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July 15, 2002

Ms. Kim Ogle, RCRA Project Manager
United States EPA, Region 10
1200 Sixth Avenue
Seattle, WA 98101

Subject: **July 15, 2002 Progress Report**
J. H. Baxter Arlington Facility
Docket No. RCRA-10-2001-0086

Dear Ms. Ogle:

This letter provides the July 15, 2002 progress report for work completed under the Administrative Order on Consent (AOC) for the J. H. Baxter (Baxter) facility during the period June 15 to July 15, 2002.

Significant Developments This Period

This section discusses significant developments for the referenced reporting period, including actions performed and any problems encountered relative to work required by the AOC. Significant developments that occurred on this project during this reporting period are outlined below:

- Initiation of the stormwater pilot study, including installation of the portable stormwater treatment system, occurred during the last week of June. The initial pilot study was conducted on stormwater collected from the Untreated Wood Storage Area.

- Baxter received a Approval with Modification, Partial Disapproval and Conditions of Approval on the May 15, 2002, Revision 2, Site Investigation Work Plan from the United States Environmental Protection Agency (EPA) Region 10 by letter dated July 8, 2002.

Anticipated Developments Next Period

This section discusses developments anticipated during the next reporting period.

- Baxter will conduct the sampling of the offsite drinking water wells during the week of July 15, 2002.

- Continuation of the stormwater pilot study, including treatment of stormwater collected from the treated wood storage area. Laboratory data from the pilot study will be validated and submitted as it becomes available.

- Drawings and specifications for the proposed Loading Area Apron Modifications & Stormwater Control System will be sent to EPA and Washington State Department of Ecology (Ecology) for review.

- A meeting has been scheduled for July 18, 2002 with EPA, Ecology, the City of Arlington, and Baxter to discuss outstanding issues related to the long-term Site Stormwater Management and the Site Investigation.

- Review of the laboratory Standard Operating Procedures for analytical methods to be performed during the Site Investigation is ongoing and will be completed in the next reporting period.

Anticipated Problems and Problem Resolution

This section discusses anticipated problems, and planned resolution of past or anticipated problems.

As discussed in previous progress reports, implementation of the Excess Stormwater Management Plan continues to be problematic. For example, the stormwater pilot study has been initiated and Baxter has submitted the Excess Stormwater Management Workplan Amendment. In addition, Baxter has retained ERI for stormwater treatment facility design and Shapiro for assistance in preparing a submitting a NPDES permit application. Baxter also has met with EPA, Ecology and the City of Arlington on possible solutions and has scheduled another meeting for July 18th.

- Stormwater management at the facility will be carefully coordinated with the site investigation and potential corrective actions. For example, characterization of the site in areas of the facility that may be paved for purposes of managing stormwater should be complete prior to paving. In addition, if corrective measures (e.g. removal actions) are necessary in areas at the facility to be paved, these actions should also be completed prior to paving. EPA and Ecology will be advised of any conflicts that may require consultation.

Other Information

Any other information relevant to the Order is discussed in this section, including results of any sampling or testing completed within the reporting period.

- The quarterly Discharge Monitoring Report for the State Waste Discharge Permit (SWDP) was submitted to Ecology on June 17, 2002.

- In accordance with the SWDP, Baxter will be performing quarterly sampling of groundwater monitoring Wells BXS-1, MW-2, HCMW-5, HCMW-6, and HCMW-7 in July 2002. Baxter will also be sampling the carbon units and all of the landfill monitoring wells in July 2002.

- Baxter will be presenting Ecology with a closure plan for closing all remaining storm drains in the Untreated Pole Storage Area.

- Between April 24, 2002 and May 14, 2002, Baxter received laboratory reports from the State Waste Discharge Permit (SWDP) groundwater monitoring wells, lysimeter, carbon units, and untreated drain sampling event completed in April 2002.

- A quality assurance review was conducted on data collected during the April 2002 SWDP lysimeter, carbon units, and drain sampling event. The quality assurance review is provided as Attachment 1. Laboratory reports are provided as Attachment 2.

Certification

I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to evaluate the information submitted. I certify that the information contained in or accompanying this submittal is true, accurate and complete. As to those identified portions(s) of this submittal for which I cannot personally verify the accuracy, I certify that this submittal and all attachments were prepared in accordance with procedures designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those directly responsible for gathering the information, or the immediate supervisor of such person(s), the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: RueAnn Thomas

Name: RueAnn Thomas
Title: Environmental Programs Director
Date: July 15, 2002

We trust this letter meets the intent of the Progress Report per Paragraph 71 of the AOC. If you have any questions, please contact me at (541) 689-3801.

Sincerely,

RueAnn Thomas

RueAnn Thomas
Environmental Programs Director

cc: Jeanne Tran, Ecology
Dean Yasuda, Ecology
Georgia Baxter, J. H. Baxter & Co.
Mary Larson, J. H. Baxter & Co.
Sara Beth Watson, Steptoe and Johnson
Les Brewer, Premier Environmental Services, LLC.

Attachment 1

Quality Assurance Review

Memorandum

Date:	July 12, 2002
To:	J. Stephen Barnett, Premier Environmental Services, Inc.
From:	Kathy J. Gunderson, Validation Chemist
Subject:	Quality Assurance Review
Project:	J. H. Baxter Wood Preserving Facility, Arlington, Washington
Sampling Dates:	March 5, April 8, 9, 10, and 11, 2002
Project Number:	201029-1013

1.0 Introduction

This memorandum presents the Level III validation of the water sample analyses listed in Table 1. With the exception of the polychlorinated dibenzodioxins (PCDD) and polychlorinated dibenzofurans (PCDF), the analyses were performed by Columbia Analytical Services, Inc., located in Kelso, Washington. The PCDD and PCDF analyses were performed by Triangle Laboratories, Inc., located in Durham, North Carolina. The criteria used to qualify data are from the *Contract Laboratory Program National Functional Guidelines for Inorganic and Organic Data Review* (USEPA 1994 and 1999), the *EPA Region 10 Functional Guidelines for the Validation of High Resolution Mass Spectrometry Analysis of Polychlorinated Dibenzodioxin and Polychlorinated Dibenzofuran Data* (EPA Region 10 2001), the analytical methods, or the professional judgment of the validation chemist. The following laboratory deliverables were reviewed during the validation process:

- Chain-of-custody (COC) documentation to assess holding times and verify report completeness
- Laboratory quality control (QC) sample results, including method blanks, surrogate spikes, laboratory control sample/laboratory control sample duplicates (LCS/LCSDs), matrix spike/matrix spike duplicates (MS/MSDs), and laboratory duplicates
- Analytical results to verify reporting limits
- Field QC samples for field blank contamination and field duplicate precision

In addition, the data quality indicators of precision, accuracy, representativeness, comparability, and completeness are evaluated. The qualified data are summarized in a table at the end of this memo. Data qualifier flags have been added to the sample results

in the original reports and the toxicity equivalent quotient (TEQ) of 2,3,7,8-TCDD table prepared by Premier Environmental Services.

Table 1—Sample Data Reviewed

Sample ID	Date Collected	Laboratory Sample ID	PCP	TPH-D	Metals	Inorganics	Dioxin/Furan
Drain 7	3-5-02	K2201400-001	X	X		X	
Drain 8	3-5-02	K2201400-002	X	X		X	
Drain 7	4-8-02	K2202230-001	X	X		X	
Drain 8	4-8-02	K2202230-002	X	X		X	
BXN-1	4-9-02	K2202244-001			X	X	
BXN-2	4-9-02	K2202244-002			X	X	
BXN-3	4-9-02	K2202244-003			X	X	
BXN-4	4-9-02	K2202244-004			X	X	
BXN-5	4-9-02	K2202244-005			X	X	
BXN-6	4-9-02	K2202244-006			X	X	
Tank 1	4-8-02	K2202249-001	X				
Tank 2	4-8-02	K2202249-002	X				
Tank 3	4-8-02	K2202249-003	X				
MW-1	4-10-02	K2202307-001	X		X	X	X
MW-2	4-10-02	K2202307-002	X		X	X	X
MW-3	4-10-02	K2202307-003	X		X	X	X
HCMW-6	4-10-02	K2202307-004	X		X	X	X
HCMW-7	4-10-02	K2202307-005	X		X	X	X
MWA	4-10-02	K2202307-006	X		X	X	X
MWB	4-10-02	K2202307-007	X		X	X	X
L-1	4-10-02	K2202308-001	X	X			X
L-3	4-10-02	K2202308-002	X	X			X
L-3A	4-10-02	K2202308-003	X	X			X
BXS-1	4-11-02	K2202353-001	X		X	X	X
BXS-2	4-11-02	K2202353-002	X		X	X	X
BXS-3	4-11-02	K2202353-003	X		X	X	X
BXS-4	4-11-02	K2202353-004	X		X	X	X
BXS-5	4-11-02	K2202353-005	X		X	X	X
BXS-6	4-11-02	K2202353-006	X		X	X	X

PCP: Pentachlorophenol by Method 8151 (USEPA 1996)
TPH-D: Semivolatile Petroleum Products by Method NWTPH-Dx (WDOE 1997)
Metals: Dissolved arsenic by Method 7060A (USEPA 1996), dissolved barium, cadmium, calcium, copper, iron, magnesium, manganese, nickel potassium, sodium, and zinc by Method 6010B (USEPA 1996)
Inorganics: Alkalinity by Method 310.1 (USEPA 1999a), chloride and sulfate by Method 300.0, chemical oxygen demand by Method 410.2 (USEPA 1999a), conductivity by Method 120.1 (USEPA 1999a), ammonia by Method 350.3 (USEPA 1999a), nitrate and nitrite by Method 353.2 (USEPA 1999a), pH by Method 150.1 (USEPA 1999a), tannin and lignin by Method 5550B (APHA 1998), total Coliform by Method 9221B (APHA 1998), total dissolved solids by Method 160.1 (USEPA 1999a), total suspended solids by Method 160.2 (USEPA 1999a), and total organic carbon by Method 415.1 (USEPA 1999a)
Dioxin/Furan: PCDDs and PCDFs by Method 1613B (USEPA 1999a)

2.0 Data Validation

2.1 Custody, Preservation, and Completeness – Acceptable with Discussion

Sample custody was maintained as required. Except as noted below, all samples were received intact and were properly preserved. The reports are complete and contain results for all samples and tests requested on the COCs.

- The temperature of the samples in sample delivery groups (SDGs) K2202307, K2202308, K2202230, and K2202249 were received at Columbia Analytical Services above the recommended temperature range of 2 to 6 °C. The temperature of the samples was 10 to 12°C. Data qualifiers are not recommended.

- The temperature of the samples in SDG K2202353 was received at Triangle Laboratories above the recommended temperature range. The temperature of the samples was 7 °C. Data qualifiers are not recommended.

- The QC results were missing from the SDG K2201400 data package. The missing forms were resubmitted by Columbia Analytical Services.

- The PCDD/PCDF aliquot of field blank sample L-3A was lost during transit to Triangle Laboratories. It was not replaced.

2.2 Pentachlorophenol Analyses by Method 8151

2.2.1 Holding Times – Acceptable

The samples were extracted and analyzed within the required holding time.

2.2.2 Blank Analyses – Acceptable

2.2.2.1 Method Blanks

Method blanks were analyzed at the required frequency and pentachlorophenol was not detected above the reporting limit.

2.2.2.2 Field Blanks

Samples MWB, L-3A and BXS-5 were identified as field blanks. Pentachlorophenol was not detected above the reporting limit in any field blank.

2.2.3 Surrogate Analyses – Acceptable

Surrogate compounds were added to all samples, blanks, and QC samples as required. All recovery values are within the laboratory's control limits.

2.2.4 Matrix Spike/Matrix Spike Duplicate Analyses – Acceptable with Discussion

Except as noted below, MS/MSDs were analyzed as required. All percent recovery and relative percent difference (RPD) values are within the laboratory's control limits.

- The laboratory did not report MSD results with the samples in SDG K2201400. Data qualifiers are not recommended because the matrix spike and laboratory control sample are acceptable.

2.2.5 Laboratory Control Sample Analyses – Acceptable

Laboratory control samples were analyzed as required and all percent recovery values are within the laboratory's control limits.

2.2.6 Field Duplicates – Acceptable

Sample MWA was identified as a field duplicate of sample MW2 and sample BXS-6 was identified as a field duplicate of sample BXS-1. RPD values could not be calculated for field duplicate set MW2/MWA because positive results were not reported for either sample. The precision of field duplicate set BXS-1/BXS-6 is acceptable as shown by the low RPD value listed in Table 2.

2.2.7 Overall Assessment of Data Useability

The precision of the data in SDG K2201400 is unknown. Since the laboratory did not analyze matrix spike duplicates or sample duplicates and field duplicates were not collected with these samples, the precision of the data set cannot be determined.

The useability of the data is based on the EPA guidance documents noted previously. Upon consideration of the information presented here, the data are acceptable.

2.3 Semivolatile Petroleum Hydrocarbon Analyses by Method NWTPH-Dx

2.3.1 Holding Times – Acceptable

The samples were extracted and analyzed within the required holding times.

2.3.2 Blank Analyses – Acceptable

2.3.2.1 Method Blanks

Method blanks were analyzed at the required frequency and target analytes were not detected above the reporting limits.

2.3.2.2 Field Blanks

Field blank sample L-3A was analyzed for semivolatile petroleum hydrocarbons. Semivolatile petroleum hydrocarbons were not detected above the reporting limits.

2.3.3 Surrogate Analyses – Acceptable

Surrogate compounds were added to all samples, blanks, and QC samples as required. All recovery values are within the method criteria of 50 to 150%.

2.3.4 Sample Duplicate Analyses – Acceptable with Discussion

Except as noted below, sample duplicates were analyzed as required. (Matrix spikes are not required by the method.) All RPD values are within the laboratory's control limits.

- The laboratory did not report duplicate results with SDG K2202308 due to insufficient sample volume. Data qualifiers are not required because the acceptable LCS/LCSD demonstrates the analytical system is in control and the acceptable surrogate recoveries demonstrate that matrix effects are minimal.

2.3.5 Laboratory Control Sample Analyses – Acceptable

Laboratory control samples and laboratory control sample duplicates were analyzed as required. All percent recovery and RPD values are within the laboratory's control limits.

2.3.6 Field Duplicates

The field duplicates were not analyzed for semivolatile petroleum hydrocarbons.

2.3.7 Overall Assessment of Data Useability

The useability of the data is based on the EPA guidance documents noted previously. Upon consideration of the information presented here, the data are acceptable.

2.4 Dissolved Metals Analyses

2.4.1 Holding Times – Acceptable

The samples were analyzed within the required holding time.

2.4.2 Blank Analyses – Acceptable with Qualifications

2.4.2.1 Method Blanks

Method blanks were analyzed at the required frequency and, except as noted below, target analytes were not detected above the reporting limits.

- Dissolved calcium and zinc were detected in the method blank associated with SDG K2202353 at 0.06 mg/L and 0.01 mg/L, respectively. Data qualifiers are not required because either the associated sample results are greater than five times the method blank concentration or calcium and zinc were not detected in the associated samples.

2.4.2.2 Field Blanks

Samples BXN-6, MWB, and BXS-5 were identified as field blanks. Except as noted below, target analytes were not detected above the reporting limits in the field blanks.

- Dissolved zinc was detected in field blank sample BXN-6 at 14.2 µg/L. Functional Guidelines prescribes three qualifications schemes for blank contamination, (1) associated sample concentrations greater than the action level (5 times the blank concentration) are not qualified, (2) associated sample concentrations less than the action level and greater than the reporting limit are qualified as undetected (U) at the reported value, and (3) associated sample concentrations less than the action level and less than the reporting limit are qualified as undetected (U) at the reporting limit. Only one sample required qualification as shown below.

Sample ID	Analyte	Qualification	Quality Control Exceedance
BXN-5	Dissolved Zinc	U at reported value	Result is greater than the reporting limit and less than 5 times the field blank level

2.4.3 Duplicate Sample Analyses – Acceptable

Sample duplicates were analyzed at the required frequency. All RPD values are within Functional Guidelines criteria.

2.4.4 Matrix Spike Analyses – Acceptable

Matrix spike analyses were reported at the required frequency and all percent recovery values are within Functional Guidelines criteria.

2.4.5 Laboratory Control Sample Analyses – Acceptable

Laboratory control samples were reported at the required frequency. All percent recovery values are within Functional Guidelines criteria.

2.4.6 Field Duplicates – Acceptable

Sample MWA was identified as a field duplicate of sample MW2 and sample BXS-6 was identified as a field duplicate of sample BXS-1 and sample BXN-5 was identified as a field duplicate of sample BXN-1. The precision of field duplicates is acceptable as shown by the low RPD values listed in Table 2.

2.4.7 Overall Assessment of Data Useability

The useability of the data is based on the EPA guidance documents noted previously. Upon consideration of the information presented here, the data are acceptable, except where flagged with data qualifiers that modify the usefulness of the individual values.

2.5 Inorganic Analyses

2.5.1 Holding Times – Acceptable with Qualifications

The samples were analyzed within the required holding times, with the exceptions noted below.

The pH analyses of the samples in SDGs K2202230, K2202244, and K2202353 were performed past the 24-hour hold time. The total Coliform analyses of the samples in SDGs K2202244 and K2202353 were preformed past the 30-hour holding time. Positive results were qualified as estimated (J) and undetected results were qualified as estimated detection limit (UJ) as shown below.

Sample ID	Analyte	Qualification	Quality Control Exceedance
Drain 7 (4-8-02)	pH	J	Analysis holding time exceeded
Drain 8 (4-8-02)	pH	J	Analysis holding time exceeded
BXN-1	pH	J	Analysis holding time exceeded
BXN-2	pH	J	Analysis holding time exceeded
BXN-3	pH	J	Analysis holding time exceeded
BXN-4	pH	J	Analysis holding time exceeded
BXN-5	pH	J	Analysis holding time exceeded
BXN-6	pH	J	Analysis holding time exceeded
BXN-1	Total Coliform	J	Analysis holding time exceeded
BXN-2	Total Coliform	J	Analysis holding time exceeded
BXN-3	Total Coliform	UJ	Analysis holding time exceeded
BXN-4	Total Coliform	J	Analysis holding time exceeded
BXN-5	Total Coliform	J	Analysis holding time exceeded
BXN-6	Total Coliform	UJ	Analysis holding time exceeded
BXS-1	pH	J	Analysis holding time exceeded
BXS-2	pH	J	Analysis holding time exceeded
BXS-3	pH	J	Analysis holding time exceeded
BXS-4	pH	J	Analysis holding time exceeded
BXS-5	pH	J	Analysis holding time exceeded
BXS-6	pH	J	Analysis holding time exceeded
BXS-1	Total Coliform	UJ	Analysis holding time exceeded
BXS-2	Total Coliform	UJ	Analysis holding time exceeded
BXS-3	Total Coliform	UJ	Analysis holding time exceeded
BXS-4	Total Coliform	UJ	Analysis holding time exceeded
BXS-5	Total Coliform	UJ	Analysis holding time exceeded
BXS-6	Total Coliform	UJ	Analysis holding time exceeded

2.5.2 Blank Analyses – Acceptable with Discussion

2.5.2.1 Method Blanks

Method blanks were analyzed at the required frequency and target analytes were not detected above the reporting limits.

2.5.2.2 Field Blanks

Samples BXN-6, MWB, and BXS-5 were identified as field blanks. Except as noted below, target analytes were not detected above the reporting limits in the field blanks.

- Conductivity and pH were detected in the field blank sample BXS-5 and pH was detected in field blank sample BXN-6 at levels above the reporting limits. Data qualifiers are not required for conductivity because the associated sample concentrations are greater than five times the field blank concentration. Data qualifiers are not required for pH because it is a physical property.

2.5.3 Duplicate Sample Analyses – Acceptable

Sample duplicates were analyzed at the required frequency. All RPD values are within laboratory's control limits.

2.5.4 Matrix Spike Analyses – Acceptable with Qualifications

Matrix spike analyses were preformed at the required frequency. Except as noted below, all percent recovery values are within the laboratory's control limits.

The ammonia recovery value for the spiked analysis of sample BXS-1 is below the laboratory's control limits at 46%. Since ammonia was not detected in sample BXS-1, the detection limit was qualified as estimated (UJ).

Sample ID	Analyte	Qualification	Quality Control Exceedance
BXS-1	Ammonia	UJ	MS recovery below laboratory control limits

2.5.5 Laboratory Control Sample Analyses – Acceptable

Laboratory control samples were reported at the required frequency. All percent recovery values are within the laboratory's control limits.

2.5.6 Field Duplicates – Acceptable with Qualifications

Sample MWA was identified as a field duplicate of sample MW2 and sample BXS-6 was identified as a field duplicate of sample BXS-1 and sample BXN-5 was identified as a field duplicate of sample BXN-1. The precision criterion for field duplicates is RPD values less than or equal to 35. With the exceptions noted below, the precision of field duplicates is acceptable.

- The RPD value of tannin and lignin in field duplicate pair BXS-1/BXS-6 is above the criterion at 40%. Data qualifiers are not required because the results are less than five times the reporting limit.

- The RPD values of ammonia and total Coliform in field duplicate pair BXN-1/BXN-5 are above the criterion at 95% and 99%, respectively. Data qualifiers are not required for ammonia because the results are less than five times the reporting limit. The total Coliform results have been qualified as estimated (J).

Sample ID	Analyte	Qualification	Quality Control Exceedance
BXN-1	Total Coliform	J	Field duplicate RPD > 35
BXN-5	Total Coliform	J	Field duplicate RPD > 35

2.5.7 Overall Assessment of Data Useability

The useability of the data is based on the EPA guidance documents noted previously. Upon consideration of the information presented here, the data are acceptable, except where flagged with data qualifiers that modify the usefulness of the individual values.

2.6 Polychlorinated Dibenzodioxin and Polychlorinated Dibenzofuran Analyses

2.6.1 Holding Times – Acceptable

All samples were extracted and analyzed within the required holding times.

