

## Field and Technical Services, LLC

**DATE:** OCTOBER 16, 2006

**FROM:** ANGELA GATCHIE

**SUBJECT:** INORGANIC AND ORGANIC DATA EVALUATION – BTEX, SVOCs, PAHs, METALS  
(Total and Dissolved), BROMIDE  
GAINESVILLE  
SAMPLE DELIVERY GROUP (SDG) – J0604617

**SAMPLES:** 4/Groundwaters/

FW6	DUP01	TRIPBLANK	EB02
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### Overview

The sample set for SDG J0604617 consists of 4 groundwater samples. One field duplicate pair was included in this SDG, (FW06/DUP01).

All samples were analyzed for select volatile organic compounds (VOCs), select semivolatile organic compounds (SVOCs), select total and dissolved metals, and bromide. The samples were collected by Field and Technical Services on 9/25/06 and analyzed by Columbia Analytical Services, Inc.

The data contained in this SDG were evaluated with regard to the following parameters:

- \*      •      Data Completeness
- \*      •      Holding Times
- \*      •      Laboratory Method Blank Results
- \*      •      Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicate
- \*      •      Laboratory Control Sample
- Field Duplicate Results
- Field Blank Results

The symbol (\*) indicates that all quality control criteria were met for this parameter.

### Summary of Data Evaluation

- Total chromium, dissolved chromium, and dissolved zinc were detected in the equipment blank.
- Benzene had a % recovery greater than the qc limit in the matrix spike/matrix spike duplicate for sample FW6.
- 2-Methylphenol, 2,4-dimethylphenol, and acenaphthylene results in the duplicate pair FW-06/DUP01 had RPDs greater than 30%.

VOCs – SW846 8260B

Benzene had a % recovery greater than the qc limit in the matrix spike/matrix spike duplicate for sample FW6. No qualifications were made based on the MS/MSD alone.

SVOCs – SW846 8270C

No qualifications were made to this fraction.

Metals – SW846 6020

The following analytes were detected in the aqueous equipment blank from 9/25/06 at the following concentrations:

<u>Analyte</u>	<u>Maximum Concentration</u>	<u>Blank Action Level</u>
Total Chromium	0.00089 mg/L	0.00445 mg/L
Dissolved Chromium	0.00067 mg/L	0.00335 mg/L
Dissolved Zinc	0.005 mg/L	0.025 mg/L

An action level of 5X the maximum concentration was used to evaluate the sample data for field blank contamination. Associated samples with concentrations below the blank action level were qualified with a "B" for field blank contamination.

Field Duplicate Precision

FIELD DUPLICATE PRECISION

ANALYTE	FW-06	DUP01	RPD
Benzene	4.7	4.8	2.11
Toluene	0.89	0.9	1.12
Ethylbenzene	0.43	0.45	4.55
m,p-Xylenes	2.6	2.9	10.91
o-Xylene	1	1.1	9.52
2-Methylphenol	3.3	1.7	64.00
2,4-Dimethylphenol	11	6.3	54.34
Naphthalene	520	550	5.61
2-Methylnaphthalene	25	24	4.08
Acenaphthylene	0.86	0.6	35.62
Acenaphthene	62	58	6.67
Dibenzofuran	37	33	11.43
Fluorene	45	44	2.25
Phenanthrene	68	66	2.99
Anthracene	5.1	4.3	17.02
Carbazole	24	22	8.70
Fluoranthene	24	21	13.33
Pyrene	11	11	0.00
Benzo(a)anthracene	0.82	0.77	6.29
Chrysene	0.7	0.75	6.90
Diss Arsenic	0.0012	0.00092	26.42
Diss Chromium	0.00095	0.00089	6.52
Diss Zinc	0.0028	0.0037	27.69

Field Duplicate Precision Cont.

2-Methylphenol, 2,4-dimethylphenol, and acenaphthylene results in the duplicate pair FW-06/DUP01 will be qualified as estimated, "J", because of field duplicate RPD greater than 30%.

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Angela Gatchie  
Field and Technical Services  
Database and QA/QC Manager

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Beazer East, Inc.  
Project: Gainesville/Floridan/045006  
Sample Matrix: Water

Service Request: J0604617  
Date Collected: 09/25/2006  
Date Received: 09/26/2006

## Volatile Organic Compounds by GC/MS

Sample Name: FW6-092506  
Lab Code: J0604617-001  
Extraction Method: EPA 5030B  
Analysis Method: 8260B

Units: ug/L  
Basis: NA  
Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzene	4.7		1.0	0.088	1	09/28/06	09/28/06	JWG0603038	
Toluene	0.89	I	1.0	0.13	1	09/28/06	09/28/06	JWG0603038	
Ethylbenzene	0.43	I	1.0	0.12	1	09/28/06	09/28/06	JWG0603038	
m,p-Xylenes	2.6		2.0	0.19	1	09/28/06	09/28/06	JWG0603038	
o-Xylene	1.0		1.0	0.083	1	09/28/06	09/28/06	JWG0603038	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	106	71-122	09/28/06	Acceptable
4-Bromofluorobenzene	85	79-120	09/28/06	Acceptable
Toluene-d8	111	88-117	09/28/06	Acceptable
Dibromofluoromethane	106	82-116	09/28/06	Acceptable

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

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Beazer East, Inc.  
Project: Gainesville/Floridan/045006  
Sample Matrix: Water

Service Request: J0604617  
Date Collected: 09/25/2006  
Date Received: 09/26/2006

## Volatile Organic Compounds by GC/MS

Sample Name: DUP01-092506  
Lab Code: J0604617-002  
Extraction Method: EPA 5030B  
Analysis Method: 8260B

Units: ug/L  
Basis: NA  
Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzene	4.8		1.0	0.088	1	09/28/06	09/28/06	JWG0603038	
Toluene	0.90	I	1.0	0.13	1	09/28/06	09/28/06	JWG0603038	
Ethylbenzene	0.45	I	1.0	0.12	1	09/28/06	09/28/06	JWG0603038	
m,p-Xylenes	2.9		2.0	0.19	1	09/28/06	09/28/06	JWG0603038	
o-Xylene	1.1		1.0	0.083	1	09/28/06	09/28/06	JWG0603038	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	107	71-122	09/28/06	Acceptable
4-Bromofluorobenzene	87	79-120	09/28/06	Acceptable
Toluene-d8	112	88-117	09/28/06	Acceptable
Dibromofluoromethane	107	82-116	09/28/06	Acceptable

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Beazer East, Inc.  
Project: Gainesville/Floridan/045006  
Sample Matrix: Water

