

May 27, 2008

Analytical Report for Service Request No: K0802009

Richard Johnson  
Environmental Chemistry Consulting Services, Inc.  
2525 Advance Rd.  
Madison, WI 53718

**RE: Kuhlman Electric**

Dear Richard:


Enclosed is the revised report for the samples submitted to our laboratory on March 07, 2008. For your reference, these analyses have been assigned our service request number K0802009.

Results for EPA 8260 and EPA 8270 analysis have been separated into two reports as requested by the client.

All analyses were performed according to our laboratory's quality assurance program. Where applicable, the methods cited conform to the Methods Update Rule (effective 4/11/2007), which relates to the use of analytical methods for the drinking water and waste water programs. The test results meet requirements of the NELAC standards. Exceptions are noted in the case narrative report where applicable. 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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cc: Chris Slagle, Martin &amp; Slagle

## 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

Program	Number
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	987
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.: K0802009  
Project: Kuhlman Electric Date Received: 03/07/08  
Sample Matrix: Water and Soil

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/Duplicate Laboratory Control Sample (LCS/DLCS).

Sample Receipt

Thirteen soil and six water samples were received for analysis at Columbia Analytical Services on 03/07/08. Minor discrepancies were noted upon initial sample inspection and are noted on the cooler receipt and preservation form included in this data package. 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

**Continuing Calibration Verification (CCV) Exceptions:**

The CAS control criterion for 2-Hexanone, Naphthalene, and 1,2-Dibromo-3-chloropropene was not met in CCV MS13\0313F007.D. In accordance with CAS standard operating procedures, an MRL check standard containing the analytes of concern was analyzed the day of analysis. The MRL check standard verified instrument sensitivity was adequate to detect the analytes at the MRL on the day of analysis. Because the sensitivity was shown to be adequate to detect the compounds in question, and the field samples analyzed in this sequence did not contain the analytes in question, the data quality has not been significantly affected. No further corrective action was feasible.

**Matrix Spike Recovery Exceptions:**

The control criteria for the matrix spike recovery of Trichloroethene (TCE) for sample BatchQCMS KWG0802267-1 and BatchQCDMS KWG0802267-2 is not applicable. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

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

Semivolatile Organic Compounds by EPA Method 8270C

**Initial Calibration (ICAL) Exceptions:**

The primary evaluation criterion was exceeded for Hexachlorocyclopentadiene, 2,4-Dinitrophenol, and Benzidine in ICAL ID CAL7197. 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 7.7%. The calibration meets the alternative evaluation criteria. Note that CAS/Keiso policy does not allow the use of averaging if any analyte in the ICAL exceeds 30% RSD.

**Relative Percent Difference Exceptions:**

The Relative Percent Difference (RPD) criterion for the replicate analysis of Benzoic Acid in the replicate Laboratory Control Samples (LCS/DLCS) KWG0802205-3 and KWG0802205-4 is not applicable because the analyte concentration was not significantly greater than the Method Reporting Limit (MRL). Analytical values

Approved by:  Date: 5/27/08

derived from measurements close to the detection limit are not subject to the same accuracy and precision criteria as results derived from measurements higher on the calibration range for the method.

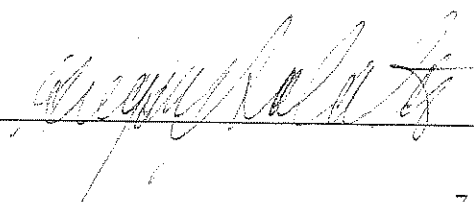
No other anomalies associated with the analysis of these samples were observed.

1,4-Dioxane by EPA Method 8270C

**Holding Time Exceptions:**

Due to an error in the laboratory, the extraction of sample Duplicate was initially performed past the recommended holding time. Efforts were made to extract and analyze the samples as soon as the error was identified. The data is flagged to indicate the holding time violation.

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

Approved by  Date 5/27/08

COLUMBIA ANALYTICAL SERVICES, INC.  
Cooler Receipt and Preservation Form

10-11-11

Client / Project: ECS Service Request K08 0909

Received: 3/7/08 Opened: 3/7/08 By: Thal

Samples were received via? US Mail ~~FedEx~~ UPS DHL GH GS PDX Courier Hand Delivered  
 Samples were received in: (circle) Cooler Box Envelope Other NA  
 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  
 Is shipper's air-bill filed? If not, record air-bill number: \_\_\_\_\_ NA Y N

Temperature of cooler(s) upon receipt (°C): 5.7  
 Temperature Blank (°C): 3.6

If applicable, list Chain of Custody Numbers: \_\_\_\_\_  
 Were custody papers properly filled out (ink, signed, etc.)? NA Y N

