

November 18, 2010

Service Request No: J1005251

Kirk Wills  
Environmental Planning Specialists  
1936 Bruce B Downs Blvd  
#328  
Wesley Chapel, FL 33543

**Laboratory Results for: JED SWDF**

Dear Kirk:

Enclosed are the results of the sample(s) submitted to our laboratory on November 2, 2010. For your reference, these analyses have been assigned our service request number **J1005251**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. 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 contact me if you have any questions. My extension is 4409. You may also contact me via email at [CMyers@caslab.com](mailto:CMyers@caslab.com).

Respectfully submitted,

**Columbia Analytical Services, Inc.**



Craig Myers  
Project Manager

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## COLUMBIA ANALYTICAL SERVICES, INC.

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request No.:** J1005251  
**Date Received:** 11/2/10

### 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, including results of QC samples analyzed from this delivery group. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

#### Sample Receipt

Three water samples and one trip blank were received for analysis at Columbia Analytical Services on 11/2/10. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at  $4\pm2^{\circ}\text{C}$  upon receipt at the lab except for aqueous samples designated for metals analyses, which were stored at room temperature.

#### Volatile Organic Compounds by GC-MS

The samples were analyzed for Volatile Organics using EPA Method 8260. The following observations were made regarding this delivery group.

#### Continuing Calibration Verification Exceptions

The primary evaluation criterion was exceeded for the following analyte in Continuing Calibration Verification (CCV) JWG1003956-2: Vinyl Acetate. The analyte in question was not detected in the associated field samples. Since the analyte was detected in the MRL check standard, instrument sensitivity was documented. The data quality was not significantly affected and no further corrective action was taken.

#### Lab Control Sample Exceptions

The spike recovery of Carbon Tetrachloride for Laboratory Control Sample (LCS) JQ1005444-03 was outside the lower control criterion. The analyte in question was not detected in the associated field samples. Since the analyte was detected in the MRL check standard, instrument sensitivity was documented. The data quality was not significantly affected and no further corrective action was taken.

#### Metals by ICP-MS/ICP-OES/CVAA

The samples were analyzed for Total Metals using EPA Methods 6020/6010B/7470A. No problems were observed.

#### General Chemistry Parameters

The samples were analyzed for Inorganic Parameters using various EPA and Standard Methods. No problems were observed.

Approved by \_\_\_\_\_



Date 11/18/10

### **Subcontracted Analytical Parameters**

The samples were delivered to Columbia Analytical Services, Inc. in Rochester, NY on 11/3/10 for EPA Method 8011 determination. The certified analytical report has been included in its entirety in Appendix A: Subcontracted Analytical Results.

### **Sample Notes and Discussion**

For the EPA Method 8011 analysis, our Rochester lab was not able to meet the Florida GCTL for 1,2-Dibromoethane (EDB) of 0.02ug/L. The Method Detection Limit (MDL) reported for EDB is 0.03ug/L, which is 0.01ug/L above the GCTL. Based on historical data from this site, this analyte has never been detected in any of the samples at or below the Florida GCTL. It is our opinion that the impact on the data is minimal.

Approved by \_\_\_\_\_



Date \_\_\_\_\_

11/18/10

## **Florida DEP Data Qualifiers**

- B Results based upon colony counts outside the acceptable range.
- D Measurement was made in the field.
- H Value based on field kit determination; results may not be accurate.
- i The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J Estimated value (one of the following reasons is discussed in the project case narrative).
  - 1. The result may be inaccurate because the surrogate recovery limits have been exceeded.
  - 2. No known quality control criteria exists for the component.
  - 3. The reported value failed to meet the established quality control criteria for either precision or accuracy.
  - 4. The sample matrix interfered with the ability to make any accurate determination (e.g., primary and confirmation results show greater than 40% RPD).
  - 5. The data is questionable because of improper laboratory or field protocols (e.g., GC/MS Tune did not meet method criteria).
- K Off scale low. The value is less than the lowest calibration standard but greater than the method reporting limit (MRL).
- L Off scale high. The analyte is above the upper limit of the linear calibration range.
- M The MDL/MRL has been elevated because the analyte could not be accurately quantified due to matrix interference.
- N Presumptive evidence of the analyte. Confirmation was not performed.
- Q Sample held beyond the accepted holding time.
- T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only.
- U Indicates that the compound was analyzed for but not detected.
- V Indicates that the analyte was detected in both the sample and the associated method blank.
- Y The laboratory analysis was from an improperly preserved sample.
- Z Too many colonies were present (TNTC). The numeric value represents the filtration volume.

## **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.

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF

**Service Request:** J1005251

**SAMPLE CROSS-REFERENCE**

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
J1005251-001	MW-16A	11/1/10	14:25
J1005251-002	MW-16B	11/1/10	15:45
J1005251-003	MW-16C	11/1/10	14:50
J1005251-004	Trip Blank	11/1/10	00:00

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-16A  
**Lab Code:** J1005251-001

**Service Request:** J1005251  
**Date Collected:** 11/1/10 1425  
**Date Received:** 11/2/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 224421

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/8/10 20:19		224421	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/8/10 20:19		224421	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/8/10 20:19		224421	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/8/10 20:19		224421	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/8/10 20:19		224421	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/8/10 20:19		224421	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/8/10 20:19		224421	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/8/10 20:19		224421	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/8/10 20:19		224421	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/8/10 20:19		224421	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/8/10 20:19		224421	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/8/10 20:19		224421	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/8/10 20:19		224421	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/8/10 20:19		224421	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/8/10 20:19		224421	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/8/10 20:19		224421	
Acetone	13.4	I	50.0	5.60	1	NA	11/8/10 20:19		224421	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/8/10 20:19		224421	
Benzene	ND	U	1.00	0.210	1	NA	11/8/10 20:19		224421	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/8/10 20:19		224421	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/8/10 20:19		224421	
Bromoform	ND	U	2.00	0.420	1	NA	11/8/10 20:19		224421	
Bromomethane	ND	U	1.00	0.220	1	NA	11/8/10 20:19		224421	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/8/10 20:19		224421	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/8/10 20:19		224421	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/8/10 20:19		224421	
Chloroethane	ND	U	5.00	0.220	1	NA	11/8/10 20:19		224421	
Chloroform	ND	U	1.00	0.350	1	NA	11/8/10 20:19		224421	
Chloromethane	ND	U	1.00	0.110	1	NA	11/8/10 20:19		224421	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/8/10 20:19		224421	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/8/10 20:19		224421	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/8/10 20:19		224421	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/8/10 20:19		224421	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/8/10 20:19		224421	
Iodomethane	ND	U	5.00	2.68	1	NA	11/8/10 20:19		224421	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/8/10 20:19		224421	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-16A  
**Lab Code:** J1005251-001

**Service Request:** J1005251  
**Date Collected:** 11/1/10 1425  
**Date Received:** 11/2/10

**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Analysis Lot:** 224421

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/8/10 20:19		224421	
o-Xylene	ND	U	1.00	0.140	1	NA	11/8/10 20:19		224421	
Styrene	ND	U	1.00	0.291	1	NA	11/8/10 20:19		224421	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/8/10 20:19		224421	
Toluene	ND	U	1.00	0.190	1	NA	11/8/10 20:19		224421	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/8/10 20:19		224421	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/8/10 20:19		224421	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/8/10 20:19		224421	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/8/10 20:19		224421	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/8/10 20:19		224421	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/8/10 20:19		224421	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/8/10 20:19		224421	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	88	71-122	11/8/10 20:19	
4-Bromofluorobenzene	107	75-120	11/8/10 20:19	
Dibromofluoromethane	99	82-116	11/8/10 20:19	
Toluene-d8	111	88-117	11/8/10 20:19	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-16B  
**Lab Code:** J1005251-002

**Service Request:** J1005251  
**Date Collected:** 11/1/10 1545  
**Date Received:** 11/2/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 224421

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/8/10 20:47		224421	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/8/10 20:47		224421	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/8/10 20:47		224421	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/8/10 20:47		224421	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/8/10 20:47		224421	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/8/10 20:47		224421	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/8/10 20:47		224421	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/8/10 20:47		224421	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/8/10 20:47		224421	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/8/10 20:47		224421	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/8/10 20:47		224421	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/8/10 20:47		224421	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/8/10 20:47		224421	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/8/10 20:47		224421	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/8/10 20:47		224421	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/8/10 20:47		224421	
Acetone	ND	U	50.0	5.60	1	NA	11/8/10 20:47		224421	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/8/10 20:47		224421	
Benzene	ND	U	1.00	0.210	1	NA	11/8/10 20:47		224421	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/8/10 20:47		224421	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/8/10 20:47		224421	
Bromoform	ND	U	2.00	0.420	1	NA	11/8/10 20:47		224421	
Bromomethane	ND	U	1.00	0.220	1	NA	11/8/10 20:47		224421	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/8/10 20:47		224421	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/8/10 20:47		224421	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/8/10 20:47		224421	
Chloroethane	ND	U	5.00	0.220	1	NA	11/8/10 20:47		224421	
Chloroform	ND	U	1.00	0.350	1	NA	11/8/10 20:47		224421	
Chloromethane	ND	U	1.00	0.110	1	NA	11/8/10 20:47		224421	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/8/10 20:47		224421	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/8/10 20:47		224421	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/8/10 20:47		224421	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/8/10 20:47		224421	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/8/10 20:47		224421	
Iodomethane	ND	U	5.00	2.68	1	NA	11/8/10 20:47		224421	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/8/10 20:47		224421	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-16B  
**Lab Code:** J1005251-002

**Service Request:** J1005251  
**Date Collected:** 11/1/10 1545  
**Date Received:** 11/2/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 224421

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/8/10 20:47		224421	
o-Xylene	ND	U	1.00	0.140	1	NA	11/8/10 20:47		224421	
Styrene	ND	U	1.00	0.291	1	NA	11/8/10 20:47		224421	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/8/10 20:47		224421	
Toluene	ND	U	1.00	0.190	1	NA	11/8/10 20:47		224421	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/8/10 20:47		224421	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/8/10 20:47		224421	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/8/10 20:47		224421	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/8/10 20:47		224421	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/8/10 20:47		224421	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/8/10 20:47		224421	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/8/10 20:47		224421	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	85	71-122	11/8/10 20:47	
4-Bromofluorobenzene	100	75-120	11/8/10 20:47	
Dibromofluoromethane	94	82-116	11/8/10 20:47	
Toluene-d8	103	88-117	11/8/10 20:47	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-16C  
**Lab Code:** J1005251-003

**Service Request:** J1005251  
**Date Collected:** 11/1/10 1450  
**Date Received:** 11/2/10

**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 224421

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/8/10 21:14		224421	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/8/10 21:14		224421	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/8/10 21:14		224421	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/8/10 21:14		224421	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/8/10 21:14		224421	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/8/10 21:14		224421	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/8/10 21:14		224421	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/8/10 21:14		224421	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/8/10 21:14		224421	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/8/10 21:14		224421	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/8/10 21:14		224421	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/8/10 21:14		224421	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/8/10 21:14		224421	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/8/10 21:14		224421	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/8/10 21:14		224421	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/8/10 21:14		224421	
Acetone	ND	U	50.0	5.60	1	NA	11/8/10 21:14		224421	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/8/10 21:14		224421	
Benzene	ND	U	1.00	0.210	1	NA	11/8/10 21:14		224421	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/8/10 21:14		224421	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/8/10 21:14		224421	
Bromoform	ND	U	2.00	0.420	1	NA	11/8/10 21:14		224421	
Bromomethane	ND	U	1.00	0.220	1	NA	11/8/10 21:14		224421	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/8/10 21:14		224421	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/8/10 21:14		224421	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/8/10 21:14		224421	
Chloroethane	ND	U	5.00	0.220	1	NA	11/8/10 21:14		224421	
Chloroform	ND	U	1.00	0.350	1	NA	11/8/10 21:14		224421	
Chloromethane	ND	U	1.00	0.110	1	NA	11/8/10 21:14		224421	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/8/10 21:14		224421	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/8/10 21:14		224421	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/8/10 21:14		224421	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/8/10 21:14		224421	
Ethylbenzene	<b>1.15</b>		1.00	0.210	1	NA	11/8/10 21:14		224421	
Iodomethane	ND	U	5.00	2.68	1	NA	11/8/10 21:14		224421	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/8/10 21:14		224421	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-16C  
**Lab Code:** J1005251-003

**Service Request:** J1005251  
**Date Collected:** 11/1/10 1450  
**Date Received:** 11/2/10

**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 224421

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/8/10 21:14		224421	
o-Xylene	ND	U	1.00	0.140	1	NA	11/8/10 21:14		224421	
Styrene	ND	U	1.00	0.291	1	NA	11/8/10 21:14		224421	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/8/10 21:14		224421	
Toluene	1.49		1.00	0.190	1	NA	11/8/10 21:14		224421	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/8/10 21:14		224421	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/8/10 21:14		224421	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/8/10 21:14		224421	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/8/10 21:14		224421	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/8/10 21:14		224421	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/8/10 21:14		224421	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/8/10 21:14		224421	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	87	71-122	11/8/10 21:14	
4-Bromofluorobenzene	104	75-120	11/8/10 21:14	
Dibromofluoromethane	97	82-116	11/8/10 21:14	
Toluene-d8	107	88-117	11/8/10 21:14	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Trip Blank  
**Lab Code:** J1005251-004

**Service Request:** J1005251  
**Date Collected:** 11/1/10 0000  
**Date Received:** 11/2/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 224421

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND U	1.00	0.180	1	NA	11/8/10 19:51		224421	
1,1,1-Trichloroethane (TCA)	ND U	1.00	0.170	1	NA	11/8/10 19:51		224421	
1,1,2,2-Tetrachloroethane	ND U	1.00	0.110	1	NA	11/8/10 19:51		224421	
1,1,2-Trichloroethane	ND U	1.00	0.170	1	NA	11/8/10 19:51		224421	
1,1-Dichloroethane (1,1-DCA)	ND U	1.00	0.130	1	NA	11/8/10 19:51		224421	
1,1-Dichloroethene (1,1-DCE)	ND U	1.00	0.160	1	NA	11/8/10 19:51		224421	
1,2,3-Trichloropropane	ND U	2.00	0.420	1	NA	11/8/10 19:51		224421	
1,2-Dibromo-3-chloropropane (DBCP)	ND U	5.00	2.30	1	NA	11/8/10 19:51		224421	
1,2-Dibromoethane (EDB)	ND U	1.00	0.170	1	NA	11/8/10 19:51		224421	
1,2-Dichlorobenzene	ND U	1.00	0.478	1	NA	11/8/10 19:51		224421	
1,2-Dichloroethane	ND U	1.00	0.180	1	NA	11/8/10 19:51		224421	
1,2-Dichloropropane	ND U	1.00	0.120	1	NA	11/8/10 19:51		224421	
1,4-Dichlorobenzene	ND U	1.00	0.100	1	NA	11/8/10 19:51		224421	
2-Butanone (MEK)	ND U	10.0	3.80	1	NA	11/8/10 19:51		224421	
2-Hexanone	ND U	25.0	2.20	1	NA	11/8/10 19:51		224421	
4-Methyl-2-pentanone (MIBK)	ND U	25.0	0.650	1	NA	11/8/10 19:51		224421	
Acetone	ND U	50.0	5.60	1	NA	11/8/10 19:51		224421	
Acrylonitrile	ND U	10.0	1.20	1	NA	11/8/10 19:51		224421	
Benzene	ND U	1.00	0.210	1	NA	11/8/10 19:51		224421	
Bromochloromethane	ND U	5.00	0.270	1	NA	11/8/10 19:51		224421	
Bromodichloromethane	ND U	1.00	0.170	1	NA	11/8/10 19:51		224421	
Bromoform	ND U	2.00	0.420	1	NA	11/8/10 19:51		224421	
Bromomethane	ND U	1.00	0.220	1	NA	11/8/10 19:51		224421	
Carbon Disulfide	ND U	10.0	2.36	1	NA	11/8/10 19:51		224421	
Carbon Tetrachloride	ND U	1.00	0.340	1	NA	11/8/10 19:51		224421	
Chlorobenzene	ND U	1.00	0.160	1	NA	11/8/10 19:51		224421	
Chloroethane	ND U	5.00	0.220	1	NA	11/8/10 19:51		224421	
Chloroform	ND U	1.00	0.350	1	NA	11/8/10 19:51		224421	
Chloromethane	ND U	1.00	0.110	1	NA	11/8/10 19:51		224421	
cis-1,2-Dichloroethene	ND U	1.00	0.360	1	NA	11/8/10 19:51		224421	
cis-1,3-Dichloropropene	ND U	1.00	0.200	1	NA	11/8/10 19:51		224421	
Dibromochloromethane	ND U	1.00	0.190	1	NA	11/8/10 19:51		224421	
Dibromomethane	ND U	5.00	0.180	1	NA	11/8/10 19:51		224421	
Ethylbenzene	ND U	1.00	0.210	1	NA	11/8/10 19:51		224421	
Iodomethane	ND U	5.00	2.68	1	NA	11/8/10 19:51		224421	
m,p-Xylenes	ND U	2.00	0.410	1	NA	11/8/10 19:51		224421	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Trip Blank  
**Lab Code:** J1005251-004

**Service Request:** J1005251  
**Date Collected:** 11/10/0000  
**Date Received:** 11/2/10  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Analysis Lot:** 224421

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/8/10 19:51		224421	
o-Xylene	ND	U	1.00	0.140	1	NA	11/8/10 19:51		224421	
Styrene	ND	U	1.00	0.291	1	NA	11/8/10 19:51		224421	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/8/10 19:51		224421	
Toluene	ND	U	1.00	0.190	1	NA	11/8/10 19:51		224421	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/8/10 19:51		224421	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/8/10 19:51		224421	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/8/10 19:51		224421	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/8/10 19:51		224421	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/8/10 19:51		224421	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/8/10 19:51		224421	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/8/10 19:51		224421	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	87	71-122	11/8/10 19:51	
4-Bromofluorobenzene	102	75-120	11/8/10 19:51	
Dibromofluoromethane	94	82-116	11/8/10 19:51	
Toluene-d8	108	88-117	11/8/10 19:51	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005444-04

**Service Request:** J1005251  
**Date Collected:** NA  
**Date Received:** NA

**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 224421

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/8/10 19:23		224421	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/8/10 19:23		224421	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/8/10 19:23		224421	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/8/10 19:23		224421	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/8/10 19:23		224421	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/8/10 19:23		224421	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/8/10 19:23		224421	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/8/10 19:23		224421	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/8/10 19:23		224421	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/8/10 19:23		224421	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/8/10 19:23		224421	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/8/10 19:23		224421	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/8/10 19:23		224421	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/8/10 19:23		224421	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/8/10 19:23		224421	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/8/10 19:23		224421	
Acetone	ND	U	50.0	5.60	1	NA	11/8/10 19:23		224421	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/8/10 19:23		224421	
Benzene	ND	U	1.00	0.210	1	NA	11/8/10 19:23		224421	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/8/10 19:23		224421	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/8/10 19:23		224421	
Bromoform	ND	U	2.00	0.420	1	NA	11/8/10 19:23		224421	
Bromomethane	ND	U	1.00	0.220	1	NA	11/8/10 19:23		224421	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/8/10 19:23		224421	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/8/10 19:23		224421	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/8/10 19:23		224421	
Chloroethane	ND	U	5.00	0.220	1	NA	11/8/10 19:23		224421	
Chloroform	ND	U	1.00	0.350	1	NA	11/8/10 19:23		224421	
Chloromethane	ND	U	1.00	0.110	1	NA	11/8/10 19:23		224421	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/8/10 19:23		224421	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/8/10 19:23		224421	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/8/10 19:23		224421	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/8/10 19:23		224421	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/8/10 19:23		224421	
Iodomethane	ND	U	5.00	2.68	1	NA	11/8/10 19:23		224421	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/8/10 19:23		224421	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005444-04

**Service Request:** J1005251  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 224421

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/8/10 19:23		224421	
o-Xylene	ND	U	1.00	0.140	1	NA	11/8/10 19:23		224421	
Styrene	ND	U	1.00	0.291	1	NA	11/8/10 19:23		224421	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/8/10 19:23		224421	
Toluene	ND	U	1.00	0.190	1	NA	11/8/10 19:23		224421	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/8/10 19:23		224421	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/8/10 19:23		224421	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/8/10 19:23		224421	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/8/10 19:23		224421	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/8/10 19:23		224421	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/8/10 19:23		224421	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/8/10 19:23		224421	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	87	71-122	11/8/10 19:23	
4-Bromofluorobenzene	105	75-120	11/8/10 19:23	
Dibromofluoromethane	95	82-116	11/8/10 19:23	
Toluene-d8	107	88-117	11/8/10 19:23	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-16A  
**Lab Code:** J1005251-001

**Service Request:** J1005251  
**Date Collected:** 11/1/10 1425  
**Date Received:** 11/2/10  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/8/10	11/11/10 18:58	
Arsenic, Total Recoverable	6020	ND U	µg/L	0.50	0.40	1	11/8/10	11/11/10 18:58	
Barium, Total Recoverable	6020	<b>15.0</b>	µg/L	2.0	0.3	1	11/8/10	11/11/10 18:58	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/8/10	11/11/10 18:58	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/8/10	11/11/10 18:58	
Chromium, Total Recoverable	6020	<b>1 I</b>	µg/L	2.0	0.3	1	11/8/10	11/11/10 18:58	
Cobalt, Total Recoverable	6020	<b>0.5 I</b>	µg/L	1.0	0.1	1	11/8/10	11/11/10 18:58	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/8/10	11/11/10 18:58	
Iron, Total Recoverable	6010B	<b>1150</b>	µg/L	100	10	1	11/4/10	11/11/10 23:14	
Lead, Total Recoverable	6020	<b>0.4 I</b>	µg/L	1.0	0.1	1	11/8/10	11/11/10 18:58	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/8/10	11/8/10 17:27	
Nickel, Total Recoverable	6020	<b>0.6 I</b>	µg/L	2.0	0.2	1	11/8/10	11/11/10 18:58	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/8/10	11/11/10 18:58	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/8/10	11/11/10 18:58	
Sodium, Total Recoverable	6010B	<b>0.97</b>	mg/L	0.50	0.02	1	11/4/10	11/11/10 23:13	
Thallium, Total Recoverable	6020	<b>0.2 I</b>	µg/L	1.0	0.1	1	11/8/10	11/11/10 18:58	
Vanadium, Total Recoverable	6020	<b>5.7</b>	µg/L	5.0	0.5	1	11/8/10	11/11/10 18:58	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/8/10	11/11/10 18:58	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-16B  
**Lab Code:** J1005251-002

**Service Request:** J1005251  
**Date Collected:** 11/1/10 1545  
**Date Received:** 11/2/10  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/8/10	11/11/10 19:03	
Arsenic, Total Recoverable	6020	ND U	µg/L	0.50	0.40	1	11/8/10	11/11/10 19:03	
Barium, Total Recoverable	6020	18.9	µg/L	2.0	0.3	1	11/8/10	11/11/10 19:03	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/8/10	11/11/10 19:03	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/8/10	11/11/10 19:03	
Chromium, Total Recoverable	6020	1.6 I	µg/L	2.0	0.3	1	11/8/10	11/11/10 19:03	
Cobalt, Total Recoverable	6020	0.3 I	µg/L	1.0	0.1	1	11/8/10	11/11/10 19:03	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/8/10	11/11/10 19:03	
Iron, Total Recoverable	6010B	1010	µg/L	100	10	1	11/4/10	11/11/10 23:19	
Lead, Total Recoverable	6020	0.9 I	µg/L	1.0	0.1	1	11/8/10	11/11/10 19:03	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/8/10	11/8/10 17:28	
Nickel, Total Recoverable	6020	0.8 I	µg/L	2.0	0.2	1	11/8/10	11/11/10 19:03	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/8/10	11/11/10 19:03	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/8/10	11/11/10 19:03	
Sodium, Total Recoverable	6010B	6.57	mg/L	0.50	0.02	1	11/4/10	11/11/10 23:17	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/8/10	11/11/10 19:03	
Vanadium, Total Recoverable	6020	1.3 I	µg/L	5.0	0.5	1	11/8/10	11/11/10 19:03	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/8/10	11/11/10 19:03	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-16C  
**Lab Code:** J1005251-003

**Service Request:** J1005251  
**Date Collected:** 11/1/10 14:50  
**Date Received:** 11/2/10  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/8/10	11/11/10 19:08	
Arsenic, Total Recoverable	6020	ND U	µg/L	0.50	0.40	1	11/8/10	11/11/10 19:08	
Barium, Total Recoverable	6020	<b>15.3</b>	µg/L	2.0	0.3	1	11/8/10	11/11/10 19:08	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/8/10	11/11/10 19:08	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/8/10	11/11/10 19:08	
Chromium, Total Recoverable	6020	<b>0.8 I</b>	µg/L	2.0	0.3	1	11/8/10	11/11/10 19:08	
Cobalt, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/8/10	11/11/10 19:08	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/8/10	11/11/10 19:08	
Iron, Total Recoverable	6010B	<b>840</b>	µg/L	100	10	1	11/4/10	11/11/10 23:23	
Lead, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/8/10	11/11/10 19:08	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/8/10	11/8/10 17:29	
Nickel, Total Recoverable	6020	<b>0.3 I</b>	µg/L	2.0	0.2	1	11/8/10	11/11/10 19:08	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/8/10	11/11/10 19:08	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/8/10	11/11/10 19:08	
Sodium, Total Recoverable	6010B	<b>11.5</b>	mg/L	0.50	0.02	1	11/4/10	11/11/10 23:22	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/8/10	11/11/10 19:08	
Vanadium, Total Recoverable	6020	<b>1.6 I</b>	µg/L	5.0	0.5	1	11/8/10	11/11/10 19:08	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/8/10	11/11/10 19:08	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005339-04

**Service Request:** J1005251  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Total Recoverable	6010B	10 I	µg/L	100	10	1	11/4/10	11/11/10 22:37	
Sodium, Total Recoverable	6010B	0.20 I	mg/L	0.50	0.02	1	11/4/10	11/11/10 22:35	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005354-01

**Service Request:** J1005251  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/8/10	11/8/10 17:09	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005361-02

**Service Request:** J1005251  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/ 8/10	11/11/10 18:48	
Arsenic, Total Recoverable	6020	ND U	µg/L	0.50	0.40	1	11/ 8/10	11/11/10 18:48	
Barium, Total Recoverable	6020	ND U	µg/L	2.0	0.3	1	11/ 8/10	11/11/10 18:48	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/ 8/10	11/11/10 18:48	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/ 8/10	11/11/10 18:48	
Chromium, Total Recoverable	6020	ND U	µg/L	2.0	0.3	1	11/ 8/10	11/11/10 18:48	
Cobalt, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/ 8/10	11/11/10 18:48	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/ 8/10	11/11/10 18:48	
Lead, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/ 8/10	11/11/10 18:48	
Nickel, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/ 8/10	11/11/10 18:48	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/ 8/10	11/11/10 18:48	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/ 8/10	11/11/10 18:48	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/ 8/10	11/11/10 18:48	
Vanadium, Total Recoverable	6020	ND U	µg/L	5.0	0.5	1	11/ 8/10	11/11/10 18:48	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/ 8/10	11/11/10 18:48	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-16A  
**Lab Code:** J1005251-001

**Service Request:** J1005251  
**Date Collected:** 11/1/10 1425  
**Date Received:** 11/2/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	<b>0.084</b>	mg/L	0.010	0.004	1	NA	11/5/10 13:10	
Chloride	300.0	<b>1.79</b>	mg/L	0.50	0.09	1	NA	11/2/10 17:59	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/2/10 17:59	
Solids, Total Dissolved	SM 2540 C	<b>39</b>	mg/L	10	10	1	NA	11/3/10 15:00	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-16B  
**Lab Code:** J1005251-002

**Service Request:** J1005251  
**Date Collected:** 11/1/10 1545  
**Date Received:** 11/2/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	<b>0.153</b>	mg/L	0.010	0.004	1	NA	11/5/10 13:19	
Chloride	300.0	<b>7.06</b>	mg/L	0.50	0.09	1	NA	11/2/10 18:44	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/2/10 18:44	
Solids, Total Dissolved	SM 2540 C	<b>34</b>	mg/L	10	10	1	NA	11/3/10 15:00	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-16C  
**Lab Code:** J1005251-003

**Service Request:** J1005251  
**Date Collected:** 11/1/10 14:50  
**Date Received:** 11/2/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	<b>0.122</b>	mg/L	0.010	0.004	1	NA	11/5/10 13:13	
Chloride	300.0	<b>20.7</b>	mg/L	0.50	0.09	1	NA	11/2/10 18:59	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/2/10 18:59	
Solids, Total Dissolved	SM 2540 C	<b>65</b>	mg/L	10	10	1	NA	11/3/10 15:00	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005282-01

**Service Request:** J1005251  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	300.0	ND U	mg/L	0.50	0.09	1	NA	11/2/10 17:29	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/2/10 17:29	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005294-03

**Service Request:** J1005251  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total Dissolved	SM 2540 C	ND U	mg/L	10	10	1	NA	11/3/10 15:00	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005375-01

**Service Request:** J1005251**Date Collected:** NA**Date Received:** NA**Basis:** NA**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	ND U	mg/L	0.010	0.004	1	NA	11/5/10 13:05	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005251**Surrogate Recovery Summary**  
**Volatile Organic Compounds by GC/MS****Analytical Method:** 8260B**Units:** Percent

<b>Sample Name</b>	<b>Lab Code</b>	<b>Sur1</b>	<b>Sur2</b>	<b>Sur3</b>	<b>Sur4</b>
MW-16A	J1005251-001	88	107	99	111
MW-16B	J1005251-002	85	100	94	103
MW-16C	J1005251-003	87	104	97	107
Trip Blank	J1005251-004	87	102	94	108
Method Blank	JQ1005444-04	87	105	95	107
Lab Control Sample	JQ1005444-03	89	102	94	108

**Surrogate Recovery Control Limits (%)**

Sur1	= 1,2-Dichloroethane-d4	71 - 122
Sur2	= 4-Bromofluorobenzene	75 - 120
Sur3	= Dibromofluoromethane	82 - 116
Sur4	= Toluene-d8	88 - 117

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005251  
**Date Analyzed:** 11/8/10

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Units:** µg/L  
**Basis:** NA

**Analysis Lot:** 224421**Lab Control Sample**

JQ1005444-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	19.2	20.0	96	85 - 117
1,1,1-Trichloroethane (TCA)	17.8	20.0	89	79 - 124
1,1,2,2-Tetrachloroethane	20.7	20.0	104	83 - 120
1,1,2-Trichloroethane	21.4	20.0	107	86 - 114
1,1-Dichloroethane (1,1-DCA)	18.2	20.0	91	80 - 128
1,1-Dichloroethene (1,1-DCE)	19.0	20.0	95	78 - 130
1,2,3-Trichloropropane	20.9	20.0	104	83 - 123
1,2-Dibromo-3-chloropropane (DBCP)	17.0	20.0	85	62 - 123
1,2-Dibromoethane (EDB)	21.4	20.0	107	88 - 117
1,2-Dichlorobenzene	19.3	20.0	96	84 - 115
1,2-Dichloroethane	16.5	20.0	83	80 - 124
1,2-Dichloropropane	19.2	20.0	96	79 - 123
1,4-Dichlorobenzene	18.6	20.0	93	83 - 113
2-Butanone (MEK)	89.2	100	89	73 - 127
2-Hexanone	88.9	100	89	71 - 138
4-Methyl-2-pentanone (MIBK)	91.1	100	91	72 - 136
Acetone	93.7	100	94	67 - 133
Acrylonitrile	89.1	100	89	77 - 127
Benzene	18.9	20.0	95	79 - 119
Bromochloromethane	20.0	20.0	100	79 - 129
Bromodichloromethane	17.9	20.0	89	81 - 123
Bromoform	17.0	20.0	85	68 - 129
Bromomethane	21.6	20.0	108	79 - 130
Carbon Disulfide	98.2	100	98	76 - 138
Carbon Tetrachloride	16.0	20.0	80	* 81 - 125
Chlorobenzene	21.0	20.0	105	86 - 113
Chloroethane	20.8	20.0	104	74 - 126
Chloroform	18.6	20.0	93	83 - 124
Chloromethane	17.4	20.0	87	67 - 135
cis-1,2-Dichloroethene	18.1	20.0	90	80 - 126
cis-1,3-Dichloropropene	19.9	20.0	99	86 - 123
Dibromochloromethane	19.3	20.0	96	82 - 121

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005251  
**Date Analyzed:** 11/8/10

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Units:** µg/L  
**Basis:** NA

**Analysis Lot:** 224421**Lab Control Sample**

JQ1005444-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Dibromomethane	19.2	20.0	96	83 - 123
Ethylbenzene	20.2	20.0	101	90 - 118
Iodomethane	97.6	100	98	68 - 134
m,p-Xylenes	40.1	40.0	100	86 - 121
Methylene Chloride	19.4	20.0	97	72 - 124
o-Xylene	19.6	20.0	98	89 - 119
Styrene	20.4	20.0	102	89 - 122
Tetrachloroethene (PCE)	22.0	20.0	110	80 - 121
Toluene	20.6	20.0	103	86 - 117
trans-1,2-Dichloroethene	17.6	20.0	88	77 - 124
trans-1,3-Dichloropropene	18.8	20.0	94	83 - 124
trans-1,4-Dichloro-2-butene	13.4	20.0	67	53 - 143
Trichloroethene (TCE)	19.8	20.0	99	76 - 124
Trichlorofluoromethane	18.7	20.0	94	74 - 134
Vinyl Acetate	68.8	100	69	61 - 148
Vinyl Chloride	20.3	20.0	102	78 - 132

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005251  
**Date Analyzed:** 11/11/10 -  
11/12/10

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:**  $\mu\text{g/L}$   
**Basis:** NA

<b>Analyte Name</b>	<b>Method</b>	<b>Lab Control Sample</b>			<b>Duplicate Lab Control Sample</b>			<b>% Rec Limits</b>	<b>RPD</b>	<b>RPD Limit</b>			
		JQ1005339-01			JQ1005339-02								
		<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>						
Iron, Total Recoverable	6010B	2050	2000	103	2020	2000	101	80 - 120	2	20			

**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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005251  
**Date Analyzed:** 11/11/10 -  
11/12/10

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:** mg/L  
**Basis:** NA

<b>Analyte Name</b>	<b>Method</b>	<b>Lab Control Sample</b>			<b>Duplicate Lab Control Sample</b>			<b>% Rec Limits</b>	<b>RPD</b>	<b>RPD Limit</b>			
		JQ1005339-01			JQ1005339-02								
		<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>						
Sodium, Total Recoverable	6010B	9.87	10.0	99	10.1	10.0	101	80 - 120	2	20			

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005251  
**Date Analyzed:** 11/8/10

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:** µg/L  
**Basis:** NA

**Lab Control Sample**  
JQ1005354-02

<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Mercury, Total	7470A	4.98	5.00	100	80 - 120

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005251  
**Date Analyzed:** 11/11/10

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:**  $\mu\text{g/L}$   
**Basis:** NA

**Lab Control Sample**  
**JQ1005361-01**

<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Spike</b>		<b>% Rec Limits</b>
			<b>Amount</b>	<b>% Rec</b>	
Antimony, Total Recoverable	6020	52.9	50.0	106	80 - 120
Arsenic, Total Recoverable	6020	53.5	50.0	107	80 - 120
Barium, Total Recoverable	6020	51.8	50.0	104	80 - 120
Beryllium, Total Recoverable	6020	51.9	50.0	104	80 - 120
Cadmium, Total Recoverable	6020	52.5	50.0	105	80 - 120
Chromium, Total Recoverable	6020	52.0	50.0	104	80 - 120
Cobalt, Total Recoverable	6020	52.6	50.0	105	80 - 120
Copper, Total Recoverable	6020	52.1	50.0	104	80 - 120
Lead, Total Recoverable	6020	51.2	50.0	102	80 - 120
Nickel, Total Recoverable	6020	51.6	50.0	103	80 - 120
Selenium, Total Recoverable	6020	53.7	50.0	107	80 - 120
Silver, Total Recoverable	6020	51.8	50.0	104	80 - 120
Thallium, Total Recoverable	6020	51.0	50.0	102	80 - 120
Vanadium, Total Recoverable	6020	52.0	50.0	104	80 - 120
Zinc, Total Recoverable	6020	104	100	104	80 - 120

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005251  
**Date Collected:** 11/1/10  
**Date Received:** 11/2/10  
**Date Analyzed:** 11/2/10

**Matrix Spike Summary**  
**General Chemistry Parameters**

**Sample Name:** MW-16A  
**Lab Code:** J1005251-001

**Units:** mg/L  
**Basis:** NA

**Analytical Method:** 300.0

MW-16AMS  
**Matrix Spike**  
JQ1005282-03

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Chloride	1.79	50.2	50.0	97	90 - 110
Nitrate as Nitrogen	ND	4.50	5.00	90	90 - 110

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.

**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005251  
**Date Collected:** 11/1/10  
**Date Received:** 11/2/10  
**Date Analyzed:** 11/5/10

**Matrix Spike Summary**  
**General Chemistry Parameters**

**Sample Name:** MW-16A                   **Units:** mg/L  
**Lab Code:** J1005251-001               **Basis:** NA

**Analytical Method:** 350.1

MW-16AMS  
**Matrix Spike**  
JQ1005375-03

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Ammonia as Nitrogen	0.084	1.02	1.00	94	90 - 110

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.

## **COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005251  
**Date Collected:** 11/1/10  
**Date Received:** 11/2/10  
**Date Analyzed:** 11/2/10 -  
11/5/10

## Replicate Sample Summary General Chemistry Parameters

**Sample Name:** MW-16A      **Units:** mg/L  
**Lab Code:** J1005251-001      **Basis:** NA

Analyte Name	Method	MRL	MDL	Sample Result	MW-16ADUP		RPD	RPD Limit
					Duplicate Sample	JQ1005282-04		
Chloride	300.0	0.50	0.09	1.79	1.75	1.77	2	20
Nitrate as Nitrogen	300.0	0.20	0.07	ND U	ND U	NC	NC	20

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.

## COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005251  
**Date Collected:** 11/1/10  
**Date Received:** 11/2/10  
**Date Analyzed:** 11/ 2/10 -  
                                  11/ 5/10

## Replicate Sample Summary General Chemistry Parameters

**Sample Name:** MW-16A      **Units:** mg/L  
**Lab Code:** J1005251-001      **Basis:** NA

Analyte Name	Method	MRL	MDL	Sample Result	MW-16ADUP		RPD	RPD Limit
					Duplicate Sample	JQ1005375-04		
Ammonia as Nitrogen	350.1	0.010	0.004	0.084	0.071	0.0778	17	20

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.

**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005251  
**Date Analyzed:** 11/2/10

**Lab Control Sample Summary  
General Chemistry Parameters**

**Units:** mg/L  
**Basis:** NA

**Lab Control Sample**

JQ1005282-02

<b>Analyte Name</b>	<b>Method</b>	<b>Spike</b>			<b>% Rec</b>	<b>Limits</b>
		<b>Result</b>	<b>Amount</b>	<b>% Rec</b>		
Chloride	300.0	50.7	50.0	101	90 - 110	
Nitrate as Nitrogen	300.0	4.75	5.00	95	90 - 110	

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005251  
**Date Analyzed:** 11/3/10

**Lab Control Sample Summary  
General Chemistry Parameters**

**Units:** mg/L  
**Basis:** NA

<b>Analyte Name</b>	<b>Method</b>	<b>Lab Control Sample</b>			<b>Duplicate Lab Control Sample</b>			<b>% Rec Limits</b>	<b>RPD</b>	<b>RPD Limit</b>			
		JQ1005294-04			JQ1005294-05								
		<b>Spike</b>	<b>Result</b>	<b>Amount</b>	<b>Spike</b>	<b>Result</b>	<b>Amount</b>						
Solids, Total Dissolved	SM 2540 C		288	300	96	293	300	98	85 - 115	2	20		

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005251  
**Date Analyzed:** 11/3/10

**Lab Control Sample Summary  
General Chemistry Parameters**

**Units:** mg/L  
**Basis:** NA

**Lab Control Sample**

JQ1005294-06

<b>Analyte Name</b>	<b>Method</b>	<b>Spike</b>			<b>% Rec</b>	<b>Limits</b>
		<b>Result</b>	<b>Amount</b>	<b>% Rec</b>		
Solids, Total Dissolved	SM 2540 C	28.0	30	93	70 - 130	

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005251  
**Date Analyzed:** 11/5/10

**Lab Control Sample Summary  
General Chemistry Parameters**

**Units:** mg/L  
**Basis:** NA

<b>Analyte Name</b>	<b>Method</b>	<b>Lab Control Sample</b>			<b>% Rec</b>	<b>Limits</b>
		<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>		
Ammonia as Nitrogen	350.1	0.982	1.00	98	90 - 110	

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.



## Cooler Receipt Form

Client: EPS  
Project: JED SWDF

Service Request #:

J1008251

Cooler received on 11/2/10

and opened on 11/2/10 by CFB

COURIER: CAS  FEDEX Client Other Airbill #

- |    |   |   |   |
|----|---|---|---|
| 1  | Were custody seals on outside of cooler?  | <input checked="" type="checkbox"/> Yes | No  |
|    | If yes, how many and where?   | #: <u>1</u> on lid                      | other   |
| 2  | Were seals intact and signature and date correct?   | <input checked="" type="checkbox"/> Yes | N/A   |
| 3  | Were custody papers properly filled out?  | <input checked="" type="checkbox"/> Yes | N/A   |
| 4  | Temperature of cooler(s) upon receipt (Should be > 0°C and < 6°C)   | <u>3.8°</u>                             |   |
| 5  | Thermometer ID  | <u>T12</u>                              |   |
| 6  | Temperature Blank Present?  | <input checked="" type="checkbox"/> Yes | No  |
| 7  | Were Ice or Ice Packs present   | <input checked="" type="checkbox"/> Ice | Ice Packs N/A   |
| 8  | Did all bottles arrive in good condition (unbroken, etc....)?   | <input checked="" type="checkbox"/> Yes | No N/A  |
| 9  | Type of packing material present  | Netting                                 | Vial Holder <input checked="" type="checkbox"/> Bubble Wrap |
|    | Paper   | Styrofoam                               | Other N/A   |
| 10 | Were all bottle labels complete (sample ID, preservation, etc....)?   | <input checked="" type="checkbox"/> Yes | No N/A  |
| 11 | Did all bottle labels and tags agree with custody papers?   | <input checked="" type="checkbox"/> Yes | No N/A  |
| 12 | Were the correct bottles used for the tests indicated?  | <input checked="" type="checkbox"/> Yes | No N/A  |
| 13 | Were all of the preserved bottles received with the appropriate preservative?<br><u>HNO3 pH&lt;2</u> <u>H2SO4 pH&lt;2</u> ZnAc2/NaOH pH>9    NaOH pH>12<br>Preservative additions noted below | <input checked="" type="checkbox"/> Yes | No N/A  |
| 14 | Were all samples received within analysis holding times?  | <input checked="" type="checkbox"/> Yes | No N/A  |
| 15 | Were VOA vials checked for absence of air bubbles? If present, note below   | <input checked="" type="checkbox"/> Yes | No N/A  |
| 16 | Where did the bottles originate?  | <input checked="" type="checkbox"/> CAS | Client  |

Additional comments and/or explanation of all discrepancies noted above:

Client approval to run samples if discrepancies noted:

Date: 44

Date: 11/2/12

Initials: CFB

Note that pH is check and meets the required pH criterion listed in the column heading unless otherwise noted on the cooler receipt form.

Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Container	40mL	40mL	40mL	125mL	1L	1L	1L	1L	1L	2oz	4oz	8oz	16oz	100ml	Ziplock	Misc.																
	G	G	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	G	G	G	G	G	G	G	G	P	Misc.		
Preserve	N/A	HCl	Na2S2O3	N/A	HCl	H2SO4	HNO3	N/A	H2SO4	HNO3	N/A	NaOH	ZnAc2	N/A	HNO3	N/A	HNO3	N/A	HNO3	N/A	HCl	H2SO4	N/A	N/A								
Req. pH	N/A	<2	N/A	N/A	<2	<2	<2	N/A	<2	<2	N/A	>9	<2	N/A	<2	N/A	<2	N/A	<2	N/A	<2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Sample #	-	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-1	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-2	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-3	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-4	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-5	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-6	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-7	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-8	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-9	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-10	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-11	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-12	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-13	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-14	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-15	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-16	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-17	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-18	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-19	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-20	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-21	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-22	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-23	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-24	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-25	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-26	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
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-31	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-32	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-33	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-34	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-35	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-36	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
-37	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
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-40	↓	↓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			

45

NOTE: VOA pH checks are performed by the analytical area, not sample control



 Columbia Analytical Services™

Columbia  
Analytics

## **CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM**

1143 Phillips Highway, Ste 200 • Jacksonville, FL 32256 (904) 739-2277 • 800-695-7222 X06 • FAX (904) 739-2011

[www.caslab.com](http://www.caslab.com)

## **Appendix A**

### **Subcontracted Analytical Results**

November 17, 2010

Service Request No: J1005251

Kirk Wills  
Environmental Planning Specialists  
1936 Bruce B Downs Blvd  
#328  
Wesley Chapel, FL 33543

**Laboratory Results for: JED SWDF**

Dear Kirk:

Enclosed are the results of the sample(s) submitted to our laboratory on November 2, 2010. For your reference, these analyses have been assigned our service request number **J1005251**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. 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 contact me if you have any questions. My extension is 4409. You may also contact me via email at [CMyers@caslab.com](mailto:CMyers@caslab.com).

Respectfully submitted,

**Columbia Analytical Services, Inc.**

*[Signature]* for:

Craig Myers  
Project Manager

Page 1 of 15

*CAS Jacksonville is NELAC-accredited by the State of Florida, #E82502. Other state accreditations include: Georgia, #958; Kentucky, #63; Louisiana, #02086; North Carolina, #527; South Carolina, #96021001; Texas, #T104704197-09-TX.*

**COLUMBIA ANALYTICAL SERVICES, INC.**

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request No.:** J1005251  
**Date Received:** 11/2/10

**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. When appropriate to the method, method blank results have been reported with each analytical test.

**Sample Receipt**

Three aqueous samples were received for analysis at Columbia Analytical Services on 11/2/10. The samples were received at 1°C within the 0-6°C temperature guidelines.

**Extractable Organics by 8011**

The surrogate Tetrachloro-m-xylene for samples MW-16A, MW-16B and MW-16C have been flagged with an "\*" as being outside of the control limits low due to sample matrix. Sample MW-16B and MW-16C were re-extracted and reanalyzed and both sets of data have been reported. Sample MW-16A had QC analyzed on it and confirmed matrix interference.

No other analytical or quality control problems were encountered during analysis.

Approved by D Patten

Date 11/18/10

## CASE NARRATIVE

This report contains analytical results for the following samples:  
Service Request Number: J1005251

<u>Lab ID</u>	<u>Client ID</u>
J1005251-001	MW-16A
J1005251-002	MW-16B
J1005251-003	MW-16C



## REPORT QUALIFIERS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
- J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
- B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
- E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
- E Organics- Concentration has exceeded the calibration range for that specific analysis.
- D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
- \* Indicates that a quality control parameter has exceeded laboratory limits.
- # Spike was diluted out.
- + Correlation coefficient for MSA is <0.995.
- N Inorganics- Matrix spike recovery was outside laboratory limits.
- N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
- S Concentration has been determined using Method of Standard Additions (MSA).
- W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
- P Concentration >40% (25% for CLP) difference between the two GC columns.
- C Confirmed by GC/MS
- Q DoD reports: indicates a pesticide/Aroclor is not confirmed ( $\geq 100\%$  Difference between two GC columns).
- X See Case Narrative for discussion.



### CAS/Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Nevada ID # NY-00032
Delaware Accredited	New Jersey ID # NY004
Connecticut ID # PH0556	New York ID # 10145
Florida ID # E87674	New Hampshire ID # 294100 A/B
Illinois ID #200047	Pennsylvania ID# 68-786
Maine ID #NY0032	Rhode Island ID # 158
Nebraska Accredited	West Virginia ID # 292
Navy Facilities Engineering Service Center Approved	

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to the certifications section at [www.caslab.com](http://www.caslab.com).

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

Client: Environmental Planning Specialists  
 Project: JED SWDF  
 Sample Matrix: Water

Service Request: J1005251  
 Date Collected: 11/1/10 1425  
 Date Received: 11/2/10  
 Date Extracted: 11/5/10  
 Date Analyzed: 11/12/10 05:43

Sample Name: MW-16A  
 Lab Code: J1005251-001

Units: µg/L  
 Basis: NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

Analytical Method: 8011  
 Prep Method: Method  
 Data File Name: J:\ACQUADATA\6890D\DATA\111110\FF803.D\

Analysis Lot: 224978  
 Extraction Lot: 122546  
 Instrument Name: R-GC-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	61 *	73-145	11/12/10 05:43	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

Client: Environmental Planning Specialists  
 Project: JED SWDF  
 Sample Matrix: Water

Sample Name: MW-16B  
 Lab Code: J1005251-002

Service Request: J1005251  
 Date Collected: 11/1/10 1545  
 Date Received: 11/2/10  
 Date Extracted: 11/5/10  
 Date Analyzed: 11/12/10 07:15

Units: µg/L  
 Basis: NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

Analytical Method: 8011  
 Prep Method: Method  
 Data File Name: J:\ACQUADATA\6890D\DATA\111110\FF806.D\

Analysis Lot: 224978  
 Extraction Lot: 122546  
 Instrument Name: R-GC-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	69 *	73-145	11/12/10 07:15	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

Client: Environmental Planning Specialists  
 Project: JED SWDF  
 Sample Matrix: Water

Service Request: J1005251  
 Date Collected: 11/1/10 1545  
 Date Received: 11/2/10  
 Date Extracted: 11/15/10  
 Date Analyzed: 11/15/10 17:38

Sample Name: MW-16B  
 Lab Code: J1005251-002  
 Run Type: Reanalysis

Units: µg/L  
 Basis: NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

Analytical Method: 8011  
 Prep Method: Method  
 Data File Name: J:\ACQUADATA\6890D\DATA\I11510\FF909.D\

Analysis Lot: 225331  
 Extraction Lot: 123755  
 Instrument Name: R-GC-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	92	73-145	11/15/10 17:38	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005251  
**Date Collected:** 11/1/10 1450  
**Date Received:** 11/2/10  
**Date Extracted:** 11/5/10  
**Date Analyzed:** 11/12/10 08:17

**Sample Name:** MW-16C  
**Lab Code:** J1005251-003

**Units:** µg/L  
**Basis:** NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

**Analytical Method:** 8011  
**Prep Method:** Method  
**Data File Name:** J:\ACQUADATA\6890D\DATA\111110\FF808.D\

**Analysis Lot:** 225163  
**Extraction Lot:** 122546  
**Instrument Name:** R-GC-54  
**Dilution Factor:** 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	62 *	73-145	11/12/10 08:17	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005251  
**Date Collected:** 11/1/10 1450  
**Date Received:** 11/2/10  
**Date Extracted:** 11/15/10  
**Date Analyzed:** 11/15/10 18:08

**Sample Name:** MW-16C  
**Lab Code:** J1005251-003  
**Run Type:** Reanalysis

**Units:** µg/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analytical Method:** 8011  
**Prep Method:** Method  
**Data File Name:** J:\ACQUADATA\6890D\DATA\111510\FF910.D\

**Analysis Lot:** 225331  
**Extraction Lot:** 123755  
**Instrument Name:** R-GC-54  
**Dilution Factor:** 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	105	73-145	11/15/10 18:08	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

Client: Environmental Planning Specialists  
 Project: JED SWDF  
 Sample Matrix: Water

Service Request: J1005251  
 Date Collected: NA  
 Date Received: NA  
 Date Extracted: 11/5/10  
 Date Analyzed: 11/12/10 01:07

Sample Name: Method Blank  
 Lab Code: RQ1009821-01

Units: µg/L  
 Basis: NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

Analytical Method: 8011

Analysis Lot: 224978

Prep Method: Method

Extraction Lot: 122546

Data File Name: J:\ACQUADATA\6890D\DATA\111110\FF794.D\

Instrument Name: R-GC-54

Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	111	73-145	11/12/10 01:07	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

Client: Environmental Planning Specialists  
 Project: JED SWDF  
 Sample Matrix: Water

Service Request: J1005251  
 Date Collected: NA  
 Date Received: NA  
 Date Extracted: 11/15/10  
 Date Analyzed: 11/15/10 15:04

Sample Name: Method Blank  
 Lab Code: RQ1010213-01

Units: µg/L  
 Basis: NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

Analytical Method: 8011

Analysis Lot: 225331

Prep Method: Method

Extraction Lot: 123755

Data File Name: J:\ACQUADATA\6890D\DATA\I11510\FF904.D\

Instrument Name: R-GC-54

Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	115	73-145	11/15/10 15:04	

## COLUMBIA ANALYTICAL SERVICES, INC.

## QA/QC Report

Client: Environmental Planning Specialists  
 Project: JED SWDF  
 Sample Matrix: Water

Service Request: J1005251  
 Date Analyzed: 11/12/10

**Lab Control Sample Summary**  
**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

Analytical Method: 8011  
 Prep Method: Method

Units:  $\mu\text{g/L}$   
 Basis: NA

Extraction Lot: 122546

Analyte Name	Lab Control Sample			Duplicate Lab Control Sample			% Rec Limits	RPD	RPD Limit			
	Result	Spike	% Rec	Result	Spike	% Rec						
		Amount			Amount							
1,2-Dibromo-3-chloropropane (DBCP)	0.125	0.114	109	0.124	0.114	108	60 - 140	<1	30			
1,2-Dibromoethane	0.121	0.114	105	0.121	0.114	105	60 - 140	<1	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.

## COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005251  
**Date Analyzed:** 11/15/10

## **Lab Control Sample Summary**

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

**Analytical Method:** 8011  
**Prep Method:** Method

Units:  $\mu\text{g/L}$

Basis: NA

Extraction Lot: 123755

Analyte Name	Lab Control Sample			Duplicate Lab Control Sample				% Rec Limits	RPD	RPD Limit			
	RQ1010213-02			RQ1010213-03									
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec							
1,2-Dibromo-3-chloropropane (DBCP)	0.102	0.114	89	0.101	0.114	88	60 - 140	1	30				
1,2-Dibromoethane	0.115	0.114	100	0.113	0.114	99	60 - 140	2	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.

# Intra-Network Chain of Custody

9143 Philips Highway • Jacksonville, FL 32256 • 904-739-2277 • FAX 904-739-2011

Project Name: JED SWDF  
 Project Number:  
 Project Manager: Kirk Wills  
 Company: Environmental Planning Specialists

CAS Contact: Craig Myers 

Lab Code	Client Sample ID	# of Cont.	Matrix	Sample			Date Received	Date Send To
				Date	Time	Received		
J1003251-001	MW-16A	3	Water	11/1/10	1425		11/2/10	ROCHESTER
J1003251-002	MW-16B		Water	11/1/10	1545		11/2/10	ROCHESTER
J1003251-003	MW-16C		Water	11/1/10	1450		11/2/10	ROCHESTER

EDB-DBCP  
8011

Special Instructions/Comments		Turnaround Requirements	Report Requirements	Invoice Information
		<input type="checkbox"/> RUSH (Surcharge Apply)	<input checked="" type="checkbox"/> I. Results Only	
		PLEASE CIRCLE WORK DAYS	<input checked="" type="checkbox"/> II. Results + QC Summaries	
		<input checked="" type="checkbox"/> 1    2    3    4    5	<input type="checkbox"/> III. Results + QC and Calibration Summaries	PO#
		<input checked="" type="checkbox"/> STANDARD	<input type="checkbox"/> IV. Data Validation Report with Raw Data	J1005251
		Requested FAX Date: <u>11/16/10</u>	PQL/MDU	Bill to
		Requested Report Date: <u>11/16/10</u>	EDD	

Received By: Joe M 11/3/10

Relinquished By:

Sgt. S

Airbill Number:

Page \_\_\_\_\_

666 1111

# Cooler Receipt And Preservation Check Form

Project/Client CAS-Jax Folder Number \_\_\_\_\_.

Cooler received on 11/3/10 by: BD COURIER: CAS UPS FEDEX VELOCITY CLIENT

1. Were custody seals on outside of cooler?  YES NO
2. Were custody papers properly filled out (ink, signed, etc.)?  YES NO
3. Did all bottles arrive in good condition (unbroken)?  YES NO
4. Did VOA vials, Alkalinity, or Sulfide have significant\* air bubbles?  YES NO  N/A
5. Were Ice or Ice packs present?  YES NO
6. Where did the bottles originate?  CAS/ROC,  CLIENT
7. Temperature of cooler(s) upon receipt: 1°

Is the temperature within 0° - 6° C?:  Yes Yes Yes Yes Yes

If No, Explain Below: No No No No No

Date/Time Temperatures Taken: 11/3 @ 1047

Thermometer ID: IR GUN#3 IR GUN#4 Reading From: Temp Blank Sample Bottle

If out of Temperature, note packing/ice condition, Client Approval to Run Samples: \_\_\_\_\_

PC Secondary Review: N/A

Cooler Breakdown: Date: 11/3/10 Time: 1305 by: BD

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)?  YES NO
2. Did all bottle labels and tags agree with custody papers?  YES NO
3. Were correct containers used for the tests indicated?  YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized  Tedlar® Bags Inflated  N/A

Explain any discrepancies: \_\_\_\_\_

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH	Yes = All samples OK
≥12	NaOH									
≤2	HNO <sub>3</sub>									
≤2	H <sub>2</sub> SO <sub>4</sub>									
Residual Chlorine (-)	For TCN and Phenol			If present, contact PM to add ascorbic acid						No = Samples were preserved at lab as listed
	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	-	-							PM OK to Adjust: _____
	Zn Aceta	-	-							
	HCl	*	*							

\*Not to be tested before analysis - pH tested and recorded by VOAs or GenChem on a separate worksheet

Bottle lot numbers: client  
Other Comments: \_\_\_\_\_

PC Secondary Review: N/A  
H:\SMODOCS\Cooler Receipt 3.doc

\*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter

November 18, 2010

Service Request No: J1005286

Kirk Wills  
Environmental Planning Specialists  
1936 Bruce B Downs Blvd  
#328  
Wesley Chapel, FL 33543

**Laboratory Results for: JED SWDF**

Dear Kirk:

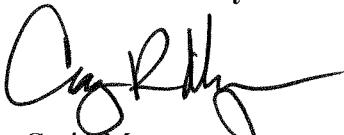
Enclosed are the results of the sample(s) submitted to our laboratory on November 3, 2010. For your reference, these analyses have been assigned our service request number **J1005286**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. 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 contact me if you have any questions. My extension is 4409. You may also contact me via email at [CMyers@caslab.com](mailto:CMyers@caslab.com).

Respectfully submitted,

**Columbia Analytical Services, Inc.**



Craig Myers  
Project Manager

Page 1 of 100

## COLUMBIA ANALYTICAL SERVICES, INC.

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request No.:** J1005286  
**Date Received:** 11/3/10

### 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, including results of QC samples analyzed from this delivery group. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

#### Sample Receipt

Nine water samples and one trip blank were received for analysis at Columbia Analytical Services on 11/3/10. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at  $4\pm2^{\circ}\text{C}$  upon receipt at the lab except for aqueous samples designated for metals analyses, which were stored at room temperature.

#### Volatile Organic Compounds by GC-MS

The samples were analyzed for Volatile Organics using EPA Method 8260. The following observations were made regarding this delivery group.

#### Continuing Calibration Verification Exceptions

The primary evaluation criterion was exceeded for the following analytes in Continuing Calibration Verification (CCV) JWG1004052-2: trans-1,4-Dichloro-2-butene. The primary evaluation criterion was exceeded for the following analytes in Continuing Calibration Verification (CCV) JWG1004065-2: trans-1,4-Dichloro-2-butene and Vinyl Acetate. The analytes in question were not detected in the associated field samples. Since the analytes were detected in the MRL check standard, instrument sensitivity was documented. The data quality was not significantly affected and no further corrective action was taken.

#### Surrogate Exceptions

The upper control criterion was exceeded for the following surrogate in Method Blank JQ1005640-02: Toluene-d8. No target analytes were detected in the Method Blank. The error associated with an elevated recovery equates to a high bias. The quality of the sample data is not significantly affected. No further corrective action was appropriate.

#### Lab Control Sample Exceptions

The spike recoveries of 1,2-Dichloroethane (EDC) and trans-1,4-Dichloro-2-butene for Laboratory Control Sample (LCS) JWG1002039-3 were outside the lower control criterion. The analytes in question were not detected in the associated field sample. Since the analytes were detected in the MRL check standard, instrument sensitivity was documented. The data quality was not significantly affected and no further corrective action was taken.

Approved by \_\_\_\_\_



Date 11/18/10

### **Metals by ICP-MS/ICP-OES/CVAA**

The samples were analyzed for Total Metals using EPA Methods 6020/6010B/7470A. The following observations were made regarding this delivery group.

#### **Samples Notes and Discussion**

Due to an inadvertent error caused by the installation of a new de-ionized water system in the laboratory, the incorrect water type was provided for the equipment blank collection. Due to this mistake, the equipment blank has detections that are highly suspect and most likely due to the de-ionized water system. This should have no impact on the sample data and the comparison of the data to historical results.

#### **General Chemistry Parameters**

The samples were analyzed for Inorganic Parameters using various EPA and Standard Methods. The following observations were made regarding this delivery group.

#### **Samples Notes and Discussion**

Due to an inadvertent error caused by the installation of a new de-ionized water system in the laboratory, the incorrect water type was provided for the equipment blank collection. Due to this mistake, the equipment blank has detections that are highly suspect and most likely due to the de-ionized water system. This should have no impact on the sample data and the comparison of the data to historical results.

#### **Subcontracted Analytical Parameters**

The samples were delivered to Columbia Analytical Services, Inc. in Rochester, NY on 11/5/10 for EPA Method 8011 determination. The certified analytical report has been included in its entirety in Appendix A: Subcontracted Analytical Results.

#### **Sample Notes and Discussion**

For the EPA Method 8011 analysis, our Rochester lab was not able to meet the Florida GCTL for 1,2-Dibromoethane (EDB) of 0.02ug/L. The Method Detection Limit (MDL) reported for EDB is 0.03ug/L, which is 0.01ug/L above the GCTL. Based on historical data from this site, this analyte has never been detected in any of the samples at or below the Florida GCTL. It is our opinion that the impact on the data is minimal.

Approved by \_\_\_\_\_

Date \_\_\_\_\_

11/18/10

## **Florida DEP Data Qualifiers**

- B Results based upon colony counts outside the acceptable range.
- D Measurement was made in the field.
- H Value based on field kit determination; results may not be accurate.
- i The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J Estimated value (one of the following reasons is discussed in the project case narrative).
  - 1. The result may be inaccurate because the surrogate recovery limits have been exceeded.
  - 2. No known quality control criteria exists for the component.
  - 3. The reported value failed to meet the established quality control criteria for either precision or accuracy.
  - 4. The sample matrix interfered with the ability to make any accurate determination (e.g., primary and confirmation results show greater than 40% RPD).
  - 5. The data is questionable because of improper laboratory or field protocols (e.g., GC/MS Tune did not meet method criteria).
- K Off scale low. The value is less than the lowest calibration standard but greater than the method reporting limit (MRL).
- L Off scale high. The analyte is above the upper limit of the linear calibration range.
- M The MDL/MRL has been elevated because the analyte could not be accurately quantified due to matrix interference.
- N Presumptive evidence of the analyte. Confirmation was not performed.
- Q Sample held beyond the accepted holding time.
- T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only.
- U Indicates that the compound was analyzed for but not detected.
- V Indicates that the analyte was detected in both the sample and the associated method blank.
- Y The laboratory analysis was from an improperly preserved sample.
- Z Too many colonies were present (TNTC). The numeric value represents the filtration volume.

## **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.

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF

**Service Request:** J1005286

**SAMPLE CROSS-REFERENCE**

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
J1005286-001	MW-13A	11/2/10	08:40
J1005286-002	MW-13C	11/2/10	08:15
J1005286-003	MW-12A	11/2/10	10:20
J1005286-004	MW-12C	11/2/10	09:40
J1005286-005	MW-11A	11/2/10	12:25
J1005286-006	MW-11C	11/2/10	11:55
J1005286-007	MW-10A	11/2/10	14:40
J1005286-008	MW-10C	11/2/10	15:10
J1005286-009	EB-1	11/2/10	12:50
J1005286-010	Trip Blank	11/2/10	00:00

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-13A  
**Lab Code:** J1005286-001

**Service Request:** J1005286  
**Date Collected:** 11/2/10 0840  
**Date Received:** 11/3/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 225490

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/16/10 00:25		225490	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/16/10 00:25		225490	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/16/10 00:25		225490	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/16/10 00:25		225490	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/16/10 00:25		225490	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/16/10 00:25		225490	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/16/10 00:25		225490	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/16/10 00:25		225490	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/16/10 00:25		225490	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/16/10 00:25		225490	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/16/10 00:25		225490	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/16/10 00:25		225490	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/16/10 00:25		225490	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/16/10 00:25		225490	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/16/10 00:25		225490	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/16/10 00:25		225490	
Acetone	ND	U	50.0	5.60	1	NA	11/16/10 00:25		225490	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/16/10 00:25		225490	
Benzene	1.31		1.00	0.210	1	NA	11/16/10 00:25		225490	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/16/10 00:25		225490	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/16/10 00:25		225490	
Bromoform	ND	U	2.00	0.420	1	NA	11/16/10 00:25		225490	
Bromomethane	ND	U	1.00	0.220	1	NA	11/16/10 00:25		225490	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/16/10 00:25		225490	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/16/10 00:25		225490	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/16/10 00:25		225490	
Chloroethane	ND	U	5.00	0.220	1	NA	11/16/10 00:25		225490	
Chloroform	ND	U	1.00	0.350	1	NA	11/16/10 00:25		225490	
Chloromethane	ND	U	1.00	0.110	1	NA	11/16/10 00:25		225490	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/16/10 00:25		225490	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/16/10 00:25		225490	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/16/10 00:25		225490	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/16/10 00:25		225490	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/16/10 00:25		225490	
Iodomethane	ND	U	5.00	2.68	1	NA	11/16/10 00:25		225490	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/16/10 00:25		225490	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-13A  
**Lab Code:** J1005286-001

**Service Request:** J1005286  
**Date Collected:** 11/2/10 0840  
**Date Received:** 11/3/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 225490

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/16/10 00:25		225490	
o-Xylene	ND	U	1.00	0.140	1	NA	11/16/10 00:25		225490	
Styrene	ND	U	1.00	0.291	1	NA	11/16/10 00:25		225490	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/16/10 00:25		225490	
Toluene	ND	U	1.00	0.190	1	NA	11/16/10 00:25		225490	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/16/10 00:25		225490	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/16/10 00:25		225490	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/16/10 00:25		225490	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/16/10 00:25		225490	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/16/10 00:25		225490	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/16/10 00:25		225490	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/16/10 00:25		225490	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	88	71-122	11/16/10 00:25	
4-Bromofluorobenzene	102	75-120	11/16/10 00:25	
Dibromofluoromethane	94	82-116	11/16/10 00:25	
Toluene-d8	103	88-117	11/16/10 00:25	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-13C  
**Lab Code:** J1005286-002

**Service Request:** J1005286  
**Date Collected:** 11/2/10 0815  
**Date Received:** 11/3/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 225490

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/16/10 00:53		225490	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/16/10 00:53		225490	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/16/10 00:53		225490	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/16/10 00:53		225490	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/16/10 00:53		225490	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/16/10 00:53		225490	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/16/10 00:53		225490	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/16/10 00:53		225490	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/16/10 00:53		225490	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/16/10 00:53		225490	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/16/10 00:53		225490	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/16/10 00:53		225490	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/16/10 00:53		225490	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/16/10 00:53		225490	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/16/10 00:53		225490	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/16/10 00:53		225490	
Acetone	ND	U	50.0	5.60	1	NA	11/16/10 00:53		225490	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/16/10 00:53		225490	
Benzene	ND	U	1.00	0.210	1	NA	11/16/10 00:53		225490	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/16/10 00:53		225490	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/16/10 00:53		225490	
Bromoform	ND	U	2.00	0.420	1	NA	11/16/10 00:53		225490	
Bromomethane	ND	U	1.00	0.220	1	NA	11/16/10 00:53		225490	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/16/10 00:53		225490	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/16/10 00:53		225490	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/16/10 00:53		225490	
Chloroethane	ND	U	5.00	0.220	1	NA	11/16/10 00:53		225490	
Chloroform	ND	U	1.00	0.350	1	NA	11/16/10 00:53		225490	
Chloromethane	ND	U	1.00	0.110	1	NA	11/16/10 00:53		225490	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/16/10 00:53		225490	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/16/10 00:53		225490	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/16/10 00:53		225490	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/16/10 00:53		225490	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/16/10 00:53		225490	
Iodomethane	ND	U	5.00	2.68	1	NA	11/16/10 00:53		225490	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/16/10 00:53		225490	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-13C  
**Lab Code:** J1005286-002

**Service Request:** J1005286  
**Date Collected:** 11/2/10 0815  
**Date Received:** 11/3/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 225490

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/16/10 00:53		225490	
o-Xylene	ND	U	1.00	0.140	1	NA	11/16/10 00:53		225490	
Styrene	ND	U	1.00	0.291	1	NA	11/16/10 00:53		225490	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/16/10 00:53		225490	
Toluene	ND	U	1.00	0.190	1	NA	11/16/10 00:53		225490	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/16/10 00:53		225490	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/16/10 00:53		225490	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/16/10 00:53		225490	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/16/10 00:53		225490	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/16/10 00:53		225490	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/16/10 00:53		225490	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/16/10 00:53		225490	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	84	71-122	11/16/10 00:53	
4-Bromofluorobenzene	104	75-120	11/16/10 00:53	
Dibromofluoromethane	95	82-116	11/16/10 00:53	
Toluene-d8	104	88-117	11/16/10 00:53	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-12A  
**Lab Code:** J1005286-003

**Service Request:** J1005286  
**Date Collected:** 11/2/10 1020  
**Date Received:** 11/3/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 225490

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/16/10 01:20		225490	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/16/10 01:20		225490	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/16/10 01:20		225490	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/16/10 01:20		225490	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/16/10 01:20		225490	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/16/10 01:20		225490	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/16/10 01:20		225490	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/16/10 01:20		225490	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/16/10 01:20		225490	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/16/10 01:20		225490	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/16/10 01:20		225490	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/16/10 01:20		225490	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/16/10 01:20		225490	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/16/10 01:20		225490	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/16/10 01:20		225490	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/16/10 01:20		225490	
Acetone	ND	U	50.0	5.60	1	NA	11/16/10 01:20		225490	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/16/10 01:20		225490	
Benzene	2.19		1.00	0.210	1	NA	11/16/10 01:20		225490	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/16/10 01:20		225490	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/16/10 01:20		225490	
Bromoform	ND	U	2.00	0.420	1	NA	11/16/10 01:20		225490	
Bromomethane	ND	U	1.00	0.220	1	NA	11/16/10 01:20		225490	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/16/10 01:20		225490	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/16/10 01:20		225490	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/16/10 01:20		225490	
Chloroethane	ND	U	5.00	0.220	1	NA	11/16/10 01:20		225490	
Chloroform	ND	U	1.00	0.350	1	NA	11/16/10 01:20		225490	
Chloromethane	ND	U	1.00	0.110	1	NA	11/16/10 01:20		225490	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/16/10 01:20		225490	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/16/10 01:20		225490	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/16/10 01:20		225490	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/16/10 01:20		225490	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/16/10 01:20		225490	
Iodomethane	ND	U	5.00	2.68	1	NA	11/16/10 01:20		225490	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/16/10 01:20		225490	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-12A  
**Lab Code:** J1005286-003

**Service Request:** J1005286  
**Date Collected:** 11/2/10 1020  
**Date Received:** 11/3/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 225490

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/16/10 01:20		225490	
o-Xylene	ND	U	1.00	0.140	1	NA	11/16/10 01:20		225490	
Styrene	ND	U	1.00	0.291	1	NA	11/16/10 01:20		225490	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/16/10 01:20		225490	
Toluene	ND	U	1.00	0.190	1	NA	11/16/10 01:20		225490	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/16/10 01:20		225490	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/16/10 01:20		225490	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/16/10 01:20		225490	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/16/10 01:20		225490	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/16/10 01:20		225490	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/16/10 01:20		225490	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/16/10 01:20		225490	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	89	71-122	11/16/10 01:20	
4-Bromofluorobenzene	105	75-120	11/16/10 01:20	
Dibromofluoromethane	96	82-116	11/16/10 01:20	
Toluene-d8	105	88-117	11/16/10 01:20	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-12C  
**Lab Code:** J1005286-004

**Service Request:** J1005286  
**Date Collected:** 11/2/10 0940  
**Date Received:** 11/3/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 225490

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/16/10 01:48		225490	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/16/10 01:48		225490	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/16/10 01:48		225490	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/16/10 01:48		225490	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/16/10 01:48		225490	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/16/10 01:48		225490	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/16/10 01:48		225490	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/16/10 01:48		225490	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/16/10 01:48		225490	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/16/10 01:48		225490	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/16/10 01:48		225490	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/16/10 01:48		225490	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/16/10 01:48		225490	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/16/10 01:48		225490	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/16/10 01:48		225490	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/16/10 01:48		225490	
Acetone	ND	U	50.0	5.60	1	NA	11/16/10 01:48		225490	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/16/10 01:48		225490	
Benzene	ND	U	1.00	0.210	1	NA	11/16/10 01:48		225490	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/16/10 01:48		225490	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/16/10 01:48		225490	
Bromoform	ND	U	2.00	0.420	1	NA	11/16/10 01:48		225490	
Bromomethane	ND	U	1.00	0.220	1	NA	11/16/10 01:48		225490	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/16/10 01:48		225490	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/16/10 01:48		225490	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/16/10 01:48		225490	
Chloroethane	ND	U	5.00	0.220	1	NA	11/16/10 01:48		225490	
Chloroform	ND	U	1.00	0.350	1	NA	11/16/10 01:48		225490	
Chloromethane	ND	U	1.00	0.110	1	NA	11/16/10 01:48		225490	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/16/10 01:48		225490	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/16/10 01:48		225490	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/16/10 01:48		225490	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/16/10 01:48		225490	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/16/10 01:48		225490	
Iodomethane	ND	U	5.00	2.68	1	NA	11/16/10 01:48		225490	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/16/10 01:48		225490	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-12C  
**Lab Code:** J1005286-004

**Service Request:** J1005286  
**Date Collected:** 11/2/10 0940  
**Date Received:** 11/3/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 225490

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND U	5.00	0.210	1	NA	11/16/10 01:48		225490	
o-Xylene	ND U	1.00	0.140	1	NA	11/16/10 01:48		225490	
Styrene	ND U	1.00	0.291	1	NA	11/16/10 01:48		225490	
Tetrachloroethene (PCE)	ND U	1.00	0.110	1	NA	11/16/10 01:48		225490	
Toluene	ND U	1.00	0.190	1	NA	11/16/10 01:48		225490	
trans-1,2-Dichloroethene	ND U	1.00	0.120	1	NA	11/16/10 01:48		225490	
trans-1,3-Dichloropropene	ND U	1.00	0.230	1	NA	11/16/10 01:48		225490	
trans-1,4-Dichloro-2-butene	ND U	20.0	2.20	1	NA	11/16/10 01:48		225490	
Trichloroethene (TCE)	ND U	1.00	0.160	1	NA	11/16/10 01:48		225490	
Trichlorofluoromethane	ND U	20.0	0.220	1	NA	11/16/10 01:48		225490	
Vinyl Acetate	ND U	10.0	1.90	1	NA	11/16/10 01:48		225490	
Vinyl Chloride	ND U	1.00	0.220	1	NA	11/16/10 01:48		225490	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	90	71-122	11/16/10 01:48	
4-Bromofluorobenzene	104	75-120	11/16/10 01:48	
Dibromofluoromethane	96	82-116	11/16/10 01:48	
Toluene-d8	104	88-117	11/16/10 01:48	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-11A  
**Lab Code:** J1005286-005

**Service Request:** J1005286  
**Date Collected:** 11/2/10 1225  
**Date Received:** 11/3/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 225490

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND U	1.00	0.180	1	NA	11/16/10 02:16		225490	
1,1,1-Trichloroethane (TCA)	ND U	1.00	0.170	1	NA	11/16/10 02:16		225490	
1,1,2,2-Tetrachloroethane	ND U	1.00	0.110	1	NA	11/16/10 02:16		225490	
1,1,2-Trichloroethane	ND U	1.00	0.170	1	NA	11/16/10 02:16		225490	
1,1-Dichloroethane (1,1-DCA)	ND U	1.00	0.130	1	NA	11/16/10 02:16		225490	
1,1-Dichloroethene (1,1-DCE)	ND U	1.00	0.160	1	NA	11/16/10 02:16		225490	
1,2,3-Trichloropropane	ND U	2.00	0.420	1	NA	11/16/10 02:16		225490	
1,2-Dibromo-3-chloropropane (DBCP)	ND U	5.00	2.30	1	NA	11/16/10 02:16		225490	
1,2-Dibromoethane (EDB)	ND U	1.00	0.170	1	NA	11/16/10 02:16		225490	
1,2-Dichlorobenzene	ND U	1.00	0.478	1	NA	11/16/10 02:16		225490	
1,2-Dichloroethane	ND U	1.00	0.180	1	NA	11/16/10 02:16		225490	
1,2-Dichloropropane	ND U	1.00	0.120	1	NA	11/16/10 02:16		225490	
1,4-Dichlorobenzene	ND U	1.00	0.100	1	NA	11/16/10 02:16		225490	
2-Butanone (MEK)	ND U	10.0	3.80	1	NA	11/16/10 02:16		225490	
2-Hexanone	ND U	25.0	2.20	1	NA	11/16/10 02:16		225490	
4-Methyl-2-pentanone (MIBK)	ND U	25.0	0.650	1	NA	11/16/10 02:16		225490	
Acetone	ND U	50.0	5.60	1	NA	11/16/10 02:16		225490	
Acrylonitrile	ND U	10.0	1.20	1	NA	11/16/10 02:16		225490	
Benzene	<b>5.65</b>	1.00	0.210	1	NA	11/16/10 02:16		225490	
Bromochloromethane	ND U	5.00	0.270	1	NA	11/16/10 02:16		225490	
Bromodichloromethane	ND U	1.00	0.170	1	NA	11/16/10 02:16		225490	
Bromoform	ND U	2.00	0.420	1	NA	11/16/10 02:16		225490	
Bromomethane	ND U	1.00	0.220	1	NA	11/16/10 02:16		225490	
Carbon Disulfide	ND U	10.0	2.36	1	NA	11/16/10 02:16		225490	
Carbon Tetrachloride	ND U	1.00	0.340	1	NA	11/16/10 02:16		225490	
Chlorobenzene	ND U	1.00	0.160	1	NA	11/16/10 02:16		225490	
Chloroethane	ND U	5.00	0.220	1	NA	11/16/10 02:16		225490	
Chloroform	ND U	1.00	0.350	1	NA	11/16/10 02:16		225490	
Chloromethane	ND U	1.00	0.110	1	NA	11/16/10 02:16		225490	
cis-1,2-Dichloroethene	<b>1.15</b>	1.00	0.360	1	NA	11/16/10 02:16		225490	
cis-1,3-Dichloropropene	ND U	1.00	0.200	1	NA	11/16/10 02:16		225490	
Dibromochloromethane	ND U	1.00	0.190	1	NA	11/16/10 02:16		225490	
Dibromomethane	ND U	5.00	0.180	1	NA	11/16/10 02:16		225490	
Ethylbenzene	ND U	1.00	0.210	1	NA	11/16/10 02:16		225490	
Iodomethane	ND U	5.00	2.68	1	NA	11/16/10 02:16		225490	
m,p-Xylenes	ND U	2.00	0.410	1	NA	11/16/10 02:16		225490	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-11A  
**Lab Code:** J1005286-005

**Service Request:** J1005286  
**Date Collected:** 11/2/10 1225  
**Date Received:** 11/3/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 225490

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/16/10 02:16		225490	
o-Xylene	<b>0.320</b>	I	1.00	0.140	1	NA	11/16/10 02:16		225490	
Styrene	ND	U	1.00	0.291	1	NA	11/16/10 02:16		225490	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/16/10 02:16		225490	
Toluene	<b>0.300</b>	I	1.00	0.190	1	NA	11/16/10 02:16		225490	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/16/10 02:16		225490	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/16/10 02:16		225490	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/16/10 02:16		225490	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/16/10 02:16		225490	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/16/10 02:16		225490	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/16/10 02:16		225490	
Vinyl Chloride	<b>1.38</b>		1.00	0.220	1	NA	11/16/10 02:16		225490	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	92	71-122	11/16/10 02:16	
4-Bromofluorobenzene	106	75-120	11/16/10 02:16	
Dibromofluoromethane	96	82-116	11/16/10 02:16	
Toluene-d8	105	88-117	11/16/10 02:16	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-11C  
**Lab Code:** J1005286-006

**Service Request:** J1005286  
**Date Collected:** 11/2/10 1155  
**Date Received:** 11/3/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 225579

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/16/10 23:07		225579	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/16/10 23:07		225579	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/16/10 23:07		225579	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/16/10 23:07		225579	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/16/10 23:07		225579	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/16/10 23:07		225579	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/16/10 23:07		225579	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/16/10 23:07		225579	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/16/10 23:07		225579	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/16/10 23:07		225579	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/16/10 23:07		225579	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/16/10 23:07		225579	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/16/10 23:07		225579	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/16/10 23:07		225579	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/16/10 23:07		225579	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/16/10 23:07		225579	
Acetone	ND	U	50.0	5.60	1	NA	11/16/10 23:07		225579	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/16/10 23:07		225579	
Benzene	ND	U	1.00	0.210	1	NA	11/16/10 23:07		225579	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/16/10 23:07		225579	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/16/10 23:07		225579	
Bromoform	ND	U	2.00	0.420	1	NA	11/16/10 23:07		225579	
Bromomethane	ND	U	1.00	0.220	1	NA	11/16/10 23:07		225579	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/16/10 23:07		225579	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/16/10 23:07		225579	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/16/10 23:07		225579	
Chloroethane	ND	U	5.00	0.220	1	NA	11/16/10 23:07		225579	
Chloroform	ND	U	1.00	0.350	1	NA	11/16/10 23:07		225579	
Chloromethane	ND	U	1.00	0.110	1	NA	11/16/10 23:07		225579	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/16/10 23:07		225579	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/16/10 23:07		225579	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/16/10 23:07		225579	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/16/10 23:07		225579	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/16/10 23:07		225579	
Iodomethane	ND	U	5.00	2.68	1	NA	11/16/10 23:07		225579	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/16/10 23:07		225579	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-11C  
**Lab Code:** J1005286-006

**Service Request:** J1005286  
**Date Collected:** 11/2/10 1155  
**Date Received:** 11/3/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 225579

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/16/10 23:07		225579	
o-Xylene	ND	U	1.00	0.140	1	NA	11/16/10 23:07		225579	
Styrene	ND	U	1.00	0.291	1	NA	11/16/10 23:07		225579	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/16/10 23:07		225579	
Toluene	ND	U	1.00	0.190	1	NA	11/16/10 23:07		225579	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/16/10 23:07		225579	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/16/10 23:07		225579	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/16/10 23:07		225579	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/16/10 23:07		225579	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/16/10 23:07		225579	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/16/10 23:07		225579	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/16/10 23:07		225579	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	97	71-122	11/16/10 23:07	
4-Bromofluorobenzene	103	75-120	11/16/10 23:07	
Dibromofluoromethane	100	82-116	11/16/10 23:07	
Toluene-d8	108	88-117	11/16/10 23:07	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-10A  
**Lab Code:** J1005286-007

**Service Request:** J1005286  
**Date Collected:** 11/2/10 1440  
**Date Received:** 11/3/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 225490

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/16/10 03:11		225490	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/16/10 03:11		225490	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/16/10 03:11		225490	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/16/10 03:11		225490	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/16/10 03:11		225490	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/16/10 03:11		225490	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/16/10 03:11		225490	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/16/10 03:11		225490	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/16/10 03:11		225490	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/16/10 03:11		225490	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/16/10 03:11		225490	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/16/10 03:11		225490	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/16/10 03:11		225490	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/16/10 03:11		225490	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/16/10 03:11		225490	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/16/10 03:11		225490	
Acetone	ND	U	50.0	5.60	1	NA	11/16/10 03:11		225490	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/16/10 03:11		225490	
Benzene	2.74		1.00	0.210	1	NA	11/16/10 03:11		225490	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/16/10 03:11		225490	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/16/10 03:11		225490	
Bromoform	ND	U	2.00	0.420	1	NA	11/16/10 03:11		225490	
Bromomethane	ND	U	1.00	0.220	1	NA	11/16/10 03:11		225490	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/16/10 03:11		225490	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/16/10 03:11		225490	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/16/10 03:11		225490	
Chloroethane	ND	U	5.00	0.220	1	NA	11/16/10 03:11		225490	
Chloroform	ND	U	1.00	0.350	1	NA	11/16/10 03:11		225490	
Chloromethane	ND	U	1.00	0.110	1	NA	11/16/10 03:11		225490	
cis-1,2-Dichloroethene	0.850	I	1.00	0.360	1	NA	11/16/10 03:11		225490	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/16/10 03:11		225490	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/16/10 03:11		225490	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/16/10 03:11		225490	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/16/10 03:11		225490	
Iodomethane	ND	U	5.00	2.68	1	NA	11/16/10 03:11		225490	
m,p-Xylenes	1.13	I	2.00	0.410	1	NA	11/16/10 03:11		225490	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-10A  
**Lab Code:** J1005286-007

**Service Request:** J1005286  
**Date Collected:** 11/2/10 1440  
**Date Received:** 11/3/10

**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 225490

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/16/10 03:11		225490	
o-Xylene	ND	U	1.00	0.140	1	NA	11/16/10 03:11		225490	
Styrene	ND	U	1.00	0.291	1	NA	11/16/10 03:11		225490	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/16/10 03:11		225490	
Toluene	0.330	I	1.00	0.190	1	NA	11/16/10 03:11		225490	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/16/10 03:11		225490	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/16/10 03:11		225490	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/16/10 03:11		225490	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/16/10 03:11		225490	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/16/10 03:11		225490	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/16/10 03:11		225490	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/16/10 03:11		225490	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	87	71-122	11/16/10 03:11	
4-Bromofluorobenzene	104	75-120	11/16/10 03:11	
Dibromofluoromethane	94	82-116	11/16/10 03:11	
Toluene-d8	104	88-117	11/16/10 03:11	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-10C  
**Lab Code:** J1005286-008

**Service Request:** J1005286  
**Date Collected:** 11/2/10 1510  
**Date Received:** 11/3/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 225490

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/16/10 03:38		225490	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/16/10 03:38		225490	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/16/10 03:38		225490	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/16/10 03:38		225490	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/16/10 03:38		225490	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/16/10 03:38		225490	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/16/10 03:38		225490	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/16/10 03:38		225490	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/16/10 03:38		225490	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/16/10 03:38		225490	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/16/10 03:38		225490	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/16/10 03:38		225490	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/16/10 03:38		225490	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/16/10 03:38		225490	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/16/10 03:38		225490	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/16/10 03:38		225490	
Acetone	ND	U	50.0	5.60	1	NA	11/16/10 03:38		225490	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/16/10 03:38		225490	
Benzene	ND	U	1.00	0.210	1	NA	11/16/10 03:38		225490	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/16/10 03:38		225490	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/16/10 03:38		225490	
Bromoform	ND	U	2.00	0.420	1	NA	11/16/10 03:38		225490	
Bromomethane	ND	U	1.00	0.220	1	NA	11/16/10 03:38		225490	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/16/10 03:38		225490	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/16/10 03:38		225490	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/16/10 03:38		225490	
Chloroethane	ND	U	5.00	0.220	1	NA	11/16/10 03:38		225490	
Chloroform	ND	U	1.00	0.350	1	NA	11/16/10 03:38		225490	
Chloromethane	ND	U	1.00	0.110	1	NA	11/16/10 03:38		225490	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/16/10 03:38		225490	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/16/10 03:38		225490	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/16/10 03:38		225490	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/16/10 03:38		225490	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/16/10 03:38		225490	
Iodomethane	ND	U	5.00	2.68	1	NA	11/16/10 03:38		225490	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/16/10 03:38		225490	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-10C  
**Lab Code:** J1005286-008

**Service Request:** J1005286  
**Date Collected:** 11/2/10 1510  
**Date Received:** 11/3/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 225490

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/16/10 03:38		225490	
o-Xylene	ND	U	1.00	0.140	1	NA	11/16/10 03:38		225490	
Styrene	ND	U	1.00	0.291	1	NA	11/16/10 03:38		225490	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/16/10 03:38		225490	
Toluene	ND	U	1.00	0.190	1	NA	11/16/10 03:38		225490	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/16/10 03:38		225490	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/16/10 03:38		225490	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/16/10 03:38		225490	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/16/10 03:38		225490	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/16/10 03:38		225490	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/16/10 03:38		225490	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/16/10 03:38		225490	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	88	71-122	11/16/10 03:38	
4-Bromofluorobenzene	104	75-120	11/16/10 03:38	
Dibromofluoromethane	94	82-116	11/16/10 03:38	
Toluene-d8	102	88-117	11/16/10 03:38	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** EB-1  
**Lab Code:** J1005286-009

**Service Request:** J1005286  
**Date Collected:** 11/2/10 1250  
**Date Received:** 11/3/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 225490

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/16/10 04:05		225490	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/16/10 04:05		225490	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/16/10 04:05		225490	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/16/10 04:05		225490	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/16/10 04:05		225490	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/16/10 04:05		225490	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/16/10 04:05		225490	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/16/10 04:05		225490	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/16/10 04:05		225490	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/16/10 04:05		225490	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/16/10 04:05		225490	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/16/10 04:05		225490	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/16/10 04:05		225490	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/16/10 04:05		225490	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/16/10 04:05		225490	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/16/10 04:05		225490	
Acetone	ND	U	50.0	5.60	1	NA	11/16/10 04:05		225490	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/16/10 04:05		225490	
Benzene	ND	U	1.00	0.210	1	NA	11/16/10 04:05		225490	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/16/10 04:05		225490	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/16/10 04:05		225490	
Bromoform	ND	U	2.00	0.420	1	NA	11/16/10 04:05		225490	
Bromomethane	ND	U	1.00	0.220	1	NA	11/16/10 04:05		225490	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/16/10 04:05		225490	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/16/10 04:05		225490	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/16/10 04:05		225490	
Chloroethane	ND	U	5.00	0.220	1	NA	11/16/10 04:05		225490	
Chloroform	ND	U	1.00	0.350	1	NA	11/16/10 04:05		225490	
Chloromethane	ND	U	1.00	0.110	1	NA	11/16/10 04:05		225490	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/16/10 04:05		225490	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/16/10 04:05		225490	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/16/10 04:05		225490	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/16/10 04:05		225490	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/16/10 04:05		225490	
Iodomethane	ND	U	5.00	2.68	1	NA	11/16/10 04:05		225490	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/16/10 04:05		225490	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** EB-1  
**Lab Code:** J1005286-009

**Service Request:** J1005286  
**Date Collected:** 11/2/10 1250  
**Date Received:** 11/3/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 225490

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/16/10 04:05		225490	
o-Xylene	ND	U	1.00	0.140	1	NA	11/16/10 04:05		225490	
Styrene	ND	U	1.00	0.291	1	NA	11/16/10 04:05		225490	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/16/10 04:05		225490	
Toluene	ND	U	1.00	0.190	1	NA	11/16/10 04:05		225490	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/16/10 04:05		225490	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/16/10 04:05		225490	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/16/10 04:05		225490	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/16/10 04:05		225490	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/16/10 04:05		225490	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/16/10 04:05		225490	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/16/10 04:05		225490	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	91	71-122	11/16/10 04:05	
4-Bromofluorobenzene	107	75-120	11/16/10 04:05	
Dibromofluoromethane	96	82-116	11/16/10 04:05	
Toluene-d8	107	88-117	11/16/10 04:05	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Trip Blank  
**Lab Code:** J1005286-010

**Service Request:** J1005286  
**Date Collected:** 11/2/10 0000  
**Date Received:** 11/3/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 225490

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/16/10 04:33		225490	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/16/10 04:33		225490	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/16/10 04:33		225490	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/16/10 04:33		225490	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/16/10 04:33		225490	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/16/10 04:33		225490	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/16/10 04:33		225490	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/16/10 04:33		225490	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/16/10 04:33		225490	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/16/10 04:33		225490	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/16/10 04:33		225490	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/16/10 04:33		225490	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/16/10 04:33		225490	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/16/10 04:33		225490	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/16/10 04:33		225490	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/16/10 04:33		225490	
Acetone	ND	U	50.0	5.60	1	NA	11/16/10 04:33		225490	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/16/10 04:33		225490	
Benzene	ND	U	1.00	0.210	1	NA	11/16/10 04:33		225490	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/16/10 04:33		225490	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/16/10 04:33		225490	
Bromoform	ND	U	2.00	0.420	1	NA	11/16/10 04:33		225490	
Bromomethane	ND	U	1.00	0.220	1	NA	11/16/10 04:33		225490	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/16/10 04:33		225490	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/16/10 04:33		225490	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/16/10 04:33		225490	
Chloroethane	ND	U	5.00	0.220	1	NA	11/16/10 04:33		225490	
Chloroform	ND	U	1.00	0.350	1	NA	11/16/10 04:33		225490	
Chloromethane	ND	U	1.00	0.110	1	NA	11/16/10 04:33		225490	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/16/10 04:33		225490	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/16/10 04:33		225490	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/16/10 04:33		225490	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/16/10 04:33		225490	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/16/10 04:33		225490	
Iodomethane	ND	U	5.00	2.68	1	NA	11/16/10 04:33		225490	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/16/10 04:33		225490	

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Trip Blank  
**Lab Code:** J1005286-010

**Service Request:** J1005286  
**Date Collected:** 11/2/10 0000  
**Date Received:** 11/3/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 225490

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/16/10 04:33		225490	
o-Xylene	ND	U	1.00	0.140	1	NA	11/16/10 04:33		225490	
Styrene	ND	U	1.00	0.291	1	NA	11/16/10 04:33		225490	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/16/10 04:33		225490	
Toluene	ND	U	1.00	0.190	1	NA	11/16/10 04:33		225490	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/16/10 04:33		225490	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/16/10 04:33		225490	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/16/10 04:33		225490	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/16/10 04:33		225490	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/16/10 04:33		225490	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/16/10 04:33		225490	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/16/10 04:33		225490	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	88	71-122	11/16/10 04:33	
4-Bromofluorobenzene	106	75-120	11/16/10 04:33	
Dibromofluoromethane	94	82-116	11/16/10 04:33	
Toluene-d8	104	88-117	11/16/10 04:33	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005619-02

**Service Request:** J1005286  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 225490

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/15/10 20:16		225490	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/15/10 20:16		225490	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/15/10 20:16		225490	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/15/10 20:16		225490	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/15/10 20:16		225490	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/15/10 20:16		225490	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/15/10 20:16		225490	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/15/10 20:16		225490	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/15/10 20:16		225490	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/15/10 20:16		225490	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/15/10 20:16		225490	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/15/10 20:16		225490	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/15/10 20:16		225490	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/15/10 20:16		225490	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/15/10 20:16		225490	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/15/10 20:16		225490	
Acetone	ND	U	50.0	5.60	1	NA	11/15/10 20:16		225490	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/15/10 20:16		225490	
Benzene	ND	U	1.00	0.210	1	NA	11/15/10 20:16		225490	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/15/10 20:16		225490	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/15/10 20:16		225490	
Bromoform	ND	U	2.00	0.420	1	NA	11/15/10 20:16		225490	
Bromomethane	ND	U	1.00	0.220	1	NA	11/15/10 20:16		225490	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/15/10 20:16		225490	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/15/10 20:16		225490	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/15/10 20:16		225490	
Chloroethane	ND	U	5.00	0.220	1	NA	11/15/10 20:16		225490	
Chloroform	ND	U	1.00	0.350	1	NA	11/15/10 20:16		225490	
Chloromethane	ND	U	1.00	0.110	1	NA	11/15/10 20:16		225490	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/15/10 20:16		225490	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/15/10 20:16		225490	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/15/10 20:16		225490	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/15/10 20:16		225490	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/15/10 20:16		225490	
Iodomethane	ND	U	5.00	2.68	1	NA	11/15/10 20:16		225490	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/15/10 20:16		225490	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005619-02

**Service Request:** J1005286  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 225490

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND U	5.00	0.210	1	NA	11/15/10 20:16		225490	
o-Xylene	ND U	1.00	0.140	1	NA	11/15/10 20:16		225490	
Styrene	ND U	1.00	0.291	1	NA	11/15/10 20:16		225490	
Tetrachloroethene (PCE)	ND U	1.00	0.110	1	NA	11/15/10 20:16		225490	
Toluene	ND U	1.00	0.190	1	NA	11/15/10 20:16		225490	
trans-1,2-Dichloroethene	ND U	1.00	0.120	1	NA	11/15/10 20:16		225490	
trans-1,3-Dichloropropene	ND U	1.00	0.230	1	NA	11/15/10 20:16		225490	
trans-1,4-Dichloro-2-butene	ND U	20.0	2.20	1	NA	11/15/10 20:16		225490	
Trichloroethene (TCE)	ND U	1.00	0.160	1	NA	11/15/10 20:16		225490	
Trichlorofluoromethane	ND U	20.0	0.220	1	NA	11/15/10 20:16		225490	
Vinyl Acetate	ND U	10.0	1.90	1	NA	11/15/10 20:16		225490	
Vinyl Chloride	ND U	1.00	0.220	1	NA	11/15/10 20:16		225490	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	86	71-122	11/15/10 20:16	
4-Bromofluorobenzene	103	75-120	11/15/10 20:16	
Dibromofluoromethane	91	82-116	11/15/10 20:16	
Toluene-d8	104	88-117	11/15/10 20:16	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005640-02

**Service Request:** J1005286  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 225579

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/16/10 22:39		225579	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/16/10 22:39		225579	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/16/10 22:39		225579	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/16/10 22:39		225579	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/16/10 22:39		225579	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/16/10 22:39		225579	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/16/10 22:39		225579	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/16/10 22:39		225579	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/16/10 22:39		225579	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/16/10 22:39		225579	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/16/10 22:39		225579	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/16/10 22:39		225579	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/16/10 22:39		225579	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/16/10 22:39		225579	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/16/10 22:39		225579	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/16/10 22:39		225579	
Acetone	ND	U	50.0	5.60	1	NA	11/16/10 22:39		225579	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/16/10 22:39		225579	
Benzene	ND	U	1.00	0.210	1	NA	11/16/10 22:39		225579	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/16/10 22:39		225579	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/16/10 22:39		225579	
Bromoform	ND	U	2.00	0.420	1	NA	11/16/10 22:39		225579	
Bromomethane	ND	U	1.00	0.220	1	NA	11/16/10 22:39		225579	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/16/10 22:39		225579	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/16/10 22:39		225579	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/16/10 22:39		225579	
Chloroethane	ND	U	5.00	0.220	1	NA	11/16/10 22:39		225579	
Chloroform	ND	U	1.00	0.350	1	NA	11/16/10 22:39		225579	
Chloromethane	ND	U	1.00	0.110	1	NA	11/16/10 22:39		225579	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/16/10 22:39		225579	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/16/10 22:39		225579	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/16/10 22:39		225579	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/16/10 22:39		225579	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/16/10 22:39		225579	
Iodomethane	ND	U	5.00	2.68	1	NA	11/16/10 22:39		225579	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/16/10 22:39		225579	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005640-02

**Service Request:** J1005286  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 225579

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/16/10 22:39		225579	
o-Xylene	ND	U	1.00	0.140	1	NA	11/16/10 22:39		225579	
Styrene	ND	U	1.00	0.291	1	NA	11/16/10 22:39		225579	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/16/10 22:39		225579	
Toluene	ND	U	1.00	0.190	1	NA	11/16/10 22:39		225579	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/16/10 22:39		225579	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/16/10 22:39		225579	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/16/10 22:39		225579	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/16/10 22:39		225579	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/16/10 22:39		225579	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/16/10 22:39		225579	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/16/10 22:39		225579	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	103	71-122	11/16/10 22:39	
4-Bromofluorobenzene	113	75-120	11/16/10 22:39	
Dibromofluoromethane	106	82-116	11/16/10 22:39	
Toluene-d8	119 *	88-117	11/16/10 22:39	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-13A  
**Lab Code:** J1005286-001

**Service Request:** J1005286  
**Date Collected:** 11/2/10 0840  
**Date Received:** 11/3/10  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/12/10 14:04	
Arsenic, Total Recoverable	6020	19.7	µg/L	0.50	0.40	1	11/10/10	11/12/10 14:04	
Barium, Total Recoverable	6020	8.7	µg/L	2.0	0.3	1	11/10/10	11/12/10 14:04	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/10/10	11/12/10 14:04	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/10/10	11/12/10 14:04	
Chromium, Total Recoverable	6020	3.2	µg/L	2.0	0.3	1	11/10/10	11/12/10 14:04	
Cobalt, Total Recoverable	6020	0.6 I	µg/L	1.0	0.1	1	11/10/10	11/12/10 14:04	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/10/10	11/12/10 14:04	
Iron, Total Recoverable	6010B	16400	µg/L	100	10	1	11/4/10	11/11/10 23:55	
Lead, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/12/10 14:04	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/8/10	11/8/10 17:41	
Nickel, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/12/10 14:04	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/10/10	11/12/10 14:04	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/10/10	11/12/10 14:04	
Sodium, Total Recoverable	6010B	9.05	mg/L	0.50	0.02	1	11/4/10	11/11/10 23:54	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/12/10 14:04	
Vanadium, Total Recoverable	6020	3.6 I	µg/L	5.0	0.5	1	11/10/10	11/12/10 14:04	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/10/10	11/12/10 14:04	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-13C  
**Lab Code:** J1005286-002

**Service Request:** J1005286  
**Date Collected:** 11/2/10 0815  
**Date Received:** 11/3/10  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/12/10 14:09	
Arsenic, Total Recoverable	6020	ND U	µg/L	0.50	0.40	1	11/10/10	11/12/10 14:09	
Barium, Total Recoverable	6020	19.6	µg/L	2.0	0.3	1	11/10/10	11/12/10 14:09	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/10/10	11/12/10 14:09	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/10/10	11/12/10 14:09	
Chromium, Total Recoverable	6020	0.6 I	µg/L	2.0	0.3	1	11/10/10	11/12/10 14:09	
Cobalt, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/12/10 14:09	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/10/10	11/12/10 14:09	
Iron, Total Recoverable	6010B	540	µg/L	100	10	1	11/4/10	11/12/10 00:00	
Lead, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/12/10 14:09	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/9/10	11/10/10 15:29	
Nickel, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/12/10 14:09	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/10/10	11/12/10 14:09	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/10/10	11/12/10 14:09	
Sodium, Total Recoverable	6010B	8.08	mg/L	0.50	0.02	1	11/4/10	11/11/10 23:58	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/12/10 14:09	
Vanadium, Total Recoverable	6020	0.9 I	µg/L	5.0	0.5	1	11/10/10	11/12/10 14:09	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/10/10	11/12/10 14:09	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-12A  
**Lab Code:** J1005286-003

**Service Request:** J1005286  
**Date Collected:** 11/2/10 1020  
**Date Received:** 11/3/10  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/12/10 14:14	
Arsenic, Total Recoverable	6020	1.60	µg/L	0.50	0.40	1	11/10/10	11/12/10 14:14	
Barium, Total Recoverable	6020	16.5	µg/L	2.0	0.3	1	11/10/10	11/12/10 14:14	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/10/10	11/12/10 14:14	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/10/10	11/12/10 14:14	
Chromium, Total Recoverable	6020	2.8	µg/L	2.0	0.3	1	11/10/10	11/12/10 14:14	
Cobalt, Total Recoverable	6020	1.3	µg/L	1.0	0.1	1	11/10/10	11/12/10 14:14	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/10/10	11/12/10 14:14	
Iron, Total Recoverable	6010B	1950	µg/L	100	10	1	11/4/10	11/12/10 00:13	
Lead, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/12/10 14:14	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/9/10	11/10/10 15:34	
Nickel, Total Recoverable	6020	3.4	µg/L	2.0	0.2	1	11/10/10	11/12/10 14:14	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/10/10	11/12/10 14:14	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/10/10	11/12/10 14:14	
Sodium, Total Recoverable	6010B	11.6	mg/L	0.50	0.02	1	11/4/10	11/12/10 12:19	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/12/10 14:14	
Vanadium, Total Recoverable	6020	1.4 I	µg/L	5.0	0.5	1	11/10/10	11/12/10 14:14	
Zinc, Total Recoverable	6020	3 I	µg/L	10	2	1	11/10/10	11/12/10 14:14	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-12C  
**Lab Code:** J1005286-004

**Service Request:** J1005286  
**Date Collected:** 11/2/10 0940  
**Date Received:** 11/3/10  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/12/10 14:19	
Arsenic, Total Recoverable	6020	ND U	µg/L	0.50	0.40	1	11/10/10	11/12/10 14:19	
Barium, Total Recoverable	6020	17.6	µg/L	2.0	0.3	1	11/10/10	11/12/10 14:19	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/10/10	11/12/10 14:19	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/10/10	11/12/10 14:19	
Chromium, Total Recoverable	6020	0.5 I	µg/L	2.0	0.3	1	11/10/10	11/12/10 14:19	
Cobalt, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/12/10 14:19	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/10/10	11/12/10 14:19	
Iron, Total Recoverable	6010B	620	µg/L	100	10	1	11/4/10	11/12/10 00:17	
Lead, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/12/10 14:19	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/9/10	11/10/10 15:35	
Nickel, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/12/10 14:19	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/10/10	11/12/10 14:19	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/10/10	11/12/10 14:19	
Sodium, Total Recoverable	6010B	5.59	mg/L	0.50	0.02	1	11/4/10	11/12/10 12:21	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/12/10 14:19	
Vanadium, Total Recoverable	6020	1.3 I	µg/L	5.0	0.5	1	11/10/10	11/12/10 14:19	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/10/10	11/12/10 14:19	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-11A  
**Lab Code:** J1005286-005

**Service Request:** J1005286  
**Date Collected:** 11/2/10 1225  
**Date Received:** 11/3/10  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/12/10 14:24	
Arsenic, Total Recoverable	6020	11.2	µg/L	0.50	0.40	1	11/10/10	11/12/10 14:24	
Barium, Total Recoverable	6020	18.8	µg/L	2.0	0.3	1	11/10/10	11/12/10 14:24	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/10/10	11/12/10 14:24	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/10/10	11/12/10 14:24	
Chromium, Total Recoverable	6020	4.5	µg/L	2.0	0.3	1	11/10/10	11/12/10 14:24	
Cobalt, Total Recoverable	6020	1 I	µg/L	1.0	0.1	1	11/10/10	11/12/10 14:24	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/10/10	11/12/10 14:24	
Iron, Total Recoverable	6010B	13700	µg/L	100	10	1	11/4/10	11/12/10 00:22	
Lead, Total Recoverable	6020	0.1 I	µg/L	1.0	0.1	1	11/10/10	11/12/10 14:24	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/9/10	11/10/10 15:37	
Nickel, Total Recoverable	6020	2.0	µg/L	2.0	0.2	1	11/10/10	11/12/10 14:24	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/10/10	11/12/10 14:24	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/10/10	11/12/10 14:24	
Sodium, Total Recoverable	6010B	37.7	mg/L	0.50	0.02	1	11/4/10	11/12/10 12:24	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/12/10 14:24	
Vanadium, Total Recoverable	6020	5.4	µg/L	5.0	0.5	1	11/10/10	11/12/10 14:24	
Zinc, Total Recoverable	6020	2 I	µg/L	10	2	1	11/10/10	11/12/10 14:24	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-11C  
**Lab Code:** J1005286-006

**Service Request:** J1005286  
**Date Collected:** 11/2/10 11:55  
**Date Received:** 11/3/10  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/12/10 14:29	
Arsenic, Total Recoverable	6020	ND U	µg/L	0.50	0.40	1	11/10/10	11/12/10 14:29	
Barium, Total Recoverable	6020	<b>10.6</b>	µg/L	2.0	0.3	1	11/10/10	11/12/10 14:29	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/10/10	11/12/10 14:29	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/10/10	11/12/10 14:29	
Chromium, Total Recoverable	6020	<b>1.3 I</b>	µg/L	2.0	0.3	1	11/10/10	11/12/10 14:29	
Cobalt, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/12/10 14:29	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/10/10	11/12/10 14:29	
Iron, Total Recoverable	6010B	<b>510</b>	µg/L	100	10	1	11/4/10	11/12/10 00:26	
Lead, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/12/10 14:29	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/9/10	11/10/10 15:38	
Nickel, Total Recoverable	6020	<b>0.3 I</b>	µg/L	2.0	0.2	1	11/10/10	11/12/10 14:29	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/10/10	11/12/10 14:29	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/10/10	11/12/10 14:29	
Sodium, Total Recoverable	6010B	<b>12.0</b>	mg/L	0.50	0.02	1	11/4/10	11/12/10 12:26	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/12/10 14:29	
Vanadium, Total Recoverable	6020	ND U	µg/L	5.0	0.5	1	11/10/10	11/12/10 14:29	
Zinc, Total Recoverable	6020	<b>3 I</b>	µg/L	10	2	1	11/10/10	11/12/10 14:29	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-10A  
**Lab Code:** J1005286-007

**Service Request:** J1005286  
**Date Collected:** 11/2/10 1440  
**Date Received:** 11/3/10  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/12/10 14:49	
Arsenic, Total Recoverable	6020	1.53	µg/L	0.50	0.40	1	11/10/10	11/12/10 14:49	
Barium, Total Recoverable	6020	3.6	µg/L	2.0	0.3	1	11/10/10	11/12/10 14:49	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/10/10	11/12/10 14:49	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/10/10	11/12/10 14:49	
Chromium, Total Recoverable	6020	3.1	µg/L	2.0	0.3	1	11/10/10	11/12/10 14:49	
Cobalt, Total Recoverable	6020	0.2 I	µg/L	1.0	0.1	1	11/10/10	11/12/10 14:49	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/10/10	11/12/10 14:49	
Iron, Total Recoverable	6010B	620	µg/L	100	10	1	11/4/10	11/12/10 00:30	
Lead, Total Recoverable	6020	0.4 I	µg/L	1.0	0.1	1	11/10/10	11/12/10 14:49	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/9/10	11/10/10 15:40	
Nickel, Total Recoverable	6020	0.9 I	µg/L	2.0	0.2	1	11/10/10	11/12/10 14:49	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/10/10	11/12/10 14:49	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/10/10	11/12/10 14:49	
Sodium, Total Recoverable	6010B	8.16	mg/L	0.50	0.02	1	11/4/10	11/12/10 12:29	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/12/10 14:49	
Vanadium, Total Recoverable	6020	2.6 I	µg/L	5.0	0.5	1	11/10/10	11/12/10 14:49	
Zinc, Total Recoverable	6020	2 I	µg/L	10	2	1	11/10/10	11/12/10 14:49	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-10C  
**Lab Code:** J1005286-008

**Service Request:** J1005286  
**Date Collected:** 11/2/10 15:10  
**Date Received:** 11/3/10  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/12/10 15:14	
Arsenic, Total Recoverable	6020	ND U	µg/L	0.50	0.40	1	11/10/10	11/12/10 15:14	
Barium, Total Recoverable	6020	<b>20.5</b>	µg/L	2.0	0.3	1	11/10/10	11/12/10 15:14	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/10/10	11/12/10 15:14	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/10/10	11/12/10 15:14	
Chromium, Total Recoverable	6020	<b>1.5</b> I	µg/L	2.0	0.3	1	11/10/10	11/12/10 15:14	
Cobalt, Total Recoverable	6020	<b>0.1</b> I	µg/L	1.0	0.1	1	11/10/10	11/12/10 15:14	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/10/10	11/12/10 15:14	
Iron, Total Recoverable	6010B	<b>840</b>	µg/L	100	10	1	11/4/10	11/12/10 00:35	
Lead, Total Recoverable	6020	<b>0.2</b> I	µg/L	1.0	0.1	1	11/10/10	11/12/10 15:14	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/9/10	11/10/10 15:41	
Nickel, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/12/10 15:14	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/10/10	11/12/10 15:14	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/10/10	11/12/10 15:14	
Sodium, Total Recoverable	6010B	<b>6.88</b>	mg/L	0.50	0.02	1	11/4/10	11/12/10 12:31	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/12/10 15:14	
Vanadium, Total Recoverable	6020	<b>1.8</b> I	µg/L	5.0	0.5	1	11/10/10	11/12/10 15:14	
Zinc, Total Recoverable	6020	<b>4</b> I	µg/L	10	2	1	11/10/10	11/12/10 15:14	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** EB-1  
**Lab Code:** J1005286-009

**Service Request:** J1005286  
**Date Collected:** 11/2/10 12:50  
**Date Received:** 11/3/10  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/12/10 15:19	
Arsenic, Total Recoverable	6020	ND U	µg/L	0.50	0.40	1	11/10/10	11/12/10 15:19	
Barium, Total Recoverable	6020	<b>33.0</b>	µg/L	2.0	0.3	1	11/10/10	11/12/10 15:19	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/10/10	11/12/10 15:19	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/10/10	11/12/10 15:19	
Chromium, Total Recoverable	6020	<b>0.3</b> I	µg/L	2.0	0.3	1	11/10/10	11/12/10 15:19	
Cobalt, Total Recoverable	6020	<b>0.1</b> I	µg/L	1.0	0.1	1	11/10/10	11/12/10 15:19	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/10/10	11/12/10 15:19	
Iron, Total Recoverable	6010B	<b>20</b> I	µg/L	100	10	1	11/4/10	11/12/10 00:40	
Lead, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/12/10 15:19	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/9/10	11/10/10 15:43	
Nickel, Total Recoverable	6020	<b>0.8</b> I	µg/L	2.0	0.2	1	11/10/10	11/12/10 15:19	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/10/10	11/12/10 15:19	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/10/10	11/12/10 15:19	
Sodium, Total Recoverable	6010B	<b>38.2</b>	mg/L	0.50	0.02	1	11/4/10	11/12/10 12:34	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/12/10 15:19	
Vanadium, Total Recoverable	6020	<b>0.8</b> I	µg/L	5.0	0.5	1	11/10/10	11/12/10 15:19	
Zinc, Total Recoverable	6020	7 I	µg/L	10	2	1	11/10/10	11/12/10 15:19	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005339-04

**Service Request:** J1005286  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Total Recoverable	6010B	10 I	µg/L	100	10	1	11/4/10	11/11/10 22:37	
Sodium, Total Recoverable	6010B	0.20 I	mg/L	0.50	0.02	1	11/4/10	11/11/10 22:35	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005354-01

**Service Request:** J1005286**Date Collected:** NA**Date Received:** NA**Basis:** NA**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/8/10	11/8/10 17:09	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005415-02

**Service Request:** J1005286  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/9/10	11/10/10 15:25	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005466-02

**Service Request:** J1005286  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/12/10 13:49	
Arsenic, Total Recoverable	6020	ND U	µg/L	0.50	0.40	1	11/10/10	11/12/10 13:49	
Barium, Total Recoverable	6020	ND U	µg/L	2.0	0.3	1	11/10/10	11/12/10 13:49	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/10/10	11/12/10 13:49	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/10/10	11/12/10 13:49	
Chromium, Total Recoverable	6020	ND U	µg/L	2.0	0.3	1	11/10/10	11/12/10 13:49	
Cobalt, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/12/10 13:49	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/10/10	11/12/10 13:49	
Lead, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/12/10 13:49	
Nickel, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/12/10 13:49	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/10/10	11/12/10 13:49	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/10/10	11/12/10 13:49	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/12/10 13:49	
Vanadium, Total Recoverable	6020	ND U	µg/L	5.0	0.5	1	11/10/10	11/12/10 13:49	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/10/10	11/12/10 13:49	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-13A  
**Lab Code:** J1005286-001

**Service Request:** J1005286  
**Date Collected:** 11/2/10 0840  
**Date Received:** 11/3/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	<b>1.26</b>		mg/L	0.010	0.004	1	NA	11/5/10 13:41	
Chloride	300.0	<b>11.0</b>		mg/L	0.50	0.09	1	NA	11/3/10 16:55	
Nitrate as Nitrogen	300.0	ND	U	mg/L	0.20	0.07	1	NA	11/3/10 16:55	
Solids, Total Dissolved	SM 2540 C	<b>95</b>		mg/L	10	10	1	NA	11/4/10 15:25	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-13C  
**Lab Code:** J1005286-002

**Service Request:** J1005286  
**Date Collected:** 11/2/10 0815  
**Date Received:** 11/3/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	<b>0.111</b>	mg/L	0.010	0.004	1	NA	11/5/10 13:42	
Chloride	300.0	<b>12.0</b>	mg/L	0.50	0.09	1	NA	11/3/10 17:39	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/3/10 17:39	
Solids, Total Dissolved	SM 2540 C	<b>32</b>	mg/L	10	10	1	NA	11/4/10 15:25	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-12A  
**Lab Code:** J1005286-003

**Service Request:** J1005286  
**Date Collected:** 11/2/10 1020  
**Date Received:** 11/3/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	<b>0.343</b>	mg/L	0.010	0.004	1	NA	11/5/10 13:43	
Chloride	300.0	<b>20.8</b>	mg/L	0.50	0.09	1	NA	11/3/10 17:54	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/3/10 17:54	
Solids, Total Dissolved	SM 2540 C	<b>69</b>	mg/L	10	10	1	NA	11/4/10 15:25	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-12C  
**Lab Code:** J1005286-004

**Service Request:** J1005286  
**Date Collected:** 11/2/10 0940  
**Date Received:** 11/3/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	<b>0.094</b>	mg/L	0.010	0.004	1	NA	11/5/10 13:47	
Chloride	300.0	<b>7.92</b>	mg/L	0.50	0.09	1	NA	11/3/10 18:09	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/3/10 18:09	
Solids, Total Dissolved	SM 2540 C	<b>27</b>	mg/L	10	10	1	NA	11/4/10 15:25	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-11A  
**Lab Code:** J1005286-005

**Service Request:** J1005286  
**Date Collected:** 11/2/10 1225  
**Date Received:** 11/3/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	<b>6.71</b>	mg/L	0.010	0.004	1	NA	11/5/10 13:48	
Chloride	300.0	<b>53.3</b>	mg/L	0.50	0.09	1	NA	11/3/10 18:54	
Nitrate as Nitrogen	300.0	<b>0.19 I</b>	mg/L	0.20	0.07	1	NA	11/3/10 18:54	
Solids, Total Dissolved	SM 2540 C	<b>232</b>	mg/L	10	10	1	NA	11/4/10 15:25	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-11C  
**Lab Code:** J1005286-006

**Service Request:** J1005286  
**Date Collected:** 11/2/10 1155  
**Date Received:** 11/3/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	<b>0.098</b>	mg/L	0.010	0.004	1	NA	11/5/10 13:49	
Chloride	300.0	<b>17.4</b>	mg/L	0.50	0.09	1	NA	11/3/10 19:09	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/3/10 19:09	
Solids, Total Dissolved	SM 2540 C	<b>63</b>	mg/L	10	10	1	NA	11/4/10 15:25	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-10A  
**Lab Code:** J1005286-007

**Service Request:** J1005286  
**Date Collected:** 11/2/10 1440  
**Date Received:** 11/3/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	7.19	mg/L	0.010	0.004	1	NA	11/5/10 13:50	
Chloride	300.0	9.20	mg/L	0.50	0.09	1	NA	11/3/10 19:24	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/3/10 19:24	
Solids, Total Dissolved	SM 2540 C	93	mg/L	10	10	1	NA	11/4/10 15:25	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-10C  
**Lab Code:** J1005286-008

**Service Request:** J1005286  
**Date Collected:** 11/2/10 1510  
**Date Received:** 11/3/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	<b>0.118</b>	mg/L	0.010	0.004	1	NA	11/5/10 13:52	
Chloride	300.0	<b>7.99</b>	mg/L	0.50	0.09	1	NA	11/3/10 19:39	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/3/10 19:39	
Solids, Total Dissolved	SM 2540 C	<b>42</b>	mg/L	10	10	1	NA	11/4/10 15:25	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** EB-1  
**Lab Code:** J1005286-009

**Service Request:** J1005286  
**Date Collected:** 11/2/10 1250  
**Date Received:** 11/3/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	ND U	mg/L	0.010	0.004	1	NA	11/5/10 13:59	
Chloride	300.0	89.0	mg/L	0.50	0.09	1	NA	11/3/10 19:54	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/3/10 19:54	
Solids, Total Dissolved	SM 2540 C	558	mg/L	10	10	1	NA	11/4/10 15:25	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005299-01

**Service Request:** J1005286  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Date Note
Chloride	300.0	ND U	mg/L	0.50	0.09	1	NA	11/3/10	15:55
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/3/10	15:55

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005335-04

**Service Request:** J1005286  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total Dissolved	SM 2540 C	ND U	mg/L	10	10	1	NA	11/4/10 15:25	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005375-01

**Service Request:** J1005286**Date Collected:** NA**Date Received:** NA**Basis:** NA**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	ND U	mg/L	0.010	0.004	1	NA	11/5/10 13:05	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005376-01

**Service Request:** J1005286  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	ND U	mg/L	0.010	0.004	1	NA	11/5/10 13:51	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005286

**Surrogate Recovery Summary**  
**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Units:** Percent

<b>Sample Name</b>	<b>Lab Code</b>	<b>Sur1</b>	<b>Sur2</b>	<b>Sur3</b>	<b>Sur4</b>
MW-13A	J1005286-001	88	102	94	103
MW-13C	J1005286-002	84	104	95	104
MW-12A	J1005286-003	89	105	96	105
MW-12C	J1005286-004	90	104	96	104
MW-11A	J1005286-005	92	106	96	105
MW-11C	J1005286-006	97	103	100	108
MW-10A	J1005286-007	87	104	94	104
MW-10C	J1005286-008	88	104	94	102
EB-1	J1005286-009	91	107	96	107
Trip Blank	J1005286-010	88	106	94	104
Method Blank	JQ1005619-02	86	103	91	104
Method Blank	JQ1005640-02	103	113	106	119 *
Lab Control Sample	JQ1005619-01	99	100	108	105
Lab Control Sample	JQ1005640-01	91	101	103	108

**Surrogate Recovery Control Limits (%)**

Sur1	= 1,2-Dichloroethane-d4	71 - 122
Sur2	= 4-Bromofluorobenzene	75 - 120
Sur3	= Dibromofluoromethane	82 - 116
Sur4	= Toluene-d8	88 - 117

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005286  
**Date Analyzed:** 11/15/10

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Units:** µg/L  
**Basis:** NA

**Analysis Lot:** 225490**Lab Control Sample**

JQ1005619-01

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	19.3	20.0	96	85 - 117
1,1,1-Trichloroethane (TCA)	20.6	20.0	103	79 - 124
1,1,2,2-Tetrachloroethane	20.3	20.0	102	83 - 120
1,1,2-Trichloroethane	20.4	20.0	102	86 - 114
1,1-Dichloroethane (1,1-DCA)	20.4	20.0	102	80 - 128
1,1-Dichloroethene (1,1-DCE)	20.7	20.0	103	78 - 130
1,2,3-Trichloropropane	20.1	20.0	100	83 - 123
1,2-Dibromo-3-chloropropane (DBCP)	17.7	20.0	89	62 - 123
1,2-Dibromoethane (EDB)	20.3	20.0	102	88 - 117
1,2-Dichlorobenzene	18.0	20.0	90	84 - 115
1,2-Dichloroethane	18.0	20.0	90	80 - 124
1,2-Dichloropropane	21.3	20.0	107	79 - 123
1,4-Dichlorobenzene	17.9	20.0	90	83 - 113
2-Butanone (MEK)	100	100	100	73 - 127
2-Hexanone	86.8	100	87	71 - 138
4-Methyl-2-pentanone (MIBK)	84.3	100	84	72 - 136
Acetone	98.0	100	98	67 - 133
Acrylonitrile	94.9	100	95	77 - 127
Benzene	21.1	20.0	106	79 - 119
Bromochloromethane	21.8	20.0	109	79 - 129
Bromodichloromethane	20.9	20.0	104	81 - 123
Bromoform	17.2	20.0	86	68 - 129
Bromomethane	25.4	20.0	127	79 - 130
Carbon Disulfide	108	100	108	76 - 138
Carbon Tetrachloride	19.9	20.0	99	81 - 125
Chlorobenzene	20.1	20.0	100	86 - 113
Chloroethane	22.5	20.0	112	74 - 126
Chloroform	20.5	20.0	102	83 - 124
Chloromethane	18.7	20.0	94	67 - 135
cis-1,2-Dichloroethene	19.7	20.0	99	80 - 126
cis-1,3-Dichloropropene	19.6	20.0	98	86 - 123
Dibromochloromethane	19.6	20.0	98	82 - 121

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005286  
**Date Analyzed:** 11/15/10

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Units:** µg/L  
**Basis:** NA

**Analysis Lot:** 225490

**Lab Control Sample**

JQ1005619-01

<b>Analyte Name</b>	<b>Result</b>	<b>Spike</b>	<b>% Rec</b>	<b>% Rec Limits</b>
		<b>Amount</b>		
Dibromomethane	20.7	20.0	103	83 - 123
Ethylbenzene	19.7	20.0	98	90 - 118
Iodomethane	107	100	107	68 - 134
m,p-Xylenes	38.8	40.0	97	86 - 121
Methylene Chloride	20.5	20.0	102	72 - 124
o-Xylene	19.6	20.0	98	89 - 119
Styrene	19.9	20.0	100	89 - 122
Tetrachloroethene (PCE)	21.6	20.0	108	80 - 121
Toluene	19.4	20.0	97	86 - 117
trans-1,2-Dichloroethene	20.4	20.0	102	77 - 124
trans-1,3-Dichloropropene	19.4	20.0	97	83 - 124
trans-1,4-Dichloro-2-butene	10.7	20.0	53	53 - 143
Trichloroethene (TCE)	21.5	20.0	108	76 - 124
Trichlorofluoromethane	21.9	20.0	109	74 - 134
Vinyl Acetate	83.6	100	84	61 - 148
Vinyl Chloride	21.3	20.0	107	78 - 132

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

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## COLUMBIA ANALYTICAL SERVICES, INC.

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005286  
**Date Analyzed:** 11/16/10

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Units:** µg/L  
**Basis:** NA

**Analysis Lot:** 225579**Lab Control Sample**

JQ1005640-01

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	19.5	20.0	98	85 - 117
1,1,1-Trichloroethane (TCA)	17.3	20.0	87	79 - 124
1,1,2,2-Tetrachloroethane	20.4	20.0	102	83 - 120
1,1,2-Trichloroethane	20.6	20.0	103	86 - 114
1,1-Dichloroethane (1,1-DCA)	17.8	20.0	89	80 - 128
1,1-Dichloroethene (1,1-DCE)	17.6	20.0	88	78 - 130
1,2,3-Trichloropropane	19.9	20.0	99	83 - 123
1,2-Dibromo-3-chloropropane (DBCP)	19.0	20.0	95	62 - 123
1,2-Dibromoethane (EDB)	20.8	20.0	104	88 - 117
1,2-Dichlorobenzene	18.6	20.0	93	84 - 115
1,2-Dichloroethane	15.8	20.0	79 *	80 - 124
1,2-Dichloropropane	18.8	20.0	94	79 - 123
1,4-Dichlorobenzene	18.5	20.0	92	83 - 113
2-Butanone (MEK)	81.5	100	81	73 - 127
2-Hexanone	89.8	100	90	71 - 138
4-Methyl-2-pentanone (MIBK)	89.5	100	90	72 - 136
Acetone	87.3	100	87	67 - 133
Acrylonitrile	86.8	100	87	77 - 127
Benzene	18.2	20.0	91	79 - 119
Bromochloromethane	19.2	20.0	96	79 - 129
Bromodichloromethane	18.2	20.0	91	81 - 123
Bromoform	17.5	20.0	88	68 - 129
Bromomethane	21.3	20.0	107	79 - 130
Carbon Disulfide	91.3	100	91	76 - 138
Carbon Tetrachloride	16.7	20.0	84	81 - 125
Chlorobenzene	19.9	20.0	99	86 - 113
Chloroethane	19.0	20.0	95	74 - 126
Chloroform	18.4	20.0	92	83 - 124
Chloromethane	15.4	20.0	77	67 - 135
cis-1,2-Dichloroethene	17.2	20.0	86	80 - 126
cis-1,3-Dichloropropene	19.4	20.0	97	86 - 123
Dibromochloromethane	19.5	20.0	98	82 - 121

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005286  
**Date Analyzed:** 11/16/10

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Units:** µg/L  
**Basis:** NA

**Analysis Lot:** 225579

**Lab Control Sample**

JQ1005640-01

<b>Analyte Name</b>	<b>Result</b>	<b>Spike</b>	<b>% Rec</b>	<b>% Rec</b>
		<b>Amount</b>	<b>Limits</b>	
Dibromomethane	18.5	20.0	92	83 - 123
Ethylbenzene	19.3	20.0	96	90 - 118
Iodomethane	93.3	100	93	68 - 134
m,p-Xylenes	38.4	40.0	96	86 - 121
Methylene Chloride	18.1	20.0	90	72 - 124
o-Xylene	19.3	20.0	96	89 - 119
Styrene	19.9	20.0	99	89 - 122
Tetrachloroethene (PCE)	20.4	20.0	102	80 - 121
Toluene	19.0	20.0	95	86 - 117
trans-1,2-Dichloroethene	17.3	20.0	86	77 - 124
trans-1,3-Dichloropropene	18.6	20.0	93	83 - 124
trans-1,4-Dichloro-2-butene	9.85	20.0	49 *	53 - 143
Trichloroethene (TCE)	18.5	20.0	93	76 - 124
Trichlorofluoromethane	18.0	20.0	90	74 - 134
Vinyl Acetate	73.5	100	73	61 - 148
Vinyl Chloride	17.4	20.0	87	78 - 132

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005286  
**Date Collected:** 11/2/10  
**Date Received:** 11/3/10  
**Date Analyzed:** 11/12/10

**Matrix Spike Summary**  
**Inorganic Parameters**

**Sample Name:** MW-10A      **Units:** µg/L  
**Lab Code:** J1005286-007      **Basis:** NA

**Analytical Method:** 6020  
**Prep Method:** Method

Analyte Name	Sample Result	MW-10AMS			MW-10ADMS			% Rec Limits	RPD	RPD Limit			
		Matrix Spike			Duplicate Matrix Spike								
		JQ1005466-05	Result	Spike Amount	Result	Spike Amount	% Rec						
Antimony, Total Recoverable	ND	50.0	50.0	100	50.9	50.0	102	75 - 125	2	20			
Arsenic, Total Recoverable	1.53	52.5	50.0	102	52.5	50.0	102	75 - 125	<1	20			
Barium, Total Recoverable	3.6	53.8	50.0	100	55.3	50.0	103	75 - 125	3	20			
Beryllium, Total Recoverable	ND	46.7	50.0	93	46.1	50.0	92	75 - 125	1	20			
Cadmium, Total Recoverable	ND	49.5	50.0	99	49.6	50.0	99	75 - 125	<1	20			
Chromium, Total Recoverable	3.1	53.1	50.0	100	54.3	50.0	102	75 - 125	2	20			
Cobalt, Total Recoverable	0.2	49.9	50.0	99	50.0	50.0	100	75 - 125	<1	20			
Copper, Total Recoverable	ND	49.4	50.0	99	49.6	50.0	99	75 - 125	<1	20			
Lead, Total Recoverable	0.4	50.0	50.0	99	49.6	50.0	98	75 - 125	<1	20			
Nickel, Total Recoverable	0.9	49.8	50.0	98	50.1	50.0	98	75 - 125	<1	20			
Selenium, Total Recoverable	ND	45.8	50.0	92	46.8	50.0	94	75 - 125	2	20			
Silver, Total Recoverable	ND	50.3	50.0	101	50.6	50.0	101	75 - 125	<1	20			
Thallium, Total Recoverable	ND	49.1	50.0	98	49.2	50.0	98	75 - 125	<1	20			
Vanadium, Total Recoverable	2.6	52.7	50.0	100	51.9	50.0	99	75 - 125	1	20			
Zinc, Total Recoverable	2	105	100	103	106	100	104	75 - 125	1	20			

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.

**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005286  
**Date Analyzed:** 11/11/10 -  
11/12/10

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:** µg/L  
**Basis:** NA

<b>Analyte Name</b>	<b>Method</b>	<b>Lab Control Sample</b>			<b>Duplicate Lab Control Sample</b>			<b>% Rec Limits</b>	<b>RPD</b>	<b>RPD Limit</b>			
		<b>JQ1005339-01</b>			<b>JQ1005339-02</b>								
		<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>						
Iron, Total Recoverable	6010B	2050	2000	103	2020	2000	101	80 - 120	2	20			

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005286  
**Date Analyzed:** 11/11/10 -  
11/12/10

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:** mg/L  
**Basis:** NA

**Lab Control Sample**  
JQ1005339-01**Duplicate Lab Control Sample**  
JQ1005339-02

<b>Analyte Name</b>	<b>Method</b>	<b>Lab Control Sample</b>			<b>Duplicate Lab Control Sample</b>			<b>% Rec Limits</b>	<b>RPD</b>	<b>RPD Limit</b>
		<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>			
Sodium, Total Recoverable	6010B	9.87	10.0	99	10.1	10.0	101	80 - 120	2	20

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005286  
**Date Analyzed:** 11/8/10

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:** µg/L  
**Basis:** NA

**Lab Control Sample**

JQ1005354-02

<b>Analyte Name</b>	<b>Method</b>	<b>Spike</b>			<b>% Rec</b>	<b>Limits</b>
		<b>Result</b>	<b>Amount</b>	<b>% Rec</b>		
Mercury, Total	7470A	4.98	5.00	100	80 - 120	

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005286  
**Date Analyzed:** 11/10/10

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:** µg/L  
**Basis:** NA

**Lab Control Sample**

JQ1005415-01

<b>Analyte Name</b>	<b>Method</b>	<b>Spike</b>		<b>% Rec</b>	
		<b>Result</b>	<b>Amount</b>	<b>% Rec</b>	<b>Limits</b>
Mercury, Total	7470A	5.10	5.00	102	80 - 120

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005286  
**Date Analyzed:** 11/12/10

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:**  $\mu\text{g/L}$   
**Basis:** NA

**Lab Control Sample**  
**JQ1005466-01**

<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Spike</b>		<b>% Rec Limits</b>
			<b>Amount</b>	<b>% Rec</b>	
Antimony, Total Recoverable	6020	50.9	50.0	102	80 - 120
Arsenic, Total Recoverable	6020	52.2	50.0	104	80 - 120
Barium, Total Recoverable	6020	49.9	50.0	100	80 - 120
Beryllium, Total Recoverable	6020	46.7	50.0	93	80 - 120
Cadmium, Total Recoverable	6020	49.4	50.0	99	80 - 120
Chromium, Total Recoverable	6020	50.3	50.0	101	80 - 120
Cobalt, Total Recoverable	6020	50.7	50.0	101	80 - 120
Copper, Total Recoverable	6020	50.4	50.0	101	80 - 120
Lead, Total Recoverable	6020	49.9	50.0	100	80 - 120
Nickel, Total Recoverable	6020	49.4	50.0	99	80 - 120
Selenium, Total Recoverable	6020	51.2	50.0	102	80 - 120
Silver, Total Recoverable	6020	49.9	50.0	100	80 - 120
Thallium, Total Recoverable	6020	50.0	50.0	100	80 - 120
Vanadium, Total Recoverable	6020	49.5	50.0	99	80 - 120
Zinc, Total Recoverable	6020	105	100	105	80 - 120

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005286  
**Date Collected:** 11/2/10  
**Date Received:** 11/3/10  
**Date Analyzed:** 11/3/10

**Matrix Spike Summary**  
**General Chemistry Parameters**

**Sample Name:** MW-13A  
**Lab Code:** J1005286-001

**Units:** mg/L  
**Basis:** NA

**Analytical Method:** 300.0

MW-13AMS  
**Matrix Spike**  
JQ1005299-03

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Chloride	11.0	60.4	50.0	99	90 - 110
Nitrate as Nitrogen	ND	4.64	5.00	93	90 - 110

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.

**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005286  
**Date Collected:** 11/2/10  
**Date Received:** 11/3/10  
**Date Analyzed:** 11/5/10

**Matrix Spike Summary**  
**General Chemistry Parameters**

**Sample Name:** MW-10C  
**Lab Code:** J1005286-008

**Units:** mg/L  
**Basis:** NA

**Analytical Method:** 350.1

MW-10CMS  
**Matrix Spike**  
JQ1005376-03

<b>Analyte Name</b>	<b>Sample Result</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Ammonia as Nitrogen	0.118	1.10	1.00	98	90 - 110

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.

**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005286  
**Date Collected:** 11/2/10  
**Date Received:** 11/3/10  
**Date Analyzed:** 11/3/10

**Replicate Sample Summary**  
**General Chemistry Parameters**

**Sample Name:** MW-13A                            **Units:** mg/L  
**Lab Code:** J1005286-001                        **Basis:** NA

<b>Analyte Name</b>	<b>Method</b>	<b>MRL</b>	<b>MDL</b>	<b>Sample Result</b>	<b>MW-13ADUP</b>		<b>RPD</b>	<b>Limit</b>
					<b>Duplicate Sample</b>	<b>JQ1005299-04</b>		
Chloride	300.0	0.50	0.09	11.0	11.0	11.0	<1	20
Nitrate as Nitrogen	300.0	0.20	0.07	ND U	ND U	NC	NC	20

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.

**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005286  
**Date Collected:** 11/2/10  
**Date Received:** 11/3/10  
**Date Analyzed:** 11/5/10

**Replicate Sample Summary**  
**General Chemistry Parameters**

**Sample Name:** MW-10C   **Units:** mg/L  
**Lab Code:** J1005286-008                                   **Basis:** NA

<b>Analyte Name</b>	<b>Method</b>	<b>MRL</b>	<b>MDL</b>	<b>Sample Result</b>	<b>MW-10CDUP</b> <b>Duplicate Sample</b> JQ1005376-04			<b>RPD</b>	<b>Limit</b>
					<b>Result</b>	<b>Average</b>			
Ammonia as Nitrogen	350.1	0.010	0.004	0.118	0.118	0.118	<1	20	

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.

**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005286  
**Date Analyzed:** 11/3/10

**Lab Control Sample Summary**  
**General Chemistry Parameters**

**Units:** mg/L  
**Basis:** NA

**Lab Control Sample**  
JQ1005299-02

<b>Analyte Name</b>	<b>Method</b>	<b>Spike</b>			<b>% Rec</b>	<b>Limits</b>
		<b>Result</b>	<b>Amount</b>	<b>% Rec</b>		
Chloride	300.0	50.9	50.0	102	90 - 110	
Nitrate as Nitrogen	300.0	4.80	5.00	96	90 - 110	

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005286  
**Date Analyzed:** 11/4/10

**Lab Control Sample Summary  
General Chemistry Parameters****Units:** mg/L**Basis:** NA

<b>Analyte Name</b>	<b>Method</b>	<b>Lab Control Sample</b>			<b>Duplicate Lab Control Sample</b>			<b>% Rec Limits</b>	<b>RPD</b>	<b>Limit</b>			
		JQ1005335-05			JQ1005335-06								
		<b>Spike</b>	<b>Result</b>	<b>Amount</b>	<b>Spike</b>	<b>Result</b>	<b>Amount</b>						
Solids, Total Dissolved	SM 2540 C	278	300	93	288	300	96	85 - 115	4	20			

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005286  
**Date Analyzed:** 11/4/10

**Lab Control Sample Summary  
General Chemistry Parameters**

**Units:** mg/L  
**Basis:** NA

**Lab Control Sample**

JQ1005335-07

<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Spike</b>	<b>% Rec</b>	
			<b>Amount</b>	<b>% Rec</b>	<b>Limits</b>
Solids, Total Dissolved	SM 2540 C	28.0	30	93	70 - 130

**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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005286  
**Date Analyzed:** 11/5/10

**Lab Control Sample Summary  
General Chemistry Parameters**

**Units:** mg/L  
**Basis:** NA

**Lab Control Sample**

JQ1005375-02

<b>Analyte Name</b>	<b>Method</b>	<b>Spike</b>			<b>% Rec</b>	<b>Limits</b>
		<b>Result</b>	<b>Amount</b>	<b>% Rec</b>		
Ammonia as Nitrogen	350.1	0.982	1.00	98	90 - 110	

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005286  
**Date Analyzed:** 11/5/10

**Lab Control Sample Summary  
General Chemistry Parameters**

**Units:** mg/L  
**Basis:** NA

**Lab Control Sample  
JQ1005376-02**

<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Spike</b>	<b>% Rec</b>	
			<b>Amount</b>	<b>% Rec</b>	<b>Limits</b>
Ammonia as Nitrogen	350.1	1.01	1.00	101	90 - 110

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: EPS

Service Request #:

-51005286

Project: JED SWPF

and opened on 11/3/10 by CKB

Cooler received on 11/3/10 and opened on 11/3/10 by CKS

COURIER: CAS KPS FEDEX Client Other Airbill #

Airbill #

- |    |   |   |                         |
|----|---|---|-------------------------|
| 1  | Were custody seals on outside of cooler?  | <input checked="" type="checkbox"/> Yes | No                      |
|    | If yes, how many and where?   | #: <u>1</u> on <u>lid</u>               | other                   |
| 2  | Were seals intact and signature and date correct?   | <input checked="" type="checkbox"/> Yes | No                      |
| 3  | Were custody papers properly filled out?  | Yes                                     | N/A                     |
| 4  | Temperature of cooler(s) upon receipt (Should be > 0°C and < 6°C)                                 | <u>15°</u>                              |                         |
| 5  | Thermometer ID  | <u>T12</u>                              |                         |
| 6  | Temperature Blank Present?  | Yes                                     | No                      |
| 7  | Were Ice or Ice Packs present   | <input checked="" type="checkbox"/> Ice | Ice Packs               |
| 8  | Did all bottles arrive in good condition (unbroken, etc....)?                                     | <input checked="" type="checkbox"/> Yes | No                      |
| 9  | Type of packing material present  | Netting                                 | Vial Holder Bubble Wrap |
|    |   | Paper                                   | Styrofoam Other N/A     |
| 10 | Were all bottle labels complete (sample ID, preservation, etc....)?                               | <input checked="" type="checkbox"/> Yes | No                      |
| 11 | Did all bottle labels and tags agree with custody papers?   | <input checked="" type="checkbox"/> Yes | No                      |
| 12 | Were the correct bottles used for the tests indicated?  | <input checked="" type="checkbox"/> Yes | No                      |
| 13 | Were all of the preserved bottles received with the appropriate preservative?                     | <input checked="" type="checkbox"/> Yes | No                      |
|    | HNO <sub>3</sub> pH<2 H <sub>2</sub> SO <sub>4</sub> pH<2 ZnAc <sub>2</sub> /NaOH pH>9 NaOH pH>12 |   |                         |
|    | Preservative additions noted below  | HCl pH<2                                |                         |
| 14 | Were all samples received within analysis holding times?  | <input checked="" type="checkbox"/> Yes | No                      |
| 15 | Were VOA vials checked for absence of air bubbles? If present, note below                         | <input checked="" type="checkbox"/> Yes | No                      |
| 16 | Where did the bottles originate?  | <input checked="" type="checkbox"/> CAS | Client                  |

Additional comments and/or explanation of all discrepancies noted above:

Client approval to run samples if discrepancies noted:

Date:

77

SR #: J1205286

Note that pH is check and meets the required pH criterion listed in the column heading unless otherwise noted on the cooler receipt form.

Date: 11/3/20 Initials: C1eB

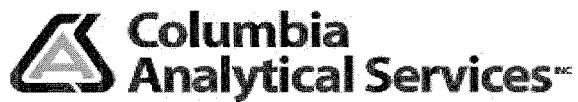
Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Container	G	G	G	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	G	G	G	G	G	G	G	G	P	Misc.		
Preserve	N/A	S203	N/A	HCl	H2SO4	HNO3	N/A	H2SO4	HNO3	N/A	HCl	H2SO4	N/A	N/A																	
Req. pH	N/A	<2	N/A	N/A	<2	<2	N/A	<2	<2	N/A	<2	N/A	<2	N/A	<2	N/A	<2	N/A	<2	N/A	<2	N/A									
Sample #	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-1	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
-2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
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-4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
-5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
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-22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
-23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
-24	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
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-27	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
-28	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
-29	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
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-32	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
-33	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
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-40	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	

NOTE: VOA pH checks are performed by the analytical area, not sample control

# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

 SR# **J1605286**  
 CAS Contact

<b>Project Name:</b> <b>JED SWDF</b> <b>Project Manager:</b> <b>Kyle Willis</b> <b>Company/Address:</b> <b>EPS</b> <b>Email Address:</b> <b>Kwill@envoplanning.com</b>		<b>ANALYSIS REQUESTED (Include Method Number and Concentration)</b>  <div style="display: flex; justify-content: space-between;"> <div style="flex: 1;"> <b>Preservative</b>  <input type="checkbox"/> 1   <input type="checkbox"/> 0   <input type="checkbox"/> 3   <input type="checkbox"/> 0   <input type="checkbox"/> 2         </div> <div style="flex: 1;"> <b>Number of Containers</b>  <input type="checkbox"/> 1   <input type="checkbox"/> 2   <input type="checkbox"/> 3   <input type="checkbox"/> 4   <input type="checkbox"/> 5   <input type="checkbox"/> 6   <input type="checkbox"/> 7   <input type="checkbox"/> Other _____         </div> </div> <div style="display: flex; justify-content: space-between;"> <div style="flex: 1;"> <b>Sampling Date</b>  <input type="checkbox"/> 11-2-10   <input type="checkbox"/> 0840   <input type="checkbox"/> 6W   <input type="checkbox"/> 9   <input type="checkbox"/> X   <input type="checkbox"/> X   <input type="checkbox"/> X   <input type="checkbox"/> X         </div> <div style="flex: 1;"> <b>Sampling Time</b>  <input type="checkbox"/> 0815   <input type="checkbox"/> 1020   <input type="checkbox"/> 0940   <input type="checkbox"/> 1225   <input type="checkbox"/> 1155   <input type="checkbox"/> 1440   <input type="checkbox"/> 1510   <input type="checkbox"/> 1250   <input type="checkbox"/> 11-25-10   <input type="checkbox"/> 0830         </div> </div> <div style="display: flex; justify-content: space-between;"> <div style="flex: 1;"> <b>Matrix</b>  <input type="checkbox"/> 1   <input type="checkbox"/> 2   <input type="checkbox"/> 3   <input type="checkbox"/> 4   <input type="checkbox"/> 5   <input type="checkbox"/> 6   <input type="checkbox"/> 7   <input type="checkbox"/> 8   <input type="checkbox"/> 9   <input type="checkbox"/> 10   <input type="checkbox"/> 11   <input type="checkbox"/> 12   <input type="checkbox"/> 13   <input type="checkbox"/> 14   <input type="checkbox"/> 15   <input type="checkbox"/> 16   <input type="checkbox"/> 17   <input type="checkbox"/> 18   <input type="checkbox"/> 19   <input type="checkbox"/> 20   <input type="checkbox"/> 21   <input type="checkbox"/> 22   <input type="checkbox"/> 23   <input type="checkbox"/> 24   <input type="checkbox"/> 25   <input type="checkbox"/> 26   <input type="checkbox"/> 27   <input type="checkbox"/> 28   <input type="checkbox"/> 29   <input type="checkbox"/> 30   <input type="checkbox"/> 31   <input type="checkbox"/> 32   <input type="checkbox"/> 33   <input type="checkbox"/> 34   <input type="checkbox"/> 35   <input type="checkbox"/> 36   <input type="checkbox"/> 37   <input type="checkbox"/> 38   <input type="checkbox"/> 39   <input type="checkbox"/> 40   <input type="checkbox"/> 41   <input type="checkbox"/> 42   <input type="checkbox"/> 43   <input type="checkbox"/> 44   <input type="checkbox"/> 45   <input type="checkbox"/> 46   <input type="checkbox"/> 47   <input type="checkbox"/> 48   <input type="checkbox"/> 49   <input type="checkbox"/> 50   <input type="checkbox"/> 51   <input type="checkbox"/> 52   <input type="checkbox"/> 53   <input type="checkbox"/> 54   <input type="checkbox"/> 55   <input type="checkbox"/> 56   <input type="checkbox"/> 57   <input type="checkbox"/> 58   <input type="checkbox"/> 59   <input type="checkbox"/> 60   <input type="checkbox"/> 61   <input type="checkbox"/> 62   <input type="checkbox"/> 63   <input type="checkbox"/> 64   <input type="checkbox"/> 65   <input type="checkbox"/> 66   <input type="checkbox"/> 67   <input type="checkbox"/> 68   <input type="checkbox"/> 69   <input type="checkbox"/> 70   <input type="checkbox"/> 71   <input type="checkbox"/> 72   <input type="checkbox"/> 73   <input type="checkbox"/> 74   <input type="checkbox"/> 75   <input type="checkbox"/> 76   <input type="checkbox"/> 77   <input type="checkbox"/> 78   <input type="checkbox"/> 79   <input type="checkbox"/> 80   <input type="checkbox"/> 81   <input type="checkbox"/> 82   <input type="checkbox"/> 83   <input type="checkbox"/> 84   <input type="checkbox"/> 85   <input type="checkbox"/> 86   <input type="checkbox"/> 87   <input type="checkbox"/> 88   <input type="checkbox"/> 89   <input type="checkbox"/> 90   <input type="checkbox"/> 91   <input type="checkbox"/> 92   <input type="checkbox"/> 93   <input type="checkbox"/> 94   <input type="checkbox"/> 95   <input type="checkbox"/> 96   <input type="checkbox"/> 97   <input type="checkbox"/> 98   <input type="checkbox"/> 99   <input type="checkbox"/> 100         </div> <div style="flex: 1;"> <b>Sample ID</b>  <input type="checkbox"/> MW-13A   <input type="checkbox"/> MW-13C   <input type="checkbox"/> MW-12A   <input type="checkbox"/> MW-12C   <input type="checkbox"/> MW-11A   <input type="checkbox"/> MW-11C   <input type="checkbox"/> MW-10A   <input type="checkbox"/> MW-10C   <input type="checkbox"/> EB-1   <input type="checkbox"/> Trip Blank         </div> </div> <div style="display: flex; justify-content: space-between;"> <div style="flex: 1;"> <b>Sampler's Printed Name:</b> <b>Joe Terry</b>  <b>Sampler's Signature:</b> <b>Joe Terry</b> </div> <div style="flex: 1;"> <b>REMARKS/ALTERNATE DESCRIPTION</b>  <p style="margin-left: 20px;">1. HCl 2. HNO<sub>3</sub> 3. H<sub>2</sub>SO<sub>4</sub> 4. NaOH 5. Zn, Acetate 6. MeOH 7. NaHSO<sub>4</sub> 8. Other _____</p> </div> </div>									
<b>INVOICE INFORMATION</b>											
<b>REPORT REQUIREMENTS</b>											
<div style="display: flex; justify-content: space-between;"> <div style="flex: 1;"> <b>Rush (Surcharge Apply)</b>  <input checked="" type="checkbox"/> STANDARD         </div> <div style="flex: 1;"> <b>I. Results Only</b>  <input checked="" type="checkbox"/> II. Results + QC Summaries (LCGS, DUP, MSMSD as required)  <input type="checkbox"/> III. Results + QC and Calibration Summaries  <input type="checkbox"/> IV. Data Validation Report with Raw Data  <input type="checkbox"/> V. Specialized Forms / Custom Report         </div> </div>											
<div style="display: flex; justify-content: space-between;"> <div style="flex: 1;"> <b>REQUESTED REPORT DATE</b>  <input type="text"/> </div> <div style="flex: 1;"> <b>REQUESTED FAX DATE</b>  <input type="text"/> </div> <div style="flex: 1;"> <b>PO#</b>  <input type="text"/> </div> <div style="flex: 1;"> <b>BILL TO:</b>  <input type="text"/> </div> </div>											
<div style="display: flex; justify-content: space-between;"> <div style="flex: 1;"> <b>RECEIVED BY</b>  <input type="text"/> </div> <div style="flex: 1;"> <b>RELINQUISHED BY</b>  <input type="text"/> </div> <div style="flex: 1;"> <b>RECEIVED BY</b>  <input type="text"/> </div> <div style="flex: 1;"> <b>RELINQUISHED BY</b>  <input type="text"/> </div> </div>											
<div style="display: flex; justify-content: space-between;"> <div style="flex: 1;"> <b>SAMPLE RECEIPT: CONDITION/COOLER TEMP:</b> <input type="text"/> </div> <div style="flex: 1;"> <b>CUSTODY SEALS: Y N</b>  <input type="checkbox"/> RECEIVED BY  <input type="checkbox"/> RELINQUISHED BY         </div> <div style="flex: 1;"> <b>RECEIVED BY</b>  <input type="text"/> </div> <div style="flex: 1;"> <b>RELINQUISHED BY</b>  <input type="text"/> </div> </div>											
<div style="display: flex; justify-content: space-between;"> <div style="flex: 1;"> <b>Signature:</b> <b>Joe Terry</b>  <b>Printed Name:</b> <b>Joe Terry</b>  <b>Firm:</b> <b>EPS</b>  <b>Date/Time:</b> <b>11-2-10/1630</b> </div> <div style="flex: 1;"> <b>Signature:</b> <b>Charles Barriger</b>  <b>Printed Name:</b> <b>Charles Barriger</b>  <b>Firm:</b> <b>CHS</b>  <b>Date/Time:</b> <b>11-3-11 0920</b> </div> <div style="flex: 1;"> <b>Signature:</b> _____  <b>Printed Name:</b> _____  <b>Firm:</b> _____  <b>Date/Time:</b> _____         </div> <div style="flex: 1;"> <b>Signature:</b> _____  <b>Printed Name:</b> _____  <b>Firm:</b> _____  <b>Date/Time:</b> _____         </div> </div>											



Columbia Analytical Services  
9143 Philips Highway, Suite 200  
Jacksonville, FL 32256  
Tel 904-739-2277  
Fax 904-739-2011

## **Appendix A**

### **Subcontracted Analytical Results**

November 17, 2010

Service Request No: J1005286

Kirk Wills  
Environmental Planning Specialists  
1936 Bruce B Downs Blvd  
#328  
Wesley Chapel, FL 33543

**Laboratory Results for: JED SWDF**

Dear Kirk:

Enclosed are the results of the sample(s) submitted to our laboratory on November 3, 2010. For your reference, these analyses have been assigned our service request number **J1005286**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. 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 contact me if you have any questions. My extension is 4409. You may also contact me via email at [CMyers@caslab.com](mailto:CMyers@caslab.com).

Respectfully submitted,

**Columbia Analytical Services, Inc.**

*Written for:*

Craig Myers  
Project Manager

Page 1 of 20

*CAS Jacksonville is NELAC-accredited by the State of Florida, #E82502. Other state accreditations include: Georgia, #958; Kentucky, #63; Louisiana, #02086; North Carolina, #527; South Carolina, #96021001; Texas, #T104704197-09-TX.*

**COLUMBIA ANALYTICAL SERVICES, INC.**

**Client:** Environmental Planning Specialists      **Service Request No.:** J1005286  
**Project:** JED SWDF      **Date Received:** 11/3/10  
**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. When appropriate to the method, method blank results have been reported with each analytical test.

**Sample Receipt**

Nine aqueous samples were received for analysis at Columbia Analytical Services on 11/3/10. The samples were received at 5°C within the 0-6°C temperature guidelines.

**Extractable Organics by 8011**

The surrogate Tetrachloro-m-xylene for sample MW-11A has been flagged with an “\*\*” as being outside of the control limits low due to sample matrix. The sample was re-extracted and reanalyzed and both sets of data have been reported.

No other analytical or quality control problems were encountered during analysis.

Approved by D. Dutton Date 11/17/10

## CASE NARRATIVE

This report contains analytical results for the following samples:  
Service Request Number: J1005286

<u>Lab ID</u>	<u>Client ID</u>
J1005286-001	MW-13A
J1005286-002	MW-13C
J1005286-003	MW-12A
J1005286-004	MW-12C
J1005286-005	MW-11A
J1005286-006	MW-11C
J1005286-007	MW-10A
J1005286-008	MW-10C
J1005286-009	EB-1
J1005286-010	Trip Blank

Samples have been subcontracted to the following laboratory(ies). The subcontractor's analytical report is attached:

Columbia Analytical Services, Inc. - ROCHESTER  
Rochester, NY



## REPORT QUALIFIERS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
- J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
- B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
- E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
- E Organics- Concentration has exceeded the calibration range for that specific analysis.
- D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
- \* Indicates that a quality control parameter has exceeded laboratory limits.
- # Spike was diluted out.
- + Correlation coefficient for MSA is <0.995.
- N Inorganics- Matrix spike recovery was outside laboratory limits.
- N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
- S Concentration has been determined using Method of Standard Additions (MSA).
- W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
- P Concentration >40% (25% for CLP) difference between the two GC columns.
- C Confirmed by GC/MS
- Q DoD reports: indicates a pesticide/Aroclor is not confirmed ( $\geq 100\%$  Difference between two GC columns).
- X See Case Narrative for discussion.



### CAS/Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Nevada ID # NY-00032
Delaware Accredited	New Jersey ID # NY004
Connecticut ID # PH0556	New York ID # 10145
Florida ID # E87674	New Hampshire ID # 294100 A/B
Illinois ID #200047	Pennsylvania ID# 68-786
Maine ID #NY0032	Rhode Island ID # 158
Nebraska Accredited	West Virginia ID # 292
Navy Facilities Engineering Service Center Approved	

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to the certifications section at [www.caslab.com](http://www.caslab.com).

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

Client: Environmental Planning Specialists  
 Project: JED SWDF  
 Sample Matrix: Water

Sample Name: MW-13A  
 Lab Code: J1005286-001

Service Request: J1005286  
 Date Collected: 11/2/10 0840  
 Date Received: 11/3/10  
 Date Extracted: 11/10/10  
 Date Analyzed: 11/11/10 18:58

Units: µg/L  
 Basis: NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

Analytical Method: 8011  
 Prep Method: Method  
 Data File Name: J:\ACQUADATA\6890D\DATA\111110\FF782.D\

Analysis Lot: 224978  
 Extraction Lot: 123274  
 Instrument Name: R-GC-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	92	73-145	11/11/10 18:58	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005286  
**Date Collected:** 11/2/10 0815  
**Date Received:** 11/3/10  
**Date Extracted:** 11/10/10  
**Date Analyzed:** 11/11/10 19:29

**Sample Name:** MW-13C  
**Lab Code:** J1005286-002

**Units:** µg/L  
**Basis:** NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

**Analytical Method:** 8011  
**Prep Method:** Method  
**Data File Name:** J:\ACQUADATA\6890D\DATA\111110\FF783.D\

**Analysis Lot:** 224978  
**Extraction Lot:** 123274  
**Instrument Name:** R-GC-54  
**Dilution Factor:** 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	102	73-145	11/11/10 19:29	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005286  
**Date Collected:** 11/2/10 1020  
**Date Received:** 11/3/10  
**Date Extracted:** 11/10/10  
**Date Analyzed:** 11/11/10 19:59

**Sample Name:** MW-12A  
**Lab Code:** J1005286-003

**Units:** µg/L  
**Basis:** NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

**Analytical Method:** 8011  
**Prep Method:** Method  
**Data File Name:** J:\ACQUDATA\6890D\DATA\111110\FF784.D\

**Analysis Lot:** 224978  
**Extraction Lot:** 123274  
**Instrument Name:** R-GC-54  
**Dilution Factor:** 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	88	73-145	11/11/10 19:59	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

Client: Environmental Planning Specialists  
 Project: JED SWDF  
 Sample Matrix: Water

Service Request: J1005286  
 Date Collected: 11/2/10 0940  
 Date Received: 11/3/10  
 Date Extracted: 11/10/10  
 Date Analyzed: 11/11/10 21:01

Sample Name: MW-12C  
 Lab Code: J1005286-004

Units: µg/L  
 Basis: NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

Analytical Method: 8011  
 Prep Method: Method  
 Data File Name: J:\ACQUADATA\6890D\DATA\11110\FF786.D\

Analysis Lot: 224978  
 Extraction Lot: 123274  
 Instrument Name: R-GC-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	97	73-145	11/11/10 21:01	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

Client: Environmental Planning Specialists  
 Project: JED SWDF  
 Sample Matrix: Water

Service Request: J1005286  
 Date Collected: 11/2/10 1225  
 Date Received: 11/3/10  
 Date Extracted: 11/10/10  
 Date Analyzed: 11/11/10 21:32

Sample Name: MW-11A  
 Lab Code: J1005286-005

Units: µg/L  
 Basis: NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

Analytical Method: 8011  
 Prep Method: Method  
 Data File Name: J:\ACQUADATA\6890D\DATA\111110\FF787.D\

Analysis Lot: 224978  
 Extraction Lot: 123274  
 Instrument Name: R-GC-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	58 *	73-145	11/11/10 21:32	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

Client: Environmental Planning Specialists  
 Project: JED SWDF  
 Sample Matrix: Water

Service Request: J1005286  
 Date Collected: 11/2/10 1225  
 Date Received: 11/3/10  
 Date Extracted: 11/15/10  
 Date Analyzed: 11/15/10 18:39

Sample Name: MW-11A  
 Lab Code: J1005286-005  
 Run Type: Reanalysis

Units: µg/L  
 Basis: NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

Analytical Method: 8011  
 Prep Method: Method  
 Data File Name: J:\ACQUADATA\6890D\DATA\111510\FF911.D\

Analysis Lot: 225331  
 Extraction Lot: 123755  
 Instrument Name: R-GC-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	88	73-145	11/15/10 18:39	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005286  
**Date Collected:** 11/2/10 1155  
**Date Received:** 11/3/10  
**Date Extracted:** 11/10/10  
**Date Analyzed:** 11/11/10 22:02

**Sample Name:** MW-11C  
**Lab Code:** J1005286-006

**Units:** µg/L  
**Basis:** NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

**Analytical Method:** 8011  
**Prep Method:** Method  
**Data File Name:** J:\ACQUADATA\6890D\DATA\111110\FF788.D\

**Analysis Lot:** 224978  
**Extraction Lot:** 123274  
**Instrument Name:** R-GC-54  
**Dilution Factor:** 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	95	73-145	11/11/10 22:02	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

Client: Environmental Planning Specialists  
 Project: JED SWDF  
 Sample Matrix: Water

Service Request: J1005286  
 Date Collected: 11/2/10 1440  
 Date Received: 11/3/10  
 Date Extracted: 11/10/10  
 Date Analyzed: 11/11/10 22:33

Sample Name: MW-10A  
 Lab Code: J1005286-007

Units: µg/L  
 Basis: NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

Analytical Method: 8011  
 Prep Method: Method  
 Data File Name: J:\ACQUADATA\6890D\DATA\111110\FF789.D\

Analysis Lot: 224978  
 Extraction Lot: 123274  
 Instrument Name: R-GC-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	79	73-145	11/11/10 22:33	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

Client: Environmental Planning Specialists  
 Project: JED SWDF  
 Sample Matrix: Water

Service Request: J1005286  
 Date Collected: 11/2/10 1510  
 Date Received: 11/3/10  
 Date Extracted: 11/10/10  
 Date Analyzed: 11/11/10 23:04

Sample Name: MW-10C  
 Lab Code: J1005286-008

Units: µg/L  
 Basis: NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

Analytical Method: 8011  
 Prep Method: Method  
 Data File Name: J:\ACQUADATA\6890D\DATA\111110\FF790.D\

Analysis Lot: 224978  
 Extraction Lot: 123274  
 Instrument Name: R-GC-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	100	73-145	11/11/10 23:04	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005286  
**Date Collected:** 11/2/10 1250  
**Date Received:** 11/3/10  
**Date Extracted:** 11/10/10  
**Date Analyzed:** 11/11/10 23:35

**Sample Name:** EB-1  
**Lab Code:** J1005286-009

**Units:** µg/L  
**Basis:** NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

**Analytical Method:** 8011  
**Prep Method:** Method  
**Data File Name:** J:\ACQUADATA\6890D\DATA\11110\FF791.D\

**Analysis Lot:** 224978  
**Extraction Lot:** 123274  
**Instrument Name:** R-GC-54  
**Dilution Factor:** 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	108	73-145	11/11/10 23:35	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005286  
**Date Collected:** NA  
**Date Received:** NA  
**Date Extracted:** 11/10/10  
**Date Analyzed:** 11/11/10 09:28

**Sample Name:** Method Blank  
**Lab Code:** RQ1009972-01

**Units:** µg/L  
**Basis:** NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

**Analytical Method:** 8011  
**Prep Method:** Method  
**Data File Name:** J:\ACQUADATA\6890D\DATA\111110\FF763.D\

**Analysis Lot:** 224806  
**Extraction Lot:** 123274  
**Instrument Name:** R-GC-54  
**Dilution Factor:** 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	101	73-145	11/11/10 09:28	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005286  
**Date Collected:** NA  
**Date Received:** NA  
**Date Extracted:** 11/15/10  
**Date Analyzed:** 11/15/10 15:04

**Sample Name:** Method Blank  
**Lab Code:** RQ1010213-01

**Units:** µg/L  
**Basis:** NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

**Analytical Method:** 8011  
**Prep Method:** Method  
**Data File Name:** J:\ACQUADATA\6890D\DATA\111510\FF904.D\

**Analysis Lot:** 225331  
**Extraction Lot:** 123755  
**Instrument Name:** R-GC-54  
**Dilution Factor:** 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	115	73-145	11/15/10 15:04	

## COLUMBIA ANALYTICAL SERVICES, INC.

## QA/QC Report

Client: Environmental Planning Specialists  
 Project: JED SWDF  
 Sample Matrix: Water

Service Request: J1005286  
 Date Analyzed: 11/11/10

**Lab Control Sample Summary**  
**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

Analytical Method: 8011 Units: µg/L  
 Prep Method: Method Basis: NA

Extraction Lot: 123274

Analyte Name	Lab Control Sample			Duplicate Lab Control Sample			% Rec Limits	RPD	RPD Limit			
	RQ1009972-02			RQ1009972-03								
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec						
1,2-Dibromo-3-chloropropane (DBCP)	0.110	0.114	96	0.109	0.114	95	60 - 140	1	30			
1,2-Dibromoethane	0.106	0.114	92	0.103	0.114	90	60 - 140	2	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.

## COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

Service Request: J1005286  
Date Analyzed: 11/15/10

## **Lab Control Sample Summary**

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

**Analytical Method:** 8011  
**Prep Method:** Method

Units:  $\mu\text{g/L}$   
Basis: NA

Extraction Lot: 123755

Analyte Name	Lab Control Sample RQ1010213-02			Duplicate Lab Control Sample RQ1010213-03					
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-chloropropane (DBCP)	0.102	0.114	89	0.101	0.114	88	60 - 140	1	30
1,2-Dibromoethane	0.115	0.114	100	0.113	0.114	99	60 - 140	2	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.

# Intra-Network Chain of Custody

9143 Philips Highway • Jacksonville, FL 32256 904-739-2277 • FAX 904-739-2011

CAS Contact: Craig Myers *CM*

Project Name: JED SWDF  
 Project Number: MW-13A  
 Project Manager: Kirk Wills  
 Company: Environmental Planning Specialists

EDB-DBCP  
8011

Lab Code	Client Sample ID	# of Cont.	Matrix	Sample Date	Time Received	Date Sent To
J1005286-001	MW-13A	<u>3</u>	Water	11/2/10	0840	11/3/10 ROCHESTER
J1005286-002	MW-13C		Water	11/2/10	0815	11/3/10 ROCHESTER
J1005286-003	MW-12A		Water	11/2/10	1020	11/3/10 ROCHESTER
J1005286-004	MW-12C		Water	11/2/10	0940	11/3/10 ROCHESTER
J1005286-005	MW-11A		Water	11/2/10	1225	11/3/10 ROCHESTER
J1005286-006	MW-11C		Water	11/2/10	1155	11/3/10 ROCHESTER
J1005286-007	MW-10A		Water	11/2/10	1440	11/3/10 ROCHESTER
J1005286-008	MW-10C		Water	11/2/10	1510	11/3/10 ROCHESTER
J1005286-009	EB-1		Water	11/2/10	1250	11/3/10 ROCHESTER

Special Instructions/Comments  <b>PLEASE SEND RESULTS TO MANDY SULLIVAN</b>	Turnaround Requirements		Report Requirements	
	<input type="checkbox"/> RUSH (Surcharges Apply)		<input type="checkbox"/> I. Results Only <input checked="" type="checkbox"/> II. Results + QC Summaries <input type="checkbox"/> III. Results + QC and Calibration Summaries <input type="checkbox"/> IV. Data Validation Report with Raw Data	
PLEASE CIRCLE WORK DAYS  <input checked="" type="checkbox"/> STANDARD		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> Requested FAX Date: <u>11/17/10</u> <input type="checkbox"/> Requested Report Date: <u>11/17/10</u>		
		PO# <u>J1005286</u>		Bill to

Relinquished By: Shawn Murphy 11/17/10 Received By: Suzanne Gifford 11/17/10 Airbill Number: \_\_\_\_\_

99  
FBI - Jacksonville

**Cooler Receipt And Preservation Check Form**

Project/Client CAS-Jacksonville Folder Number \_\_\_\_\_

Cooler received on 4/5/10 by: AD COURIER: CAS  UPS FEDEX VELOCITY CLIENT

1. Were custody seals on outside of cooler?  YES NO
  2. Were custody papers properly filled out (ink, signed, etc.)?  YES NO
  3. Did all bottles arrive in good condition (unbroken)?  YES NO
  4. Did VOA vials, Alkalinity, or Sulfide have significant\* air bubbles? YES NO  N/A
  5. Were Ice or Ice packs present?  YES NO
  6. Where did the bottles originate?  CAS/ROO CLIENT
  7. Temperature of cooler(s) upon receipt: 5°
- Is the temperature within 0° - 6° C?:  Yes Yes Yes Yes Yes
- If No, Explain Below: No No No No No

Date/Time Temperatures Taken: 4/5/10 1020

Thermometer ID: IR GUN#3 / IR GUN#4 Reading From: Temp Blank /  Sample Bottle

If out of Temperature, note packing/ice condition, Client Approval to Run Samples: \_\_\_\_\_  
PC Secondary Review: \_\_\_\_\_

- Cooler Breakdown: Date: 4/5/10 Time: 1325 by: DPh
1. Were all bottle labels complete (i.e. analysis, preservation, etc.)?  YES NO
  2. Did all bottle labels and tags agree with custody papers?  YES NO
  3. Were correct containers used for the tests indicated?  YES NO
  4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated  N/A
- Explain any discrepancies: \_\_\_\_\_

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO <sub>3</sub>								
≤2	H <sub>2</sub> SO <sub>4</sub>								
Residual Chlorine (-)	For TCN and Phenol			If present, contact PM to add ascorbic acid					
	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	-	-			*Not to be tested before analysis - pH tested and recorded by VOAs or GenChem on a separate worksheet			
	Zn Aceta	-	-			PM OK to Adjust: _____			
	HCl	*	*						

Yes = All samples OK

No = Samples were preserved at lab as listed

Bottle lot numbers: client.  
Other Comments: \_\_\_\_\_

PC Secondary Review: \_\_\_\_\_

\*significant air bubbles: VOA > 5-6 mm ; WC > 1 in. diameter

November 18, 2010

Service Request No: J1005317

Kirk Wills  
Environmental Planning Specialists  
1936 Bruce B Downs Blvd  
#328  
Wesley Chapel, FL 33543

**Laboratory Results for: JED SWDF**

Dear Kirk:

Enclosed are the results of the sample(s) submitted to our laboratory on November 4, 2010. For your reference, these analyses have been assigned our service request number **J1005317**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. 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 contact me if you have any questions. My extension is 4409. You may also contact me via email at [CMyers@caslab.com](mailto:CMyers@caslab.com).

Respectfully submitted,

**Columbia Analytical Services, Inc.**



Craig Myers  
Project Manager

Page 1 of 92

## COLUMBIA ANALYTICAL SERVICES, INC.

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request No.:** J1005317  
**Date Received:** 11/4/10

### 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, including results of QC samples analyzed from this delivery group. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

#### **Sample Receipt**

Eight water samples and one trip blank were received for analysis at Columbia Analytical Services on 11/4/10. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at  $4\pm2^{\circ}\text{C}$  upon receipt at the lab except for aqueous samples designated for metals analyses, which were stored at room temperature.

#### **Volatile Organic Compounds by GC-MS**

The samples were analyzed for Volatile Organics using EPA Method 8260. The following observations were made regarding this delivery group.

#### **Matrix Spike Recovery Exceptions**

The matrix spike recovery of trans-1,3-Dichloropropene for sample MW-9C was outside the control criterion. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. No further corrective action was appropriate.

The matrix spike recovery of trans-1,4-Dichloro-2-butene for sample MW-9C was outside the lower control criterion. The analyte in question was not detected in the associated field samples. Since the analyte was detected in the MRL check standard, instrument sensitivity was documented. The data quality was not significantly affected and no further corrective action was taken.

#### **Lab Control Sample Exceptions**

The spike recovery of trans-1,4-Dichloro-2-butene for Laboratory Control Sample (LCS) JQ1005613-03 was outside the lower control criterion. The analyte in question was not detected in the associated field samples. Since the analyte was detected in the MRL check standard, instrument sensitivity was documented. The data quality was not significantly affected and no further corrective action was taken.

#### **Metals by ICP-MS/ICP-OES/CVAA**

The samples were analyzed for Total Metals using EPA Methods 6020/6010B/7470A. No problems were observed.

Approved by \_\_\_\_\_



Date 11/18/10

## General Chemistry Parameters

The samples were analyzed for Inorganic Parameters using various EPA and Standard Methods. The following observations were made regarding this delivery group.

## Matrix Spike Recovery Exceptions

The matrix spike recovery of Chloride for sample MW-6A was outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. The recovery was not significantly outside of control criteria. No further corrective action was needed.

### **Subcontracted Analytical Parameters**

The samples were delivered to Columbia Analytical Services, Inc. in Rochester, NY on 11/5/10 for EPA Method 8011 determination. The certified analytical report has been included in its entirety in Appendix A: Subcontracted Analytical Results.

## Sample Notes and Discussion

For the EPA Method 8011 analysis, our Rochester lab was not able to meet the Florida GCTL for 1,2-Dibromoethane (EDB) of 0.02ug/L. The Method Detection Limit (MDL) reported for EDB is 0.03ug/L, which is 0.01ug/L above the GCTL. Based on historical data from this site, this analyte has never been detected in any of the samples at or below the Florida GCTL. It is our opinion that the impact on the data is minimal.

Approved by

 Date 11/18/10

## **Florida DEP Data Qualifiers**

- B Results based upon colony counts outside the acceptable range.
- D Measurement was made in the field.
- H Value based on field kit determination; results may not be accurate.
- i The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J Estimated value (one of the following reasons is discussed in the project case narrative).
  - 1. The result may be inaccurate because the surrogate recovery limits have been exceeded.
  - 2. No known quality control criteria exists for the component.
  - 3. The reported value failed to meet the established quality control criteria for either precision or accuracy.
  - 4. The sample matrix interfered with the ability to make any accurate determination (e.g., primary and confirmation results show greater than 40% RPD).
  - 5. The data is questionable because of improper laboratory or field protocols (e.g., GC/MS Tune did not meet method criteria).
- K Off scale low. The value is less than the lowest calibration standard but greater than the method reporting limit (MRL).
- L Off scale high. The analyte is above the upper limit of the linear calibration range.
- M The MDL/MRL has been elevated because the analyte could not be accurately quantified due to matrix interference.
- N Presumptive evidence of the analyte. Confirmation was not performed.
- Q Sample held beyond the accepted holding time.
- T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only.
- U Indicates that the compound was analyzed for but not detected.
- V Indicates that the analyte was detected in both the sample and the associated method blank.
- Y The laboratory analysis was from an improperly preserved sample.
- Z Too many colonies were present (TNTC). The numeric value represents the filtration volume.

## **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.

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF

**Service Request:** J1005317

**SAMPLE CROSS-REFERENCE**

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
J1005317-001	MW-6A	11/3/10	13:50
J1005317-002	MW-6C	11/3/10	14:20
J1005317-003	MW-7A	11/3/10	12:50
J1005317-004	MW-7C	11/3/10	12:20
J1005317-005	MW-8A	11/3/10	10:20
J1005317-006	MW-8C	11/3/10	10:50
J1005317-007	MW-9A	11/3/10	08:35
J1005317-008	MW-9C	11/3/10	09:00
J1005317-009	Trip Blank	11/3/10	00:00

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-6A  
**Lab Code:** J1005317-001

**Service Request:** J1005317  
**Date Collected:** 11/3/10 1350  
**Date Received:** 11/4/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 225373

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/13/10 23:28		225373	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/13/10 23:28		225373	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/13/10 23:28		225373	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/13/10 23:28		225373	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/13/10 23:28		225373	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/13/10 23:28		225373	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/13/10 23:28		225373	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/13/10 23:28		225373	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/13/10 23:28		225373	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/13/10 23:28		225373	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/13/10 23:28		225373	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/13/10 23:28		225373	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/13/10 23:28		225373	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/13/10 23:28		225373	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/13/10 23:28		225373	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/13/10 23:28		225373	
Acetone	ND	U	50.0	5.60	1	NA	11/13/10 23:28		225373	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/13/10 23:28		225373	
Benzene	0.940	I	1.00	0.210	1	NA	11/13/10 23:28		225373	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/13/10 23:28		225373	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/13/10 23:28		225373	
Bromoform	ND	U	2.00	0.420	1	NA	11/13/10 23:28		225373	
Bromomethane	ND	U	1.00	0.220	1	NA	11/13/10 23:28		225373	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/13/10 23:28		225373	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/13/10 23:28		225373	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/13/10 23:28		225373	
Chloroethane	ND	U	5.00	0.220	1	NA	11/13/10 23:28		225373	
Chloroform	ND	U	1.00	0.350	1	NA	11/13/10 23:28		225373	
Chloromethane	ND	U	1.00	0.110	1	NA	11/13/10 23:28		225373	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/13/10 23:28		225373	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/13/10 23:28		225373	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/13/10 23:28		225373	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/13/10 23:28		225373	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/13/10 23:28		225373	
Iodomethane	ND	U	5.00	2.68	1	NA	11/13/10 23:28		225373	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/13/10 23:28		225373	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-6A  
**Lab Code:** J1005317-001

**Service Request:** J1005317  
**Date Collected:** 11/3/10 1350  
**Date Received:** 11/4/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 225373

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/13/10 23:28		225373	
o-Xylene	ND	U	1.00	0.140	1	NA	11/13/10 23:28		225373	
Styrene	ND	U	1.00	0.291	1	NA	11/13/10 23:28		225373	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/13/10 23:28		225373	
Toluene	ND	U	1.00	0.190	1	NA	11/13/10 23:28		225373	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/13/10 23:28		225373	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/13/10 23:28		225373	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/13/10 23:28		225373	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/13/10 23:28		225373	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/13/10 23:28		225373	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/13/10 23:28		225373	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/13/10 23:28		225373	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	88	71-122	11/13/10 23:28	
4-Bromofluorobenzene	99	75-120	11/13/10 23:28	
Dibromofluoromethane	95	82-116	11/13/10 23:28	
Toluene-d8	100	88-117	11/13/10 23:28	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-6C  
**Lab Code:** J1005317-002

**Service Request:** J1005317  
**Date Collected:** 11/3/10 1420  
**Date Received:** 11/4/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 225373

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/13/10 23:55		225373	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/13/10 23:55		225373	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/13/10 23:55		225373	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/13/10 23:55		225373	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/13/10 23:55		225373	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/13/10 23:55		225373	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/13/10 23:55		225373	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/13/10 23:55		225373	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/13/10 23:55		225373	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/13/10 23:55		225373	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/13/10 23:55		225373	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/13/10 23:55		225373	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/13/10 23:55		225373	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/13/10 23:55		225373	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/13/10 23:55		225373	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/13/10 23:55		225373	
Acetone	ND	U	50.0	5.60	1	NA	11/13/10 23:55		225373	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/13/10 23:55		225373	
Benzene	ND	U	1.00	0.210	1	NA	11/13/10 23:55		225373	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/13/10 23:55		225373	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/13/10 23:55		225373	
Bromoform	ND	U	2.00	0.420	1	NA	11/13/10 23:55		225373	
Bromomethane	ND	U	1.00	0.220	1	NA	11/13/10 23:55		225373	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/13/10 23:55		225373	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/13/10 23:55		225373	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/13/10 23:55		225373	
Chloroethane	ND	U	5.00	0.220	1	NA	11/13/10 23:55		225373	
Chloroform	ND	U	1.00	0.350	1	NA	11/13/10 23:55		225373	
Chloromethane	ND	U	1.00	0.110	1	NA	11/13/10 23:55		225373	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/13/10 23:55		225373	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/13/10 23:55		225373	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/13/10 23:55		225373	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/13/10 23:55		225373	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/13/10 23:55		225373	
Iodomethane	ND	U	5.00	2.68	1	NA	11/13/10 23:55		225373	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/13/10 23:55		225373	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-6C  
**Lab Code:** J1005317-002

**Service Request:** J1005317  
**Date Collected:** 11/3/10 1420  
**Date Received:** 11/4/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 225373

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/13/10 23:55		225373	
o-Xylene	ND	U	1.00	0.140	1	NA	11/13/10 23:55		225373	
Styrene	ND	U	1.00	0.291	1	NA	11/13/10 23:55		225373	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/13/10 23:55		225373	
Toluene	ND	U	1.00	0.190	1	NA	11/13/10 23:55		225373	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/13/10 23:55		225373	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/13/10 23:55		225373	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/13/10 23:55		225373	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/13/10 23:55		225373	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/13/10 23:55		225373	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/13/10 23:55		225373	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/13/10 23:55		225373	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	94	71-122	11/13/10 23:55	
4-Bromofluorobenzene	105	75-120	11/13/10 23:55	
Dibromofluoromethane	103	82-116	11/13/10 23:55	
Toluene-d8	105	88-117	11/13/10 23:55	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-7A  
**Lab Code:** J1005317-003

**Service Request:** J1005317  
**Date Collected:** 11/3/10 1250  
**Date Received:** 11/4/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 225373

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/14/10 00:22		225373	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/14/10 00:22		225373	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/14/10 00:22		225373	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/14/10 00:22		225373	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/14/10 00:22		225373	
1,1-Dichloroethylene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/14/10 00:22		225373	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/14/10 00:22		225373	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/14/10 00:22		225373	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/14/10 00:22		225373	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/14/10 00:22		225373	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/14/10 00:22		225373	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/14/10 00:22		225373	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/14/10 00:22		225373	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/14/10 00:22		225373	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/14/10 00:22		225373	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/14/10 00:22		225373	
Acetone	ND	U	50.0	5.60	1	NA	11/14/10 00:22		225373	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/14/10 00:22		225373	
Benzene	ND	U	1.00	0.210	1	NA	11/14/10 00:22		225373	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/14/10 00:22		225373	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/14/10 00:22		225373	
Bromoform	ND	U	2.00	0.420	1	NA	11/14/10 00:22		225373	
Bromomethane	ND	U	1.00	0.220	1	NA	11/14/10 00:22		225373	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/14/10 00:22		225373	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/14/10 00:22		225373	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/14/10 00:22		225373	
Chloroethane	ND	U	5.00	0.220	1	NA	11/14/10 00:22		225373	
Chloroform	ND	U	1.00	0.350	1	NA	11/14/10 00:22		225373	
Chloromethane	ND	U	1.00	0.110	1	NA	11/14/10 00:22		225373	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/14/10 00:22		225373	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/14/10 00:22		225373	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/14/10 00:22		225373	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/14/10 00:22		225373	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/14/10 00:22		225373	
Iodomethane	ND	U	5.00	2.68	1	NA	11/14/10 00:22		225373	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/14/10 00:22		225373	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-7A  
**Lab Code:** J1005317-003

**Service Request:** J1005317  
**Date Collected:** 11/3/10 1250  
**Date Received:** 11/4/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 225373

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/14/10 00:22		225373	
o-Xylene	ND	U	1.00	0.140	1	NA	11/14/10 00:22		225373	
Styrene	ND	U	1.00	0.291	1	NA	11/14/10 00:22		225373	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/14/10 00:22		225373	
Toluene	ND	U	1.00	0.190	1	NA	11/14/10 00:22		225373	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/14/10 00:22		225373	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/14/10 00:22		225373	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/14/10 00:22		225373	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/14/10 00:22		225373	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/14/10 00:22		225373	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/14/10 00:22		225373	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/14/10 00:22		225373	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	96	71-122	11/14/10 00:22	
4-Bromofluorobenzene	103	75-120	11/14/10 00:22	
Dibromofluoromethane	102	82-116	11/14/10 00:22	
Toluene-d8	108	88-117	11/14/10 00:22	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-7C  
**Lab Code:** J1005317-004

**Service Request:** J1005317  
**Date Collected:** 11/3/10 1220  
**Date Received:** 11/4/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 225373

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/14/10 00:50		225373	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/14/10 00:50		225373	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/14/10 00:50		225373	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/14/10 00:50		225373	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/14/10 00:50		225373	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/14/10 00:50		225373	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/14/10 00:50		225373	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/14/10 00:50		225373	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/14/10 00:50		225373	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/14/10 00:50		225373	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/14/10 00:50		225373	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/14/10 00:50		225373	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/14/10 00:50		225373	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/14/10 00:50		225373	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/14/10 00:50		225373	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/14/10 00:50		225373	
Acetone	ND	U	50.0	5.60	1	NA	11/14/10 00:50		225373	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/14/10 00:50		225373	
Benzene	ND	U	1.00	0.210	1	NA	11/14/10 00:50		225373	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/14/10 00:50		225373	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/14/10 00:50		225373	
Bromoform	ND	U	2.00	0.420	1	NA	11/14/10 00:50		225373	
Bromomethane	ND	U	1.00	0.220	1	NA	11/14/10 00:50		225373	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/14/10 00:50		225373	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/14/10 00:50		225373	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/14/10 00:50		225373	
Chloroethane	ND	U	5.00	0.220	1	NA	11/14/10 00:50		225373	
Chloroform	ND	U	1.00	0.350	1	NA	11/14/10 00:50		225373	
Chloromethane	ND	U	1.00	0.110	1	NA	11/14/10 00:50		225373	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/14/10 00:50		225373	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/14/10 00:50		225373	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/14/10 00:50		225373	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/14/10 00:50		225373	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/14/10 00:50		225373	
Iodomethane	ND	U	5.00	2.68	1	NA	11/14/10 00:50		225373	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/14/10 00:50		225373	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-7C  
**Lab Code:** J1005317-004

**Service Request:** J1005317  
**Date Collected:** 11/3/10 1220  
**Date Received:** 11/4/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 225373

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/14/10 00:50		225373	
o-Xylene	ND	U	1.00	0.140	1	NA	11/14/10 00:50		225373	
Styrene	ND	U	1.00	0.291	1	NA	11/14/10 00:50		225373	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/14/10 00:50		225373	
Toluene	ND	U	1.00	0.190	1	NA	11/14/10 00:50		225373	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/14/10 00:50		225373	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/14/10 00:50		225373	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/14/10 00:50		225373	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/14/10 00:50		225373	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/14/10 00:50		225373	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/14/10 00:50		225373	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/14/10 00:50		225373	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	96	71-122	11/14/10 00:50	
4-Bromofluorobenzene	104	75-120	11/14/10 00:50	
Dibromofluoromethane	102	82-116	11/14/10 00:50	
Toluene-d8	105	88-117	11/14/10 00:50	

Client: Environmental Planning Specialists  
 Project: JED SWDF  
 Sample Matrix: Water  
 Sample Name: MW-8A  
 Lab Code: J1005317-005

Service Request: J1005317  
 Date Collected: 11/3/10 1020  
 Date Received: 11/4/10

Units: µg/L  
 Basis: NA

### Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 225373

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/14/10 01:18		225373	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/14/10 01:18		225373	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/14/10 01:18		225373	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/14/10 01:18		225373	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/14/10 01:18		225373	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/14/10 01:18		225373	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/14/10 01:18		225373	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/14/10 01:18		225373	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/14/10 01:18		225373	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/14/10 01:18		225373	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/14/10 01:18		225373	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/14/10 01:18		225373	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/14/10 01:18		225373	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/14/10 01:18		225373	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/14/10 01:18		225373	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/14/10 01:18		225373	
Acetone	ND	U	50.0	5.60	1	NA	11/14/10 01:18		225373	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/14/10 01:18		225373	
Benzene	1.30		1.00	0.210	1	NA	11/14/10 01:18		225373	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/14/10 01:18		225373	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/14/10 01:18		225373	
Bromoform	ND	U	2.00	0.420	1	NA	11/14/10 01:18		225373	
Bromomethane	ND	U	1.00	0.220	1	NA	11/14/10 01:18		225373	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/14/10 01:18		225373	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/14/10 01:18		225373	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/14/10 01:18		225373	
Chloroethane	ND	U	5.00	0.220	1	NA	11/14/10 01:18		225373	
Chloroform	ND	U	1.00	0.350	1	NA	11/14/10 01:18		225373	
Chloromethane	ND	U	1.00	0.110	1	NA	11/14/10 01:18		225373	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/14/10 01:18		225373	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/14/10 01:18		225373	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/14/10 01:18		225373	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/14/10 01:18		225373	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/14/10 01:18		225373	
Iodomethane	ND	U	5.00	2.68	1	NA	11/14/10 01:18		225373	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/14/10 01:18		225373	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-8A  
**Lab Code:** J1005317-005

**Service Request:** J1005317  
**Date Collected:** 11/3/10 1020  
**Date Received:** 11/4/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 225373

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/14/10 01:18		225373	
o-Xylene	ND	U	1.00	0.140	1	NA	11/14/10 01:18		225373	
Styrene	ND	U	1.00	0.291	1	NA	11/14/10 01:18		225373	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/14/10 01:18		225373	
Toluene	ND	U	1.00	0.190	1	NA	11/14/10 01:18		225373	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/14/10 01:18		225373	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/14/10 01:18		225373	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/14/10 01:18		225373	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/14/10 01:18		225373	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/14/10 01:18		225373	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/14/10 01:18		225373	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/14/10 01:18		225373	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	94	71-122	11/14/10 01:18	
4-Bromofluorobenzene	104	75-120	11/14/10 01:18	
Dibromofluoromethane	104	82-116	11/14/10 01:18	
Toluene-d8	104	88-117	11/14/10 01:18	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-8C  
**Lab Code:** J1005317-006

**Service Request:** J1005317  
**Date Collected:** 11/3/10 1050  
**Date Received:** 11/4/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 225373

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/14/10 01:46		225373	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/14/10 01:46		225373	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/14/10 01:46		225373	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/14/10 01:46		225373	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/14/10 01:46		225373	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/14/10 01:46		225373	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/14/10 01:46		225373	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/14/10 01:46		225373	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/14/10 01:46		225373	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/14/10 01:46		225373	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/14/10 01:46		225373	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/14/10 01:46		225373	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/14/10 01:46		225373	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/14/10 01:46		225373	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/14/10 01:46		225373	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/14/10 01:46		225373	
Acetone	ND	U	50.0	5.60	1	NA	11/14/10 01:46		225373	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/14/10 01:46		225373	
Benzene	ND	U	1.00	0.210	1	NA	11/14/10 01:46		225373	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/14/10 01:46		225373	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/14/10 01:46		225373	
Bromoform	ND	U	2.00	0.420	1	NA	11/14/10 01:46		225373	
Bromomethane	ND	U	1.00	0.220	1	NA	11/14/10 01:46		225373	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/14/10 01:46		225373	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/14/10 01:46		225373	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/14/10 01:46		225373	
Chloroethane	ND	U	5.00	0.220	1	NA	11/14/10 01:46		225373	
Chloroform	ND	U	1.00	0.350	1	NA	11/14/10 01:46		225373	
Chloromethane	ND	U	1.00	0.110	1	NA	11/14/10 01:46		225373	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/14/10 01:46		225373	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/14/10 01:46		225373	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/14/10 01:46		225373	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/14/10 01:46		225373	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/14/10 01:46		225373	
Iodomethane	ND	U	5.00	2.68	1	NA	11/14/10 01:46		225373	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/14/10 01:46		225373	

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-8C  
**Lab Code:** J1005317-006

**Service Request:** J1005317  
**Date Collected:** 11/3/10 1050  
**Date Received:** 11/4/10  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS****Analytical Method:** 8260B**Analysis Lot:** 225373

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/14/10 01:46		225373	
o-Xylene	ND	U	1.00	0.140	1	NA	11/14/10 01:46		225373	
Styrene	ND	U	1.00	0.291	1	NA	11/14/10 01:46		225373	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/14/10 01:46		225373	
Toluene	ND	U	1.00	0.190	1	NA	11/14/10 01:46		225373	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/14/10 01:46		225373	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/14/10 01:46		225373	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/14/10 01:46		225373	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/14/10 01:46		225373	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/14/10 01:46		225373	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/14/10 01:46		225373	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/14/10 01:46		225373	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	98	71-122	11/14/10 01:46	
4-Bromofluorobenzene	103	75-120	11/14/10 01:46	
Dibromofluoromethane	105	82-116	11/14/10 01:46	
Toluene-d8	106	88-117	11/14/10 01:46	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-9A  
**Lab Code:** J1005317-007

**Service Request:** J1005317  
**Date Collected:** 11/3/10 0835  
**Date Received:** 11/4/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 225373

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND U	1.00	0.180	1	NA	11/14/10 02:13		225373	
1,1,1-Trichloroethane (TCA)	ND U	1.00	0.170	1	NA	11/14/10 02:13		225373	
1,1,2,2-Tetrachloroethane	ND U	1.00	0.110	1	NA	11/14/10 02:13		225373	
1,1,2-Trichloroethane	ND U	1.00	0.170	1	NA	11/14/10 02:13		225373	
1,1-Dichloroethane (1,1-DCA)	ND U	1.00	0.130	1	NA	11/14/10 02:13		225373	
1,1-Dichloroethene (1,1-DCE)	ND U	1.00	0.160	1	NA	11/14/10 02:13		225373	
1,2,3-Trichloropropane	ND U	2.00	0.420	1	NA	11/14/10 02:13		225373	
1,2-Dibromo-3-chloropropane (DBCP)	ND U	5.00	2.30	1	NA	11/14/10 02:13		225373	
1,2-Dibromoethane (EDB)	ND U	1.00	0.170	1	NA	11/14/10 02:13		225373	
1,2-Dichlorobenzene	ND U	1.00	0.478	1	NA	11/14/10 02:13		225373	
1,2-Dichloroethane	ND U	1.00	0.180	1	NA	11/14/10 02:13		225373	
1,2-Dichloropropane	ND U	1.00	0.120	1	NA	11/14/10 02:13		225373	
1,4-Dichlorobenzene	<b>1.58</b>	1.00	0.100	1	NA	11/14/10 02:13		225373	
2-Butanone (MEK)	ND U	10.0	3.80	1	NA	11/14/10 02:13		225373	
2-Hexanone	ND U	25.0	2.20	1	NA	11/14/10 02:13		225373	
4-Methyl-2-pentanone (MIBK)	ND U	25.0	0.650	1	NA	11/14/10 02:13		225373	
Acetone	ND U	50.0	5.60	1	NA	11/14/10 02:13		225373	
Acrylonitrile	ND U	10.0	1.20	1	NA	11/14/10 02:13		225373	
Benzene	<b>11.5</b>	1.00	0.210	1	NA	11/14/10 02:13		225373	
Bromochloromethane	ND U	5.00	0.270	1	NA	11/14/10 02:13		225373	
Bromodichloromethane	ND U	1.00	0.170	1	NA	11/14/10 02:13		225373	
Bromoform	ND U	2.00	0.420	1	NA	11/14/10 02:13		225373	
Bromomethane	ND U	1.00	0.220	1	NA	11/14/10 02:13		225373	
Carbon Disulfide	ND U	10.0	2.36	1	NA	11/14/10 02:13		225373	
Carbon Tetrachloride	ND U	1.00	0.340	1	NA	11/14/10 02:13		225373	
Chlorobenzene	ND U	1.00	0.160	1	NA	11/14/10 02:13		225373	
Chloroethane	ND U	5.00	0.220	1	NA	11/14/10 02:13		225373	
Chloroform	ND U	1.00	0.350	1	NA	11/14/10 02:13		225373	
Chloromethane	ND U	1.00	0.110	1	NA	11/14/10 02:13		225373	
cis-1,2-Dichloroethene	<b>1.26</b>	1.00	0.360	1	NA	11/14/10 02:13		225373	
cis-1,3-Dichloropropene	ND U	1.00	0.200	1	NA	11/14/10 02:13		225373	
Dibromochloromethane	ND U	1.00	0.190	1	NA	11/14/10 02:13		225373	
Dibromomethane	ND U	5.00	0.180	1	NA	11/14/10 02:13		225373	
Ethylbenzene	<b>1.69</b>	1.00	0.210	1	NA	11/14/10 02:13		225373	
Iodomethane	ND U	5.00	2.68	1	NA	11/14/10 02:13		225373	
m,p-Xylenes	<b>7.97</b>	2.00	0.410	1	NA	11/14/10 02:13		225373	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

Client: Environmental Planning Specialists  
 Project: JED SWDF  
 Sample Matrix: Water  
 Sample Name: MW-9A  
 Lab Code: J1005317-007

Service Request: J1005317  
 Date Collected: 11/3/10 0835  
 Date Received: 11/4/10  
 Units: µg/L  
 Basis: NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 225373

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND U	5.00	0.210	1	NA	11/14/10 02:13		225373	
o-Xylene	<b>2.81</b>	1.00	0.140	1	NA	11/14/10 02:13		225373	
Styrene	ND U	1.00	0.291	1	NA	11/14/10 02:13		225373	
Tetrachloroethene (PCE)	ND U	1.00	0.110	1	NA	11/14/10 02:13		225373	
Toluene	<b>1.31</b>	1.00	0.190	1	NA	11/14/10 02:13		225373	
trans-1,2-Dichloroethene	ND U	1.00	0.120	1	NA	11/14/10 02:13		225373	
trans-1,3-Dichloropropene	ND U	1.00	0.230	1	NA	11/14/10 02:13		225373	
trans-1,4-Dichloro-2-butene	ND U	20.0	2.20	1	NA	11/14/10 02:13		225373	
Trichloroethene (TCE)	ND U	1.00	0.160	1	NA	11/14/10 02:13		225373	
Trichlorofluoromethane	ND U	20.0	0.220	1	NA	11/14/10 02:13		225373	
Vinyl Acetate	ND U	10.0	1.90	1	NA	11/14/10 02:13		225373	
Vinyl Chloride	<b>1.45</b>	1.00	0.220	1	NA	11/14/10 02:13		225373	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	94	71-122	11/14/10 02:13	
4-Bromofluorobenzene	105	75-120	11/14/10 02:13	
Dibromofluoromethane	104	82-116	11/14/10 02:13	
Toluene-d8	106	88-117	11/14/10 02:13	

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-9C  
**Lab Code:** J1005317-008

**Service Request:** J1005317  
**Date Collected:** 11/3/10 0900  
**Date Received:** 11/4/10  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS****Analytical Method:** 8260B**Analysis Lot:** 225373

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/14/10 02:41		225373	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/14/10 02:41		225373	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/14/10 02:41		225373	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/14/10 02:41		225373	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/14/10 02:41		225373	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/14/10 02:41		225373	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/14/10 02:41		225373	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/14/10 02:41		225373	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/14/10 02:41		225373	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/14/10 02:41		225373	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/14/10 02:41		225373	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/14/10 02:41		225373	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/14/10 02:41		225373	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/14/10 02:41		225373	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/14/10 02:41		225373	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/14/10 02:41		225373	
Acetone	ND	U	50.0	5.60	1	NA	11/14/10 02:41		225373	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/14/10 02:41		225373	
Benzene	ND	U	1.00	0.210	1	NA	11/14/10 02:41		225373	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/14/10 02:41		225373	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/14/10 02:41		225373	
Bromoform	ND	U	2.00	0.420	1	NA	11/14/10 02:41		225373	
Bromomethane	ND	U	1.00	0.220	1	NA	11/14/10 02:41		225373	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/14/10 02:41		225373	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/14/10 02:41		225373	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/14/10 02:41		225373	
Chloroethane	ND	U	5.00	0.220	1	NA	11/14/10 02:41		225373	
Chloroform	ND	U	1.00	0.350	1	NA	11/14/10 02:41		225373	
Chloromethane	ND	U	1.00	0.110	1	NA	11/14/10 02:41		225373	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/14/10 02:41		225373	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/14/10 02:41		225373	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/14/10 02:41		225373	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/14/10 02:41		225373	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/14/10 02:41		225373	
Iodomethane	ND	U	5.00	2.68	1	NA	11/14/10 02:41		225373	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/14/10 02:41		225373	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-9C  
**Lab Code:** J1005317-008

**Service Request:** J1005317  
**Date Collected:** 11/3/10 0900  
**Date Received:** 11/4/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 225373

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/14/10 02:41		225373	
o-Xylene	ND	U	1.00	0.140	1	NA	11/14/10 02:41		225373	
Styrene	ND	U	1.00	0.291	1	NA	11/14/10 02:41		225373	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/14/10 02:41		225373	
Toluene	ND	U	1.00	0.190	1	NA	11/14/10 02:41		225373	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/14/10 02:41		225373	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/14/10 02:41		225373	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/14/10 02:41		225373	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/14/10 02:41		225373	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/14/10 02:41		225373	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/14/10 02:41		225373	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/14/10 02:41		225373	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	95	71-122	11/14/10 02:41	
4-Bromofluorobenzene	105	75-120	11/14/10 02:41	
Dibromofluoromethane	105	82-116	11/14/10 02:41	
Toluene-d8	108	88-117	11/14/10 02:41	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

Client: Environmental Planning Specialists  
 Project: JED SWDF  
 Sample Matrix: Water  
 Sample Name: Trip Blank  
 Lab Code: J1005317-009

Service Request: J1005317  
 Date Collected: 11/3/10 0000  
 Date Received: 11/4/10  
 Units: µg/L  
 Basis: NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 225373

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/14/10 03:08		225373	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/14/10 03:08		225373	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/14/10 03:08		225373	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/14/10 03:08		225373	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/14/10 03:08		225373	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/14/10 03:08		225373	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/14/10 03:08		225373	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/14/10 03:08		225373	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/14/10 03:08		225373	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/14/10 03:08		225373	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/14/10 03:08		225373	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/14/10 03:08		225373	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/14/10 03:08		225373	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/14/10 03:08		225373	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/14/10 03:08		225373	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/14/10 03:08		225373	
Acetone	ND	U	50.0	5.60	1	NA	11/14/10 03:08		225373	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/14/10 03:08		225373	
Benzene	ND	U	1.00	0.210	1	NA	11/14/10 03:08		225373	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/14/10 03:08		225373	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/14/10 03:08		225373	
Bromoform	ND	U	2.00	0.420	1	NA	11/14/10 03:08		225373	
Bromomethane	ND	U	1.00	0.220	1	NA	11/14/10 03:08		225373	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/14/10 03:08		225373	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/14/10 03:08		225373	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/14/10 03:08		225373	
Chloroethane	ND	U	5.00	0.220	1	NA	11/14/10 03:08		225373	
Chloroform	ND	U	1.00	0.350	1	NA	11/14/10 03:08		225373	
Chloromethane	ND	U	1.00	0.110	1	NA	11/14/10 03:08		225373	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/14/10 03:08		225373	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/14/10 03:08		225373	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/14/10 03:08		225373	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/14/10 03:08		225373	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/14/10 03:08		225373	
Iodomethane	ND	U	5.00	2.68	1	NA	11/14/10 03:08		225373	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/14/10 03:08		225373	

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Trip Blank  
**Lab Code:** J1005317-009

**Service Request:** J1005317  
**Date Collected:** 11/3/10 0000  
**Date Received:** 11/4/10  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS****Analytical Method:** 8260B**Analysis Lot:** 225373

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/14/10 03:08		225373	
o-Xylene	ND	U	1.00	0.140	1	NA	11/14/10 03:08		225373	
Styrene	ND	U	1.00	0.291	1	NA	11/14/10 03:08		225373	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/14/10 03:08		225373	
Toluene	ND	U	1.00	0.190	1	NA	11/14/10 03:08		225373	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/14/10 03:08		225373	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/14/10 03:08		225373	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/14/10 03:08		225373	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/14/10 03:08		225373	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/14/10 03:08		225373	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/14/10 03:08		225373	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/14/10 03:08		225373	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	96	71-122	11/14/10 03:08	
4-Bromofluorobenzene	105	75-120	11/14/10 03:08	
Dibromofluoromethane	104	82-116	11/14/10 03:08	
Toluene-d8	107	88-117	11/14/10 03:08	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005613-04

**Service Request:** J1005317  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 225373

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/13/10 18:52		225373	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/13/10 18:52		225373	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/13/10 18:52		225373	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/13/10 18:52		225373	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/13/10 18:52		225373	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/13/10 18:52		225373	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/13/10 18:52		225373	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/13/10 18:52		225373	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/13/10 18:52		225373	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/13/10 18:52		225373	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/13/10 18:52		225373	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/13/10 18:52		225373	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/13/10 18:52		225373	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/13/10 18:52		225373	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/13/10 18:52		225373	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/13/10 18:52		225373	
Acetone	ND	U	50.0	5.60	1	NA	11/13/10 18:52		225373	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/13/10 18:52		225373	
Benzene	ND	U	1.00	0.210	1	NA	11/13/10 18:52		225373	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/13/10 18:52		225373	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/13/10 18:52		225373	
Bromoform	ND	U	2.00	0.420	1	NA	11/13/10 18:52		225373	
Bromomethane	ND	U	1.00	0.220	1	NA	11/13/10 18:52		225373	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/13/10 18:52		225373	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/13/10 18:52		225373	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/13/10 18:52		225373	
Chloroethane	ND	U	5.00	0.220	1	NA	11/13/10 18:52		225373	
Chloroform	ND	U	1.00	0.350	1	NA	11/13/10 18:52		225373	
Chloromethane	ND	U	1.00	0.110	1	NA	11/13/10 18:52		225373	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/13/10 18:52		225373	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/13/10 18:52		225373	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/13/10 18:52		225373	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/13/10 18:52		225373	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/13/10 18:52		225373	
Iodomethane	ND	U	5.00	2.68	1	NA	11/13/10 18:52		225373	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/13/10 18:52		225373	

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005613-04

**Service Request:** J1005317  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS****Analytical Method:** 8260B**Analysis Lot:** 225373

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/13/10 18:52		225373	
o-Xylene	ND	U	1.00	0.140	1	NA	11/13/10 18:52		225373	
Styrene	ND	U	1.00	0.291	1	NA	11/13/10 18:52		225373	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/13/10 18:52		225373	
Toluene	ND	U	1.00	0.190	1	NA	11/13/10 18:52		225373	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/13/10 18:52		225373	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/13/10 18:52		225373	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/13/10 18:52		225373	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/13/10 18:52		225373	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/13/10 18:52		225373	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/13/10 18:52		225373	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/13/10 18:52		225373	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	83	71-122	11/13/10 18:52	
4-Bromofluorobenzene	96	75-120	11/13/10 18:52	
Dibromofluoromethane	90	82-116	11/13/10 18:52	
Toluene-d8	99	88-117	11/13/10 18:52	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-6A  
**Lab Code:** J1005317-001

**Service Request:** J1005317  
**Date Collected:** 11/3/10 1350  
**Date Received:** 11/4/10  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/13/10 05:15	
Arsenic, Total Recoverable	6020	0.83	µg/L	0.50	0.40	1	11/10/10	11/13/10 05:15	
Barium, Total Recoverable	6020	16.7	µg/L	2.0	0.3	1	11/10/10	11/13/10 05:15	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/10/10	11/13/10 05:15	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/10/10	11/13/10 05:15	
Chromium, Total Recoverable	6020	0.9 I	µg/L	2.0	0.3	1	11/10/10	11/13/10 05:15	
Cobalt, Total Recoverable	6020	1.2	µg/L	1.0	0.1	1	11/10/10	11/13/10 05:15	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/10/10	11/13/10 05:15	
Iron, Total Recoverable	6010B	16900	µg/L	100	10	1	11/8/10	11/12/10 02:04	
Lead, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 05:15	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/15/10	11/16/10 10:37	
Nickel, Total Recoverable	6020	1 I	µg/L	2.0	0.2	1	11/10/10	11/13/10 05:15	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/10/10	11/13/10 05:15	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/10/10	11/13/10 05:15	
Sodium, Total Recoverable	6010B	25.4	mg/L	0.50	0.02	1	11/8/10	11/12/10 13:21	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 05:15	
Vanadium, Total Recoverable	6020	1.6 I	µg/L	5.0	0.5	1	11/10/10	11/13/10 05:15	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/10/10	11/13/10 05:15	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-6C  
**Lab Code:** J1005317-002

**Service Request:** J1005317  
**Date Collected:** 11/3/10 1420  
**Date Received:** 11/4/10  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/13/10 05:20	
Arsenic, Total Recoverable	6020	ND U	µg/L	0.50	0.40	1	11/10/10	11/13/10 05:20	
Barium, Total Recoverable	6020	<b>25.0</b>	µg/L	2.0	0.3	1	11/10/10	11/13/10 05:20	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/10/10	11/13/10 05:20	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/10/10	11/13/10 05:20	
Chromium, Total Recoverable	6020	<b>1 I</b>	µg/L	2.0	0.3	1	11/10/10	11/13/10 05:20	
Cobalt, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 05:20	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/10/10	11/13/10 05:20	
Iron, Total Recoverable	6010B	<b>770</b>	µg/L	100	10	1	11/8/10	11/12/10 02:17	
Lead, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 05:20	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/15/10	11/16/10 10:38	
Nickel, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/13/10 05:20	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/10/10	11/13/10 05:20	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/10/10	11/13/10 05:20	
Sodium, Total Recoverable	6010B	<b>5.08</b>	mg/L	0.50	0.02	1	11/8/10	11/12/10 02:15	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 05:20	
Vanadium, Total Recoverable	6020	<b>1.4 I</b>	µg/L	5.0	0.5	1	11/10/10	11/13/10 05:20	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/10/10	11/13/10 05:20	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-7A  
**Lab Code:** J1005317-003

**Service Request:** J1005317  
**Date Collected:** 11/3/10 1250  
**Date Received:** 11/4/10  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/13/10 06:00	
Arsenic, Total Recoverable	6020	<b>1.31</b>	µg/L	0.50	0.40	1	11/10/10	11/13/10 06:00	
Barium, Total Recoverable	6020	<b>13.4</b>	µg/L	2.0	0.3	1	11/10/10	11/13/10 06:00	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/10/10	11/13/10 06:00	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/10/10	11/13/10 06:00	
Chromium, Total Recoverable	6020	<b>1.6 I</b>	µg/L	2.0	0.3	1	11/10/10	11/13/10 06:00	
Cobalt, Total Recoverable	6020	<b>1.7</b>	µg/L	1.0	0.1	1	11/10/10	11/13/10 06:00	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/10/10	11/13/10 06:00	
Iron, Total Recoverable	6010B	<b>9140</b>	µg/L	100	10	1	11/8/10	11/12/10 02:21	
Lead, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 06:00	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/15/10	11/16/10 10:39	
Nickel, Total Recoverable	6020	<b>0.7 I</b>	µg/L	2.0	0.2	1	11/10/10	11/13/10 06:00	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/10/10	11/13/10 06:00	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/10/10	11/13/10 06:00	
Sodium, Total Recoverable	6010B	<b>13.6</b>	mg/L	0.50	0.02	1	11/8/10	11/12/10 02:20	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 06:00	
Vanadium, Total Recoverable	6020	<b>1.9 I</b>	µg/L	5.0	0.5	1	11/10/10	11/13/10 06:00	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/10/10	11/13/10 06:00	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-7C  
**Lab Code:** J1005317-004

**Service Request:** J1005317  
**Date Collected:** 11/3/10 1220  
**Date Received:** 11/4/10  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/13/10 06:05	
Arsenic, Total Recoverable	6020	ND U	µg/L	0.50	0.40	1	11/10/10	11/13/10 06:05	
Barium, Total Recoverable	6020	<b>26.5</b>	µg/L	2.0	0.3	1	11/10/10	11/13/10 06:05	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/10/10	11/13/10 06:05	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/10/10	11/13/10 06:05	
Chromium, Total Recoverable	6020	<b>1.0 I</b>	µg/L	2.0	0.3	1	11/10/10	11/13/10 06:05	
Cobalt, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 06:05	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/10/10	11/13/10 06:05	
Iron, Total Recoverable	6010B	<b>720</b>	µg/L	100	10	1	11/8/10	11/12/10 02:26	
Lead, Total Recoverable	6020	<b>0.3 I</b>	µg/L	1.0	0.1	1	11/10/10	11/13/10 06:05	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/15/10	11/16/10 10:40	
Nickel, Total Recoverable	6020	<b>0.4 I</b>	µg/L	2.0	0.2	1	11/10/10	11/13/10 06:05	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/10/10	11/13/10 06:05	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/10/10	11/13/10 06:05	
Sodium, Total Recoverable	6010B	<b>6.22</b>	mg/L	0.50	0.02	1	11/8/10	11/12/10 02:24	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 06:05	
Vanadium, Total Recoverable	6020	<b>2.4 I</b>	µg/L	5.0	0.5	1	11/10/10	11/13/10 06:05	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/10/10	11/13/10 06:05	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-8A  
**Lab Code:** J1005317-005

**Service Request:** J1005317  
**Date Collected:** 11/3/10 1020  
**Date Received:** 11/4/10  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/13/10 06:10	
Arsenic, Total Recoverable	6020	0.54	µg/L	0.50	0.40	1	11/10/10	11/13/10 06:10	
Barium, Total Recoverable	6020	43.3	µg/L	2.0	0.3	1	11/10/10	11/13/10 06:10	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/10/10	11/13/10 06:10	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/10/10	11/13/10 06:10	
Chromium, Total Recoverable	6020	1.7 I	µg/L	2.0	0.3	1	11/10/10	11/13/10 06:10	
Cobalt, Total Recoverable	6020	2.1	µg/L	1.0	0.1	1	11/10/10	11/13/10 06:10	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/10/10	11/13/10 06:10	
Iron, Total Recoverable	6010B	3650	µg/L	100	10	1	11/8/10	11/12/10 02:30	
Lead, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 06:10	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/15/10	11/16/10 10:41	
Nickel, Total Recoverable	6020	4.4	µg/L	2.0	0.2	1	11/10/10	11/13/10 06:10	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/10/10	11/13/10 06:10	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/10/10	11/13/10 06:10	
Sodium, Total Recoverable	6010B	31.2	mg/L	0.50	0.02	1	11/8/10	11/12/10 02:29	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 06:10	
Vanadium, Total Recoverable	6020	2.3 I	µg/L	5.0	0.5	1	11/10/10	11/13/10 06:10	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/10/10	11/13/10 06:10	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-8C  
**Lab Code:** J1005317-006

**Service Request:** J1005317  
**Date Collected:** 11/3/10 1050  
**Date Received:** 11/4/10  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/13/10 06:15	
Arsenic, Total Recoverable	6020	ND U	µg/L	0.50	0.40	1	11/10/10	11/13/10 06:15	
Barium, Total Recoverable	6020	<b>15.4</b>	µg/L	2.0	0.3	1	11/10/10	11/13/10 06:15	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/10/10	11/13/10 06:15	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/10/10	11/13/10 06:15	
Chromium, Total Recoverable	6020	<b>0.9 I</b>	µg/L	2.0	0.3	1	11/10/10	11/13/10 06:15	
Cobalt, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 06:15	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/10/10	11/13/10 06:15	
Iron, Total Recoverable	6010B	<b>970</b>	µg/L	100	10	1	11/8/10	11/12/10 02:52	
Lead, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 06:15	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/15/10	11/16/10 10:42	
Nickel, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/13/10 06:15	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/10/10	11/13/10 06:15	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/10/10	11/13/10 06:15	
Sodium, Total Recoverable	6010B	<b>6.56</b>	mg/L	0.50	0.02	1	11/8/10	11/12/10 02:51	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 06:15	
Vanadium, Total Recoverable	6020	ND U	µg/L	5.0	0.5	1	11/10/10	11/13/10 06:15	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/10/10	11/13/10 06:15	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-9A  
**Lab Code:** J1005317-007

**Service Request:** J1005317  
**Date Collected:** 11/3/10 0835  
**Date Received:** 11/4/10  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/13/10 06:20	
Arsenic, Total Recoverable	6020	1.69	µg/L	0.50	0.40	1	11/10/10	11/13/10 06:20	
Barium, Total Recoverable	6020	3.8	µg/L	2.0	0.3	1	11/10/10	11/13/10 06:20	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/10/10	11/13/10 06:20	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/10/10	11/13/10 06:20	
Chromium, Total Recoverable	6020	3.6	µg/L	2.0	0.3	1	11/10/10	11/13/10 06:20	
Cobalt, Total Recoverable	6020	0.3 I	µg/L	1.0	0.1	1	11/10/10	11/13/10 06:20	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/10/10	11/13/10 06:20	
Iron, Total Recoverable	6010B	1050	µg/L	100	10	1	11/8/10	11/12/10 02:56	
Lead, Total Recoverable	6020	0.3 I	µg/L	1.0	0.1	1	11/10/10	11/13/10 06:20	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/15/10	11/16/10 10:43	
Nickel, Total Recoverable	6020	1.7 I	µg/L	2.0	0.2	1	11/10/10	11/13/10 06:20	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/10/10	11/13/10 06:20	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/10/10	11/13/10 06:20	
Sodium, Total Recoverable	6010B	13.9	mg/L	0.50	0.02	1	11/8/10	11/12/10 02:55	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 06:20	
Vanadium, Total Recoverable	6020	3.7 I	µg/L	5.0	0.5	1	11/10/10	11/13/10 06:20	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/10/10	11/13/10 06:20	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-9C  
**Lab Code:** J1005317-008

**Service Request:** J1005317  
**Date Collected:** 11/3/10 0900  
**Date Received:** 11/4/10  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/13/10	06:25
Arsenic, Total Recoverable	6020	ND U	µg/L	0.50	0.40	1	11/10/10	11/13/10	06:25
Barium, Total Recoverable	6020	<b>32.3</b>	µg/L	2.0	0.3	1	11/10/10	11/13/10	06:25
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/10/10	11/13/10	06:25
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/10/10	11/13/10	06:25
Chromium, Total Recoverable	6020	<b>1.4 I</b>	µg/L	2.0	0.3	1	11/10/10	11/13/10	06:25
Cobalt, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10	06:25
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/10/10	11/13/10	06:25
Iron, Total Recoverable	6010B	<b>670</b>	µg/L	100	10	1	11/8/10	11/12/10	03:10
Lead, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10	06:25
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/15/10	11/16/10	10:47
Nickel, Total Recoverable	6020	<b>4.9</b>	µg/L	2.0	0.2	1	11/10/10	11/13/10	06:25
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/10/10	11/13/10	06:25
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/10/10	11/13/10	06:25
Sodium, Total Recoverable	6010B	<b>6.81</b>	mg/L	0.50	0.02	1	11/8/10	11/12/10	03:08
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10	06:25
Vanadium, Total Recoverable	6020	<b>2.6 I</b>	µg/L	5.0	0.5	1	11/10/10	11/13/10	06:25
Zinc, Total Recoverable	6020	<b>2 I</b>	µg/L	10	2	1	11/10/10	11/13/10	06:25

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005365-02

**Service Request:** J1005317  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Total Recoverable	6010B	ND U	µg/L	100	10	1	11/8/10	11/12/10 01:31	
Sodium, Total Recoverable	6010B	0.24 I	mg/L	0.50	0.02	1	11/8/10	11/12/10 01:29	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005417-02

**Service Request:** J1005317  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/15/10	11/16/10 10:33	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005469-02

**Service Request:** J1005317

**Date Collected:** NA

**Date Received:** NA

**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/13/10 05:00	
Arsenic, Total Recoverable	6020	ND U	µg/L	0.50	0.40	1	11/10/10	11/13/10 05:00	
Barium, Total Recoverable	6020	ND U	µg/L	2.0	0.3	1	11/10/10	11/13/10 05:00	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/10/10	11/13/10 05:00	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/10/10	11/13/10 05:00	
Chromium, Total Recoverable	6020	ND U	µg/L	2.0	0.3	1	11/10/10	11/13/10 05:00	
Cobalt, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 05:00	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/10/10	11/13/10 05:00	
Lead, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 05:00	
Nickel, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/13/10 05:00	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/10/10	11/13/10 05:00	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/10/10	11/13/10 05:00	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 05:00	
Vanadium, Total Recoverable	6020	ND U	µg/L	5.0	0.5	1	11/10/10	11/13/10 05:00	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/10/10	11/13/10 05:00	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-6A  
**Lab Code:** J1005317-001

**Service Request:** J1005317  
**Date Collected:** 11/3/10 13:50  
**Date Received:** 11/4/10  
**Basis:** NA

## General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	3.24	mg/L	0.010	0.004	1	NA	11/5/10 14:25	
Chloride	300.0	73.1	mg/L	0.50	0.09	1	NA	11/4/10 16:29	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/4/10 16:29	
Solids, Total Dissolved	SM 2540 C	115	mg/L	10	10	1	NA	11/5/10 18:10	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-6C  
**Lab Code:** J1005317-002

**Service Request:** J1005317  
**Date Collected:** 11/3/10 1420  
**Date Received:** 11/4/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	<b>0.134</b>	mg/L	0.010	0.004	1	NA	11/5/10 14:26	
Chloride	300.0	<b>5.67</b>	mg/L	0.50	0.09	1	NA	11/4/10 18:29	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/4/10 18:29	
Solids, Total Dissolved	SM 2540 C	<b>47</b>	mg/L	10	10	1	NA	11/5/10 18:10	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-7A  
**Lab Code:** J1005317-003

**Service Request:** J1005317  
**Date Collected:** 11/3/10 1250  
**Date Received:** 11/4/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	4.51	mg/L	0.010	0.004	1	NA	11/5/10 14:27	
Chloride	300.0	28.2	mg/L	0.50	0.09	1	NA	11/4/10 18:44	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/4/10 18:44	
Solids, Total Dissolved	SM 2540 C	80	mg/L	10	10	1	NA	11/5/10 18:10	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-7C  
**Lab Code:** J1005317-004

**Service Request:** J1005317  
**Date Collected:** 11/3/10 1220  
**Date Received:** 11/4/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	<b>0.088</b>	mg/L	0.010	0.004	1	NA	11/5/10 14:30	
Chloride	300.0	<b>7.67</b>	mg/L	0.50	0.09	1	NA	11/4/10 18:59	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/4/10 18:59	
Solids, Total Dissolved	SM 2540 C	<b>48</b>	mg/L	10	10	1	NA	11/5/10 18:10	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-8A  
**Lab Code:** J1005317-005

**Service Request:** J1005317  
**Date Collected:** 11/3/10 1020  
**Date Received:** 11/4/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	<b>6.50</b>	mg/L	0.010	0.004	1	NA	11/5/10 14:32	
Chloride	300.0	<b>90.8</b>	mg/L	0.50	0.09	1	NA	11/4/10 19:14	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/4/10 19:14	
Solids, Total Dissolved	SM 2540 C	<b>165</b>	mg/L	10	10	1	NA	11/5/10 18:10	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-8C  
**Lab Code:** J1005317-006

**Service Request:** J1005317  
**Date Collected:** 11/3/10 1050  
**Date Received:** 11/4/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	<b>0.129</b>	mg/L	0.010	0.004	1	NA	11/5/10 14:33	
Chloride	300.0	<b>10.4</b>	mg/L	0.50	0.09	1	NA	11/4/10 19:59	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/4/10 19:59	
Solids, Total Dissolved	SM 2540 C	<b>44</b>	mg/L	10	10	1	NA	11/5/10 18:10	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-9A  
**Lab Code:** J1005317-007

**Service Request:** J1005317  
**Date Collected:** 11/3/10 0835  
**Date Received:** 11/4/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	13.2	mg/L	0.050	0.020	5	NA	11/5/10 15:17	
Chloride	300.0	30.7	mg/L	0.50	0.09	1	NA	11/4/10 20:13	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/4/10 20:13	
Solids, Total Dissolved	SM 2540 C	159	mg/L	10	10	1	NA	11/5/10 18:10	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-9C  
**Lab Code:** J1005317-008

**Service Request:** J1005317  
**Date Collected:** 11/3/10 0900  
**Date Received:** 11/4/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	<b>0.226</b>	mg/L	0.010	0.004	1	NA	11/5/10 15:18	
Chloride	300.0	<b>11.2</b>	mg/L	0.50	0.09	1	NA	11/4/10 20:28	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/4/10 20:28	
Solids, Total Dissolved	SM 2540 C	<b>83</b>	mg/L	10	10	1	NA	11/5/10 18:10	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005348-01

**Service Request:** J1005317**Date Collected:** NA**Date Received:** NA**Basis:** NA**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	300.0	ND U	mg/L	0.50	0.09	1	NA	11/4/10 15:30	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/4/10 15:30	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005376-01

**Service Request:** J1005317  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	ND	U	mg/L	0.010	0.004	1	NA	11/5/10 13:51	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005377-01

**Service Request:** J1005317**Date Collected:** NA**Date Received:** NA**Basis:** NA**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	ND U	mg/L	0.010	0.004	1	NA	11/5/10 14:28	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005386-02

**Service Request:** J1005317  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total Dissolved	SM 2540 C	ND	U	mg/L	10	10	1	NA	11/5/10 18:10	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005317**Surrogate Recovery Summary  
Volatile Organic Compounds by GC/MS****Analytical Method:** 8260B**Units:** Percent

<b>Sample Name</b>	<b>Lab Code</b>	<b>Sur1</b>	<b>Sur2</b>	<b>Sur3</b>	<b>Sur4</b>
MW-6A	J1005317-001	88	99	95	100
MW-6C	J1005317-002	94	105	103	105
MW-7A	J1005317-003	96	103	102	108
MW-7C	J1005317-004	96	104	102	105
MW-8A	J1005317-005	94	104	104	104
MW-8C	J1005317-006	98	103	105	106
MW-9A	J1005317-007	94	105	104	106
MW-9C	J1005317-008	95	105	105	108
Trip Blank	J1005317-009	96	105	104	107
Method Blank	JQ1005613-04	83	96	90	99
Lab Control Sample	JQ1005613-03	92	104	103	107
MW-9CMS	JQ1005613-01	89	90	92	94
MW-9CDMS	JQ1005613-02	93	100	101	104

**Surrogate Recovery Control Limits(%)**

Sur1	= 1,2-Dichloroethane-d4	71 - 122
Sur2	= 4-Bromofluorobenzene	75 - 120
Sur3	= Dibromofluoromethane	82 - 116
Sur4	= Toluene-d8	88 - 117

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005317  
**Date Collected:** 11/3/10  
**Date Received:** 11/4/10  
**Date Analyzed:** 11/14/10

**Matrix Spike Summary**  
**Volatile Organic Compounds by GC/MS**

**Sample Name:** MW-9C  
**Lab Code:** J1005317-008

**Units:** µg/L  
**Basis:** NA

**Analytical Method:** 8260B

<b>Analyte Name</b>	<b>Sample Result</b>	MW-9CMS			MW-9CDMS			<b>% Rec Limits</b>	<b>RPD</b>	<b>RPD Limit</b>			
		Matrix Spike JQ1005613-01			Duplicate Matrix Spike JQ1005613-02								
		<b>Spike</b>	<b>Amount</b>	<b>% Rec</b>	<b>Spike</b>	<b>Amount</b>	<b>% Rec</b>						
1,1,1,2-Tetrachloroethane	ND	19.3	20.0	97	19.6	20.0	98	82 - 118	1	30			
1,1,1-Trichloroethane (TCA)	ND	20.2	20.0	101	20.6	20.0	103	76 - 130	2	30			
1,1,2,2-Tetrachloroethane	ND	21.6	20.0	108	21.4	20.0	107	72 - 127	<1	30			
1,1,2-Trichloroethane	ND	22.8	20.0	114	22.2	20.0	111	77 - 124	3	30			
1,1-Dichloroethane (1,1-DCA)	ND	20.4	20.0	102	20.8	20.0	104	78 - 125	2	30			
1,1-Dichloroethene (1,1-DCE)	ND	20.5	20.0	102	21.3	20.0	107	79 - 133	4	30			
1,2,3-Trichloropropane	ND	21.9	20.0	109	21.0	20.0	105	76 - 123	4	30			
1,2-Dibromo-3-chloropropane (DBC)	ND	17.9	20.0	89	17.5	20.0	87	54 - 120	2	30.			
1,2-Dibromoethane (EDB)	ND	22.1	20.0	110	21.9	20.0	109	81 - 119	<1	30			
1,2-Dichlorobenzene	ND	19.0	20.0	95	18.9	20.0	95	77 - 116	<1	30			
1,2-Dichloroethane	ND	18.9	20.0	94	18.2	20.0	91	74 - 126	3	30			
1,2-Dichloropropane	ND	21.3	20.0	106	20.9	20.0	105	77 - 122	2	30			
1,4-Dichlorobenzene	ND	18.8	20.0	94	19.5	20.0	98	75 - 115	3	30			
2-Butanone (MEK)	ND	86.5	100	86	86.7	100	87	63 - 134	<1	30			
2-Hexanone	ND	92.9	100	93	92.6	100	93	63 - 142	<1	30			
4-Methyl-2-pentanone (MIBK)	ND	93.6	100	94	93.3	100	93	65 - 138	<1	30			
Acetone	ND	98.3	100	98	93.6	100	94	56 - 139	5	30			
Acrylonitrile	ND	98.2	100	98	97.1	100	97	68 - 131	1	30			
Benzene	ND	21.0	20.0	105	21.2	20.0	106	78 - 123	<1	30			
Bromochloromethane	ND	21.8	20.0	109	22.3	20.0	112	80 - 124	2	30			
Bromodichloromethane	ND	20.0	20.0	100	20.1	20.0	101	79 - 125	<1	30			
Bromoform	ND	15.1	20.0	75	14.2	20.0	71	70 - 129	6	30			
Bromomethane	ND	23.2	20.0	116	23.1	20.0	115	78 - 129	<1	30			
Carbon Disulfide	ND	105	100	105	106	100	106	71 - 146	<1	30			
Carbon Tetrachloride	ND	16.9	20.0	85	17.3	20.0	87	76 - 131	2	30			
Chlorobenzene	ND	21.3	20.0	107	21.6	20.0	108	81 - 120	1	30			
Chloroethane	ND	23.0	20.0	115	23.2	20.0	116	76 - 129	<1	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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005317  
**Date Collected:** 11/3/10  
**Date Received:** 11/4/10  
**Date Analyzed:** 11/14/10

**Matrix Spike Summary**  
**Volatile Organic Compounds by GC/MS**

**Sample Name:** MW-9C  
**Lab Code:** J1005317-008

**Units:** µg/L  
**Basis:** NA

**Analytical Method:** 8260B

Analyte Name	MW-9CMS				MW-9CDMS				% Rec Limits	RPD	Limit			
	Matrix Spike				Duplicate Matrix Spike									
	JQ1005613-01	JQ1005613-02	Result	Spike Amount	Result	Spike Amount	% Rec							
Chloroform	ND	21.2	20.0	106	20.3	20.0	101	81 - 124	4	30				
Chloromethane	ND	18.3	20.0	92	18.7	20.0	94	73 - 139	2	30				
cis-1,2-Dichloroethene	ND	20.2	20.0	101	20.2	20.0	101	75 - 127	<1	30				
cis-1,3-Dichloropropene	ND	16.8	20.0	84	16.7	20.0	84	77 - 117	<1	30				
Dibromochloromethane	ND	18.9	20.0	95	18.8	20.0	94	78 - 124	<1	30				
Dibromomethane	ND	21.4	20.0	107	21.4	20.0	107	78 - 124	<1	30				
Ethylbenzene	ND	20.5	20.0	103	20.9	20.0	104	87 - 122	2	30				
Iodomethane	ND	106	100	106	107	100	107	74 - 134	<1	30				
m,p-Xylenes	ND	40.8	40.0	102	40.7	40.0	102	82 - 120	<1	30				
Methylene Chloride	ND	21.3	20.0	106	21.3	20.0	106	75 - 123	<1	30				
o-Xylene	ND	20.7	20.0	104	20.3	20.0	102	85 - 119	2	30				
Styrene	ND	18.8	20.0	94	19.2	20.0	96	84 - 126	2	30				
Tetrachloroethene (PCE)	ND	21.8	20.0	109	22.3	20.0	112	79 - 123	3	30				
Toluene	ND	20.6	20.0	103	20.6	20.0	103	86 - 119	<1	30				
trans-1,2-Dichloroethene	ND	20.6	20.0	103	20.8	20.0	104	76 - 125	<1	30				
trans-1,3-Dichloropropene	ND	14.1	20.0	71 *	13.6	20.0	68 *	75 - 120	4	30				
trans-1,4-Dichloro-2-butene	ND	ND	20.0	0 *	ND	20.0	0 *	22 - 135	<1	30				
Trichloroethene (TCE)	ND	21.1	20.0	106	21.3	20.0	107	77 - 128	<1	30				
Trichlorofluoromethane	ND	20.7	20.0	104	21.0	20.0	105	81 - 133	1	30				
Vinyl Acetate	ND	73.3	100	73	73.1	100	73	43 - 163	<1	30				
Vinyl Chloride	ND	21.3	20.0	107	21.7	20.0	109	78 - 141	2	30				

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## COLUMBIA ANALYTICAL SERVICES, INC.

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005317  
**Date Analyzed:** 11/13/10

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Units:** µg/L  
**Basis:** NA

**Analysis Lot:** 225373**Lab Control Sample**

JQ1005613-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	19.8	20.0	99	85 - 117
1,1,1-Trichloroethane (TCA)	20.3	20.0	102	79 - 124
1,1,2,2-Tetrachloroethane	20.8	20.0	104	83 - 120
1,1,2-Trichloroethane	21.6	20.0	108	86 - 114
1,1-Dichloroethane (1,1-DCA)	20.5	20.0	102	80 - 128
1,1-Dichloroethene (1,1-DCE)	21.9	20.0	109	78 - 130
1,2,3-Trichloropropane	20.3	20.0	101	83 - 123
1,2-Dibromo-3-chloropropane (DBCP)	17.6	20.0	88	62 - 123
1,2-Dibromoethane (EDB)	21.3	20.0	106	88 - 117
1,2-Dichlorobenzene	19.1	20.0	96	84 - 115
1,2-Dichloroethane	18.0	20.0	90	80 - 124
1,2-Dichloropropane	20.7	20.0	104	79 - 123
1,4-Dichlorobenzene	19.3	20.0	97	83 - 113
2-Butanone (MEK)	99.3	100	99	73 - 127
2-Hexanone	89.7	100	90	71 - 138
4-Methyl-2-pentanone (MIBK)	88.8	100	89	72 - 136
Acetone	101	100	101	67 - 133
Acrylonitrile	94.8	100	95	77 - 127
Benzene	20.7	20.0	104	79 - 119
Bromochloromethane	21.4	20.0	107	79 - 129
Bromodichloromethane	19.6	20.0	98	81 - 123
Bromoform	17.2	20.0	86	68 - 129
Bromomethane	24.9	20.0	125	79 - 130
Carbon Disulfide	109	100	109	76 - 138
Carbon Tetrachloride	18.7	20.0	93	81 - 125
Chlorobenzene	21.4	20.0	107	86 - 113
Chloroethane	22.9	20.0	114	74 - 126
Chloroform	21.0	20.0	105	83 - 124
Chloromethane	19.2	20.0	96	67 - 135
cis-1,2-Dichloroethene	19.6	20.0	98	80 - 126
cis-1,3-Dichloropropene	20.4	20.0	102	86 - 123
Dibromochloromethane	20.0	20.0	100	82 - 121

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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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005317  
**Date Analyzed:** 11/13/10

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Units:** µg/L  
**Basis:** NA

**Analysis Lot:** 225373**Lab Control Sample**

JQ1005613-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Dibromomethane	20.7	20.0	104	83 - 123
Ethylbenzene	21.1	20.0	106	90 - 118
Iodomethane	106	100	106	68 - 134
m,p-Xylenes	41.8	40.0	104	86 - 121
Methylene Chloride	20.5	20.0	103	72 - 124
o-Xylene	20.6	20.0	103	89 - 119
Styrene	20.7	20.0	104	89 - 122
Tetrachloroethene (PCE)	22.6	20.0	113	80 - 121
Toluene	20.8	20.0	104	86 - 117
trans-1,2-Dichloroethene	20.0	20.0	100	77 - 124
trans-1,3-Dichloropropene	19.4	20.0	97	83 - 124
trans-1,4-Dichloro-2-butene	9.13	20.0	46 *	53 - 143
Trichloroethene (TCE)	21.9	20.0	109	76 - 124
Trichlorofluoromethane	21.9	20.0	109	74 - 134
Vinyl Acetate	79.7	100	80	61 - 148
Vinyl Chloride	21.9	20.0	109	78 - 132

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## COLUMBIA ANALYTICAL SERVICES, INC.

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005317  
**Date Collected:** 11/3/10  
**Date Received:** 11/4/10  
**Date Analyzed:** 11/13/10

## **Matrix Spike Summary Inorganic Parameters**

**Sample Name:** MW-6C **Units:** µg/L  
**Lab Code:** J1005317-002 **Basis:** NA

**Analytical Method:** 6020  
**Prep Method:** EPA 3020A

Analyte Name	MW-6CMS				MW-6CDMS				% Rec Limits	RPD	RPD Limit			
	Matrix Spike JQ1005469-03				Duplicate Matrix Spike JQ1005469-04									
	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec							
Antimony, Total Recoverable	ND	50.7	50.0	101	51.2	50.0	102	75 - 125	1	20				
Arsenic, Total Recoverable	ND	50.7	50.0	101	49.4	50.0	99	75 - 125	2	20				
Barium, Total Recoverable	25.0	75.0	50.0	100	75.1	50.0	100	75 - 125	<1	20				
Beryllium, Total Recoverable	ND	49.1	50.0	98	50.1	50.0	100	75 - 125	2	20				
Cadmium, Total Recoverable	ND	50.7	50.0	101	50.4	50.0	101	75 - 125	<1	20				
Chromium, Total Recoverable	1	50.6	50.0	99	50.0	50.0	98	75 - 125	1	20				
Cobalt, Total Recoverable	ND	49.6	50.0	99	48.7	50.0	97	75 - 125	2	20				
Copper, Total Recoverable	ND	50.1	50.0	100	49.2	50.0	98	75 - 125	2	20				
Lead, Total Recoverable	ND	50.2	50.0	100	50.2	50.0	100	75 - 125	<1	20				
Nickel, Total Recoverable	ND	49.4	50.0	99	48.5	50.0	97	75 - 125	2	20				
Selenium, Total Recoverable	ND	51.0	50.0	102	49.8	50.0	100	75 - 125	2	20				
Silver, Total Recoverable	ND	51.3	50.0	103	50.8	50.0	102	75 - 125	<1	20				
Thallium, Total Recoverable	ND	49.7	50.0	99	50.0	50.0	100	75 - 125	<1	20				
Vanadium, Total Recoverable	1.4	51.3	50.0	100	49.8	50.0	97	75 - 125	3	20				
Zinc, Total Recoverable	ND	103	100	103	102	100	102	75 - 125	<1	20				

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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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005317  
**Date Collected:** 11/3/10  
**Date Received:** 11/4/10  
**Date Analyzed:** 11/12/10

## **Matrix Spike Summary Inorganic Parameters**

**Sample Name:** MW-8A      **Units:** mg/L  
**Lab Code:** J1005317-005      **Basis:** NA

**Analytical Method:** 6010B  
**Prep Method:** EPA 3010A

Analyte Name	MW-8AMS				MW-8ADMS			
	Matrix Spike		Duplicate Matrix Spike					
	JQ1005365-03	JQ1005365-04						
Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD RPD Limit
Sodium, Total Recoverable	31.2	40.1	10.0	89	41.0	10.0	98	75 - 125 2 20

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**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005317  
**Date Collected:** 11/3/10  
**Date Received:** 11/4/10  
**Date Analyzed:** 11/12/10

**Matrix Spike Summary**  
**Inorganic Parameters**

**Sample Name:** MW-8A **Units:** µg/L  
**Lab Code:** J1005317-005 **Basis:** NA

**Analytical Method:** 6010B  
**Prep Method:** EPA 3010A

<b>Analyte Name</b>	<b>Sample Result</b>	MW-8AMS			MW-8ADMS			<b>% Rec Limits</b>	<b>RPD</b>	<b>RPD Limit</b>
		<b>Matrix Spike</b> JQ1005365-03	<b>Spike Amount</b>	<b>% Rec</b>	<b>Duplicate Matrix Spike</b> JQ1005365-04	<b>Spike Amount</b>	<b>% Rec</b>			
Iron, Total Recoverable	3650	5510	2000	93	5620	2000	98	75 - 125	2	20

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**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005317  
**Date Analyzed:** 11/12/10

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:** mg/L  
**Basis:** NA

**Lab Control Sample**

JQ1005365-01

<b>Analyte Name</b>	<b>Method</b>	<b>Spike</b>			<b>% Rec</b>	<b>Limits</b>
		<b>Result</b>	<b>Amount</b>	<b>% Rec</b>		
Sodium, Total Recoverable	6010B	10.1	10.0	101	80 - 120	

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

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**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005317  
**Date Analyzed:** 11/12/10

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:**  $\mu\text{g/L}$   
**Basis:** NA

**Lab Control Sample**

JQ1005365-01

<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Spike</b>	<b>% Rec</b>	<b>% Rec Limits</b>
			<b>Amount</b>		
Iron, Total Recoverable	6010B	2010	2000	100	80 - 120

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**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005317  
**Date Analyzed:** 11/16/10

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:** µg/L  
**Basis:** NA

**Lab Control Sample**  
JQ1005417-01

<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Spike</b>	<b>% Rec</b>	
			<b>Amount</b>	<b>% Rec</b>	<b>Limits</b>
Mercury, Total	7470A	5.03	5.00	101	80 - 120

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**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005317  
**Date Analyzed:** 11/13/10

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:**  $\mu\text{g/L}$   
**Basis:** NA

**Lab Control Sample**

JQ1005469-01

<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Spike</b>		<b>% Rec Limits</b>
			<b>Amount</b>	<b>% Rec</b>	
Antimony, Total Recoverable	6020	50.7	50.0	101	80 - 120
Arsenic, Total Recoverable	6020	51.6	50.0	103	80 - 120
Barium, Total Recoverable	6020	50.0	50.0	100	80 - 120
Beryllium, Total Recoverable	6020	50.1	50.0	100	80 - 120
Cadmium, Total Recoverable	6020	50.4	50.0	101	80 - 120
Chromium, Total Recoverable	6020	50.4	50.0	101	80 - 120
Cobalt, Total Recoverable	6020	50.0	50.0	100	80 - 120
Copper, Total Recoverable	6020	49.5	50.0	99	80 - 120
Lead, Total Recoverable	6020	50.2	50.0	100	80 - 120
Nickel, Total Recoverable	6020	50.4	50.0	101	80 - 120
Selenium, Total Recoverable	6020	53.0	50.0	106	80 - 120
Silver, Total Recoverable	6020	51.8	50.0	104	80 - 120
Thallium, Total Recoverable	6020	49.9	50.0	100	80 - 120
Vanadium, Total Recoverable	6020	50.3	50.0	101	80 - 120
Zinc, Total Recoverable	6020	104	100	104	80 - 120

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**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005317  
**Date Collected:** 11/3/10  
**Date Received:** 11/4/10  
**Date Analyzed:** 11/4/10

**Matrix Spike Summary**  
**General Chemistry Parameters**

**Sample Name:** MW-6A                   **Units:** mg/L  
**Lab Code:** J1005317-001               **Basis:** NA

**Analytical Method:** 300.0

MW-6AMS  
**Matrix Spike**  
JQ1005348-04

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Chloride	73.1	117	50.0	88 *	90 - 110
Nitrate as Nitrogen	ND	4.51	5.00	90	90 - 110

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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.

**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005317  
**Date Collected:** 11/3/10  
**Date Received:** 11/4/10  
**Date Analyzed:** 11/ 5/10

**Matrix Spike Summary**  
**General Chemistry Parameters**

**Sample Name:** MW-7C  
**Lab Code:** J1005317-004

**Units:** mg/L  
**Basis:** NA

**Analytical Method:** 350.1

MW-7CMS  
Matrix Spike  
JQ1005377-03

<b>Analyte Name</b>	<b>Sample Result</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>% Rec Limits</b>
Ammonia as Nitrogen	0.088	1.08	1.00	99	90 - 110

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.

## **COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005317  
**Date Collected:** 11/3/10  
**Date Received:** 11/4/10  
**Date Analyzed:** 11/4/10

## Replicate Sample Summary General Chemistry Parameters

**Sample Name:** MW-6A      **Units:** mg/L  
**Lab Code:** J1005317-001      **Basis:** NA

Analyte Name	Method	MRL	MDL	Sample Result	MW-6ADUP			RPD	RPD Limit
					Duplicate Sample	JQ1005348-05	Result		
Chloride	300.0	0.50	0.09	73.1	72.8	73.0	<1	20	
Nitrate as Nitrogen	300.0	0.20	0.07	ND U	ND U	NC	NC	20	

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.

## **COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005317  
**Date Collected:** 11/3/10  
**Date Received:** 11/4/10  
**Date Analyzed:** 11/ 5/10

## Replicate Sample Summary General Chemistry Parameters

**Sample Name:** MW-7C      **Units:** mg/L  
**Lab Code:** J1005317-004      **Basis:** NA

Analyte Name	Method	MRL	MDL	Sample Result	MW-7CDUP		RPD	RPD Limit
					Duplicate Sample	JQ1005377-04		
Ammonia as Nitrogen	350.1	0.010	0.004	0.088	0.085	0.0863	3	20

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.

**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005317  
**Date Collected:** 11/3/10  
**Date Received:** 11/4/10  
**Date Analyzed:** 11/ 5/10

## **Replicate Sample Summary General Chemistry Parameters**

**Sample Name:** MW-9C      **Units:** mg/L  
**Lab Code:** J1005317-008      **Basis:** NA

Analyte Name	Method	MRL	MDL	Sample Result	MW-9CDUP		RPD	RPD Limit
					Duplicate Sample	JQ1005386-01		
Solids, Total Dissolved	SM 2540 C	10	10	83	70	76.5	17	20

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.

**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005317  
**Date Analyzed:** 11/4/10

**Lab Control Sample Summary**  
**General Chemistry Parameters**

**Units:** mg/L  
**Basis:** NA

Analyte Name	Method	Lab Control Sample			Duplicate Lab Control Sample			% Rec Limits	RPD	RPD Limit			
		JQ1005348-02			JQ1005348-03								
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec						
Chloride	300.0	50.6	50.0	101	50.6	50.0	101	90 - 110	<1	20			
Nitrate as Nitrogen	300.0	4.73	5.00	95	4.74	5.00	95	90 - 110	<1	20			

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005317  
**Date Analyzed:** 11/5/10

**Lab Control Sample Summary**  
**General Chemistry Parameters**

**Units:** mg/L  
**Basis:** NA

**Lab Control Sample**

JQ1005376-02

<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Spike</b>	<b>% Rec</b>	<b>Limits</b>
			<b>Amount</b>		
Ammonia as Nitrogen	350.1	1.01	1.00	101	90 - 110

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005317  
**Date Analyzed:** 11/5/10

**Lab Control Sample Summary  
General Chemistry Parameters**

**Units:** mg/L  
**Basis:** NA

**Lab Control Sample**

JQ1005377-02

<b>Analyte Name</b>	<b>Method</b>	<b>Spike</b>			<b>% Rec</b>	<b>Limits</b>
		<b>Result</b>	<b>Amount</b>	<b>% Rec</b>		
Ammonia as Nitrogen	350.1	0.979	1.00	98	90 - 110	

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005317  
**Date Analyzed:** 11/5/10

**Lab Control Sample Summary**  
**General Chemistry Parameters**

**Units:** mg/L  
**Basis:** NA

**Lab Control Sample**  
JQ1005386-03

Analyte Name	Method	Result	Spike Amount	% Rec	% Rec Limits
Solids, Total Dissolved	SM 2540 C	285	300	95	85 - 115

**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.



## Cooler Receipt Form

Client: EPS

Service Request #:

J005317

Project: JED SWDF

by Ck3

Cooler received on 11/4/19

and opened on  $\text{a}/\text{et}/\text{o}$

COURIER-CAS

108

FEDEX

## Client

Other

Airbill #

Ck 3

- |    |   |   |                         |
|----|---|---|-------------------------|
| 1  | Were custody seals on outside of cooler?  | <input checked="" type="checkbox"/> Yes | No                      |
|    | If yes, how many and where?   | #: <u>1</u> on lid                      | other                   |
| 2  | Were seals intact and signature and date correct?   | <input checked="" type="checkbox"/> Yes | No                      |
| 3  | Were custody papers properly filled out?  | <input checked="" type="checkbox"/> Yes | N/A                     |
| 4  | Temperature of cooler(s) upon receipt (Should be > 0°C and < 6°C)                                 | <u>2.9°</u>                             |                         |
| 5  | Thermometer ID  | <u>T12</u>                              |                         |
| 6  | Temperature Blank Present?  | Yes                                     | No                      |
| 7  | Were Ice or Ice Packs present   | <input checked="" type="checkbox"/> Ice | Ice Packs               |
| 8  | Did all bottles arrive in good condition (unbroken, etc....)?                                     | <input checked="" type="checkbox"/> Yes | N/A                     |
| 9  | Type of packing material present  | Netting                                 | Vial Holder Bubble Wrap |
| 10 | Were all bottle labels complete (sample ID, preservation, etc....)?                               | Paper                                   | Styrofoam Other N/A     |
| 11 | Did all bottle labels and tags agree with custody papers?   | <input checked="" type="checkbox"/> Yes | No N/A                  |
| 12 | Were the correct bottles used for the tests indicated?  | <input checked="" type="checkbox"/> Yes | No N/A                  |
| 13 | Were all of the preserved bottles received with the appropriate preservative?                     | <input checked="" type="checkbox"/> Yes | No N/A                  |
|    | HNO <sub>3</sub> pH<2 H <sub>2</sub> SO <sub>4</sub> pH>2 ZnAc <sub>2</sub> /NaOH pH>9 NaOH pH>12 |   |                         |
|    | Preservative additions noted below  |   |                         |
| 4  | Were all samples received within analysis holding times?  | <input checked="" type="checkbox"/> Yes | No N/A                  |
| 5  | Were VOA vials checked for absence of air bubbles? If present, note below                         | <input checked="" type="checkbox"/> Yes | No N/A                  |
| 6  | Where did the bottles originate?  | <input checked="" type="checkbox"/> CAS | Client                  |

Additional comments and/or explanation of all discrepancies noted above:

Client approval to run samples if discrepancies noted:

Date:

71

Date: 11/4/10

Initials: CEB

Note that pH is check and meets the required pH criterion listed in the column heading unless otherwise noted on the cooler receipt form.

Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Container	40mL	40mL	40mL	125mL	125mL	125mL	125mL	125mL	125mL	125mL	125mL	125mL	125mL	125mL	125mL	125mL	125mL	125mL	125mL	125mL	1L	1L	1L	1L	1L	P	G	G	G	G	Ziplock	Misc.
Preserve	N/A	HCl	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	N/A	HCl	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	N/A	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	NaOH	NaOH	N/A	HNO <sub>3</sub>	N/A	HCl	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	N/A	HCl	H <sub>2</sub> SO <sub>4</sub>	N/A										
Req. pH Sample #	<2	N/A	N/A	<2	<2	N/A	>2	N/A	>9	>12	N/A	<2	N/A	<2	N/A	<2	N/A	<2	N/A	<2	N/A	<2	N/A	<2	N/A	N/A	N/A	N/A	N/A	N/A		
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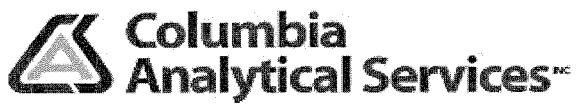
# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

www.caslab.com

9143 Philips Highway Ste 200 • Jacksonville, FL 32256 (904) 739-2277 • 800-695-7222 x06 • FAX (904) 739-2011

PAGE **1** OF **1**

Project Name <b>SED SWDF</b>		Project Number	ANALYSIS REQUESTED (Include Method Number)								
Project Manager <b>Kirk Willis</b>	Company/Address <b>EPS</b>	Email Address <b>Kirk.Williams@envoplanning.com</b>									
1936 Bruce Downs Blvd #320 Wesley Chapel, FL 33543		Phone # <b>813-389-1026</b>									
Sampler's Signature <b>Joe Terry</b>		Sampler's Printed Name <b>Joe Terry</b>									
CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	TIME	MATRIX	NUMBER OF CONTAINERS				REMARKS/ ALTERNATE DESCRIPTION		
					1	0	3	0		2	
MW-6A		11-3-10	1350	GW	9	X	X	X	X		
MW-6C			1420								
MW-7A			1250								
MW-7C			1220								
MW-8A			1020								
MW-8C			1050								
MW-9A			0835								
MW-9C		11-3-10	0900	GW	9	X	X	X	X		
Trip Blank		10-25-10	0900	H2O	2	X					
SPECIAL INSTRUCTIONS/COMMENTS <i>Cooler# 10307-5ED-1</i>											
SAMPLE RECEIPT: CONDITION/COOLER TEMP:				RECEIVED BY		REINQUISITION BY		RECEIVED BY		RELINQUISHED BY	RECEIVED BY
Signature <b>Joe Terry</b>	Printed Name <b>Joe Terry</b>	Signature <b>Charles Baugus</b>	Printed Name <b>Charles Baugus</b>	Signature <b>John Bawie</b>	Printed Name <b>John Bawie</b>	Signature <b>John Bawie</b>	Printed Name <b>John Bawie</b>	Signature <b>John Bawie</b>	Printed Name <b>John Bawie</b>	Signature <b>John Bawie</b>	Printed Name <b>John Bawie</b>
Firm <b>EPS</b>	Date/Time <b>11-3-10/1545</b>	Firm <b>CAS</b>	Date/Time <b>11-4-10 0915</b>	Firm	Date/Time	Firm	Date/Time	Firm	Date/Time	Firm	Date/Time
See QAPP <input type="checkbox"/>										INVOICE INFORMATION	
REQUEST REQUIREMENTS										REPORT REQUIREMENTS	
<input checked="" type="checkbox"/> STANDARD <input checked="" type="checkbox"/> REQUESTED FAX DATE <input checked="" type="checkbox"/> REQUESTED REPORT DATE  <i>2.9°</i>										<input checked="" type="checkbox"/> I. Results Only <input checked="" type="checkbox"/> II. Results + QC Summaries (LCS, DUP, MSMSD as required) <input checked="" type="checkbox"/> III. Results + QC and Calibration Summaries <input checked="" type="checkbox"/> IV. Data Validation Report with Raw Data  <input checked="" type="checkbox"/> V. Specialized Forms / Custom Report  Edata <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
										PO# _____ BILL TO: _____	
										Distribution: White - Retain to Originator; Yellow - Retained by Client	
										JSCOC-06/20/05	



Columbia Analytical Services  
9143 Philips Highway, Suite 200  
Jacksonville, FL 32256  
Tel 904-739-2277  
Fax 904-739-2011

## **Appendix A**

### **Subcontracted Analytical Results**

November 17, 2010

Service Request No: J1005317

Kirk Wills  
Environmental Planning Specialists  
1936 Bruce B Downs Blvd  
#328  
Wesley Chapel, FL 33543

**Laboratory Results for: JED SWDF**

Dear Kirk:

Enclosed are the results of the sample(s) submitted to our laboratory on November 4, 2010. For your reference, these analyses have been assigned our service request number **J1005317**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. 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 contact me if you have any questions. My extension is 4409. You may also contact me via email at [CMyers@caslab.com](mailto:CMyers@caslab.com).

Respectfully submitted,

**Columbia Analytical Services, Inc.**

*✓Patton for:*

Craig Myers  
Project Manager

Page 1 of 18

*CAS Jacksonville is NELAC-accredited by the State of Florida, #E82502. Other state accreditations include: Georgia, #958; Kentucky, #63; Louisiana, #02086; North Carolina, #527; South Carolina, #96021001; Texas, #T104704197-09-TX.*

**COLUMBIA ANALYTICAL SERVICES, INC.**

Client: Environmental Planning Specialists  
Project: JED SWDF  
Sample Matrix: Water

Service Request No.: J1005317  
Date Received: 11/4/10

**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. When appropriate to the method, method blank results have been reported with each analytical test.

**Sample Receipt**

Eight aqueous samples were received for analysis at Columbia Analytical Services on 11/4/10. The samples were received at 5°C within the 0-6°C temperature guidelines.

**Extractable Organics by 8011**

The surrogate Tetrachloro-m-xylene for sample MW-9A has been flagged with an “\*” as being outside of the control limits low due to sample matrix. The sample was re-extracted and reanalyzed and both sets of data have been reported.

No other analytical or quality control problems were encountered during analysis.

Approved by D. Patten

Date 11/18/10

## CASE NARRATIVE

This report contains analytical results for the following samples:  
Service Request Number: J1005317

<u>Lab ID</u>	<u>Client ID</u>
J1005317-001	MW-6A
J1005317-002	MW-6C
J1005317-003	MW-7A
J1005317-004	MW-7C
J1005317-005	MW-8A
J1005317-006	MW-8C
J1005317-007	MW-9A
J1005317-008	MW-9C

Samples have been subcontracted to the following laboratory(ies). The subcontractor's analytical report is attached:

Columbia Analytical Services, Inc. - ROCHESTER  
Rochester, NY

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

Client: Environmental Planning Specialists  
 Project: JED SWDF  
 Sample Matrix: Water

Service Request: J1005317  
 Date Collected: 11/3/10 1350  
 Date Received: 11/4/10  
 Date Extracted: 11/11/10  
 Date Analyzed: 11/12/10 12:53

Sample Name: MW-6A  
 Lab Code: J1005317-001

Units: µg/L  
 Basis: NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

Analytical Method: 8011  
 Prep Method: Method  
 Data File Name: J:\ACQUADATA\6890D\DATA\111110\FF818.D\

Analysis Lot: 225163  
 Extraction Lot: 123276  
 Instrument Name: R-GC-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	75	73-145	11/12/10 12:53	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

Client: Environmental Planning Specialists  
 Project: JED SWDF  
 Sample Matrix: Water

Service Request: J1005317  
 Date Collected: 11/3/10 1420  
 Date Received: 11/4/10  
 Date Extracted: 11/11/10  
 Date Analyzed: 11/12/10 13:55

Sample Name: MW-6C  
 Lab Code: J1005317-002

Units: µg/L  
 Basis: NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

Analytical Method: 8011  
 Prep Method: Method  
 Data File Name: J:\ACQUADATA\6890D\DATA\111110\FF820.D\

Analysis Lot: 225163  
 Extraction Lot: 123276  
 Instrument Name: R-GC-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	98	73-145	11/12/10 13:55	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005317  
**Date Collected:** 11/3/10 1250  
**Date Received:** 11/4/10  
**Date Extracted:** 11/11/10  
**Date Analyzed:** 11/12/10 14:26

**Sample Name:** MW-7A  
**Lab Code:** J1005317-003

**Units:** µg/L  
**Basis:** NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

**Analytical Method:** 8011  
**Prep Method:** Method  
**Data File Name:** J:\ACQUADATA\6890D\DATA\111110\FF821.D\

**Analysis Lot:** 225163  
**Extraction Lot:** 123276  
**Instrument Name:** R-GC-54  
**Dilution Factor:** 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	82	73-145	11/12/10 14:26	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

Client: Environmental Planning Specialists  
 Project: JED SWDF  
 Sample Matrix: Water

Service Request: J1005317  
 Date Collected: 11/3/10 1220  
 Date Received: 11/4/10  
 Date Extracted: 11/11/10  
 Date Analyzed: 11/12/10 14:56

Sample Name: MW-7C  
 Lab Code: J1005317-004

Units: µg/L  
 Basis: NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

Analytical Method: 8011  
 Prep Method: Method  
 Data File Name: J:\ACQUADATA\6890D\DATA\111110\FF822.D\

Analysis Lot: 225163  
 Extraction Lot: 123276  
 Instrument Name: R-GC-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	93	73-145	11/12/10 14:56	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005317  
**Date Collected:** 11/3/10 1020  
**Date Received:** 11/4/10  
**Date Extracted:** 11/11/10  
**Date Analyzed:** 11/12/10 15:27

**Sample Name:** MW-8A  
**Lab Code:** J1005317-005

**Units:** µg/L  
**Basis:** NA

**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

**Analytical Method:** 8011  
**Prep Method:** Method  
**Data File Name:** J:\ACQUADATA\6890D\DATA\I11110\FF823.D\

**Analysis Lot:** 225163  
**Extraction Lot:** 123276  
**Instrument Name:** R-GC-54  
**Dilution Factor:** 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	80	73-145	11/12/10 15:27	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

Client: Environmental Planning Specialists  
 Project: JED SWDF  
 Sample Matrix: Water

Service Request: J1005317  
 Date Collected: 11/3/10 1050  
 Date Received: 11/4/10  
 Date Extracted: 11/11/10  
 Date Analyzed: 11/12/10 15:57

Sample Name: MW-8C  
 Lab Code: J1005317-006

Units: µg/L  
 Basis: NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

Analytical Method: 8011  
 Prep Method: Method  
 Data File Name: J:\ACQUADATA\6890D\DATA\111110\FF824.D\

Analysis Lot: 225163  
 Extraction Lot: 123276  
 Instrument Name: R-GC-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	93	73-145	11/12/10 15:57	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005317  
**Date Collected:** 11/3/10 0835  
**Date Received:** 11/4/10  
**Date Extracted:** 11/11/10  
**Date Analyzed:** 11/12/10 16:28

**Sample Name:** MW-9A  
**Lab Code:** J1005317-007

**Units:** µg/L  
**Basis:** NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

**Analytical Method:** 8011  
**Prep Method:** Method  
**Data File Name:** J:\ACQUADATA\6890D\DATA\111110\FF825.D\

**Analysis Lot:** 225163  
**Extraction Lot:** 123276  
**Instrument Name:** R-GC-54  
**Dilution Factor:** 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	55 *	73-145	11/12/10 16:28	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

Client: Environmental Planning Specialists  
 Project: JED SWDF  
 Sample Matrix: Water

Service Request: J1005317  
 Date Collected: 11/3/10 0835  
 Date Received: 11/4/10  
 Date Extracted: 11/15/10  
 Date Analyzed: 11/15/10 21:43

Sample Name: MW-9A  
 Lab Code: J1005317-007  
 Run Type: Reanalysis

Units: µg/L  
 Basis: NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

Analytical Method: 8011  
 Prep Method: Method  
 Data File Name: J:\ACQUADATA\6890D\DATA\111510\FF917.D\

Analysis Lot: 225331  
 Extraction Lot: 123755  
 Instrument Name: R-GC-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	61 *	73-145	11/15/10 21:43	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

Client: Environmental Planning Specialists  
 Project: JED SWDF  
 Sample Matrix: Water

Service Request: J1005317  
 Date Collected: 11/3/10 0900  
 Date Received: 11/4/10  
 Date Extracted: 11/11/10  
 Date Analyzed: 11/12/10 16:59

Sample Name: MW-9C  
 Lab Code: J1005317-008

Units: µg/L  
 Basis: NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

Analytical Method: 8011  
 Prep Method: Method  
 Data File Name: J:\ACQUADATA\6890D\DATA\111110\FF826.D\

Analysis Lot: 225163  
 Extraction Lot: 123276  
 Instrument Name: R-GC-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	95	73-145	11/12/10 16:59	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

Client: Environmental Planning Specialists  
 Project: JED SWDF  
 Sample Matrix: Water

Service Request: J1005317  
 Date Collected: NA  
 Date Received: NA  
 Date Extracted: 11/11/10  
 Date Analyzed: 11/12/10 08:47

Sample Name: Method Blank  
 Lab Code: RQ1009973-01

Units: µg/L  
 Basis: NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

Analytical Method: 8011  
 Prep Method: Method  
 Data File Name: J:\ACQUADATA\6890D\DATA\I11110\FF809.D\

Analysis Lot: 225163  
 Extraction Lot: 123276  
 Instrument Name: R-GC-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	109	73-145	11/12/10 08:47	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

Client: Environmental Planning Specialists  
 Project: JED SWDF  
 Sample Matrix: Water

Service Request: J1005317  
 Date Collected: NA  
 Date Received: NA  
 Date Extracted: 11/15/10  
 Date Analyzed: 11/15/10 15:04

Sample Name: Method Blank  
 Lab Code: RQ1010213-01

Units: µg/L  
 Basis: NA

## 1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography

Analytical Method: 8011  
 Prep Method: Method  
 Data File Name: J:\ACQUADATA\6890D\DATA\111510\FF904.D\

Analysis Lot: 225331  
 Extraction Lot: 123755  
 Instrument Name: R-GC-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	0.033 U	0.060	0.033	
106-93-4	1,2-Dibromoethane	0.030 U	0.060	0.030	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	115	73-145	11/15/10 15:04	

## COLUMBIA ANALYTICAL SERVICES, INC.

## QA/QC Report

Client: Environmental Planning Specialists  
 Project: JED SWDF  
 Sample Matrix: Water

Service Request: J1005317  
 Date Analyzed: 11/12/10

**Lab Control Sample Summary**  
**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

Analytical Method: 8011 Units: µg/L  
 Prep Method: Method Basis: NA

Extraction Lot: 123276

Analyte Name	Lab Control Sample			Duplicate Lab Control Sample					RPD Limit	
	Result	Spike Amount	% Rec	RQ1009973-02		RQ1009973-03				
				Result	Spike Amount	% Rec	% Rec Limits			
1,2-Dibromo-3-chloropropane (DBCP)	0.107	0.114	93	0.105	0.114	92	60 - 140	2	30	
1,2-Dibromoethane	0.113	0.114	98	0.111	0.114	97	60 - 140	1	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.

## COLUMBIA ANALYTICAL SERVICES, INC.

## QA/QC Report

Client: Environmental Planning Specialists  
 Project: JED SWDF  
 Sample Matrix: Water

Service Request: J1005317  
 Date Analyzed: 11/15/10

**Lab Control Sample Summary**  
**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and Gas Chromatography**

Analytical Method: 8011 Units: µg/L  
 Prep Method: Method Basis: NA

Extraction Lot: 123755

Analyte Name	Lab Control Sample			Duplicate Lab Control Sample					RPD	Limit		
	RQ1010213-02			RQ1010213-03								
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits					
1,2-Dibromo-3-chloropropane (DBCP)	0.102	0.114	89	0.101	0.114	88	60 - 140	1	30			
1,2-Dibromoethane	0.115	0.114	100	0.113	0.114	99	60 - 140	2	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.

# Intra-Network Chain of Custody

9143 Philips Highway • Jacksonville, FL 32256 • 904-739-2277 • FAX 904-739-2011

CAS Contact: Craig Myers *CR*

Project Name: JED Waste Facility On 11/4/10  
Project Number: *520PF*

Project Manager: Kirk Wills  
Company: Environmental Planning Specialists

EDB-DBCP  
8011

Lab Code	Client Sample ID	# of Cont.	Matrix	Date	Time	Sample Received	Date Sent To
J1005317-001	MW-6A	<u>3</u>	Water	11/3/10	1350	11/4/10	ROCHESTER II
J1005317-002	MW-6C	<u>1</u>	Water	11/3/10	1420	11/4/10	ROCHESTER II
J1005317-003	MW-7A		Water	11/3/10	1250	11/4/10	ROCHESTER II
J1005317-004	MW-7C		Water	11/3/10	1220	11/4/10	ROCHESTER II
J1005317-005	MW-8A		Water	11/3/10	1020	11/4/10	ROCHESTER II
J1005317-006	MW-8C		Water	11/3/10	1050	11/4/10	ROCHESTER II
J1005317-007	MW-9A		Water	11/3/10	0835	11/4/10	ROCHESTER II
J1005317-008	MW-9C	<u>✓</u>	Water	11/3/10	0900	11/4/10	ROCHESTER II

Special Instructions/Comments  <b>PLEASE SEND RESULTS TO MANDY SULLIVAN</b>	Turnaround Requirements		Report Requirements	
	<input type="checkbox"/> RUSH (Surcharges Apply) <b>PLEASE CIRCLE WORK DAYS</b> <input checked="" type="checkbox"/> STANDARD 1    2    3    4    5		<input type="checkbox"/> I. Results Only <input checked="" type="checkbox"/> II. Results + QC Summaries <input type="checkbox"/> III. Results + QC and Calibration Summaries <input type="checkbox"/> IV. Data Validation Report with Raw Data  PQL/MDLJ <input checked="" type="checkbox"/> Y EDD <input checked="" type="checkbox"/> Y Requested FAX Date: <u>11/18/10</u> Requested Report Date: <u>11/18/10</u>	
		Invoice Information		
		PO# <u>J1005317</u>	Bill to	

Relinquished By: Maria Laffey 11/9/10 Received By: Stacy Gifford 11/5/10 104 Airbill Number: \_\_\_\_\_

91

**Cooler Receipt And Preservation Check Form**

Project/Client CAS-Jacksonville Folder Number \_\_\_\_\_

Cooler received on 1/5/10 by: DR COURIER: CAS  UPS FEDEX VELOCITY CLIENT

1. Were custody seals on outside of cooler?  YES NO
2. Were custody papers properly filled out (ink, signed, etc.)?  YES NO
3. Did all bottles arrive in good condition (unbroken)?  YES NO
4. Did VOA vials, Alkalinity, or Sulfide have significant\* air bubbles? YES NO  N/A
5. Were Ice or Ice packs present?  YES NO
6. Where did the bottles originate?  CAS/ROO, CLIENT
7. Temperature of cooler(s) upon receipt: 5°

Is the temperature within 0° - 6° C?:  Yes Yes Yes Yes Yes

If No, Explain Below: No No No No No

Date/Time Temperatures Taken: 1/5/10 1020

Thermometer ID: IR GUN#3 / IR GUN#4 Reading From: Temp Blank /  Sample Bottle

If out of Temperature, note packing/ice condition, Client Approval to Run Samples: \_\_\_\_\_

PC Secondary Review: DR

Cooler Breakdown: Date: 1/5/10 Time: 1325 by: DR

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)?  YES NO
2. Did all bottle labels and tags agree with custody papers?  YES NO
3. Were correct containers used for the tests indicated?  YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated  N/A

Explain any discrepancies: \_\_\_\_\_

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO <sub>3</sub>								
≤2	H <sub>2</sub> SO <sub>4</sub>								
Residual Chlorine (-)	For TCN and Phenol			If present, contact PM to add ascorbic acid					
	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	-	-						
	Zn Aceta	-	-						
	HCl	*	*						

\*Not to be tested before analysis - pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: \_\_\_\_\_

Bottle lot numbers: client

Other Comments:

PC Secondary Review: DR  
H:\SMODOCS\Cooler Receipt 3.doc

\*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

November 24, 2010

Service Request No: J1005393

Kirk Wills  
Environmental Planning Specialists  
1936 Bruce B Downs Blvd  
#328  
Wesley Chapel, FL 33543

**Laboratory Results for: JED SWDF**

Dear Kirk:

Enclosed are the results of the sample(s) submitted to our laboratory on November 9, 2010. For your reference, these analyses have been assigned our service request number **J1005393**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. 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 contact me if you have any questions. My extension is 4409. You may also contact me via email at [CMyers@caslab.com](mailto:CMyers@caslab.com).

Respectfully submitted,

**Columbia Analytical Services, Inc.**



Craig Myers  
Project Manager

Page 1 of 74

## COLUMBIA ANALYTICAL SERVICES, INC.

**Client:** Environmental Planning Specialists      **Service Request No.:** J1005393  
**Project:** JED SWDF      **Date Received:** 11/9/10  
**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, including results of QC samples analyzed from this delivery group. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

#### Sample Receipt

Six water samples and one trip blank were received for analysis at Columbia Analytical Services on 11/9/10. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at  $4\pm2^{\circ}\text{C}$  upon receipt at the lab except for aqueous samples designated for metals analyses, which were stored at room temperature.

#### Volatile Organic Compounds by GC-MS

The samples were analyzed for Volatile Organics using EPA Method 8260. No problems were observed.

#### Metals by ICP-MS/ICP-OES/CVAA

The samples were analyzed for Total Metals using EPA Methods 6020/6010B/7470A. No problems were observed.

#### General Chemistry Parameters

The samples were analyzed for Inorganic Parameters using various EPA and Standard Methods. The following observations were made regarding this delivery group.

#### Matrix Spike Recovery Exceptions

The matrix spike recovery of Nitrate for sample MW-5A was outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. The recovery was not significantly outside of control criteria. No further corrective action was needed.

#### Subcontracted Analytical Parameters

The samples were delivered to ENCO Labs in Jacksonville, FL on 11/12/10 for EPA Method 8011 determination. The certified analytical report has been included in its entirety in Appendix A: Subcontracted Analytical Results.

Approved by \_\_\_\_\_

  
Date 11/24/10

## **Florida DEP Data Qualifiers**

- B Results based upon colony counts outside the acceptable range.
- D Measurement was made in the field.
- H Value based on field kit determination; results may not be accurate.
- i The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J Estimated value (one of the following reasons is discussed in the project case narrative).
  - 1. The result may be inaccurate because the surrogate recovery limits have been exceeded.
  - 2. No known quality control criteria exists for the component.
  - 3. The reported value failed to meet the established quality control criteria for either precision or accuracy.
  - 4. The sample matrix interfered with the ability to make any accurate determination (e.g., primary and confirmation results show greater than 40% RPD).
  - 5. The data is questionable because of improper laboratory or field protocols (e.g., GC/MS Tune did not meet method criteria).
- K Off scale low. The value is less than the lowest calibration standard but greater than the method reporting limit (MRL).
- L Off scale high. The analyte is above the upper limit of the linear calibration range.
- M The MDL/MRL has been elevated because the analyte could not be accurately quantified due to matrix interference.
- N Presumptive evidence of the analyte. Confirmation was not performed.
- Q Sample held beyond the accepted holding time.
- T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only.
- U Indicates that the compound was analyzed for but not detected.
- V Indicates that the analyte was detected in both the sample and the associated method blank.
- Y The laboratory analysis was from an improperly preserved sample.
- Z Too many colonies were present (TNTC). The numeric value represents the filtration volume.

## 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.

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF

**Service Request:** J1005393

#### SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
J1005393-001	MW-5A	11/8/10	10:55
J1005393-002	MW-5C	11/8/10	10:30
J1005393-003	MW-4A	11/8/10	12:30
J1005393-004	MW-4C	11/8/10	12:55
J1005393-005	MW-3A	11/8/10	14:30
J1005393-006	MW-3C	11/8/10	14:05
J1005393-007	Trip Blank	11/8/10	00:00

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-5A  
**Lab Code:** J1005393-001

**Service Request:** J1005393  
**Date Collected:** 11/8/10 1055  
**Date Received:** 11/9/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226245

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/19/10 18:21		226245	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/19/10 18:21		226245	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/19/10 18:21		226245	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/19/10 18:21		226245	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/19/10 18:21		226245	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/19/10 18:21		226245	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/19/10 18:21		226245	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/19/10 18:21		226245	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/19/10 18:21		226245	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/19/10 18:21		226245	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/19/10 18:21		226245	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/19/10 18:21		226245	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/19/10 18:21		226245	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/19/10 18:21		226245	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/19/10 18:21		226245	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/19/10 18:21		226245	
Acetone	ND	U	50.0	5.60	1	NA	11/19/10 18:21		226245	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/19/10 18:21		226245	
Benzene	ND	U	1.00	0.210	1	NA	11/19/10 18:21		226245	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/19/10 18:21		226245	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/19/10 18:21		226245	
Bromoform	ND	U	2.00	0.420	1	NA	11/19/10 18:21		226245	
Bromomethane	ND	U	1.00	0.220	1	NA	11/19/10 18:21		226245	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/19/10 18:21		226245	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/19/10 18:21		226245	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/19/10 18:21		226245	
Chloroethane	ND	U	5.00	0.220	1	NA	11/19/10 18:21		226245	
Chloroform	ND	U	1.00	0.350	1	NA	11/19/10 18:21		226245	
Chloromethane	ND	U	1.00	0.110	1	NA	11/19/10 18:21		226245	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/19/10 18:21		226245	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/19/10 18:21		226245	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/19/10 18:21		226245	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/19/10 18:21		226245	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/19/10 18:21		226245	
Iodomethane	ND	U	5.00	2.68	1	NA	11/19/10 18:21		226245	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/19/10 18:21		226245	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-5A  
**Lab Code:** J1005393-001

**Service Request:** J1005393  
**Date Collected:** 11/8/10 1055  
**Date Received:** 11/9/10  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS****Analytical Method:** 8260B**Analysis Lot:** 226245

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/19/10 18:21		226245	
o-Xylene	ND	U	1.00	0.140	1	NA	11/19/10 18:21		226245	
Styrene	ND	U	1.00	0.291	1	NA	11/19/10 18:21		226245	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/19/10 18:21		226245	
Toluene	ND	U	1.00	0.190	1	NA	11/19/10 18:21		226245	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/19/10 18:21		226245	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/19/10 18:21		226245	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/19/10 18:21		226245	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/19/10 18:21		226245	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/19/10 18:21		226245	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/19/10 18:21		226245	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/19/10 18:21		226245	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	99	71-122	11/19/10 18:21	
4-Bromofluorobenzene	103	75-120	11/19/10 18:21	
Dibromofluoromethane	103	82-116	11/19/10 18:21	
Toluene-d8	110	88-117	11/19/10 18:21	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-5C  
**Lab Code:** J1005393-002

**Service Request:** J1005393  
**Date Collected:** 11/8/10 1030  
**Date Received:** 11/9/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226245

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/19/10 18:48		226245	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/19/10 18:48		226245	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/19/10 18:48		226245	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/19/10 18:48		226245	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/19/10 18:48		226245	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/19/10 18:48		226245	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/19/10 18:48		226245	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/19/10 18:48		226245	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/19/10 18:48		226245	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/19/10 18:48		226245	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/19/10 18:48		226245	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/19/10 18:48		226245	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/19/10 18:48		226245	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/19/10 18:48		226245	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/19/10 18:48		226245	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/19/10 18:48		226245	
Acetone	ND	U	50.0	5.60	1	NA	11/19/10 18:48		226245	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/19/10 18:48		226245	
Benzene	ND	U	1.00	0.210	1	NA	11/19/10 18:48		226245	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/19/10 18:48		226245	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/19/10 18:48		226245	
Bromoform	ND	U	2.00	0.420	1	NA	11/19/10 18:48		226245	
Bromomethane	ND	U	1.00	0.220	1	NA	11/19/10 18:48		226245	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/19/10 18:48		226245	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/19/10 18:48		226245	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/19/10 18:48		226245	
Chloroethane	ND	U	5.00	0.220	1	NA	11/19/10 18:48		226245	
Chloroform	ND	U	1.00	0.350	1	NA	11/19/10 18:48		226245	
Chloromethane	ND	U	1.00	0.110	1	NA	11/19/10 18:48		226245	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/19/10 18:48		226245	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/19/10 18:48		226245	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/19/10 18:48		226245	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/19/10 18:48		226245	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/19/10 18:48		226245	
Iodomethane	ND	U	5.00	2.68	1	NA	11/19/10 18:48		226245	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/19/10 18:48		226245	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-5C  
**Lab Code:** J1005393-002

**Service Request:** J1005393  
**Date Collected:** 11/8/10 1030  
**Date Received:** 11/9/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226245

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/19/10 18:48		226245	
o-Xylene	ND	U	1.00	0.140	1	NA	11/19/10 18:48		226245	
Styrene	ND	U	1.00	0.291	1	NA	11/19/10 18:48		226245	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/19/10 18:48		226245	
Toluene	ND	U	1.00	0.190	1	NA	11/19/10 18:48		226245	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/19/10 18:48		226245	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/19/10 18:48		226245	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/19/10 18:48		226245	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/19/10 18:48		226245	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/19/10 18:48		226245	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/19/10 18:48		226245	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/19/10 18:48		226245	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	96	71-122	11/19/10 18:48	
4-Bromofluorobenzene	102	75-120	11/19/10 18:48	
Dibromofluoromethane	101	82-116	11/19/10 18:48	
Toluene-d8	104	88-117	11/19/10 18:48	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-4A  
**Lab Code:** J1005393-003

**Service Request:** J1005393  
**Date Collected:** 11/8/10 1230  
**Date Received:** 11/9/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226245

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/19/10 19:16		226245	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/19/10 19:16		226245	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/19/10 19:16		226245	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/19/10 19:16		226245	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/19/10 19:16		226245	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/19/10 19:16		226245	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/19/10 19:16		226245	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/19/10 19:16		226245	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/19/10 19:16		226245	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/19/10 19:16		226245	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/19/10 19:16		226245	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/19/10 19:16		226245	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/19/10 19:16		226245	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/19/10 19:16		226245	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/19/10 19:16		226245	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/19/10 19:16		226245	
Acetone	ND	U	50.0	5.60	1	NA	11/19/10 19:16		226245	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/19/10 19:16		226245	
Benzene	ND	U	1.00	0.210	1	NA	11/19/10 19:16		226245	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/19/10 19:16		226245	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/19/10 19:16		226245	
Bromoform	ND	U	2.00	0.420	1	NA	11/19/10 19:16		226245	
Bromomethane	ND	U	1.00	0.220	1	NA	11/19/10 19:16		226245	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/19/10 19:16		226245	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/19/10 19:16		226245	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/19/10 19:16		226245	
Chloroethane	ND	U	5.00	0.220	1	NA	11/19/10 19:16		226245	
Chloroform	ND	U	1.00	0.350	1	NA	11/19/10 19:16		226245	
Chloromethane	ND	U	1.00	0.110	1	NA	11/19/10 19:16		226245	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/19/10 19:16		226245	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/19/10 19:16		226245	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/19/10 19:16		226245	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/19/10 19:16		226245	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/19/10 19:16		226245	
Iodomethane	ND	U	5.00	2.68	1	NA	11/19/10 19:16		226245	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/19/10 19:16		226245	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-4A  
**Lab Code:** J1005393-003

**Service Request:** J1005393  
**Date Collected:** 11/8/10 1230  
**Date Received:** 11/9/10

**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226245

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/19/10 19:16		226245	
o-Xylene	ND	U	1.00	0.140	1	NA	11/19/10 19:16		226245	
Styrene	ND	U	1.00	0.291	1	NA	11/19/10 19:16		226245	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/19/10 19:16		226245	
Toluene	0.630	I	1.00	0.190	1	NA	11/19/10 19:16		226245	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/19/10 19:16		226245	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/19/10 19:16		226245	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/19/10 19:16		226245	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/19/10 19:16		226245	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/19/10 19:16		226245	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/19/10 19:16		226245	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/19/10 19:16		226245	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	103	71-122	11/19/10 19:16	
4-Bromofluorobenzene	114	75-120	11/19/10 19:16	
Dibromofluoromethane	112	82-116	11/19/10 19:16	
Toluene-d8	115	88-117	11/19/10 19:16	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-4C  
**Lab Code:** J1005393-004

**Service Request:** J1005393  
**Date Collected:** 11/8/10 1255  
**Date Received:** 11/9/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226245

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/19/10 19:43		226245	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/19/10 19:43		226245	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/19/10 19:43		226245	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/19/10 19:43		226245	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/19/10 19:43		226245	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/19/10 19:43		226245	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/19/10 19:43		226245	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/19/10 19:43		226245	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/19/10 19:43		226245	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/19/10 19:43		226245	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/19/10 19:43		226245	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/19/10 19:43		226245	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/19/10 19:43		226245	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/19/10 19:43		226245	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/19/10 19:43		226245	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/19/10 19:43		226245	
Acetone	ND	U	50.0	5.60	1	NA	11/19/10 19:43		226245	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/19/10 19:43		226245	
Benzene	ND	U	1.00	0.210	1	NA	11/19/10 19:43		226245	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/19/10 19:43		226245	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/19/10 19:43		226245	
Bromoform	ND	U	2.00	0.420	1	NA	11/19/10 19:43		226245	
Bromomethane	ND	U	1.00	0.220	1	NA	11/19/10 19:43		226245	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/19/10 19:43		226245	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/19/10 19:43		226245	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/19/10 19:43		226245	
Chloroethane	ND	U	5.00	0.220	1	NA	11/19/10 19:43		226245	
Chloroform	ND	U	1.00	0.350	1	NA	11/19/10 19:43		226245	
Chloromethane	ND	U	1.00	0.110	1	NA	11/19/10 19:43		226245	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/19/10 19:43		226245	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/19/10 19:43		226245	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/19/10 19:43		226245	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/19/10 19:43		226245	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/19/10 19:43		226245	
Iodomethane	ND	U	5.00	2.68	1	NA	11/19/10 19:43		226245	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/19/10 19:43		226245	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-4C  
**Lab Code:** J1005393-004

**Service Request:** J1005393  
**Date Collected:** 11/8/10 1255  
**Date Received:** 11/9/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226245

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/19/10 19:43		226245	
o-Xylene	ND	U	1.00	0.140	1	NA	11/19/10 19:43		226245	
Styrene	ND	U	1.00	0.291	1	NA	11/19/10 19:43		226245	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/19/10 19:43		226245	
Toluene	ND	U	1.00	0.190	1	NA	11/19/10 19:43		226245	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/19/10 19:43		226245	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/19/10 19:43		226245	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/19/10 19:43		226245	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/19/10 19:43		226245	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/19/10 19:43		226245	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/19/10 19:43		226245	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/19/10 19:43		226245	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	91	71-122	11/19/10 19:43	
4-Bromofluorobenzene	105	75-120	11/19/10 19:43	
Dibromofluoromethane	96	82-116	11/19/10 19:43	
Toluene-d8	108	88-117	11/19/10 19:43	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-3A  
**Lab Code:** J1005393-005

**Service Request:** J1005393  
**Date Collected:** 11/8/10 1430  
**Date Received:** 11/9/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226403

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND U	1.00	0.180	1	NA	11/22/10 15:45		226403	
1,1,1-Trichloroethane (TCA)	ND U	1.00	0.170	1	NA	11/22/10 15:45		226403	
1,1,2,2-Tetrachloroethane	ND U	1.00	0.110	1	NA	11/22/10 15:45		226403	
1,1,2-Trichloroethane	ND U	1.00	0.170	1	NA	11/22/10 15:45		226403	
1,1-Dichloroethane (1,1-DCA)	ND U	1.00	0.130	1	NA	11/22/10 15:45		226403	
1,1-Dichloroethene (1,1-DCE)	ND U	1.00	0.160	1	NA	11/22/10 15:45		226403	
1,2,3-Trichloropropane	ND U	2.00	0.420	1	NA	11/22/10 15:45		226403	
1,2-Dibromo-3-chloropropane (DBCP)	ND U	5.00	2.30	1	NA	11/22/10 15:45		226403	
1,2-Dibromoethane (EDB)	ND U	1.00	0.170	1	NA	11/22/10 15:45		226403	
1,2-Dichlorobenzene	ND U	1.00	0.478	1	NA	11/22/10 15:45		226403	
1,2-Dichloroethane	ND U	1.00	0.180	1	NA	11/22/10 15:45		226403	
1,2-Dichloropropane	ND U	1.00	0.120	1	NA	11/22/10 15:45		226403	
1,4-Dichlorobenzene	<b>1.18</b>	1.00	0.100	1	NA	11/22/10 15:45		226403	
2-Butanone (MEK)	ND U	10.0	3.80	1	NA	11/22/10 15:45		226403	
2-Hexanone	ND U	25.0	2.20	1	NA	11/22/10 15:45		226403	
4-Methyl-2-pentanone (MIBK)	ND U	25.0	0.650	1	NA	11/22/10 15:45		226403	
Acetone	ND U	50.0	5.60	1	NA	11/22/10 15:45		226403	
Acrylonitrile	ND U	10.0	1.20	1	NA	11/22/10 15:45		226403	
Benzene	<b>6.65</b>	1.00	0.210	1	NA	11/22/10 15:45		226403	
Bromochloromethane	ND U	5.00	0.270	1	NA	11/22/10 15:45		226403	
Bromodichloromethane	ND U	1.00	0.170	1	NA	11/22/10 15:45		226403	
Bromoform	ND U	2.00	0.420	1	NA	11/22/10 15:45		226403	
Bromomethane	ND U	1.00	0.220	1	NA	11/22/10 15:45		226403	
Carbon Disulfide	ND U	10.0	2.36	1	NA	11/22/10 15:45		226403	
Carbon Tetrachloride	ND U	1.00	0.340	1	NA	11/22/10 15:45		226403	
Chlorobenzene	ND U	1.00	0.160	1	NA	11/22/10 15:45		226403	
Chloroethane	ND U	5.00	0.220	1	NA	11/22/10 15:45		226403	
Chloroform	ND U	1.00	0.350	1	NA	11/22/10 15:45		226403	
Chloromethane	ND U	1.00	0.110	1	NA	11/22/10 15:45		226403	
cis-1,2-Dichloroethene	ND U	1.00	0.360	1	NA	11/22/10 15:45		226403	
cis-1,3-Dichloropropene	ND U	1.00	0.200	1	NA	11/22/10 15:45		226403	
Dibromochloromethane	ND U	1.00	0.190	1	NA	11/22/10 15:45		226403	
Dibromomethane	ND U	5.00	0.180	1	NA	11/22/10 15:45		226403	
Ethylbenzene	<b>4.01</b>	1.00	0.210	1	NA	11/22/10 15:45		226403	
Iodomethane	ND U	5.00	2.68	1	NA	11/22/10 15:45		226403	
m,p-Xylenes	<b>0.460</b> I	2.00	0.410	1	NA	11/22/10 15:45		226403	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-3A  
**Lab Code:** J1005393-005

**Service Request:** J1005393  
**Date Collected:** 11/8/10 1430  
**Date Received:** 11/9/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226403

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/22/10 15:45		226403	
o-Xylene	<b>1.01</b>		1.00	0.140	1	NA	11/22/10 15:45		226403	
Styrene	ND	U	1.00	0.291	1	NA	11/22/10 15:45		226403	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/22/10 15:45		226403	
Toluene	ND	U	1.00	0.190	1	NA	11/22/10 15:45		226403	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/22/10 15:45		226403	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/22/10 15:45		226403	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/22/10 15:45		226403	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/22/10 15:45		226403	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/22/10 15:45		226403	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/22/10 15:45		226403	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/22/10 15:45		226403	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	99	71-122	11/22/10 15:45	
4-Bromofluorobenzene	103	75-120	11/22/10 15:45	
Dibromofluoromethane	104	82-116	11/22/10 15:45	
Toluene-d8	108	88-117	11/22/10 15:45	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-3C  
**Lab Code:** J1005393-006

**Service Request:** J1005393  
**Date Collected:** 11/8/10 1405  
**Date Received:** 11/9/10

**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226245

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/19/10 20:38		226245	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/19/10 20:38		226245	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/19/10 20:38		226245	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/19/10 20:38		226245	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/19/10 20:38		226245	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/19/10 20:38		226245	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/19/10 20:38		226245	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/19/10 20:38		226245	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/19/10 20:38		226245	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/19/10 20:38		226245	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/19/10 20:38		226245	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/19/10 20:38		226245	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/19/10 20:38		226245	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/19/10 20:38		226245	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/19/10 20:38		226245	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/19/10 20:38		226245	
Acetone	ND	U	50.0	5.60	1	NA	11/19/10 20:38		226245	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/19/10 20:38		226245	
Benzene	ND	U	1.00	0.210	1	NA	11/19/10 20:38		226245	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/19/10 20:38		226245	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/19/10 20:38		226245	
Bromoform	ND	U	2.00	0.420	1	NA	11/19/10 20:38		226245	
Bromomethane	ND	U	1.00	0.220	1	NA	11/19/10 20:38		226245	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/19/10 20:38		226245	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/19/10 20:38		226245	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/19/10 20:38		226245	
Chloroethane	ND	U	5.00	0.220	1	NA	11/19/10 20:38		226245	
Chloroform	ND	U	1.00	0.350	1	NA	11/19/10 20:38		226245	
Chloromethane	ND	U	1.00	0.110	1	NA	11/19/10 20:38		226245	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/19/10 20:38		226245	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/19/10 20:38		226245	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/19/10 20:38		226245	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/19/10 20:38		226245	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/19/10 20:38		226245	
Iodomethane	ND	U	5.00	2.68	1	NA	11/19/10 20:38		226245	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/19/10 20:38		226245	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-3C  
**Lab Code:** J1005393-006

**Service Request:** J1005393  
**Date Collected:** 11/8/10 14:05  
**Date Received:** 11/9/10  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS****Analytical Method:** 8260B**Analysis Lot:** 226245

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/19/10 20:38		226245	
o-Xylene	ND	U	1.00	0.140	1	NA	11/19/10 20:38		226245	
Styrene	ND	U	1.00	0.291	1	NA	11/19/10 20:38		226245	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/19/10 20:38		226245	
Toluene	ND	U	1.00	0.190	1	NA	11/19/10 20:38		226245	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/19/10 20:38		226245	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/19/10 20:38		226245	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/19/10 20:38		226245	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/19/10 20:38		226245	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/19/10 20:38		226245	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/19/10 20:38		226245	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/19/10 20:38		226245	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	106	71-122	11/19/10 20:38	
4-Bromofluorobenzene	111	75-120	11/19/10 20:38	
Dibromofluoromethane	109	82-116	11/19/10 20:38	
Toluene-d8	113	88-117	11/19/10 20:38	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Trip Blank  
**Lab Code:** J1005393-007

**Service Request:** J1005393  
**Date Collected:** 11/8/10 0000  
**Date Received:** 11/9/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226245

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/19/10 21:06		226245	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/19/10 21:06		226245	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/19/10 21:06		226245	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/19/10 21:06		226245	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/19/10 21:06		226245	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/19/10 21:06		226245	
1,2,3-Trichloropropene	ND	U	2.00	0.420	1	NA	11/19/10 21:06		226245	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/19/10 21:06		226245	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/19/10 21:06		226245	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/19/10 21:06		226245	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/19/10 21:06		226245	
1,2-Dichloropropene	ND	U	1.00	0.120	1	NA	11/19/10 21:06		226245	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/19/10 21:06		226245	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/19/10 21:06		226245	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/19/10 21:06		226245	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/19/10 21:06		226245	
Acetone	ND	U	50.0	5.60	1	NA	11/19/10 21:06		226245	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/19/10 21:06		226245	
Benzene	ND	U	1.00	0.210	1	NA	11/19/10 21:06		226245	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/19/10 21:06		226245	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/19/10 21:06		226245	
Bromoform	ND	U	2.00	0.420	1	NA	11/19/10 21:06		226245	
Bromomethane	ND	U	1.00	0.220	1	NA	11/19/10 21:06		226245	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/19/10 21:06		226245	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/19/10 21:06		226245	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/19/10 21:06		226245	
Chloroethane	ND	U	5.00	0.220	1	NA	11/19/10 21:06		226245	
Chloroform	ND	U	1.00	0.350	1	NA	11/19/10 21:06		226245	
Chloromethane	ND	U	1.00	0.110	1	NA	11/19/10 21:06		226245	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/19/10 21:06		226245	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/19/10 21:06		226245	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/19/10 21:06		226245	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/19/10 21:06		226245	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/19/10 21:06		226245	
Iodomethane	ND	U	5.00	2.68	1	NA	11/19/10 21:06		226245	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/19/10 21:06		226245	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Trip Blank  
**Lab Code:** J1005393-007

**Service Request:** J1005393  
**Date Collected:** 11/8/10 0000  
**Date Received:** 11/9/10  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS****Analytical Method:** 8260B**Analysis Lot:** 226245

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/19/10 21:06		226245	
o-Xylene	ND	U	1.00	0.140	1	NA	11/19/10 21:06		226245	
Styrene	ND	U	1.00	0.291	1	NA	11/19/10 21:06		226245	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/19/10 21:06		226245	
Toluene	ND	U	1.00	0.190	1	NA	11/19/10 21:06		226245	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/19/10 21:06		226245	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/19/10 21:06		226245	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/19/10 21:06		226245	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/19/10 21:06		226245	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/19/10 21:06		226245	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/19/10 21:06		226245	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/19/10 21:06		226245	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	104	71-122	11/19/10 21:06	
4-Bromofluorobenzene	104	75-120	11/19/10 21:06	
Dibromofluoromethane	106	82-116	11/19/10 21:06	
Toluene-d8	108	88-117	11/19/10 21:06	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005737-04

**Service Request:** J1005393**Date Collected:** NA**Date Received:** NA**Units:** µg/L**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226245

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/19/10	12:22		226245
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/19/10	12:22		226245
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/19/10	12:22		226245
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/19/10	12:22		226245
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/19/10	12:22		226245
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/19/10	12:22		226245
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/19/10	12:22		226245
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/19/10	12:22		226245
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/19/10	12:22		226245
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/19/10	12:22		226245
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/19/10	12:22		226245
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/19/10	12:22		226245
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/19/10	12:22		226245
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/19/10	12:22		226245
2-Hexanone	ND	U	25.0	2.20	1	NA	11/19/10	12:22		226245
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/19/10	12:22		226245
Acetone	ND	U	50.0	5.60	1	NA	11/19/10	12:22		226245
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/19/10	12:22		226245
Benzene	ND	U	1.00	0.210	1	NA	11/19/10	12:22		226245
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/19/10	12:22		226245
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/19/10	12:22		226245
Bromoform	ND	U	2.00	0.420	1	NA	11/19/10	12:22		226245
Bromomethane	ND	U	1.00	0.220	1	NA	11/19/10	12:22		226245
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/19/10	12:22		226245
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/19/10	12:22		226245
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/19/10	12:22		226245
Chloroethane	ND	U	5.00	0.220	1	NA	11/19/10	12:22		226245
Chloroform	ND	U	1.00	0.350	1	NA	11/19/10	12:22		226245
Chloromethane	ND	U	1.00	0.110	1	NA	11/19/10	12:22		226245
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/19/10	12:22		226245
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/19/10	12:22		226245
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/19/10	12:22		226245
Dibromomethane	ND	U	5.00	0.180	1	NA	11/19/10	12:22		226245
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/19/10	12:22		226245
Iodomethane	ND	U	5.00	2.68	1	NA	11/19/10	12:22		226245
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/19/10	12:22		226245

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005737-04

**Service Request:** J1005393**Date Collected:** NA**Date Received:** NA**Units:** µg/L**Basis:** NA**Volatile Organic Compounds by GC/MS****Analytical Method:** 8260B**Analysis Lot:** 226245

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/19/10 12:22		226245	
o-Xylene	ND	U	1.00	0.140	1	NA	11/19/10 12:22		226245	
Styrene	ND	U	1.00	0.291	1	NA	11/19/10 12:22		226245	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/19/10 12:22		226245	
Toluene	ND	U	1.00	0.190	1	NA	11/19/10 12:22		226245	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/19/10 12:22		226245	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/19/10 12:22		226245	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/19/10 12:22		226245	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/19/10 12:22		226245	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/19/10 12:22		226245	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/19/10 12:22		226245	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/19/10 12:22		226245	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	98	71-122	11/19/10 12:22	
4-Bromofluorobenzene	108	75-120	11/19/10 12:22	
Dibromofluoromethane	105	82-116	11/19/10 12:22	
Toluene-d8	113	88-117	11/19/10 12:22	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005764-04

**Service Request:** J1005393**Date Collected:** NA**Date Received:** NA**Units:** µg/L**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226403

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/22/10 11:09		226403	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/22/10 11:09		226403	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/22/10 11:09		226403	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/22/10 11:09		226403	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/22/10 11:09		226403	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/22/10 11:09		226403	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/22/10 11:09		226403	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/22/10 11:09		226403	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/22/10 11:09		226403	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/22/10 11:09		226403	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/22/10 11:09		226403	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/22/10 11:09		226403	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/22/10 11:09		226403	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/22/10 11:09		226403	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/22/10 11:09		226403	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/22/10 11:09		226403	
Acetone	ND	U	50.0	5.60	1	NA	11/22/10 11:09		226403	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/22/10 11:09		226403	
Benzene	ND	U	1.00	0.210	1	NA	11/22/10 11:09		226403	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/22/10 11:09		226403	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/22/10 11:09		226403	
Bromoform	ND	U	2.00	0.420	1	NA	11/22/10 11:09		226403	
Bromomethane	ND	U	1.00	0.220	1	NA	11/22/10 11:09		226403	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/22/10 11:09		226403	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/22/10 11:09		226403	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/22/10 11:09		226403	
Chloroethane	ND	U	5.00	0.220	1	NA	11/22/10 11:09		226403	
Chloroform	ND	U	1.00	0.350	1	NA	11/22/10 11:09		226403	
Chloromethane	ND	U	1.00	0.110	1	NA	11/22/10 11:09		226403	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/22/10 11:09		226403	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/22/10 11:09		226403	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/22/10 11:09		226403	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/22/10 11:09		226403	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/22/10 11:09		226403	
Iodomethane	ND	U	5.00	2.68	1	NA	11/22/10 11:09		226403	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/22/10 11:09		226403	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005764-04

**Service Request:** J1005393**Date Collected:** NA**Date Received:** NA**Units:** µg/L**Basis:** NA**Volatile Organic Compounds by GC/MS****Analytical Method:** 8260B**Analysis Lot:** 226403

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/22/10 11:09		226403	
o-Xylene	ND	U	1.00	0.140	1	NA	11/22/10 11:09		226403	
Styrene	ND	U	1.00	0.291	1	NA	11/22/10 11:09		226403	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/22/10 11:09		226403	
Toluene	ND	U	1.00	0.190	1	NA	11/22/10 11:09		226403	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/22/10 11:09		226403	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/22/10 11:09		226403	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/22/10 11:09		226403	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/22/10 11:09		226403	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/22/10 11:09		226403	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/22/10 11:09		226403	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/22/10 11:09		226403	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	100	71-122	11/22/10 11:09	
4-Bromofluorobenzene	103	75-120	11/22/10 11:09	
Dibromofluoromethane	102	82-116	11/22/10 11:09	
Toluene-d8	107	88-117	11/22/10 11:09	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-5A  
**Lab Code:** J1005393-001

**Service Request:** J1005393  
**Date Collected:** 11/8/10 1055  
**Date Received:** 11/9/10  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/13/10 02:14	
Arsenic, Total Recoverable	6020	0.54	µg/L	0.50	0.40	1	11/10/10	11/13/10 02:14	
Barium, Total Recoverable	6020	11.6	µg/L	2.0	0.3	1	11/10/10	11/13/10 02:14	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/10/10	11/13/10 02:14	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/10/10	11/13/10 02:14	
Chromium, Total Recoverable	6020	1.1 I	µg/L	2.0	0.3	1	11/10/10	11/13/10 02:14	
Cobalt, Total Recoverable	6020	0.5 I	µg/L	1.0	0.1	1	11/10/10	11/13/10 02:14	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/10/10	11/13/10 02:14	
Iron, Total Recoverable	6010B	1150	µg/L	100	10	1	11/15/10	11/16/10 19:31	
Lead, Total Recoverable	6020	0.5 I	µg/L	1.0	0.1	1	11/10/10	11/13/10 02:14	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/15/10	11/16/10 12:46	
Nickel, Total Recoverable	6020	0.8 I	µg/L	2.0	0.2	1	11/10/10	11/13/10 02:14	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/10/10	11/13/10 02:14	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/10/10	11/13/10 02:14	
Sodium, Total Recoverable	6010B	18.2	mg/L	0.50	0.02	1	11/15/10	11/16/10 19:29	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 02:14	
Vanadium, Total Recoverable	6020	0.8 I	µg/L	5.0	0.5	1	11/10/10	11/13/10 02:14	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/10/10	11/13/10 02:14	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-5C  
**Lab Code:** J1005393-002

**Service Request:** J1005393  
**Date Collected:** 11/8/10 1030  
**Date Received:** 11/9/10  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/13/10 02:19	
Arsenic, Total Recoverable	6020	ND U	µg/L	0.50	0.40	1	11/10/10	11/13/10 02:19	
Barium, Total Recoverable	6020	<b>19.3</b>	µg/L	2.0	0.3	1	11/10/10	11/13/10 02:19	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/10/10	11/13/10 02:19	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/10/10	11/13/10 02:19	
Chromium, Total Recoverable	6020	<b>0.5</b> I	µg/L	2.0	0.3	1	11/10/10	11/13/10 02:19	
Cobalt, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 02:19	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/10/10	11/13/10 02:19	
Iron, Total Recoverable	6010B	<b>950</b>	µg/L	100	10	1	11/15/10	11/16/10 19:42	
Lead, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 02:19	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/15/10	11/16/10 12:47	
Nickel, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/13/10 02:19	
Selenium, Total Recoverable	6020	<b>1.1</b> I	µg/L	5.0	1.0	1	11/10/10	11/13/10 02:19	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/10/10	11/13/10 02:19	
Sodium, Total Recoverable	6010B	<b>7.98</b>	mg/L	0.50	0.02	1	11/15/10	11/16/10 19:40	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 02:19	
Vanadium, Total Recoverable	6020	<b>1.1</b> I	µg/L	5.0	0.5	1	11/10/10	11/13/10 02:19	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/10/10	11/13/10 02:19	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-4A  
**Lab Code:** J1005393-003

**Service Request:** J1005393  
**Date Collected:** 11/8/10 12:30  
**Date Received:** 11/9/10  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/13/10 02:59	
Arsenic, Total Recoverable	6020	<b>0.82</b>	µg/L	0.50	0.40	1	11/10/10	11/13/10 02:59	
Barium, Total Recoverable	6020	<b>17.1</b>	µg/L	2.0	0.3	1	11/10/10	11/13/10 02:59	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/10/10	11/13/10 02:59	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/10/10	11/13/10 02:59	
Chromium, Total Recoverable	6020	<b>1.8 I</b>	µg/L	2.0	0.3	1	11/10/10	11/13/10 02:59	
Cobalt, Total Recoverable	6020	<b>0.2 I</b>	µg/L	1.0	0.1	1	11/10/10	11/13/10 02:59	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/10/10	11/13/10 02:59	
Iron, Total Recoverable	6010B	<b>1120</b>	µg/L	100	10	1	11/15/10	11/16/10 19:46	
Lead, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 02:59	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/15/10	11/16/10 12:48	
Nickel, Total Recoverable	6020	<b>0.8 I</b>	µg/L	2.0	0.2	1	11/10/10	11/13/10 02:59	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/10/10	11/13/10 02:59	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/10/10	11/13/10 02:59	
Sodium, Total Recoverable	6010B	<b>17.0</b>	mg/L	0.50	0.02	1	11/15/10	11/16/10 19:45	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 02:59	
Vanadium, Total Recoverable	6020	<b>1.8 I</b>	µg/L	5.0	0.5	1	11/10/10	11/13/10 02:59	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/10/10	11/13/10 02:59	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-4C  
**Lab Code:** J1005393-004

**Service Request:** J1005393  
**Date Collected:** 11/8/10 12:55  
**Date Received:** 11/9/10  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/13/10 03:04	
Arsenic, Total Recoverable	6020	ND U	µg/L	0.50	0.40	1	11/10/10	11/13/10 03:04	
Barium, Total Recoverable	6020	13.5	µg/L	2.0	0.3	1	11/10/10	11/13/10 03:04	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/10/10	11/13/10 03:04	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/10/10	11/13/10 03:04	
Chromium, Total Recoverable	6020	1.8 I	µg/L	2.0	0.3	1	11/10/10	11/13/10 03:04	
Cobalt, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 03:04	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/10/10	11/13/10 03:04	
Iron, Total Recoverable	6010B	720	µg/L	100	10	1	11/15/10	11/16/10 19:50	
Lead, Total Recoverable	6020	0.2 I	µg/L	1.0	0.1	1	11/10/10	11/13/10 03:04	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/15/10	11/16/10 12:50	
Nickel, Total Recoverable	6020	0.4 I	µg/L	2.0	0.2	1	11/10/10	11/13/10 03:04	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/10/10	11/13/10 03:04	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/10/10	11/13/10 03:04	
Sodium, Total Recoverable	6010B	7.19	mg/L	0.50	0.02	1	11/15/10	11/16/10 19:49	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 03:04	
Vanadium, Total Recoverable	6020	1.7 I	µg/L	5.0	0.5	1	11/10/10	11/13/10 03:04	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/10/10	11/13/10 03:04	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-3A  
**Lab Code:** J1005393-005

**Service Request:** J1005393  
**Date Collected:** 11/8/10 1430  
**Date Received:** 11/9/10  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/13/10 03:09	
Arsenic, Total Recoverable	6020	0.45 I	µg/L	0.50	0.40	1	11/10/10	11/13/10 03:09	
Barium, Total Recoverable	6020	46.7	µg/L	2.0	0.3	1	11/10/10	11/13/10 03:09	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/10/10	11/13/10 03:09	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/10/10	11/13/10 03:09	
Chromium, Total Recoverable	6020	2.0 I	µg/L	2.0	0.3	1	11/10/10	11/13/10 03:09	
Cobalt, Total Recoverable	6020	3.8	µg/L	1.0	0.1	1	11/10/10	11/13/10 03:09	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/10/10	11/13/10 03:09	
Iron, Total Recoverable	6010B	16900	µg/L	100	10	1	11/15/10	11/16/10 19:55	
Lead, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 03:09	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/15/10	11/16/10 12:51	
Nickel, Total Recoverable	6020	1.0 I	µg/L	2.0	0.2	1	11/10/10	11/13/10 03:09	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/10/10	11/13/10 03:09	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/10/10	11/13/10 03:09	
Sodium, Total Recoverable	6010B	50.9	mg/L	0.50	0.02	1	11/15/10	11/16/10 19:53	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 03:09	
Vanadium, Total Recoverable	6020	1.2 I	µg/L	5.0	0.5	1	11/10/10	11/13/10 03:09	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/10/10	11/13/10 03:09	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-3C  
**Lab Code:** J1005393-006

**Service Request:** J1005393  
**Date Collected:** 11/8/10 1405  
**Date Received:** 11/9/10  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/13/10 03:14	
Arsenic, Total Recoverable	6020	ND U	µg/L	0.50	0.40	1	11/10/10	11/13/10 03:14	
Barium, Total Recoverable	6020	9.1	µg/L	2.0	0.3	1	11/10/10	11/13/10 03:14	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/10/10	11/13/10 03:14	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/10/10	11/13/10 03:14	
Chromium, Total Recoverable	6020	0.7 I	µg/L	2.0	0.3	1	11/10/10	11/13/10 03:14	
Cobalt, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 03:14	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/10/10	11/13/10 03:14	
Iron, Total Recoverable	6010B	850	µg/L	100	10	1	11/15/10	11/16/10 19:59	
Lead, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 03:14	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/15/10	11/16/10 12:52	
Nickel, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/13/10 03:14	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/10/10	11/13/10 03:14	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/10/10	11/13/10 03:14	
Sodium, Total Recoverable	6010B	4.86	mg/L	0.50	0.02	1	11/15/10	11/16/10 19:58	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 03:14	
Vanadium, Total Recoverable	6020	0.9 I	µg/L	5.0	0.5	1	11/10/10	11/13/10 03:14	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/10/10	11/13/10 03:14	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005470-02

**Service Request:** J1005393  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/10/10	11/13/10 00:59	
Arsenic, Total Recoverable	6020	ND U	µg/L	0.50	0.40	1	11/10/10	11/13/10 00:59	
Barium, Total Recoverable	6020	ND U	µg/L	2.0	0.3	1	11/10/10	11/13/10 00:59	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/10/10	11/13/10 00:59	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/10/10	11/13/10 00:59	
Chromium, Total Recoverable	6020	0.4 I	µg/L	2.0	0.3	1	11/10/10	11/13/10 00:59	
Cobalt, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 00:59	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/10/10	11/13/10 00:59	
Lead, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 00:59	
Nickel, Total Recoverable	6020	0.4 I	µg/L	2.0	0.2	1	11/10/10	11/13/10 00:59	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/10/10	11/13/10 00:59	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/10/10	11/13/10 00:59	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.1	1	11/10/10	11/13/10 00:59	
Vanadium, Total Recoverable	6020	ND U	µg/L	5.0	0.5	1	11/10/10	11/13/10 00:59	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/10/10	11/13/10 00:59	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005560-02

**Service Request:** J1005393  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Total Recoverable	6010B	ND U	µg/L	100	10	1	11/15/10	11/16/10	18:59
Sodium, Total Recoverable	6010B	ND U	mg/L	0.50	0.02	1	11/15/10	11/16/10	18:57

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005580-02

**Service Request:** J1005393**Date Collected:** NA**Date Received:** NA**Basis:** NA**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/15/10	11/16/10	12:43

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-5A  
**Lab Code:** J1005393-001

**Service Request:** J1005393  
**Date Collected:** 11/8/10 1055  
**Date Received:** 11/9/10  
**Basis:** NA

## General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	<b>5.81</b>	mg/L	0.010	0.004	1	NA	11/15/10 12:29	
Chloride	300.0	<b>11.9</b>	mg/L	0.50	0.09	1	NA	11/9/10 19:17	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/9/10 19:17	
Solids, Total Dissolved	SM 2540 C	<b>242</b>	mg/L	10	10	1	NA	11/11/10 11:53	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-5C  
**Lab Code:** J1005393-002

**Service Request:** J1005393  
**Date Collected:** 11/8/10 1030  
**Date Received:** 11/9/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	<b>0.097</b>	mg/L	0.010	0.004	1	NA	11/15/10 12:32	
Chloride	300.0	<b>14.5</b>	mg/L	0.50	0.09	1	NA	11/9/10 20:02	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/9/10 20:02	
Solids, Total Dissolved	SM 2540 C	<b>44</b>	mg/L	10	10	1	NA	11/11/10 11:53	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-4A  
**Lab Code:** J1005393-003

**Service Request:** J1005393  
**Date Collected:** 11/8/10 1230  
**Date Received:** 11/9/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	<b>12.7</b>	mg/L	0.10	0.04	10	NA	11/15/10 12:41	
Chloride	300.0	<b>57.5</b>	mg/L	0.50	0.09	1	NA	11/9/10 20:17	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/9/10 20:17	
Solids, Total Dissolved	SM 2540 C	<b>121</b>	mg/L	10	10	1	NA	11/11/10 11:53	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-4C  
**Lab Code:** J1005393-004

**Service Request:** J1005393  
**Date Collected:** 11/8/10 1255  
**Date Received:** 11/9/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	<b>0.118</b>	mg/L	0.010	0.004	1	NA	11/15/10 12:42	
Chloride	300.0	<b>8.91</b>	mg/L	0.50	0.09	1	NA	11/9/10 20:32	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/9/10 20:32	
Solids, Total Dissolved	SM 2540 C	<b>70</b>	mg/L	10	10	1	NA	11/11/10 11:53	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-3A  
**Lab Code:** J1005393-005

**Service Request:** J1005393  
**Date Collected:** 11/8/10 1430  
**Date Received:** 11/9/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	7.23	mg/L	0.010	0.004	1	NA	11/15/10	12:34
Chloride	300.0	99.5	mg/L	0.50	0.09	1	NA	11/9/10	20:47
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/9/10	20:47
Solids, Total Dissolved	SM 2540 C	245	mg/L	10	10	1	NA	11/11/10	11:53

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-3C  
**Lab Code:** J1005393-006

**Service Request:** J1005393  
**Date Collected:** 11/8/10 1405  
**Date Received:** 11/9/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	<b>0.086</b>	mg/L	0.010	0.004	1	NA	11/15/10 12:35	
Chloride	300.0	<b>7.58</b>	mg/L	0.50	0.09	1	NA	11/9/10 21:02	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/9/10 21:02	
Solids, Total Dissolved	SM 2540 C	<b>37</b>	mg/L	10	10	1	NA	11/11/10 11:53	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005452-01

**Service Request:** J1005393**Date Collected:** NA**Date Received:** NA**Basis:** NA**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	300.0	ND U	mg/L	0.50	0.09	1	NA	11/9/10 18:47	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/9/10 18:47	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005506-03

**Service Request:** J1005393  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total Dissolved	SM 2540 C	ND U	mg/L	10	10	1	NA	11/11/10	11:53

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005569-01

**Service Request:** J1005393  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	ND U	mg/L	0.010	0.004	1	NA	11/15/10 12:27	

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005393**Surrogate Recovery Summary  
Volatile Organic Compounds by GC/MS****Analytical Method:** 8260B**Units:** Percent

<b>Sample Name</b>	<b>Lab Code</b>	<b>Sur1</b>	<b>Sur2</b>	<b>Sur3</b>	<b>Sur4</b>
MW-5A	J1005393-001	99	103	103	110
MW-5C	J1005393-002	96	102	101	104
MW-4A	J1005393-003	103	114	112	115
MW-4C	J1005393-004	91	105	96	108
MW-3A	J1005393-005	99	103	104	108
MW-3C	J1005393-006	106	111	109	113
Trip Blank	J1005393-007	104	104	106	108
Method Blank	JQ1005737-04	98	108	105	113
Method Blank	JQ1005764-04	100	103	102	107
Lab Control Sample	JQ1005737-03	97	105	103	110
Lab Control Sample	JQ1005764-03	94	100	104	109

**Surrogate Recovery Control Limits (%)**

Sur1	= 1,2-Dichloroethane-d4	71 - 122
Sur2	= 4-Bromofluorobenzene	75 - 120
Sur3	= Dibromofluoromethane	82 - 116
Sur4	= Toluene-d8	88 - 117

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005393  
**Date Analyzed:** 11/19/10

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Units:**  $\mu\text{g/L}$   
**Basis:** NA

**Analysis Lot:** 226245**Lab Control Sample**

JQ1005737-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	19.7	20.0	99	85 - 117
1,1,1-Trichloroethane (TCA)	18.5	20.0	93	79 - 124
1,1,2,2-Tetrachloroethane	20.1	20.0	101	83 - 120
1,1,2-Trichloroethane	20.9	20.0	105	86 - 114
1,1-Dichloroethane (1,1-DCA)	18.6	20.0	93	80 - 128
1,1-Dichloroethene (1,1-DCE)	18.7	20.0	93	78 - 130
1,2,3-Trichloropropane	20.2	20.0	101	83 - 123
1,2-Dibromo-3-chloropropane (DBCP)	18.5	20.0	93	62 - 123
1,2-Dibromoethane (EDB)	20.2	20.0	101	88 - 117
1,2-Dichlorobenzene	18.1	20.0	91	84 - 115
1,2-Dichloroethane	17.3	20.0	86	80 - 124
1,2-Dichloropropane	18.5	20.0	93	79 - 123
1,4-Dichlorobenzene	18.1	20.0	90	83 - 113
2-Butanone (MEK)	81.5	100	82	73 - 127
2-Hexanone	85.3	100	85	71 - 138
4-Methyl-2-pentanone (MIBK)	85.4	100	85	72 - 136
Acetone	89.3	100	89	67 - 133
Acrylonitrile	86.5	100	86	77 - 127
Benzene	18.9	20.0	94	79 - 119
Bromochloromethane	19.8	20.0	99	79 - 129
Bromodichloromethane	18.8	20.0	94	81 - 123
Bromoform	18.9	20.0	94	68 - 129
Bromomethane	22.3	20.0	111	79 - 130
Carbon Disulfide	91.2	100	91	76 - 138
Carbon Tetrachloride	17.9	20.0	90	81 - 125
Chlorobenzene	20.1	20.0	100	86 - 113
Chloroethane	19.7	20.0	99	74 - 126
Chloroform	19.1	20.0	95	83 - 124
Chloromethane	17.8	20.0	89	67 - 135
cis-1,2-Dichloroethene	17.7	20.0	88	80 - 126
cis-1,3-Dichloropropene	19.5	20.0	97	86 - 123
Dibromochloromethane	20.4	20.0	102	82 - 121

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005393  
**Date Analyzed:** 11/19/10

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Units:**  $\mu\text{g/L}$   
**Basis:** NA

**Analysis Lot:** 226245**Lab Control Sample**

JQ1005737-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Dibromomethane	19.6	20.0	98	83 - 123
Ethylbenzene	19.1	20.0	96	90 - 118
Iodomethane	92.0	100	92	68 - 134
m,p-Xylenes	38.3	40.0	96	86 - 121
Methylene Chloride	19.2	20.0	96	72 - 124
o-Xylene	19.4	20.0	97	89 - 119
Styrene	19.4	20.0	97	89 - 122
Tetrachloroethene (PCE)	20.7	20.0	103	80 - 121
Toluene	19.2	20.0	96	86 - 117
trans-1,2-Dichloroethene	17.4	20.0	87	77 - 124
trans-1,3-Dichloropropene	19.4	20.0	97	83 - 124
trans-1,4-Dichloro-2-butene	12.4	20.0	62	53 - 143
Trichloroethene (TCE)	18.7	20.0	94	76 - 124
Trichlorofluoromethane	20.8	20.0	104	74 - 134
Vinyl Acetate	70.6	100	71	61 - 148
Vinyl Chloride	20.9	20.0	104	78 - 132

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005393  
**Date Analyzed:** 11/22/10

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Units:**  $\mu\text{g/L}$   
**Basis:** NA

**Analysis Lot:** 226403**Lab Control Sample**

JQ1005764-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	18.3	20.0	92	85 - 117
1,1,1-Trichloroethane (TCA)	18.1	20.0	91	79 - 124
1,1,2,2-Tetrachloroethane	20.2	20.0	101	83 - 120
1,1,2-Trichloroethane	21.1	20.0	106	86 - 114
1,1-Dichloroethane (1,1-DCA)	19.0	20.0	95	80 - 128
1,1-Dichloroethene (1,1-DCE)	19.4	20.0	97	78 - 130
1,2,3-Trichloropropane	20.6	20.0	103	83 - 123
1,2-Dibromo-3-chloropropane (DBCP)	16.3	20.0	81	62 - 123
1,2-Dibromoethane (EDB)	20.8	20.0	104	88 - 117
1,2-Dichlorobenzene	18.3	20.0	92	84 - 115
1,2-Dichloroethane	17.1	20.0	86	80 - 124
1,2-Dichloropropane	19.5	20.0	97	79 - 123
1,4-Dichlorobenzene	18.4	20.0	92	83 - 113
2-Butanone (MEK)	95.8	100	96	73 - 127
2-Hexanone	90.7	100	91	71 - 138
4-Methyl-2-pentanone (MIBK)	88.6	100	89	72 - 136
Acetone	99.2	100	99	67 - 133
Acrylonitrile	90.2	100	90	77 - 127
Benzene	19.3	20.0	96	79 - 119
Bromochloromethane	20.8	20.0	104	79 - 129
Bromodichloromethane	18.6	20.0	93	81 - 123
Bromoform	15.7	20.0	78	68 - 129
Bromomethane	21.5	20.0	108	79 - 130
Carbon Disulfide	91.2	100	91	76 - 138
Carbon Tetrachloride	16.2	20.0	81	81 - 125
Chlorobenzene	20.7	20.0	104	86 - 113
Chloroethane	20.8	20.0	104	74 - 126
Chloroform	19.3	20.0	97	83 - 124
Chloromethane	17.7	20.0	89	67 - 135
cis-1,2-Dichloroethene	18.4	20.0	92	80 - 126
cis-1,3-Dichloropropene	19.6	20.0	98	86 - 123
Dibromochloromethane	18.9	20.0	94	82 - 121

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005393  
**Date Analyzed:** 11/22/10

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Units:**  $\mu\text{g/L}$   
**Basis:** NA

**Analysis Lot:** 226403**Lab Control Sample**

JQ1005764-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Dibromomethane	20.0	20.0	100	83 - 123
Ethylbenzene	20.1	20.0	100	90 - 118
Iodomethane	93.6	100	94	68 - 134
m,p-Xylenes	40.0	40.0	100	86 - 121
Methylene Chloride	19.2	20.0	96	72 - 124
o-Xylene	19.9	20.0	100	89 - 119
Styrene	20.2	20.0	101	89 - 122
Tetrachloroethene (PCE)	22.1	20.0	111	80 - 121
Toluene	19.8	20.0	99	86 - 117
trans-1,2-Dichloroethene	18.4	20.0	92	77 - 124
trans-1,3-Dichloropropene	18.6	20.0	93	83 - 124
trans-1,4-Dichloro-2-butene	12.8	20.0	64	53 - 143
Trichloroethene (TCE)	20.4	20.0	102	76 - 124
Trichlorofluoromethane	21.0	20.0	105	74 - 134
Vinyl Acetate	78.0	100	78	61 - 148
Vinyl Chloride	20.3	20.0	102	78 - 132

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005393  
**Date Collected:** 11/8/10  
**Date Received:** 11/9/10  
**Date Analyzed:** 11/13/10

**Matrix Spike Summary**  
**Inorganic Parameters**

**Sample Name:** MW-5C      **Units:** µg/L  
**Lab Code:** J1005393-002      **Basis:** NA

**Analytical Method:** 6020  
**Prep Method:** EPA 3020A

Analyte Name	Sample Result	MW-5CMS			MW-5CDMS			% Rec Limits	RPD	RPD Limit
		Matrix Spike	JQ1005470-03	Spike Amount	% Rec	Duplicate Matrix Spike	JQ1005470-04			
Antimony, Total Recoverable	ND	49.6	50.0	99	48.4	50.0	97	75 - 125	3	20
Arsenic, Total Recoverable	ND	48.3	50.0	97	47.1	50.0	94	75 - 125	2	20
Barium, Total Recoverable	19.3	68.1	50.0	98	65.8	50.0	93	75 - 125	4	20
Beryllium, Total Recoverable	ND	52.0	50.0	104	50.0	50.0	100	75 - 125	4	20
Cadmium, Total Recoverable	ND	51.0	50.0	102	48.3	50.0	97	75 - 125	5	20
Chromium, Total Recoverable	0.5	49.4	50.0	98	48.4	50.0	96	75 - 125	2	20
Cobalt, Total Recoverable	ND	48.8	50.0	98	48.0	50.0	96	75 - 125	1	20
Copper, Total Recoverable	ND	48.9	50.0	98	46.9	50.0	94	75 - 125	4	20
Lead, Total Recoverable	ND	50.0	50.0	100	48.3	50.0	97	75 - 125	3	20
Nickel, Total Recoverable	ND	49.1	50.0	98	47.2	50.0	94	75 - 125	4	20
Selenium, Total Recoverable	1.1	46.8	50.0	91	44.6	50.0	87	75 - 125	5	20
Silver, Total Recoverable	ND	50.6	50.0	101	48.6	50.0	97	75 - 125	4	20
Thallium, Total Recoverable	ND	50.0	50.0	100	49.4	50.0	99	75 - 125	1	20
Vanadium, Total Recoverable	1.1	50.2	50.0	98	48.0	50.0	94	75 - 125	5	20
Zinc, Total Recoverable	ND	100	100	100	97.8	100	98	75 - 125	3	20

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.

## COLUMBIA ANALYTICAL SERVICES, INC.

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005393  
**Date Analyzed:** 11/13/10

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:**  $\mu\text{g/L}$   
**Basis:** NA

**Lab Control Sample**

JQ1005470-01

<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Spike</b>		<b>% Rec Limits</b>
			<b>Amount</b>	<b>% Rec</b>	
Antimony, Total Recoverable	6020	51.0	50.0	102	80 - 120
Arsenic, Total Recoverable	6020	51.7	50.0	103	80 - 120
Barium, Total Recoverable	6020	50.3	50.0	101	80 - 120
Beryllium, Total Recoverable	6020	50.2	50.0	100	80 - 120
Cadmium, Total Recoverable	6020	51.5	50.0	103	80 - 120
Chromium, Total Recoverable	6020	50.0	50.0	100	80 - 120
Cobalt, Total Recoverable	6020	49.8	50.0	100	80 - 120
Copper, Total Recoverable	6020	50.2	50.0	100	80 - 120
Lead, Total Recoverable	6020	50.6	50.0	101	80 - 120
Nickel, Total Recoverable	6020	50.3	50.0	101	80 - 120
Selenium, Total Recoverable	6020	52.0	50.0	104	80 - 120
Silver, Total Recoverable	6020	51.4	50.0	103	80 - 120
Thallium, Total Recoverable	6020	51.3	50.0	103	80 - 120
Vanadium, Total Recoverable	6020	49.4	50.0	99	80 - 120
Zinc, Total Recoverable	6020	103	100	103	80 - 120

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005393  
**Date Analyzed:** 11/16/10

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:**  $\mu\text{g/L}$   
**Basis:** NA

**Lab Control Sample**  
JQ1005560-01

<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Spike</b>	<b>% Rec</b>	<b>% Rec Limits</b>
			<b>Amount</b>	<b>% Rec</b>	
Iron, Total Recoverable	6010B	2060	2000	103	80 - 120

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005393  
**Date Analyzed:** 11/16/10

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:** mg/L  
**Basis:** NA

**Lab Control Sample**  
JQ1005560-01

<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Spike</b>	<b>% Rec</b>	<b>% Rec Limits</b>
			<b>Amount</b>		
Sodium, Total Recoverable	6010B	10.0	10.0	100	80 - 120

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005393  
**Date Analyzed:** 11/16/10

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:**  $\mu\text{g/L}$   
**Basis:** NA

**Lab Control Sample**  
JQ1005580-01

<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Spike</b>	<b>% Rec</b>	<b>% Rec Limits</b>
			<b>Amount</b>	<b>% Rec</b>	
Mercury, Total	7470A	5.07	5.00	101	80 - 120

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005393  
**Date Collected:** 11/8/10  
**Date Received:** 11/9/10  
**Date Analyzed:** 11/9/10

**Matrix Spike Summary**  
**General Chemistry Parameters**

**Sample Name:** MW-5A  
**Lab Code:** J1005393-001

**Units:** mg/L  
**Basis:** NA

**Analytical Method:** 300.0

MW-5AMS  
Matrix Spike  
JQ1005452-03

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Chloride	11.9	59.9	50.0	96	90 - 110
Nitrate as Nitrogen	ND	4.40	5.00	88 *	90 - 110

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.

**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005393  
**Date Collected:** 11/8/10  
**Date Received:** 11/9/10  
**Date Analyzed:** 11/15/10

**Matrix Spike Summary**  
**General Chemistry Parameters**

**Sample Name:** MW-5A                   **Units:** mg/L  
**Lab Code:** J1005393-001               **Basis:** NA

**Analytical Method:** 350.1

MW-5AMS  
**Matrix Spike**  
JQ1005569-03

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Ammonia as Nitrogen	5.81	6.78	1.00	97 #	90 - 110

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.

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005393  
**Date Collected:** 11/8/10  
**Date Received:** 11/9/10  
**Date Analyzed:** 11/ 9/10 -  
                                  11/15/10

## Replicate Sample Summary General Chemistry Parameters

**Sample Name:** MW-5A      **Units:** mg/L  
**Lab Code:** J1005393-001      **Basis:** NA

Analyte Name	Method	MRL	MDL	Sample Result	MW-5ADUP			RPD Limit
					Duplicate Sample	JQ1005452-04	Result	
Chloride	300.0	0.50	0.09	11.9	11.8	11.8	<1	20
Nitrate as Nitrogen	300.0	0.20	0.07	ND U	ND U	NC	NC	20

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.

COLUMBIA ANALYTICAL SERVICES, INC.

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005393  
**Date Collected:** 11/8/10  
**Date Received:** 11/9/10  
**Date Analyzed:** 11/ 9/10 -  
11/15/10

## Replicate Sample Summary General Chemistry Parameters

**Sample Name:** MW-5A      **Units:** mg/L  
**Lab Code:** J1005393-001      **Basis:** NA

Analyte Name	Method	MRL	MDL	Sample Result	MW-5ADUP		RPD	RPD Limit
					Duplicate Sample	JQ1005569-04		
Ammonia as Nitrogen	350.1	0.010	0.004	5.81	5.82	5.82	<1	20

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.

**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005393  
**Date Analyzed:** 11/9/10

**Lab Control Sample Summary  
General Chemistry Parameters**

**Units:** mg/L  
**Basis:** NA

**Lab Control Sample  
JQ1005452-02**

<b>Analyte Name</b>	<b>Method</b>	<b>Spike</b>			<b>% Rec</b>	<b>Limits</b>
		<b>Result</b>	<b>Amount</b>	<b>% Rec</b>		
Chloride	300.0	50.3	50.0	101	90 - 110	
Nitrate as Nitrogen	300.0	4.69	5.00	94	90 - 110	

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005393  
**Date Analyzed:** 11/11/10

**Lab Control Sample Summary  
General Chemistry Parameters**

**Units:** mg/L  
**Basis:** NA

**Lab Control Sample**

JQ1005506-04

<b>Analyte Name</b>	<b>Method</b>	<b>Lab Control Sample</b>			<b>% Rec</b>	<b>Limits</b>
		<b>Result</b>	<b>Spike</b>	<b>Amount</b>		
Solids, Total Dissolved	SM 2540 C	284	300	95	85 - 115	

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005393  
**Date Analyzed:** 11/15/10

**Lab Control Sample Summary  
General Chemistry Parameters**

**Units:** mg/L  
**Basis:** NA

**Lab Control Sample**

JQ1005569-02

<b>Analyte Name</b>	<b>Method</b>	<b>Lab Control Sample</b>			<b>% Rec</b>	<b>Limits</b>
		<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>		
Ammonia as Nitrogen	350.1	0.973	1.00	97	90 - 110	

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.



## Cooler Receipt Form

Client:	<u>EPS</u>	Service Request #:	<u>J1005393</u>
Project:	<u>JED SWDF</u>		
Cooler received on	<u>11-9-10</u>	and opened on	<u>11-9-10</u>
COURIER:	CAS <u>UPS</u> FEDEX	Client    Other	Airbill #
1	Were custody seals on outside of cooler?	<input checked="" type="checkbox"/> Yes	No
	If yes, how many and where?	#:	<u>1</u> on <u>ND</u> other
2	Were seals intact and signature and date correct?	<input checked="" type="checkbox"/> Yes	No    N/A
3	Were custody papers properly filled out?	<input checked="" type="checkbox"/> Yes	No    N/A
4	Temperature of cooler(s) upon receipt (Should be > 0°C and < 6°C)	<u>4.4°</u>	
5	Thermometer ID	<u>T13</u>	
6	Temperature Blank Present?	<input checked="" type="checkbox"/> Yes	No
7	Were Ice or Ice Packs present	<input checked="" type="checkbox"/> Ice	Ice Packs    No
8	Did all bottles arrive in good condition (unbroken, etc....)?	<input checked="" type="checkbox"/> Yes	No    N/A
9	Type of packing material present	Netting    Vial Holder	Bubble Wrap
10	Were all bottle labels complete (sample ID, preservation, etc....)?	<input checked="" type="checkbox"/> Yes	No    N/A
11	Did all bottle labels and tags agree with custody papers?	<input checked="" type="checkbox"/> Yes	No    N/A
12	Were the correct bottles used for the tests indicated?	<input checked="" type="checkbox"/> Yes	No    N/A
13	Were all of the preserved bottles received with the appropriate preservative? <u>HNO3 pH&lt;2</u> H <sub>2</sub> SO <sub>4</sub> pH<2    ZnAc <sub>2</sub> /NaOH pH>9    NaOH pH>12 Preservative additions noted below	<input checked="" type="checkbox"/> Yes	No    N/A
14	Were all samples received within analysis holding times?	<input checked="" type="checkbox"/> Yes	No    N/A
15	Were VOA vials checked for absence of air bubbles? If present, note below	<input checked="" type="checkbox"/> Yes	No    N/A
16	Where did the bottles originate?	<u>CAS</u>	Client

Additional comments and/or explanation of all discrepancies noted above:

Client approval to run samples if discrepancies noted:

Date: 59

Date: 11-9-14

Initials:

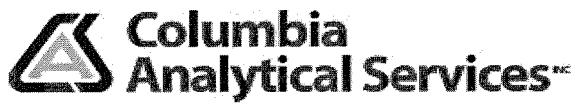
CKB

Note that pH is check and meets the required pH criterion listed in the column heading unless otherwise noted on the cooler receipt form.

Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Container	G	G	G	P	P	P	P	P	P	P	P	P	G	G	P	P	G	G	P	G	G	G	G	G	P	P	Misc.				
Preserve	NaA	HCl	Na2S2O3	N/A									ZnAc2/Y	HNO3	N/A	HNO3	N/A	HCl	H2SO4	N/A	HCl	H2SO4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Req. pH	<2	N/A	N/A	N/A	<2	<2	<2	N/A	<2	<2	N/A	>9	>9	>9	<2	N/A	<2	N/A	<2	N/A	<2	N/A	<2	N/A	<2	N/A	<2	N/A	<2	N/A	
Sample #	-	3	7	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	
-1																															
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-39																															
-40																															

NOTE: VOA pH checks are performed by the analytical area, not sample control





Columbia Analytical Services  
9143 Philips Highway, Suite 200  
Jacksonville, FL 32256  
Tel 904-739-2277  
Fax 904-739-2011

## **Appendix A**

### **Subcontracted Analytical Results**

**Environmental Conservation Laboratories, Inc.**

4810 Executive Park Court, Suite 111

Jacksonville FL, 32216-6069

Phone: 904.296.3007 FAX: 904.296.6210



[www.encolabs.com](http://www.encolabs.com)

Friday, November 19, 2010

Columbia Analytical Svcs. (CO009)

Attn: Craig Myers

9143 Philips Highway, Suite 200

Jacksonville, FL 32256

**RE: Laboratory Results for**

**Project Number: J1005393, Project Name/Desc: J1005393**

**ENCO Workorder: B005396**

Dear Craig Myers,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Friday, November 12, 2010.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Jacksonville. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in cursive ink that reads "Lindsay J Crawford".

Lindsay J Crawford For Chris Tompkins

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 12.

**SAMPLE SUMMARY/LABORATORY CHRONICLE**

<b>Client ID:</b> MW-5A		<b>Lab ID:</b> B005396-01	<b>Sampled:</b> 11/08/10 10:55	<b>Received:</b> 11/12/10 09:16
<b>Parameter</b>	<b>Hold Date/Time(s)</b>	<b>Prep Date/Time(s)</b>	<b>Analysis Date/Time(s)</b>	
EPA 8011	11/22/10	11/30/10	11/16/10 12:44	11/18/2010 13:38

<b>Client ID:</b> MW-5C		<b>Lab ID:</b> B005396-02	<b>Sampled:</b> 11/08/10 10:30	<b>Received:</b> 11/12/10 09:16
<b>Parameter</b>	<b>Hold Date/Time(s)</b>	<b>Prep Date/Time(s)</b>	<b>Analysis Date/Time(s)</b>	
EPA 8011	11/22/10	11/30/10	11/16/10 12:44	11/18/2010 13:52

<b>Client ID:</b> MW-4A		<b>Lab ID:</b> B005396-03	<b>Sampled:</b> 11/08/10 12:30	<b>Received:</b> 11/12/10 09:16
<b>Parameter</b>	<b>Hold Date/Time(s)</b>	<b>Prep Date/Time(s)</b>	<b>Analysis Date/Time(s)</b>	
EPA 8011	11/22/10	11/30/10	11/16/10 12:44	11/18/2010 14:04

<b>Client ID:</b> MW-4C		<b>Lab ID:</b> B005396-04	<b>Sampled:</b> 11/08/10 12:55	<b>Received:</b> 11/12/10 09:16
<b>Parameter</b>	<b>Hold Date/Time(s)</b>	<b>Prep Date/Time(s)</b>	<b>Analysis Date/Time(s)</b>	
EPA 8011	11/22/10	11/30/10	11/16/10 12:44	11/18/2010 14:18

<b>Client ID:</b> MW-3A		<b>Lab ID:</b> B005396-05	<b>Sampled:</b> 11/08/10 14:30	<b>Received:</b> 11/12/10 09:16
<b>Parameter</b>	<b>Hold Date/Time(s)</b>	<b>Prep Date/Time(s)</b>	<b>Analysis Date/Time(s)</b>	
EPA 8011	11/22/10	11/30/10	11/16/10 12:44	11/18/2010 14:30

<b>Client ID:</b> MW-3C		<b>Lab ID:</b> B005396-06	<b>Sampled:</b> 11/08/10 14:05	<b>Received:</b> 11/12/10 09:16
<b>Parameter</b>	<b>Hold Date/Time(s)</b>	<b>Prep Date/Time(s)</b>	<b>Analysis Date/Time(s)</b>	
EPA 8011	11/22/10	11/30/10	11/16/10 12:44	11/18/2010 14:45

**SAMPLE DETECTION SUMMARY**

**No positive results detected.**

### ANALYTICAL RESULTS

**Description:** MW-5A

**Lab Sample ID:** B005396-01

**Received:** 11/12/10 09:16

**Matrix:** Water

**Sampled:** 11/08/10 10:55

**Work Order:** B005396

**Project:** J1005393

**Sampled By:** Client

#### Semivolatile Organic Compounds by GC

<sup>^</sup> - ENCO Jacksonville certified analyte [NELAC E82277]

<b>Analyte [CAS Number]</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.012	U	ug/L	1	0.012	0.020	OK16005	EPA 8011	11/18/10 13:38	JSW	
1,2-Dibromoethane [106-93-4] ^	0.012	U	ug/L	1	0.012	0.020	OK16005	EPA 8011	11/18/10 13:38	JSW	
<b>Surrogates</b>	<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>		<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,1,1,2-Tetrachloroethane	0.27	1	0.250	110 %	33-122		OK16005	EPA 8011	11/18/10 13:38	JSW	

**Description:** MW-5C  
**Matrix:** Water  
**Project:** J1005393

**Lab Sample ID:** B005396-02

**Sampled:** 11/08/10 10:30  
**Sampled By:** Client

**Received:** 11/12/10 09:16  
**Work Order:** B005396

### Semivolatile Organic Compounds by GC

<sup>^</sup> - ENCO Jacksonville certified analyte [NELAC E82277]

<b>Analyte [CAS Number]</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.012	U	ug/L	1	0.012	0.020	OK16005	EPA 8011	11/18/10 13:52	JSW	
1,2-Dibromoethane [106-93-4] ^	0.012	U	ug/L	1	0.012	0.020	OK16005	EPA 8011	11/18/10 13:52	JSW	
<b>Surrogates</b>	<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>		<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,1,1,2-Tetrachloroethane	0.28	1	0.250	112 %	33-122		OK16005	EPA 8011	11/18/10 13:52	JSW	

Q:\S\

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

**Description:** MW-4A  
**Matrix:** Water  
**Project:** J1005393

**Lab Sample ID:** B005396-03

**Sampled:** 11/08/10 12:30  
**Sampled By:** Client

**Received:** 11/12/10 09:16  
**Work Order:** B005396

### Semivolatile Organic Compounds by GC

<sup>^</sup> - ENCO Jacksonville certified analyte [NELAC E82277]

<b>Analyte [CAS Number]</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>POL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.012	U	ug/L	1	0.012	0.020	OK16005	EPA 8011	11/18/10 14:04	JSW	
1,2-Dibromoethane [106-93-4] ^	0.012	U	ug/L	1	0.012	0.020	OK16005	EPA 8011	11/18/10 14:04	JSW	
<b>Surrogates</b>	<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>		<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,1,1,2-Tetrachloroethane	0.27	1	0.250	107 %	33-122		OK16005	EPA 8011	11/18/10 14:04	JSW	

**Description:** MW-4C

**Lab Sample ID:** B005396-04

**Received:** 11/12/10 09:16

**Matrix:** Water

**Sampled:** 11/08/10 12:55

**Work Order:** B005396

**Project:** J1005393

**Sampled By:** Client

**Semivolatile Organic Compounds by GC**
<sup>^</sup> - ENCO Jacksonville certified analyte [NELAC E82277]

<b>Analyte [CAS Number]</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>POL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.012	U	ug/L	1	0.012	0.020	OK16005	EPA 8011	11/18/10 14:18	JSW	
1,2-Dibromoethane [106-93-4] ^	0.012	U	ug/L	1	0.012	0.020	OK16005	EPA 8011	11/18/10 14:18	JSW	
<b>Surrogates</b>	<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>		<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,1,1,2-Tetrachloroethane	0.30	1	0.250	121 %	33-122		OK16005	EPA 8011	11/18/10 14:18	JSW	

**Description:** MW-3A

**Lab Sample ID:** B005396-05

**Received:** 11/12/10 09:16

**Matrix:** Water

**Sampled:** 11/08/10 14:30

**Work Order:** B005396

**Project:** J1005393

**Sampled By:** Client

### Semivolatile Organic Compounds by GC

<sup>^</sup> - ENCO Jacksonville certified analyte [NELAC E82277]

<b>Analyte [CAS Number]</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.012	U	ug/L	1	0.012	0.020	OK16005	EPA 8011	11/18/10 14:30	JSW	
1,2-Dibromoethane [106-93-4] ^	0.012	U	ug/L	1	0.012	0.020	OK16005	EPA 8011	11/18/10 14:30	JSW	
<b>Surrogates</b>	<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>	
1,1,1,2-Tetrachloroethane	0.26	1	0.250	106 %	33-122	OK16005	EPA 8011	11/18/10 14:30	JSW		

**Description:** MW-3C  
**Matrix:** Water  
**Project:** J1005393

**Lab Sample ID:** B005396-06  
**Sampled:** 11/08/10 14:05  
**Sampled By:** Client

**Received:** 11/12/10 09:16  
**Work Order:** B005396

### Semivolatile Organic Compounds by GC

<sup>^</sup> - ENCO Jacksonville certified analyte [NELAC E82277]

<b>Analyte [CAS Number]</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.012	U	ug/L	1	0.012	0.020	OK16005	EPA 8011	11/18/10 14:45	JSW	
1,2-Dibromoethane [106-93-4] ^	0.012	U	ug/L	1	0.012	0.020	OK16005	EPA 8011	11/18/10 14:45	JSW	
<b>Surrogates</b>	<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>		<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,1,1,2-Tetrachloroethane	0.30	1	0.250	118 %	33-122		OK16005	EPA 8011	11/18/10 14:45	JSW	

### QUALITY CONTROL

#### Semivolatile Organic Compounds by GC - Quality Control

Batch 0K16005 - EPA 8011

##### Blank (0K16005-BLK1)

Prepared: 11/16/2010 12:44 Analyzed: 11/18/2010 10:39

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dibromo-3-chloropropane	0.012	U	0.020	ug/L							
1,2-Dibromoethane	0.012	U	0.020	ug/L							
Surrogate: 1,1,1,2-Tetrachloroethane	0.30			ug/L	0.250		121	33-122			

##### LCS (0K16005-BS1)

Prepared: 11/16/2010 12:44 Analyzed: 11/18/2010 10:51

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dibromo-3-chloropropane	0.25		0.020	ug/L	0.250		100	60-140			
1,2-Dibromoethane	0.24		0.020	ug/L	0.250		94	60-140			
Surrogate: 1,1,1,2-Tetrachloroethane	0.29			ug/L	0.250		115	33-122			

##### Matrix Spike (0K16005-MS1)

Prepared: 11/16/2010 12:44 Analyzed: 11/18/2010 11:29

Source: B005394-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dibromo-3-chloropropane	0.20		0.020	ug/L	0.250	0.012 U	82	60-140			
1,2-Dibromoethane	0.25		0.020	ug/L	0.250	0.012 U	99	60-140			
Surrogate: 1,1,1,2-Tetrachloroethane	0.12			ug/L	0.250		50	33-122			

##### Matrix Spike Dup (0K16005-MSD1)

Prepared: 11/16/2010 12:44 Analyzed: 11/18/2010 11:41

Source: B005394-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dibromo-3-chloropropane	0.22		0.020	ug/L	0.250	0.012 U	87	60-140	6	20	
1,2-Dibromoethane	0.25		0.020	ug/L	0.250	0.012 U	99	60-140	0.6	20	
Surrogate: 1,1,1,2-Tetrachloroethane	0.15			ug/L	0.250		62	33-122			

**FLAGS/NOTES AND DEFINITIONS**

PQL	PQL: Practical Quantitation Limit.
B	Results are based upon membrane filter colony counts that are outside the method indicated ideal range.
I	The reported value is between the laboratory method detection limit (MDL) and the practical quantitation limit (PQL).
J	Estimated value. The associated sample note or project narrative indicate the causative reason.
K	Off-scale low; Actual value is known to be less than the value given.
L	Off-scale high; Actual value is known to be greater than value given.
M	Presence of analyte is verified but not quantified; the actual value is less than the MRL but greater than the MDL.
N	Presumptive evidence of presence of material.
O	Sampled, but analysis lost or not performed.
Q	Sample exceeded the accepted holding time.
T	Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only and shall not be used in statistical analysis.
U	Indicates that the compound was analyzed for but not detected.
V	Indicates that the analyte was detected in both the sample and the associated method blank.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
Z	Too many colonies were present (TNTC); the numeric value represents the filtration volume.
?	Data are rejected and should not be used. Some or all of the quality control data for the analyte were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
*	Not reported due to interference.

**Columbia Analytical Services, Inc. Chain of Custody**

9143 Philips Highway • Jacksonville, FL 32256 • 904-739-2277 • FAX 904-739-2011

Project Number: J1005393  
Project Manager: Craig Myers

CAS Contact: Craig Myers *[Signature]*

B005394 KK 11-18-10

B005394

Lab Code	Sample ID	# of Cont.	Matrix	Date	Time	Lab ID
J1005393-001	MW-5A	3	Water	11/8/10	1055	ENCO
J1005393-002	MW-5C		Water	11/8/10	1030	ENCO
J1005393-003	MW-4A		Water	11/8/10	1230	ENCO
J1005393-004	MW-4C		Water	11/8/10	1255	ENCO
J1005393-005	MW-3A		Water	11/8/10	1430	ENCO
J1005393-006	MW-3C		Water	11/8/10	1405	ENCO

Test Comments  
MISC\_OUT\_1 - None  
J1005393-006

FDB and DBTCP by EPA Method 8011

Client Cooler @ 57°c



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Special Instructions/Comments		Turnaround Requirements		Report Requirements		Invoice Information	
		<input type="checkbox"/> RUSH (Surcharges Apply)		<input type="checkbox"/> Results Only			
		<input type="checkbox"/> PLEASE CIRCLE WORK DAYS		<input type="checkbox"/> II. Results + QC Summaries		PO#	
		<input checked="" type="checkbox"/> STANDARD		<input type="checkbox"/> III. Results + QC and Calibration Summaries		J1005393	
		<input type="checkbox"/> Requested FAX Date: _____		<input type="checkbox"/> IV. Data Validation Report with Raw Data		Bill to	
		<input type="checkbox"/> Requested Report Date: <u>11/7/10</u>		<input type="checkbox"/> PQI AND II <u>Y</u> <input type="checkbox"/> LD <u>Y</u>			

Reinforced By: Craig Myers Received By: Kristin Kelly Airbill Number: 0110  
11-18-10

November 30, 2010

Service Request No: J1005431

Kirk Wills  
Environmental Planning Specialists  
1936 Bruce B Downs Blvd  
#328  
Wesley Chapel, FL 33543

**Laboratory Results for: JED SWDF**

Dear Kirk:

Enclosed are the results of the sample(s) submitted to our laboratory on November 10, 2010. For your reference, these analyses have been assigned our service request number **J1005431**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. 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 contact me if you have any questions. My extension is 4409. You may also contact me via email at [CMyers@caslab.com](mailto:CMyers@caslab.com).

Respectfully submitted,

**Columbia Analytical Services, Inc.**



Craig Myers  
Project Manager

Page 1 of 83

## COLUMBIA ANALYTICAL SERVICES, INC.

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request No.:** J1005431  
**Date Received:** 11/10/10

### 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, including results of QC samples analyzed from this delivery group. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

#### Sample Receipt

Nine water samples and one trip blank were received for analysis at Columbia Analytical Services on 11/10/10. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at  $4\pm2^{\circ}\text{C}$  upon receipt at the lab except for aqueous samples designated for metals analyses, which were stored at room temperature.

#### Volatile Organic Compounds by GC-MS

The samples were analyzed for Volatile Organics using EPA Method 8260. The following observations were made regarding this delivery group.

#### Elevated Method Reporting Limits

The reporting limits are elevated for all analytes in samples MW-23A and MW-19A. The sample was diluted prior to instrumental analysis due to the foaming nature of the matrix. The reporting limits are adjusted to reflect the dilution.

#### Metals by ICP-MS/ICP-OES/CVAA

The samples were analyzed for Total Metals using EPA Methods 6020/6010B/7470A. The following observations were made regarding this delivery group.

#### Matrix Spike Recovery Exceptions

The matrix spike recoveries of Selenium and Silver for sample MW-19C were outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential low bias in this matrix. No further corrective action was appropriate.

#### Samples Notes and Discussion

Due to an inadvertent error caused by the installation of a new de-ionized water system in the laboratory, the incorrect water type was provided for the equipment blank collection. Due to this mistake, the equipment blank has detections that are highly suspect and most likely due to the de-ionized water system. This should have no impact on the sample data and the comparison of the data to historical results.

Approved by \_\_\_\_\_

Date

11/30/10

### **General Chemistry Parameters**

The samples were analyzed for Inorganic Parameters using various EPA and Standard Methods. The following observations were made regarding this delivery group.

### **Samples Notes and Discussion**

Due to an inadvertent error caused by the installation of a new de-ionized water system in the laboratory, the incorrect water type was provided for the equipment blank collection. Due to this mistake, the equipment blank has detections that are highly suspect and most likely due to the de-ionized water system. This should have no impact on the sample data and the comparison of the data to historical results.

### **Subcontracted Analytical Parameters**

The samples were delivered to ENCO Labs in Jacksonville, FL on 11/12/10 for EPA Method 8011 determination. The certified analytical report has been included in its entirety in Appendix A: Subcontracted Analytical Results.

Approved by \_\_\_\_\_



Date 11/30/10

## **Florida DEP Data Qualifiers**

- B Results based upon colony counts outside the acceptable range.
- D Measurement was made in the field.
- H Value based on field kit determination; results may not be accurate.
- i The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J Estimated value (one of the following reasons is discussed in the project case narrative).
  - 1. The result may be inaccurate because the surrogate recovery limits have been exceeded.
  - 2. No known quality control criteria exists for the component.
  - 3. The reported value failed to meet the established quality control criteria for either precision or accuracy.
  - 4. The sample matrix interfered with the ability to make any accurate determination (e.g., primary and confirmation results show greater than 40% RPD).
  - 5. The data is questionable because of improper laboratory or field protocols (e.g., GC/MS Tune did not meet method criteria).
- K Off scale low. The value is less than the lowest calibration standard but greater than the method reporting limit (MRL).
- L Off scale high. The analyte is above the upper limit of the linear calibration range.
- M The MDL/MRL has been elevated because the analyte could not be accurately quantified due to matrix interference.
- N Presumptive evidence of the analyte. Confirmation was not performed.
- Q Sample held beyond the accepted holding time.
- T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only.
- U Indicates that the compound was analyzed for but not detected.
- V Indicates that the analyte was detected in both the sample and the associated method blank.
- Y The laboratory analysis was from an improperly preserved sample.
- Z Too many colonies were present (TNTC). The numeric value represents the filtration volume.

## **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.

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF

**Service Request:** J1005431

**SAMPLE CROSS-REFERENCE**

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
J1005431-001	MW-2A	11/9/10	07:55
J1005431-002	MW-2C	11/9/10	07:30
J1005431-003	MW-1A	11/9/10	09:40
J1005431-004	MW-1C	11/9/10	09:05
J1005431-005	MW-23A	11/9/10	12:35
J1005431-006	MW-23C	11/9/10	11:05
J1005431-007	MW-19A	11/9/10	14:25
J1005431-008	MW-19C	11/9/10	15:00
J1005431-009	EB-2	11/9/10	11:30
J1005431-010	Trip Blank	11/9/10	00:00

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-2A  
**Lab Code:** J1005431-001

**Service Request:** J1005431  
**Date Collected:** 11/9/10 0755  
**Date Received:** 11/10/10

**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 226172

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/18/10 00:03		226172	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/18/10 00:03		226172	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/18/10 00:03		226172	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/18/10 00:03		226172	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/18/10 00:03		226172	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/18/10 00:03		226172	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/18/10 00:03		226172	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/18/10 00:03		226172	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/18/10 00:03		226172	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/18/10 00:03		226172	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/18/10 00:03		226172	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/18/10 00:03		226172	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/18/10 00:03		226172	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/18/10 00:03		226172	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/18/10 00:03		226172	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/18/10 00:03		226172	
Acetone	ND	U	50.0	5.60	1	NA	11/18/10 00:03		226172	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/18/10 00:03		226172	
Benzene	ND	U	1.00	0.210	1	NA	11/18/10 00:03		226172	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/18/10 00:03		226172	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/18/10 00:03		226172	
Bromoform	ND	U	2.00	0.420	1	NA	11/18/10 00:03		226172	
Bromomethane	ND	U	1.00	0.220	1	NA	11/18/10 00:03		226172	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/18/10 00:03		226172	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/18/10 00:03		226172	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/18/10 00:03		226172	
Chloroethane	ND	U	5.00	0.220	1	NA	11/18/10 00:03		226172	
Chloroform	ND	U	1.00	0.350	1	NA	11/18/10 00:03		226172	
Chloromethane	ND	U	1.00	0.110	1	NA	11/18/10 00:03		226172	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/18/10 00:03		226172	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/18/10 00:03		226172	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/18/10 00:03		226172	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/18/10 00:03		226172	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/18/10 00:03		226172	
Iodomethane	ND	U	5.00	2.68	1	NA	11/18/10 00:03		226172	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/18/10 00:03		226172	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-2A  
**Lab Code:** J1005431-001

**Service Request:** J1005431  
**Date Collected:** 11/9/10 0755  
**Date Received:** 11/10/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 226172

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND U	5.00	0.210	1	NA	11/18/10 00:03		226172	
o-Xylene	ND U	1.00	0.140	1	NA	11/18/10 00:03		226172	
Styrene	ND U	1.00	0.291	1	NA	11/18/10 00:03		226172	
Tetrachloroethene (PCE)	ND U	1.00	0.110	1	NA	11/18/10 00:03		226172	
Toluene	ND U	1.00	0.190	1	NA	11/18/10 00:03		226172	
trans-1,2-Dichloroethene	ND U	1.00	0.120	1	NA	11/18/10 00:03		226172	
trans-1,3-Dichloropropene	ND U	1.00	0.230	1	NA	11/18/10 00:03		226172	
trans-1,4-Dichloro-2-butene	ND U	20.0	2.20	1	NA	11/18/10 00:03		226172	
Trichloroethene (TCE)	ND U	1.00	0.160	1	NA	11/18/10 00:03		226172	
Trichlorofluoromethane	ND U	20.0	0.220	1	NA	11/18/10 00:03		226172	
Vinyl Acetate	ND U	10.0	1.90	1	NA	11/18/10 00:03		226172	
Vinyl Chloride	ND U	1.00	0.220	1	NA	11/18/10 00:03		226172	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	101	71-122	11/18/10 00:03	
4-Bromofluorobenzene	107	75-120	11/18/10 00:03	
Dibromofluoromethane	108	82-116	11/18/10 00:03	
Toluene-d8	113	88-117	11/18/10 00:03	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-2C  
**Lab Code:** J1005431-002

**Service Request:** J1005431  
**Date Collected:** 11/9/10 0730  
**Date Received:** 11/10/10

**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226172

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/18/10 00:31		226172	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/18/10 00:31		226172	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/18/10 00:31		226172	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/18/10 00:31		226172	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/18/10 00:31		226172	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/18/10 00:31		226172	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/18/10 00:31		226172	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/18/10 00:31		226172	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/18/10 00:31		226172	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/18/10 00:31		226172	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/18/10 00:31		226172	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/18/10 00:31		226172	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/18/10 00:31		226172	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/18/10 00:31		226172	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/18/10 00:31		226172	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/18/10 00:31		226172	
Acetone	ND	U	50.0	5.60	1	NA	11/18/10 00:31		226172	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/18/10 00:31		226172	
Benzene	ND	U	1.00	0.210	1	NA	11/18/10 00:31		226172	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/18/10 00:31		226172	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/18/10 00:31		226172	
Bromoform	ND	U	2.00	0.420	1	NA	11/18/10 00:31		226172	
Bromomethane	ND	U	1.00	0.220	1	NA	11/18/10 00:31		226172	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/18/10 00:31		226172	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/18/10 00:31		226172	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/18/10 00:31		226172	
Chloroethane	ND	U	5.00	0.220	1	NA	11/18/10 00:31		226172	
Chloroform	ND	U	1.00	0.350	1	NA	11/18/10 00:31		226172	
Chloromethane	ND	U	1.00	0.110	1	NA	11/18/10 00:31		226172	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/18/10 00:31		226172	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/18/10 00:31		226172	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/18/10 00:31		226172	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/18/10 00:31		226172	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/18/10 00:31		226172	
Iodomethane	ND	U	5.00	2.68	1	NA	11/18/10 00:31		226172	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/18/10 00:31		226172	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-2C  
**Lab Code:** J1005431-002

**Service Request:** J1005431  
**Date Collected:** 11/9/10 0730  
**Date Received:** 11/10/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 226172

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/18/10 00:31		226172	
o-Xylene	ND	U	1.00	0.140	1	NA	11/18/10 00:31		226172	
Styrene	ND	U	1.00	0.291	1	NA	11/18/10 00:31		226172	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/18/10 00:31		226172	
Toluene	ND	U	1.00	0.190	1	NA	11/18/10 00:31		226172	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/18/10 00:31		226172	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/18/10 00:31		226172	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/18/10 00:31		226172	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/18/10 00:31		226172	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/18/10 00:31		226172	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/18/10 00:31		226172	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/18/10 00:31		226172	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	98	71-122	11/18/10 00:31	
4-Bromofluorobenzene	107	75-120	11/18/10 00:31	
Dibromofluoromethane	106	82-116	11/18/10 00:31	
Toluene-d8	115	88-117	11/18/10 00:31	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-1A  
**Lab Code:** J1005431-003

**Service Request:** J1005431  
**Date Collected:** 11/9/10 0940  
**Date Received:** 11/10/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226172

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND U	1.00	0.180	1	NA	11/18/10 00:58		226172	
1,1,1-Trichloroethane (TCA)	ND U	1.00	0.170	1	NA	11/18/10 00:58		226172	
1,1,2,2-Tetrachloroethane	ND U	1.00	0.110	1	NA	11/18/10 00:58		226172	
1,1,2-Trichloroethane	ND U	1.00	0.170	1	NA	11/18/10 00:58		226172	
1,1-Dichloroethane (1,1-DCA)	ND U	1.00	0.130	1	NA	11/18/10 00:58		226172	
1,1-Dichloroethene (1,1-DCE)	ND U	1.00	0.160	1	NA	11/18/10 00:58		226172	
1,2,3-Trichloropropane	ND U	2.00	0.420	1	NA	11/18/10 00:58		226172	
1,2-Dibromo-3-chloropropane (DBCP)	ND U	5.00	2.30	1	NA	11/18/10 00:58		226172	
1,2-Dibromoethane (EDB)	ND U	1.00	0.170	1	NA	11/18/10 00:58		226172	
1,2-Dichlorobenzene	ND U	1.00	0.478	1	NA	11/18/10 00:58		226172	
1,2-Dichloroethane	ND U	1.00	0.180	1	NA	11/18/10 00:58		226172	
1,2-Dichloropropane	ND U	1.00	0.120	1	NA	11/18/10 00:58		226172	
1,4-Dichlorobenzene	ND U	1.00	0.100	1	NA	11/18/10 00:58		226172	
2-Butanone (MEK)	ND U	10.0	3.80	1	NA	11/18/10 00:58		226172	
2-Hexanone	ND U	25.0	2.20	1	NA	11/18/10 00:58		226172	
4-Methyl-2-pentanone (MIBK)	ND U	25.0	0.650	1	NA	11/18/10 00:58		226172	
Acetone	ND U	50.0	5.60	1	NA	11/18/10 00:58		226172	
Acrylonitrile	ND U	10.0	1.20	1	NA	11/18/10 00:58		226172	
Benzene	6.10	1.00	0.210	1	NA	11/18/10 00:58		226172	
Bromochloromethane	ND U	5.00	0.270	1	NA	11/18/10 00:58		226172	
Bromodichloromethane	ND U	1.00	0.170	1	NA	11/18/10 00:58		226172	
Bromoform	ND U	2.00	0.420	1	NA	11/18/10 00:58		226172	
Bromomethane	ND U	1.00	0.220	1	NA	11/18/10 00:58		226172	
Carbon Disulfide	ND U	10.0	2.36	1	NA	11/18/10 00:58		226172	
Carbon Tetrachloride	ND U	1.00	0.340	1	NA	11/18/10 00:58		226172	
Chlorobenzene	ND U	1.00	0.160	1	NA	11/18/10 00:58		226172	
Chloroethane	ND U	5.00	0.220	1	NA	11/18/10 00:58		226172	
Chloroform	ND U	1.00	0.350	1	NA	11/18/10 00:58		226172	
Chloromethane	ND U	1.00	0.110	1	NA	11/18/10 00:58		226172	
cis-1,2-Dichloroethene	ND U	1.00	0.360	1	NA	11/18/10 00:58		226172	
cis-1,3-Dichloropropene	ND U	1.00	0.200	1	NA	11/18/10 00:58		226172	
Dibromochloromethane	ND U	1.00	0.190	1	NA	11/18/10 00:58		226172	
Dibromomethane	ND U	5.00	0.180	1	NA	11/18/10 00:58		226172	
Ethylbenzene	6.44	1.00	0.210	1	NA	11/18/10 00:58		226172	
Iodomethane	ND U	5.00	2.68	1	NA	11/18/10 00:58		226172	
m,p-Xylenes	5.67	2.00	0.410	1	NA	11/18/10 00:58		226172	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-1A  
**Lab Code:** J1005431-003

**Service Request:** J1005431  
**Date Collected:** 11/9/10 0940  
**Date Received:** 11/10/10  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Analysis Lot:** 226172

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/18/10 00:58		226172	
o-Xylene	<b>2.58</b>		1.00	0.140	1	NA	11/18/10 00:58		226172	
Styrene	ND	U	1.00	0.291	1	NA	11/18/10 00:58		226172	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/18/10 00:58		226172	
Toluene	<b>1.54</b>		1.00	0.190	1	NA	11/18/10 00:58		226172	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/18/10 00:58		226172	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/18/10 00:58		226172	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/18/10 00:58		226172	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/18/10 00:58		226172	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/18/10 00:58		226172	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/18/10 00:58		226172	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/18/10 00:58		226172	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	99	71-122	11/18/10 00:58	
4-Bromofluorobenzene	108	75-120	11/18/10 00:58	
Dibromofluoromethane	105	82-116	11/18/10 00:58	
Toluene-d8	111	88-117	11/18/10 00:58	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-1C  
**Lab Code:** J1005431-004

**Service Request:** J1005431  
**Date Collected:** 11/9/10 0905  
**Date Received:** 11/10/10

**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226172

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/18/10 01:26		226172	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/18/10 01:26		226172	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/18/10 01:26		226172	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/18/10 01:26		226172	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/18/10 01:26		226172	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/18/10 01:26		226172	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/18/10 01:26		226172	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/18/10 01:26		226172	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/18/10 01:26		226172	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/18/10 01:26		226172	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/18/10 01:26		226172	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/18/10 01:26		226172	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/18/10 01:26		226172	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/18/10 01:26		226172	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/18/10 01:26		226172	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/18/10 01:26		226172	
Acetone	ND	U	50.0	5.60	1	NA	11/18/10 01:26		226172	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/18/10 01:26		226172	
Benzene	ND	U	1.00	0.210	1	NA	11/18/10 01:26		226172	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/18/10 01:26		226172	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/18/10 01:26		226172	
Bromoform	ND	U	2.00	0.420	1	NA	11/18/10 01:26		226172	
Bromomethane	ND	U	1.00	0.220	1	NA	11/18/10 01:26		226172	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/18/10 01:26		226172	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/18/10 01:26		226172	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/18/10 01:26		226172	
Chloroethane	ND	U	5.00	0.220	1	NA	11/18/10 01:26		226172	
Chloroform	ND	U	1.00	0.350	1	NA	11/18/10 01:26		226172	
Chloromethane	ND	U	1.00	0.110	1	NA	11/18/10 01:26		226172	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/18/10 01:26		226172	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/18/10 01:26		226172	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/18/10 01:26		226172	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/18/10 01:26		226172	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/18/10 01:26		226172	
Iodomethane	ND	U	5.00	2.68	1	NA	11/18/10 01:26		226172	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/18/10 01:26		226172	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-1C  
**Lab Code:** J1005431-004

**Service Request:** J1005431  
**Date Collected:** 11/9/10 0905  
**Date Received:** 11/10/10

**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226172

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/18/10 01:26		226172	
o-Xylene	ND	U	1.00	0.140	1	NA	11/18/10 01:26		226172	
Styrene	ND	U	1.00	0.291	1	NA	11/18/10 01:26		226172	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/18/10 01:26		226172	
Toluene	ND	U	1.00	0.190	1	NA	11/18/10 01:26		226172	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/18/10 01:26		226172	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/18/10 01:26		226172	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/18/10 01:26		226172	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/18/10 01:26		226172	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/18/10 01:26		226172	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/18/10 01:26		226172	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/18/10 01:26		226172	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	103	71-122	11/18/10 01:26	
4-Bromofluorobenzene	108	75-120	11/18/10 01:26	
Dibromofluoromethane	108	82-116	11/18/10 01:26	
Toluene-d8	113	88-117	11/18/10 01:26	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-23A  
**Lab Code:** J1005431-005

**Service Request:** J1005431  
**Date Collected:** 11/9/10 1235  
**Date Received:** 11/10/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226172

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	2.00	0.360	2	NA	11/18/10 01:54		226172	
1,1,1-Trichloroethane (TCA)	ND	U	2.00	0.340	2	NA	11/18/10 01:54		226172	
1,1,2,2-Tetrachloroethane	ND	U	2.00	0.220	2	NA	11/18/10 01:54		226172	
1,1,2-Trichloroethane	ND	U	2.00	0.340	2	NA	11/18/10 01:54		226172	
1,1-Dichloroethane (1,1-DCA)	ND	U	2.00	0.260	2	NA	11/18/10 01:54		226172	
1,1-Dichloroethene (1,1-DCE)	ND	U	2.00	0.320	2	NA	11/18/10 01:54		226172	
1,2,3-Trichloropropane	ND	U	4.00	0.840	2	NA	11/18/10 01:54		226172	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	10.0	4.60	2	NA	11/18/10 01:54		226172	
1,2-Dibromoethane (EDB)	ND	U	2.00	0.340	2	NA	11/18/10 01:54		226172	
1,2-Dichlorobenzene	ND	U	2.00	0.956	2	NA	11/18/10 01:54		226172	
1,2-Dichloroethane	ND	U	2.00	0.360	2	NA	11/18/10 01:54		226172	
1,2-Dichloropropane	ND	U	2.00	0.240	2	NA	11/18/10 01:54		226172	
1,4-Dichlorobenzene	ND	U	2.00	0.200	2	NA	11/18/10 01:54		226172	
2-Butanone (MEK)	ND	U	20.0	7.60	2	NA	11/18/10 01:54		226172	
2-Hexanone	ND	U	50.0	4.40	2	NA	11/18/10 01:54		226172	
4-Methyl-2-pentanone (MIBK)	ND	U	50.0	1.30	2	NA	11/18/10 01:54		226172	
Acetone	ND	U	100	11.2	2	NA	11/18/10 01:54		226172	
Acrylonitrile	ND	U	20.0	2.40	2	NA	11/18/10 01:54		226172	
Benzene	ND	U	2.00	0.420	2	NA	11/18/10 01:54		226172	
Bromochloromethane	ND	U	10.0	0.540	2	NA	11/18/10 01:54		226172	
Bromodichloromethane	ND	U	2.00	0.340	2	NA	11/18/10 01:54		226172	
Bromoform	ND	U	4.00	0.840	2	NA	11/18/10 01:54		226172	
Bromomethane	ND	U	2.00	0.440	2	NA	11/18/10 01:54		226172	
Carbon Disulfide	ND	U	20.0	4.72	2	NA	11/18/10 01:54		226172	
Carbon Tetrachloride	ND	U	2.00	0.680	2	NA	11/18/10 01:54		226172	
Chlorobenzene	ND	U	2.00	0.320	2	NA	11/18/10 01:54		226172	
Chloroethane	ND	U	10.0	0.440	2	NA	11/18/10 01:54		226172	
Chloroform	ND	U	2.00	0.700	2	NA	11/18/10 01:54		226172	
Chloromethane	ND	U	2.00	0.220	2	NA	11/18/10 01:54		226172	
cis-1,2-Dichloroethene	ND	U	2.00	0.720	2	NA	11/18/10 01:54		226172	
cis-1,3-Dichloropropene	ND	U	2.00	0.400	2	NA	11/18/10 01:54		226172	
Dibromochloromethane	ND	U	2.00	0.380	2	NA	11/18/10 01:54		226172	
Dibromomethane	ND	U	10.0	0.360	2	NA	11/18/10 01:54		226172	
Ethylbenzene	ND	U	2.00	0.420	2	NA	11/18/10 01:54		226172	
Iodomethane	ND	U	10.0	5.36	2	NA	11/18/10 01:54		226172	
m,p-Xylenes	ND	U	4.00	0.820	2	NA	11/18/10 01:54		226172	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-23A  
**Lab Code:** J1005431-005

**Service Request:** J1005431  
**Date Collected:** 11/9/10 1235  
**Date Received:** 11/10/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 226172

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	10.0	0.420	2	NA	11/18/10 01:54		226172	
o-Xylene	ND	U	2.00	0.280	2	NA	11/18/10 01:54		226172	
Styrene	ND	U	2.00	0.582	2	NA	11/18/10 01:54		226172	
Tetrachloroethene (PCE)	ND	U	2.00	0.220	2	NA	11/18/10 01:54		226172	
Toluene	ND	U	2.00	0.380	2	NA	11/18/10 01:54		226172	
trans-1,2-Dichloroethene	ND	U	2.00	0.240	2	NA	11/18/10 01:54		226172	
trans-1,3-Dichloropropene	ND	U	2.00	0.460	2	NA	11/18/10 01:54		226172	
trans-1,4-Dichloro-2-butene	ND	U	40.0	4.40	2	NA	11/18/10 01:54		226172	
Trichloroethene (TCE)	ND	U	2.00	0.320	2	NA	11/18/10 01:54		226172	
Trichlorofluoromethane	ND	U	40.0	0.440	2	NA	11/18/10 01:54		226172	
Vinyl Acetate	ND	U	20.0	3.80	2	NA	11/18/10 01:54		226172	
Vinyl Chloride	ND	U	2.00	0.440	2	NA	11/18/10 01:54		226172	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	100	71-122	11/18/10 01:54	
4-Bromofluorobenzene	106	75-120	11/18/10 01:54	
Dibromofluoromethane	106	82-116	11/18/10 01:54	
Toluene-d8	115	88-117	11/18/10 01:54	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-23C  
**Lab Code:** J1005431-006

**Service Request:** J1005431  
**Date Collected:** 11/9/10 1105  
**Date Received:** 11/10/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 226172

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/18/10 02:21		226172	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/18/10 02:21		226172	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/18/10 02:21		226172	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/18/10 02:21		226172	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/18/10 02:21		226172	
1,1-Dichloroethylene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/18/10 02:21		226172	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/18/10 02:21		226172	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/18/10 02:21		226172	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/18/10 02:21		226172	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/18/10 02:21		226172	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/18/10 02:21		226172	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/18/10 02:21		226172	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/18/10 02:21		226172	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/18/10 02:21		226172	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/18/10 02:21		226172	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/18/10 02:21		226172	
Acetone	ND	U	50.0	5.60	1	NA	11/18/10 02:21		226172	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/18/10 02:21		226172	
Benzene	ND	U	1.00	0.210	1	NA	11/18/10 02:21		226172	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/18/10 02:21		226172	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/18/10 02:21		226172	
Bromoform	ND	U	2.00	0.420	1	NA	11/18/10 02:21		226172	
Bromomethane	ND	U	1.00	0.220	1	NA	11/18/10 02:21		226172	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/18/10 02:21		226172	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/18/10 02:21		226172	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/18/10 02:21		226172	
Chloroethane	ND	U	5.00	0.220	1	NA	11/18/10 02:21		226172	
Chloroform	ND	U	1.00	0.350	1	NA	11/18/10 02:21		226172	
Chloromethane	ND	U	1.00	0.110	1	NA	11/18/10 02:21		226172	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/18/10 02:21		226172	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/18/10 02:21		226172	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/18/10 02:21		226172	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/18/10 02:21		226172	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/18/10 02:21		226172	
Iodomethane	ND	U	5.00	2.68	1	NA	11/18/10 02:21		226172	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/18/10 02:21		226172	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-23C  
**Lab Code:** J1005431-006

**Service Request:** J1005431  
**Date Collected:** 11/9/10 1105  
**Date Received:** 11/10/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 226172

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND U	5.00	0.210	1	NA	11/18/10 02:21		226172	
o-Xylene	ND U	1.00	0.140	1	NA	11/18/10 02:21		226172	
Styrene	ND U	1.00	0.291	1	NA	11/18/10 02:21		226172	
Tetrachloroethene (PCE)	ND U	1.00	0.110	1	NA	11/18/10 02:21		226172	
Toluene	ND U	1.00	0.190	1	NA	11/18/10 02:21		226172	
trans-1,2-Dichloroethene	ND U	1.00	0.120	1	NA	11/18/10 02:21		226172	
trans-1,3-Dichloropropene	ND U	1.00	0.230	1	NA	11/18/10 02:21		226172	
trans-1,4-Dichloro-2-butene	ND U	20.0	2.20	1	NA	11/18/10 02:21		226172	
Trichloroethene (TCE)	ND U	1.00	0.160	1	NA	11/18/10 02:21		226172	
Trichlorofluoromethane	ND U	20.0	0.220	1	NA	11/18/10 02:21		226172	
Vinyl Acetate	ND U	10.0	1.90	1	NA	11/18/10 02:21		226172	
Vinyl Chloride	ND U	1.00	0.220	1	NA	11/18/10 02:21		226172	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	100	71-122	11/18/10 02:21	
4-Bromofluorobenzene	110	75-120	11/18/10 02:21	
Dibromofluoromethane	109	82-116	11/18/10 02:21	
Toluene-d8	114	88-117	11/18/10 02:21	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-19A  
**Lab Code:** J1005431-007

**Service Request:** J1005431  
**Date Collected:** 11/9/10 1425  
**Date Received:** 11/10/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226172

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	4.00	0.720	4	NA	11/18/10 02:49		226172	
1,1,1-Trichloroethane (TCA)	ND	U	4.00	0.680	4	NA	11/18/10 02:49		226172	
1,1,2,2-Tetrachloroethane	ND	U	4.00	0.440	4	NA	11/18/10 02:49		226172	
1,1,2-Trichloroethane	ND	U	4.00	0.680	4	NA	11/18/10 02:49		226172	
1,1-Dichloroethane (1,1-DCA)	ND	U	4.00	0.520	4	NA	11/18/10 02:49		226172	
1,1-Dichloroethene (1,1-DCE)	ND	U	4.00	0.640	4	NA	11/18/10 02:49		226172	
1,2,3-Trichloropropane	ND	U	8.00	1.68	4	NA	11/18/10 02:49		226172	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	20.0	9.20	4	NA	11/18/10 02:49		226172	
1,2-Dibromoethane (EDB)	ND	U	4.00	0.680	4	NA	11/18/10 02:49		226172	
1,2-Dichlorobenzene	ND	U	4.00	1.92	4	NA	11/18/10 02:49		226172	
1,2-Dichloroethane	ND	U	4.00	0.720	4	NA	11/18/10 02:49		226172	
1,2-Dichloropropane	ND	U	4.00	0.480	4	NA	11/18/10 02:49		226172	
1,4-Dichlorobenzene	ND	U	4.00	0.400	4	NA	11/18/10 02:49		226172	
2-Butanone (MEK)	ND	U	40.0	15.2	4	NA	11/18/10 02:49		226172	
2-Hexanone	ND	U	100	8.80	4	NA	11/18/10 02:49		226172	
4-Methyl-2-pentanone (MIBK)	ND	U	100	2.60	4	NA	11/18/10 02:49		226172	
Acetone	ND	U	200	22.4	4	NA	11/18/10 02:49		226172	
Acrylonitrile	ND	U	40.0	4.80	4	NA	11/18/10 02:49		226172	
Benzene	ND	U	4.00	0.840	4	NA	11/18/10 02:49		226172	
Bromochloromethane	ND	U	20.0	1.08	4	NA	11/18/10 02:49		226172	
Bromodichloromethane	ND	U	4.00	0.680	4	NA	11/18/10 02:49		226172	
Bromoform	ND	U	8.00	1.68	4	NA	11/18/10 02:49		226172	
Bromomethane	ND	U	4.00	0.880	4	NA	11/18/10 02:49		226172	
Carbon Disulfide	ND	U	40.0	9.44	4	NA	11/18/10 02:49		226172	
Carbon Tetrachloride	ND	U	4.00	1.36	4	NA	11/18/10 02:49		226172	
Chlorobenzene	ND	U	4.00	0.640	4	NA	11/18/10 02:49		226172	
Chloroethane	ND	U	20.0	0.880	4	NA	11/18/10 02:49		226172	
Chloroform	ND	U	4.00	1.40	4	NA	11/18/10 02:49		226172	
Chloromethane	ND	U	4.00	0.440	4	NA	11/18/10 02:49		226172	
cis-1,2-Dichloroethene	ND	U	4.00	1.44	4	NA	11/18/10 02:49		226172	
cis-1,3-Dichloropropene	ND	U	4.00	0.800	4	NA	11/18/10 02:49		226172	
Dibromochloromethane	ND	U	4.00	0.760	4	NA	11/18/10 02:49		226172	
Dibromomethane	ND	U	20.0	0.720	4	NA	11/18/10 02:49		226172	
Ethylbenzene	ND	U	4.00	0.840	4	NA	11/18/10 02:49		226172	
Iodomethane	ND	U	20.0	10.8	4	NA	11/18/10 02:49		226172	
m,p-Xylenes	ND	U	8.00	1.64	4	NA	11/18/10 02:49		226172	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-19A  
**Lab Code:** J1005431-007

**Service Request:** J1005431  
**Date Collected:** 11/9/10 1425  
**Date Received:** 11/10/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 226172

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	20.0	0.840	4	NA	11/18/10 02:49		226172	
o-Xylene	ND	U	4.00	0.560	4	NA	11/18/10 02:49		226172	
Styrene	ND	U	4.00	1.17	4	NA	11/18/10 02:49		226172	
Tetrachloroethene (PCE)	ND	U	4.00	0.440	4	NA	11/18/10 02:49		226172	
Toluene	ND	U	4.00	0.760	4	NA	11/18/10 02:49		226172	
trans-1,2-Dichloroethene	ND	U	4.00	0.480	4	NA	11/18/10 02:49		226172	
trans-1,3-Dichloropropene	ND	U	4.00	0.920	4	NA	11/18/10 02:49		226172	
trans-1,4-Dichloro-2-butene	ND	U	80.0	8.80	4	NA	11/18/10 02:49		226172	
Trichloroethene (TCE)	ND	U	4.00	0.640	4	NA	11/18/10 02:49		226172	
Trichlorofluoromethane	ND	U	80.0	0.880	4	NA	11/18/10 02:49		226172	
Vinyl Acetate	ND	U	40.0	7.60	4	NA	11/18/10 02:49		226172	
Vinyl Chloride	ND	U	4.00	0.880	4	NA	11/18/10 02:49		226172	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	103	71-122	11/18/10 02:49	
4-Bromofluorobenzene	106	75-120	11/18/10 02:49	
Dibromofluoromethane	108	82-116	11/18/10 02:49	
Toluene-d8	115	88-117	11/18/10 02:49	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-19C  
**Lab Code:** J1005431-008

**Service Request:** J1005431  
**Date Collected:** 11/9/10 1500  
**Date Received:** 11/10/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 226172

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/18/10 03:17		226172	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/18/10 03:17		226172	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/18/10 03:17		226172	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/18/10 03:17		226172	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/18/10 03:17		226172	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/18/10 03:17		226172	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/18/10 03:17		226172	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/18/10 03:17		226172	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/18/10 03:17		226172	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/18/10 03:17		226172	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/18/10 03:17		226172	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/18/10 03:17		226172	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/18/10 03:17		226172	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/18/10 03:17		226172	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/18/10 03:17		226172	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/18/10 03:17		226172	
Acetone	ND	U	50.0	5.60	1	NA	11/18/10 03:17		226172	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/18/10 03:17		226172	
Benzene	ND	U	1.00	0.210	1	NA	11/18/10 03:17		226172	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/18/10 03:17		226172	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/18/10 03:17		226172	
Bromoform	ND	U	2.00	0.420	1	NA	11/18/10 03:17		226172	
Bromomethane	ND	U	1.00	0.220	1	NA	11/18/10 03:17		226172	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/18/10 03:17		226172	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/18/10 03:17		226172	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/18/10 03:17		226172	
Chloroethane	ND	U	5.00	0.220	1	NA	11/18/10 03:17		226172	
Chloroform	ND	U	1.00	0.350	1	NA	11/18/10 03:17		226172	
Chloromethane	ND	U	1.00	0.110	1	NA	11/18/10 03:17		226172	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/18/10 03:17		226172	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/18/10 03:17		226172	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/18/10 03:17		226172	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/18/10 03:17		226172	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/18/10 03:17		226172	
Iodomethane	ND	U	5.00	2.68	1	NA	11/18/10 03:17		226172	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/18/10 03:17		226172	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-19C  
**Lab Code:** J1005431-008

**Service Request:** J1005431  
**Date Collected:** 11/9/10 1500  
**Date Received:** 11/10/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226172

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/18/10 03:17		226172	
o-Xylene	ND	U	1.00	0.140	1	NA	11/18/10 03:17		226172	
Styrene	ND	U	1.00	0.291	1	NA	11/18/10 03:17		226172	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/18/10 03:17		226172	
Toluene	ND	U	1.00	0.190	1	NA	11/18/10 03:17		226172	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/18/10 03:17		226172	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/18/10 03:17		226172	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/18/10 03:17		226172	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/18/10 03:17		226172	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/18/10 03:17		226172	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/18/10 03:17		226172	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/18/10 03:17		226172	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	103	71-122	11/18/10 03:17	
4-Bromofluorobenzene	106	75-120	11/18/10 03:17	
Dibromofluoromethane	105	82-116	11/18/10 03:17	
Toluene-d8	112	88-117	11/18/10 03:17	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** EB-2  
**Lab Code:** J1005431-009

**Service Request:** J1005431  
**Date Collected:** 11/9/10 1130  
**Date Received:** 11/10/10

**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226172

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/18/10 03:45		226172	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/18/10 03:45		226172	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/18/10 03:45		226172	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/18/10 03:45		226172	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/18/10 03:45		226172	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/18/10 03:45		226172	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/18/10 03:45		226172	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/18/10 03:45		226172	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/18/10 03:45		226172	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/18/10 03:45		226172	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/18/10 03:45		226172	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/18/10 03:45		226172	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/18/10 03:45		226172	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/18/10 03:45		226172	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/18/10 03:45		226172	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/18/10 03:45		226172	
Acetone	ND	U	50.0	5.60	1	NA	11/18/10 03:45		226172	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/18/10 03:45		226172	
Benzene	ND	U	1.00	0.210	1	NA	11/18/10 03:45		226172	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/18/10 03:45		226172	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/18/10 03:45		226172	
Bromoform	ND	U	2.00	0.420	1	NA	11/18/10 03:45		226172	
Bromomethane	ND	U	1.00	0.220	1	NA	11/18/10 03:45		226172	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/18/10 03:45		226172	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/18/10 03:45		226172	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/18/10 03:45		226172	
Chloroethane	ND	U	5.00	0.220	1	NA	11/18/10 03:45		226172	
Chloroform	ND	U	1.00	0.350	1	NA	11/18/10 03:45		226172	
Chloromethane	ND	U	1.00	0.110	1	NA	11/18/10 03:45		226172	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/18/10 03:45		226172	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/18/10 03:45		226172	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/18/10 03:45		226172	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/18/10 03:45		226172	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/18/10 03:45		226172	
Iodomethane	ND	U	5.00	2.68	1	NA	11/18/10 03:45		226172	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/18/10 03:45		226172	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** EB-2  
**Lab Code:** J1005431-009

**Service Request:** J1005431  
**Date Collected:** 11/9/10 1130  
**Date Received:** 11/10/10  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS****Analytical Method:** 8260B**Analysis Lot:** 226172

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND U	5.00	0.210	1	NA	11/18/10 03:45		226172	
o-Xylene	ND U	1.00	0.140	1	NA	11/18/10 03:45		226172	
Styrene	ND U	1.00	0.291	1	NA	11/18/10 03:45		226172	
Tetrachloroethene (PCE)	ND U	1.00	0.110	1	NA	11/18/10 03:45		226172	
Toluene	ND U	1.00	0.190	1	NA	11/18/10 03:45		226172	
trans-1,2-Dichloroethene	ND U	1.00	0.120	1	NA	11/18/10 03:45		226172	
trans-1,3-Dichloropropene	ND U	1.00	0.230	1	NA	11/18/10 03:45		226172	
trans-1,4-Dichloro-2-butene	ND U	20.0	2.20	1	NA	11/18/10 03:45		226172	
Trichloroethene (TCE)	ND U	1.00	0.160	1	NA	11/18/10 03:45		226172	
Trichlorofluoromethane	ND U	20.0	0.220	1	NA	11/18/10 03:45		226172	
Vinyl Acetate	ND U	10.0	1.90	1	NA	11/18/10 03:45		226172	
Vinyl Chloride	ND U	1.00	0.220	1	NA	11/18/10 03:45		226172	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	102	71-122	11/18/10 03:45	
4-Bromofluorobenzene	108	75-120	11/18/10 03:45	
Dibromofluoromethane	109	82-116	11/18/10 03:45	
Toluene-d8	113	88-117	11/18/10 03:45	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Trip Blank  
**Lab Code:** J1005431-010

**Service Request:** J1005431  
**Date Collected:** 11/9/10 0000  
**Date Received:** 11/10/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226172

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/18/10 04:12		226172	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/18/10 04:12		226172	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/18/10 04:12		226172	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/18/10 04:12		226172	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/18/10 04:12		226172	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/18/10 04:12		226172	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/18/10 04:12		226172	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/18/10 04:12		226172	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/18/10 04:12		226172	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/18/10 04:12		226172	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/18/10 04:12		226172	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/18/10 04:12		226172	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/18/10 04:12		226172	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/18/10 04:12		226172	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/18/10 04:12		226172	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/18/10 04:12		226172	
Acetone	ND	U	50.0	5.60	1	NA	11/18/10 04:12		226172	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/18/10 04:12		226172	
Benzene	ND	U	1.00	0.210	1	NA	11/18/10 04:12		226172	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/18/10 04:12		226172	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/18/10 04:12		226172	
Bromoform	ND	U	2.00	0.420	1	NA	11/18/10 04:12		226172	
Bromomethane	ND	U	1.00	0.220	1	NA	11/18/10 04:12		226172	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/18/10 04:12		226172	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/18/10 04:12		226172	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/18/10 04:12		226172	
Chloroethane	ND	U	5.00	0.220	1	NA	11/18/10 04:12		226172	
Chloroform	ND	U	1.00	0.350	1	NA	11/18/10 04:12		226172	
Chloromethane	ND	U	1.00	0.110	1	NA	11/18/10 04:12		226172	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/18/10 04:12		226172	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/18/10 04:12		226172	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/18/10 04:12		226172	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/18/10 04:12		226172	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/18/10 04:12		226172	
Iodomethane	ND	U	5.00	2.68	1	NA	11/18/10 04:12		226172	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/18/10 04:12		226172	

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Trip Blank  
**Lab Code:** J1005431-010

**Service Request:** J1005431  
**Date Collected:** 11/9/10 0000  
**Date Received:** 11/10/10  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS****Analytical Method:** 8260B**Analysis Lot:** 226172

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND U	5.00	0.210	1	NA	11/18/10 04:12		226172	
o-Xylene	ND U	1.00	0.140	1	NA	11/18/10 04:12		226172	
Styrene	ND U	1.00	0.291	1	NA	11/18/10 04:12		226172	
Tetrachloroethene (PCE)	ND U	1.00	0.110	1	NA	11/18/10 04:12		226172	
Toluene	ND U	1.00	0.190	1	NA	11/18/10 04:12		226172	
trans-1,2-Dichloroethene	ND U	1.00	0.120	1	NA	11/18/10 04:12		226172	
trans-1,3-Dichloropropene	ND U	1.00	0.230	1	NA	11/18/10 04:12		226172	
trans-1,4-Dichloro-2-butene	ND U	20.0	2.20	1	NA	11/18/10 04:12		226172	
Trichloroethene (TCE)	ND U	1.00	0.160	1	NA	11/18/10 04:12		226172	
Trichlorofluoromethane	ND U	20.0	0.220	1	NA	11/18/10 04:12		226172	
Vinyl Acetate	ND U	10.0	1.90	1	NA	11/18/10 04:12		226172	
Vinyl Chloride	ND U	1.00	0.220	1	NA	11/18/10 04:12		226172	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	102	71-122	11/18/10 04:12	
4-Bromofluorobenzene	108	75-120	11/18/10 04:12	
Dibromofluoromethane	108	82-116	11/18/10 04:12	
Toluene-d8	114	88-117	11/18/10 04:12	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005716-02

**Service Request:** J1005431  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 226172

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/17/10 20:28		226172	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/17/10 20:28		226172	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/17/10 20:28		226172	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/17/10 20:28		226172	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/17/10 20:28		226172	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/17/10 20:28		226172	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/17/10 20:28		226172	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/17/10 20:28		226172	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/17/10 20:28		226172	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/17/10 20:28		226172	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/17/10 20:28		226172	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/17/10 20:28		226172	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/17/10 20:28		226172	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/17/10 20:28		226172	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/17/10 20:28		226172	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/17/10 20:28		226172	
Acetone	ND	U	50.0	5.60	1	NA	11/17/10 20:28		226172	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/17/10 20:28		226172	
Benzene	ND	U	1.00	0.210	1	NA	11/17/10 20:28		226172	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/17/10 20:28		226172	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/17/10 20:28		226172	
Bromoform	ND	U	2.00	0.420	1	NA	11/17/10 20:28		226172	
Bromomethane	ND	U	1.00	0.220	1	NA	11/17/10 20:28		226172	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/17/10 20:28		226172	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/17/10 20:28		226172	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/17/10 20:28		226172	
Chloroethane	ND	U	5.00	0.220	1	NA	11/17/10 20:28		226172	
Chloroform	ND	U	1.00	0.350	1	NA	11/17/10 20:28		226172	
Chloromethane	ND	U	1.00	0.110	1	NA	11/17/10 20:28		226172	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/17/10 20:28		226172	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/17/10 20:28		226172	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/17/10 20:28		226172	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/17/10 20:28		226172	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/17/10 20:28		226172	
Iodomethane	ND	U	5.00	2.68	1	NA	11/17/10 20:28		226172	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/17/10 20:28		226172	

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005716-02

**Service Request:** J1005431**Date Collected:** NA**Date Received:** NA**Units:** µg/L**Basis:** NA**Volatile Organic Compounds by GC/MS****Analytical Method:** 8260B**Analysis Lot:** 226172

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/17/10 20:28		226172	
o-Xylene	ND	U	1.00	0.140	1	NA	11/17/10 20:28		226172	
Styrene	ND	U	1.00	0.291	1	NA	11/17/10 20:28		226172	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/17/10 20:28		226172	
Toluene	ND	U	1.00	0.190	1	NA	11/17/10 20:28		226172	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/17/10 20:28		226172	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/17/10 20:28		226172	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/17/10 20:28		226172	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/17/10 20:28		226172	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/17/10 20:28		226172	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/17/10 20:28		226172	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/17/10 20:28		226172	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	100	71-122	11/17/10 20:28	
4-Bromofluorobenzene	110	75-120	11/17/10 20:28	
Dibromofluoromethane	106	82-116	11/17/10 20:28	
Toluene-d8	115	88-117	11/17/10 20:28	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-2A  
**Lab Code:** J1005431-001

**Service Request:** J1005431  
**Date Collected:** 11/9/10 0755  
**Date Received:** 11/10/10  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/15/10	11/17/10 18:19	
Arsenic, Total Recoverable	6020	0.63	µg/L	0.50	0.40	1	11/15/10	11/17/10 18:19	
Barium, Total Recoverable	6020	23.5	µg/L	2.0	0.3	1	11/15/10	11/17/10 18:19	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/15/10	11/17/10 18:19	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/15/10	11/17/10 18:19	
Chromium, Total Recoverable	6020	1.3 I	µg/L	2.0	0.3	1	11/15/10	11/17/10 18:19	
Cobalt, Total Recoverable	6020	3.1	µg/L	1.0	0.08	1	11/15/10	11/17/10 18:19	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/15/10	11/17/10 18:19	
Iron, Total Recoverable	6010B	15000	µg/L	100	10	1	11/15/10	11/16/10 20:03	
Lead, Total Recoverable	6020	ND U	µg/L	1.0	0.06	1	11/15/10	11/17/10 18:19	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/15/10	11/16/10 13:19	
Nickel, Total Recoverable	6020	0.5 I	µg/L	2.0	0.2	1	11/15/10	11/17/10 18:19	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/15/10	11/17/10 18:19	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/15/10	11/17/10 18:19	
Sodium, Total Recoverable	6010B	12.7	mg/L	0.50	0.02	1	11/15/10	11/16/10 20:02	
Thallium, Total Recoverable	6020	0.3 I	µg/L	1.0	0.03	1	11/15/10	11/17/10 18:19	
Vanadium, Total Recoverable	6020	0.9 I	µg/L	5.0	0.5	1	11/15/10	11/17/10 18:19	
Zinc, Total Recoverable	6020	3 I	µg/L	10	2	1	11/15/10	11/17/10 18:19	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-2C  
**Lab Code:** J1005431-002

**Service Request:** J1005431  
**Date Collected:** 11/9/10 0730  
**Date Received:** 11/10/10  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/15/10	11/17/10 18:24	
Arsenic, Total Recoverable	6020	ND U	µg/L	0.50	0.40	1	11/15/10	11/17/10 18:24	
Barium, Total Recoverable	6020	11.4	µg/L	2.0	0.3	1	11/15/10	11/17/10 18:24	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/15/10	11/17/10 18:24	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/15/10	11/17/10 18:24	
Chromium, Total Recoverable	6020	0.3 I	µg/L	2.0	0.3	1	11/15/10	11/17/10 18:24	
Cobalt, Total Recoverable	6020	ND U	µg/L	1.0	0.08	1	11/15/10	11/17/10 18:24	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/15/10	11/17/10 18:24	
Iron, Total Recoverable	6010B	490	µg/L	100	10	1	11/15/10	11/16/10 20:08	
Lead, Total Recoverable	6020	ND U	µg/L	1.0	0.06	1	11/15/10	11/17/10 18:24	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/15/10	11/16/10 13:20	
Nickel, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/15/10	11/17/10 18:24	
Selenium, Total Recoverable	6020	1.0 I	µg/L	5.0	1.0	1	11/15/10	11/17/10 18:24	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/15/10	11/17/10 18:24	
Sodium, Total Recoverable	6010B	4.43	mg/L	0.50	0.02	1	11/15/10	11/16/10 20:06	
Thallium, Total Recoverable	6020	0.1 I	µg/L	1.0	0.03	1	11/15/10	11/17/10 18:24	
Vanadium, Total Recoverable	6020	1.0 I	µg/L	5.0	0.5	1	11/15/10	11/17/10 18:24	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/15/10	11/17/10 18:24	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-1A  
**Lab Code:** J1005431-003

**Service Request:** J1005431  
**Date Collected:** 11/9/10 0940  
**Date Received:** 11/10/10  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	0.8 I	µg/L	2.0	0.2	1	11/15/10	11/17/10 18:49	
Arsenic, Total Recoverable	6020	1.95	µg/L	0.50	0.40	1	11/15/10	11/17/10 18:49	
Barium, Total Recoverable	6020	13.2	µg/L	2.0	0.3	1	11/15/10	11/17/10 18:49	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/15/10	11/17/10 18:49	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/15/10	11/17/10 18:49	
Chromium, Total Recoverable	6020	2.1	µg/L	2.0	0.3	1	11/15/10	11/17/10 18:49	
Cobalt, Total Recoverable	6020	0.5 I	µg/L	1.0	0.08	1	11/15/10	11/17/10 18:49	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/15/10	11/17/10 18:49	
Iron, Total Recoverable	6010B	3110	µg/L	100	10	1	11/15/10	11/16/10 20:12	
Lead, Total Recoverable	6020	0.06 I	µg/L	1.0	0.06	1	11/15/10	11/17/10 18:49	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/15/10	11/16/10 13:24	
Nickel, Total Recoverable	6020	0.3 I	µg/L	2.0	0.2	1	11/15/10	11/17/10 18:49	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/15/10	11/17/10 18:49	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/15/10	11/17/10 18:49	
Sodium, Total Recoverable	6010B	18.2	mg/L	0.50	0.02	1	11/15/10	11/16/10 20:11	
Thallium, Total Recoverable	6020	0.08 I	µg/L	1.0	0.03	1	11/15/10	11/17/10 18:49	
Vanadium, Total Recoverable	6020	0.7 I	µg/L	5.0	0.5	1	11/15/10	11/17/10 18:49	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/15/10	11/17/10 18:49	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-1C  
**Lab Code:** J1005431-004

**Service Request:** J1005431  
**Date Collected:** 11/9/10 0905  
**Date Received:** 11/10/10  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/15/10	11/17/10 19:04	
Arsenic, Total Recoverable	6020	ND U	µg/L	0.50	0.40	1	11/15/10	11/17/10 19:04	
Barium, Total Recoverable	6020	11.1	µg/L	2.0	0.3	1	11/15/10	11/17/10 19:04	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/15/10	11/17/10 19:04	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/15/10	11/17/10 19:04	
Chromium, Total Recoverable	6020	0.9 I	µg/L	2.0	0.3	1	11/15/10	11/17/10 19:04	
Cobalt, Total Recoverable	6020	ND U	µg/L	1.0	0.08	1	11/15/10	11/17/10 19:04	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/15/10	11/17/10 19:04	
Iron, Total Recoverable	6010B	420	µg/L	100	10	1	11/15/10	11/16/10 20:16	
Lead, Total Recoverable	6020	0.1 I	µg/L	1.0	0.06	1	11/15/10	11/17/10 19:04	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/15/10	11/16/10 13:25	
Nickel, Total Recoverable	6020	0.3 I	µg/L	2.0	0.2	1	11/15/10	11/17/10 19:04	
Selenium, Total Recoverable	6020	1.2 I	µg/L	5.0	1.0	1	11/15/10	11/17/10 19:04	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/15/10	11/17/10 19:04	
Sodium, Total Recoverable	6010B	4.54	mg/L	0.50	0.02	1	11/15/10	11/16/10 20:15	
Thallium, Total Recoverable	6020	0.03 I	µg/L	1.0	0.03	1	11/15/10	11/17/10 19:04	
Vanadium, Total Recoverable	6020	1.7 I	µg/L	5.0	0.5	1	11/15/10	11/17/10 19:04	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/15/10	11/17/10 19:04	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-23A  
**Lab Code:** J1005431-005

**Service Request:** J1005431  
**Date Collected:** 11/9/10 12:35  
**Date Received:** 11/10/10  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Dissolved	6020	ND U	µg/L	2.0	0.2	1	11/16/10	11/17/10 20:49	
Antimony, Total Recoverable	6020	0.4 I	µg/L	2.0	0.2	1	11/15/10	11/17/10 19:09	
Arsenic, Dissolved	6020	1.42	µg/L	0.50	0.40	1	11/16/10	11/17/10 20:49	
Arsenic, Total Recoverable	6020	1.31	µg/L	0.50	0.40	1	11/15/10	11/17/10 19:09	
Barium, Dissolved	6020	8.4	µg/L	2.0	0.3	1	11/16/10	11/17/10 20:49	
Barium, Total Recoverable	6020	9.4	µg/L	2.0	0.3	1	11/15/10	11/17/10 19:09	
Beryllium, Dissolved	6020	ND U	µg/L	1.0	0.2	1	11/16/10	11/17/10 20:49	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/15/10	11/17/10 19:09	
Cadmium, Dissolved	6020	ND U	µg/L	0.50	0.30	1	11/16/10	11/17/10 20:49	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/15/10	11/17/10 19:09	
Chromium, Dissolved	6020	9.1	µg/L	2.0	0.3	1	11/16/10	11/17/10 20:49	
Chromium, Total Recoverable	6020	5.3	µg/L	2.0	0.3	1	11/15/10	11/17/10 19:09	
Cobalt, Dissolved	6020	0.3 I	µg/L	1.0	0.08	1	11/16/10	11/17/10 20:49	
Cobalt, Total Recoverable	6020	0.3 I	µg/L	1.0	0.08	1	11/15/10	11/17/10 19:09	
Copper, Dissolved	6020	ND U	µg/L	2.0	1.0	1	11/16/10	11/17/10 20:49	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/15/10	11/17/10 19:09	
Iron, Dissolved	6010B	1890	µg/L	100	4	1	11/16/10	11/17/10 21:03	
Iron, Total Recoverable	6010B	2120	µg/L	100	10	1	11/15/10	11/16/10 20:21	
Lead, Dissolved	6020	0.2 I	µg/L	1.0	0.06	1	11/16/10	11/17/10 20:49	
Lead, Total Recoverable	6020	1.6	µg/L	1.0	0.06	1	11/15/10	11/17/10 19:09	
Mercury, Dissolved	7470A	ND U	µg/L	0.20	0.08	1	11/29/10	11/29/10 16:00	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/15/10	11/16/10 13:31	
Nickel, Dissolved	6020	1 I	µg/L	2.0	0.2	1	11/16/10	11/17/10 20:49	
Nickel, Total Recoverable	6020	1.3 I	µg/L	2.0	0.2	1	11/15/10	11/17/10 19:09	
Selenium, Dissolved	6020	2.9 I	µg/L	5.0	1.0	1	11/16/10	11/17/10 20:49	
Selenium, Total Recoverable	6020	1.4 I	µg/L	5.0	1.0	1	11/15/10	11/17/10 19:09	
Silver, Dissolved	6020	ND U	µg/L	2.5	0.4	5	11/16/10	11/22/10 18:16	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/15/10	11/17/10 19:09	
Sodium, Dissolved	6010B	10.9	mg/L	0.50	0.02	1	11/16/10	11/17/10 21:01	
Sodium, Total Recoverable	6010B	10.2	mg/L	0.50	0.02	1	11/15/10	11/16/10 20:19	
Thallium, Dissolved	6020	0.2 I	µg/L	1.0	0.03	1	11/16/10	11/17/10 20:49	
Thallium, Total Recoverable	6020	0.05 I	µg/L	1.0	0.03	1	11/15/10	11/17/10 19:09	
Vanadium, Dissolved	6020	9.1	µg/L	5.0	0.5	1	11/16/10	11/17/10 20:49	
Vanadium, Total Recoverable	6020	9.1	µg/L	5.0	0.5	1	11/15/10	11/17/10 19:09	
Zinc, Dissolved	6020	2 I	µg/L	10	2	1	11/16/10	11/17/10 20:49	
Zinc, Total Recoverable	6020	2 I	µg/L	10	2	1	11/15/10	11/17/10 19:09	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-23C  
**Lab Code:** J1005431-006

**Service Request:** J1005431  
**Date Collected:** 11/9/10 1105  
**Date Received:** 11/10/10  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/15/10	11/17/10 19:14	
Arsenic, Total Recoverable	6020	ND U	µg/L	0.50	0.40	1	11/15/10	11/17/10 19:14	
Barium, Total Recoverable	6020	9.4	µg/L	2.0	0.3	1	11/15/10	11/17/10 19:14	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/15/10	11/17/10 19:14	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/15/10	11/17/10 19:14	
Chromium, Total Recoverable	6020	1.5 I	µg/L	2.0	0.3	1	11/15/10	11/17/10 19:14	
Cobalt, Total Recoverable	6020	ND U	µg/L	1.0	0.08	1	11/15/10	11/17/10 19:14	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/15/10	11/17/10 19:14	
Iron, Total Recoverable	6010B	560	µg/L	100	10	1	11/15/10	11/16/10 20:32	
Lead, Total Recoverable	6020	0.3 I	µg/L	1.0	0.06	1	11/15/10	11/17/10 19:14	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/15/10	11/16/10 13:32	
Nickel, Total Recoverable	6020	0.5 I	µg/L	2.0	0.2	1	11/15/10	11/17/10 19:14	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/15/10	11/17/10 19:14	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/15/10	11/17/10 19:14	
Sodium, Total Recoverable	6010B	4.88	mg/L	0.50	0.02	1	11/15/10	11/16/10 20:30	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.03	1	11/15/10	11/17/10 19:14	
Vanadium, Total Recoverable	6020	1.5 I	µg/L	5.0	0.5	1	11/15/10	11/17/10 19:14	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/15/10	11/17/10 19:14	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-19A  
**Lab Code:** J1005431-007

**Service Request:** J1005431  
**Date Collected:** 11/9/10 1425  
**Date Received:** 11/10/10  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Dissolved	6020	ND	U	µg/L	2.0	0.2	1	11/16/10	11/17/10 20:54	
Antimony, Total Recoverable	6020	0.3	I	µg/L	2.0	0.2	1	11/15/10	11/17/10 19:19	
Arsenic, Dissolved	6020	6.34		µg/L	0.50	0.40	1	11/16/10	11/17/10 20:54	
Arsenic, Total Recoverable	6020	7.69		µg/L	0.50	0.40	1	11/15/10	11/17/10 19:19	
Barium, Dissolved	6020	24.1		µg/L	2.0	0.3	1	11/16/10	11/17/10 20:54	
Barium, Total Recoverable	6020	34.4		µg/L	2.0	0.3	1	11/15/10	11/17/10 19:19	
Beryllium, Dissolved	6020	0.6	I	µg/L	1.0	0.2	1	11/16/10	11/17/10 20:54	
Beryllium, Total Recoverable	6020	1.3		µg/L	1.0	0.2	1	11/15/10	11/17/10 19:19	
Cadmium, Dissolved	6020	ND	U	µg/L	0.50	0.30	1	11/16/10	11/17/10 20:54	
Cadmium, Total Recoverable	6020	ND	U	µg/L	0.50	0.30	1	11/15/10	11/17/10 19:19	
Chromium, Dissolved	6020	21.1		µg/L	2.0	0.3	1	11/16/10	11/17/10 20:54	
Chromium, Total Recoverable	6020	39.3		µg/L	2.0	0.3	1	11/15/10	11/17/10 19:19	
Cobalt, Dissolved	6020	1.3		µg/L	1.0	0.08	1	11/16/10	11/17/10 20:54	
Cobalt, Total Recoverable	6020	2.5		µg/L	1.0	0.08	1	11/15/10	11/17/10 19:19	
Copper, Dissolved	6020	ND	U	µg/L	2.0	1.0	1	11/16/10	11/17/10 20:54	
Copper, Total Recoverable	6020	1.1	I	µg/L	2.0	1.0	1	11/15/10	11/17/10 19:19	
Iron, Dissolved	6010B	6300		µg/L	100	4	1	11/16/10	11/17/10 21:07	
Iron, Total Recoverable	6010B	11600		µg/L	100	10	1	11/15/10	11/16/10 20:36	
Lead, Dissolved	6020	1.1		µg/L	1.0	0.06	1	11/16/10	11/17/10 20:54	
Lead, Total Recoverable	6020	9.9		µg/L	1.0	0.06	1	11/15/10	11/17/10 19:19	
Mercury, Dissolved	7470A	ND	U	µg/L	0.20	0.08	1	11/29/10	11/29/10 16:01	
Mercury, Total	7470A	0.14	I	µg/L	0.20	0.08	1	11/15/10	11/16/10 13:33	
Nickel, Dissolved	6020	2.1		µg/L	2.0	0.2	1	11/16/10	11/17/10 20:54	
Nickel, Total Recoverable	6020	7.1		µg/L	2.0	0.2	1	11/15/10	11/17/10 19:19	
Selenium, Dissolved	6020	3.9	I	µg/L	5.0	1.0	1	11/16/10	11/17/10 20:54	
Selenium, Total Recoverable	6020	4.9	I	µg/L	5.0	1.0	1	11/15/10	11/17/10 19:19	
Silver, Dissolved	6020	ND	U	µg/L	2.5	0.4	5	11/16/10	11/22/10 18:19	
Silver, Total Recoverable	6020	ND	U	µg/L	0.50	0.07	1	11/15/10	11/17/10 19:19	
Sodium, Dissolved	6010B	22.4		mg/L	0.50	0.02	1	11/16/10	11/17/10 21:06	
Sodium, Total Recoverable	6010B	21.4		mg/L	0.50	0.02	1	11/15/10	11/16/10 20:35	
Thallium, Dissolved	6020	0.2	I	µg/L	1.0	0.03	1	11/16/10	11/17/10 20:54	
Thallium, Total Recoverable	6020	0.04	I	µg/L	1.0	0.03	1	11/15/10	11/17/10 19:19	
Vanadium, Dissolved	6020	25.3		µg/L	5.0	0.5	1	11/16/10	11/17/10 20:54	
Vanadium, Total Recoverable	6020	35.7		µg/L	5.0	0.5	1	11/15/10	11/17/10 19:19	
Zinc, Dissolved	6020	3	I	µg/L	10	2	1	11/16/10	11/17/10 20:54	
Zinc, Total Recoverable	6020	2	I	µg/L	10	2	1	11/15/10	11/17/10 19:19	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-19C  
**Lab Code:** J1005431-008

**Service Request:** J1005431  
**Date Collected:** 11/9/10 1500  
**Date Received:** 11/10/10  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Dissolved	6020	ND U	µg/L	2.0	0.2	1	11/16/10	11/17/10 20:59	
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/15/10	11/17/10 19:24	
Arsenic, Dissolved	6020	<b>1.62</b>	µg/L	0.50	0.40	1	11/16/10	11/17/10 20:59	
Arsenic, Total Recoverable	6020	ND U	µg/L	0.50	0.40	1	11/15/10	11/17/10 19:24	
Barium, Dissolved	6020	<b>8.3</b>	µg/L	2.0	0.3	1	11/16/10	11/17/10 20:59	
Barium, Total Recoverable	6020	<b>49.9</b>	µg/L	2.0	0.3	1	11/15/10	11/17/10 19:24	
Beryllium, Dissolved	6020	ND U	µg/L	1.0	0.2	1	11/16/10	11/17/10 20:59	
Beryllium, Total Recoverable	6020	<b>0.3</b> I	µg/L	1.0	0.2	1	11/15/10	11/17/10 19:24	
Cadmium, Dissolved	6020	ND U	µg/L	0.50	0.30	1	11/16/10	11/17/10 20:59	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/15/10	11/17/10 19:24	
Chromium, Dissolved	6020	<b>9.3</b>	µg/L	2.0	0.3	1	11/16/10	11/17/10 20:59	
Chromium, Total Recoverable	6020	<b>3.9</b>	µg/L	2.0	0.3	1	11/15/10	11/17/10 19:24	
Cobalt, Dissolved	6020	<b>0.3</b> I	µg/L	1.0	0.08	1	11/16/10	11/17/10 20:59	
Cobalt, Total Recoverable	6020	<b>0.1</b> I	µg/L	1.0	0.08	1	11/15/10	11/17/10 19:24	
Copper, Dissolved	6020	ND U	µg/L	2.0	1.0	1	11/16/10	11/17/10 20:59	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/15/10	11/17/10 19:24	
Iron, Dissolved	6010B	<b>650</b>	µg/L	100	4	1	11/16/10	11/17/10 21:25	
Iron, Total Recoverable	6010B	<b>1090</b>	µg/L	100	10	1	11/15/10	11/16/10 20:41	
Lead, Dissolved	6020	<b>0.2</b> I	µg/L	1.0	0.06	1	11/16/10	11/17/10 20:59	
Lead, Total Recoverable	6020	<b>0.4</b> I	µg/L	1.0	0.06	1	11/15/10	11/17/10 19:24	
Mercury, Dissolved	7470A	ND U	µg/L	0.20	0.08	1	11/29/10	11/29/10 16:02	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/15/10	11/16/10 13:34	
Nickel, Dissolved	6020	<b>1.0</b> I	µg/L	2.0	0.2	1	11/16/10	11/17/10 20:59	
Nickel, Total Recoverable	6020	<b>0.5</b> I	µg/L	2.0	0.2	1	11/15/10	11/17/10 19:24	
Selenium, Dissolved	6020	<b>2.7</b> I	µg/L	5.0	1.0	1	11/16/10	11/17/10 20:59	
Selenium, Total Recoverable	6020	<b>1.2</b> I	µg/L	5.0	1.0	1	11/15/10	11/17/10 19:24	
Silver, Dissolved	6020	ND U	µg/L	2.5	0.4	5	11/16/10	11/22/10 18:23	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/15/10	11/17/10 19:24	
Sodium, Dissolved	6010B	<b>10.1</b>	mg/L	0.50	0.02	1	11/16/10	11/17/10 21:24	
Sodium, Total Recoverable	6010B	<b>9.19</b>	mg/L	0.50	0.02	1	11/15/10	11/16/10 20:39	
Thallium, Dissolved	6020	<b>0.2</b> I	µg/L	1.0	0.03	1	11/16/10	11/17/10 20:59	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.03	1	11/15/10	11/17/10 19:24	
Vanadium, Dissolved	6020	<b>9.1</b>	µg/L	5.0	0.5	1	11/16/10	11/17/10 20:59	
Vanadium, Total Recoverable	6020	<b>5.2</b>	µg/L	5.0	0.5	1	11/15/10	11/17/10 19:24	
Zinc, Dissolved	6020	ND U	µg/L	10	2	1	11/16/10	11/17/10 20:59	
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/15/10	11/17/10 19:24	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** EB-2  
**Lab Code:** J1005431-009

**Service Request:** J1005431  
**Date Collected:** 11/9/10 11:30  
**Date Received:** 11/10/10  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/15/10	11/17/10 19:29	
Arsenic, Total Recoverable	6020	ND U	µg/L	0.50	0.40	1	11/15/10	11/17/10 19:29	
Barium, Total Recoverable	6020	31.7	µg/L	2.0	0.3	1	11/15/10	11/17/10 19:29	
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/15/10	11/17/10 19:29	
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/15/10	11/17/10 19:29	
Chromium, Total Recoverable	6020	0.5 I	µg/L	2.0	0.3	1	11/15/10	11/17/10 19:29	
Cobalt, Total Recoverable	6020	0.09 I	µg/L	1.0	0.08	1	11/15/10	11/17/10 19:29	
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/15/10	11/17/10 19:29	
Iron, Total Recoverable	6010B	630	µg/L	100	10	1	11/15/10	11/16/10 20:45	
Lead, Total Recoverable	6020	ND U	µg/L	1.0	0.06	1	11/15/10	11/17/10 19:29	
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/15/10	11/16/10 14:11	
Nickel, Total Recoverable	6020	1 I	µg/L	2.0	0.2	1	11/15/10	11/17/10 19:29	
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/15/10	11/17/10 19:29	
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/15/10	11/17/10 19:29	
Sodium, Total Recoverable	6010B	36.9	mg/L	0.50	0.02	1	11/15/10	11/16/10 20:44	
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.03	1	11/15/10	11/17/10 19:29	
Vanadium, Total Recoverable	6020	3.2 I	µg/L	5.0	0.5	1	11/15/10	11/17/10 19:29	
Zinc, Total Recoverable	6020	6 I	µg/L	10	2	1	11/15/10	11/17/10 19:29	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** J1005431-MB

**Service Request:** J1005431**Date Collected:** NA**Date Received:** NA**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Dissolved	6020	ND U	µg/L	2.0	0.2	1	11/16/10	11/17/10	20:34
Antimony, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/15/10	11/17/10	18:09
Arsenic, Dissolved	6020	ND U	µg/L	0.50	0.40	1	11/16/10	11/17/10	20:34
Arsenic, Total Recoverable	6020	ND U	µg/L	0.50	0.40	1	11/15/10	11/17/10	18:09
Barium, Dissolved	6020	ND U	µg/L	2.0	0.3	1	11/16/10	11/17/10	20:34
Barium, Total Recoverable	6020	ND U	µg/L	2.0	0.3	1	11/15/10	11/17/10	18:09
Beryllium, Dissolved	6020	ND U	µg/L	1.0	0.2	1	11/16/10	11/17/10	20:34
Beryllium, Total Recoverable	6020	ND U	µg/L	1.0	0.2	1	11/15/10	11/17/10	18:09
Cadmium, Dissolved	6020	ND U	µg/L	0.50	0.30	1	11/16/10	11/17/10	20:34
Cadmium, Total Recoverable	6020	ND U	µg/L	0.50	0.30	1	11/15/10	11/17/10	18:09
Chromium, Dissolved	6020	ND U	µg/L	2.0	0.3	1	11/16/10	11/17/10	20:34
Chromium, Total Recoverable	6020	ND U	µg/L	2.0	0.3	1	11/15/10	11/17/10	18:09
Cobalt, Dissolved	6020	ND U	µg/L	1.0	0.08	1	11/16/10	11/17/10	20:34
Cobalt, Total Recoverable	6020	0.2 I	µg/L	1.0	0.08	1	11/15/10	11/17/10	18:09
Copper, Dissolved	6020	ND U	µg/L	2.0	1.0	1	11/16/10	11/17/10	20:34
Copper, Total Recoverable	6020	ND U	µg/L	2.0	1.0	1	11/15/10	11/17/10	18:09
Iron, Dissolved	6010B	ND U	µg/L	100	4	1	11/16/10	11/17/10	20:50
Iron, Total Recoverable	6010B	10 I	µg/L	100	4	1	11/15/10	11/16/10	18:59
Lead, Dissolved	6020	ND U	µg/L	1.0	0.06	1	11/16/10	11/17/10	20:34
Lead, Total Recoverable	6020	ND U	µg/L	1.0	0.06	1	11/15/10	11/17/10	18:09
Mercury, Dissolved	7470A	ND U	µg/L	0.20	0.08	1	11/29/10	11/29/10	15:57
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/15/10	11/16/10	13:16
Nickel, Dissolved	6020	ND U	µg/L	2.0	0.2	1	11/16/10	11/17/10	20:34
Nickel, Total Recoverable	6020	ND U	µg/L	2.0	0.2	1	11/15/10	11/17/10	18:09
Selenium, Dissolved	6020	1.3 I	µg/L	5.0	1.0	1	11/16/10	11/17/10	20:34
Selenium, Total Recoverable	6020	ND U	µg/L	5.0	1.0	1	11/15/10	11/17/10	18:09
Silver, Dissolved	6020	ND U	µg/L	0.50	0.07	1	11/16/10	11/22/10	17:56
Silver, Total Recoverable	6020	ND U	µg/L	0.50	0.07	1	11/15/10	11/17/10	18:09
Sodium, Dissolved	6010B	ND U	mg/L	0.50	0.02	1	11/16/10	11/17/10	20:48
Sodium, Total Recoverable	6010B	ND U	mg/L	0.50	0.02	1	11/15/10	11/16/10	18:57
Thallium, Dissolved	6020	0.2 I	µg/L	1.0	0.03	1	11/16/10	11/17/10	20:34
Thallium, Total Recoverable	6020	ND U	µg/L	1.0	0.03	1	11/15/10	11/17/10	18:09
Vanadium, Dissolved	6020	0.9 I	µg/L	5.0	0.5	1	11/16/10	11/17/10	20:34
Vanadium, Total Recoverable	6020	ND U	µg/L	5.0	0.5	1	11/15/10	11/17/10	18:09
Zinc, Dissolved	6020	ND U	µg/L	10	2	1	11/16/10	11/17/10	20:34
Zinc, Total Recoverable	6020	ND U	µg/L	10	2	1	11/15/10	11/17/10	18:09

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-2A  
**Lab Code:** J1005431-001

**Service Request:** J1005431  
**Date Collected:** 11/9/10 0755  
**Date Received:** 11/10/10

**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	<b>1.65</b>	mg/L	0.010	0.004	1	NA	11/15/10 13:04	
Chloride	300.0	<b>39.7</b>	mg/L	0.50	0.09	1	NA	11/10/10 21:40	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/10/10 21:40	
Solids, Total Dissolved	SM 2540 C	<b>80</b>	mg/L	10	10	1	NA	11/11/10 11:53	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-2C  
**Lab Code:** J1005431-002

**Service Request:** J1005431  
**Date Collected:** 11/9/10 0730  
**Date Received:** 11/10/10

**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	<b>0.088</b>	mg/L	0.010	0.004	1	NA	11/15/10 13:05	
Chloride	300.0	<b>6.29</b>	mg/L	0.50	0.09	1	NA	11/10/10 21:55	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/10/10 21:55	
Solids, Total Dissolved	SM 2540 C	<b>24</b>	mg/L	10	10	1	NA	11/11/10 11:53	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-1A  
**Lab Code:** J1005431-003

**Service Request:** J1005431  
**Date Collected:** 11/9/10 0940  
**Date Received:** 11/10/10

**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	4.72	mg/L	0.010	0.004	1	NA	11/15/10 13:13	
Chloride	300.0	38.6	mg/L	0.50	0.09	1	NA	11/10/10 22:09	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/10/10 22:09	
Solids, Total Dissolved	SM 2540 C	80	mg/L	10	10	1	NA	11/11/10 11:53	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-1C  
**Lab Code:** J1005431-004

**Service Request:** J1005431  
**Date Collected:** 11/9/10 0905  
**Date Received:** 11/10/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	<b>0.073</b>	mg/L	0.010	0.004	1	NA	11/15/10 13:14	
Chloride	300.0	<b>7.14</b>	mg/L	0.50	0.09	1	NA	11/10/10 22:54	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/10/10 22:54	
Solids, Total Dissolved	SM 2540 C	<b>48</b>	mg/L	10	10	1	NA	11/11/10 11:53	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-23A  
**Lab Code:** J1005431-005

**Service Request:** J1005431  
**Date Collected:** 11/9/10 1235  
**Date Received:** 11/10/10

**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Date Note
Ammonia as Nitrogen	350.1	9.90	mg/L	0.010	0.004	1	NA	11/15/10	13:16
Chloride	300.0	14.6	mg/L	0.50	0.09	1	NA	11/10/10	23:09
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/10/10	23:09
Solids, Total Dissolved	SM 2540 C	214	mg/L	10	10	1	NA	11/11/10	11:53

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-23C  
**Lab Code:** J1005431-006

**Service Request:** J1005431  
**Date Collected:** 11/9/10 1105  
**Date Received:** 11/10/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	<b>0.134</b>	mg/L	0.010	0.004	1	NA	11/15/10 13:17	
Chloride	300.0	<b>7.56</b>	mg/L	0.50	0.09	1	NA	11/10/10 23:24	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/10/10 23:24	
Solids, Total Dissolved	SM 2540 C	<b>66</b>	mg/L	10	10	1	NA	11/11/10 11:53	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-19A  
**Lab Code:** J1005431-007

**Service Request:** J1005431  
**Date Collected:** 11/9/10 1425  
**Date Received:** 11/10/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	<b>21.6</b>	mg/L	0.10	0.04	10	NA	11/15/10 13:37	
Chloride	300.0	<b>14.5</b>	mg/L	0.50	0.09	1	NA	11/11/10 00:09	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/11/10 00:09	
Solids, Total Dissolved	SM 2540 C	<b>972</b>	mg/L	10	10	1	NA	11/12/10 13:55	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** MW-19C  
**Lab Code:** J1005431-008

**Service Request:** J1005431  
**Date Collected:** 11/9/10 1500  
**Date Received:** 11/10/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	<b>0.113</b>	mg/L	0.010	0.004	1	NA	11/15/10 13:38	
Chloride	300.0	<b>17.5</b>	mg/L	0.50	0.09	1	NA	11/11/10 00:24	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/11/10 00:24	
Solids, Total Dissolved	SM 2540 C	<b>79</b>	mg/L	10	10	1	NA	11/12/10 13:55	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** EB-2  
**Lab Code:** J1005431-009

**Service Request:** J1005431  
**Date Collected:** 11/9/10 1130  
**Date Received:** 11/10/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	ND U	mg/L	0.010	0.004	1	NA	11/15/10 13:25	
Chloride	300.0	<b>87.5</b>	mg/L	0.50	0.09	1	NA	11/11/10 00:39	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/11/10 00:39	
Solids, Total Dissolved	SM 2540 C	<b>564</b>	mg/L	10	10	1	NA	11/12/10 13:55	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** J1005431-MB1

**Service Request:** J1005431  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	ND U	mg/L	0.010	0.004	1	NA	11/15/10 12:27	
Chloride	300.0	ND U	mg/L	0.50	0.09	1	NA	11/10/10 19:55	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/10/10 19:55	
Solids, Total Dissolved	SM 2540 C	ND U	mg/L	10	10	1	NA	11/11/10 11:53	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** J1005431-MB2

**Service Request:** J1005431  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	ND U	mg/L	0.010	0.004	1	NA	11/15/10 13:14	
Solids, Total Dissolved	SM 2540 C	ND U	mg/L	10	10	1	NA	11/12/10 13:55	

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005431**Surrogate Recovery Summary  
Volatile Organic Compounds by GC/MS****Analytical Method:** 8260B**Units:** Percent

<b>Sample Name</b>	<b>Lab Code</b>	<b>Sur1</b>	<b>Sur2</b>	<b>Sur3</b>	<b>Sur4</b>
MW-2A	J1005431-001	101	107	108	113
MW-2C	J1005431-002	98	107	106	115
MW-1A	J1005431-003	99	108	105	111
MW-1C	J1005431-004	103	108	108	113
MW-23A	J1005431-005	100	106	106	115
MW-23C	J1005431-006	100	110	109	114
MW-19A	J1005431-007	103	106	108	115
MW-19C	J1005431-008	103	106	105	112
EB-2	J1005431-009	102	108	109	113
Trip Blank	J1005431-010	102	108	108	114
Method Blank	JQ1005716-02	100	110	106	115
Lab Control Sample	JQ1005716-01	99	107	107	115

**Surrogate Recovery Control Limits (%)**

Sur1	= 1,2-Dichloroethane-d4	71 - 122
Sur2	= 4-Bromofluorobenzene	75 - 120
Sur3	= Dibromofluoromethane	82 - 116
Sur4	= Toluene-d8	88 - 117

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005431  
**Date Analyzed:** 11/17/10

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Units:** µg/L  
**Basis:** NA

**Analysis Lot:** 226172**Lab Control Sample**

JQ1005716-01

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	21.2	20.0	106	85 - 117
1,1,1-Trichloroethane (TCA)	19.2	20.0	96	79 - 124
1,1,2,2-Tetrachloroethane	20.8	20.0	104	83 - 120
1,1,2-Trichloroethane	21.6	20.0	108	86 - 114
1,1-Dichloroethane (1,1-DCA)	19.1	20.0	95	80 - 128
1,1-Dichloroethene (1,1-DCE)	19.8	20.0	99	78 - 130
1,2,3-Trichloropropane	21.1	20.0	106	83 - 123
1,2-Dibromo-3-chloropropane (DBCP)	19.6	20.0	98	62 - 123
1,2-Dibromoethane (EDB)	21.6	20.0	108	88 - 117
1,2-Dichlorobenzene	18.5	20.0	93	84 - 115
1,2-Dichloroethane	17.1	20.0	85	80 - 124
1,2-Dichloropropane	19.9	20.0	100	79 - 123
1,4-Dichlorobenzene	18.7	20.0	94	83 - 113
2-Butanone (MEK)	85.7	100	86	73 - 127
2-Hexanone	91.6	100	92	71 - 138
4-Methyl-2-pentanone (MIBK)	90.8	100	91	72 - 136
Acetone	91.9	100	92	67 - 133
Acrylonitrile	85.7	100	86	77 - 127
Benzene	19.4	20.0	97	79 - 119
Bromochloromethane	20.2	20.0	101	79 - 129
Bromodichloromethane	19.9	20.0	99	81 - 123
Bromoform	20.3	20.0	102	68 - 129
Bromomethane	22.9	20.0	114	79 - 130
Carbon Disulfide	100	100	100	76 - 138
Carbon Tetrachloride	19.2	20.0	96	81 - 125
Chlorobenzene	21.4	20.0	107	86 - 113
Chloroethane	20.8	20.0	104	74 - 126
Chloroform	19.9	20.0	100	83 - 124
Chloromethane	16.6	20.0	83	67 - 135
cis-1,2-Dichloroethene	18.6	20.0	93	80 - 126
cis-1,3-Dichloropropene	20.6	20.0	103	86 - 123
Dibromochloromethane	21.6	20.0	108	82 - 121

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005431  
**Date Analyzed:** 11/17/10

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Units:**  $\mu\text{g/L}$   
**Basis:** NA

**Analysis Lot:** 226172**Lab Control Sample**

JQ1005716-01

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Dibromomethane	19.2	20.0	96	83 - 123
Ethylbenzene	21.0	20.0	105	90 - 118
Iodomethane	100	100	100	68 - 134
m,p-Xylenes	41.2	40.0	103	86 - 121
Methylene Chloride	19.7	20.0	98	72 - 124
o-Xylene	20.6	20.0	103	89 - 119
Styrene	20.5	20.0	102	89 - 122
Tetrachloroethene (PCE)	21.7	20.0	109	80 - 121
Toluene	20.6	20.0	103	86 - 117
trans-1,2-Dichloroethene	18.6	20.0	93	77 - 124
trans-1,3-Dichloropropene	20.1	20.0	101	83 - 124
trans-1,4-Dichloro-2-butene	11.4	20.0	57	53 - 143
Trichloroethene (TCE)	20.5	20.0	103	76 - 124
Trichlorofluoromethane	20.0	20.0	100	74 - 134
Vinyl Acetate	72.3	100	72	61 - 148
Vinyl Chloride	19.0	20.0	95	78 - 132

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COLUMBIA ANALYTICAL SERVICES, INC.

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005431  
**Date Collected:** 11/9/10  
**Date Received:** 11/10/10  
**Date Analyzed:** 11/17/10

## **Matrix Spike Summary Inorganic Parameters**

**Sample Name:** MW-2C **Units:** µg/L  
**Lab Code:** J1005431-002 **Basis:** NA

**Analytical Method:** 6020  
**Prep Method:** EPA 3020A

Analyte Name	MW-2CMS				MW-2CDMS					
	Matrix Spike J1005431-002MS1				Duplicate Matrix Spike J1005431-D002MS1					
	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Antimony, Total Recoverable	ND	52.0	50.0	104	50.4	50.0	101	75 - 125	3	20
Arsenic, Total Recoverable	ND	50.2	50.0	100	48.6	50.0	97	75 - 125	3	20
Barium, Total Recoverable	11.4	61.3	50.0	100	59.9	50.0	97	75 - 125	2	20
Beryllium, Total Recoverable	ND	49.9	50.0	100	48.2	50.0	96	75 - 125	4	20
Cadmium, Total Recoverable	ND	49.7	50.0	99	48.6	50.0	97	75 - 125	2	20
Chromium, Total Recoverable	0.3	49.0	50.0	97	47.3	50.0	94	75 - 125	3	20
Cobalt, Total Recoverable	ND	49.0	50.0	98	47.7	50.0	95	75 - 125	3	20
Copper, Total Recoverable	ND	49.4	50.0	99	46.9	50.0	94	75 - 125	5	20
Lead, Total Recoverable	ND	49.7	50.0	99	47.8	50.0	96	75 - 125	4	20
Nickel, Total Recoverable	ND	48.6	50.0	97	46.9	50.0	94	75 - 125	4	20
Selenium, Total Recoverable	1.0	46.3	50.0	90	45.1	50.0	88	75 - 125	3	20
Silver, Total Recoverable	ND	50.9	50.0	102	49.3	50.0	99	75 - 125	3	20
Thallium, Total Recoverable	0.1	49.4	50.0	99	48.8	50.0	97	75 - 125	1	20
Vanadium, Total Recoverable	1.0	48.6	50.0	95	49.0	50.0	96	75 - 125	<1	20
Zinc, Total Recoverable	ND	100	100	100	97.1	100	97	75 - 125	3	20

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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

## COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005431  
**Date Collected:** 11/9/10  
**Date Received:** 11/10/10  
**Date Analyzed:** 11/16/10

## **Matrix Spike Summary Inorganic Parameters**

**Sample Name:** MW-1C **Units:** µg/L  
**Lab Code:** J1005431-004 **Basis:** NA

**Analytical Method:** 7470A  
**Prep Method:** Method

Analyte Name	MW-1CMS				MW-1CDMS			
	Matrix Spike				Duplicate Matrix Spike			
	J1005431-004MS2				J1005431-D004MS2			
Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD RPD Limit
Mercury, Total	ND	5.02	5.00	100	5.04	5.00	101	75 - 125 <1 20

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**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005431  
**Date Collected:** 11/9/10  
**Date Received:** 11/10/10  
**Date Analyzed:** 11/17/10

**Matrix Spike Summary**  
**Inorganic Parameters**

**Sample Name:** MW-19A                            **Units:** µg/L  
**Lab Code:** J1005431-007                        **Basis:** NA

**Analytical Method:** 6010B  
**Prep Method:** EPA 3005A

**MW-19AMS**  
**Matrix Spike**  
J1005431-007MS3

**MW-19ADMS**  
**Duplicate Matrix Spike**  
J1005431-D007MS3

<b>Analyte Name</b>	<b>Sample</b>	<b>MW-19AMS</b>			<b>MW-19ADMS</b>			<b>% Rec Limits</b>	<b>RPD</b>	<b>Limit</b>
	<b>Result</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>	<b>Result</b>	<b>Spike Amount</b>	<b>% Rec</b>			
Iron, Dissolved	6300	8090	2000	89	8100	2000	90	75 - 125	<1	20

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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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005431  
**Date Collected:** 11/9/10  
**Date Received:** 11/10/10  
**Date Analyzed:** 11/17/10

## **Matrix Spike Summary Inorganic Parameters**

**Sample Name:** MW-19A      **Units:** mg/L  
**Lab Code:** J1005431-007      **Basis:** NA

**Analytical Method:** 6010B  
**Prep Method:** EPA 3005A

Analyte Name	MW-19AMS				MW-19ADMS					
	Matrix Spike		Duplicate Matrix Spike		Spike		Spike			
	Sample Result	Result	Amount	% Rec	Result	Amount	% Rec	% Rec Limits	RPD	RPD Limit
Sodium, Dissolved	22.4	31.3	10.0	89	31.3	10.0	89	75 - 125	<1	20

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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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005431  
**Date Collected:** 11/9/10  
**Date Received:** 11/10/10  
**Date Analyzed:** 11/17/10 -  
                          11/22/10

## **Matrix Spike Summary**

**Sample Name:** MW-19C      **Units:** µg/L  
**Lab Code:** J1005431-008      **Basis:** NA

**Analytical Method:** 6020  
**Prep Method:** EPA 3005A Modified

Analyte Name	MW-19CMS Matrix Spike J1005431-008MS4				MW-19CDMS Duplicate Matrix Spike J1005431-D008MS4						
	Sample Result	Spike			Result	Spike			% Rec Limits	RPD	RPD Limit
		Result	Amount	% Rec		Amount	% Rec				
Antimony, Dissolved	ND	41.5	50.0	83	41.2	50.0	82	75 - 125	<1	20	
Arsenic, Dissolved	1.62	49.1	50.0	95	48.1	50.0	93	75 - 125	2	20	
Barium, Dissolved	8.3	54.3	50.0	92	52.9	50.0	89	75 - 125	3	20	
Beryllium, Dissolved	ND	44.6	50.0	89	43.9	50.0	88	75 - 125	2	20	
Cadmium, Dissolved	ND	45.7	50.0	91	45.2	50.0	90	75 - 125	<1	20	
Chromium, Dissolved	9.3	50.2	50.0	82	49.7	50.0	81	75 - 125	1	20	
Cobalt, Dissolved	0.3	43.7	50.0	87	42.8	50.0	85	75 - 125	2	20	
Copper, Dissolved	ND	39.8	50.0	80	40.2	50.0	80	75 - 125	1	20	
Lead, Dissolved	0.2	45.6	50.0	91	45.2	50.0	90	75 - 125	<1	20	
Nickel, Dissolved	1.0	43.8	50.0	86	43.2	50.0	84	75 - 125	1	20	
Selenium, Dissolved	2.7	35.9	50.0	66 *	37.1	50.0	69 *	75 - 125	3	20	
Silver, Dissolved	ND	22.9	50.0	46 *	20.8	50.0	42 *	75 - 125	10	20	
Thallium, Dissolved	0.2	46.6	50.0	93	46.0	50.0	92	75 - 125	1	20	
Vanadium, Dissolved	9.1	51.2	50.0	84	50.5	50.0	83	75 - 125	1	20	
Zinc, Dissolved	ND	91.5	100	91	90.4	100	90	75 - 125	1	20	

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**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005431  
**Date Analyzed:** 11/16/10 -  
                           11/29/10

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:** µg/L  
**Basis:** NA

**Lab Control Sample**

J1005431-LCS

<b>Analyte Name</b>	<b>Method</b>	<b>Spike</b>		<b>% Rec</b>	<b>% Rec Limits</b>
		<b>Result</b>	<b>Amount</b>		
Antimony, Dissolved	6020	48.1	50.0	96	80 - 120
Antimony, Total Recoverable	6020	50.5	50.0	101	80 - 120
Arsenic, Dissolved	6020	48.1	50.0	96	80 - 120
Arsenic, Total Recoverable	6020	50.2	50.0	100	80 - 120
Barium, Dissolved	6020	49.1	50.0	98	80 - 120
Barium, Total Recoverable	6020	49.4	50.0	99	80 - 120
Beryllium, Dissolved	6020	50.0	50.0	100	80 - 120
Beryllium, Total Recoverable	6020	49.1	50.0	98	80 - 120
Cadmium, Dissolved	6020	48.2	50.0	96	80 - 120
Cadmium, Total Recoverable	6020	48.0	50.0	96	80 - 120
Chromium, Dissolved	6020	47.6	50.0	95	80 - 120
Chromium, Total Recoverable	6020	47.6	50.0	95	80 - 120
Cobalt, Dissolved	6020	47.9	50.0	96	80 - 120
Cobalt, Total Recoverable	6020	48.6	50.0	97	80 - 120
Copper, Dissolved	6020	47.6	50.0	95	80 - 120
Copper, Total Recoverable	6020	49.0	50.0	98	80 - 120
Iron, Dissolved	6010B	1890	2000	95	80 - 120
Iron, Total Recoverable	6010B	2060	2000	103	80 - 120
Lead, Dissolved	6020	48.0	50.0	96	80 - 120
Lead, Total Recoverable	6020	48.8	50.0	98	80 - 120
Mercury, Dissolved	7470A	5.68	5.26	108	80 - 120
Mercury, Total	7470A	5.05	5.00	101	80 - 120
Nickel, Dissolved	6020	47.2	50.0	94	80 - 120
Nickel, Total Recoverable	6020	48.4	50.0	97	80 - 120
Selenium, Dissolved	6020	47.2	50.0	94	80 - 120
Selenium, Total Recoverable	6020	49.7	50.0	99	80 - 120
Silver, Dissolved	6020	48.2	50.0	96	80 - 120
Silver, Total Recoverable	6020	49.9	50.0	100	80 - 120
Thallium, Dissolved	6020	48.2	50.0	96	80 - 120
Thallium, Total Recoverable	6020	48.4	50.0	97	80 - 120
Vanadium, Dissolved	6020	47.2	50.0	94	80 - 120
Vanadium, Total Recoverable	6020	48.2	50.0	96	80 - 120
Zinc, Dissolved	6020	96.8	100	97	80 - 120
Zinc, Total Recoverable	6020	97.0	100	97	80 - 120

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**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005431  
**Date Analyzed:** 11/16/10 -  
11/29/10

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:** mg/L  
**Basis:** NA

**Lab Control Sample**  
J1005431-LCS

<b>Analyte Name</b>	<b>Method</b>	<b>Spike</b>			<b>% Rec</b>	<b>Limits</b>
		<b>Result</b>	<b>Amount</b>	<b>% Rec</b>		
Sodium, Dissolved	6010B	9.46	10.0	95	80 - 120	
Sodium, Total Recoverable	6010B	10.0	10.0	100	80 - 120	

**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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005431  
**Date Collected:** 11/9/10  
**Date Received:** 11/10/10  
**Date Analyzed:** 11/10/10 -  
11/15/10

**Matrix Spike Summary**  
**General Chemistry Parameters**

**Sample Name:** MW-23C  
**Lab Code:** J1005431-006

**Units:** mg/L  
**Basis:** NA

MW-23CMS  
Matrix Spike  
J1005431-006MS

<b>Analyte Name</b>	<b>Method</b>	<b>Sample Result</b>	<b>Spike</b>			<b>% Rec Limits</b>
			<b>Result</b>	<b>Amount</b>	<b>% Rec</b>	
Ammonia as Nitrogen	350.1	0.134	1.05	1.00	92	90 - 110
Chloride	300.0	7.56	56.0	50.0	97	90 - 110
Nitrate as Nitrogen	300.0	ND	4.52	5.00	90	90 - 110

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.

## COLUMBIA ANALYTICAL SERVICES, INC.

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005431  
**Date Collected:** 11/9/10  
**Date Received:** 11/10/10  
**Date Analyzed:** 11/10/10 -  
                          11/15/10

## **Replicate Sample Summary General Chemistry Parameters**

**Sample Name:** MW-23C      **Units:** mg/L  
**Lab Code:** J1005431-006      **Basis:** NA

Analyte Name	Method	MRL	MDL	Sample Result	MW-23CDUP		RPD	RPD Limit
					Result	Duplicate Sample J1005431-006DUP		
Ammonia as Nitrogen	350.1	0.010	0.004	0.134	0.114	0.124	16	20
Chloride	300.0	0.50	0.09	7.56	7.62	7.59	<1	20
Nitrate as Nitrogen	300.0	0.20	0.07	ND U	ND U	NC	NC	20

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.

**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005431  
**Date Analyzed:** 11/12/10

**Lab Control Sample Summary**  
**General Chemistry Parameters**

**Units:** mg/L  
**Basis:** NA

<b>Analyte Name</b>	<b>Method</b>	<b>Lab Control Sample</b>			<b>Duplicate Lab Control Sample</b>			<b>% Rec Limits</b>	<b>RPD</b>	<b>RPD Limit</b>
		J1005431-LCS1			J1005431-DLCS1					
		<b>Spike</b>	<b>Result</b>	<b>Amount</b>	<b>Spike</b>	<b>Result</b>	<b>Amount</b>	<b>% Rec</b>	<b>Limits</b>	<b>RPD</b>
Solids, Total Dissolved	SM 2540 C	290	300	97	302	300	101	85 - 115	4	20

**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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005431  
**Date Analyzed:** 11/10/10 -  
11/15/10

**Lab Control Sample Summary  
General Chemistry Parameters**

**Units:** mg/L  
**Basis:** NA

**Lab Control Sample  
J1005431-LCS2**

<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Spike</b>		<b>% Rec</b>	<b>Limits</b>
			<b>Amount</b>	<b>% Rec</b>		
Ammonia as Nitrogen	350.1	0.973	1.00	97	90 - 110	
Chloride	300.0	50.2	50.0	100	90 - 110	
Nitrate as Nitrogen	300.0	4.72	5.00	94	90 - 110	
Solids, Total Dissolved	SM 2540 C	284	300	95	85 - 115	

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005431  
**Date Analyzed:** 11/12/10 -  
11/15/10

**Lab Control Sample Summary  
General Chemistry Parameters**

**Units:** mg/L  
**Basis:** NA

**Lab Control Sample  
J1005431-LCS3**

<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Spike</b>		<b>% Rec</b>	<b>Limits</b>
			<b>Amount</b>	<b>% Rec</b>		
Ammonia as Nitrogen	350.1	0.985	1.00	99	90 - 110	
Solids, Total Dissolved	SM 2540 C	28.0	30	93	70 - 130	

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.

**Cooler Receipt Form**

 Client: EPS  
 Project: JED SW DF

Service Request #:

J1005431

 Cooler received on 11-10-10

 and opened on 11-10-10 by CHS

 COURIER: CAS UPS FEDEX Client Other \_\_\_\_\_ Airbill # \_\_\_\_\_

- 1 Were custody seals on outside of cooler? Yes No  
 If yes, how many and where? #: 1 or 0 other
- 2 Were seals intact and signature and date correct? Yes No N/A
- 3 Were custody papers properly filled out? Yes No N/A
- 4 Temperature of cooler(s) upon receipt (Should be > 0°C and < 6°C) 25°
- 5 Thermometer ID TB
- 6 Temperature Blank Present? Yes No
- 7 Were Ice or Ice Packs present Ice Ice Packs No
- 8 Did all bottles arrive in good condition (unbroken, etc....)? Yes No N/A
- 9 Type of packing material present Netting Vial Holder Bubble Wrap  
 Paper Styrofoam Other N/A
- 10 Were all bottle labels complete (sample ID, preservation, etc....)? Yes No N/A
- 11 Did all bottle labels and tags agree with custody papers? Yes No N/A
- 12 Were the correct bottles used for the tests indicated? Yes No N/A
- 13 Were all of the preserved bottles received with the appropriate preservative? HNO3 pH<2 H2SO4 pH<2 ZnAc2/NaOH pH>9 NaOH pH>12  
 Preservative additions noted below HCl pH<2
- 14 Were all samples received within analysis holding times? Yes No N/A
- 15 Were VOA vials checked for absence of air bubbles? If present, note below Yes No N/A
- 16 Where did the bottles originate? CAS Client

Sample ID	Reagent	Lot #	ml added	Initials Date/Time

Additional comments and/or explanation of all discrepancies noted above:

Client approval to run samples if discrepancies noted:

 Date: 65

Date: 11-10-10 Initials: CB

SR #: J-100543

Note that pH is check and meets the required pH criterion listed in the column heading unless otherwise noted on the cooler receipt form.

Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Container	40mL	40mL	40mL	125mL	1L	1L	1L	1L	1L	2oz	4oz	8oz	16oz	100ml	Ziplock	Misc.															
Preserve	G	G	P	P	P	P	P	P	P	P	P	P	P	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	P	P	
Req. pH	N/A	HCl	Na2SO3	N/A	N/A	HCl	H2SO4	HNO3	N/A	H2SO4	HNO3	N/A	N/A	HNO3	N/A	N/A	N/A	HNO3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample #	-	<2	N/A	N/A	<2	<2	N/A	<2	N/A	<2	N/A	<2	N/A	>9	>12	N/A	<2	N/A	<2	N/A	N/A	N/A	N/A								
-1	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-2	T	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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-40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

6

NOTE: VOA pH checks are performed by the analytical area, not sample control



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

www.caslab.com

9143 Phillips Highway, Ste 200 • Jacksonville, FL 32256 (904) 739-2277 • 800-695-7222 x06 • FAX (904) 739-2011

PAGE 1 OF 1

SR #

5005431

CAS Contact

Project Name <b>JED SWD</b>		Project Number Kirk Willy		ANALYSIS REQUESTED (Include Method Number and Date)													
Project Manager Kirk Willy		Email Address EP5		PRESERVATIVE 1 0 3 2 0 2													
Company/Address Wesley Chapel, FL 33543		Phone # 813-398-1026		NUMBER OF CONTAINERS 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25													
Sampler's Signature Joe Terry		FA# FAY#		REMARKS/ ALTERNATE DESCRIPTION													
Sampler's Printed Name Joe Terry																	
CLIENT SAMPLE ID	LAB ID	DATE	TIME	MATRIX	SAMPLING												
					11-9-10	0755	Gw	9	X	X	X	X	X	X	X		
MW-2A	MW-2C	11-9-10	0730	Gw	9	X	X	X	X	X	X	X	X	X	X		
MW-1A	MW-1C	11-9-10	0940	Gw	9	X	X	X	X	X	X	X	X	X	X	X	
MW-23A	MW-23C	11-9-10	0905	Gw	9	X	X	X	X	X	X	X	X	X	X	X	
MW-19A	MW-19C	11-9-10	1425	Gw	10	X	X	X	X	X	X	X	X	X	X	X	
EB-2	Trip Blank	11-9-10	1130	Gw	9	X	X	X	X	X	X	X	X	X	X	X	
SPECIAL INSTRUCTIONS/COMMENTS Cooler #: 10313-JED-1										TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) <input checked="" type="checkbox"/> STANDARD REQUESTED FAX DATE REQUESTED REPORT DATE							
See QAPP <input type="checkbox"/>										REPORT REQUIREMENTS I. Results Only <input checked="" type="checkbox"/> II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data V. Specialized Forms / Custom Report							
SAMPLE RECEIPT: CONDITION/COOLER TEMP: Y										CUSTODY SEALS: Y N RELINQUISHED BY RECEIVED BY							
RELINQUISHED BY <i>Joe Terry</i> Signature Printed Name Firm		RECEIVED BY <i>John B.</i> Signature Printed Name Firm		RELINQUISHED BY RECEIVED BY Signature Printed Name Firm													
Date/Time 11-9-10 / 1600		Date/Time 11-10-10 0911		Date/Time Date/Time Date/Time													

Distribution: White - Return to Originator; Yellow - Retained by Client

JSOC-C-06/20/08



Columbia Analytical Services  
9143 Philips Highway, Suite 200  
Jacksonville, FL 32256  
Tel 904-739-2277  
Fax 904-739-2011

## **Appendix A**

### **Subcontracted Analytical Results**

**Environmental Conservation Laboratories, Inc.**

4810 Executive Park Court, Suite 111

Jacksonville FL, 32216-6069

Phone: 904.296.3007 FAX: 904.296.6210



[www.encolabs.com](http://www.encolabs.com)

Monday, November 22, 2010

Columbia Analytical Svcs. (CO009)

Attn: Craig Myers

9143 Philips Highway, Suite 200

Jacksonville, FL 32256

**RE: Laboratory Results for**

**Project Number: J1005431, Project Name/Desc: J1005431**

**ENCO Workorder: B005427**

Dear Craig Myers,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Friday, November 12, 2010.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Jacksonville. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in cursive ink that reads "Lindsay J Crawford".

Lindsay J Crawford For Chris Tompkins

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 15.

**SAMPLE SUMMARY/LABORATORY CHRONICLE**

<b>Client ID:</b> MW-2A	<b>Lab ID:</b> B005427-01	<b>Sampled:</b> 11/09/10 07:55	<b>Received:</b> 11/12/10 09:16
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8011	11/23/10	12/01/10	11/17/10 10:25 11/19/2010 14:07
<b>Client ID:</b> MW-2C	<b>Lab ID:</b> B005427-02	<b>Sampled:</b> 11/09/10 07:30	<b>Received:</b> 11/12/10 09:16
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8011	11/23/10	12/01/10	11/17/10 10:25 11/19/2010 14:19
<b>Client ID:</b> MW-1A	<b>Lab ID:</b> B005427-03	<b>Sampled:</b> 11/09/10 09:40	<b>Received:</b> 11/12/10 09:16
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8011	11/23/10	12/01/10	11/17/10 10:25 11/19/2010 14:33
<b>Client ID:</b> MW-1C	<b>Lab ID:</b> B005427-04	<b>Sampled:</b> 11/09/10 09:05	<b>Received:</b> 11/12/10 09:16
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8011	11/23/10	12/01/10	11/17/10 10:25 11/19/2010 14:47
<b>Client ID:</b> MW-23A	<b>Lab ID:</b> B005427-05	<b>Sampled:</b> 11/09/10 12:35	<b>Received:</b> 11/12/10 09:16
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8011	11/23/10	12/01/10	11/17/10 10:25 11/19/2010 15:00
<b>Client ID:</b> MW-23C	<b>Lab ID:</b> B005427-06	<b>Sampled:</b> 11/09/10 11:05	<b>Received:</b> 11/12/10 09:16
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8011	11/23/10	12/01/10	11/17/10 10:25 11/19/2010 15:14
<b>Client ID:</b> MW-19A	<b>Lab ID:</b> B005427-07	<b>Sampled:</b> 11/09/10 14:25	<b>Received:</b> 11/12/10 09:16
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8011	11/23/10	12/01/10	11/17/10 10:25 11/19/2010 15:27
<b>Client ID:</b> MW-19C	<b>Lab ID:</b> B005427-08	<b>Sampled:</b> 11/09/10 15:00	<b>Received:</b> 11/12/10 09:16
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8011	11/23/10	12/01/10	11/17/10 10:25 11/19/2010 15:39
<b>Client ID:</b> EB-2	<b>Lab ID:</b> B005427-09	<b>Sampled:</b> 11/09/10 11:30	<b>Received:</b> 11/12/10 09:16
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8011	11/23/10	12/01/10	11/17/10 10:25 11/19/2010 15:52

**SAMPLE DETECTION SUMMARY**

**No positive results detected.**

### ANALYTICAL RESULTS

**Description:** MW-2A

**Lab Sample ID:** B005427-01

**Received:** 11/12/10 09:16

**Matrix:** Water

**Sampled:** 11/09/10 07:55

**Work Order:** B005427

**Project:** J1005431

**Sampled By:** Client

#### Semivolatile Organic Compounds by GC

<sup>^</sup> - ENCO Jacksonville certified analyte [NELAC E82277]

<b>Analyte [CAS Number]</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.012	U	ug/L	1	0.012	0.020	OK17013	EPA 8011	11/19/10 14:07	JSW	
1,2-Dibromoethane [106-93-4] ^	0.012	U	ug/L	1	0.012	0.020	OK17013	EPA 8011	11/19/10 14:07	JSW	
<b>Surrogates</b>	<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>		<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,1,1,2-Tetrachloroethane	0.19	1	0.250	75 %	33-122		OK17013	EPA 8011	11/19/10 14:07	JSW	



**Description:** MW-2C

**Lab Sample ID:** B005427-02

**Received:** 11/12/10 09:16

**Matrix:** Water

**Sampled:** 11/09/10 07:30

**Work Order:** B005427

**Project:** J1005431

**Sampled By:** Client

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### Semivolatile Organic Compounds by GC

*^ - ENCO Jacksonville certified analyte [NELAC E82277]*

<b>Analyte [CAS Number]</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.012	U	ug/L	1	0.012	0.020	OK17013	EPA 8011	11/19/10 14:19	JSW	
1,2-Dibromoethane [106-93-4] ^	0.012	U	ug/L	1	0.012	0.020	OK17013	EPA 8011	11/19/10 14:19	JSW	
<b>Surrogates</b>	<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>		<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,1,1,2-Tetrachloroethane	0.17	1	0.250	70 %	33-122		OK17013	EPA 8011	11/19/10 14:19	JSW	

**Description:** MW-1A  
**Matrix:** Water  
**Project:** J1005431

**Lab Sample ID:** B005427-03  
**Sampled:** 11/09/10 09:40  
**Sampled By:** Client

**Received:** 11/12/10 09:16  
**Work Order:** B005427

### Semivolatile Organic Compounds by GC

*^ - ENCO Jacksonville certified analyte [NELAC E82277]*

<b>Analyte [CAS Number]</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>POL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.012	U	ug/L	1	0.012	0.020	OK17013	EPA 8011	11/19/10 14:33	JSW	
1,2-Dibromoethane [106-93-4] ^	0.012	U	ug/L	1	0.012	0.020	OK17013	EPA 8011	11/19/10 14:33	JSW	
<b>Surrogates</b>	<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>		<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,1,1,2-Tetrachloroethane	0.18	1	0.250	73 %	33-122		OK17013	EPA 8011	11/19/10 14:33	JSW	

**Description:** MW-1C  
**Matrix:** Water  
**Project:** J1005431

**Lab Sample ID:** B005427-04  
**Sampled:** 11/09/10 09:05  
**Sampled By:** Client

**Received:** 11/12/10 09:16  
**Work Order:** B005427

### Semivolatile Organic Compounds by GC

*^ - ENCO Jacksonville certified analyte [NELAC E82277]*

<b>Analyte [CAS Number]</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.012	U	ug/L	1	0.012	0.020	OK17013	EPA 8011	11/19/10 14:47	JSW	
1,2-Dibromoethane [106-93-4] ^	0.012	U	ug/L	1	0.012	0.020	OK17013	EPA 8011	11/19/10 14:47	JSW	
<b>Surrogates</b>	<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>		<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,1,1,2-Tetrachloroethane	0.15	1	0.250	61 %	33-122		OK17013	EPA 8011	11/19/10 14:47	JSW	

**Description:** MW-23A  
**Matrix:** Water  
**Project:** J1005431

**Lab Sample ID:** B005427-05  
**Sampled:** 11/09/10 12:35  
**Sampled By:** Client

**Received:** 11/12/10 09:16  
**Work Order:** B005427

### Semivolatile Organic Compounds by GC

*^ - ENCO Jacksonville certified analyte [NELAC E82277]*

<b>Analyte [CAS Number]</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>POL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.012	U	ug/L	1	0.012	0.020	OK17013	EPA 8011	11/19/10 15:00	JSW	
1,2-Dibromoethane [106-93-4] ^	0.012	U	ug/L	1	0.012	0.020	OK17013	EPA 8011	11/19/10 15:00	JSW	
<b>Surrogates</b>	<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>		<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,1,1,2-Tetrachloroethane	0.17	1	0.250	67 %	33-122		OK17013	EPA 8011	11/19/10 15:00	JSW	

**Description:** MW-23C  
**Matrix:** Water  
**Project:** J1005431

**Lab Sample ID:** B005427-06  
**Sampled:** 11/09/10 11:05  
**Sampled By:** Client

**Received:** 11/12/10 09:16  
**Work Order:** B005427

### Semivolatile Organic Compounds by GC

*^ - ENCO Jacksonville certified analyte [NELAC E82277]*

<b>Analyte [CAS Number]</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.012	U	ug/L	1	0.012	0.020	OK17013	EPA 8011	11/19/10 15:14	JSW	
1,2-Dibromoethane [106-93-4] ^	0.012	U	ug/L	1	0.012	0.020	OK17013	EPA 8011	11/19/10 15:14	JSW	
<b>Surrogates</b>	<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>		<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,1,1,2-Tetrachloroethane	0.19	1	0.250	75 %	33-122		OK17013	EPA 8011	11/19/10 15:14	JSW	

**Description:** MW-19A  
**Matrix:** Water  
**Project:** J1005431

**Lab Sample ID:** B005427-07  
**Sampled:** 11/09/10 14:25  
**Sampled By:** Client

**Received:** 11/12/10 09:16  
**Work Order:** B005427

### Semivolatile Organic Compounds by GC

*^ - ENCO Jacksonville certified analyte [NELAC E82277]*

<b>Analyte [CAS Number]</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.012	U	ug/L	1	0.012	0.020	OK17013	EPA 8011	11/19/10 15:27	JSW	
1,2-Dibromoethane [106-93-4] ^	0.012	U	ug/L	1	0.012	0.020	OK17013	EPA 8011	11/19/10 15:27	JSW	
<b>Surrogates</b>	<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>		<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,1,1,2-Tetrachloroethane	0.16	1	0.250	66 %	33-122		OK17013	EPA 8011	11/19/10 15:27	JSW	



**Description:** MW-19C  
**Matrix:** Water  
**Project:** J1005431

**Lab Sample ID:** B005427-08  
**Sampled:** 11/09/10 15:00  
**Sampled By:** Client

**Received:** 11/12/10 09:16  
**Work Order:** B005427

### Semivolatile Organic Compounds by GC

^ - ENCO Jacksonville certified analyte [NELAC E82277]

<b>Analyst</b>	<b>CAS Number</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>POL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,2-Dibromo-3-chloropropane	[96-12-8] ^	0.012	U	ug/L	1	0.012	0.020	OK17013	EPA 8011	11/19/10 15:39	JSW	
1,2-Dibromoethane	[106-93-4] ^	0.012	U	ug/L	1	0.012	0.020	OK17013	EPA 8011	11/19/10 15:39	JSW	
<b>Surrogates</b>		<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>		<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,1,1,2-Tetrachloroethane		0.18	1	0.250	71 %	33-122		OK17013	EPA 8011	11/19/10 15:39	JSW	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

**Description:** EB-2

**Lab Sample ID:** B005427-09

**Received:** 11/12/10 09:16

**Matrix:** Water

**Sampled:** 11/09/10 11:30

**Work Order:** B005427

**Project:** J1005431

**Sampled By:** Client

**Semivolatile Organic Compounds by GC**
*^ - ENCO Jacksonville certified analyte [NELAC E82277]*

<b>Analyte [CAS Number]</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>POL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.012	U	ug/L	1	0.012	0.020	OK17013	EPA 8011	11/19/10 15:52	JSW	
1,2-Dibromoethane [106-93-4] ^	0.012	U	ug/L	1	0.012	0.020	OK17013	EPA 8011	11/19/10 15:52	JSW	
<b>Surrogates</b>	<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>		<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,1,1,2-Tetrachloroethane	0.17	1	0.250	70 %	33-122		OK17013	EPA 8011	11/19/10 15:52	JSW	

### QUALITY CONTROL

#### Semivolatile Organic Compounds by GC - Quality Control

Batch OK17013 - EPA 8011

##### Blank (OK17013-BLK1)

Prepared: 11/17/2010 10:25 Analyzed: 11/18/2010 11:03

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Notes
1,2-Dibromo-3-chloropropane	0.012	U	0.020	ug/L							
1,2-Dibromoethane	0.012	U	0.020	ug/L							
Surrogate: 1,1,1,2-Tetrachloroethane [2C]	0.21			ug/L	0.250		84	33-122			

##### LCS (OK17013-BS1)

Prepared: 11/17/2010 10:25 Analyzed: 11/18/2010 11:16

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Notes
1,2-Dibromo-3-chloropropane	0.25		0.020	ug/L	0.250		101	60-140			
1,2-Dibromoethane	0.24		0.020	ug/L	0.250		97	60-140			
Surrogate: 1,1,1,2-Tetrachloroethane [2C]	0.22			ug/L	0.250		86	33-122			

##### Matrix Spike (OK17013-MS1)

Prepared: 11/17/2010 10:25 Analyzed: 11/18/2010 11:53

Source: B005424-06

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Notes
1,2-Dibromo-3-chloropropane	0.22		0.020	ug/L	0.250	0.012 U	89	60-140			
1,2-Dibromoethane	0.25		0.020	ug/L	0.250	0.012 U	102	60-140			
Surrogate: 1,1,1,2-Tetrachloroethane [2C]	0.21			ug/L	0.250		86	33-122			

##### Matrix Spike Dup (OK17013-MSD1)

Prepared: 11/17/2010 10:25 Analyzed: 11/18/2010 12:05

Source: B005424-06

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Notes
1,2-Dibromo-3-chloropropane	0.23		0.020	ug/L	0.250	0.012 U	93	60-140	5	20	
1,2-Dibromoethane	0.25		0.020	ug/L	0.250	0.012 U	100	60-140	2	20	
Surrogate: 1,1,1,2-Tetrachloroethane	0.30			ug/L	0.250		120	33-122			

**FLAGS/NOTES AND DEFINITIONS**

- PQL PQL: Practical Quantitation Limit.
- B Results are based upon membrane filter colony counts that are outside the method indicated ideal range.
- I The reported value is between the laboratory method detection limit (MDL) and the practical quantitation limit (PQL).
- J Estimated value. The associated sample note or project narrative indicate the causative reason.
- K Off-scale low; Actual value is known to be less than the value given.
- L Off-scale high; Actual value is known to be greater than value given.
- M Presence of analyte is verified but not quantified; the actual value is less than the MRL but greater than the MDL.
- N Presumptive evidence of presence of material.
- O Sampled, but analysis lost or not performed.
- Q Sample exceeded the accepted holding time.
- T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only and shall not be used in statistical analysis.
- U Indicates that the compound was analyzed for but not detected.
- V Indicates that the analyte was detected in both the sample and the associated method blank.
- Y The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
- Z Too many colonies were present (TNTC); the numeric value represents the filtration volume.
- ? Data are rejected and should not be used. Some or all of the quality control data for the analyte were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
- \* Not reported due to interference.

**Columbia Analytical Services, Inc. Chain of Custody**

9143 Philips Highway • Jacksonville, FL 32256 • 904-739-2277 • FAX 904-739-2011

Project Number: J1005431  
Project Manager: Craig Myers

13005427

110  
100  
90  
80

Lab Code	Sample ID	# of Cont.	Matrix	Date	Time	Lab ID
J1005431-001	MW-2A	3	Water	11/9/10	0755	ENCO
J1005431-002	MW-2C		Water	11/9/10	0730	ENCO
J1005431-003	MW-1A		Water	11/9/10	0940	ENCO
J1005431-004	MW-1C		Water	11/9/10	0905	ENCO
J1005431-005	MW-23A		Water	11/9/10	1235	ENCO
J1005431-006	MW-23C		Water	11/9/10	1105	ENCO
J1005431-007	MW-19A		Water	11/9/10	1425	ENCO
J1005431-008	MW-19C		Water	11/9/10	1500	ENCO
J1005431-009	EB-2		Water	11/9/10	1130	ENCO

Test Comments  
MISC\_OUT: 1 - None      J1005431-001,2,3,4,5,6,7,8,9  
HDB and DBCP by EPA Method 8011

CLIENT COOLER  
5.7°C

Special Instructions/Comments		Turnaround Requirements	Report Requirements	Invoice Information
		<input checked="" type="checkbox"/> RUSH (Surcharge Apply) <input checked="" type="checkbox"/> PLEASE CIRCLE WORK DAYS <input checked="" type="checkbox"/> STANDARD	<input checked="" type="checkbox"/> I Results Only <input checked="" type="checkbox"/> II Results + QC Summaries <input checked="" type="checkbox"/> III Results + QC and Calibration Summaries <input checked="" type="checkbox"/> IV Data Validation Report with Raw Data  <input checked="" type="checkbox"/> Requested FAX Date: 11/24/10 <input checked="" type="checkbox"/> Requested Report Date: 11/24/10	PO# J1005431 Bill to _____
			PQL/MD/J Y EDD Y	

Retinued By:

*Craig Myers*      *11/10/10*      *C916*      *11-12-1D*      *Kittie Kelly*      *11/10/10*      *Airbill Number: \_\_\_\_\_*



www.encolabs.com

CAS Contact: Craig Myers *[Signature]*

December 01, 2010

Service Request No: J1005462

Kirk Wills  
Environmental Planning Specialists  
1936 Bruce B Downs Blvd  
#328  
Wesley Chapel, FL 33543

**Laboratory Results for: JED SWDF**

Dear Kirk:

Enclosed are the results of the sample(s) submitted to our laboratory on November 11, 2010. For your reference, these analyses have been assigned our service request number **J1005462**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. 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 contact me if you have any questions. My extension is 4409. You may also contact me via email at [CMyers@caslab.com](mailto:CMyers@caslab.com).

Respectfully submitted,

**Columbia Analytical Services, Inc.**



Craig Myers  
Project Manager

Page 1 of 106

## COLUMBIA ANALYTICAL SERVICES, INC.

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request No.:** J1005462  
**Date Received:** 11/11/10

### 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, including results of QC samples analyzed from this delivery group. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

#### Sample Receipt

Four water samples and four trip blanks were received for analysis at Columbia Analytical Services on 11/11/10. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at  $4\pm2^{\circ}\text{C}$  upon receipt at the lab except for aqueous samples designated for metals analyses, which were stored at room temperature.

#### Volatile Organic Compounds by GC-MS

The samples were analyzed for Volatile Organics using EPA Method 8260. The following observations were made regarding this delivery group.

#### Second Source Exceptions

The upper control criterion was exceeded for the following analyte in Second Source Verification (SSV) ICAL 2358: trans-1,4-Dichloro-2-butene. The field samples analyzed in this sequence did not contain the analyte in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. No further corrective action was required.

#### Elevated Method Reporting Limits

The reporting limits are elevated for all analytes in samples L-5, L-4, L-1 and L-2. The samples were diluted prior to instrumental analysis due to foaming nature of the matrix. The reporting limits are adjusted to reflect the dilution.

#### Organochlorine Pesticides by GC-ECD

The samples were analyzed for Organochlorine Pesticides using EPA Method 8081. The following observations were made regarding this delivery group.

#### Continuing Calibration Verification Exceptions

The surrogate recovery of Decachlorobiphenyl for the Continuing Calibration Verification (CCV) JWG1004223-2 was outside the lower control criterion (82% versus a criterion of 85%). No further corrective action was appropriate.

Approved by \_\_\_\_\_



Date 12/1/10

#### Surrogate Exceptions

The control criterion for the following surrogate in sample L-2 is not applicable: Decachlorobiphenyl. The analysis of the samples required a dilution, which resulted in a surrogate concentration below the Method Reporting Limit (MRL). No further corrective action was appropriate.

The upper control criterion was exceeded for the following surrogate in sample L-2: Tetrachloro-m-xylene. No target analytes were detected in the sample. The error associated with an elevated recovery equates to a high bias. The quality of the sample data is not significantly affected. No further corrective action was appropriate.

The control criterion was exceeded for the following surrogate in sample L-5 due to suspected matrix interferences: Decachlorobiphenyl. A large emulsion was generated during the extraction of this sample which may have contributed to its poor surrogate recovery. No further corrective action was appropriate.

#### Lab Control Sample Exceptions

The spike recoveries of gamma-BHC (Lindane) and Endrin Aldehyde for Laboratory Control Sample (LCS) JWG1004036-1 were outside the lower control criterion (56% versus a criterion of 57%) for gamma-BHC (Lindane) and (36% versus a criterion of 51%) for Endrin Aldehyde. The analytes in question were not detected in the associated field samples. The error associated with reduced recovery equates to a potential low bias for these analytes. The data are flagged to indicate the problem.

#### Elevated Method Reporting Limits

The Method Reporting Limit (MRL) is elevated for all target analytes in sample L-1 and L-2. The samples required dilution due to the presence of elevated levels of sulfur that masked portions of the chromatogram in which target analytes elute. The samples were Florisil cleaned after extraction and were also copper cleaned multiple times before they were diluted. These cleanups alone were insufficient to remove enough sulfur to resolve the masking. The elevated reporting limits are reflected in the final report. No further corrective action was taken.

#### PCB Aroclors by GC-ECD

The samples were analyzed for PCB Aroclors using EPA Method 8082. The following observations were made regarding this delivery group.

#### Surrogate Exceptions

The control criterion was exceeded for the following surrogate in samples L-5, L-4, L-1, Matrix Spike JWG1004037-1, and Duplicate Matrix Spike JWG1004037-2 due to suspected matrix interference: Decachlorobiphenyl. A large emulsion was generated during the extraction of these samples which may have contributed to there poor surrogate recovery. No further corrective action was appropriate.

#### Matrix Spike Recovery Exceptions

The duplicate matrix spike recovery of Aroclor 1016 and Aroclor 1260 for sample L-5 were outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential low bias in this matrix. No further corrective action was appropriate.

Approved by \_\_\_\_\_



Date 12/1/10

#### Relative Percent Difference Exceptions

The Relative Percent Difference (RPD) for the following analyte in the replicate matrix spike analyses of sample L-5 was outside control criteria: Aroclor 1260. All spike recoveries in associated Laboratory Control Sample (LCS) were within acceptance limits, indicating the analytical batch was in control. No further corrective action was appropriate.

#### Elevated Method Reporting Limits

The Method Reporting Limit (MRL) is elevated for all target analytes in sample L-1 and L-2. The samples required dilution due to the presence of elevated levels of sulfur that masked portions of the chromatogram in which target analytes elute. The samples were Florisil cleaned after extraction and were also copper cleaned multiple times before they were diluted. These cleanups alone were insufficient to remove enough sulfur to resolve the masking. The elevated reporting limits are reflected in the final report. No further corrective action was taken.

#### Semivolatile Organics by GC-MS

The samples were analyzed for Semivolatile Organics using EPA Method 8270. The following observations were made regarding this delivery group.

#### Second Source Exceptions

The lower control criterion was exceeded for the following analytes in the Second Source Verification (SSV): Kepone, Phorate, Famphur, and Methyl Methanesulfonate. The analytes in question were not detected in the associated field samples. Since the analytes were detected in the Method Reporting Limit (MRL) check, instrument sensitivity was documented. The data quality was not significantly affected and no further corrective action was taken.

The upper control criterion was exceeded for the following analytes in the Second Source Verification (SSV): Pentachlorophenol and 2-Naphthylamine. The field samples analyzed in this sequence did not contain the analytes in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. No further corrective action was required.

#### Elevated Method Reporting Limits

The method reporting limit (MRL) is elevated for all target analytes in samples L-5, L-4, L-1, and L-2. The samples required dilution due to the presence of elevated levels of non-target background components. The elevated reporting limits are reflected in the final report. No further corrective action was taken.

#### Lab Control Sample Exceptions

The spike recoveries of 2,4-Dimethylphenol, 2,4-Dinitrophenol, 2-Methyl-4,6-Dinitrophenol, and 4-Nitrophenol for Laboratory Control Sample (LCS) JWG1003997-3 were outside the lower control criteria (36% versus a criterion of 38%, 20% versus a criterion of 27%, 41% versus a criterion of 46%, and 3% versus a criterion of 10%). The analytes in question were not detected in the associated field samples. The error associated with reduced recovery equates to a potential low bias for these analytes. The data are flagged to indicate the problem.

#### Metals by ICP-OES/CVAA

The samples were analyzed for Total Metals using EPA Methods 6010B/7470A. No problems were observed.

Approved by \_\_\_\_\_

 Date 12/1/10

### **General Chemistry Parameters**

The samples were analyzed for Inorganic Parameters using various EPA and Standard Methods. The following observations were made regarding this delivery group.

#### **Matrix Spike Recovery Exceptions**

The matrix spike recovery of Cyanide for sample L-5 was outside control criteria because of suspected matrix interference. A Matrix Spike Duplicate (MSD) was also analyzed, but produced similar results. The results of the original analysis are reported. No further corrective action was appropriate.

#### **Sample Notes and Discussion**

The sample volumes and dilutions that were used in the analysis of Biochemical Oxygen Demand (BOD) for samples L-4 and L-2 were all over depleted and did not meet method criteria. The reported results are an estimation of BOD.

### **Subcontracted Analytical Parameters**

The samples were delivered to ENCO Labs in Jacksonville, FL on 11/12/10 for EPA Method 8011 determination. The certified analytical report has been included in its entirety in Appendix A: Subcontracted Analytical Results.

Approved by \_\_\_\_\_



Date \_\_\_\_\_

12/1/10

## **Florida DEP Data Qualifiers**

- B Results based upon colony counts outside the acceptable range.
- D Measurement was made in the field.
- H Value based on field kit determination; results may not be accurate.
- i The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J Estimated value (one of the following reasons is discussed in the project case narrative).
  - 1. The result may be inaccurate because the surrogate recovery limits have been exceeded.
  - 2. No known quality control criteria exists for the component.
  - 3. The reported value failed to meet the established quality control criteria for either precision or accuracy.
  - 4. The sample matrix interfered with the ability to make any accurate determination (e.g., primary and confirmation results show greater than 40% RPD).
  - 5. The data is questionable because of improper laboratory or field protocols (e.g., GC/MS Tune did not meet method criteria).
- K Off scale low. The value is less than the lowest calibration standard but greater than the method reporting limit (MRL).
- L Off scale high. The analyte is above the upper limit of the linear calibration range.
- M The MDL/MRL has been elevated because the analyte could not be accurately quantified due to matrix interference.
- N Presumptive evidence of the analyte. Confirmation was not performed.
- Q Sample held beyond the accepted holding time.
- T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only.
- U Indicates that the compound was analyzed for but not detected.
- V Indicates that the analyte was detected in both the sample and the associated method blank.
- Y The laboratory analysis was from an improperly preserved sample.
- Z Too many colonies were present (TNTC). The numeric value represents the filtration volume.

## **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.

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF

**Service Request:** J1005462

**SAMPLE CROSS-REFERENCE**

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
J1005462-001	L-5	11/10/10	09:00
J1005462-002	Trip Blank 1	11/10/10	00:00
J1005462-003	L-4	11/10/10	10:30
J1005462-004	Trip Blank 2	11/10/10	00:00
J1005462-005	L-1	11/10/10	11:30
J1005462-006	Trip Blank 3	11/10/10	00:00
J1005462-007	L-2	11/10/10	12:45
J1005462-008	Trip Blank 4	11/10/10	00:00

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** L-5  
**Lab Code:** J1005462-001

**Service Request:** J1005462  
**Date Collected:** 11/10/10 0900  
**Date Received:** 11/11/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 226346

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	10.0	1.80	10	NA	11/22/10 04:15		226346	
1,1,1-Trichloroethane (TCA)	ND	U	10.0	1.71	10	NA	11/22/10 04:15		226346	
1,1,2,2-Tetrachloroethane	ND	U	10.0	1.10	10	NA	11/22/10 04:15		226346	
1,1,2-Trichloroethane	ND	U	10.0	1.71	10	NA	11/22/10 04:15		226346	
1,1-Dichloroethane (1,1-DCA)	ND	U	10.0	1.30	10	NA	11/22/10 04:15		226346	
1,1-Dichloroethene (1,1-DCE)	ND	U	10.0	1.60	10	NA	11/22/10 04:15		226346	
1,1-Dichloropropene	ND	U	50.0	1.20	10	NA	11/22/10 04:15		226346	
1,2,3-Trichloropropane	ND	U	20.0	4.20	10	NA	11/22/10 04:15		226346	
1,2,4-Trichlorobenzene	ND	U	100	2.10	10	NA	11/22/10 04:15		226346	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	50.0	23.0	10	NA	11/22/10 04:15		226346	
1,2-Dibromoethane (EDB)	ND	U	10.0	1.71	10	NA	11/22/10 04:15		226346	
1,2-Dichlorobenzene	ND	U	10.0	4.78	10	NA	11/22/10 04:15		226346	
1,2-Dichloroethane	ND	U	10.0	1.80	10	NA	11/22/10 04:15		226346	
1,2-Dichloropropane	ND	U	10.0	1.20	10	NA	11/22/10 04:15		226346	
1,3-Dichlorobenzene	ND	U	10.0	1.30	10	NA	11/22/10 04:15		226346	
1,3-Dichloropropane	ND	U	10.0	1.50	10	NA	11/22/10 04:15		226346	
1,4-Dichlorobenzene	9.20	I	10.0	1.00	10	NA	11/22/10 04:15		226346	
2,2-Dichloropropane	ND	U	10.0	1.80	10	NA	11/22/10 04:15		226346	
2-Butanone (MEK)	871		100	38.0	10	NA	11/22/10 04:15		226346	
2-Hexanone	ND	U	250	22.0	10	NA	11/22/10 04:15		226346	
4-Methyl-2-pentanone (MIBK)	20.1	I	250	6.50	10	NA	11/22/10 04:15		226346	
Acetone	512		500	56.0	10	NA	11/22/10 04:15		226346	
Acetonitrile	ND	U	250	180	10	NA	11/22/10 04:15		226346	
Acrolein	ND	U	500	42.0	10	NA	11/22/10 04:15		226346	
Acrylonitrile	ND	U	100	12.0	10	NA	11/22/10 04:15		226346	
Allyl Chloride	ND	U	50.0	3.91	10	NA	11/22/10 04:15		226346	
Benzene	7.10	I	10.0	2.10	10	NA	11/22/10 04:15		226346	
Bromochloromethane	ND	U	50.0	2.70	10	NA	11/22/10 04:15		226346	
Bromodichloromethane	ND	U	10.0	1.71	10	NA	11/22/10 04:15		226346	
Bromoform	ND	U	20.0	4.20	10	NA	11/22/10 04:15		226346	
Bromomethane	ND	U	10.0	2.20	10	NA	11/22/10 04:15		226346	
Carbon Disulfide	ND	U	100	23.6	10	NA	11/22/10 04:15		226346	
Carbon Tetrachloride	ND	U	10.0	3.41	10	NA	11/22/10 04:15		226346	
Chlorobenzene	ND	U	10.0	1.60	10	NA	11/22/10 04:15		226346	
Chloroethane	ND	U	50.0	2.20	10	NA	11/22/10 04:15		226346	
Chloroform	ND	U	10.0	3.50	10	NA	11/22/10 04:15		226346	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** L-5  
**Lab Code:** J1005462-001

**Service Request:** J1005462  
**Date Collected:** 11/10/10 0900  
**Date Received:** 11/11/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 226346

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloromethane	ND U	10.0	1.10	10	NA	11/22/10 04:15		226346	
Chloroprene	ND U	10.0	0.00	10	NA	11/22/10 04:15		226346	
cis-1,2-Dichloroethene	ND U	10.0	3.60	10	NA	11/22/10 04:15		226346	
cis-1,3-Dichloropropene	ND U	10.0	2.00	10	NA	11/22/10 04:15		226346	
Dibromochloromethane	ND U	10.0	1.90	10	NA	11/22/10 04:15		226346	
Dibromomethane	ND U	50.0	1.80	10	NA	11/22/10 04:15		226346	
Dichlorodifluoromethane	ND U	200	2.31	10	NA	11/22/10 04:15		226346	
Ethyl Methacrylate	ND U	10.0	1.90	10	NA	11/22/10 04:15		226346	
Ethylbenzene	50.8	10.0	2.10	10	NA	11/22/10 04:15		226346	
Hexachlorobutadiene	ND U	100	6.00	10	NA	11/22/10 04:15		226346	
Iodomethane	ND U	50.0	26.8	10	NA	11/22/10 04:15		226346	
Isobutyl Alcohol	ND U	1000	430	10	NA	11/22/10 04:15		226346	
m,p-Xylenes	76.2	20.0	4.10	10	NA	11/22/10 04:15		226346	
Methacrylonitrile	ND U	50.0	16.0	10	NA	11/22/10 04:15		226346	
Methyl Methacrylate	ND U	20.0	2.70	10	NA	11/22/10 04:15		226346	
Methylene Chloride	ND U	50.0	2.10	10	NA	11/22/10 04:15		226346	
Naphthalene	8.70 I	100	2.40	10	NA	11/22/10 04:15		226346	
o-Xylene	35.3	10.0	1.41	10	NA	11/22/10 04:15		226346	
Propionitrile	ND U	250	39.0	10	NA	11/22/10 04:15		226346	
Styrene	ND U	10.0	2.91	10	NA	11/22/10 04:15		226346	
Tetrachloroethene (PCE)	ND U	10.0	1.10	10	NA	11/22/10 04:15		226346	
Toluene	35.6	10.0	1.90	10	NA	11/22/10 04:15		226346	
trans-1,2-Dichloroethene	ND U	10.0	1.20	10	NA	11/22/10 04:15		226346	
trans-1,3-Dichloropropene	ND U	10.0	2.31	10	NA	11/22/10 04:15		226346	
trans-1,4-Dichloro-2-butene	ND U	200	22.0	10	NA	11/22/10 04:15		226346	
Trichloroethene (TCE)	ND U	10.0	1.60	10	NA	11/22/10 04:15		226346	
Trichlorofluoromethane	ND U	200	2.20	10	NA	11/22/10 04:15		226346	
Vinyl Acetate	ND U	100	19.0	10	NA	11/22/10 04:15		226346	
Vinyl Chloride	ND U	10.0	2.20	10	NA	11/22/10 04:15		226346	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	100	71-122	11/22/10 04:15	
4-Bromofluorobenzene	97	75-120	11/22/10 04:15	
Dibromofluoromethane	98	82-116	11/22/10 04:15	
Toluene-d8	105	88-117	11/22/10 04:15	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Trip Blank 1  
**Lab Code:** J1005462-002

**Service Request:** J1005462  
**Date Collected:** 11/10/10 0000  
**Date Received:** 11/11/10

**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226346

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/22/10 02:10		226346	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/22/10 02:10		226346	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/22/10 02:10		226346	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/22/10 02:10		226346	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/22/10 02:10		226346	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/22/10 02:10		226346	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/22/10 02:10		226346	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/22/10 02:10		226346	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/22/10 02:10		226346	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/22/10 02:10		226346	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/22/10 02:10		226346	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/22/10 02:10		226346	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/22/10 02:10		226346	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/22/10 02:10		226346	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/22/10 02:10		226346	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/22/10 02:10		226346	
Acetone	ND	U	50.0	5.60	1	NA	11/22/10 02:10		226346	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/22/10 02:10		226346	
Benzene	ND	U	1.00	0.210	1	NA	11/22/10 02:10		226346	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/22/10 02:10		226346	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/22/10 02:10		226346	
Bromoform	ND	U	2.00	0.420	1	NA	11/22/10 02:10		226346	
Bromomethane	ND	U	1.00	0.220	1	NA	11/22/10 02:10		226346	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/22/10 02:10		226346	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/22/10 02:10		226346	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/22/10 02:10		226346	
Chloroethane	ND	U	5.00	0.220	1	NA	11/22/10 02:10		226346	
Chloroform	ND	U	1.00	0.350	1	NA	11/22/10 02:10		226346	
Chloromethane	ND	U	1.00	0.110	1	NA	11/22/10 02:10		226346	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/22/10 02:10		226346	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/22/10 02:10		226346	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/22/10 02:10		226346	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/22/10 02:10		226346	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/22/10 02:10		226346	
Iodomethane	ND	U	5.00	2.68	1	NA	11/22/10 02:10		226346	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/22/10 02:10		226346	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Trip Blank 1  
**Lab Code:** J1005462-002

**Service Request:** J1005462  
**Date Collected:** 11/10/10 0000  
**Date Received:** 11/11/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226346

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	0.490	I	5.00	0.210	1	NA	11/22/10 02:10		226346	
o-Xylene	ND	U	1.00	0.140	1	NA	11/22/10 02:10		226346	
Styrene	ND	U	1.00	0.291	1	NA	11/22/10 02:10		226346	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/22/10 02:10		226346	
Toluene	ND	U	1.00	0.190	1	NA	11/22/10 02:10		226346	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/22/10 02:10		226346	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/22/10 02:10		226346	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/22/10 02:10		226346	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/22/10 02:10		226346	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/22/10 02:10		226346	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/22/10 02:10		226346	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/22/10 02:10		226346	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	101	71-122	11/22/10 02:10	
4-Bromofluorobenzene	100	75-120	11/22/10 02:10	
Dibromofluoromethane	96	82-116	11/22/10 02:10	
Toluene-d8	102	88-117	11/22/10 02:10	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** L-4  
**Lab Code:** J1005462-003

**Service Request:** J1005462  
**Date Collected:** 11/10/10 1030  
**Date Received:** 11/11/10

**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 226346

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	10.0	1.80	10	NA	11/22/10 04:46		226346	
1,1,1-Trichloroethane (TCA)	ND	U	10.0	1.71	10	NA	11/22/10 04:46		226346	
1,1,2,2-Tetrachloroethane	ND	U	10.0	1.10	10	NA	11/22/10 04:46		226346	
1,1,2-Trichloroethane	ND	U	10.0	1.71	10	NA	11/22/10 04:46		226346	
1,1-Dichloroethane (1,1-DCA)	ND	U	10.0	1.30	10	NA	11/22/10 04:46		226346	
1,1-Dichloroethene (1,1-DCE)	ND	U	10.0	1.60	10	NA	11/22/10 04:46		226346	
1,1-Dichloropropene	ND	U	50.0	1.20	10	NA	11/22/10 04:46		226346	
1,2,3-Trichloropropane	ND	U	20.0	4.20	10	NA	11/22/10 04:46		226346	
1,2,4-Trichlorobenzene	ND	U	100	2.10	10	NA	11/22/10 04:46		226346	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	50.0	23.0	10	NA	11/22/10 04:46		226346	
1,2-Dibromoethane (EDB)	ND	U	10.0	1.71	10	NA	11/22/10 04:46		226346	
1,2-Dichlorobenzene	ND	U	10.0	4.78	10	NA	11/22/10 04:46		226346	
1,2-Dichloroethane	ND	U	10.0	1.80	10	NA	11/22/10 04:46		226346	
1,2-Dichloropropane	ND	U	10.0	1.20	10	NA	11/22/10 04:46		226346	
1,3-Dichlorobenzene	ND	U	10.0	1.30	10	NA	11/22/10 04:46		226346	
1,3-Dichloropropane	ND	U	10.0	1.50	10	NA	11/22/10 04:46		226346	
1,4-Dichlorobenzene	6.50	I	10.0	1.00	10	NA	11/22/10 04:46		226346	
2,2-Dichloropropane	ND	U	10.0	1.80	10	NA	11/22/10 04:46		226346	
2-Butanone (MEK)	660		100	38.0	10	NA	11/22/10 04:46		226346	
2-Hexanone	ND	U	250	22.0	10	NA	11/22/10 04:46		226346	
4-Methyl-2-pantanone (MIBK)	52.3	I	250	6.50	10	NA	11/22/10 04:46		226346	
Acetone	879		500	56.0	10	NA	11/22/10 04:46		226346	
Acetonitrile	ND	U	250	180	10	NA	11/22/10 04:46		226346	
Acrolein	ND	U	500	42.0	10	NA	11/22/10 04:46		226346	
Acrylonitrile	ND	U	100	12.0	10	NA	11/22/10 04:46		226346	
Allyl Chloride	ND	U	50.0	3.91	10	NA	11/22/10 04:46		226346	
Benzene	6.60	I	10.0	2.10	10	NA	11/22/10 04:46		226346	
Bromochloromethane	ND	U	50.0	2.70	10	NA	11/22/10 04:46		226346	
Bromodichloromethane	ND	U	10.0	1.71	10	NA	11/22/10 04:46		226346	
Bromoform	ND	U	20.0	4.20	10	NA	11/22/10 04:46		226346	
Bromomethane	ND	U	10.0	2.20	10	NA	11/22/10 04:46		226346	
Carbon Disulfide	ND	U	100	23.6	10	NA	11/22/10 04:46		226346	
Carbon Tetrachloride	ND	U	10.0	3.41	10	NA	11/22/10 04:46		226346	
Chlorobenzene	ND	U	10.0	1.60	10	NA	11/22/10 04:46		226346	
Chloroethane	ND	U	50.0	2.20	10	NA	11/22/10 04:46		226346	
Chloroform	ND	U	10.0	3.50	10	NA	11/22/10 04:46		226346	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** L-4  
**Lab Code:** J1005462-003

**Service Request:** J1005462  
**Date Collected:** 11/10/10 1030  
**Date Received:** 11/11/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 226346

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloromethane	ND	U	10.0	1.10	10	NA	11/22/10 04:46		226346	
Chloroprene	ND	U	10.0	0.00	10	NA	11/22/10 04:46		226346	
cis-1,2-Dichloroethene	ND	U	10.0	3.60	10	NA	11/22/10 04:46		226346	
cis-1,3-Dichloropropene	ND	U	10.0	2.00	10	NA	11/22/10 04:46		226346	
Dibromochloromethane	ND	U	10.0	1.90	10	NA	11/22/10 04:46		226346	
Dibromomethane	ND	U	50.0	1.80	10	NA	11/22/10 04:46		226346	
Dichlorodifluoromethane	ND	U	200	2.31	10	NA	11/22/10 04:46		226346	
Ethyl Methacrylate	ND	U	10.0	1.90	10	NA	11/22/10 04:46		226346	
Ethylbenzene	32.2		10.0	2.10	10	NA	11/22/10 04:46		226346	
Hexachlorobutadiene	ND	U	100	6.00	10	NA	11/22/10 04:46		226346	
Iodomethane	ND	U	50.0	26.8	10	NA	11/22/10 04:46		226346	
Isobutyl Alcohol	927	I	1000	430	10	NA	11/22/10 04:46		226346	
m,p-Xylenes	40.1		20.0	4.10	10	NA	11/22/10 04:46		226346	
Methacrylonitrile	ND	U	50.0	16.0	10	NA	11/22/10 04:46		226346	
Methyl Methacrylate	ND	U	20.0	2.70	10	NA	11/22/10 04:46		226346	
Methylene Chloride	ND	U	50.0	2.10	10	NA	11/22/10 04:46		226346	
Naphthalene	16.6	I	100	2.40	10	NA	11/22/10 04:46		226346	
o-Xylene	22.4		10.0	1.41	10	NA	11/22/10 04:46		226346	
Propionitrile	ND	U	250	39.0	10	NA	11/22/10 04:46		226346	
Styrene	ND	U	10.0	2.91	10	NA	11/22/10 04:46		226346	
Tetrachloroethene (PCE)	ND	U	10.0	1.10	10	NA	11/22/10 04:46		226346	
Toluene	29.5		10.0	1.90	10	NA	11/22/10 04:46		226346	
trans-1,2-Dichloroethene	ND	U	10.0	1.20	10	NA	11/22/10 04:46		226346	
trans-1,3-Dichloropropene	ND	U	10.0	2.31	10	NA	11/22/10 04:46		226346	
trans-1,4-Dichloro-2-butene	ND	U	200	22.0	10	NA	11/22/10 04:46		226346	
Trichloroethene (TCE)	ND	U	10.0	1.60	10	NA	11/22/10 04:46		226346	
Trichlorofluoromethane	ND	U	200	2.20	10	NA	11/22/10 04:46		226346	
Vinyl Acetate	ND	U	100	19.0	10	NA	11/22/10 04:46		226346	
Vinyl Chloride	ND	U	10.0	2.20	10	NA	11/22/10 04:46		226346	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	98	71-122	11/22/10 04:46	
4-Bromofluorobenzene	100	75-120	11/22/10 04:46	
Dibromofluoromethane	99	82-116	11/22/10 04:46	
Toluene-d8	100	88-117	11/22/10 04:46	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Trip Blank 2  
**Lab Code:** J1005462-004

**Service Request:** J1005462  
**Date Collected:** 11/10/10 0000  
**Date Received:** 11/11/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 226346

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/22/10 02:41		226346	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/22/10 02:41		226346	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/22/10 02:41		226346	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/22/10 02:41		226346	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/22/10 02:41		226346	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/22/10 02:41		226346	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/22/10 02:41		226346	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/22/10 02:41		226346	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/22/10 02:41		226346	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/22/10 02:41		226346	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/22/10 02:41		226346	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/22/10 02:41		226346	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/22/10 02:41		226346	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/22/10 02:41		226346	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/22/10 02:41		226346	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/22/10 02:41		226346	
Acetone	ND	U	50.0	5.60	1	NA	11/22/10 02:41		226346	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/22/10 02:41		226346	
Benzene	ND	U	1.00	0.210	1	NA	11/22/10 02:41		226346	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/22/10 02:41		226346	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/22/10 02:41		226346	
Bromoform	ND	U	2.00	0.420	1	NA	11/22/10 02:41		226346	
Bromomethane	ND	U	1.00	0.220	1	NA	11/22/10 02:41		226346	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/22/10 02:41		226346	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/22/10 02:41		226346	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/22/10 02:41		226346	
Chloroethane	ND	U	5.00	0.220	1	NA	11/22/10 02:41		226346	
Chloroform	ND	U	1.00	0.350	1	NA	11/22/10 02:41		226346	
Chloromethane	ND	U	1.00	0.110	1	NA	11/22/10 02:41		226346	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/22/10 02:41		226346	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/22/10 02:41		226346	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/22/10 02:41		226346	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/22/10 02:41		226346	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/22/10 02:41		226346	
Iodomethane	ND	U	5.00	2.68	1	NA	11/22/10 02:41		226346	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/22/10 02:41		226346	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Trip Blank 2  
**Lab Code:** J1005462-004

**Service Request:** J1005462  
**Date Collected:** 11/10/10 0000  
**Date Received:** 11/11/10

**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 226346

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	0.420	I	5.00	0.210	1	NA	11/22/10 02:41		226346	
o-Xylene	ND	U	1.00	0.140	1	NA	11/22/10 02:41		226346	
Styrene	ND	U	1.00	0.291	1	NA	11/22/10 02:41		226346	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/22/10 02:41		226346	
Toluene	ND	U	1.00	0.190	1	NA	11/22/10 02:41		226346	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/22/10 02:41		226346	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/22/10 02:41		226346	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/22/10 02:41		226346	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/22/10 02:41		226346	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/22/10 02:41		226346	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/22/10 02:41		226346	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/22/10 02:41		226346	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	101	71-122	11/22/10 02:41	
4-Bromofluorobenzene	100	75-120	11/22/10 02:41	
Dibromofluoromethane	99	82-116	11/22/10 02:41	
Toluene-d8	101	88-117	11/22/10 02:41	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** L-1  
**Lab Code:** J1005462-005

**Service Request:** J1005462  
**Date Collected:** 11/10/10 1130  
**Date Received:** 11/11/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 226346

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	10.0	1.80	10	NA	11/22/10 05:17		226346	
1,1,1-Trichloroethane (TCA)	ND	U	10.0	1.71	10	NA	11/22/10 05:17		226346	
1,1,2,2-Tetrachloroethane	ND	U	10.0	1.10	10	NA	11/22/10 05:17		226346	
1,1,2-Trichloroethane	ND	U	10.0	1.71	10	NA	11/22/10 05:17		226346	
1,1-Dichloroethane (1,1-DCA)	ND	U	10.0	1.30	10	NA	11/22/10 05:17		226346	
1,1-Dichloroethylene (1,1-DCE)	ND	U	10.0	1.60	10	NA	11/22/10 05:17		226346	
1,1-Dichloropropene	ND	U	50.0	1.20	10	NA	11/22/10 05:17		226346	
1,2,3-Trichloropropane	ND	U	20.0	4.20	10	NA	11/22/10 05:17		226346	
1,2,4-Trichlorobenzene	ND	U	100	2.10	10	NA	11/22/10 05:17		226346	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	50.0	23.0	10	NA	11/22/10 05:17		226346	
1,2-Dibromoethane (EDB)	ND	U	10.0	1.71	10	NA	11/22/10 05:17		226346	
1,2-Dichlorobenzene	ND	U	10.0	4.78	10	NA	11/22/10 05:17		226346	
1,2-Dichloroethane	ND	U	10.0	1.80	10	NA	11/22/10 05:17		226346	
1,2-Dichloropropane	ND	U	10.0	1.20	10	NA	11/22/10 05:17		226346	
1,3-Dichlorobenzene	ND	U	10.0	1.30	10	NA	11/22/10 05:17		226346	
1,3-Dichloropropane	ND	U	10.0	1.50	10	NA	11/22/10 05:17		226346	
1,4-Dichlorobenzene	10.0		10.0	1.00	10	NA	11/22/10 05:17		226346	
2,2-Dichloropropane	ND	U	10.0	1.80	10	NA	11/22/10 05:17		226346	
2-Butanone (MEK)	832		100	38.0	10	NA	11/22/10 05:17		226346	
2-Hexanone	ND	U	250	22.0	10	NA	11/22/10 05:17		226346	
4-Methyl-2-pentanone (MIBK)	9.60	I	250	6.50	10	NA	11/22/10 05:17		226346	
Acetone	687		500	56.0	10	NA	11/22/10 05:17		226346	
Acetonitrile	ND	U	250	180	10	NA	11/22/10 05:17		226346	
Acrolein	ND	U	500	42.0	10	NA	11/22/10 05:17		226346	
Acrylonitrile	ND	U	100	12.0	10	NA	11/22/10 05:17		226346	
Allyl Chloride	ND	U	50.0	3.91	10	NA	11/22/10 05:17		226346	
Benzene	5.80	I	10.0	2.10	10	NA	11/22/10 05:17		226346	
Bromochloromethane	ND	U	50.0	2.70	10	NA	11/22/10 05:17		226346	
Bromodichloromethane	ND	U	10.0	1.71	10	NA	11/22/10 05:17		226346	
Bromoform	ND	U	20.0	4.20	10	NA	11/22/10 05:17		226346	
Bromomethane	ND	U	10.0	2.20	10	NA	11/22/10 05:17		226346	
Carbon Disulfide	ND	U	100	23.6	10	NA	11/22/10 05:17		226346	
Carbon Tetrachloride	ND	U	10.0	3.41	10	NA	11/22/10 05:17		226346	
Chlorobenzene	ND	U	10.0	1.60	10	NA	11/22/10 05:17		226346	
Chloroethane	ND	U	50.0	2.20	10	NA	11/22/10 05:17		226346	
Chloroform	ND	U	10.0	3.50	10	NA	11/22/10 05:17		226346	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** L-1  
**Lab Code:** J1005462-005

**Service Request:** J1005462  
**Date Collected:** 11/10/10 1130  
**Date Received:** 11/11/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 226346

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloromethane	ND	U	10.0	1.10	10	NA	11/22/10 05:17		226346	
Chloroprene	ND	U	10.0	0.00	10	NA	11/22/10 05:17		226346	
cis-1,2-Dichloroethene	ND	U	10.0	3.60	10	NA	11/22/10 05:17		226346	
cis-1,3-Dichloropropene	ND	U	10.0	2.00	10	NA	11/22/10 05:17		226346	
Dibromochloromethane	ND	U	10.0	1.90	10	NA	11/22/10 05:17		226346	
Dibromomethane	ND	U	50.0	1.80	10	NA	11/22/10 05:17		226346	
Dichlorodifluoromethane	ND	U	200	2.31	10	NA	11/22/10 05:17		226346	
Ethyl Methacrylate	ND	U	10.0	1.90	10	NA	11/22/10 05:17		226346	
Ethylbenzene	37.3		10.0	2.10	10	NA	11/22/10 05:17		226346	
Hexachlorobutadiene	ND	U	100	6.00	10	NA	11/22/10 05:17		226346	
Iodomethane	ND	U	50.0	26.8	10	NA	11/22/10 05:17		226346	
Isobutyl Alcohol	ND	U	1000	430	10	NA	11/22/10 05:17		226346	
m,p-Xylenes	38.1		20.0	4.10	10	NA	11/22/10 05:17		226346	
Methacrylonitrile	ND	U	50.0	16.0	10	NA	11/22/10 05:17		226346	
Methyl Methacrylate	ND	U	20.0	2.70	10	NA	11/22/10 05:17		226346	
Methylene Chloride	ND	U	50.0	2.10	10	NA	11/22/10 05:17		226346	
Naphthalene	7.20	I	100	2.40	10	NA	11/22/10 05:17		226346	
o-Xylene	18.3		10.0	1.41	10	NA	11/22/10 05:17		226346	
Propionitrile	ND	U	250	39.0	10	NA	11/22/10 05:17		226346	
Styrene	ND	U	10.0	2.91	10	NA	11/22/10 05:17		226346	
Tetrachloroethene (PCE)	ND	U	10.0	1.10	10	NA	11/22/10 05:17		226346	
Toluene	6.70	I	10.0	1.90	10	NA	11/22/10 05:17		226346	
trans-1,2-Dichloroethene	ND	U	10.0	1.20	10	NA	11/22/10 05:17		226346	
trans-1,3-Dichloropropene	ND	U	10.0	2.31	10	NA	11/22/10 05:17		226346	
trans-1,4-Dichloro-2-butene	ND	U	200	22.0	10	NA	11/22/10 05:17		226346	
Trichloroethene (TCE)	ND	U	10.0	1.60	10	NA	11/22/10 05:17		226346	
Trichlorofluoromethane	ND	U	200	2.20	10	NA	11/22/10 05:17		226346	
Vinyl Acetate	ND	U	100	19.0	10	NA	11/22/10 05:17		226346	
Vinyl Chloride	ND	U	10.0	2.20	10	NA	11/22/10 05:17		226346	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	101	71-122	11/22/10 05:17	
4-Bromofluorobenzene	97	75-120	11/22/10 05:17	
Dibromofluoromethane	97	82-116	11/22/10 05:17	
Toluene-d8	101	88-117	11/22/10 05:17	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Trip Blank 3  
**Lab Code:** J1005462-006

**Service Request:** J1005462  
**Date Collected:** 11/10/10 0000  
**Date Received:** 11/11/10

**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 226346

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/22/10 03:12		226346	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/22/10 03:12		226346	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/22/10 03:12		226346	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/22/10 03:12		226346	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/22/10 03:12		226346	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/22/10 03:12		226346	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/22/10 03:12		226346	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/22/10 03:12		226346	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/22/10 03:12		226346	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/22/10 03:12		226346	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/22/10 03:12		226346	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/22/10 03:12		226346	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/22/10 03:12		226346	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/22/10 03:12		226346	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/22/10 03:12		226346	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/22/10 03:12		226346	
Acetone	ND	U	50.0	5.60	1	NA	11/22/10 03:12		226346	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/22/10 03:12		226346	
Benzene	ND	U	1.00	0.210	1	NA	11/22/10 03:12		226346	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/22/10 03:12		226346	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/22/10 03:12		226346	
Bromoform	ND	U	2.00	0.420	1	NA	11/22/10 03:12		226346	
Bromomethane	ND	U	1.00	0.220	1	NA	11/22/10 03:12		226346	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/22/10 03:12		226346	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/22/10 03:12		226346	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/22/10 03:12		226346	
Chloroethane	ND	U	5.00	0.220	1	NA	11/22/10 03:12		226346	
Chloroform	ND	U	1.00	0.350	1	NA	11/22/10 03:12		226346	
Chloromethane	ND	U	1.00	0.110	1	NA	11/22/10 03:12		226346	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/22/10 03:12		226346	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/22/10 03:12		226346	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/22/10 03:12		226346	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/22/10 03:12		226346	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/22/10 03:12		226346	
Iodomethane	ND	U	5.00	2.68	1	NA	11/22/10 03:12		226346	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/22/10 03:12		226346	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Trip Blank 3  
**Lab Code:** J1005462-006

**Service Request:** J1005462  
**Date Collected:** 11/10/10 0000  
**Date Received:** 11/11/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226346

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	<b>0.350</b>	I	5.00	0.210	1	NA	11/22/10 03:12		226346	
o-Xylene	ND	U	1.00	0.140	1	NA	11/22/10 03:12		226346	
Styrene	ND	U	1.00	0.291	1	NA	11/22/10 03:12		226346	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/22/10 03:12		226346	
Toluene	ND	U	1.00	0.190	1	NA	11/22/10 03:12		226346	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/22/10 03:12		226346	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/22/10 03:12		226346	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/22/10 03:12		226346	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/22/10 03:12		226346	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/22/10 03:12		226346	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/22/10 03:12		226346	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/22/10 03:12		226346	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	99	71-122	11/22/10 03:12	
4-Bromofluorobenzene	97	75-120	11/22/10 03:12	
Dibromofluoromethane	99	82-116	11/22/10 03:12	
Toluene-d8	106	88-117	11/22/10 03:12	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** L-2  
**Lab Code:** J1005462-007

**Service Request:** J1005462  
**Date Collected:** 11/10/10 1245  
**Date Received:** 11/11/10

**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226346

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	10.0	1.80	10	NA	11/22/10 05:49		226346	
1,1,1-Trichloroethane (TCA)	ND	U	10.0	1.71	10	NA	11/22/10 05:49		226346	
1,1,2,2-Tetrachloroethane	ND	U	10.0	1.10	10	NA	11/22/10 05:49		226346	
1,1,2-Trichloroethane	ND	U	10.0	1.71	10	NA	11/22/10 05:49		226346	
1,1-Dichloroethane (1,1-DCA)	ND	U	10.0	1.30	10	NA	11/22/10 05:49		226346	
1,1-Dichloroethene (1,1-DCE)	ND	U	10.0	1.60	10	NA	11/22/10 05:49		226346	
1,1-Dichloropropene	ND	U	50.0	1.20	10	NA	11/22/10 05:49		226346	
1,2,3-Trichloroproppane	ND	U	20.0	4.20	10	NA	11/22/10 05:49		226346	
1,2,4-Trichlorobenzene	ND	U	100	2.10	10	NA	11/22/10 05:49		226346	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	50.0	23.0	10	NA	11/22/10 05:49		226346	
1,2-Dibromoethane (EDB)	ND	U	10.0	1.71	10	NA	11/22/10 05:49		226346	
1,2-Dichlorobenzene	ND	U	10.0	4.78	10	NA	11/22/10 05:49		226346	
1,2-Dichloroethane	ND	U	10.0	1.80	10	NA	11/22/10 05:49		226346	
1,2-Dichloropropane	ND	U	10.0	1.20	10	NA	11/22/10 05:49		226346	
1,3-Dichlorobenzene	ND	U	10.0	1.30	10	NA	11/22/10 05:49		226346	
1,3-Dichloroproppane	ND	U	10.0	1.50	10	NA	11/22/10 05:49		226346	
1,4-Dichlorobenzene	14.0		10.0	1.00	10	NA	11/22/10 05:49		226346	
2,2-Dichloropropane	ND	U	10.0	1.80	10	NA	11/22/10 05:49		226346	
2-Butanone (MEK)	1150		100	38.0	10	NA	11/22/10 05:49		226346	
2-Hexanone	ND	U	250	22.0	10	NA	11/22/10 05:49		226346	
4-Methyl-2-pentanone (MIBK)	16.0	I	250	6.50	10	NA	11/22/10 05:49		226346	
Acetone	1250		500	56.0	10	NA	11/22/10 05:49		226346	
Acetonitrile	ND	U	250	180	10	NA	11/22/10 05:49		226346	
Acrolein	ND	U	500	42.0	10	NA	11/22/10 05:49		226346	
Acrylonitrile	ND	U	100	12.0	10	NA	11/22/10 05:49		226346	
Allyl Chloride	ND	U	50.0	3.91	10	NA	11/22/10 05:49		226346	
Benzene	8.70	I	10.0	2.10	10	NA	11/22/10 05:49		226346	
Bromochloromethane	ND	U	50.0	2.70	10	NA	11/22/10 05:49		226346	
Bromodichloromethane	ND	U	10.0	1.71	10	NA	11/22/10 05:49		226346	
Bromoform	ND	U	20.0	4.20	10	NA	11/22/10 05:49		226346	
Bromomethane	ND	U	10.0	2.20	10	NA	11/22/10 05:49		226346	
Carbon Disulfide	ND	U	100	23.6	10	NA	11/22/10 05:49		226346	
Carbon Tetrachloride	ND	U	10.0	3.41	10	NA	11/22/10 05:49		226346	
Chlorobenzene	ND	U	10.0	1.60	10	NA	11/22/10 05:49		226346	
Chloroethane	ND	U	50.0	2.20	10	NA	11/22/10 05:49		226346	
Chloroform	ND	U	10.0	3.50	10	NA	11/22/10 05:49		226346	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** L-2  
**Lab Code:** J1005462-007

**Service Request:** J1005462  
**Date Collected:** 11/10/10 1245  
**Date Received:** 11/11/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 226346

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloromethane	ND	U	10.0	1.10	10	NA	11/22/10 05:49		226346	
Chloroprene	ND	U	10.0	0.00	10	NA	11/22/10 05:49		226346	
cis-1,2-Dichloroethene	ND	U	10.0	3.60	10	NA	11/22/10 05:49		226346	
cis-1,3-Dichloropropene	ND	U	10.0	2.00	10	NA	11/22/10 05:49		226346	
Dibromochloromethane	ND	U	10.0	1.90	10	NA	11/22/10 05:49		226346	
Dibromomethane	ND	U	50.0	1.80	10	NA	11/22/10 05:49		226346	
Dichlorodifluoromethane	ND	U	200	2.31	10	NA	11/22/10 05:49		226346	
Ethyl Methacrylate	ND	U	10.0	1.90	10	NA	11/22/10 05:49		226346	
Ethylbenzene	39.7		10.0	2.10	10	NA	11/22/10 05:49		226346	
Hexachlorobutadiene	ND	U	100	6.00	10	NA	11/22/10 05:49		226346	
Iodomethane	ND	U	50.0	26.8	10	NA	11/22/10 05:49		226346	
Isobutyl Alcohol	ND	U	1000	430	10	NA	11/22/10 05:49		226346	
m,p-Xylenes	43.5		20.0	4.10	10	NA	11/22/10 05:49		226346	
Methacrylonitrile	ND	U	50.0	16.0	10	NA	11/22/10 05:49		226346	
Methyl Methacrylate	ND	U	20.0	2.70	10	NA	11/22/10 05:49		226346	
Methylene Chloride	ND	U	50.0	2.10	10	NA	11/22/10 05:49		226346	
Naphthalene	17.1	I	100	2.40	10	NA	11/22/10 05:49		226346	
o-Xylene	25.3		10.0	1.41	10	NA	11/22/10 05:49		226346	
Propionitrile	ND	U	250	39.0	10	NA	11/22/10 05:49		226346	
Styrene	ND	U	10.0	2.91	10	NA	11/22/10 05:49		226346	
Tetrachloroethene (PCE)	ND	U	10.0	1.10	10	NA	11/22/10 05:49		226346	
Toluene	29.3		10.0	1.90	10	NA	11/22/10 05:49		226346	
trans-1,2-Dichloroethene	ND	U	10.0	1.20	10	NA	11/22/10 05:49		226346	
trans-1,3-Dichloropropene	ND	U	10.0	2.31	10	NA	11/22/10 05:49		226346	
trans-1,4-Dichloro-2-butene	ND	U	200	22.0	10	NA	11/22/10 05:49		226346	
Trichloroethene (TCE)	ND	U	10.0	1.60	10	NA	11/22/10 05:49		226346	
Trichlorofluoromethane	ND	U	200	2.20	10	NA	11/22/10 05:49		226346	
Vinyl Acetate	ND	U	100	19.0	10	NA	11/22/10 05:49		226346	
Vinyl Chloride	ND	U	10.0	2.20	10	NA	11/22/10 05:49		226346	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	97	71-122	11/22/10 05:49	
4-Bromofluorobenzene	99	75-120	11/22/10 05:49	
Dibromofluoromethane	94	82-116	11/22/10 05:49	
Toluene-d8	103	88-117	11/22/10 05:49	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Trip Blank 4  
**Lab Code:** J1005462-008

**Service Request:** J1005462  
**Date Collected:** 11/10/10 0000  
**Date Received:** 11/11/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 226346

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/22/10 03:44		226346	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/22/10 03:44		226346	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/22/10 03:44		226346	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/22/10 03:44		226346	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/22/10 03:44		226346	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/22/10 03:44		226346	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/22/10 03:44		226346	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/22/10 03:44		226346	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/22/10 03:44		226346	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/22/10 03:44		226346	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/22/10 03:44		226346	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/22/10 03:44		226346	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/22/10 03:44		226346	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/22/10 03:44		226346	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/22/10 03:44		226346	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/22/10 03:44		226346	
Acetone	ND	U	50.0	5.60	1	NA	11/22/10 03:44		226346	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/22/10 03:44		226346	
Benzene	ND	U	1.00	0.210	1	NA	11/22/10 03:44		226346	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/22/10 03:44		226346	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/22/10 03:44		226346	
Bromoform	ND	U	2.00	0.420	1	NA	11/22/10 03:44		226346	
Bromomethane	ND	U	1.00	0.220	1	NA	11/22/10 03:44		226346	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/22/10 03:44		226346	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/22/10 03:44		226346	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/22/10 03:44		226346	
Chloroethane	ND	U	5.00	0.220	1	NA	11/22/10 03:44		226346	
Chloroform	ND	U	1.00	0.350	1	NA	11/22/10 03:44		226346	
Chloromethane	ND	U	1.00	0.110	1	NA	11/22/10 03:44		226346	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/22/10 03:44		226346	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/22/10 03:44		226346	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/22/10 03:44		226346	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/22/10 03:44		226346	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/22/10 03:44		226346	
Iodomethane	ND	U	5.00	2.68	1	NA	11/22/10 03:44		226346	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/22/10 03:44		226346	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Trip Blank 4  
**Lab Code:** J1005462-008

**Service Request:** J1005462  
**Date Collected:** 11/10/10 0000  
**Date Received:** 11/11/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226346

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Methylene Chloride	<b>0.350</b>	I	5.00	0.210	1	NA	11/22/10 03:44		226346	
o-Xylene	ND	U	1.00	0.140	1	NA	11/22/10 03:44		226346	
Styrene	ND	U	1.00	0.291	1	NA	11/22/10 03:44		226346	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/22/10 03:44		226346	
Toluene	ND	U	1.00	0.190	1	NA	11/22/10 03:44		226346	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/22/10 03:44		226346	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/22/10 03:44		226346	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/22/10 03:44		226346	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/22/10 03:44		226346	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/22/10 03:44		226346	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/22/10 03:44		226346	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/22/10 03:44		226346	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	99	71-122	11/22/10 03:44	
4-Bromofluorobenzene	97	75-120	11/22/10 03:44	
Dibromofluoromethane	99	82-116	11/22/10 03:44	
Toluene-d8	103	88-117	11/22/10 03:44	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005755-02

**Service Request:** J1005462  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226346

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/21/10 20:58		226346	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/21/10 20:58		226346	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/21/10 20:58		226346	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/21/10 20:58		226346	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/21/10 20:58		226346	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/21/10 20:58		226346	
1,1-Dichloropropene	ND	U	5.00	0.120	1	NA	11/21/10 20:58		226346	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/21/10 20:58		226346	
1,2,4-Trichlorobenzene	ND	U	10.0	0.210	1	NA	11/21/10 20:58		226346	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/21/10 20:58		226346	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/21/10 20:58		226346	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/21/10 20:58		226346	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/21/10 20:58		226346	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/21/10 20:58		226346	
1,3-Dichlorobenzene	ND	U	1.00	0.130	1	NA	11/21/10 20:58		226346	
1,3-Dichloropropane	ND	U	1.00	0.150	1	NA	11/21/10 20:58		226346	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/21/10 20:58		226346	
2,2-Dichloropropane	ND	U	1.00	0.180	1	NA	11/21/10 20:58		226346	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/21/10 20:58		226346	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/21/10 20:58		226346	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/21/10 20:58		226346	
Acetone	ND	U	50.0	5.60	1	NA	11/21/10 20:58		226346	
Acetonitrile	ND	U	25.0	18.0	1	NA	11/21/10 20:58		226346	
Acrolein	ND	U	50.0	4.20	1	NA	11/21/10 20:58		226346	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/21/10 20:58		226346	
Allyl Chloride	ND	U	5.00	0.390	1	NA	11/21/10 20:58		226346	
Benzene	ND	U	1.00	0.210	1	NA	11/21/10 20:58		226346	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/21/10 20:58		226346	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/21/10 20:58		226346	
Bromoform	ND	U	2.00	0.420	1	NA	11/21/10 20:58		226346	
Bromomethane	ND	U	1.00	0.220	1	NA	11/21/10 20:58		226346	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/21/10 20:58		226346	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/21/10 20:58		226346	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/21/10 20:58		226346	
Chloroethane	ND	U	5.00	0.220	1	NA	11/21/10 20:58		226346	
Chloroform	ND	U	1.00	0.350	1	NA	11/21/10 20:58		226346	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005755-02

**Service Request:** J1005462  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226346

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloromethane	ND	U	1.00	0.110	1	NA	11/21/10 20:58		226346	
Chloroprene	ND	U	1.00	0.00	1	NA	11/21/10 20:58		226346	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/21/10 20:58		226346	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/21/10 20:58		226346	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/21/10 20:58		226346	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/21/10 20:58		226346	
Dichlorodifluoromethane	ND	U	20.0	0.230	1	NA	11/21/10 20:58		226346	
Ethyl Methacrylate	ND	U	1.00	0.190	1	NA	11/21/10 20:58		226346	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/21/10 20:58		226346	
Hexachlorobutadiene	ND	U	10.0	0.600	1	NA	11/21/10 20:58		226346	
Iodomethane	ND	U	5.00	2.68	1	NA	11/21/10 20:58		226346	
Isobutyl Alcohol	ND	U	100	43.0	1	NA	11/21/10 20:58		226346	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/21/10 20:58		226346	
Methacrylonitrile	ND	U	5.00	1.60	1	NA	11/21/10 20:58		226346	
Methyl Methacrylate	ND	U	2.00	0.270	1	NA	11/21/10 20:58		226346	
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/21/10 20:58		226346	
Naphthalene	ND	U	10.0	0.240	1	NA	11/21/10 20:58		226346	
o-Xylene	ND	U	1.00	0.140	1	NA	11/21/10 20:58		226346	
Propionitrile	ND	U	25.0	3.90	1	NA	11/21/10 20:58		226346	
Styrene	ND	U	1.00	0.291	1	NA	11/21/10 20:58		226346	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/21/10 20:58		226346	
Toluene	ND	U	1.00	0.190	1	NA	11/21/10 20:58		226346	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/21/10 20:58		226346	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/21/10 20:58		226346	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/21/10 20:58		226346	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/21/10 20:58		226346	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/21/10 20:58		226346	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/21/10 20:58		226346	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/21/10 20:58		226346	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	103	71-122	11/21/10 20:58	
4-Bromofluorobenzene	101	75-120	11/21/10 20:58	
Dibromofluoromethane	97	82-116	11/21/10 20:58	
Toluene-d8	105	88-117	11/21/10 20:58	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** 11/10/2010  
**Date Received:** 11/11/2010

## Semi-Volatile Organic Compounds by GC/MS (Appendix II)

**Sample Name:** L-5 **Units:** ug/L  
**Lab Code:** J1005462-001 **Basis:** NA  
**Extraction Method:** EPA 3510C **Level:** Low  
**Analysis Method:** 8270C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2,4,5-Tetrachlorobenzene	ND	U	57	6.2	10	11/11/10	11/23/10	JWG1003997	
1,2,4-Trichlorobenzene	ND	U	57	8.8	10	11/11/10	11/23/10	JWG1003997	
1,2-Dichlorobenzene	ND	U	57	8.4	10	11/11/10	11/23/10	JWG1003997	
1,3,5-Trinitrobenzene	ND	U	57	13	10	11/11/10	11/23/10	JWG1003997	
1,3-Dichlorobenzene	ND	U	57	7.9	10	11/11/10	11/23/10	JWG1003997	
1,3-Dinitrobenzene	ND	U	120	17	10	11/11/10	11/23/10	JWG1003997	
1,4-Dichlorobenzene	ND	U	57	14	10	11/11/10	11/23/10	JWG1003997	
1,4-Naphthoquinone†	ND	U	110	110	10	11/11/10	11/23/10	JWG1003997	
1-Naphthylamine	ND	U	57	13	10	11/11/10	11/23/10	JWG1003997	
2,3,4,6-Tetrachlorophenol	ND	U	57	14	10	11/11/10	11/23/10	JWG1003997	
2,4,5-Trichlorophenol	ND	U	57	7.4	10	11/11/10	11/23/10	JWG1003997	
2,4,6-Trichlorophenol	ND	U	57	8.3	10	11/11/10	11/23/10	JWG1003997	
2,4-Dichlorophenol	ND	U	57	5.7	10	11/11/10	11/23/10	JWG1003997	
2,4-Dimethylphenol	ND	UJ	57	8.9	10	11/11/10	11/23/10	JWG1003997	J(3)
2,4-Dinitrophenol	ND	UJ	230	6.1	10	11/11/10	11/23/10	JWG1003997	J(3)
2,4-Dinitrotoluene	ND	U	57	47	10	11/11/10	11/23/10	JWG1003997	
2,6-Dichlorophenol	ND	U	120	8.1	10	11/11/10	11/23/10	JWG1003997	
2,6-Dinitrotoluene	ND	U	57	9.4	10	11/11/10	11/23/10	JWG1003997	
2-Acetylaminofluorene	ND	U	57	11	10	11/11/10	11/23/10	JWG1003997	
2-Chloronaphthalene	ND	U	57	8.0	10	11/11/10	11/23/10	JWG1003997	
2-Chlorophenol	ND	U	57	8.5	10	11/11/10	11/23/10	JWG1003997	
2-Methyl-4,6-dinitrophenol	ND	UJ	230	7.2	10	11/11/10	11/23/10	JWG1003997	J(3)
2-Methylnaphthalene	ND	U	57	8.4	10	11/11/10	11/23/10	JWG1003997	
2-Methylphenol	7.5	I	57	7.2	10	11/11/10	11/23/10	JWG1003997	
2-Naphthylamine	ND	UJ	57	13	10	11/11/10	11/23/10	JWG1003997	J(3)
2-Nitroaniline	ND	U	57	6.2	10	11/11/10	11/23/10	JWG1003997	
2-Nitrophenol	ND	U	230	6.8	10	11/11/10	11/23/10	JWG1003997	
3,3'-Dichlorobenzidine	ND	U	230	10	10	11/11/10	11/23/10	JWG1003997	
3,3'-Dimethylbenzidine	ND	U	230	26	10	11/11/10	11/23/10	JWG1003997	
3-Methylcholanthrene	ND	U	57	11	10	11/11/10	11/23/10	JWG1003997	
3-Nitroaniline	ND	U	57	8.5	10	11/11/10	11/23/10	JWG1003997	
4-Aminobiphenyl	ND	U	57	12	10	11/11/10	11/23/10	JWG1003997	
4-Bromophenyl Phenyl Ether	ND	U	57	7.6	10	11/11/10	11/23/10	JWG1003997	

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

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** 11/10/2010  
**Date Received:** 11/11/2010

**Semi-Volatile Organic Compounds by GC/MS (Appendix II)**

<b>Sample Name:</b>	L-5	<b>Units:</b>	ug/L
<b>Lab Code:</b>	J1005462-001	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Chloro-3-methylphenol	ND	U	57	8.5	10	11/11/10	11/23/10	JWG1003997	
4-Chloroaniline	ND	U	57	6.0	10	11/11/10	11/23/10	JWG1003997	
4-Chlorophenyl Phenyl Ether	ND	U	57	6.9	10	11/11/10	11/23/10	JWG1003997	
4-Methylphenol†	120		57	8.7	10	11/11/10	11/23/10	JWG1003997	
4-Nitroaniline	ND	U	57	11	10	11/11/10	11/23/10	JWG1003997	
4-Nitrophenol	ND	UJ	230	11	10	11/11/10	11/23/10	JWG1003997	J(3)
5-Nitro-o-toluidine	ND	U	57	12	10	11/11/10	11/23/10	JWG1003997	
7,12-Dimethylbenz(a)anthracene	ND	U	57	9.8	10	11/11/10	11/23/10	JWG1003997	
Acenaphthene	ND	U	57	12	10	11/11/10	11/23/10	JWG1003997	
Acenaphthylene	ND	U	57	6.6	10	11/11/10	11/23/10	JWG1003997	
Acetophenone	ND	U	120	15	10	11/11/10	11/23/10	JWG1003997	
Anthracene	ND	U	57	8.0	10	11/11/10	11/23/10	JWG1003997	
Benz(a)anthracene	ND	U	57	9.7	10	11/11/10	11/23/10	JWG1003997	
Benzo(a)pyrene	ND	U	57	7.1	10	11/11/10	11/23/10	JWG1003997	
Benzo(b)fluoranthene	ND	U	57	9.8	10	11/11/10	11/23/10	JWG1003997	
Benzo(g,h,i)perylene	ND	U	57	11	10	11/11/10	11/23/10	JWG1003997	
Benzo(k)fluoranthene	ND	U	57	6.1	10	11/11/10	11/23/10	JWG1003997	
Benzyl alcohol	ND	U	57	7.8	10	11/11/10	11/23/10	JWG1003997	
bis(2-Chloroethoxy)methane	ND	U	57	10	10	11/11/10	11/23/10	JWG1003997	
Bis(2-chloroethyl) Ether	ND	U	57	11	10	11/11/10	11/23/10	JWG1003997	
Bis(2-chloroisopropyl) Ether	ND	U	57	6.5	10	11/11/10	11/23/10	JWG1003997	
Bis(2-ethylhexyl) Phthalate	ND	U	57	12	10	11/11/10	11/23/10	JWG1003997	
Butyl Benzyl Phthalate	ND	U	120	13	10	11/11/10	11/23/10	JWG1003997	
Chlorobenzilate	ND	U	120	9.5	10	11/11/10	11/23/10	JWG1003997	
Chrysene	ND	U	57	9.8	10	11/11/10	11/23/10	JWG1003997	
Di-n-butyl Phthalate	ND	U	57	11	10	11/11/10	11/23/10	JWG1003997	
Di-n-octyl Phthalate	ND	U	57	11	10	11/11/10	11/23/10	JWG1003997	
Diallate	ND	U	57	12	10	11/11/10	11/23/10	JWG1003997	
Dibenz(a,h)anthracene	ND	U	57	7.0	10	11/11/10	11/23/10	JWG1003997	
Dibenzofuran	ND	U	57	8.9	10	11/11/10	11/23/10	JWG1003997	
Diethyl Phthalate	ND	U	57	47	10	11/11/10	11/23/10	JWG1003997	
Dimethoate	ND	U	57	11	10	11/11/10	11/23/10	JWG1003997	
Dimethyl Phthalate	ND	U	57	8.6	10	11/11/10	11/23/10	JWG1003997	

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

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** 11/10/2010  
**Date Received:** 11/11/2010

## Semi-Volatile Organic Compounds by GC/MS (Appendix II)

<b>Sample Name:</b>	L-5	<b>Units:</b>	ug/L
<b>Lab Code:</b>	J1005462-001	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8270C		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dinoseb	ND U	120	6.9	10	11/11/10	11/23/10	JWG1003997	
Disulfoton	ND U	57	5.9	10	11/11/10	11/23/10	JWG1003997	
Ethyl Methanesulfonate	ND U	57	7.4	10	11/11/10	11/23/10	JWG1003997	
Famphur	ND UJ	120	7.8	10	11/11/10	11/23/10	JWG1003997	J(3)
Fluoranthene	ND U	57	7.5	10	11/11/10	11/23/10	JWG1003997	
Fluorene	ND U	57	9.9	10	11/11/10	11/23/10	JWG1003997	
Hexachlorobenzene	ND U	57	7.1	10	11/11/10	11/23/10	JWG1003997	
Hexachlorobutadiene	ND U	57	6.9	10	11/11/10	11/23/10	JWG1003997	
Hexachlorocyclopentadiene	ND U	57	4.7	10	11/11/10	11/23/10	JWG1003997	
Hexachloroethane	ND U	57	11	10	11/11/10	11/23/10	JWG1003997	
Hexachloropropene	ND U	57	22	10	11/11/10	11/23/10	JWG1003997	
Indeno(1,2,3-cd)pyrene	ND U	57	6.2	10	11/11/10	11/23/10	JWG1003997	
Isodrin	ND U	120	8.0	10	11/11/10	11/23/10	JWG1003997	
Isophorone	ND U	57	9.0	10	11/11/10	11/23/10	JWG1003997	
Isosafrole	ND U	57	8.5	10	11/11/10	11/23/10	JWG1003997	
Kepone	ND UJ	570	48	10	11/11/10	11/23/10	JWG1003997	J(3)
Methapyrilene	ND U	57	17	10	11/11/10	11/23/10	JWG1003997	
Methyl Methanesulfonate	ND UJ	57	6.3	10	11/11/10	11/23/10	JWG1003997	J(3)
Methyl Parathion	ND U	120	13	10	11/11/10	11/23/10	JWG1003997	
N-Nitrosodi-n-butylamine	ND U	57	7.6	10	11/11/10	11/23/10	JWG1003997	
N-Nitrosodi-n-propylamine	42 I	57	7.7	10	11/11/10	11/23/10	JWG1003997	
N-Nitrosodiethylamine	ND U	57	7.1	10	11/11/10	11/23/10	JWG1003997	
N-Nitrosodimethylamine	ND U	57	8.3	10	11/11/10	11/23/10	JWG1003997	
N-Nitrosodiphenylamine†	ND U	57	11	10	11/11/10	11/23/10	JWG1003997	
N-Nitrosomethylethylamine	ND U	57	9.3	10	11/11/10	11/23/10	JWG1003997	
N-Nitrosopiperidine	ND U	57	18	10	11/11/10	11/23/10	JWG1003997	
N-Nitrosopyrrolidine	ND U	57	7.9	10	11/11/10	11/23/10	JWG1003997	
Naphthalene	9.2 I	57	8.9	10	11/11/10	11/23/10	JWG1003997	
Nitrobenzene	ND U	57	8.3	10	11/11/10	11/23/10	JWG1003997	
O,O,O-Triethyl Phosphorothioate	ND U	230	5.9	10	11/11/10	11/23/10	JWG1003997	
o-Tolidine	ND U	57	10	10	11/11/10	11/23/10	JWG1003997	
p-Dimethylaminoazobenzene	ND U	57	10	10	11/11/10	11/23/10	JWG1003997	
p-Phenylenediamine	ND U	230	13	10	11/11/10	11/23/10	JWG1003997	

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

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** 11/10/2010  
**Date Received:** 11/11/2010

## Semi-Volatile Organic Compounds by GC/MS (Appendix II)

**Sample Name:** L-5 **Units:** ug/L  
**Lab Code:** J1005462-001 **Basis:** NA  
**Extraction Method:** EPA 3510C **Level:** Low  
**Analysis Method:** 8270C

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Parathion	ND U	230	11	10	11/11/10	11/23/10	JWG1003997	
Pentachlorobenzene	ND U	57	27	10	11/11/10	11/23/10	JWG1003997	
Pentachloronitrobenzene	ND U	57	17	10	11/11/10	11/23/10	JWG1003997	
Pentachlorophenol	ND UJ	230	7.6	10	11/11/10	11/23/10	JWG1003997	J(3)
Phenacetin	ND U	57	10	10	11/11/10	11/23/10	JWG1003997	
Phenanthrene	ND U	57	7.9	10	11/11/10	11/23/10	JWG1003997	
Phenol	65	57	4.8	10	11/11/10	11/23/10	JWG1003997	
Phorate	ND UJ	57	9.9	10	11/11/10	11/23/10	JWG1003997	J(3)
Pronamide	ND U	230	9.6	10	11/11/10	11/23/10	JWG1003997	
Pyrene	ND U	57	9.5	10	11/11/10	11/23/10	JWG1003997	
Safrole	ND U	57	8.0	10	11/11/10	11/23/10	JWG1003997	
Thionazin	ND U	120	9.2	10	11/11/10	11/23/10	JWG1003997	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2,4,6-Tribromophenol	77	30-143	11/23/10	Acceptable
2-Fluorobiphenyl	62	30-102	11/23/10	Acceptable
2-Fluorophenol	28	10-77	11/23/10	Acceptable
Nitrobenzene-d5	77	32-106	11/23/10	Acceptable
Phenol-d6	38	10-51	11/23/10	Acceptable
Terphenyl-d14	52	23-165	11/23/10	Acceptable

## † Analyte Comments

1,4-Naphthoquinone	Analyte searched for as a tentatively identified compound.
4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.
N-Nitrosodiphenylamine	This analyte can not be separated from Diphenylamine.

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

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** 11/10/2010  
**Date Received:** 11/11/2010

## Semi-Volatile Organic Compounds by GC/MS (Appendix II)

**Sample Name:** L-4 **Units:** ug/L  
**Lab Code:** J1005462-003 **Basis:** NA  
**Extraction Method:** EPA 3510C **Level:** Low  
**Analysis Method:** 8270C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2,4,5-Tetrachlorobenzene	ND	U	220	24	40	11/11/10	11/23/10	JWG1003997	
1,2,4-Trichlorobenzene	ND	U	220	34	40	11/11/10	11/23/10	JWG1003997	
1,2-Dichlorobenzene	ND	U	220	32	40	11/11/10	11/23/10	JWG1003997	
1,3,5-Trinitrobenzene	ND	U	220	48	40	11/11/10	11/23/10	JWG1003997	
1,3-Dichlorobenzene	ND	U	220	31	40	11/11/10	11/23/10	JWG1003997	
1,3-Dinitrobenzene	ND	U	440	65	40	11/11/10	11/23/10	JWG1003997	
1,4-Dichlorobenzene	ND	U	220	52	40	11/11/10	11/23/10	JWG1003997	
1,4-Naphthoquinone†	ND	U	430	430	40	11/11/10	11/23/10	JWG1003997	
1-Naphthylamine	ND	U	220	48	40	11/11/10	11/23/10	JWG1003997	
2,3,4,6-Tetrachlorophenol	ND	U	220	52	40	11/11/10	11/23/10	JWG1003997	
2,4,5-Trichlorophenol	ND	U	220	28	40	11/11/10	11/23/10	JWG1003997	
2,4,6-Trichlorophenol	ND	U	220	32	40	11/11/10	11/23/10	JWG1003997	
2,4-Dichlorophenol	ND	U	220	22	40	11/11/10	11/23/10	JWG1003997	
2,4-Dimethylphenol	ND	UJ	220	34	40	11/11/10	11/23/10	JWG1003997	J(3)
2,4-Dinitrophenol	ND	UJ	870	24	40	11/11/10	11/23/10	JWG1003997	J(3)
2,4-Dinitrotoluene	ND	U	220	180	40	11/11/10	11/23/10	JWG1003997	
2,6-Dichlorophenol	ND	U	440	31	40	11/11/10	11/23/10	JWG1003997	
2,6-Dinitrotoluene	ND	U	220	36	40	11/11/10	11/23/10	JWG1003997	
2-Acetylaminofluorene	ND	U	220	39	40	11/11/10	11/23/10	JWG1003997	
2-Chloronaphthalene	ND	U	220	31	40	11/11/10	11/23/10	JWG1003997	
2-Chlorophenol	ND	U	220	33	40	11/11/10	11/23/10	JWG1003997	
2-Methyl-4,6-dinitrophenol	ND	UJ	870	28	40	11/11/10	11/23/10	JWG1003997	J(3)
2-Methylnaphthalene	ND	U	220	32	40	11/11/10	11/23/10	JWG1003997	
2-Methylphenol	ND	U	220	28	40	11/11/10	11/23/10	JWG1003997	
2-Naphthylamine	ND	UJ	220	48	40	11/11/10	11/23/10	JWG1003997	J(3)
2-Nitroaniline	ND	U	220	24	40	11/11/10	11/23/10	JWG1003997	
2-Nitrophenol	ND	U	870	26	40	11/11/10	11/23/10	JWG1003997	
3,3'-Dichlorobenzidine	ND	U	870	39	40	11/11/10	11/23/10	JWG1003997	
3,3'-Dimethylbenzidine	ND	U	870	99	40	11/11/10	11/23/10	JWG1003997	
3-Methylcholanthrene	ND	U	220	42	40	11/11/10	11/23/10	JWG1003997	
3-Nitroaniline	ND	U	220	33	40	11/11/10	11/23/10	JWG1003997	
4-Aminobiphenyl	ND	U	220	43	40	11/11/10	11/23/10	JWG1003997	
4-Bromophenyl Phenyl Ether	ND	U	220	29	40	11/11/10	11/23/10	JWG1003997	

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

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** 11/10/2010  
**Date Received:** 11/11/2010

**Semi-Volatile Organic Compounds by GC/MS (Appendix II)**

<b>Sample Name:</b>	L-4	<b>Units:</b>	ug/L
<b>Lab Code:</b>	J1005462-003	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Chloro-3-methylphenol	ND	U	220	33	40	11/11/10	11/23/10	JWG1003997	
4-Chloroaniline	ND	U	220	23	40	11/11/10	11/23/10	JWG1003997	
4-Chlorophenyl Phenyl Ether	ND	U	220	27	40	11/11/10	11/23/10	JWG1003997	
4-Methylphenol†	1800		220	34	40	11/11/10	11/23/10	JWG1003997	
4-Nitroaniline	ND	U	220	40	40	11/11/10	11/23/10	JWG1003997	
4-Nitrophenol	ND	UJ	870	40	40	11/11/10	11/23/10	JWG1003997	J(3)
5-Nitro-o-toluidine	ND	U	220	44	40	11/11/10	11/23/10	JWG1003997	
7,12-Dimethylbenz(a)anthracene	ND	U	220	38	40	11/11/10	11/23/10	JWG1003997	
Acenaphthene	ND	U	220	43	40	11/11/10	11/23/10	JWG1003997	
Acenaphthylene	ND	U	220	25	40	11/11/10	11/23/10	JWG1003997	
Acetophenone	ND	U	440	56	40	11/11/10	11/23/10	JWG1003997	
Anthracene	ND	U	220	31	40	11/11/10	11/23/10	JWG1003997	
Benz(a)anthracene	ND	U	220	37	40	11/11/10	11/23/10	JWG1003997	
Benzo(a)pyrene	ND	U	220	28	40	11/11/10	11/23/10	JWG1003997	
Benzo(b)fluoranthene	ND	U	220	38	40	11/11/10	11/23/10	JWG1003997	
Benzo(g,h,i)perylene	ND	U	220	40	40	11/11/10	11/23/10	JWG1003997	
Benzo(k)fluoranthene	ND	U	220	24	40	11/11/10	11/23/10	JWG1003997	
Benzyl alcohol	150	I	220	30	40	11/11/10	11/23/10	JWG1003997	
bis(2-Chloroethoxy)methane	ND	U	220	39	40	11/11/10	11/23/10	JWG1003997	
Bis(2-chloroethyl) Ether	ND	U	220	42	40	11/11/10	11/23/10	JWG1003997	
Bis(2-chloroisopropyl) Ether	ND	U	220	25	40	11/11/10	11/23/10	JWG1003997	
Bis(2-ethylhexyl) Phthalate	ND	U	220	43	40	11/11/10	11/23/10	JWG1003997	
Butyl Benzyl Phthalate	ND	U	440	48	40	11/11/10	11/23/10	JWG1003997	
Chlorobenzilate	ND	U	440	37	40	11/11/10	11/23/10	JWG1003997	
Chrysene	ND	U	220	38	40	11/11/10	11/23/10	JWG1003997	
Di-n-butyl Phthalate	ND	U	220	42	40	11/11/10	11/23/10	JWG1003997	
Di-n-octyl Phthalate	ND	U	220	41	40	11/11/10	11/23/10	JWG1003997	
Diallate	ND	U	220	44	40	11/11/10	11/23/10	JWG1003997	
Dibenz(a,h)anthracene	ND	U	220	27	40	11/11/10	11/23/10	JWG1003997	
Dibenzofuran	ND	U	220	34	40	11/11/10	11/23/10	JWG1003997	
Diethyl Phthalate	ND	U	220	180	40	11/11/10	11/23/10	JWG1003997	
Dimethoate	ND	U	220	39	40	11/11/10	11/23/10	JWG1003997	
Dimethyl Phthalate	ND	U	220	33	40	11/11/10	11/23/10	JWG1003997	

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

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** 11/10/2010  
**Date Received:** 11/11/2010

**Semi-Volatile Organic Compounds by GC/MS (Appendix II)**

<b>Sample Name:</b>	L-4	<b>Units:</b>	ug/L
<b>Lab Code:</b>	J1005462-003	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8270C		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dinoseb	ND U	440	27	40	11/11/10	11/23/10	JWG1003997	
Disulfoton	ND U	220	23	40	11/11/10	11/23/10	JWG1003997	
Ethyl Methanesulfonate	ND U	220	28	40	11/11/10	11/23/10	JWG1003997	
Famphur	ND UJ	440	30	40	11/11/10	11/23/10	JWG1003997	J(3)
Fluoranthene	ND U	220	29	40	11/11/10	11/23/10	JWG1003997	
Fluorene	ND U	220	38	40	11/11/10	11/23/10	JWG1003997	
Hexachlorobenzene	ND U	220	28	40	11/11/10	11/23/10	JWG1003997	
Hexachlorobutadiene	ND U	220	27	40	11/11/10	11/23/10	JWG1003997	
Hexachlorocyclopentadiene	ND U	220	18	40	11/11/10	11/23/10	JWG1003997	
Hexachloroethane	ND U	220	40	40	11/11/10	11/23/10	JWG1003997	
Hexachloropropene	ND U	220	82	40	11/11/10	11/23/10	JWG1003997	
Indeno(1,2,3-cd)pyrene	ND U	220	24	40	11/11/10	11/23/10	JWG1003997	
Isodrin	ND U	440	31	40	11/11/10	11/23/10	JWG1003997	
Isophorone	ND U	220	35	40	11/11/10	11/23/10	JWG1003997	
Isosafrole	ND U	220	33	40	11/11/10	11/23/10	JWG1003997	
Kepone	ND UJ	2200	190	40	11/11/10	11/23/10	JWG1003997	J(3)
Methapyrilene	ND U	220	65	40	11/11/10	11/23/10	JWG1003997	
Methyl Methanesulfonate	ND UJ	220	25	40	11/11/10	11/23/10	JWG1003997	J(3)
Methyl Parathion	ND U	440	48	40	11/11/10	11/23/10	JWG1003997	
N-Nitrosodi-n-butylamine	ND U	220	29	40	11/11/10	11/23/10	JWG1003997	
N-Nitrosodi-n-propylamine	ND U	220	30	40	11/11/10	11/23/10	JWG1003997	
N-Nitrosodiethylamine	ND U	220	28	40	11/11/10	11/23/10	JWG1003997	
N-Nitrosodimethylamine	ND U	220	32	40	11/11/10	11/23/10	JWG1003997	
N-Nitrosodiphenylamine†	ND U	220	42	40	11/11/10	11/23/10	JWG1003997	
N-Nitrosomethylalkylamine	ND U	220	36	40	11/11/10	11/23/10	JWG1003997	
N-Nitrosopiperidine	ND U	220	69	40	11/11/10	11/23/10	JWG1003997	
N-Nitrosopyrrolidine	ND U	220	31	40	11/11/10	11/23/10	JWG1003997	
Naphthalene	ND U	220	34	40	11/11/10	11/23/10	JWG1003997	
Nitrobenzene	ND U	220	32	40	11/11/10	11/23/10	JWG1003997	
O,O,O-Triethyl Phosphorothioate	ND U	870	23	40	11/11/10	11/23/10	JWG1003997	
o-Tolidine	ND U	220	39	40	11/11/10	11/23/10	JWG1003997	
p-Dimethylaminoazobenzene	ND U	220	39	40	11/11/10	11/23/10	JWG1003997	
p-Phenylenediamine	ND U	870	48	40	11/11/10	11/23/10	JWG1003997	

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

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** 11/10/2010  
**Date Received:** 11/11/2010

## Semi-Volatile Organic Compounds by GC/MS (Appendix II)

**Sample Name:** L-4 **Units:** ug/L  
**Lab Code:** J1005462-003 **Basis:** NA  
**Extraction Method:** EPA 3510C **Level:** Low  
**Analysis Method:** 8270C

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Parathion	ND U	870	40	40	11/11/10	11/23/10	JWG1003997	
Pentachlorobenzene	ND U	220	110	40	11/11/10	11/23/10	JWG1003997	
Pentachloronitrobenzene	ND U	220	65	40	11/11/10	11/23/10	JWG1003997	
Pentachlorophenol	ND UJ	870	29	40	11/11/10	11/23/10	JWG1003997	J(3)
Phenacetin	ND U	220	39	40	11/11/10	11/23/10	JWG1003997	
Phenanthrene	ND U	220	31	40	11/11/10	11/23/10	JWG1003997	
Phenol	1100	220	19	40	11/11/10	11/23/10	JWG1003997	
Phorate	ND UJ	220	38	40	11/11/10	11/23/10	JWG1003997	J(3)
Pronamide	ND U	870	37	40	11/11/10	11/23/10	JWG1003997	
Pyrene	ND U	220	37	40	11/11/10	11/23/10	JWG1003997	
Safrole	ND U	220	31	40	11/11/10	11/23/10	JWG1003997	
Thionazin	ND U	440	35	40	11/11/10	11/23/10	JWG1003997	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2,4,6-Tribromophenol	70	30-143	11/23/10	Acceptable
2-Fluorobiphenyl	57	30-102	11/23/10	Acceptable
2-Fluorophenol	30	10-77	11/23/10	Acceptable
Nitrobenzene-d5	98	32-106	11/23/10	Acceptable
Phenol-d6	42	10-51	11/23/10	Acceptable
Terphenyl-d14	47	23-165	11/23/10	Acceptable

## † Analyte Comments

1,4-Naphthoquinone Analyte searched for as a tentatively identified compound.  
 4-Methylphenol This analyte cannot be separated from 3-Methylphenol.  
 N-Nitrosodiphenylamine This analyte can not be separated from Diphenylamine.

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

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** 11/10/2010  
**Date Received:** 11/11/2010

## Semi-Volatile Organic Compounds by GC/MS (Appendix II)

<b>Sample Name:</b>	L-1	<b>Units:</b>	ug/L
<b>Lab Code:</b>	J1005462-005	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2,4,5-Tetrachlorobenzene	ND	U	54	6.0	10	11/11/10	11/23/10	JWG1003997	
1,2,4-Trichlorobenzene	ND	U	54	8.4	10	11/11/10	11/23/10	JWG1003997	
1,2-Dichlorobenzene	ND	U	54	8.0	10	11/11/10	11/23/10	JWG1003997	
1,3,5-Trinitrobenzene	ND	U	54	12	10	11/11/10	11/23/10	JWG1003997	
1,3-Dichlorobenzene	ND	U	54	7.6	10	11/11/10	11/23/10	JWG1003997	
1,3-Dinitrobenzene	ND	U	110	17	10	11/11/10	11/23/10	JWG1003997	
1,4-Dichlorobenzene	ND	U	54	13	10	11/11/10	11/23/10	JWG1003997	
1,4-Naphthoquinone†	ND	U	110	110	10	11/11/10	11/23/10	JWG1003997	
1-Naphthylamine	ND	U	54	12	10	11/11/10	11/23/10	JWG1003997	
2,3,4,6-Tetrachlorophenol	ND	U	54	13	10	11/11/10	11/23/10	JWG1003997	
2,4,5-Trichlorophenol	ND	U	54	7.0	10	11/11/10	11/23/10	JWG1003997	
2,4,6-Trichlorophenol	ND	U	54	7.9	10	11/11/10	11/23/10	JWG1003997	
2,4-Dichlorophenol	ND	U	54	5.4	10	11/11/10	11/23/10	JWG1003997	
2,4-Dimethylphenol	11	I	54	8.5	10	11/11/10	11/23/10	JWG1003997	
2,4-Dinitrophenol	ND	UJ	220	5.9	10	11/11/10	11/23/10	JWG1003997	J(3)
2,4-Dinitrotoluene	ND	U	54	45	10	11/11/10	11/23/10	JWG1003997	
2,6-Dichlorophenol	ND	U	110	7.8	10	11/11/10	11/23/10	JWG1003997	
2,6-Dinitrotoluene	ND	U	54	9.0	10	11/11/10	11/23/10	JWG1003997	
2-Acetylaminofluorene	ND	U	54	9.7	10	11/11/10	11/23/10	JWG1003997	
2-Chloronaphthalene	ND	U	54	7.7	10	11/11/10	11/23/10	JWG1003997	
2-Chlorophenol	ND	U	54	8.1	10	11/11/10	11/23/10	JWG1003997	
2-Methyl-4,6-dinitrophenol	ND	UJ	220	6.9	10	11/11/10	11/23/10	JWG1003997	J(3)
2-Methylnaphthalene	ND	U	54	8.0	10	11/11/10	11/23/10	JWG1003997	
2-Methylphenol	16	I	54	6.9	10	11/11/10	11/23/10	JWG1003997	
2-Naphthylamine	ND	UJ	54	12	10	11/11/10	11/23/10	JWG1003997	J(3)
2-Nitroaniline	ND	U	54	6.0	10	11/11/10	11/23/10	JWG1003997	
2-Nitrophenol	ND	U	220	6.5	10	11/11/10	11/23/10	JWG1003997	
3,3'-Dichlorobenzidine	ND	U	220	9.6	10	11/11/10	11/23/10	JWG1003997	
3,3'-Dimethylbenzidine	ND	U	220	25	10	11/11/10	11/23/10	JWG1003997	
3-Methylcholanthrene	ND	U	54	11	10	11/11/10	11/23/10	JWG1003997	
3-Nitroaniline	ND	U	54	8.1	10	11/11/10	11/23/10	JWG1003997	
4-Aminobiphenyl	ND	U	54	11	10	11/11/10	11/23/10	JWG1003997	
4-Bromophenyl Phenyl Ether	ND	U	54	7.3	10	11/11/10	11/23/10	JWG1003997	

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

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** 11/10/2010  
**Date Received:** 11/11/2010

## Semi-Volatile Organic Compounds by GC/MS (Appendix II)

**Sample Name:** L-1 **Units:** ug/L  
**Lab Code:** J1005462-005 **Basis:** NA

**Extraction Method:** EPA 3510C **Level:** Low  
**Analysis Method:** 8270C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Chloro-3-methylphenol	ND	U	54	8.1	10	11/11/10	11/23/10	JWG1003997	
4-Chloroaniline	ND	U	54	5.7	10	11/11/10	11/23/10	JWG1003997	
4-Chlorophenyl Phenyl Ether	ND	U	54	6.6	10	11/11/10	11/23/10	JWG1003997	
4-Methylphenol†	290		54	8.3	10	11/11/10	11/23/10	JWG1003997	
4-Nitroaniline	ND	U	54	9.9	10	11/11/10	11/23/10	JWG1003997	
4-Nitrophenol	ND	UJ	220	10	10	11/11/10	11/23/10	JWG1003997	J(3)
5-Nitro-o-toluidine	ND	U	54	11	10	11/11/10	11/23/10	JWG1003997	
7,12-Dimethylbenz(a)anthracene	ND	U	54	9.4	10	11/11/10	11/23/10	JWG1003997	
Acenaphthene	ND	U	54	11	10	11/11/10	11/23/10	JWG1003997	
Acenaphthylene	ND	U	54	6.3	10	11/11/10	11/23/10	JWG1003997	
Acetophenone	ND	U	110	14	10	11/11/10	11/23/10	JWG1003997	
Anthracene	ND	U	54	7.7	10	11/11/10	11/23/10	JWG1003997	
Benz(a)anthracene	ND	U	54	9.3	10	11/11/10	11/23/10	JWG1003997	
Benzo(a)pyrene	ND	U	54	6.8	10	11/11/10	11/23/10	JWG1003997	
Benzo(b)fluoranthene	ND	U	54	9.4	10	11/11/10	11/23/10	JWG1003997	
Benzo(g,h,i)perylene	ND	U	54	9.8	10	11/11/10	11/23/10	JWG1003997	
Benzo(k)fluoranthene	ND	U	54	5.9	10	11/11/10	11/23/10	JWG1003997	
Benzyl alcohol	ND	U	54	7.5	10	11/11/10	11/23/10	JWG1003997	
bis(2-Chloroethoxy)methane	ND	U	54	9.6	10	11/11/10	11/23/10	JWG1003997	
Bis(2-chloroethyl) Ether	ND	U	54	11	10	11/11/10	11/23/10	JWG1003997	
Bis(2-chloroisopropyl) Ether	ND	U	54	6.2	10	11/11/10	11/23/10	JWG1003997	
Bis(2-ethylhexyl) Phthalate	ND	U	54	11	10	11/11/10	11/23/10	JWG1003997	
Butyl Benzyl Phthalate	ND	U	110	12	10	11/11/10	11/23/10	JWG1003997	
Chlorobenzilate	ND	U	110	9.1	10	11/11/10	11/23/10	JWG1003997	
Chrysene	ND	U	54	9.4	10	11/11/10	11/23/10	JWG1003997	
Di-n-butyl Phthalate	ND	U	54	11	10	11/11/10	11/23/10	JWG1003997	
Di-n-octyl Phthalate	ND	U	54	11	10	11/11/10	11/23/10	JWG1003997	
Diallate	ND	U	54	11	10	11/11/10	11/23/10	JWG1003997	
Dibenz(a,h)anthracene	ND	U	54	6.7	10	11/11/10	11/23/10	JWG1003997	
Dibenzofuran	ND	U	54	8.5	10	11/11/10	11/23/10	JWG1003997	
Diethyl Phthalate	ND	U	54	45	10	11/11/10	11/23/10	JWG1003997	
Dimethoate	ND	U	54	9.7	10	11/11/10	11/23/10	JWG1003997	
Dimethyl Phthalate	ND	U	54	8.2	10	11/11/10	11/23/10	JWG1003997	

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

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** 11/10/2010  
**Date Received:** 11/11/2010

**Semi-Volatile Organic Compounds by GC/MS (Appendix II)**

<b>Sample Name:</b>	L-1	<b>Units:</b>	ug/L
<b>Lab Code:</b>	J1005462-005	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8270C		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dinoseb	ND U	110	6.6	10	11/11/10	11/23/10	JWG1003997	
Disulfoton	ND U	54	5.6	10	11/11/10	11/23/10	JWG1003997	
Ethyl Methanesulfonate	ND U	54	7.0	10	11/11/10	11/23/10	JWG1003997	
Famphur	ND UJ	110	7.5	10	11/11/10	11/23/10	JWG1003997	J(3)
Fluoranthene	ND U	54	7.1	10	11/11/10	11/23/10	JWG1003997	
Fluorene	ND U	54	9.5	10	11/11/10	11/23/10	JWG1003997	
Hexachlorobenzene	ND U	54	6.8	10	11/11/10	11/23/10	JWG1003997	
Hexachlorobutadiene	ND U	54	6.6	10	11/11/10	11/23/10	JWG1003997	
Hexachlorocyclopentadiene	ND U	54	4.5	10	11/11/10	11/23/10	JWG1003997	
Hexachloroethane	ND U	54	9.9	10	11/11/10	11/23/10	JWG1003997	
Hexachloropropene	ND U	54	21	10	11/11/10	11/23/10	JWG1003997	
Indeno(1,2,3-cd)pyrene	ND U	54	6.0	10	11/11/10	11/23/10	JWG1003997	
Isodrin	ND U	110	7.7	10	11/11/10	11/23/10	JWG1003997	
Isophorone	ND U	54	8.7	10	11/11/10	11/23/10	JWG1003997	
Isosafrole	ND U	54	8.1	10	11/11/10	11/23/10	JWG1003997	
Kepone	ND UJ	540	46	10	11/11/10	11/23/10	JWG1003997	J(3)
Methapyrilene	ND U	54	17	10	11/11/10	11/23/10	JWG1003997	
Methyl Methanesulfonate	ND UJ	54	6.1	10	11/11/10	11/23/10	JWG1003997	J(3)
Methyl Parathion	ND U	110	12	10	11/11/10	11/23/10	JWG1003997	
N-Nitrosodi-n-butylamine	ND U	54	7.3	10	11/11/10	11/23/10	JWG1003997	
N-Nitrosodi-n-propylamine	ND U	54	7.4	10	11/11/10	11/23/10	JWG1003997	
N-Nitrosodiethylamine	ND U	54	6.8	10	11/11/10	11/23/10	JWG1003997	
N-Nitrosodimethylamine	ND U	54	7.9	10	11/11/10	11/23/10	JWG1003997	
N-Nitrosodiphenylamine†	ND U	54	11	10	11/11/10	11/23/10	JWG1003997	
N-Nitrosomethylalkylamine	ND U	54	8.9	10	11/11/10	11/23/10	JWG1003997	
N-Nitrosopiperidine	ND U	54	18	10	11/11/10	11/23/10	JWG1003997	
N-Nitrosopyrrolidine	ND U	54	7.6	10	11/11/10	11/23/10	JWG1003997	
Naphthalene	ND U	54	8.5	10	11/11/10	11/23/10	JWG1003997	
Nitrobenzene	ND U	54	7.9	10	11/11/10	11/23/10	JWG1003997	
O,O,O-Triethyl Phosphorothioate	ND U	220	5.6	10	11/11/10	11/23/10	JWG1003997	
o-Toluidine	ND U	54	9.6	10	11/11/10	11/23/10	JWG1003997	
p-Dimethylaminoazobenzene	ND U	54	9.6	10	11/11/10	11/23/10	JWG1003997	
p-Phenylenediamine	ND U	220	12	10	11/11/10	11/23/10	JWG1003997	

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

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** 11/10/2010  
**Date Received:** 11/11/2010

**Semi-Volatile Organic Compounds by GC/MS (Appendix II)**

<b>Sample Name:</b>	L-1	<b>Units:</b>	ug/L
<b>Lab Code:</b>	J1005462-005	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8270C		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Parathion	ND U	220	10	10	11/11/10	11/23/10	JWG1003997	
Pentachlorobenzene	ND U	54	26	10	11/11/10	11/23/10	JWG1003997	
Pentachloronitrobenzene	ND U	54	17	10	11/11/10	11/23/10	JWG1003997	
Pentachlorophenol	ND UJ	220	7.3	10	11/11/10	11/23/10	JWG1003997	J(3)
Phenacetin	ND U	54	9.6	10	11/11/10	11/23/10	JWG1003997	
Phenanthrene	ND U	54	7.6	10	11/11/10	11/23/10	JWG1003997	
Phenol	220	54	4.6	10	11/11/10	11/23/10	JWG1003997	
Phorate	ND UJ	54	9.5	10	11/11/10	11/23/10	JWG1003997	J(3)
Pronamide	ND U	220	9.2	10	11/11/10	11/23/10	JWG1003997	
Pyrene	ND U	54	9.1	10	11/11/10	11/23/10	JWG1003997	
Safrole	ND U	54	7.7	10	11/11/10	11/23/10	JWG1003997	
Thionazin	ND U	110	8.8	10	11/11/10	11/23/10	JWG1003997	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2,4,6-Tribromophenol	63	30-143	11/23/10	Acceptable
2-Fluorobiphenyl	57	30-102	11/23/10	Acceptable
2-Fluorophenol	29	10-77	11/23/10	Acceptable
Nitrobenzene-d5	76	32-106	11/23/10	Acceptable
Phenol-d6	36	10-51	11/23/10	Acceptable
Terphenyl-d14	53	23-165	11/23/10	Acceptable

**† Analyte Comments**

1,4-Naphthoquinone	Analyte searched for as a tentatively identified compound.
4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.
N-Nitrosodiphenylamine	This analyte can not be separated from Diphenylamine.

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

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** 11/10/2010  
**Date Received:** 11/11/2010

## Semi-Volatile Organic Compounds by GC/MS (Appendix II)

<b>Sample Name:</b>	L-2	<b>Units:</b>	ug/L
<b>Lab Code:</b>	J1005462-007	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8270C		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2,4,5-Tetrachlorobenzene	ND U	220	25	40	11/11/10	11/23/10	JWG1003997	
1,2,4-Trichlorobenzene	ND U	220	35	40	11/11/10	11/23/10	JWG1003997	
1,2-Dichlorobenzene	ND U	220	33	40	11/11/10	11/23/10	JWG1003997	
1,3,5-Trinitrobenzene	ND U	220	49	40	11/11/10	11/23/10	JWG1003997	
1,3-Dichlorobenzene	ND U	220	31	40	11/11/10	11/23/10	JWG1003997	
1,3-Dinitrobenzene	ND U	440	66	40	11/11/10	11/23/10	JWG1003997	
1,4-Dichlorobenzene	ND U	220	53	40	11/11/10	11/23/10	JWG1003997	
1,4-Naphthoquinone†	ND U	440	440	40	11/11/10	11/23/10	JWG1003997	
1-Naphthylamine	ND U	220	49	40	11/11/10	11/23/10	JWG1003997	
2,3,4,6-Tetrachlorophenol	ND U	220	53	40	11/11/10	11/23/10	JWG1003997	
2,4,5-Trichlorophenol	ND U	220	29	40	11/11/10	11/23/10	JWG1003997	
2,4,6-Trichlorophenol	ND U	220	33	40	11/11/10	11/23/10	JWG1003997	
2,4-Dichlorophenol	ND U	220	22	40	11/11/10	11/23/10	JWG1003997	
2,4-Dimethylphenol	ND UJ	220	35	40	11/11/10	11/23/10	JWG1003997	J(3)
2,4-Dinitrophenol	ND UJ	880	24	40	11/11/10	11/23/10	JWG1003997	J(3)
2,4-Dinitrotoluene	ND U	220	190	40	11/11/10	11/23/10	JWG1003997	
2,6-Dichlorophenol	ND U	440	32	40	11/11/10	11/23/10	JWG1003997	
2,6-Dinitrotoluene	ND U	220	37	40	11/11/10	11/23/10	JWG1003997	
2-Acetylaminofluorene	ND U	220	40	40	11/11/10	11/23/10	JWG1003997	
2-Chloronaphthalene	ND U	220	32	40	11/11/10	11/23/10	JWG1003997	
2-Chlorophenol	ND U	220	33	40	11/11/10	11/23/10	JWG1003997	
2-Methyl-4,6-dinitrophenol	ND UJ	880	29	40	11/11/10	11/23/10	JWG1003997	J(3)
2-Methylnaphthalene	ND U	220	33	40	11/11/10	11/23/10	JWG1003997	
2-Methylphenol	ND U	220	29	40	11/11/10	11/23/10	JWG1003997	
2-Naphthylamine	ND UJ	220	49	40	11/11/10	11/23/10	JWG1003997	J(3)
2-Nitroaniline	ND U	220	25	40	11/11/10	11/23/10	JWG1003997	
2-Nitrophenol	ND U	880	27	40	11/11/10	11/23/10	JWG1003997	
3,3'-Dichlorobenzidine	ND U	880	40	40	11/11/10	11/23/10	JWG1003997	
3,3'-Dimethylbenzidine	ND U	880	110	40	11/11/10	11/23/10	JWG1003997	
3-Methylcholanthrene	ND U	220	43	40	11/11/10	11/23/10	JWG1003997	
3-Nitroaniline	ND U	220	33	40	11/11/10	11/23/10	JWG1003997	
4-Aminobiphenyl	ND U	220	44	40	11/11/10	11/23/10	JWG1003997	
4-Bromophenyl Phenyl Ether	ND U	220	30	40	11/11/10	11/23/10	JWG1003997	

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

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** 11/10/2010  
**Date Received:** 11/11/2010

## Semi-Volatile Organic Compounds by GC/MS (Appendix II)

**Sample Name:** L-2 **Units:** ug/L  
**Lab Code:** J1005462-007 **Basis:** NA  
**Extraction Method:** EPA 3510C **Level:** Low  
**Analysis Method:** 8270C

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Chloro-3-methylphenol	ND U	220	33	40	11/11/10	11/23/10	JWG1003997	
4-Chloroaniline	ND U	220	24	40	11/11/10	11/23/10	JWG1003997	
4-Chlorophenyl Phenyl Ether	ND U	220	27	40	11/11/10	11/23/10	JWG1003997	
4-Methylphenol†	900	220	34	40	11/11/10	11/23/10	JWG1003997	
4-Nitroaniline	ND U	220	41	40	11/11/10	11/23/10	JWG1003997	
4-Nitrophenol	ND UJ	880	41	40	11/11/10	11/23/10	JWG1003997	J(3)
5-Nitro-o-toluidine	ND U	220	44	40	11/11/10	11/23/10	JWG1003997	
7,12-Dimethylbenz(a)anthracene	ND U	220	39	40	11/11/10	11/23/10	JWG1003997	
Acenaphthene	ND U	220	44	40	11/11/10	11/23/10	JWG1003997	
Acenaphthylene	ND U	220	26	40	11/11/10	11/23/10	JWG1003997	
Acetophenone	ND U	440	58	40	11/11/10	11/23/10	JWG1003997	
Anthracene	ND U	220	32	40	11/11/10	11/23/10	JWG1003997	
Benz(a)anthracene	ND U	220	38	40	11/11/10	11/23/10	JWG1003997	
Benzo(a)pyrene	ND U	220	28	40	11/11/10	11/23/10	JWG1003997	
Benzo(b)fluoranthene	ND U	220	39	40	11/11/10	11/23/10	JWG1003997	
Benzo(g,h,i)perylene	ND U	220	40	40	11/11/10	11/23/10	JWG1003997	
Benzo(k)fluoranthene	ND U	220	24	40	11/11/10	11/23/10	JWG1003997	
Benzyl alcohol	ND U	220	31	40	11/11/10	11/23/10	JWG1003997	
bis(2-Chloroethoxy)methane	ND U	220	40	40	11/11/10	11/23/10	JWG1003997	
Bis(2-chloroethyl) Ether	ND U	220	43	40	11/11/10	11/23/10	JWG1003997	
Bis(2-chloroisopropyl) Ether	ND U	220	26	40	11/11/10	11/23/10	JWG1003997	
Bis(2-ethylhexyl) Phthalate	ND U	220	44	40	11/11/10	11/23/10	JWG1003997	
Butyl Benzyl Phthalate	ND U	440	49	40	11/11/10	11/23/10	JWG1003997	
Chlorobenzilate	ND U	440	37	40	11/11/10	11/23/10	JWG1003997	
Chrysene	ND U	220	39	40	11/11/10	11/23/10	JWG1003997	
Di-n-butyl Phthalate	ND U	220	43	40	11/11/10	11/23/10	JWG1003997	
Di-n-octyl Phthalate	ND U	220	42	40	11/11/10	11/23/10	JWG1003997	
Diallate	ND U	220	44	40	11/11/10	11/23/10	JWG1003997	
Dibenz(a,h)anthracene	ND U	220	28	40	11/11/10	11/23/10	JWG1003997	
Dibenzofuran	ND U	220	35	40	11/11/10	11/23/10	JWG1003997	
Diethyl Phthalate	ND U	220	190	40	11/11/10	11/23/10	JWG1003997	
Dimethoate	ND U	220	40	40	11/11/10	11/23/10	JWG1003997	
Dimethyl Phthalate	ND U	220	34	40	11/11/10	11/23/10	JWG1003997	

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

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** 11/10/2010  
**Date Received:** 11/11/2010

## Semi-Volatile Organic Compounds by GC/MS (Appendix II)

**Sample Name:** L-2 **Units:** ug/L  
**Lab Code:** J1005462-007 **Basis:** NA  
**Extraction Method:** EPA 3510C **Level:** Low  
**Analysis Method:** 8270C

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dinoseb	ND U	440	27	40	11/11/10	11/23/10	JWG1003997	
Disulfoton	ND U	220	23	40	11/11/10	11/23/10	JWG1003997	
Ethyl Methanesulfonate	ND U	220	29	40	11/11/10	11/23/10	JWG1003997	
Famphur	ND UJ	440	31	40	11/11/10	11/23/10	JWG1003997	J(3)
Fluoranthene	ND U	220	30	40	11/11/10	11/23/10	JWG1003997	
Fluorene	ND U	220	39	40	11/11/10	11/23/10	JWG1003997	
Hexachlorobenzene	ND U	220	28	40	11/11/10	11/23/10	JWG1003997	
Hexachlorobutadiene	ND U	220	27	40	11/11/10	11/23/10	JWG1003997	
Hexachlorocyclopentadiene	ND U	220	19	40	11/11/10	11/23/10	JWG1003997	
Hexachloroethane	ND U	220	41	40	11/11/10	11/23/10	JWG1003997	
Hexachloropropene	ND U	220	84	40	11/11/10	11/23/10	JWG1003997	
Indeno(1,2,3-cd)pyrene	ND U	220	25	40	11/11/10	11/23/10	JWG1003997	
Isodrin	ND U	440	32	40	11/11/10	11/23/10	JWG1003997	
Isophorone	ND U	220	36	40	11/11/10	11/23/10	JWG1003997	
Isosafrole	ND U	220	33	40	11/11/10	11/23/10	JWG1003997	
Kepone	ND UJ	2200	190	40	11/11/10	11/23/10	JWG1003997	J(3)
Methapyrilene	ND U	220	66	40	11/11/10	11/23/10	JWG1003997	
Methyl Methanesulfonate	ND UJ	220	25	40	11/11/10	11/23/10	JWG1003997	J(3)
Methyl Parathion	ND U	440	49	40	11/11/10	11/23/10	JWG1003997	
N-Nitrosodi-n-butylamine	ND U	220	30	40	11/11/10	11/23/10	JWG1003997	
N-Nitrosodi-n-propylamine	310	220	30	40	11/11/10	11/23/10	JWG1003997	
N-Nitrosodiethylamine	ND U	220	28	40	11/11/10	11/23/10	JWG1003997	
N-Nitrosodimethylamine	ND U	220	33	40	11/11/10	11/23/10	JWG1003997	
N-Nitrosodiphenylamine†	ND U	220	43	40	11/11/10	11/23/10	JWG1003997	
N-Nitrosomethylalkylamine	ND U	220	37	40	11/11/10	11/23/10	JWG1003997	
N-Nitrosopiperidine	ND U	220	71	40	11/11/10	11/23/10	JWG1003997	
N-Nitrosopyrrolidine	ND U	220	31	40	11/11/10	11/23/10	JWG1003997	
Naphthalene	ND U	220	35	40	11/11/10	11/23/10	JWG1003997	
Nitrobenzene	ND U	220	33	40	11/11/10	11/23/10	JWG1003997	
O,O,O-Triethyl Phosphorothioate	ND U	880	23	40	11/11/10	11/23/10	JWG1003997	
o-Toluidine	ND U	220	40	40	11/11/10	11/23/10	JWG1003997	
p-Dimethylaminoazobenzene	ND U	220	40	40	11/11/10	11/23/10	JWG1003997	
p-Phenylenediamine	ND U	880	49	40	11/11/10	11/23/10	JWG1003997	

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

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** 11/10/2010  
**Date Received:** 11/11/2010

**Semi-Volatile Organic Compounds by GC/MS (Appendix II)**

**Sample Name:** L-2 **Units:** ug/L  
**Lab Code:** J1005462-007 **Basis:** NA

**Extraction Method:** EPA 3510C **Level:** Low  
**Analysis Method:** 8270C

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Parathion	ND U	880	41	40	11/11/10	11/23/10	JWG1003997	
Pentachlorobenzene	ND U	220	110	40	11/11/10	11/23/10	JWG1003997	
Pentachloronitrobenzene	ND U	220	66	40	11/11/10	11/23/10	JWG1003997	
Pentachlorophenol	ND UJ	880	30	40	11/11/10	11/23/10	JWG1003997	J(3)
Phenacetin	ND U	220	40	40	11/11/10	11/23/10	JWG1003997	
Phenanthrene	ND U	220	31	40	11/11/10	11/23/10	JWG1003997	
Phenol	980	220	19	40	11/11/10	11/23/10	JWG1003997	
Phorate	ND UJ	220	39	40	11/11/10	11/23/10	JWG1003997	J(3)
Pronamide	ND U	880	38	40	11/11/10	11/23/10	JWG1003997	
Pyrene	ND U	220	37	40	11/11/10	11/23/10	JWG1003997	
Safrole	ND U	220	32	40	11/11/10	11/23/10	JWG1003997	
Thionazin	ND U	440	36	40	11/11/10	11/23/10	JWG1003997	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2,4,6-Tribromophenol	50	30-143	11/23/10	Acceptable
2-Fluorobiphenyl	65	30-102	11/23/10	Acceptable
2-Fluorophenol	27	10-77	11/23/10	Acceptable
Nitrobenzene-d5	102	32-106	11/23/10	Acceptable
Phenol-d6	45	10-51	11/23/10	Acceptable
Terphenyl-d14	50	23-165	11/23/10	Acceptable

**† Analyte Comments**

1,4-Naphthoquinone	Analyte searched for as a tentatively identified compound.
4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.
N-Nitrosodiphenylamine	This analyte can not be separated from Diphenylamine.

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

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** NA  
**Date Received:** NA

## Semi-Volatile Organic Compounds by GC/MS (Appendix II)

<b>Sample Name:</b>	Method Blank	<b>Units:</b>	ug/L
<b>Lab Code:</b>	JWG1003997-4	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2,4,5-Tetrachlorobenzene	ND	U	5.0	0.55	1	11/11/10	11/23/10	JWG1003997	
1,2,4-Trichlorobenzene	ND	U	5.0	0.78	1	11/11/10	11/23/10	JWG1003997	
1,2-Dichlorobenzene	ND	U	5.0	0.74	1	11/11/10	11/23/10	JWG1003997	
1,3,5-Trinitrobenzene	ND	U	5.0	1.1	1	11/11/10	11/23/10	JWG1003997	
1,3-Dichlorobenzene	ND	U	5.0	0.70	1	11/11/10	11/23/10	JWG1003997	
1,3-Dinitrobenzene	ND	U	10	1.5	1	11/11/10	11/23/10	JWG1003997	
1,4-Dichlorobenzene	ND	U	5.0	1.2	1	11/11/10	11/23/10	JWG1003997	
1,4-Naphthoquinone†	ND	U	10	10	1	11/11/10	11/23/10	JWG1003997	
1-Naphthylamine	ND	U	5.0	1.1	1	11/11/10	11/23/10	JWG1003997	
2,3,4,6-Tetrachlorophenol	ND	U	5.0	1.2	1	11/11/10	11/23/10	JWG1003997	
2,4,5-Trichlorophenol	ND	U	5.0	0.65	1	11/11/10	11/23/10	JWG1003997	
2,4,6-Trichlorophenol	ND	U	5.0	0.73	1	11/11/10	11/23/10	JWG1003997	
2,4-Dichlorophenol	ND	U	5.0	0.50	1	11/11/10	11/23/10	JWG1003997	
2,4-Dimethylphenol	ND	UJ	5.0	0.79	1	11/11/10	11/23/10	JWG1003997	J(3)
2,4-Dinitrophenol	ND	UJ	20	0.54	1	11/11/10	11/23/10	JWG1003997	J(3)
2,4-Dinitrotoluene	ND	U	5.0	4.1	1	11/11/10	11/23/10	JWG1003997	
2,6-Dichlorophenol	ND	U	10	0.72	1	11/11/10	11/23/10	JWG1003997	
2,6-Dinitrotoluene	ND	U	5.0	0.83	1	11/11/10	11/23/10	JWG1003997	
2-Acetylaminofluorene	ND	U	5.0	0.90	1	11/11/10	11/23/10	JWG1003997	
2-Chloronaphthalene	ND	U	5.0	0.71	1	11/11/10	11/23/10	JWG1003997	
2-Chlorophenol	ND	U	5.0	0.75	1	11/11/10	11/23/10	JWG1003997	
2-Methyl-4,6-dinitrophenol	ND	UJ	20	0.64	1	11/11/10	11/23/10	JWG1003997	J(3)
2-Methylnaphthalene	ND	U	5.0	0.74	1	11/11/10	11/23/10	JWG1003997	
2-Methylphenol	ND	U	5.0	0.64	1	11/11/10	11/23/10	JWG1003997	
2-Naphthylamine	ND	UJ	5.0	1.1	1	11/11/10	11/23/10	JWG1003997	J(3)
2-Nitroaniline	ND	U	5.0	0.55	1	11/11/10	11/23/10	JWG1003997	
2-Nitrophenol	ND	U	20	0.60	1	11/11/10	11/23/10	JWG1003997	
3,3'-Dichlorobenzidine	ND	U	20	0.89	1	11/11/10	11/23/10	JWG1003997	
3,3'-Dimethylbenzidine	ND	U	20	2.3	1	11/11/10	11/23/10	JWG1003997	
3-Methylcholanthrene	ND	U	5.0	0.97	1	11/11/10	11/23/10	JWG1003997	
3-Nitroaniline	ND	U	5.0	0.75	1	11/11/10	11/23/10	JWG1003997	
4-Aminobiphenyl	ND	U	5.0	0.99	1	11/11/10	11/23/10	JWG1003997	
4-Bromophenyl Phenyl Ether	ND	U	5.0	0.67	1	11/11/10	11/23/10	JWG1003997	

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

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** NA  
**Date Received:** NA

**Semi-Volatile Organic Compounds by GC/MS (Appendix II)**

<b>Sample Name:</b>	Method Blank	<b>Units:</b>	ug/L
<b>Lab Code:</b>	JWG1003997-4	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Chloro-3-methylphenol	ND	U	5.0	0.75	1	11/11/10	11/23/10	JWG1003997	
4-Chloroaniline	ND	U	5.0	0.53	1	11/11/10	11/23/10	JWG1003997	
4-Chlorophenyl Phenyl Ether	ND	U	5.0	0.61	1	11/11/10	11/23/10	JWG1003997	
4-Methylphenol†	ND	U	5.0	0.77	1	11/11/10	11/23/10	JWG1003997	
4-Nitroaniline	ND	U	5.0	0.92	1	11/11/10	11/23/10	JWG1003997	
4-Nitrophenol	ND	UJ	20	0.93	1	11/11/10	11/23/10	JWG1003997	J(3)
5-Nitro-o-toluidine	ND	U	5.0	1.0	1	11/11/10	11/23/10	JWG1003997	
7,12-Dimethylbenz(a)anthracene	ND	U	5.0	0.87	1	11/11/10	11/23/10	JWG1003997	
Acenaphthene	ND	U	5.0	0.99	1	11/11/10	11/23/10	JWG1003997	
Acenaphthylene	ND	U	5.0	0.58	1	11/11/10	11/23/10	JWG1003997	
Acetophenone	ND	U	10	1.3	1	11/11/10	11/23/10	JWG1003997	
Anthracene	ND	U	5.0	0.71	1	11/11/10	11/23/10	JWG1003997	
Benz(a)anthracene	ND	U	5.0	0.86	1	11/11/10	11/23/10	JWG1003997	
Benzo(a)pyrene	ND	U	5.0	0.63	1	11/11/10	11/23/10	JWG1003997	
Benzo(b)fluoranthene	ND	U	5.0	0.87	1	11/11/10	11/23/10	JWG1003997	
Benzo(g,h,i)perylene	ND	U	5.0	0.91	1	11/11/10	11/23/10	JWG1003997	
Benzo(k)fluoranthene	ND	U	5.0	0.54	1	11/11/10	11/23/10	JWG1003997	
Benzyl alcohol	ND	U	5.0	0.69	1	11/11/10	11/23/10	JWG1003997	
bis(2-Chloroethoxy)methane	ND	U	5.0	0.89	1	11/11/10	11/23/10	JWG1003997	
Bis(2-chloroethyl) Ether	ND	U	5.0	0.96	1	11/11/10	11/23/10	JWG1003997	
Bis(2-chloroisopropyl) Ether	ND	U	5.0	0.57	1	11/11/10	11/23/10	JWG1003997	
Bis(2-ethylhexyl) Phthalate	ND	U	5.0	0.98	1	11/11/10	11/23/10	JWG1003997	
Butyl Benzyl Phthalate	ND	U	10	1.1	1	11/11/10	11/23/10	JWG1003997	
Chlorobenzilate	ND	U	10	0.84	1	11/11/10	11/23/10	JWG1003997	
Chrysene	ND	U	5.0	0.87	1	11/11/10	11/23/10	JWG1003997	
Di-n-butyl Phthalate	ND	U	5.0	0.97	1	11/11/10	11/23/10	JWG1003997	
Di-n-octyl Phthalate	ND	U	5.0	0.95	1	11/11/10	11/23/10	JWG1003997	
Diallate	ND	U	5.0	1.0	1	11/11/10	11/23/10	JWG1003997	
Dibenz(a,h)anthracene	ND	U	5.0	0.62	1	11/11/10	11/23/10	JWG1003997	
Dibenzofuran	ND	U	5.0	0.79	1	11/11/10	11/23/10	JWG1003997	
Diethyl Phthalate	ND	U	5.0	4.1	1	11/11/10	11/23/10	JWG1003997	
Dimethoate	ND	U	5.0	0.90	1	11/11/10	11/23/10	JWG1003997	
Dimethyl Phthalate	ND	U	5.0	0.76	1	11/11/10	11/23/10	JWG1003997	

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

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** NA  
**Date Received:** NA

## Semi-Volatile Organic Compounds by GC/MS (Appendix II)

**Sample Name:** Method Blank      **Units:** ug/L  
**Lab Code:** JWG1003997-4      **Basis:** NA  
**Extraction Method:** EPA 3510C      **Level:** Low  
**Analysis Method:** 8270C

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dinoseb	ND U	10	0.61	1	11/11/10	11/23/10	JWG1003997	
Disulfoton	ND U	5.0	0.52	1	11/11/10	11/23/10	JWG1003997	
Ethyl Methanesulfonate	ND U	5.0	0.65	1	11/11/10	11/23/10	JWG1003997	
Famphur	ND UJ	10	0.69	1	11/11/10	11/23/10	JWG1003997	J(3)
Fluoranthene	ND U	5.0	0.66	1	11/11/10	11/23/10	JWG1003997	
Fluorene	ND U	5.0	0.88	1	11/11/10	11/23/10	JWG1003997	
Hexachlorobenzene	ND U	5.0	0.63	1	11/11/10	11/23/10	JWG1003997	
Hexachlorobutadiene	ND U	5.0	0.61	1	11/11/10	11/23/10	JWG1003997	
Hexachlorocyclopentadiene	ND U	5.0	0.41	1	11/11/10	11/23/10	JWG1003997	
Hexachloroethane	ND U	5.0	0.92	1	11/11/10	11/23/10	JWG1003997	
Hexachloropropene	ND U	5.0	1.9	1	11/11/10	11/23/10	JWG1003997	
Indeno(1,2,3-cd)pyrene	ND U	5.0	0.55	1	11/11/10	11/23/10	JWG1003997	
Isodrin	ND U	10	0.71	1	11/11/10	11/23/10	JWG1003997	
Isophorone	ND U	5.0	0.80	1	11/11/10	11/23/10	JWG1003997	
Isosafrole	ND U	5.0	0.75	1	11/11/10	11/23/10	JWG1003997	
Kepone	ND UJ	50	4.2	1	11/11/10	11/23/10	JWG1003997	J(3)
Methapyrilene	ND U	5.0	1.5	1	11/11/10	11/23/10	JWG1003997	
Methyl Methanesulfonate	ND UJ	5.0	0.56	1	11/11/10	11/23/10	JWG1003997	J(3)
Methyl Parathion	ND U	10	1.1	1	11/11/10	11/23/10	JWG1003997	
N-Nitrosodi-n-butylamine	ND U	5.0	0.67	1	11/11/10	11/23/10	JWG1003997	
N-Nitrosodi-n-propylamine	ND U	5.0	0.68	1	11/11/10	11/23/10	JWG1003997	
N-Nitrosodiethylamine	ND U	5.0	0.63	1	11/11/10	11/23/10	JWG1003997	
N-Nitrosodimethylamine	ND U	5.0	0.73	1	11/11/10	11/23/10	JWG1003997	
N-Nitrosodiphenylamine†	ND U	5.0	0.96	1	11/11/10	11/23/10	JWG1003997	
N-Nitrosomethylalkylamine	ND U	5.0	0.82	1	11/11/10	11/23/10	JWG1003997	
N-Nitrosopiperidine	ND U	5.0	1.6	1	11/11/10	11/23/10	JWG1003997	
N-Nitrosopyrrolidine	ND U	5.0	0.70	1	11/11/10	11/23/10	JWG1003997	
Naphthalene	ND U	5.0	0.79	1	11/11/10	11/23/10	JWG1003997	
Nitrobenzene	ND U	5.0	0.73	1	11/11/10	11/23/10	JWG1003997	
O,O,O-Triethyl Phosphorothioate	ND U	20	0.52	1	11/11/10	11/23/10	JWG1003997	
o-Toluidine	ND U	5.0	0.89	1	11/11/10	11/23/10	JWG1003997	
p-Dimethylaminoazobenzene	ND U	5.0	0.89	1	11/11/10	11/23/10	JWG1003997	
p-Phenylenediamine	ND U	20	1.1	1	11/11/10	11/23/10	JWG1003997	

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

## COLUMBIA ANALYTICAL SERVICES, INC.

### Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** NA  
**Date Received:** NA

## Semi-Volatile Organic Compounds by GC/MS (Appendix II)

**Sample Name:** Method Blank      **Units:** ug/L  
**Lab Code:** JWG1003997-4      **Basis:** NA  
**Extraction Method:** EPA 3510C      **Level:** Low  
**Analysis Method:** 8270C

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Parathion	ND	U	20	0.93	1	11/11/10	11/23/10	JWG1003997	
Pentachlorobenzene	ND	U	5.0	2.4	1	11/11/10	11/23/10	JWG1003997	
Pentachloronitrobenzene	ND	U	5.0	1.5	1	11/11/10	11/23/10	JWG1003997	
Pentachlorophenol	ND	UJ	20	0.67	1	11/11/10	11/23/10	JWG1003997	J(3)
Phenacetin	ND	U	5.0	0.89	1	11/11/10	11/23/10	JWG1003997	
Phenanthrene	ND	U	5.0	0.70	1	11/11/10	11/23/10	JWG1003997	
Phenol	ND	U	5.0	0.42	1	11/11/10	11/23/10	JWG1003997	
Phorate	ND	UJ	5.0	0.88	1	11/11/10	11/23/10	JWG1003997	J(3)
Pronamide	ND	U	20	0.85	1	11/11/10	11/23/10	JWG1003997	
Pyrene	ND	U	5.0	0.84	1	11/11/10	11/23/10	JWG1003997	
Safrole	ND	U	5.0	0.71	1	11/11/10	11/23/10	JWG1003997	
Thionazin	ND	U	10	0.81	1	11/11/10	11/23/10	JWG1003997	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2,4,6-Tribromophenol	64	30-143	11/23/10	Acceptable
2-Fluorobiphenyl	61	30-102	11/23/10	Acceptable
2-Fluorophenol	29	10-77	11/23/10	Acceptable
Nitrobenzene-d5	60	32-106	11/23/10	Acceptable
Phenol-d6	21	10-51	11/23/10	Acceptable
Terphenyl-d14	75	23-165	11/23/10	Acceptable

#### **† Analyte Comments**

1,4-Naphthoquinone	Analyte searched for as a tentatively identified compound.
4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.
N-Nitrosodiphenylamine	This analyte can not be separated from Diphenylamine.

### Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** 11/10/2010  
**Date Received:** 11/11/2010

**Organochlorine Pesticides by GC-ECD**

<b>Sample Name:</b>	L-5	<b>Units:</b>	ug/L
<b>Lab Code:</b>	J1005462-001	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8081A		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND U	0.023	0.0088	1	11/12/10	11/22/10	JWG1004036	
gamma-BHC (Lindane)	ND UJ	0.023	0.0092	1	11/12/10	11/22/10	JWG1004036	J(3)
beta-BHC	ND U	0.023	0.0095	1	11/12/10	11/22/10	JWG1004036	
delta-BHC	ND U	0.023	0.013	1	11/12/10	11/22/10	JWG1004036	
Heptachlor	ND U	0.023	0.011	1	11/12/10	11/22/10	JWG1004036	
Aldrin	ND U	0.023	0.0076	1	11/12/10	11/22/10	JWG1004036	
Heptachlor Epoxide	ND U	0.023	0.0088	1	11/12/10	11/22/10	JWG1004036	
gamma-Chlordane	ND U	0.023	0.0084	1	11/12/10	11/22/10	JWG1004036	
alpha-Chlordane	ND U	0.023	0.0074	1	11/12/10	11/22/10	JWG1004036	
4,4'-DDE	ND U	0.023	0.0094	1	11/12/10	11/22/10	JWG1004036	
Endosulfan I	ND U	0.023	0.0099	1	11/12/10	11/22/10	JWG1004036	
Dieldrin	ND U	0.023	0.0082	1	11/12/10	11/22/10	JWG1004036	
Endrin	ND U	0.023	0.010	1	11/12/10	11/22/10	JWG1004036	
4,4'-DDD	ND U	0.023	0.0088	1	11/12/10	11/22/10	JWG1004036	
Endosulfan II	ND U	0.023	0.0072	1	11/12/10	11/22/10	JWG1004036	
4,4'-DDT	ND U	0.023	0.015	1	11/12/10	11/22/10	JWG1004036	
Endrin Aldehyde	ND UJ	0.023	0.0095	1	11/12/10	11/22/10	JWG1004036	J(3)
Methoxychlor	ND U	0.045	0.013	1	11/12/10	11/22/10	JWG1004036	
Endosulfan Sulfate	ND U	0.023	0.011	1	11/12/10	11/22/10	JWG1004036	
Endrin Ketone	ND U	0.023	0.0059	1	11/12/10	11/22/10	JWG1004036	
Toxaphene	ND U	0.56	0.56	1	11/12/10	11/22/10	JWG1004036	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	39	32-92	11/22/10	Acceptable
Decachlorobiphenyl	12	13-104	11/22/10	Outside Control Limits

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

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** 11/10/2010  
**Date Received:** 11/11/2010

**Organochlorine Pesticides by GC-ECD**

**Sample Name:** L-4 **Units:** ug/L  
**Lab Code:** J1005462-003 **Basis:** NA  
**Extraction Method:** EPA 3510C **Level:** Low  
**Analysis Method:** 8081A

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND U	0.023	0.0090	1	11/12/10	11/22/10	JWG1004036	
gamma-BHC (Lindane)	ND UJ	0.023	0.0094	1	11/12/10	11/22/10	JWG1004036	J(3)
beta-BHC	ND U	0.023	0.0097	1	11/12/10	11/22/10	JWG1004036	
delta-BHC	ND U	0.023	0.013	1	11/12/10	11/22/10	JWG1004036	
Heptachlor	ND U	0.023	0.011	1	11/12/10	11/22/10	JWG1004036	
Aldrin	ND U	0.023	0.0078	1	11/12/10	11/22/10	JWG1004036	
Heptachlor Epoxide	ND U	0.023	0.0090	1	11/12/10	11/22/10	JWG1004036	
gamma-Chlordane	ND U	0.023	0.0086	1	11/12/10	11/22/10	JWG1004036	
alpha-Chlordane	ND U	0.023	0.0075	1	11/12/10	11/22/10	JWG1004036	
4,4'-DDE	ND U	0.023	0.0096	1	11/12/10	11/22/10	JWG1004036	
Endosulfan I	ND U	0.023	0.011	1	11/12/10	11/22/10	JWG1004036	
Dieldrin	ND U	0.023	0.0083	1	11/12/10	11/22/10	JWG1004036	
Endrin	ND U	0.023	0.011	1	11/12/10	11/22/10	JWG1004036	
4,4'-DDD	ND U	0.023	0.0090	1	11/12/10	11/22/10	JWG1004036	
Endosulfan II	ND U	0.023	0.0073	1	11/12/10	11/22/10	JWG1004036	
4,4'-DDT	ND U	0.023	0.015	1	11/12/10	11/22/10	JWG1004036	
Endrin Aldehyde	ND UJ	0.023	0.0097	1	11/12/10	11/22/10	JWG1004036	J(3)
Methoxychlor	ND U	0.046	0.013	1	11/12/10	11/22/10	JWG1004036	
Endosulfan Sulfate	ND U	0.023	0.011	1	11/12/10	11/22/10	JWG1004036	
Endrin Ketone	ND U	0.023	0.0061	1	11/12/10	11/22/10	JWG1004036	
Toxaphene	ND U	0.57	0.57	1	11/12/10	11/22/10	JWG1004036	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	46	32-92	11/22/10	Acceptable
Decachlorobiphenyl	21	13-104	11/22/10	Acceptable

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

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** 11/10/2010  
**Date Received:** 11/11/2010

**Organochlorine Pesticides by GC-ECD**

**Sample Name:** L-1  
**Lab Code:** J1005462-005

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

**Extraction Method:** EPA 3510C  
**Analysis Method:** 8081A

**Level:** Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	0.22	0.085	10	11/12/10	11/22/10	JWG1004036	
gamma-BHC (Lindane)	ND	UJ	0.22	0.088	10	11/12/10	11/22/10	JWG1004036	J(3)
beta-BHC	ND	U	0.22	0.091	10	11/12/10	11/22/10	JWG1004036	
delta-BHC	ND	U	0.22	0.12	10	11/12/10	11/22/10	JWG1004036	
Heptachlor	ND	U	0.22	0.11	10	11/12/10	11/22/10	JWG1004036	
Aldrin	ND	U	0.22	0.073	10	11/12/10	11/22/10	JWG1004036	
Heptachlor Epoxide	ND	U	0.22	0.085	10	11/12/10	11/22/10	JWG1004036	
gamma-Chlordane	ND	U	0.22	0.080	10	11/12/10	11/22/10	JWG1004036	
alpha-Chlordane	ND	U	0.22	0.071	10	11/12/10	11/22/10	JWG1004036	
4,4'-DDE	ND	U	0.22	0.090	10	11/12/10	11/22/10	JWG1004036	
Endosulfan I	ND	U	0.22	0.095	10	11/12/10	11/22/10	JWG1004036	
Dieldrin	ND	U	0.22	0.078	10	11/12/10	11/22/10	JWG1004036	
Endrin	ND	U	0.22	0.096	10	11/12/10	11/22/10	JWG1004036	
4,4'-DDD	ND	U	0.22	0.085	10	11/12/10	11/22/10	JWG1004036	
Endosulfan II	ND	U	0.22	0.069	10	11/12/10	11/22/10	JWG1004036	
4,4'-DDT	ND	U	0.22	0.14	10	11/12/10	11/22/10	JWG1004036	
Endrin Aldehyde	ND	UJ	0.22	0.091	10	11/12/10	11/22/10	JWG1004036	J(3)
Methoxychlor	ND	U	0.43	0.12	10	11/12/10	11/22/10	JWG1004036	
Endosulfan Sulfate	ND	U	0.22	0.098	10	11/12/10	11/22/10	JWG1004036	
Endrin Ketone	ND	U	0.22	0.057	10	11/12/10	11/22/10	JWG1004036	
Toxaphene	ND	U	5.4	5.4	10	11/12/10	11/22/10	JWG1004036	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	38	32-92	11/22/10	Acceptable
Decachlorobiphenyl	18	13-104	11/22/10	Acceptable

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

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** 11/10/2010  
**Date Received:** 11/11/2010

**Organochlorine Pesticides by GC-ECD**

<b>Sample Name:</b>	L-2	<b>Units:</b>	ug/L
<b>Lab Code:</b>	J1005462-007	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8081A		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND U	0.44	0.18	20	11/12/10	11/24/10	JWG1004036	
gamma-BHC (Lindane)	ND UJ	0.44	0.18	20	11/12/10	11/24/10	JWG1004036	J(3)
beta-BHC	ND U	0.44	0.19	20	11/12/10	11/24/10	JWG1004036	
delta-BHC	ND U	0.44	0.24	20	11/12/10	11/24/10	JWG1004036	
Heptachlor	ND U	0.44	0.21	20	11/12/10	11/24/10	JWG1004036	
Aldrin	ND U	0.44	0.15	20	11/12/10	11/24/10	JWG1004036	
Heptachlor Epoxide	ND U	0.44	0.18	20	11/12/10	11/24/10	JWG1004036	
gamma-Chlordane	ND U	0.44	0.17	20	11/12/10	11/24/10	JWG1004036	
alpha-Chlordane	ND U	0.44	0.15	20	11/12/10	11/24/10	JWG1004036	
4,4'-DDE	ND U	0.44	0.19	20	11/12/10	11/24/10	JWG1004036	
Endosulfan I	ND U	0.44	0.20	20	11/12/10	11/24/10	JWG1004036	
Dieldrin	ND U	0.44	0.16	20	11/12/10	11/24/10	JWG1004036	
Endrin	ND U	0.44	0.20	20	11/12/10	11/24/10	JWG1004036	
4,4'-DDD	ND U	0.44	0.18	20	11/12/10	11/24/10	JWG1004036	
Endosulfan II	ND U	0.44	0.14	20	11/12/10	11/24/10	JWG1004036	
4,4'-DDT	ND U	0.44	0.29	20	11/12/10	11/24/10	JWG1004036	
Endrin Aldehyde	ND UJ	0.44	0.19	20	11/12/10	11/24/10	JWG1004036	J(3)
Methoxychlor	ND U	0.87	0.24	20	11/12/10	11/24/10	JWG1004036	
Endosulfan Sulfate	ND U	0.44	0.20	20	11/12/10	11/24/10	JWG1004036	
Endrin Ketone	ND U	0.44	0.12	20	11/12/10	11/24/10	JWG1004036	
Toxaphene	ND U	11	11	20	11/12/10	11/24/10	JWG1004036	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	105	32-92	11/24/10	Outside Control Limits
Decachlorobiphenyl	25	13-104	11/24/10	Acceptable

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

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** NA  
**Date Received:** NA

**Organochlorine Pesticides by GC-ECD**

**Sample Name:** Method Blank      **Units:** ug/L  
**Lab Code:** JWG1004036-2      **Basis:** NA

**Extraction Method:** EPA 3510C      **Level:** Low  
**Analysis Method:** 8081A

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND U	0.020	0.0079	1	11/12/10	11/22/10	JWG1004036	
gamma-BHC (Lindane)	ND UJ	0.020	0.0082	1	11/12/10	11/22/10	JWG1004036	J(3)
beta-BHC	ND U	0.020	0.0085	1	11/12/10	11/22/10	JWG1004036	
delta-BHC	ND U	0.020	0.011	1	11/12/10	11/22/10	JWG1004036	
Heptachlor	ND U	0.020	0.0096	1	11/12/10	11/22/10	JWG1004036	
Aldrin	ND U	0.020	0.0068	1	11/12/10	11/22/10	JWG1004036	
Heptachlor Epoxide	ND U	0.020	0.0079	1	11/12/10	11/22/10	JWG1004036	
gamma-Chlordane	ND U	0.020	0.0075	1	11/12/10	11/22/10	JWG1004036	
alpha-Chlordane	ND U	0.020	0.0066	1	11/12/10	11/22/10	JWG1004036	
4,4'-DDE	ND U	0.020	0.0084	1	11/12/10	11/22/10	JWG1004036	
Endosulfan I	ND U	0.020	0.0089	1	11/12/10	11/22/10	JWG1004036	
Dieldrin	ND U	0.020	0.0073	1	11/12/10	11/22/10	JWG1004036	
Endrin	ND U	0.020	0.0090	1	11/12/10	11/22/10	JWG1004036	
4,4'-DDD	ND U	0.020	0.0079	1	11/12/10	11/22/10	JWG1004036	
Endosulfan II	ND U	0.020	0.0064	1	11/12/10	11/22/10	JWG1004036	
4,4'-DDT	ND U	0.020	0.013	1	11/12/10	11/22/10	JWG1004036	
Endrin Aldehyde	ND UJ	0.020	0.0085	1	11/12/10	11/22/10	JWG1004036	J(3)
Methoxychlor	ND U	0.040	0.011	1	11/12/10	11/22/10	JWG1004036	
Endosulfan Sulfate	ND U	0.020	0.0092	1	11/12/10	11/22/10	JWG1004036	
Endrin Ketone	ND U	0.020	0.0053	1	11/12/10	11/22/10	JWG1004036	
Toxaphene	ND U	0.50	0.50	1	11/12/10	11/22/10	JWG1004036	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	53	32-92	11/22/10	Acceptable
Decachlorobiphenyl	58	13-104	11/22/10	Acceptable

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

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** 11/10/2010  
**Date Received:** 11/11/2010

## Polychlorinated Biphenyls (PCB Aroclors) by GC-ECD

<b>Sample Name:</b>	L-5	<b>Units:</b>	ug/L
<b>Lab Code:</b>	J1005462-001	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8082		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND U	0.56	0.15	1	11/12/10	11/18/10	JWG1004037	
Aroclor 1221	ND U	0.56	0.25	1	11/12/10	11/18/10	JWG1004037	
Aroclor 1232	ND U	0.56	0.26	1	11/12/10	11/18/10	JWG1004037	
Aroclor 1242	ND U	0.56	0.14	1	11/12/10	11/18/10	JWG1004037	
Aroclor 1248	ND U	0.56	0.29	1	11/12/10	11/18/10	JWG1004037	
Aroclor 1254	ND U	0.56	0.42	1	11/12/10	11/18/10	JWG1004037	
Aroclor 1260	ND U	0.56	0.19	1	11/12/10	11/18/10	JWG1004037	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	14	24-120	11/18/10	Outside Control Limits

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

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** 11/10/2010  
**Date Received:** 11/11/2010

## Polychlorinated Biphenyls (PCB Aroclors) by GC-ECD

<b>Sample Name:</b>	L-4	<b>Units:</b>	ug/L
<b>Lab Code:</b>	J1005462-003	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8082		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND U	0.57	0.15	1	11/12/10	11/22/10	JWG1004037	
Aroclor 1221	ND U	0.57	0.25	1	11/12/10	11/22/10	JWG1004037	
Aroclor 1232	ND U	0.57	0.27	1	11/12/10	11/22/10	JWG1004037	
Aroclor 1242	ND U	0.57	0.14	1	11/12/10	11/22/10	JWG1004037	
Aroclor 1248	ND U	0.57	0.30	1	11/12/10	11/22/10	JWG1004037	
Aroclor 1254	ND U	0.57	0.43	1	11/12/10	11/22/10	JWG1004037	
Aroclor 1260	ND U	0.57	0.20	1	11/12/10	11/22/10	JWG1004037	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	21	24-120	11/22/10	Outside Control Limits

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

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** 11/10/2010  
**Date Received:** 11/11/2010

**Polychlorinated Biphenyls (PCB Aroclors) by GC-ECD**

**Sample Name:** L-1 **Units:** ug/L  
**Lab Code:** J1005462-005 **Basis:** NA  
**Extraction Method:** EPA 3510C **Level:** Low  
**Analysis Method:** 8082

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND U	5.4	1.4	10	11/12/10	11/22/10	JWG1004037	
Aroclor 1221	ND U	5.4	2.4	10	11/12/10	11/22/10	JWG1004037	
Aroclor 1232	ND U	5.4	2.5	10	11/12/10	11/22/10	JWG1004037	
Aroclor 1242	ND U	5.4	1.3	10	11/12/10	11/22/10	JWG1004037	
Aroclor 1248	ND U	5.4	2.8	10	11/12/10	11/22/10	JWG1004037	
Aroclor 1254	ND U	5.4	4.0	10	11/12/10	11/22/10	JWG1004037	
Aroclor 1260	ND U	5.4	1.9	10	11/12/10	11/22/10	JWG1004037	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	18	24-120	11/22/10	Outside Control Limits

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

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** 11/10/2010  
**Date Received:** 11/11/2010

## Polychlorinated Biphenyls (PCB Aroclors) by GC-ECD

**Sample Name:** L-2 **Units:** ug/L  
**Lab Code:** J1005462-007 **Basis:** NA  
**Extraction Method:** EPA 3510C **Level:** Low  
**Analysis Method:** 8082

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND U	11	2.9	20	11/12/10	11/23/10	JWG1004037	
Aroclor 1221	ND U	11	4.8	20	11/12/10	11/23/10	JWG1004037	
Aroclor 1232	ND U	11	5.0	20	11/12/10	11/23/10	JWG1004037	
Aroclor 1242	ND U	11	2.7	20	11/12/10	11/23/10	JWG1004037	
Aroclor 1248	ND U	11	5.7	20	11/12/10	11/23/10	JWG1004037	
Aroclor 1254	ND U	11	8.1	20	11/12/10	11/23/10	JWG1004037	
Aroclor 1260	ND U	11	3.7	20	11/12/10	11/23/10	JWG1004037	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	40	24-120	11/23/10	Acceptable

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

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** NA  
**Date Received:** NA

**Polychlorinated Biphenyls (PCB Aroclors) by GC-ECD**

**Sample Name:** Method Blank      **Units:** ug/L  
**Lab Code:** JWG1004037-4      **Basis:** NA

**Extraction Method:** EPA 3510C      **Level:** Low  
**Analysis Method:** 8082

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND U	0.50	0.13	1	11/12/10	11/18/10	JWG1004037	
Aroclor 1221	ND U	0.50	0.22	1	11/12/10	11/18/10	JWG1004037	
Aroclor 1232	ND U	0.50	0.23	1	11/12/10	11/18/10	JWG1004037	
Aroclor 1242	ND U	0.50	0.12	1	11/12/10	11/18/10	JWG1004037	
Aroclor 1248	ND U	0.50	0.26	1	11/12/10	11/18/10	JWG1004037	
Aroclor 1254	ND U	0.50	0.37	1	11/12/10	11/18/10	JWG1004037	
Aroclor 1260	ND U	0.50	0.17	1	11/12/10	11/18/10	JWG1004037	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	58	24-120	11/18/10	Acceptable

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

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** L-5  
**Lab Code:** J1005462-001

**Service Request:** J1005462  
**Date Collected:** 11/10/10 0900  
**Date Received:** 11/11/10  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6010B	7 I	µg/L	50	3	1	11/15/10	11/16/10 13:36	
Arsenic, Total Recoverable	6010B	56	µg/L	10	2	1	11/15/10	11/16/10 13:36	
Barium, Total Recoverable	6010B	178	µg/L	10	1	1	11/15/10	11/16/10 13:36	
Beryllium, Total Recoverable	6010B	1.7 I	µg/L	4.0	0.2	1	11/15/10	11/16/10 13:36	
Cadmium, Total Recoverable	6010B	ND U	µg/L	5.0	1.0	1	11/15/10	11/16/10 13:36	
Chromium, Total Recoverable	6010B	262	µg/L	10	1	1	11/15/10	11/16/10 13:36	
Cobalt, Total Recoverable	6010B	30	µg/L	10	1	1	11/15/10	11/16/10 13:36	
Copper, Total Recoverable	6010B	12	µg/L	10	2	1	11/15/10	11/16/10 13:36	
Iron, Total Recoverable	6010B	3680	µg/L	100	10	1	11/15/10	11/16/10 13:36	
Lead, Total Recoverable	6010B	6 I	µg/L	10	2	1	11/15/10	11/16/10 13:36	
Mercury, Total	7470A	ND U	µg/L	1.0	0.4	1	11/22/10	11/22/10 15:38	
Nickel, Total Recoverable	6010B	224	µg/L	50	1	1	11/15/10	11/16/10 13:36	
Selenium, Total Recoverable	6010B	56	µg/L	50	4	1	11/15/10	11/16/10 13:36	
Silver, Total Recoverable	6010B	ND U	µg/L	10	3	1	11/15/10	11/16/10 13:36	
Sodium, Total Recoverable	6010B	1550	mg/L	10	1	20	11/15/10	11/17/10 12:47	
Thallium, Total Recoverable	6010B	ND U	µg/L	50	3	1	11/15/10	11/16/10 13:36	
Tin, Total Recoverable	6010B	ND U	µg/L	40	3	1	11/15/10	11/16/10 13:36	
Vanadium, Total Recoverable	6010B	419	µg/L	20	2	1	11/15/10	11/16/10 13:36	
Zinc, Total Recoverable	6010B	58	µg/L	20	2	1	11/15/10	11/16/10 13:36	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** L-4  
**Lab Code:** J1005462-003

**Service Request:** J1005462  
**Date Collected:** 11/10/10 1030  
**Date Received:** 11/11/10  
**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6010B	<b>58</b>	µg/L	50	3	1	11/15/10	11/16/10 13:44	
Arsenic, Total Recoverable	6010B	<b>178</b>	µg/L	10	2	1	11/15/10	11/16/10 13:44	
Barium, Total Recoverable	6010B	<b>271</b>	µg/L	10	1	1	11/15/10	11/16/10 13:44	
Beryllium, Total Recoverable	6010B	<b>2.5 I</b>	µg/L	4.0	0.2	1	11/15/10	11/16/10 13:44	
Cadmium, Total Recoverable	6010B	ND U	µg/L	5.0	1.0	1	11/15/10	11/16/10 13:44	
Chromium, Total Recoverable	6010B	<b>548</b>	µg/L	10	1	1	11/15/10	11/16/10 13:44	
Cobalt, Total Recoverable	6010B	<b>33</b>	µg/L	10	1	1	11/15/10	11/16/10 13:44	
Copper, Total Recoverable	6010B	<b>57</b>	µg/L	10	2	1	11/15/10	11/16/10 13:44	
Iron, Total Recoverable	6010B	<b>4110</b>	µg/L	100	10	1	11/15/10	11/16/10 13:44	
Lead, Total Recoverable	6010B	<b>23</b>	µg/L	10	2	1	11/15/10	11/16/10 13:44	
Mercury, Total	7470A	ND U	µg/L	1.0	0.4	1	11/22/10	11/22/10 15:40	
Nickel, Total Recoverable	6010B	<b>197</b>	µg/L	50	1	1	11/15/10	11/16/10 13:44	
Selenium, Total Recoverable	6010B	<b>113</b>	µg/L	50	4	1	11/15/10	11/16/10 13:44	
Silver, Total Recoverable	6010B	ND U	µg/L	10	3	1	11/15/10	11/16/10 13:44	
Sodium, Total Recoverable	6010B	<b>1440</b>	mg/L	10	1	20	11/15/10	11/17/10 12:49	
Thallium, Total Recoverable	6010B	ND U	µg/L	50	3	1	11/15/10	11/16/10 13:44	
Tin, Total Recoverable	6010B	<b>28 I</b>	µg/L	40	3	1	11/15/10	11/16/10 13:44	
Vanadium, Total Recoverable	6010B	<b>571</b>	µg/L	20	2	1	11/15/10	11/16/10 13:44	
Zinc, Total Recoverable	6010B	<b>290</b>	µg/L	20	2	1	11/15/10	11/16/10 13:44	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** L-1  
**Lab Code:** J1005462-005

**Service Request:** J1005462  
**Date Collected:** 11/10/10 1130  
**Date Received:** 11/11/10  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6010B	40 I	µg/L	50	3	1	11/15/10	11/16/10 14:01	
Arsenic, Total Recoverable	6010B	138	µg/L	10	2	1	11/15/10	11/16/10 14:01	
Barium, Total Recoverable	6010B	471	µg/L	10	1	1	11/15/10	11/16/10 14:00	
Beryllium, Total Recoverable	6010B	2.9 I	µg/L	4.0	0.2	1	11/15/10	11/16/10 14:00	
Cadmium, Total Recoverable	6010B	1.7 I	µg/L	5.0	1.0	1	11/15/10	11/16/10 14:01	
Chromium, Total Recoverable	6010B	545	µg/L	10	1	1	11/15/10	11/16/10 14:00	
Cobalt, Total Recoverable	6010B	37	µg/L	10	1	1	11/15/10	11/16/10 14:01	
Copper, Total Recoverable	6010B	57	µg/L	10	2	1	11/15/10	11/16/10 14:00	
Iron, Total Recoverable	6010B	6770	µg/L	100	10	1	11/15/10	11/16/10 14:00	
Lead, Total Recoverable	6010B	31	µg/L	10	2	1	11/15/10	11/16/10 14:01	
Mercury, Total	7470A	ND U	µg/L	1.0	0.4	1	11/22/10	11/22/10 15:41	
Nickel, Total Recoverable	6010B	596	µg/L	50	1	1	11/15/10	11/16/10 14:00	
Selenium, Total Recoverable	6010B	120	µg/L	50	4	1	11/15/10	11/16/10 14:01	
Silver, Total Recoverable	6010B	ND U	µg/L	10	3	1	11/15/10	11/16/10 14:00	
Sodium, Total Recoverable	6010B	2430	mg/L	10	1	20	11/15/10	11/17/10 12:52	
Thallium, Total Recoverable	6010B	ND U	µg/L	50	3	1	11/15/10	11/16/10 14:01	
Tin, Total Recoverable	6010B	15 I	µg/L	40	3	1	11/15/10	11/16/10 14:01	
Vanadium, Total Recoverable	6010B	514	µg/L	20	2	1	11/15/10	11/16/10 14:00	
Zinc, Total Recoverable	6010B	114	µg/L	20	2	1	11/15/10	11/16/10 14:01	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** L-2  
**Lab Code:** J1005462-007

**Service Request:** J1005462  
**Date Collected:** 11/10/10 1245  
**Date Received:** 11/11/10  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6010B	12 I	µg/L	50	3	1	11/15/10	11/16/10 14:09	
Arsenic, Total Recoverable	6010B	200	µg/L	10	2	1	11/15/10	11/16/10 14:09	
Barium, Total Recoverable	6010B	350	µg/L	10	1	1	11/15/10	11/16/10 14:08	
Beryllium, Total Recoverable	6010B	3.2 I	µg/L	4.0	0.2	1	11/15/10	11/16/10 14:08	
Cadmium, Total Recoverable	6010B	ND U	µg/L	5.0	1.0	1	11/15/10	11/16/10 14:09	
Chromium, Total Recoverable	6010B	515	µg/L	10	1	1	11/15/10	11/16/10 14:08	
Cobalt, Total Recoverable	6010B	13	µg/L	10	1	1	11/15/10	11/16/10 14:09	
Copper, Total Recoverable	6010B	13	µg/L	10	2	1	11/15/10	11/16/10 14:09	
Iron, Total Recoverable	6010B	2580	µg/L	100	10	1	11/15/10	11/16/10 14:08	
Lead, Total Recoverable	6010B	11	µg/L	10	2	1	11/15/10	11/16/10 14:09	
Mercury, Total	7470A	ND U	µg/L	1.0	0.4	1	11/22/10	11/22/10 15:43	
Nickel, Total Recoverable	6010B	132	µg/L	50	1	1	11/15/10	11/16/10 14:09	
Selenium, Total Recoverable	6010B	87	µg/L	50	4	1	11/15/10	11/16/10 14:09	
Silver, Total Recoverable	6010B	ND U	µg/L	10	3	1	11/15/10	11/16/10 14:08	
Sodium, Total Recoverable	6010B	1410	mg/L	10	1	20	11/15/10	11/17/10 12:54	
Thallium, Total Recoverable	6010B	ND U	µg/L	50	3	1	11/15/10	11/16/10 14:09	
Tin, Total Recoverable	6010B	10 I	µg/L	40	3	1	11/15/10	11/16/10 14:09	
Vanadium, Total Recoverable	6010B	753	µg/L	20	2	1	11/15/10	11/16/10 14:08	
Zinc, Total Recoverable	6010B	34	µg/L	20	2	1	11/15/10	11/16/10 14:09	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** J1005462-MB

**Service Request:** J1005462

**Date Collected:** NA

**Date Received:** NA

**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6010B	ND U	µg/L	50	3	1	11/15/10	11/16/10	12:14
Arsenic, Total Recoverable	6010B	ND U	µg/L	10	2	1	11/15/10	11/16/10	12:14
Barium, Total Recoverable	6010B	ND U	µg/L	10	1	1	11/15/10	11/16/10	12:14
Beryllium, Total Recoverable	6010B	ND U	µg/L	4.0	0.2	1	11/15/10	11/16/10	12:14
Cadmium, Total Recoverable	6010B	ND U	µg/L	5.0	1.0	1	11/15/10	11/16/10	12:14
Chromium, Total Recoverable	6010B	ND U	µg/L	10	1	1	11/15/10	11/16/10	12:14
Cobalt, Total Recoverable	6010B	ND U	µg/L	10	1	1	11/15/10	11/16/10	12:14
Copper, Total Recoverable	6010B	ND U	µg/L	10	2	1	11/15/10	11/16/10	12:14
Iron, Total Recoverable	6010B	ND U	µg/L	100	4	1	11/15/10	11/16/10	12:14
Lead, Total Recoverable	6010B	ND U	µg/L	10	2	1	11/15/10	11/16/10	12:14
Mercury, Total	7470A	ND U	µg/L	0.20	0.08	1	11/22/10	11/22/10	15:28
Nickel, Total Recoverable	6010B	ND U	µg/L	50	1	1	11/15/10	11/16/10	12:14
Selenium, Total Recoverable	6010B	ND U	µg/L	50	4	1	11/15/10	11/16/10	12:14
Silver, Total Recoverable	6010B	ND U	µg/L	10	3	1	11/15/10	11/16/10	12:14
Sodium, Total Recoverable	6010B	ND U	mg/L	0.50	0.02	1	11/15/10	11/16/10	12:12
Thallium, Total Recoverable	6010B	ND U	µg/L	50	3	1	11/15/10	11/16/10	12:14
Tin, Total Recoverable	6010B	ND U	µg/L	40	3	1	11/15/10	11/16/10	12:14
Vanadium, Total Recoverable	6010B	ND U	µg/L	20	2	1	11/15/10	11/16/10	12:14
Zinc, Total Recoverable	6010B	ND U	µg/L	20	2	1	11/15/10	11/16/10	12:14

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** L-5  
**Lab Code:** J1005462-001

**Service Request:** J1005462  
**Date Collected:** 11/10/10 0900  
**Date Received:** 11/11/10  
**Basis:** NA

## General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	696	mg/L	2.0	0.8	200	NA	11/15/10	14:25
Biochemical Oxygen Demand (BOD)	SM 5210 B	124	mg/L	2.0	2.0	1	NA	11/12/10	08:50
Chemical Oxygen Demand, Total	SM21 5220 D	5490	mg/L	200	20	10	NA	11/18/10	16:05
Chloride	300.0	2770	mg/L	50	9	100	NA	11/11/10	15:33
Cyanide, Total	335.4	40	µg/L	10	3	1	11/16/10	11/16/10	15:38
Nitrate as Nitrogen	300.0	ND U	mg/L	2.0	0.8	10	NA	11/11/10	16:33
Solids, Total Dissolved	SM 2540 C	9280	mg/L	200	200	20	NA	11/12/10	15:24
Sulfide, Total	SM 4500-S2- F	22 I	mg/L	40	8	20	NA	11/15/10	15:00

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** L-4  
**Lab Code:** J1005462-003

**Service Request:** J1005462  
**Date Collected:** 11/10/10 1030  
**Date Received:** 11/11/10  
**Basis:** NA

## General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	1150	mg/L	2.0	0.8	200	NA	11/15/10	14:27
Biochemical Oxygen Demand (BOD)	SM 5210 B	490 J	mg/L	2.0	2.0	1	NA	11/12/10	08:50
Chemical Oxygen Demand, Total	SM21 5220 D	9090	mg/L	200	20	10	NA	11/18/10	16:05
Chloride	300.0	2490	mg/L	50	9	100	NA	11/11/10	15:48
Cyanide, Total	335.4	36	µg/L	10	3	1	11/16/10	11/16/10	15:42
Nitrate as Nitrogen	300.0	3.2	mg/L	2.0	0.8	10	NA	11/11/10	16:48
Solids, Total Dissolved	SM 2540 C	11000	mg/L	200	200	20	NA	11/12/10	15:24
Sulfide, Total	SM 4500-S2- F	24 I	mg/L	40	8	20	NA	11/15/10	15:00

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** L-1  
**Lab Code:** J1005462-005

**Service Request:** J1005462  
**Date Collected:** 11/10/10 1130  
**Date Received:** 11/11/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	1090	mg/L	2.0	0.8	200	NA	11/15/10	14:33
Biochemical Oxygen Demand (BOD)	SM 5210 B	167	mg/L	2.0	2.0	1	NA	11/12/10	08:50
Chemical Oxygen Demand, Total	SM21 5220 D	7490	mg/L	200	20	10	NA	11/18/10	16:05
Chloride	300.0	4470	mg/L	50	9	100	NA	11/11/10	16:03
Cyanide, Total	335.4	33	µg/L	10	3	1	11/16/10	11/16/10	15:43
Nitrate as Nitrogen	300.0	3.7	mg/L	2.0	0.8	10	NA	11/11/10	17:03
Solids, Total Dissolved	SM 2540 C	14700	mg/L	200	200	20	NA	11/12/10	15:24
Sulfide, Total	SM 4500-S2- F	24 I	mg/L	40	8	20	NA	11/15/10	15:00

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** L-2  
**Lab Code:** J1005462-007

**Service Request:** J1005462  
**Date Collected:** 11/10/10 1245  
**Date Received:** 11/11/10  
**Basis:** NA

## General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	816		mg/L	2.0	0.8	200	NA	11/15/10	14:35
Biochemical Oxygen Demand (BOD)	SM 5210 B	507	J	mg/L	2.0	2.0	1	NA	11/12/10	08:50
Chemical Oxygen Demand, Total	SM21 5220 D	7010		mg/L	200	20	10	NA	11/18/10	16:06
Chloride	300.0	2970		mg/L	50	9	100	NA	11/11/10	16:18
Cyanide, Total	335.4	30		µg/L	10	3	1	11/16/10	11/16/10	15:44
Nitrate as Nitrogen	300.0	ND	U	mg/L	2.0	0.8	10	NA	11/11/10	17:18
Solids, Total Dissolved	SM 2540 C	10400		mg/L	200	200	20	NA	11/12/10	15:24
Sulfide, Total	SM 4500-S2- F	22	I	mg/L	40	8	20	NA	11/15/10	15:00

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** J1005462-MB

**Service Request:** J1005462  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

## General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	ND U	mg/L	0.010	0.004	1	NA	11/15/10	14:14
Biochemical Oxygen Demand (BOD)	SM 5210 B	ND U	mg/L	2.0	2.0	1	NA	11/12/10	08:50
Chemical Oxygen Demand, Total	SM21 5220 D	ND U	mg/L	20	2	1	NA	11/18/10	16:02
Chloride	300.0	ND U	mg/L	0.50	0.09	1	NA	11/11/10	12:34
Cyanide, Total	335.4	ND U	µg/L	10	3	1	11/16/10	11/16/10	15:36
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/11/10	12:34
Solids, Total Dissolved	SM 2540 C	ND U	mg/L	10	10	1	NA	11/12/10	15:24
Sulfide, Total	SM 4500-S2- F	ND U	mg/L	2.0	0.4	1	NA	11/15/10	15:00

**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462**Surrogate Recovery Summary  
Volatile Organic Compounds by GC/MS****Analytical Method:** 8260B**Units:** Percent

<b>Sample Name</b>	<b>Lab Code</b>	<b>Sur1</b>	<b>Sur2</b>	<b>Sur3</b>	<b>Sur4</b>
L-5	J1005462-001	100	97	98	105
Trip Blank 1	J1005462-002	101	100	96	102
L-4	J1005462-003	98	100	99	100
Trip Blank 2	J1005462-004	101	100	99	101
L-1	J1005462-005	101	97	97	101
Trip Blank 3	J1005462-006	99	97	99	106
L-2	J1005462-007	97	99	94	103
Trip Blank 4	J1005462-008	99	97	99	103
Method Blank	JQ1005755-02	103	101	97	105
Lab Control Sample	JQ1005755-01	99	101	98	102

**Surrogate Recovery Control Limits (%)**

Sur1	= 1,2-Dichloroethane-d4	71 - 122
Sur2	= 4-Bromofluorobenzene	75 - 120
Sur3	= Dibromofluoromethane	82 - 116
Sur4	= Toluene-d8	88 - 117

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Analyzed:** 11/21/10

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Units:** µg/L  
**Basis:** NA

**Analysis Lot:** 226346**Lab Control Sample**

JQ1005755-01

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	19.7	20.0	98	85 - 117
1,1,1-Trichloroethane (TCA)	19.4	20.0	97	79 - 124
1,1,2,2-Tetrachloroethane	19.5	20.0	98	83 - 120
1,1,2-Trichloroethane	19.2	20.0	96	86 - 114
1,1-Dichloroethane (1,1-DCA)	19.4	20.0	97	80 - 128
1,1-Dichloroethene (1,1-DCE)	19.4	20.0	97	78 - 130
1,1-Dichloropropene	19.5	20.0	97	85 - 124
1,2,3-Trichloropropane	19.0	20.0	95	83 - 123
1,2,4-Trichlorobenzene	19.7	20.0	98	72 - 123
1,2-Dibromo-3-chloropropane (DBCP)	17.8	20.0	89	62 - 123
1,2-Dibromoethane (EDB)	19.5	20.0	98	88 - 117
1,2-Dichlorobenzene	18.9	20.0	95	84 - 115
1,2-Dichloroethane	20.1	20.0	101	80 - 124
1,2-Dichloropropane	19.2	20.0	96	79 - 123
1,3-Dichlorobenzene	19.3	20.0	96	83 - 112
1,3-Dichloropropene	19.9	20.0	99	88 - 117
1,4-Dichlorobenzene	18.9	20.0	95	83 - 113
2,2-Dichloropropane	20.6	20.0	103	72 - 136
2-Butanone (MEK)	103	100	103	73 - 127
2-Hexanone	104	100	104	71 - 138
4-Methyl-2-pentanone (MIBK)	98.2	100	98	72 - 136
Acetone	94.6	100	95	67 - 133
Acetonitrile	89.5	100	89	67 - 132
Acrolein	104	100	104	61 - 137
Acrylonitrile	99.2	100	99	77 - 127
Allyl Chloride	19.6	20.0	98	68 - 128
Benzene	19.5	20.0	97	79 - 119
Bromochloromethane	18.8	20.0	94	79 - 129
Bromodichloromethane	19.4	20.0	97	81 - 123
Bromoform	20.4	20.0	102	68 - 129
Bromomethane	19.8	20.0	99	79 - 130
Carbon Disulfide	99.7	100	100	76 - 138

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Analyzed:** 11/21/10

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Units:**  $\mu\text{g/L}$   
**Basis:** NA

**Analysis Lot:** 226346**Lab Control Sample**

JQ1005755-01

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Carbon Tetrachloride	20.3	20.0	101	81 - 125
Chlorobenzene	19.8	20.0	99	86 - 113
Chloroethane	21.1	20.0	106	74 - 126
Chloroform	19.2	20.0	96	83 - 124
Chloromethane	19.1	20.0	96	67 - 135
Chloroprene	20.0	20.0	100	81 - 132
cis-1,2-Dichloroethene	19.4	20.0	97	80 - 126
cis-1,3-Dichloropropene	20.4	20.0	102	86 - 123
Dibromochloromethane	20.2	20.0	101	82 - 121
Dibromomethane	19.3	20.0	97	83 - 123
Dichlorodifluoromethane	20.8	20.0	104	69 - 138
Ethyl Methacrylate	20.2	20.0	101	78 - 127
Ethylbenzene	20.1	20.0	101	90 - 118
Hexachlorobutadiene	20.4	20.0	102	73 - 140
Iodomethane	97.8	100	98	68 - 134
Isobutyl Alcohol	364	400	91	62 - 139
m,p-Xylenes	41.6	40.0	104	86 - 121
Methacrylonitrile	19.5	20.0	97	77 - 129
Methyl Methacrylate	20.1	20.0	101	79 - 128
Methylene Chloride	19.1	20.0	96	72 - 124
Naphthalene	17.7	20.0	89	59 - 135
o-Xylene	20.2	20.0	101	89 - 119
Propionitrile	91.2	100	91	77 - 131
Styrene	20.0	20.0	100	89 - 122
Tetrachloroethene (PCE)	19.8	20.0	99	80 - 121
Toluene	20.4	20.0	102	86 - 117
trans-1,2-Dichloroethene	19.8	20.0	99	77 - 124
trans-1,3-Dichloropropene	20.6	20.0	103	83 - 124
trans-1,4-Dichloro-2-butene	11.5	20.0	58	53 - 143
Trichloroethene (TCE)	18.8	20.0	94	76 - 124
Trichlorofluoromethane	20.0	20.0	100	74 - 134
Vinyl Acetate	99.0	100	99	61 - 148

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Analyzed:** 11/21/10

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Units:**  $\mu\text{g/L}$   
**Basis:** NA

**Analysis Lot:** 226346

**Lab Control Sample**

JQ1005755-01

<b>Analyte Name</b>	<b>Result</b>	<b>Spike</b>	<b>% Rec</b>	<b>% Rec Limits</b>
		<b>Amount</b>		
Vinyl Chloride	20.2	20.0	101	78 - 132

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**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462**Surrogate Recovery Summary**  
**Semi-Volatile Organic Compounds by GC/MS (Appendix II)**

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

**Units:** PERCENT  
**Level:** Low

<b>Sample Name</b>	<b>Lab Code</b>	<b>Sur1</b>	<b>Sur2</b>	<b>Sur3</b>	<b>Sur4</b>	<b>Sur5</b>	<b>Sur6</b>
L-5	J1005462-001	77 D	62 D	28 D	77 D	38 D	52 D
L-4	J1005462-003	70 D	57 D	30 D	98 D	42 D	47 D
L-1	J1005462-005	63 D	57 D	29 D	76 D	36 D	53 D
L-2	J1005462-007	50 D	65 D	27 D	102 D	45 D	50 D
Method Blank	JWG1003997-4	64	61	29	60	21	75
Lab Control Sample	JWG1003997-3	64	55	20	50	16	73

**Surrogate Recovery Control Limits (%)**

Sur1 = 2,4,6-Tribromophenol	30-143	Sur5 = Phenol-d6	10-51
Sur2 = 2-Fluorobiphenyl	30-102	Sur6 = Terphenyl-d14	23-165
Sur3 = 2-Fluorophenol	10-77		
Sur4 = Nitrobenzene-d5	32-106		

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Extracted:** 11/11/2010  
**Date Analyzed:** 11/23/2010

**Lab Control Spike Summary**  
**Semi-Volatile Organic Compounds by GC/MS (Appendix II)**

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

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** JWG1003997

Lab Control Sample

JWG1003997-3

Lab Control Spike

Analyte Name	Result	Expected	%Rec	%Rec Limits
1,2,4-Trichlorobenzene	26.6	50.0	53	50-120
1,2-Dichlorobenzene	22.6	50.0	45	32-123
1,3-Dichlorobenzene	20.7	50.0	41	30-119
1,4-Dichlorobenzene	24.3	50.0	49	31-119
2,3,4,6-Tetrachlorophenol	31.3	50.0	63	50-150
2,4,5-Trichlorophenol	32.1	50.0	64	47-113
2,4,6-Trichlorophenol	29.8	50.0	60	41-115
2,4-Dichlorophenol	31.6	50.0	63	36-117
2,4-Dimethylphenol	18.2	50.0	36 *	38-110
2,4-Dinitrophenol	10.2	50.0	20 *	27-128
2,4-Dinitrotoluene	35.6	50.0	71	54-121
2,6-Dinitrotoluene	35.6	50.0	71	55-121
2-Chloronaphthalene	32.5	50.0	65	47-106
2-Chlorophenol	22.1	50.0	44	35-101
2-Methyl-4,6-dinitrophenol	20.4	50.0	41 *	46-117
2-Methylnaphthalene	31.1	50.0	62	46-110
2-Methylphenol	20.8	50.0	42	21-100
2-Nitroaniline	37.6	50.0	75	33-94
2-Nitrophenol	30.2	50.0	60	40-120
3-Nitroaniline	37.5	50.0	75	25-91
4-Bromophenyl Phenyl Ether	39.6	50.0	79	63-123
4-Chloro-3-methylphenol	33.4	50.0	67	36-117
4-Chloroaniline	33.9	50.0	68	39-110
4-Chlorophenyl Phenyl Ether	33.8	50.0	68	53-108
4-Methylphenol	21.4	50.0	43	15-95
4-Nitroaniline	37.0	50.0	74	44-102
4-Nitrophenol	1.72	50.0	3 *	10-86
Acenaphthene	32.6	50.0	65	42-106
Acenaphthylene	32.9	50.0	66	45-99
Anthracene	38.7	50.0	77	50-104
Benz(a)anthracene	38.6	50.0	77	42-114
Benzo(a)pyrene	39.7	50.0	79	46-110
Benzo(b)fluoranthene	40.6	50.0	81	56-110
Benzo(g,h,i)perylene	39.6	50.0	79	53-116
Benzo(k)fluoranthene	38.5	50.0	77	48-110

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Extracted:** 11/11/2010  
**Date Analyzed:** 11/23/2010

**Lab Control Spike Summary**  
**Semi-Volatile Organic Compounds by GC/MS (Appendix II)**

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

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** JWG1003997

<b>Analyte Name</b>	<b>Lab Control Sample</b> JWG1003997-3			<b>%Rec</b> <b>Limits</b>
	<b>Result</b>	<b>Expected</b>	<b>%Rec</b>	
Benzyl alcohol	19.8	50.0	40	32-110
bis(2-Chloroethoxy)methane	31.2	50.0	62	47-100
Bis(2-chloroethyl) Ether	26.9	50.0	54	41-99
Bis(2-chloroisopropyl) Ether	27.4	50.0	55	31-94
Bis(2-ethylhexyl) Phthalate	41.3	50.0	83	41-127
Butyl Benzyl Phthalate	39.6	50.0	79	40-117
Chrysene	40.1	50.0	80	50-113
Di-n-butyl Phthalate	41.0	50.0	82	57-118
Di-n-octyl Phthalate	40.4	50.0	81	35-139
Dibenz(a,h)anthracene	39.5	50.0	79	51-125
Dibenzofuran	36.1	50.0	72	49-103
Diethyl Phthalate	37.7	50.0	75	56-108
Dimethyl Phthalate	36.4	50.0	73	32-119
Fluoranthene	41.5	50.0	83	48-110
Fluorene	36.3	50.0	73	54-97
Hexachlorobenzene	40.0	50.0	80	55-110
Hexachlorobutadiene	24.8	50.0	50	20-110
Hexachlorocyclopentadiene	26.9	50.0	54	23-115
Hexachloroethane	21.3	50.0	43	19-113
Indeno(1,2,3-cd)pyrene	41.1	50.0	82	54-115
Isophorone	32.2	50.0	64	46-106
N-Nitrosodi-n-propylamine	30.1	50.0	60	43-103
N-Nitrosodimethylamine	13.5	50.0	27	27-66
N-Nitrosodiphenylamine	35.8	50.0	72	30-122
Naphthalene	29.6	50.0	59	40-97
Nitrobenzene	28.6	50.0	57	36-116
Pentachlorophenol	31.0	50.0	62	35-120
Phenanthrene	38.8	50.0	78	49-110
Phenol	11.5	50.0	23	12-54
Pyrene	39.5	50.0	79	35-110

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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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462**Surrogate Recovery Summary**  
**Organochlorine Pesticides by GC-ECD**

**Extraction Method:** EPA 3510C  
**Analysis Method:** 8081A

**Units:** PERCENT  
**Level:** Low

<b>Sample Name</b>	<b>Lab Code</b>	<b>Sur1</b>	<b>Sur2</b>
L-5	J1005462-001	39	12 #
L-4	J1005462-003	46	21
L-1	J1005462-005	38 D	18 D
L-2	J1005462-007	105 D #	25 D #
Method Blank	JWG1004036-2	53	58
Lab Control Sample	JWG1004036-1	56	58

**Surrogate Recovery Control Limits (%)**

---

Sur1 = Tetrachloro-m-xylene                    32-92  
Sur2 = Decachlorobiphenyl                    13-104

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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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Extracted:** 11/12/2010  
**Date Analyzed:** 11/22/2010

**Lab Control Spike Summary**  
**Organochlorine Pesticides by GC-ECD**

**Extraction Method:** EPA 3510C  
**Analysis Method:** 8081A

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** JWG1004036

Lab Control Sample

JWG1004036-1

Lab Control Spike

Analyte Name	Result	Expected	%Rec	%Rec Limits
alpha-BHC	0.234	0.400	59	56-104
gamma-BHC (Lindane)	0.222	0.400	56 *	57-101
beta-BHC	0.236	0.400	59	55-97
delta-BHC	0.261	0.400	65	31-105
Heptachlor	0.252	0.400	63	52-100
Aldrin	0.245	0.400	61	45-108
Heptachlor Epoxide	0.260	0.400	65	59-103
gamma-Chlordane	0.260	0.400	65	53-107
alpha-Chlordane	0.256	0.400	64	54-104
4,4'-DDE	0.240	0.400	60	58-114
Endosulfan I	0.260	0.400	65	61-104
Dieldrin	0.246	0.400	62	57-111
Endrin	0.263	0.400	66	57-117
4,4'-DDD	0.233	0.400	58	56-116
Endosulfan II	0.237	0.400	59	50-106
4,4'-DDT	0.264	0.400	66	41-115
Endrin Aldehyde	0.142	0.400	36 *	51-108
Methoxychlor	0.251	0.400	63	43-123
Endosulfan Sulfate	0.232	0.400	58	56-107
Endrin Ketone	0.251	0.400	63	46-101

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**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462

**Surrogate Recovery Summary**  
**Polychlorinated Biphenyls (PCB Aroclors) by GC-ECD**

**Extraction Method:** EPA 3510C  
**Analysis Method:** 8082

**Units:** PERCENT  
**Level:** Low

<b>Sample Name</b>	<b>Lab Code</b>	<b>Sur1</b>
L-5	J1005462-001	14 #
L-4	J1005462-003	21 #
L-1	J1005462-005	18 D #
L-2	J1005462-007	40 D #
Method Blank	JWG1004037-4	58
L-5MS	JWG1004037-1	19 #
L-5DMS	JWG1004037-2	15 #
Lab Control Sample	JWG1004037-3	56

**Surrogate Recovery Control Limits (%)**

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Sur1 = Decachlorobiphenyl                    24-120

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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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Extracted:** 11/12/2010  
**Date Analyzed:** 11/18/2010

**Matrix Spike/Duplicate Matrix Spike Summary**  
**Polychlorinated Biphenyls (PCB Aroclors) by GC-ECD**

<b>Sample Name:</b>	L-5	<b>Units:</b>	ug/L
<b>Lab Code:</b>	J1005462-001	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8082	<b>Extraction Lot:</b>	JWG1004037

<b>Analyte Name</b>	<b>Sample Result</b>	L-5MS			L-5DMS			<b>%Rec Limits</b>	<b>RPD</b>	<b>RPD Limit</b>			
		JWG1004037-1			JWG1004037-2								
		Matrix Spike			Duplicate Matrix Spike								
		<b>Result</b>	<b>Expected</b>	<b>%Rec</b>	<b>Result</b>	<b>Expected</b>	<b>%Rec</b>						
Aroclor 1016	ND	6.11	9.09	67	ND	9.09	0	#	23-152	2	30		
Aroclor 1260	ND	3.53	9.09	39	2.25	9.09	25	*	27-136	44	*	30	

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**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Extracted:** 11/12/2010  
**Date Analyzed:** 11/18/2010

**Lab Control Spike Summary**  
**Polychlorinated Biphenyls (PCB Aroclors) by GC-ECD**

**Extraction Method:** EPA 3510C  
**Analysis Method:** 8082

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** JWG1004037

Lab Control Sample  
JWG1004037-3

Lab Control Spike

<b>Analyte Name</b>	<b>Lab Control Spike</b>			<b>%Rec Limits</b>
	<b>Result</b>	<b>Expected</b>	<b>%Rec</b>	
Aroclor 1016	2.67	4.00	67	39-116
Aroclor 1260	2.34	4.00	58	41-118

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**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Analyzed:** 11/16/10 -  
                           11/22/10

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:** µg/L  
**Basis:** NA

**Lab Control Sample**

J1005462-LCS

<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Spike</b>		<b>% Rec</b>	<b>Limits</b>
			<b>Amount</b>	<b>% Rec</b>		
Antimony, Total Recoverable	6010B	4110	4000	103	80 - 120	
Arsenic, Total Recoverable	6010B	2150	2000	107	80 - 120	
Barium, Total Recoverable	6010B	4000	4000	100	80 - 120	
Beryllium, Total Recoverable	6010B	1980	2000	99	80 - 120	
Cadmium, Total Recoverable	6010B	2050	2000	102	80 - 120	
Chromium, Total Recoverable	6010B	2020	2000	101	80 - 120	
Cobalt, Total Recoverable	6010B	2010	2000	101	80 - 120	
Copper, Total Recoverable	6010B	2020	2000	101	80 - 120	
Iron, Total Recoverable	6010B	2120	2000	106	80 - 120	
Lead, Total Recoverable	6010B	4040	4000	101	80 - 120	
Mercury, Total	7470A	5.04	5.00	101	80 - 120	
Nickel, Total Recoverable	6010B	2010	2000	101	80 - 120	
Selenium, Total Recoverable	6010B	2030	2000	102	80 - 120	
Silver, Total Recoverable	6010B	423	500	85	80 - 120	
Thallium, Total Recoverable	6010B	5050	5000	101	80 - 120	
Tin, Total Recoverable	6010B	5140	5000	103	80 - 120	
Vanadium, Total Recoverable	6010B	2010	2000	101	80 - 120	
Zinc, Total Recoverable	6010B	2020	2000	101	80 - 120	

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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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Analyzed:** 11/16/10 -  
11/22/10

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:** mg/L  
**Basis:** NA

**Lab Control Sample**  
J1005462-LCS

<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Spike</b>	<b>% Rec</b>	<b>Limits</b>
			<b>Amount</b>		
Sodium, Total Recoverable	6010B	10.1	10.0	101	80 - 120

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Collected:** 11/10/10  
**Date Received:** 11/11/10  
**Date Analyzed:** 11/16/10

**Matrix Spike Summary**  
**General Chemistry Parameters**

**Sample Name:** L-5                            **Units:** µg/L  
**Lab Code:** J1005462-001                    **Basis:** NA

**Analytical Method:** 335.4  
**Prep Method:** Method

L-5MS  
**Matrix Spike**  
J1005462-001MS2

L-5DMS  
**Duplicate Matrix Spike**  
J1005462-D001MS2

Analyte Name	Sample Result	L-5MS			L-5DMS			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Cyanide, Total	40	124	100	84 *	128	100	88 *	90 - 110	3	20

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.

**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Analyzed:** 11/15/10

**Lab Control Sample Summary  
General Chemistry Parameters**

**Units:** mg/L  
**Basis:** NA

<b>Analyte Name</b>	<b>Method</b>	<b>Lab Control Sample</b>			<b>Duplicate Lab Control Sample</b>			<b>% Rec Limits</b>	<b>RPD</b>	<b>RPD Limit</b>			
		J1005462-LCS1			J1005462-DLCS1								
		<b>Spike</b>	<b>Amount</b>	<b>% Rec</b>	<b>Spike</b>	<b>Amount</b>	<b>% Rec</b>						
Sulfide, Total	SM 4500-S2- F	18.3	20.0	92	18.6	20.0	93	85 - 115	2	20			

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Analyzed:** 11/11/10 -  
11/18/10

**Lab Control Sample Summary**  
**General Chemistry Parameters**

**Units:** mg/L  
**Basis:** NA

**Lab Control Sample**  
**J1005462-LCS2**

<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Spike</b>		<b>% Rec</b>	<b>Limits</b>
			<b>Amount</b>	<b>% Rec</b>		
Ammonia as Nitrogen	350.1	1.00	1.00	100	90 - 110	
Biochemical Oxygen Demand (BOD)	SM 5210 B	196	198	99	84.5 - 115.	
Chemical Oxygen Demand, Total	SM21 5220 D	483	500	97	90 - 110	
Chloride	300.0	49.8	50.0	100	90 - 110	
Nitrate as Nitrogen	300.0	4.67	5.00	93	90 - 110	
Solids, Total Dissolved	SM 2540 C	297	300	99	85 - 115	

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005462  
**Date Analyzed:** 11/11/10 -  
11/18/10

**Lab Control Sample Summary**  
**General Chemistry Parameters**

**Units:**  $\mu\text{g/L}$   
**Basis:** NA

**Lab Control Sample**  
J1005462-LCS2

<b>Analyte Name</b>	<b>Method</b>	<b>Spike</b>			<b>% Rec Limits</b>
		<b>Result</b>	<b>Amount</b>	<b>% Rec</b>	
Cyanide, Total	335.4	103	100	103	90 - 110

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.

**Cooler Receipt Form**

Client: EPS  
Project: JED SWDF

Service Request #: J1005962

Cooler received on 11-11-10

and opened on 11-11-10 by CKB

COURIER: CAS UPS FEDEX Client Other \_\_\_\_\_ Airbill # \_\_\_\_\_

- 1 Were custody seals on outside of cooler?  Yes No  
If yes, how many and where? #: 4 on lid other
- 2 Were seals intact and signature and date correct?  Yes No N/A
- 3 Were custody papers properly filled out?  Yes No N/A
- 4 Temperature of cooler(s) upon receipt (Should be > 0°C and < 6°C) 1.1° 23° 5.10 2.5°
- 5 Thermometer ID TB TB TB TB
- 6 Temperature Blank Present?  Yes No
- 7 Were Ice or Ice Packs present Ice Ice Packs No
- 8 Did all bottles arrive in good condition (unbroken, etc....)? Yes No N/A
- 9 Type of packing material present Netting Vial Holder Bubble Wrap  
Paper Styrofoam Other N/A
- 10 Were all bottle labels complete (sample ID, preservation, etc....)?  Yes No N/A
- 11 Did all bottle labels and tags agree with custody papers?  Yes No N/A
- 12 Were the correct bottles used for the tests indicated?  Yes No N/A
- 13 Were all of the preserved bottles received with the appropriate preservative?  
HNO3 pH<2 H2SO4 pH<2 ZnAc2/NaOH pH>9 NaOH pH>12 HCl pH<2  
Preservative additions noted below
- 14 Were all samples received within analysis holding times?  Yes No N/A
- 15 Were VOA vials checked for absence of air bubbles? If present, note below  Yes No N/A
- 16 Where did the bottles originate? CAS Client

Sample ID	Reagent	Lot #	ml added	Initials Date/Time
L-4	H <sub>2</sub> SO <sub>4</sub>	GEN-585-11E	1~1	CKB 11-11-10 108
L-2	↓	↓	↓	↓
L-1	↓	↓	↓	↓
L-5 / L-2	HNO <sub>3</sub>	MET-11-75 G	2ml	↓
L-1 / L-4	↓	↓	4 ml	↓
L-4	ZnAc <sub>2</sub> /NaOH Smo-9A / Smo 1-8C	3 caps broken		
L-1/L-2/L-4	NaOH	Smo 1-8C	6 pellet	
L-5	↓	↓	4 pellet	↓

Additional comments and/or explanation of all discrepancies noted above:

8260 vials are un-preserved.  
L-1, L-4 NaOH did not preserve.  
L-4 ZnAc<sub>2</sub> did not preserve

Client approval to run samples if discrepancies noted:

Date: 85

Note that pH is check and meets the required pH criterion listed in the column heading unless otherwise noted on the cooler receipt form.

Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Container:	40mL	40mL	40mL	125mL	125mL	125mL	125mL	125mL	125mL	125mL	125mL	125mL	125mL	125mL	125mL	125mL	125mL	125mL	125mL	1L	1L	1L	1L	1L	2oz	4oz	8oz	16oz	100ml Ziplock	Misc.	
	G	G	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	G	G	G	G	G	G	G	G	P	P		
Preserve:	Na2S2O3	NaCl	HCl	HCl	H2SO4	HNO3	N/A	ZnAc2/	N/A	HCl	H2SO4	HNO3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A											
Req. pH	N/A	<2	N/A	N/A	<2	<2	<2	N/A	<2	<2	<2	>9	>12	N/A	<2	<2	N/A	<2	N/A	<2	N/A	<2	N/A	<2	N/A	<2	N/A	<2	N/A	N/A	
Sample #	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-1	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
-2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
-3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
-4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
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-38																															
-39																															
-40																															

NOTE: VOA pH checks are performed by the analytical area, not sample control









 Columbia Analytical Services

## CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

[www.ceslabb.com](http://www.ceslabb.com)

1143 Phillips Highway Ste 200 • Jacksonville, FL 32256 (904) 739-2277 • 800-695-7222 x06 • FAX (904) 739-2011

[www.caslab.com](http://www.caslab.com)

**ANALYSIS REQUESTED (Indicate Analysis)**

ପ୍ରାଚୀନ କବିତା ଓ ମହାକବି



Columbia Analytical Services  
9143 Philips Highway, Suite 200  
Jacksonville, FL 32256  
Tel 904-739-2277  
Fax 904-739-2011

## **Appendix A**

### **Subcontracted Analytical Results**

**Environmental Conservation Laboratories, Inc.**

4810 Executive Park Court, Suite 111

Jacksonville FL, 32216-6069

Phone: 904.296.3007 FAX: 904.296.6210



Friday, November 19, 2010

Columbia Analytical Svcs. (CO009)

Attn: Craig Myers

9143 Philips Highway, Suite 200

Jacksonville, FL 32256

**RE: Laboratory Results for  
Project Number: J1005462, Project Name/Desc: J1005462  
ENCO Workorder: B005394**

Dear Craig Myers,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Friday, November 12, 2010.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Jacksonville. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads "Lindsay J Crawford".

Lindsay J Crawford For Chris Tompkins

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 15.

**SAMPLE SUMMARY/LABORATORY CHRONICLE**

<b>Client ID:</b>	<b>L-5</b>	<b>Lab ID:</b>	<b>B005394-01</b>	<b>Sampled:</b>	<b>11/10/10 09:00</b>	<b>Received:</b>	<b>11/12/10 09:16</b>
<b>Parameter</b>		<b>Hold Date/Time(s)</b>		<b>Prep Date/Time(s)</b>		<b>Analysis Date/Time(s)</b>	
EPA 8011		11/24/10	11/30/10	11/16/10	12:44	11/18/2010	12:19
EPA 8151A		11/17/10	12/25/10	11/15/10	09:00	11/16/2010	20:22

<b>Client ID:</b>	<b>L-4</b>	<b>Lab ID:</b>	<b>B005394-02</b>	<b>Sampled:</b>	<b>11/10/10 10:30</b>	<b>Received:</b>	<b>11/12/10 09:16</b>
<b>Parameter</b>		<b>Hold Date/Time(s)</b>		<b>Prep Date/Time(s)</b>		<b>Analysis Date/Time(s)</b>	
EPA 8011		11/24/10	11/30/10	11/16/10	12:44	11/18/2010	13:00
EPA 8151A		11/17/10	12/25/10	11/15/10	09:00	11/16/2010	20:46

<b>Client ID:</b>	<b>L-1</b>	<b>Lab ID:</b>	<b>B005394-03</b>	<b>Sampled:</b>	<b>11/10/10 11:30</b>	<b>Received:</b>	<b>11/12/10 09:16</b>
<b>Parameter</b>		<b>Hold Date/Time(s)</b>		<b>Prep Date/Time(s)</b>		<b>Analysis Date/Time(s)</b>	
EPA 8011		11/24/10	11/30/10	11/16/10	12:44	11/18/2010	13:12
EPA 8151A		11/17/10	12/25/10	11/15/10	09:00	11/16/2010	21:10

<b>Client ID:</b>	<b>L-2</b>	<b>Lab ID:</b>	<b>B005394-04</b>	<b>Sampled:</b>	<b>11/10/10 12:45</b>	<b>Received:</b>	<b>11/12/10 09:16</b>
<b>Parameter</b>		<b>Hold Date/Time(s)</b>		<b>Prep Date/Time(s)</b>		<b>Analysis Date/Time(s)</b>	
EPA 8011		11/24/10	11/30/10	11/16/10	12:44	11/18/2010	13:26
EPA 8151A		11/17/10	12/25/10	11/15/10	09:00	11/16/2010	21:35



**SAMPLE DETECTION SUMMARY**

**No positive results detected.**

### **ANALYTICAL RESULTS**

**Description:** L-5

**Lab Sample ID:** B005394-01

**Received:** 11/12/10 09:16

**Matrix:** Water

**Sampled:** 11/10/10 09:00

**Work Order:** B005394

**Project:** J1005462

**Sampled By:** Client

#### **Semivolatile Organic Compounds by GC**

*^ - ENCO Jacksonville certified analyte [NELAC E82277]*

<b>Analyte [CAS Number]</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.012	U	ug/L	1	0.012	0.020	OK16005	EPA 8011	11/18/10 12:19	JSW	
1,2-Dibromoethane [106-93-4] ^	0.012	U	ug/L	1	0.012	0.020	OK16005	EPA 8011	11/18/10 12:19	JSW	
<b>Surrogates</b>	<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>		<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,1,1,2-Tetrachloroethane	0.12	1	0.250	50 %	33-122		OK16005	EPA 8011	11/18/10 12:19	JSW	

**Description:** L-5  
**Matrix:** Water  
**Project:** J1005462

**Lab Sample ID:** B005394-01  
**Sampled:** 11/10/10 09:00  
**Sampled By:** Client

**Received:** 11/12/10 09:16  
**Work Order:** B005394

### Chlorinated Herbicides by GC

<sup>^</sup> - ENCO Orlando certified analyte [NELAC E83182]

<b>Analyte [CAS Number]</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
2,4,5-T [93-76-5] ^	0.053	U	ug/L	1	0.053	0.50	OK15001	EPA 8151A	11/16/10 20:22	RGG	
2,4,5-TP (Silvex) [93-72-1] ^	0.056	U	ug/L	1	0.056	0.50	OK15001	EPA 8151A	11/16/10 20:22	RGG	
2,4-D [94-75-7] ^	0.091	U	ug/L	1	0.091	0.50	OK15001	EPA 8151A	11/16/10 20:22	RGG	
Dinoseb [88-85-7] ^	0.28	U	ug/L	1	0.28	0.50	OK15001	EPA 8151A	11/16/10 20:22	RGG	
Pentachlorophenol [87-86-5] ^	0.043	U	ug/L	1	0.043	0.50	OK15001	EPA 8151A	11/16/10 20:22	RGG	
<b>Surrogates</b>	<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>		<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
2,4-DCAA	2.5	1	2.00	127 %	68-139		OK15001	EPA 8151A	11/16/10 20:22	RGG	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

**Description:** L-4  
**Matrix:** Water  
**Project:** J1005462

**Lab Sample ID:** B005394-02  
**Sampled:** 11/10/10 10:30  
**Sampled By:** Client

**Received:** 11/12/10 09:16  
**Work Order:** B005394

### Semivolatile Organic Compounds by GC

<sup>^</sup> - ENCO Jacksonville certified analyte [NELAC E82277]

<b>Analyte [CAS Number]</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.012	U	ug/L	1	0.012	0.020	OK16005	EPA 8011	11/18/10 13:00	JSW	
1,2-Dibromoethane [106-93-4] ^	0.012	U	ug/L	1	0.012	0.020	OK16005	EPA 8011	11/18/10 13:00	JSW	
<b>Surrogates</b>	<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>		<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,1,1,2-Tetrachloroethane	0.18	1	0.250	71 %	33-122		OK16005	EPA 8011	11/18/10 13:00	JSW	

**Description:** L-4  
**Matrix:** Water  
**Project:** J1005462

**Lab Sample ID:** B005394-02  
**Sampled:** 11/10/10 10:30  
**Sampled By:** Client

**Received:** 11/12/10 09:16  
**Work Order:** B005394

### Chlorinated Herbicides by GC

<sup>^</sup> - ENCO Orlando certified analyte [NELAC E83182]

<b>Analyte [CAS Number]</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>POL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
2,4,5-T [93-76-5] ^	0.053	U	ug/L	1	0.053	0.50	OK15001	EPA 8151A	11/16/10 20:46	RGG	
2,4,5-TP (Silvex) [93-72-1] ^	0.056	U	ug/L	1	0.056	0.50	OK15001	EPA 8151A	11/16/10 20:46	RGG	
2,4-D [94-75-7] ^	0.091	U	ug/L	1	0.091	0.50	OK15001	EPA 8151A	11/16/10 20:46	RGG	
Dinoseb [88-85-7] ^	0.28	U	ug/L	1	0.28	0.50	OK15001	EPA 8151A	11/16/10 20:46	RGG	
Pentachlorophenol [87-86-5] ^	0.043	U	ug/L	1	0.043	0.50	OK15001	EPA 8151A	11/16/10 20:46	RGG	
<b>Surrogates</b>	<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>		<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
2,4-DCAA	1.1	1	2.00	57 %	68-139		OK15001	EPA 8151A	11/16/10 20:46	RGG	QS-05

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

**Description:** L-1  
**Matrix:** Water  
**Project:** J1005462

**Lab Sample ID:** B005394-03  
**Sampled:** 11/10/10 11:30  
**Sampled By:** Client

**Received:** 11/12/10 09:16  
**Work Order:** B005394

### Semivolatile Organic Compounds by GC

<sup>^</sup> - ENCO Jacksonville certified analyte [NELAC E82277]

<b>Analyte [CAS Number]</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>POL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.012	U	ug/L	1	0.012	0.020	OK16005	EPA 8011	11/18/10 13:12	JSW	
1,2-Dibromoethane [106-93-4] ^	0.012	U	ug/L	1	0.012	0.020	OK16005	EPA 8011	11/18/10 13:12	JSW	
<b>Surrogates</b>	<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>		<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,1,1,2-Tetrachloroethane	0.12	1	0.250	50 %	33-122		OK16005	EPA 8011	11/18/10 13:12	JSW	

**Description:** L-1  
**Matrix:** Water  
**Project:** J1005462

**Lab Sample ID:** B005394-03  
**Sampled:** 11/10/10 11:30  
**Sampled By:** Client

**Received:** 11/12/10 09:16  
**Work Order:** B005394

### Chlorinated Herbicides by GC

<sup>^</sup> - ENCO Orlando certified analyte [NELAC E83182]

<b>Analyte [CAS Number]</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>POL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
2,4,5-T [93-76-5] ^	0.053	U	ug/L	1	0.053	0.50	OK15001	EPA 8151A	11/16/10 21:10	RGG	
2,4,5-TP (Silvex) [93-72-1] ^	0.056	U	ug/L	1	0.056	0.50	OK15001	EPA 8151A	11/16/10 21:10	RGG	
2,4-D [94-75-7] ^	0.091	U	ug/L	1	0.091	0.50	OK15001	EPA 8151A	11/16/10 21:10	RGG	
Dinoseb [88-85-7] ^	0.28	U	ug/L	1	0.28	0.50	OK15001	EPA 8151A	11/16/10 21:10	RGG	
Pentachlorophenol [87-86-5] ^	0.043	U	ug/L	1	0.043	0.50	OK15001	EPA 8151A	11/16/10 21:10	RGG	
<b>Surrogates</b>	<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>		<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
2,4-DCAA	2.5	1	2.00	126 %	68-139		OK15001	EPA 8151A	11/16/10 21:10	RGG	

**Description:** L-2  
**Matrix:** Water  
**Project:** J1005462

**Lab Sample ID:** B005394-04  
**Sampled:** 11/10/10 12:45  
**Sampled By:** Client

**Received:** 11/12/10 09:16  
**Work Order:** B005394

### Semivolatile Organic Compounds by GC

^ - ENCO Jacksonville certified analyte [NELAC E82277]

<b>Analyte [CAS Number]</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.012	U	ug/L	1	0.012	0.020	OK16005	EPA 8011	11/18/10 13:26	JSW	
1,2-Dibromoethane [106-93-4] ^	0.012	U	ug/L	1	0.012	0.020	OK16005	EPA 8011	11/18/10 13:26	JSW	
<b>Surrogates</b>	<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>		<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,1,1,2-Tetrachloroethane	0.20	1	0.250	80 %	33-122		OK16005	EPA 8011	11/18/10 13:26	JSW	

**Description:** L-2

**Lab Sample ID:** B005394-04

**Received:** 11/12/10 09:16

**Matrix:** Water

**Sampled:** 11/10/10 12:45

**Work Order:** B005394

**Project:** J1005462

**Sampled By:** Client

**Chlorinated Herbicides by GC**
<sup>^</sup> - ENCO Orlando certified analyte [NELAC E83182]

<b>Analyte [CAS Number]</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>POL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
2,4,5-T [93-76-5] ^	0.053	U	ug/L	1	0.053	0.50	OK15001	EPA 8151A	11/16/10 21:35	RGG	
2,4,5-TP (Silvex) [93-72-1] ^	0.056	U	ug/L	1	0.056	0.50	OK15001	EPA 8151A	11/16/10 21:35	RGG	
2,4-D [94-75-7] ^	0.091	U	ug/L	1	0.091	0.50	OK15001	EPA 8151A	11/16/10 21:35	RGG	
Dinoseb [88-85-7] ^	0.28	U	ug/L	1	0.28	0.50	OK15001	EPA 8151A	11/16/10 21:35	RGG	
Pentachlorophenol [87-86-5] ^	0.043	U	ug/L	1	0.043	0.50	OK15001	EPA 8151A	11/16/10 21:35	RGG	
<b>Surrogates</b>	<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>		<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
2,4-DCAA	3.9	1	2.00	196 %	68-139		OK15001	EPA 8151A	11/16/10 21:35	RGG	QS-06

### QUALITY CONTROL

#### Semivolatile Organic Compounds by GC - Quality Control

Batch OK16005 - EPA 8011

##### Blank (OK16005-BLK1)

Prepared: 11/16/2010 12:44 Analyzed: 11/18/2010 10:39

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dibromo-3-chloropropane	0.012	U	0.020	ug/L							
1,2-Dibromoethane	0.012	U	0.020	ug/L							
Surrogate: 1,1,1,2-Tetrachloroethane	0.30			ug/L	0.250		121	33-122			

##### LCS (OK16005-BS1)

Prepared: 11/16/2010 12:44 Analyzed: 11/18/2010 10:51

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dibromo-3-chloropropane	0.25		0.020	ug/L	0.250		100	60-140			
1,2-Dibromoethane	0.24		0.020	ug/L	0.250		94	60-140			
Surrogate: 1,1,1,2-Tetrachloroethane	0.29			ug/L	0.250		115	33-122			

##### Matrix Spike (OK16005-MS1)

Prepared: 11/16/2010 12:44 Analyzed: 11/18/2010 11:29

Source: B005394-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dibromo-3-chloropropane	0.20		0.020	ug/L	0.250	0.012 U	82	60-140			
1,2-Dibromoethane	0.25		0.020	ug/L	0.250	0.012 U	99	60-140			
Surrogate: 1,1,1,2-Tetrachloroethane	0.12			ug/L	0.250		50	33-122			

##### Matrix Spike Dup (OK16005-MSD1)

Prepared: 11/16/2010 12:44 Analyzed: 11/18/2010 11:41

Source: B005394-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dibromo-3-chloropropane	0.22		0.020	ug/L	0.250	0.012 U	87	60-140	6	20	
1,2-Dibromoethane	0.25		0.020	ug/L	0.250	0.012 U	99	60-140	0.6	20	
Surrogate: 1,1,1,2-Tetrachloroethane	0.15			ug/L	0.250		62	33-122			

### QUALITY CONTROL

#### Chlorinated Herbicides by GC - Quality Control

Batch OK15001 - EPA 3510C

##### Blank (OK15001-BLK1)

Prepared: 11/15/2010 09:00 Analyzed: 11/16/2010 15:30

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-T	0.053	U	0.50	ug/L							
2,4,5-TP (Silvex)	0.056	U	0.50	ug/L							
2,4-D	0.091	U	0.50	ug/L							
Dinoseb	0.28	U	0.50	ug/L							
Pentachlorophenol	0.043	U	0.50	ug/L							
Surrogate: 2,4-DCAA	1.9			ug/L	2.00		93	68-139			

##### LCS (OK15001-BS1)

Prepared: 11/15/2010 09:00 Analyzed: 11/16/2010 15:54

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	2.0		0.50	ug/L	2.00		102	68-154			

### QUALITY CONTROL

**Chlorinated Herbicides by GC - Quality Control**


---

Batch 0K15001 - EPA 3510C

**LCS (0K15001-BS1) Continued**

Prepared: 11/15/2010 09:00 Analyzed: 11/16/2010 15:54

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4-D	2.4		0.50	ug/L	2.00		120	62-144			
Surrogate: 2,4-DCAA	1.9			ug/L	2.00		97	68-139			

**Matrix Spike (0K15001-MS1)**

Prepared: 11/15/2010 09:00 Analyzed: 11/16/2010 16:18

Source: A006216-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	0.56		0.50	ug/L	2.00	0.056 U	28	68-154			QM-07
2,4-D	1.5		0.50	ug/L	2.00	0.091 U	75	62-144			
Surrogate: 2,4-DCAA	1.1			ug/L	2.00		57	68-139			QS-03

**Matrix Spike Dup (0K15001-MSD1)**

Prepared: 11/15/2010 09:00 Analyzed: 11/16/2010 16:43

Source: A006216-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	1.4		0.50	ug/L	2.00	0.056 U	68	68-154	84	15	QM-11
2,4-D	2.2		0.50	ug/L	2.00	0.091 U	111	62-144	39	33	QM-11
Surrogate: 2,4-DCAA	1.6			ug/L	2.00		78	68-139			

**FLAGS/NOTES AND DEFINITIONS**

- PQL PQL: Practical Quantitation Limit.
- B Results are based upon membrane filter colony counts that are outside the method indicated ideal range.
- I The reported value is between the laboratory method detection limit (MDL) and the practical quantitation limit (PQL).
- J Estimated value. The associated sample note or project narrative indicate the causative reason.
- K Off-scale low; Actual value is known to be less than the value given.
- L Off-scale high; Actual value is known to be greater than value given.
- M Presence of analyte is verified but not quantified; the actual value is less than the MRL but greater than the MDL.
- N Presumptive evidence of presence of material.
- O Sampled, but analysis lost or not performed.
- Q Sample exceeded the accepted holding time.
- T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only and shall not be used in statistical analysis.
- U Indicates that the compound was analyzed for but not detected.
- V Indicates that the analyte was detected in both the sample and the associated method blank.
- Y The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
- Z Too many colonies were present (TNTC); the numeric value represents the filtration volume.
- ? Data are rejected and should not be used. Some or all of the quality control data for the analyte were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
- \*
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- QM-11 Precision between duplicate matrix spikes of the same sample was outside acceptance limits.
- QS-03 Surrogate recovery outside acceptance limits
- QS-05 Surrogate recovery biased low and outside control limits due to suspected matrix effects, as evidenced by sample behavior during sample preparation (emulsion formation, excessive foaming).
- QS-06 Surrogate recovery exceeded acceptance criteria due to the presence of a coeluting compound. This is a confirmed matrix effect.

**Columbia Analytical Services, Inc. Chain of Custody**  
 9143 Philips Highway • Jacksonville, FL 32256 • 904-739-2277 FAX 904-739-2011

Project Number: J1005462  
 Project Manager: Craig Myers

CAS Contact: Craig Myers

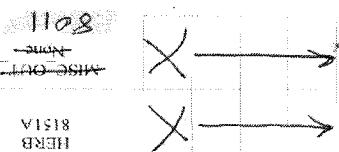
B005462-0394  
 KK 11-12-10

Lab Code	Sample ID	# of Cont.	Matrix	Date	Time	Lab ID
J1005462-001	L-5	5	Water	11/09/10	0900	ENCO
J1005462-003	L-4		Water	11/10/10	1030	ENCO
J1005462-005	L-1		Water	11/10/10	1130	ENCO
J1005462-007	L-2		Water	11/09/10	1245	ENCO

Test Comments  
 HERB • 8151A  
 MISC OUT • None

Report Appendix II List  
 Report EOB and DRCP by EPA Method 8011

Client Color @ 5.7%



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Special Instructions/Comments	Turnaround Requirements	Report Requirements	Invoice Information
	RUSH (Surcharge Apply) <input checked="" type="checkbox"/> PLEASE CIRCLE WORK DAYS <input checked="" type="checkbox"/> STANDARD Requested FAX Date: <u>11/12/10</u> Requested Report Date: <u>11/24/10</u>	I Results Only <input checked="" type="checkbox"/> II Results + QC Summaries <input checked="" type="checkbox"/> III. Results + QC and Calibrated Summaries <input checked="" type="checkbox"/> IV. Data Validation Report with Raw Data PQI/MDJJ <input checked="" type="checkbox"/> EDD <input checked="" type="checkbox"/>	PO# <u>J1005462</u> Bill to _____

Reinforced By: John Kelly Received By: John Kelly Airbill Number: 0714  
 Page 15 of 15

December 02, 2010

Service Request No: J1005486

Kirk Wills  
Environmental Planning Specialists  
1936 Bruce B Downs Blvd  
#328  
Wesley Chapel, FL 33543

**Laboratory Results for: JED SWDF**

Dear Kirk:

Enclosed are the results of the sample(s) submitted to our laboratory on November 12, 2010. For your reference, these analyses have been assigned our service request number **J1005486**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. 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 contact me if you have any questions. My extension is 4409. You may also contact me via email at [CMyers@caslab.com](mailto:CMyers@caslab.com).

Respectfully submitted,

**Columbia Analytical Services, Inc.**



Craig Myers  
Project Manager

Page 1 of 76

## COLUMBIA ANALYTICAL SERVICES, INC.

**Client:** Environmental Planning Specialists      **Service Request No.:** J1005486  
**Project:** JED SWDF      **Date Received:** 11/12/10  
**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, including results of QC samples analyzed from this delivery group. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

## Sample Receipt

Four water samples and two trip blanks were received for analysis at Columbia Analytical Services on 11/12/10. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at  $4\pm2^{\circ}\text{C}$  upon receipt at the lab except for aqueous samples designated for metals analyses, which were stored at room temperature.

## **Volatile Organic Compounds by GC-MS**

The samples were analyzed for Volatile Organics using EPA Method 8260. The following observations were made regarding this delivery group.

## Second Source Exceptions

The control criterion was exceeded for the following analyte in Second Source Verification (SSV) ICAL 2358: trans-1,4-Dichloro-2-butene. The analyte in question was not detected in the associated field samples. Since the analyte was detected in the MRL check standard, instrument sensitivity was documented. The data quality was not significantly affected and no further corrective action was taken.

## Continuing Calibration Verification Exceptions

The primary evaluation criterion was exceeded for the following analytes in Continuing Calibration Verification (CCV) JWG1004180-2: Acrolein and Isobutyl Alcohol. The analytes in question were not detected in the associated field samples. Since the analytes were detected in the MRL check standard, instrument sensitivity was documented. The data quality was not significantly affected and no further corrective action was taken.

## Lab Control Sample Exceptions

The spike recoveries of several analytes for Laboratory Control Sample (LCS) JQ1005766-01 were outside the lower control criterion. The analytes in question were not detected in the associated field samples. Since the analytes were detected in the MRL check standard, instrument sensitivity was documented. The data quality was not significantly affected and no further corrective action was taken.

**Approved by**

Aug R. Hig Date 12/2/10

#### Elevated Method Reporting Limits

The reporting limits are elevated for all analytes in samples L-3 and L-6. The samples were diluted prior to instrumental analysis due to the foaming nature of the matrix. The reporting limits are adjusted to reflect the dilution.

#### **Organochlorine Pesticides by GC-ECD**

The samples were analyzed for Organochlorine Pesticides using EPA Method 8081. The following observations were made regarding this delivery group.

#### Surrogate Exceptions

The control criterion is not applicable for the following surrogates in sample L-6: Decachlorobiphenyl and Tetrachloro-m-xylene. The analysis of the samples required a dilution, which resulted in a surrogate concentration below the Method Reporting Limit (MRL). No further corrective action was appropriate.

The control criterion was exceeded for the following surrogates in sample L-3 due to suspected matrix interference: Decachlorobiphenyl and Tetrachloro-m-xylene. The error associated with reduced recovery equates to a potential low bias. No further corrective action was taken.

#### Lab Control Sample Exceptions

The spike recoveries of gamma-BHC (Lindane) and Endrin Aldehyde for Laboratory Control Sample (LCS) JWG1004036-1 were outside the lower control criterion (56% versus a criterion of 57%) for gamma-BHC (Lindane) and (36% versus a criterion of 51%) for Endrin Aldehyde. The analytes in question were not detected in the associated field samples. The error associated with reduced recovery equates to a potential low bias for these analytes. The data are flagged to indicate the problem.

#### Elevated Method Reporting Limits

The Method Reporting Limit (MRL) is elevated for all target analytes in sample L-6. The sample required dilution due to the presence of elevated levels of sulfur that masked portions of the chromatogram in which target analytes elute. The samples were Florisil cleaned after extraction and were also copper cleaned multiple times before they were diluted. These cleanups alone were insufficient to remove enough sulfur to resolve the masking. The elevated reporting limits are reflected in the final report. No further corrective action was taken.

#### **PCB Aroclors by GC-ECD**

The samples were analyzed for PCB Aroclors using EPA Method 8082. The following observations were made regarding this delivery group.

#### Surrogate Exceptions

The control criterion is not applicable for the following surrogate in sample L-6: Decachlorobiphenyl. The analysis of the samples required a dilution, which resulted in a surrogate concentration below the Method Reporting Limit (MRL). No further corrective action was appropriate.

The control criterion was exceeded for the following surrogate in sample L-3 due to suspected matrix interference: Decachlorobiphenyl. The error associated with reduced recovery equates to a potential low bias. No further corrective action was taken.

Approved by \_\_\_\_\_

Date \_\_\_\_\_

12/2/10

### Elevated Method Reporting Limits

The Method Reporting Limit (MRL) is elevated for all target analytes in sample L-6. The sample required dilution due to the presence of elevated levels of sulfur that masked portions of the chromatogram in which target analytes elute. The samples were Florisil cleaned after extraction and were also copper cleaned multiple times before they were diluted. These cleanups alone were insufficient to remove enough sulfur to resolve the masking. The elevated reporting limits are reflected in the final report. No further corrective action was taken.

### Semivolatile Organics by GC-MS

The samples were analyzed for Semivolatile Organics using EPA Method 8270. The following observations were made regarding this delivery group.

### Second Source Exceptions

The lower control criterion was exceeded for the following analytes in the Second Source Verification (SSV): Kepone, Phorate, Famphur, and Methyl Methanesulfonate. The analytes in question were not detected in the associated field samples. Since the analytes were detected in the Method Reporting Limit (MRL) check, instrument sensitivity was documented. The data quality was not significantly affected and no further corrective action was taken.

The upper control criterion was exceeded for the following analytes in the Second Source Verification (SSV): 2-Naphthylamine and Pentachlorophenol. The field samples analyzed in this sequence did not contain the analytes in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. No further corrective action was required.

### Continuing Calibration Verification Exceptions

The lower control criterion was exceeded for the following analyte in Continuing Calibration Verification (CCV) JWG1004250-2: Famphur. The analyte in question was not detected in the associated field samples. Since the analyte was detected in the Method Reporting Limit (MRL) check, instrument sensitivity was documented. The data quality was not significantly affected and no further corrective action was taken.

The upper control criterion was exceeded for many analytes, including some Calibration Check Compounds (CCCs), in Continuing Calibration Verification (CCV) JWG1004250-2. Because of the CCC failures, all analytes in the CCV were evaluated at 80%-120% per method requirement. The field samples analyzed in this sequence did not contain the analytes in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. No further corrective action was required.

### Surrogate Exceptions

The control criterion for the following surrogates in samples L-6, and the Matrix Spike and Duplicate Matrix Spike performed on sample L-3 is not applicable: 2-Fluorophenol and Phenol-d6. The analysis of the samples required dilutions, which resulted in surrogate concentrations at the Method Reporting Limit (MRL). No further corrective action was appropriate.

The upper control criterion was exceeded for the following surrogate in Method Blank JWG1004049-4: Phenol-d6. No target analytes were detected in the Method Blank. The error associated with an elevated recovery equates to a high bias. The quality of the sample data is not significantly affected. No further corrective action was appropriate.

### Matrix Spike Recovery Exceptions

The Matrix Spike recoveries of 2,4-Dinitrophenol, Bis(2-chloroethoxy)methane, Bis(2-chloroisopropyl) Ether, and Pentachlorophenol for sample L-3 were outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. No further corrective action was appropriate.

Approved by \_\_\_\_\_

 Date 12/2/10

The Duplicate Matrix Spike recoveries of 2,4-Dinitrophenol, Bis(2-chloroethoxy)methane, N-Nitrosodi-n-propylamine, and Pentachlorophenol for sample L-3 were outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. No further corrective action was appropriate.

#### Relative Percent Difference Exceptions

The Relative Percent Differences (RPD) for the following analytes in the replicate matrix spike analyses of sample L-3 were outside control criteria: 4-Chloroaniline and Hexachloroethane. The spike recoveries in the MS and DMS for these analytes were within acceptance limits, indicating the analytical batch was in control. No further corrective action was appropriate.

#### Lab Control Sample Exceptions

The spike recovery of 4-Chloroaniline for Laboratory Control Sample (LCS) JWG1004049-3 was outside the lower control criterion (14% versus a criterion of 39%). The analyte in question was not detected in the associated field samples. The error associated with reduced recovery equates to a potential low bias. The Matrix Spike and Duplicate Matrix Spike associated with this extraction batch had passing recoveries for 4-Chloroaniline, indicating that the low bias is isolated to the Laboratory Control Sample. The data is flagged to indicate the problem.

#### Elevated Method Reporting Limits

The Method Reporting Limit (MRL) is elevated for all target analytes in samples L-3 and L-6. The samples required dilution due to the color and viscosity of the extracts. The chromatograms also indicated the presence of elevated levels of non-target analytes. The elevated reporting limits are reflected in the final report. No further corrective action was taken.

#### Metals by ICP-OES/CVAA

The samples were analyzed for Total Metals using EPA Methods 6010B/7470A. No problems were observed.

#### General Chemistry Parameters

The samples were analyzed for Inorganic Parameters using various EPA and Standard Methods. No problems were observed.

#### Subcontracted Analytical Parameters

The samples were delivered to ENCO Labs in Jacksonville, FL on 11/12/10 for EPA Method 8011 determination. The certified analytical report has been included in its entirety in Appendix A: Subcontracted Analytical Results.

Approved by \_\_\_\_\_

 Date 12/2/10

## **Florida DEP Data Qualifiers**

- B Results based upon colony counts outside the acceptable range.
- D Measurement was made in the field.
- H Value based on field kit determination; results may not be accurate.
- i The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J Estimated value (one of the following reasons is discussed in the project case narrative).
  - 1. The result may be inaccurate because the surrogate recovery limits have been exceeded.
  - 2. No known quality control criteria exists for the component.
  - 3. The reported value failed to meet the established quality control criteria for either precision or accuracy.
  - 4. The sample matrix interfered with the ability to make any accurate determination (e.g., primary and confirmation results show greater than 40% RPD).
  - 5. The data is questionable because of improper laboratory or field protocols (e.g., GC/MS Tune did not meet method criteria).
- K Off scale low. The value is less than the lowest calibration standard but greater than the method reporting limit (MRL).
- L Off scale high. The analyte is above the upper limit of the linear calibration range.
- M The MDL/MRL has been elevated because the analyte could not be accurately quantified due to matrix interference.
- N Presumptive evidence of the analyte. Confirmation was not performed.
- Q Sample held beyond the accepted holding time.
- T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only.
- U Indicates that the compound was analyzed for but not detected.
- V Indicates that the analyte was detected in both the sample and the associated method blank.
- Y The laboratory analysis was from an improperly preserved sample.
- Z Too many colonies were present (TNTC). The numeric value represents the filtration volume.

## **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.

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF

**Service Request:** J1005486

**SAMPLE CROSS-REFERENCE**

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
J1005486-001	L-3	11/11/10	06:45
J1005486-002	Trip Blank 1	11/11/10	00:00
J1005486-003	L-6	11/11/10	08:00
J1005486-004	Trip Blank 2	11/11/10	00:00
J1005486-005	10315-JED-UL	11/11/10	09:45
J1005486-006	10315-JED-TL	11/11/10	10:45

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** L-3  
**Lab Code:** J1005486-001

**Service Request:** J1005486  
**Date Collected:** 11/11/10 0645  
**Date Received:** 11/12/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226413

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	10.0	1.80	10	NA	11/22/10 14:06		226413	
1,1,1-Trichloroethane (TCA)	ND	U	10.0	1.71	10	NA	11/22/10 14:06		226413	
1,1,2,2-Tetrachloroethane	ND	U	10.0	1.10	10	NA	11/22/10 14:06		226413	
1,1,2-Trichloroethane	ND	U	10.0	1.71	10	NA	11/22/10 14:06		226413	
1,1-Dichloroethane (1,1-DCA)	ND	U	10.0	1.30	10	NA	11/22/10 14:06		226413	
1,1-Dichloroethene (1,1-DCE)	ND	U	10.0	1.60	10	NA	11/22/10 14:06		226413	
1,1-Dichloropropene	ND	U	50.0	1.20	10	NA	11/22/10 14:06		226413	
1,2,3-Trichloropropane	ND	U	20.0	4.20	10	NA	11/22/10 14:06		226413	
1,2,4-Trichlorobenzene	ND	U	100	2.10	10	NA	11/22/10 14:06		226413	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	50.0	23.0	10	NA	11/22/10 14:06		226413	
1,2-Dibromoethane (EDB)	ND	U	10.0	1.71	10	NA	11/22/10 14:06		226413	
1,2-Dichlorobenzene	ND	U	10.0	4.78	10	NA	11/22/10 14:06		226413	
1,2-Dichloroethane	ND	U	10.0	1.80	10	NA	11/22/10 14:06		226413	
1,2-Dichloropropane	ND	U	10.0	1.20	10	NA	11/22/10 14:06		226413	
1,3-Dichlorobenzene	ND	U	10.0	1.30	10	NA	11/22/10 14:06		226413	
1,3-Dichloropropane	ND	U	10.0	1.50	10	NA	11/22/10 14:06		226413	
1,4-Dichlorobenzene	13.6		10.0	1.00	10	NA	11/22/10 14:06		226413	
2,2-Dichloropropane	ND	U	10.0	1.80	10	NA	11/22/10 14:06		226413	
2-Butanone (MEK)	ND	U	100	38.0	10	NA	11/22/10 14:06		226413	
2-Hexanone	ND	U	250	22.0	10	NA	11/22/10 14:06		226413	
4-Methyl-2-pentanone (MIBK)	ND	U	250	6.50	10	NA	11/22/10 14:06		226413	
Acetone	82.3	I	500	56.0	10	NA	11/22/10 14:06		226413	
Acetonitrile	ND	U	250	180	10	NA	11/22/10 14:06		226413	
Acrolein	ND	U	500	42.0	10	NA	11/22/10 14:06		226413	
Acrylonitrile	ND	U	100	12.0	10	NA	11/22/10 14:06		226413	
Allyl Chloride	ND	U	50.0	3.91	10	NA	11/22/10 14:06		226413	
Benzene	10.4		10.0	2.10	10	NA	11/22/10 14:06		226413	
Bromochloromethane	ND	U	50.0	2.70	10	NA	11/22/10 14:06		226413	
Bromodichloromethane	ND	U	10.0	1.71	10	NA	11/22/10 14:06		226413	
Bromoform	ND	U	20.0	4.20	10	NA	11/22/10 14:06		226413	
Bromomethane	ND	U	10.0	2.20	10	NA	11/22/10 14:06		226413	
Carbon Disulfide	ND	U	100	23.6	10	NA	11/22/10 14:06		226413	
Carbon Tetrachloride	ND	U	10.0	3.41	10	NA	11/22/10 14:06		226413	
Chlorobenzene	ND	U	10.0	1.60	10	NA	11/22/10 14:06		226413	
Chloroethane	ND	U	50.0	2.20	10	NA	11/22/10 14:06		226413	
Chloroform	ND	U	10.0	3.50	10	NA	11/22/10 14:06		226413	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** L-3  
**Lab Code:** J1005486-001

**Service Request:** J1005486  
**Date Collected:** 11/11/10 0645  
**Date Received:** 11/12/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226413

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloromethane	ND	U	10.0	1.10	10	NA	11/22/10 14:06		226413	
Chloroprene	ND	U	10.0	0.00	10	NA	11/22/10 14:06		226413	
cis-1,2-Dichloroethene	ND	U	10.0	3.60	10	NA	11/22/10 14:06		226413	
cis-1,3-Dichloropropene	ND	U	10.0	2.00	10	NA	11/22/10 14:06		226413	
Dibromochloromethane	ND	U	10.0	1.90	10	NA	11/22/10 14:06		226413	
Dibromomethane	ND	U	50.0	1.80	10	NA	11/22/10 14:06		226413	
Dichlorodifluoromethane	ND	U	200	2.31	10	NA	11/22/10 14:06		226413	
Ethyl Methacrylate	ND	U	10.0	1.90	10	NA	11/22/10 14:06		226413	
Ethylbenzene	51.2		10.0	2.10	10	NA	11/22/10 14:06		226413	
Hexachlorobutadiene	ND	U	100	6.00	10	NA	11/22/10 14:06		226413	
Iodomethane	ND	U	50.0	26.8	10	NA	11/22/10 14:06		226413	
Isobutyl Alcohol	ND	U	1000	430	10	NA	11/22/10 14:06		226413	
m,p-Xylenes	56.5		20.0	4.10	10	NA	11/22/10 14:06		226413	
Methacrylonitrile	ND	U	50.0	16.0	10	NA	11/22/10 14:06		226413	
Methyl Methacrylate	ND	U	20.0	2.70	10	NA	11/22/10 14:06		226413	
Methylene Chloride	ND	U	50.0	2.10	10	NA	11/22/10 14:06		226413	
Naphthalene	ND	U	100	2.40	10	NA	11/22/10 14:06		226413	
o-Xylene	26.0		10.0	1.41	10	NA	11/22/10 14:06		226413	
Propionitrile	ND	U	250	39.0	10	NA	11/22/10 14:06		226413	
Styrene	ND	U	10.0	2.91	10	NA	11/22/10 14:06		226413	
Tetrachloroethene (PCE)	ND	U	10.0	1.10	10	NA	11/22/10 14:06		226413	
Toluene	21.0		10.0	1.90	10	NA	11/22/10 14:06		226413	
trans-1,2-Dichloroethene	ND	U	10.0	1.20	10	NA	11/22/10 14:06		226413	
trans-1,3-Dichloropropene	ND	U	10.0	2.31	10	NA	11/22/10 14:06		226413	
trans-1,4-Dichloro-2-butene	ND	U	200	22.0	10	NA	11/22/10 14:06		226413	
Trichloroethene (TCE)	ND	U	10.0	1.60	10	NA	11/22/10 14:06		226413	
Trichlorofluoromethane	ND	U	200	2.20	10	NA	11/22/10 14:06		226413	
Vinyl Acetate	ND	U	100	19.0	10	NA	11/22/10 14:06		226413	
Vinyl Chloride	ND	U	10.0	2.20	10	NA	11/22/10 14:06		226413	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	92	71-122	11/22/10 14:06	
4-Bromofluorobenzene	106	75-120	11/22/10 14:06	
Dibromofluoromethane	97	82-116	11/22/10 14:06	
Toluene-d8	108	88-117	11/22/10 14:06	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Trip Blank 1  
**Lab Code:** J1005486-002

**Service Request:** J1005486  
**Date Collected:** 11/11/10 0000  
**Date Received:** 11/12/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226413

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/22/10 13:04		226413	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/22/10 13:04		226413	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/22/10 13:04		226413	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/22/10 13:04		226413	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/22/10 13:04		226413	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/22/10 13:04		226413	
1,1-Dichloropropene	ND	U	5.00	0.120	1	NA	11/22/10 13:04		226413	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/22/10 13:04		226413	
1,2,4-Trichlorobenzene	ND	U	10.0	0.210	1	NA	11/22/10 13:04		226413	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/22/10 13:04		226413	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/22/10 13:04		226413	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/22/10 13:04		226413	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/22/10 13:04		226413	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/22/10 13:04		226413	
1,3-Dichlorobenzene	ND	U	1.00	0.130	1	NA	11/22/10 13:04		226413	
1,3-Dichloropropane	ND	U	1.00	0.150	1	NA	11/22/10 13:04		226413	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/22/10 13:04		226413	
2,2-Dichloropropane	ND	U	1.00	0.180	1	NA	11/22/10 13:04		226413	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/22/10 13:04		226413	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/22/10 13:04		226413	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/22/10 13:04		226413	
Acetone	ND	U	50.0	5.60	1	NA	11/22/10 13:04		226413	
Acetonitrile	ND	U	25.0	18.0	1	NA	11/22/10 13:04		226413	
Acrolein	ND	U	50.0	4.20	1	NA	11/22/10 13:04		226413	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/22/10 13:04		226413	
Allyl Chloride	ND	U	5.00	0.390	1	NA	11/22/10 13:04		226413	
Benzene	ND	U	1.00	0.210	1	NA	11/22/10 13:04		226413	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/22/10 13:04		226413	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/22/10 13:04		226413	
Bromoform	ND	U	2.00	0.420	1	NA	11/22/10 13:04		226413	
Bromomethane	ND	U	1.00	0.220	1	NA	11/22/10 13:04		226413	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/22/10 13:04		226413	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/22/10 13:04		226413	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/22/10 13:04		226413	
Chloroethane	ND	U	5.00	0.220	1	NA	11/22/10 13:04		226413	
Chloroform	ND	U	1.00	0.350	1	NA	11/22/10 13:04		226413	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Trip Blank 1  
**Lab Code:** J1005486-002

**Service Request:** J1005486  
**Date Collected:** 11/11/10 0000  
**Date Received:** 11/12/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 226413

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloromethane	ND U	1.00	0.110	1	NA	11/22/10 13:04		226413	
Chloroprene	ND U	1.00	0.00	1	NA	11/22/10 13:04		226413	
cis-1,2-Dichloroethene	ND U	1.00	0.360	1	NA	11/22/10 13:04		226413	
cis-1,3-Dichloropropene	ND U	1.00	0.200	1	NA	11/22/10 13:04		226413	
Dibromochloromethane	ND U	1.00	0.190	1	NA	11/22/10 13:04		226413	
Dibromomethane	ND U	5.00	0.180	1	NA	11/22/10 13:04		226413	
Dichlorodifluoromethane	ND U	20.0	0.230	1	NA	11/22/10 13:04		226413	
Ethyl Methacrylate	ND U	1.00	0.190	1	NA	11/22/10 13:04		226413	
Ethylbenzene	ND U	1.00	0.210	1	NA	11/22/10 13:04		226413	
Hexachlorobutadiene	ND U	10.0	0.600	1	NA	11/22/10 13:04		226413	
Iodomethane	ND U	5.00	2.68	1	NA	11/22/10 13:04		226413	
Isobutyl Alcohol	ND U	100	43.0	1	NA	11/22/10 13:04		226413	
m,p-Xylenes	ND U	2.00	0.410	1	NA	11/22/10 13:04		226413	
Methacrylonitrile	ND U	5.00	1.60	1	NA	11/22/10 13:04		226413	
Methyl Methacrylate	ND U	2.00	0.270	1	NA	11/22/10 13:04		226413	
Methylene Chloride	0.420 I	5.00	0.210	1	NA	11/22/10 13:04		226413	
Naphthalene	ND U	10.0	0.240	1	NA	11/22/10 13:04		226413	
o-Xylene	ND U	1.00	0.140	1	NA	11/22/10 13:04		226413	
Propionitrile	ND U	25.0	3.90	1	NA	11/22/10 13:04		226413	
Styrene	ND U	1.00	0.291	1	NA	11/22/10 13:04		226413	
Tetrachloroethene (PCE)	ND U	1.00	0.110	1	NA	11/22/10 13:04		226413	
Toluene	ND U	1.00	0.190	1	NA	11/22/10 13:04		226413	
trans-1,2-Dichloroethene	ND U	1.00	0.120	1	NA	11/22/10 13:04		226413	
trans-1,3-Dichloropropene	ND U	1.00	0.230	1	NA	11/22/10 13:04		226413	
trans-1,4-Dichloro-2-butene	ND U	20.0	2.20	1	NA	11/22/10 13:04		226413	
Trichloroethene (TCE)	ND U	1.00	0.160	1	NA	11/22/10 13:04		226413	
Trichlorofluoromethane	ND U	20.0	0.220	1	NA	11/22/10 13:04		226413	
Vinyl Acetate	ND U	10.0	1.90	1	NA	11/22/10 13:04		226413	
Vinyl Chloride	ND U	1.00	0.220	1	NA	11/22/10 13:04		226413	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	92	71-122	11/22/10 13:04	
4-Bromofluorobenzene	101	75-120	11/22/10 13:04	
Dibromofluoromethane	94	82-116	11/22/10 13:04	
Toluene-d8	104	88-117	11/22/10 13:04	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** L-6  
**Lab Code:** J1005486-003

**Service Request:** J1005486  
**Date Collected:** 11/11/10 0800  
**Date Received:** 11/12/10

**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260B**Analysis Lot:** 226413

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	10.0	1.80	10	NA	11/22/10 14:38		226413	
1,1,1-Trichloroethane (TCA)	ND	U	10.0	1.71	10	NA	11/22/10 14:38		226413	
1,1,2,2-Tetrachloroethane	ND	U	10.0	1.10	10	NA	11/22/10 14:38		226413	
1,1,2-Trichloroethane	ND	U	10.0	1.71	10	NA	11/22/10 14:38		226413	
1,1-Dichloroethane (1,1-DCA)	ND	U	10.0	1.30	10	NA	11/22/10 14:38		226413	
1,1-Dichloroethene (1,1-DCE)	ND	U	10.0	1.60	10	NA	11/22/10 14:38		226413	
1,1-Dichloropropene	ND	U	50.0	1.20	10	NA	11/22/10 14:38		226413	
1,2,3-Trichloropropane	ND	U	20.0	4.20	10	NA	11/22/10 14:38		226413	
1,2,4-Trichlorobenzene	ND	U	100	2.10	10	NA	11/22/10 14:38		226413	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	50.0	23.0	10	NA	11/22/10 14:38		226413	
1,2-Dibromoethane (EDB)	ND	U	10.0	1.71	10	NA	11/22/10 14:38		226413	
1,2-Dichlorobenzene	ND	U	10.0	4.78	10	NA	11/22/10 14:38		226413	
1,2-Dichloroethane	ND	U	10.0	1.80	10	NA	11/22/10 14:38		226413	
1,2-Dichloropropane	ND	U	10.0	1.20	10	NA	11/22/10 14:38		226413	
1,3-Dichlorobenzene	ND	U	10.0	1.30	10	NA	11/22/10 14:38		226413	
1,3-Dichloropropane	ND	U	10.0	1.50	10	NA	11/22/10 14:38		226413	
1,4-Dichlorobenzene	5.60	I	10.0	1.00	10	NA	11/22/10 14:38		226413	
2,2-Dichloropropane	ND	U	10.0	1.80	10	NA	11/22/10 14:38		226413	
2-Butanone (MEK)	ND	U	100	38.0	10	NA	11/22/10 14:38		226413	
2-Hexanone	ND	U	250	22.0	10	NA	11/22/10 14:38		226413	
4-Methyl-2-pentanone (MIBK)	ND	U	250	6.50	10	NA	11/22/10 14:38		226413	
Acetone	ND	U	500	56.0	10	NA	11/22/10 14:38		226413	
Acetonitrile	ND	U	250	180	10	NA	11/22/10 14:38		226413	
Acrolein	ND	U	500	42.0	10	NA	11/22/10 14:38		226413	
Acrylonitrile	ND	U	100	12.0	10	NA	11/22/10 14:38		226413	
Allyl Chloride	ND	U	50.0	3.91	10	NA	11/22/10 14:38		226413	
Benzene	6.10	I	10.0	2.10	10	NA	11/22/10 14:38		226413	
Bromochloromethane	ND	U	50.0	2.70	10	NA	11/22/10 14:38		226413	
Bromodichloromethane	ND	U	10.0	1.71	10	NA	11/22/10 14:38		226413	
Bromoform	ND	U	20.0	4.20	10	NA	11/22/10 14:38		226413	
Bromomethane	ND	U	10.0	2.20	10	NA	11/22/10 14:38		226413	
Carbon Disulfide	ND	U	100	23.6	10	NA	11/22/10 14:38		226413	
Carbon Tetrachloride	ND	U	10.0	3.41	10	NA	11/22/10 14:38		226413	
Chlorobenzene	ND	U	10.0	1.60	10	NA	11/22/10 14:38		226413	
Chloroethane	ND	U	50.0	2.20	10	NA	11/22/10 14:38		226413	
Chloroform	ND	U	10.0	3.50	10	NA	11/22/10 14:38		226413	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** L-6  
**Lab Code:** J1005486-003

**Service Request:** J1005486  
**Date Collected:** 11/11/10 0800  
**Date Received:** 11/12/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 226413

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloromethane	ND U	10.0	1.10	10	NA	11/22/10 14:38		226413	
Chloroprene	ND U	10.0	0.00	10	NA	11/22/10 14:38		226413	
cis-1,2-Dichloroethene	ND U	10.0	3.60	10	NA	11/22/10 14:38		226413	
cis-1,3-Dichloropropene	ND U	10.0	2.00	10	NA	11/22/10 14:38		226413	
Dibromochloromethane	ND U	10.0	1.90	10	NA	11/22/10 14:38		226413	
Dibromomethane	ND U	50.0	1.80	10	NA	11/22/10 14:38		226413	
Dichlorodifluoromethane	ND U	200	2.31	10	NA	11/22/10 14:38		226413	
Ethyl Methacrylate	ND U	10.0	1.90	10	NA	11/22/10 14:38		226413	
Ethylbenzene	29.9	10.0	2.10	10	NA	11/22/10 14:38		226413	
Hexachlorobutadiene	ND U	100	6.00	10	NA	11/22/10 14:38		226413	
Iodomethane	ND U	50.0	26.8	10	NA	11/22/10 14:38		226413	
Isobutyl Alcohol	ND U	1000	430	10	NA	11/22/10 14:38		226413	
m,p-Xylenes	47.7	20.0	4.10	10	NA	11/22/10 14:38		226413	
Methacrylonitrile	ND U	50.0	16.0	10	NA	11/22/10 14:38		226413	
Methyl Methacrylate	ND U	20.0	2.70	10	NA	11/22/10 14:38		226413	
Methylene Chloride	ND U	50.0	2.10	10	NA	11/22/10 14:38		226413	
Naphthalene	ND U	100	2.40	10	NA	11/22/10 14:38		226413	
o-Xylene	22.2	10.0	1.41	10	NA	11/22/10 14:38		226413	
Propionitrile	ND U	250	39.0	10	NA	11/22/10 14:38		226413	
Styrene	ND U	10.0	2.91	10	NA	11/22/10 14:38		226413	
Tetrachloroethene (PCE)	ND U	10.0	1.10	10	NA	11/22/10 14:38		226413	
Toluene	51.5	10.0	1.90	10	NA	11/22/10 14:38		226413	
trans-1,2-Dichloroethene	ND U	10.0	1.20	10	NA	11/22/10 14:38		226413	
trans-1,3-Dichloropropene	ND U	10.0	2.31	10	NA	11/22/10 14:38		226413	
trans-1,4-Dichloro-2-butene	ND U	200	22.0	10	NA	11/22/10 14:38		226413	
Trichloroethene (TCE)	ND U	10.0	1.60	10	NA	11/22/10 14:38		226413	
Trichlorofluoromethane	ND U	200	2.20	10	NA	11/22/10 14:38		226413	
Vinyl Acetate	ND U	100	19.0	10	NA	11/22/10 14:38		226413	
Vinyl Chloride	ND U	10.0	2.20	10	NA	11/22/10 14:38		226413	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	94	71-122	11/22/10 14:38	
4-Bromofluorobenzene	99	75-120	11/22/10 14:38	
Dibromofluoromethane	97	82-116	11/22/10 14:38	
Toluene-d8	105	88-117	11/22/10 14:38	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Trip Blank 2  
**Lab Code:** J1005486-004

**Service Request:** J1005486  
**Date Collected:** 11/11/10 0000  
**Date Received:** 11/12/10  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 226413

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND U	1.00	0.180	1	NA	11/22/10 13:35		226413	
1,1,1-Trichloroethane (TCA)	ND U	1.00	0.170	1	NA	11/22/10 13:35		226413	
1,1,2,2-Tetrachloroethane	ND U	1.00	0.110	1	NA	11/22/10 13:35		226413	
1,1,2-Trichloroethane	ND U	1.00	0.170	1	NA	11/22/10 13:35		226413	
1,1-Dichloroethane (1,1-DCA)	ND U	1.00	0.130	1	NA	11/22/10 13:35		226413	
1,1-Dichloroethene (1,1-DCE)	ND U	1.00	0.160	1	NA	11/22/10 13:35		226413	
1,1-Dichloropropene	ND U	5.00	0.120	1	NA	11/22/10 13:35		226413	
1,2,3-Trichloroproppane	ND U	2.00	0.420	1	NA	11/22/10 13:35		226413	
1,2,4-Trichlorobenzene	ND U	10.0	0.210	1	NA	11/22/10 13:35		226413	
1,2-Dibromo-3-chloropropane (DBCP)	ND U	5.00	2.30	1	NA	11/22/10 13:35		226413	
1,2-Dibromoethane (EDB)	ND U	1.00	0.170	1	NA	11/22/10 13:35		226413	
1,2-Dichlorobenzene	ND U	1.00	0.478	1	NA	11/22/10 13:35		226413	
1,2-Dichloroethane	ND U	1.00	0.180	1	NA	11/22/10 13:35		226413	
1,2-Dichloropropane	ND U	1.00	0.120	1	NA	11/22/10 13:35		226413	
1,3-Dichlorobenzene	ND U	1.00	0.130	1	NA	11/22/10 13:35		226413	
1,3-Dichloropropane	ND U	1.00	0.150	1	NA	11/22/10 13:35		226413	
1,4-Dichlorobenzene	ND U	1.00	0.100	1	NA	11/22/10 13:35		226413	
2,2-Dichloropropane	ND U	1.00	0.180	1	NA	11/22/10 13:35		226413	
2-Butanone (MEK)	ND U	10.0	3.80	1	NA	11/22/10 13:35		226413	
2-Hexanone	ND U	25.0	2.20	1	NA	11/22/10 13:35		226413	
4-Methyl-2-pentanone (MIBK)	ND U	25.0	0.650	1	NA	11/22/10 13:35		226413	
Acetone	ND U	50.0	5.60	1	NA	11/22/10 13:35		226413	
Acetonitrile	ND U	25.0	18.0	1	NA	11/22/10 13:35		226413	
Acrolein	ND U	50.0	4.20	1	NA	11/22/10 13:35		226413	
Acrylonitrile	ND U	10.0	1.20	1	NA	11/22/10 13:35		226413	
Allyl Chloride	ND U	5.00	0.390	1	NA	11/22/10 13:35		226413	
Benzene	ND U	1.00	0.210	1	NA	11/22/10 13:35		226413	
Bromochloromethane	ND U	5.00	0.270	1	NA	11/22/10 13:35		226413	
Bromodichloromethane	ND U	1.00	0.170	1	NA	11/22/10 13:35		226413	
Bromoform	ND U	2.00	0.420	1	NA	11/22/10 13:35		226413	
Bromomethane	ND U	1.00	0.220	1	NA	11/22/10 13:35		226413	
Carbon Disulfide	ND U	10.0	2.36	1	NA	11/22/10 13:35		226413	
Carbon Tetrachloride	ND U	1.00	0.340	1	NA	11/22/10 13:35		226413	
Chlorobenzene	ND U	1.00	0.160	1	NA	11/22/10 13:35		226413	
Chloroethane	ND U	5.00	0.220	1	NA	11/22/10 13:35		226413	
Chloroform	ND U	1.00	0.350	1	NA	11/22/10 13:35		226413	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Trip Blank 2  
**Lab Code:** J1005486-004

**Service Request:** J1005486  
**Date Collected:** 11/11/10 0000  
**Date Received:** 11/12/10  
**Units:** µg/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Analysis Lot:** 226413

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloromethane	ND	U	1.00	0.110	1	NA	11/22/10 13:35		226413	
Chloroprene	ND	U	1.00	0.00	1	NA	11/22/10 13:35		226413	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/22/10 13:35		226413	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/22/10 13:35		226413	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/22/10 13:35		226413	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/22/10 13:35		226413	
Dichlorodifluoromethane	ND	U	20.0	0.230	1	NA	11/22/10 13:35		226413	
Ethyl Methacrylate	ND	U	1.00	0.190	1	NA	11/22/10 13:35		226413	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/22/10 13:35		226413	
Hexachlorobutadiene	ND	U	10.0	0.600	1	NA	11/22/10 13:35		226413	
Iodomethane	ND	U	5.00	2.68	1	NA	11/22/10 13:35		226413	
Isobutyl Alcohol	ND	U	100	43.0	1	NA	11/22/10 13:35		226413	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/22/10 13:35		226413	
Methacrylonitrile	ND	U	5.00	1.60	1	NA	11/22/10 13:35		226413	
Methyl Methacrylate	ND	U	2.00	0.270	1	NA	11/22/10 13:35		226413	
Methylene Chloride	0.350	I	5.00	0.210	1	NA	11/22/10 13:35		226413	
Naphthalene	ND	U	10.0	0.240	1	NA	11/22/10 13:35		226413	
o-Xylene	ND	U	1.00	0.140	1	NA	11/22/10 13:35		226413	
Propionitrile	ND	U	25.0	3.90	1	NA	11/22/10 13:35		226413	
Styrene	ND	U	1.00	0.291	1	NA	11/22/10 13:35		226413	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/22/10 13:35		226413	
Toluene	ND	U	1.00	0.190	1	NA	11/22/10 13:35		226413	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/22/10 13:35		226413	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/22/10 13:35		226413	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/22/10 13:35		226413	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/22/10 13:35		226413	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/22/10 13:35		226413	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/22/10 13:35		226413	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/22/10 13:35		226413	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	89	71-122	11/22/10 13:35	
4-Bromofluorobenzene	97	75-120	11/22/10 13:35	
Dibromofluoromethane	95	82-116	11/22/10 13:35	
Toluene-d8	104	88-117	11/22/10 13:35	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005766-02

**Service Request:** J1005486  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 226413

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,1,1,2-Tetrachloroethane	ND	U	1.00	0.180	1	NA	11/22/10 09:26		226413	
1,1,1-Trichloroethane (TCA)	ND	U	1.00	0.170	1	NA	11/22/10 09:26		226413	
1,1,2,2-Tetrachloroethane	ND	U	1.00	0.110	1	NA	11/22/10 09:26		226413	
1,1,2-Trichloroethane	ND	U	1.00	0.170	1	NA	11/22/10 09:26		226413	
1,1-Dichloroethane (1,1-DCA)	ND	U	1.00	0.130	1	NA	11/22/10 09:26		226413	
1,1-Dichloroethene (1,1-DCE)	ND	U	1.00	0.160	1	NA	11/22/10 09:26		226413	
1,1-Dichloropropene	ND	U	5.00	0.120	1	NA	11/22/10 09:26		226413	
1,2,3-Trichloropropane	ND	U	2.00	0.420	1	NA	11/22/10 09:26		226413	
1,2,4-Trichlorobenzene	ND	U	10.0	0.210	1	NA	11/22/10 09:26		226413	
1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5.00	2.30	1	NA	11/22/10 09:26		226413	
1,2-Dibromoethane (EDB)	ND	U	1.00	0.170	1	NA	11/22/10 09:26		226413	
1,2-Dichlorobenzene	ND	U	1.00	0.478	1	NA	11/22/10 09:26		226413	
1,2-Dichloroethane	ND	U	1.00	0.180	1	NA	11/22/10 09:26		226413	
1,2-Dichloropropane	ND	U	1.00	0.120	1	NA	11/22/10 09:26		226413	
1,3-Dichlorobenzene	ND	U	1.00	0.130	1	NA	11/22/10 09:26		226413	
1,3-Dichloropropane	ND	U	1.00	0.150	1	NA	11/22/10 09:26		226413	
1,4-Dichlorobenzene	ND	U	1.00	0.100	1	NA	11/22/10 09:26		226413	
2,2-Dichloropropane	ND	U	1.00	0.180	1	NA	11/22/10 09:26		226413	
2-Butanone (MEK)	ND	U	10.0	3.80	1	NA	11/22/10 09:26		226413	
2-Hexanone	ND	U	25.0	2.20	1	NA	11/22/10 09:26		226413	
4-Methyl-2-pentanone (MIBK)	ND	U	25.0	0.650	1	NA	11/22/10 09:26		226413	
Acetone	ND	U	50.0	5.60	1	NA	11/22/10 09:26		226413	
Acetonitrile	ND	U	25.0	18.0	1	NA	11/22/10 09:26		226413	
Acrolein	ND	U	50.0	4.20	1	NA	11/22/10 09:26		226413	
Acrylonitrile	ND	U	10.0	1.20	1	NA	11/22/10 09:26		226413	
Allyl Chloride	ND	U	5.00	0.390	1	NA	11/22/10 09:26		226413	
Benzene	ND	U	1.00	0.210	1	NA	11/22/10 09:26		226413	
Bromochloromethane	ND	U	5.00	0.270	1	NA	11/22/10 09:26		226413	
Bromodichloromethane	ND	U	1.00	0.170	1	NA	11/22/10 09:26		226413	
Bromoform	ND	U	2.00	0.420	1	NA	11/22/10 09:26		226413	
Bromomethane	ND	U	1.00	0.220	1	NA	11/22/10 09:26		226413	
Carbon Disulfide	ND	U	10.0	2.36	1	NA	11/22/10 09:26		226413	
Carbon Tetrachloride	ND	U	1.00	0.340	1	NA	11/22/10 09:26		226413	
Chlorobenzene	ND	U	1.00	0.160	1	NA	11/22/10 09:26		226413	
Chloroethane	ND	U	5.00	0.220	1	NA	11/22/10 09:26		226413	
Chloroform	ND	U	1.00	0.350	1	NA	11/22/10 09:26		226413	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** JQ1005766-02

**Service Request:** J1005486  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** µg/L  
**Basis:** NA

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analysis Lot: 226413

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Chloromethane	ND	U	1.00	0.110	1	NA	11/22/10 09:26		226413	
Chloroprene	ND	U	1.00	0.00	1	NA	11/22/10 09:26		226413	
cis-1,2-Dichloroethene	ND	U	1.00	0.360	1	NA	11/22/10 09:26		226413	
cis-1,3-Dichloropropene	ND	U	1.00	0.200	1	NA	11/22/10 09:26		226413	
Dibromochloromethane	ND	U	1.00	0.190	1	NA	11/22/10 09:26		226413	
Dibromomethane	ND	U	5.00	0.180	1	NA	11/22/10 09:26		226413	
Dichlorodifluoromethane	ND	U	20.0	0.230	1	NA	11/22/10 09:26		226413	
Ethyl Methacrylate	ND	U	1.00	0.190	1	NA	11/22/10 09:26		226413	
Ethylbenzene	ND	U	1.00	0.210	1	NA	11/22/10 09:26		226413	
Hexachlorobutadiene	ND	U	10.0	0.600	1	NA	11/22/10 09:26		226413	
Iodomethane	ND	U	5.00	2.68	1	NA	11/22/10 09:26		226413	
Isobutyl Alcohol	ND	U	100	43.0	1	NA	11/22/10 09:26		226413	
m,p-Xylenes	ND	U	2.00	0.410	1	NA	11/22/10 09:26		226413	
Methacrylonitrile	ND	U	5.00	1.60	1	NA	11/22/10 09:26		226413	
Methyl Methacrylate	ND	U	2.00	0.270	1	NA	11/22/10 09:26		226413	
Methylene Chloride	ND	U	5.00	0.210	1	NA	11/22/10 09:26		226413	
Naphthalene	ND	U	10.0	0.240	1	NA	11/22/10 09:26		226413	
o-Xylene	ND	U	1.00	0.140	1	NA	11/22/10 09:26		226413	
Propionitrile	ND	U	25.0	3.90	1	NA	11/22/10 09:26		226413	
Styrene	ND	U	1.00	0.291	1	NA	11/22/10 09:26		226413	
Tetrachloroethene (PCE)	ND	U	1.00	0.110	1	NA	11/22/10 09:26		226413	
Toluene	ND	U	1.00	0.190	1	NA	11/22/10 09:26		226413	
trans-1,2-Dichloroethene	ND	U	1.00	0.120	1	NA	11/22/10 09:26		226413	
trans-1,3-Dichloropropene	ND	U	1.00	0.230	1	NA	11/22/10 09:26		226413	
trans-1,4-Dichloro-2-butene	ND	U	20.0	2.20	1	NA	11/22/10 09:26		226413	
Trichloroethene (TCE)	ND	U	1.00	0.160	1	NA	11/22/10 09:26		226413	
Trichlorofluoromethane	ND	U	20.0	0.220	1	NA	11/22/10 09:26		226413	
Vinyl Acetate	ND	U	10.0	1.90	1	NA	11/22/10 09:26		226413	
Vinyl Chloride	ND	U	1.00	0.220	1	NA	11/22/10 09:26		226413	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	89	71-122	11/22/10 09:26	
4-Bromofluorobenzene	98	75-120	11/22/10 09:26	
Dibromofluoromethane	95	82-116	11/22/10 09:26	
Toluene-d8	107	88-117	11/22/10 09:26	

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Collected:** 11/11/2010  
**Date Received:** 11/12/2010

## Semi-Volatile Organic Compounds by GC/MS (Appendix II)

<b>Sample Name:</b>	L-3	<b>Units:</b>	ug/L
<b>Lab Code:</b>	J1005486-001	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8270C		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2,4,5-Tetrachlorobenzene	ND U	54	6.0	10	11/15/10	11/23/10	JWG1004049	
1,2,4-Trichlorobenzene	ND U	54	8.4	10	11/15/10	11/23/10	JWG1004049	
1,2-Dichlorobenzene	ND U	54	8.0	10	11/15/10	11/23/10	JWG1004049	
1,3,5-Trinitrobenzene	ND U	54	12	10	11/15/10	11/23/10	JWG1004049	
1,3-Dichlorobenzene	ND U	54	7.6	10	11/15/10	11/23/10	JWG1004049	
1,3-Dinitrobenzene	ND U	110	17	10	11/15/10	11/23/10	JWG1004049	
1,4-Dichlorobenzene	ND U	54	13	10	11/15/10	11/23/10	JWG1004049	
1,4-Naphthoquinone†	ND U	110	110	10	11/15/10	11/23/10	JWG1004049	
1-Naphthylamine	ND U	54	12	10	11/15/10	11/23/10	JWG1004049	
2,3,4,6-Tetrachlorophenol	ND U	54	13	10	11/15/10	11/23/10	JWG1004049	
2,4,5-Trichlorophenol	ND U	54	7.0	10	11/15/10	11/23/10	JWG1004049	
2,4,6-Trichlorophenol	ND U	54	7.9	10	11/15/10	11/23/10	JWG1004049	
2,4-Dichlorophenol	ND U	54	5.4	10	11/15/10	11/23/10	JWG1004049	
2,4-Dimethylphenol	ND U	54	8.5	10	11/15/10	11/23/10	JWG1004049	
2,4-Dinitrophenol	ND U	220	5.9	10	11/15/10	11/23/10	JWG1004049	
2,4-Dinitrotoluene	ND U	54	45	10	11/15/10	11/23/10	JWG1004049	
2,6-Dichlorophenol	ND U	110	7.8	10	11/15/10	11/23/10	JWG1004049	
2,6-Dinitrotoluene	ND U	54	9.0	10	11/15/10	11/23/10	JWG1004049	
2-Acetylaminofluorene	ND U	54	9.7	10	11/15/10	11/23/10	JWG1004049	
2-Chloronaphthalene	ND U	54	7.7	10	11/15/10	11/23/10	JWG1004049	
2-Chlorophenol	ND U	54	8.1	10	11/15/10	11/23/10	JWG1004049	
2-Methyl-4,6-dinitrophenol	ND U	220	6.9	10	11/15/10	11/23/10	JWG1004049	
2-Methylnaphthalene	ND U	54	8.0	10	11/15/10	11/23/10	JWG1004049	
2-Methylphenol	ND U	54	6.9	10	11/15/10	11/23/10	JWG1004049	
2-Naphthylamine	ND UJ	54	12	10	11/15/10	11/23/10	JWG1004049	J(3)
2-Nitroaniline	ND U	54	6.0	10	11/15/10	11/23/10	JWG1004049	
2-Nitrophenol	ND U	220	6.5	10	11/15/10	11/23/10	JWG1004049	
3,3'-Dichlorobenzidine	ND U	220	9.6	10	11/15/10	11/23/10	JWG1004049	
3,3'-Dimethylbenzidine	ND U	220	25	10	11/15/10	11/23/10	JWG1004049	
3-Methylcholanthrene	ND U	54	11	10	11/15/10	11/23/10	JWG1004049	
3-Nitroaniline	ND U	54	8.1	10	11/15/10	11/23/10	JWG1004049	
4-Aminobiphenyl	ND U	54	11	10	11/15/10	11/23/10	JWG1004049	
4-Bromophenyl Phenyl Ether	ND U	54	7.3	10	11/15/10	11/23/10	JWG1004049	

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

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Collected:** 11/11/2010  
**Date Received:** 11/12/2010

**Semi-Volatile Organic Compounds by GC/MS (Appendix II)**

**Sample Name:** L-3 **Units:** ug/L  
**Lab Code:** J1005486-001 **Basis:** NA  
**Extraction Method:** EPA 3510C **Level:** Low  
**Analysis Method:** 8270C

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Chloro-3-methylphenol	ND U	54	8.1	10	11/15/10	11/23/10	JWG1004049	
4-Chloroaniline	ND UJ	54	5.7	10	11/15/10	11/23/10	JWG1004049	J(3)
4-Chlorophenyl Phenyl Ether	ND U	54	6.6	10	11/15/10	11/23/10	JWG1004049	
4-Methylphenol†	97	54	8.3	10	11/15/10	11/23/10	JWG1004049	
4-Nitroaniline	ND U	54	9.9	10	11/15/10	11/23/10	JWG1004049	
4-Nitrophenol	ND U	220	10	10	11/15/10	11/23/10	JWG1004049	
5-Nitro-o-toluidine	ND U	54	11	10	11/15/10	11/23/10	JWG1004049	
7,12-Dimethylbenz(a)anthracene	ND U	54	9.4	10	11/15/10	11/23/10	JWG1004049	
Acenaphthene	ND U	54	11	10	11/15/10	11/23/10	JWG1004049	
Acenaphthylene	ND U	54	6.3	10	11/15/10	11/23/10	JWG1004049	
Acetophenone	ND U	110	14	10	11/15/10	11/23/10	JWG1004049	
Anthracene	ND U	54	7.7	10	11/15/10	11/23/10	JWG1004049	
Benz(a)anthracene	ND U	54	9.3	10	11/15/10	11/23/10	JWG1004049	
Benzo(a)pyrene	ND U	54	6.8	10	11/15/10	11/23/10	JWG1004049	
Benzo(b)fluoranthene	ND U	54	9.4	10	11/15/10	11/23/10	JWG1004049	
Benzo(g,h,i)perylene	ND U	54	9.8	10	11/15/10	11/23/10	JWG1004049	
Benzo(k)fluoranthene	ND U	54	5.9	10	11/15/10	11/23/10	JWG1004049	
Benzyl alcohol	ND U	54	7.5	10	11/15/10	11/23/10	JWG1004049	
bis(2-Chloroethoxy)methane	ND U	54	9.6	10	11/15/10	11/23/10	JWG1004049	
Bis(2-chloroethyl) Ether	ND U	54	11	10	11/15/10	11/23/10	JWG1004049	
Bis(2-chloroisopropyl) Ether	ND U	54	6.2	10	11/15/10	11/23/10	JWG1004049	
Bis(2-ethylhexyl) Phthalate	ND U	54	11	10	11/15/10	11/23/10	JWG1004049	
Butyl Benzyl Phthalate	ND U	110	12	10	11/15/10	11/23/10	JWG1004049	
Chlorobenzilate	ND U	110	9.1	10	11/15/10	11/23/10	JWG1004049	
Chrysene	ND U	54	9.4	10	11/15/10	11/23/10	JWG1004049	
Di-n-butyl Phthalate	ND U	54	11	10	11/15/10	11/23/10	JWG1004049	
Di-n-octyl Phthalate	ND U	54	11	10	11/15/10	11/23/10	JWG1004049	
Diallate	ND U	54	11	10	11/15/10	11/23/10	JWG1004049	
Dibenz(a,h)anthracene	ND U	54	6.7	10	11/15/10	11/23/10	JWG1004049	
Dibenzofuran	ND U	54	8.5	10	11/15/10	11/23/10	JWG1004049	
Diethyl Phthalate	ND U	54	45	10	11/15/10	11/23/10	JWG1004049	
Dimethoate	ND U	54	9.7	10	11/15/10	11/23/10	JWG1004049	
Dimethyl Phthalate	ND U	54	8.2	10	11/15/10	11/23/10	JWG1004049	

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

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Collected:** 11/11/2010  
**Date Received:** 11/12/2010

**Semi-Volatile Organic Compounds by GC/MS (Appendix II)**

<b>Sample Name:</b>	L-3	<b>Units:</b>	ug/L
<b>Lab Code:</b>	J1005486-001	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8270C		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dinoseb	ND U	110	6.6	10	11/15/10	11/23/10	JWG1004049	
Disulfoton	ND U	54	5.6	10	11/15/10	11/23/10	JWG1004049	
Ethyl Methanesulfonate	ND U	54	7.0	10	11/15/10	11/23/10	JWG1004049	
Famphur	ND UJ	110	7.5	10	11/15/10	11/23/10	JWG1004049	J(3)
Fluoranthene	ND U	54	7.1	10	11/15/10	11/23/10	JWG1004049	
Fluorene	ND U	54	9.5	10	11/15/10	11/23/10	JWG1004049	
Hexachlorobenzene	ND U	54	6.8	10	11/15/10	11/23/10	JWG1004049	
Hexachlorobutadiene	ND U	54	6.6	10	11/15/10	11/23/10	JWG1004049	
Hexachlorocyclopentadiene	ND U	54	4.5	10	11/15/10	11/23/10	JWG1004049	
Hexachloroethane	ND U	54	9.9	10	11/15/10	11/23/10	JWG1004049	
Hexachloropropene	ND U	54	21	10	11/15/10	11/23/10	JWG1004049	
Indeno(1,2,3-cd)pyrene	ND U	54	6.0	10	11/15/10	11/23/10	JWG1004049	
Isodrin	ND U	110	7.7	10	11/15/10	11/23/10	JWG1004049	
Isophorone	ND U	54	8.7	10	11/15/10	11/23/10	JWG1004049	
Isosafrole	ND U	54	8.1	10	11/15/10	11/23/10	JWG1004049	
Kepone	ND UJ	540	46	10	11/15/10	11/23/10	JWG1004049	J(3)
Methapyrilene	ND U	54	17	10	11/15/10	11/23/10	JWG1004049	
Methyl Methanesulfonate	ND UJ	54	6.1	10	11/15/10	11/23/10	JWG1004049	J(3)
Methyl Parathion	ND U	110	12	10	11/15/10	11/23/10	JWG1004049	
N-Nitrosodi-n-butylamine	ND U	54	7.3	10	11/15/10	11/23/10	JWG1004049	
N-Nitrosodi-n-propylamine	ND U	54	7.4	10	11/15/10	11/23/10	JWG1004049	
N-Nitrosodiethylamine	ND U	54	6.8	10	11/15/10	11/23/10	JWG1004049	
N-Nitrosodimethylamine	ND U	54	7.9	10	11/15/10	11/23/10	JWG1004049	
N-Nitrosodiphenylamine†	ND U	54	11	10	11/15/10	11/23/10	JWG1004049	
N-Nitrosomethylalkylamine	ND U	54	8.9	10	11/15/10	11/23/10	JWG1004049	
N-Nitrosopiperidine	ND U	54	18	10	11/15/10	11/23/10	JWG1004049	
N-Nitrosopyrrolidine	ND U	54	7.6	10	11/15/10	11/23/10	JWG1004049	
Naphthalene	ND U	54	8.5	10	11/15/10	11/23/10	JWG1004049	
Nitrobenzene	ND U	54	7.9	10	11/15/10	11/23/10	JWG1004049	
O,O,O-Triethyl Phosphorothioate	ND U	220	5.6	10	11/15/10	11/23/10	JWG1004049	
o-Tolidine	ND U	54	9.6	10	11/15/10	11/23/10	JWG1004049	
p-Dimethylaminoazobenzene	ND U	54	9.6	10	11/15/10	11/23/10	JWG1004049	
p-Phenylenediamine	ND U	220	12	10	11/15/10	11/23/10	JWG1004049	

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

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Collected:** 11/11/2010  
**Date Received:** 11/12/2010

**Semi-Volatile Organic Compounds by GC/MS (Appendix II)**

<b>Sample Name:</b>	L-3	<b>Units:</b>	ug/L
<b>Lab Code:</b>	J1005486-001	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8270C		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Parathion	ND U	220	10	10	11/15/10	11/23/10	JWG1004049	
Pentachlorobenzene	ND U	54	26	10	11/15/10	11/23/10	JWG1004049	
Pentachloronitrobenzene	ND U	54	17	10	11/15/10	11/23/10	JWG1004049	
Pentachlorophenol	ND UJ	220	7.3	10	11/15/10	11/23/10	JWG1004049	J(3)
Phenacetin	ND U	54	9.6	10	11/15/10	11/23/10	JWG1004049	
Phenanthrene	ND U	54	7.6	10	11/15/10	11/23/10	JWG1004049	
Phenol	7.5 I	54	4.6	10	11/15/10	11/23/10	JWG1004049	
Phorate	ND UJ	54	9.5	10	11/15/10	11/23/10	JWG1004049	J(3)
Pronamide	ND U	220	9.2	10	11/15/10	11/23/10	JWG1004049	
Pyrene	ND U	54	9.1	10	11/15/10	11/23/10	JWG1004049	
Safrole	ND U	54	7.7	10	11/15/10	11/23/10	JWG1004049	
Thionazin	ND U	110	8.8	10	11/15/10	11/23/10	JWG1004049	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2,4,6-Tribromophenol	84	30-143	11/23/10	Acceptable
2-Fluorobiphenyl	58	30-102	11/23/10	Acceptable
2-Fluorophenol	42	10-77	11/23/10	Acceptable
Nitrobenzene-d5	85	32-106	11/23/10	Acceptable
Phenol-d6	48	10-51	11/23/10	Acceptable
Terphenyl-d14	34	23-165	11/23/10	Acceptable

**† Analyte Comments**

1,4-Naphthoquinone	Analyte searched for as a tentatively identified compound.
4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.
N-Nitrosodiphenylamine	This analyte can not be separated from Diphenylamine.

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

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## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Collected:** 11/11/2010  
**Date Received:** 11/12/2010

## Semi-Volatile Organic Compounds by GC/MS (Appendix II)

<b>Sample Name:</b>	L-6	<b>Units:</b>	ug/L
<b>Lab Code:</b>	J1005486-003	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8270C		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2,4,5-Tetrachlorobenzene	ND U	59	6.5	10	11/15/10	11/30/10	JWG1004049	
1,2,4-Trichlorobenzene	ND U	59	9.2	10	11/15/10	11/30/10	JWG1004049	
1,2-Dichlorobenzene	ND U	59	8.8	10	11/15/10	11/30/10	JWG1004049	
1,3,5-Trinitrobenzene	ND U	59	13	10	11/15/10	11/30/10	JWG1004049	
1,3-Dichlorobenzene	ND U	59	8.3	10	11/15/10	11/30/10	JWG1004049	
1,3-Dinitrobenzene	ND U	120	18	10	11/15/10	11/30/10	JWG1004049	
1,4-Dichlorobenzene	ND U	59	15	10	11/15/10	11/30/10	JWG1004049	
1,4-Naphthoquinone†	ND U	120	120	10	11/15/10	11/30/10	JWG1004049	
1-Naphthylamine	ND U	59	13	10	11/15/10	11/30/10	JWG1004049	
2,3,4,6-Tetrachlorophenol	ND U	59	15	10	11/15/10	11/30/10	JWG1004049	
2,4,5-Trichlorophenol	ND U	59	7.7	10	11/15/10	11/30/10	JWG1004049	
2,4,6-Trichlorophenol	ND U	59	8.6	10	11/15/10	11/30/10	JWG1004049	
2,4-Dichlorophenol	ND U	59	5.9	10	11/15/10	11/30/10	JWG1004049	
2,4-Dimethylphenol	ND U	59	9.3	10	11/15/10	11/30/10	JWG1004049	
2,4-Dinitrophenol	ND U	240	6.4	10	11/15/10	11/30/10	JWG1004049	
2,4-Dinitrotoluene	ND U	59	49	10	11/15/10	11/30/10	JWG1004049	
2,6-Dichlorophenol	ND U	120	8.5	10	11/15/10	11/30/10	JWG1004049	
2,6-Dinitrotoluene	ND U	59	9.8	10	11/15/10	11/30/10	JWG1004049	
2-Acetylaminofluorene	ND U	59	11	10	11/15/10	11/30/10	JWG1004049	
2-Chloronaphthalene	ND U	59	8.4	10	11/15/10	11/30/10	JWG1004049	
2-Chlorophenol	ND U	59	8.9	10	11/15/10	11/30/10	JWG1004049	
2-Methyl-4,6-dinitrophenol	ND U	240	7.6	10	11/15/10	11/30/10	JWG1004049	
2-Methylnaphthalene	ND U	59	8.8	10	11/15/10	11/30/10	JWG1004049	
2-Methylphenol	28 I	59	7.6	10	11/15/10	11/30/10	JWG1004049	
2-Naphthylamine	ND UJ	59	13	10	11/15/10	11/30/10	JWG1004049	J(3)
2-Nitroaniline	ND U	59	6.5	10	11/15/10	11/30/10	JWG1004049	
2-Nitrophenol	ND U	240	7.1	10	11/15/10	11/30/10	JWG1004049	
3,3'-Dichlorobenzidine	ND U	240	11	10	11/15/10	11/30/10	JWG1004049	
3,3'-Dimethylbenzidine	ND U	240	28	10	11/15/10	11/30/10	JWG1004049	
3-Methylcholanthrene	ND U	59	12	10	11/15/10	11/30/10	JWG1004049	
3-Nitroaniline	ND U	59	8.9	10	11/15/10	11/30/10	JWG1004049	
4-Aminobiphenyl	ND U	59	12	10	11/15/10	11/30/10	JWG1004049	
4-Bromophenyl Phenyl Ether	ND U	59	7.9	10	11/15/10	11/30/10	JWG1004049	

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

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Collected:** 11/11/2010  
**Date Received:** 11/12/2010

## Semi-Volatile Organic Compounds by GC/MS (Appendix II)

**Sample Name:** L-6 **Units:** ug/L  
**Lab Code:** J1005486-003 **Basis:** NA  
**Extraction Method:** EPA 3510C **Level:** Low  
**Analysis Method:** 8270C

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Chloro-3-methylphenol	ND U	59	8.9	10	11/15/10	11/30/10	JWG1004049	
4-Chloroaniline	ND UJ	59	6.3	10	11/15/10	11/30/10	JWG1004049	J(3)
4-Chlorophenyl Phenyl Ether	ND U	59	7.2	10	11/15/10	11/30/10	JWG1004049	
4-Methylphenol†	ND U	59	9.1	10	11/15/10	11/30/10	JWG1004049	
4-Nitroaniline	ND U	59	11	10	11/15/10	11/30/10	JWG1004049	
4-Nitrophenol	ND U	240	11	10	11/15/10	11/30/10	JWG1004049	
5-Nitro-o-toluidine	ND U	59	12	10	11/15/10	11/30/10	JWG1004049	
7,12-Dimethylbenz(a)anthracene	ND U	59	11	10	11/15/10	11/30/10	JWG1004049	
Acenaphthene	ND U	59	12	10	11/15/10	11/30/10	JWG1004049	
Acenaphthylene	ND U	59	6.9	10	11/15/10	11/30/10	JWG1004049	
Acetophenone	ND U	120	16	10	11/15/10	11/30/10	JWG1004049	
Anthracene	ND U	59	8.4	10	11/15/10	11/30/10	JWG1004049	
Benz(a)anthracene	ND U	59	11	10	11/15/10	11/30/10	JWG1004049	
Benzo(a)pyrene	ND U	59	7.5	10	11/15/10	11/30/10	JWG1004049	
Benzo(b)fluoranthene	ND U	59	11	10	11/15/10	11/30/10	JWG1004049	
Benzo(g,h,i)perylene	ND U	59	11	10	11/15/10	11/30/10	JWG1004049	
Benzo(k)fluoranthene	ND U	59	6.4	10	11/15/10	11/30/10	JWG1004049	
Benzyl alcohol	ND U	59	8.2	10	11/15/10	11/30/10	JWG1004049	
bis(2-Chloroethoxy)methane	ND U	59	11	10	11/15/10	11/30/10	JWG1004049	
Bis(2-chloroethyl) Ether	ND U	59	12	10	11/15/10	11/30/10	JWG1004049	
Bis(2-chloroisopropyl) Ether	ND U	59	6.8	10	11/15/10	11/30/10	JWG1004049	
Bis(2-ethylhexyl) Phthalate	ND U	59	12	10	11/15/10	11/30/10	JWG1004049	
Butyl Benzyl Phthalate	ND U	120	13	10	11/15/10	11/30/10	JWG1004049	
Chlorobenzilate	ND U	120	9.9	10	11/15/10	11/30/10	JWG1004049	
Chrysene	ND U	59	11	10	11/15/10	11/30/10	JWG1004049	
Di-n-butyl Phthalate	ND U	59	12	10	11/15/10	11/30/10	JWG1004049	
Di-n-octyl Phthalate	ND U	59	12	10	11/15/10	11/30/10	JWG1004049	
Diallate	ND U	59	12	10	11/15/10	11/30/10	JWG1004049	
Dibenz(a,h)anthracene	ND U	59	7.3	10	11/15/10	11/30/10	JWG1004049	
Dibenzofuran	ND U	59	9.3	10	11/15/10	11/30/10	JWG1004049	
Diethyl Phthalate	ND U	59	49	10	11/15/10	11/30/10	JWG1004049	
Dimethoate	ND U	59	11	10	11/15/10	11/30/10	JWG1004049	
Dimethyl Phthalate	ND U	59	9.0	10	11/15/10	11/30/10	JWG1004049	

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

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Collected:** 11/11/2010  
**Date Received:** 11/12/2010

## Semi-Volatile Organic Compounds by GC/MS (Appendix II)

<b>Sample Name:</b>	L-6	<b>Units:</b>	ug/L
<b>Lab Code:</b>	J1005486-003	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8270C		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dinoseb	ND U	120	7.2	10	11/15/10	11/30/10	JWG1004049	
Disulfoton	ND U	59	6.2	10	11/15/10	11/30/10	JWG1004049	
Ethyl Methanesulfonate	ND U	59	7.7	10	11/15/10	11/30/10	JWG1004049	
Famphur	ND UJ	120	8.2	10	11/15/10	11/30/10	JWG1004049	J(3)
Fluoranthene	ND U	59	7.8	10	11/15/10	11/30/10	JWG1004049	
Fluorene	ND U	59	11	10	11/15/10	11/30/10	JWG1004049	
Hexachlorobenzene	ND U	59	7.5	10	11/15/10	11/30/10	JWG1004049	
Hexachlorobutadiene	ND U	59	7.2	10	11/15/10	11/30/10	JWG1004049	
Hexachlorocyclopentadiene	ND U	59	4.9	10	11/15/10	11/30/10	JWG1004049	
Hexachloroethane	ND U	59	11	10	11/15/10	11/30/10	JWG1004049	
Hexachloropropene	ND U	59	23	10	11/15/10	11/30/10	JWG1004049	
Indeno(1,2,3-cd)pyrene	ND U	59	6.5	10	11/15/10	11/30/10	JWG1004049	
Isodrin	ND U	120	8.4	10	11/15/10	11/30/10	JWG1004049	
Isophorone	ND U	59	9.5	10	11/15/10	11/30/10	JWG1004049	
Isosafrole	ND U	59	8.9	10	11/15/10	11/30/10	JWG1004049	
Kepone	ND UJ	590	50	10	11/15/10	11/30/10	JWG1004049	J(3)
Methapyrilene	ND U	59	18	10	11/15/10	11/30/10	JWG1004049	
Methyl Methanesulfonate	ND UJ	59	6.6	10	11/15/10	11/30/10	JWG1004049	J(3)
Methyl Parathion	ND U	120	13	10	11/15/10	11/30/10	JWG1004049	
N-Nitrosodi-n-butylamine	ND U	59	7.9	10	11/15/10	11/30/10	JWG1004049	
N-Nitrosodi-n-propylamine	ND U	59	8.0	10	11/15/10	11/30/10	JWG1004049	
N-Nitrosodiethylamine	ND U	59	7.5	10	11/15/10	11/30/10	JWG1004049	
N-Nitrosodimethylamine	ND U	59	8.6	10	11/15/10	11/30/10	JWG1004049	
N-Nitrosodiphenylamine†	ND U	59	12	10	11/15/10	11/30/10	JWG1004049	
N-Nitrosomethylalkylamine	ND U	59	9.7	10	11/15/10	11/30/10	JWG1004049	
N-Nitrosopiperidine	ND U	59	19	10	11/15/10	11/30/10	JWG1004049	
N-Nitrosopyrrolidine	ND U	59	8.3	10	11/15/10	11/30/10	JWG1004049	
Naphthalene	ND U	59	9.3	10	11/15/10	11/30/10	JWG1004049	
Nitrobenzene	ND U	59	8.6	10	11/15/10	11/30/10	JWG1004049	
O,O,O-Triethyl Phosphorothioate	ND U	240	6.2	10	11/15/10	11/30/10	JWG1004049	
o-Toluidine	ND U	59	11	10	11/15/10	11/30/10	JWG1004049	
p-Dimethylaminoazobenzene	ND U	59	11	10	11/15/10	11/30/10	JWG1004049	
p-Phenylenediamine	ND U	240	13	10	11/15/10	11/30/10	JWG1004049	

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

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Collected:** 11/11/2010  
**Date Received:** 11/12/2010

**Semi-Volatile Organic Compounds by GC/MS (Appendix II)**

**Sample Name:** L-6 **Units:** ug/L  
**Lab Code:** J1005486-003 **Basis:** NA  
**Extraction Method:** EPA 3510C **Level:** Low  
**Analysis Method:** 8270C

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Parathion	ND U	240	11	10	11/15/10	11/30/10	JWG1004049	
Pentachlorobenzene	ND U	59	29	10	11/15/10	11/30/10	JWG1004049	
Pentachloronitrobenzene	ND U	59	18	10	11/15/10	11/30/10	JWG1004049	
Pentachlorophenol	ND UJ	240	7.9	10	11/15/10	11/30/10	JWG1004049	J(3)
Phenacetin	ND U	59	11	10	11/15/10	11/30/10	JWG1004049	
Phenanthrene	ND U	59	8.3	10	11/15/10	11/30/10	JWG1004049	
Phenol	ND U	59	5.0	10	11/15/10	11/30/10	JWG1004049	
Phorate	ND UJ	59	11	10	11/15/10	11/30/10	JWG1004049	J(3)
Pronamide	ND U	240	10	10	11/15/10	11/30/10	JWG1004049	
Pyrene	ND U	59	9.9	10	11/15/10	11/30/10	JWG1004049	
Safrole	ND U	59	8.4	10	11/15/10	11/30/10	JWG1004049	
Thionazin	ND U	120	9.6	10	11/15/10	11/30/10	JWG1004049	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2,4,6-Tribromophenol	96	30-143	11/30/10	Acceptable
2-Fluorobiphenyl	61	30-102	11/30/10	Acceptable
2-Fluorophenol	45	10-77	11/30/10	Acceptable
Nitrobenzene-d5	86	32-106	11/30/10	Acceptable
Phenol-d6	61	10-51	11/30/10	Outside Control Limits
Terphenyl-d14	60	23-165	11/30/10	Acceptable

## † Analyte Comments

1,4-Naphthoquinone	Analyte searched for as a tentatively identified compound.
4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.
N-Nitrosodiphenylamine	This analyte can not be separated from Diphenylamine.

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

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Collected:** NA  
**Date Received:** NA

**Semi-Volatile Organic Compounds by GC/MS (Appendix II)**

<b>Sample Name:</b>	Method Blank	<b>Units:</b>	ug/L
<b>Lab Code:</b>	JWG1004049-4	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8270C		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2,4,5-Tetrachlorobenzene	ND U	5.0	0.55	1	11/15/10	11/23/10	JWG1004049	
1,2,4-Trichlorobenzene	ND U	5.0	0.78	1	11/15/10	11/23/10	JWG1004049	
1,2-Dichlorobenzene	ND U	5.0	0.74	1	11/15/10	11/23/10	JWG1004049	
1,3,5-Trinitrobenzene	ND U	5.0	1.1	1	11/15/10	11/23/10	JWG1004049	
1,3-Dichlorobenzene	ND U	5.0	0.70	1	11/15/10	11/23/10	JWG1004049	
1,3-Dinitrobenzene	ND U	10	1.5	1	11/15/10	11/23/10	JWG1004049	
1,4-Dichlorobenzene	ND U	5.0	1.2	1	11/15/10	11/23/10	JWG1004049	
1,4-Naphthoquinone†	ND U	10	10	1	11/15/10	11/23/10	JWG1004049	
1-Naphthylamine	ND U	5.0	1.1	1	11/15/10	11/23/10	JWG1004049	
2,3,4,6-Tetrachlorophenol	ND U	5.0	1.2	1	11/15/10	11/23/10	JWG1004049	
2,4,5-Trichlorophenol	ND U	5.0	0.65	1	11/15/10	11/23/10	JWG1004049	
2,4,6-Trichlorophenol	ND U	5.0	0.73	1	11/15/10	11/23/10	JWG1004049	
2,4-Dichlorophenol	ND U	5.0	0.50	1	11/15/10	11/23/10	JWG1004049	
2,4-Dimethylphenol	ND U	5.0	0.79	1	11/15/10	11/23/10	JWG1004049	
2,4-Dinitrophenol	ND U	20	0.54	1	11/15/10	11/23/10	JWG1004049	
2,4-Dinitrotoluene	ND U	5.0	4.1	1	11/15/10	11/23/10	JWG1004049	
2,6-Dichlorophenol	ND U	10	0.72	1	11/15/10	11/23/10	JWG1004049	
2,6-Dinitrotoluene	ND U	5.0	0.83	1	11/15/10	11/23/10	JWG1004049	
2-Acetylaminofluorene	ND U	5.0	0.90	1	11/15/10	11/23/10	JWG1004049	
2-Chloronaphthalene	ND U	5.0	0.71	1	11/15/10	11/23/10	JWG1004049	
2-Chlorophenol	ND U	5.0	0.75	1	11/15/10	11/23/10	JWG1004049	
2-Methyl-4,6-dinitrophenol	ND U	20	0.64	1	11/15/10	11/23/10	JWG1004049	
2-Methylnaphthalene	ND U	5.0	0.74	1	11/15/10	11/23/10	JWG1004049	
2-Methylphenol	ND U	5.0	0.64	1	11/15/10	11/23/10	JWG1004049	
2-Naphthylamine	ND UJ	5.0	1.1	1	11/15/10	11/23/10	JWG1004049	J(3)
2-Nitroaniline	ND U	5.0	0.55	1	11/15/10	11/23/10	JWG1004049	
2-Nitrophenol	ND U	20	0.60	1	11/15/10	11/23/10	JWG1004049	
3,3'-Dichlorobenzidine	ND U	20	0.89	1	11/15/10	11/23/10	JWG1004049	
3,3'-Dimethylbenzidine	ND U	20	2.3	1	11/15/10	11/23/10	JWG1004049	
3-Methylcholanthrene	ND U	5.0	0.97	1	11/15/10	11/23/10	JWG1004049	
3-Nitroaniline	ND U	5.0	0.75	1	11/15/10	11/23/10	JWG1004049	
4-Aminobiphenyl	ND U	5.0	0.99	1	11/15/10	11/23/10	JWG1004049	
4-Bromophenyl Phenyl Ether	ND U	5.0	0.67	1	11/15/10	11/23/10	JWG1004049	

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

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## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Collected:** NA  
**Date Received:** NA

**Semi-Volatile Organic Compounds by GC/MS (Appendix II)**

<b>Sample Name:</b>	Method Blank	<b>Units:</b>	ug/L
<b>Lab Code:</b>	JWG1004049-4	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8270C		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Chloro-3-methylphenol	ND U	5.0	0.75	1	11/15/10	11/23/10	JWG1004049	
4-Chloroaniline	ND UJ	5.0	0.53	1	11/15/10	11/23/10	JWG1004049	J(3)
4-Chlorophenyl Phenyl Ether	ND U	5.0	0.61	1	11/15/10	11/23/10	JWG1004049	
4-Methylphenol†	ND U	5.0	0.77	1	11/15/10	11/23/10	JWG1004049	
4-Nitroaniline	ND U	5.0	0.92	1	11/15/10	11/23/10	JWG1004049	
4-Nitrophenol	ND U	20	0.93	1	11/15/10	11/23/10	JWG1004049	
5-Nitro-o-toluidine	ND U	5.0	1.0	1	11/15/10	11/23/10	JWG1004049	
7,12-Dimethylbenz(a)anthracene	ND U	5.0	0.87	1	11/15/10	11/23/10	JWG1004049	
Acenaphthene	ND U	5.0	0.99	1	11/15/10	11/23/10	JWG1004049	
Acenaphthylene	ND U	5.0	0.58	1	11/15/10	11/23/10	JWG1004049	
Acetophenone	ND U	10	1.3	1	11/15/10	11/23/10	JWG1004049	
Anthracene	ND U	5.0	0.71	1	11/15/10	11/23/10	JWG1004049	
Benz(a)anthracene	ND U	5.0	0.86	1	11/15/10	11/23/10	JWG1004049	
Benzo(a)pyrene	ND U	5.0	0.63	1	11/15/10	11/23/10	JWG1004049	
Benzo(b)fluoranthene	ND U	5.0	0.87	1	11/15/10	11/23/10	JWG1004049	
Benzo(g,h,i)perylene	ND U	5.0	0.91	1	11/15/10	11/23/10	JWG1004049	
Benzo(k)fluoranthene	ND U	5.0	0.54	1	11/15/10	11/23/10	JWG1004049	
Benzyl alcohol	ND U	5.0	0.69	1	11/15/10	11/23/10	JWG1004049	
bis(2-Chloroethoxy)methane	ND U	5.0	0.89	1	11/15/10	11/23/10	JWG1004049	
Bis(2-chloroethyl) Ether	ND U	5.0	0.96	1	11/15/10	11/23/10	JWG1004049	
Bis(2-chloroisopropyl) Ether	ND U	5.0	0.57	1	11/15/10	11/23/10	JWG1004049	
Bis(2-ethylhexyl) Phthalate	ND U	5.0	0.98	1	11/15/10	11/23/10	JWG1004049	
Butyl Benzyl Phthalate	ND U	10	1.1	1	11/15/10	11/23/10	JWG1004049	
Chlorobenzilate	ND U	10	0.84	1	11/15/10	11/23/10	JWG1004049	
Chrysene	ND U	5.0	0.87	1	11/15/10	11/23/10	JWG1004049	
Di-n-butyl Phthalate	ND U	5.0	0.97	1	11/15/10	11/23/10	JWG1004049	
Di-n-octyl Phthalate	ND U	5.0	0.95	1	11/15/10	11/23/10	JWG1004049	
Diallate	ND U	5.0	1.0	1	11/15/10	11/23/10	JWG1004049	
Dibenz(a,h)anthracene	ND U	5.0	0.62	1	11/15/10	11/23/10	JWG1004049	
Dibenzofuran	ND U	5.0	0.79	1	11/15/10	11/23/10	JWG1004049	
Diethyl Phthalate	ND U	5.0	4.1	1	11/15/10	11/23/10	JWG1004049	
Dimethoate	ND U	5.0	0.90	1	11/15/10	11/23/10	JWG1004049	
Dimethyl Phthalate	ND U	5.0	0.76	1	11/15/10	11/23/10	JWG1004049	

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

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## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Collected:** NA  
**Date Received:** NA

**Semi-Volatile Organic Compounds by GC/MS (Appendix II)**

<b>Sample Name:</b>	Method Blank	<b>Units:</b>	ug/L
<b>Lab Code:</b>	JWG1004049-4	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8270C		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dinoseb	ND U	10	0.61	1	11/15/10	11/23/10	JWG1004049	
Disulfoton	ND U	5.0	0.52	1	11/15/10	11/23/10	JWG1004049	
Ethyl Methanesulfonate	ND U	5.0	0.65	1	11/15/10	11/23/10	JWG1004049	
Famphur	ND UJ	10	0.69	1	11/15/10	11/23/10	JWG1004049	J(3)
Fluoranthene	ND U	5.0	0.66	1	11/15/10	11/23/10	JWG1004049	
Fluorene	ND U	5.0	0.88	1	11/15/10	11/23/10	JWG1004049	
Hexachlorobenzene	ND U	5.0	0.63	1	11/15/10	11/23/10	JWG1004049	
Hexachlorobutadiene	ND U	5.0	0.61	1	11/15/10	11/23/10	JWG1004049	
Hexachlorocyclopentadiene	ND U	5.0	0.41	1	11/15/10	11/23/10	JWG1004049	
Hexachloroethane	ND U	5.0	0.92	1	11/15/10	11/23/10	JWG1004049	
Hexachloropropene	ND U	5.0	1.9	1	11/15/10	11/23/10	JWG1004049	
Indeno(1,2,3-cd)pyrene	ND U	5.0	0.55	1	11/15/10	11/23/10	JWG1004049	
Isodrin	ND U	10	0.71	1	11/15/10	11/23/10	JWG1004049	
Isophorone	ND U	5.0	0.80	1	11/15/10	11/23/10	JWG1004049	
Isosafrole	ND U	5.0	0.75	1	11/15/10	11/23/10	JWG1004049	
Kepone	ND UJ	50	4.2	1	11/15/10	11/23/10	JWG1004049	J(3)
Methapyrilene	ND U	5.0	1.5	1	11/15/10	11/23/10	JWG1004049	
Methyl Methanesulfonate	ND UJ	5.0	0.56	1	11/15/10	11/23/10	JWG1004049	J(3)
Methyl Parathion	ND U	10	1.1	1	11/15/10	11/23/10	JWG1004049	
N-Nitrosodi-n-butylamine	ND U	5.0	0.67	1	11/15/10	11/23/10	JWG1004049	
N-Nitrosodi-n-propylamine	ND U	5.0	0.68	1	11/15/10	11/23/10	JWG1004049	
N-Nitrosodiethylamine	ND U	5.0	0.63	1	11/15/10	11/23/10	JWG1004049	
N-Nitrosodimethylamine	ND U	5.0	0.73	1	11/15/10	11/23/10	JWG1004049	
N-Nitrosodiphenylamine†	ND U	5.0	0.96	1	11/15/10	11/23/10	JWG1004049	
N-Nitrosomethylalkylamine	ND U	5.0	0.82	1	11/15/10	11/23/10	JWG1004049	
N-Nitrosopiperidine	ND U	5.0	1.6	1	11/15/10	11/23/10	JWG1004049	
N-Nitrosopyrrolidine	ND U	5.0	0.70	1	11/15/10	11/23/10	JWG1004049	
Naphthalene	ND U	5.0	0.79	1	11/15/10	11/23/10	JWG1004049	
Nitrobenzene	ND U	5.0	0.73	1	11/15/10	11/23/10	JWG1004049	
O,O,O-Triethyl Phosphorothioate	ND U	20	0.52	1	11/15/10	11/23/10	JWG1004049	
o-Tolidine	ND U	5.0	0.89	1	11/15/10	11/23/10	JWG1004049	
p-Dimethylaminoazobenzene	ND U	5.0	0.89	1	11/15/10	11/23/10	JWG1004049	
p-Phenylenediamine	ND U	20	1.1	1	11/15/10	11/23/10	JWG1004049	

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

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Collected:** NA  
**Date Received:** NA

**Semi-Volatile Organic Compounds by GC/MS (Appendix II)**

**Sample Name:** Method Blank      **Units:** ug/L  
**Lab Code:** JWG1004049-4      **Basis:** NA  
**Extraction Method:** EPA 3510C      **Level:** Low  
**Analysis Method:** 8270C

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Parathion	ND U	20	0.93	1	11/15/10	11/23/10	JWG1004049	
Pentachlorobenzene	ND U	5.0	2.4	1	11/15/10	11/23/10	JWG1004049	
Pentachloronitrobenzene	ND U	5.0	1.5	1	11/15/10	11/23/10	JWG1004049	
Pentachlorophenol	ND UJ	20	0.67	1	11/15/10	11/23/10	JWG1004049	J(3)
Phenacetin	ND U	5.0	0.89	1	11/15/10	11/23/10	JWG1004049	
Phenanthrene	ND U	5.0	0.70	1	11/15/10	11/23/10	JWG1004049	
Phenol	ND U	5.0	0.42	1	11/15/10	11/23/10	JWG1004049	
Phorate	ND UJ	5.0	0.88	1	11/15/10	11/23/10	JWG1004049	J(3)
Pronamide	ND U	20	0.85	1	11/15/10	11/23/10	JWG1004049	
Pyrene	ND U	5.0	0.84	1	11/15/10	11/23/10	JWG1004049	
Safrole	ND U	5.0	0.71	1	11/15/10	11/23/10	JWG1004049	
Thionazin	ND U	10	0.81	1	11/15/10	11/23/10	JWG1004049	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2,4,6-Tribromophenol	92	30-143	11/23/10	Acceptable
2-Fluorobiphenyl	75	30-102	11/23/10	Acceptable
2-Fluorophenol	61	10-77	11/23/10	Acceptable
Nitrobenzene-d5	85	32-106	11/23/10	Acceptable
Phenol-d6	53	10-51	11/23/10	Outside Control Limits
Terphenyl-d14	93	23-165	11/23/10	Acceptable

## † Analyte Comments

1,4-Naphthoquinone      Analyte searched for as a tentatively identified compound.  
 4-Methylphenol      This analyte cannot be separated from 3-Methylphenol.  
 N-Nitrosodiphenylamine      This analyte can not be separated from Diphenylamine.

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

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Collected:** 11/11/2010  
**Date Received:** 11/12/2010

## Organochlorine Pesticides by GC-ECD

<b>Sample Name:</b>	L-3	<b>Units:</b>	ug/L
<b>Lab Code:</b>	J1005486-001	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8081A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	0.022	0.0085	1	11/12/10	11/22/10	JWG1004036	
gamma-BHC (Lindane)	ND	UJ	0.022	0.0088	1	11/12/10	11/22/10	JWG1004036	J(3)
beta-BHC	ND	UJ	0.022	0.0091	1	11/12/10	11/22/10	JWG1004036	J(1)
delta-BHC	ND	UJ	0.022	0.012	1	11/12/10	11/22/10	JWG1004036	J(1)
Heptachlor	ND	UJ	0.022	0.011	1	11/12/10	11/22/10	JWG1004036	J(1)
Aldrin	ND	U	0.022	0.0073	1	11/12/10	11/22/10	JWG1004036	
Heptachlor Epoxide	ND	U	0.022	0.0085	1	11/12/10	11/22/10	JWG1004036	
gamma-Chlordane	ND	UJ	0.022	0.0080	1	11/12/10	11/22/10	JWG1004036	J(1)
alpha-Chlordane	ND	UJ	0.022	0.0071	1	11/12/10	11/22/10	JWG1004036	J(1)
4,4'-DDE	ND	UJ	0.022	0.0090	1	11/12/10	11/22/10	JWG1004036	J(1)
Endosulfan I	ND	UJ	0.022	0.0095	1	11/12/10	11/22/10	JWG1004036	J(1)
Dieldrin	ND	UJ	0.022	0.0078	1	11/12/10	11/22/10	JWG1004036	J(1)
Endrin	ND	UJ	0.022	0.0096	1	11/12/10	11/22/10	JWG1004036	J(1)
4,4'-DDD	ND	UJ	0.022	0.0085	1	11/12/10	11/22/10	JWG1004036	J(1)
Endosulfan II	ND	U	0.022	0.0069	1	11/12/10	11/22/10	JWG1004036	
4,4'-DDT	ND	UJ	0.022	0.014	1	11/12/10	11/22/10	JWG1004036	J(1)
Endrin Aldehyde	ND	UJ	0.022	0.0091	1	11/12/10	11/22/10	JWG1004036	J(3)
Methoxychlor	ND	UJ	0.043	0.012	1	11/12/10	11/22/10	JWG1004036	J(1)
Endosulfan Sulfate	ND	U	0.022	0.0098	1	11/12/10	11/22/10	JWG1004036	
Endrin Ketone	ND	U	0.022	0.0057	1	11/12/10	11/22/10	JWG1004036	
Toxaphene	ND	U	0.54	0.54	1	11/12/10	11/22/10	JWG1004036	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	25	32-92	11/22/10	Outside Control Limits
Decachlorobiphenyl	7	13-104	11/22/10	Outside Control Limits

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

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Collected:** 11/11/2010  
**Date Received:** 11/12/2010

**Organochlorine Pesticides by GC-ECD**

<b>Sample Name:</b>	L-6	<b>Units:</b>	ug/L
<b>Lab Code:</b>	J1005486-003	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8081A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	0.23	0.088	10	11/12/10	11/22/10	JWG1004036	
gamma-BHC (Lindane)	ND	UJ	0.23	0.092	10	11/12/10	11/22/10	JWG1004036	J(3)
beta-BHC	ND	U	0.23	0.095	10	11/12/10	11/22/10	JWG1004036	
delta-BHC	ND	U	0.23	0.13	10	11/12/10	11/22/10	JWG1004036	
Heptachlor	ND	U	0.23	0.11	10	11/12/10	11/22/10	JWG1004036	
Aldrin	ND	U	0.23	0.076	10	11/12/10	11/22/10	JWG1004036	
Heptachlor Epoxide	ND	U	0.23	0.088	10	11/12/10	11/22/10	JWG1004036	
gamma-Chlordane	ND	U	0.23	0.084	10	11/12/10	11/22/10	JWG1004036	
alpha-Chlordane	ND	U	0.23	0.074	10	11/12/10	11/22/10	JWG1004036	
4,4'-DDE	ND	U	0.23	0.094	10	11/12/10	11/22/10	JWG1004036	
Endosulfan I	ND	U	0.23	0.099	10	11/12/10	11/22/10	JWG1004036	
Dieldrin	ND	U	0.23	0.082	10	11/12/10	11/22/10	JWG1004036	
Endrin	ND	U	0.23	0.10	10	11/12/10	11/22/10	JWG1004036	
4,4'-DDD	ND	U	0.23	0.088	10	11/12/10	11/22/10	JWG1004036	
Endosulfan II	ND	U	0.23	0.072	10	11/12/10	11/22/10	JWG1004036	
4,4'-DDT	ND	U	0.23	0.15	10	11/12/10	11/22/10	JWG1004036	
Endrin Aldehyde	ND	UJ	0.23	0.095	10	11/12/10	11/22/10	JWG1004036	J(3)
Methoxychlor	ND	U	0.45	0.13	10	11/12/10	11/22/10	JWG1004036	
Endosulfan Sulfate	ND	U	0.23	0.11	10	11/12/10	11/22/10	JWG1004036	
Endrin Ketone	ND	U	0.23	0.059	10	11/12/10	11/22/10	JWG1004036	
Toxaphene	ND	U	5.6	5.6	10	11/12/10	11/22/10	JWG1004036	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	28	32-92	11/22/10	Outside Control Limits
Decachlorobiphenyl	10	13-104	11/22/10	Outside Control Limits

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

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Collected:** NA  
**Date Received:** NA

**Organochlorine Pesticides by GC-ECD**

<b>Sample Name:</b>	Method Blank	<b>Units:</b>	ug/L
<b>Lab Code:</b>	JWG1004036-2	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8081A		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND U	0.020	0.0079	1	11/12/10	11/22/10	JWG1004036	
gamma-BHC (Lindane)	ND UJ	0.020	0.0082	1	11/12/10	11/22/10	JWG1004036	J(3)
beta-BHC	ND U	0.020	0.0085	1	11/12/10	11/22/10	JWG1004036	
delta-BHC	ND U	0.020	0.011	1	11/12/10	11/22/10	JWG1004036	
Heptachlor	ND U	0.020	0.0096	1	11/12/10	11/22/10	JWG1004036	
Aldrin	ND U	0.020	0.0068	1	11/12/10	11/22/10	JWG1004036	
Heptachlor Epoxide	ND U	0.020	0.0079	1	11/12/10	11/22/10	JWG1004036	
gamma-Chlordane	ND U	0.020	0.0075	1	11/12/10	11/22/10	JWG1004036	
alpha-Chlordane	ND U	0.020	0.0066	1	11/12/10	11/22/10	JWG1004036	
4,4'-DDE	ND U	0.020	0.0084	1	11/12/10	11/22/10	JWG1004036	
Endosulfan I	ND U	0.020	0.0089	1	11/12/10	11/22/10	JWG1004036	
Dieldrin	ND U	0.020	0.0073	1	11/12/10	11/22/10	JWG1004036	
Endrin	ND U	0.020	0.0090	1	11/12/10	11/22/10	JWG1004036	
4,4'-DDD	ND U	0.020	0.0079	1	11/12/10	11/22/10	JWG1004036	
Endosulfan II	ND U	0.020	0.0064	1	11/12/10	11/22/10	JWG1004036	
4,4'-DDT	ND U	0.020	0.013	1	11/12/10	11/22/10	JWG1004036	
Endrin Aldehyde	ND UJ	0.020	0.0085	1	11/12/10	11/22/10	JWG1004036	J(3)
Methoxychlor	ND U	0.040	0.011	1	11/12/10	11/22/10	JWG1004036	
Endosulfan Sulfate	ND U	0.020	0.0092	1	11/12/10	11/22/10	JWG1004036	
Endrin Ketone	ND U	0.020	0.0053	1	11/12/10	11/22/10	JWG1004036	
Toxaphene	ND U	0.50	0.50	1	11/12/10	11/22/10	JWG1004036	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	53	32-92	11/22/10	Acceptable
Decachlorobiphenyl	58	13-104	11/22/10	Acceptable

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

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Collected:** 11/11/2010  
**Date Received:** 11/12/2010

## Polychlorinated Biphenyls (PCB Aroclors) by GC-ECD

**Sample Name:** L-3 **Units:** ug/L  
**Lab Code:** J1005486-001 **Basis:** NA

**Extraction Method:** EPA 3510C **Level:** Low  
**Analysis Method:** 8082

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND U	0.54	0.14	1	11/12/10	11/22/10	JWG1004037	
Aroclor 1221	ND U	0.54	0.24	1	11/12/10	11/22/10	JWG1004037	
Aroclor 1232	ND U	0.54	0.25	1	11/12/10	11/22/10	JWG1004037	
Aroclor 1242	ND U	0.54	0.13	1	11/12/10	11/22/10	JWG1004037	
Aroclor 1248	ND U	0.54	0.28	1	11/12/10	11/22/10	JWG1004037	
Aroclor 1254	ND U	0.54	0.40	1	11/12/10	11/22/10	JWG1004037	
Aroclor 1260	ND U	0.54	0.19	1	11/12/10	11/22/10	JWG1004037	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	7	24-120	11/22/10	Outside Control Limits

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

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Collected:** 11/11/2010  
**Date Received:** 11/12/2010

## Polychlorinated Biphenyls (PCB Aroclors) by GC-ECD

<b>Sample Name:</b>	L-6	<b>Units:</b>	ug/L
<b>Lab Code:</b>	J1005486-003	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8082		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND U	5.6	1.5	10	11/12/10	11/22/10	JWG1004037	
Aroclor 1221	ND U	5.6	2.5	10	11/12/10	11/22/10	JWG1004037	
Aroclor 1232	ND U	5.6	2.6	10	11/12/10	11/22/10	JWG1004037	
Aroclor 1242	ND U	5.6	1.4	10	11/12/10	11/22/10	JWG1004037	
Aroclor 1248	ND U	5.6	2.9	10	11/12/10	11/22/10	JWG1004037	
Aroclor 1254	ND U	5.6	4.2	10	11/12/10	11/22/10	JWG1004037	
Aroclor 1260	ND U	5.6	1.9	10	11/12/10	11/22/10	JWG1004037	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	10	24-120	11/22/10	Outside Control Limits

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

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Collected:** NA  
**Date Received:** NA

## Polychlorinated Biphenyls (PCB Aroclors) by GC-ECD

<b>Sample Name:</b>	Method Blank	<b>Units:</b>	ug/L
<b>Lab Code:</b>	JWG1004037-4	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8082		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND U	0.50	0.13	1	11/12/10	11/18/10	JWG1004037	
Aroclor 1221	ND U	0.50	0.22	1	11/12/10	11/18/10	JWG1004037	
Aroclor 1232	ND U	0.50	0.23	1	11/12/10	11/18/10	JWG1004037	
Aroclor 1242	ND U	0.50	0.12	1	11/12/10	11/18/10	JWG1004037	
Aroclor 1248	ND U	0.50	0.26	1	11/12/10	11/18/10	JWG1004037	
Aroclor 1254	ND U	0.50	0.37	1	11/12/10	11/18/10	JWG1004037	
Aroclor 1260	ND U	0.50	0.17	1	11/12/10	11/18/10	JWG1004037	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	58	24-120	11/18/10	Acceptable

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

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** L-3  
**Lab Code:** J1005486-001

**Service Request:** J1005486  
**Date Collected:** 11/11/10 0645  
**Date Received:** 11/12/10  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	23	µg/L	10	1	5	11/18/10	11/23/10 22:33	
Arsenic, Total Recoverable	6020	43.5	µg/L	2.5	2.0	5	11/18/10	11/23/10 22:33	
Barium, Total Recoverable	6020	332	µg/L	10	2	5	11/18/10	11/23/10 22:33	
Beryllium, Total Recoverable	6020	1.3 I	µg/L	5.0	1.0	5	11/18/10	11/23/10 22:33	
Cadmium, Total Recoverable	6020	1.7 I	µg/L	2.5	1.5	5	11/18/10	11/23/10 22:33	
Chromium, Total Recoverable	6020	363	µg/L	10	2	5	11/18/10	11/23/10 22:33	
Cobalt, Total Recoverable	6020	33.0	µg/L	5.0	0.4	5	11/18/10	11/23/10 22:33	
Copper, Total Recoverable	6020	13	µg/L	10	5	5	11/18/10	11/23/10 22:33	
Iron, Total Recoverable	6010B	4550	µg/L	100	10	1	11/15/10	11/16/10 14:16	
Lead, Total Recoverable	6020	11.9	µg/L	5.0	0.3	5	11/18/10	11/23/10 22:33	
Mercury, Total	7470A	ND U	µg/L	1.0	0.4	1	11/22/10	11/22/10 15:44	
Nickel, Total Recoverable	6020	250	µg/L	10	1	5	11/18/10	11/23/10 22:33	
Selenium, Total Recoverable	6020	83	µg/L	25	5	5	11/18/10	11/23/10 22:33	
Silver, Total Recoverable	6020	ND U	µg/L	2.5	0.4	5	11/18/10	11/23/10 22:33	
Sodium, Total Recoverable	6010B	1880	mg/L	10	1	20	11/15/10	11/17/10 12:57	
Thallium, Total Recoverable	6020	ND U	µg/L	5.0	0.2	5	11/18/10	11/23/10 22:33	
Tin, Total Recoverable	6020	8 I	µg/L	25	2	5	11/18/10	11/23/10 22:33	
Vanadium, Total Recoverable	6020	606	µg/L	25	3	5	11/18/10	11/23/10 22:33	
Zinc, Total Recoverable	6020	67	µg/L	50	10	5	11/18/10	11/23/10 22:33	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** L-6  
**Lab Code:** J1005486-003

**Service Request:** J1005486  
**Date Collected:** 11/11/10 0800  
**Date Received:** 11/12/10  
**Basis:** NA

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	22	µg/L	10	1	5	11/18/10	11/23/10 22:38	
Arsenic, Total Recoverable	6020	73.0	µg/L	2.5	2.0	5	11/18/10	11/23/10 22:38	
Barium, Total Recoverable	6020	430	µg/L	10	2	5	11/18/10	11/23/10 22:38	
Beryllium, Total Recoverable	6020	1.6 I	µg/L	5.0	1.0	5	11/18/10	11/23/10 22:38	
Cadmium, Total Recoverable	6020	4.3	µg/L	2.5	1.5	5	11/18/10	11/23/10 22:38	
Chromium, Total Recoverable	6020	467	µg/L	10	2	5	11/18/10	11/23/10 22:38	
Cobalt, Total Recoverable	6020	29.2	µg/L	5.0	0.4	5	11/18/10	11/23/10 22:38	
Copper, Total Recoverable	6020	30	µg/L	10	5	5	11/18/10	11/23/10 22:38	
Iron, Total Recoverable	6010B	3030	µg/L	100	10	1	11/15/10	11/16/10 14:24	
Lead, Total Recoverable	6020	26.9	µg/L	5.0	0.3	5	11/18/10	11/23/10 22:38	
Mercury, Total	7470A	ND U	µg/L	1.0	0.4	1	11/22/10	11/22/10 15:46	
Nickel, Total Recoverable	6020	298	µg/L	10	1	5	11/18/10	11/23/10 22:38	
Selenium, Total Recoverable	6020	140	µg/L	25	5	5	11/18/10	11/23/10 22:38	
Silver, Total Recoverable	6020	ND U	µg/L	2.5	0.4	5	11/18/10	11/23/10 22:38	
Sodium, Total Recoverable	6010B	1610	mg/L	10	1	20	11/15/10	11/17/10 12:59	
Thallium, Total Recoverable	6020	ND U	µg/L	5.0	0.2	5	11/18/10	11/23/10 22:38	
Tin, Total Recoverable	6020	8 I	µg/L	25	2	5	11/18/10	11/23/10 22:38	
Vanadium, Total Recoverable	6020	807	µg/L	25	3	5	11/18/10	11/23/10 22:38	
Zinc, Total Recoverable	6020	73	µg/L	50	10	5	11/18/10	11/23/10 22:38	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** J1005486-MB

**Service Request:** J1005486

**Date Collected:** NA

**Date Received:** NA

**Basis:** NA

## Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Antimony, Total Recoverable	6020	ND	U	µg/L	2.0	0.2	1	11/18/10	11/23/10	21:33
Arsenic, Total Recoverable	6020	ND	U	µg/L	0.50	0.40	1	11/18/10	11/23/10	21:33
Barium, Total Recoverable	6020	0.6	I	µg/L	2.0	0.3	1	11/18/10	11/23/10	21:33
Beryllium, Total Recoverable	6020	ND	U	µg/L	1.0	0.2	1	11/18/10	11/23/10	21:33
Cadmium, Total Recoverable	6020	ND	U	µg/L	0.50	0.30	1	11/18/10	11/23/10	21:33
Chromium, Total Recoverable	6020	ND	U	µg/L	2.0	0.3	1	11/18/10	11/23/10	21:33
Cobalt, Total Recoverable	6020	ND	U	µg/L	1.0	0.08	1	11/18/10	11/23/10	21:33
Copper, Total Recoverable	6020	ND	U	µg/L	2.0	1.0	1	11/18/10	11/23/10	21:33
Iron, Total Recoverable	6010B	ND	U	µg/L	100	4	1	11/15/10	11/16/10	12:14
Lead, Total Recoverable	6020	ND	U	µg/L	1.0	0.06	1	11/18/10	11/23/10	21:33
Mercury, Total	7470A	ND	U	µg/L	0.20	0.08	1	11/22/10	11/22/10	15:28
Nickel, Total Recoverable	6020	ND	U	µg/L	2.0	0.2	1	11/18/10	11/23/10	21:33
Selenium, Total Recoverable	6020	ND	U	µg/L	5.0	1.0	1	11/18/10	11/23/10	21:33
Silver, Total Recoverable	6020	ND	U	µg/L	0.50	0.07	1	11/18/10	11/23/10	21:33
Sodium, Total Recoverable	6010B	ND	U	mg/L	0.50	0.02	1	11/15/10	11/16/10	12:12
Thallium, Total Recoverable	6020	ND	U	µg/L	1.0	0.03	1	11/18/10	11/23/10	21:33
Tin, Total Recoverable	6020	ND	U	µg/L	5.0	0.3	1	11/18/10	11/23/10	21:33
Vanadium, Total Recoverable	6020	ND	U	µg/L	5.0	0.5	1	11/18/10	11/23/10	21:33
Zinc, Total Recoverable	6020	ND	U	µg/L	10	2	1	11/18/10	11/23/10	21:33

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** L-3  
**Lab Code:** J1005486-001

**Service Request:** J1005486  
**Date Collected:** 11/11/10 0645  
**Date Received:** 11/12/10  
**Basis:** NA

**General Chemistry Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	798	mg/L	2.0	0.8	200	NA	11/15/10 14:45	
Biochemical Oxygen Demand (BOD)	SM 5210 B	133	mg/L	2.0	2.0	1	NA	11/12/10 14:00	
Chemical Oxygen Demand, Total	SM21 5220 D	8350	mg/L	200	20	10	NA	11/18/10 16:09	
Chloride	300.0	3180	mg/L	50	9	100	NA	11/12/10 19:54	
Cyanide, Total	335.4	33	µg/L	10	3	1	11/16/10	11/16/10 15:45	
Nitrate as Nitrogen	300.0	ND U	mg/L	2.0	0.8	10	NA	11/12/10 18:55	
Solids, Total Dissolved	SM 2540 C	11600	mg/L	200	200	20	NA	11/15/10 14:37	
Sulfide, Total	SM 4500-S2- F	18 I	mg/L	40	8	20	NA	11/15/10 15:00	

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** L-6  
**Lab Code:** J1005486-003

**Service Request:** J1005486  
**Date Collected:** 11/11/10 0800  
**Date Received:** 11/12/10  
**Basis:** NA

## General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	904	mg/L	2.0	0.8	200	NA	11/15/10	14:48
Biochemical Oxygen Demand (BOD)	SM 5210 B	119	mg/L	2.0	2.0	1	NA	11/12/10	14:00
Chemical Oxygen Demand, Total	SM21 5220 D	6430	mg/L	200	20	10	NA	11/18/10	16:07
Chloride	300.0	2740	mg/L	50	9	100	NA	11/12/10	20:09
Cyanide, Total	335.4	25	µg/L	10	3	1	11/16/10	11/16/10	15:46
Nitrate as Nitrogen	300.0	ND U	mg/L	2.0	0.8	10	NA	11/12/10	19:09
Solids, Total Dissolved	SM 2540 C	11200	mg/L	200	200	20	NA	11/15/10	14:37
Sulfide, Total	SM 4500-S2-F	8 I	mg/L	40	8	20	NA	11/15/10	15:00

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** J1005486-MB

**Service Request:** J1005486  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

## General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Ammonia as Nitrogen	350.1	ND U	mg/L	0.010	0.004	1	NA	11/15/10 14:14	
Biochemical Oxygen Demand (BOD)	SM 5210 B	ND U	mg/L	2.0	2.0	1	NA	11/12/10 08:50	
Chemical Oxygen Demand, Total	SM21 5220 D	ND U	mg/L	20	2	1	NA	11/18/10 16:02	
Chloride	300.0	ND U	mg/L	0.50	0.09	1	NA	11/12/10 15:10	
Cyanide, Total	335.4	ND U	µg/L	10	3	1	11/16/10	11/16/10 15:36	
Nitrate as Nitrogen	300.0	ND U	mg/L	0.20	0.07	1	NA	11/12/10 15:10	
Solids, Total Dissolved	SM 2540 C	ND U	mg/L	10	10	1	NA	11/15/10 14:37	
Sulfide, Total	SM 4500-S2- F	ND U	mg/L	2.0	0.4	1	NA	11/15/10 15:00	

**COLUMBIA ANALYTICAL SERVICES, INC.**

## QA/QC Report

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486**Surrogate Recovery Summary  
Volatile Organic Compounds by GC/MS****Analytical Method:** 8260B**Units:** Percent

<b>Sample Name</b>	<b>Lab Code</b>	<b>Sur1</b>	<b>Sur2</b>	<b>Sur3</b>	<b>Sur4</b>
L-3	J1005486-001	92	106	97	108
Trip Blank 1	J1005486-002	92	101	94	104
L-6	J1005486-003	94	99	97	105
Trip Blank 2	J1005486-004	89	97	95	104
10315-JED-UL	J1005486-005	91	100	93	104
10315-JED-TL	J1005486-006	100	97	97	103
Method Blank	JQ1005766-02	89	98	95	107
Lab Control Sample	JQ1005766-01	87	103	92	103

**Surrogate Recovery Control Limits (%)**

Sur1	= 1,2-Dichloroethane-d4	71 - 122
Sur2	= 4-Bromofluorobenzene	75 - 120
Sur3	= Dibromofluoromethane	82 - 116
Sur4	= Toluene-d8	88 - 117

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Analyzed:** 11/22/10

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Units:**  $\mu\text{g/L}$   
**Basis:** NA

**Analysis Lot:** 226413**Lab Control Sample**

JQ1005766-01

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	19.5	20.0	97	85 - 117
1,1,1-Trichloroethane (TCA)	20.8	20.0	104	79 - 124
1,1,2,2-Tetrachloroethane	16.8	20.0	84	83 - 120
1,1,2-Trichloroethane	17.3	20.0	87	86 - 114
1,1-Dichloroethane (1,1-DCA)	20.0	20.0	100	80 - 128
1,1-Dichloroethene (1,1-DCE)	21.0	20.0	105	78 - 130
1,1-Dichloropropene	19.7	20.0	99	85 - 124
1,2,3-Trichloropropane	15.4	20.0	77 *	83 - 123
1,2,4-Trichlorobenzene	18.3	20.0	92	72 - 123
1,2-Dibromo-3-chloropropane (DBCP)	16.0	20.0	80	62 - 123
1,2-Dibromoethane (EDB)	17.0	20.0	85 *	88 - 117
1,2-Dichlorobenzene	18.6	20.0	93	84 - 115
1,2-Dichloroethane	17.9	20.0	90	80 - 124
1,2-Dichloropropene	18.5	20.0	92	79 - 123
1,3-Dichlorobenzene	20.6	20.0	103	83 - 112
1,3-Dichloropropane	17.1	20.0	86 *	88 - 117
1,4-Dichlorobenzene	19.5	20.0	97	83 - 113
2,2-Dichloropropane	21.3	20.0	107	72 - 136
2-Butanone (MEK)	81.1	100	81	73 - 127
2-Hexanone	80.7	100	81	71 - 138
4-Methyl-2-pentanone (MIBK)	81.0	100	81	72 - 136
Acetone	78.3	100	78	67 - 133
Acetonitrile	66.7	100	67	67 - 132
Acrolein	76.1	100	76	61 - 137
Acrylonitrile	82.1	100	82	77 - 127
Allyl Chloride	19.9	20.0	100	68 - 128
Benzene	19.7	20.0	99	79 - 119
Bromochloromethane	17.0	20.0	85	79 - 129
Bromodichloromethane	18.3	20.0	91	81 - 123
Bromoform	17.4	20.0	87	68 - 129
Bromomethane	20.7	20.0	103	79 - 130
Carbon Disulfide	103	100	103	76 - 138

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Analyzed:** 11/22/10

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Units:**  $\mu\text{g/L}$   
**Basis:** NA

**Analysis Lot:** 226413**Lab Control Sample**

JQ1005766-01

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Carbon Tetrachloride	20.6	20.0	103	81 - 125
Chlorobenzene	20.1	20.0	101	86 - 113
Chloroethane	21.7	20.0	108	74 - 126
Chloroform	19.7	20.0	98	83 - 124
Chloromethane	21.1	20.0	106	67 - 135
Chloroprene	20.7	20.0	104	81 - 132
cis-1,2-Dichloroethene	19.3	20.0	97	80 - 126
cis-1,3-Dichloropropene	18.2	20.0	91	86 - 123
Dibromochloromethane	17.4	20.0	87	82 - 121
Dibromomethane	16.6	20.0	83	83 - 123
Dichlorodifluoromethane	22.0	20.0	110	69 - 138
Ethyl Methacrylate	16.8	20.0	84	78 - 127
Ethylbenzene	21.3	20.0	106	90 - 118
Hexachlorobutadiene	22.8	20.0	114	73 - 140
Iodomethane	102	100	102	68 - 134
Isobutyl Alcohol	277	400	69	62 - 139
m,p-Xylenes	42.2	40.0	105	86 - 121
Methacrylonitrile	15.6	20.0	78	77 - 129
Methyl Methacrylate	16.6	20.0	83	79 - 128
Methylene Chloride	18.1	20.0	90	72 - 124
Naphthalene	15.7	20.0	78	59 - 135
o-Xylene	21.1	20.0	105	89 - 119
Propionitrile	74.9	100	75	* 77 - 131
Styrene	19.0	20.0	95	89 - 122
Tetrachloroethene (PCE)	20.3	20.0	102	80 - 121
Toluene	20.9	20.0	105	86 - 117
trans-1,2-Dichloroethene	20.6	20.0	103	77 - 124
trans-1,3-Dichloropropene	17.7	20.0	88	83 - 124
trans-1,4-Dichloro-2-butene	9.39	20.0	47	* 53 - 143
Trichloroethene (TCE)	19.3	20.0	97	76 - 124
Trichlorofluoromethane	21.0	20.0	105	74 - 134
Vinyl Acetate	78.2	100	78	61 - 148

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Analyzed:** 11/22/10

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260B

**Units:** µg/L  
**Basis:** NA

**Analysis Lot:** 226413

**Lab Control Sample**

JQ1005766-01

<b>Analyte Name</b>	<b>Result</b>	<b>Spike</b>	<b>% Rec</b>	<b>% Rec Limits</b>
		<b>Amount</b>		
Vinyl Chloride	21.5	20.0	108	78 - 132

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486

**Surrogate Recovery Summary**  
**Semi-Volatile Organic Compounds by GC/MS (Appendix II)**

**Extraction Method:** EPA 3510C                                    **Units:** PERCENT  
**Analysis Method:** 8270C                                    **Level:** Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>	<u>Sur2</u>	<u>Sur3</u>	<u>Sur4</u>	<u>Sur5</u>	<u>Sur6</u>
L-3	J1005486-001	84 D	58 D	42 D	85 D	48 D	34 D
L-6	J1005486-003	96 D	61 D	45 D	86 D	61 D *	60 D
10315-JED-UL	J1005486-005	93 D	54 D	41 D	75 D	46 D	39 D
10315-JED-TL	J1005486-006	0 D *	50 D	0 D *	50 D	0 D *	40 D
Method Blank	JWG1004049-4	92	75	61	85	53 *	93
L-3MS	JWG1004049-1	81 D	56 D	50 D	65 D	52 D *	58 D
L-3DMS	JWG1004049-2	94 D	63 D	52 D	75 D	62 D *	62 D
Lab Control Sample	JWG1004049-3	86	57	52	68	44	83

**Surrogate Recovery Control Limits (%)**

Sur1 = 2,4,6-Tribromophenol	30-143	Sur5 = Phenol-d6	10-51
Sur2 = 2-Fluorobiphenyl	30-102	Sur6 = Terphenyl-d14	23-165
Sur3 = 2-Fluorophenol	10-77		
Sur4 = Nitrobenzene-d5	32-106		

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

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

**Client:** Environmental Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Extracted:** 11/15/2010  
**Date Analyzed:** 11/30/2010

**Matrix Spike/Duplicate Matrix Spike Summary**  
**Semi-Volatile Organic Compounds by GC/MS (Appendix II)**

<b>Sample Name:</b>	L-3	<b>Units:</b>	ug/L
<b>Lab Code:</b>	J1005486-001	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8270C	<b>Extraction Lot:</b>	JWG1004049

<b>Analyte Name</b>	<b>Sample Result</b>	L-3MS			L-3DMS			<b>%Rec Limits</b>	<b>RPD</b>	<b>RPD Limit</b>	
		JWG1004049-1			JWG1004049-2						
		<b>Matrix Spike</b>	<b>Result</b>	<b>Expected</b>	<b>%Rec</b>	<b>Duplicate Matrix Spike</b>	<b>Result</b>	<b>Expected</b>	<b>%Rec</b>		
1,2,4-Trichlorobenzene	ND	76.8	114	68		83.6	114	74	32-123	8	30
1,2-Dichlorobenzene	ND	60.0	114	53		68.9	114	61	32-123	14	30
1,3-Dichlorobenzene	ND	62.0	114	55		73.0	114	64	30-119	16	30
1,4-Dichlorobenzene	ND	64.8	114	57		84.5	114	74	31-119	26	30
2,3,4,6-Tetrachlorophenol	ND	86.1	114	76		98.4	114	87	50-150	13	30
2,4,5-Trichlorophenol	ND	81.4	114	72		96.8	114	85	18-135	17	30
2,4,6-Trichlorophenol	ND	83.2	114	73		89.8	114	79	10-141	8	30
2,4-Dichlorophenol	ND	77.3	114	68		80.0	114	70	21-122	3	30
2,4-Dimethylphenol	ND	79.5	114	70		96.8	114	85	35-88	20	30
2,4-Dinitrophenol	ND	221	114	194 *		200	114	176 *	10-150	10	30
2,4-Dinitrotoluene	ND	79.8	114	70		94.1	114	83	48-126	16	30
2,6-Dinitrotoluene	ND	93.0	114	82		97.3	114	86	43-125	5	30
2-Chloronaphthalene	ND	78.0	114	69		83.6	114	74	49-100	7	30
2-Chlorophenol	ND	60.9	114	54		78.6	114	69	19-113	25	30
2-Methyl-4,6-dinitrophenol	ND	118	114	104		113	114	99	10-141	4	30
2-Methylnaphthalene	ND	86.4	114	76		84.5	114	74	48-91	2	30
2-Methylphenol	ND	79.8	114	70		86.6	114	76	32-96	8	30
2-Nitroaniline	ND	95.5	114	84		100	114	88	26-107	5	30
2-Nitrophenol	ND	83.4	114	73		85.7	114	75	16-133	3	30
3-Nitroaniline	ND	67.5	114	59		85.2	114	75	23-84	23	30
4-Bromophenyl Phenyl Ether	ND	88.6	114	78		101	114	89	62-122	13	30
4-Chloro-3-methylphenol	ND	111	114	98		119	114	105	28-115	7	30
4-Chloroaniline	ND	47.3	114	42		65.5	114	58	10-94	32 *	30
4-Chlorophenyl Phenyl Ether	ND	81.8	114	72		95.2	114	84	56-103	15	30
4-Methylphenol	97	173	114	67		202	114	92	12-106	15	30
4-Nitroaniline	ND	60.2	114	53		70.5	114	62	14-119	16	30
4-Nitrophenol	ND	88.6	114	78		98.2	114	86	10-101	10	30
Acenaphthene	ND	73.9	114	65		78.6	114	69	48-96	6	30
Acenaphthylene	ND	75.5	114	66		84.3	114	74	46-95	11	30
Anthracene	ND	74.1	114	65		93.9	114	83	50-101	24	30
Benz(a)anthracene	ND	89.5	114	79		86.6	114	76	40-104	3	30
Benzo(a)pyrene	ND	75.0	114	66		92.7	114	82	48-100	21	30
Benzo(b)fluoranthene	ND	76.6	114	67		81.6	114	72	54-105	6	30

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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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Extracted:** 11/15/2010  
**Date Analyzed:** 11/30/2010

**Matrix Spike/Duplicate Matrix Spike Summary**  
**Semi-Volatile Organic Compounds by GC/MS (Appendix II)**

<b>Sample Name:</b>	L-3	<b>Units:</b>	ug/L
<b>Lab Code:</b>	J1005486-001	<b>Basis:</b>	NA
<b>Extraction Method:</b>	EPA 3510C	<b>Level:</b>	Low
<b>Analysis Method:</b>	8270C	<b>Extraction Lot:</b>	JWG1004049

<b>Analyte Name</b>	<b>Sample Result</b>	L-3MS JWG1004049-1 Matrix Spike			L-3DMS JWG1004049-2 Duplicate Matrix Spike			<b>%Rec Limits</b>	<b>RPD</b>	<b>RPD Limit</b>
		<b>Result</b>	<b>Expected</b>	<b>%Rec</b>	<b>Result</b>	<b>Expected</b>	<b>%Rec</b>			
Benzo(g,h,i)perylene	ND	83.0	114	73	95.0	114	84	51-114	14	30
Benzo(k)fluoranthene	ND	76.4	114	67	91.6	114	81	50-101	18	30
Benzyl alcohol	ND	74.8	114	66	91.4	114	80	39-96	20	30
bis(2-Chloroethoxy)methane	ND	106	114	93 *	121	114	107 *	48-90	14	30
Bis(2-chloroethyl) Ether	ND	64.8	114	57	82.3	114	72	45-90	24	30
Bis(2-chloroisopropyl) Ether	ND	50.7	114	45 *	56.6	114	50	46-83	11	30
Bis(2-ethylhexyl) Phthalate	ND	74.5	114	66	81.6	114	72	49-114	9	30
Butyl Benzyl Phthalate	ND	84.3	114	74	87.0	114	77	51-111	3	30
Chrysene	ND	82.3	114	72	91.1	114	80	47-105	10	30
Di-n-butyl Phthalate	ND	78.2	114	69	83.0	114	73	61-109	6	30
Di-n-octyl Phthalate	ND	73.0	114	64	83.4	114	73	43-119	13	30
Dibenz(a,h)anthracene	ND	82.5	114	73	88.9	114	78	44-124	7	30
Dibenzofuran	ND	72.3	114	64	86.6	114	76	49-101	18	30
Diethyl Phthalate	ND	84.8	114	75	90.2	114	79	59-103	6	30
Dimethyl Phthalate	ND	82.0	114	72	83.6	114	74	38-111	2	30
Fluoranthene	ND	83.0	114	73	102	114	89	48-103	20	30
Fluorene	ND	71.1	114	63	89.1	114	78	54-95	22	30
Hexachlorobenzene	ND	76.6	114	67	91.8	114	81	56-110	18	30
Hexachlorobutadiene	ND	93.4	114	82	83.2	114	73	35-95	12	30
Hexachlorocyclopentadiene	ND	95.9	114	84	104	114	91	23-112	8	30
Hexachloroethane	ND	59.3	114	52	82.5	114	73	33-99	33 *	30
Indeno(1,2,3-cd)pyrene	ND	79.5	114	70	83.9	114	74	50-115	5	30
Isophorone	ND	92.7	114	82	105	114	93	47-97	13	30
N-Nitrosodi-n-propylamine	ND	88.9	114	78	109	114	96 *	47-89	20	30
N-Nitrosodimethylamine	ND	58.2	114	51	61.1	114	54	27-66	5	30
N-Nitrosodiphenylamine	ND	81.4	114	72	92.5	114	81	30-118	13	30
Naphthalene	ND	83.6	114	74	95.2	114	84	41-93	13	30
Nitrobenzene	ND	84.1	114	74	89.1	114	78	35-109	6	30
Pentachlorophenol	ND	190	114	167 *	212	114	187 *	18-141	11	30
Phenanthrene	ND	76.8	114	68	93.9	114	83	49-95	20	30
Phenol	7.5	72.3	114	57	83.6	114	67	10-70	15	30
Pyrene	ND	78.2	114	69	89.3	114	79	49-103	13	30

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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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Extracted:** 11/15/2010  
**Date Analyzed:** 11/23/2010

**Lab Control Spike Summary**  
**Semi-Volatile Organic Compounds by GC/MS (Appendix II)**

**Extraction Method:** EPA 3510C                            **Units:** ug/L  
**Analysis Method:** 8270C                            **Basis:** NA  
    **Level:** Low  
    **Extraction Lot:** JWG1004049

Lab Control Sample

JWG1004049-3

Lab Control Spike

Analyte Name	Result	Expected	%Rec	%Rec Limits
1,2,4-Trichlorobenzene	37.5	50.0	75	50-120
1,2-Dichlorobenzene	34.1	50.0	68	32-123
1,3-Dichlorobenzene	35.1	50.0	70	30-119
1,4-Dichlorobenzene	36.2	50.0	72	31-119
2,3,4,6-Tetrachlorophenol	42.6	50.0	85	50-150
2,4,5-Trichlorophenol	41.8	50.0	84	47-113
2,4,6-Trichlorophenol	40.9	50.0	82	41-115
2,4-Dichlorophenol	40.2	50.0	80	36-117
2,4-Dimethylphenol	30.1	50.0	60	38-110
2,4-Dinitrophenol	35.7	50.0	71	27-128
2,4-Dinitrotoluene	46.3	50.0	93	54-121
2,6-Dinitrotoluene	43.4	50.0	87	55-121
2-Chloronaphthalene	40.1	50.0	80	47-106
2-Chlorophenol	37.3	50.0	75	35-101
2-Methyl-4,6-dinitrophenol	41.2	50.0	82	46-117
2-Methylnaphthalene	38.7	50.0	77	46-110
2-Methylphenol	37.2	50.0	74	21-100
2-Nitroaniline	44.4	50.0	89	33-94
2-Nitrophenol	38.5	50.0	77	40-120
3-Nitroaniline	38.1	50.0	76	25-91
4-Bromophenyl Phenyl Ether	46.8	50.0	94	63-123
4-Chloro-3-methylphenol	43.1	50.0	86	36-117
4-Chloroaniline	6.84	50.0	14 *	39-110
4-Chlorophenyl Phenyl Ether	44.5	50.0	89	53-108
4-Methylphenol	35.1	50.0	70	15-95
4-Nitroaniline	44.2	50.0	88	44-102
4-Nitrophenol	23.9	50.0	48	10-86
Acenaphthene	40.8	50.0	82	42-106
Acenaphthylene	41.1	50.0	82	45-99
Anthracene	47.4	50.0	95	50-104
Benz(a)anthracene	47.9	50.0	96	42-114
Benzo(a)pyrene	50.9	50.0	102	46-110
Benzo(b)fluoranthene	48.2	50.0	96	56-110
Benzo(g,h,i)perylene	53.7	50.0	107	53-116
Benzo(k)fluoranthene	49.6	50.0	99	48-110

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Extracted:** 11/15/2010  
**Date Analyzed:** 11/23/2010

**Lab Control Spike Summary**  
**Semi-Volatile Organic Compounds by GC/MS (Appendix II)**

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

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** JWG1004049

Lab Control Sample  
JWG1004049-3

Lab Control Spike

Analyte Name	Result	Expected	%Rec	%Rec Limits
Benzyl alcohol	32.9	50.0	66	32-110
bis(2-Chloroethoxy)methane	38.2	50.0	76	47-100
Bis(2-chloroethyl) Ether	38.0	50.0	76	41-99
Bis(2-chloroisopropyl) Ether	43.3	50.0	87	31-94
Bis(2-ethylhexyl) Phthalate	49.2	50.0	98	41-127
Butyl Benzyl Phthalate	48.1	50.0	96	40-117
Chrysene	47.1	50.0	94	50-113
Di-n-butyl Phthalate	47.0	50.0	94	57-118
Di-n-octyl Phthalate	53.3	50.0	107	35-139
Dibenz(a,h)anthracene	51.3	50.0	103	51-125
Dibenzofuran	43.2	50.0	86	49-103
Diethyl Phthalate	46.8	50.0	94	56-108
Dimethyl Phthalate	44.1	50.0	88	32-119
Fluoranthene	49.1	50.0	98	48-110
Fluorene	44.0	50.0	88	54-97
Hexachlorobenzene	48.1	50.0	96	55-110
Hexachlorobutadiene	38.5	50.0	77	20-110
Hexachlorocyclopentadiene	39.5	50.0	79	23-115
Hexachloroethane	34.9	50.0	70	19-113
Indeno(1,2,3-cd)pyrene	51.6	50.0	103	54-115
Isophorone	42.3	50.0	85	46-106
N-Nitrosodi-n-propylamine	41.5	50.0	83	43-103
N-Nitrosodimethylamine	20.4	50.0	41	27-66
N-Nitrosodiphenylamine	42.4	50.0	85	30-122
Naphthalene	36.9	50.0	74	40-97
Nitrobenzene	39.0	50.0	78	36-116
Pentachlorophenol	45.7	50.0	91	35-120
Phenanthrene	48.5	50.0	97	49-110
Phenol	24.6	50.0	49	12-54
Pyrene	47.3	50.0	95	35-110

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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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486**Surrogate Recovery Summary**  
**Organochlorine Pesticides by GC-ECD**

**Extraction Method:** EPA 3510C  
**Analysis Method:** 8081A

**Units:** PERCENT  
**Level:** Low

<b>Sample Name</b>	<b>Lab Code</b>	<b>Sur1</b>	<b>Sur2</b>
L-3	J1005486-001	25 *	7 *
L-6	J1005486-003	28 D #	10 D #
10315-JED-UL	J1005486-005	18 D #	8 D #
10315-JED-TL	J1005486-006	25 *	9 *
Method Blank	JWG1004036-2	53	58
Lab Control Sample	JWG1004036-1	56	58

**Surrogate Recovery Control Limits (%)**

---

Sur1 = Tetrachloro-m-xylene                    32-92  
Sur2 = Decachlorobiphenyl                    13-104

---

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Extracted:** 11/12/2010  
**Date Analyzed:** 11/22/2010

**Lab Control Spike Summary**  
**Organochlorine Pesticides by GC-ECD**

**Extraction Method:** EPA 3510C  
**Analysis Method:** 8081A

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

**Level:** Low

**Extraction Lot:** JWG1004036

Lab Control Sample

JWG1004036-1

Lab Control Spike

Analyte Name	Result	Expected	%Rec	%Rec Limits
alpha-BHC	0.234	0.400	59	56-104
gamma-BHC (Lindane)	0.222	0.400	56 *	57-101
beta-BHC	0.236	0.400	59	55-97
delta-BHC	0.261	0.400	65	31-105
Heptachlor	0.252	0.400	63	52-100
Aldrin	0.245	0.400	61	45-108
Heptachlor Epoxide	0.260	0.400	65	59-103
gamma-Chlordane	0.260	0.400	65	53-107
alpha-Chlordane	0.256	0.400	64	54-104
4,4'-DDE	0.240	0.400	60	58-114
Endosulfan I	0.260	0.400	65	61-104
Dieldrin	0.246	0.400	62	57-111
Endrin	0.263	0.400	66	57-117
4,4'-DDD	0.233	0.400	58	56-116
Endosulfan II	0.237	0.400	59	50-106
4,4'-DDT	0.264	0.400	66	41-115
Endrin Aldehyde	0.142	0.400	36 *	51-108
Methoxychlor	0.251	0.400	63	43-123
Endosulfan Sulfate	0.232	0.400	58	56-107
Endrin Ketone	0.251	0.400	63	46-101

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486

**Surrogate Recovery Summary**  
**Polychlorinated Biphenyls (PCB Aroclors) by GC-ECD**

**Extraction Method:** EPA 3510C  
**Analysis Method:** 8082

**Units:** PERCENT  
**Level:** Low

<b>Sample Name</b>	<b>Lab Code</b>	<b>Sur1</b>
L-3	J1005486-001	7 *
L-6	J1005486-003	10 D #
10315-JED-UL	J1005486-005	8 D #
10315-JED-TL	J1005486-006	9 *
Method Blank	JWG1004037-4	58
Lab Control Sample	JWG1004037-3	56

---

**Surrogate Recovery Control Limits (%)**

---

Sur1 = Decachlorobiphenyl                    24-120

---

---

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Extracted:** 11/12/2010  
**Date Analyzed:** 11/18/2010

**Lab Control Spike Summary**  
**Polychlorinated Biphenyls (PCB Aroclors) by GC-ECD**

**Extraction Method:** EPA 3510C  
**Analysis Method:** 8082

**Units:** ug/L  
**Basis:** NA  
**Level:** Low  
**Extraction Lot:** JWG1004037

Lab Control Sample  
JWG1004037-3

Lab Control Spike

<b>Analyte Name</b>	<b>Lab Control Spike</b>			<b>%Rec Limits</b>
	<b>Result</b>	<b>Expected</b>	<b>%Rec</b>	
Aroclor 1016	2.67	4.00	67	39-116
Aroclor 1260	2.34	4.00	58	41-118

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Analyzed:** 11/16/10 -  
                           11/23/10

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:**  $\mu\text{g/L}$   
**Basis:** NA

**Lab Control Sample**  
**J1005486-LCS**

<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Spike</b>		<b>% Rec</b>	<b>Limits</b>
			<b>Amount</b>	<b>% Rec</b>		
Antimony, Total Recoverable	6020	54.5	50.0	109	80 - 120	
Arsenic, Total Recoverable	6020	54.2	50.0	108	80 - 120	
Barium, Total Recoverable	6020	54.0	50.0	108	80 - 120	
Beryllium, Total Recoverable	6020	53.2	50.0	106	80 - 120	
Cadmium, Total Recoverable	6020	52.4	50.0	105	80 - 120	
Chromium, Total Recoverable	6020	51.2	50.0	102	80 - 120	
Cobalt, Total Recoverable	6020	51.6	50.0	103	80 - 120	
Copper, Total Recoverable	6020	51.6	50.0	103	80 - 120	
Iron, Total Recoverable	6010B	2120	2000	106	80 - 120	
Lead, Total Recoverable	6020	52.1	50.0	104	80 - 120	
Mercury, Total	7470A	5.04	5.00	101	80 - 120	
Nickel, Total Recoverable	6020	51.3	50.0	103	80 - 120	
Selenium, Total Recoverable	6020	53.6	50.0	107	80 - 120	
Silver, Total Recoverable	6020	52.1	50.0	104	80 - 120	
Thallium, Total Recoverable	6020	51.3	50.0	103	80 - 120	
Tin, Total Recoverable	6020	50.2	50.0	100	80 - 120	
Vanadium, Total Recoverable	6020	52.6	50.0	105	80 - 120	
Zinc, Total Recoverable	6020	107	100	107	80 - 120	

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Analyzed:** 11/16/10 -  
11/23/10

**Lab Control Sample Summary**  
**Inorganic Parameters**

**Units:** mg/L  
**Basis:** NA

**Lab Control Sample**  
J1005486-LCS

<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Spike</b>	<b>% Rec</b>	<b>Limits</b>
			<b>Amount</b>		
Sodium, Total Recoverable	6010B	10.1	10.0	101	80 - 120

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Analyzed:** 11/12/10 -  
                           11/15/10

**Lab Control Sample Summary**  
**General Chemistry Parameters**

**Units:** mg/L  
**Basis:** NA

<b>Lab Control Sample</b>	<b>Duplicate Lab Control Sample</b>
J1005486-LCS1	J1005486-DLCS1

<b>Analyte Name</b>	<b>Method</b>	<b>Spike</b>			<b>Spike</b>			<b>% Rec Limits</b>	<b>RPD</b>	<b>RPD Limit</b>
		<b>Result</b>	<b>Amount</b>	<b>% Rec</b>	<b>Result</b>	<b>Amount</b>	<b>% Rec</b>			
Chloride	300.0	49.9	50.0	100	50.0	50.0	100	90 - 110	<1	20
Nitrate as Nitrogen	300.0	4.67	5.00	93	4.67	5.00	93	90 - 110	<1	20
Solids, Total Dissolved	SM 2540 C	278	300	93	292	300	97	85 - 115	5	20
Sulfide, Total	SM 4500-S2- F	18.3	20.0	92	18.6	20.0	93	85 - 115	2	20

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Analyzed:** 11/12/10 -  
11/18/10

**Lab Control Sample Summary**  
**General Chemistry Parameters**

**Units:** mg/L  
**Basis:** NA

**Lab Control Sample**  
J1005486-LCS2

<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Spike</b>		<b>% Rec</b>	<b>Limits</b>
			<b>Amount</b>	<b>% Rec</b>		
Ammonia as Nitrogen	350.1	1.00	1.00	100	90 - 110	
Biochemical Oxygen Demand (BOD)	SM 5210 B	196	198	99	84.5 - 115.	
Chemical Oxygen Demand, Total	SM21 5220 D	483	500	97	90 - 110	
Solids, Total Dissolved	SM 2540 C	26.0	30	87	70 - 130	

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 Planning Specialists  
**Project:** JED SWDF  
**Sample Matrix:** Water

**Service Request:** J1005486  
**Date Analyzed:** 11/12/10 -  
11/18/10

**Lab Control Sample Summary  
General Chemistry Parameters**

**Units:** µg/L  
**Basis:** NA

**Lab Control Sample  
J1005486-LCS2**

<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Spike</b>	<b>% Rec</b>	
			<b>Amount</b>	<b>% Rec</b>	<b>Limits</b>
Cyanide, Total	335.4	103	100	103	90 - 110

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.

**Cooler Receipt Form**

Client: EPS  
Project: JED JWF D

Service Request #: 51005486

Cooler received on 11-12-10

and opened on 11-12-10 by CJB

COURIER: CAS UPS FEDEX Client Other \_\_\_\_\_

Airbill # \_\_\_\_\_

1	Were custody seals on outside of cooler?	<input checked="" type="checkbox"/> Yes	No
	If yes, how many and where?	#: <u>1</u> on <u>4d</u>	other
2	Were seals intact and signature and date correct?	<input checked="" type="checkbox"/> Yes	No N/A
3	Were custody papers properly filled out?	<input checked="" type="checkbox"/> Yes	No N/A
4	Temperature of cooler(s) upon receipt (Should be > 0°C and < 6°C)	<u>3.4°</u>	<u>3.9°</u>
5	Thermometer ID	<u>11-12-10 CJB</u>	<u>3.4°</u>
6	Temperature Blank Present?	<u>T12</u>	<u>T12</u>
7	Were Ice or Ice Packs present	<input checked="" type="checkbox"/> Yes	No
8	Did all bottles arrive in good condition (unbroken, etc....)?	<input checked="" type="checkbox"/> Yes	No N/A
9	Type of packing material present	<input checked="" type="checkbox"/> Netting	Vial Holder Bubble Wrap
10	Were all bottle labels complete (sample ID, preservation, etc....)?	Paper	Styrofoam Other N/A
11	Did all bottle labels and tags agree with custody papers?	Yes	No N/A
12	Were the correct bottles used for the tests indicated?	Yes	No N/A
13	Were all of the preserved bottles received with the appropriate preservative? HNO3 pH<2 H2SO4 pH<2 ZnAc2/NaOH pH>9 NaOH pH>12 Preservative additions noted below	Yes	No N/A
14	Were all samples received within analysis holding times?	Yes	No N/A
15	Were VOA vials checked for absence of air bubbles? If present, note below	Yes	No N/A
16	Where did the bottles originate?	CAS	Client

Sample ID	Reagent	Lot #	ml added	Initials Date/Time
JED-UL/L-6	H <sub>2</sub> SO <sub>4</sub>	GEN-585-11E	1ml	CJB 11-12-10 1046
All samples	HNO <sub>3</sub>	MET-A-75G	3ml	
L-6	ZnAc <sub>2</sub> /NaOH	Smc 9A / Smc 1-8C	3x0.05/6pellet	
UL	I	J	2x0.08/4pellet	
TL	N <sub>2</sub> O <sub>4</sub>	Smc 1-8C	4pellet	
L3/L-6	T	T	6pellet	
L-3				
UL				

Additional comments and/or explanation of all discrepancies noted above:

L-6 and UL NaOH samples did not preserve.  
8260 samples (L-3, L-6, TL) not preserved.

SR # : 10054/86

Date: 11-11-86

Initials: CAB

Note that pH is check and meets the required pH criterion listed in the column heading unless otherwise noted on the cooler receipt form.

Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Container	G	G	G	P	P	P	P	P	P	P	P	P	G	P	P	P	P	P	G	P	G	G	G	G	G	P	P	Misc.			
Preserve	NaA	HCl	Na2SO3	N/A	HCl	H2SO4	HNO3	N/A	ZnAc2	N/A	NaOH	N/A	HNO3	N/A	HCl	H2SO4	HNO3	N/A	N/A	HCl	H2SO4	N/A	N/A	N/A							
Req. pH	N/A	<2	N/A	N/A	<2	<2	N/A	<2	>9	>12	N/A	<2	N/A	<2	N/A	<2	N/A	<2	N/A	<2	N/A	<2	N/A	<2	N/A	<2	N/A	<2	N/A	N/A	
Sample #	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-1	6	2	12	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
-2	6	2	12	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
-3	6	2	12	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
-4	6	2	12	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
-5	6	2	12	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
-6	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
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NOTE: VOA pH checks are performed by the analytical area, not sample control





# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

**Columbia  
Analytical Services™**

9143 Philips Highway, Ste 200 • Jacksonville, FL 32256 (904) 739-2277 • 800-695-7222 x06 • FAX (904) 739-2011

www.casiab.com

SR # **J1005486**  
CAS Contact \_\_\_\_\_

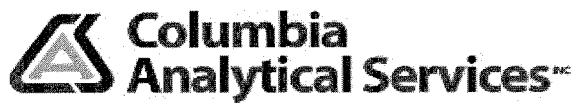
Project Name <b>TED SWDF</b>		Project Number	ANALYSIS REQUESTED (Include Method Number and PRESERVATIVE)										
Project Manager <b>Kirk Wills</b>	Email Address <b>twillke.enoplunig.wn</b>		0	0	3	2	1	5	4	0	0	0	0
Company/Address <b>EPS</b>		NUMBER OF CONTAINERS											
1936 Bruce B Doug Blvd	#328												
Wesley Chapel, FL	33543												
Phone# <b>913-788-1026</b>	FAX#												
Sampler's Signature <b>Joe Teng</b>	Sampler's Printed Name <b>Joe Jerry</b>												
CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	MATRIX TIME	MATRIX									
L-6		11-11-10	0800	Cerhouse	X	X	X	X	X	X	X	X	X
Trips Blank		10-25-10	1200	D <sub>1</sub> H <sub>2</sub> O	X								
SPECIAL INSTRUCTIONS/COMMENTS <b>Cooler ID: 10315 - TED-L6</b>													
SAMPLE RECEIPT: CONDITION/COOLER TEMP:		CUSTODY SEALS: Y N											
RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY											
<b>64</b>	<b>Joe Teng</b>	<b>John B.</b>											
Printed Name <b>Joe Teng</b>	Signature <b>John B.</b>	Signature <b>John B.</b>											
Firm <b>EPS</b>	Firm <b>EPS</b>	Firm <b>EPS</b>											
Date/Time <b>11-11-10/1200</b>	Date/Time <b>11-11-10/1200</b>	Date/Time <b>11-11-10/1200</b>											
RECEIVED BY													
REMARKS/ ALTERNATE DESCRIPTION													
INVOICE INFORMATION													
REPORT REQUIREMENTS													
I. Results Only													
X II. Results + QC Summaries (LCS, DUP, MSMSD as required)													
III. Results + QC and Calibration Summaries													
IV. Data Validation Report with Raw Data													
V. Specialized Forms / Custom Report													
Edata _____ Yes _____ No _____													

See QAPP

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
<b>64</b>	<b>Joe Teng</b>	<b>John B.</b>	<b>John B.</b>
Printed Name <b>Joe Teng</b>	Signature <b>John B.</b>	Signature <b>John B.</b>	Signature <b>John B.</b>
Firm <b>EPS</b>	Firm <b>EPS</b>	Firm <b>EPS</b>	Firm <b>EPS</b>
Date/Time <b>11-11-10/1200</b>	Date/Time <b>11-11-10/1200</b>	Date/Time <b>11-11-10/1200</b>	Date/Time <b>11-11-10/1200</b>

Distribution: White - Return to Originator; Yellow - Retained by Client

JSCOC-06/20/08



Columbia Analytical Services  
9143 Philips Highway, Suite 200  
Jacksonville, FL 32256  
Tel 904-739-2277  
Fax 904-739-2011

## **Appendix A**

### **Subcontracted Analytical Results**

**Environmental Conservation Laboratories, Inc.**

4810 Executive Park Court, Suite 111

Jacksonville FL, 32216-6069

Phone: 904.296.3007 FAX: 904.296.6210



[www.encolabs.com](http://www.encolabs.com)

Monday, November 22, 2010

Columbia Analytical Svcs. (CO009)

Attn: Craig Myers

9143 Philips Highway, Suite 200

Jacksonville, FL 32256

**RE: Laboratory Results for**

**Project Number: J1005486, Project Name/Desc: J1005486**

**ENCO Workorder: B005404**

Dear Craig Myers,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Friday, November 12, 2010.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Jacksonville. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Lindsay J Crawford".

Lindsay J Crawford For Chris Tompkins

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 16.

**SAMPLE DETECTION SUMMARY**

**No positive results detected.**

### ANALYTICAL RESULTS

**Description:** L-3

**Lab Sample ID:** B005404-01

**Received:** 11/12/10 14:30

**Matrix:** Water

**Sampled:** 11/11/10 06:45

**Work Order:** B005404

**Project:** J1005486

**Sampled By:** Client

#### Semivolatile Organic Compounds by GC

^ - ENCO Jacksonville certified analyte [NELAC E82277]

<b>Analyte [CAS Number]</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.012	U	ug/L	1	0.012	0.020	OK16005	EPA 8011	11/19/10 09:22	JSW	
1,2-Dibromoethane [106-93-4] ^	0.012	U	ug/L	1	0.012	0.020	OK16005	EPA 8011	11/19/10 09:22	JSW	
<b>Surrogates</b>	<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>		<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,1,1,2-Tetrachloroethane	0.16	1	0.250	64 %	33-122		OK16005	EPA 8011	11/19/10 09:22	JSW	

**Description:** L-3

**Lab Sample ID:** B005404-01

**Received:** 11/12/10 14:30

**Matrix:** Water

**Sampled:** 11/11/10 06:45

**Work Order:** B005404

**Project:** J1005486

**Sampled By:** Client

**Chlorinated Herbicides by GC**
<sup>^</sup> - ENCO Orlando certified analyte [NELAC E83182]

<b>Analyte [CAS Number]</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
2,4,5-T [93-76-5] ^	0.053	U	ug/L	1	0.053	0.50	OK15001	EPA 8151A	11/16/10 18:45	RGG	
2,4,5-TP (Silvex) [93-72-1] ^	0.056	U	ug/L	1	0.056	0.50	OK15001	EPA 8151A	11/16/10 18:45	RGG	
2,4-D [94-75-7] ^	0.091	U	ug/L	1	0.091	0.50	OK15001	EPA 8151A	11/16/10 18:45	RGG	
Dinoseb [88-85-7] ^	0.28	U	ug/L	1	0.28	0.50	OK15001	EPA 8151A	11/16/10 18:45	RGG	
Pentachlorophenol [87-86-5] ^	0.043	U	ug/L	1	0.043	0.50	OK15001	EPA 8151A	11/16/10 18:45	RGG	
<b>Surrogates</b>	<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>		<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
2,4-DCAA	2.6	1	2.00	128 %	68-139		OK15001	EPA 8151A	11/16/10 18:45	RGG	

**Description:** L-6  
**Matrix:** Water  
**Project:** J1005486

**Lab Sample ID:** B005404-02  
**Sampled:** 11/11/10 08:00  
**Sampled By:** Client

**Received:** 11/12/10 14:30  
**Work Order:** B005404

### Semivolatile Organic Compounds by GC

<sup>^</sup> - ENCO Jacksonville certified analyte [NELAC E82277]

<b>Analyte [CAS Number]</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.012	U	ug/L	1	0.012	0.020	OK16005	EPA 8011	11/19/10 09:34	JSW	
1,2-Dibromoethane [106-93-4] ^	0.012	U	ug/L	1	0.012	0.020	OK16005	EPA 8011	11/19/10 09:34	JSW	
<b>Surrogates</b>	<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>	
1,1,1,2-Tetrachloroethane	0.14	1	0.250	55 %	33-122	OK16005	EPA 8011	11/19/10 09:34	JSW		

**Description:** L-6  
**Matrix:** Water  
**Project:** J1005486

**Lab Sample ID:** B005404-02  
**Sampled:** 11/11/10 08:00  
**Sampled By:** Client

**Received:** 11/12/10 14:30  
**Work Order:** B005404

### Chlorinated Herbicides by GC

<sup>^</sup> - ENCO Orlando certified analyte [NELAC E83182]

<b>Analyte [CAS Number]</b>	<b>Results</b>	<b>Flag</b>	<b>Units</b>	<b>DF</b>	<b>MDL</b>	<b>PQL</b>	<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
2,4,5-T [93-76-5] ^	0.053	U	ug/L	1	0.053	0.50	OK15001	EPA 8151A	11/16/10 19:09	RGG	
2,4,5-TP (Silvex) [93-72-1] ^	0.056	U	ug/L	1	0.056	0.50	OK15001	EPA 8151A	11/16/10 19:09	RGG	
2,4-D [94-75-7] ^	0.091	U	ug/L	1	0.091	0.50	OK15001	EPA 8151A	11/16/10 19:09	RGG	
Dinoseb [88-85-7] ^	0.28	U	ug/L	1	0.28	0.50	OK15001	EPA 8151A	11/16/10 19:09	RGG	
Pentachlorophenol [87-86-5] ^	0.043	U	ug/L	1	0.043	0.50	OK15001	EPA 8151A	11/16/10 19:09	RGG	
<b>Surrogates</b>	<b>Results</b>	<b>DF</b>	<b>Spike Lvl</b>	<b>% Rec</b>	<b>% Rec Limits</b>		<b>Batch</b>	<b>Method</b>	<b>Analyzed</b>	<b>By</b>	<b>Notes</b>
2,4-DCAA	2.4	1	2.00	119 %	68-139		OK15001	EPA 8151A	11/16/10 19:09	RGG	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

### QUALITY CONTROL

#### Semivolatile Organic Compounds by GC - Quality Control

Batch OK16005 - EPA 8011

##### Blank (OK16005-BLK1)

Prepared: 11/16/2010 12:44 Analyzed: 11/18/2010 10:39

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dibromo-3-chloropropane	0.012	U	0.020	ug/L							
1,2-Dibromoethane	0.012	U	0.020	ug/L							
Surrogate: 1,1,1,2-Tetrachloroethane	0.30			ug/L	0.250		121	33-122			

##### LCS (OK16005-BS1)

Prepared: 11/16/2010 12:44 Analyzed: 11/18/2010 10:51

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dibromo-3-chloropropane	0.25		0.020	ug/L	0.250		100	60-140			
1,2-Dibromoethane	0.24		0.020	ug/L	0.250		94	60-140			
Surrogate: 1,1,1,2-Tetrachloroethane	0.29			ug/L	0.250		115	33-122			

##### Matrix Spike (OK16005-MS1)

Prepared: 11/16/2010 12:44 Analyzed: 11/18/2010 11:29

Source: B005394-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dibromo-3-chloropropane	0.20		0.020	ug/L	0.250	0.012 U	82	60-140			
1,2-Dibromoethane	0.25		0.020	ug/L	0.250	0.012 U	99	60-140			
Surrogate: 1,1,1,2-Tetrachloroethane	0.12			ug/L	0.250		50	33-122			

##### Matrix Spike Dup (OK16005-MSD1)

Prepared: 11/16/2010 12:44 Analyzed: 11/18/2010 11:41

Source: B005394-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dibromo-3-chloropropane	0.22		0.020	ug/L	0.250	0.012 U	87	60-140	6	20	
1,2-Dibromoethane	0.25		0.020	ug/L	0.250	0.012 U	99	60-140	0.6	20	
Surrogate: 1,1,1,2-Tetrachloroethane	0.15			ug/L	0.250		62	33-122			

Batch OK17013 - EPA 8011

##### Blank (OK17013-BLK1)

Prepared: 11/17/2010 10:25 Analyzed: 11/18/2010 11:03

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dibromo-3-chloropropane	0.012	U	0.020	ug/L							
1,2-Dibromoethane	0.012	U	0.020	ug/L							
Surrogate: 1,1,1,2-Tetrachloroethane [2C]	0.21			ug/L	0.250		84	33-122			

##### LCS (OK17013-BS1)

Prepared: 11/17/2010 10:25 Analyzed: 11/18/2010 11:16

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dibromo-3-chloropropane	0.25		0.020	ug/L	0.250		101	60-140			
1,2-Dibromoethane	0.24		0.020	ug/L	0.250		97	60-140			
Surrogate: 1,1,1,2-Tetrachloroethane [2C]	0.22			ug/L	0.250		86	33-122			

##### Matrix Spike (OK17013-MS1)

Prepared: 11/17/2010 10:25 Analyzed: 11/18/2010 11:53

### QUALITY CONTROL

#### Semivolatile Organic Compounds by GC - Quality Control

Batch OK17013 - EPA 8011

##### Matrix Spike (OK17013-MS1) Continued

Prepared: 11/17/2010 10:25 Analyzed: 11/18/2010 11:53

Source: B005424-06

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dibromo-3-chloropropane	0.22		0.020	ug/L	0.250	0.012 U	89	60-140			
1,2-Dibromoethane	0.25		0.020	ug/L	0.250	0.012 U	102	60-140			
Surrogate: 1,1,1,2-Tetrachloroethane [2C]	0.21			ug/L	0.250		86	33-122			

##### Matrix Spike Dup (OK17013-MSD1)

Prepared: 11/17/2010 10:25 Analyzed: 11/18/2010 12:05

Source: B005424-06

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dibromo-3-chloropropane	0.23		0.020	ug/L	0.250	0.012 U	93	60-140	5	20	
1,2-Dibromoethane	0.25		0.020	ug/L	0.250	0.012 U	100	60-140	2	20	
Surrogate: 1,1,1,2-Tetrachloroethane	0.30			ug/L	0.250		120	33-122			

### QUALITY CONTROL

#### Chlorinated Herbicides by GC - Quality Control

Batch OK15001 - EPA 3510C

##### Blank (OK15001-BLK1)

Prepared: 11/15/2010 09:00 Analyzed: 11/16/2010 15:30

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-T	0.053	U	0.50	ug/L							
2,4,5-TP (Silvex)	0.056	U	0.50	ug/L							
2,4-D	0.091	U	0.50	ug/L							
Dinoseb	0.28	U	0.50	ug/L							
Pentachlorophenol	0.043	U	0.50	ug/L							
Surrogate: 2,4-DCAA	1.9			ug/L	2.00		93	68-139			

##### LCS (OK15001-BS1)

Prepared: 11/15/2010 09:00 Analyzed: 11/16/2010 15:54

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	2.0		0.50	ug/L	2.00		102	68-154			
2,4-D	2.4		0.50	ug/L	2.00		120	62-144			
Surrogate: 2,4-DCAA	1.9			ug/L	2.00		97	68-139			

##### Matrix Spike (OK15001-MS1)

Prepared: 11/15/2010 09:00 Analyzed: 11/16/2010 16:18

Source: A006216-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	0.56		0.50	ug/L	2.00	0.056 U	28	68-154			QM-07
2,4-D	1.5		0.50	ug/L	2.00	0.091 U	75	62-144			
Surrogate: 2,4-DCAA	1.1			ug/L	2.00		57	68-139			QS-03

##### Matrix Spike Dup (OK15001-MSD1)

Prepared: 11/15/2010 09:00 Analyzed: 11/16/2010 16:43

Source: A006216-02

QUALITY CONTROL
**Chlorinated Herbicides by GC - Quality Control**
*Batch OK15001 - EPA 3510C*
**Matrix Spike Dup (OK15001-MSD1) Continued**
*Prepared: 11/15/2010 09:00 Analyzed: 11/16/2010 16:43*
**Source: A006216-02**

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	1.4		0.50	ug/L	2.00	0.056 U	68	68-154	84	15	QM-11
2,4-D	2.2		0.50	ug/L	2.00	0.091 U	111	62-144	39	33	QM-11
<i>Surrogate: 2,4-DCAA</i>	<i>1.6</i>			<i>ug/L</i>	<i>2.00</i>		<i>78</i>	<i>68-139</i>			

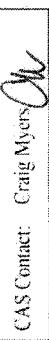
**FLAGS/NOTES AND DEFINITIONS**

- PQL PQL: Practical Quantitation Limit.
- B Results are based upon membrane filter colony counts that are outside the method indicated ideal range.
- I The reported value is between the laboratory method detection limit (MDL) and the practical quantitation limit (PQL).
- J Estimated value. The associated sample note or project narrative indicate the causative reason.
- K Off-scale low; Actual value is known to be less than the value given.
- L Off-scale high; Actual value is known to be greater than value given.
- M Presence of analyte is verified but not quantified; the actual value is less than the MRL but greater than the MDL.
- N Presumptive evidence of presence of material.
- O Sampled, but analysis lost or not performed.
- Q Sample exceeded the accepted holding time.
- T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only and shall not be used in statistical analysis.
- U Indicates that the compound was analyzed for but not detected.
- V Indicates that the analyte was detected in both the sample and the associated method blank.
- Y The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
- Z Too many colonies were present (TNTC); the numeric value represents the filtration volume.
- ? Data are rejected and should not be used. Some or all of the quality control data for the analyte were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
- \*
- QM-07 Not reported due to interference.
- QM-11 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- QS-03 Precision between duplicate matrix spikes of the same sample was outside acceptance limits.
- Surrogate recovery outside acceptance limits

**Columbia Analytical Services, Inc. Chain of Custody**

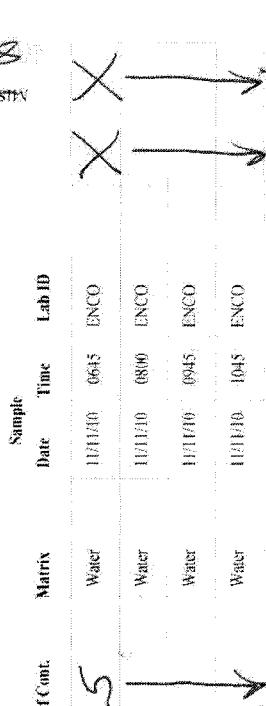
943 Phillips Highway • Jacksonville, FL 32256 • 904-739-2277 FAX 904-739-2011

Project Number: J1005486  
Project Manager: Craig Myers

CAS Contact: Craig Myers 

Lab Code	Sample ID	# of Cont.	Matrix	Date	Time	Lab ID
J1005486-001	1-3	5	Water	11/11/10	0645	ENCO
J1005486-003	1-6		Water	11/11/10	0800	ENCO
J1005486-005	10315-3ED-01		Water	11/11/10	0945	ENCO
J1005486-006	10315-3ED-TL		Water	11/11/10	1045	ENCO

1108  
  
B00S404



Client Cooler @ 20°C

Test Comments:  
HFRB - 8151A  
MSC\_01[1] - None

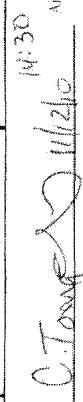
J1005486-001,356  
J1005486-003,356  
J1005486-005,356  
J1005486-006,356

Report Appendix (List)  
EIDB and DBCP by EPA Method 8011

Special Instructions/Comments		Furnace Requirements	Report Requirements	Invoice Information
<p>PLEASE SEND RESULTS TO MANDY SULLIVAN</p>		<input checked="" type="checkbox"/> RUSH (Surcharge Apply) <input checked="" type="checkbox"/> PLEASE CIRCLE WORK DAYS <input checked="" type="checkbox"/> STANDARD <input checked="" type="checkbox"/> Requested FAX Date: <u>11/20/10</u> <input checked="" type="checkbox"/> Requested Report Date: <u>11/20/10</u>	<input checked="" type="checkbox"/> I Results Only <input checked="" type="checkbox"/> II Results + QC Summaries <input checked="" type="checkbox"/> III Results + QC and Calibration Summaries <input checked="" type="checkbox"/> IV Data Validation Report with Raw Data <input checked="" type="checkbox"/> Proj. MDL# <u>Y</u> <input checked="" type="checkbox"/> EDD <u>Y</u>	<small>PO#</small> <small>J1005486</small> <small>Billed to</small>

  
Received By: C. Tompkins 11/24/10

Reinforced By: \_\_\_\_\_

  
Attn: Number: 14-350