Service Request: J0604617  
Date Collected: 09/25/2006  
Date Received: 09/26/2006

## Volatile Organic Compounds by GC/MS

Sample Name: TRIP BLANK  
Lab Code: J0604617-003  
Extraction Method: EPA 5030B  
Analysis Method: 8260B

Units: ug/L  
Basis: NA  
Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzene	ND	U	1.0	0.088	1	09/28/06	09/28/06	JWG0603038	
Toluene	ND	U	1.0	0.13	1	09/28/06	09/28/06	JWG0603038	
Ethylbenzene	ND	U	1.0	0.12	1	09/28/06	09/28/06	JWG0603038	
m,p-Xylenes	ND	U	2.0	0.19	1	09/28/06	09/28/06	JWG0603038	
o-Xylene	ND	U	1.0	0.083	1	09/28/06	09/28/06	JWG0603038	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	107	71-122	09/28/06	Acceptable
4-Bromofluorobenzene	88	79-120	09/28/06	Acceptable
Toluene-d8	112	88-117	09/28/06	Acceptable
Dibromofluoromethane	109	82-116	09/28/06	Acceptable

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Beazer East, Inc.  
Project: Gainesville/Floridan/045006  
Sample Matrix: Water

Service Request: J0604617  
Date Collected: 09/25/2006  
Date Received: 09/26/2006

## Volatile Organic Compounds by GC/MS

Sample Name: EB02-092506  
Lab Code: J0604617-004  
Extraction Method: EPA 5030B  
Analysis Method: 8260B

Units: ug/L  
Basis: NA  
Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzene	ND	U	1.0	0.088	1	09/28/06	09/28/06	JWG0603038	
Toluene	ND	U	1.0	0.13	1	09/28/06	09/28/06	JWG0603038	
Ethylbenzene	ND	U	1.0	0.12	1	09/28/06	09/28/06	JWG0603038	
m,p-Xylenes	ND	U	2.0	0.19	1	09/28/06	09/28/06	JWG0603038	
o-Xylene	ND	U	1.0	0.083	1	09/28/06	09/28/06	JWG0603038	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	107	71-122	09/28/06	Acceptable
4-Bromofluorobenzene	88	79-120	09/28/06	Acceptable
Toluene-d8	110	88-117	09/28/06	Acceptable
Dibromofluoromethane	108	82-116	09/28/06	Acceptable

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Beazer East, Inc.  
 Project: Gainesville/Floridan/045006  
 Sample Matrix: Water

Service Request: J0604617  
 Date Collected: 09/25/2006  
 Date Received: 09/26/2006

## Semi-Volatile Organic Compounds by GC/MS

Sample Name: FW6-092506  
 Lab Code: J0604617-001  
 Extraction Method: EPA 3510C  
 Analysis Method: 8270C

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Phenol	ND U	5.9	2.0	1	10/02/06	10/05/06	JWG0603140	
2-Methylphenol	3.3 J	5.9	0.52	1	10/02/06	10/05/06	JWG0603140	
4-Methylphenol†	ND U	5.9	0.85	1	10/02/06	10/05/06	JWG0603140	
2,4-Dimethylphenol	11 J	5.9	0.62	1	10/02/06	10/05/06	JWG0603140	
Naphthalene	520	59	4.8	10	10/02/06	10/06/06	JWG0603140	
2-Methylnaphthalene	25	5.9	0.49	1	10/02/06	10/05/06	JWG0603140	
Acenaphthylene	0.86 X J	5.9	0.40	1	10/02/06	10/05/06	JWG0603140	
Acenaphthene	62	5.9	0.38	1	10/02/06	10/05/06	JWG0603140	
Dibenzofuran	37	5.9	0.52	1	10/02/06	10/05/06	JWG0603140	
Fluorene	45	5.9	0.42	1	10/02/06	10/05/06	JWG0603140	
Pentachlorophenol	ND U	24	0.46	1	10/02/06	10/05/06	JWG0603140	
Phenanthrene	68	5.9	0.31	1	10/02/06	10/05/06	JWG0603140	
Anthracene	5.1 I	5.9	0.31	1	10/02/06	10/05/06	JWG0603140	
Carbazole	24	5.9	0.64	1	10/02/06	10/05/06	JWG0603140	
Fluoranthene	24	5.9	0.31	1	10/02/06	10/05/06	JWG0603140	
Pyrene	11	5.9	0.50	1	10/02/06	10/05/06	JWG0603140	
Benz(a)anthracene	0.82 I	5.9	0.66	1	10/02/06	10/05/06	JWG0603140	
Chrysene	0.70 I	5.9	0.60	1	10/02/06	10/05/06	JWG0603140	
Benzo(b)fluoranthene	ND U	5.9	0.68	1	10/02/06	10/05/06	JWG0603140	
Benzo(k)fluoranthene	ND U	5.9	0.67	1	10/02/06	10/05/06	JWG0603140	
Benzo(a)pyrene	ND U	5.9	0.64	1	10/02/06	10/05/06	JWG0603140	
Indeno(1,2,3-cd)pyrene	ND U	5.9	0.62	1	10/02/06	10/05/06	JWG0603140	
Dibenz(a,h)anthracene	ND U	5.9	0.66	1	10/02/06	10/05/06	JWG0603140	
Benzo(g,h,i)perylene	ND U	5.9	0.57	1	10/02/06	10/05/06	JWG0603140	

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Comments:



## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Beazer East, Inc.  
**Project:** Gainesville/Floridan/045006  
**Sample Matrix:** Water

**Service Request:** J0604617  
**Date Collected:** 09/25/2006  
**Date Received:** 09/26/2006

## Semi-Volatile Organic Compounds by GC/MS

**Sample Name:** FW6-092506  
**Lab Code:** J0604617-001

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

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	38	10-77	10/05/06	Acceptable
Phenol-d6	26	10-51	10/05/06	Acceptable
Nitrobenzene-d5	85	42-106	10/05/06	Acceptable
2-Fluorobiphenyl	74	43-99	10/05/06	Acceptable
2,4,6-Tribromophenol	104	30-141	10/05/06	Acceptable
Terphenyl-d14	98	23-165	10/05/06	Acceptable

## † Analyte Comments

4-Methylphenol This analyte cannot be separated from 3-Methylphenol.

