koppers intends to notify the Northern Region to terminate our air quality permit.

### 3.2 Process Wastewater Conditional Approval for Modifications to Wastewater Pretreatment System (State Approval No. 95-0013 and Exemption No. 99-DMR-716)

This approval and modification permitted the use of equipment for wastewater evaporation. There are no notice requirements listed regarding facility shutdown. We intend to continue to operate the wastewater treatment system in support of our decommissioning activities and in accordance with this approval and modification. Koppers is also exploring the option of pre-treating its wastewater and then discharging its water into the city of Superior's POTW system via POTW pretreatment permit issued by the city of Superior. If Koppers elects to discharge treated waste water to the city of Superior, the use of the waste water evaporation system will be discontinued and we will provide a courtesy notification to the appropriate WDNR Northern Region wastewater management supervisor.

#### 3.3 Boiler Water Discharge General Permit (WI-0044938-5)

This General Permit expires March 31, 2005. It is our understanding that the terms and conditions of the General Permit continue to apply until the General Permit is reissued or revoked or until an individual permit is issued by the WDNR; no re-application by Koppers is required.

We will continue to operate in accordance with this permit throughout the decommissioning activities as long as the boiler is in use. Upon shutdown of the boiler, Koppers will complete the applicable sections of the Request for Coverage and attach other relevant information indicating the current status of the facility and submit to the Northern Region of WDNR. It is our understanding that, at that time, the facility will be removed from the WDNR's list of currently permitted facilities.

#### 3.4 Stormwater Discharge General Permit (WI-S067849-2)

The Tier I General Permit expires on March 31, 2006. It is our understanding that the renewal process is automatic and is conducted by the WDNR, and that no re-application by Koppers is required. We will continue to operate in accordance with this permit throughout the decommissioning activities. Koppers has noted that the permit language in the general conditions indicates that "The DNR will not continue to apply the general permit in the case of facility closure and abandonment, provided that the site is left clean of pollutant residuals that could contaminate storm water" (Part VI, General Permit Conditions, Section H). Upon completion of decommissioning, Koppers will submit a Notice of Termination. Koppers understands that this Notice must be approved by the Department in order for General Permit obligations of Koppers to cease.

KI.05224SCP

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#### 4.0 WOOD TREATING FACILITY SPECIFIC APPROACH

Due to the specific regulatory nature of wood treating facilities, this section addresses Koppers' approach to facility decommissioning related to the drip pad, wood treating chemicals, and wood treating chemical residuals.

Materials of regulatory interest include the following:

- Hazardous Waste K001 Bottom sediment sludge from the treatment of wastewaters from wood
  preserving processes that use creosote or pentachlorophenol. This bottom sediment sludge is a
  listed hazardous waste both federally (40 CFR Part 261) and in Wisconsin (Chapter NR 605).
- Hazardous Waste F034 Wastewaters (except those that have not come into contact with
  process contaminants), process residuals, preservative drippage and spent formulations from
  wood preserving processes generated at plants that use creosote formulations. This listing does
  not include K001 bottom sediment sludge from the treatment of wastewaters from wood
  preserving processes that use creosote or pentachlorophenol. Creosote-related wood treating
  wastes are listed hazardous wastes both federally (40 CFR Part 261) and in Wisconsin (Chapter
  NR 605). It is expected that F034 materials and residuals will be the predominant waste code
  utilized during decommissioning.

It should be noted that, historically, the facility utilized pentachlorophenol as a treating solution, prior to Koppers' acquisition of the facility. As a part of Koppers' closure approach, the need for designating waste as F032 or equipment cleaning to eliminate the F032 waste code in accordance with Chapter NR 605.05(6) is not required because any materials encountered as a waste or equipment that managed pentachlorophenol in the past will be otherwise regulated as a hazardous waste F034 as described in the F032 listing at NR 605.09 or recycled as exempt scrap metal in accordance with Chapter NR 605.05(2).

#### 4.1 Product

Koppers intends to remove and transport its remaining treating solution as a commercial chemical product to another wood treating facility during the decommissioning activities. The tanks containing the treating solution will continue to be active as treating solution storage tanks, prior to arranging for the removal and transport of this remaining treating solution. Upon final discontinuation of using the tanks for product storage, residuals that may remain in these tanks following removal of usable product, if present, will only then become subject to the 90-day accumulation rule, as allowed at Chapter NR 605.05(5) (and 40 CFR Part 261.4(c)).

#### 4.2 Drip Pad

Unique to wood treating facilities is the presence and use of a drip pad. The drip pad at the Superior facility was lined with concrete in the late 1970s/early 1980s. As part of the construction of an extension and expansion of the drip pad in the early 1990s, soils were excavated to a depth of two to three feet in the extension/expansion area. The drip pad at Superior became subject to federal regulation under 40 CFR 265, Subpart W, in the early 1990s and subsequently in the mid-1990s under Chapter NR 656 in

Wisconsin. This drip pad has been operated as a temporary accumulation unit by removing all wastes within a 90-day time frame, in addition to the other requirements listed for drip pads at Chapter NR 615.05(4)(b)(4), and as a consequence is specifically exempted from certain regulations, as listed at NR 656.04(2) and NR 656.08(1). The following decommissioning approach has been developed in a manner consistent with the federal closure requirements for non-permitted drip pads used by generators as temporary accumulation units only (40 CER 265.1(c)(7) and 262.34(a)(1)(iii), and the U.S. EPA's Wood Preserving Resource Conservation And Recovery Act Compliance Guide, June 1996).

#### 4.2.1 General Drip Pad Decommissioning Approach

The drip pad has been operated by Koppers at the facility under 40 CFR Part 265, Subpart W (Subpart W) and State Chapter NR 656 requirements, since those rules became effective. When the U.S. EPA promulgated the Subpart W requirements, it recognized, among other issues, two facts related to regulating drip pads as RCRA units that are relevant to Koppers' drip pad closure approach (refer to the Federal Register, Volume 55, No.235, dated Thursday, December 6, 1990, 40 CFR Part 260, et al, Wood Preserving; Identification and Listing of Hazardous Waste; Final Rule).

First, that concrete, as a common material of drip pad construction, is not impermeable, and, further, that it is prone to cracking and degradation throughout its thickness, not just on the surface, due to the effects of mobile equipment operated upon the drip pad and environmental conditions. The specific issue that Subpart W was designed to address is that some unregulated concrete drip pads had allowed releases into and through the concrete, and extending into the subsoils beneath drip pads. As a consequence, one of the Subpart W requirements was that in cases where liners/leak detection systems could or would not be installed beneath drip pads, a sealant/coating would be applied to the surface of the drip pad, that is required to meet stringent hydraulic conductivity requirements, and that this surface sealant/coating be continually maintained to achieve the hydraulic conductivity requirements. In essence, that the drip pad surface be maintained as impermeable, since the concrete itself is not.

Since becoming regulated pursuant to the implementation of Subpart W and the subsequent State requirements, Koppers has operated and maintained the drip pad in accordance with the applicable regulatory requirements. As a consequence of operating the drip pad in accordance with the regulatory requirements and as attested by the yearly Professional Engineer inspection and certification of the drip pad that has been conducted pursuant to Chapter NR 656.07(4)(g), Koppers has no reason to believe that the regulated drip pad surface sealant/coating was breached and/or that any release occurred from the regulated drip pad to the environment during the period that the drip pad was operated under the stringent regulatory requirements for drip pad since the inception of Subpart W.

The second relevant fact that the U.S. EPA recognized was that past releases of drippage and other wood treating residuals associated with routine practices in the wood treating industry had resulted in contamination being present associated with uncontained drip tracks and subsequent unregulated concrete drip pads. The U.S. EPA discussed (see the previously referenced Federal Register) that this contamination should be recognized and addressed in transitioning from a non-regulated drip pad to a regulated drip pad, with one of the mechanisms being corrective action for releases from SWMUs, under

RCRA 3004(u) requirements. The facility site-wide corrective action program initiated in 1988 addresses the requirements for corrective action for releases from SWMUs, and listed the drip pad as a SWMU.

As a consequence of these two points, it was recognized that drip pads were suspected to contain wood treating-related constituents and that subsoils beneath the drip pads may have been contaminated as a result of the historic, pre-Subpart W drip pad practices and nature of the unregulated drip pad. To address this concern, the drip pad was listed as a SWMU at the inception of the site-wide corrective action requirements in the mid-1980s (Area F, Drip Track). The corrective action process already required for the facility will address this potential contamination from this SWMU, consistent with the U.S. EPA's approach to formulating and implementing the Subpart W requirements.

Following decommissioning, it is Koppers' intention that the concrete drip pad remain in place. As part of its decommissioning efforts, Koppers intends to follow the cleaning technology protocol that is listed for hazardous debris at Chapter NR 675.25, as follows:

- Solids present on the drip pad will be removed for off-site disposal as F034 hazardous waste.
- A physical extraction technology listed in Table 1 of 675,25 will be utilized to clean the concrete to
  a visually clean surface. Specifically, Koppers intends to power wash the drip pad using water
  under high pressure. Wash water will be routed to the existing wastewater system for
  management or disposed off site at the POTW.
- Residues from the physical extraction process will be managed as a F034 hazardous waste.
- Subsequent to the physical extraction process, the pad will be washed with water and the rinse will be tested for the presence of regulated hazardous constituents. The regulated hazardous constituents to be analyzed in the rinse water samples will be those listed in 40 CFR Part 268.40 (Treatment Standards For Hazardous Wastes) under the applicable F034 waste code (because the State Land Disposal Restriction Regulations at NR 675.20 do not include this applicable waste code under Treatment Standards For Hazardous Wastes). The analytical results will be compared to the Universal Treatment Standards for wastewaters listed in NR 675.28. The list of compounds and applicable wastewater concentrations that will be utilized include the following:

Regulated Hazardous Constituent	Concentration (in milligrams/liter)		
Acenaphthene	0.059		
Anthracene	0.059		
Benzo(a)anthracene	0.059		
Benzo(b)fluoranthene	0.11		
Benzo(k)fluoranthene	0.11		
Benzo(a)pyrene	0.061		
Chrysene	0.059		
Dibenzo(a,h)anthracene	0.055		
Fluorene	0.059		
Indeno(1,2,3-c,d)pyrene	0.0055		
Naphthalene	0.059		
Phenanthrene	0.059		
Pyrene	0.067		
Arsenic	1.4		
Chromium (total)	2.77		

- The physical extraction, testing, and evaluation of data may be repeated, as needed.
- When the rinse water test passes the above criteria, the drip pad will be sealed with an epoxy
  coating and the curbs will be breached to prevent storm water from accumulating.

#### 4.3 Tanks, Residuals, and Concrete

#### 4.3.1 Tanks

The tanks containing wood treating solutions or associated with the wastewater system will be cleaned by pressure washing. Residuals removed from the tanks will be managed as F034 or K001 hazardous waste, as applicable. The tanks will then be recycled as scrap metal.

Any scrap metal that is to be recycled is excluded from regulation pursuant to Chapter NR 605.05(2)(a) "Scrap metal that is legitimately recovered or reclaimed", after it is appropriately surface cleaned. Koppers will require its contractor to supply the information listed at Chapter NR 605.05(3), documenting that the metal is being sent to a recycler and recycled to document compliance with the terms of the State scrap metal exemption.

Koppers will be attentive to the fact that "wastes" cannot be managed in tanks/containers for more than 90 days, unless an extension is requested in writing and granted at the discretion of the WDNR. We do not anticipate the need for an extension, but would like to alert the WDNR that, if unforeseen conditions occur, Koppers may request an extension for a maximum of 30 days due to "unforeseen, temporary, and uncontrollable circumstances" (see Chapter NR 615.05(4)(b)).

#### 4.3.2 Residuals

All listed wood treating related residuals to be discarded as wastes will be managed in accordance with the applicable hazardous waste management requirements. Such residuals may include materials removed from tanks, containment areas, the drip pad, or as a result of decontamination of metal or concrete. If needed, incidental soil impacted by a hazardous waste as a result of decommissioning activities will also be removed and managed in accordance with the applicable hazardous waste requirements. The management of hazardous waste residuals, or any other hazardous waste generated during decommissioning, will be in accordance with the accumulation of wastes for 90-days or less container requirements of NR 615.

#### 4.3.3 Concrete

Concrete containment associated with the wood treating process, cylinder basement, sumps, tank farm area, and hazardous waste accumulation areas, all of which are not considered part of the drip pad system, will be cleaned as follows:

- Solids present will be removed for off-site disposal as F034 hazardous waste.
- Power washing will be utilized to clean the concrete to a visually clean surface. Wash water will be routed to the wastewater system for management.
- Residues from the cleaning process will be managed as a F034 hazardous waste.

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- Containment walls that extend above grade will be removed and disposed off site in a properlypermitted facility.
- The cylinder basement will be crowned with clean fill and paved with asphalt in such a manner to
  prevent water from accumulating on the surface. All sumps will be filled to prevent water
  accumulation.

#### 5.0 OTHER

For the remaining portion of the facility, standard demolition activities will be conducted. Other specific objectives for our decommissioning work currently include the following.

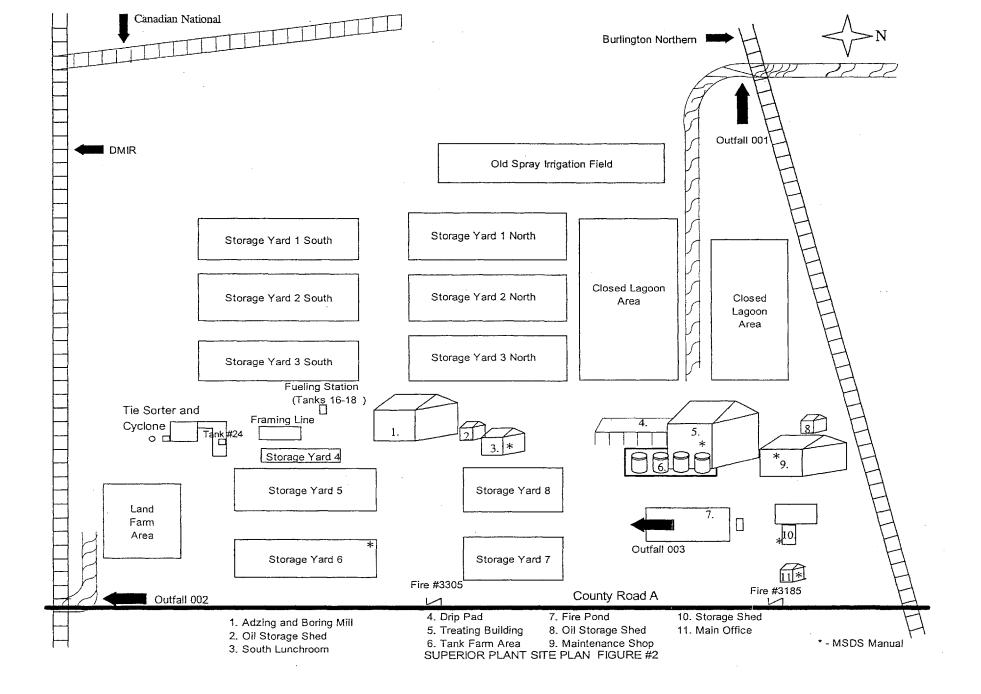
- Asbestos assessment and abatement, if needed. Notification prior to demolition activities will be made.
- Appropriate management of oil, fuel, scrap metal, construction and demolition debris, universal waste, computer electronics, etc.
- Structures except the maintenance shop and main office will be removed to grade. These structures will remain intact for future potential use by Koppers.
- The Fire Pond will be eliminated and the area leveled at the general property grade.
- The treating cylinder basement will be cleaned as presented in Section 4.3.3 of this Plan and filled in with concrete debris from uncontaminated building demolition and additional clean fill, as necessary. Once filled, the area will be paved.
- The concrete floor of the tank farm will remain in place and the walls will be collapsed and disposed off site in a properly-permitted facility.
- Soils will be disturbed only to the extent necessary to complete the listed facility decommissioning
  activities. Koppers intends to return non-contaminated disturbed soils into open excavations to
  the extent possible.
- Koppers' contractor will work in accordance with a Health and Safety Plan (including an Emergency Response Section) in accordance with local, state, and federal regulations for the scope of activities expected to be encountered, as well as reasonably expected contingent activities. The contractor will also provide stormwater controls to prevent runon/runoff during and following decommissioning activities. The decommissioning work will be in a manner that does not impact soil, groundwater, surface water, or air quality.

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#### 6.0 INVENTORY OF TANKS AND FACILITY DIAGRAM

Attached for informational purposes is an inventory and illustration of main tanks, contents, and other structures.

