

December 12, 2008

Analytical Report for Service Request No: K0811162

Joe Kabale  
Environmental Chemistry Consulting Services, Inc.  
2525 Advance Rd.  
Madison, WI 53718

**RE: Kuhlman Electric**

Dear Joe:

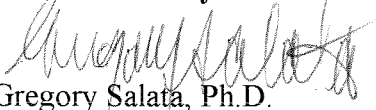
Enclosed are the results of the samples submitted to our laboratory on November 14, 2008. For your reference, these analyses have been assigned our service request number K0811162.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at [www.caslab.com](http://www.caslab.com). All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3376. You may also contact me via Email at [GSalata@caslab.com](mailto:GSalata@caslab.com).

Respectfully submitted,

**Columbia Analytical Services, Inc.**



Gregory Salata, Ph.D.  
Project Chemist

GS/lb

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## Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

### **Inorganic Data Qualifiers**

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
- U The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
- i The MRL/MDL has been elevated due to a matrix interference.
- X See case narrative.

### **Metals Data Qualifiers**

- # The control limit criteria is not applicable. See case narrative.
- B The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL has been elevated due to a matrix interference.
- X See case narrative.
- \* The duplicate analysis not within control limits. See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.

### **Organic Data Qualifiers**

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results (25% for CLP Pesticides).
- U The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
- i The MRL/MDL has been elevated due to a chromatographic interference.
- X See case narrative.

### **Additional Petroleum Hydrocarbon Specific Qualifiers**

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**Columbia Analytical Services, Inc.**  
**Kelso, WA**  
**State Certifications, Accreditations, and Licenses**

<b>Program</b>	<b>Number</b>
Alaska DEC UST	UST-040
Arizona DHS	AZ0339
Arkansas - DEQ	88-0637
California DHS	2286
Colorado DPHE	-
Florida DOH	E87412
Hawaii DOH	-
Idaho DHW	-
Indiana DOH	C-WA-01
Louisiana DEQ	3016
Louisiana DHH	LA050010
Maine DHS	WA0035
Michigan DEQ	9949
Minnesota DOH	053-999-368
Montana DPHHS	CERT0047
Nevada DEP	WA35
New Jersey DEP	WA005
New Mexico ED	-
North Carolina DWQ	605
Oklahoma DEQ	9801
Oregon - DHS	WA200001
South Carolina DHEC	61002
Utah DOH	COLU
Washington DOE	C1203
Wisconsin DNR	998386840
Wyoming (EPA Region 8)	-



## **Case Narrative**

COLUMBIA ANALYTICAL SERVICES, INC.

Client: Environmental Chemistry Consulting Services, Inc. Service Request No.: K0811162  
Project: Kuhlman Electric Date Received: 11/14/08  
Sample Matrix: Water

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Matrix/Duplicate Matrix Spike (MS/DMS), and Laboratory Control Sample (LCS).

Sample Receipt

Three water samples were received for analysis at Columbia Analytical Services on 11/14/08. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Volatile Organic Compounds by EPA Method 8260B

**Initial Calibration (ICAL) Exceptions:**

The primary evaluation criterion was exceeded for Dichlorodifluoromethane and Trichlorofluoromethane in ICAL ID 7782. In accordance with CAS standard operating procedures, the alternative evaluation specified in the EPA method was performed using the mean Relative Standard Deviation (RSD) of all analytes in the calibration. The result of the mean RSD calculation was 7.9%. The calibration meets the alternative evaluation criteria. Note that CAS/Kelso policy does not allow the use of averaging if any analyte in the ICAL exceeds 30% RSD.

**Lab Control Sample Exceptions:**

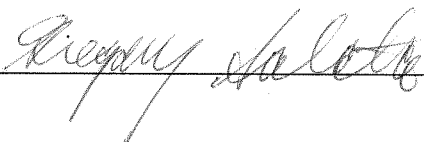
The advisory criterion was exceeded for Tetrachloroethene (PCE) and Trichlorofluoromethane in Laboratory Control Sample (LCS) KWG0812662-3. As per the CAS/Kelso Standard Operating Procedure (SOP) for this method, these compounds are not included in the subset of analytes used to control the analysis. The recovery information reported for these analytes is for advisory purposes only (i.e. to provide additional detail related to the performance of each individual compound). No further corrective action was required.