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Beazer East, Inc.  
 Project: Gainesville/Floridan/045006  
 Sample Matrix: Water

Service Request: J0604617  
 Date Collected: 09/25/2006  
 Date Received: 09/26/2006

## Semi-Volatile Organic Compounds by GC/MS

Sample Name: DUP01-092506  
 Lab Code: J0604617-002  
 Extraction Method: EPA 3510C  
 Analysis Method: 8270C

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Phenol	ND	U	5.6	1.9	1	10/02/06	10/05/06	JWG0603140	
2-Methylphenol	1.7	X J	5.6	0.49	1	10/02/06	10/05/06	JWG0603140	
4-Methylphenol†	ND	U	5.6	0.82	1	10/02/06	10/05/06	JWG0603140	
2,4-Dimethylphenol	6.3	J	5.6	0.59	1	10/02/06	10/05/06	JWG0603140	
Naphthalene	550		56	4.6	10	10/02/06	10/06/06	JWG0603140	
2-Methylnaphthalene	24		5.6	0.47	1	10/02/06	10/05/06	JWG0603140	
Acenaphthylene	0.60	X J	5.6	0.38	1	10/02/06	10/05/06	JWG0603140	
Acenaphthene	58		5.6	0.36	1	10/02/06	10/05/06	JWG0603140	
Dibenzofuran	33		5.6	0.49	1	10/02/06	10/05/06	JWG0603140	
Fluorene	44		5.6	0.40	1	10/02/06	10/05/06	JWG0603140	
Pentachlorophenol	ND	U	23	0.44	1	10/02/06	10/05/06	JWG0603140	
Phenanthrene	66		5.6	0.29	1	10/02/06	10/05/06	JWG0603140	
Anthracene	4.3	I	5.6	0.29	1	10/02/06	10/05/06	JWG0603140	
Carbazole	22		5.6	0.62	1	10/02/06	10/05/06	JWG0603140	
Fluoranthene	21		5.6	0.29	1	10/02/06	10/05/06	JWG0603140	
Pyrene	11		5.6	0.48	1	10/02/06	10/05/06	JWG0603140	
Benz(a)anthracene	0.77	I	5.6	0.63	1	10/02/06	10/05/06	JWG0603140	
Chrysene	0.75	I	5.6	0.57	1	10/02/06	10/05/06	JWG0603140	
Benzo(b)fluoranthene	ND	U	5.6	0.65	1	10/02/06	10/05/06	JWG0603140	
Benzo(k)fluoranthene	ND	U	5.6	0.64	1	10/02/06	10/05/06	JWG0603140	
Benzo(a)pyrene	ND	U	5.6	0.62	1	10/02/06	10/05/06	JWG0603140	
Indeno(1,2,3-cd)pyrene	ND	U	5.6	0.59	1	10/02/06	10/05/06	JWG0603140	
Dibenz(a,h)anthracene	ND	U	5.6	0.63	1	10/02/06	10/05/06	JWG0603140	
Benzo(g,h,i)perylene	ND	U	5.6	0.55	1	10/02/06	10/05/06	JWG0603140	

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Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Beazer East, Inc.  
Project: Gainesville/Floridan/045006  
Sample Matrix: Water

Service Request: J0604617  
Date Collected: 09/25/2006  
Date Received: 09/26/2006

## Semi-Volatile Organic Compounds by GC/MS

Sample Name: DUP01-092506  
Lab Code: J0604617-002

Units: ug/L  
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	36	10-77	10/05/06	Acceptable
Phenol-d6	19	10-51	10/05/06	Acceptable
Nitrobenzene-d5	82	42-106	10/05/06	Acceptable
2-Fluorobiphenyl	65	43-99	10/05/06	Acceptable
2,4,6-Tribromophenol	93	30-141	10/05/06	Acceptable
Terphenyl-d14	95	23-165	10/05/06	Acceptable

## † Analyte Comments

4-Methylphenol This analyte cannot be separated from 3-Methylphenol.

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Beazer East, Inc.  
 Project: Gainesville/Floridan/045006  
 Sample Matrix: Water

Service Request: J0604617  
 Date Collected: 09/25/2006  
 Date Received: 09/26/2006

## Semi-Volatile Organic Compounds by GC/MS

Sample Name: EB02-092506  
 Lab Code: J0604617-004  
 Extraction Method: EPA 3510C  
 Analysis Method: 8270C

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Phenol	ND	U	5.9	2.0	1	10/02/06	10/05/06	JWG0603140	
2-Methylphenol	ND	U	5.9	0.52	1	10/02/06	10/05/06	JWG0603140	
4-Methylphenol†	ND	U	5.9	0.85	1	10/02/06	10/05/06	JWG0603140	
2,4-Dimethylphenol	ND	U	5.9	0.62	1	10/02/06	10/05/06	JWG0603140	
Naphthalene	ND	U	5.9	0.48	1	10/02/06	10/05/06	JWG0603140	
2-Methylnaphthalene	ND	U	5.9	0.49	1	10/02/06	10/05/06	JWG0603140	
Acenaphthylene	ND	U	5.9	0.40	1	10/02/06	10/05/06	JWG0603140	
Acenaphthene	ND	U	5.9	0.38	1	10/02/06	10/05/06	JWG0603140	
Dibenzofuran	ND	U	5.9	0.52	1	10/02/06	10/05/06	JWG0603140	
Fluorene	ND	U	5.9	0.42	1	10/02/06	10/05/06	JWG0603140	
Pentachlorophenol	ND	U	24	0.46	1	10/02/06	10/05/06	JWG0603140	
Phenanthrene	ND	U	5.9	0.31	1	10/02/06	10/05/06	JWG0603140	
Anthracene	ND	U	5.9	0.31	1	10/02/06	10/05/06	JWG0603140	
Carbazole	ND	U	5.9	0.64	1	10/02/06	10/05/06	JWG0603140	
Fluoranthene	ND	U	5.9	0.31	1	10/02/06	10/05/06	JWG0603140	
Pyrene	ND	U	5.9	0.50	1	10/02/06	10/05/06	JWG0603140	
Benz(a)anthracene	ND	U	5.9	0.66	1	10/02/06	10/05/06	JWG0603140	
Chrysene	ND	U	5.9	0.60	1	10/02/06	10/05/06	JWG0603140	
Benzo(b)fluoranthene	ND	U	5.9	0.68	1	10/02/06	10/05/06	JWG0603140	
Benzo(k)fluoranthene	ND	U	5.9	0.67	1	10/02/06	10/05/06	JWG0603140	
Benzo(a)pyrene	ND	U	5.9	0.64	1	10/02/06	10/05/06	JWG0603140	
Indeno(1,2,3-cd)pyrene	ND	U	5.9	0.62	1	10/02/06	10/05/06	JWG0603140	
Dibenz(a,h)anthracene	ND	U	5.9	0.66	1	10/02/06	10/05/06	JWG0603140	
Benzo(g,h,i)perylene	ND	U	5.9	0.57	1	10/02/06	10/05/06	JWG0603140	