2.6.2 Blank Analyses – Acceptable with Qualifications

2.6.2.1 Method Blanks

Method blanks were analyzed at the required frequency. The method blanks are free of 2,3,7,8-substituted PCDDs and PCDFs as required by the Method.

- The method blanks contained low levels of non-2,3,7,8-substituted PCDD and PCDF target analytes. Region 10 Functional Guidelines requires associated sample concentrations less than five times the blank concentration to be qualified as estimated detection limit (UJ). Sample concentrations greater than five times the blank concentration are not qualified. Associated sample results were qualified as shown in the following table.

Sample ID	Analyte	Qualification	Quality Control Exceedance
MW-2	1,2,3,4,7,8-HxCDF	UJ	Result is less than 5 times the method blank level
HCMW-6	1,2,3,4,6,7,8-HpCDD	UJ	Result is less than 5 times the method blank level
L-1	1,2,3,4,6,7,8,9-OCDD	UJ	Result is less than 5 times the method blank level
L-1	1,2,3,4,7,8-HxCDF	UJ	Result is less than 5 times the method blank level
L-1	1,2,3,4,6,7,8,9-OCDF	UJ	Result is less than 5 times the method blank level
L-3	1,2,3,4,6,7,8,9-OCDF	UJ	Result is less than 5 times the method blank level
BXS-2	1,2,3,7,8,9-HxCDD	UJ	Result is less than 5 times the method blank level
BXS-2	1,2,3,4,7,8-HxCDF	UJ	Result is less than 5 times the method blank level
BXS-2	2,3,4,6,7,8-HxCDF	UJ	Result is less than 5 times the method blank level
BXS-2	1,2,3,7,8,9-HxCDF	UJ	Result is less than 5 times the method blank level

2.6.2.2 Field Blanks

Samples MWB and BXS-5 were identified as a field blank. Except as noted below, target analytes were not detected in the field blanks.

- The target analytes 1,2,3,4,6,7,8,9-OCDD, 1,2,3,4,6,7,8-HpCDF, and 1,2,3,4,6,7,8,9-OCDF were detected in field blank sample MWB at 40.6 pg/L, 1.5 pg/L, and 5.5 pg/L, respectively. Region 10 Functional Guidelines requires associated sample concentrations less than five times the blank concentration to be qualified as estimated detection limit (UJ). The associated samples were qualified as shown in the following table.

Sample ID	Analyte	Qualification	Quality Control Exceedance
HCMW-6	1,2,3,4,6,7,8,9-OCDD	UJ	Result is less than 5 times the field blank concentration
HCMW-6	1,2,3,4,6,7,8-HpCDF	UJ	Result is less than 5 times the field blank concentration
HCMW-6	1,2,3,4,6,7,8,9-OCDF	UJ	Result is less than 5 times the field blank concentration
MW3	1,2,3,4,6,7,8,9-OCDD	UJ	Result is less than 5 times the field blank concentration

2.6.3 Isotope Dilution Internal Standard (Surrogate) Analyses – Acceptable

Labeled isotope dilution internal standard compounds were added to all samples, blanks, and QC samples as required. All percent recovery values are within Method 1613B criteria.

2.6.4 Cleanup Recovery Internal Standard Analyses – Acceptable with Discussion

Except as noted below, the labeled cleanup recovery internal standard was added to all samples (and associated QC samples) that required cleanup. All cleanup recovery internal standards meet the Method 1613B criteria of 35 to 197%.

- A labeled cleanup recovery internal standard was not added to sample BXS-4, even though cleanup was performed. Data qualifiers are not required because the isotope dilution internal standards are acceptable.

2.6.5 Compound Identification – Acceptable with Qualifications

Except as noted below, second column confirmational analysis of 2,3,7,8-TCDF positive results were preformed as required. The ratio of the integrated ion peaks were compared to the Method criteria and are acceptable.

- 2,3,7,8-TCDF was detected in the sample MW1. The result was not confirmed by analysis on a dissimilar analytical column. Triangle Laboratories was contacted and replied that since the result is below the method minimum level, it did not require confirmation. Due to the probability of a false positive result, the 2,3,7,8-TCDF result of sample MW1 has been qualified as estimated detection limit (UJ).

- The laboratory flagged the results of several samples "X", indicating that coeluting interferences are contributing greater than 10% of the

quantitated area. To alert the data user to the potential high bias of these results, they have been qualified as estimated (J).

Sample ID	Analyte	Qualification	Quality Control Exceedance
MW1	2,3,7,8-TCDF	UJ	Result not confirmed
MW1	Total TCDF	J	Analytical interference greater than 10%
MW1	Total PeCDF	J	Analytical interference greater than 10%
MW1	Total HxCDF	J	Analytical interference greater than 10%
MW2	Total HxCDF	J	Analytical interference greater than 10%
HCMW7	Total HxCDF	J	Analytical interference greater than 10%
MWA	Total HxCDF	J	Analytical interference greater than 10%
MWA	Total HpCDF	J	Analytical interference greater than 10%
BXS-2	Total PeCDF	J	Analytical interference greater than 10%
BXS-3	Total TCDF	J	Analytical interference greater than 10%

2.6.6 Ongoing Precision and Recovery Analyses – Acceptable

Ongoing precision and recovery samples were analyzed at the required frequency and all percent recovery values are within the Method criteria.

2.6.7 Field Duplicates

Sample MWA was identified as a field duplicate of sample MW2 and sample BXS-6 was identified as a field duplicate of sample BXS-1. The precision criterion for field duplicates is RPD values less than or equal to 35. With the exceptions noted below, the precision of field duplicates is acceptable.

- The RPD values of 1,2,3,7,8,9-HxCDD and 2,3,4,6,7,8-HxCDF in field duplicate pair MW2/MWA are above the criterion at 56 and 44%, respectively. Data qualifiers are not required because the results are less than five times the reporting limit.

- The RPD values of 1,2,3,4,6,7,8-HpCDD and 1,2,3,4,6,7,8,9-OCDD in field duplicate pair BXS-1/BXS-6 are above the criterion at 91 and 144%, respectively. The 1,2,3,4,6,7,8-HpCDD and 1,2,3,4,6,7,8,9-OCDD results of both samples have been qualified as estimated (J).

Sample ID	Analyte	Qualification	Quality Control Exceedance
BXS-1	1,2,3,4,6,7,8-HpCDD	J	Field duplicate RPD > 35
BXS-6	1,2,3,4,6,7,8-HpCDD	J	Field duplicate RPD > 35
BXS-1	1,2,3,4,6,7,8,9-OCDD	J	Field duplicate RPD > 35
BXS-6	1,2,3,4,6,7,8,9-OCDD	J	Field duplicate RPD > 35

2.6.8 Overall Assessment of Data Useability

The useability of the data is based on the EPA guidance documents noted previously. Upon consideration of the information presented here, the data are acceptable, except where flagged with data qualifiers that modify the usefulness of the individual values.

3.0 Assessment of Data Quality Objectives

3.1 Precision

Precision is a measure of the mutual agreement among individual measurements of the same property, under prescribed similar conditions. Precision is determined through analysis of MS/MSDs, sample duplicates, LCS/LCSDs, and field duplicate samples. Duplicate samples are evaluated for precision in terms of relative percent difference. Relative percent difference is defined as the difference between the duplicate results divided by the mean and expressed as a percent.

The precision of the semivolatile petroleum hydrocarbons (diesel range organics) and metals data is very good. The RPD values of the sample duplicates, LCS/LCSDs, and field duplicates are acceptable.

The precision of the pentachlorophenol data is acceptable, with the following discussion. The precision of the untreated drain samples collected 3-5-02 is unknown because the laboratory did not analyze matrix spike duplicates or sample duplicates and field duplicates were not collected. The RPD values of the MS/MSDs, LCS/LCSDs, and field duplicates are acceptable.

The precision of the inorganic data is acceptable, with the following exceptions. The total Coliform results of samples BXN-1 and BXN-5 are imprecise as shown by the high field duplicate RPD value. The high field duplicate RPD values for tannin and lignin and ammonia do not affect the data because the sample results are less than five times the reporting limit. The RPD values of the sample duplicates are acceptable.

The precision of the PCDD and PCDF data is acceptable, with the following exceptions. The 1,2,3,4,6,7,8-HpCDD and 1,2,3,4,6,7,8,9-OCDD results of samples BXS-1 and BXS-6 are imprecise as shown by the high field duplicate RPD values. RPD values of results less than five times the reporting limit do not affect the precision of the data.

3.2 Accuracy

Accuracy is the degree of agreement between a measurement and the accepted reference or true value. The level of accuracy is determined by examination of surrogates, MS/MSDs, LCS/LCSDs, method blanks, and field blanks. The surrogate, matrix spike, and laboratory control sample recovery values were compared to the laboratory's control limits or Functional Guidelines criteria. Method and field blanks are analyzed to identify compounds that could be introduced during the sampling, laboratory extraction, or analysis phase (i.e., laboratory contaminates) and lead to inaccurate results.

The accuracy of the pentachlorophenol and semivolatile petroleum hydrocarbons (diesel range organics) data is very good. All surrogate, MS, MSD, LCS, and LCSD recovery values are acceptable and the method blanks and field blank are free of contamination.

The accuracy of the metals data is acceptable. One method blank and one field blank contained reportable levels of target analytes. The impact of the blank contamination has been minimized by the proper use of data qualifiers as prescribed by Functional Guidelines. Qualifying contaminates in the associated samples as undetected when their concentration is less than five times the blank concentration minimizes the possibility of false positive results. All MS and LCS recovery values are acceptable.

The accuracy of the inorganics data is acceptable, with one exception. The ammonia result of sample BXS-1 is biased low as shown by the low matrix spike recovery value. Conductively was detected in one field blank and pH was detected in two field blanks. The data are not impacted because the associated sample conductivity results are greater than five times the field blank level. The pH results of the field blanks are not indicative of contamination because pH is a physical properly of water. The LCS recovery values are acceptable and the method blanks are free of contamination.

The accuracy of the PCDF and PCDD data is acceptable. The method blanks and one field blank contained reportable levels of target analytes. The impact of the blank contamination has been minimized by the proper use of data qualifiers as prescribed by EPA Region 10 Functional Guidelines. Qualifying contaminates in the associated samples as undetected when their concentration is less than five times the blank concentration minimizes the possibility of false positive results. The surrogate and ongoing precision and accuracy recovery values are acceptable.

3.3 Representativeness

Representativeness is the extent to which the data reflect the actual contaminate levels present in the samples. Representativeness is assessed through method and field blanks, and proper preservation and handling. Method and field blank analyses allow for the detection of artifacts that may be reported as false positive results. Proper sample preservation and handling ensure that sample results reflect the actual sample concentrations.

The data are assumed to be representative, with the exception of results from analyses that were performed past the holding time. Since the results of tests performed past the holding time may not be representative, they were qualified as estimated. The sample receipt temperatures above 6°C do not impact the representativeness of the data set because the samples were properly handled when received at the laboratories. The method blank and field blank contamination does not impact the representativeness of the data because the procedures in Functional Guidelines were followed to minimize the impact of the blank contamination.

3.4 Comparability

Comparability is a measure of how easily the data set can be compared and combined with other data sets. The data are assumed to be comparable since standard EPA methods were used to analyze the samples, the method QC criteria were generally met, and routine detection limits were reported.

3.5 Completeness

Completeness is expressed as the ratio of valid results to the amount of data expected to be obtained under normal conditions. Completeness is determined by assessing the number of samples for which valid results were obtained versus the number of samples that were submitted to the laboratory for analysis. Valid results are results that are determined to be usable during the data validation review process.

The completeness of this data set is 97.5%. The completeness is less than 100% because one field blank (sample L-3A) was not analyzed for PCDD/PCDF.

4.0 Data Qualifier Definitions

4.1 Inorganic Data Qualifiers

The following data validation qualifiers were used in the review of this data set. These qualifiers are taken from Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (USEPA 1994a).

U The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

J The associated value is an estimated quantity.

UJ The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

R The data are unusable. (Note: Analyte may or may not be present)

4.2 Organic Data Qualifiers

The following data validation qualifiers were used in the review of this data set. These qualifiers are taken from Contract Laboratory Program National Functional Guidelines for Organic Data Review (USEPA 1999).

U The analyte was analyzed for but not detected above the reported sample quantitation limit.

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".

NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

R The sample results are rejected due to serious deficiencies in the ability to analyze the samples and meet quality control criteria. The presence or absence of the analyte cannot be verified.

5.0 References

APHA. 1998. Standard Methods for the Examination of Water and Wastewater, 20th Edition. American Public Health Association. 1998.

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USEPA. 1994. Contract Laboratory Program National Functional Guidelines for Inorganic Data Review. United States Environmental Protection Agency. Office of Solid Waste and Emergence Response. February 1994.

USEPA. 1996. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846) Third Edition, Updates I, II, IIA, IIB, and III. United States Environmental Protection Agency. Office of Solid Waste. December 1996.

USEPA. 1999. Contract Laboratory Program National Functional Guidelines for Organic Data Review. U.S. Environmental Protection Agency Office of Emergency and Remedial Response. EPA540/R-99/008. October 1999.

USEPA. 1999a. Methods and Guidance for Analysis of Water, Version 2.0. United States Environmental Protection Agency Office of Science and Technology. EPA 821-C-99-004. CD ROM. June 1999.

WDOE. 1997. Analytical Methods for Petroleum Hydrocarbons. Prepared by the Washington State Department of Ecology Toxics Cleanup Program and the Ecology Environmental Laboratory. June 1997.

Table 2—Field Duplicate Precision

Sample ID	Duplicate ID	Analyte	Sample Value	Duplicate Value	RPD
BXN-1	BXN-5	Dissolved Barium	45.8	46.6	1.7
		Dissolved Iron	2080	2130	2.4
		Dissolved Manganese	1940	1980	2.0
		Dissolved Nickel	54.0	56.9	5.2
		Chloride	11.7	11.8	0.8
		Chemical Oxygen Demand	23	24	4.2
		Conductivity	664	672	1.2
		Ammonia	0.05	0.14	95
		pH	6.29	6.35	0.9
		Sulfate	23.5	22.7	3.5
		Tannin and Lignin	3.1	3.7	18
		Total Dissolved Solids	490	384	24
		Total Organic Carbon	8.1	8.4	3.6
		Total Coliform	27	80	99
MW2	MWA	Dissolved Calcium	11,900	12,400	4.1
		Dissolved Magnesium	7590	7830	3.2
		Dissolved Sodium	5930	6070	2.3
		1,2,3,6,7,8-HxCDD	3.9	< 5.3	NC
		1,2,3,7,8,9-HxCDD	3.2	5.7	56
		1,2,3,4,6,7,8-HpCDD	115	101	13
		1,2,3,4,6,7,8,9-OCDD	1250	1060	16
		2,3,4,6,7,8-HxCDF	1.4	2.2	44
		1,2,3,7,8,9-HxCDF	1.6	< 4.6	NC
		1,2,3,4,6,7,8-HpCDF	19.0	17.3	9.4
		1,2,3,4,7,8,9-HpCDF	3.4	4.2	21
		1,2,3,4,6,7,8,9-OCDF	97.5	87.2	11
		1,2,3,4,7,8-HxCDD	< 1.6	2.4	NC
		1,2,3,6,7,8-HxCDF	<1.1	2.1	NC
BXS-1	BXS-6	Pentachlorophenol	22	22	0
		Dissolved Barium	24	23	4.2
		Dissolved Manganese	362	353	2.5
		Dissolved Copper	< 10	10	NC
		Dissolved Calcium	41,400	41,400	0
		Dissolved Magnesium	27,400	27,400	0
		Dissolved Potassium	2330	2360	1.3
		Dissolved Sodium	10,500	10,500	0
		Sulfate	7.9	8.1	2.5
		Chloride	5.7	5.9	3.4
		Nitrate/Nitrite	1.1	1.1	0
		Tannin and Lignin	0.4	0.6	40
		Total Organic Carbon	6.4	6.4	0
		Chemical Oxygen Demand	14	16	13
		Alkalinity	214	206	3.9
		Total Dissolved Solids	356	302	16
		Conductivity	443	445	0.4
		pH	6.00	6.06	1.0
		1,2,3,4,6,7,8-HpCDD	15.7	5.9	91
		1,2,3,4,6,7,8,9-OCDD	242	39.4	144

RPD Relative percent difference
Semivolatile organic and metals results are in ug/L; PCDD and PCDF results are in pg/L
Chloride, COD, ammonia, nitrate/nitrite, sulfate, tannin & lignin, total dissolved solids, TOC, and alkalinity results are in mg/L
Conductivity results are in umohms/cm; pH results are in pH units, total Coliform results are in MPN/100 mL

Table 3—Summary of Qualified Data

Sample ID	Analyte	Qualifier	Reason for Qualification
BXN-5	Dissolved Zinc	U at reported value	Result > reporting limit & < 5 X the field blank
Drain 7 (4-8-02)	pH	J	Analysis holding time exceeded
Drain 8 (4-8-02)	pH	J	Analysis holding time exceeded
BXN-1	pH	J	Analysis holding time exceeded
BXN-2	pH	J	Analysis holding time exceeded
BXN-3	pH	J	Analysis holding time exceeded
BXN-4	pH	J	Analysis holding time exceeded
BXN-5	pH	J	Analysis holding time exceeded
BXN-6	pH	J	Analysis holding time exceeded
BXN-1	Total Coliform	J	Analysis holding time exceeded
BXN-2	Total Coliform	J	Analysis holding time exceeded
BXN-3	Total Coliform	UJ	Analysis holding time exceeded
BXN-4	Total Coliform	J	Analysis holding time exceeded
BXN-5	Total Coliform	J	Analysis holding time exceeded
BXN-6	Total Coliform	UJ	Analysis holding time exceeded
BXS-1	pH	J	Analysis holding time exceeded
BXS-2	pH	J	Analysis holding time exceeded
BXS-3	pH	J	Analysis holding time exceeded
BXS-4	pH	J	Analysis holding time exceeded
BXS-5	pH	J	Analysis holding time exceeded
BXS-6	pH	J	Analysis holding time exceeded
BXS-1	Total Coliform	UJ	Analysis holding time exceeded
BXS-2	Total Coliform	UJ	Analysis holding time exceeded
BXS-3	Total Coliform	UJ	Analysis holding time exceeded
BXS-4	Total Coliform	UJ	Analysis holding time exceeded
BXS-5	Total Coliform	UJ	Analysis holding time exceeded
BXS-6	Total Coliform	UJ	Analysis holding time exceeded
BXS-1	Ammonia	UJ	MS recovery below laboratory control limits
BXN-1	Total Coliform	J	Field duplicate RPD > 35
BXN-5	Total Coliform	J	Field duplicate RPD > 35
MW-2	1,2,3,4,7,8-HxCDF	UJ	Result is < 5 times the method blank level
HCMW-6	1,2,3,4,6,7,8-HpCDD	UJ	Result is < 5 times the method blank level
L-1	1,2,3,4,6,7,8,9-OCDD	UJ	Result is < 5 times the method blank level
L-1	1,2,3,4,7,8-HxCDF	UJ	Result is < 5 times the method blank level
L-1	1,2,3,4,6,7,8,9-OCDF	UJ	Result is < 5 times the method blank level
L-3	1,2,3,4,6,7,8,9-OCDF	UJ	Result is < 5 times the method blank level
BXS-2	1,2,3,7,8,9-HxCDD	UJ	Result is < 5 times the method blank level
BXS-2	1,2,3,4,7,8-HxCDF	UJ	Result is < 5 times the method blank level
BXS-2	2,3,4,6,7,8-HxCDF	UJ	Result is < 5 times the method blank level
BXS-2	1,2,3,7,8,9-HxCDF	UJ	Result is < 5 times the method blank level
HCMW-6	1,2,3,4,6,7,8,9-OCDD	UJ	Result is < 5 times the field blank concentration
HCMW-6	1,2,3,4,6,7,8-HpCDF	UJ	Result is < 5 times the field blank concentration
HCMW-6	1,2,3,4,6,7,8,9-OCDF	UJ	Result is < 5 times the field blank concentration
MW3	1,2,3,4,6,7,8,9-OCDD	UJ	Result is < 5 times the field blank concentration
MW1	2,3,7,8-TCDF	UJ	Result not confirmed
MW1	Total TCDF	J	Analytical interference greater than 10%
MW1	Total PeCDF	J	Analytical interference greater than 10%
MW1	Total HxCDF	J	Analytical interference greater than 10%
MW2	Total HxCDF	J	Analytical interference greater than 10%
HCMW7	Total HxCDF	J	Analytical interference greater than 10%
MWA	Total HxCDF	J	Analytical interference greater than 10%
MWA	Total HpCDF	J	Analytical interference greater than 10%

Sample ID	Analyte	Qualifier	Reason for Qualification
BXS-2	Total PeCDF	J	Analytical interference greater than 10%
BXS-3	Total TCDF	J	Analytical interference greater than 10%
BXS-1	1,2,3,4,6,7,8-HpCDD	J	Field duplicate RPD > 35
BXS-6	1,2,3,4,6,7,8-HpCDD	J	Field duplicate RPD > 35
BXS-1	1,2,3,4,6,7,8,9-OCDD	J	Field duplicate RPD > 35
BXS-6	1,2,3,4,6,7,8,9-OCDD	J	Field duplicate RPD > 35