No other anomalies associated with the analysis of these samples were observed.

1,4-Dioxane by EPA Method 8270C

No anomalies associated with the analysis of these samples were observed.

Approved by



Date

12/12/08

# **Chain of Custody Documentation**

SR#: **40811167**

PAGE **1** OF **1** COC #

**CHAIN OF CUSTODY**

Columbia Analytical Services  
 1117 South 13th Ave. • Kelso, WA 98626 • (360) 577-7222 • (800) 695-7222x07 • FAX (360) 636-1068

PROJECT NAME	PROJECT NUMBER	PROJECT MANAGER	COMPANY ADDRESS	CITY/STATE/ZIP	EMAIL ADDRESS	PHONE #	FAX #	SAMPLER'S SIGNATURE	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	REMARKS
KUHLMAN ELECTROL		ROBERT MARTIN	MARTIN + STACE	BLACK MOUNTAIN NC				Charles O. M. Peel	11/16/08	0830	W	W	13	MS/MSD volume

<p><b>REPORT REQUIREMENTS</b></p> <p>I. Routine Report: Method Blank, Surrogate, as required</p> <p>II. Report Dup., MS, MSD as required</p> <p>III. Data Validation Report (includes all raw data)</p> <p>IV. CLP Deliverable Report</p> <p>V. EDD</p>	<p><b>INVOICE INFORMATION</b></p> <p>P.O. # _____</p> <p>Bill To: <b>BORG WARNER</b></p> <p>_____          _____</p>
<p><b>TURNAROUND REQUIREMENTS</b></p> <p>24 hr. _____ 48 hr. _____</p> <p>5 Day _____</p> <p>X Standard (10-15 working days)</p> <p>Provide FAX Results _____</p> <p>Requested Report Date _____</p>	<p><b>RECEIVED BY:</b></p> <p>Signature: <b>Stella Smith</b>          Charles O. M. Peel          Date/Time: <b>11/16/08</b>          Firm: _____</p>
<p><b>SPECIAL INSTRUCTIONS/COMMENTS:</b></p> <p><i>82608 - Kuhlman list</i>  <i>1,4-Dioxane - meet 0.5µg/L Regard limit</i>  <i>Extra sample volume for MS/MSD as CSW-101-030</i></p>	
<p><b>INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER: (CIRCLE ONE)</b></p>	

RECEIVED BY: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Firm: \_\_\_\_\_  
 RELINQUISHED BY: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Firm: \_\_\_\_\_  
 RECEIVED BY: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Firm: \_\_\_\_\_  
 RELINQUISHED BY: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Firm: \_\_\_\_\_



**Columbia Analytical Services, Inc.  
Cooler Receipt and Preservation Form**

PC Yeg

Client / Project: ECCS Service Request K08 11162  
 Received: 11/14/08 Opened: 11/14/08 By: [Signature]

1. Samples were received via?  US Mail  Fed Ex  UPS  DHL  GH  GS  PDX  Courier  Hand Delivered
2. Samples were received in: (circle)  Cooler  Box  Envelope  Other \_\_\_\_\_ NA
3. Were custody seals on coolers? NA  Y  N If yes, how many and where? \_\_\_\_\_  
 If present, were custody seals intact? Y  N If present, were they signed and dated? Y  N
4. Is shipper's air-bill filed? If not, record air-bill number: \_\_\_\_\_ NA  N
5. Temperature of cooler(s) upon receipt (°C): 0.0  
 Temperature Blank (°C): 1.9
6. If applicable, list Chain of Custody Numbers: \_\_\_\_\_
7. Packing material used  Inserts  Baggies  Bubble Wrap  Gel Packs  Wet Ice  Sleeves  Other \_\_\_\_\_
8. Were custody papers properly filled out (ink, signed, etc.)? NA  Y  N
9. Did all bottles arrive in good condition (unbroken)? Indicate in the table below. NA  Y  N
10. Were all sample labels complete (i.e analysis, preservation, etc.)? NA  Y  N
11. Did all sample labels and tags agree with custody papers? Indicate in the table below. NA  Y  N
12. Were appropriate bottles/containers and volumes received for the tests indicated? NA  Y  N
13. Were the pH-preserved bottles tested\* received at the appropriate pH? Indicate in the table below.  NA  Y  N
14. Were VOA vials and 1631 Mercury bottles received without headspace? Indicate in the table below. NA  Y  N
15. Are CWA Microbiology samples received with >1/2 the 24hr. hold time remaining from collection?  NA  Y  N
16. Was C12/Res negative?  NA  Y  N

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Sample ID	Bottle Count	Bottle Type	Out of Temp	Head-space	Broken	pH	Reagent	Volume added	Reagent Lot Number	Initials

\*Does not include all pH preserved sample aliquots received. See sample receiving SOP (SMO-GEN).  
 Additional Notes, Discrepancies, & Resolutions: \_\_\_\_\_

**Volatile Organic Compounds  
EPA Method 8260B**

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Environmental Chemistry Consulting Servi  
 Project: Kuhlman Electric  
 Sample Matrix: Water

Service Request: K0811162  
 Date Collected: 11/12/2008  
 Date Received: 11/14/2008

## Volatile Organic Compounds

Sample Name: CSW-WA1-030  
 Lab Code: K0811162-001  
 Extraction Method: EPA 5030B  
 Analysis Method: 8260B

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Chloromethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Vinyl Chloride	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Bromomethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Chloroethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Trichlorofluoromethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	*
Acetone	ND	U	20	1	11/24/08	11/24/08	KWG0812662	
1,1-Dichloroethene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Carbon Disulfide	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Methylene Chloride	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
trans-1,2-Dichloroethene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,1-Dichloroethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
2-Butanone (MEK)	ND	U	20	1	11/24/08	11/24/08	KWG0812662	
2,2-Dichloropropane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
cis-1,2-Dichloroethene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Chloroform	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Bromochloromethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,1-Dichloropropene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Carbon Tetrachloride	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Benzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Trichloroethene (TCE)	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2-Dichloropropane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Bromodichloromethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Dibromomethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
2-Hexanone	ND	U	20	1	11/24/08	11/24/08	KWG0812662	
cis-1,3-Dichloropropene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Toluene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
trans-1,3-Dichloropropene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,1,2-Trichloroethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	11/24/08	11/24/08	KWG0812662	
1,3-Dichloropropane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Environmental Chemistry Consulting Servi  
 Project: Kuhlman Electric  
 Sample Matrix: Water

Service Request: K0811162  
 Date Collected: 11/12/2008  
 Date Received: 11/14/2008

Volatile Organic Compounds

Sample Name: CSW-WA1-030  
 Lab Code: K0811162-001  
 Extraction Method: EPA 5030B  
 Analysis Method: 8260B

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tetrachloroethene (PCE)	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	*
Dibromochloromethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2-Dibromoethane (EDB)	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Chlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Ethylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
m,p-Xylenes	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
o-Xylene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Styrene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Bromoform	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Isopropylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2,3-Trichloropropane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Bromobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
n-Propylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
2-Chlorotoluene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
4-Chlorotoluene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,3,5-Trimethylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
tert-Butylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2,4-Trimethylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
sec-Butylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,3-Dichlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
4-Isopropyltoluene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,4-Dichlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
n-Butylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2-Dichlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	11/24/08	11/24/08	KWG0812662	
1,2,4-Trichlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2,3-Trichlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Naphthalene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Hexachlorobutadiene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,3,5-Trichlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	

\* See Case Narrative

Comments:

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811162  
**Date Collected:** 11/12/2008  
**Date Received:** 11/14/2008

## Volatile Organic Compounds

**Sample Name:** CSW-WA1-030  
**Lab Code:** K0811162-001

**Units:** ug/L  
**Basis:** NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	100	75-120	11/24/08	Acceptable
Toluene-d8	96	80-128	11/24/08	Acceptable
4-Bromofluorobenzene	79	75-117	11/24/08	Acceptable

**Comments:**

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Environmental Chemistry Consulting Servi  
 Project: Kuhlman Electric  
 Sample Matrix: Water

Service Request: K0811162  
 Date Collected: 11/12/2008  
 Date Received: 11/14/2008

Volatile Organic Compounds

Sample Name: CSW-Duplicate  
 Lab Code: K0811162-002  
 Extraction Method: EPA 5030B  
 Analysis Method: 8260B

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Chloromethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Vinyl Chloride	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Bromomethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Chloroethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Trichlorofluoromethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	*
Acetone	ND	U	20	1	11/24/08	11/24/08	KWG0812662	
1,1-Dichloroethene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Carbon Disulfide	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Methylene Chloride	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
trans-1,2-Dichloroethene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,1-Dichloroethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
2-Butanone (MEK)	ND	U	20	1	11/24/08	11/24/08	KWG0812662	
2,2-Dichloropropane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
cis-1,2-Dichloroethene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Chloroform	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Bromochloromethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,1-Dichloropropene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Carbon Tetrachloride	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Benzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Trichloroethene (TCE)	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2-Dichloropropane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Bromodichloromethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Dibromomethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
2-Hexanone	ND	U	20	1	11/24/08	11/24/08	KWG0812662	
cis-1,3-Dichloropropene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Toluene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
trans-1,3-Dichloropropene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,1,2-Trichloroethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	11/24/08	11/24/08	KWG0812662	
1,3-Dichloropropane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811162  
**Date Collected:** 11/12/2008  
**Date Received:** 11/14/2008

**Volatile Organic Compounds**

**Sample Name:** CSW-Duplicate  
**Lab Code:** K0811162-002  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260B

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tetrachloroethene (PCE)	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	*
Dibromochloromethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2-Dibromoethane (EDB)	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Chlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Ethylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
m,p-Xylenes	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
o-Xylene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Styrene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Bromoform	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Isopropylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2,3-Trichloropropane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Bromobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
n-Propylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
2-Chlorotoluene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
4-Chlorotoluene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,3,5-Trimethylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
tert-Butylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2,4-Trimethylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
sec-Butylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,3-Dichlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
4-Isopropyltoluene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,4-Dichlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
n-Butylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2-Dichlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	11/24/08	11/24/08	KWG0812662	
1,2,4-Trichlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2,3-Trichlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Naphthalene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Hexachlorobutadiene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,3,5-Trichlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	

\* See Case Narrative

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Environmental Chemistry Consulting Servi  
Project: Kuhlman Electric  
Sample Matrix: Water

Service Request: K0811162  
Date Collected: 11/12/2008  
Date Received: 11/14/2008

Volatile Organic Compounds

Sample Name: CSW-Duplicate  
Lab Code: K0811162-002

Units: ug/L  
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	102	75-120	11/24/08	Acceptable
Toluene-d8	95	80-128	11/24/08	Acceptable
4-Bromofluorobenzene	79	75-117	11/24/08	Acceptable

Comments:



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811162  
**Date Collected:** 11/12/2008  
**Date Received:** 11/14/2008

**Volatile Organic Compounds**

**Sample Name:** Trip Blank  
**Lab Code:** K0811162-003  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260B

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Chloromethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Vinyl Chloride	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Bromomethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Chloroethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Trichlorofluoromethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	*
Acetone	ND	U	20	1	11/24/08	11/24/08	KWG0812662	
1,1-Dichloroethene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Carbon Disulfide	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Methylene Chloride	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
trans-1,2-Dichloroethene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,1-Dichloroethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
2-Butanone (MEK)	ND	U	20	1	11/24/08	11/24/08	KWG0812662	
2,2-Dichloropropane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
cis-1,2-Dichloroethene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Chloroform	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Bromochloromethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,1-Dichloropropene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Carbon Tetrachloride	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Benzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Trichloroethene (TCE)	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2-Dichloropropane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Bromodichloromethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Dibromomethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
2-Hexanone	ND	U	20	1	11/24/08	11/24/08	KWG0812662	
cis-1,3-Dichloropropene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Toluene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
trans-1,3-Dichloropropene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,1,2-Trichloroethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	11/24/08	11/24/08	KWG0812662	
1,3-Dichloropropane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811162  
**Date Collected:** 11/12/2008  
**Date Received:** 11/14/2008

**Volatile Organic Compounds**

**Sample Name:** Trip Blank  
**Lab Code:** K0811162-003  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260B

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tetrachloroethene (PCE)	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	*
Dibromochloromethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2-Dibromoethane (EDB)	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Chlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Ethylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
m,p-Xylenes	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
o-Xylene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Styrene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Bromoform	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Isopropylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2,3-Trichloropropane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Bromobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
n-Propylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
2-Chlorotoluene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
4-Chlorotoluene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,3,5-Trimethylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
tert-Butylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2,4-Trimethylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
sec-Butylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,3-Dichlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
4-Isopropyltoluene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,4-Dichlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
n-Butylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2-Dichlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	11/24/08	11/24/08	KWG0812662	
1,2,4-Trichlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2,3-Trichlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Naphthalene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Hexachlorobutadiene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,3,5-Trichlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	

\* See Case Narrative

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Environmental Chemistry Consulting Servi  
Project: Kuhlman Electric  
Sample Matrix: Water

Service Request: K0811162  
Date Collected: 11/12/2008  
Date Received: 11/14/2008

Volatile Organic Compounds

Sample Name: Trip Blank  
Lab Code: K0811162-003

Units: ug/L  
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	101	75-120	11/24/08	Acceptable
Toluene-d8	97	80-128	11/24/08	Acceptable
4-Bromofluorobenzene	79	75-117	11/24/08	Acceptable

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811162  
**Date Collected:** NA  
**Date Received:** NA

**Volatile Organic Compounds**

**Sample Name:** Method Blank  
**Lab Code:** KWG0812662-4

**Units:** ug/L  
**Basis:** NA

**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260B

**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Chloromethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Vinyl Chloride	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Bromomethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Chloroethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Trichlorofluoromethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	*
Acetone	ND	U	20	1	11/24/08	11/24/08	KWG0812662	
1,1-Dichloroethene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Carbon Disulfide	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Methylene Chloride	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
trans-1,2-Dichloroethene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,1-Dichloroethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
2-Butanone (MEK)	ND	U	20	1	11/24/08	11/24/08	KWG0812662	
2,2-Dichloropropane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
cis-1,2-Dichloroethene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Chloroform	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Bromochloromethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,1-Dichloropropene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Carbon Tetrachloride	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Benzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Trichloroethene (TCE)	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2-Dichloropropane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Bromodichloromethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Dibromomethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
2-Hexanone	ND	U	20	1	11/24/08	11/24/08	KWG0812662	
cis-1,3-Dichloropropene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Toluene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
trans-1,3-Dichloropropene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,1,2-Trichloroethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	11/24/08	11/24/08	KWG0812662	
1,3-Dichloropropane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811162  
**Date Collected:** NA  
**Date Received:** NA

**Volatile Organic Compounds**

**Sample Name:** Method Blank  
**Lab Code:** KWG0812662-4  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260B

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tetrachloroethene (PCE)	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	*
Dibromochloromethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2-Dibromoethane (EDB)	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Chlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,1,1,2-Tetrachloroethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Ethylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
m,p-Xylenes	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
o-Xylene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Styrene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Bromoform	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Isopropylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,1,2,2-Tetrachloroethane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2,3-Trichloropropane	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Bromobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
n-Propylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
2-Chlorotoluene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
4-Chlorotoluene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,3,5-Trimethylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
tert-Butylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2,4-Trimethylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
sec-Butylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,3-Dichlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
4-Isopropyltoluene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,4-Dichlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
n-Butylbenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2-Dichlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1	11/24/08	11/24/08	KWG0812662	
1,2,4-Trichlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,2,3-Trichlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Naphthalene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
Hexachlorobutadiene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	
1,3,5-Trichlorobenzene	ND	U	0.50	1	11/24/08	11/24/08	KWG0812662	

\* See Case Narrative

Comments:

Analytical Results

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811162  
**Date Collected:** NA  
**Date Received:** NA

Volatile Organic Compounds

**Sample Name:** Method Blank  
**Lab Code:** KWG0812662-4

**Units:** ug/L  
**Basis:** NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	100	75-120	11/24/08	Acceptable
Toluene-d8	96	80-128	11/24/08	Acceptable
4-Bromofluorobenzene	78	75-117	11/24/08	Acceptable

Comments: \_\_\_\_\_

Client: Environmental Chemistry Consulting Servi  
 Project: Kuhlman Electric  
 Sample Matrix: Water

Service Request: K0811162

**Surrogate Recovery Summary**  
**Volatile Organic Compounds**

Extraction Method: EPA 5030B  
 Analysis Method: 8260B

Units: PERCENT  
 Level: Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>	<u>Sur2</u>	<u>Sur3</u>
CSW-WA1-030	K0811162-001	100	96	79
CSW-Duplicate	K0811162-002	102	95	79
Trip Blank	K0811162-003	101	97	79
Method Blank	KWG0812662-4	100	96	78
CSW-WA1-030MS	KWG0812662-1	101	99	86
CSW-WA1-030DMS	KWG0812662-2	100	99	86
Lab Control Sample	KWG0812662-3	102	100	84

**Surrogate Recovery Control Limits (%)**

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Sur1 = Dibromofluoromethane	75-120
Sur2 = Toluene-d8	80-128
Sur3 = 4-Bromofluorobenzene	75-117

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Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811162  
**Date Extracted:** 11/24/2008  
**Date Analyzed:** 11/24/2008

**Matrix Spike/Duplicate Matrix Spike Summary  
 Volatile Organic Compounds**

**Sample Name:** CSW-WA1-030  
**Lab Code:** K0811162-001  
**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260B

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG0812662

Analyte Name	Sample Result	CSW-WA1-030MS KWG0812662-1 Matrix Spike			CSW-WA1-030DMS KWG0812662-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
1,1-Dichloroethene	ND	10.2	10.0	102	10.2	10.0	102	67-147	0	30
Benzene	ND	9.20	10.0	92	8.93	10.0	89	69-126	3	30
Trichloroethene (TCE)	ND	9.27	10.0	93	9.05	10.0	91	56-137	2	30
Toluene	ND	9.22	10.0	92	8.82	10.0	88	66-128	4	30
Chlorobenzene	ND	10.4	10.0	104	9.83	10.0	98	68-120	5	30
1,2-Dichlorobenzene	ND	9.84	10.0	98	9.19	10.0	92	67-116	7	30
Naphthalene	ND	8.59	10.0	86	8.44	10.0	84	61-137	2	30

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811162  
**Date Extracted:** 11/24/2008  
**Date Analyzed:** 11/24/2008

**Lab Control Spike Summary  
 Volatile Organic Compounds**

**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260B

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG0812662

Lab Control Sample  
 KWG0812662-3  
 Lab Control Spike

Analyte Name	Result	Expected	%Rec	%Rec Limits
Dichlorodifluoromethane	13.3	10.0	133	21-156
Chloromethane	8.20	10.0	82	45-135
Vinyl Chloride	12.7	10.0	127	59-135
Bromomethane	7.36	10.0	74	24-144
Chloroethane	10.1	10.0	101	60-128
Trichlorofluoromethane	13.2	10.0	132 *	54-129
Acetone	42.3	50.0	85	53-129
1,1-Dichloroethene	11.9	10.0	119	70-136
Carbon Disulfide	17.7	20.0	89	64-129
Methylene Chloride	9.97	10.0	100	64-137
trans-1,2-Dichloroethene	11.0	10.0	110	70-121
1,1-Dichloroethane	9.90	10.0	99	72-122
2-Butanone (MEK)	33.0	50.0	66	56-137
2,2-Dichloropropane	7.84	10.0	78	48-133
cis-1,2-Dichloroethene	9.87	10.0	99	76-125
Chloroform	10.5	10.0	105	71-118
Bromochloromethane	9.94	10.0	99	72-123
1,1,1-Trichloroethane (TCA)	10.5	10.0	105	65-126
1,1-Dichloropropene	10.3	10.0	103	71-119
Carbon Tetrachloride	11.3	10.0	113	58-133
1,2-Dichloroethane (EDC)	10.6	10.0	106	69-125
Benzene	9.77	10.0	98	74-118
Trichloroethene (TCE)	10.1	10.0	101	71-122
1,2-Dichloropropane	8.56	10.0	86	73-123
Bromodichloromethane	10.0	10.0	100	72-127
Dibromomethane	8.57	10.0	86	71-124
2-Hexanone	33.2	50.0	66	44-135
cis-1,3-Dichloropropene	7.80	10.0	78	71-125
Toluene	9.59	10.0	96	74-117
trans-1,3-Dichloropropene	7.23	10.0	72	56-121
1,1,2-Trichloroethane	9.17	10.0	92	73-122
4-Methyl-2-pentanone (MIBK)	33.2	50.0	66	57-129
1,3-Dichloropropane	9.45	10.0	95	74-120
Tetrachloroethene (PCE)	12.7	10.0	127 *	65-121
Dibromochloromethane	10.2	10.0	102	67-124

Results flagged with an asterisk (\*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811162  
**Date Extracted:** 11/24/2008  
**Date Analyzed:** 11/24/2008

**Lab Control Spike Summary  
 Volatile Organic Compounds**

**Extraction Method:** EPA 5030B  
**Analysis Method:** 8260B

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG0812662

Lab Control Sample  
 KWG0812662-3  
 Lab Control Spike

Analyte Name	Result	Expected	%Rec	%Rec Limits
1,2-Dibromoethane (EDB)	9.36	10.0	94	71-120
Chlorobenzene	10.3	10.0	103	74-115
1,1,1,2-Tetrachloroethane	10.3	10.0	103	71-118
Ethylbenzene	10.6	10.0	106	71-118
m,p-Xylenes	21.3	20.0	106	73-119
o-Xylene	9.59	10.0	96	74-120
Styrene	9.52	10.0	95	75-123
Bromoform	8.58	10.0	86	57-135
Isopropylbenzene	9.46	10.0	95	65-110
1,1,2,2-Tetrachloroethane	8.07	10.0	81	63-126
1,2,3-Trichloropropane	8.10	10.0	81	67-123
Bromobenzene	9.88	10.0	99	76-111
n-Propylbenzene	9.47	10.0	95	69-122
2-Chlorotoluene	9.20	10.0	92	72-120
4-Chlorotoluene	8.85	10.0	89	70-118
1,3,5-Trimethylbenzene	9.36	10.0	94	70-120
tert-Butylbenzene	9.56	10.0	96	72-118
1,2,4-Trimethylbenzene	9.36	10.0	94	72-121
sec-Butylbenzene	9.32	10.0	93	73-130
1,3-Dichlorobenzene	9.59	10.0	96	76-110
4-Isopropyltoluene	9.41	10.0	94	67-115
1,4-Dichlorobenzene	9.42	10.0	94	74-112
n-Butylbenzene	9.22	10.0	92	62-123
1,2-Dichlorobenzene	9.42	10.0	94	75-110
1,2-Dibromo-3-chloropropane	7.09	10.0	71	49-124
1,2,4-Trichlorobenzene	9.62	10.0	96	66-115
1,2,3-Trichlorobenzene	9.96	10.0	100	64-120
Naphthalene	7.89	10.0	79	58-132
Hexachlorobutadiene	11.3	10.0	113	61-124
1,3,5-Trichlorobenzene	40.3	40.0	101	46-133

Results flagged with an asterisk (\*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

## **1,4-Dioxane by GC/MS**

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811162  
**Date Collected:** 11/12/2008  
**Date Received:** 11/14/2008

**1,4-Dioxane by GC/MS**

**Sample Name:** CSW-WA1-030  
**Lab Code:** K0811162-001  
**Extraction Method:** EPA 3510C  
**Analysis Method:** 8270C SIM

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,4-Dioxane	ND U	0.50	1	11/19/08	12/05/08	KWG0812423	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Dioxane-d8	77	55-100	12/05/08	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811162  
**Date Collected:** 11/12/2008  
**Date Received:** 11/14/2008

**1,4-Dioxane by GC/MS**

**Sample Name:** CSW-Duplicate  
**Lab Code:** K0811162-002  
**Extraction Method:** EPA 3510C  
**Analysis Method:** 8270C SIM

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,4-Dioxane	ND U	0.50	1	11/19/08	12/05/08	KWG0812423	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Dioxane-d8	70	55-100	12/05/08	Acceptable

**Comments:** \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811162  
**Date Collected:** NA  
**Date Received:** NA

**1,4-Dioxane by GC/MS**

**Sample Name:** Method Blank  
**Lab Code:** KWG0812423-4  
**Extraction Method:** EPA 3510C  
**Analysis Method:** 8270C SIM

**Units:** ug/L  
**Basis:** NA  
**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,4-Dioxane	ND U	0.50	1	11/19/08	12/05/08	KWG0812423	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Dioxane-d8	73	55-100	12/05/08	Acceptable

**Comments:** \_\_\_\_\_

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Environmental Chemistry Consulting Servi  
Project: Kuhlman Electric  
Sample Matrix: Water

Service Request: K0811162

Surrogate Recovery Summary  
1,4-Dioxane by GC/MS

Extraction Method: EPA 3510C  
Analysis Method: 8270C SIM

Units: PERCENT  
Level: Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>
CSW-WA1-030	K0811162-001	77
CSW-Duplicate	K0811162-002	70
Method Blank	KWG0812423-4	73
CSW-WA1-030MS	KWG0812423-1	69
CSW-WA1-030DMS	KWG0812423-2	69
Lab Control Sample	KWG0812423-3	68

Surrogate Recovery Control Limits (%)

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Sur1 = 1,4-Dioxane-d8 55-100

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Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811162  
**Date Extracted:** 11/19/2008  
**Date Analyzed:** 12/05/2008

**Matrix Spike/Duplicate Matrix Spike Summary**  
**1,4-Dioxane by GC/MS**

**Sample Name:** CSW-WA1-030  
**Lab Code:** K0811162-001  
**Extraction Method:** EPA 3510C  
**Analysis Method:** 8270C SIM

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG0812423

Analyte Name	Sample Result	CSW-WA1-030MS KWG0812423-1 Matrix Spike			CSW-WA1-030DMS KWG0812423-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
1,4-Dioxane	ND	20.5	25.0	82	22.6	25.0	90	53-105	10	30

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



**Client:** Environmental Chemistry Consulting Servi  
**Project:** Kuhlman Electric  
**Sample Matrix:** Water

**Service Request:** K0811162  
**Date Extracted:** 11/19/2008  
**Date Analyzed:** 12/05/2008

**Lab Control Spike Summary**  
**1,4-Dioxane by GC/MS**

**Extraction Method:** EPA 3510C  
**Analysis Method:** 8270C SIM

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** KWG0812423

Lab Control Sample  
 KWG0812423-3  
 Lab Control Spike

Analyte Name	Result	Expected	%Rec	%Rec Limits
1,4-Dioxane	20.3	25.0	81	56-107

Results flagged with an asterisk (\*) indicate values outside control criteria.

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