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Beazer East, Inc.  
Project: Gainesville/Floridan/045006  
Sample Matrix: Water

Service Request: J0604617  
Date Collected: 09/25/2006  
Date Received: 09/26/2006

## Semi-Volatile Organic Compounds by GC/MS

Sample Name: EB02-092506  
Lab Code: J0604617-004

Units: ug/L  
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	30	10-77	10/05/06	Acceptable
Phenol-d6	18	10-51	10/05/06	Acceptable
Nitrobenzene-d5	61	42-106	10/05/06	Acceptable
2-Fluorobiphenyl	66	43-99	10/05/06	Acceptable
2,4,6-Tribromophenol	85	30-141	10/05/06	Acceptable
Terphenyl-d14	97	23-165	10/05/06	Acceptable

## † Analyte Comments

4-Methylphenol This analyte cannot be separated from 3-Methylphenol.

Comments:

# COLUMBIA ANALYTICAL SERVICES, INC

## Analytical Report

**Client:** Beazer East, Inc.  
**Project Name:** Gainesville/Floridan  
**Project Number:** 045006  
**Matrix:** WATER

**Service Request:** J0604617  
**Date Collected:** 9/25/2006  
**Date Received:** 9/26/2006

### Total Metals

**Sample Name:** FW6-092506  
**Lab Code:** J0604617-001

**Units:** mg/L  
**Basis:** N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic	EPA 3020A	6020	0.00050	0.00028	1.0	10/02/2006	10/03/2006	0.0012	
Chromium	EPA 3020A	6020	0.0020	0.00012	1.0	10/02/2006	10/03/2006	0.00095	✓ B
Copper	EPA 3020A	6020	0.0020	0.00029	1.0	10/02/2006	10/03/2006	U	
Zinc	EPA 3020A	6020	0.010	0.0017	1.0	10/02/2006	10/03/2006	0.0028	i

# COLUMBIA ANALYTICAL SERVICES, INC

## Analytical Report

**Client:** Beazer East, Inc.  
**Project Name:** Gainesville/Floridan  
**Project Number:** 045006  
**Matrix:** WATER

**Service Request:** J0604617  
**Date Collected:** 9/25/2006  
**Date Received:** 9/26/2006

### Total Metals

**Sample Name:** DUP01-092506  
**Lab Code:** J0604617-002

**Units:** mg/L  
**Basis:** N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic	EPA 3020A	6020	0.00050	0.00028	1.0	10/02/2006	10/03/2006	0.00092	
Chromium	EPA 3020A	6020	0.0020	0.00012	1.0	10/02/2006	10/03/2006	0.00089	AB
Copper	EPA 3020A	6020	0.0020	0.00029	1.0	10/02/2006	10/03/2006	U	
Zinc	EPA 3020A	6020	0.010	0.0017	1.0	10/02/2006	10/03/2006	0.0037	i

AG  
 10/19/06

# COLUMBIA ANALYTICAL SERVICES, INC

## Analytical Report

**Client:** Beazer East, Inc.  
**Project Name:** Gainesville/Floridan  
**Project Number:** 045006  
**Matrix:** WATER

**Service Request:** J0604617  
**Date Collected:** 9/25/2006  
**Date Received:** 9/26/2006

### Total Metals

**Sample Name:** EB02-092506  
**Lab Code:** J0604617-004

**Units:** mg/L  
**Basis:** N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic	EPA 3020A	6020	0.00050	0.00028	1.0	10/02/2006	10/03/2006	U	
Chromium	EPA 3020A	6020	0.0020	0.00012	1.0	10/02/2006	10/03/2006	0.00089	i
Copper	EPA 3020A	6020	0.0020	0.00029	1.0	10/02/2006	10/03/2006	U	
Zinc	EPA 3020A	6020	0.010	0.0017	1.0	10/02/2006	10/03/2006	U	

*KG*  
*10/17/06*



# COLUMBIA ANALYTICAL SERVICES, INC

## Analytical Report

Client: Beazer East, Inc.  
 Project Name: Gainesville/Floridan  
 Project Number: 045006  
 Matrix: WATER

Service Request: J0604617  
 Date Collected: 9/25/2006  
 Date Received: 9/26/2006

### Dissolved Metals

Sample Name: FW6-092506  
 Lab Code: J0604617-001

Units: mg/L  
 Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic	EPA 3005A	6020	0.00050	0.00028	1.0	09/27/2006	10/02/2006	0.00097	
Chromium	EPA 3005A	6020	0.0020	0.00012	1.0	09/27/2006	09/29/2006	0.00086	X B
Copper	EPA 3005A	6020	0.0020	0.00029	1.0	09/27/2006	09/29/2006	0.00036	i
Zinc	EPA 3005A	6020	0.010	0.0017	1.0	09/27/2006	09/29/2006	0.023	B

*As  
10/17/06*

## COLUMBIA ANALYTICAL SERVICES, INC

## Analytical Report

Client: Beazer East, Inc.  
Project Name: Gainesville/Floridan  
Project Number: 045006  
Matrix: WATER

Service Request: J0604617  
Date Collected: 9/25/2006  
Date Received: 9/26/2006

## Dissolved Metals

Sample Name: DUP01-092506  
Lab Code: J0604617-002

Units: mg/L  
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic	EPA 3005A	6020	0.00050	0.00028	1.0	09/27/2006	10/02/2006	0.00079	
Chromium	EPA 3005A	6020	0.0020	0.00012	1.0	09/27/2006	09/29/2006	0.00083	X B
Copper	EPA 3005A	6020	0.0020	0.00029	1.0	09/27/2006	09/29/2006	U	
Zinc	EPA 3005A	6020	0.010	0.0017	1.0	09/27/2006	09/29/2006	0.0031	X B

AG  
10/19/06

# COLUMBIA ANALYTICAL SERVICES, INC

## Analytical Report

Client: Beazer East, Inc.  
Project Name: Gainesville/Floridan  
Project Number: 045006  
Matrix: WATER

Service Request: J0604617  
Date Collected: 9/25/2006  
Date Received: 9/26/2006

### Dissolved Metals

Sample Name: EB02-092506  
Lab Code: J0604617-004

Units: mg/L  
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic	EPA 3005A	6020	0.00050	0.00028	1.0	09/27/2006	10/02/2006	U	
Chromium	EPA 3005A	6020	0.0020	0.00012	1.0	09/27/2006	09/29/2006	0.00067	i
Copper	EPA 3005A	6020	0.0020	0.00029	1.0	09/27/2006	09/29/2006	U	
Zinc	EPA 3005A	6020	0.010	0.0017	1.0	09/27/2006	09/29/2006	0.0050	i

# COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Report

**Client :** Beazer East, Inc.  
**Project Name :** Gainesville/Floridan  
**Project Number :** 045006  
**Sample Matrix :** WATER

**Service Request :** J0604617  
**Date Collected :** 09/25/06  
**Date Received :** 09/26/06

### Bromide

**Analysis Method :** 300.0  
**Test Notes :**

**Units :** mg/L (ppm)  
**Basis :** NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date/Time Analyzed	Result	Result Notes
FW6-092506	J0604617-001	0.4	0.11	1	09/27/06 14:27	U	
DUP01-092506	J0604617-002	0.4	0.11	1	09/27/06 14:27	U	
EB02-092506	J0604617-004	0.4	0.11	1	09/27/06 14:27	U	
Method Blank	J0604617-MB	0.4	0.11	1	09/27/06 14:27	U ✓	

October 09, 2006

Service Request No: J0604617

Angela Gatchie  
Field and Technical Services, LLC  
200 Third Avenue  
Carnegie, PA 15106

**RE: Gainesville/Floridan/045006**

Dear Angela:

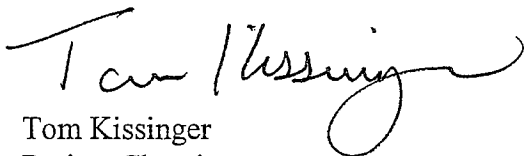
Enclosed are the results of the sample(s) submitted to our laboratory on September 26, 2006. For your reference, these analyses have been assigned our service request number J0604617.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 289. You may also contact me via email at TKissinger@jax.caslab.com.

Respectfully submitted,

**Columbia Analytical Services, Inc.**



Tom Kissinger  
Project Chemist

Page 1 of 38

*Laboratory Manager: Greg Jordan  
Quality Assurance Officer: Kathy Brungard*

*CAS Jacksonville is NELAC-accredited by the State of Florida, #E82502 valid through 6/30/07. Other state accreditations include: Arkansas, #88-0600 valid through 1/12/06; Georgia, #904 valid through 6/30/07; Louisiana, #02086 valid through 6/30/07; Texas, #T104704197-06-TX valid through 5/31/07; North Carolina, #527 valid through 12/31/06; and South Carolina, #96021001 valid through 6/30/07.*

## COLUMBIA ANALYTICAL SERVICES, INC.

Client: Field and Technical Services, LLC  
Project: Gainesville/Floridan  
Sample Matrix: water

Service Request No.: J0604617  
Date Received: 9/26/06

### CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

#### Sample Receipt

4 water samples were received for analysis at Columbia Analytical Services on 9/26/06. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at  $4\pm 2^{\circ}\text{C}$  upon receipt at the lab except for aqueous samples designated for metals analyses, which were stored at room temperature.

#### Volatile Organic Compounds by GC-MS

##### Matrix Spike Recovery Exceptions

The matrix spike recovery of Benzene for sample FW6-092506 was outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. No further corrective action was appropriate.

#### Semivolatile Organics by GC-MS

##### Batch QC Notes and Discussion

Insufficient sample volume was received to perform a Matrix Spike/Matrix Spike Duplicate (MS/MSD). A Laboratory Control Sample/Duplicate Laboratory Control Sample (LCS/DLCS) was analyzed and reported in lieu of the MS/MSD for these samples.

No problems were observed with this delivery group.

#### Metals by ICP-MS

##### Batch QC Notes and Discussion

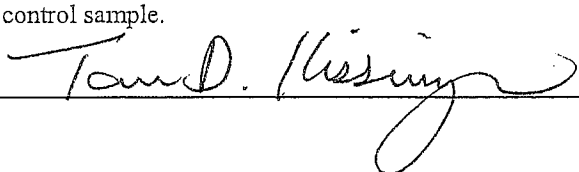
Quality control samples for all parameters (i.e., Dup/Spike or MS/DMS samples) were performed using samples from another sample delivery group (SDG). The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

#### General Chemistry Parameters

##### Batch QC Notes and Discussion

Quality control samples for Bromide (i.e., Dup/Spike or MS/DMS samples) were performed using samples from another sample delivery group (SDG). The frequency requirement for quality control sample analysis was consistent with the project's requirements. Matrix specific quality control results have no bearing on sample data from a different matrix or location. Therefore, control of the batch has been evaluated using the method blank and the laboratory control sample.

Approved by

 Date 10/9/06



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

An Empilon Inc. - United Company  
www.caslab.com

8540 Baycenter Rd. • Jacksonville, FL 32256 • (904) 739-2277 • 800-695-7222 x06 • FAX (904) 739-2011

PAGE 1 OF 1

SR# 004017  
CAS Contact

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Concentration)	
Company/Address		Email Address		PRESERVATIVE	
GAINESVILLE / FLORIDA		045006			
KAREN FROMME					
FTS					
200 THIRD AVE					
CARNEGIE, PA 15106					
Phone #	FAX#				
(412) 279-3363	(412) 279-4332				
Sampler's Signature	Sampler's Printed Name				
Jeff Leaver	JEFF LEAVER				
CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	TIME	MATRIX	
FW6-092506		9/25/06	0924	6W	
DUP01-092506					
TRILBLANK					
ER02-092506					
SPECIAL INSTRUCTIONS/COMMENTS					
TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) STANDARD REQUESTED FAX DATE REQUESTED REPORT DATE					
REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data V. Specialized Forms / Custom Report Edata Yes No					
INVOICE INFORMATION PO# BILL TO:					
RECEIVED BY					
RELINQUISHED BY					
CUSTODY SEALS: Y N					
SAMPLE RECEIPT: CONDITION/COOLER TEMP:					
RELINQUISHED BY					
RECEIVED BY					
Signature					
Printed Name					
Firm					
Date/Time					
Signature					
Printed Name					
Firm					
Date/Time					

## Florida DEP Data Qualifiers

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



**Client:** Field and Technical Services, LLC  
**Project:** Gainesville/Floridan/045006

**Service Request:** J0604617

**SAMPLE CROSS-REFERENCE**

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
J0604617-001	FW6-092506	09/25/06	09:24
J0604617-002	DUP01-092506	09/25/06	00:00
J0604617-003	TRIP BLANK	09/25/06	00:00
J0604617-004	EB02-092506	09/25/06	07:30

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Beazer East, Inc.  
Project: Gainesville/Floridan/045006  
Sample Matrix: Water

Service Request: J0604617  
Date Collected: NA  
Date Received: NA

## Volatile Organic Compounds by GC/MS

Sample Name: Method Blank  
Lab Code: JWG0603038-4  
Extraction Method: EPA 5030B  
Analysis Method: 8260B

Units: ug/L  
Basis: NA  
Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzene	ND	U	1.0	0.088	1	09/28/06	09/28/06	JWG0603038	
Toluene	ND	U	1.0	0.13	1	09/28/06	09/28/06	JWG0603038	
Ethylbenzene	ND	U	1.0	0.12	1	09/28/06	09/28/06	JWG0603038	
m,p-Xylenes	ND	U	2.0	0.19	1	09/28/06	09/28/06	JWG0603038	
o-Xylene	ND	U	1.0	0.083	1	09/28/06	09/28/06	JWG0603038	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	108	71-122	09/28/06	Acceptable
4-Bromofluorobenzene	91	79-120	09/28/06	Acceptable
Toluene-d8	112	88-117	09/28/06	Acceptable
Dibromofluoromethane	111	82-116	09/28/06	Acceptable

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Beazer East, Inc.  
 Project: Gainesville/Floridan/045006  
 Sample Matrix: Water

Service Request: J0604617  
 Date Collected: NA  
 Date Received: NA

## Semi-Volatile Organic Compounds by GC/MS

Sample Name: Method Blank  
 Lab Code: JWG0603140-3  
 Extraction Method: EPA 3510C  
 Analysis Method: 8270C

Units: ug/L  
 Basis: NA  
 Level: Low

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Phenol	ND U	5.0	1.7	1	10/02/06	10/06/06	JWG0603140	
2-Methylphenol	ND U	5.0	0.44	1	10/02/06	10/06/06	JWG0603140	
4-Methylphenol†	ND U	5.0	0.73	1	10/02/06	10/06/06	JWG0603140	
2,4-Dimethylphenol	ND U	5.0	0.53	1	10/02/06	10/06/06	JWG0603140	
Naphthalene	ND U	5.0	0.41	1	10/02/06	10/06/06	JWG0603140	
2-Methylnaphthalene	ND U	5.0	0.42	1	10/02/06	10/06/06	JWG0603140	
Acenaphthylene	ND U	5.0	0.34	1	10/02/06	10/06/06	JWG0603140	
Acenaphthene	ND U	5.0	0.32	1	10/02/06	10/06/06	JWG0603140	
Dibenzofuran	ND U	5.0	0.44	1	10/02/06	10/06/06	JWG0603140	
Fluorene	ND U	5.0	0.36	1	10/02/06	10/06/06	JWG0603140	
Pentachlorophenol	ND U	20	0.39	1	10/02/06	10/06/06	JWG0603140	
Phenanthrene	ND U	5.0	0.26	1	10/02/06	10/06/06	JWG0603140	
Anthracene	ND U	5.0	0.26	1	10/02/06	10/06/06	JWG0603140	
Carbazole	ND U	5.0	0.55	1	10/02/06	10/06/06	JWG0603140	
Fluoranthene	ND U	5.0	0.26	1	10/02/06	10/06/06	JWG0603140	
Pyrene	ND U	5.0	0.43	1	10/02/06	10/06/06	JWG0603140	
Benz(a)anthracene	ND U	5.0	0.56	1	10/02/06	10/06/06	JWG0603140	
Chrysene	ND U	5.0	0.51	1	10/02/06	10/06/06	JWG0603140	
Benzo(b)fluoranthene	ND U	5.0	0.58	1	10/02/06	10/06/06	JWG0603140	
Benzo(k)fluoranthene	ND U	5.0	0.57	1	10/02/06	10/06/06	JWG0603140	
Benzo(a)pyrene	ND U	5.0	0.55	1	10/02/06	10/06/06	JWG0603140	
Indeno(1,2,3-cd)pyrene	ND U	5.0	0.53	1	10/02/06	10/06/06	JWG0603140	
Dibenz(a,h)anthracene	ND U	5.0	0.56	1	10/02/06	10/06/06	JWG0603140	
Benzo(g,h,i)perylene	ND U	5.0	0.49	1	10/02/06	10/06/06	JWG0603140	

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Beazer East, Inc.  
**Project:** Gainesville/Floridan/045006  
**Sample Matrix:** Water

**Service Request:** J0604617  
**Date Collected:** NA  
**Date Received:** NA

## Semi-Volatile Organic Compounds by GC/MS

**Sample Name:** Method Blank  
**Lab Code:** JWG0603140-3

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

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	32	10-77	10/06/06	Acceptable
Phenol-d6	23	10-51	10/06/06	Acceptable
Nitrobenzene-d5	52	42-106	10/06/06	Acceptable
2-Fluorobiphenyl	61	43-99	10/06/06	Acceptable
2,4,6-Tribromophenol	100	30-141	10/06/06	Acceptable
Terphenyl-d14	86	23-165	10/06/06	Acceptable

## † Analyte Comments

4-Methylphenol This analyte cannot be separated from 3-Methylphenol.

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

## Analytical Report

Client: Beazer East, Inc.  
Project Name: Gainesville/Floridan  
Project Number: 045006  
Matrix: WATER

Service Request: J0604617  
Date Collected: N/A  
Date Received: N/A

## Total Metals

Sample Name: Method Blank  
Lab Code: MB3-1002

Units: mg/L  
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic	EPA 3020A	6020	0.00050	0.00028	1.0	10/02/2006	10/03/2006	U	
Chromium	EPA 3020A	6020	0.0020	0.00012	1.0	10/02/2006	10/03/2006	U	
Copper	EPA 3020A	6020	0.0020	0.00029	1.0	10/02/2006	10/03/2006	U	
Zinc	EPA 3020A	6020	0.010	0.0017	1.0	10/02/2006	10/03/2006	U	

# COLUMBIA ANALYTICAL SERVICES, INC

## Analytical Report

Client: Beazer East, Inc.  
Project Name: Gainesville/Floridan  
Project Number: 045006  
Matrix: WATER

Service Request: J0604617  
Date Collected: N/A  
Date Received: N/A

### Dissolved Metals

Sample Name: Method Blank  
Lab Code: MB4-0927

Units: mg/L  
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic	EPA 3005A	6020	0.00050	0.00028	1.0	09/27/2006	10/02/2006	U	
Chromium	EPA 3005A	6020	0.0020	0.00012	1.0	09/27/2006	09/29/2006	U	
Copper	EPA 3005A	6020	0.0020	0.00029	1.0	09/27/2006	09/29/2006	U	
Zinc	EPA 3005A	6020	0.010	0.0017	1.0	09/27/2006	09/29/2006	U	

## COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Beazer East, Inc.  
Project: Gainesville/Floridan/045006  
Sample Matrix: Water

Service Request: J0604617

Surrogate Recovery Summary  
Volatile Organic Compounds by GC/MS

Extraction Method: EPA 5030B  
Analysis Method: 8260B

Units: PERCENT  
Level: Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>	<u>Sur2</u>	<u>Sur3</u>	<u>Sur4</u>
FW6-092506	J0604617-001	106	85	111	106
DUP01-092506	J0604617-002	107	87	112	107
TRIP BLANK	J0604617-003	107	88	112	109
EB02-092506	J0604617-004	107	88	110	108
Method Blank	JWG0603038-4	108	91	112	111
FW6-092506MS	JWG0603038-1	106	86	108	107
FW6-092506DMS	JWG0603038-2	109	89	110	109
Lab Control Sample	JWG0603038-3	107	93	115	114

## Surrogate Recovery Control Limits (%)

Sur1 = 1,2-Dichloroethane-d4	71-122
Sur2 = 4-Bromofluorobenzene	79-120
Sur3 = Toluene-d8	88-117
Sur4 = Dibromofluoromethane	82-116

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

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

## COLUMBIA ANALYTICAL SERVICES, INC.

## QA/QC Report

Client: Beazer East, Inc.  
 Project: Gainesville/Floridan/045006  
 Sample Matrix: Water

Service Request: J0604617  
 Date Extracted: 09/28/2006  
 Date Analyzed: 09/28/2006

Matrix Spike/Duplicate Matrix Spike Summary  
 Volatile Organic Compounds by GC/MS

Sample Name: FW6-092506  
 Lab Code: J0604617-001  
 Extraction Method: EPA 5030B  
 Analysis Method: 8260B

Units: ug/L  
 Basis: NA  
 Level: Low  
 Extraction Lot: JWG0603038

Analyte Name	Sample Result	FW6-092506MS JWG0603038-1 Matrix Spike			FW6-092506DMS JWG0603038-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
Benzene	4.7	29.4	20.0	124 *	31.0	20.0	131 *	78-123	5	30
Toluene	0.89	22.7	20.0	109	23.9	20.0	115	86-119	5	30
Ethylbenzene	0.43	22.5	20.0	110	23.6	20.0	116	87-122	5	30
m,p-Xylenes	2.6	45.0	40.0	106	47.4	40.0	112	82-120	5	30
o-Xylene	1.0	21.8	20.0	104	23.1	20.0	110	85-119	6	30

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

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

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



## COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Beazer East, Inc.  
Project: Gainesville/Floridan/045006  
Sample Matrix: Water

Service Request: J0604617  
Date Extracted: 09/28/2006  
Date Analyzed: 09/28/2006

Lab Control Spike Summary  
Volatile Organic Compounds by GC/MS

Extraction Method: EPA 5030B  
Analysis Method: 8260B

Units: ug/L  
Basis: NA  
Level: Low  
Extraction Lot: JWG0603038

Analyte Name	Lab Control Sample JWG0603038-3 Lab Control Spike			%Rec Limits
	Result	Expected	%Rec	
Benzene	22.9	20.0	115	79-119
Toluene	20.5	20.0	103	86-117
Ethylbenzene	20.8	20.0	104	90-118
m,p-Xylenes	38.8	40.0	97	86-121
o-Xylene	19.8	20.0	99	89-119

✓

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

## COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Beazer East, Inc.  
Project: Gainesville/Floridan/045006  
Sample Matrix: Water

Service Request: J0604617

Surrogate Recovery Summary  
Semi-Volatile Organic Compounds by GC/MS

Extraction Method: EPA 3510C  
Analysis Method: 8270C

Units: PERCENT  
Level: Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>	<u>Sur2</u>	<u>Sur3</u>	<u>Sur4</u>	<u>Sur5</u>	<u>Sur6</u>
FW6-092506	J0604617-001	38	26	85	74	104	98
DUP01-092506	J0604617-002	36	19	82	65	93	95
EB02-092506	J0604617-004	30	18	61	66	85	97
Method Blank	JWG0603140-3	32	23	52	61	100	86
Lab Control Sample	JWG0603140-1	45	27	73	74	121	96
Duplicate Lab Control Sample	JWG0603140-2	62	34	85	77	100	97

## Surrogate Recovery Control Limits (%)

Sur1 = 2-Fluorophenol	10-77	Sur5 = 2,4,6-Tribromophenol	30-141
Sur2 = Phenol-d6	10-51	Sur6 = Terphenyl-d14	23-165
Sur3 = Nitrobenzene-d5	42-106		
Sur4 = 2-Fluorobiphenyl	43-99		

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

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

## COLUMBIA ANALYTICAL SERVICES, INC.

## QA/QC Report

Client: Beazer East, Inc.  
 Project: Gainesville/Floridan/045006  
 Sample Matrix: Water

Service Request: J0604617  
 Date Extracted: 10/02/2006  
 Date Analyzed: 10/06/2006 -  
 10/09/2006

Lab Control Spike/Duplicate Lab Control Spike Summary  
 Semi-Volatile Organic Compounds by GC/MS

Extraction Method: EPA 3510C  
 Analysis Method: 8270C

Units: ug/L  
 Basis: NA  
 Level: Low  
 Extraction Lot: JWG0603140

Analyte Name	Lab Control Sample JWG0603140-1 Lab Control Spike			Duplicate Lab Control Sample JWG0603140-2 Duplicate Lab Control Spike			%Rec Limits	RPD	RPD Limit
	Result	Expected	%Rec	Result	Expected	%Rec			
Phenol	15.8	50.0	32	18.6	50.0	37	12-54	16	30
2-Methylphenol	31.0	50.0	62	37.2	50.0	74	21-100	18	30
4-Methylphenol	55.2	75.0	74	62.5	75.0	83	15-93	12	30
2,4-Dimethylphenol	36.5	50.0	73	35.5	50.0	71	38-86	3	30
Naphthalene	39.5	50.0	79	39.8	50.0	80	44-97	1	30
2-Methylnaphthalene	39.3	50.0	79	38.0	50.0	76	46-97	3	30
Acenaphthylene	40.9	50.0	82	42.0	50.0	84	45-99	3	30
Acenaphthene	41.6	50.0	83	42.6	50.0	85	42-106	2	30
Dibenzofuran	44.0	50.0	88	43.1	50.0	86	49-103	2	30
Fluorene	44.1	50.0	88	44.0	50.0	88	54-97	0	30
Pentachlorophenol	45.9	50.0	92	39.5	50.0	79	44-120	15	30
Phenanthrene	47.3	50.0	95	47.9	50.0	96	52-99	1	30
Anthracene	49.2	50.0	98	50.7	50.0	101	52-104	3	30
Carbazole	46.0	50.0	92	48.9	50.0	98	48-118	6	30
Fluoranthene	47.7	50.0	95	47.0	50.0	94	52-110	1	30
Pyrene	45.9	50.0	92	47.0	50.0	94	53-100	2	30
Benz(a)anthracene	46.3	50.0	93	47.7	50.0	95	49-114	3	30
Chrysene	48.4	50.0	97	49.9	50.0	100	50-113	3	30
Benzo(b)fluoranthene	47.0	50.0	94	42.5	50.0	85	56-103	10	30
Benzo(k)fluoranthene	43.8	50.0	88	50.2	50.0	100	48-110	14	30
Benzo(a)pyrene	49.8	50.0	100	51.5	50.0	103	56-107	3	30
Indeno(1,2,3-cd)pyrene	44.6	50.0	89	46.1	50.0	92	54-115	3	30
Dibenz(a,h)anthracene	47.1	50.0	94	47.5	50.0	95	51-125	1	30
Benzo(g,h,i)perylene	45.3	50.0	91	48.6	50.0	97	53-116	7	30

✓

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

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

# COLUMBIA ANALYTICAL SERVICES, INC

## QA/QC Report

Client: Beazer East, Inc.  
 Project Name: Gainesville/Floridan  
 Project Number: 045006  
 Matrix: WATER

Service Request: J0604617  
 Date Collected: N/A  
 Date Received: N/A  
 Date Extracted: 10/02/2006  
 Date Analyzed: 10/03/2006

### Laboratory Control Sample Summary Total Metals

Sample Name: Lab Control Sample  
 Lab Code: LCS3-1002

Units: mg/L  
 Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Arsenic	EPA 3020A	6020	0.00050	0.05	0.050	100	80 - 120	
Chromium	EPA 3020A	6020	0.0020	0.05	0.049	98	80 - 120	
Copper	EPA 3020A	6020	0.0020	0.05	0.047	94	80 - 120	
Zinc	EPA 3020A	6020	0.010	0.1	0.10	100	80 - 120	

✓

# COLUMBIA ANALYTICAL SERVICES, INC

## QA/QC Report

Client: Beazer East, Inc.  
Project Name: Gainesville/Floridan  
Project Number: 045006  
Matrix: WATER

Service Request: J0604617  
Date Collected: N/A  
Date Received: N/A  
Date Extracted: 09/27/2006  
Date Analyzed: 10/02/2006

### Laboratory Control Sample Summary Dissolved Metals

Sample Name: Lab Control Sample  
Lab Code: LCS4-0927

Units: mg/L  
Basis: N/A

Analyte	Prep Method	Analysis Method	MRL	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Arsenic	EPA 3005A	6020	0.00050	0.05	0.050	100	80 - 120	
Chromium	EPA 3005A	6020	0.0020	0.05	0.049	98	80 - 120	
Copper	EPA 3005A	6020	0.0020	0.05	0.048	96	80 - 120	
Zinc	EPA 3005A	6020	0.010	0.1	0.100	100	80 - 120	

✓

# COLUMBIA ANALYTICAL SERVICES, INC.

## QA/QC Report

Client : Beazer East, Inc.  
 Project Name : Gainesville/Floridan  
 Project Number : 045006  
 Sample Matrix : WATER

Service Request : J0604617  
 Date Collected : NA  
 Date Received : NA  
 Date Extracted : NA  
 Date Analyzed : 09/27/06

### Laboratory Control Sample Summary Inorganic Parameters

Sample Name : Laboratory Control Sample  
 Lab Code : J0604617-LCS  
 Test Notes :

Units : mg/L (ppm)  
 Basis : NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS	Result Notes
						Percent Recovery Acceptance Limits	
Bromide	None	300.0	10	9.75	98	90-110	

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

Client: FIS Service Request # 0000407  
 Project: Gainesville / Florida  
 Cooler received on 9.26.06 and opened on 9.26.06 by Kle  
 COURIER: CAS UPS FEDEX DHL CLIENT Tracking #

- |    |   |            |        |     |
|----|---|------------|--------|-----|
| 1  | Were custody seals on outside of cooler?                                      | <u>Yes</u> | No     | N/A |
| 2  | Were seals intact, signed and dated?  | <u>Yes</u> | No     | N/A |
| 3  | Were custody papers properly filled out?                                      | <u>Yes</u> | No     | N/A |
| 4  | Temperature of cooler(s) upon receipt (Should be 4 +/- 2 degrees C)           | <u>7</u>   |        |     |
| 5  | Correct Temperature?  | <u>Yes</u> | No     | N/A |
| 6  | Were Ice or Ice Packs present   | <u>Yes</u> | No     | N/A |
| 7  | Did all bottles arrive in good condition (unbroken, etc....)?                 | <u>Yes</u> | No     | N/A |
| 8  | Were all bottle labels complete (sample ID, preservation, etc....)?           | <u>Yes</u> | No     | N/A |
| 9  | Did all bottle labels and tags agree with custody papers?                     | <u>Yes</u> | No     | N/A |
| 10 | Were the correct bottles used for the tests indicated?                        | <u>Yes</u> | No     | N/A |
| 11 | Were all of the preserved bottles received with the appropriate preservative? | <u>Yes</u> | No     | N/A |
|    | <u>HNO3 pH&lt;2</u> H2SO4 pH<2 ZnAc2/NaOH pH>9 NaOH pH>12 <u>HCl pH&lt;2</u>  |            |        |     |
|    | Preservative additions noted below  |            |        |     |
| 12 | Were all samples received within analysis holding times?                      | <u>Yes</u> | No     | N/A |
| 13 | Were VOA vials checked for absence of air bubbles? If present, note below     | <u>Yes</u> | No     | N/A |
| 14 | Where did the bottles originate?  | <u>CAS</u> | Client |     |

Sample ID	Reagent	Manuf. Lot # or CAS Chem ID	ml added	Initials

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

Client approval to run samples if discrepancies noted:

Date: 9.26.06

00007

Date:

1946

**Initials:**

2

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

[illegible]