Dioxin/furan results and calculated 2,3,7,8-TCD

Analyte name	EPA Minimum Quantitation Limit (pg/L)	WHO TEF	MW 2 04/10/2002	MW 2 TEQ	MW A 04/10/2002	MW A TEQ	MW B 04/10/2002	MW B TEQ	MW-3 04/10/2002	MW-3 TEQ	BXS-1 04/11/2002	BXS-1 TEQ
2,3,7,8-TCDD	10	1.0	1.4 U	0	1.2 U	0	2.4 U	0	1.8 U	0	1.8 U	0
1,2,3,7,8-PeCDD	50	1.0	1.5 U	0	2.5 U	0	2.3 U	0	1.8 U	0	1.8 U	0
1,2,3,4,7,8-HxCDD	50	0.1	1.6 U	0	2.4 J	0	2.0 U	0	1.6 U	0	1.7 U	0
1,2,3,6,7,8-HxCDD	50	0.1	3.9 J	0	5.3 U	0	2.0 U	0	1.7 U	0	1.7 U	0
1,2,3,7,8,9-HxCDD	50	0.1	3.2 J	0	5.7 J	0	2.0 U	0	1.6 U	0	1.6 U	0
1,2,3,4,6,7,8-HpCDD	50	0.01	115	1.15	101	1.01	2.8 U	0	2.5 U	0	15.7 J	0
1,2,3,4,6,7,8,9-OCDD	100	0.0001	1250	0.125	1060	0.106	40.6 JB	0	20.7 UJ	0	242 J	0.0242
2,3,7,8-TCDF	10	0.1	1.1 U	0	0.9 U	0	1.7 U	0	1.4 U	0	1.4 U	0
1,2,3,7,8-PeCDF	50	0.05	1.3 U	0	2.2 U	0	2.2 U	0	1.5 U	0	1.6 U	0
2,3,4,7,8-PeCDF	50	0.5	1.1 U	0	2.0 U	0	1.7 U	0	1.1 U	0	1.2 U	0
1,2,3,4,7,8-HxCDF	50	0.1	2.3 UJ	0	2.5 U	0	1.4 U	0	1.1 U	0	1.0 U	0
1,2,3,6,7,8-HxCDF	50	0.1	1.1 U	0	2.1 J	0	1.5 U	0	1.2 U	0	1.2 U	0
1,2,3,7,8,9-HxCDF	50	0.1	1.6 J	0	4.6 U	0	1.8 U	0	1.5 U	0	1.4 U	0
2,3,4,6,7,8-HxCDF	50	0.1	1.4 J	0	2.2 J	0	1.1 U	0	1.0 U	0	0.9 U	0
1,2,3,4,6,7,8-HpCDF	50	0.01	19.0 J	0	17.3 J	0	1.5 J	0	1.5 U	0	3.0 U	0
1,2,3,4,7,8,9-HpCDF	50	0.01	3.4 J	0	4.2 J	0	2.3 U	0	2.1 U	0	1.9 U	0
1,2,3,4,6,7,8,9-OCDF	100	0.0001	97.5 J	0	87.2 J	0	5.5 J	0	3.1 U	0	26.6 U	0
Total TEQ				1.28		1.12		0		0		0.024
Total TCDD	10		1.4 U		1.2 U		2.4 U		1.8 U		1.8 U	
Total PeCDD	50		1.5 U		2.5 U		2.3 U		1.8 U		1.8 U	
Total HxCDD	50		19.1		10.6		2.0 U		1.6 U		1.6 U	
Total HpCDD	50		194		169		4.7		2.5 U		25.5	
Total TCDF	10		1.1 U		0.9 U		1.7 U		1.4 U		1.4 U	
Total PeCDF	50		9.3		6.9		2.0 U		1.3 U		1.4 U	
Total HxCDF	50		**51.1 J**		**49.1 J**		1.4 U		1.1 U		1.9 U	
Total HpCDF	50		66.3		**62.6 J**		3.7		1.7 U		12.8	

Notes:
U - not detected at detection limit shown
J - estimated concentration
B - detected in blank

Dioxin/furan results and calculated 2,3,7,8-TCI

Analyte name	EPA Minimum Quantitation Limit (pg/L)	WHO TEF	BXS-2 4/11/2002	BXS-2 TEQ	BXS-3 04/11/2002	BXS-3 TEQ	BXS-4 04/11/2002	BXS-4 TEQ	BXS-5 04/11/2002	BXS-5 TEQ	BXS-6 04/11/2002	BXS-6 TEQ
2,3,7,8-TCDD	10	1.0	1.6J	0	1.3 U	0	1.9 U	0	1.5 U	0	0.9 U	0
1,2,3,7,8-PeCDD	50	1.0	1.6J	0	1.3 U	0	1.8 U	0	1.7 U	0	0.9 U	0
1,2,3,4,7,8-HxCDD	50	0.1	<2.1	0	1.2 U	0	1.6 U	0	1.4 U	0	0.8 U	0
1,2,3,6,7,8-HxCDD	50	0.1	2.7J	0	1.3 U	0	1.7 U	0	1.4 U	0	0.9 U	0
1,2,3,7,8,9-HxCDD	50	0.1	2.4 UJ	0	1.2 U	0	1.6 U	0	1.4 U	0	0.8 U	0
1,2,3,4,6,7,8-HpCDD	50	0.01	54.1	0.541	11.2 J	0	8.3 U	0	2.3 U	0	5.9 J	0
1,2,3,4,6,7,8,9-OCDD	100	0.0001	961	0.0961	115	0.0115	83.9 J	0	3.3 U	0	39.3 J	0
2,3,7,8-TCDF	10	0.1	<1.8	0	0.9 U	0	1.4 U	0	1.2 U	0	0.7 U	0
1,2,3,7,8-PeCDF	50	0.05	<3.1	0	1.1 U	0	1.7 U	0	1.3 U	0	0.8 U	0
2,3,4,7,8-PeCDF	50	0.5	2.2J	0	0.9 U	0	1.2 U	0	1.0 U	0	0.6 U	0
1,2,3,4,7,8-HxCDF	50	0.1	2.9 UJ	0	1.9 U	0	3.5 U	0	1.0 U	0	0.6 U	0
1,2,3,6,7,8-HxCDF	50	0.1	<1.9	0	0.8 U	0	2.7 U	0	1.1 U	0	0.6 U	0
1,2,3,7,8,9-HxCDF	50	0.1	1.8 UJ	0	1.0 U	0	1.4 U	0	1.3 U	0	0.7 U	0
2,3,4,6,7,8-HxCDF	50	0.1	1.7 UJ	0	2.1 J	0	2.0 U	0	0.8 U	0	0.5 U	0
1,2,3,4,6,7,8-HpCDF	50	0.01	18.2J	0	2.5 U	0	2.9 U	0	1.3 U	0	0.8 U	0
1,2,3,4,7,8,9-HpCDF	50	0.01	<2.9	0	1.4 U	0	1.9 U	0	1.7 U	0	1.0 U	0
1,2,3,4,6,7,8,9-OCDF	100	0.0001	86.4J	0	15.9 U	0	13.5 J	0	2.7 U	0	4.4 U	0
Total TEQ				0.637		0.012		0		0		0
Total TCDD	10		7		1.3 U		1.9 U		1.5 U		0.9 U	
Total PeCDD	50		12.1		1.3 U		1.8 U		1.7 U		0.9 U	
Total HxCDD	50		7.6		5.6 U		1.6 U		1.4 U		14.3 U	
Total HpCDD	50		85.1		11.2		8.3 U		2.3 U		5.9	
Total TCDF	10		<4.2		**11.3 J**		1.4 U		1.2 U		0.7 U	
Total PeCDF	50		**3.7 J**		4.7		1.5 U		1.1 U		0.7 U	
Total HxCDF	50		22.2		3.7		8.2 U		1.0 U		0.6 U	
Total HpCDF	50		60.9		8.1 U		2.9 U		1.5 U		3.3	

Notes:
U - not detected at detection limit shown
J - estimated concentration
B - detected in blank

Dioxin/furan results and calculated 2,3,7,8-TCDD TEQs for Arlington, WA

Analyte name	EPA Minimum Quantitation Limit (pg/L)	WHO TEF	HCMW 6 04/10/2002	HCMW 6 TEQ	HCMW 7 04/10/2002	HCMW 7 TEQ	L-1 04/10/2002	L-1 TEQ	L-3 04/10/2002	L-3 TEQ	MW 1 04/10/2002	MW 1 TEQ
2,3,7,8-TCDD	10	1.0	0.8 U	0	1.8 U	0	1.9 U	0	2.1 U	0	1.1 U	0
1,2,3,7,8-PeCDD	50	1.0	0.9 U	0	4.5 U	0	1.8 U	0	2.3 U	0	3.3 J	0
1,2,3,4,7,8-HxCDD	50	0.1	4.6 U	0	5.1 J	0	4.2 UJ	0	1.9 U	0	3.7 U	0
1,2,3,6,7,8-HxCDD	50	0.1	0.8 U	0	10.1 J	0	1.6 U	0	1.9 U	0	40.1 J	0
1,2,3,7,8,9-HxCDD	50	0.1	0.8 U	0	10.4 J	0	1.5 U	0	1.8 U	0	11.3 J	0
1,2,3,4,6,7,8-HpCDD	50	0.01	5.5 UJ	0	251	2.51	2.8 UJ	0	8.7 J	0	1210	12.1
1,2,3,4,6,7,8,9-OCDD	100	0.0001	56.3 UJ	0	3200	0.32	21.1 UJ	0	116 B	0	9280	0.928
2,3,7,8-TCDF	10	0.1	0.7 U	0	2.9 U	0	1.5 U	0	1.7 U	0	2.7 UJ	0
1,2,3,7,8-PeCDF	50	0.05	0.8 U	0	4.2 J	0	1.5 U	0	1.8 U	0	3.8 U	0
2,3,4,7,8-PeCDF	50	0.5	0.6 U	0	3.7 U	0	1.1 U	0	1.3 U	0	3.8 U	0
1,2,3,4,7,8-HxCDF	50	0.1	0.6 U	0	6.7 JB	0	1.9 UJ	0	1.4 UJ	0	16.8 JB	0
1,2,3,6,7,8-HxCDF	50	0.1	0.6 U	0	6.0 U	0	1.1 U	0	1.3 U	0	7.2 J	0
1,2,3,7,8,9-HxCDF	50	0.1	0.7 U	0	6.5 J	0	1.3 U	0	1.6 U	0	4.0 J	0
2,3,4,6,7,8-HxCDF	50	0.1	0.5 U	0	5.5 J	0	0.9 U	0	1.1 U	0	10.0 J	0
1,2,3,4,6,7,8-HpCDF	50	0.01	1.7 UJ	0	67	0.67	2.3 UJ	0	1.6 U	0	192	1.92
1,2,3,4,7,8,9-HpCDF	50	0.01	1.0 U	0	9.7 J	0	1.7 U	0	2.2 U	0	15.4 J	0
1,2,3,4,6,7,8,9-OCDF	100	0.0001	7.7 UJ	0	270	0.027	5.8 UJ	0	18.9 UJ	0	439	0.0439
Total TEQ				0		3.53		0		0		15.0
Total TCDD	10		2.2 U		1.8 U		1.9 U		2.1 U		1.1 U	
Total PeCDD	50		0.9 U		7.1 U		1.8 U		2.3 U		3.3	
Total HxCDD	50		8.2 U		38.9		13.3 U		15.7 U		127	
Total HpCDD	50		5.5		436		5.2 U		15.8		2010	
Total TCDF	10		2.3 U		6.7 U		1.5 U		1.7 U		**5.3 J**	
Total PeCDF	50		0.7 U		14		1.3 U		1.5 U		**54.6 J**	
Total HxCDF	50		0.6 U		**93.7 J**		1.9		1.4 U		**465 J**	
Total HpCDF	50		1.7		208		2.3 U		5.3		782	

Notes:
U - not detected at detection limit shown
J - estimated concentration
B - detected in blank

Attachment 2

Laboratory Analytical Reports

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	J.H. Baxter & Company	**Service Request:**	K2202353
Project:	Arlington Plant Groundwater/BXS-WELLS	**Date Collected:**	04/11/02
Sample Matrix:	Water	**Date Received:**	04/12/02

Sulfate

Prep Method:	NONE	Units:	mg/L (ppm)
Analysis Method:	300.0	Basis:	NA
Test Notes:			

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
BXS-1	K2202353-001	1.0	5	NA	04/15/02	7.9	
BXS-2	K2202353-002	0.2	1	NA	04/15/02	0.5	
BXS-3	K2202353-003	0.2	1	NA	04/15/02	0.3	
BXS-4	K2202353-004	0.2	1	NA	04/15/02	1.6	
BXS-5	K2202353-005	0.2	1	NA	04/15/02	ND	
BXS-6	K2202353-006	0.4	2	NA	04/15/02	8.1	
Method Blank	K2202353-MB	0.2	1	NA	04/15/02	ND	

1Sp624-2

Approved By: Mil Smith Date: 4/29/02

1A/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: Arlington Plant Groundwater/BXS-WELLS
Sample Matrix: Water

Service Request: K2202353
Date Collected: 04/11/02
Date Received: 04/12/02

Chloride

Prep Method: NONE
Analysis Method: 300.0
Test Notes:

Units: mg/L (ppm)
Basis: NA

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
BXS-1	K2202353-001	1.0	5	NA	04/15/02	5.7	
BXS-2	K2202353-002	0.4	2	NA	04/15/02	6.3	
BXS-3	K2202353-003	0.2	1	NA	04/15/02	2.9	
BXS-4	K2202353-004	0.2	1	NA	04/15/02	2.0	
BXS-5	K2202353-005	0.2	1	NA	04/15/02	ND	
BXS-6	K2202353-006	0.4	2	NA	04/15/02	5.9	
Method Blank	K2202353-MB	0.2	1	NA	04/15/02	ND	

NQ624-2

Approved By: Mit Pitt Date: 4/29/02

1A/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	J.H. Baxter & Company	**Service Request:**	K2202353
Project:	Arlington Plant Groundwater/BXS-WELLS	**Date Collected:**	04/11/02
Sample Matrix:	Water	**Date Received:**	04/12/02

Nitrate+Nitrite as Nitrogen

Prep Method:	NONE	Units:	mg/L (ppm)
Analysis Method:	353.2	Basis:	NA
Test Notes:			

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
BXS-1	K2202353-001	0.2	1	NA	04/15/02	1.1	
BXS-2	K2202353-002	0.2	1	NA	04/15/02	ND	
BXS-3	K2202353-003	0.2	1	NA	04/15/02	ND	
BXS-4	K2202353-004	0.2	1	NA	04/15/02	ND	
BXS-5	K2202353-005	0.2	1	NA	04/15/02	ND	
BXS-6	K2202353-006	0.2	1	NA	04/15/02	1.1	
Method Blank	K2202353-MB	0.2	1	NA	04/15/02	ND	

KAP 5/21/02

Approved By: [signature] Date: 4/29/02

1A/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: Arlington Plant Groundwater/BXS-WELLS
Sample Matrix: Water

Service Request: K2202353
Date Collected: 04/11/02
Date Received: 04/12/02

Ammonia as Nitrogen

Prep Method: NONE
Analysis Method: 350.1
Test Notes:

Units: mg/L (ppm)
Basis: NA

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
BXS-1	K2202353-001	0.05	1	NA	04/15/02	ND UJ	
BXS-2	K2202353-002	0.05	1	NA	04/15/02	ND	
BXS-3	K2202353-003	0.05	1	NA	04/15/02	0.19	
BXS-4	K2202353-004	0.05	1	NA	04/15/02	0.38	
BXS-5	K2202353-005	0.05	1	NA	04/15/02	ND	
BXS-6	K2202353-006	0.05	1	NA	04/15/02	ND	
Method Blank	K2202353-MB	0.05	1	NA	04/15/02	ND	

RP 062402

Approved By: [signature] Date: 4/29/02

1A/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	J.H. Baxter & Company	**Service Request:**	K2202353
Project:	Arlington Plant Groundwater/BXS-WELLS	**Date Collected:**	04/11/02
Sample Matrix:	Water	**Date Received:**	04/12/02

Tannin and Lignin

Prep Method:	NONE	Units:	mg/L (ppm)
Analysis Method:	SM 5550B	Basis:	NA
Test Notes:			

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
BXS-1	K2202353-001	0.2	1	NA	04/17/02	0.4	
BXS-2	K2202353-002	0.2	1	NA	04/17/02	1.5	
BXS-3	K2202353-003	1.0	5	NA	04/17/02	10.9	
BXS-4	K2202353-004	0.2	1	NA	04/17/02	0.5	
BXS-5	K2202353-005	0.2	1	NA	04/17/02	ND	
BXS-6	K2202353-006	0.2	1	NA	04/17/02	0.6	
Method Blank	K2202353-MB	0.2	1	NA	04/17/02	ND	

KPb 4/22

SM *Standard Methods for the Examination of Water and Wastewater, 18th Ed., 1992.*

Approved By: Mike Smith Date: 4/29/02

1A/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	J.H. Baxter & Company	**Service Request:**	K2202353
Project:	Arlington Plant Groundwater/BXS-WELLS	**Date Collected:**	04/11/02
Sample Matrix:	Water	**Date Received:**	04/12/02

Carbon, Total Organic

Prep Method: NONE
Analysis Method: 415.1
Test Notes:

Units: mg/L (ppm)
Basis: NA

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
BXS-1	K2202353-001	0.5	1	NA	04/26/02	6.4	
BXS-2	K2202353-002	0.5	1	NA	04/26/02	14.2	
BXS-3	K2202353-003	0.5	1	NA	04/26/02	23.0	
BXS-4	K2202353-004	0.5	1	NA	04/26/02	1.0	
BXS-5	K2202353-005	0.5	1	NA	04/26/02	ND	
BXS-6	K2202353-006	0.5	1	NA	04/26/02	6.4	
Method Blank	K2202353-MB	0.5	1	NA	04/25/02	ND	

KP 4/26/02

Approved By: Mil Smith Date: 4/29/02

1A/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	J.H. Baxter & Company	**Service Request:**	K2202353
Project:	Arlington Plant Groundwater/BXS-WELLS	**Date Collected:**	04/11/02
Sample Matrix:	Water	**Date Received:**	04/12/02

Chemical Oxygen Demand (COD)

Prep Method: NONE
Analysis Method: 410.2
Test Notes:

Units: mg/L (ppm)
Basis: NA

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
BXS-1	K2202353-001	5	1	NA	04/17/02	14	
BXS-2	K2202353-002	5	1	NA	04/17/02	36	
BXS-3	K2202353-003	5	1	NA	04/17/02	59	
BXS-4	K2202353-004	5	1	NA	04/17/02	19	
BXS-5	K2202353-005	5	1	NA	04/17/02	ND	
BXS-6	K2202353-006	5	1	NA	04/17/02	16	
Method Blank	K2202353-MB	5	1	NA	04/17/02	ND	

Approved By: M L Smith Date: 4/29/02

1A/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	J.H. Baxter & Company	**Service Request:**	K2202353
Project:	Arlington Plant Groundwater/BXS-WELLS	**Date Collected:**	04/11/02
Sample Matrix:	Water	**Date Received:**	04/12/02

Alkalinity as CaCO3, Total

Prep Method:	NONE	Units:	mg/L (ppm)
Analysis Method:	310.1	Basis:	NA
Test Notes:			

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
BXS-1	K2202353-001	2	1	NA	04/16/02	214	
BXS-2	K2202353-002	2	1	NA	04/16/02	472	
BXS-3	K2202353-003	2	1	NA	04/16/02	438	
BXS-4	K2202353-004	2	1	NA	04/16/02	92	
BXS-5	K2202353-005	2	1	NA	04/16/02	ND	
BXS-6	K2202353-006	2	1	NA	04/16/02	206	
Method Blank	K2202353-MB	2	1	NA	04/16/02	ND	

4/16/02

Approved By: M L Smith Date: 4/29/02

1A/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	J.H. Baxter & Company	**Service Request:**	K2202353
Project:	Arlington Plant Groundwater/BXS-WELLS	**Date Collected:**	04/11/02
Sample Matrix:	Water	**Date Received:**	04/12/02

Solids, Total Dissolved (TDS)

Prep Method:	NONE	Units:	mg/L (ppm)
Analysis Method:	160.1	Basis:	NA
Test Notes:			

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
BXS-1	K2202353-001	5	1	NA	04/17/02	356	
BXS-2	K2202353-002	5	1	NA	04/17/02	584	
BXS-3	K2202353-003	5	1	NA	04/17/02	520	
BXS-4	K2202353-004	5	1	NA	04/17/02	167	
BXS-5	K2202353-005	5	1	NA	04/17/02	ND	
BXS-6	K2202353-006	5	1	NA	04/17/02	302	
Method Blank	K2202353-MB	5	1	NA	04/17/02	ND	

K 4/26/02

Approved By: Mil Smith Date: 4/29/02

1A/020597p

02353WET.EL9 - SAMPLE 04/29/02

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: Arlington Plant Groundwater/BXS-WELLS
Sample Matrix: Water

Service Request: K2202353
Date Collected: 04/11/02
Date Received: 04/12/02

Conductivity

Prep Method: NONE
Analysis Method: 120.1
Test Notes:

Units: µmhos/cm
Basis: NA

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
BXS-1	K2202353-001	2	1	NA	04/20/02	443	
BXS-2	K2202353-002	2	1	NA	04/20/02	863	
BXS-3	K2202353-003	2	1	NA	04/20/02	804	
BXS-4	K2202353-004	2	1	NA	04/20/02	192	
~~BXS-5~~	~~K2202353-005~~	~~2~~	~~1~~	~~NA~~	~~04/20/02~~	~~2~~	
BXS-6	K2202353-006	2	1	NA	04/20/02	445	
Method Blank	K2202353-MB	2	1	NA	04/20/02	ND	

Approved By: [signature] Date: 4/29/02

1A/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: Arlington Plant Groundwater/BXS-WELLS
Sample Matrix: Water

Service Request: K2202353
Date Collected: 04/11/02
Date Received: 04/12/02

pH

Prep Method: NONE
Analysis Method: 150.1
Test Notes:

Units: pH UNITS
Basis: NA

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
BXS-1	K2202353-001	--	1	NA	04/12/02	6.00 J	X
BXS-2	K2202353-002	--	1	NA	04/12/02	6.32	X
BXS-3	K2202353-003	--	1	NA	04/12/02	6.60	X
BXS-4	K2202353-004	--	1	NA	04/12/02	8.02	X
BXS-5	K2202353-005	--	1	NA	04/12/02	5.91	X
BXS-6	K2202353-006	--	1	NA	04/12/02	6.06	X

KQ 6/24/02

Approved By: Mil Smith Date: 4/29/02

1A/020597p

00050

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: Arlington Plant Groundwater/BXS-WELLS
Sample Matrix: Water

Service Request: K2202353
Date Collected: 04/11/02
Date Received: 04/12/02
Date Extracted: NA
Date Analyzed: 04/12/02

Coliform, Total
SM 9221B
Units: MPN/100 ml

Sample Name	Lab Code	MRL	Time Test Started		Result
BXS-1	K2202353-001	2	1740	hrs	ND X MJ
BXS-2	K2202353-002	2	1740	hrs	ND X
BXS-4	K2202353-004	2	1740	hrs	ND X
BXS-5	K2202353-005	2	1740	hrs	ND X
BXS-6	K2202353-006	2	1740	hrs	ND X

SM *Standard Methods for the Examination of Water and Wastewater*, 18th Ed., 1992.