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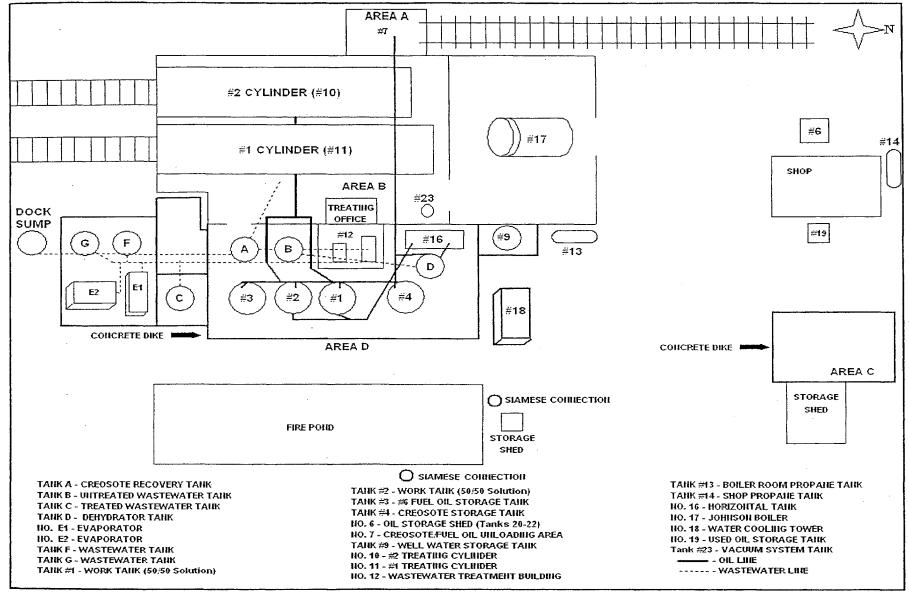


#### TANK LISTINGS TABLE 3.1

					Capacity	
Tank #	Tank Name	Contents	Dia.	Ht./Length	(gals)	Gals/Foot
<u>A</u>	Creosote Recovery	Wastewater/Creosote	13'6"	32'	35,100	1,070
В	Untreated Wastewater	Wastewater/Creosote	13'6"	32'	35,100	1,070
С	Treated Wastewater	Water	13'6"	32'	35,100	1,070
D	Dehydrator	Process water	10'	21'	12,000	N/A
F	Treated Wastewater	Wastewater	13'6"	40'	40,000	1,070
G	Treated Wastewater	Wastewater	13'6"	40'	40,000	1,070
E1	Small Evaporator	Wastewater		16'	14,000	N/A
E2	Big Evaporator	Wastewater		16'	21,000	N/A
1	Work Tank	50/50 Solution Creo/#6 Oil	13'6"	32'9"	35,100	1,070
2	Work Tank	50/50 Solution Creo/#6 Oil	13'6"	32'9"	35,100	1,070
3	#6 Oil Storage	#6 Fuel Oil	11'	21'	14,900	710
4	Creosote Storage	Grade 1 Creosote	18'6"	25'	52,000	2,010
9	Well Water Storage	Water	10'	21'	12,000	587
10	#2 Treating Cylinder	50/50 Solution	7'6"	115'	38,415	N/A
11	#1 Treating Cylinder	50/50 Solution	7'6"	125'	41,065	N/A
13	Boiler Room Propane	L.P. Gas	41"	193"	1,000	. N/A
14	Shop Propane	L.P. Gas	37"	118"	500	N/A
15	Lunchroom Propane	L.P. Gas	37"	118"	500	N/A
16	Diesel Fuel	#2 Diesel Fuel			500	N/A
17	Diesel Fuel	#2 Diesel Fuel			500	N/A
18	Unleaded Gasoline	Unleaded Gasoline			265	N/A
19	Used Oil Storage	Used Oil			240	N/A
20	Motor Oil Tank	15W-40 Oil Storage	4	5'	265	N/A
21	Transmission Oil Tank	10W Engine Oil Storage	2,5'	5'	180	N/A
22	Hydraulic Oil Tank	Hydraulic Oil Storage	4	5'	265	N/A
23	Vacuum System Tank	Hydraulic Oil Reservoir	2.5'	5'	180	N/A
24	End-Plate Machine Tank	Hydraulic Oil Reservoir			145	N/A

Bold print represents tanks subject to SPCC Regulation

PROCEDURE: SUP-ENVIRO-001.2	SUPERIOR ENVIRONMENTAL PROGRAM	Page 14 of 34
ISSUE DATE: 9-27-02	WRITTEN BY: Steve Willis	REVISION NUMBER: 2
	APPROVED BY: TRR	REVISION DATE: 5-18-04



TREATING DEPARTMENT SITE PLAN FIGURE #3

## ATTACHMENT C

# SELECT WDNR CORRESPONDENCE



July 10, 2006

Phyllis Holmbeck Wisconsin Department of Natural Resources 1401 Tower Avenue Superior, WI 54880 Koppers Inc.
PO Box 397
Superior, WI 54880
Tel 715 392 2221

Fax 715 392 1951 WillisSG@koppers.com www.koppers.com

#### Dear Phyllis:

Please accept this letter as notification that the Johnston Boiler that is referenced in our air operating permit #816009810-S02 is going to be dismantled and shipped to another Koppers Inc. facility in North Little Rock, AR this week. The boiler is referenced as Boiler B23 and Stack S13. The last date of operation for the boiler was November 18, 2005. In addition to the boiler, Tanks T04, T05, and T06 have been emptied out and are scheduled to be cleaned and removed sometime during the next two months.

In conclusion, all of the devices and processes listed in permit #816009810-S02 have been or will be dismantled by the end of this fall, if not sooner. Please let us know if you would need any other information or have any other questions in regards to eliminating our air operating permit requirements.

Sincerely

Cc:

Steven G Wills

John Dague – Wisconsin Department of Natural Resources

Patrick Stark - Koppers Inc.



July 10, 2006

Susan Scobell Watson Wisconsin Department of Natural Resources 107 Sutliff Avenue Rhinelander, WI 54501 Koppers Inc.

PO Box 397
Superior, WI 54880
Tel 715 392 2221
Fax 715 392 1951
WillisSG@koppers.com
www.koppers.com

#### Dear Susan:

Please accept this letter as notification that the Johnston Boiler that is the source of boiler blow down covered by WPDES #WI-0044938-5 is going to be shipped to another Koppers Inc. facility in North Little Rock, AR this week. The last date of operation for the boiler was November 18, 2005. Therefore, no further discharge will be introduced to our fire pond water, which is the outfall 003 referenced in our permit. Please let us know what further action we would need to take to remove our facility's responsibilities of permit #WI-0044938-5.

Sincerely.

Stavan G Wille

Cc: Patrick Stark - Koppers Inc.

Good morning Steve,

Thank you for the letter letting us know that you no longer need coverage under the WPDES general permit for Noncontact Cooling Water and Condensate and Boiler Water discharges. This e-mail and the hard copy is all we need to discontinue your coverage.

If the situation ever changes at Koppers and you again find you need general permit coverage, don't hesitate to contact me.

Cordially,

Susan

Susan Scobell Watson NOR WPDES Permit Coordinator & **Employee Assistance Coordinator** 

Wisconsin Department of Natural Resources 107 Sutliff Avenue Rhinelander, WI 54501 715/365-8945

From: Willis Steve [mailto:WillisSG@koppers.com]

Sent: Monday, July 10, 2006 2:00 PM

To: Watson, Susan S. Cc: Stark Patrick

Subject: Koppers Permit WI-0044938-5

Good Afternoon Susan:

Please see the attached letter in regards to the removal of the boiler at our Koppers location in Superior. This boiler discharged to our fire pond and resulted in the permitted overflow of outfall #003. I will be sending a hard copy in the mail for you today. Please let me know if you have any questions, or if this should be sent to any other individuals.

Sincerely Steve Willis Koppers Inc - Superior From: Gansluckner, Troy A - DNR [Troy.Gansluckner@Wisconsin.gov]

Sent: Wednesday, September 13, 2006 8:24 AM

To: Willis Steve

Subject: RE: Building demo at Koppers

Steve:

Thanks for the updated schedule. You have the go ahead to start demolition at any time. I will be up in that area on Thursday, Sep. 21, probably about 11:00 a.m. I will stop in to your site and take a look at what you have.

Who did your inspection and can you fax me a copy of the inspection report, if it isn't too long? I haven't seen the actual notification that was sent to Madison. You could just fax me a copy of that as well. What type of facility do you have (What do you manufacture?)

Thank you,

#### Troy A. Gansluckner

Air Management Specialist Wisconsin Department of Natural Resources 890 Spruce St. Baldwin, WI 54002

(2 ) phone: (715)684-2914 ext. 132

(電) fax: (715)684-5940

( e-mail: troy.gansluckner@wisconsin.gov

**From:** Willis Steve [mailto:WillisSG@koppers.com] Sent: Wednesday, September 13, 2006 7:20 AM

To: Gansluckner, Troy A - DNR Cc: jim@midamericaenv.com Subject: Building demo at Koppers

Good Morning Troy:

Just to confirm our conversation last week and to give you a project update, we are closing in on the time where buildings will start to be removed from our Koppers facility. A contractor will be arriving shortly to start removing the tie sorter building on the south end of the facility and another contractor will be scheduled soon to start demo on the tanks and treating building on the north end of the facility. I wanted to keep you up to date and to confirm that you are in agreement that we can start this phase without you visiting the plant. Please let me know if your schedule would allow you to visit in the next couple of weeks.

Steve Willis Koppers Inc - Superior From: Ross, James I - DNR [James.Ross@Wisconsin.gov]

Sent: Tuesday, November 14, 2006 10:05 AM

To: Heller John Cc: Willis Steve

Subject: RE: Superior brick

John:

Your plan to blast away the visible stained areas meets our approval provided that the blasted debris is properly contained during blasting with tarps placed on the flooring. The collected debris from blasting shall be containerized in labeled drums and manifested when the waste is shipped off-site as a listed hazardous waste. Please ask that Steve Wills document the blasting procedures in a written narrative in his closure report with photos showing the cleaned areas. Thanks,

Jim Ross

From: Heller John [mailto:HellerJR@koppers.com] Sent: Tuesday, November 14, 2006 9:02 AM

To: Ross, James I - DNR

Cc: Willis Steve

Subject: Superior brick

Jim,

Thanks for the suggestions on possible ways to handle the brick used in the treating building at Superior. I just wanted to make sure that I understood what we discussed yesterday. My understanding is that if we sand blast the visible residue off the brick then we are ok to ship the brick off site and have it ground for road base as we were originally planning. I understand that the residue that is removed would have to be treated and disposed of as hazardous waste. Also I am pretty sure that you would agree but I am asking just in case, but sand blasting is a generic term, if we sand blasted using dry ice for the grinding material that is still acceptable for the brick cleaning. The advantage of dry ice for the blasting media is that it does not generate additional waste and dust. The dry ice evaporates and does not result in additional haz. waste. Thanks again for all your assistance. If possible can you respond today so we can hire a contractor and continue moving before winter arrives?

John Heller Koppers Inc 436 Seventh Ave. Pittsburgh, PA 15219 (412) 227-2768 HellerJR@koppers.com



#### State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor Scott Hassett, Secretary William H. Smith, Deputy Superior DNR Office 1401 Tower Avenue Superior, Wisconsin 54880 Telephone 715-392-7831 FAX 715-392-7993

December 21, 2006

Mr. Steve Willis, Plant Manager Koppers, Inc. P.O. Box 397 Superior, WI 54880 FID#816009810 HW/CME Douglas County

Subject: Hazardous Waste Inspection of Koppers, Inc. EPA ID# WID006179493

Compliance Summary Letter

Dear Mr. Willis:

On November 30, 2006, I completed an inspection of Koppers, Inc. "partially closed" wood-treating facility located at 3185 S. County Road "A" in Superior, WI. During my inspection, I evaluated Koppers compliance with the applicable hazardous waste requirements stated in Ch. NR 600, Wis. Adm. Code and on-going progress made toward closing your 90-day accumulation drip pad, treating building and other associated equipment. Koppers' drip pad is an existing drip pad according to s. NR 665.0440 (1), Wis. Adm. Code, because the unit was constructed before June 1, 1995. No hazardous waste operating license has ever been issued for the drip pad and wood treating facility.

On April 19, 2006, Koppers, Inc. notified the Department of Natural Resources of its plans to formally close its Superior wood-treating facility. Koppers' records indicate that the last load of rail ties was pressure treated with creosote in November of 2005. As a follow-up to your closure notice, we received a "closure" work plan on April 19, 2006, detailing the company's plans to decommission the treating process, drip pad, treating equipment and other buildings located on-site. I discussed the details of this plan with Patrick Stark and Leslie Hyde of your Pittsburgh corporate office and informed them that the plan submittal did not provide all the elements of a closure plan. This is due to the fact that the plan did not include procedures to further investigate possible contamination of soils and groundwater located near the drip pad area. We agreed in May 2006 that you could proceed with your decommissioning of the treating facility while you develop a sampling plan for drip pad area. We received yourrevised sampling plan dated November 6, 2006, and found it to be acceptable. Soil and groundwater samples were obtained during the week of November 22-28, 2006. According to Leslie Hyde, a copy of the sampling report should be available for our review by mid- January 2007.

After we have had a chance to review your sampling report, Jim Hosch, DNR Remediation Hydrogeologist -Superior, and I will contact Leslie to arrange a conference call to discuss various options available to Koppers/Beazer East to reach "clean closure" status for the drip pad and treating operations. We will need to discuss a tentative time frame to accomplish this as part of yourfacility-wide corrective action plan.

Regarding your current hazardous waste generator status, large amounts of F034 (rinscate wastewater) and K001 (drip pad residue, contaminated debris and sediment bottoms) listed wastes were generated as a result of cleaning your drip pad, treating equipment and buildings. Koppers will remain classified as a Large Quantity Generator for the 2006 operating year because the amount of non-acute hazardous waste generated exceeded 2,205 pounds per month. Generation of hazardous waste due to closure work is



cted to cease on approximately December 31, 2006. As a reminder, you should still plan on nitting your hazardous waste annual report to the Department by March 1, 2007 for the 2006 ating year.

ing my inspection, I reviewed your facility's waste manifest records, land disposal restriction forms, ingency plan, employee training records, and drip-pad cleaning records. I inspected your 90-day age area and other waste collection points and found them to be in good order. I observed your ned and epoxy-coated drip pad and saw no visible cracks on the surface areas. I also observed kers removing all visible stained areas within the treating building by sandblasting. Al sandblast grit operly collected, containerized and then shipped off-site as a K001 type waste. After the building has a properly cleaned, you plan to demolish the building and then begin your salvage work on the aining steel treatment cylinders. The clean brick will be hauled off-site to Lakehead Blactop & crials in Superior for crushing. The crushed brick is to be beneficially used as road underlayment.

opers, Inc. appears to be operating in compliance with pertinent hazardous waste regulations in Ch. NR. Wis. Adm. Code. The Department of Natural Resources detected no significant violations during this section. Please contact me at (715) 635-4068 when you have finished your building demolition and e removed your remaining treating equipment. I would like to schedule a visit to inspect the site prior ouring your concrete pad over this area. If you have questions regarding this inspection report or on rother hazardous waste requirements, please feel to call me at (715) 635-4068.

cerely,

ies I. Ross

ste Management Specialist

mto P. Rose

perior

Jim Hosch – Superior Steve LaValley – Superior Ann Coakley – Rhinelander

Attach. - Inspection Checklist and Narrative

Steve,

You are correct. Koppers will not need to report 2006 emissions because they are below the reporting levels (i.e. because you did not operate in 2006). I see the DNR AEMS system shows an end date of 7/11/2006 for the facility and processes so you should no longer get annual emission inventory update emails after this year.

Rhonda O'Leary, Environmental Engineer Department of Natural Resources 1401 Tower Ave Superior, WI 54880 715-392-7989 715-392-7993 (FAX)

Rhonda.O'Leary@wisconsin.gov

----Original Message----

From: Willis Steve [mailto:WillisSG@koppers.com]

Sent: Tuesday, January 16, 2007 7:13 AM

To: O'Leary, Rhonda L - DNR

Cc: Hyde Leslie

Subject: FW: 2006 Air Emission Inventory Reporting

#### Good Morning Rhonda:

Correct me if I am wrong, but we would not be required to complete the air emission report due to the fact that we did not operate in 2006? The cyclone dust collector was removed in 2005 and the natural gas boiler was removed in July of 2006. These are the two items that were covered and reported for in our permit #816009810-S02.

Steve Willis Koppers Inc - Superior

----Original Message----

From: Ralph.Patterson@Wisconsin.gov [mailto:Ralph.Patterson@Wisconsin.gov] Sent: Monday, January 15, 2007 2:35 PM

To: Willis Steve

Subject: 2006 Air Emission Inventory Reporting

#### Dear Steven Willis:

You registered to report 2006 air emissions and/or hazardous waste generation for one or more facilities and that is why you are receiving this email message. Please complete the following steps for 2006 reporting.

#### START ANNUAL REPORTING

- 1. Click on this email link
- 2. Find the "log in to the Switchboard" link located on the left side of the web page. Click on the "log in to the Switchboard" link.
- 3. When you click on the link, you might see a Security Alert box. If so, click the "Yes" or "Ok" button on the Security Alert box.

- 4. Enter your WAMS ID and password in the corresponding boxes then click on the "log in" button. We have your WAMS ID listed as "willissg".
- 5. You will see one of three results:
- \* A screen listing your information and all the facilities that you are authorized to report for. You may begin reporting for these facilities. If some facilities or reports are missing from your list please reply to this email listing the facility ids to get the missing authorizations added.
- \* The system will say "Login failed. Please try again" because it does not accept your user id or password. You will need to go through the account recovery procedure at <a href="https://mail.koppers.com/exchweb/bin/redir.asp?URL=https://on.wisconsin.gov/">https://on.wisconsin.gov/</a>>.
- \* The system will say "A non-recoverable error has occurred". This error means the Switchboard system does not recognize your WAMS ID. Please call the Switchboard Registration Help Line at (608)267-3123 for assistance.

#### ANNUAL REPORTING HELP

If you think you need more information before you begin your reporting, you can:

- \* View instructions on using the Switchboard at
- <a href="https://mail.koppers.com/exchweb/bin/redir.asp?URL=http://dnr.wi.gov/environmentprotect/switchboard/sbinstructions.html">https://mail.koppers.com/exchweb/bin/redir.asp?URL=http://dnr.wi.gov/environmentprotect/switchboard/sbinstructions.html</a>
- \* Review written information on hazardous waste reporting at
- <a href="https://mail.koppers.com/exchweb/bin/redir.asp?URL=http://dnr.wi.gov/org/aw/air/emission/crs/crs\_hw\_info.htm">https://mail.koppers.com/exchweb/bin/redir.asp?URL=http://dnr.wi.gov/org/aw/air/emission/crs/crs\_hw\_info.htm</a>
- \* Review written information on air emission inventory reporting at
- <a href="https://mail.koppers.com/exchweb/bin/redir.asp?URL=http://dnr.wi.gov/org/aw/air/emission/crs/crs\_air\_info.htm">https://mail.koppers.com/exchweb/bin/redir.asp?URL=http://dnr.wi.gov/org/aw/air/emission/crs/crs\_air\_info.htm</a>
- \* View video and written instructions at
- <a href="https://mail.koppers.com/exchweb/bin/redir.asp?URL=http://dnr.wi.gov/org/aw/air/emission/crs/video\_hard\_copy\_help.htm">https://dnr.wi.gov/org/aw/air/emission/crs/video\_hard\_copy\_help.htm</a>

#### QUESTION AND ANSWER SESSION

You also have an opportunity to view and participate in a live internet discussion through your web browser regarding hazardous waste and air emission inventory reporting on Thursday, January 18, 2007 FROM 10:00 am to noon CST. More information regarding this opportunity can be found at <a href="https://mail.koppers.com/exchweb/bin/redir.asp?URL=http://dnr.wi.gov/org/aw/air/emission/crs/mediasite\_01\_18\_07.htm">https://mail.koppers.com/exchweb/bin/redir.asp?URL=http://dnr.wi.gov/org/aw/air/emission/crs/mediasite\_01\_18\_07.htm</a>

#### REPORTING DEADLINE

The reporting deadline is March 1, 2007 for both air emission inventory and hazardous waste reporting. If you feel you need extra time for air emission inventory reporting, you may obtain a two week extension until March 15 as long as you contact your regional air emission inventory person and they grant you that time extension. This time extension does not exist for hazardous waste reporting.

We appreciate your assistance in reporting this information and hope you like this new way of reporting.

#### **FACILITY LIST**

We have you listed as an authorized reporter for the following facility or facilities:

FID Report Facility Name 816009810 ANNUAL AIR EMISSION INVENTORY KOPPERS INC

Sincerely,

Ralph Patterson AEI Reporting Coordinator Ralph.Patterson@Wisconsin.gov 608-267-7546

## **ATTACHMENT D**

# LABORATORY ANALYTICAL REPORTS

# Drip Pad Rinsate Sampling Results

Phone: (847) 808-7766 Fax: (847) 808-7772

22 September 2006

Lab ID: B609141

Mike Decleene Clean Harbors - Chicago 11800 S. Stoney Island Ave. Chicago, IL 60617

RE: Koppers Inc.

Enclosed are the results of analyses for samples received by the laboratory on 09/15/06. The sample results relate only to the tested analytes of interest and to the sample as received by the laboratory. At the time of analysis, the laboratory was in compliance with current NELAP standards and held accreditation for all analyses performed unless noted by a qualifier. The laboratory's Illinois NELAP accreditation number is 100261.

This report can not be reproduced, except in full, without written approval from the laboratory. If you have any questions concerning this report, please feel free to contact Jim Knapp or Margaret Kniest.

Sincerely,

**TestAmerica Analytical Testing Corporation** 

Julie Muy Maleakina

Julie Meyer

**Laboratory Director** 

Myra Kunas

**Quality Assurance Manager** 



1380 Busch Parkway Buffalo Grove, Illinois 60089 Phone: (847) 808-7766 Fax: (847) 808-7772

Clean Harbors - Chicago 11800 S. Stoney Island Ave. Chicago, IL 60617 Project: Koppers Inc. Project Number: N/A

Project Manager: Mike Decleene

**Lab ID:** B609141 **Reported:** 09/22/06 11:03

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Drip Pad Rinsate	B609141-01	Water	09/13/06 14:20	09/15/06 09:00

#### Sample Receipt Notes

lease note that the chain of custody (COC) included with this report is considered part of the report. The data user should review any omments or notes made on the COC. Any receipt issues found by the laboratory that are not noted on the COC will be stated below.

TestAmerica - Buffalo Grove, IL

Reviewed & Approved by:

Jim Knapp, Client Service Manager

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



Phone: (847) 808-7766 Fax: (847) 808-7772

Clean Harbors - Chicago 11800 S. Stoney Island Ave. Chicago, IL 60617 Project: Koppers Inc.

Project Number: N/A

Project Manager: Mike Decleene

Lab ID: B609141

**Reported:** 09/22/06 11:03

#### Total Metals by EPA 6000/7000 Series Methods

#### TestAmerica - Buffalo Grove, IL

ın <b>alyte</b>	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
rip Pad Rinsate (B609141-01) Water	Sampled: 09/13/	06 14:20	Received	: 09/15/06	09:00				
rsenic hromium	ND ND	0.0500 0.0100	mg/l	1	6090256	09/18/06	09/19/06	EPA 6010B	

TestAmerica - Buffalo Grove, IL

Reviewed & Approved by:

forme Knowled

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



Phone: (847) 808-7766 Fax: (847) 808-7772

Clean Harbors - Chicago 11800 S. Stoney Island Ave.

Chicago, IL 60617

Project: Koppers Inc.

Project Number: N/A

Project Manager: Mike Decleene

Lab ID: B609141

**Reported:** 09/22/06 11:03

#### Polynuclear Aromatic Hydrocarbons by EPA Method 8310

#### TestAmerica - Buffalo Grove, IL

\nalyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Prip Pad Rinsate (B609141-01) Water	Sampled: 09/1	3/06 14:20	Received	: 09/15/06	09:00				015, QC
cenaphthene	ND	5.00	ug/l	1	6090269	09/19/06	09/20/06	EPA 8310	
inthracene	ND	5.00	11	U	**	п	и	Ħ	
lenz (a) anthracene	0.322	0.100	#	11	11	H	*1	11	
lenzo (a) pyrene	0.178	0.100	н	ti	11	11	n n	"	
lenzo (b) fluoranthene	0.612	0.100	0	н	H	**	П	n	
Jenzo (k) fluoranthene	ND	0.100	11	H	11	**	n	tf	
Chrysene	1.26	1.00		ti	**	**	n	n	
Dibenz (a,h) anthracene	ND	0.100	11	11	#	tt	В	n	
luorene	ND	5.00	11	н	**	n n	*	н	
ndeno (1,2,3-cd) pyrene	ND	0.200	н	u	O.	n n	97	R	
Vaphthalene	ND	5.00	н	H	10	и	**	п	
'henanthrene	ND	5.00	17	H	11	и	n	"	
'yrene	ND	5.00	н	11	#	н	Н		
Surrogate: Carbazole	152 %	30-110		11	"	"	ıı .	n	Н

TestAmerica - Buffalo Grove, IL

Reviewed & Approved by:

Jim Knapp, Client Service Manager

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



Phone: (847) 808-7766 Fax: (847) 808-7772

Clean Harbors - Chicago 11800 S. Stoney Island Ave.

Chicago, IL 60617

Project: Koppers Inc.

Project Number: N/A

Lab ID: B609141

Project Manager: Mike Decleene

Reported: 09/22/06 11:03

#### Total Metals by EPA 6000/7000 Series Methods - Quality Control TestAmerica - Buffalo Grove, IL

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6090256 - EPA 3010A										
Blank (6090256-BLK1)				Prepared:	09/18/06	Analyzed	d: 09/19/06			
'hromium	ND	0.0100	mg/l							
rsenic	ND	0.0500	"							
.CS (6090256-BS1)				Prepared:	09/18/06	Analyzec	d: 09/19/06			
Chromium	0.200	0.0100	mg/l	0.200		100	82.1-110			
Arsenic	0.192	0.0500	†t	0.200		96.0	85.3-110			
Vlatrix Spike (6090256-MS1)	Sou	ırce: B60914	8-01	Prepared:	09/18/06	Analyzec	d: 09/19/06			
Arsenic	0.197	0.0500	mg/l	0.200	ND	98.5	84.6-113			
Chromium	0.201	0.0100	#	0,200	ND	100	82.8-110			
Matrix Spike Dup (6090256-MSD1)	Sou	ırce: B60914	8-01	Prepared:	09/18/06	Analyzed	d: 09/19/06			
Arsenic	0.196	0.0500	mg/l	0.200	ND	98.0	84.6-113	0.509	10	
Chromium	0.201	0.0100	11	0.200	ND	100	82.8-110	0.00	10	

TestAmerica - Buffalo Grove, IL

Reviewed & Approved by:

Jim Knapp, Client Service Manager

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



Spike

Source

Phone: (847) 808-7766 Fax: (847) 808-7772

Clean Harbors - Chicago 11800 S. Stoney Island Ave.

Project: Koppers Inc.

Project Number: N/A

Reporting

Lab ID:

%REC

Lab ID: B609141

Chicago, IL 60617

Project Manager: Mike Decleene

Reported: 09/22/06 11:03

RPD

## Polynuclear Aromatic Hydrocarbons by EPA Method 8310 - Quality Control TestAmerica - Buffalo Grove, IL

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
latch 6090269 - EPA 3510C						·				
llank (6090269-BLK1)				Prepared:	09/19/06	Analyzed	l: 09/20/06			
cenaphthene	ND	5.00	ug/l							
cenaphthylene	ND	5.00	n							
nthracene	ND	5.00	II							
enz (a) anthracene	ND	0.100	ti							
enzo (a) pyrene	ND	0.100	11							
senzo (b) fluoranthene	ND	0.100	n							
Benzo (ghi) perylene	ND	5.00	U							
Benzo (k) fluoranthene	ND	0.100	п							
Phrysene	ND	1.00	11							
Dibenz (a,h) anthracene	ND	0.100	n							
luoranthene	ND	5.00	0							
luorene	ND	5.00	II.							
ndeno (1,2,3-cd) pyrene	ND	0.200	11							
laphthalene	ND	5.00	п							
Phenanthrene	ND	5.00	H							
<sup>2</sup> yrene	ND	5.00	11							
urrogate: Carbazole	1.51		"	2.00		75.5	30-110			
.CS (6090269-BS1)				Prepared:	09/19/06	Analyzed	l: 09/20/06			
cenaphthene	33.2	0.450	ug/l	4.00		830	30-110			Н
Anthracene	2.62	0.450	ŧı	4.00		65.5	40-110			
Benz (a) anthracene	2.76	0.00900	n	4.00		69.0	40-110			
Benzo (a) pyrene	2.90	0.00900	n	4.00		72.5	30-110			
Benzo (b) fluoranthene	3.00	0.00900	"	4.00		75.0	50-110			
Benzo (k) fluoranthene	2.80	0.00900	u	4.00		70.0	40-110			
Chrysene	2.85	0.0900	n n	4.00		71.2	40-110			
Dibenz (a,h) anthracene	2.34	0.00900	11	4.00		58.5	10-110			
luorene	2.53	0.450	11	4.00		63.2	35-110			
ndeno (1,2,3-cd) pyrene	3.10	0.0180	11	4.00		77.5	30-110			010
Japhthalene	2.40	0.450	II.	4.00		60.0	30-110			
thenanthrene	2.72	0.450	•	4.00		68.0	40-110			
yrene	2.74	0.450	Œ	4.00		68.5	40-110			
urrogate: Carbazole	1.33		n	2.00		66.5	30-110			

TestAmerica - Buffalo Grove, IL

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

Reviewed & Approved by:

former Knowly



Phone: (847) 808-7766 Fax: (847) 808-7772

Clean Harbors - Chicago 11800 S. Stoney Island Ave. Project: Koppers Inc.

Project Number: N/A

Lab ID: B609141

Chicago, IL 60617

Project Manager: Mike Decleene

**Reported:** 09/22/06 11:03

#### Polynuclear Aromatic Hydrocarbons by EPA Method 8310 - Quality Control TestAmerica - Buffalo Grove, IL

	_	Reporting		Spike	Source		%REC		RPD	ļ
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6090269 - EPA 3510C										
CS Dup (6090269-BSD1)				Prepared:	09/19/06	Analyzed	1: 09/20/06			
cenaphthene	34.4	0.435	ug/l	4.00		860	30-110	3.55	35	Н
ınthracene	2.71	0.435	11	4.00		67.8	40-110	3.38	35	
tenz (a) anthracene	2.90	0.00870	n	4.00		72.5	40-110	4.95	30	
Benzo (a) pyrene	3.09	0.00870	ŧi	4.00		77.2	30-110	6.34	30	
Benzo (b) fluoranthene	3.21	0.00870	H	4.00		80.2	50-110	6.76	30	
Benzo (k) fluoranthene	2.96	0.00870		4.00		74.0	40-110	5.56	30	
Chrysene	3.00	0.0870	31	4.00		75.0	40-110	5.13	30	
Dibenz (a,h) anthracene	3.30	0.00870	Ħ	4.00		82.5	10-110	34.0	35	
luorene	2.62	0.435	u	4.00		65.5	35-110	3.50	30	
ndeno (1,2,3-cd) pyrene	3.31	0.0174	п	4.00		82.8	30-110	6.55	30	O10
Naphthalene	2.53	0.435	н	4.00		63.2	30-110	5.27	35	
Phenanthrene	2.81	0.435	н	4.00		70.2	40-110	3.25	30	
Pyrene	2.89	0.435	#	4.00		72.2	40-110	5.33	35	
Surrogate: Carbazole	1.52		"	2.00		76.0	30-110			

TestAmerica - Buffalo Grove, IL

Reviewed & Approved by:

forme Knowly

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



Phone: (847) 808-7766 Fax: (847) 808-7772

Clean Harbors - Chicago 11800 S. Stoney Island Ave.

Chicago, IL 60617

QC

015

ND

dry

RPD

Н

Project: Koppers Inc.

Project Number: N/A

Project Manager: Mike Decleene

Lab ID: B609141

09/22/06 11:03 Reported:

#### **Notes and Definitions**

The result for one or more quality control measurements associated with this sample did not meet the laboratory and/or source

method acceptance criteria.

One or more surrogate recoveries were above the laboratory established control limits.

The check standard that corresponds to this sample met the SW846 method requirements. However, it should be noted that the 010

recovery for this individual compound in the check standard was above 115%.

DET Analyte DETECTED

Analyte NOT DETECTED at or above the reporting limit

Not Reported NR

Sample results reported on a dry weight basis

Relative Percent Difference

This quality control measurement is below the laboratory established limit.

This quality control measurement is above the laboratory established limit.

The laboratory is not NELAP accredited for this analyte by the indicated matrix and method.

The State of Illinois Accrediting Authority does not offer NELAP accreditation for this analyte by the indicated matrix and method.

Note: All analytes, by matrix and method, are accredited following current NELAP standards unless specifically noted by way of a qualifier listed above.

