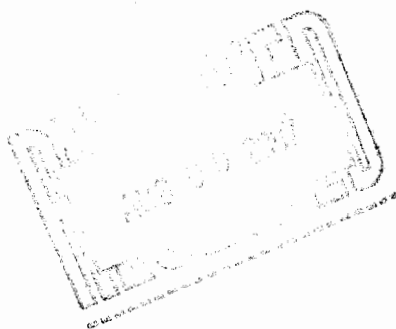


August 9, 2007

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,

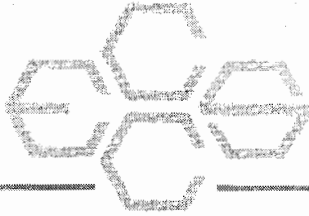
*Kari Ann Bilban*

*for* Joseph Kubale

Enclosure

Environmental Chemistry Consulting Services, Inc.

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



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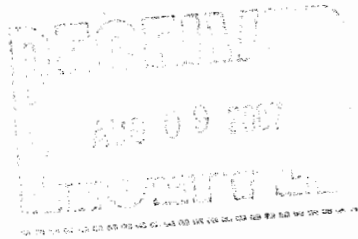
## TECHNICAL MEMORANDUM

August 9, 2007

To: Robert Martin  
Martin and Slagle

From: Joseph Kubale *Kub*  
ECCS *for*

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 June 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- May**



TABLE 1

## Kuhlman Electric - Crystal Springs, Mississippi - Volatiles Detected in Water

VOLATILES	Depth Date Collected Time Collected Date Analyzed Reporting Limit ug/L	W1883		W1884		W1885		W1886		W1887		W1888		W1889		W1890		W1891		
		CSW WA8 011	CSW WA3 011	CSW FB 011	CSW WA1 011	CSW WA2 011	CSW WA5 007	CSW WA6 007	CSW WA6 007	CSW WA5 007	CSW WA6 007	CSW WA6 007	CSW WA6 007	CSW WA6 007	CSW WA6 007	CSW WA6 007	CSW WA6 007	CSW WA6 007	CSW WA6 007	CSW WA6 007
Xylenes, Total	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 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	< 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	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Isopropylbenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 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	< 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	< 1.0	< 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	< 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	< 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	< 1.0	< 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	< 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	< 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	< 1.0	< 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	< 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	< 1.0	< 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	< 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	< 1.0	< 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	< 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	< 1.0	< 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	< 1.0	< 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	< 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	< 1.0	< 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	< 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	< 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	< 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	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Surrogates:																				
Dibromofluoromethane	%	102	103	103	103	103	103	103	103	108	108	108	108	111	110	110	110	106	106	106
Toluene-D8	%	80.6	104	84.7	82.9	109	81.7	79.2	3.9*	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
4-Bromofluorobenzene	%	95.9	94.3	101	97.3	94.8	99.2	102	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0

\* = Repeat analysis produced similar low surrogate recovery.



**Table 2**

**Sample Results 1,4-Dioxane- May**

TABLE 2

Kuhlman Electric - Crystal Springs\_Mis  
 Wpi - 1,4-Dioxane Detected in Water

VOLATILES	Depth	Date Collected	Time Collected	Date Analyzed	Reporting Limit	W1883		W1884		W1885		W1886		W1887		W1888		W1889		W1890		.891			
						CSW	WA8	CSW	WA3	CSW	FB	CSW	WA1	CSW	WA2	CSW	WA5	CSW	WA6	CSW	WA6	CSW	TP	CSW	TP
		22-May-07	8:40	22-May-07	8:52	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,4-Dioxane	1.0																								
Surrogates:																									
1,4-Dioxane-D8	%	22-May-07	8:40	22-May-07	8:52	85.0	82.1	84.7	104	88.1	94.2	91.9	90.9	90.3											

**Table 3**

**QC Results Volatiles– May**

TABLE 3  
QC Report

Lab # associated with qc samples: W1883 through W1891

	Matrix	Matrix	
	Spike	Spike	
	Duplicate		Blank
	W1883	W1883	
Date Analyzed:	5/22/07	5/22/07	5/22/07

Compound	% Rec	% Rec	RPD	ug/L
Dichlorodifluoromethane	95.5%	92.0%	3.7%	< 1.0
Chloromethane	123%	120%	2.9%	< 1.0
Vinyl chloride	105%	100%	4.4%	< 1.0
Bromomethane	118%	129%	8.5%	< 1.0
Chloroethane	120%	123%	2.1%	< 1.0
Trichlorofluoromethane	109%	112%	2.3%	< 1.0
1,1-Dichloroethene	109%	110%	0.9%	< 1.0
Methylene chloride	88.0%	94.0%	6.6%	< 1.0
trans-1,2-Dichloroethene	114%	109%	4.5%	< 1.0
1,1-Dichloroethane	123%	118%	4.2%	< 1.0
cis-1,2-Dichloroethene	112%	111%	0.4%	< 1.0
2,2-Dichloropropane	113%	107%	5.0%	< 1.0
Bromochloromethane	111%	112%	0.9%	< 1.0
Chloroform	124%	126%	1.2%	< 1.0
1,1,1-Trichloroethane	112%	114%	1.8%	< 1.0
1,1-Dichloropropene	106%	111%	4.2%	< 1.0
Carbon tetrachloride	109%	109%	0.0%	< 1.0
Benzene	107%	107%	0.5%	< 1.0
1,2-Dichloroethane	115%	107%	6.8%	< 1.0
Trichloroethene	106%	78.5%	29.8%	< 1.0
1,2-Dichloropropane	98.0%	106%	7.8%	< 1.0
Dibromomethane	98.5%	104%	5.0%	< 1.0
Bromodichloromethane	86.5%	87.5%	1.1%	< 1.0
cis-1,3-Dichloropropene	69.5%	73.5%	5.6%	< 2.0
Toluene	76.0%	79.0%	3.9%	< 1.0
trans-1,3-Dichloropropene	73.5%	83.0%	12.1%	< 1.0
1,1,2-Trichloroethane	75.0%	81.5%	8.3%	< 1.0
Tetrachloroethene	66.0%	73.0%	10.1%	< 1.0
1,3-Dichloropropane	78.5%	82.0%	4.4%	< 1.0
Dibromochloromethane	76.5%	82.0%	6.9%	< 1.0
1,2-Dibromoethane	74.0%	77.5%	4.6%	< 1.0
Chlorobenzene	89.5%	90.5%	1.1%	< 1.0
1,1,1,2-Tetrachloroethane	112%	107%	5.0%	< 1.0
Ethyl benzene	95.5%	99.0%	3.6%	< 1.0
Xylenes, Total	91.0%	95.3%	4.6%	< 2.0
Styrene	68.0%	83.0%	19.9%	< 1.0
Bromoform	94.0%	88.5%	6.0%	< 2.0

TABLE 3  
QC Report

Lab # associated with qc samples: W1883 through W1891

Matrix

Matrix

Spike

Spike

Duplicate

Blank

W1883

W1883

Date Analyzed:

5/22/07

5/22/07

5/22/07

Compound	% Rec		% Rec	RPD		ug/L
Isopropylbenzene	84.0%		85.5%	1.8%		< 1.0
1,1,2,2-Tetrachloroethane	101%		99.0%	1.5%		< 2.0
Bromobenzene	95.5%		97.5%	2.1%		< 1.0
1,2,3-Trichloropropane	109%		111%	2.3%		< 2.0
n-Propylbenzene	93.0%		91.5%	1.6%		< 1.0
2-Chlorotoluene	94.0%		96.0%	2.1%		< 1.0
1,3,5-Trimethylbenzene	86.0%		90.5%	5.1%		< 1.0
4-Chlorotoluene	95.5%		95.0%	0.5%		< 1.0
tert-Butylbenzene	82.0%		83.0%	1.2%		< 1.0
1,2,4-Trimethylbenzene	77.5%		88.0%	12.7%		< 1.0
sec-Butylbenzene	83.0%		84.0%	1.2%		< 1.0
1,3-Dichlorobenzene	101%		97.5%	3.0%		< 1.0
p-Isopropyltoluene	88.5%		90.5%	2.2%		< 1.0
1,4-Dichlorobenzene	90.0%		87.5%	2.8%		< 1.0
n-Butylbenzene	92.5%		92.5%	0.0%		< 1.0
1,2-Dichlorobenzene	95.5%		96.5%	1.0%		< 1.0
1,2-Dibromo-3-chloropropane	86.5%		115%	27.9%		< 2.0
1,3,5-Trichlorobenzene	86.5%		88.0%	1.7%		< 1.0
1,2,4-Trichlorobenzene	79.5%		81.0%	1.9%		< 1.0
Hexachlorobutadiene	94.5%		91.0%	3.8%		< 1.0
Naphthalene	70.5%		72.5%	2.8%		< 3.0
1,2,3-Trichlorobenzene	83.0%		85.5%	3.0%		< 1.0

**Table 4**

**QC Results 1,4-Dioxane- May**

TABLE 4  
QC Report

Lab # associated with qc samples: W1883 through W1891

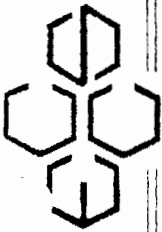
	Matrix Spike	Matrix Spike Duplicate	LCS	Blank
	W1886	W1886		
Date Extracted:	05/22/07	05/22/07	05/22/07	05/22/07
Date Analyzed:	05/22/07	05/22/07	05/22/07	05/22/07

Compound	% Rec		% Rec	RPD		% Rec	ug/L
1,4-Dioxane	116%		88.6%	26.8%		89.4%	< 1.0

## **Appendix A**

### **Chain of Custody Sheets for Samples**





**Environmental Chemistry  
Consulting Services, Inc.**

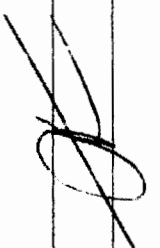
2525 Advance Road  
Madison, WI 53718  
Phone: 608 221-8700 FAX 608-221-4889

**CHAIN OF CUSTODY**  
CITY WELLS

No. 012737  
Page 1 of 1

Turn Around (circle one) Normal Rush  
Report Due:

Project Number: \_\_\_\_\_  
 Project Name: KULHMAN ELECTRIC  
 Project Location: CAPITAL SPRINGS  
 Sampled By (Print): Charles Paul

Sample Description	Collection		Matrix	Total Bottles	Preserv*	Analysis Requested	Comments	Laboratory Number	
	Date	Time							
CSW-WA8-011	5/22/07	0840	w	4	A/B	1,4 DICHALE + S2008		W1F83	
CSW-WA3-011		0852	w	4	A/B			W1F84	
CSW-F8-011		0900	w	4	A/B			W1F85	
CSW-WA1-011		0905	w	13	A/B			W1F86	
CSW-WA2-011		0915	w	4	A/B			W1F87	
CSW-WA5-007		0952	w	4	A/B			W1F88	
CSW-WA6-007		1002	w	4	A/B			W1F89	
CSW-TP-011		1015	w	4	A/B			W1F90	
DUPLICATE			w	10	A/B			W1F91	
									
*Preservation Code: A=None B=HCL C=H2SO4 D=HNO3 E=EnCore F=Methanol G=NaOH O=Other(Indicate)	Relinquished By <u>Charles Paul</u>	Date Time 5/22/07 1030	Received By <u>[Signature]</u>	Date Time 5/22/07 1030					Date/Time 5/22/07 1030
Custody Serial: Present/Absent	Intact/Not Intact	Seal #s	Temp Blank Y N <u>None</u>			Receive Temp			Date/Time

**Appendix B**

**FEDEX shipping label for Paradigm Labs**

**1 From** Please print and press hard.  
 Date 23 MAY 07 Sender's FedEx Account Number 1811-4189-1  
 Sender's Name R JOHNSON Phone (910) 350-1903  
 Company SGS ENVIRONMENTAL SVC  
 Address 5500 BUSINESS DR  
 City WILMINGTON State NC ZIP 28405-8446

**2 Your Internal Billing Reference** OPTIONAL  
 First 24 characters will appear on invoice.

**3 To**  
 Recipient's Name SAMPLE CUSTODIAN Phone (910) 350 1903  
 Company SGS ENVIRONMENTAL SVC  
 Recipient's Address 5500 BUSINESS DR  
 We cannot deliver to P.O. boxes or P.O. ZIP codes.  
 Address  
 To request a package be held at a specific FedEx location, print FedEx address here.  
 City WILMINGTON State NC ZIP 28405-8446

0356033367



**4a Express Package Service** Packages up to 150 lbs.  
 FedEx Priority Overnight Next business morning.\* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
 FedEx Standard Overnight Next business afternoon.\* Saturday Delivery NOT available.  
 FedEx First Overnight Earliest next business morning delivery to select locations.\* Saturday Delivery NOT available.  
 FedEx 2Day Second business day.\* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
 FedEx Express Saver Third business day.\* Saturday Delivery NOT available.  
 FedEx Envelope rates not available. Minimum charge: One-pound rate. \* To most locations.

**4b Express Freight Service** Packages over 150 lbs.  
 FedEx 1Day Freight\* Next business day.\*\* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
 FedEx 2Day Freight Second business day.\*\* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
 FedEx 3Day Freight Third business day.\*\* Saturday Delivery NOT available.  
 \* Call for Confirmation. \*\* To most locations.

**5 Packaging**  
 FedEx Envelope\*  
 FedEx Pak\* Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak.  
 FedEx Box  
 FedEx Tube  
 Other  
 \* Declared value limit \$500.

**6 Special Handling** Include FedEx address in Section 3.  
 SATURDAY Delivery NOT Available for FedEx Standard Overnight, FedEx First Overnight, FedEx Express Saver, or FedEx 3Day Freight.  
 HOLD Weekday at FedEx Location NOT Available for FedEx First Overnight.  
 HOLD Saturday at FedEx Location Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.  
 Does this shipment contain dangerous goods?  
 No  
 Yes As per attached Shipper's Declaration.  
 Yes Shipper's Declaration not required.  
 Dry Ice Dry ice, S, UN 1845  
 Cargo Aircraft Only  
 Dangerous goods (including dry ice) cannot be shipped in FedEx packaging.

**7 Payment** Bill to: Enter FedEx Acct. No. or Credit Card No. below.  
 Sender Acct. No. in Section 1 will be billed.  
 Recipient  
 Third Party  
 Credit Card  
 Cash/Check  
 FedEx Acct. No. / Credit Card No. 1811-4189-1 Exp. Date \_\_\_\_\_  
 Total Packages \_\_\_\_\_ Total Weight \_\_\_\_\_ Total Declared Value\* \$ \_\_\_\_\_ .00

\*Our liability is limited to \$100 unless you declare a higher value. See back for details. By using this Airbill you agree to the service conditions on the back of this Airbill and in the current FedEx Service Guide, including terms that limit our liability.

**8 Residential Delivery Signature Options** If you require a signature, check Direct or indirect.  
 No Signature Required Package may be left without obtaining a signature for delivery.  
 Direct Signature Someone at recipient's address may sign for delivery. Fee applies.  
 Indirect Signature If no one is available at recipient's address, someone at a neighboring address may sign for delivery. Fee applies.  
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## **Appendix C**

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



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

- Locations Nationwide
- Alaska
  - Hawaii
  - Ohio
  - Maryland
  - New Jersey
  - North Carolina
  - West Virginia

www.us.sgs.com

078803

<b>1</b> CLIENT: <i>MARTIN S SHARIC</i> PHONE NO: ( ) CONTACT: <i>LUIGI MANTIA</i> PROJECT: <i>LAURENDS ELECTRIC</i> SITE/PWSID#: <i>LAURENDS</i> REPORTS TO: E-MAIL: INVOICE TO: <i>SHARIC</i> FAX NO: ( ) <i>SHARIC</i> QUOTE # <i>SHARIC</i> P.O. NUMBER						SGS Reference: PAGE <i>1</i> OF <i>1</i>																
LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	NO CONTAINERS	SAMPLE TYPE C= COMP G= GRAB	Preservatives Used	Analysis Required	File	Serial	REMARKS		Shipping Carrier		Samples Received Cold? (Circle) YES NO		Temperature [C:		Chain of Custody Seal: (Circle)			
											INTACT	BROKEN	ABSENT	INTACT	BROKEN	ABSENT						
	<i>CSW-WA1-011</i>	<i>5/22/04</i>	<i>0905</i>	<i>W</i>	<i>5</i>		X	X			<i>Mobile Lab</i>	<i>W1886</i>										
	<i>Duplicate</i>	<i>5/22/04</i>		<i>W</i>	<i>6</i>		X	X			<i>Mobile Lab</i>	<i>W1891</i>										
	<i>TRIP BACK</i>				<i>2</i>																	
<b>5</b> Collected/Relinquished By: (1) _____ Date _____ Time _____ Received By: _____ Date _____ Time _____ Relinquished By: (2) _____ Date _____ Time _____ Received By: _____ Date _____ Time _____ Relinquished By: (3) _____ Date _____ Time _____ Received By: _____ Date _____ Time _____ Relinquished By: (4) _____ Date _____ Time _____ Received By: _____ Date _____ Time _____											<b>4</b> Shipping Carrier: _____ Shipping Ticket No: _____ Special Deliverable Requirements: _____ Special Instructions: _____ Requested Turnaround Time: _____											
Requested Turnaround Time: _____ <input type="checkbox"/> RUSH <input type="checkbox"/> STD _____ Data Needed																						