Approved By: Mike Smith Date: 4/29/02

BACT/102194

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client:	J.H. Baxter & Company	Service Request:	K2202353
Project No.:	BXS-WELLS	Date Collected:	04/11/02
Project Name:	Arlington Plant Groundwater	Date Received:	04/12/02
Matrix:	WATER	Units:	MG/L
		Basis:	NA

Sample Name: BXS-1 Lab Code: K2202353-001 DISS

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Calcium	6010B	0.05	1	4/18/02	4/22/02	41.4		
Iron	6010B	0.02	1	4/18/02	4/22/02	0.02	U	
Magnesium	6010B	0.02	1	4/18/02	4/22/02	27.4		
Potassium	6010B	2.000	1	4/18/02	4/22/02	2.330		
Sodium	6010B	0.1	1	4/18/02	4/22/02	10.5		

KP 6242

% Solids: 0.0

Comments:

00055

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: J.H. Baxter & Company
Project No.: BXS-WELLS
Project Name: Arlington Plant Groundwater
Matrix: WATER

Service Request: K2202353
Date Collected: 04/11/02
Date Received: 04/12/02
Units: MG/L
Basis: NA

Sample Name: BXS-2
Lab Code: K2202353-002 DISS

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Calcium	6010B	0.05	1	4/18/02	4/22/02	81.8		
Iron	6010B	0.02	1	4/18/02	4/22/02	0.64		
Magnesium	6010B	0.02	1	4/18/02	4/22/02	65.6		
Potassium	6010B	2.000	1	4/18/02	4/22/02	4.070		
Sodium	6010B	0.1	1	4/18/02	4/22/02	8.9		

4/26/02

% Solids: 0.0

Comments:

00056

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: J.H. Baxter & Company
Project No.: BXS-WELLS
Project Name: Arlington Plant Groundwater
Matrix: WATER

Service Request: K2202353
Date Collected: 04/11/02
Date Received: 04/12/02
Units: MG/L
Basis: NA

Sample Name: BXS-3
Lab Code: K2202353-003 DISS

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Calcium	6010B	0.05	1	4/18/02	4/22/02	92.8		
Iron	6010B	0.02	1	4/18/02	4/22/02	19.6		
Magnesium	6010B	0.02	1	4/18/02	4/22/02	46.7		
Potassium	6010B	2.000	1	4/18/02	4/22/02	12.3		
Sodium	6010B	0.1	1	4/18/02	4/22/02	5.1		

% Solids: 0.0

Comments:

00057

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: J.H. Baxter & Company
Project No.: BXS-WELLS
Project Name: Arlington Plant Groundwater
Matrix: WATER

Service Request: K2202353
Date Collected: 04/11/02
Date Received: 04/12/02
Units: MG/L
Basis: NA

Sample Name: BXS-4
Lab Code: K2202353-004 DISS

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Calcium	6010B	0.05	1	4/18/02	4/22/02	19.0		
Iron	6010B	0.02	1	4/18/02	4/22/02	0.04		
Magnesium	6010B	0.02	1	4/18/02	4/22/02	8.10		
Potassium	6010B	2.000	1	4/18/02	4/22/02	2.640		
Sodium	6010B	0.1	1	4/18/02	4/22/02	7.1		

% Solids: 0.0

Comments:

00058

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: J.H. Baxter & Company
Project No.: BXS-WELLS
Project Name: Arlington Plant Groundwater
Matrix: WATER

Service Request: K2202353
Date Collected: 04/11/02
Date Received: 04/12/02
Units: MG/L
Basis: NA

Sample Name: BXS-5
Lab Code: K2202353-005 DISS

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Calcium	6010B	0.05	1	4/18/02	4/22/02	0.05	U	
Iron	6010B	0.02	1	4/18/02	4/22/02	0.02	U	
Magnesium	6010B	0.02	1	4/18/02	4/22/02	0.02	U	
Potassium	6010B	2.000	1	4/18/02	4/22/02	2.000	U	
Sodium	6010B	0.1	1	4/18/02	4/22/02	0.1	U	

18pb202

% Solids: 0.0

Comments:

00059

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: J.H. Baxter & Company
Project No.: BXS-WELLS
Project Name: Arlington Plant Groundwater
Matrix: WATER

Service Request: K2202353
Date Collected: 04/11/02
Date Received: 04/12/02
Units: MG/L
Basis: NA

Sample Name: BXS-6
Lab Code: K2202353-006 DISS

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Calcium	6010B	0.05	1	4/18/02	4/22/02	41.4		
Iron	6010B	0.02	1	4/18/02	4/22/02	0.02	U	
Magnesium	6010B	0.02	1	4/18/02	4/22/02	27.4		
Potassium	6010B	2.000	1	4/18/02	4/22/02	2.360		
Sodium	6010B	0.1	1	4/18/02	4/22/02	10.5		

% Solids: 0.0

Comments:

00060

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: Arlington Plant Groundwater/BXS-WELLS
Sample Matrix: Water

Service Request: K2202353
Date Collected: 04/11/02
Date Received: 04/12/02

Solids, Total Suspended (TSS)

Prep Method: NONE
Analysis Method: 160.2
Test Notes:

Units: mg/L (ppm)
Basis: NA

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
BXS-1	K2202353-001	20	1	NA	04/17/02	ND	i
BXS-2	K2202353-002	5	1	NA	04/17/02	75	
BXS-3	K2202353-003	5	1	NA	04/17/02	65	
BXS-4	K2202353-004	5	1	NA	04/17/02	180	
BXS-5	K2202353-005	5	1	NA	04/17/02	ND	
BXS-6	K2202353-006	5	1	NA	04/17/02	ND	
Method Blank	K2202353-MB	5	1	NA	04/17/02	ND	

KQ 6-25-02

Approved By: Mike Smith Date: 4/29/02

1A/020597p

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: J.H. Baxter & Company
Project No.: BXS-WELLS
Project Name: Arlington Plant Groundwater
Matrix: WATER

Service Request: K2202353
Date Collected: 04/11/02
Date Received: 04/12/02
Units: MG/L
Basis: NA

Sample Name: BXS-1
Lab Code: K2202353-001 DISS

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Arsenic	7060A	0.005	1	4/18/02	4/19/02	0.005	U	
Barium	6010B	0.005	1	4/18/02	4/22/02	0.024		
Cadmium	6010B	0.005	1	4/18/02	4/22/02	0.005	U	
Copper	6010B	0.01	1	4/18/02	4/22/02	0.01	U	
Iron	6010B	0.02	1	4/18/02	4/22/02	0.02	U	
Manganese	6010B	0.005	1	4/18/02	4/22/02	0.362		
Nickel	6010B	0.02	1	4/18/02	4/22/02	0.02	U	
Zinc	6010B	0.01	1	4/18/02	4/22/02	0.01	U	

19623-2

% Solids: 0.0

Comments:

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: J.H. Baxter & Company
Project No.: BXS-WELLS
Project Name: Arlington Plant Groundwater
Matrix: WATER

Service Request: K2202353
Date Collected: 04/11/02
Date Received: 04/12/02
Units: MG/L
Basis: NA

Sample Name: BXS-2
Lab Code: K2202353-002 DISS

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Arsenic	7060A	0.005	1	4/18/02	4/19/02	0.005	U	
Barium	6010B	0.005	1	4/18/02	4/22/02	0.047		
Cadmium	6010B	0.005	1	4/18/02	4/22/02	0.005	U	
Copper	6010B	0.01	1	4/18/02	4/22/02	0.01	U	
Iron	6010B	0.02	1	4/18/02	4/22/02	0.64		
Manganese	6010B	0.005	1	4/18/02	4/22/02	1.430		
Nickel	6010B	0.02	1	4/18/02	4/22/02	0.04		
Zinc	6010B	0.01	1	4/18/02	4/22/02	0.01	U	

KP 6-23-2

% Solids: 0.0

Comments:

00012

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: J.H. Baxter & Company
Project No.: BXS-WELLS
Project Name: Arlington Plant Groundwater
Matrix: WATER

Service Request: K2202353
Date Collected: 04/11/02
Date Received: 04/12/02
Units: MG/L
Basis: NA

Sample Name: BXS-3
Lab Code: K2202353-003 DISS

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Arsenic	7060A	0.005	1	4/18/02	4/19/02	0.014		
Barium	6010B	0.005	1	4/18/02	4/22/02	0.099		
Cadmium	6010B	0.005	1	4/18/02	4/22/02	0.005	U	
Copper	6010B	0.01	1	4/18/02	4/22/02	0.01	U	
Iron	6010B	0.02	1	4/18/02	4/22/02	19.6		
Manganese	6010B	0.005	1	4/18/02	4/22/02	15.6		
Nickel	6010B	0.02	1	4/18/02	4/22/02	0.02		
Zinc	6010B	0.01	1	4/18/02	4/22/02	0.01	U	

KAP 6/27/02

% Solids: 0.0

Comments:

00013

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: J.H. Baxter & Company
Project No.: BXS-WELLS
Project Name: Arlington Plant Groundwater
Matrix: WATER

Service Request: K2202353
Date Collected: 04/11/02
Date Received: 04/12/02
Units: MG/L
Basis: NA

Sample Name: BXS-4
Lab Code: K2202353-004 DISS

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Arsenic	7060A	0.005	1	4/18/02	4/19/02	0.005		
Barium	6010B	0.005	1	4/18/02	4/22/02	0.026		
Cadmium	6010B	0.005	1	4/18/02	4/22/02	0.005	U	
Copper	6010B	0.01	1	4/18/02	4/22/02	0.01	U	
Iron	6010B	0.02	1	4/18/02	4/22/02	0.04		
Manganese	6010B	0.005	1	4/18/02	4/22/02	0.112		
Nickel	6010B	0.02	1	4/18/02	4/22/02	0.02	U	
Zinc	6010B	0.01	1	4/18/02	4/22/02	0.01	U	

RDL 623-a

% Solids: 0.0

Comments:

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: J.H. Baxter & Company
Project No.: BXS-WELLS
Project Name: Arlington Plant Groundwater
Matrix: WATER

Service Request: K2202353
Date Collected: 04/11/02
Date Received: 04/12/02
Units: MG/L
Basis: NA

Sample Name: BXS-5
Lab Code: K2202353-005 DISS

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Arsenic	7060A	0.005	1	4/18/02	4/19/02	0.005	U	
Barium	6010B	0.005	1	4/18/02	4/22/02	0.005	U	
Cadmium	6010B	0.005	1	4/18/02	4/22/02	0.005	U	
Copper	6010B	0.01	1	4/18/02	4/22/02	0.01	U	
Iron	6010B	0.02	1	4/18/02	4/22/02	0.02	U	
Manganese	6010B	0.005	1	4/18/02	4/22/02	0.005	U	
Nickel	6010B	0.02	1	4/18/02	4/22/02	0.02	U	
Zinc	6010B	0.01	1	4/18/02	4/22/02	0.01	U	

% Solids: 0.0

Comments:

00015

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: J.H. Baxter & Company
Project No.: BXS-WELLS
Project Name: Arlington Plant Groundwater
Matrix: WATER

Service Request: K2202353
Date Collected: 04/11/02
Date Received: 04/12/02
Units: MG/L
Basis: NA

Sample Name: BXS-6
Lab Code: K2202353-006 DISS

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Arsenic	7060A	0.005	1	4/18/02	4/19/02	0.005	U	
Barium	6010B	0.005	1	4/18/02	4/22/02	0.023		
Cadmium	6010B	0.005	1	4/18/02	4/22/02	0.005	U	
Copper	6010B	0.01	1	4/18/02	4/22/02	0.01		
Iron	6010B	0.02	1	4/18/02	4/22/02	0.02	U	
Manganese	6010B	0.005	1	4/18/02	4/22/02	0.353		
Nickel	6010B	0.02	1	4/18/02	4/22/02	0.02	U	
Zinc	6010B	0.01	1	4/18/02	4/22/02	0.01	U	

KP 6/3/2

% Solids: 0.0

Comments:

00016

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: J.H. Baxter & Company
Project: Arlington Plant Groundwater/BXS-WELLS
Sample Matrix: Water

Service Request: K2202353
Date Collected: 04/11/2002
Date Received: 04/12/2002

Pentachlorophenol

Sample Name: BXS-1
Lab Code: K2202353-001

Extraction Method: METHOD
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	**22**		0.20	1	04/15/02	04/19/02	KWG0202449	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	78	38-119	04/19/02	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	J.H. Baxter & Company	**Service Request:**	K2202353
Project:	Arlington Plant Groundwater/BXS-WELLS	**Date Collected:**	04/11/2002
Sample Matrix:	Water	**Date Received:**	04/12/2002

Pentachlorophenol

Sample Name:	BXS-2	**Units:**	ug/L
Lab Code:	K2202353-002	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8151M		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	**0.28**		0.20	1	04/15/02	04/19/02	KWG0202449	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	65	38-119	04/19/02	Acceptable

Comments:

00045

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	J.H. Baxter & Company	**Service Request:**	K2202353
Project:	Arlington Plant Groundwater/BXS-WELLS	**Date Collected:**	04/11/2002
Sample Matrix:	Water	**Date Received:**	04/12/2002

Pentachlorophenol

Sample Name:	BXS-3	**Units:**	ug/L
Lab Code:	K2202353-003	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8151M		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.20	1	04/15/02	04/19/02	KWG0202449	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	74	38-119	04/19/02	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	J.H. Baxter & Company	**Service Request:**	K2202353
Project:	Arlington Plant Groundwater/BXS-WELLS	**Date Collected:**	04/11/2002
Sample Matrix:	Water	**Date Received:**	04/12/2002

Pentachlorophenol

Sample Name:	BXS-4	**Units:**	ug/L
Lab Code:	K2202353-004	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8151M		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	**0.23**		0.20	1	04/15/02	04/19/02	KWG0202449	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	69	38-119	04/19/02	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	J.H. Baxter & Company	**Service Request:**	K2202353
Project:	Arlington Plant Groundwater/BXS-WELLS	**Date Collected:**	04/11/2002
Sample Matrix:	Water	**Date Received:**	04/12/2002

Pentachlorophenol

Sample Name:	BXS-5	**Units:**	ug/L
Lab Code:	K2202353-005	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8151M		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.20	1	04/15/02	04/19/02	KWG0202449	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	77	38-119	04/19/02	Acceptable

KPb24-c

Comments:

00048

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	J.H. Baxter & Company	**Service Request:**	K2202353
Project:	Arlington Plant Groundwater/BXS-WELLS	**Date Collected:**	04/11/2002
Sample Matrix:	Water	**Date Received:**	04/12/2002

Pentachlorophenol

Sample Name:	BXS-6	**Units:**	ug/L
Lab Code:	K2202353-006	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8151M		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	**22**		0.20	1	04/15/02	04/19/02	KWG0202449	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	78	38-119	04/19/02	Acceptable

Comments:

Columbia Analytical Services

TLI Project: 57144
Client Sample: BXS-1

1613, Revision B PCDD/PCDF Analysis (c)
Analysis File: T021850

Client Project:	K2202353				
Sample Matrix:	AQUEOUS	Date Received:	04/18/2002	Spike File:	SP161B2S
TLI ID:	323-25-1A	Date Extracted:	04/23/2002	ICal:	TF5121B
		Date Analyzed:	04/26/2002	ConCal:	TB21845
Sample Size:	1.040 L	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	T021847	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JLD	% Solids:	n/a

Analytes	Conc. (pg/L)	DL	Ratio	RT	RRT	Flags
2,3,7,8-TCDD	ND	1.8				—
1,2,3,7,8-PeCDD	ND	1.8				—
1,2,3,4,7,8-HxCDD	ND	1.7				—
1,2,3,6,7,8-HxCDD	ND	1.7				—
1,2,3,7,8,9-HxCDD	ND	1.6				—
1,2,3,4,6,7,8-HpCDD	15.7 J		1.20	37:25	1.000	J
1,2,3,4,6,7,8,9-OCDD	242 J		0.87	41:03	1.000	—
2,3,7,8-TCDF	ND	1.4				—
1,2,3,7,8-PeCDF	ND	1.6				—
2,3,4,7,8-PeCDF	ND	1.2				—
1,2,3,4,7,8-HxCDF	ND	1.0				—
1,2,3,6,7,8-HxCDF	ND	1.2				—
2,3,4,6,7,8-HxCDF	ND	0.9				—
1,2,3,7,8,9-HxCDF	ND	1.4				—
1,2,3,4,6,7,8-HpCDF	ND	3.0				—
1,2,3,4,7,8,9-HpCDF	ND	1.9				—
1,2,3,4,6,7,8,9-OCDF	ND	26.6				—

Totals	Conc. (pg/L)	Number	DL	Flags
Total TCDD	ND		1.8	—
Total PeCDD	ND		1.8	—
Total HxCDD	ND		1.6	—
Total HpCDD	25.5	2		—
Total TCDF	ND		1.4	—
Total PeCDF	ND		1.4	—
Total HxCDF	ND		1.9	—
Total HpCDF	12.8	1		—

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KP 6230

Printed: 12:12 04/27/2002

TLI Project: **57144**
Client Sample: **BXS-1**

1613, Revision B PCDD/PCDF Analysis (c)
Analysis File: **T021850**

Internal Standards	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	RRT	Flags
$^{13}C_{12}$-2,3,7,8-TCDD	935	48.6	31%-137%	0.80	26:44	1.007	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	1180	61.5	25%-181%	1.49	30:59	1.167	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1210	62.9	32%-141%	1.20	34:05	0.988	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1290	67.0	28%-130%	1.21	34:10	0.991	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1460	75.8	23%-140%	1.03	37:25	1.085	
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	2990	77.8	17%-157%	0.86	41:02	1.190	
$^{13}C_{12}$-2,3,7,8-TCDF	843	43.8	29%-140%	0.74	26:01	0.980	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	949	49.4	24%-185%	1.55	29:58	1.129	
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1100	57.0	21%-178%	1.56	30:39	1.154	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1060	54.9	26%-152%	0.51	33:23	0.968	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1080	55.9	26%-123%	0.50	33:29	0.971	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1440	74.8	28%-136%	0.52	33:59	0.986	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1250	65.2	29%-147%	0.50	34:44	1.007	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1300	67.4	28%-143%	0.42	36:22	1.055	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1420	73.8	26%-138%	0.41	37:54	1.099	

Cleanup Standard	Conc. (pg/L)	% Recovery	QC Limits	RT	RRT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	118	61.2	42%-164%	26:45	1.008	

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.80	26:33	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.19	34:29	

Data Reviewer: _____ 04/27/2002

161B_PSR v2.04, LARS 6.25.04

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Rep 6.25.02

Printed: 12:12 04/27/2002

TLI Project: **57144r1** 1613, Revision B PCDD/PCDF Analysis (c)
Client Sample: **BXS-2** Analysis File: **U058503**

Client Project:	K2202353				
Sample Matrix:	AQUEOUS	Date Received:	04/18/2002	Spike File:	SP161B2S
TLI ID:	323-25-2B	Date Extracted:	05/01/2002	ICal:	UF5307B
		Date Analyzed:	05/06/2002	ConCal:	UB58202
Sample Size:	1.000 L	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	U058502	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JLD	% Solids:	n/a

Analytes	Conc. (pg/L)	DL	Ratio	RT	RRT	Flags
2,3,7,8-TCDD	1.6		0.85	26:37	1.002	J__
1,2,3,7,8-PeCDD	1.6		1.58	30:54	1.001	J__
1,2,3,4,7,8-HxCDD	ND	2.1				
1,2,3,6,7,8-HxCDD	2.7		1.40	34:08	1.000	J__
1,2,3,7,8,9-HxCDD	2.4 UJ		1.20	34:27	1.010	J__
1,2,3,4,6,7,8-HpCDD	54.1		0.98	37:23	1.000	___
1,2,3,4,6,7,8,9-OCDD	961		0.88	40:55	1.000	___
2,3,7,8-TCDF	ND	1.8				
1,2,3,7,8-PeCDF	ND	3.1				
2,3,4,7,8-PeCDF	2.2		1.69	30:33	1.001	J__
1,2,3,4,7,8-HxCDF	2.9 UJ		1.19	33:21	1.000	J__
1,2,3,6,7,8-HxCDF	ND	1.9				
2,3,4,6,7,8-HxCDF	1.8 UJ		1.31	33:56	1.000	J__
1,2,3,7,8,9-HxCDF	1.7 UJ		1.18	34:42	1.000	J__
1,2,3,4,6,7,8-HpCDF	18.2		0.99	36:20	1.000	J__
1,2,3,4,7,8,9-HpCDF	ND	2.9				
1,2,3,4,6,7,8,9-OCDF	86.4		0.90	41:08	1.005	J__

Totals	Conc. (pg/L)	Number	DL	Flags
Total TCDD	1.6	1		___
Total PeCDD	12.1	4		___
Total HxCDD	7.6	3		___
Total HpCDD	85.1	2		___
Total TCDF	ND		4.2	___
Total PeCDF	3.7 J	2		X__
Total HxCDF	22.2	7		___
Total HpCDF	60.9	3		___

RQ6-2402

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Printed: 15:58 05/07/2002

U1068

TLI Project: **57144r1** 1613, Revision B PCDD/PCDF Analysis (c)
Client Sample: **BXS-2** Analysis File: **U058503**

Internal Standards	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	RRT	Flags
$^{13}C_{12}$-2,3,7,8-TCDD	1050	52.3	31%-137%	0.80	26:34	1.006	___
$^{13}C_{12}$-1,2,3,7,8-PeCDD	1440	71.8	25%-181%	1.57	30:53	1.170	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1160	58.1	32%-141%	1.25	34:02	0.989	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1240	62.1	28%-130%	1.24	34:07	0.991	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1060	53.2	23%-140%	1.09	37:22	1.086	___
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	2220	55.5	17%-157%	0.89	40:55	1.189	___
$^{13}C_{12}$-2,3,7,8-TCDF	1020	50.9	29%-140%	0.78	25:52	0.980	___
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1200	60.1	24%-185%	1.58	29:50	1.130	___
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1230	61.3	21%-178%	1.59	30:32	1.157	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1140	56.9	26%-152%	0.52	33:21	0.969	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1150	57.5	26%-123%	0.52	33:26	0.971	___
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1200	60.0	28%-136%	0.52	33:55	0.985	___
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1030	51.4	29%-147%	0.52	34:41	1.008	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1010	50.6	28%-143%	0.45	36:19	1.055	___
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	928	46.4	26%-138%	0.46	37:51	1.100	___

Cleanup Standard	Conc. (pg/L)	% Recovery	QC Limits	RT	RRT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	153	76.7	42%-164%	26:35	1.007	___

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.82	26:24	___
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.24	34:25	___

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161B_PSR v2.04, LARS 6.25.04

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TLI Project: 57144
Client Sample: BXS-3

1613, Revision B PCDD/PCDF Analysis (c)
Analysis File: T021852

Client Project:	K2202353				
Sample Matrix:	AQUEOUS	Date Received:	04/18/2002	Spike File:	SP161B2S
TLI ID:	323-25-3A	Date Extracted:	04/23/2002	ICal:	TF5121B
		Date Analyzed:	04/27/2002	ConCal:	TB21845
Sample Size:	1.050 L	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	T021847	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JLD	% Solids:	n/a

Analytes	Conc. (pg/L)	DL	Ratio	RT	RRT	Flags
2,3,7,8-TCDD	ND	1.3				
1,2,3,7,8-PeCDD	ND	1.3				
1,2,3,4,7,8-HxCDD	ND	1.2				
1,2,3,6,7,8-HxCDD	ND	1.3				
1,2,3,7,8,9-HxCDD	ND	1.2				
1,2,3,4,6,7,8-HpCDD	11.2		1.15	37:25	1.000	J
1,2,3,4,6,7,8,9-OCDD	115		0.88	41:03	1.000	
2,3,7,8-TCDF	ND	0.9				
1,2,3,7,8-PeCDF	ND	1.1				
2,3,4,7,8-PeCDF	ND	0.9				
1,2,3,4,7,8-HxCDF	ND	1.9				
1,2,3,6,7,8-HxCDF	ND	0.8				
2,3,4,6,7,8-HxCDF	2.1		1.39	33:58	1.000	J
1,2,3,7,8,9-HxCDF	ND	1.0				
1,2,3,4,6,7,8-HpCDF	ND	2.5				
1,2,3,4,7,8,9-HpCDF	ND	1.4				
1,2,3,4,6,7,8,9-OCDF	ND	15.9				

Totals	Conc. (pg/L)	Number	DL	Flags
Total TCDD	ND		1.3	
Total PeCDD	ND		1.3	
Total HxCDD	ND		5.6	
Total HpCDD	11.2	1		
Total TCDF	11.3 J	1		X
Total PeCDF	4.7	1		
Total HxCDF	3.7	2		
Total HpCDF	ND		8.1	

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TLI Project: **57144**
Client Sample: **BXS-3**

1613, Revision B PCDD/PCDF Analysis (c)
Analysis File: **T021852**

Internal Standards	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	RRT	Flags
$^{13}C_{12}$-2,3,7,8-TCDD	994	52.2	31%-137%	0.80	26:44	1.007	—
$^{13}C_{12}$-1,2,3,7,8-PeCDD	1170	61.4	25%-181%	1.48	30:59	1.167	—
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1190	62.7	32%-141%	1.26	34:05	0.988	—
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1280	67.2	28%-130%	1.16	34:09	0.990	—
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1460	76.9	23%-140%	1.03	37:24	1.085	—
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	3140	82.6	17%-157%	0.87	41:02	1.190	—
$^{13}C_{12}$-2,3,7,8-TCDF	902	47.3	29%-140%	0.74	26:01	0.980	—
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1010	52.9	24%-185%	1.53	29:57	1.128	—
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1110	58.2	21%-178%	1.56	30:39	1.154	—
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1070	56.3	26%-152%	0.50	33:23	0.968	—
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1090	57.1	26%-123%	0.50	33:29	0.971	—
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1380	72.4	28%-136%	0.51	33:58	0.985	—
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1210	63.6	29%-147%	0.51	34:44	1.007	—
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1330	69.9	28%-143%	0.41	36:22	1.055	—
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1390	73.1	26%-138%	0.41	37:54	1.099	—

Cleanup Standard	Conc. (pg/L)	% Recovery	QC Limits	RT	RRT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	142	74.7	42%-164%	26:45	1.008	—

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.83	26:33	—
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.20	34:29	—

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TLI Project: **57144**
Client Sample: **BXS-4**

1613, Revision B PCDD/PCDF Analysis (c)

Analysis File: **T021853**

Client Project:	K2202353				
Sample Matrix:	AQUEOUS	Date Received:	04/18/2002	Spike File:	SP161B2S
TLI ID:	323-25-4A	Date Extracted:	04/23/2002	ICal:	TF5121B
		Date Analyzed:	04/27/2002	ConCal:	TB21845
Sample Size:	1.040 L	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	T021847	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JLD	% Solids:	n/a

Analytes	Conc. (pg/L)	DL	Ratio	RT	RRT	Flags
2,3,7,8-TCDD	ND	1.9				—
1,2,3,7,8-PeCDD	ND	1.8				—
1,2,3,4,7,8-HxCDD	ND	1.6				—
1,2,3,6,7,8-HxCDD	ND	1.7				—
1,2,3,7,8,9-HxCDD	ND	1.6				—
1,2,3,4,6,7,8-HpCDD	ND	8.3				—
1,2,3,4,6,7,8,9-OCDD	83.9		0.97	41:02	1.000	J
2,3,7,8-TCDF	ND	1.4				—
1,2,3,7,8-PeCDF	ND	1.7				—
2,3,4,7,8-PeCDF	ND	1.2				—
1,2,3,4,7,8-HxCDF	ND	3.5				—
1,2,3,6,7,8-HxCDF	ND	2.7				—
2,3,4,6,7,8-HxCDF	ND	2.0				—
1,2,3,7,8,9-HxCDF	ND	1.4				—
1,2,3,4,6,7,8-HpCDF	ND	2.9				—
1,2,3,4,7,8,9-HpCDF	ND	1.9				—
1,2,3,4,6,7,8,9-OCDF	13.5		0.76	41:16	1.006	J

Totals	Conc. (pg/L)	Number DL	Flags
Total TCDD	ND	1.9	—
Total PeCDD	ND	1.8	—
Total HxCDD	ND	1.6	—
Total HpCDD	ND	8.3	—
Total TCDF	ND	1.4	—
Total PeCDF	ND	1.5	—
Total HxCDF	ND	8.2	—
Total HpCDF	ND	2.9	—

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TLI Project: **57144**
Client Sample: **BXS-4**

1613, Revision B PCDD/PCDF Analysis (c)
Analysis File: **T021853**

Internal Standards	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	RRT	Flags
$^{13}C_{12}$-2,3,7,8-TCDD	750	39.0	31%-137%	0.80	26:44	1.007	—
$^{13}C_{12}$-1,2,3,7,8-PeCDD	957	49.7	25%-181%	1.46	30:59	1.167	—
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1000	52.1	32%-141%	1.21	34:05	0.988	—
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1050	54.6	28%-130%	1.21	34:10	0.991	—
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1250	64.9	23%-140%	1.03	37:25	1.085	—
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	2770	72.1	17%-157%	0.85	41:02	1.190	—
$^{13}C_{12}$-2,3,7,8-TCDF	678	35.2	29%-140%	0.74	26:01	0.980	—
$^{13}C_{12}$-1,2,3,7,8-PeCDF	744	38.7	24%-185%	1.54	29:57	1.128	—
$^{13}C_{12}$-2,3,4,7,8-PeCDF	890	46.3	21%-178%	1.52	30:39	1.154	—
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	830	43.2	26%-152%	0.51	33:23	0.968	—
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	859	44.7	26%-123%	0.51	33:29	0.971	—
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1220	63.5	28%-136%	0.51	33:58	0.985	—
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1010	52.7	29%-147%	0.51	34:44	1.007	—
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1080	56.2	28%-143%	0.41	36:22	1.055	—
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1210	63.0	26%-138%	0.41	37:54	1.099	—

Cleanup Standard	Conc. (pg/L)	% Recovery	QC Limits	RT	RRT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	Interference					—

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.83	26:33	—
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.20	34:29	—

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TLI Project: 57144
Client Sample: BXS-5

1613, Revision B PCDD/PCDF Analysis (c)
Analysis File: T021854

Client Project:	K2202353				
Sample Matrix:	AQUEOUS	Date Received:	04/18/2002	Spike File:	SP161B2S
TLI ID:	323-25-5A	Date Extracted:	04/23/2002	ICal:	TF5121B
		Date Analyzed:	04/27/2002	ConCal:	TB21845
Sample Size:	1.040 L	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	T021847	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JLD	% Solids:	n/a

Analytes	Conc. (pg/L)	DL	Ratio	RT	RRT	Flags
2,3,7,8-TCDD	ND	1.5				—
1,2,3,7,8-PeCDD	ND	1.7				—
1,2,3,4,7,8-HxCDD	ND	1.4				—
1,2,3,6,7,8-HxCDD	ND	1.4				—
1,2,3,7,8,9-HxCDD	ND	1.4				—
1,2,3,4,6,7,8-HpCDD	ND	2.3				—
1,2,3,4,6,7,8,9-OCDD	ND	3.3				—
2,3,7,8-TCDF	ND	1.2				—
1,2,3,7,8-PeCDF	ND	1.3				—
2,3,4,7,8-PeCDF	ND	1.0				—
1,2,3,4,7,8-HxCDF	ND	1.0				—
1,2,3,6,7,8-HxCDF	ND	1.1				—
2,3,4,6,7,8-HxCDF	ND	0.8				—
1,2,3,7,8,9-HxCDF	ND	1.3				—
1,2,3,4,6,7,8-HpCDF	ND	1.3				—
1,2,3,4,7,8,9-HpCDF	ND	1.7				—
1,2,3,4,6,7,8,9-OCDF	ND	2.7				—

Totals	Conc. (pg/L)	Number DL	Flags
Total TCDD	ND	1.5	—
Total PeCDD	ND	1.7	—
Total HxCDD	ND	1.4	—
Total HpCDD	ND	2.3	—
Total TCDF	ND	1.2	—
Total PeCDF	ND	1.1	—
Total HxCDF	ND	1.0	—
Total HpCDF	ND	1.5	—

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TLI Project: **57144** 1613, Revision B PCDD/PCDF Analysis (c)
Client Sample: **BXS-5** Analysis File: **T021854**

Internal Standards	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	RRT	Flags
$^{13}C_{12}$-2,3,7,8-TCDD	1010	52.5	31%-137%	0.80	26:44	1.007	___
$^{13}C_{12}$-1,2,3,7,8-PeCDD	1250	65.1	25%-181%	1.49	30:58	1.166	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1260	65.4	32%-141%	1.14	34:04	0.988	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1360	70.8	28%-130%	1.24	34:09	0.991	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1400	72.8	23%-140%	1.03	37:24	1.085	___
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	2830	73.7	17%-157%	0.86	41:02	1.191	___
$^{13}C_{12}$-2,3,7,8-TCDF	922	48.0	29%-140%	0.73	26:01	0.980	___
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1010	52.5	24%-185%	1.55	29:57	1.128	___
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1210	63.0	21%-178%	1.55	30:39	1.154	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1060	55.3	26%-152%	0.51	33:23	0.969	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1130	58.7	26%-123%	0.50	33:29	0.971	___
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1460	75.8	28%-136%	0.51	33:58	0.985	___
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1290	66.8	29%-147%	0.51	34:43	1.007	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1290	67.0	28%-143%	0.42	36:21	1.055	___
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1450	75.3	26%-138%	0.42	37:53	1.099	___

Cleanup Standard	Conc. (pg/L)	% Recovery	QC Limits	RT	RRT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	261	135	42%-164%	26:44	1.007	___

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.82	26:33	___
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.19	34:28	___

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TLI Project: **57144**
Client Sample: **BXS-6**

1613, Revision B PCDD/PCDF Analysis (c)
Analysis File: **T021855**

Client Project:	K2202353				
Sample Matrix:	AQUEOUS	Date Received:	04/18/2002	Spike File:	SP161B2S
TLI ID:	323-25-6A	Date Extracted:	04/23/2002	ICal:	TF5121B
		Date Analyzed:	04/27/2002	ConCal:	TB21845
Sample Size:	1.050 L	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	T021847	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JLD	% Solids:	n/a

Analytes	Conc. (pg/L)	DL	Ratio	RT	RRT	Flags
2,3,7,8-TCDD	ND	0.9				
1,2,3,7,8-PeCDD	ND	0.9				
1,2,3,4,7,8-HxCDD	ND	0.8				
1,2,3,6,7,8-HxCDD	ND	0.9				
1,2,3,7,8,9-HxCDD	ND	0.8				
1,2,3,4,6,7,8-HpCDD	5.9 J		0.98	37:25	1.000	J
1,2,3,4,6,7,8,9-OCDD	39.3 J		0.89	41:03	1.000	J
2,3,7,8-TCDF	ND	0.7				
1,2,3,7,8-PeCDF	ND	0.8				
2,3,4,7,8-PeCDF	ND	0.6				
1,2,3,4,7,8-HxCDF	ND	0.6				
1,2,3,6,7,8-HxCDF	ND	0.6				
2,3,4,6,7,8-HxCDF	ND	0.5				
1,2,3,7,8,9-HxCDF	ND	0.7				
1,2,3,4,6,7,8-HpCDF	ND	0.8				
1,2,3,4,7,8,9-HpCDF	ND	1.0				
1,2,3,4,6,7,8,9-OCDF	ND	4.4				

Totals	Conc. (pg/L)	Number	DL	Flags
Total TCDD	ND		0.9	
Total PeCDD	ND		0.9	
Total HxCDD	ND		14.3	
Total HpCDD	5.9	1		
Total TCDF	ND		0.7	
Total PeCDF	ND		0.7	
Total HxCDF	ND		0.6	
Total HpCDF	3.3	1		

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TLI Project: **57144**
Client Sample: **BXS-6**

1613, Revision B PCDD/PCDF Analysis (c)
Analysis File: **T021855**

Internal Standards	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	RRT	Flags
$^{13}C_{12}$-2,3,7,8-TCDD	1070	56.2	31%-137%	0.80	26:44	1.007	—
$^{13}C_{12}$-1,2,3,7,8-PeCDD	1290	67.9	25%-181%	1.50	30:59	1.167	—
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1330	69.6	32%-141%	1.20	34:05	0.988	—
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1470	77.4	28%-130%	1.21	34:09	0.990	—
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1630	85.3	23%-140%	1.04	37:25	1.085	—
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	3500	91.8	17%-157%	0.86	41:02	1.190	—
$^{13}C_{12}$-2,3,7,8-TCDF	957	50.2	29%-140%	0.73	26:01	0.980	—
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1030	54.0	24%-185%	1.53	29:57	1.128	—
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1210	63.5	21%-178%	1.52	30:39	1.154	—
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1190	62.5	26%-152%	0.51	33:23	0.968	—
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1230	64.6	26%-123%	0.51	33:29	0.971	—
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1600	84.0	28%-136%	0.51	33:58	0.985	—
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1420	74.7	29%-147%	0.50	34:44	1.007	—
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1470	77.2	28%-143%	0.42	36:22	1.055	—
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1620	85.2	26%-138%	0.41	37:54	1.099	—

Cleanup Standard	Conc. (pg/L)	% Recovery	QC Limits	RT	RRT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	139	72.7	42%-164%	26:45	1.008	—

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.81	26:33	—
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.19	34:29	—

Data Reviewer: JGA 04/27/2002

161B_PSR v2.04, LARS 6.25.04

KP6232

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164

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: J.H. Baxter & Company
Project: Lysimeters
Sample Matrix: Water

Service Request: K2202308
Date Collected: 04/10/2002
Date Received: 04/11/2002

Diesel and Residual Range Organics

Sample Name: L-1
Lab Code: K2202308-001

Extraction Method: EPA 3510C
Analysis Method: NWTPH-Dx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**270**	Y	250	1	04/17/02	04/17/02	KWG0202525	
Residual Range Organics (RRO)	ND	U	500	1	04/17/02	04/17/02	KWG0202525	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	90	50-150	04/17/02	Acceptable
n-Triacontane	82	50-150	04/17/02	Acceptable

KP 6-23-02

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: J.H. Baxter & Company
Project: Lysimeters
Sample Matrix: Water

Service Request: K2202308
Date Collected: 04/10/2002
Date Received: 04/11/2002

Diesel and Residual Range Organics

Sample Name: L-3
Lab Code: K2202308-002

Extraction Method: EPA 3510C
Analysis Method: NWTPH-Dx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	ND	U	250	1	04/17/02	04/17/02	KWG0202525	
Residual Range Organics (RRO)	ND	U	500	1	04/17/02	04/17/02	KWG0202525	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	88	50-150	04/17/02	Acceptable
n-Triacontane	79	50-150	04/17/02	Acceptable

KP 6272

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: J.H. Baxter & Company
Project: Lysimeters
Sample Matrix: Water

Service Request: K2202308
Date Collected: 04/10/2002
Date Received: 04/11/2002

Diesel and Residual Range Organics

Sample Name: L-3A
Lab Code: K2202308-003

Extraction Method: EPA 3510C
Analysis Method: NWTPH-Dx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	ND	U	250	1	04/17/02	04/17/02	KWG0202525	
Residual Range Organics (RRO)	ND	U	500	1	04/17/02	04/17/02	KWG0202525	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	85	50-150	04/17/02	Acceptable
n-Triacontane	78	50-150	04/17/02	Acceptable

KP 6.25.02

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: J.H. Baxter & Company
Project: Lysimeters
Sample Matrix: Water

Service Request: K2202308
Date Collected: 04/10/2002
Date Received: 04/11/2002

Pentachlorophenol

Sample Name: L-1
Lab Code: K2202308-001

Extraction Method: METHOD
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	Ui	0.22	1	04/15/02	04/19/02	KWG0202449	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	76	38-119	04/19/02	Acceptable

KQ 6 23.02

Comments:

000027

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: J.H. Baxter & Company
Project: Lysimeters
Sample Matrix: Water

Service Request: K2202308
Date Collected: 04/10/2002
Date Received: 04/11/2002

Pentachlorophenol

Sample Name: L-3
Lab Code: K2202308-002

Extraction Method: METHOD
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.20	1	04/15/02	04/19/02	KWG0202449	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	77	38-119	04/19/02	Acceptable

KP 6.23.02

Comments:

Analytical Results

Client: J.H. Baxter & Company
Project: Lysimeters
Sample Matrix: Water

Service Request: K2202308
Date Collected: 04/10/2002
Date Received: 04/11/2002

Pentachlorophenol

Sample Name: L-3A
Lab Code: K2202308-003

Extraction Method: METHOD
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.20	1	04/15/02	04/19/02	KWG0202449	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	76	38-119	04/19/02	Acceptable

RPD 6-25-02

Comments:

Columbia Analytical Services

TLI Project: 57135
Client Sample: L-1

1613, Revision B PCDD/PCDF Analysis (c)
Analysis File: T021841

Client Project:	n/a				
Sample Matrix:	AQUEOUS	Date Received:	04/17/02	Spike File:	SP161B22
TLI ID:	323-16-1	Date Extracted:	04/22/02	ICal:	TF5121B
		Date Analyzed:	04/26/02	ConCal:	TB21829
Sample Size:	1.000 L	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	U050803	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JMM	% Solids:	n/a

Analytes	Conc. (pg/L)	DL	Ratio	RT	RRT	Flags
2,3,7,8-TCDD	ND	1.9				___
1,2,3,7,8-PeCDD	ND	1.8				___
1,2,3,4,7,8-HxCDD	ND	4.2				J__
1,2,3,6,7,8-HxCDD	ND	1.6				___
1,2,3,7,8,9-HxCDD	ND	1.5				___
1,2,3,4,6,7,8-HpCDD	ND	2.8				J__
1,2,3,4,6,7,8,9-OCDD	21.1 UJ		0.79	41:02	1.000	JB_
2,3,7,8-TCDF	ND	1.5				___
1,2,3,7,8-PeCDF	ND	1.5				___
2,3,4,7,8-PeCDF	ND	1.1				___
1,2,3,4,7,8-HxCDF	1.9 UJ		1.13	33:25	1.000	JB_
1,2,3,6,7,8-HxCDF	ND	1.1				___
2,3,4,6,7,8-HxCDF	ND	0.9				___
1,2,3,7,8,9-HxCDF	ND	1.3				___
1,2,3,4,6,7,8-HpCDF	ND	2.3				J__
1,2,3,4,7,8,9-HpCDF	ND	1.7				___
1,2,3,4,6,7,8,9-OCDF	5.8 UJ		0.86	41:16	1.005	JB_

Totals	Conc. (pg/L)	Number	DL	Flags
Total TCDD	ND		1.9	___
Total PeCDD	ND		1.8	___
Total HxCDD	ND		13.3	___
Total HpCDD	ND		5.2	___
Total TCDF	ND		1.5	___
Total PeCDF	ND		1.3	___
Total HxCDF	1.9	1		___
Total HpCDF	ND		2.3	___

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00121 74

TLI Project: **57135**
Client Sample: **L-1**

1613, Revision B PCDD/PCDF Analysis (c)
Analysis File: **T021841**

Internal Standards	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	RRT	Flags
$^{13}C_{12}$-2,3,7,8-TCDD	790	39.5	31%-137%	0.83	26:44	1.007	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	1120	56.2	25%-181%	1.43	31:00	1.168	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1170	58.7	32%-141%	1.20	34:05	0.988	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1230	61.4	28%-130%	1.21	34:10	0.991	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1450	72.6	23%-140%	1.02	37:25	1.085	
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	2990	74.7	17%-157%	0.87	41:03	1.190	
$^{13}C_{12}$-2,3,7,8-TCDF	703	35.2	29%-140%	0.72	26:01	0.980	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	864	43.2	24%-185%	1.57	29:58	1.129	
$^{13}C_{12}$-2,3,4,7,8-PeCDF	998	49.9	21%-178%	1.62	30:39	1.154	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1000	50.2	26%-152%	0.52	33:24	0.969	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	999	50.0	26%-123%	0.52	33:29	0.971	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1340	66.8	28%-136%	0.52	33:59	0.986	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1200	60.0	29%-147%	0.51	34:44	1.007	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1320	66.1	28%-143%	0.44	36:23	1.055	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1410	70.5	26%-138%	0.43	37:55	1.100	

Cleanup Standard	Conc. (pg/L)	% Recovery	QC Limits	RT	RRT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	114	56.9	42%-164%	26:45	1.008	

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.82	26:33	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.20	34:29	

Data Reviewer: GAM 04/28/02

161B_PSR v2.04, LARS 6.25.04

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Columbia Analytical Services

TLI Project: 57135
Client Sample: L-3

1613, Revision B PCDD/PCDF Analysis (c)
Analysis File: T021856

Client Project:	n/a				
Sample Matrix:	AQUEOUS	Date Received:	04/17/2002	Spike File:	SP161B22
TLI ID:	323-16-2	Date Extracted:	04/22/2002	ICal:	TF5121B
		Date Analyzed:	04/26/2002	ConCal:	TB21845
Sample Size:	1.000 L	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	U050803	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JLD	% Solids:	n/a

Analytes	Conc. (pg/L)	DL	Ratio	RT	RRT	Flags
2,3,7,8-TCDD	ND	2.1				
1,2,3,7,8-PeCDD	ND	2.3				
1,2,3,4,7,8-HxCDD	ND	1.9				
1,2,3,6,7,8-HxCDD	ND	1.9				
1,2,3,7,8,9-HxCDD	ND	1.8				
1,2,3,4,6,7,8-HpCDD	8.7		1.07	37:24	1.000	J
1,2,3,4,6,7,8,9-OCDD	116		0.88	41:04	1.000	B
2,3,7,8-TCDF	ND	1.7				
1,2,3,7,8-PeCDF	ND	1.8				
2,3,4,7,8-PeCDF	ND	1.3				
1,2,3,4,7,8-HxCDF	ND	1.4				
1,2,3,6,7,8-HxCDF	ND	1.3				J
2,3,4,6,7,8-HxCDF	ND	1.1				
1,2,3,7,8,9-HxCDF	ND	1.6				
1,2,3,4,6,7,8-HpCDF	ND	1.6				
1,2,3,4,7,8,9-HpCDF	ND	2.2				
1,2,3,4,6,7,8,9-OCDF	18.9 UJ		0.91	41:15	1.005	JB

Totals	Conc. (pg/L)	Number	DL	Flags
Total TCDD	ND		2.1	
Total PeCDD	ND		2.3	
Total HxCDD	ND		15.7	
Total HpCDD	15.8	2		
Total TCDF	ND		1.7	
Total PeCDF	ND		1.5	
Total HxCDF	ND		1.4	
Total HpCDF	5.3	1		

161B_PSR v2.04, LARS 6.25.04

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KQ6 23-2

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00145 98

TLI Project: **57135**
Client Sample: **L-3**

1613, Revision B PCDD/PCDF Analysis (c)
Analysis File: **T021856**

Internal Standards	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	RRT	Flags
$^{13}C_{12}$-2,3,7,8-TCDD	872	43.6	31%-137%	0.81	26:44	1.007	___
$^{13}C_{12}$-1,2,3,7,8-PeCDD	1120	56.1	25%-181%	1.49	31:00	1.168	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1200	59.8	32%-141%	1.18	34:05	0.988	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1360	68.1	28%-130%	1.19	34:10	0.991	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1530	76.3	23%-140%	1.01	37:25	1.085	___
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	3190	79.9	17%-157%	0.86	41:03	1.190	___
$^{13}C_{12}$-2,3,7,8-TCDF	760	38.0	29%-140%	0.73	26:02	0.981	___
$^{13}C_{12}$-1,2,3,7,8-PeCDF	914	45.7	24%-185%	1.50	29:58	1.129	___
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1080	54.1	21%-178%	1.54	30:39	1.154	___
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1080	53.8	26%-152%	0.51	33:24	0.969	___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1120	56.0	26%-123%	0.50	33:29	0.971	___
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1410	70.3	28%-136%	0.51	33:59	0.986	___
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1240	62.1	29%-147%	0.51	34:44	1.007	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1370	68.3	28%-143%	0.42	36:23	1.055	___
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1420	71.0	26%-138%	0.41	37:54	1.099	___

Cleanup Standard	Conc. (pg/L)	% Recovery	QC Limits	RT	RRT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	113	56.3	42%-164%	26:45	1.008	___

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.82	26:33	___
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.19	34:29	___

Data Reviewer: _____ 04/27/2002

161B_PSR v2.04, LARS 6.25.04

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: MW Wells-Permit
Sample Matrix: Water

Service Request: K2202307
Date Collected: 4/10/02
Date Received: 4/11/02

Solids, Total Suspended (TSS)

Prep Method: NONE
Analysis Method: 160.2
Test Notes:

Units: mg/L (ppm)
Basis: NA

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
MW 1	K2202307-001	5	1	NA	4/17/02	258	
MW 2	K2202307-002	5	1	NA	4/17/02	ND	
MW 3	K2202307-003	5	1	NA	4/17/02	ND	
HCMW 6	K2202307-004	5	1	NA	4/17/02	7	
HCMW 7	K2202307-005	5	1	NA	4/17/02	1550	
MW A	K2202307-006	5	1	NA	4/17/02	ND	
MW B	K2202307-007	5	1	NA	4/17/02	ND	
Method Blank	K2202307-MB	5	1	NA	4/17/02	ND	

KP 6-22-02

Approved By: [signature] Date: 4/22/02

1A/020597p
02307WET.EL1 - SAMPLE 4/22/02

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: J.H. Baxter & Company
Project No.: NA
Project Name: MW Wells-Permit
Matrix: WATER

Service Request: K2202307
Date Collected: 04/10/02
Date Received: 04/11/02
Units: µG/L
Basis: NA

Sample Name: MW 1

Lab Code: K2202307-001 DISS

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Calcium	6010B	50	1	4/16/02	4/22/02	13300		
Iron	6010B	20	1	4/16/02	4/22/02	20	U	
Magnesium	6010B	20	1	4/16/02	4/22/02	7920		
Potassium	6010B	2000	1	4/16/02	4/22/02	2000	U	
Sodium	6010B	100	1	4/16/02	4/22/02	4450		

KQ 6-22-2

% Solids: 0.0

Comments: Dissolved Metals

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: J.H. Baxter & Company
Project No.: NA
Project Name: MW Wells-Permit
Matrix: WATER

Service Request: K2202307
Date Collected: 04/10/02
Date Received: 04/11/02
Units: µG/L
Basis: NA

Sample Name: MW 2

Lab Code: K2202307-002 DISS

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Calcium	6010B	50	1	4/16/02	4/22/02	11900		
Iron	6010B	20	1	4/16/02	4/22/02	20	U	
Magnesium	6010B	20	1	4/16/02	4/22/02	7580		
Potassium	6010B	2000	1	4/16/02	4/22/02	2000	U	
Sodium	6010B	100	1	4/16/02	4/22/02	5930		

KP 6222

% Solids: 0.0

Comments: Dissolved Metals

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: J.H. Baxter & Company
Project No.: NA
Project Name: MW Wells-Permit
Matrix: WATER

Service Request: K2202307
Date Collected: 04/10/02
Date Received: 04/11/02
Units: µG/L
Basis: NA

Sample Name: MW 3

Lab Code: K2202307-003 DISS

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Calcium	6010B	50	1	4/16/02	4/22/02	11800		
Iron	6010B	20	1	4/16/02	4/22/02	20	U	
Magnesium	6010B	20	1	4/16/02	4/22/02	8030		
Potassium	6010B	2000	1	4/16/02	4/22/02	2000	U	
Sodium	6010B	100	1	4/16/02	4/22/02	5630		

4/26/02

% Solids: 0.0

Comments: Dissolved Metals

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: J.H. Baxter & Company
Project No.: NA
Project Name: MW Wells-Permit
Matrix: WATER

Service Request: K2202307
Date Collected: 04/10/02
Date Received: 04/11/02
Units: µG/L
Basis: NA

Sample Name: HCMW 6

Lab Code: K2202307-004 DISS

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Calcium	6010B	50	1	4/16/02	4/22/02	13100		
Iron	6010B	20	1	4/16/02	4/22/02	20	U	
Magnesium	6010B	20	1	4/16/02	4/22/02	8570		
Potassium	6010B	2000	1	4/16/02	4/22/02	2000	U	
Sodium	6010B	100	1	4/16/02	4/22/02	4910		

kpb 4-24-02

% Solids: 0.0

Comments: Dissolved Metals

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: J.H. Baxter & Company
Project No.: NA
Project Name: MW Wells-Permit
Matrix: WATER

Service Request: K2202307
Date Collected: 04/10/02
Date Received: 04/11/02
Units: µG/L
Basis: NA

Sample Name: HCMW 7

Lab Code: K2202307-005 DISS

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Calcium	6010B	50	1	4/16/02	4/22/02	12600		
Iron	6010B	20	1	4/16/02	4/22/02	20	U	
Magnesium	6010B	20	1	4/16/02	4/22/02	7730		
Potassium	6010B	2000	1	4/16/02	4/22/02	2000	U	
Sodium	6010B	100	1	4/16/02	4/22/02	5790		

RDb22

% Solids: 0.0

Comments: Dissolved Metals

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: J.H. Baxter & Company
Project No.: NA
Project Name: MW Wells-Permit
Matrix: WATER

Service Request: K2202307
Date Collected: 04/10/02
Date Received: 04/11/02
Units: µG/L
Basis: NA

Sample Name: MW A
Lab Code: K2202307-006 DISS

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Calcium	6010B	50	1	4/16/02	4/22/02	12400		
Iron	6010B	20	1	4/16/02	4/22/02	20	U	
Magnesium	6010B	20	1	4/16/02	4/22/02	7830		
Potassium	6010B	2000	1	4/16/02	4/22/02	2000	U	
Sodium	6010B	100	1	4/16/02	4/22/02	6070		

% Solids: 0.0

Comments: Dissolved Metals

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: J.H. Baxter & Company
Project No.: NA
Project Name: MW Wells-Permit
Matrix: WATER

Service Request: K2202307
Date Collected: 04/10/02
Date Received: 04/11/02
Units: µG/L
Basis: NA

Sample Name: MW B

Lab Code: K2202307-007 DISS

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Calcium	6010B	50	1	4/16/02	4/22/02	50	U	
Iron	6010B	20	1	4/16/02	4/22/02	20	U	
Magnesium	6010B	20	1	4/16/02	4/22/02	20	U	
Potassium	6010B	2000	1	4/16/02	4/22/02	2000	U	
Sodium	6010B	100	1	4/16/02	4/22/02	100	U	

% Solids: 0.0

Comments: Dissolved Metals

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	J.H. Baxter & Company	**Service Request:**	K2202307
Project:	MW Wells-Permit	**Date Collected:**	04/10/2002
Sample Matrix:	Water	**Date Received:**	04/11/2002

Pentachlorophenol

Sample Name:	MW 1	**Units:**	ug/L
Lab Code:	K2202307-001	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	8151M		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.20	1	04/15/02	04/19/02	KWG0202449	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	78	38-119	04/19/02	Acceptable

RQ 6222

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: J.H. Baxter & Company
Project: MW Wells-Permit
Sample Matrix: Water

Service Request: K2202307
Date Collected: 04/10/2002
Date Received: 04/11/2002

Pentachlorophenol

Sample Name: MW 2
Lab Code: K2202307-002

Extraction Method: METHOD
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.20	1	04/15/02	04/19/02	KWG0202449	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	75	38-119	04/19/02	Acceptable

KP 6222

Comments:

00042

Analytical Results

Client: J.H. Baxter & Company
Project: MW Wells-Permit
Sample Matrix: Water

Service Request: K2202307
Date Collected: 04/10/2002
Date Received: 04/11/2002

Pentachlorophenol

Sample Name: MW 3
Lab Code: K2202307-003

Extraction Method: METHOD
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	270	D	1.0	5	04/15/02	04/19/02	KWG0202449	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	71	38-119	04/19/02	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: J.H. Baxter & Company
Project: MW Wells-Permit
Sample Matrix: Water

Service Request: K2202307
Date Collected: 04/10/2002
Date Received: 04/11/2002

Pentachlorophenol

Sample Name: HCMW 6
Lab Code: K2202307-004

Extraction Method: METHOD
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.20	1	04/15/02	04/19/02	KWG0202449	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	82	38-119	04/19/02	Acceptable

kptees

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: J.H. Baxter & Company
Project: MW Wells-Permit
Sample Matrix: Water

Service Request: K2202307
Date Collected: 04/10/2002
Date Received: 04/11/2002

Pentachlorophenol

Sample Name: HCMW 7
Lab Code: K2202307-005

Extraction Method: METHOD
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	**0.43**		0.20	1	04/15/02	04/19/02	KWG0202449	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	63	38-119	04/19/02	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: J.H. Baxter & Company
Project: MW Wells-Permit
Sample Matrix: Water

Service Request: K2202307
Date Collected: 04/10/2002
Date Received: 04/11/2002

Pentachlorophenol

Sample Name: MW A
Lab Code: K2202307-006

Extraction Method: METHOD
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.20	1	04/15/02	04/19/02	KWG0202449	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	77	38-119	04/19/02	Acceptable

KQ622-L

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: J.H. Baxter & Company
Project: MW Wells-Permit
Sample Matrix: Water

Service Request: K2202307
Date Collected: 04/10/2002
Date Received: 04/11/2002

Pentachlorophenol

Sample Name: MW B
Lab Code: K2202307-007

Extraction Method: METHOD
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.20	1	04/15/02	04/19/02	KWG0202449	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	79	38-119	04/19/02	Acceptable

RPD 22

Comments:

Columbia Analytical Services

TLI Project: **57120**
Client Sample: **MW 1/K2202307-001**

1613, Revision B PCDD/PCDF Analysis (c)
Analysis File: **T021833**

Client Project:	J.H.Baxter				
Sample Matrix:	AQUEOUS	Date Received:	04/16/2002	Spike File:	SP161B22
TLI ID:	323-1-1	Date Extracted:	04/17/2002	ICal:	TF5121B
		Date Analyzed:	04/26/2002	ConCal:	TB21829
Sample Size:	1.040 L	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	T021832	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JMM	% Solids:	< 0.1

Analytes	Conc. (pg/L)	DL	Ratio	RT	RRT	Flags
2,3,7,8-TCDD	ND	1.1				
1,2,3,7,8-PeCDD	3.3					
1,2,3,4,7,8-HxCDD	ND	3.7	1.44	30:59	1.001	J
1,2,3,6,7,8-HxCDD	40.1					
1,2,3,7,8,9-HxCDD	11.3		1.20	34:10	1.000	J
1,2,3,4,6,7,8-HpCDD	1210		1.07	34:28	1.009	J
1,2,3,4,6,7,8,9-OCDD	9280		1.02	37:25	1.000	
			0.85	41:02	1.000	
2,3,7,8-TCDF	2.7 UJ					
1,2,3,7,8-PeCDF	ND	3.8	0.65	26:01	1.001	J
2,3,4,7,8-PeCDF	ND	3.8				
1,2,3,4,7,8-HxCDF	16.8					
1,2,3,6,7,8-HxCDF	7.2		1.25	33:23	1.000	JB
2,3,4,6,7,8-HxCDF	10.0		1.16	33:29	1.000	J
1,2,3,7,8,9-HxCDF	4.0		1.29	33:57	1.000	J
1,2,3,4,6,7,8-HpCDF	192		1.11	34:44	1.000	J
1,2,3,4,7,8,9-HpCDF	15.4		1.03	36:22	1.000	
1,2,3,4,6,7,8,9-OCDF	439		0.96	37:55	1.000	J
			0.90	41:14	1.005	

Totals	Conc. (pg/L)	Number	DL	Flags
Total TCDD	ND		1.1	
Total PeCDD	3.3	1		
Total HxCDD	127	5		
Total HpCDD	2010	2		
Total TCDF	5.3 J	2		
Total PeCDF	54.6 J	5		X
Total HxCDF	465 J	9		X
Total HpCDF	782	4		X

1807-11-2

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TLI Project: **57120**
Client Sample: **MW 1/K2202307-001**

1613, Revision B PCDD/PCDF Analysis (c)
Analysis File: **T021833**

Internal Standards	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	RRT	Flags
$^{13}C_{12}$-2,3,7,8-TCDD	1040	54.3	31%-137%	0.81	26:43	1.007	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	1180	61.2	25%-181%	1.45	30:58	1.167	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1260	65.3	32%-141%	1.21	34:04	0.988	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1320	68.4	28%-130%	1.21	34:09	0.991	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1480	77.0	23%-140%	1.01	37:24	1.085	
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	3220	83.6	17%-157%	0.87	41:02	1.191	
$^{13}C_{12}$-2,3,7,8-TCDF	900	46.8	29%-140%	0.72	26:00	0.980	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	927	48.2	24%-185%	1.59	29:57	1.129	
$^{13}C_{12}$-2,3,4,7,8-PeCDF	997	51.9	21%-178%	1.59	30:39	1.155	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1080	56.0	26%-152%	0.51	33:23	0.969	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1080	56.3	26%-123%	0.51	33:28	0.971	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1440	74.7	28%-136%	0.51	33:58	0.985	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1230	64.0	29%-147%	0.52	34:43	1.007	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1290	67.0	28%-143%	0.44	36:22	1.055	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1410	73.5	26%-138%	0.43	37:54	1.100	

Cleanup Standard	Conc. (pg/L)	% Recovery	QC Limits	RT	RRT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	123	63.8	42%-164%	26:44	1.008	

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.83	26:32	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.21	34:28	

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TLI Project: **57120**
Client Sample: **MW 2/K2202307-002**

1613, Revision B PCDD/PCDF Analysis (c)
Analysis File: **T021834**

Client Project:	J.H.Baxter				
Sample Matrix:	AQUEOUS	Date Received:	04/16/2002	Spike File:	SP161B22
TLI ID:	323-1-2	Date Extracted:	04/17/2002	ICal:	TF5121B
		Date Analyzed:	04/26/2002	ConCal:	TB21829
Sample Size:	1.020 L	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	T021832	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JMM	% Solids:	< 0.1

Analytes	Conc. (pg/L)	DL	Ratio	RT	RRT	Flags
2,3,7,8-TCDD	ND	1.4				
1,2,3,7,8-PeCDD	ND	1.5				
1,2,3,4,7,8-HxCDD	ND	1.6				
1,2,3,6,7,8-HxCDD	3.9		1.34	34:10	1.000	J
1,2,3,7,8,9-HxCDD	3.2		1.41	34:28	1.009	J
1,2,3,4,6,7,8-HpCDD	115		1.02	37:25	1.000	
1,2,3,4,6,7,8,9-OCDD	1250		0.84	41:03	1.000	
2,3,7,8-TCDF	ND	1.1				
1,2,3,7,8-PeCDF	ND	1.3				
2,3,4,7,8-PeCDF	ND	1.1				
1,2,3,4,7,8-HxCDF	2.3 NJ					
1,2,3,6,7,8-HxCDF	ND	1.1	1.24	33:24	1.000	JB
2,3,4,6,7,8-HxCDF	1.4					
1,2,3,7,8,9-HxCDF	1.6		1.14	33:58	1.000	J
1,2,3,4,6,7,8-HpCDF	19.0		1.27	34:44	1.000	J
1,2,3,4,7,8,9-HpCDF	3.4		1.00	36:23	1.000	J
1,2,3,4,6,7,8,9-OCDF	97.5		1.14	37:55	1.000	J
			0.88	41:14	1.005	J

Totals	Conc. (pg/L)	Number	DL	Flags
Total TCDD	ND		1.4	
Total PeCDD	ND		1.5	
Total HxCDD	19.1	4		
Total HpCDD	194	2		
Total TCDF	ND		1.1	
Total PeCDF	9.3	2		
Total HxCDF	51.1 J	8		
Total HpCDF	66.3	3		X

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TLI Project: **57120**
Client Sample: **MW 2/K2202307-002**

1613, Revision B PCDD/PCDF Analysis (c)
Analysis File: **T021834**

Internal Standards	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	RRT	Flags
$^{13}C_{12}$-2,3,7,8-TCDD	1260	64.3	31%-137%	0.80	26:44	1.007	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	1510	77.0	25%-181%	1.45	30:59	1.167	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1590	81.2	32%-141%	1.15	34:05	0.988	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1730	88.3	28%-130%	1.27	34:09	0.990	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1880	95.7	23%-140%	1.02	37:25	1.085	
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	3990	102	17%-157%	0.87	41:02	1.190	
$^{13}C_{12}$-2,3,7,8-TCDF	1110	56.4	29%-140%	0.72	26:01	0.980	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1200	61.3	24%-185%	1.56	29:58	1.129	
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1310	66.8	21%-178%	1.61	30:39	1.154	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1380	70.5	26%-152%	0.51	33:23	0.968	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1380	70.5	26%-123%	0.50	33:29	0.971	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1870	95.6	28%-136%	0.51	33:58	0.985	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1650	84.4	29%-147%	0.51	34:44	1.007	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1660	84.7	28%-143%	0.43	36:22	1.055	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1840	94.0	26%-138%	0.44	37:54	1.099	