Note: All samples are reported on a wet weight basis unless otherwise noted.

TestAmerica--Buffalo Grove, IL Wisconsin DNR Certification Lab ID: 999917160

TestAmerica--Buffalo Grove, IL NELAP Primary Accreditation: Illinois #100261

TestAmerica--Buffalo Grove, IL NELAP Secondary Accreditation: New Jersey #IL001

TestAmerica--Nashville, TN NELAP Secondary Accreditation; Illinois #200010

TestAmerica--Dayton, OH NELAP Secondary Accreditation: Illinois #200008

TestAmerica--Watertown, WI NELAP Primary Accreditation: Illinois #100453

TestAmerica--Watertown, WI Wisconsin DNR Certification Lab ID: 128053530



TestAmerica - Buffalo Grove, IL

Reviewed & Approved by:

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

## State of Wisconsin Department of Natural Resources



recognizes

Wisconsin Certification under NR 149 of

TestAmerica Analytical Testing-Buffalo Grove

Laboratory Id: 999917160

as a laboratory licensed to perform environmental sample analysis in support of covered environmental programs (ch. NR149.02 Note) for the parameter(s) specified in the attached Scope of Accreditation.

August 31, 2007

**Expiration Date** 

August 1, 2006

Issued on



David Well-Chief, Environmental Science Services

P. Sevet Hassett

This certificate does not guarantee validity of data generated, but indicates the methodology, equipment, quality control practices, records, and proficiency of the laboratory have been reviewed and found to satisfy the requirements of ch. NR 149, Wis. Adm. Code.



#### State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor Scott Hassett, Secretary 101 S Webster St PO Box 7921 Madison, WI 53707-7921 Telephone 608-266-2621 Fax 608-267-3579 TTY 608-267-6897

FID: 999917160

August 1, 2006

MR. MYRA KUNAS TESTAMERICA ANALYTICAL TESTING-BUFFALO GROVE 1380 BUSCH PARKWAY BUFFALO GROVE, IL 60089

Dear Mr. Myra Kunas:

Enclosed is your new Laboratory Certification or Registration certificate. This certificate supersedes all previous certificates.

YOUR CERTIFICATE IS AN IMPORTANT DOCUMENT. PLEASE REVIEW IT CAREFULLY FOR ERRORS AND COMPARE IT TO YOUR PREVIOUS YEAR'S CERTIFICATE. MAKE SURE THAT THIS CERTIFICATE REFLECTS THE TESTS FOR WHICH YOU APPLIED TO BE CERTIFIED. If you believe your certificate contains errors, contact the Laboratory Certification and Registration Program immediately at (608) 267-7633 or by e-mail at LabCert@dnr.state.wi.us.

Sincerely,

David Webb, Chief

David Webb

Environmental Science Services

Bureau of Integrated Science Services



TestAmerica Analytical Testing-Buffalo Grove

1380 Busch Parkway Buffalo Grove, IL 60089 Laboratory Id: 999917160 Expiration Date: 08/31/07 Issued Date: 08/01/06

#### Wisconsin Certification under NR 149

Category 01 - Oxygen Utilization	Category 07 - General III
Biochemical Oxygen Demand	Corrosivity
Carbonaceous BOD	Total Releasable Cyanide
Category 02 - Nitrogen	Total Releasable Sulfide
Ammonia as N	TCLP
Nitrate + Nitrite as N	Total Organic Halides
Total Kjeldahl Nitrogen	Total Organic Carbon
Nitrite as N	SPLP
Nitrate as N	Reactivity
	- Ignitability
Category 03 - Phosphorus	EP Toxicity
Orthophosphate	Waste Fingerprinting
Total Phosphorus	Category 08 - Metals I
Category 04 - Physical	Silver
Oil and Grease (HEM)	Cadmium
Total Solids	Chromium (Total)
Total Suspended Solids	Sodium
Total Volatile Solids	•
Total Vol. Suspend Solids	Molybdenum
Oil and Grease (Freon)	Manganese
Total Dissolved Solids	Magnesium
	Potassium
Category 05 - General I	Mercury
Alkalinity/Acidity	Chromium (Hexavalent)
Sulfite	Iron
Hardness	Copper
Color	Zinc
Category 06 - General II	Vanadium
Chloride	Thallium
Sulfide	Tin
Sulfate	Selenium
Total Phenolic Compounds	Antimony
Cyanide	Lead
Fluoride	Nickel
Chemical Oxygen Demand	Cobalt '
Chemical Oxygen Demand	Calcium
	Arsenic
	Boron
·	Beryllium
	Barium
	Aluminum
,	Category 10 - Organics; Purgeable
	Purgeable Aromatics
•	Volatile Organics (VOCs)
	Purgeable Halocarbons

TestAmerica Analytical Testing-Buffalo Grove 1380 Busch Parkway Buffalo Grove, IL 60089 Laboratory Id: 999917160 Expiration Date: 08/31/07 Issued Date: 08/01/06

#### Wisconsin Certification under NR 149

Category 12 - Semivolatiles by GC/MS  Base/Neutral/Acid Extract	
Category 13 - Liquid Chromatography PAHs by LC	
Category 15 - Petroleum Hydrocarbons Gasoline Range Organics Petroleum VOCs	
Category 16 - Organics; Organochlorine PCBs	

## Treating Building Brick Sampling Results



Braun Intertec Corporation 11001 Hampshire Avenue S Minneapolis, MN 55438 Phone: 952.995.2000
Fax: 952.995.2020
Web: braunintertec.com

Mr. Robert Magnuson ERA Laboratories, Inc. 4730 Oneota Street Duluth, MN 55807 November 03, 2006

Work Order #: 0606606

RE: 2006 routine pricing

Dear Mr. Robert Magnuson

Braun Intertec Corporation received samples for the project identified above on 10/28/06 11:19. Analytical results are summarized in the following report.

All routine quality assurance procedures were followed, unless otherwise noted.

Analytical results are reported on an "as received" basis unless otherwise noted. Where possible, the samples will be retained by the laboratory for 14 days following issuance of the initial final report. The samples will be disposed of or returned at that time. Arrangements can be made for extended storage by contacting me at this time.

We appreciate your decision to use Braun Intertec Corporation for this project. We are committed to being your vendor of choice to meet your analytical chemistry needs.

If you have any questions please contact me at the above phone number.

Al J. Mars

Sincerely,

Richard A. Maw For Steven J. Albrecht

Associate Principal

Providing engineering and environmental solutions since 1957

**Certification/Accreditation Numbers** 

Minnesota Department of Health: 027-053-117

Wisconsin DNR: 999462640

NVLAP: 1021234-0

AIHA: 101103



ERA Laboratories, Inc. 4730 Oneota Street Duluth MN, 55807

Client Ref: 2006 routine pricing Client Contact:Mr. Robert Magnuson PO Number:

Work Order #: 0606606

Project Mgr: Richard A. Maw For Stev

Account ID: E06955

#### How to Use this Report

In order to get the most out of the information presented in this report please refer to the following explanations as to how the data in this report is tied together and how some of the terms are defined.

Qualifiers and Abbreviations are defined in the following section. You will find these codes used throughout the report in headers and in note sections to designate a unique fact about the data to which they are associated.

The Case Narrative gives a "story" about the analysis and results. Here you will find greater elaboration on relevant qualifiers as well as an explanation of anything of particular note in the data. This is a discussion of the data in terms of quality control and chemistry. It is a summary of any deviations that could affect the usefulness of the data. This is not an interpretation as to how this information relates to regulatory compliance, toxicity, or hazardous characterization. These items are beyond the scope of this report.

The Sample Summary provides detail on sample receipt. The association between Client sample ID and the Laboratory sample ID are defined here; this information is valuable to have when discussing results with your project manager. Sample collection and receipt dates and times are provided here as well. General notes regarding the work order are also documented here. This is a mini "case narrative" that describes any anomalies regarding the condition of the samples upon arrival to the laboratory or special circumstances regarding the work order.

The Conditions Upon Receipt summarizes the results of specific checks that have been performed at sample receipt. This includes items like custody documentation, sample condition, and temperature at receipt. Each "cooler" is identified and the conditions associated with that cooler are documented. A "cooler" is defined as the larger container used to transport the individual samples. In most cases this is a standard recreational cooler but it can be a box, plastic bag, or other container.

The laboratory results are summarized in the following sections. Data is broken down into major categories for convenience. An example of such a category would be "Total Petroleum Hydrocarbons." Here you would find data that references the testing of such parameters as diesel range organics and gasoline range organics. Other categories are similarly mapped. The batch number is associated with each sample. This is important to evaluate Quality Control (QC) data. Surrogate results samples are provided with each sample. Laboratory control limits are provided for comparison (see below). The reference method is also identified. If a method is denoted with an "M" (e.g. EPA 1234(M)) this means that it has been modified. An explanation of the modification will be found in the Case Narrative. A result is given with appropriate units. If a soil sample is dry-weight corrected then the word "dry" will appear next to the units. If the word "dry" does not appear then the result is "as received."

The Method Reporting Limit (MRL) and Method Detection Limit (MDL) are provided. It is important to understand these terms. The MRL is a level that has been empirically verified to provide reliable quantitation of results. Results that are equal to or greater than this value will show up as bolded. They are considered "hits." The MDL is a statistically derived number that indicates, with high confidence, that an analyte can be detected above noise level. If a result is less than this value it is marked as "ND" for "Non-Detect." If a result is less than the MRL but greater than the MDL then it is considered an estimate. Such a result is reported with a "J" flag denoting that it has been detected but that the result is an estimate. This is consistent with the CLP Statement of Work and the National Functional Guidelines.

The Quality Control (QC) samples are documented in the following section. Here you will find the preparation batches associated with each sample from the results section. The sample preparation method is also defined here. Accuracy is represented here in terms of a percent recovery as compared to a known value. Precision is represented as a relative percent difference between two duplicate sample aliquots. The laboratory control limits are provided as a means to evaluate the quality control data. If the result falls outside the laboratory control limits this simply means that it is outside what is typical for the laboratory and is noted accordingly. This does not mean that the data is invalid. Laboratory control limits are generally tighter than most program limits. This is a very important distinction. How the data is ultimately used determines its validity. Program requirements are defined in the Quality Assurance Project Plan (QAPP) governing the project. If your project manager is aware of your specific program requirements then a note will be made in the case narrative if the data fails to meet any of these requirements.

The last section contains copies of important documents and/or instrument printouts relayent to the report. This includes the chain of custody. It also may include items like chromatograms or spectra.

Please note that this report is paginated and must be reproduced in its entirety.



ERA Laboratories, Inc. 4730 Oneota Street Duluth MN, 55807

vm

tic

MDL MRL

NA

Client Ref:2006 routine pricing Client Contact:Mr. Robert Magnuson PO Number: Work Order #; 0606606 Project Mgr: Richard A. Maw For Stev Account ID: E06955

#### Qualifiers and Abbreviations

The surrogate recovery is below the laboratory generated control limits.

The surrogate recovery is above the laboratory generated control limits.

Concentrations are estimated values calculated relative to the closest eluting internal standard using peak areas from the total ion

chromatogram and a relative response factor of one.

Compounds were tentatively identified by comparison to the NIST (NBS) database of mass spectra. These identifications represent the

best fit obtained from the database search, subject to the interpretation of the analyst.

Detected but below the Method Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

COC Chain of Custody

dry Sample results reported on a dry weight basis

Method Detection Limit

Method Reporting Limit

Not Applicable

ND Analyte NOT DETECTED

NR Not Reported

%Rec Percent Recovery

RPD Relative Percent Difference

VOC Volatile Organic Compound



ERA Laboratories, Inc. 4730 Oneota Street Duluth MN, 55807 Client Ref:2006 routine pricing Client Contact:Mr. Robert Magnuson Work Order #: 0606606 Project Mgr; Richard A. Maw For Stev Account ID: E06955

PO Number:

#### SAMPLE SUMMARY

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Brick (Koppers)	0606606-01	Soil	10/27/06 00:00	10/28/06 11:19



ERA Laboratories, Inc. 4730 Oneota Street Duluth MN, 55807

Client Ref:2006 routine pricing Client Contact:Mr. Robert Magnuson PO Number:

Work Order #: 0606606 Project Mgr: Richard A. Maw For Stev

Account ID: E06955

#### **Conditions Upon Receipt**

Cooler #1 Cooler:

Temperature: 21.0 °C

COC Included: Yes

Custody Seals Used: No Custody Seals Intact: No

Received on Ice: No Hand Delivered by Sampler:

Sufficient Sample Provided: Yes Headspace Present (VOC): No

Preservation Confirmed: No

Temperature Blank: No COC Complete: Yes

COC & Labels Agree: Yes



ERA Laboratories, Inc. 4730 Oneota Street Duluth MN, 55807 Client Ref:2006 routine pricing Client Contact;Mr. Robert Magnuson PO Number: Work Order #: 0606606

Project Mgr: Richard A. Maw For Stev

Account ID: E06955

Brick (Koppers) 0606606-01 (Soil) 10/27/06 0:00

#### Toxicity Characteristic Leaching Procedure (TCLP) - Metals

Analyte	Result	MRL	MDL	Units	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.029	0.010	0.00060	mg/L	B6J0631	10/31/06	10/31/06	EPA 6010B	
Barium	0.22	0.010	0.00035	mg/L	B6J0631	10/31/06	10/31/06	EPA 6010B	
Cadmium	0.00083 J	0.0020	0.00018	mg/L	B6J0631	10/31/06	10/31/06	EPA 6010B	
Chromium	0.019	0.0050	0.00037	mg/L	B6J0631	10/31/06	10/31/06	EPA 6010B	
Lead	0.0020 J	0.0050	0.00097	mg/L	B6J0631	10/31/06	10/31/06	EPA 6010B	
Selenium	0.011	0.010	0.0017	mg/L	B6J0631	10/31/06	10/31/06	EPA 6010B	
Silver	ND	0.0050	0.00016	mg/L	B6J0631	10/31/06	10/31/06	EPA 6010B	
Mercury	0.000042 J	0.00020	0.0000080	mg/L	B6K0003	11/1/06	11/1/06	EPA 7470A	

#### Toxicity Characteristic Leaching Procedure (TCLP) - Semivolatiles

Analyte	Result	MRL	MDL	Units	Batch	Prepared	Analyzed	Method	Notes
1,2,4-Trichlorobenzene	ND	0.050	0.0033	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
1,2-Dichlorobenzene	ND	0.050	0.0027	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
1,2-Diphenylhydrazine	ND	0.050	0.0037	mg/L	В6Ј0627	10/31/06	11/2/06	EPA 8270C	
1,3-Dichlorobenzene	ND	0.050	0.0030	mg/L	В6Ј0627	10/31/06	11/2/06	EPA 8270C	
1,4-Dichlorobenzene	ND	0.050	0.0029	mg/L	В6Ј0627	10/31/06	11/2/06	EPA 8270C	
1-Methyl-Naphthalene	0.12			mg/L	В6Ј0627	10/31/06	11/2/06	EPA 8270C	tic, tt
2,4,5-Trichlorophenol	ND	0.050	0.0015	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
2,4,6-Trichlorophenol	ND	0.050	0.0023	mg/L	В6Ј0627	10/31/06	11/2/06	EPA 8270C	
2,4-Dichlorophenol	ND	0.10	0.0028	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
2,4-Dimethylphenol	0.044 <b>J</b>	0.050	0.0040	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
2,4-Dinitrophenol	ND	0.050	0.0096	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
2,4-Dinitrotoluene	ND	0.050	0.0020	mg/L	В6Ј0627	10/31/06	11/2/06	EPA 8270C	
2,6-Dinitrotoluene	ND	0.050	0.0058	mg/L	В6Ј0627	10/31/06	11/2/06	EPA 8270C	
2-Chloronaphthalene	ND	0.050	0.0030	mg/L	В6Ј0627	10/31/06	11/2/06	EPA 8270C	
2-Chlorophenol	ND	0.10	0.0063	mg/L	В6Ј0627	10/31/06	11/2/06	EPA 8270C	
2-Methylnaphthalene	0.025 J	0.050	0.0039	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
2-Methylphenol	0.041 J	0.10	0.025	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
2-Nitroaniline	ND	0.050	0.0046	mg/L	В6Ј0627	10/31/06	11/2/06	EPA 8270C	
2-Nitrophenol	ND	0.10	0.0054	mg/L	В6Ј0627	10/31/06	11/2/06	EPA 8270C	



Duluth MN, 55807

11001 Hampshire Ave. S. Bloomington, MN 55438 952-995-2000 Phone 952-995-2020 Fax

ERA Laboratories, Inc.

Client Ref;2006 routine pricing

Work Order #: 0606606

4730 Oneota Street

Client Contact; Mr. Robert Magnuson

Project Mgr. Richard A

Client Contact: Mr. Robert Magnuson Project Mgr: Richard A. Maw For Stev PO Number: Account ID: E06955

Brick (Koppers) 0606606-01 (Soil)

10/27/06 0:00

#### Toxicity Characteristic Leaching Procedure (TCLP) - Semivolatiles

-									
Analyte	Result	MRL	MDL	Units	Batch	Prepared	Analyzed	Method	Notes
3,3-Dichlorobenzidine	ND	0.050	0.0054	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
3-/4-Methylphenol	0.086 J	0.10	0.0028	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
3-Nitroaniline	ND	0.050	0.0066	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
4,6-Dinitro-2-methylphenol	ND	0.050	0.0070	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
4-Bromophenyl phenyl ether	ND	0.050	0.0024	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
4-Chloro-3-methylphenol	ND	0.050	0.0023	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
4-Chloroaniline	ND	0.050	0.0059	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	0.050	0.0025	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
4-Nitroaniline	ND	0.050	0.0034	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
4-Nitrophenol	ND	0.050	0.0082	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Acenaphthene	0.025	0.020	0.0026	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Acenaphthylene	ND	0.020	0.0019	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Aniline	ND	0.050	0.0088	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Anthracene	0.013 J	0.020	0.0021	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Benz(a)anthracene	ND	0.020	0.0071	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Benzo(a)pyrene	ND	0.020	0.0077	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Benzo(b)fluoranthene	ND	0.020	0.0042	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Benzo(g,h,i)perylene	ND	0.020	0.0067	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Benzo(k)fluoranthene	ND	0.020	0.0075	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Benzyl alcohol	ND	0.10	0.0032	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
bis(2-Chloroethoxy)methane	ND	0.050	0.0034	mg/L	В6Ј0627	10/31/06	11/2/06	EPA 8270C	
Bis(2-Chloroethyl)ether	ND	0.050	0.0042	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Bis(2-chloroisopropyl)ether	ND	0.050	0.0032	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Bis(2-Ethylhexyl)phthalate	ND	0.050	0.015	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Butyl benzyl phthalate	ND	0.050	0.0031	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Carbazole	0.34	0.050	0.0034	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Chrysene	0.012 J	0.020	0.0070	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Dibenz(a,h)anthracene	ND	0.020	0.0078	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Dibenzofuran	0.017 J	0.050	0.0027	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	



ERA Laboratories, Inc. 4730 Oneota Street Duluth MN, 55807 Client Ref:2006 routine pricing Client Contact:Mr. Robert Magnuson PO Number: Work Order #: 0606606

Project Mgr: Richard A. Maw For Stev

Account ID: E06955

Brick (Koppers) 0606606-01 (Soil) 10/27/06 0:00

#### Toxicity Characteristic Leaching Procedure (TCLP) - Semivolatiles

Analyte	Result	MRL	MDL	Units	Batch	Prepared	Analyzed	Method	Notes
Diethylphthalate	0.068	0.050	0.0030	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Dimethyl phthalate	ND	0.050	0.0021	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Di-n-butyl phthalate	ND	0.050	0.0047	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Di-n-octyl phthalate	ND	0.050	0.0080	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Fluoranthene	0.065	0.020	0.0026	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Fluorene	0.013 J	0.020	0.0046	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Hexachlorobenzene	ND	0.050	0.0024	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Hexachlorobutadiene	ND	0.050	0.0031	mg/L	В6Ј0627	10/31/06	11/2/06	EPA 8270C	
Hexachlorocyclopentadiene	ND	0.050	0.0028	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Hexachloroethane	ND	0.050	0.0035	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	0.020	0.0078	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Isophorone	ND	0.050	0.0021	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Naphthalene	0.12	0.050	0.0032	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Nitrobenzene	ND	0.050	0.0027	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
N-Nitrosodimethylamine	ND	0.050	0.0026	mg/L	В6Ј0627	10/31/06	11/2/06	EPA 8270C	
N-Nitrosodi-n-propylamine	ND	0.050	0.0031	mg/L	В6Ј0627	10/31/06	11/2/06	EPA 8270C	
N-Nitrosodiphenylamine	ND	0.050	0.0031	mg/L	В6Ј0627	10/31/06	11/2/06	EPA 8270C	
Pentachlorophenol	0.073	0.050	0.0054	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Phenanthrene	0.12	0.020	0.0021	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Phenol	ND	0.10	0.021	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Pyrene	0.036	0.020	0.0050	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Pyridine	ND	0.10	0.024	mg/L	B6J0627	10/31/06	11/2/06	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol	113 %	Lin	nits: 65-100%		B6J0627	10/31/06	11/2/06	EPA 8270C	vm
Surrogate: 2-Fluorobiphenyl	76.4 %	Lin	nits: 59-101%		B6J0627	10/31/06	11/2/06	EPA 8270C	
Surrogate: 2-Fluorophenol	41.4 %	Lit	mits: 30-75%		B6J0627	10/31/06	11/2/06	EPA 8270C	
Surrogate: Nitrobenzene-d5	60.0 %	Lin	nits: 57-101%		B6J0627	10/31/06	11/2/06	EPA 8270C	
Surrogate: Phenol-d6	39.0 %	Lin	nits: 30-75%		B6J0627	10/31/06	11/2/06	EPA 8270C	



ERA Laboratories, Inc. 4730 Oneota Street Duluth MN, 55807

Client Ref:2006 routine pricing Client Contact; Mr. Robert Magnuson PO Number:

Work Order #: 0606606

Project Mgr; Richard A. Maw For Stev

Account ID: E06955

**Brick (Koppers)** 0606606-01 (Soil) 10/27/06 0:00

#### Toxicity Characteristic Leaching Procedure (TCLP) - Semivolatiles

Analyte	Result	MRL M	IDL Units	Batch	Prepared	Analyzed	Method	Notes
Surrogate: Terphenyl-d14	87.2 %	Limits:	65-100%	B6J0627	10/31/06	11/2/06	EPA 8270C	

#### Toxicity Characteristic Leaching Procedure (TCLP) - Volatiles

Analyte	Result	MRL	MDL	Units	Batch	Prepared	Analyzed	Method	Notes
1,1-Dichloroethene	ND	0.10	0.0085	mg/L	B6K0061	11/1/06	11/1/06	EPA 8260B	
1,2-Dichloroethane	. ND	0.10	0.0053	mg/L	B6K0061	11/1/06	11/1/06	EPA 8260B	
2-Butanone (MEK)	ND	1.0	0.13	mg/L	B6K0061	11/1/06	11/1/06	EPA 8260B	
Benzene	ND	0.10	0.0045	mg/L	B6K0061	11/1/06	11/1/06	EPA 8260B	
Carbon Tetrachloride	ND	0.10	0.0057	mg/L	B6K0061	11/1/06	11/1/06	EPA 8260B	
Chlorobenzene	ND	0.10	0.0042	mg/L	B6K0061	11/1/06	11/1/06	EPA 8260B	
Chloroform	ND	0.10	0.012	mg/L	B6K0061	11/1/06	11/1/06	EPA 8260B	
Tetrachloroethene	ND	0.20	0.019	mg/L	B6K0061	11/1/06	11/1/06	EPA 8260B	
Trichloroethene	ND	0.10	0.0073	mg/L	B6K0061	11/1/06	11/1/06	EPA 8260B	
Vinyl chloride	ND	0.25	0.025	mg/L	B6K0061	11/1/06	11/1/06	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	107 %	Lin	nits: 80-1209	6	B6K0061	11/1/06	11/1/06	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	91.2 %	Lin	nits: 80-120%	6	B6K0061	11/1/06	11/1/06	EPA 8260B	
Surrogate: Dibromofluoromethane	101 %	Lin	nits: 80-1209	6	B6K0061	11/1/06	11/1/06	EPA 8260B	
Surrögate: Toluene-d8	98.4 %	Lin	nits: 80-1209	6	B6K0061	11/1/06	11/1/06	EPA 8260B	



ERA Laboratories, Inc. 4730 Oneota Street Duluth MN, 55807 Client Ref:2006 routine pricing Client Contact:Mr. Robert Magnuson

Work Order #: 0606606

Project Mgr: Richard A. Maw For Stev

Account ID: E06955

#### Toxicity Characteristic Leaching Procedure (TCLP) - Metals - Quality Control

PO Number:

100	city Character	istic Le	aching i	roccuur	e (TCLI)	- Wictais	- Quant	y Contro	•		
Batch B6J0631 - EPA 3005A											
Method Blank (B6J0631-BLK1)							Prepared	d & Analyze	ed: 10/31/0	6	
Analyte	Result	MRL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	0.000798 Ј	0.010	0.00060	mg/L	NA	NA	NA NA	NA	NA	NA	
Barium	ND	0.010	0.00035	mg/L	NA	NA	NA	NA	NA	NA	
Cadmium	ND	0.0020	0,00018	mg/L	NA	NA	NA	NA	NA	NA	
Chromium	ND	0,0050	0.00037	mg/L	NA	NA	NA	NA	NA	NA	
Lead	ND	0,0050	0,00097	mg/L	NA	NA	NA	NA	NA	NA	
Selenium	ND	0.010	0.0017	mg/L	NA	NA	NA	NA	NA	NA	
Silver	ND	0.0050	0,00016	mg/L	NA	NA	NA	NA	NA	NA	
Laboratory Control Sample (B6J06	31-BS1)						Prepared	ł & Analyze	d: 10/31/0	6	
Analyte	Result	MRL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1.02	0.010	0.00060	mg/L	1,00	NA	102	85-115	NA	NA	
Barium	1.06	0.010	0.00035	mg/L	1.00	NA	106	85-115	NA	NA	
Cadmium	1.04	0.0020	0.00018	mg/L	1,00	NA	104	85-115	NA	NA	
Chromium	0.998	0.0050	0.00037	mg/L	1.00	NA	99.8	85-115	NA	NA	
Lead	1.09	0.0050	0.00097	mg/L	1.00	NA	109	85-115	NA	NA	
Selenium	0.994	0.010	0.0017	mg/L	1,00	NA	99.4	85-115	NA	NA	
Silver	0.212	0.0050	0.00016	mg/L	0.200	NA	106	85-115	NA	NA	
Laboratory Control Sample Duplic	ate (B6J0631-BS	D1)					Prepared	d & Analyze	d: 10/31/0	6	
Analyte	Result	MRL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1,05	0,010	0,00060	mg/L	1,00	NA	105	85-115	2.90	25	
Barium	1.09	0.010	0.00035	mg/L	1.00	NA	109	85-115	2.79	20	
Cadmium	1.06	0,0020	0.00018	mg/L	1.00	NA	106	85-115	1.90	20	
Chromium	1.02	0,0050	0.00037	mg/L	1.00	NA	102	85-115	2.18	20	
Lead	1.11	0,0050	0,00097	mg/L	1,00	NA	111	85-115	1.82	20	
Selenium	1.01	0.010	0.0017	mg/L	1.00	NA	101	85-115	1.60	20	
Silver	0.212	0,0050	0,00016	mg/L	0.200	NA	106	85-115	0.00	20	



ERA Laboratories, Inc. 4730 Oneota Street Duluth MN, 55807 Client Ref;2006 routine pricing Client Contact;Mr. Robert Magnuson PO Number: Work Order #: 0606606

Project Mgr: Richard A. Maw For Stev

Account ID: E06955

#### Toxicity Characteristic Leaching Procedure (TCLP) - Metals - Quality Control

Batch B6J0631 - EPA 3005A											
Matrix Spike (B6J0631-MS1)				Source	e: 0606606	-01	Prepared	l & Analyze	d: 10/31/0	6	
Analyte	Result	MRL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1.23	0.010	0.00060	mg/L	1.00	0.029	120	75-125	NA	NA	
Barium	1.23	0.010	0.00035	mg/L	1.00	0.22	101	75-125	NA	NA	
Cadmium	1.13	0.0020	0,00018	mg/L	1,00	0,00083	113	75-125	NA	NA	
Chromium	1.00	0.0050	0.00037	mg/L	1.00	0.019	98.1	75-125	NA	NA	
Lead	1.02	0,0050	0.00097	mg/L	1,00	0.0020	102	75-125	NA	NA	
Selenium	1.24	0.010	0.0017	mg/L	1,00	0,011	123	75-125	NA	NA	
Silver	0.239	0.0050	0.00016	mg/L	0.200	ND	120	75-125	NA	NA	
Matrix Spike Duplicate (B6J0631-MSD1)				Source	e: 0606606-	-01	Prepared	l & Analyze	ed: 10/31/0	6	
Analyte	Result	MRL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1.23	0.010	0,00060	mg/L	1,00	0.029	120	75-125	0,00	25	
Barium	1.24	0.010	0.00035	mg/L	1.00	0.22	102	75-125	0.810	20	
Cadmium	1.14	0.0020	0,00018	mg/L	1.00	0,00083	114	75-125	0.881	20	
Chromium	1.01	0.0050	0.00037	mg/L	1.00	0.019	99.1	75-125	0.995	20	
Lead	1.03	0.0050	0.00097	mg/L	1.00	0,0020	103	75-125	0.976	20	
Selenium	1.24	0.010	0,0017	mg/L	1.00	0.011	123	75-125	0.00	20	
Silver	0.241	0.0050	0.00016	mg/L	0,200	ND	120	75-125	0.833	20	
Batch B6K0003 - EPA 7470A											
Method Blank (B6K0003-BLK1)							Prepared	l & Analyze	ed: 11/01/0	6	
Analyte	Result	MRL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.0000183	0.00020	0.0000080	mg/L	NA	NA	NA	NA	NA	NA	
Method Blank (B6K0003-BLK2)							Prepared	l & Analyze	ed: 11/01/0	6	
Analyte	Result	MRL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.0000239	0.00020	0.0000080	mg/L	NA	NA	NA	NA	NA	NA	



ERA Laboratories, Inc. 4730 Oneota Street Duluth MN, 55807 Client Ref:2006 routine pricing Client Contact:Mr. Robert Magnuson Work Order #: 0606606

Project Mgr: Richard A. Maw For Stev

Account ID: E06955

#### Toxicity Characteristic Leaching Procedure (TCLP) - Metals - Quality Control

PO Number:

Batch B6K0003 - EPA 7470A											
aboratory Control Sample (B6K000	03-BS1)						Prepared	d & Analyzo	ed: 11/01/0	6	
An <b>alyte</b>	Result	MRL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
fercury	0,00248	0.00020	0,0000080	mg/L	0,00250	NA	99,2	85-115	NA	NA	
_aboratory Control Sample Duplica	te (B6K0003-B	SD1)					Prepared	d & Analyzo	ed: 11/01/0	6	
An <b>alyte</b>	Result	MRL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
dercury	0.00246	0.00020	0.0000080	mg/L	0.00250	NA	98.4	85-115	0.810	20	
Matrix Spike (B6K0003-MS1)				Source	e: 0606606-	-01	Prepared	d & Analyze	ed: 11/01/0	6	
Analyte	Result	MRL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.00251	0.00020	0.0000080	mg/L	0.00250	0.000042	98,7	75-125	NA	NA	
Matrix Spike Duplicate (B6K0003-M	SD1)			Sourc	e: 0606606-	-01	Prepared	d & Analyze	ed: 11/01/0	6	
Analyte	Result	MRL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.00247	0.00020	0.0000080	mg/L	0.00250	0.000042	97.1	75-125	1.61	20	



ERA Laboratories, Inc. 4730 Oneota Street Duluth MN, 55807 Client Ref:2006 routine pricing Client Contact:Mr. Robert Magnuson Work Order #: 0606606

Prepared: 10/31/06 Analyzed: 11/01/06

Project Mgr: Richard A. Maw For Stev

Account ID: E06955

#### Toxicity Characteristic Leaching Procedure (TCLP) - Semivolatiles - Quality Control

PO Number:

### Batch B6J0627 - EPA 3510C Method Blank (B6J0627-BLK1)

Analyte	Result	MRL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	ND	0.0050	0,00033	mg/L	NA	NA	NA	NA	NA	NA	
1,2-Dichlorobenzene	ND	0.0050	0.00027	mg/L	NA	NA	NA	NA	NA	NA	
1,2-Diphenylhydrazine	ND	0.0050	0.00037	mg/L	NA	NA	NA	NA	NA	NA	
1,3-Dichlorobenzene	ND	0.0050	0.00030	mg/L	NA	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	ND	0,0050	0.00029	mg/L	NA	NA	NA	NA	NA	NA	
2,4,5-Trichlorophenol	ND	0.0050	0.00015	mg/L	NA	NA	NA	NA	NA	NA	
2,4,6-Trichlorophenol	ND	0.0050	0.00023	mg/L	NA	NA	NA	NA	NA	NA	
2,4-Dichlorophenol	ND	0.010	0.00028	mg/L	NA	NA	NA	NA	NA	NA	
2,4-Dimethylphenol	ND	0.0050	0.00040	mg/L	NA	NA	NA	NA	NA	NA	
2,4-Dinitrophenol	ND	0.0050	0.00096	mg/L	NA	NA	NA	NA	NA	NA	
2,4-Dinitrotoluene	ND	0.0050	0.00020	mg/L	NA	NA	NA	NA	NA	NA	
2,6-Dinitrotoluene	ND	0.0050	0,00058	mg/L	NA	NA	NA	NA	NA	NA	
2-Chloronaphthalene	ND	0.0050	0.00030	mg/L	NA	NA	NA	NA	NA	NA	
2-Chlorophenol	ND	0.010	0.00063	mg/L	NA	NA	NA	NA	NA	NA	
2-Methylnaphthalene	ND	0.0050	0.00039	mg/L	NA	NA	NA	NA	NA	NA	
2-Methylphenol	ND	0.010	0.0025	ıng/L	NA	NA	NA	NA	NA	NA	
2-Nitroaniline	ND	0.0050	0.00046	mg/L	NA	NA	NA	NA	NA	NA	
2-Nitrophenol	ND	0.010	0.00054	mg/L	NA	NA	NA	NA	NA	NA	
3,3-Dichlorobenzidine	ND	0.0050	0,00054	mg/L	NA	NA	NA	NA	NA	NA	
3-/4-Methylphenol	ND	0.010	0.00028	mg/L	NA	NA	NA	NA	NA	NA	
3-Nitroaniline	ND	0.0050	0.00066	mg/L	NA	NA	NA	NA	NA	NA	
4,6-Dinitro-2-methylphenol	ND	0.0050	0.00070	mg/L	NA	NA	NA	NA	NA	NA	
4-Bromophenyl phenyl ether	ND	0.0050	0.00024	mg/L	NA	NA	NA	NA	NA	NA	
4-Chloro-3-methylphenol	ND	0.0050	0.00023	mg/L	NA	NA	NA	NA	NA	NA	
4-Chloroaniline	ND	0.0050	0.00059	mg/L	NA	NA	NA	NA	NA	NA	
4-Chlorophenyl phenyl ether	ND	0.0050	0.00025	mg/L	NA	NA	NA	NA	NA	NA	
4-Nitroaniline	ND	0.0050	0.00034	mg/L	NA	NA	NA	NA	NA	NA	
4-Nitrophenol	ND	0.0050	0.00082	mg/L	NA	NA	NA	NA	NA	NA	
Acenaphthene	ND	0.0020	0.00026	mg/L	NA	NA	NA	NA	NA	NA	
Acenaphthylene	ND	0.0020	0.00019	mg/L	NA	NA	NA	NA	NA	NA	
Aniline	ND	0.0050	0.00088	mg/L	NA	NA	NA	NA	NA	NA	
Anthracene	ND	0.0020	0.00021	mg/L	NA	NA	NA	NA	NA	NA	
Benz(a)anthracene	ND	0.0020	0.00071	mg/L	NA	NA	NA	NA	NA	NA	
Benzo(a)pyrene	ND	0.0020	0.00077	mg/L	NA	NA	NA	NA	NA	NA	
Benzo(b)fluoranthene	ND	0.0020	0.00042	mg/L	NA	NA	NA	NA	NA	NA	
Benzo(g,h,i)perylene	ND	0.0020	0.00067	mg/L	NA	NA	NA	NA	NA	NA	
Benzo(k)fluoranthene	ND	0.0020	0.00075	mg/L	NA	NA	NA	NA	NA	NA	
Benzyl alcohol	ND	0.010	0.00032	mg/L	NA	NA	NA	NA	NA	NA	
bis(2-Chloroethoxy)methane	ND		0.00034	mg/L	NA	NA	NA	NA NA	NA NA	NA	
	,40	0,0000	3,000,				11/A	14/3	11/1	2166	



ERA Laboratories, Inc. 4730 Oneota Street Duluth MN, 55807 Client Ref:2006 routine pricing Client Contact;Mr. Robert Magnuson PO Number: Work Order #: 0606606

Project Mgr: Richard A. Maw For Stev

Account ID: E06955

Prepared: 10/31/06 Analyzed: 11/01/06

#### Toxicity Characteristic Leaching Procedure (TCLP) - Semivolatiles - Quality Control

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Analyte	Result	MRL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
is(2-Chloroethyl)ether	ND	0.0050	0,00042	mg/L	NA	NA	NA	NA NA	NA NA	NA	
is(2-chloroisopropyl)ether	ND	0.0050	0.00032	mg/L	NA	NA	NA	NA NA	NA.	NA	
is(2-Ethylhexyl)phthalate	ND	0.0050	0.0015	mg/L	NA	NA	NA	NA NA	NA.	NA	
utyl benzyl phthalate	ND	0.0050	0.00031	mg/L	NA	NA	NA	NA NA	NA.	NA	
arbazole	ND	0.0050	0.00034	mg/L	NA	NA	NA NA	NA NA	NA.	NA	
hrysene	ND	0,0020	0.00070	mg/L	NA	NA	NA.	NA NA	NA NA	NA	
ibenz(a,h)anthracene	ND	0.0020	0.00078	mg/L	NA	NA	NA	NA NA	NA.	NA	
ibenzofuran	ND		0.00075	mg/L	NA	NA	NA NA	NA NA	NA.	NA	
iethylphthalate	ND	0.0050	0,00027	mg/L	NA NA	NA NA	NA NA		NA	NA NA	
imethyl phthalate	ND	0.0050	0.00021	mg/L	NA NA	NA NA	NA NA	NA NA		NA NA	
i-n-butyl phthalate	ND ND	0.0050	0.00021	mg/L mg/L	NA NA	NA NA		NA NA	NA NA	NA NA	
i-n-outyl phthalate			0.00047	_		NA NA	NA NA	NA NA	NA NA	NA NA	
i-n-octyl phinalate	ND	0.0050	0.00080	mg/L	NA NA		NA	NA NA	NA		
	ND	0.0020		mg/L	NA NA	NA	NA	NA	NA	NA NA	
uorene	ND	0.0020	0.00046	mg/L		NA	NA	NA	NA	NA	
exachlorobenzene	ND	0.0050	0.00024	mg/L	NA	NA	NA	NA	NA	NA	
exachlorobutadiene	ND		0.00031	mg/L	NA	NA	NA	NA	NA	NA	
exachlorocyclopentadiene	ND		0.00028	mg/L	NA	NA	NA	NA	NA	NA	
exachloroethane	ND	0.0050	0.00035	mg/L	NA	NA	NA	NA	NA	NA	
deno(1,2,3-cd)pyrene	ND	0.0020	0.00078	mg/L	NA	NA	NA	NA	NA	NA	
ophorone	ND	0.0050	0.00021	mg/L	NA	NA	NA	NA	NA	NA	
aphthalene	ND	0.0050	0.00032	mg/L	NA	NA	NA	NA	NA	NA	
trobenzene	ND	0.0050	0.00027	mg/L	NA	NA	NA	NA	NA	NA	
Nitrosodimethylamine	ND	0.0050	0.00026	mg/L	NA	NA	NA	NA	NA	NA	
-Nitrosodi-n-propylamine	ND	0.0050	0.00031	mg/L	NA	NA	NA	NA	NA	NA	
-Nitrosodiphenylamine	ND	0.0050	0.00031	mg/L	NA	NA	NA	NA	NA	NA	
ntachlorophenol	ND	0.0050	0.00054	mg/L	NA	NA	NA	NA	NA	NA	
enanthrene	ND	0.0020	0.00021	mg/L	NA	NA	NA	NA	NA	NA	
nenol	ND	0.010	0.0021	mg/L	NA	NA	NA	NA	NA	NA	
rene	ND	0.0020	0.00050	mg/L	NA	NA	NA	NA	NA	NA	
ridine	ND	0.010	0.0024	mg/L	NA	NA	NA	NA	NA	NA	
rrogate: 2,4,6-Tribromophenol	0.0341		·	mg/L	0.0500	NA	68.2	65-100			
urrogate: 2-Fluorobiphenyl	0.0160			mg/L	0.0250	NA	64.0	59-101			
urrogate: 2-Fluorophenol	0.0192			mg/L	0.0500	NA	38.4	30-75			
ırrogate: Nitrobenzene-d5	0.0140			mg/L	0.0250	NA	56.0	57-101			vn
ırrogate: Phenol-d6	0.0184			mg/L	0.0500	NA	36.8	30-75			
ırrogate: Terphenyl-d14	0.0184			mg/L	0.0250	NA	73.6	65-100			



ERA Laboratories, Inc. 4730 Oneota Street

Duluth MN, 55807

Client Ref:2006 routine pricing Client Contact:Mr. Robert Magnuson Work Order #: 0606606

Prepared: 10/31/06 Analyzed: 11/02/06

Project Mgr: Richard A. Maw For Stev

Account ID: E06955

#### Toxicity Characteristic Leaching Procedure (TCLP) - Semivolatiles - Quality Control

PO Number:

#### <u> 3atch B6J0627 - EPA 3510C</u> vlethod Blank (B6J0627-BLK2)

,							•		•		
Analyte	Result	MRL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
,2,4-Trichlorobenzene	ND	0,050	0.0033	mg/L	NA	NA	NA	NA	NA	NA	
,2-Dichlorobenzene	ND	0,050	0,0027	mg/L	NA	NA	NA	NA	NA	NA	
i,2-Diphenylhydrazine	ND	0.050	0.0037	mg/L	NA	NA	NA	NA	NA	NA	
1,3-Dichlorobenzene	ND	0.050	0.0030	mg/L	NA	NA	NA	NA	NA	NA	
.4-Dichlorobenzene	ND	0,050	0.0029	mg/L	NA	NA	NA	NA	NA	NA	
2,4,5-Trichlorophenol	ND	0,050	0.0015	mg/L	NA	NA	NA	NA	NA	NA	
2,4,6-Trichlorophenol	ND	0,050	0,0023	mg/L	NA	NA	NA	NA	NA	NA	
2,4-Dichlorophenol	ND	0.10	0.0028	mg/L	NA	NA	NA	NA	NA	NA	
2,4-Dimethylphenol	ND	0.050	0.0040	mg/L	NA	NA	NA	NA	NA	NA	
2,4-Dinitrophenol	ND	0.050	0.0096	mg/L	NA	NA	NA	NA	NA	NA	
2,4-Dinitrotoluene	ND	0.050	0.0020	mg/L	NA	NA	NA	NA	NA	NA	
2,6-Dinitrotoluene	ND	0.050	0.0058	mg/L	NA	NA	NA	NA	NA	NA	
2-Chloronaphthalene	ND	0.050	0.0030	mg/L	NA	NA	NA	NA	NA	NA	
2-Chlorophenol	ND	0.10	0.0063	mg/L	NA	NA	NA	NA	NA	NA	
2-Methylnaphthalene	ND	0.050	0.0039	mg/L	NA	NA	NA	NA	NA	NA	
2-Methylphenol	ND	0.10	0.025	mg/L	NA	NA	NA	NA	NA	NA	
2-Nitroaniline	ND	0.050	0.0046	mg/L	NA	NA	NA	NA	NA	NA	
2-Nitrophenol	ND	0.10	0.0054	mg/L	NA	NA	NA	NA	NA	NA	
3,3-Dichlorobenzidine	ND	0,050	0.0054	mg/L	NA	NA	NA	NA	NA	NA	
3-/4-Methylphenol	ND	0.10	0.0028	mg/L	NA	NA	NA	NA	NA	NA	
3-Nitroaniline	ND	0,050	0.0066	mg/L	NA	NA	NA	NA	NA	NA	
4,6-Dinitro-2-methylphenol	ND	0.050	0.0070	mg/L	NA	NA	NA	NA	NA	NA	
4-Bromophenyl phenyl ether	ND	0.050	0.0024	mg/L	NA	NA	NA	NA	NA	NA	
4-Chloro-3-methylphenol	ND	0.050	0.0023	mg/L	NA	NA	NA	NA	NA	NA	
4-Chloroaniline	ND	0,050	0,0059	mg/L	NA	NA	NA	NA	NA	NA	
4-Chlorophenyl phenyl ether	ND	0.050	0.0025	mg/L	NA	NA	NA	NA	NA	NA	
4-Nitroaniline	ND	0.050	0.0034	mg/L	NA	NA	NA	NA	NA	NA	
1-Nitrophenol	ND	0.050	0,0082	mg/L	NA	NA	NA	NA	NA	NA	
Acenaphthene	ND	0.020	0.0026	mg/L	NA	NA	NA	NA	NA	NA	
Acenaphthylene	ND	0,020	0.0019	mg/L	NA	NA	NA	NA	NA	NA	
Aniline	ND	0,050	0.0088	mg/L	NA	NA	NA	NA	NA	NA	
Anthracene	ND	0.020	0.0021	mg/L	NA	NA	NA	NA	NA	NA	
Benz(a)anthracene	ND	0.020	0.0071	mg/L	NA	NA	NA	NA	NA	NA	
Benzo(a)pyrene	ND	0.020	0.0077	mg/L	NA	NA	NA	NA	NA	NA	
Benzo(b)fluoranthene	ND	0.020	0.0042	mg/L	NA	NA	NA	NA	NA	NA	
Benzo(g,h,i)perylene	ND	0.020	0.0067	mg/L	NΑ	NÁ	NA	NA	NA	NA	
Benzo(k)fluoranthene	ND	0.020	0.0075	mg/L	NA	NA	NA	NA	NA	NA	
Benzyl alcohol	ND	0.10	0.0032	mg/L	NA	NA	NA	NA	NA	NA	
bis(2-Chloroethoxy)methane											



ERA Laboratories, Inc. 4730 Oneota Street

Duluth MN, 55807

Client Ref:2006 routine pricing Client Contact;Mr. Robert Magnuson Work Order #: 0606606

PO Number:

Project Mgr: Richard A. Maw For Stev

Prepared: 10/31/06 Analyzed: 11/02/06

Account ID: E06955

#### Toxicity Characteristic Leaching Procedure (TCLP) - Semivolatiles - Quality Control

#### Batch B6J0627 - EPA 3510C Method Blank (B6J0627-BLK2)

Analyte	Result	MRL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Bis(2-Chloroethyl)ether	ND	0.050	0.0042	mg/L	NA	NA	NA	NA	NA	NA	
Bis(2-chloroisopropyl)ether	ND	0.050	0.0032	mg/L	NA	NA	NA	NA	NA	NA	
Bis(2-Ethylhexyl)phthalate	ND	0.050	0.015	mg/L	NA	NA	NA	NA	NA	NA	
Butyl benzyl phthalate	ND	0.050	0.0031	mg/L	NA	NA	NA	NA	NA	NA	
Carbazole	ND	0.050	0.0034	mg/L	NA	NA	NA	NA	NA	NA	
Chrysene	ND	0.020	0.0070	mg/L	NA	NA	NA	NA	NA	NA	
Dibenz(a,h)anthracene	ND	0.020	0.0078	mg/L	NA	NA	NA	NA	NA	NA	
Dibenzofuran	ND	0,050	0,0027	mg/L	NA	NA	NA	NA	NA	NA	
Diethylphthalate	0.0353	0,050	0.0030	mg/L	NA	NA	NA	NA	NA	NA	
Dimethyl phthalate	ND	0.050	0.0021	mg/L	NA	NA	NA	NA	NA	NA	
Di-n-butyl phthalate	ND	0.050	0.0047	mg/L	NA	NA	NA	NA	NA	NA	
Di-n-octyl phthalate	ND	0.050	0.0080	mg/L	NA	NA	NA	NA	NA	NA	
Fluoranthene	ND	0.020	0.0026	mg/L	NA	NA	NA	NA	NA	NA	
Fluorene	ND	0.020	0.0046	mg/L	NA	NA	NA	NA	NA	NA	
Hexachlorobenzene	ND	0,050	0.0024	mg/L	NA	NA	NA	NA	NA	NA	
-lexachlorobutadiene	ND	0,050	0.0031	mg/L	NA	NA	NA	NA	NA	NA	
-lexachlorocyclopentadiene	ND	0.050	0.0028	mg/L	NA	NA	NA	NA	NA	NA	
Hexachloroethane	ND	0.050	0.0035	mg/L	NA	NA	NA	NA	NA	NA	
ndeno(1,2,3-cd)pyrene	ND	0,020	0,0078	mg/L	NA	NA	NA	NA	NA	NA	
sophorone	ND	0,050	0.0021	mg/L	NA	NA	NA	NA	NA	NA	
Naphthalene	ND	0,050	0.0032	mg/L	NA	NA	NA	NA	NA	NA	
Nitrobenzene	ND	0.050	0.0027	mg/L	NA	NA	NA	NA	NA	NA	
N-Nitrosodimethylamine	ND	0,050	0.0026	mg/L	NA	NA	NA	NA	NA	NA	
N-Nitrosodi-n-propylamine	ND	0.050	0.0031	mg/L	NA	NA	NA	NA	NA	NA	
N-Nitrosodiphenylamine	ND	0,050	0.0031	mg/L	NA	NA	NA	NA	NA	NA	
Pentachlorophenol	ND	0.050	0.0054	mg/L	NA	NA	NA	NA	NA	NA	
Phenanthrene	ND	0.020	0.0021	mg/L	NA	NA	NA	NA	NA	NA	
Phenoi	ND	0.10	0.021	mg/L	NA	NA	NA	NA	NA	NA	
Pyrene	ND	0.020	0,0050	mg/L	NA	NA	NA	NA	NA	NA	
Pyridine	ND	0.10	0.024	mg/L	NA	NA	NA	NA	NA	NA	
Surrogate: 2,4,6-Tribromophenol	0.453			mg/L	0,500	NA NA	90.6	65-100			
Surrogate: 2-Fluorobiphenyl	0.193			mg/L	0.250	NA	77.2	59-101			
Surrogate: 2-Fluorophenol	0.224			ing/L	0.500	NA	44.8	30-75			
Surrogate: Nitrobenzene-d5	0.170			mg/L	0.250	NA	68.0	57-101			
Surrogate: Phenol-d6	0.209			mg/L	0,500	NA	41,8	30-75			
Surrogate: Terphenyl-d14	0.224			mg/L	0.250	NA	89.6	65-100			



ERA Laboratories, Inc. 4730 Oneota Street Duluth MN, 55807

Client Ref:2006 routine pricing Client Contact:Mr. Robert Magnuson

Work Order #: 0606606 Project Mgr: Richard A. Maw For Stev

Account ID: E06955

#### Toxicity Characteristic Leaching Procedure (TCLP) - Semivolatiles - Quality Control

PO Number:

#### Batch B6J0627 - EPA 3510C

Laboratory Control Sample (B6J0627-BS1)				Prepared:	10/31/06	Analyzed: 1	1/01/06				
Analyte	Result	MRL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	0.0290	0,0050	0.00033	mg/L	0.0500	NA	58.0	30-120	NA	NA	
i,4-Dichlorobenzene	0.0272	0.0050	0.00029	mg/L	0.0500	NA	54.4	40-110	NA	NA	
2-Chlorophenol	0.0277	0.010	0.00063	mg/L	0.0500	NA	55.4	40-100	NA	NA	
4-Chloro-3-methylphenol	0.0329	0.0050	0.00023	mg/L	0.0500	NA	65,8	50-110	NA	NA	
4-Nitrophenol	0.0284	0.0050	0.00082	mg/L	0.0500	NA	56.8	30-80	NA	NA	
Acenaphthene	0.0356	0.0020	0.00026	mg/L	0.0500	NA	71.2	50-110	NA	NA	
N-Nitrosodi-n-propylamine	0.0350	0,0050	0.00031	mg/L	0.0500	NA	70.0	45-120	NA	NA	
Pentachlorophenol	0.0423	0,0050	0.00054	mg/L	0.0500	NA	84.6	45-115	NA	NA	
Phenol	0.0201	0.010	0.0021	mg/L	0.0500	NA	40.2	30-80	NA	NA	
Pyrene	0.0397	0.0020	0.00050	mg/L	0.0500	NA	79.4	55-120	NA	NA	
Surrogate: 2,4,6-Tribromophenol	0.0395			mg/L	0.0500	NA	79.0	65-100			
Surrogate: 2-Fluorobiphenyl	0.0182			mg/L	0.0250	NA	72.8	59-101			
Surrogate: 2-Fluorophenol	0.0208			mg/L	0.0500	NA	41.6	30-75			
Surrogate: Nitrobenzene-d5	0.0154			mg/L	0.0250	NA	61.6	57-101			
Surrogate: Phenol-d6	0.0195			mg/L	0.0500	NA	39.0	30-75			
Surrogate: Terphenyl-d14	0.0195			mg/L	0.0250	NA	78.0	65-100			

#### Laboratory Control Sample Duplicate (B6J0627-BSD1)

Prepared: 10/31/06	Analyzed:	11/01/06
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Analyte	Result	MRL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	0,0281	0.0050	0.00033	mg/L	0.0500	NA	56.2	30-120	3.15	20	
1,4-Dichlorobenzene	0.0248	0.0050	0.00029	mg/L	0.0500	NA	49.6	40-110	9.23	20	
2-Chlorophenol	0.0270	0.010	0.00063	mg/L	0.0500	NA	54.0	40-100	2.56	20	
4-Chloro-3-methylphenol	0,0330	0,0050	0.00023	mg/L	0.0500	NA	66.0	50-110	0.303	20	
4-Nitrophenol	0.0280	0.0050	0.00082	mg/L	0.0500	NΑ	56.0	30-80	1.42	20	
Acenaphthene	0.0339	0.0020	0.00026	mg/L	0.0500	NA	67.8	50-110	4.89	20	
N-Nitrosodi-n-propylamine	0.0341	0.0050	0.00031	mg/L	0.0500	NA	68.2	45-120	2.60	20	
Pentachlorophenol	0.0405	0.0050	0.00054	mg/L	0.0500	NA	81.0	45-115	4.35	20	
Phenol	0.0190	0.010	0,0021	mg/L	0.0500	NA	38.0	30-80	5.63	20	
Pyrene	0.0373	0.0020	0.00050	mg/L	0.0500	NA	74.6	55-120	6.23	20	
Surrogate: 2,4,6-Tribromophenol	0.0383			mg/L	0.0500	NA	76.6	65-100			
Surrogate: 2-Fluorobiphenyl	0.0176			mg/L	0.0250	NA	70.4	59-101			
Surrogate: 2-Fluorophenol	0.0195			mg/L	0.0500	NA	39.0	30-75			
Surrogate: Nitrobenzene-d5	0.0152			mg/L	0.0250	NA	60.8	57-101			
Surrogate: Phenol-d6	0,0183			mg/L	0.0500	NA	36.6	30-75			
Surrogate: Terphenyl-d14	0.0192			mg/L	0.0250	NA	76.8	65-100			



ERA Laboratories, Inc. 4730 Oneota Street Duluth MN, 55807

Client Ref:2006 routine pricing Client Contact: Mr. Robert Magnuson

Prepared: 10/31/06 Analyzed: 11/02/06

Work Order #: 0606606 Project Mgr: Richard A. Maw For Stev

Account ID: E06955 PO Number:

#### Toxicity Characteristic Leaching Procedure (TCLP) - Semivolatiles - Quality Control

#### Batch B6J0627 - EPA 3510C

Matrix Spike (B6J0627-MS1)				Source	e: 0606606-	01	Prepared	l: 10/31/06	Analyzed:	11/02/06	
Analyte	Result	MRL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1.2,4-Trichlorobenzene	0,241	0,050	0.0033	mg/L	0,500	ND	48.2	30-130	NA	NA	
1,4-Dichlorobenzene	0.249	0.050	0.0029	mg/L	0,500	ND	49.8	30-130	NA	NA	
2-Chlorophenol	0.269	0,10	0.0063	mg/L	0.500	ND	53.8	30-130	NA	NA	
4-Chloro-3-methylphenol	0,328	0.050	0.0023	mg/L	0.500	ND	65.6	30-130	NA	NA	
4-Nitrophenol	0.345	0.050	0.0082	mg/L	0,500	ND	69.0	30-130	NA	NA	
Acenaphthene	0,422	0.020	0.0026	mg/L	0.500	0.025	79.4	30-130	NA	NA	
N-Nitrosodi-n-propylamine	0,341	0.050	0.0031	mg/L	0.500	ND	68.2	30-130	NA	NA	
Pentachlorophenol	0.562	0.050	0.0054	mg/L	0.500	0.073	97.8	30-130	NA	NA	
Phenol	0.236	0.10	0.021	mg/L	0.500	ND	47.2	30-130	NA	NA	
Pyrene	0.451	0.020	0.0050	mg/L	0.500	0.036	83.0	30-130	NA	NA	
Surrogate: 2,4,6-Tribromophenol	0.519			mg/L	0.500	NA	104	65-100		·······	
Surrogate: 2-Fluorobiphenyl	0.191			mg/L	0.250	NA	76.4	59-101			
Surrogate: 2-Fluorophenol	0.187			mg/L	0.500	NA	37.4	30-75			
Surrogate: Nitrobenzene-d5	0.135			mg/L	0.250	NA	54.0	57-101			
Surrogate: Phenol-d6	0.189			mg/L	0.500	NA	<i>37</i> .8	30-75			
Surrogate: Terphenyl-d14	0.203			mg/L	0.250	NA	81.2	65-100			

#### Matrix Spike Duplicate (B6J0627-MSD1)

Analyte	Result	MRL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4-Trichlorobenzene	0.270	0.050	0.0033	mg/L	0.500	ND	54.0	30-130	11,4	30	
1,4-Dichlorobenzene	0.282	0.050	0.0029	mg/L	0.500	ND	56.4	30-130	12.4	30	
2-Chlorophenol	0.274	0.10	0.0063	mg/L	0,500	ND	54.8	30-130	1.84	30	
4-Chloro-3-methylphenol	0.329	0.050	0.0023	mg/L	0.500	ND	65.8	30-130	0.304	30	
I-Nitrophenol	0.309	0.050	0.0082	mg/L	0.500	ND	61.8	30-130	11,0	30	
Acenaphthene	0.455	0.020	0.0026	mg/L	0.500	0.025	86.0	30-130	7.53	30	
N-Nitrosodi-n-propylamine	0.368	0.050	0.0031	mg/L	0,500	ND	73.6	30-130	7.62	30	
Pentachlorophenol	0.0486	0.050	0.0054	mg/L	0,500	0,073	NR	30-130	168	30	
Phenol	0.206	0.10	0.021	mg/L	0,500	ND	41.2	30-130	13.6	30	
Pyrene	0.512	0.020	0.0050	mg/L	0,500	0.036	95.2	30-130	12.7	30	
Surrogate: 2,4,6-Tribromophenol	0.574			mg/L	0.500	NA	115	65-100			
Surrogate: 2-Fluorobiphenyl	0.205			mg/L	0.250	NA	82.0	59-101			
Surrogate: 2-Fluorophenol	0.172			mg/L	0.500	NA	34.4	30-75			
Surrogate: Nitrobenzene-d5	0.148			mg/L	0.250	NA	59.2	57-101			
Surrogate: Phenol-d6	0.162			mg/L	0.500	NA	32.4	30-75			

Source: 0606606-01

Surrogate: Terphenyl-d14

mg/L

0.250

NA

92.4

65-100

0.231



ERA Laboratories, Inc. 4730 Oneota Street Duluth MN, 55807 Client Ref:2006 routine pricing Client Contact:Mr. Robert Magnuson

Proj

Project Mgr: Richard A. Maw For Stev

Account ID: E06955

Work Order #: 0606606

#### **Toxicity Characteristic Leaching Procedure (TCLP) - Volatiles - Quality Control**

PO Number:

#### Batch B6K0061 - EPA 5035

Method Blank (B6K0061-BLK1)	Prepared & Analyzed: 11/01/06										
Analyte	Result	MRL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	ND	0,10	0.0085	mg/L	NA	NA	NA	NA	NA	NA	
1,2-Dichloroethane	ND	0.10	0.0053	mg/L	NA	NA	NA	NA	NA	NA	
2-Butanone (MEK)	ND	1.0	0.13	mg/L	NA	NA	NA	NA	NA	NA	
Вепzепе	ND	0.10	0.0045	mg/L	NA	NA	NA	NA	NA .	NA	
Carbon Tetrachloride	ND	0.10	0.0057	mg/L	NA	NA	NA	NA	NA	NA	
Chlorobenzene	ND	0.10	0.0042	mg/L	NA	NA	NA	NA	NA	NA	
Chloroform	ND	0.10	0.012	mg/L	NA	NA	NA	NA	NA	NA	
Tetrachloroethene	ND	0.20	0.019	mg/L	NA	NA	NA	NA	NA	NA	
Trichloroethene	ND	0.10	0.0073	mg/L	NA	NA	NA	NA	NA	NA	
Vinyl chloride	ND	0,25	0.025	mg/L	NA	NA	NA	NA	NA	NA	
Surrogate: 1,2-Dichloroethane-d4	27.2			ug/L	25.0	NA	109	80-120			
Surrogate: 4-Bromofluorobenzene	23.1			ug/L	25.0	NA	92.4	80-120			
Surrogate: Dibromofluoromethane	25.6			ug/L	25.0	NA	102	80-120			
Surrogate: Toluene-d8	25.1			ug/L	25.0	NA	100	80-120			

#### Laboratory Control Sample (B6K0061-BS1)

#### Prepared & Analyzed: 11/01/06

Analyte	Result	MRL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	0.0284	0.0010	0.000085	mg/L	0.0250	NA	114	75-125	NA	NA	
1,2-Dichloroethane	0.0253	0.0010	0.000053	mg/L	0.0250	NA	101	75-125	NA	NA	
2-Butanone (MEK)	0.0269	0,010	0.0013	mg/L	0.0250	NA	108	75-125	NA	NA	
Benzen <b>e</b>	0.0263	0.0010	0.000045	mg/L	0,0250	NA	105	75-125	NA	NA	
Carbon Tetrachloride	0.0222	0,0010	0.000057	mg/L	0,0250	NA	88.8	75-125	NA	NA	
Chlorobenzene	0,0239	0.0010	0.000042	mg/L	0.0250	NA	95.6	75-125	NA	NA	
Chloroform	0.0260	0.0010	0.00012	mg/L	0,0250	NA	104	75-125	NA	NA	
Tetrachloroethene	0.0223	0.0020	0.00019	mg/L	0.0250	NA	89.2	75-125	NA	NA	
Trichloroethene	0.0236	0.0010	0.000073	mg/L	0.0250	NA	94.4	75-125	NA	NA	
Vinyl chloride	0.0232	0.0025	0.00025	mg/L	0.0250	NA	92.8	70-130	NA	NA	
Surrogate: 1,2-Dichloroethane-d4	26.2			ug/L	25.0	NA	105	80-120			
Surrogate: 4-Bromofluorobenzene	24.3			ug/L	25.0	NA	97.2	80-120			
Surrogate: Dibromofluoromethane	26,3			ug/L	25.0	NA	105	80-120			
Surrogate: Toluene-d8	24.7			ug/L	25.0	NA	98.8	80-120			



ERA Laboratories, Inc. 4730 Oneota Street Duluth MN, 55807 Client Ref:2006 routine pricing Client Contact:Mr. Robert Magnuson PO Number: Work Order #: 0606606

Project Mgr: Richard A. Maw For Stev

Account ID: E06955

#### Toxicity Characteristic Leaching Procedure (TCLP) - Volatiles - Quality Control

#### Batch B6K0061 - EPA 5035

Laboratory Control Sample Duplicat	te (B6K0061-B	SD1)		Prepared & Analyzed: 11/01/06							
Analyte	Result	MRL MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
1,1-Dichloroethene	0.0290	0.0010 0.000085	mg/L	0.0250	NA	116	75-125	2.09	20		
1,2-Dichloroethane	0.0261	0.0010 0.000053	mg/L	0.0250	NA	104	75-125	3.11	20		
2-Butanone (MEK)	0.0283	0.010 0.0013	mg/L	0.0250	NA	113	75-125	5.07	20		
Benzene	0.0262	0.0010 0.000045	mg/L	0.0250	NA	105	75-125	0,381	20		
Carbon Tetrachloride	0.0219	0,0010 0,000057	mg/L	0.0250	NA	87.6	75-125	1.36	20		
Chlorobenzene	0.0240	0.0010 0.000042	mg/L	0.0250	NA	96.0	75-125	0.418	20		
Chloroform	0.0264	0.0010 0.00012	mg/L	0.0250	NA	106	75-125	1.53	20		
Tetrachloroethene	0.0220	0.0020 0.00019	mg/L	0.0250	NA	88.0	75-125	1.35	20		
Trichloroethene	0.0235	0,0010 0.000073	mg/L	0.0250	NA	94.0	75-125	0.425	20		
Vinyl chloride	0.0222	0.0025 0.00025	mg/L	0.0250	NA	88.8	70-130	4.41	20		
Surrogate: 1,2-Dichloroethane-d4	26.6		ug/L	25.0	NA	106	80-120				
Surrogate: 4-Bromofluorobenzene	24.6		ug/L	25.0	NA	98.4	80-120				
Surrogate: Dibromofluoromethane	26.8		ug/L	25.0	NA	107	80-120				
Surrogate: Toluene-d8	25.0		ug/L	25.0	NA	100	80-120				
Matrix Spike (B6K0061-MS1)			Sourc	e: 0606606-	01	Prepared	i & Analyzo	ed: 11/01/0	6		
				Snike	Source		%RFC		RPD		

Result	MRL MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
0.0323	0.0010 0.000085	mg/L	0.0250	ND	129	75-125	NA	ÑA	
0.0277	0.0010 0.000053	mg/L	0.0250	ND	111	75-125	NA	NA	
0.0285	0.010 0.0013	mg/L	0.0250	ND	114	75-125	NA	NA	
0.0280	0.0010 0.000045	mg/L	0.0250	ND	112	75-125	NA	NA	
0.0241	0.0010 0.000057	mg/L	0.0250	ND	96.4	75-125	NA	NA	
0.0254	0,0010 0.000042	mg/L	0,0250	ND	102	75-125	NA	NA	
0.0283	0,0010 0.00012	mg/L	0.0250	ND	113	75-125	NA	NA	
0.0236	0.0020 0.00019	mg/L	0.0250	ND	94.4	75-125	NA	NA	
0.0254	0,0010 0,000073	mg/L	0.0250	ND	102	75-125	NA	NA	
0.0254	0.0025 0.00025	mg/L	0.0250	ND	102	70-130	NA	NA	
26.7		ug/L	25.0	NA	107	80-120			
23.9		ug/L	25.0	NA	95.6	80-120			
26.8		ug/L	25.0	NA	107	80-120			
24.6		ug/L	25.0	NA	98.4	80-120			
	0.0323 0.0277 0.0285 0.0280 0.0241 0.0254 0.0236 0.0254 0.0254 26.7 23.9 26.8	0.0323	0.0323 0.0010 0.000085 mg/L 0.0277 0.0010 0.000053 mg/L 0.0285 0.010 0.0013 mg/L 0.0280 0.0010 0.000045 mg/L 0.0241 0.0010 0.000057 mg/L 0.0254 0.0010 0.000042 mg/L 0.0283 0.0010 0.000042 mg/L 0.0236 0.0020 0.00019 mg/L 0.0254 0.0010 0.000073 mg/L 0.0254 0.0010 0.000073 mg/L 0.0254 0.0025 0.00025 mg/L	0.0323         0.0010         0.000085         mg/L         0.0250           0.0277         0.0010         0.000053         mg/L         0.0250           0.0285         0.010         0.0013         mg/L         0.0250           0.0280         0.0010         0.000045         mg/L         0.0250           0.0241         0.0010         0.000057         mg/L         0.0250           0.0254         0.0010         0.000042         mg/L         0.0250           0.0283         0.0010         0.00012         mg/L         0.0250           0.0236         0.0020         0.00019         mg/L         0.0250           0.0254         0.0010         0.000073         mg/L         0.0250           0.0254         0.0010         0.000073         mg/L         0.0250           0.0254         0.0010         0.000073         mg/L         0.0250           26.7         ug/L         25.0           23.9         ug/L         25.0           26.8         ug/L         25.0	0.0323         0.0010         0.000085         mg/L         0.0250         ND           0.0277         0.0010         0.000053         mg/L         0.0250         ND           0.0285         0.010         0.0013         mg/L         0.0250         ND           0.0280         0.0010         0.000045         mg/L         0.0250         ND           0.0241         0.0010         0.000057         mg/L         0.0250         ND           0.0254         0.0010         0.000042         mg/L         0.0250         ND           0.0283         0.0010         0.00012         mg/L         0.0250         ND           0.0236         0.0020         0.00019         mg/L         0.0250         ND           0.0254         0.0010         0.000073         mg/L         0.0250         ND           0.0254         0.0010         0.000073         mg/L         0.0250         ND           0.0254         0.0025         0.00025         mg/L         0.0250         ND           26.7         ug/L         25.0         NA           ug/L         25.0         NA           26.8         ug/L         25.0         NA	0.0323         0.0010         0.000085         mg/L         0.0250         ND         129           0.0277         0.0010         0.000053         mg/L         0.0250         ND         111           0.0285         0.010         0.0013         mg/L         0.0250         ND         114           0.0280         0.0010         0.000045         mg/L         0.0250         ND         112           0.0241         0.0010         0.000057         mg/L         0.0250         ND         96.4           0.0254         0.0010         0.000042         mg/L         0.0250         ND         102           0.0283         0.0010         0.00012         mg/L         0.0250         ND         113           0.0236         0.0020         0.00019         mg/L         0.0250         ND         94.4           0.0254         0.0010         0.000073         mg/L         0.0250         ND         102           0.0254         0.0025         0.00025         mg/L         0.0250         ND         102           26.7         ug/L         25.0         NA         107           23.9         ug/L         25.0         NA         107 </td <td>0.0323         0.0010         0.000085         mg/L         0.0250         ND         129         75-125           0.0277         0.0010         0.000053         mg/L         0.0250         ND         111         75-125           0.0285         0.010         0.0013         mg/L         0.0250         ND         114         75-125           0.0280         0.0010         0.000045         mg/L         0.0250         ND         112         75-125           0.0241         0.0010         0.000057         mg/L         0.0250         ND         96.4         75-125           0.0254         0.0010         0.000042         mg/L         0.0250         ND         102         75-125           0.0283         0.0010         0.00012         mg/L         0.0250         ND         113         75-125           0.0236         0.0020         0.00019         mg/L         0.0250         ND         94.4         75-125           0.0254         0.0010         0.000073         mg/L         0.0250         ND         102         75-125           0.0254         0.0010         0.00025         mg/L         0.0250         ND         102         75-125</td> <td>0.0323         0.0010         0.000085         mg/L         0.0250         ND         129         75-125         NA           0.0277         0.0010         0.000053         mg/L         0.0250         ND         111         75-125         NA           0.0285         0.010         0.0013         mg/L         0.0250         ND         114         75-125         NA           0.0280         0.0010         0.000045         mg/L         0.0250         ND         112         75-125         NA           0.0241         0.0010         0.000057         mg/L         0.0250         ND         96.4         75-125         NA           0.0254         0.0010         0.000042         mg/L         0.0250         ND         102         75-125         NA           0.0236         0.0020         0.00012         mg/L         0.0250         ND         113         75-125         NA           0.0236         0.0020         0.00019         mg/L         0.0250         ND         94.4         75-125         NA           0.0254         0.0010         0.00073         mg/L         0.0250         ND         102         75-125         NA           0.0254</td> <td>0.0323</td>	0.0323         0.0010         0.000085         mg/L         0.0250         ND         129         75-125           0.0277         0.0010         0.000053         mg/L         0.0250         ND         111         75-125           0.0285         0.010         0.0013         mg/L         0.0250         ND         114         75-125           0.0280         0.0010         0.000045         mg/L         0.0250         ND         112         75-125           0.0241         0.0010         0.000057         mg/L         0.0250         ND         96.4         75-125           0.0254         0.0010         0.000042         mg/L         0.0250         ND         102         75-125           0.0283         0.0010         0.00012         mg/L         0.0250         ND         113         75-125           0.0236         0.0020         0.00019         mg/L         0.0250         ND         94.4         75-125           0.0254         0.0010         0.000073         mg/L         0.0250         ND         102         75-125           0.0254         0.0010         0.00025         mg/L         0.0250         ND         102         75-125	0.0323         0.0010         0.000085         mg/L         0.0250         ND         129         75-125         NA           0.0277         0.0010         0.000053         mg/L         0.0250         ND         111         75-125         NA           0.0285         0.010         0.0013         mg/L         0.0250         ND         114         75-125         NA           0.0280         0.0010         0.000045         mg/L         0.0250         ND         112         75-125         NA           0.0241         0.0010         0.000057         mg/L         0.0250         ND         96.4         75-125         NA           0.0254         0.0010         0.000042         mg/L         0.0250         ND         102         75-125         NA           0.0236         0.0020         0.00012         mg/L         0.0250         ND         113         75-125         NA           0.0236         0.0020         0.00019         mg/L         0.0250         ND         94.4         75-125         NA           0.0254         0.0010         0.00073         mg/L         0.0250         ND         102         75-125         NA           0.0254	0.0323



ERA Laboratories, Inc. 4730 Oneota Street Duluth MN, 55807

Client Ref:2006 routine pricing

Client Contact:Mr. Robert Magnuson

PO Number:

Work Order #: 0606606

Project Mgr: Richard A. Maw For Stev

Account ID: E06955

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Era Laboratories, Inc. 4730 Geesta Street Duluth, Minnesota 55807-2719 [218] 727-6380						سر المارة المارة المارة المارة						Era Project * Priority  Carrier	······································	
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Additional Comments:		251									JHS  OK'd  returned with lab	(60.2	FR:	

## **ATTACHMENT E**

## DEMOLITION AND SCRAP SHIPMENT DOCUMENTATION

# Demolition and Brick Shipments to Lakehead Blacktop

### Lakehead Blacktop & Materials of Superior, Inc.

5927 Albany Avenue - Superior, Wisconsin 54880 Phone Number: 715-392-1989 - Fax Number: 715-392-7102

September 27, 2006

Koppers, Inc.

Attn: Mr. Steve Willis, Plant Manager 3185 South County Road A

Superior, WI 54880

Mr. Willis:

We operate a construction and demolition landfill site in Superior, WI. Our permit number for the Wisconsin DNR is #816004530. We are able to accept category 1, non-friable asbestos at our landfill site. According to the asbestos survey for the Koppers' site, all the asbestos containing material is category 1 non-friable, either from roofing material or caulking material.

Lakehead Blacktop & Materials of Superior, Inc. will hold Koppers Inc. harmless from any liabilities for disposing of the demolition debris from the Koppers' Demolition Project in Superior, WI.

If you have any question or concerns please feel free to call me at (715) 392-1989.

Sincerely,

Scott Kimmes

Operations Manager

See As Line

LANDWEHR

846 South 33rd Street P.O. Box 1086 St. Cloud, MN 56302

Phone (320) 252-1494 Fax (320) 252-2380

	TRUCK INFORMATION	
Company Name	10	-
Date /O	to the	
Truck Hr. Rate		
Truck Type:	Belly / Tandem / End Dump / Tri-Axie	
Cost Code	601	

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Foreman's Signature

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Driver's Signature

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Phone (320) 252-1494 Fax (320) 252-2380

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Truck Type:	Belly /	Tandem (PLEAS)	End Dump /	Tri-Axle	
Cost Code	601				

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Foreman's Signature

TOTAL TOTAL HOURS

Ton Buenous Driver's Signature



Phone (320) 252-1494 Fax (320) 252-2380

	TRUCK INFORMATION	
Company Name Truck #  Date Truck Hr. Rate	LCT 108 TROS8 -1-04	
Truck Type:	Belly / Tandem / End Dump / Tri-Axie (PLEASE CHICLE ONE)	
Cost Code		

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Foreman's Signature

YELLOW - RENTED TRUCK COPY



Phone (320) 252-1494 Fax (320) 252-2380

	TRUC	CK INFORMATION
Company Name	to 8	TROS8
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Truck Type:	Belly /	Tandem / End Dump / Tri-Axle (PLEASE CIRCLE ONE)

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Cost Code

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Foreman's Signature

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YELLOW - RENTED TRUCK COPY

**Driver's Signature** 

TOTAL

HOURS



TRUCK INFORMATION
Company Name XCI
Truck # ST 08
Date 12-21-06
Truck Hr. Rate
Truck Type: Belly / Tandem / End Dump / Tri-Axle
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Company Name 30 I  Truck # 5708  Date 12-22-66
Truck Hr. Rate
(PLEASE CIRCLE ONE)  Cost Code

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TRUCK INFORMATION
Company Name 201
Truck # 5708  Date 12-27-06
Truck Hr. Rate
Truck Type: Belly / Tandem End Dump / Tri-Axle
Cost Code

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Foreman's Signature

TOTAL HOURS

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Driver's Signature



Phone (320) 252-1494 Fax (320) 252-2380

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Truck #/.	<u>,                                     </u>	and the second s	and the state of t
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Truck Type:	Belly /	Tandem / End Dump (PLEASE CIRCLE ONE)	) / Tri-Axle
Cost Code			

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	11 11:					
	11	Clean	Brick			
	::::: 11					
	11	Clean	Brick			10 Loads 83/4 Hours

Foreman's Signature

TOTAL	TOTAL
HAUL	HOURS
	137
<b>X</b>	224

Larry Conklin

WHITE - OFFICE COPY

YELLOW - RENTED TRUCK COPY



TRUCK INFORMATION
Company Name 201  Truck # 5708
Date 12-28-06
Truck Hr. Rate  Truck Type: Belly / Tandem / End Dump Tri-Axle
Cost Code_

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Foreman's Signature



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Truck #	7/08	····
Date	-29-06	
Truck Hr. Rate		
Truck Type:	Belly / Tandem End Dump / Tri-A	xle
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## Scrap Metal Shipments to SIMKO



TO WHOM IT YOTAY CONCREN

This letter is to confirm that all materials brought to SIMKO from the decommission project at the Koppers Inc Superior facility have been or will be handled by reducing the size of the material to meet appropriate industry standards and sending off to steel mills for processing as part of SIMKO's RPO (remeiting purposes only) practices. This letter covers materials shipped to SIMKO during the period of October 2, 2006 to December 29, 2008.

Saned

Date:

ESTABLISHED 1888 901 NORTH SIXTH STREET • SUPERIOR, WISCONSIN 54880 • 715-394-2705 • FAX 715-394-3852 KOPPERS AS OF OCT.87 2006 STORAGE ACCOUNT

Ι.	INVOICE	GROSS	UNPRE #2	UNPRE #1	PREPARED #1	UNP. P&S	MALABLE STEEL	DEDUCT
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KOPPERS AS OF NOV. 18 2006 STORAGE ACCOUNT PHASE 2

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	INVOICE	GROSS	UNPRE #2	UNPRE #1	SHEET IRON	UNP. P&S M	ISC, METALS	DEDUCT
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1/06	1453	14600	14600	-0	0	O	(	0.
1/06	1456	27460	0	27460	0	0	; (	0
1/06	1460	30900	30900	0	0	0	. (	0
1/06	1469	16140	16140	Ö	0	. 0	(	0
2/06	1470	8460	0	0	8460	<b>Q</b> :	(	0
2/06	1472	32240	32240	- 0	0	0	(	0 0
2/06	1475	6020	Ō	0	6020	0	(	o o
2/06	1477	19600	0	0	19600	0	(	0
2/06	1478	22820	0	0	22820	0	(	o io
7/06	1569	900	0	0	0	0	850	Ö
2/06	Ö	Ö	O	0	0	0	7	0 0
2/06	0	0	0	-0	0	0	(	)
			OBBBO	27460	EGONO	ń.	Q C (	n a

KUPPEK 5 STORAGE ACCOUNT

DEC. 30 2006

ш.	INVOICE	GROSS	UNPRE #2	UNPRE #1	PREPARED #1	CROPS	RANDOM RAIL	DEDUCT
RY FO	DRWARD		0	0	0	0	0	0
20/06	1692	20020	20020	Ó	. 0	0	0	0
20 <b>/06</b>	1704	34600	0	34600	0	0	0	0
21/06	1708	18720	18720	. 0	0	0	0	Q:
22/06	1715	18820	18820	0	0	0	Ō	0
22/06	1716	20260	20260	0	0	Ö	0	0
22/06	1717	20300	20300	0	0	0	0	0
22/06	1718	16740	16740	0	0	0	0	Ö
22/06	1720	34820	34820	. 0	. 0	0	0	, <b>O</b>
22/06	1721	31180	31180	Ö	0	0	0	O
28/06	1744	46020	0	46020	0	0	Ó	Ó
29/06	1750	20300	20300	. 0	Ó	0	0	0
29/06	1752	17420	17420	0	0	Ö	0	0
29/06	1751	25220	25220	. 0	0	0	0	0
29/06	1753	40760	. 0	40760	O	0	Ô	0
29/06	1754	37880	0	37880	0	Ó	0	<b>O</b> :
29/06	1758	43780	. 0	43780	0	0	0	0
29/06	1759	24980	. 0	24980	0	0	0	0
29/06	1760	44860	0	44860	0	0	0	0
29/06	1762	45620	45620	. 0	. 0	Ó	0	. 0
29/06	1763	42800	0	42800	0	0	0.	0
29/06	1764	37680	. 0	37680	0.	0	0	0
29/06	1765	24920	24920	0	0	0	0	
			314340	353360	0	0	0	0.
Ç.	INVOIGE		UNPRE #2	F# BOOKE	DDEDADED #1	CDUDG	DANDOM DAIL	PARTALIST

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