March 31, 2008

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 Kubale

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

TECHNICAL MEMORANDUM

March 31, 2008

To: Robert Martin
Martin and Slagle

From: Joseph Kubale
ECCS

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

Introduction

This Technical Memorandum provides documentation of the analytical test methods used to analyze water samples collected in February 2008 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

	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 Columbia Analytical Services, Inc.
C) Chain of custody sheets for samples sent to Columbia Analytical Services, Inc.

VOC Method Summary

Water Samples

Water samples were provided by the client to the 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 Logbook 150.

1,4-Dioxane Method Summary

Water Samples

Water samples were provided by the client to the lab in 1L 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, quantitaion 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 in 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 Logbook 150.

Table 1

Sample Results Volatiles– February

TABLE 1

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

VOLATILES	Reporting Limit ug/L	W2099 CSW WA8 021 - 12-Feb-08 8:20 13-Feb-08	W2100 CSW WA3 021 - 12-Feb-08 8:35 13-Feb-08	W2101 CSW FB 021 - 12-Feb-08 9:10 13-Feb-08	W2102 CSW WA1 021 - 12-Feb-08 8:50 13-Feb-08	W2103 CSW WA2 021 - 12-Feb-08 9:05 13-Feb-08	W2104 CSW WA5 016 - 12-Feb-08 9:40 13-Feb-08	W2105 CSW WA6 016 - - - -	W2106 CSW TP 021 - 12-Feb-08 10:05 13-Feb-08	W2107 CSW Duplicate - 12-Feb-08 - 13-Feb-08
Dichlorodifluoromethane	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
Chloromethane	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
Vinyl Chloride	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
Bromomethane	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
Chloroethane	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
Trichlorofluoromethane	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
1,1-Dichloroethene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
Methylene Chloride	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
trans-1,2-Dichloroethene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
1,1-Dichloroethane	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
2,2-Dichloropropane	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
Bromochloromethane	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
Chloroform	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
1,1,1-Trichloroethane	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
1,1-Dichloropropene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
Carbon Tetrachloride	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
Benzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
1,2-Dichloroethane	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
Trichloroethene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
1,2-Dichloropropane	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
Dibromomethane	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
Bromodichloromethane	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
cis-1,3-Dichloropropene	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NC	< 2.0	< 2.0
Toluene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
trans-1,3-Dichloropropene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
1,1,2-Trichloroethane	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
Tetrachloroethene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
1,3-Dichloropropane	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
Dibromochloromethane	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	**2.7**	< 1.0
1,2-Dibromoethane	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
Chlorobenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
Ethyl Benzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0

TABLE 1

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

VOLATILES	Reporting Limit ug/L	W2099 CSW WA8 021 - 12-Feb-08 8:20 13-Feb-08	W2100 CSW WA3 021 - 12-Feb-08 8:35 13-Feb-08	W2101 CSW FB 021 - 12-Feb-08 9:10 13-Feb-08	W2102 CSW WA1 021 - 12-Feb-08 8:50 13-Feb-08	W2103 CSW WA2 021 - 12-Feb-08 9:05 13-Feb-08	W2104 CSW WA5 016 - 12-Feb-08 9:40 13-Feb-08	W2105 CSW WA6 016 - - -	W2106 CSW TP 021 - 12-Feb-08 10:05 13-Feb-08	W2107 CSW Duplicate - 12-Feb-08 - 13-Feb-08
		Depth Date Collected Time Collected Date Analyzed								
Xylenes, Total	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NC	< 2.0	< 2.0
Styrene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
Bromoform	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NC	**5.8**	< 2.0
Isopropylbenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NC	< 2.0	< 2.0
Bromobenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
1,2,3-Trichloropropane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NC	< 2.0	< 2.0
n-Propylbenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
2-Chlorotoluene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
1,3,5-Trimethylbenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
4-Chlorotoluene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
tert-Butylbenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
1,2,4-Trimethylbenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
sec-Butylbenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
p-Isopropyltoluene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
n-Butylbenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
1,2-Dibromo-3-Chloropropane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NC	< 2.0	< 2.0
1,3,5-Trichlorobenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
1,2,4-Trichlorobenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
Hexachlorobutadiene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
Naphthalene	3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	NC	< 3.0	< 3.0
1,2,3-Trichlorobenzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NC	< 1.0	< 1.0
Surrogates:										
Dibromofluoromethane	%	104	104	105	99.9	103	103	NC	96.9	104
Toluene-D8	%	106	96.2	105	97.0	102	97.8	NC	104	105
4-Bromofluorobenzene	%	95.8	92.5	97.4	93.9	93.6	92.8	NC	98.2	97.0

NC = Not collected.