Cleanup Standard	Conc. (pg/L)	% Recovery	QC Limits	RT	RRT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	141	71.9	42%-164%	26:44	1.007	

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.82	26:33	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.20	34:29	

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TLI Project: **57120**
Client Sample: **HCMW 6/K2202307-004**

1613, Revision B PCDD/PCDF Analysis (c)

Analysis File: **T021835**

Client Project:	J.H.Baxter				
Sample Matrix:	AQUEOUS	Date Received:	04/16/2002	Spike File:	SP161B22
TLI ID:	323-1-4	Date Extracted:	04/17/2002	ICal:	TF5121B
		Date Analyzed:	04/26/2002	ConCal:	TB21829
Sample Size:	1.010 L	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	T021832	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JMM	% Solids:	< 0.1

Analytes	Conc. (pg/L)	DL	Ratio	RT	RRT	Flags
2,3,7,8-TCDD	ND	0.8				
1,2,3,7,8-PeCDD	ND	0.9				
1,2,3,4,7,8-HxCDD	ND	4.6				
1,2,3,6,7,8-HxCDD	ND	0.8				
1,2,3,7,8,9-HxCDD	ND	0.8				
1,2,3,4,6,7,8-HpCDD	5.5 UJ					
1,2,3,4,6,7,8,9-OCDD	56.3 UJ		1.00	37:25	1.000	JB
			0.77	41:03	1.000	JB
2,3,7,8-TCDF	ND	0.7				
1,2,3,7,8-PeCDF	ND	0.8				
2,3,4,7,8-PeCDF	ND	0.6				
1,2,3,4,7,8-HxCDF	ND	0.6				
1,2,3,6,7,8-HxCDF	ND	0.6				
2,3,4,6,7,8-HxCDF	ND	0.5				
1,2,3,7,8,9-HxCDF	ND	0.7				
1,2,3,4,6,7,8-HpCDF	1.7 UJ					
1,2,3,4,7,8,9-HpCDF	ND	1.0	1.04	36:24	1.000	J
1,2,3,4,6,7,8,9-OCDF	7.7 UJ					
			0.96	41:17	1.006	J

Totals	Conc. (pg/L)	Number	DL	Flags
Total TCDD	ND		2.2	
Total PeCDD	ND		0.9	
Total HxCDD	ND		8.2	
Total HpCDD	5.5	1		
Total TCDF	ND		2.3	
Total PeCDF	ND		0.7	
Total HxCDF	ND		0.6	
Total HpCDF	1.7	1		

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TLI Project: 57120
Client Sample: HCMW 6/K2202307-004

1613, Revision B PCDD/PCDF Analysis (c)
Analysis File: T021835

Internal Standards	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	RRT	Flags
$^{13}C_{12}$-2,3,7,8-TCDD	1140	57.7	31%-137%	0.81	26:44	1.007	—
$^{13}C_{12}$-1,2,3,7,8-PeCDD	1330	67.4	25%-181%	1.44	31:00	1.168	—
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1440	72.7	32%-141%	1.21	34:05	0.988	—
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1710	86.1	28%-130%	1.21	34:10	0.991	—
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1750	88.3	23%-140%	1.02	37:25	1.085	—
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	3550	89.7	17%-157%	0.86	41:02	1.190	—
$^{13}C_{12}$-2,3,7,8-TCDF	994	50.2	29%-140%	0.73	26:01	0.980	—
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1090	55.1	24%-185%	1.56	29:58	1.129	—
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1220	61.9	21%-178%	1.56	30:39	1.154	—
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1240	62.6	26%-152%	0.51	33:24	0.969	—
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1260	63.5	26%-123%	0.50	33:29	0.971	—
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1680	85.1	28%-136%	0.51	33:59	0.986	—
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1550	78.4	29%-147%	0.50	34:44	1.007	—
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1550	78.2	28%-143%	0.43	36:23	1.055	—
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1710	86.3	26%-138%	0.43	37:55	1.100	—

Cleanup Standard	Conc. (pg/L)	% Recovery	QC Limits	RT	RRT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	128	64.5	42%-164%	26:45	1.008	—

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.83	26:33	—
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.20	34:29	—

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TLI Project: **57120**
Client Sample: **HCMW 7/K2202307-005**

1613, Revision B PCDD/PCDF Analysis (c)

Analysis File: **T021836**

Client Project:	J.H.Baxter				
Sample Matrix:	AQUEOUS	Date Received:	04/16/2002	Spike File:	SP161B22
TLI ID:	323-1-5	Date Extracted:	04/17/2002	ICal:	TF5121B
		Date Analyzed:	04/26/2002	ConCal:	TB21829
Sample Size:	1.040 L	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	T021832	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JMM	% Solids:	< 0.1

Analytes	Conc. (pg/L)	DL	Ratio	RT	RRT	Flags
2,3,7,8-TCDD	ND	1.8				
1,2,3,7,8-PeCDD	ND	4.5				
1,2,3,4,7,8-HxCDD	5.1		1.19	34:07	1.001	J
1,2,3,6,7,8-HxCDD	10.1		1.28	34:10	1.000	J
1,2,3,7,8,9-HxCDD	10.4		1.20	34:29	1.009	J
1,2,3,4,6,7,8-HpCDD	251		0.99	37:26	1.000	
1,2,3,4,6,7,8,9-OCDD	3200		0.84	41:04	1.000	
2,3,7,8-TCDF	ND	2.9				
1,2,3,7,8-PeCDF	4.2		1.55	29:59	1.001	J
2,3,4,7,8-PeCDF	ND	3.7				
1,2,3,4,7,8-HxCDF	6.7		1.17	33:24	1.000	JB
1,2,3,6,7,8-HxCDF	ND	6.0				
2,3,4,6,7,8-HxCDF	5.5		1.12	33:59	1.000	J
1,2,3,7,8,9-HxCDF	6.5		1.17	34:45	1.000	J
1,2,3,4,6,7,8-HpCDF	67.0		1.04	36:23	1.000	
1,2,3,4,7,8,9-HpCDF	9.7		1.12	37:56	1.000	J
1,2,3,4,6,7,8,9-OCDF	270		0.88	41:16	1.005	

Totals	Conc. (pg/L)	Number	DL	Flags
Total TCDD	ND		1.8	
Total PeCDD	ND		7.1	
Total HxCDD	38.9	4		
Total HpCDD	436	2		
Total TCDF	ND		6.7	
Total PeCDF	14.0	3		
Total HxCDF	93.7 J	9		
Total HpCDF	208	4		X

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TLI Project: **57120**
Client Sample: **HCMW 7/K2202307-005**

1613, Revision B PCDD/PCDF Analysis (c)
Analysis File: **T021836**

Internal Standards	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	RRT	Flags
$^{13}C_{12}$-2,3,7,8-TCDD	821	42.7	31%-137%	0.80	26:44	1.007	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	933	48.5	25%-181%	1.45	31:00	1.168	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	985	51.2	32%-141%	1.26	34:05	0.988	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1070	55.7	28%-130%	1.16	34:10	0.991	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1140	59.0	23%-140%	1.03	37:25	1.085	
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	2320	60.3	17%-157%	0.87	41:03	1.190	
$^{13}C_{12}$-2,3,7,8-TCDF	744	38.7	29%-140%	0.73	26:01	0.980	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	770	40.0	24%-185%	1.56	29:58	1.129	
$^{13}C_{12}$-2,3,4,7,8-PeCDF	814	42.3	21%-178%	1.57	30:39	1.154	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	863	44.9	26%-152%	0.51	33:24	0.969	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	876	45.6	26%-123%	0.51	33:30	0.971	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1130	58.5	28%-136%	0.51	33:59	0.986	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	980	50.9	29%-147%	0.51	34:44	1.007	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1010	52.6	28%-143%	0.43	36:23	1.055	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1050	54.8	26%-138%	0.44	37:55	1.100	

Cleanup Standard	Conc. (pg/L)	% Recovery	QC Limits	RT	RRT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	96.6	50.2	42%-164%	26:45	1.008	

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.82	26:33	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.21	34:29	

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TLI Project: **57120**
Client Sample: **MW A/K2202307-006**

1613, Revision B PCDD/PCDF Analysis (c)
Analysis File: **T021837**

Client Project:	J.H.Baxter				
Sample Matrix:	AQUEOUS	Date Received:	04/16/2002	Spike File:	SP161B22
TLI ID:	323-1-6	Date Extracted:	04/17/2002	ICal:	TF5121B
		Date Analyzed:	04/26/2002	ConCal:	TB21829
Sample Size:	1.000 L	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	T021832	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JMM	% Solids:	< 0.1

Analytes	Conc. (pg/L)	DL	Ratio	RT	RRT	Flags
2,3,7,8-TCDD	ND	1.2				
1,2,3,7,8-PeCDD	ND	2.5				
1,2,3,4,7,8-HxCDD	2.4					
1,2,3,6,7,8-HxCDD	ND	5.3	1.22	34:05	1.000	J
1,2,3,7,8,9-HxCDD	5.7					
1,2,3,4,6,7,8-HpCDD	101		1.17	34:29	1.009	J
1,2,3,4,6,7,8,9-OCDD	1060		1.04	37:25	1.000	
			0.84	41:03	1.000	
2,3,7,8-TCDF	ND	0.9				
1,2,3,7,8-PeCDF	ND	2.2				
2,3,4,7,8-PeCDF	ND	2.0				
1,2,3,4,7,8-HxCDF	ND	2.5				
1,2,3,6,7,8-HxCDF	2.1					
2,3,4,6,7,8-HxCDF	2.2		1.31	33:29	1.000	J
1,2,3,7,8,9-HxCDF	ND	4.6	1.42	33:58	1.000	J
1,2,3,4,6,7,8-HpCDF	17.3					
1,2,3,4,7,8,9-HpCDF	4.2		0.93	36:23	1.000	J
1,2,3,4,6,7,8,9-OCDF	87.2		1.08	37:54	1.000	J
			0.86	41:15	1.005	J

Totals	Conc. (pg/L)	Number	DL	Flags
Total TCDD	ND		1.2	
Total PeCDD	ND		2.5	
Total HxCDD	10.6	3		
Total HpCDD	169	2		
Total TCDF	ND		0.9	
Total PeCDF	6.9	2		
Total HxCDF	49.1 J	6		X
Total HpCDF	62.6 J	4		X

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TLI Project: **57120**
Client Sample: **MW A/K2202307-006**

1613, Revision B PCDD/PCDF Analysis (c)
Analysis File: **T021837**

Internal Standards	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	RRT	Flags
$^{13}C_{12}$-2,3,7,8-TCDD	1110	55.3	31%-137%	0.81	26:44	1.007	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	1330	66.7	25%-181%	1.42	30:59	1.167	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1560	78.0	32%-141%	1.20	34:05	0.989	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1660	82.8	28%-130%	1.21	34:10	0.991	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1750	87.4	23%-140%	1.02	37:25	1.086	
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	3700	92.4	17%-157%	0.86	41:02	1.191	
$^{13}C_{12}$-2,3,7,8-TCDF	992	49.6	29%-140%	0.72	26:00	0.979	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1080	54.0	24%-185%	1.58	29:57	1.128	
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1240	61.9	21%-178%	1.57	30:39	1.154	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1260	62.8	26%-152%	0.50	33:23	0.969	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1230	61.6	26%-123%	0.51	33:29	0.971	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1770	88.3	28%-136%	0.51	33:58	0.985	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1560	78.1	29%-147%	0.50	34:44	1.008	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1590	79.3	28%-143%	0.43	36:22	1.055	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1960	98.0	26%-138%	0.43	37:54	1.100	

Cleanup Standard	Conc. (pg/L)	% Recovery	QC Limits	RT	RRT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	121	60.7	42%-164%	26:44	1.007	

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.82	26:33	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.20	34:28	

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TLI Project: **57120**
Client Sample: **MW B/K2202307-007**

1613, Revision B PCDD/PCDF Analysis (c)
Analysis File: **T021838**

Client Project:	J.H.Baxter				
Sample Matrix:	AQUEOUS	Date Received:	04/16/2002	Spike File:	SP161B22
TLI ID:	323-1-7	Date Extracted:	04/17/2002	ICal:	TF5121B
		Date Analyzed:	04/26/2002	ConCal:	TB21829
Sample Size:	1.040 L	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	T021832	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JMM	% Solids:	< 0.1

Analytes	Conc. (pg/L)	DL	Ratio	RT	RRT	Flags
2,3,7,8-TCDD	ND	2.4				
1,2,3,7,8-PeCDD	ND	2.3				
1,2,3,4,7,8-HxCDD	ND	2.0				
1,2,3,6,7,8-HxCDD	ND	2.0				
1,2,3,7,8,9-HxCDD	ND	2.0				
1,2,3,4,6,7,8-HpCDD	ND	2.8				
1,2,3,4,6,7,8,9-OCDD	40.6		0.86	41:04	1.001	JB
2,3,7,8-TCDF	ND	1.7				
1,2,3,7,8-PeCDF	ND	2.2				
2,3,4,7,8-PeCDF	ND	1.7				
1,2,3,4,7,8-HxCDF	ND	1.4				
1,2,3,6,7,8-HxCDF	ND	1.5				
2,3,4,6,7,8-HxCDF	ND	1.1				
1,2,3,7,8,9-HxCDF	ND	1.8				
1,2,3,4,6,7,8-HpCDF	1.5		1.06	36:23	1.000	J
1,2,3,4,7,8,9-HpCDF	ND	2.3				
1,2,3,4,6,7,8,9-OCDF	5.5		0.80	41:14	1.005	J

Totals	Conc. (pg/L)	Number	DL	Flags
Total TCDD	ND		2.4	
Total PeCDD	ND		2.3	
Total HxCDD	ND		2.0	
Total HpCDD	4.7	1		
Total TCDF	ND		1.7	
Total PeCDF	ND		2.0	
Total HxCDF	ND		1.4	
Total HpCDF	3.7	2		

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TLI Project: **57120**
Client Sample: **MW B/K2202307-007**

1613, Revision B PCDD/PCDF Analysis (c)
Analysis File: **T021838**

Internal Standards	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	RRT	Flags
$^{13}C_{12}$-2,3,7,8-TCDD	765	39.8	31%-137%	0.81	26:44	1.007	—
$^{13}C_{12}$-1,2,3,7,8-PeCDD	983	51.1	25%-181%	1.45	30:59	1.167	—
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1120	58.2	32%-141%	1.21	34:05	0.988	—
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1220	63.5	28%-130%	1.21	34:10	0.991	—
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1380	71.9	23%-140%	1.02	37:25	1.085	—
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	3090	80.4	17%-157%	0.86	41:02	1.190	—
$^{13}C_{12}$-2,3,7,8-TCDF	695	36.1	29%-140%	0.72	26:01	0.980	—
$^{13}C_{12}$-1,2,3,7,8-PeCDF	721	37.5	24%-185%	1.57	29:58	1.129	—
$^{13}C_{12}$-2,3,4,7,8-PeCDF	839	43.6	21%-178%	1.62	30:39	1.154	—
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	942	49.0	26%-152%	0.51	33:23	0.968	—
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	943	49.0	26%-123%	0.51	33:29	0.971	—
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1330	69.0	28%-136%	0.51	33:58	0.985	—
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1150	59.7	29%-147%	0.51	34:44	1.007	—
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1250	65.2	28%-143%	0.44	36:22	1.055	—
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1340	69.8	26%-138%	0.42	37:55	1.100	—

Cleanup Standard	Conc. (pg/L)	% Recovery	QC Limits	RT	RRT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	117	60.7	42%-164%	26:45	1.008	—

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.83	26:33	—
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.19	34:29	—

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TLI Project: 57120A
Client Sample: MW-3

1613, Revision B PCDD/PCDF Analysis (c)

Analysis File: T021848

Client Project:	J.H.Baxter				
Sample Matrix:	AQUEOUS	Date Received:	04/19/2002	Spike File:	SP161B22
TLI ID:	323-51-1	Date Extracted:	04/23/2002	ICal:	TF5121B
		Date Analyzed:	04/26/2002	ConCal:	TB21845
Sample Size:	1.030 L	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	T021847	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JLD	% Solids:	<0.1

Analytes	Conc. (pg/L)	DL	Ratio	RT	RRT	Flags
2,3,7,8-TCDD	ND	1.8				
1,2,3,7,8-PeCDD	ND	1.8				
1,2,3,4,7,8-HxCDD	ND	1.6				
1,2,3,6,7,8-HxCDD	ND	1.7				
1,2,3,7,8,9-HxCDD	ND	1.6				
1,2,3,4,6,7,8-HpCDD	ND	2.5				
1,2,3,4,6,7,8,9-OCDD	20.7 UJ		0.93	41:03	1.000	J
2,3,7,8-TCDF	ND	1.4				
1,2,3,7,8-PeCDF	ND	1.5				
2,3,4,7,8-PeCDF	ND	1.1				
1,2,3,4,7,8-HxCDF	ND	1.1				
1,2,3,6,7,8-HxCDF	ND	1.2				
2,3,4,6,7,8-HxCDF	ND	1.0				
1,2,3,7,8,9-HxCDF	ND	1.5				
1,2,3,4,6,7,8-HpCDF	ND	1.5				
1,2,3,4,7,8,9-HpCDF	ND	2.1				
1,2,3,4,6,7,8,9-OCDF	ND	3.1				

Totals	Conc. (pg/L)	Number	DL	Flags
Total TCDD	ND		1.8	
Total PeCDD	ND		1.8	
Total HxCDD	ND		1.6	
Total HpCDD	ND		2.5	
Total TCDF	ND		1.4	
Total PeCDF	ND		1.3	
Total HxCDF	ND		1.1	
Total HpCDF	ND		1.7	

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TLI Project: 57120A
Client Sample: MW-3

1613, Revision B PCDD/PCDF Analysis (c)
Analysis File: T021848

Internal Standards	Conc. (pg/L)	% Recovery	QC Limits	Ratio	RT	RRT	Flags
$^{13}C_{12}$-2,3,7,8-TCDD	1040	53.4	31%-137%	0.81	26:44	1.007	—
$^{13}C_{12}$-1,2,3,7,8-PeCDD	1330	68.6	25%-181%	1.50	30:59	1.167	—
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1410	72.5	32%-141%	1.26	34:04	0.988	—
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1560	80.1	28%-130%	1.15	34:09	0.991	—
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1650	85.0	23%-140%	1.05	37:24	1.085	—
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	3360	86.6	17%-157%	0.87	41:02	1.191	—
$^{13}C_{12}$-2,3,7,8-TCDF	897	46.2	29%-140%	0.74	26:01	0.980	—
$^{13}C_{12}$-1,2,3,7,8-PeCDF	1040	53.6	24%-185%	1.56	29:57	1.128	—
$^{13}C_{12}$-2,3,4,7,8-PeCDF	1220	62.8	21%-178%	1.54	30:39	1.154	—
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1230	63.6	26%-152%	0.51	33:23	0.969	—
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1250	64.3	26%-123%	0.50	33:28	0.971	—
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	1630	83.8	28%-136%	0.51	33:58	0.985	—
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1430	73.5	29%-147%	0.51	34:43	1.007	—
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1510	77.8	28%-143%	0.42	36:21	1.055	—
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1560	80.3	26%-138%	0.41	37:54	1.100	—

Cleanup Standard	Conc. (pg/L)	% Recovery	QC Limits	RT	RRT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	122	62.7	42%-164%	26:44	1.007	—

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.80	26:33	—
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.20	34:28	—

Data Reviewer: _____ 04/27/2002

Triangle Laboratories, Inc.®
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00380
Printed: 14:02 04/27/2002

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: J.H. Baxter & Company
Project: Carbon Units
Sample Matrix: Water

Service Request: K2202249
Date Collected: 04/08/2002
Date Received: 04/09/2002

Pentachlorophenol

Sample Name: Tank 1
Lab Code: K2202249-001

Extraction Method: METHOD
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	**1100**	D	20	100	04/11/02	04/19/02	KWG0202388	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	93	38-119	04/19/02	Acceptable

RP 6/19/02

omments:

00011

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: J.H. Baxter & Company
Project: Carbon Units
Sample Matrix: Water

Service Request: K2202249
Date Collected: 04/08/2002
Date Received: 04/09/2002

Pentachlorophenol

Sample Name: Tank 2
Lab Code: K2202249-002

Extraction Method: METHOD
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	62	D	2.0	10	04/11/02	04/19/02	KWG0202388	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	77	38-119	04/19/02	Acceptable

KP6782

Comments:

00012

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: J.H. Baxter & Company
Project: Carbon Units
Sample Matrix: Water

Service Request: K2202249
Date Collected: 04/08/2002
Date Received: 04/09/2002

Pentachlorophenol

Sample Name: Tank 3
Lab Code: K2202249-003

Extraction Method: METHOD
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	5.2		0.20	1	04/11/02	04/19/02	KWG0202388	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	84	38-119	04/19/02	Acceptable

KPb 4-2

Comments:

00013

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: BXN Wells-Landfill/BXN-WELLS
Sample Matrix: Water

Service Request: K2202244
Date Collected: 4/9/02
Date Received: 4/10/02

Chloride

Prep Method: NONE
Analysis Method: 300.0
Test Notes:

Units: mg/L (ppm)
Basis: NA

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
BXN-1	K2202244-001	1.0	5	NA	4/11/02	11.7	
BXN-2	K2202244-002	4.0	20	NA	4/11/02	42.2	
BXN-3	K2202244-003	1.0	5	NA	4/11/02	9.2	
BXN-4	K2202244-004	4.0	20	NA	4/11/02	86.3	
BXN-5	K2202244-005	1.0	5	NA	4/11/02	11.8	
BXN-6	K2202244-006	0.2	1	NA	4/11/02	ND	
Method Blank	K2202244-MB	0.2	1	NA	4/11/02	ND	

KAP 6.18.02

Approved By: _____ Date: 4/24/02

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: BXN Wells-Landfill/BXN-WELLS
Sample Matrix: Water

Service Request: K2202244
Date Collected: 4/9/02
Date Received: 4/10/02

Chemical Oxygen Demand (COD)

Prep Method: NONE
Analysis Method: 410.2
Test Notes:

Units: mg/L (ppm)
Basis: NA

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
BXN-1	K2202244-001	5	1	NA	4/11/02	23	
BXN-2	K2202244-002	5	1	NA	4/11/02	5	
BXN-3	K2202244-003	5	1	NA	4/11/02	34	
BXN-4	K2202244-004	5	1	NA	4/11/02	58	
BXN-5	K2202244-005	5	1	NA	4/11/02	24	
BXN-6	K2202244-006	5	1	NA	4/11/02	ND	
Method Blank	K2202244-MB	5	1	NA	4/11/02	ND	

KP 6/18-2

Approved By: _____ Date: 4/24/02

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: BXN Wells-Landfill/BXN-WELLS
Sample Matrix: Water

Service Request: K2202244
Date Collected: 4/9/02
Date Received: 4/10/02

Conductivity

Prep Method: NONE
Analysis Method: 120.1
Test Notes:

Units: uMHOS/cm
Basis: NA

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
BXN-1	K2202244-001	2	1	NA	4/20/02	664	
BXN-2	K2202244-002	2	1	NA	4/20/02	410	
BXN-3	K2202244-003	2	1	NA	4/20/02	741	
BXN-4	K2202244-004	2	1	NA	4/20/02	944	
BXN-5	K2202244-005	2	1	NA	4/20/02	672	
BXN-6	K2202244-006	2	1	NA	4/20/02	ND	
Method Blank	K2202244-MB	2	1	NA	4/20/02	ND	

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Approved By: _____ Date: 4/24/02

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: BXN Wells-Landfill/BXN-WELLS
Sample Matrix: Water

Service Request: K2202244
Date Collected: 4/9/02
Date Received: 4/10/02

Ammonia as Nitrogen

Prep Method: NONE
Analysis Method: 350.3
Test Notes:

Units: mg/L (ppm)
Basis: NA

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
BXN-1	K2202244-001	0.05	1	NA	4/15/02	0.05	
BXN-2	K2202244-002	0.05	1	NA	4/15/02	0.15	
BXN-3	K2202244-003	0.05	1	NA	4/15/02	0.25	
BXN-4	K2202244-004	0.05	1	NA	4/15/02	8.27	
BXN-5	K2202244-005	0.05	1	NA	4/15/02	0.14	
BXN-6	K2202244-006	0.05	1	NA	4/15/02	ND	
Method Blank	K2202244-MB	0.05	1	NA	4/15/02	ND	

KA 6/18/02

Approved By: _____ Date: 4/24/02

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	J.H. Baxter & Company	**Service Request:**	K2202244
Project:	BXN Wells-Landfill/BXN-WELLS	**Date Collected:**	4/9/02
Sample Matrix:	Water	**Date Received:**	4/10/02

Nitrate+Nitrite as Nitrogen

Prep Method:	NONE	Units:	mg/L (ppm)
Analysis Method:	353.2	Basis:	NA
Test Notes:			

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
BXN-1	K2202244-001	0.2	1	NA	4/12/02	ND	
BXN-2	K2202244-002	0.2	1	NA	4/12/02	0.8	
BXN-3	K2202244-003	0.2	1	NA	4/12/02	ND	
BXN-4	K2202244-004	1.0	5	NA	4/12/02	11.6	
BXN-5	K2202244-005	0.2	1	NA	4/12/02	ND	
BXN-6	K2202244-006	0.2	1	NA	4/12/02	ND	
Method Blank	K2202244-MB	0.2	1	NA	4/12/02	ND	
Method Blank	K2202244-MB	0.2	1	NA	4/12/02	ND	

Approved By: _____ Date: 4/24/02

1A/020597p
02244WET.MR5 - SAMPLE 4/24/02

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: BXN Wells-Landfill/BXN-WELLS
Sample Matrix: Water

Service Request: K2202244
Date Collected: 4/9/02
Date Received: 4/10/02

pH

Prep Method: NONE
Analysis Method: 150.1
Test Notes:

Units: pH UNITS
Basis: NA

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
BXN-1	K2202244-001	--	1	NA	4/10/02	6.29 J	X
BXN-2	K2202244-002	--	1	NA	4/10/02	6.13	X
BXN-3	K2202244-003	--	1	NA	4/10/02	6.46	X
BXN-4	K2202244-004	--	1	NA	4/10/02	6.21	X
BXN-5	K2202244-005	--	1	NA	4/10/02	6.35	X
BXN-6	K2202244-006	--	1	NA	4/10/02	5.59	X

lap 6/18/02

Approved By: mth Date: 5/6/02

1A/020597p

02244wet.mr6 - SAMPLE 5/6/02

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	J.H. Baxter & Company	**Service Request:**	K2202244
Project:	BXN Wells-Landfill/BXN-WELLS	**Date Collected:**	4/9/02
Sample Matrix:	Water	**Date Received:**	4/10/02

Sulfate

Prep Method:	NONE	Units:	mg/L (ppm)
Analysis Method:	300.0	Basis:	NA
Test Notes:			

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
BXN-1	K2202244-001	1.0	5	NA	4/11/02	23.5	
BXN-2	K2202244-002	1.0	5	NA	4/11/02	13.1	
BXN-3	K2202244-003	1.0	5	NA	4/11/02	8.1	
BXN-4	K2202244-004	1.0	5	NA	4/11/02	20.9	
BXN-5	K2202244-005	1.0	5	NA	4/11/02	22.7	
BXN-6	K2202244-006	0.2	1	NA	4/11/02	ND	
Method Blank	K2202244-MB	0.2	1	NA	4/11/02	ND	

KP 4/18/02

Approved By: _____ Date: 4/24/02

1A/020507p
02244WET.MR7 - SAMPLE 4/24/02

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	J.H. Baxter & Company	**Service Request:**	K2202244
Project:	BXN Wells-Landfill/BXN-WELLS	**Date Collected:**	4/9/02
Sample Matrix:	Water	**Date Received:**	4/10/02

Tannin and Lignin

Prep Method:	NONE	Units:	mg/L (ppm)
Analysis Method:	SM 5550B	Basis:	NA
Test Notes:			

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
BXN-1	K2202244-001	0.2	1	NA	4/12/02	3.1	
BXN-2	K2202244-002	0.2	1	NA	4/12/02	1.3	
BXN-3	K2202244-003	1.0	5	NA	4/12/02	9.8	
BXN-4	K2202244-004	0.4	2	NA	4/12/02	8.2	
BXN-5	K2202244-005	0.2	1	NA	4/12/02	3.7	
BXN-6	K2202244-006	0.2	1	NA	4/12/02	ND	
Method Blank	K2202244-MB	0.2	1	NA	4/12/02	ND	

KAP 6/19/02

SM *Standard Methods for the Examination of Water and Wastewater*, 19th Ed., 1995.

Approved By: _____ Date: 4/24/02

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	J.H. Baxter & Company	**Service Request:**	K2202244
Project:	BXN Wells-Landfill/BXN-WELLS	**Date Collected:**	4/9/02
Sample Matrix:	Water	**Date Received:**	4/10/02

Solids, Total Dissolved (TDS)

Prep Method:	NONE	Units:	mg/L (ppm)
Analysis Method:	160.1	Basis:	NA
Test Notes:			

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
BXN-1	K2202244-001	5	1	NA	4/11/02	490	
BXN-2	K2202244-002	5	1	NA	4/11/02	257	
BXN-3	K2202244-003	5	1	NA	4/11/02	532	
BXN-4	K2202244-004	5	1	NA	4/11/02	632	
BXN-5	K2202244-005	5	1	NA	4/11/02	384	
BXN-6	K2202244-006	5	1	NA	4/11/02	ND	
Method Blank	K2202244-MB	5	1	NA	4/11/02	ND	

KQ0182

Approved By: _____ Date: 4/24/02

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	J.H. Baxter & Company	**Service Request:**	K2202244
Project:	BXN Wells-Landfill/BXN-WELLS	**Date Collected:**	4/9/02
Sample Matrix:	Water	**Date Received:**	4/10/02

Carbon, Total Organic

Prep Method:	NONE	Units:	mg/L (ppm)
Analysis Method:	415.1	Basis:	NA
Test Notes:			

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
BXN-1	K2202244-001	0.5	1	NA	4/22/02	8.1	
BXN-2	K2202244-002	0.5	1	NA	4/22/02	1.5	
BXN-3	K2202244-003	0.5	1	NA	4/22/02	9.1	
BXN-4	K2202244-004	0.5	1	NA	4/22/02	18.7	
BXN-5	K2202244-005	0.5	1	NA	4/22/02	8.4	
BXN-6	K2202244-006	0.5	1	NA	4/22/02	ND	
Method Blank	K2202244-MB	0.5	1	NA	4/22/02	ND	

Rep 6/8/02

Approved By: _____ Date: 4/24/02

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	J.H. Baxter & Company	**Service Request:**	K2202244
Project:	BXN Wells-Landfill/BXN-WELLS	**Date Collected:**	4/9/02
Sample Matrix:	Water	**Date Received:**	4/10/02

Coliform, Total

Prep Method:	NONE	Units:	MPN/100ml
Analysis Method:	SM 9221B	Basis:	NA
Test Notes:			

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracte	Date Analyzed	Time Test Started		Result	Result Notes
BXN-1	K2202244-001	2	1	NA	4/10/02	1230	hrs	27 J	X
BXN-2	K2202244-002	2	1	NA	4/10/02	1230	hrs	50 J	X
BXN-3	K2202244-003	2	1	NA	4/10/02	1230	hrs	ND UJ	X
BXN-4	K2202244-004	2	1	NA	4/10/02	1230	hrs	2 J	
BXN-5	K2202244-005	2	1	NA	4/10/02	1230	hrs	80 J	X
BXN-6	K2202244-006	2	1	NA	4/10/02	1230	hrs	ND UJ	

RSP 6/18/02

SM *Standard Methods for the Examination of Water and Wastewater*, 18th Ed., 1992.

Approved By: _____ Date: 4/24/02

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: J.H. Baxter & Company
Project No.: BXN-WELLS
Project Name: BXN Wells-Landfill
Matrix: WATER

Service Request: K2202244
Date Collected: 04/09/02
Date Received: 04/10/02
Units: µG/L
Basis: NA

Sample Name: BXN-1
Lab Code: K2202244-001 DISS

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Arsenic	7060A	5.0	1	4/15/02	4/16/02	5.0	U	
Barium	6010B	5.0	1	4/15/02	4/19/02	45.8		
Cadmium	6010B	5.0	1	4/15/02	4/19/02	5.0	U	
Copper	6010B	10	1	4/15/02	4/19/02	10	U	
Iron	6010B	20	1	4/15/02	4/19/02	2080		
Manganese	6010B	5.0	1	4/15/02	4/19/02	1940		
Nickel	6010B	20	1	4/15/02	4/19/02	54.0		
Zinc	6010B	10	1	4/15/02	4/19/02	10	U	

kqb 4/22

% Solids: 0.0

Comments:

000052

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: J.H. Baxter & Company
Project No.: BXN-WELLS
Project Name: BXN Wells-Landfill
Matrix: WATER

Service Request: K2202244
Date Collected: 04/09/02
Date Received: 04/10/02
Units: µG/L
Basis: NA

Sample Name: BXN-2
Lab Code: K2202244-002 DISS

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Arsenic	7060A	5.0	1	4/15/02	4/16/02	5.0	U	
Barium	6010B	5.0	1	4/15/02	4/19/02	16.3		
Cadmium	6010B	5.0	1	4/15/02	4/19/02	5.0	U	
Copper	6010B	10	1	4/15/02	4/19/02	10	U	
Iron	6010B	20	1	4/15/02	4/19/02	20	U	
Manganese	6010B	5.0	1	4/15/02	4/19/02	2400		
Nickel	6010B	20	1	4/15/02	4/19/02	40.5		
Zinc	6010B	10	1	4/15/02	4/19/02	10	U	

KQ 6/18/02

% Solids: 0.0

Comments:

00053

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: J.H. Baxter & Company
Project No.: BXN-WELLS
Project Name: BXN Wells-Landfill
Matrix: WATER

Service Request: K2202244
Date Collected: 04/09/02
Date Received: 04/10/02
Units: µG/L
Basis: NA

Sample Name: BXN-3
Lab Code: K2202244-003 DISS

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Arsenic	7060A	5.0	1	4/15/02	4/16/02	19.5		
Barium	6010B	5.0	1	4/15/02	4/19/02	118		
Cadmium	6010B	5.0	1	4/15/02	4/19/02	5.0	U	
Copper	6010B	10	1	4/15/02	4/19/02	10	U	
Iron	6010B	20	1	4/15/02	4/19/02	40400		
Manganese	6010B	5.0	1	4/15/02	4/19/02	5550		
Nickel	6010B	20	1	4/15/02	4/19/02	41.5		
Zinc	6010B	10	1	4/15/02	4/19/02	10	U	

KP 6/18/02

% Solids: 0.0

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: J.H. Baxter & Company
Project No.: BXN-WELLS
Project Name: BXN Wells-Landfill
Matrix: WATER

Service Request: K2202244
Date Collected: 04/09/02
Date Received: 04/10/02
Units: µG/L
Basis: NA

Sample Name: BXN-4
Lab Code: K2202244-004 DISS

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Arsenic	7060A	5.0	1	4/15/02	4/16/02	5.0	U	
Barium	6010B	5.0	1	4/15/02	4/19/02	197		
Cadmium	6010B	5.0	1	4/15/02	4/19/02	5.0	U	
Copper	6010B	10	1	4/15/02	4/19/02	25.8		
Iron	6010B	20	1	4/15/02	4/19/02	50.5		
Manganese	6010B	5.0	1	4/15/02	4/19/02	7430		
Nickel	6010B	20	1	4/15/02	4/19/02	106		
Zinc	6010B	10	1	4/15/02	4/19/02	10	U	

KP 6/18/02

% Solids: 0.0

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: J.H. Baxter & Company
Project No.: BXN-WELLS
Project Name: BXN Wells-Landfill
Matrix: WATER

Service Request: K2202244
Date Collected: 04/09/02
Date Received: 04/10/02
Units: µG/L
Basis: NA

Sample Name: BXN-5
Lab Code: K2202244-005 DISS

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Arsenic	7060A	5.0	1	4/15/02	4/16/02	5.0	U	
Barium	6010B	5.0	1	4/15/02	4/19/02	46.6		
Cadmium	6010B	5.0	1	4/15/02	4/19/02	5.0	U	
Copper	6010B	10	1	4/15/02	4/19/02	10	U	
Iron	6010B	20	1	4/15/02	4/19/02	2130		
Manganese	6010B	5.0	1	4/15/02	4/19/02	1980		
Nickel	6010B	20	1	4/15/02	4/19/02	56.9		
Zinc	6010B	10	1	4/15/02	4/19/02	38.6		

U

KQ 6/18/02

% Solids: 0.0

Comments:

000056

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: J.H. Baxter & Company
Project No.: BXN-WELLS
Project Name: BXN Wells-Landfill
Matrix: WATER

Service Request: K2202244
Date Collected: 04/09/02
Date Received: 04/10/02
Units: µG/L
Basis: NA

Sample Name: BXN-6
Lab Code: K2202244-006 DISS

Analyte	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	C	Q
Arsenic	7060A	5.0	1	4/15/02	4/16/02	5.0	U	
Barium	6010B	5.0	1	4/15/02	4/19/02	5.0	U	
Cadmium	6010B	5.0	1	4/15/02	4/19/02	5.0	U	
Copper	6010B	10	1	4/15/02	4/19/02	10	U	
Iron	6010B	20	1	4/15/02	4/19/02	20	U	
Manganese	6010B	5.0	1	4/15/02	4/19/02	5.0	U	
Nickel	6010B	20	1	4/15/02	4/19/02	20	U	
Zinc	6010B	10	1	4/15/02	4/19/02	14.2		

KQ6182

% Solids: 0.0

Comments:

00057

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: Untreated Drains
Sample Matrix: Water

Service Request: K2202230
Date Collected: 4/8/2002
Date Received: 4/9/2002

Solids, Total Suspended (TSS)

Prep Method: NONE
Analysis Method: 160.2
Test Notes:

Units: mg/L (ppm)
Basis: NA

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Drain 7	K2202230-001	5	1	NA	4/10/2002	472	
Drain 8	K2202230-002	5	1	NA	4/10/2002	380	
Method Blank	K2202230-MB	5	1	NA	4/10/2002	ND	

KQ 6.18.2

Approved By: _____ Date: 4/17/02

1A/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: J.H. Baxter & Company
Project: Untreated Drains
Sample Matrix: Water

Service Request: K2202230
Date Collected: 4/8/2002
Date Received: 4/9/2002

pH

Prep Method: NONE
Analysis Method: 150.1
Test Notes:

Units: pH UNITS
Basis: NA

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Drain 7	K2202230-001	--	1	NA	4/9/2002	6.55 J	
Drain 8	K2202230-002	--	1	NA	4/9/2002	5.88 J	

KQ6118-2

Approved By: _____ Date: 4/17/02

1A/020597p

Analytical Results

Client: J.H. Baxter & Company
Project: Untreated Drains
Sample Matrix: Water

Service Request: K2202230
Date Collected: 04/08/2002
Date Received: 04/09/2002

Pentachlorophenol

Sample Name: Drain 7
Lab Code: K2202230-001

Extraction Method: METHOD
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	7.8		0.20	1	04/11/02	04/19/02	KWG0202388	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	89	38-119	04/19/02	Acceptable

FP 6/18/02

Comments:

Analytical Results

Client: J.H. Baxter & Company
Project: Untreated Drains
Sample Matrix: Water

Service Request: K2202230
Date Collected: 04/08/2002
Date Received: 04/09/2002

Pentachlorophenol

Sample Name: Drain 8
Lab Code: K2202230-002

Extraction Method: METHOD
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	**9.5**		0.20	1	04/11/02	04/19/02	KWG0202388	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	102	38-119	04/19/02	Acceptable

KP 04/18/02

mments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: J.H. Baxter & Company
Project: Untreated Drains
Sample Matrix: Water

Service Request: K2202230
Date Collected: 04/08/2002
Date Received: 04/09/2002

Diesel and Residual Range Organics - Silica Gel Treated

Sample Name: Drain 7
Lab Code: K2202230-001

Extraction Method: EPA 3510C
Analysis Method: NWTPH-Dx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	860	H	270	1	04/10/02	04/15/02	KWG0202326	
Residual Range Organics (RRO)	4400	O	530	1	04/10/02	04/15/02	KWG0202326	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	96	50-150	04/15/02	Acceptable
n-Triacontane	91	50-150	04/15/02	Acceptable

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Comments:

Printed: 04/16/2002 13:47:27
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Merged

Form 1A - Organic

SuperSet Reference: RR16150

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: J.H. Baxter & Company
Project: Untreated Drains
Sample Matrix: Water

Service Request: K2202230
Date Collected: 04/08/2002
Date Received: 04/09/2002

Diesel and Residual Range Organics - Silica Gel Treated

Sample Name: Drain 8
Lab Code: K2202230-002

Extraction Method: EPA 3510C
Analysis Method: NWTPH-Dx

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	880	H	250	1	04/10/02	04/15/02	KWG0202326	
Residual Range Organics (RRO)	4500	O	500	1	04/10/02	04/15/02	KWG0202326	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	91	50-150	04/15/02	Acceptable
n-Triacontane	86	50-150	04/15/02	Acceptable

KP 6/18/02

Comments:

00040

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	J.H. Baxter & Company	**Service Request:**	K2201400
Project:	Untreated Drains	**Date Collected:**	3/5/2002
Sample Matrix:	Water	**Date Received:**	3/5/2002
		Date Extracted:	NA

Inorganic Parameters

Analyte:	pH (unit)	Solids, Total Suspended (mg/L)
EPA Method:	150.1	160.2
Method Reporting Limit:	--	5
Date Analyzed:	3/5/2002	3/7/2002

Sample Name	Lab Code		
Drain 7	K2201400-001	6.98	86
Drain 8	K2201400-002	6.45	248
Method Blank	K2201400-MB	-	ND

1897.5-E

Approved By: mtl Date: 3/26/02

3ADW/061694

Client: J.H. Baxter & Company
Project: Untreated Drains
Sample Matrix: Water

Service Request: K2201400
Date Collected: 03/05/2002
Date Received: 03/05/2002

Diesel and Residual Range Organics - Silica Gel Treated

Sample Name: Drain 8
Lab Code: K2201400-002

Extraction Method: EPA 3510C
Analysis Method: NWTPH-Dx

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**480**	H	250	1	03/12/02	03/15/02	KWG0201647	
Residual Range Organics (RRO)	**2000**	O	500	1	03/12/02	03/15/02	KWG0201647	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	81	50-150	03/15/02	Acceptable
n-Triacontane	86	50-150	03/15/02	Acceptable

KP 7.5.2

Comments:

00006

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: J.H. Baxter & Company
Project: Untreated Drains
Sample Matrix: Water

Service Request: K2201400
Date Collected: 03/05/2002
Date Received: 03/05/2002

Pentachlorophenol

Sample Name: Drain 7
Lab Code: K2201400-001

Extraction Method: METHOD
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	11		0.20	1	03/12/02	03/18/02	KWG0201654	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	79	38-119	03/18/02	Acceptable

KP 7-5-2

Comments:

00008

Client: J.H. Baxter & Company
Project: Untreated Drains
Sample Matrix: Water

Service Request: K2201400
Date Collected: 03/05/2002
Date Received: 03/05/2002

Pentachlorophenol

Sample Name: Drain 8
Lab Code: K2201400-002

Units: ug/L
Basis: NA

Extraction Method: METHOD
Analysis Method: 8151M

Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	**9.0**		0.20	1	03/12/02	03/18/02	KWG0201654	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	85	38-119	03/18/02	Acceptable

KQ 7.5-2

Comments:

03369