Packing material used. Inserts Baggies Bubble Wrap Gel Packs ~~Wet Ice~~ Sleeves Other \_\_\_\_\_

Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.* NA Y N

Were all sample labels complete (i.e analysis, preservation, etc.)? Y N

Did all sample labels and tags agree with custody papers? *Indicate in the table below* Y N

Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N

Were the pH-preserved bottles tested\* received at the appropriate pH? *Indicate in the table below* NA Y N

Were VOA vials and 1631 Mercury bottles received without headspace? *Indicate in the table below.* NA Y N

Are CWA Microbiology samples received with >1/2 the 24hr. hold time remaining from collection? NA Y N

Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC
<u>TR 2</u>	<u>trip Blank</u>		
<u>DU 7B</u>			
<u>Rep-WP-046-003</u>	<u>Rep-WP-041-003</u>		

Sample ID	Bottle Count	Bottle Type	Out of Temp	Head-space	Broken	pH	Reagent	Volume added	Reagent Lot Number	Initials
<u>CSW-WA1-007</u>	<u>1</u>	<u>280ml A</u>			<u>✓</u>					<u>TR</u>
<u>DU 2</u>	<u>1</u>	<u>VOA</u>			<u>✓</u>					<u>TR</u>

*not include all pH preserved sample aliquots received. See sample receiving SOP (SMO-GEN).*  
 Additional Notes, Discrepancies, & Resolutions: 1-257 ml Amber + 31 vials for Rep-WP-041-003 in loc  
work w/ I.D. REP-WP-046-003 - used date, time & process of elim. to place.



**Volatile Organic Compounds  
EPA Method 8260B**

## Analytical Results

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

Service Request: K0802009  
 Date Collected: 03/04/2008  
 Date Received: 03/07/2008

## Volatile Organic Compounds

Sample Name: CSW-WA1-022  
 Lab Code: K0802009-015  
 Extraction Method: EPA 5030B  
 Analysis Method: 8260B

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.17	1	03/10/08	03/10/08	KWG0802267	
Chloromethane	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
Vinyl Chloride	ND	U	0.50	0.042	1	03/10/08	03/10/08	KWG0802267	
Bromomethane	ND	U	0.50	0.22	1	03/10/08	03/10/08	KWG0802267	
Chloroethane	ND	U	0.50	0.23	1	03/10/08	03/10/08	KWG0802267	
Trichlorofluoromethane	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
Acetone	ND	U	20	4.1	1	03/10/08	03/10/08	KWG0802267	
1,1-Dichloroethene	1.1		0.50	0.13	1	03/10/08	03/10/08	KWG0802267	
Carbon Disulfide	ND	U	0.50	0.16	1	03/10/08	03/10/08	KWG0802267	
Methylene Chloride	ND	U	2.0	0.20	1	03/10/08	03/10/08	KWG0802267	
trans-1,2-Dichloroethene	ND	U	0.50	0.15	1	03/10/08	03/10/08	KWG0802267	
1,1-Dichloroethane	ND	U	0.50	0.11	1	03/10/08	03/10/08	KWG0802267	
2-Butanone (MEK)	ND	U	20	2.3	1	03/10/08	03/10/08	KWG0802267	
2,2-Dichloropropane	ND	U	0.50	0.18	1	03/10/08	03/10/08	KWG0802267	
cis-1,2-Dichloroethene	ND	U	0.50	0.12	1	03/10/08	03/10/08	KWG0802267	
Chloroform	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
Bromochloromethane	ND	U	0.50	0.17	1	03/10/08	03/10/08	KWG0802267	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.12	1	03/10/08	03/10/08	KWG0802267	
1,1-Dichloropropene	ND	U	0.50	0.15	1	03/10/08	03/10/08	KWG0802267	
Carbon Tetrachloride	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.12	1	03/10/08	03/10/08	KWG0802267	
Benzene	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
Trichloroethene (TCE)	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
1,2-Dichloropropane	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
Bromodichloromethane	ND	U	0.50	0.11	1	03/10/08	03/10/08	KWG0802267	
Dibromomethane	ND	U	0.50	0.12	1	03/10/08	03/10/08	KWG0802267	
2-Hexanone	ND	U	20	4.0	1	03/10/08	03/10/08	KWG0802267	
cis-1,3-Dichloropropene	ND	U	0.50	0.11	1	03/10/08	03/10/08	KWG0802267	
Toluene	ND	U	0.50	0.11	1	03/10/08	03/10/08	KWG0802267	
trans-1,3-Dichloropropene	ND	U	0.50	0.090	1	03/10/08	03/10/08	KWG0802267	
1,1,2-Trichloroethane	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
4-Methyl-2-pentanone (MIBK)	ND	U	20	2.7	1	03/10/08	03/10/08	KWG0802267	
1,3-Dichloropropane	ND	U	0.50	0.15	1	03/10/08	03/10/08	KWG0802267	

Comments:

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

Service Request: K0802009  
 Date Collected: 03/04/2008  
 Date Received: 03/07/2008

## Volatile Organic Compounds

Sample Name: CSW-WA1-022  
 Lab Code: K0802009-015  
 Extraction Method: EPA 5030B  
 Analysis Method: 8260B

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tetrachloroethene (PCE)	ND	U	0.50	0.13	1	03/10/08	03/10/08	KWG0802267	
Dibromochloromethane	ND	U	0.50	0.11	1	03/10/08	03/10/08	KWG0802267	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.099	1	03/10/08	03/10/08	KWG0802267	
Chlorobenzene	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.12	1	03/10/08	03/10/08	KWG0802267	
Ethylbenzene	ND	U	0.50	0.13	1	03/10/08	03/10/08	KWG0802267	
m,p-Xylenes	ND	U	0.50	0.22	1	03/10/08	03/10/08	KWG0802267	
o-Xylene	ND	U	0.50	0.11	1	03/10/08	03/10/08	KWG0802267	
Styrene	ND	U	0.50	0.095	1	03/10/08	03/10/08	KWG0802267	
Bromoform	ND	U	0.50	0.28	1	03/10/08	03/10/08	KWG0802267	
Isopropylbenzene	ND	U	2.0	0.11	1	03/10/08	03/10/08	KWG0802267	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
1,2,3-Trichloropropane	ND	U	0.50	0.24	1	03/10/08	03/10/08	KWG0802267	
Bromobenzene	ND	U	2.0	0.18	1	03/10/08	03/10/08	KWG0802267	
n-Propylbenzene	ND	U	2.0	0.098	1	03/10/08	03/10/08	KWG0802267	
2-Chlorotoluene	ND	U	2.0	0.12	1	03/10/08	03/10/08	KWG0802267	
4-Chlorotoluene	ND	U	2.0	0.12	1	03/10/08	03/10/08	KWG0802267	
1,3,5-Trimethylbenzene	ND	U	2.0	0.13	1	03/10/08	03/10/08	KWG0802267	
tert-Butylbenzene	ND	U	2.0	0.13	1	03/10/08	03/10/08	KWG0802267	
1,2,4-Trimethylbenzene	ND	U	2.0	0.15	1	03/10/08	03/10/08	KWG0802267	
sec-Butylbenzene	ND	U	2.0	0.13	1	03/10/08	03/10/08	KWG0802267	
1,3-Dichlorobenzene	ND	U	0.50	0.11	1	03/10/08	03/10/08	KWG0802267	
4-Isopropyltoluene	ND	U	2.0	0.13	1	03/10/08	03/10/08	KWG0802267	
1,4-Dichlorobenzene	ND	U	0.50	0.12	1	03/10/08	03/10/08	KWG0802267	
n-Butylbenzene	ND	U	2.0	0.23	1	03/10/08	03/10/08	KWG0802267	
1,2-Dichlorobenzene	ND	U	0.50	0.12	1	03/10/08	03/10/08	KWG0802267	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1.0	1	03/10/08	03/10/08	KWG0802267	
1,2,4-Trichlorobenzene	ND	U	2.0	0.22	1	03/10/08	03/10/08	KWG0802267	
1,2,3-Trichlorobenzene	ND	U	2.0	0.33	1	03/10/08	03/10/08	KWG0802267	
Naphthalene	ND	U	2.0	0.29	1	03/10/08	03/10/08	KWG0802267	
Hexachlorobutadiene	ND	U	2.0	0.28	1	03/10/08	03/10/08	KWG0802267	
1,3,5-Trichlorobenzene	ND	U	5.0	0.35	1	03/10/08	03/10/08	KWG0802267	

Comments:

## Analytical Results

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

Service Request: K0802009  
Date Collected: 03/04/2008  
Date Received: 03/07/2008

## Volatile Organic Compounds

Sample Name: CSW-WA1-022  
Lab Code: K0802009-015

Units: ug/L  
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	88	75-120	03/10/08	Acceptable
Toluene-d8	99	80-128	03/10/08	Acceptable
4-Bromofluorobenzene	91	75-117	03/10/08	Acceptable

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

## Analytical Results

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

Service Request: K0802009  
 Date Collected: 03/04/2008  
 Date Received: 03/07/2008

## Volatile Organic Compounds

Sample Name: Duplicate Water  
 Lab Code: K0802009-016  
 Extraction Method: EPA 5030B  
 Analysis Method: 8260B

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.17	1	03/10/08	03/10/08	KWG0802267	
Chloromethane	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
Vinyl Chloride	ND	U	0.50	0.042	1	03/10/08	03/10/08	KWG0802267	
Bromomethane	ND	U	0.50	0.22	1	03/10/08	03/10/08	KWG0802267	
Chloroethane	ND	U	0.50	0.23	1	03/10/08	03/10/08	KWG0802267	
Trichlorofluoromethane	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
Acetone	ND	U	20	4.1	1	03/10/08	03/10/08	KWG0802267	
1,1-Dichloroethene	1.1		0.50	0.13	1	03/10/08	03/10/08	KWG0802267	
Carbon Disulfide	ND	U	0.50	0.16	1	03/10/08	03/10/08	KWG0802267	
Methylene Chloride	ND	U	2.0	0.20	1	03/10/08	03/10/08	KWG0802267	
trans-1,2-Dichloroethene	ND	U	0.50	0.15	1	03/10/08	03/10/08	KWG0802267	
1,1-Dichloroethane	ND	U	0.50	0.11	1	03/10/08	03/10/08	KWG0802267	
2-Butanone (MEK)	ND	U	20	2.3	1	03/10/08	03/10/08	KWG0802267	
2,2-Dichloropropane	ND	U	0.50	0.18	1	03/10/08	03/10/08	KWG0802267	
cis-1,2-Dichloroethene	ND	U	0.50	0.12	1	03/10/08	03/10/08	KWG0802267	
Chloroform	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
Bromochloromethane	ND	U	0.50	0.17	1	03/10/08	03/10/08	KWG0802267	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.12	1	03/10/08	03/10/08	KWG0802267	
1,1-Dichloropropene	ND	U	0.50	0.15	1	03/10/08	03/10/08	KWG0802267	
Carbon Tetrachloride	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.12	1	03/10/08	03/10/08	KWG0802267	
Benzene	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
Trichloroethene (TCE)	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
1,2-Dichloropropane	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
Bromodichloromethane	ND	U	0.50	0.11	1	03/10/08	03/10/08	KWG0802267	
Dibromomethane	ND	U	0.50	0.12	1	03/10/08	03/10/08	KWG0802267	
2-Hexanone	ND	U	20	4.0	1	03/10/08	03/10/08	KWG0802267	
cis-1,3-Dichloropropene	ND	U	0.50	0.11	1	03/10/08	03/10/08	KWG0802267	
Toluene	ND	U	0.50	0.11	1	03/10/08	03/10/08	KWG0802267	
trans-1,3-Dichloropropene	ND	U	0.50	0.090	1	03/10/08	03/10/08	KWG0802267	
1,1,2-Trichloroethane	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
4-Methyl-2-pentanone (MIBK)	ND	U	20	2.7	1	03/10/08	03/10/08	KWG0802267	
1,3-Dichloropropane	ND	U	0.50	0.15	1	03/10/08	03/10/08	KWG0802267	

Comments:

## Analytical Results

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

Service Request: K0802009  
 Date Collected: 03/04/2008  
 Date Received: 03/07/2008

## Volatile Organic Compounds

Sample Name: Duplicate Water  
 Lab Code: K0802009-016  
 Extraction Method: EPA 5030B  
 Analysis Method: 8260B

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tetrachloroethene (PCE)	ND	U	0.50	0.13	1	03/10/08	03/10/08	KWG0802267	
Dibromochloromethane	ND	U	0.50	0.11	1	03/10/08	03/10/08	KWG0802267	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.099	1	03/10/08	03/10/08	KWG0802267	
Chlorobenzene	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.12	1	03/10/08	03/10/08	KWG0802267	
Ethylbenzene	ND	U	0.50	0.13	1	03/10/08	03/10/08	KWG0802267	
m,p-Xylenes	ND	U	0.50	0.22	1	03/10/08	03/10/08	KWG0802267	
o-Xylene	ND	U	0.50	0.11	1	03/10/08	03/10/08	KWG0802267	
Styrene	ND	U	0.50	0.095	1	03/10/08	03/10/08	KWG0802267	
Bromoform	ND	U	0.50	0.28	1	03/10/08	03/10/08	KWG0802267	
Isopropylbenzene	ND	U	2.0	0.11	1	03/10/08	03/10/08	KWG0802267	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
1,2,3-Trichloropropane	ND	U	0.50	0.24	1	03/10/08	03/10/08	KWG0802267	
Bromobenzene	ND	U	2.0	0.18	1	03/10/08	03/10/08	KWG0802267	
n-Propylbenzene	ND	U	2.0	0.098	1	03/10/08	03/10/08	KWG0802267	
2-Chlorotoluene	ND	U	2.0	0.12	1	03/10/08	03/10/08	KWG0802267	
4-Chlorotoluene	ND	U	2.0	0.12	1	03/10/08	03/10/08	KWG0802267	
1,3,5-Trimethylbenzene	ND	U	2.0	0.13	1	03/10/08	03/10/08	KWG0802267	
tert-Butylbenzene	ND	U	2.0	0.13	1	03/10/08	03/10/08	KWG0802267	
1,2,4-Trimethylbenzene	ND	U	2.0	0.15	1	03/10/08	03/10/08	KWG0802267	
sec-Butylbenzene	ND	U	2.0	0.13	1	03/10/08	03/10/08	KWG0802267	
1,3-Dichlorobenzene	ND	U	0.50	0.11	1	03/10/08	03/10/08	KWG0802267	
4-Isopropyltoluene	ND	U	2.0	0.13	1	03/10/08	03/10/08	KWG0802267	
1,4-Dichlorobenzene	ND	U	0.50	0.12	1	03/10/08	03/10/08	KWG0802267	
n-Butylbenzene	ND	U	2.0	0.23	1	03/10/08	03/10/08	KWG0802267	
1,2-Dichlorobenzene	ND	U	0.50	0.12	1	03/10/08	03/10/08	KWG0802267	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1.0	1	03/10/08	03/10/08	KWG0802267	
1,2,4-Trichlorobenzene	ND	U	2.0	0.22	1	03/10/08	03/10/08	KWG0802267	
1,2,3-Trichlorobenzene	ND	U	2.0	0.33	1	03/10/08	03/10/08	KWG0802267	
Naphthalene	ND	U	2.0	0.29	1	03/10/08	03/10/08	KWG0802267	
Hexachlorobutadiene	ND	U	2.0	0.28	1	03/10/08	03/10/08	KWG0802267	
1,3,5-Trichlorobenzene	ND	U	5.0	0.35	1	03/10/08	03/10/08	KWG0802267	

Comments:

## Analytical Results

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

Service Request: K0802009  
Date Collected: 03/04/2008  
Date Received: 03/07/2008

## Volatile Organic Compounds

Sample Name: Duplicate Water  
Lab Code: K0802009-016

Units: ug/L  
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	88	75-120	03/10/08	Acceptable
Toluene-d8	96	80-128	03/10/08	Acceptable
4-Bromofluorobenzene	89	75-117	03/10/08	Acceptable

Comments:

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## Analytical Results

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

Service Request: K0802009  
 Date Collected: NA  
 Date Received: NA

## Volatile Organic Compounds

Sample Name: Method Blank  
 Lab Code: KWG0802267-4  
 Extraction Method: EPA 5030B  
 Analysis Method: 8260B

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.17	1	03/10/08	03/10/08	KWG0802267	
Chloromethane	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
Vinyl Chloride	ND	U	0.50	0.042	1	03/10/08	03/10/08	KWG0802267	
Bromomethane	ND	U	0.50	0.22	1	03/10/08	03/10/08	KWG0802267	
Chloroethane	ND	U	0.50	0.23	1	03/10/08	03/10/08	KWG0802267	
Trichlorofluoromethane	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
Acetone	ND	U	20	4.1	1	03/10/08	03/10/08	KWG0802267	
1,1-Dichloroethene	ND	U	0.50	0.13	1	03/10/08	03/10/08	KWG0802267	
Carbon Disulfide	ND	U	0.50	0.16	1	03/10/08	03/10/08	KWG0802267	
Methylene Chloride	ND	U	2.0	0.20	1	03/10/08	03/10/08	KWG0802267	
trans-1,2-Dichloroethene	ND	U	0.50	0.15	1	03/10/08	03/10/08	KWG0802267	
1,1-Dichloroethane	ND	U	0.50	0.11	1	03/10/08	03/10/08	KWG0802267	
2-Butanone (MEK)	ND	U	20	2.3	1	03/10/08	03/10/08	KWG0802267	
2,2-Dichloropropane	ND	U	0.50	0.18	1	03/10/08	03/10/08	KWG0802267	
cis-1,2-Dichloroethene	ND	U	0.50	0.12	1	03/10/08	03/10/08	KWG0802267	
Chloroform	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
Bromochloromethane	ND	U	0.50	0.17	1	03/10/08	03/10/08	KWG0802267	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.12	1	03/10/08	03/10/08	KWG0802267	
1,1-Dichloropropene	ND	U	0.50	0.15	1	03/10/08	03/10/08	KWG0802267	
Carbon Tetrachloride	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.12	1	03/10/08	03/10/08	KWG0802267	
Benzene	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
Trichloroethene (TCE)	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
1,2-Dichloropropane	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
Bromodichloromethane	ND	U	0.50	0.11	1	03/10/08	03/10/08	KWG0802267	
Dibromomethane	ND	U	0.50	0.12	1	03/10/08	03/10/08	KWG0802267	
2-Hexanone	ND	U	20	4.0	1	03/10/08	03/10/08	KWG0802267	
cis-1,3-Dichloropropene	ND	U	0.50	0.11	1	03/10/08	03/10/08	KWG0802267	
Toluene	ND	U	0.50	0.11	1	03/10/08	03/10/08	KWG0802267	
trans-1,3-Dichloropropene	ND	U	0.50	0.090	1	03/10/08	03/10/08	KWG0802267	
1,1,2-Trichloroethane	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
4-Methyl-2-pentanone (MIBK)	ND	U	20	2.7	1	03/10/08	03/10/08	KWG0802267	
1,3-Dichloropropane	ND	U	0.50	0.15	1	03/10/08	03/10/08	KWG0802267	

Comments:



## Analytical Results

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

Service Request: K0802009  
 Date Collected: NA  
 Date Received: NA

## Volatile Organic Compounds

Sample Name: Method Blank  
 Lab Code: KWG0802267-4  
 Extraction Method: EPA 5030B  
 Analysis Method: 8260B

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tetrachloroethene (PCE)	ND	U	0.50	0.13	1	03/10/08	03/10/08	KWG0802267	
Dibromochloromethane	ND	U	0.50	0.11	1	03/10/08	03/10/08	KWG0802267	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.099	1	03/10/08	03/10/08	KWG0802267	
Chlorobenzene	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.12	1	03/10/08	03/10/08	KWG0802267	
Ethylbenzene	ND	U	0.50	0.13	1	03/10/08	03/10/08	KWG0802267	
m,p-Xylenes	ND	U	0.50	0.22	1	03/10/08	03/10/08	KWG0802267	
o-Xylene	ND	U	0.50	0.11	1	03/10/08	03/10/08	KWG0802267	
Styrene	ND	U	0.50	0.095	1	03/10/08	03/10/08	KWG0802267	
Bromoform	ND	U	0.50	0.28	1	03/10/08	03/10/08	KWG0802267	
Isopropylbenzene	ND	U	2.0	0.11	1	03/10/08	03/10/08	KWG0802267	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.14	1	03/10/08	03/10/08	KWG0802267	
1,2,3-Trichloropropane	ND	U	0.50	0.24	1	03/10/08	03/10/08	KWG0802267	
Bromobenzene	ND	U	2.0	0.18	1	03/10/08	03/10/08	KWG0802267	
n-Propylbenzene	ND	U	2.0	0.098	1	03/10/08	03/10/08	KWG0802267	
2-Chlorotoluene	ND	U	2.0	0.12	1	03/10/08	03/10/08	KWG0802267	
4-Chlorotoluene	ND	U	2.0	0.12	1	03/10/08	03/10/08	KWG0802267	
1,3,5-Trimethylbenzene	ND	U	2.0	0.13	1	03/10/08	03/10/08	KWG0802267	
tert-Butylbenzene	ND	U	2.0	0.13	1	03/10/08	03/10/08	KWG0802267	
1,2,4-Trimethylbenzene	ND	U	2.0	0.15	1	03/10/08	03/10/08	KWG0802267	
sec-Butylbenzene	ND	U	2.0	0.13	1	03/10/08	03/10/08	KWG0802267	
1,3-Dichlorobenzene	ND	U	0.50	0.11	1	03/10/08	03/10/08	KWG0802267	
4-Isopropyltoluene	ND	U	2.0	0.13	1	03/10/08	03/10/08	KWG0802267	
1,4-Dichlorobenzene	ND	U	0.50	0.12	1	03/10/08	03/10/08	KWG0802267	
n-Butylbenzene	ND	U	2.0	0.23	1	03/10/08	03/10/08	KWG0802267	
1,2-Dichlorobenzene	ND	U	0.50	0.12	1	03/10/08	03/10/08	KWG0802267	
1,2-Dibromo-3-chloropropane	ND	U	2.0	1.0	1	03/10/08	03/10/08	KWG0802267	
1,2,4-Trichlorobenzene	ND	U	2.0	0.22	1	03/10/08	03/10/08	KWG0802267	
1,2,3-Trichlorobenzene	ND	U	2.0	0.33	1	03/10/08	03/10/08	KWG0802267	
Naphthalene	ND	U	2.0	0.29	1	03/10/08	03/10/08	KWG0802267	
Hexachlorobutadiene	ND	U	2.0	0.28	1	03/10/08	03/10/08	KWG0802267	
1,3,5-Trichlorobenzene	ND	U	5.0	0.35	1	03/10/08	03/10/08	KWG0802267	

Comments:

Analytical Results

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

Service Request: K0802009  
 Date Collected: NA  
 Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank  
 Lab Code: KWG0802267-4

Units: ug/L  
 Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	91	75-120	03/10/08	Acceptable
Toluene-d8	98	80-128	03/10/08	Acceptable
4-Bromofluorobenzene	91	75-117	03/10/08	Acceptable

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

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

Service Request: K0802009

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-WA1-022	K0802009-015	88	99	91
Duplicate Water	K0802009-016	88	96	89
Method Blank	KWG0802267-4	91	98	91
Batch QC	K0801954-001	88	96	90
Batch QCMS	KWG0802267-1	92	98	93
Batch QCDMS	KWG0802267-2	94	101	95
Lab Control Sample	KWG0802267-3	92	98	94

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Surrogate Recovery Control Limits (%)

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.

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

Service Request: K0802009  
 Date Extracted: 03/10/2008  
 Date Analyzed: 03/10/2008

Matrix Spike/Duplicate Matrix Spike Summary  
 Volatile Organic Compounds

Sample Name: Batch QC  
 Lab Code: K0801954-001  
 Extraction Method: EPA 5030B  
 Analysis Method: 8260B

Units: ug/L  
 Basis: NA  
 Level: Low  
 Extraction Lot: KWG0802267

Analyte Name	Sample Result	Batch QCMS KWG0802267-1 Matrix Spike			Batch QCDMS KWG0802267-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
1,1-Dichloroethene	ND	571	500	114	528	500	106	67-147	8	30
Benzene	ND	538	500	108	510	500	102	69-126	5	30
Trichloroethene (TCE)	3000	3350	500	69 #	3140	500	27 #	56-137	6	30
Toluene	ND	517	500	103	516	500	103	66-128	0	30
Chlorobenzene	ND	484	500	97	461	500	92	68-120	5	30
1,2-Dichlorobenzene	ND	448	500	90	435	500	87	67-116	3	30
Naphthalene	ND	420	500	84	398	500	80	61-137	5	30

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

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

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: K0802009  
 Date Extracted: 03/10/2008  
 Date Analyzed: 03/10/2008

Lab Control Spike Summary  
 Volatile Organic Compounds

Extraction Method: EPA 5030B  
 Analysis Method: 8260B

Units: ug/L  
 Basis: NA  
 Level: Low  
 Extraction Lot: KWG0802267

Analyte Name	Lab Control Sample KWG0802267-3 Lab Control Spike			%Rec Limits
	Result	Expected	%Rec	
Dichlorodifluoromethane	7.91	10.0	79	21-156
Chloromethane	8.81	10.0	88	45-135
Vinyl Chloride	11.3	10.0	113	59-135
Bromomethane	8.18	10.0	82	24-144
Chloroethane	9.68	10.0	97	60-128
Trichlorofluoromethane	10.7	10.0	107	54-129
Acetone	44.1	50.0	88	53-129
1,1-Dichloroethene	11.5	10.0	115	70-136
Carbon Disulfide	21.4	20.0	107	64-129
Methylene Chloride	11.0	10.0	110	64-137
trans-1,2-Dichloroethene	11.0	10.0	110	70-121
1,1-Dichloroethane	10.3	10.0	103	72-122
2-Butanone (MEK)	46.7	50.0	93	56-137
2,2-Dichloropropane	10.3	10.0	103	48-133
cis-1,2-Dichloroethene	10.5	10.0	105	76-125
Chloroform	10.4	10.0	104	71-118
Bromochloromethane	10.4	10.0	104	72-123
1,1,1-Trichloroethane (TCA)	10.6	10.0	106	65-126
1,1-Dichloropropene	10.7	10.0	107	71-119
Carbon Tetrachloride	10.7	10.0	107	58-133
1,2-Dichloroethane (EDC)	10.3	10.0	103	69-125
Benzene	10.8	10.0	108	74-118
Trichloroethene (TCE)	10.6	10.0	106	71-122
1,2-Dichloropropane	10.5	10.0	105	73-123
Bromodichloromethane	10.3	10.0	103	72-127
Dibromomethane	9.83	10.0	98	71-124
2-Hexanone	39.9	50.0	80	44-135
cis-1,3-Dichloropropene	9.83	10.0	98	71-125
Toluene	10.5	10.0	105	74-117
trans-1,3-Dichloropropene	8.36	10.0	84	56-121
1,1,2-Trichloroethane	9.68	10.0	97	73-122
4-Methyl-2-pentanone (MIBK)	43.3	50.0	87	57-129
1,3-Dichloropropane	9.54	10.0	95	74-120
Tetrachloroethene (PCE)	9.96	10.0	100	65-121
Dibromochloromethane	9.87	10.0	99	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.

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

Service Request: K0802009  
 Date Extracted: 03/10/2008  
 Date Analyzed: 03/10/2008

Lab Control Spike Summary  
 Volatile Organic Compounds

Extraction Method: EPA 5030B  
 Analysis Method: 8260B

Units: ug/L  
 Basis: NA  
 Level: Low  
 Extraction Lot: KWG0802267

Analyte Name	Lab Control Sample KWG0802267-3 Lab Control Spike			%Rec Limits
	Result	Expected	%Rec	
1,2-Dibromoethane (EDB)	9.68	10.0	97	71-120
Chlorobenzene	9.77	10.0	98	74-115
1,1,1,2-Tetrachloroethane	9.79	10.0	98	71-118
Ethylbenzene	10.1	10.0	101	71-118
m,p-Xylenes	19.7	20.0	98	73-119
o-Xylene	9.52	10.0	95	74-120
Styrene	9.60	10.0	96	75-123
Bromoform	9.73	10.0	97	57-135
Isopropylbenzene	9.07	10.0	91	65-110
1,1,1,2-Tetrachloroethane	9.22	10.0	92	63-126
1,2,3-Trichloropropane	10.2	10.0	102	67-123
Bromobenzene	9.54	10.0	95	76-111
n-Propylbenzene	9.64	10.0	96	69-122
2-Chlorotoluene	9.77	10.0	98	72-120
4-Chlorotoluene	9.52	10.0	95	70-118
1,3,5-Trimethylbenzene	9.65	10.0	97	70-120
tert-Butylbenzene	9.63	10.0	96	72-118
1,2,4-Trimethylbenzene	9.81	10.0	98	72-121
sec-Butylbenzene	9.98	10.0	100	73-130
1,3-Dichlorobenzene	9.29	10.0	93	76-110
4-Isopropyltoluene	9.52	10.0	95	67-115
1,4-Dichlorobenzene	9.26	10.0	93	74-112
n-Butylbenzene	9.97	10.0	100	62-123
1,2-Dichlorobenzene	9.14	10.0	91	75-110
1,2-Dibromo-3-chloropropane	8.75	10.0	88	49-124
1,2,4-Trichlorobenzene	9.16	10.0	92	66-115
1,2,3-Trichlorobenzene	9.26	10.0	93	64-120
Naphthalene	8.61	10.0	86	58-132
Hexachlorobutadiene	10.1	10.0	101	61-124
1,3,5-Trichlorobenzene	38.1	40.0	95	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: K0802009  
 Date Collected: 03/04/2008  
 Date Received: 03/07/2008

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

Sample Name: CSW-WA1-022  
 Lab Code: K0802009-015  
 Extraction Method: EPA 3510C  
 Analysis Method: 8270C SIM

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,4-Dioxane	0.66	0.50	0.260	1	03/11/08	03/21/08	KWG0802209	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Dioxane-d8	71	55-100	03/21/08	Acceptable

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



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

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

Service Request: K0802009  
 Date Collected: 03/04/2008  
 Date Received: 03/07/2008

1,4-Dioxane by GC/MS

Sample Name: Duplicate Water  
 Lab Code: K0802009-016  
 Extraction Method: EPA 3510C  
 Analysis Method: 8270C SIM

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,4-Dioxane	0.63	0.50	0.260	1	03/11/08	03/19/08	KWG0802209	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Dioxane-d8	71	55-100	03/19/08	Acceptable

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

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

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

Service Request: K0802009  
 Date Collected: NA  
 Date Received: NA

1,4-Dioxane by GC/MS

Sample Name: Method Blank  
 Lab Code: KWG0802209-3  
 Extraction Method: EPA 3510C  
 Analysis Method: 8270C SIM

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,4-Dioxane	ND U	0.50	0.260	1	03/11/08	03/19/08	KWG0802209	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Dioxane-d8	64	55-100	03/19/08	Acceptable

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



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

Service Request: K0802009  
 Date Extracted: 03/11/2008  
 Date Analyzed: 03/19/2008

Lab Control Spike/Duplicate 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: KWG0802209

Analyte Name	Lab Control Sample KWG0802209-1 Lab Control Spike			Duplicate Lab Control Sample KWG0802209-2 Duplicate Lab Control Spike			%Rec Limits	RPD	RPD Limit
	Result	Expected	%Rec	Result	Expected	%Rec			
1,4-Dioxane	18.7	25.0	75	17.8	25.0	71	56-107	5	30

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.