Table 2

Sample Results 1,4-Dioxane– February

TABLE 2

Kuhlman Electric - Crystal Springs, Mississippi - 1,4-Dioxane Detected in Water

		W2099	W2100	W2101	W2102	W2103	W2104	W2105	W2106	W2107
		CSW	CSW	CSW	CSW	CSW	CSW	CSW	CSW	CSW
		WA8	WA3	FB	WA1	WA2	WA5	WA6	TP	Duplicate
		021	021	021	021	021	016	016	021	
	Depth	-	-	-	-	-	-	-	-	
	Date Collected	12-Feb-08	12-Feb-08	12-Feb-08	12-Feb-08	12-Feb-08	12-Feb-08	-	12-Feb-08	12-Feb-08
	Time Collected	8:20	8:35	9:10	8:50	9:05	9:40	-	10:05	-
	Date Analyzed	13-Feb-08	13-Feb-08	13-Feb-08	13-Feb-08	13-Feb-08	13-Feb-08	-	13-Feb-08	13-Feb-08
	Reporting Limit									
VOLATILES	ug/L									
1,4-Dioxane	1.0	< 1.0	< 1.0	< 1.0	**1.0**	< 1.0	< 1.0	NC	< 1.0	**1.0**
Surrogates:										
1,4-Dioxane-D8	%	86.9	82.1	85.4	88.6	91.4	84.4	NC	96.3	87.2

NC = Not collected.

Table 3

QC Results Volatiles– February

TABLE 3
QC Report

Lab # associated with qc samples: W2099 through W2104 and W2106 and W2107

	Matrix Spike W2100	Matrix Spike Duplicate W2100	Blank
Date Analyzed:	2/13/08	2/13/08	2/13/08

Compound	% Rec		% Rec	RPD		ug/L
Dichlorodifluoromethane	99.6%		95.6%	4.1%		< 1.0
Chloromethane	95.2%		93.8%	1.5%		< 1.0
Vinyl chloride	99.4%		95.4%	4.1%		< 1.0
Bromomethane	106%		100%	5.8%		< 1.0
Chloroethane	98.8%		94.8%	4.1%		< 1.0
Trichlorofluoromethane	101%		105%	3.9%		< 1.0
1,1-Dichloroethene	97.8%		103%	5.2%		< 1.0
Methylene chloride	112%		98.2%	13.1%		< 1.0
trans-1,2-Dichloroethene	103%		107%	3.8%		< 1.0
1,1-Dichloroethane	188%		189%	0.5%		< 1.0
cis-1,2-Dichloroethene	101%		101%	0.0%		< 1.0
2,2-Dichloropropane	99.4%		98.0%	1.4%		< 1.0
Bromochloromethane	96.4%		94.2%	2.3%		< 1.0
Chloroform	102%		102%	0.0%		< 1.0
1,1,1-Trichloroethane	104%		104%	0.0%		< 1.0
1,1-Dichloropropene	96.4%		98.6%	2.3%		< 1.0
Carbon tetrachloride	100%		101%	1.0%		< 1.0
Benzene	99.6%		102%	2.4%		< 1.0
1,2-Dichloroethane	95.0%		97.2%	2.3%		< 1.0
Trichloroethene	96.2%		99.8%	3.7%		< 1.0
1,2-Dichloropropane	95.6%		97.6%	2.1%		< 1.0
Dibromomethane	93.8%		94.8%	1.1%		< 1.0
Bromodichloromethane	95.2%		96.6%	1.5%		< 1.0
cis-1,3-Dichloropropene	86.8%		85.8%	1.2%		< 2.0
Toluene	100%		96.0%	4.1%		< 1.0
trans-1,3-Dichloropropene	85.4%		85.4%	0.0%		< 1.0
1,1,2-Trichloroethane	93.0%		90.4%	2.8%		< 1.0
Tetrachloroethene	96.2%		96.4%	0.2%		< 1.0
1,3-Dichloropropane	89.6%		88.8%	0.9%		< 1.0
Dibromochloromethane	88.6%		88.0%	0.7%		< 1.0
1,2-Dibromoethane	88.0%		87.0%	1.1%		< 1.0
Chlorobenzene	99.4%		101%	1.6%		< 1.0
1,1,1,2-Tetrachloroethane	96.2%		100%	3.9%		< 1.0
Ethyl benzene	95.6%		96.4%	0.8%		< 1.0
Xylenes, Total	97.1%		98.2%	1.1%		< 2.0
Styrene	94.0%		94.4%	0.4%		< 1.0
Bromoform	83.2%		85.0%	2.1%		< 2.0

TABLE 3
QC Report

Lab # associated with qc samples: W2099 through W2104
Matrix W2106 and W2107

	Matrix Spike W2100	Matrix Spike Duplicate W2100		Blank
Date Analyzed:	2/13/08	2/13/08		2/13/08

Compound	% Rec		% Rec	RPD		ug/L
Isopropylbenzene	91.2%		91.6%	0.4%		< 1.0
1,1,2,2-Tetrachloroethane	91.0%		90.6%	0.4%		< 2.0
Bromobenzene	96.8%		95.8%	1.0%		< 1.0
1,2,3-Trichloropropane	94.2%		95.0%	0.8%		< 2.0
n-Propylbenzene	98.4%		97.6%	0.8%		< 1.0
2-Chlorotoluene	92.4%		93.8%	1.5%		< 1.0
1,3,5-Trimethylbenzene	96.8%		95.8%	1.0%		< 1.0
4-Chlorotoluene	99.0%		98.4%	0.6%		< 1.0
tert-Butylbenzene	92.6%		91.0%	1.7%		< 1.0
1,2,4-Trimethylbenzene	97.4%		95.8%	1.7%		< 1.0
sec-Butylbenzene	95.2%		95.0%	0.2%		< 1.0
1,3-Dichlorobenzene	98.4%		98.0%	0.4%		< 1.0
p-Isopropyltoluene	96.0%		95.4%	0.6%		< 1.0
1,4-Dichlorobenzene	99.4%		101%	1.6%		< 1.0
n-Butylbenzene	97.6%		98.6%	1.0%		< 1.0
1,2-Dichlorobenzene	97.0%		97.2%	0.2%		< 1.0
1,2-Dibromo-3-chloropropane	79.8%		85.0%	6.3%		< 2.0
1,3,5-Trichlorobenzene	91.6%		93.0%	1.5%		< 1.0
1,2,4-Trichlorobenzene	85.8%		89.0%	3.7%		< 1.0
Hexachlorobutadiene	92.0%		93.8%	1.9%		< 1.0
Naphthalene	82.0%		82.4%	0.5%		< 3.0
1,2,3-Trichlorobenzene	87.6%		88.4%	0.9%		< 1.0

Table 4

QC Results 1,4-Dioxane– February

TABLE 4
QC Report

Lab # associated with qc samples: W2099 through W2104 and W2106 and W2107

	Matrix Spike	Matrix Spike Duplicate		LCS	Blank
	W2100	W2100			
Date Extracted:	02/12/08	02/12/08		02/12/08	02/12/08
Date Analyzed:	02/13/08	02/13/08		02/13/08	02/13/08

Compound	% Rec		% Rec	RPD		% Rec	ug/L
1,4-Dioxane	89.3%		93.5%	4.6%		92.2%	< 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. 013418 *

Page 1 of 1

Project Number:	Mail Report To:	Turn Around (circle one) Normal Rush
Project Name: KUHLMAN ELECTRIC	Company: MARTIN + STAGLE	Report Due:
Project Location: CRYSTAL SPRINGS	Address:	Invoice To:
Sampled By (Print): Chuck Pool		Company:
		Address:
		P.O. No.: Quote No.:

Sample Description	Collection Date	Collection Time	Matrix	Total Bottles	Preserv*	Analysis Requested	Comments	Laboratory Number
CSW-WA8-021	02/12/08	0820	W	4	A	1,4 Dioxane, PCBs, 8260B		W2099
CSW-WA3-021		0835		8	A/B			W2100
CSW-FB-021		0910		4	A			W2101
CSW-WA1-021		0850		14	A/B			W2102
CSW-WA2-021		0905		4	A			W2103
CSW-WA5-016		0940		4	A			W2104
CSW-WA6-016		—		—	—		no power	W2105
CSW-TP-021		1005		8	A/B			W2106
DUPLICATE	↓	—	↓	14	A/B	↓		W2107

*Preservation Code
A=None B=HCL C=H2SO4
D=HNO3 E=EnCore F=Methanol
G=NaOH O=Other(Indicate)

Relinquished By: Chuck Pool	Date/Time: 2/12/08 1030	Received By:	Date/Time: 02/12/08 1030
Relinquished By:	Date/Time:	Received By:	Date/Time:

Custody Seal: Present/Absent intact/Not Intact Seal #'s

Shipped Via:

Receipt Temp:
Temp Blank Y N

WHITE - REPORT COPY YELLOW - LABORATORY COPY PINK - SAMPLER/SUBMITTER

Appendix B

FEDEX shipping label for Columbia Analytical Services, Inc.

FedEx Express **USA Airbill** FedEx Tracking Number **837597992300**

Form I.D. No. **0200** **Sender's Copy**

From Please print and press hard.

Date 02/14/08 Sender's FedEx Account Number 226281991

Sender's Name JOE KUBALE Phone (608) 345-1974

Company GCC, INC

Address 2525 ADVANCE RD Dept./Floor/Suite/Room

City MADISON State WI ZIP 53718

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

To

Recipient's Name SAMPLE CUSTODIAN Phone (360) 577-7222

Company COLUMBIA ANALYTICAL

Address
To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address 1317 So 13th Ave Dept./Floor/Suite/Room

City KELSO State WA ZIP 98626

Try online shipping at fedex.com

By using this Airbill you agree to the service conditions on the back of this Airbill and in our current Service Guide, including terms that limit our liability.

Questions? Visit our Web site at fedex.com
or call 1.800.Go.FedEx® 800.463.3339

4a Express Package Service *Packages up to 150 lbs.*
Delivery commitments may be later in some areas.

- [X] FedEx Priority Overnight — Next business morning
- [ ] FedEx Standard Overnight — Next business afternoon
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations
- [ ] FedEx 2Day — Second business day
- [ ] FedEx Express Saver — Third business day

FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service *Packages over 150 lbs.*
Delivery commitments may be later in some areas.

- [ ] FedEx 1Day Freight* — Next business day
- [ ] FedEx 2Day Freight — Second business day
- [ ] FedEx 3Day Freight — Third business day

* Call for Confirmation

5 Packaging * Declared value limit $500

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
- [X] Other

6 Special Handling Include FedEx address in Section 5.

- [ ] SATURDAY Delivery — Available ONLY for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- [ ] 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? Dry ice must be checked.

- [X] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Yes — Shipper's Declaration not required
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous Goods (including Dry Ice) cannot be shipped in FedEx packaging

- [ ] Cargo Aircraft Only

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below.

- [X] Sender — Acct. No. in Section 1 will be billed
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

FedEx Acct. No. / Credit Card No. ____ 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. FedEx Use Only

8 Release Signature Sign to authorize delivery without obtaining signature.

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

446

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CHAIN OF CUSTODY

Columbia Analytical Services, Inc.
An Employee - Owned Company

1317 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • (800) 695-7222x07 • FAX (360) 636-1068

SR#:_____ PAGE _____ OF _____ COC #_____

PROJECT NAME: KUHLMAN ELECTRIC
PROJECT NUMBER:
PROJECT MANAGER: JOSEPH KUHALE
COMPANY/ADDRESS: 2525 ADVANCE RD
CITY/STATE/ZIP: MADISON WI 53718
E-MAIL ADDRESS: ECCSES@aol.com
PHONE #: 608-221-8700 FAX#:
SAMPLERS SIGNATURE: Chris O.M. Peel

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	Semivolatile Organics by GC/MS 625 ☐ 8270 ☐ 8270LL ☐	Volatile Organics 624 ☐ 8260 ☐ 8021 ☐ BTEX ☐	Hydrocarbons (*see below) Gas ☐ Diesel ☐ Oil ☐ ☐ Fuel Fingerprint ☐ NW-HCID ☐	Oil & Grease/TRPH 1664 HEM ☐ 1664 SGT ☐	PCB's Aroclors ☐ X Congeners ☐	Pesticides/Herbicides 608 ☐ 8081A ☐ 8141A ☐ 8151A ☐	Chlorophenolics - 8151M Tri ☐ Tetra ☐ PCP ☐	PAHS 8310 ☐ SIM ☐	Metals, Total or Dissolved (See list below)	Cyanide ☐	Hex-Chrom ☐	pH, Cond., Cl, SO_4, PO_4, F, NO_2, NO_3, BOD, TSS, TDS (circle) NH_3-N, COD, Total-P, TKN, TOC, DOC (circle) NO_2+NO_3	TOX 9020 ☐ AOX 1650 ☐ 506 ☐	1,4 Dioxane 8270 ☐ 8260 ☐				REMARKS
CSW-WA1-021	02/12/08	0850		W	5		X			X										X					
CSW-DUPLICATE	02/12/08	—		W	5		X			X										X					
TRIP BLANK	—	—		W	2																				

REPORT REQUIREMENTS

___ I. Routine Report: Method Blank, Surrogate, as required
X II. Report Dup., MS, MSD as required
___ III. Data Validation Report (includes all raw data)
___ IV. CLP Deliverable Report
___ V. EDD

INVOICE INFORMATION

P.O. # _____
Bill To: _____

TURNAROUND REQUIREMENTS

___ 24 hr. ___ 48 hr.
___ 5 Day
X Standard (10-15 working days)
___ Provide FAX Results

_____
Requested Report Date

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER:_____ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:
Must 0.5 µg/L reporting limit for 1,4 Dioxane

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: Chris O.M. Peel	Signature:	Signature:	Signature:
Date/Time: 2/14/08	Date/Time:	Date/Time:	Date/Time:
Printed Name: Chris O.M. Peel	Printed Name:	Printed Name:	Printed Name:
Firm:	Firm:	Firm:	Firm: