

Environmental Chemistry Consulting Services, Inc.

August 9, 2007



Robert Martin  
Martin and Slagle  
P.O. Box 1023  
Black Mountain, NC 28711

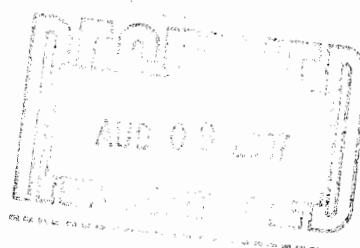
Dear Mr. Martin,

Enclosed is the Technical Memorandum for VOC work recently performed at the Kuhlman Electric Corporation (KEC) facility in Crystal Springs, MS. If you have any questions concerning this information, give me a call.

Sincerely,

*Kari Ann Kilian*  
for Joseph Kubale

Enclosure



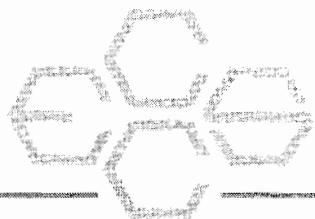
Environmental Chemistry Consulting Services, Inc.

2525 Advance Road • Madison, WI 53718 • Phone (608) 221-8700 • FAX (608) 221-4889

**Technical Memorandum**

**Kuhlman Electric Corporation (KEC)**

**Crystal Springs, Mississippi**



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## TECHNICAL MEMORANDUM

August 9, 2007

To: Robert Martin  
Martin and Slagle

From: Joseph Kubale *Kub*  
ECCS

Re: Field Analytical Methods  
Volatile Organic Compounds (VOC) , 1,4-Dioxane  
Kuhlman Electric Corporation (KEC)  
Crystal Springs, MS

### Introduction

This Technical Memorandum provides documentation of the field analytical test methods used to analyze water samples collected in April 2007 during the city well groundwater sampling event near the Kuhlman Electric Corporation (KEC) facility in Crystal Springs, MS. The samples were analyzed by purge and trap GC/MSD for the VOCs listed below and by direct injection GC/MSD/SIM for 1,4-Dioxane.

### Narrative

#### Waters

Water samples were analyzed for VOCs directly by purge and trap GC/MSD and for 1,4-Dioxane by direct injection GC/MSD/SIM.

The following report limits were used for water samples. The reporting limit units are in ug/L.

	Purge and Trap GC/MSD
Dichlorodifluoromethane	1.0
Chloromethane	1.0
Vinyl chloride	1.0
Bromomethane	1.0
Chloroethane	1.0
Trichlorofluoromethane	1.0

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Purge and Trap GC/MSD

1,1-Dichloroethene	1.0
Methylene chloride	1.0
trans-1,2-Dichloroethene	1.0
1,1-Dichloroethane	1.0
cis-1,2-Dichloroethene	1.0
2,2-Dichloropropane	1.0
Bromochloromethane	1.0
Chloroform	1.0
1,1,1-Trichloroethane	1.0
1,1-Dichloropropene	1.0
Carbon tetrachloride	1.0
Benzene	1.0
1,2-Dichloroethane	1.0
Trichloroethene	1.0
1,2-Dichloropropane	1.0
Dibromomethane	1.0
Bromodichloromethane	1.0
cis-1,3-Dichloropropene	1.0
Toluene	1.0
trans-1,3-Dichloropropene	1.0
1,1,2-Trichloroethane	1.0
Tetrachloroethene	1.0
1,3-Dichloropropane	2.0
Dibromochloromethane	1.0
1,2-Dibromoethane	1.0
Chlorobenzene	1.0
1,1,1,2-Tetrachloroethane	1.0
Ethyl benzene	1.0
Xylenes, total	2.0
Styrene	1.0
Bromoform	2.0
Isopropylbenzene	1.0
1,1,2,2-Tetrachloroethane	2.0
Bromobenzene	1.0
1,2,3-Trichloropropane	2.0
n-Propylbenzene	1.0
2-Chlorotoluene	1.0
1,3,5-Trimethylbenzene	1.0
4-Chlorotoluene	1.0
tert-Butylbenzene	1.0
1,2,4-Trimethylbenzene	1.0
sec-Butylbenzene	1.0
1,3-Dichlorobenzene	1.0
p-Isopropyltoluene	1.0
1,4-Dichlorobenzene	1.0
n-Butylbenzene	1.0
1,2-Dichlorobenzene	1.0
1,2-Dibromo-3-chloropropane	2.0
1,3,5-Trichlorobenzene	1.0
1,2,4-Trichlorobenzene	1.0
Hexachlorobutadiene	1.0

	Purge and Trap GC/MSD
Naphthalene	3.0
1,2,3-Trichlorobenzene	1.0
	Direct Injection GC/MSD/SIM
1,4-Dioxane	1.0

A summary of volatile test results is provided in Table 1. A summary of 1,4-Dioxane results is provided in table 2. A summary of method blanks and matrix spike/matrix spike duplicate data is provided in Table 3 and 4, respectively.

In addition copies of the chain of custody sheets and shipping sheets can be found in appendix A through C.

- A) Chain of custody sheets for samples
- B) FEDEX shipping label for Paradigm Labs
- C) Chain of custody sheets for samples sent to Paradigm Labs

## **VOC Method Summary**

### Water Samples

Water samples were provided by the client to the field lab in 40mL VOC vials. A 10mL aliquot of the sample was withdrawn from the vial with a 10mL Luer-Lok™ syringe. 10 µL of a 25µg/mL surrogate and internal standard solution was added to the sample in the 10 mL syringe. The sample was then immediately loaded onto a Tekmar ALS 2016 autosampler with a Tekmar LSC 2000 purge and trap concentrator for GC\MSD analysis.

### GC/MSD Procedure:

Identification of target compounds was done by matching retention times and mass spectra of peaks found in samples to those found in a VOC calibration standard using the internal standards as time reference peaks. Quantitation was performed by the internal standard technique using a seven point standard curve generated from 5, 10, 20, 50, 100, 250, and 500 ng standards. These levels equate to 0.5, 1.0, 2.0, 5.0, 10, 25 and 50 µg/L for water samples.

A Hewlett-Packard 5890 gas chromatograph with a 30m x 0.32mm RTX-624 micro-capillary column interfaced to a Hewlett-Packard 5972 MSD was used. The data system included a Hewlett-Packard Enviroquant chromatography workstation for data handling.

Quality control consisted of the following items:

- Initial calibration with % relative standard deviation less than 15% of individual response factors obtained from analysis of calibration standards
- Continuing Calibration Verification standards analyzed at a frequency of every ten samples or less
- Surrogate standard additions to samples
- Blank and LCS samples analyzed every twenty samples or less with a minimum of one per day per matrix.
- MS/MSD samples analyzed every twenty samples or less per matrix.
- Information documented in Field Logbook 150.

## **1,4-Dioxane Method Summary**

### **Water Samples**

Water samples were provided by the client to the field lab in 500mL amber bottle. 200 grams of sample was transferred to the filtering apparatus, spiked with 40uL 25ug/mL surrogate solution and 40uL 25ug/mL spike solution (if necessary) then filtered through a 3M 2272 activated carbon disk. The activated carbon disk was placed in a 3 dram vial containing 8mL methanol and sonicated for 15 minutes. A 0.8mL aliquot of the sample extract was spiked with 10uL 25ug/mL internal standard solution and analyzed by direct inject GC/MSD/SIM.

### **GC/MSD Procedure:**

Identification of the target compound was done by matching retention times, quantitation and qualifier ion relative responses to that of an authentic standard. Quantitation is accomplished by comparing the response of the major (quantitation) ion relative to an internal standard using a seven point calibration curve. These levels equate to 0.5, 1.0, 2.5, 5.0, 10, 50 and 100 ug/L for water samples.

A Hewlett-Packard 5890 Series II gas chromatograph with a 30m x 0.32mm 1.8u film, RTX-624 micro-capillary column interfaced to a Hewlett-Packard 5972 MSD was used. The data system included a Hewlett-Packard Enviroquant chromatography workstation for data handling.

Quality control consisted of the following items:

- Initial calibration with % relative standard deviation less than 15% of individual response factors obtained from analysis of calibration standards
- Continuing Calibration Verification standards analyzed at a frequency of every ten samples or less
- Surrogate standard additions to samples
- Blank and LCS samples analyzed every twenty samples or less with a minimum of one per day per matrix.
- MS/MSD samples analyzed every twenty samples or less per matrix.
- Information documented in Field Logbook 150.

**Table 1**  
**Sample Results Volatiles– April**

TABLE 1

		Kuhlmeyer Electric - Crystal Springs, Mn										Sippi - Volatiles Detected in Water										
		W1866	W1867	W1868	CSW	CSW	FB	WA3	WA1	WA2	CSW	CSW	WA5	WA6	CSW	CSW	TP	W1873	W1872	W1871	374	
		010	010	010	010	010	010	010	010	010	006	006	006	006	006	006	010	CSW	CSW	CSW	Duplicate	
Depth	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Date Collected	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07		
Time Collected	9:40	9:50	10:22	10:25	10:37	11:05	-	-	-	-	-	-	-	-	-	-	11:30	-	-	-		
Date Analyzed	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	-	-	-	-		
Reporting Limit	ug/L																					
<b>VOLATILES</b>																						
Dichlorodifluoromethane	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
Chloromethane	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
Vinyl Chloride	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
Bromomethane	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
Chloroethane	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
Trichlorofluoromethane	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
1,1-Dichloroethene	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
Methylene Chloride	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
trans-1,2-Dichloroethene	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
1,1-Dichloroethane	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
cis-1,2-Dichloroethene	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
2,2-Dichloropropane	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
Bromoform	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
1,1,1-Trichloroethane	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
1,1-Dichloropropene	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
Carbon Tetrachloride	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
Benzene	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
1,2-Dichloroethane	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
Trichloroethene	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
1,2-Dichloropropane	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
Dibromomethane	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
Bromodichloromethane	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
cis-1,3-Dichloropropene	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0	NC	<	2.0	v	2.0
Toluene	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
trans-1,3-Dichloropropene	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
1,1,2-Trichloroethane	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
Tetrachloroethene	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
1,3-Dichloropropane	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
Dibromochloromethane	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
1,2-Dibromoethane	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
Chlorobenzene	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
1,1,1,2-Tetrachloroethane	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0
Ethyl Benzene	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	NC	<	1.0	v	1.0

TABLE 1

	Kuhlmeyer Electric - Crystal Springs, Mir	W1866	W1867	W1868	W1869	W1870	W1871	W1872	W1873	874
	CSW	CSW	CSW	WA3	FB	CSW	CSW	CSW	CSW	CSW
Depth	-	010	010	010	010	WA1	WA2	WA5	WA6	Duplicate
Date Collected	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07
Time Collected	9:40	9:50	10:22	10:25	10:37	11:05	-	-	11:30	-
Date Analyzed	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	-	-	17-Apr-07	17-Apr-07
Reporting Limit	ug/L									
Xylenes, Total	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	3.4
Isopropylbenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0
1,1,2,2-Tetrachloroethane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	2.0
Bromobenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0
1,2,3-Trichloropropane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	2.0
n-Propylbenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0
2-Chlorotoluene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0
1,3,5-Trimethylbenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0
4-Chlorotoluene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0
tert-Butylbenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0
1,2,4-Trimethylbenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0
sec-Butylbenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0
1,3-Dichlorobenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0
p-Isopropyltoluene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0
1,4-Dichlorobenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0
n-Butylbenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0
1,2-Dichlorobenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0
1,2-Dibromo-3-Chloropropane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	2.0
1,3,5-Trichlorobenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0
1,2,4-Trichlorobenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0
Hexachlorobutadiene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0
Naphthalene	3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	3.0
1,2,3-Trichlorobenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0
Surrogates:										
Dibromofluoromethane	%	112	107	104	97.2	108	111	NC	109	104
Toluene-D8	%	99.0	93.9	99.9	99.2	98.6	98.4	NC	99.0	99.5
4-Bromofluorobenzene	%	95.8	95.8	96.1	96.0	97.4	94.5	NC	93.6	95.3

NC = Not collected due to pump failure.

**Table 2**

**Sample Results 1,4-Dioxane– April**

TABLE 2

		Kuhlman Electric - Crystal Springs Mississipi - 1,4-Dioxane Detected in Water						
		W1866 CSW WA8 010	W1867 CSW WA3 010	W1868 CSW FB 010	W1869 CSW WA1 010	W1870 CSW WA2 010	W1871 CSW WA5 006	W1872 CSW WA6 006
								V L~vL Duplicate
Depth	-	-	-	-	-	-	-	-
Date Collected	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	-	17-Apr-07
Time Collected	9:40	9:50	10:22	10:25	10:37	11:05	-	11:30
Date Analyzed	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	17-Apr-07	-	-
Reporting Limit ug/L								17-Apr-07
<b>VOLATILES</b>								
1,4-Dioxane	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC
Surrogates:								NA < 1.0
1,4-Dioxane-D8	%	87.7	110	90.6	95.1	103	95.1	NA
								93.7

NC = Not collected due to pump failure.

NA = Not analyzed due to bottle breakage.

**Table 3**

**QC Results Volatiles– April**

TABLE 3  
QC Report

Lab # associated with qc samples: W1866 through W1871  
 Matrix W1873 through W1874

	Matrix	Spike		
	Spike	Duplicate		Blank
	W1867	W1867		
Date Analyzed:	4/17/07	4/17/07		4/17/07

Compound	% Rec	% Rec	RPD		ug/L
Dichlorodifluoromethane	89.2%	88.6%	0.7%		< 1.0
Chloromethane	80.2%	101%	22.6%		< 1.0
Vinyl chloride	86.2%	99.2%	14.0%		< 1.0
Bromomethane	98.4%	104%	5.5%		< 1.0
Chloroethane	90.4%	106%	15.9%		< 1.0
Trichlorofluoromethane	90.0%	103%	13.9%		< 1.0
1,1-Dichloroethene	86.2%	100%	14.8%		< 1.0
Methylene chloride	71.6%	95.2%	28.3%		< 1.0
trans-1,2-Dichloroethene	85.4%	109%	24.5%		< 1.0
1,1-Dichloroethane	155%	106%	37.5%		< 1.0
cis-1,2-Dichloroethene	98.6%	87.6%	11.8%		< 1.0
2,2-Dichloropropane	97.4%	96.2%	1.2%		< 1.0
Bromochloromethane	101%	99.6%	1.2%		< 1.0
Chloroform	109%	103%	6.2%		< 1.0
1,1,1-Trichloroethane	102%	100%	1.2%		< 1.0
1,1-Dichloropropene	92.4%	92.2%	0.2%		< 1.0
Carbon tetrachloride	102%	99.2%	2.8%		< 1.0
Benzene	99.4%	98.6%	0.8%		< 1.0
1,2-Dichloroethane	100%	102%	1.6%		< 1.0
Trichloroethene	93.0%	96.2%	3.4%		< 1.0
1,2-Dichloropropane	96.6%	96.4%	0.2%		< 1.0
Dibromomethane	100%	98.2%	1.8%		< 1.0
Bromodichloromethane	86.0%	82.6%	4.0%		< 1.0
cis-1,3-Dichloropropene	85.6%	89.0%	3.9%		< 2.0
Toluene	98.2%	96.6%	1.6%		< 1.0
trans-1,3-Dichloropropene	91.6%	93.4%	1.9%		< 1.0
1,1,2-Trichloroethane	102%	103%	0.2%		< 1.0
Tetrachloroethene	93.6%	93.0%	0.6%		< 1.0
1,3-Dichloropropane	97.8%	98.0%	0.2%		< 1.0
Dibromochloromethane	101%	96.0%	4.7%		< 1.0
1,2-Dibromoethane	94.4%	93.6%	0.9%		< 1.0
Chlorobenzene	90.8%	92.0%	1.3%		< 1.0
1,1,1,2-Tetrachloroethane	102%	101%	1.2%		< 1.0
Ethyl benzene	99.4%	98.6%	0.8%		< 1.0
Xylenes, Total	97.2%	100%	3.0%		< 2.0
Styrene	97.0%	98.2%	1.2%		< 1.0
Bromoform	95.4%	95.8%	0.4%		< 2.0

TABLE 3  
QC Report

Lab # associated with qc samples:	W1866 through W1871
Matrix	W1873 through W1874
Matrix	Spike
Spike	Duplicate
W1867	W1867
Date Analyzed:	4/17/07
	4/17/07
	4/17/07

Compound	% Rec	% Rec	RPD		ug/L
Isopropylbenzene	93.0%	99.2%	6.5%		< 1.0
1,1,2,2-Tetrachloroethane	108%	112%	3.1%		< 2.0
Bromobenzene	100%	99.8%	0.2%		< 1.0
1,2,3-Trichloropropane	103%	105%	1.3%		< 2.0
n-Propylbenzene	97.0%	104%	6.6%		< 1.0
2-Chlorotoluene	97.8%	105%	6.7%		< 1.0
1,3,5-Trimethylbenzene	99.2%	105%	5.7%		< 1.0
4-Chlorotoluene	98.2%	102%	3.4%		< 1.0
tert-Butylbenzene	97.8%	102%	3.8%		< 1.0
1,2,4-Trimethylbenzene	100%	108%	7.7%		< 1.0
sec-Butylbenzene	98.6%	106%	7.2%		< 1.0
1,3-Dichlorobenzene	96.6%	99.8%	3.3%		< 1.0
p-Isopropyltoluene	95.0%	102%	6.7%		< 1.0
1,4-Dichlorobenzene	98.0%	106%	7.8%		< 1.0
n-Butylbenzene	93.4%	103%	9.8%		< 1.0
1,2-Dichlorobenzene	95.4%	99.4%	4.1%		< 1.0
1,2-Dibromo-3-chloropropane	107%	100%	6.6%		< 2.0
1,3,5-Trichlorobenzene	90.8%	99.4%	9.0%		< 1.0
1,2,4-Trichlorobenzene	88.6%	96.4%	8.4%		< 1.0
Hexachlorobutadiene	95.6%	101%	5.3%		< 1.0
Naphthalene	87.8%	99.0%	12.0%		< 3.0
1,2,3-Trichlorobenzene	91.0%	102%	11.4%		< 1.0

**Table 4**

**QC Results 1,4-Dioxane– April**

TABLE 4  
QC Report

Lab # associated with qc samples: W1866 through W1871  
and W1874

	Matrix	Spike	Duplicate	LCS	Blank
	Matrix	Spike	Duplicate	LCS	Blank
	W1869		W1869		
Date Extracted:	04/17/07	04/17/07		04/17/07	04/17/07
Date Analyzed:	04/18/07	04/18/07		04/17/07	04/17/07
Compound	% Rec		% Rec	RPD	
1,4-Dioxane	99.9%		108%	7.8%	
					98.4% < 1.0
					ug/L

**Appendix A**  
**Chain of Custody Sheets for Samples**



**Appendix B**

**FEDEX shipping label for Paradigm Labs**



US Airbill

Express

FedEx  
Tracking  
Number

8600 1565 5985

0215

DHL Please print and press hard  
Date 4/18/07

Sender's FedEx  
Account Number

Sender's Name CHUCK PEEL  
Company PEEL CONSULTING

Address 140 CHAPEL LANE

Dept/Floor/Suite/Room

City MADISON State MS ZIP 39110

## 2 Your Internal Billing Reference

First 24 characters will appear on invoice

## 3 To

Recipient's Name SAMPLE RECEIPT

Phone (710) 350-1903

Company SOS ENVIRONMENTAL SVC

Recipient's Address 5500 BUSINESS DR

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept/Floor/Suite/Room

City WILMINGTON State NC ZIP 28405-6446

0347431747

Store your addresses at [fedex.com](http://fedex.com)

Simplify your shipping. Manage your account. Access all the tools you need.

Form No. 10215

4a Express Package Service

 FedEx Priority Overnight  
Next business morning. FedExshipments will be delivered on Monday  
unless SATURDAY Delivery is selected. FedEx Standard Overnight  
Overnight delivery afternoons. Saturday Delivery NOT available. FedEx 2Day  
Second business day. Thursdayshipments will be delivered on Monday  
unless SATURDAY Delivery is selected. FedEx Express Saver  
Third business day. Saturday Delivery NOT available. FedEx 1Day Freight  
Next business day. Fridayshipments will be delivered on Monday  
unless SATURDAY Delivery is selected. FedEx 2Day Freight  
Second business day. Thursdayshipments will be delivered on Monday  
unless SATURDAY Delivery is selected. FedEx 3Day Freight  
Third business day. Saturday Delivery NOT available.

Packages up to 150 lbs.

 FedEx First Overnight  
Overnight delivery. Saturday Delivery NOT available.

\* To most locations.

\*\* To most locations.

\*\*\* To most locations.

 FedEx Envelope rate not available. Minimum charge One-pound rate. FedEx Confirmation FedEx Express Pak<sup>®</sup>  
Includes FedEx Small Pak,  
FedEx Large Pak, and FedEx Sturdy Pak. FedEx Box FedEx Tube

Packages over 150 lbs.

 FedEx 3Day Freight

Third business day. Saturday Delivery NOT available.

\*\* To most locations.

\*\*\* To most locations.

 FedEx Other

\* Declared value limit \$500

 FedEx FedEx Envelope\* FedEx Pak<sup>®</sup> FedEx Box FedEx Tube FedEx FedEx

## **Appendix C**

### **Chain of Custody Sheets for samples sent to Paradigm Labs**



**CHAIN OF CUSTODY RECORD**  
**SGS Environmental Services Inc.**

- **Alaska**
- **Louisiana**
- **New Jersey**
- **West Virginia**
- **Hawaii**
- **Maine**
- **Norfolk**

WOBURN, MA 01888 USA

[www.irs.sos.com](http://www.irs.sos.com)

062186

SGS Reference: