2006 Second Semiannual Stage 2 Groundwater Monitoring Report

Cabot Carbon/Koppers Superfund Site Gainesville, Florida

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1.0 INTRODUCTION

On behalf of Beazer East, Inc. (Beazer), Field & Technical Services, L.L.C. (FTS) herein submits the 2006 Second Semiannual Stage 2 Groundwater Monitoring Report for the Cabot Carbon/Koppers Superfund Site (Site) in Gainesville, Florida. FTS prepared this report in accordance with the Proposed Stage 2 Groundwater Monitoring Program, Initial Groundwater Remedial Action (Stage 2 Monitoring Program), published by TRC Environmental Solutions, Inc. (TRC) in August 1997 and approved by the United States Environmental Protection Agency (USEPA) on April 28, 1998. The basis for the Stage 2 Monitoring Program is outlined in the Ground Water Remedial Goal Verification Plan (RGVP), included as Appendix C.2 in the Groundwater Remedial Action Report (McLaren/Hart, 1994).

Fourteen (14) groundwater extraction wells currently operate continuously along the northern and eastern property boundary at the Site. The groundwater extraction system (containment system) was designed to prevent the offsite migration of dissolved Site-related constituents in shallow groundwater. Beazer initiated the Stage 2 Monitoring Program in January 1995 to verify that operation of the containment system creates a hydraulic barrier sufficient to contain shallow groundwater impacted by Site-related constituents. The Stage 2 Program consists of two parts:

- Groundwater Containment System Performance Monitoring evaluates the system's performance based primarily on the determination of extraction well capture zones by the analysis of Site water levels and well pumping rates on a monthly and quarterly basis.

- Groundwater Quality Monitoring evaluates compliance of the remedial system by monitoring groundwater quality in the extraction wells and offsite, downgradient wells on an annual basis.

This report discusses the Groundwater Containment System Performance Monitoring conducted monthly during 2006. The Groundwater Containment System Performance Monitoring included:

- quarterly measuring and recording of groundwater levels in 14 onsite extraction wells, 47 onsite and offsite shallow monitoring wells, and 24 shallow piezometers;

- quarterly monitoring of the wells and piezometers for the presence of non-aqueous phase liquid (NAPL); and

- monthly recording of totalized and instantaneous flow rates for the 14 onsite extraction wells.

Section 2 of this report presents the data collection methods, and Section 3 presents the results and conclusions of the Groundwater Containment System Performance Monitoring.

1.1 SITE LOCATION AND HYDROGEOLOGY

The Site is located at the corner of Main Street and NW 23rd Avenue in Gainesville, Florida, as shown on Figure 1. The Site is approximately 90 acres in size with 14 groundwater extraction wells along the northern and eastern property boundary (Figure 2). The Site is currently owned and operated by Koppers Inc. (formerly Koppers Industries, Inc.)

The Surficial Aquifer consists of unconsolidated deposits of sand with trace amounts of silt and clay. The Surficial Aquifer extends from 20 to 28 feet below ground surface (bgs) and is underlain by the Hawthorn Group formation.

1.2 2006 SITE ACTIVITIES

In addition to the activities performed as part of the Stage 2 Monitoring Program, Beazer performed the following activities in 2006:

- Mr. Michael McKinney, P.E., Beazer's Operation and Maintenance Operator (Site Operator), performed routine operation and maintenance of the groundwater containment system.

- Beazer continued quarterly Upper Floridan Aquifer sampling and presented the results in separate reports.

2.0 DATA COLLECTION METHODS

This section discusses the methods used to collect the data for the Stage 2 Monitoring Program.

2.1 GROUNDWATER QUALITY MONITORING

FTS collected groundwater samples on December 13 and 14, 2006 from two downgradient wells (M-05B and M-33B), three offsite wells (ESE-001, ITW-12, and ITW-20), and all 14 extraction wells. The annual groundwater sampling event included:

- measuring water levels and determining the presence of NAPL (in the downgradient and offsite wells);
- purging the wells and determining field values of pH, temperature, and specific conductance at each well sampled; and,
- collecting groundwater samples.

The sampling team recorded the field observations and measurements on groundwater sampling forms. Appendix A provides a tabulated summary of the groundwater gauging and field parameter data and copies of the groundwater sampling forms.

Field personnel purged the groundwater stored within the wellbore prior to collecting the groundwater samples using a dedicated, Teflon® bailer. The samplers obtained field measurements of pH, specific conductance, and temperature while purging to document changes in purge-water quality. Purging continued until:

- a minimum of three well volumes of groundwater were removed from the monitoring well and the pH, specific conductance, and temperature of the purge water stabilized;
- a maximum of five well volumes were removed; or,
- until the monitoring well purged dry.

The field crew sampled the extraction wells from the sample port. The extraction wells do not need to be purged since the wells are pumping continuously as part of the containment system. The samplers recorded one set of field parameters for each extraction well before they collected the samples.

The field technicians packed the groundwater samples in a cooler with ice and a chain-of-custody form; and Columbia Analytical Services (CAS) in Jacksonville, Florida, picked up the samples for analysis of:

- benzene, ethylbenzene, toluene, and total xylenes (BTEX)
- select semivolatile organic compounds (SVOCs)
- total and dissolved arsenic and chromium.

CAS provided the analytical data to FTS who reviewed them for quality and completeness. Upon acceptance, FTS electronically transferred the data into a database for storage, reduction, and evaluation.

3.0 GROUNDWATER CONTAINMENT SYSTEM PERFORMANCE MONITORING

In 2006, the Site Operator used an oil/water interface probe to measure and record the depth to groundwater and NAPL in the 14 extraction wells, 47 monitoring wells, and 24 piezometers present in the Surficial Aquifer at the Site. Tables 1 through 4 summarize the quarterly well gauging data.

In addition to gauging activities, the Site Operator recorded the instantaneous flow rate and flow meter totalizer readings for each groundwater extraction well on a monthly basis. The Site Operator determined the instantaneous flow rates from the totalizing flow meter connected to each extraction well by measuring the volume of water pumped in one minute from that well.

- FTS calculated quarterly average flow rates for each extraction well by dividing the total volume of water pumped between totalizer readings by the time elapsed.

Table 5 summarizes the monthly and quarterly average flow rates for 2006.

Historically, the numerical model FLOWPATH II (Franz and Guiguer, 1994) was utilized as one tool in the evaluation of the hydraulic-containment system groundwater capture. The two-dimensional groundwater flow model was developed by McLaren/Hart with data generated during the Pre-Design Investigation. The model provided a technically valid numerical approach to evaluate the performance of the containment system. More recently, additional hydrogeologic investigations and data collection were performed in the Hawthorn Group and Upper Floridan Aquifer that allowed for a more comprehensive evaluation of groundwater flow and constituent transport at the Site. In addition to the investigations, Beazer contracted GeoTrans, Inc. to perform a comprehensive evaluation of all groundwater and constituent transport data. Included in this evaluation was the development of a three-dimensional fate and transport model (the Site Model) that more accurately simulates groundwater flow and constituent transport at the site (GeoTrans, Inc., 2004). Results from the Site Model simulations indicate that the hydraulic-containment system may not be 100-percent effective in capturing Surficial Aquifer groundwater flow from the Site. The Site Model also demonstrated that constituents that are potentially bypassing the containment system are either captured by the Cabot Carbon containment system or naturally attenuated within a short distance downgradient of the Site.

Beazer is in the process of developing a Feasibility Study (FS) for the entire groundwater system at the Site. As part of this FS, Beazer will address the approach to remediating the Surficial Aquifer impacts. A review of the effectiveness of the Surficial Aquifer groundwater containment system was performed in December 2006. A letter describing the results and recommendations was submitted to the EPA on December 22, 2006.

3.1 NON-AQUEOUS PHASE LIQUIDS

NAPL was not detected in any of the extraction wells or piezometers in 2006 (Tables 1 through 4). Dense NAPL (DNAPL) was not detected in any of the Surficial Aquifer monitoring wells. With the exception of PW-1, NAPL has never been detected in Surficial Aquifer wells at the Site since the Stage 1 Monitoring Program was initiated in January 1995.

In November 2004, RETEC initiated a DNAPL recovery pilot test at shallow well PW-01. The test ran from November 9, 2004 through April 21, 2005. The pilot test pumped water continuously and pumped DNAPL on a daily basis. During this time, DNAPL was detected in well PW-01 at a thickness of 0.31 feet on January 30, 2005 which dropped to a trace of DNAPL on May 2, 2005, after the pilot test ended. DNAPL was again detected in well PW-01 at a thickness of 0.31 feet on February 2, 2006 and was removed by bailer. Following the removal of DNAPL from PW-01 on February 2, 2006, gauging events conducted throughout the remainder of 2006 indicated that DNAPL was not present at this location.

3.2 GROUNDWATER ELEVATION

Tables 1 through 4 summarize the groundwater elevation data. In July 2004, GeoTrans resurveyed the locations and top of inner casing elevations for most of the site wells. The top of inner casing elevations were, on average, 0.62 feet lower than previously reported. This new survey data was used to calculate the groundwater elevations on Tables 1 through 4 and to generate the groundwater elevation contours for the Surficial Aquifer monitoring wells and piezometers shown in Figures 3 through 6. Because hydraulic head losses occur across the well annulus and casing, water levels measured in the extraction wells are typically lower than those measured in piezometers immediately adjacent to the extraction wells. Therefore, the extraction well data were not used to prepare Figures 3 through 6, but the piezometer data were used to provide a representative picture of conditions in the extraction well area.

Groundwater in the Surficial Aquifer flows toward the north-northeast, under an average hydraulic gradient (across the entire Site) of 0.0045 ft/ft. The gradient ranges from 0.0036 ft/ft near the southern portion of the Site to 0.01 ft/ft in the northern portion of the Site. Groundwater flow direction is influenced by the shallow extraction well network which collectively extracts approximately 30 GPM from the surficial aquifer. Within the vicinity of each extraction well, the water table is depressed approximately three to six feet. Due to the scale of the facility-wide contour maps, the depression around most extraction wells cannot be depicted accurately although depressions are evident around wells EW-06 on Figure 3, EW-14 on Figure 5, and EW-15 on Figure 6. Due to the strategic placement of the extraction well network and the prevailing flow direction, the shallow extraction system provides containment for much of the shallow groundwater migrating from the site. Groundwater flow directions and gradients occurring in 2006 were consistent with historical site conditions.

Through parts of 2004 and 2005, the region was experiencing a drought, and conditions at the Site were dry. However, in the third quarter of 2004, rainfall amounts were approximately twice

the average. In 2005, rainfall averages fluctuated from below to above average throughout the year. In 2006, rainfall amounts were approximately 30 percent below the historical average.

Rainfall (inches)	Historical Average	2000	2001	2002	2003	2004	2005	2006
1st Quarter	11.16	5.99	7.07	6.98	13.92	9.11	7.83	8.96
2nd Quarter	12.87	7.21	13.20	10.68	10.67	8.63	17.69	8.92
3rd Quarter	17.10	19.03	19.18	24.34	16.09	34.75	13.52	11.39
4th Quarter	7.23	3.11	1.80	12.80	5.77	5.87	10.99	6.29
Full Year	48.36	35.34	41.25	54.80	46.45	58.36	50.03	35.56

Monthly and annual variation in precipitation can be directly correlated to observed fluctuations in Surficial Aquifer groundwater elevations at the Site. During 2006, Surficial Aquifer groundwater elevations decreased on average by 2.84 feet from the beginning of February to the end of October.

4.0 GROUNDWATER QUALITY MONITORING

The groundwater quality performance monitoring program detailed in the RGVP consisted of two stages:

- Stage 1 – Initial Performance Monitoring
- Stage 2 – Compliance Monitoring

On April 28, 1998, the USEPA approved the Stage 2 Monitoring Program, and Beazer initiated it. The Stage 2 Monitoring Program reduced groundwater quality monitoring to annual sampling of a subset of RGVP wells. The sampled wells include two downgradient wells (M-05B and M-33B), three offsite wells (ESE-001, ITW-12, and ITW-20), and all 14 extraction wells (Figure 2).

In addition, the Stage 2 Monitoring Program required specific analyses at each well based on evaluation of the data from the Stage 1 Monitoring Program. The Stage 2 Monitoring Program assigned constituents for analysis at each well based on how consistently they were detected in that well above their respective detection limit and/or above their remedial goal. Table 6 summarizes the analyses performed at each well for the Stage 2 Program.

Table 7 summarizes the December 2006 analytical results for the extraction wells, and Table 8 summarizes the results for the downgradient and offsite wells. Appendix B provides copies of the laboratory analytical reports.

4.1 ONSITE EXTRACTION WELLS

The results for the 2006 sampling event summarized on Table 7 are similar to historic data (December 1999 through present) in that:

- BTEX concentrations are highest in well EW-17.
- PAH concentrations are highest in well EW-13. Pentachlorophenol concentrations are highest in well EW-16.
- Total and dissolved arsenic concentrations are greatest in groundwater sampled from well EW-16.

As shown on Table 7, BTEX compounds were detected in samples from two of the three wells sampled for BTEX (EW-16 and EW-17). Groundwater from well EW-17 continues to have the highest calculated total BTEX concentrations (594 µg/L), compared to EW-16 (6.73 µg/L) and EW-2 (not detected).

PAHs were detected in 10 of the 13 extraction wells sampled, with the highest calculated total PAH concentrations detected in well EW-13 (5,356.9 µg/L). The remaining total PAH

concentrations ranged from below the detection limit (wells EW-01, EW-02, and EW-10) to 2,910 µg/L (EW-14).

Pentachlorophenol was only detected in 4 of the 13 extraction wells (EW-13, EW-14, EW-15, and EW-16). The 2006 pentachlorophenol concentration for EW-16 was 9,100 µg/L. The pentachlorophenol concentrations for extraction wells EW-13, EW-14, and EW-15 were all estimated and ranged from 0.84 J to 11 J. All remaining extraction wells were non-detect for pentachlorophenol.

A total of 7 of the 11 onsite extraction wells that were sampled for arsenic, contained dissolved arsenic concentrations that exceeded the Federal and State standards of 10 µg/L (Table 7). As seen in previous events, the highest total and dissolved arsenic concentrations were in well EW-16 (5,100 µg/L and 4,700 µg/L, respectively). The remaining arsenic concentrations ranged as follows: total arsenic from 1.6 µg/L (EW-06) to 79 µg/L (EW-15); dissolved arsenic from 0.73 µg/L (EW-10) to 77 µg/L (EW-15).

2,4-Dimethylphenol was detected in 3 of the 13 extraction wells (EW-13, EW-14, and EW-16). The 2,4-Dimethylphenol concentrations ranged from 0.7 J µg/L (EW-16) to 27 J µg/L (EW-13).

In 2006, dissolved chromium was detected in 7 of the 10 extraction wells. The dissolved chromium detected concentrations ranged from 1.0 J µg/L (EW-05) to 5 µg/L (EW-16). Total chromium was detected in 4 of the 10 extraction wells. The total chromium detected concentrations ranged from 2.8 µg/L (EW- 06) to 49 µg/L (EW-10).

4.2 DOWNGRADIENT WELLS

Two downgradient wells (M-05B and M-33B) are sampled as part of the Stage 2 Program for select SVOCs (both wells) and total and dissolved arsenic and chromium (M-33B only).

The only PAH that was detected in well M-05B during the December 2006 sampling event was naphthalene, with an estimated value of 0.87 J µg/L (Table 8). For well M-33B, PAHs have been detected in this well since 1999 and the calculated total PAH concentration for 2006 (667.93 J µg/L) was within the range of historic data. No phenols were detected in either well M-05B or well M-33B during this event.

Total arsenic was detected at an estimated concentration of 0.42 J µg/L in well M-33B, dissolved arsenic was not detected in this well during this sampling event. Dissolved chromium was detected at an estimated concentration of 1.3 JB µg/L in well M-33B, and was also detected in the equipment blank indicating blank contamination. Total chromium was not detected in this well M-33B during this sampling event.

4.3 OFFSITE WELLS

Three offsite wells (ESE-001, ITW-12, and ITW-20) are sampled as part of the Stage 2 Program for select SVOCs and total and dissolved arsenic and chromium.

Several PAHs were detected in groundwater sampled from the offsite wells in 2006 (Table 8). The total PAH concentrations ranged from 1.1 J µg/L (ESE-001) to 15.3 J µg/L (ITW-12 AVG). No phenols were detected in the offsite wells during this event.

Dissolved and total arsenic was detected in wells (ITW-12 and ITW-20) at concentrations ranging from 0.56 µg/L (ITW-12 AVG) to 0.62 µg/L (ITW-20) and 0.38 J µg/L (ITW-12 AVG) to 0.83 µg/L (ITW-20), respectively. Dissolved chromium was detected in all four offsite samples, and was also detected in the equipment blank indicating blank contamination. Total chromium was not detected in this any offsite wells during this sampling event.

4.4 DATA QUALITY

FTS evaluated the data using *USEPA National Functional Guidelines* (USEPA, 1999 and 2000) and USEPA method specifications and added all of the necessary data qualifiers to the Site database and the data summary table (Tables 7 and 8). FTS assigned the data qualifiers based on the following data quality issues as noted during validation of the 2006 data package.

- The following analyte was detected in the aqueous laboratory method blank (MB7-1219) at the following concentrations:

Analyte	Maximum Concentration	Blank Action Level
Total Chromium	0.00056 mg/L	0.0028 mg/L

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

- The following analytes were detected in the aqueous equipment blank (EB01) from 12/14/06 at the following concentrations:

Analyte	Maximum Concentration	Blank Action Level
Dissolved Chromium	0.00092 mg/L	0.0046 mg/L
Total Chromium	0.00074 mg/L	0.0037 mg/L

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

- The following analytes were detected in the aqueous laboratory method blank (J0605945-MBW) at the following concentrations:

Analyte	Maximum Concentration	Blank Action Level
Total Chromium	0.0004 mg/L	0.002 mg/L
Dissolved Chromium	0.00018 mg/L	0.0009 mg/L

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

5.0 CONCLUSIONS

The groundwater elevation contours for this Site show that groundwater flows toward the north-northeast. The hydraulic gradient ranges from 0.0036 ft/ft at the southern end of the Site to 0.01 ft/ft at the northern end of the Site with an average hydraulic gradient across the Site of 0.0045 ft/ft. The groundwater gradients and flow direction for 2006 are similar to those reported in 2005.

Monthly and annual variation in precipitation can be directly correlated to observed fluctuations in Surficial Aquifer groundwater elevations at the Site. During 2006, Surficial Aquifer groundwater elevations decreased on average by 2.84 feet from the beginning of February to the end of October.

The GeoTrans Site Model indicates that the hydraulic containment system may not be providing complete capture of Site groundwater. The combination of the hydraulic containment systems on the Koppers and Cabot Carbon sites in conjunction with natural attenuation, are providing effective containment of Site constituents.

Groundwater quality for the 2006 reporting period is generally similar to that reported in past years. The groundwater quality monitoring data showed that the highest concentrations of BTEX, PAHs, pentachlorophenol, and metals were found within the capture zone of the extraction wells.

6.0 REFERENCES

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Tables

Table 1
First Quarter 2006 Water Levels and DNAPL Data
2006 Second Semiannual Stage 2 Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Well ID	Top of Casing Elevation [1] (feet msl)	Depth to Water (feet TOC)	Groundwater Elevation (feet msl)	DNAPL Thickness (feet)
		February 2, 2006		
EW-01	180.45	11.31	169.14	ND
EW-02	178.89	12.64	166.25	ND
EW-03	175.82	19.01	156.81	ND
EW-05	171.33	10.34	160.99	ND
EW-06	173.02	12.75	160.27	ND
EW-08	174.10	11.95	162.15	ND
EW-09	176.17	9.62	166.55	ND
EW-10	177.33	11.72	165.61	ND
EW-11	178.30	12.72	165.58	ND
EW-13	179.99	10.17	169.82	ND
EW-14	181.84	12.96	168.88	ND
EW-15	182.94	24.25	158.69	ND
EW-16	184.24	13.65	170.59	ND
EW-17	184.76	23.12	161.64	ND
M-01	184.10	9.52	174.58	ND
M-03A	182.21	10.06	172.15	ND
M-03BR	179.60	7.55	172.05	ND
M-04	177.23	6.96	170.27	ND
M-05B	182.18	10.92	171.26	ND
M-06	180.50	9.93	170.57	ND
M-07A	177.09	7.5	169.59	ND
M-07B	176.92	7.41	169.51	ND
M-08R	175.71	7.16	168.55	ND
M-09AR	173.80	8.99	164.81	ND
M-09BR	173.22	8.34	164.88	ND
M-10	173.93	5.21	168.72	ND
M-11B	187.99	11.71	176.28	ND
M-12	181.06	7.28	173.78	ND
M-14	187.16	9.06	178.10	ND
M-15B	181.89	6.61	175.28	ND
M-16A	180.96	7.45	173.51	ND
M-16B	180.56	6.99	173.57	ND
M-17	182.86	7.97	174.89	ND
M-18	187.26	7.51	179.75	ND
M-20A	183.18	7.77	175.41	ND
M-20B	183.67	8.25	175.42	ND
M-21A	185.88	6.12	179.76	ND
M-21BR	185.80	6.13	179.67	ND
M-22A	184.33	6.84	177.49	ND
M-22B	184.61	9.61	175.00	ND
M-23AR	185.15	8.56	176.59	ND
M-23BR	185.10	8.49	176.61	ND
M-24A	187.15	7.64	179.51	ND
M-24B	187.19	7.71	179.48	ND
M-25A	186.76	9.41	177.35	ND
M-25B	186.15	8.89	177.26	ND
M-26	187.31	7.62	179.69	ND
M-27A	186.44	6.59	179.85	ND
M-27B	187.06	7.2	179.86	ND
M-28R	186.62	6.55	180.07	ND
M-29	186.67	6.64	180.03	ND
M-30A	187.24	7.55	179.69	ND
M-30B	187.31	7.65	179.66	ND
M-31	187.50	8.9	178.60	ND
M-32AR	186.12	6.45	179.67	ND
M-32B	186.01	6.34	179.67	ND
M-33B	176.39	7.93	168.46	ND

Table 1
First Quarter 2006 Water Levels and DNAPL Data
2006 Second Semiannual Stage 2 Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Well ID	Top of Casing Elevation [1] (feet msl)	Depth to Water (feet TOC)	Groundwater Elevation (feet msl)	DNAPL Thickness (feet)
		February 2, 2006		
PZ-01A [2]	182.44	11.84	170.60	ND
PZ-01B	182.81	12.06	170.75	ND
PZ-02A	180.74	10.42	170.32	ND
PZ-02B	180.59	10.21	170.38	ND
PZ-03A	177.22	8.19	169.03	ND
PZ-05A	173.05	11.21	161.84	ND
PZ-05B	174.07	11.91	162.16	ND
PZ-06A	174.77	9.21	165.56	ND
PZ-06B	174.72	8.46	166.26	ND
PZ-08A	176.16	6.21	169.95	ND
PZ-08B	175.87	5.92	169.95	ND
PZ-09A	177.74	7.24	170.50	ND
PZ-09B	177.26	6.51	170.75	ND
PZ-10A	179.20	7.55	171.65	ND
PZ-10B	178.61	6.99	171.62	ND
PZ-11A	179.82	8.16	171.66	ND
PZ-11B	179.59	7.87	171.72	ND
PZ-13A	181.14	7.96	173.18	ND
PZ-13B	181.67	8.36	173.31	ND
PZ-14A	183.22	8.47	174.75	ND
PZ-14B	182.98	8.1	174.88	ND
PZ-15A	185.03	9.73	175.30	ND
PZ-15B	184.84	9.18	175.66	ND
PZ-17A	186.23	8.96	177.27	ND
ITW-23	173.06	10.87	162.19	ND
OW-01	187.35	8.21	179.14	ND
OW-02	187.40	9.07	178.33	ND
PW-01	186.84	7.60	179.24	0.31

Notes:
ND = Not Detected
NA = Not Applicable
gpm = gallons per minute
feet msl = feet above mean sea level
feet TOC = feet below top of casing

[1] Well top of casing elevations and locations were resurveyed in July 2004 by GeoTrans. Elevation datum is NGVD 1929 stated in U.S. Survey Feet.
[2] These wells were previously designated P-##. The well identifications were updated as shown.

Table 2
Second Quarter 2006 Water Levels and DNAPL Data
2006 Second Semiannual Stage 2 Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Well ID	Top of Casing Elevation [1] (feet msl)	Depth to Water (feet TOC)	Groundwater Elevation (feet msl)	DNAPL Thickness (feet)
		April 30, 2006		
EW-01	180.45	12.11	168.34	ND
EW-02	178.89	11.44	167.45	ND
EW-03	175.82	16.76	159.06	ND
EW-05	171.33	11.78	159.55	ND
EW-06	173.02	13.21	159.81	ND
EW-08	174.10	8.04	166.06	ND
EW-09	176.17	8.95	167.22	ND
EW-10	177.33	13.23	164.10	ND
EW-11	178.30	22.35	155.95	ND
EW-13	179.99	10.66	169.33	ND
EW-14	181.84	14.71	167.13	ND
EW-15	182.94	23.7	159.24	ND
EW-16	184.24	14.33	169.91	ND
EW-17	184.76	19.56	165.20	ND
M-01	184.10	10.73	173.37	ND
M-03A	182.21	11.41	170.80	ND
M-03BR	179.60	8.9	170.70	ND
M-04	177.23	7.96	169.27	ND
M-05B	182.18	12.32	169.86	ND
M-06	180.50	11.28	169.22	ND
M-07A	177.09	9.28	167.81	ND
M-07B	176.92	9.16	167.76	ND
M-08R	175.71	9.16	166.55	ND
M-09AR	173.80	10.73	163.07	ND
M-09BR	173.22	10.07	163.15	ND
M-10	173.93	6.34	167.59	ND
M-11B	187.99	12.67	175.32	ND
M-12	181.06	8.7	172.36	ND
M-14	187.16	10.19	176.97	ND
M-15B	181.89	7.69	174.20	ND
M-16A	180.96	8.66	172.30	ND
M-16B	180.56	8.16	172.40	ND
M-17	182.86	8.89	173.97	ND
M-18	187.26	8.78	178.48	ND
M-20A	183.18	8.6	174.58	ND
M-20B	183.67	9.08	174.59	ND
M-21A	185.88	7.4	178.48	ND
M-21BR	185.80	7.3	178.50	ND
M-22A	184.33	7.61	176.72	ND
M-22B	184.61	10.35	174.26	ND
M-23AR	185.15	9.55	175.60	ND
M-23BR	185.10	9.49	175.61	ND
M-24A	187.15	8.87	178.28	ND
M-24B	187.19	8.93	178.26	ND
M-25A	186.76	10.55	176.21	ND
M-25B	186.15	10.03	176.12	ND
M-26	187.31	8.66	178.65	ND
M-27A	186.44	7.78	178.66	ND
M-27B	187.06	8.4	178.66	ND
M-28R	186.62	7.85	178.77	ND
M-29	186.67	7.98	178.69	ND
M-30A	187.24	8.84	178.40	ND
M-30B	187.31	8.93	178.38	ND
M-31	187.50	10.06	177.44	ND

Table 2
Second Quarter 2006 Water Levels and DNAPL Data
2006 Second Semiannual Stage 2 Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Well ID	Top of Casing Elevation [1] (feet msl)	Depth to Water (feet TOC)	Groundwater Elevation (feet msl)	DNAPL Thickness (feet)
		April 30, 2006		
M-32AR	186.12	7.64	178.48	ND
M-32B	186.01	7.55	178.46	ND
M-33B	176.39	9.03	167.36	ND
PZ-01A [2]	182.44	13.07	169.37	ND
PZ-01B	182.81	13.38	169.43	ND
PZ-02A	180.74	12.12	168.62	ND
PZ-02B	180.59	11.87	168.72	ND
PZ-03A	177.22	10.04	167.18	ND
PZ-05A	173.05	12.69	160.36	ND
PZ-05B	174.07	13.45	160.62	ND
PZ-06A	174.77	10.04	164.73	ND
PZ-06B	174.72	10.13	164.59	ND
PZ-08A	176.16	7.42	168.74	ND
PZ-08B	175.87	7.15	168.72	ND
PZ-09A	177.74	8.32	169.42	ND
PZ-09B	177.26	7.83	169.43	ND
PZ-10A	179.20	9.2	170.00	ND
PZ-10B	178.61	8.56	170.05	ND
PZ-11A	179.82	8.79	171.03	ND
PZ-11B	179.59	8.44	171.15	ND
PZ-13A	181.14	9.35	171.79	ND
PZ-13B	181.67	9.77	171.90	ND
PZ-14A	183.22	9.6	173.62	ND
PZ-14B	182.98	9.16	173.82	ND
PZ-15A	185.03	10.65	174.38	ND
PZ-15B	184.84	10.15	174.69	ND
PZ-17A	186.23	10.03	176.20	ND
ITW-23	173.06	12.41	160.65	ND
OW-01	187.35	9.43	177.92	ND
OW-02	187.40	10.16	177.24	ND
PW-01	186.84	8.79	178.05	ND

Notes:
ND = Not Detected
NA = Not Applicable
NM = Not Measured
gpm = gallons per minute
feet msl = feet above mean sea level
feet TOC = feet below top of casing

[1] Well top of casing elevations and locations were resurveyed in July 2004 by GeoTrans. Elevation datum is NGVD 1929 stated in U.S. Survey Feet.
[2] These wells were previously designated P-##. The well identifications were updated as shown.

Table 3
Third Quarter 2006 Water Levels and DNAPL Data
2006 Second Semiannual Stage 2 Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Well ID	Top of Casing Elevation [1] (feet msl)	Depth to Water (feet TOC)	Groundwater Elevation (feet msl)	DNAPL Thickness (feet)
		July 31, 2006		
EW-01	180.45	14.68	165.77	ND
EW-02	178.89	15.19	163.70	ND
EW-03	175.82	19.35	156.47	ND
EW-05	171.33	13.38	157.95	ND
EW-06	173.02	14.8	158.22	ND
EW-08	174.10	11.32	162.78	ND
EW-09	176.17	8.79	167.38	ND
EW-10	177.33	10.93	166.40	ND
EW-11	178.30	17.86	160.44	ND
EW-13	179.99	11.85	168.14	ND
EW-14	181.84	20.38	161.46	ND
EW-15	182.94	24.35	158.59	ND
EW-16	184.24	9.69	174.55	ND
EW-17	184.76	23.31	161.45	ND
M-01	184.10	12.83	171.27	ND
M-03A	182.21	13.55	168.66	ND
M-03BR	179.60	11.04	168.56	ND
M-04	177.23	9.65	167.58	ND
M-05B	182.18	14.65	167.53	ND
M-06	180.50	13.43	167.07	ND
M-07A	177.09	11.23	165.86	ND
M-07B	176.92	11.43	165.49	ND
M-08R	175.71	10.99	164.72	ND
M-09AR	173.80	12.27	161.53	ND
M-09BR	173.22	11.62	161.60	ND
M-10	173.93	8.03	165.90	ND
M-11B	187.99	14.83	173.16	ND
M-12	181.06	10.59	170.47	ND
M-14	187.16	12.23	174.93	ND
M-15B	181.89	10.42	171.47	ND
M-16A	180.96	10.19	170.77	ND
M-16B	180.56	9.7	170.86	ND
M-17	182.86	10.43	172.43	ND
M-18	187.26	10.58	176.68	ND
M-20A	183.18	9.88	173.30	ND
M-20B	183.67	10.36	173.31	ND
M-21A	185.88	8.78	177.10	ND
M-21BR	185.80	8.68	177.12	ND
M-22A	184.33	9.18	175.15	ND
M-22B	184.61	11.97	172.64	ND
M-23AR	185.15	10.64	174.51	ND
M-23BR	185.10	10.62	174.48	ND
M-24A	187.15	10.31	176.84	ND
M-24B	187.19	10.36	176.83	ND
M-25A	186.76	9.92	176.84	ND
M-25B	186.15	11.38	174.77	ND
M-26	187.31	10.04	177.27	ND
M-27A	186.44	9.11	177.33	ND
M-27B	187.06	9.73	177.33	ND
M-28R	186.62	9.23	177.39	ND
M-29	186.67	9.44	177.23	ND

Table 3
Third Quarter 2006 Water Levels and DNAPL Data
2006 Second Semiannual Stage 2 Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Well ID	Top of Casing Elevation [1] (feet msl)	Depth to Water (feet TOC)	Groundwater Elevation (feet msl)	DNAPL Thickness (feet)
		July 31, 2006		
M-30A	187.24	10.36	176.88	ND
M-30B	187.31	10.46	176.85	ND
M-31	187.50	11.56	175.94	ND
M-32AR	186.12	9.04	177.08	ND
M-32B	186.01	8.95	177.06	ND
M-33B	176.39	11.81	164.58	ND
PZ-01A [2]	182.44	15.4	167.04	ND
PZ-01B	182.81	15.7	167.11	ND
PZ-02A	180.74	13.43	167.31	ND
PZ-02B	180.59	13.85	166.74	ND
PZ-03A	177.22	12.05	165.17	ND
PZ-05A	173.05	12.15	160.90	ND
PZ-05B	174.07	14.9	159.17	ND
PZ-06A	174.77	12.53	162.24	ND
PZ-06B	174.72	12.15	162.57	ND
PZ-08A	176.16	9.21	166.95	ND
PZ-08B	175.87	8.93	166.94	ND
PZ-09A	177.74	10.02	167.72	ND
PZ-09B	177.26	9.61	167.65	ND
PZ-10A	179.20	10.74	168.46	ND
PZ-10B	178.61	10.2	168.41	ND
PZ-11A	179.82	10.48	169.34	ND
PZ-11B	179.59	10.14	169.45	ND
PZ-13A	181.14	10.94	170.20	ND
PZ-13B	181.67	11.41	170.26	ND
PZ-14A	183.22	11.33	171.89	ND
PZ-14B	182.98	10.87	172.11	ND
PZ-15A	185.03	11.87	173.16	ND
PZ-15B	184.84	11.46	173.38	ND
PZ-17A	186.23	11.43	174.80	ND
ITW-23	173.06	13.88	159.18	ND
OW-01	187.35	10.99	176.36	ND
OW-02	187.40	11.66	175.74	ND
PW-01	186.84	10.36	176.48	ND

Notes:
ND = Not Detected
NA = Not Applicable
gpm = gallons per minute
feet msl = feet above mean sea level
feet TOC = feet below top of casing

[1] Well top of casing elevations and locations were resurveyed in July 2004 by GeoTrans. Elevation datum is NGVD 1929 stated in U.S. Survey Feet.
[2] These wells were previously designated P-##. The well identifications were updated as shown.

Table 4
Fourth Quarter 2006 Water Levels and DNAPL Data
2006 Second Semiannual Stage 2 Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Well ID	Top of Casing Elevation [1] (feet msl)	Depth to Water (feet TOC)	Groundwater Elevation (feet msl)	DNAPL Thickness (feet)
		October 31, 2006		
EW-01	180.45	14.39	166.06	ND
EW-02	178.89	15.69	163.20	ND
EW-03	175.82	14.3	161.52	ND
EW-05	171.33	14.02	157.31	ND
EW-06	173.02	17.98	155.04	ND
EW-08	174.10	13.72	160.38	ND
EW-09	176.17	11.03	165.14	ND
EW-10	177.33	14.49	162.84	ND
EW-11	178.30	13.65	164.65	ND
EW-13	179.99	12.75	167.24	ND
EW-14	181.84	14.56	167.28	ND
EW-15	182.94	17.37	165.57	ND
EW-16	184.24	14.69	169.55	ND
EW-17	184.76	23.65	161.11	ND
M-01	184.10	12.64	171.46	ND
M-03A	182.21	13.16	169.05	ND
M-03BR	179.60	10.66	168.94	ND
M-04	177.23	8.25	168.98	ND
M-05B	182.18	14.45	167.73	ND
M-06	180.50	13.14	167.36	ND
M-07A	177.09	10.84	166.25	ND
M-07B	176.92	10.71	166.21	ND
M-08R	175.71	10.43	165.28	ND
M-09AR	173.80	11.64	162.16	ND
M-09BR	173.22	10.98	162.24	ND
M-10	173.93	7.54	166.39	ND
M-11B	187.99	14.66	173.33	ND
M-12	181.06	10.84	170.22	ND
M-14	187.16	11.86	175.30	ND
M-15B	181.89	9.21	172.68	ND
M-16A	180.96	10.13	170.83	ND
M-16B	180.56	9.62	170.94	ND
M-17	182.86	9.99	172.87	ND
M-18	187.26	9.54	177.72	ND
M-20A	183.18	9.79	173.39	ND
M-20B	183.67	10.26	173.41	ND
M-21A	185.88	7.97	177.91	ND
M-21BR	185.80	7.88	177.92	ND
M-22A	184.33	8.81	175.52	ND
M-22B	184.61	11.91	172.70	ND
M-23AR	185.15	10.74	174.41	ND
M-23BR	185.10	10.67	174.43	ND
M-24A	187.15	9.67	177.48	ND
M-24B	187.19	9.73	177.46	ND
M-25A	186.76	11.35	175.41	ND
M-25B	186.15	10.85	175.30	ND
M-26	187.31	9.06	178.25	ND
M-27A	186.44	8.22	178.22	ND
M-27B	187.06	8.84	178.22	ND
M-28R	186.62	8.38	178.24	ND
M-29	186.67	8.59	178.08	ND
M-30A	187.24	9.48	177.76	ND
M-30B	187.31	9.58	177.73	ND
M-31	187.50	10.72	176.78	ND
M-32AR	186.12	8.41	177.71	ND
M-32B	186.01	7.28	178.73	ND
M-33B	176.39	11.26	165.13	ND

Table 4
Fourth Quarter 2006 Water Levels and DNAPL Data
2006 Second Semiannual Stage 2 Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Well ID	Top of Casing Elevation [1] (feet msl)	Depth to Water (feet TOC)	Groundwater Elevation (feet msl)	DNAPL Thickness (feet)
		October 31, 2006		
PZ-01A [2]	182.44	14.89	167.55	ND
PZ-01B	182.81	15.29	167.52	ND
PZ-02A	180.74	13.94	166.80	ND
PZ-02B	180.59	13.83	166.76	ND
PZ-03A	177.22	11.53	165.69	ND
PZ-05A	173.05	13.69	159.36	ND
PZ-05B	174.07	14.45	159.62	ND
PZ-06A	174.77	11.55	163.22	ND
PZ-06B	174.72	11.47	163.25	ND
PZ-08A	176.16	9.05	167.11	ND
PZ-08B	175.87	8.71	167.16	ND
PZ-09A	177.74	10.07	167.67	ND
PZ-09B	177.26	9.48	167.78	ND
PZ-10A	179.20	10.71	168.49	ND
PZ-10B	178.61	10.13	168.48	ND
PZ-11A	179.82	10.59	169.23	ND
PZ-11B	179.59	10.2	169.39	ND
PZ-13A	181.14	11.02	170.12	ND
PZ-13B	181.67	11.42	170.25	ND
PZ-14A	183.22	10.75	172.47	ND
PZ-14B	182.98	10.43	172.55	ND
PZ-15A	185.03	12.09	172.94	ND
PZ-15B	184.84	11.45	173.39	ND
PZ-17A	186.23	10.89	175.34	ND
ITW-23	173.06	13.4	159.66	ND
OW-01	187.35	10.18	177.17	ND
OW-02	187.40	10.89	176.51	ND
PW-01	186.84	9.57	177.27	ND

Notes:
ND = Not Detected
NA = Not Applicable
NM = Not Measured
gpm = gallons per minute
feet msl = feet above mean sea level
feet TOC = feet below top of casing
[1] Well top of casing elevations and locations were resurveyed in July 2004 by GeoTrans. Elevation datum is NGVD 1929 stated in U.S. Survey Feet.
[2] These wells were previously designated P-##. The well identifications were Updated as shown.

Table 5
Extraction Well Flow Rates: January through December 2006
2006 Second Semiannual Stage 2 Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Well ID	December 30, 2005		February 28, 2006		March 31, 2006		First Quarter
	Totalizer (gallons)	Instantaneous Flow Rate (gpm)	Totalizer (gallons)	Instantaneous Flow Rate (gpm)	Totalizer (gallons)	Instantaneous Flow Rate (gpm)	Average Flow Rate (gpm)
EW-01	3,387,261	3.1	4,039,555	4.8	4,253,827	5.1	**6.61**
EW-02	419,676	2.8	609,149	1.4	671,645	1.4	**1.92**
EW-03	4,221,138	2.6	4,408,590	1.0	4,453,230	1.0	**1.77**
EW-05	2,276,792	1.9	2,451,560	1.4	2,514,056	1.4	**1.81**
EW-06	983,842	1.8	1,093,319	0.5	1,120,103	0.6	**1.04**
EW-08	3,638,726	2.6	3,972,595	0.9	3,979,231	0.9	**2.60**
EW-09	5,235,939	2.4	5,373,511	0.6	5,401,559	0.7	**1.26**
EW-10	4,009,613	2.4	4,131,855	0.2	4,140,783	0.2	**1.00**
EW-11	1,803,968	2.3	1,971,175	1.1	2,024,743	1.2	**1.68**
EW-13	3,895,666	2.4	4,096,550	1.3	4,159,046	1.4	**2.01**
EW-14	2,473,624	2.7	2,640,822	0.4	2,763,142	0.5	**2.21**
EW-15	2,989,896	2.6	3,119,624	0.9	3,164,264	1.0	**1.33**
EW-16	2,107,358	2.7	2,271,723	1.7	2,352,075	1.8	**1.87**
EW-17	7,454,159	1.1	7,565,615	1.2	7,619,183	1.2	**1.26**

Well ID	April 30, 2006		May 31, 2006		June 30, 2006		Second Quarter
	Totalizer (gallons)	Instantaneous Flow Rate (gpm)	Totalizer (gallons)	Instantaneous Flow Rate (gpm)	Totalizer (gallons)	Instantaneous Flow Rate (gpm)	Average Flow Rate (gpm)
EW-01	4,462,988	2.7	4,583,516	3.2	4,700,156	2.9	**3.4**
EW-02	730,362	2.1	841,962	2.6	954,282	2.6	**2.2**
EW-03	4,493,171	2.7	4,613,699	2.8	4,730,339	2.8	**2.1**
EW-05	2,578,429	2.0	2,663,245	2.0	2,749,645	2.0	**1.8**
EW-06	1,138,340	2.0	1,227,620	1.6	1,305,380	1.8	**1.4**
EW-08	4,004,276	2.5	4,120,340	2.7	4,228,340	2.7	**1.9**
EW-09	5,507,420	2.5	5,614,556	2.8	5,731,196	2.9	**2.5**
EW-10	4,151,080	2.6	4,262,680	2.4	4,375,000	2.5	**1.8**
EW-11	2,073,596	2.7	2,189,660	2.3	2,297,660	2.5	**2.1**
EW-13	4,211,088	2.7	4,331,616	2.4	4,435,296	2.6	**2.1**
EW-14	2,676,329	3.1	2,810,249	3.1	2,935,529	2.9	**1.3**
EW-15	3,201,009	2.6	3,321,537	2.6	3,425,217	2.6	**2.0**
EW-16	2,423,220	2.7	2,534,820	2.7	2,642,820	2.7	**2.2**
EW-17	7,735,182	1.2	7,784,286	1.2	7,836,126	1.2	**1.7**

Well ID	July 31, 2006		August 31, 2006		September 29, 2006		Third Quarter
	Totalizer (gallons)	Instantaneous Flow Rate (gpm)	Totalizer (gallons)	Instantaneous Flow Rate (gpm)	Totalizer (gallons)	Instantaneous Flow Rate (gpm)	Average Flow Rate (gpm)
EW-01	4,809,477	3.1	4,921,077	2.5	5,029,653	2.6	**2.5**
EW-02	1,070,346	2.6	1,177,482	2.4	1,256,970	2.3	**2.3**
EW-03	4,841,939	2.5	4,953,539	2.5	5,036,483	2.4	**2.3**
EW-05	2,847,853	2.2	2,937,133	1.9	3,006,253	2.0	**2.0**
EW-06	1,408,052	2.3	1,501,796	2.0	1,570,916	2.0	**2.0**
EW-08	4,375,476	2.4	4,442,612	2.4	4,529,012	2.5	**2.3**
EW-09	5,842,796	2.5	5,958,860	2.8	6,048,716	2.6	**2.4**
EW-10	4,468,744	2.1	4,571,416	2.4	4,657,816	2.5	**2.2**
EW-11	2,395,868	2.2	2,503,004	2.5	2,589,404	2.5	**2.2**
EW-13	4,546,896	2.5	4,654,032	2.4	4,743,888	2.6	**2.4**
EW-14	3,078,377	3.2	3,194,441	2.8	3,291,209	2.8	**2.7**
EW-15	3,536,817	2.5	3,643,953	2.5	3,726,897	2.4	**2.3**
EW-16	2,727,636	1.9	2,825,844	2.4	2,905,332	2.3	**2.0**
EW-17	7,889,694	1.2	7,938,798	1.1	7,980,270	1.2	**1.1**

Table 5
Extraction Well Flow Rates: January through December 2006
2006 Second Semiannual Stage 2 Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Well ID	October 31, 2006		November 30, 2006		December 29, 2006		Fourth Quarter Average Flow Rate (gpm)
	Totalizer (gallons)	Instantaneous Flow Rate (gpm)	Totalizer (gallons)	Instantaneous Flow Rate (gpm)	Totalizer (gallons)	Instantaneous Flow Rate (gpm)	
EW-01	5,190,357	3.6	5,288,565	2.9	5,405,493	2.8	**2.9**
EW-02	1,373,034	2.6	1,471,242	2.4	1,575,642	2.5	**2.4**
EW-03	5,170,403	3.0	5,277,539	2.7	5,394,467	2.8	**2.7**
EW-05	3,095,533	2.1	3,184,813	2.0	3,272,509	2.1	**2.0**
EW-06	1,660,196	2.0	1,758,404	2.1	1,841,924	2.0	**2.1**
EW-08	4,648,820	2.6	4,761,140	2.6	4,873,892	2.7	**2.6**
EW-09	6,164,780	2.6	6,280,844	2.6	6,393,596	2.7	**2.6**
EW-10	4,760,488	2.3	4,881,016	2.5	4,981,240	2.4	**2.5**
EW-11	2,723,324	3.0	2,803,676	2.4	2,908,076	2.5	**2.4**
EW-13	4,882,272	3.1	4,984,944	2.7	5,101,872	2.8	**2.7**
EW-14	3,407,273	2.6	3,541,193	2.8	3,653,945	2.7	**2.8**
EW-15	3,856,353	2.9	3,967,953	2.7	4,076,529	2.6	**2.7**
EW-16	3,039,252	3.0	3,164,244	2.9	3,285,348	2.9	**2.9**
EW-17	8,029,374	1.2	8,078,478	1.1	8,128,590	1.2	**1.1**

Notes:
gpm = gallons per minute
Some of the wells exceeded the 10,000,000 gallon limit of their totalizer. Readings were restarted at zero.
The flows in Febuary and March are lower than normal due to maintance ativities.

Table 6
Summary of Required Analyses by Well
2006 Second Semiannual Stage 2 Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Wells	BTEX	Select SVOCs and PAHs	Arsenic and Chromium (total and dissolved)
ESE-001		X	X
EW-01		X	
EW-02	X	X	
EW-03		X	
EW-05		X	X
EW-06		X	X
EW-08		X	X
EW-09		X	X
EW-10		X	X
EW-11		X	X
EW-13		X	X
EW-14		X	X (Arsenic only)
EW-15		X	X
EW-16	X	X	X
EW-17	X		X
ITW-12		X	X
ITW-20		X	X
M-05B		X	
M-33B		X	X

Notes:
BTEX = benzene, toluene, ethylbenzene, total xylenes.
SVOCs=Semivolatile Organic Compounds
PAHs = polycyclic aromatic hydrocarbons.

Table 7
Summary of Groundwater Quality Monitoring Data for Extraction Wells
2006 Second Semiannual Stage 2 Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Analytes	Units	EW-01 12/13/2006	EW-02 12/13/2006	EW-03 12/13/2006	EW-05 12/13/2006	EW-06 12/13/2006	EW-08 12/13/2006	EW-09 12/13/2006	EW-10 12/13/2006	EW-11 12/13/2006	EW-13 12/13/2006	EW-14 12/13/2006	EW-15 12/13/2006	EW-16 12/13/2006	EW-17 12/13/2006
Metals (Method 6020)															
ARSENIC, SOLUBLE	µg/L	NA	NA	NA	**47**	**2.8**	**9.2**	**21**	**0.73**	**36**	**27**	**33**	**77**	**4700**	**6.6**
ARSENIC, TOTAL	µg/L	NA	NA	NA	**42**	**1.6**	**11**	**64**	**60**	**31**	**27**	**42**	**79**	**5100**	**7.2**
CHROMIUM, SOLUBLE	µg/L	NA	NA	NA	**1.0 J**	**3.8**	U	U	U	**1.4 J**	**1.6 J**	NA	**1.5 J**	**5**	**1.2 J**
CHROMIUM, TOTAL	µg/L	NA	NA	NA	U	**2.8**	U	U	**49**	**8.9**	U	NA	U	**5.3**	U
Volatile Organic Compounds (Method 8260B)															
BENZENE	µg/L	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.41 J**	**83**
ETHYLBENZENE	µg/L	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1.3**	**89**
TOLUENE	µg/L	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.72 J**	**180**
M,P-XYLENES	µg/L	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**2.7**	**160**
O-XYLENE	µg/L	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1.6**	**82**
Calculated Total BTEX [(1)]	µg/L	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**6.73**	**594**
Semivolatile Organic Compounds (Method 8270C)															
2,4-DIMETHYLPHENOL	µg/L	U	U	U	U	U	U	U	U	U	**27 J**	**14**	U	**0.7 J**	NA
2-METHYLPHENOL	µg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	NA
4-METHYLPHENOL	µg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	NA
PENTACHLOROPHENOL	µg/L	U	U	U	U	U	U	U	U	U	**0.84 J**	**1.1 J**	**11 J**	**9100**	NA
PHENOL	µg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	NA
Polynuclear Aromatic Hydrocarbons (PAHs) (Method 8270C)															
2-METHYLNAPHTHALENE	µg/L	U	U	**6.1**	U	U	U	U	U	U	**410**	**400**	**64**	**150**	NA
ACENAPHTHENE	µg/L	U	U	**38**	**11**	U	**2.8 J**	**5.7**	U	**9.4**	**310**	**290**	**100**	**220**	NA
ACENAPHTHYLENE	µg/L	U	U	**0.51 J**	U	U	U	U	U	U	**13**	**10**	**1.2 J**	**4.2 J**	NA
ANTHRACENE	µg/L	U	U	**0.95 J**	**0.47 J**	U	U	**0.3 J**	U	U	**7.1**	**19**	**8.9**	**28**	NA
BENZO(A)ANTHRACENE	µg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	NA
BENZO(A)PYRENE	µg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	NA
BENZO(B)FLUORANTHENE	µg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	NA
BENZO(G,H,I)PERYLENE	µg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	NA
BENZO(K)FLUORANTHENE	µg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	NA
CARBAZOLE	µg/L	U	U	**36**	**1.5 J**	U	**6**	U	U	**3.8 J**	**390**	**320**	**49**	**84**	NA
CHRYSENE	µg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	NA
DIBENZO(A,H)ANTHRACENE	µg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	NA
DIBENZOFURAN	µg/L	U	U	**23**	**2.3 J**	U	**2.9 J**	**2.3 J**	U	**3 J**	**140**	**140**	**87**	**150**	NA
FLUORANTHENE	µg/L	U	U	U	**1.5 J**	**0.55 J**	U	**0.7 J**	U	**0.55 J**	**4.3 J**	**9.5**	**3.8 J**	**14**	NA
FLUORENE	µg/L	U	U	**23**	**3.6 J**	U	**4.1 J**	**4.5 J**	U	**4.2 J**	**190**	**190**	**110**	**210**	NA
INDENO(1,2,3-CD)PYRENE	µg/L	U	U	U	U	U	U	U	U	U	U	U	U	U	NA
NAPHTHALENE	µg/L	U	U	**87**	**7.6**	U	U	U	U	U	**3800**	**1400**	**170**	**300**	NA
PHENANTHRENE	µg/L	U	U	**5.8**	**0.59 J**	U	**0.89 J**	U	U	**0.41 J**	**91**	**130**	**54**	**220**	NA
PYRENE	µg/L	U	U	U	**0.55 J**	U	U	U	U	U	**1.5 J**	**2.4 J**	**0.9 J**	**2.3 J**	NA
Calculated Total PAHs [(1)]	µg/L	ND	ND	**220.36**	**29.11**	**0.55**	**16.69**	**13.5**	ND	**21.36**	**5356.9**	**2910.9**	**648.8**	**1382.5**	NA
Calculated Total Carcinogenic PAHs [(2)]	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA

Notes:

NA - not analyzed

ND - none of the analyzed constituents were detected.

BOLD indicates detected result

U - indicates compound was analyzed for, but not detected above the reporting limit

J - indicates that result is estimated

µg/L - micrograms per liter

(1) Total BTEX and total PAHs were calculated using a value of zero for non-detect results.

(2) Total carcinogenic PAHs includes: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene. A value of zero was used for non-detect results.

Table 8
Summary of Groundwater Quality Monitoring Data for Downgradient and Offsite Wells
2006 Second Semiannual Stage 2 Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Analytes	Remedial Goal [2]	Florida GCTL [3]	Units	Downgradient Wells		Offsite Wells		
				M-05B 12/14/2006	M-33B 12/14/2006	ESE-001 12/14/2006	ITW-12 - AVG 12/14/2006	ITW-20 12/14/2006
Metals (Method 6020)								
ARSENIC, SOLUBLE	50	10 [4]	µg/L	NA	U	U	**0.56**	**0.62**
ARSENIC, TOTAL	50	10 [4]	µg/L	NA	**0.42 J**	U	**0.38 J**	**0.83**
CHROMIUM, SOLUBLE	50	100 [4]	µg/L	NA	**1.3 JB**	**1.9 JB**	**1.3 JB**	**3.4 B**
CHROMIUM, TOTAL	50	100 [4]	µg/L	NA	U	U	U	U
Volatile Organic Compounds (Method 8260B)								
BENZENE	1	1 [4]	µg/L	NA	NA	NA	NA	NA
ETHYLBENZENE	--	30 [5]	µg/L	NA	NA	NA	NA	NA
TOLUENE	--	40 [5]	µg/L	NA	NA	NA	NA	NA
M,P-XYLENES	--	--	µg/L	NA	NA	NA	NA	NA
O-XYLENE	--	--	µg/L	NA	NA	NA	NA	NA
Calculated Total BTEX [1]	--	20 [5]	µg/L	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (Method 8270C)								
2,4-DIMETHYLPHENOL	--	140	µg/L	U	U	U	U	U
2-METHYLPHENOL	--	35	µg/L	U	U	U	U	U
3 & 4-METHYLPHENOL	--	35/3.5 [6]	µg/L	U	U	U	U	U
PENTACHLOROPHENOL	0.1	1 [4]	µg/L	U	U	U	U	U
PHENOL	2,630	10	µg/L	U	U	U	U	U
Polynuclear Aromatic Hydrocarbons (PAHs) (Method 8270C)								
2-METHYLNAPHTHALENE	--	28	µg/L	U	**31**	U	**1.45 J**	**0.52 J**
ACENAPHTHENE	260	20	µg/L	U	**47**	**0.62 J**	**4.05**	**0.61 J**
ACENAPHTHYLENE	130	210	µg/L	U	**0.73 J**	U	U	U
ANTHRACENE	1310	2100	µg/L	U	**2.2 J**	U	U	U
BENZO(A)ANTHRACENE	--	0.05	µg/L	U	U	U	U	U
BENZO(A)PYRENE	--	0.2 [4]	µg/L	U	U	U	U	U
BENZO(B)FLUORANTHENE	--	0.05	µg/L	U	U	U	U	U
BENZO(G,H,I)PERYLENE	--	210	µg/L	U	U	U	U	U
BENZO(K)FLUORANTHENE	--	0.5	µg/L	U	U	U	U	U
CARBAZOLE	--	1.8	µg/L	U	**87**	U	U	U
CHRYSENE	--	4.8	µg/L	U	U	U	U	U
DIBENZO(A,H)ANTHRACENE	--	0.005	µg/L	U	U	U	U	U
DIBENZOFURAN	--	28	µg/L	U	**58**	U	**2.2 J**	U
FLUORANTHENE	--	280	µg/L	U	U	U	U	U
FLUORENE	323	280	µg/L	U	**52**	U	**2.4 J**	U
INDENO(1,2,3-CD)PYRENE	--	0.05	µg/L	U	U	U	U	U
NAPHTHALENE	18	14	µg/L	**0.87 J**	**370**	**0.49 J**	**5.2 J**	**2.8 J**
PHENANTHRENE	130	210	µg/L	U	**20**	U	U	U
PYRENE	130	210	µg/L	U	U	U	U	U
Calculated Total PAHs [7]	--	--	µg/L	**0.87 J**	**667.93 J**	**1.11 J**	**15.3 J**	**3.93 J**
Calculated Total Carcinogenic PAHs [8]	0.003	--	µg/L	ND	ND	ND	ND	ND

Notes:

U - indicates compound was analyzed for, but not detected above the reporting limit

J - indicates that result is estimated

NA - not analyzed

ND - none of the analyzed constituents were detected.

AVG - Sample and duplicate concentrations were averaged.

µg/L - micrograms per liter

Bold Indicates detected result

Blue Indicates result greater than the Remedial Goal

Indicates result greater than the Florida GCTL

[1] Total BTEX was calculated using a value of zero for non-detect results.

[2] The groundwater remedial goal as specified in Table One of the 1990 Record of Decision.

[3] Florida Groundwater Cleanup Target Levels (GCTLs) are guidelines as set forth in 62-777 Florida Administrative Code (F.A.C).

[4] Florida GCTL is the Primary Drinking Water Standard as set forth in 62-550 F.A.C.

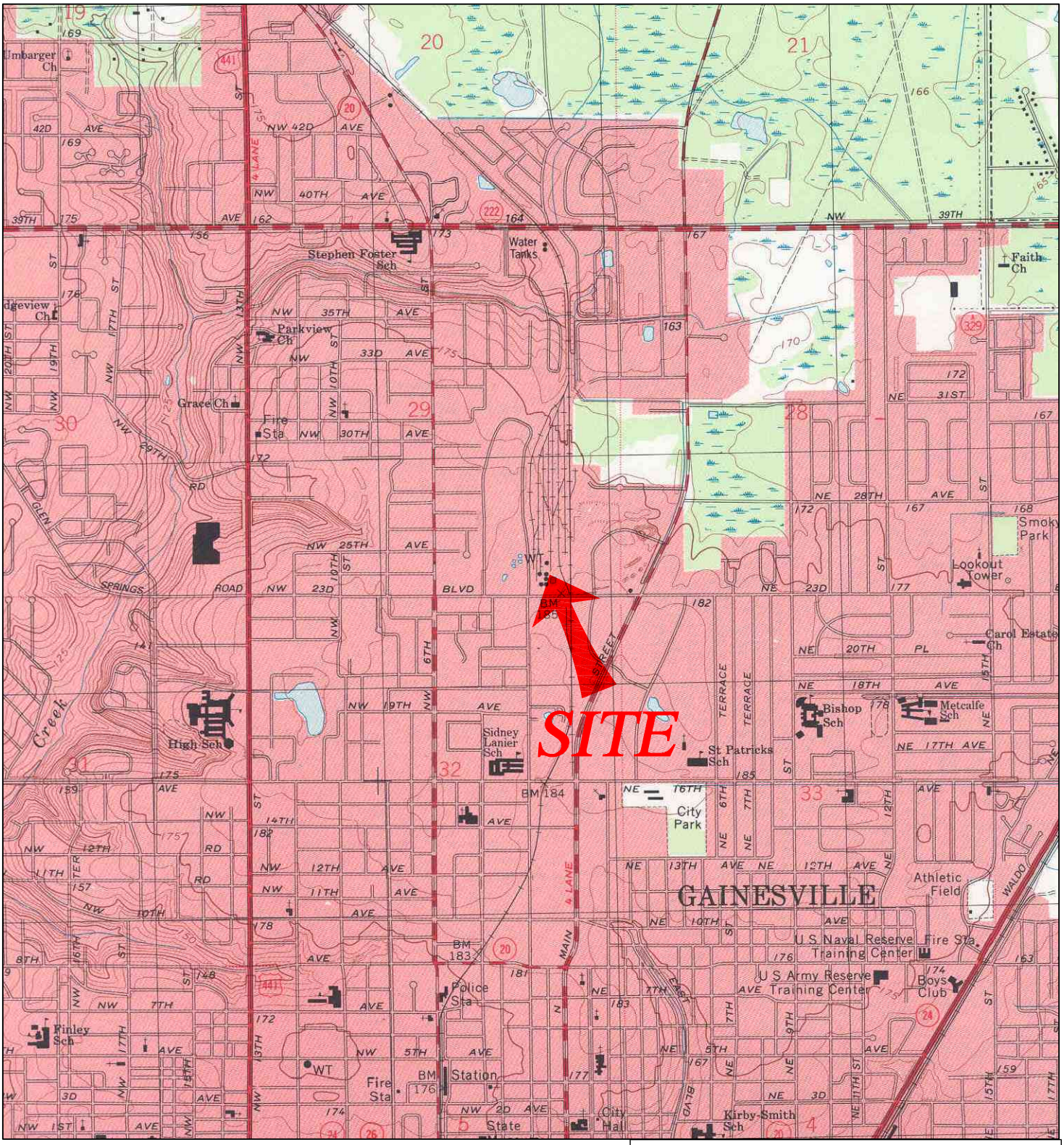
[5] Florida GCTL is the Secondary Drinking Water Standard as set forth in 62-550 F.A.C.

[6] 3-Methylphenol and 4-Methylphenol cannot be quantified separately using USEPA SW-846 Method 8270C.

[7] Total PAHs were calculated using a value of zero for non-detect results.

[8] Total carcinogenic PAHs includes: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene. A value of zero was used for non-detect results.

Figures



FLORIDA

N

QUADRANGLE LOCATION

REFERENCE: USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLES
GAINESVILLE EAST, FLORIDA – 1994

BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

DRWN: DAE	DATE: 08/04/06	
CHKD: LMW	DATE: 08/04/06	
APPD: NJM	DATE: 08/04/06	
SCALE: 1" = 1000'		
ISSUE DATE:		

FTS

FIELD & TECHNICAL SERVICES, LLC.
200 THIRD AVENUE
CARNEGIE, PA 15106

2006 SECOND SEMIANNUAL STAGE 2
GROUNDWATER MONITORING REPORT
CABOT CARBON/KOPPERS SUPERFUND SITE
GAINESVILLE, FLORIDA

SITE LOCATION MAP

PROJECT NO: 06-200
DRAWING NUMBER
FIGURE 1

FILE: Q:\PROJECTS\BEAZER PROJECTS\GAINESVILLE\CADD\2ND SEMI-ANNAUL 2006\FIGURE1.DWG

LEGEND

- ID– MONITORING WELL
- ID– RECOVERY WELL
- ID– PIEZOMETER
- ID– OFF SITE WELL
- RAILROAD TRACKS
- DRAINAGE
- FORMER CABOT CARBON PROPERTY
- KI PROPERTY BOUNDARY

N

M-18
M-26
M-27A
M-28R
FORMER SOUTH LAGOONS
MW-21A
DRAINAGE DITCH AND EASEMENT
M-14
FORMER NORTH LAGOON
M-01
M-5B
PZ-01A
EW-01
KI PROPERTY BOUNDARY
M-06
PZ-02A
EW-02
FORMER TANK CONTAINMENT AREA
M-29
FORMER COOLING POND AREA
M-24A
M-30A
PW-01
FORMER DRIP TRACK AREAS
M-22A
MW-12
M-03A
M-07A
EW-03
PZ-03A
M-33B
M-31
PZ-17A
EW-17
M-25A
EW-16
M-23AR
EW-15
PZ-15A
M-20A
EW-14
M-17
PZ-14A
M-16A
EW-13
PZ-13A
PZ-11A
EW-11
EW-10
PZ-10A
EW-09
PZ-09A
M-04
PZ-08A
EW-08
M-10
PZ-06A
EW-06
M-09AR
PZ-05A
EW-05
RETORTS
FORMER CABOT CARBON SEPARATION LAGOONS
FORMER CABOT CARBON SITE BOUNDARY
ITW-12
FORMER NORTHEAST LAGOON
DRAINAGE DITCH
ESE-001
SPRINGSTEAD CREEK
ITW-20

0 300 600 FEET

BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

DRWN: CRJ	DATE: 08/04/06	FIELD & TECHNICAL SERVICES, LLC. 200 THIRD AVENUE CARNEGIE, PA 15106	
CHKD: LMW	DATE: 08/04/06		
APPD: NJM	DATE: 08/04/06		
SCALE: AS SHOWN			
ISSUE DATE:			

2006 SECOND SEMIANNUAL STAGE 2
GROUNDWATER MONITORING REPORT
CABOT CARBON/KOPPERS SUPERFUND SITE
GAINESVILLE, FLORIDA

SITE MAP

PROJECT NO: 06-200
DRAWING NUMBER
FIGURE 2

REV #	DATE	DESCRIPTION	APPD
3			
2			
1			

REFERENCE:

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N

M-26 179.69
M-18 179.75
M-11B 176.28
M-05B 171.26
M-27A 179.85
M-27B 179.86
PZ-01A 170.60
PZ-01B 170.75
EW-01 169.14
M-28R 180.07
M-21BR 179.67
M-21A 179.76
M-14 178.10
M-06 170.57
M-32B 179.67
M-32AR 179.67
M-01 174.58
PZ-02B 170.38
PZ-02A 170.32
EW-02 166.25
CCA DRIP TRACK
(ASPHALT) MAIN ROAD
DIRT ROAD
M-29 180.03
M-07A 169.59
M-07B 169.51
M-03A 172.15
M-03BR 172.05
M-09BR 164.88
M-33B 168.46
EW-03 156.81
PZ-03A 169.03
M-08R 168.55
PZ-06A 165.56
M-09AR 164.81
M-24A 179.51
M-24B 179.48
M-30A 179.69
M-30B 179.66
OW-1 179.14
PW-1 179.24
OW-2 178.33
M-22B 175.00
M-22A 177.49
M-15B 175.28
M-12 173.78
EW-16 170.59
M-23AR 176.59
M-23BR 176.61
EW-15 158.69
PZ-15A 175.30
PZ-15B 175.66
M-20B 175.42
M-20A 175.41
EW-14 168.88
PZ-14A 174.75
PZ-14B 174.88
M-17 174.89
M-16B 173.57
M-16A 173.51
EW-13 169.82
PZ-13B 173.31
PZ-13A 173.18
PZ-11B 171.72
EW-11 165.58
PZ-11A 171.66
EW-10 165.61
PZ-10B 171.62
PZ-10A 171.65
EW-09 166.55
PZ-09A 170.50
PZ-09B 170.75
M-04 170.27
EW-08 162.15
PZ-08B 169.95
PZ-08A 169.95
EW-06 160.27
ITW-23 162.19
PZ-05A 161.84
EW-05 160.99
M-10 168.72
PZ-05B 162.16
PZ-06B 166.26
M-31 178.60
PZ-17A 177.27
EW-17 161.64
M-25A 177.35
M-25B 177.26
CSX TRANSPORTATION RAILROAD

179 178 177 176 175 174 173 172 171 170 169 168 167 166 165 164 163 162 180

LEGEND

PROPERTY LINE (APPROX.)

M-31 178.60 — MONITORING WELL WITH GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEALEVEL

PZ-14A 174.75 — PIEZOMETER WITH GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEALEVEL

170 — GROUNDWATER ELEVATION CONTOUR

ROAD

FENCE

RR TRACK

167 — WATER TABLE CONTOUR DEPRESSION

0 200 400 FEET

REV #	DATE	DESCRIPTION	APPD
1			
2			
3			

REFERENCE:

NOTE: WELL M-22B WAS NOT USED WHEN CONSTRUCTING THE GROUNDWATER CONTOURS.

BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

DRWN: DAE	DATE: 7/31/06	FIELD & TECHNICAL SERVICES, LLC. 200 THIRD AVENUE CARNEGIE, PA 15106
CHKD: LMW	DATE: 7/31/06	
APPD: JGK	DATE: 7/31/06	
SCALE: AS SHOWN		
ISSUE DATE:		

2006 SECOND SEMIANNUAL STAGE 2
GROUNDWATER MONITORING REPORT
CABOT CARBON/KOPPERS SUPERFUND SITE
GAINESVILLE, FLORIDA

GROUNDWATER ELEVATION CONTOURS
FIRST QUARTER 2006 FEBURARY 2, 2006

PROJECT NO: 06-200
DRAWING NUMBER
FIGURE 3

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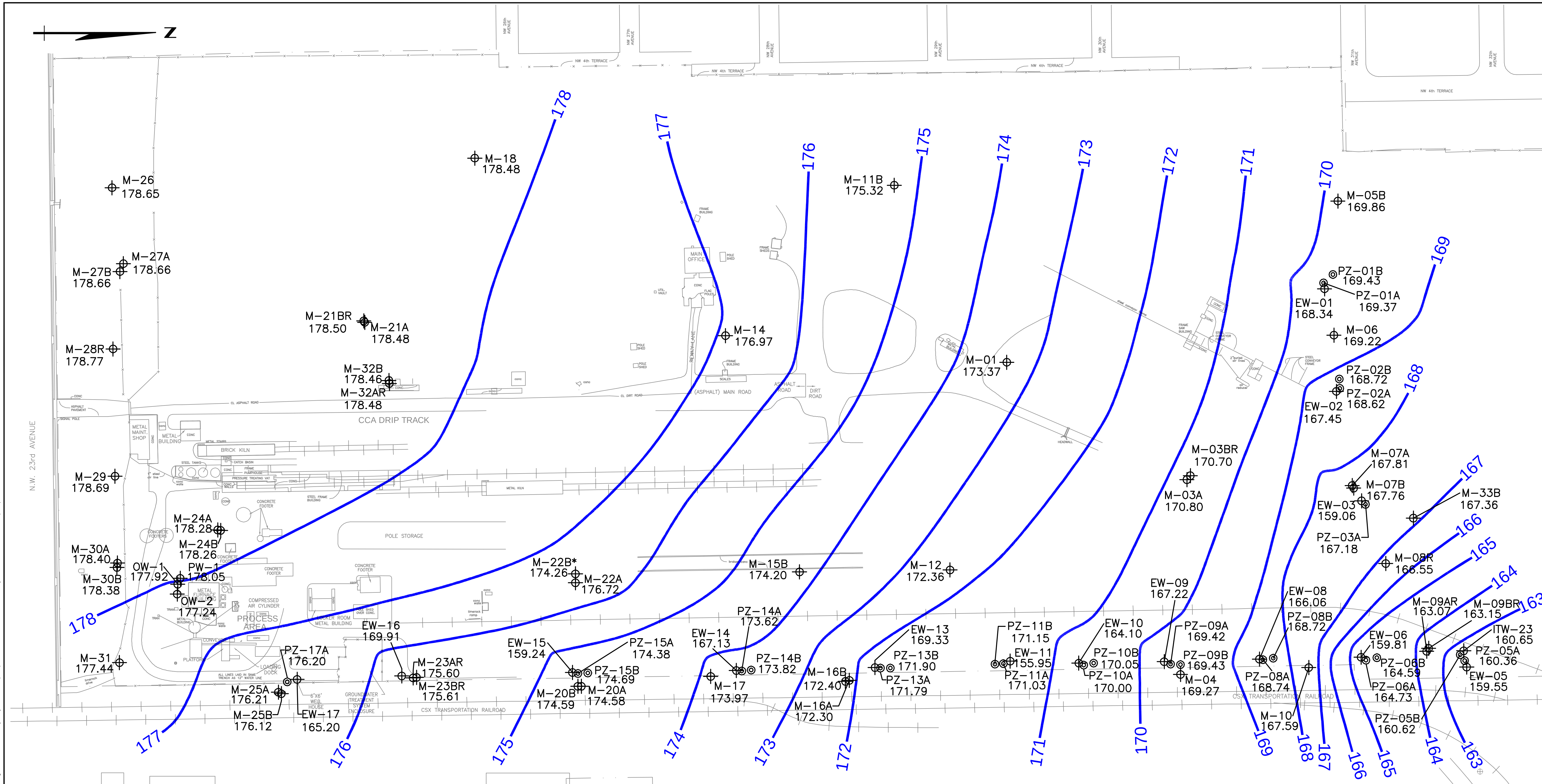


LEGEND

PROPERTY LINE (APPROX.)

M-29 178.69 — MONITORING WELL WITH GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEALEVEL

PZ-14A 173.62 — PIEZOMETER WITH GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEALEVEL

170 — GROUNDWATER ELEVATION CONTOUR

ROAD

FENCE

RR TRACK

REV #	DATE	DESCRIPTION	APPD

REFERENCE:

NOTE: WELL M-22B WAS NOT USED WHEN CONSTRUCTING THE GROUNDWATER CONTOURS.

BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

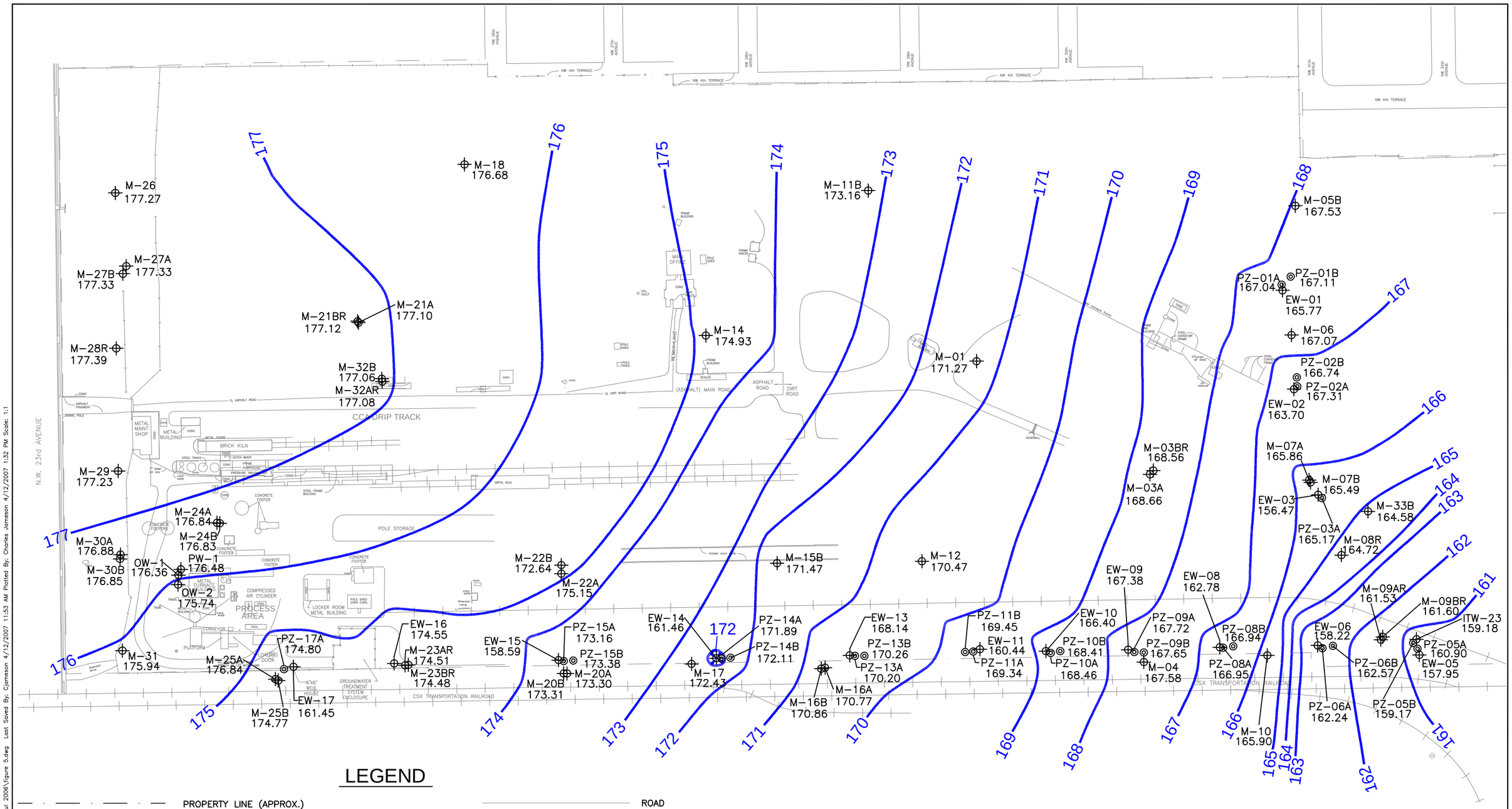
DRWN:	DAE	DATE:	7/31/06
CHKD:	LMW	DATE:	7/31/06
APPD:	JGK	DATE:	7/31/06
SCALE:	AS SHOWN		
ISSUE DATE:			

FTS
FIELD & TECHNICAL SERVICES, LLC.
200 THIRD AVENUE
CARNEGIE, PA 15106

2006 SECOND SEMIANNUAL STAGE 2 GROUNDWATER MONITORING REPORT
CABOT CARBON/KOPPERS SUPERFUND SITE
GAINESVILLE, FLORIDA

GROUNDWATER ELEVATION CONTOURS
SECOND QUARTER 2006 APRIL 30, 2006

PROJECT NO: 06-200
DRAWING NUMBER
FIGURE 4



LEGEND

PROPERTY LINE (APPROX.)

ROAD

FENCE

RR TRACK

M-30A 176.88 — MONITORING WELL WITH GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEALEVEL

PZ-14A 171.89 — PIEZOMETER WITH GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEALEVEL

170 — GROUNDWATER ELEVATION CONTOUR

172 — WATER TABLE CONTOUR DEPRESSION

N

0 200 400 FEET

REV #	DATE	DESCRIPTION	APPD
3			
2			
1			

REFERENCE:

NOTE: WELLS PZ-02A, M-25A AND M-22B WERE NOT USED WHEN CONSTRUCTING THE GROUNDWATER CONTOURS.

BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

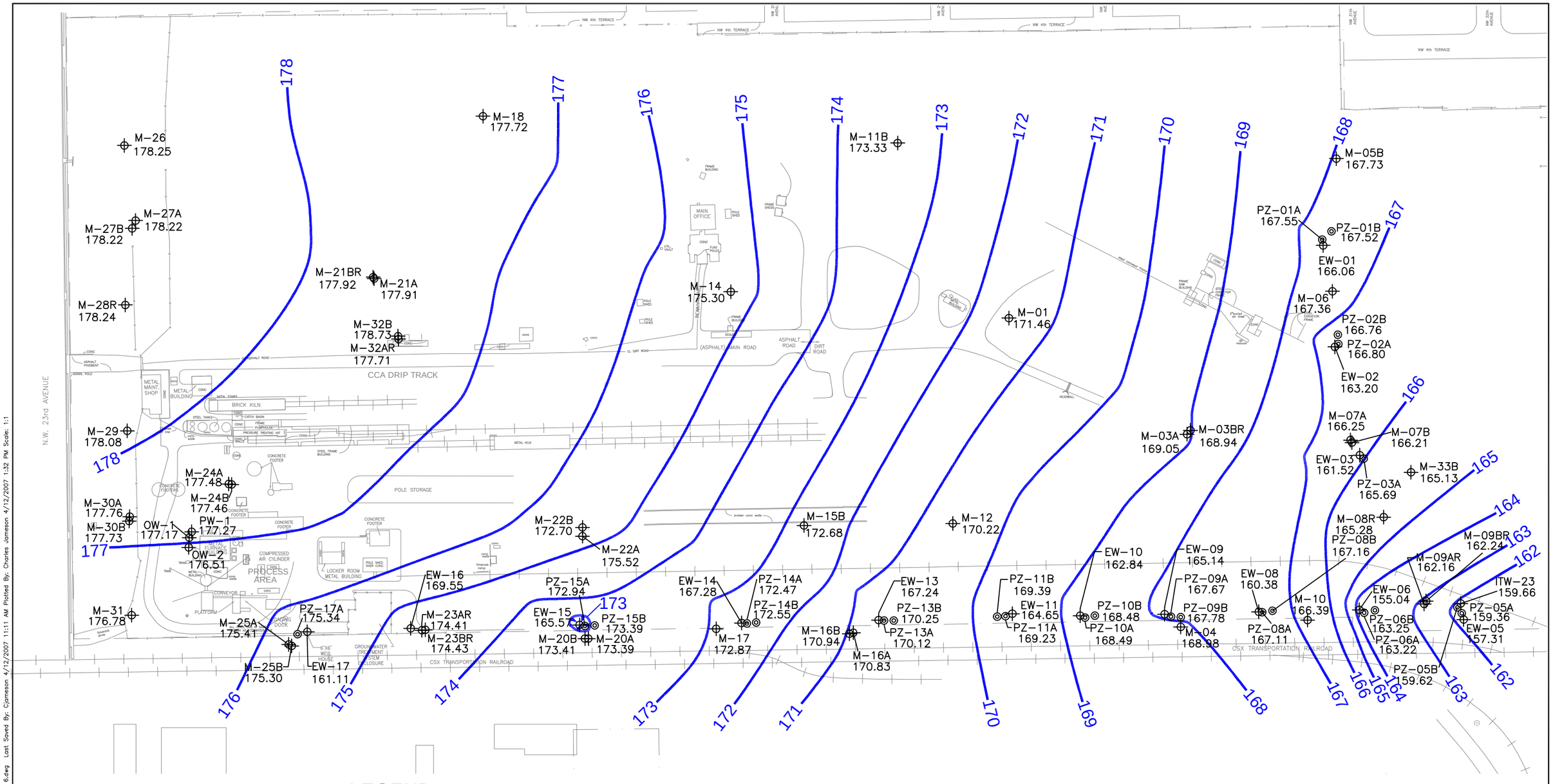
DRWN: CRJ	DATE: 03/10/07	FIELD & TECHNICAL SERVICES, LLC. 200 THIRD AVENUE CARNEGIE, PA 15106
CHKD: AYG	DATE: 03/10/07	
APPD: LMW	DATE: 03/10/07	
SCALE: AS SHOWN		
ISSUE DATE:		

2006 SECOND SEMIANNUAL STAGE 2
GROUNDWATER MONITORING REPORT
CABOT CARBON/KOPPERS SUPERFUND SITE
GAINESVILLE, FLORIDA

GROUNDWATER ELEVATION CONTOURS
THIRD QUARTER JULY 31, 2006

PROJECT NO: 06-200
DRAWING NUMBER
FIGURE 5

q:\projects\beazer projects\gainesville\cadd\2nd semi-annual 2006\figure 5.dwg Last Saved By: Cjameson 4/12/2007 11:53 AM Plotted By: Charles Jameson 4/12/2007 1:32 PM Scale: 1:1



LEGEND

PROPERTY LINE (APPROX.)

ROAD

FENCE

RR TRACK

M-30A 177.76 — MONITORING WELL WITH GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEALEVEL

PZ-14A 172.47 — PIEZOMETER WITH GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEALEVEL

170 — GROUNDWATER ELEVATION CONTOUR

173 — WATER TABLE CONTOUR DEPRESSION

0 200 400 FEET

N

REV #	DATE	DESCRIPTION	APPD

REFERENCE:

NOTE: WELL M-22B WAS NOT USED WHEN CONSTRUCTING THE GROUNDWATER CONTOURS.

BEAZER EAST, INC.
PITTSBURGH, PENNSYLVANIA

DRWN:	DAE	DATE:	03/10/07
CHKD:	LMW	DATE:	03/10/07
APPD:	JGK	DATE:	03/10/07
SCALE:	AS SHOWN		
ISSUE DATE:			

FIELD & TECHNICAL SERVICES, LLC.
200 THIRD AVENUE
CARNEGIE, PA 15106

2006 SECOND SEMIANNUAL STAGE 2
GROUNDWATER MONITORING REPORT
CABOT CARBON/KOPPERS SUPERFUND SITE
GAINESVILLE, FLORIDA

GROUNDWATER ELEVATION CONTOURS
FOURTH QUARTER OCTOBER 31, 2006

PROJECT NO: 06-200
DRAWING NUMBER
FIGURE 6

q:\projects\beazer projects\gainesville\cadd\2nd semi-annual 2006\figure 6.dwg Last Saved By: CJameson 4/12/2007 11:11 AM Plotted By: Charles Jameson 4/12/2007 1

Appendix A

Field Forms

Appendix A
Groundwater Sampling Field Parameters - December 13 and 14, 2006
2006 Second Semiannual Stage 2 Groundwater Monitoring Report
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Location ID	Sample Date	TOC (feet msl)	Depth To Water (feet TOC)	Groundwater Elevation (feet msl)	Conductivity (ms/cm)	pH (SU)	Temperature (^{o}C)
ESE-001	12/14/06	162.27	9.64	152.63	0.129	4.90	22.16
EW-01	12/13/06	180.45	NM	NA	0.134	5.95	27.76
EW-02	12/13/06	178.89	NM	NA	0.130	5.29	25.91
EW-03	12/13/06	175.82	NM	NA	0.106	5.30	27.69
EW-05	12/13/06	171.33	NM	NA	0.228	6.20	23.31
EW-06	12/13/06	173.02	NM	NA	0.098	6.01	23.71
EW-08	12/13/06	174.10	NM	NA	0.119	5.82	27.55
EW-09	12/13/06	176.17	NM	NA	0.141	5.81	26.25
EW-10	12/13/06	177.33	NM	NA	0.158	6.01	24.50
EW-11	12/13/06	178.30	NM	NA	0.159	5.86	23.00
EW-13	12/13/06	179.99	NM	NA	0.158	5.73	23.95
EW-14	12/13/06	181.84	NM	NA	0.172	5.79	24.89
EW-15	12/13/06	182.94	NM	NA	0.184	5.32	25.10
EW-16	12/13/06	184.24	NM	NA	0.248	5.99	37.30
EW-17	12/13/06	184.76	NM	NA	0.682	6.03	26.17
ITW-12	12/14/06	177.49	9.55	167.94	0.360	5.65	24.40
ITW-20	12/14/06	169.80	10.71	159.09	0.149	4.73	21.38
M-05B	12/14/06	182.18	16.30	165.88	0.185	6.20	23.66
M-33B	12/14/06	176.39	13.05	163.34	0.154	5.17	24.52

Notes:

NA - not available

TOC - top of casing

NM - not measured

feet msl - feet above mean sea level

feet TOC - feet below top of casing

ms/cm - millisiemens per centimeter

SU - standard units

°C = degree celsius

GROUNDWATER SAMPLE COLLECTION RECORD

WELL NO.: EW-1

Project No.: 045006 Client: Beazer

Project Name: Gainesville Project Location: Gainsville, FL

Weather Conditions: 75° cloudy Sampling Date: 12/13/06

1. WATER LEVEL DATA (measured from top of inner well casing)

a. Depth to LNAPL: NA (ft) b. Depth to Water: _____ (ft)

c. Depth to DNAPL: NA (ft) d. Total Well Depth: _____ (ft)

e. LNAPL Thickness: (a-b) NA (ft) f. DNAPL Thickness: (c-d) NA (ft)

g. Length of Water Column: _____ (ft) (a-d)

h. Well Volume: _____ (gal)

Conversion Factors (a x cf = h)	
Well I.D.	Conv. Fact. (cf)
1	0.041
2	0.163
4	0.653
6	1.470

2. WELL PURGE DATA pump House Tap

a. Purge Method: ~~Bladder Pump w/ Dedicated Teflon®-lined Tubing~~ RH

b. Field Testing Equipment: Horiba U-22

c. Required Total Purge Volume (1f x 2c) (gals.): NA

d. Total Volume Removed: _____

e. Begin Purge Time: 0915 End Purge Time: 0925

Read No.	Lapse Time (min.)	Purge Rate	Temp (deg. C) (±10%)	pH (s.u.) (±0.1)	Spec. Cond. (ms/cm) (±3%)	Eh/ORP (mV) (±10mV)	Diss O2 (mg/L) (±10%)	TURB (NTU) (±10%)	Water Level (ft)
PRE PURGE VALUES									
1	0		27.47	6.14	139				
PURGING VALUES									
2	5		27.76	5.95	133.9				

RH

3. SAMPLE COLLECTION DATA Sampling Personnel: R. Hanczar / J. Leaver

Sampling Method(s) & Equip: ~~Bladder Pump w/ Dedicated Teflon®-lined Tubing~~ pump house tap

Sample I.D. (Name, Date, Time): EW-01, 12-13-06, 0920

Sample Analytical Parameters/Method: ~~BTEX-8260B~~; SVOCs (select phenols and PAHs)-8270C

~~Diss. As, Cr, Cu, Zn-6020~~

Sample Start Time: 0920 End SampleTime: 0925

COMMENTS: creosote odor

GROUNDWATER SAMPLE COLLECTION RECORD

WELL NO.: EW-2

Project No.: 045006 Client: Beazer

Project Name: Gainesville Project Location: Gainsville, FL

Weather Conditions: 75° Cloudy Sampling Date: 12/13/06

1. WATER LEVEL DATA (measured from top of inner well casing)

a. Depth to LNAPL: NA (ft) b. Depth to Water: _____ (ft)

c. Depth to DNAPL: NA (ft) d. Total Well Depth: _____ (ft)

e. LNAPL Thickness: (a-b) NA (ft) f. DNAPL Thickness: (c-d) NA (ft)

g. Length of Water Column: _____ (ft) (a-d)

h. Well Volume: _____ (gal)

Conversion Factors (a x cf = h)	
Well I.D.	Conv. Fact. (cf)
1	0.041
2	0.163
4	0.653
6	1.470

2. WELL PURGE DATA

a. Purge Method: Pump House Tap ~~Bladder Pump w/ Dedicated Teflon® lined Tubing~~ RH

b. Field Testing Equipment: Horiba U-22

c. Required Total Purge Volume (1f x 2c) (gals.): NA

d. Total Volume Removed: _____

e. Begin Purge Time: 0925 End Purge Time: 0930

Read No.	Lapse Time (min.)	Purge Rate	Temp (deg. C) (±10%)	pH (s.u.) (±0.1)	Spec. Cond. (ms/cm) (±3%)	Eh/ORP (mV) (±10mV)	Diss O2 (mg/L) (±10%)	TURB (NTU) (±10%)	Water Level (ft)
PRE PURGE VALUES									
1	0		24.01	5.48	129.9				
PURGING VALUES									
2	5		25.91	5.29	130.1				

RH

3. SAMPLE COLLECTION DATA Sampling Personnel: R. Hanczar / J. Leaver

Sampling Method(s) & Equip: ~~Bladder Pump w/ Dedicated Teflon® lined Tubing~~ pump house tap

Sample I.D. (Name, Date, Time): EW-2, 12-13-06, 0925

Sample Analytical Parameters/Method: BTEX-8260B; SVOCs (select phenols and PAHs)-8270C

~~Diss. As, Cr, Cu, Zn-6020~~

Sample Start Time: 0930 End SampleTime: 0935

COMMENTS: creosote odor

FTS

GROUNDWATER SAMPLE COLLECTION RECORD

WELL NO.: EW-3

Project No.: 045006 Client: Beazer

Project Name: Gainesville Project Location: Gainsville, FL

Weather Conditions: 75°, cloudy Sampling Date: 12/13/06

1. WATER LEVEL DATA (measured from top of inner well casing)

a. Depth to LNAPL: NA (ft) b. Depth to Water: _____ (ft)

c. Depth to DNAPL: NA (ft) d. Total Well Depth: _____ (ft)

e. LNAPL Thickness: (a-b) NA (ft) f. DNAPL Thickness: (c-d) NA (ft)

g. Length of Water Column: _____ (ft) (a-d)

h. Well Volume: _____ (gal)

Conversion Factors (a x cf = h)	
Well I.D.	Conv. Fact. (cf)
1	0.041
2	0.163
4	0.653
6	1.470

2. WELL PURGE DATA

a. Purge Method: ~~Bladder Pump w/ Dedicated Teflon® -lined Tubing~~ Pump House Tap PH

b. Field Testing Equipment: Horiba U-22

c. Required Total Purge Volume (1f x 2c) (gals.): NA

d. Total Volume Removed: _____

e. Begin Purge Time: 0940 End Purge Time: 0945

Read No.	Lapse Time (min.)	Purge Rate	Temp (deg. C) (±10%)	pH (s.u.) (±0.1)	Spec. Cond. (ms/cm) (±3%)	Eh/ORP (mV) (±10mV)	Diss O2 (mg/L) (±10%)	TURB (NTU) (±10%)	Water Level (ft)
PRE PURGE VALUES									
1	0		27.01	5.74	105.4				
PURGING VALUES									
2	5		27.69	5.30	105.5				

PH

3. SAMPLE COLLECTION DATA Sampling Personnel: R. Hanczar / J. Leaver

Sampling Method(s) & Equip: ~~Bladder Pump w/ Dedicated Teflon® -lined Tubing~~ pump house tap

Sample I.D. (Name, Date, Time): EW-3, 12-13-06, 0940

Sample Analytical Parameters/Method: ~~BTEX-8260B~~; SVOCs (select phenols and PAHs)-8270C

~~Diss. As, Cr, Cu, Zn-6020~~

Sample Start Time: 0945 End SampleTime: 0950

COMMENTS: creosote odor

GROUNDWATER SAMPLE COLLECTION RECORD

WELL NO.: EW-5

Project No.: 045006 **Client:** Beazer

Project Name: Gainesville **Project Location:** Gainsville, FL

Weather Conditions: 75°, cloudy **Sampling Date:** 12-13-06

1. WATER LEVEL DATA (measured from top of inner well casing)

a. Depth to LNAPL: NA (ft) b. Depth to Water: _____ (ft)

c. Depth to DNAPL: NA (ft) d. Total Well Depth: _____ (ft)

e. LNAPL Thickness: (a-b) NA (ft) f. DNAPL Thickness: (c-d) NA (ft)

g. Length of Water Column: _____ (ft) (a-d)

h. Well Volume: _____ (gal)

Conversion Factors (a x cf = h)	
Well I.D.	Conv. Fact. (cf)
1	0.041
2	0.163
4	0.653
6	1.470

2. WELL PURGE DATA

a. Purge Method: ~~Bladder Pump w/ Dedicated Teflon®-lined Tubing~~ Pump House Tap RH

b. Field Testing Equipment: Horiba U-22

c. Required Total Purge Volume (1f x 2c) (gals.): NA

d. Total Volume Removed: _____

e. Begin Purge Time: 955 End Purge Time: 1000

Read No.	Lapse Time (min.)	Purge Rate	Temp (deg. C) (±10%)	pH (s.u.) (±0.1)	Spec. Cond. (ms/cm) (±3%)	Eh/ORP (mV) (±10mV)	Diss O2 (mg/L) (±10%)	TURB (NTU) (±10%)	Water Level (ft)
PRE PURGE VALUES									
1			23.40	6.15	231.1				
PURGING VALUES									
2			23.31	6.20	227.7				

RH

3. SAMPLE COLLECTION DATA Sampling Personnel: R. Hanczar / J. Leaver

Sampling Method(s) & Equip: ~~Bladder Pump w/ Dedicated Teflon®-lined Tubing~~ pump house tap

Sample I.D. (Name, Date, Time): EW-5, 12-13-06, 1000

Sample Analytical Parameters/Method: ~~BTEX-8260B~~; SVOCs (select phenols and PAHs)-8270C

Diss. As, Cr, ~~Cu, Zn 6020~~

Sample Start Time: 1000 End SampleTime: 1005

COMMENTS: creosote odor

FTS

GROUNDWATER SAMPLE COLLECTION RECORD

WELL NO.: EW-6

Project No.: 045006 Client: Beazer

Project Name: Gainesville Project Location: Gainsville, FL

Weather Conditions: 75° Cloudy Sampling Date: 12/13/06

1. WATER LEVEL DATA (measured from top of inner well casing)

a. Depth to LNAPL: NA (ft) b. Depth to Water: _____ (ft)

c. Depth to DNAPL: NA (ft) d. Total Well Depth: _____ (ft)

e. LNAPL Thickness: (a-b) NA (ft) f. DNAPL Thickness: (c-d) NA (ft)

g. Length of Water Column: _____ (ft) (a-d)

h. Well Volume: _____ (gal)

Conversion Factors (a x cf = h)	
Well I.D.	Conv. Fact. (cf)
1	0.041
2	0.163
4	0.653
6	1.470

2. WELL PURGE DATA Pump House Tap

a. Purge Method: ~~Bladder Pump w/ Dedicated Teflon®-lined Tubing~~

b. Field Testing Equipment: Horiba U-22

c. Required Total Purge Volume (1f x 2c) (gals.): NA

d. Total Volume Removed: _____

e. Begin Purge Time: 1005 End Purge Time: 1015

Read No.	Lapse Time (min.)	Purge Rate	Temp (deg. C) (±10%)	pH (s.u.) (±0.1)	Spec. Cond. (ms/cm) (±3%)	Eh/ORP (mV) (±10mV)	Diss O2 (mg/L) (±10%)	TURB (NTU) (±10%)	Water Level (ft)
PRE PURGE VALUES									
1	0		25.00	5.86	99.96				
PURGING VALUES									
2	5		23.71	6.01	98.19				

RH

3. SAMPLE COLLECTION DATA Sampling Personnel: R. Hanczar / J. Leaver

Sampling Method(s) & Equip: ~~Bladder Pump w/ Dedicated Teflon®-lined Tubing~~ pump house tap

Sample I.D. (Name, Date, Time): EW-6, 12-13-06, 1005

Sample Analytical Parameters/Method: ~~BTEX-8260B~~; SVOCs (select phenols and PAHs)-8270C

Diss. As, Cr, ~~Cu, Zn 6020~~

Sample Start Time: 1010 End SampleTime: 1015

COMMENTS: water seperated into 2 layers

FTS

GROUNDWATER SAMPLE COLLECTION RECORD WELL NO.: EW-8

Project No.: 045006 Client: Beazer

Project Name: Gainesville Project Location: Gainsville, FL

Weather Conditions: Cloudy, 75° Sampling Date: ~~EW-8~~ RH 12-13-06

1. WATER LEVEL DATA (measured from top of inner well casing)

a. Depth to LNAPL: NA (ft) b. Depth to Water: _____ (ft)

c. Depth to DNAPL: NA (ft) d. Total Well Depth: _____ (ft)

e. LNAPL Thickness: (a-b) NA (ft) f. DNAPL Thickness: (c-d) NA (ft)

g. Length of Water Column: _____ (ft) (a-d)

h. Well Volume: _____ (gal)

2. WELL PURGE DATA

a. Purge Method: ~~Bladder Pump w/ Dedicated Teflon®-lined Tubing~~

b. Field Testing Equipment: Horiba U-22

c. Required Total Purge Volume (1f x 2c) (gals.): NA

d. Total Volume Removed: _____

e. Begin Purge Time: 1015 End Purge Time: 1020

Conversion Factors (a x cf = h)	
Well I.D.	Conv. Fact. (cf)
1	0.041
2	0.163
4	0.653
6	1.470

Read No.	Lapse Time (min.)	Purge Rate	Temp (deg. C) (±10%)	pH (s.u.) (±0.1)	Spec. Cond. (ms/cm) (±3%)	Eh/ORP (mV) (±10mV)	Diss O2 (mg/L) (±10%)	TURB (NTU) (±10%)	Water Level (ft)
PRE PURGE VALUES									
1	0		27.15	5.78	127.1				
PURGING VALUES									
2	5		27.55	5.82	118.5				

RH

3. SAMPLE COLLECTION DATA Sampling Personnel: R. Hanczar / J. Leaver

Sampling Method(s) & Equip: ~~Bladder Pump w/ Dedicated Teflon®-lined Tubing~~ pump house tap

Sample I.D. (Name, Date, Time): EW-8, 12-13-06, 1015

Sample Analytical Parameters/Method: ~~BTEX-8260B~~, SVOCs (select phenols and PAHs)-8270C

Diss. As, Cr, ~~Cu, Zn-6020~~

Sample Start Time: 1015 End SampleTime: 1020

COMMENTS: brown/orange color creosote odor in initial purge, cleared up eventually

GROUNDWATER SAMPLE COLLECTION RECORD

WELL NO.: EW-9

Project No.: 045006 **Client:** Beazer
Project Name: Gainesville **Project Location:** Gainsville, FL
Weather Conditions: Cloudy, 75° **Sampling Date:** 12-13-06

1. WATER LEVEL DATA (measured from top of inner well casing)

a. Depth to LNAPL: NA (ft) b. Depth to Water: _____ (ft)
c. Depth to DNAPL: NA (ft) d. Total Well Depth: _____ (ft)
e. LNAPL Thickness: (a-b) NA (ft) f. DNAPL Thickness: (c-d) NA (ft)
g. Length of Water Column: _____ (ft) (a-d)
h. Well Volume: _____ (gal)

Conversion Factors (a x cf = h)	
Well I.D.	Conv. Fact. (cf)
1	0.041
2	0.163
4	0.653
6	1.470

2. WELL PURGE DATA pump house tap

a. Purge Method: ~~Bladder Pump w/ Dedicated Teflon® lined Tubing~~
b. Field Testing Equipment: Horiba U-22
c. Required Total Purge Volume (1f x 2c) (gals.): NA
d. Total Volume Removed: _____
e. Begin Purge Time: 1020 End Purge Time: 1030

Read No.	Lapse Time (min.)	Purge Rate	Temp (deg. C) (±10%)	pH (s.u.) (±0.1)	Spec. Cond. (ms/cm) (±3%)	Eh/ORP (mV) (±10mV)	Diss O2 (mg/L) (±10%)	TURB (NTU) (±10%)	Water Level (ft)
PRE PURGE VALUES									
1	0		24.61	5.88	156.7				
PURGING VALUES									
2	5		26.82	5.75	141.1				
3	10		26.25	5.81	140.7				

RH

3. SAMPLE COLLECTION DATA Sampling Personnel: R. Hanczar / J. Leaver

Sampling Method(s) & Equip: ~~Bladder Pump w/ Dedicated Teflon®-lined Tubing~~ pumphouse tap
Sample I.D. (Name, Date, Time): EW-9, 12-13-06, 1025
Sample Analytical Parameters/Method: ~~BTEX-8260B~~; SVOCs (select phenols and PAHs)-8270C
Diss. As, Cr, ~~Cu, Zn-6020~~

Sample Start Time: 1025 End SampleTime: 1030
COMMENTS: creosote odor, water fluctuating cloudy brown - clear

GROUNDWATER SAMPLE COLLECTION RECORD

WELL NO.: EW-10

Project No.: 045006 Client: Beazer

Project Name: Gainesville Project Location: Gainsville, FL

Weather Conditions: 75° cloudy, breeze Sampling Date: 12-13-06

1. WATER LEVEL DATA (measured from top of inner well casing)

a. Depth to LNAPL: NA (ft) b. Depth to Water: _____ (ft)

c. Depth to DNAPL: NA (ft) d. Total Well Depth: _____ (ft)

e. LNAPL Thickness: (a-b) NA (ft) f. DNAPL Thickness: (c-d) NA (ft)

g. Length of Water Column: _____ (ft) (a-d)

h. Well Volume: _____ (gal)

2. WELL PURGE DATA

a. Purge Method: pump house tap ~~Bladder Pump w/ Dedicated Teflon® -lined Tubing~~

b. Field Testing Equipment: Horiba U-22

c. Required Total Purge Volume (1f x 2c) (gals.): NA

d. Total Volume Removed: _____

e. Begin Purge Time: 1240 End Purge Time: 1250

Conversion Factors (a x cf = h)	
Well I.D.	Conv. Fact. (cf)
1	0.041
2	0.163
4	0.653
6	1.470

Read No.	Lapse Time (min.)	Purge Rate	Temp (deg. C) (±10%)	pH (s.u.) (±0.1)	Spec. Cond. (ms/cm) (±3%)	Eh/ORP (mV) (±10mV)	Diss O2 (mg/L) (±10%)	TURB (NTU) (±10%)	Water Level (ft)
PRE PURGE VALUES									
1			24.74	6.10	158.7				
PURGING VALUES									
2			24.50	6.01	158.3				

RH

3. SAMPLE COLLECTION DATA Sampling Personnel: R. Hanczar / J. Leaver

Sampling Method(s) & Equip: ~~Bladder Pump w/ Dedicated Teflon® lined Tubing~~ pump house tap

Sample I.D. (Name, Date, Time): EW-10, 12-13-06, 1245

Sample Analytical Parameters/Method: ~~BTEX-8260B~~; SVOCs (select phenols and PAHs)-8270C

Diss. As, Cr, ~~Cu, Zn-6020~~

Sample Start Time: 1245 End SampleTime: 1250

COMMENTS: pump was not initially working, changed capicaitor

FTS

GROUNDWATER SAMPLE COLLECTION RECORD WELL NO.: EW-11

Project No.: 045006 **Client:** Beazer

Project Name: Gainesville **Project Location:** Gainsville, FL

Weather Conditions: 75°, Cloudy **Sampling Date:** 12-13-06

1. WATER LEVEL DATA (measured from top of inner well casing)

a. **Depth to LNAPL:** NA (ft) b. **Depth to Water:** _____ (ft)

c. **Depth to DNAPL:** NA (ft) d. **Total Well Depth:** _____ (ft)

e. **LNAPL Thickness:** (a-b) NA (ft) f. **DNAPL Thickness:** (c-d) NA (ft)

g. **Length of Water Column:** _____ (ft) (a-d)

h. **Well Volume:** _____ (gal)

Conversion Factors (a x cf = h)	
Well I.D.	Conv. Fact. (cf)
1	0.041
2	0.163
4	0.653
6	1.470

2. WELL PURGE DATA

a. **Purge Method:** Bladder Pump w/ Dedicated Teflon®-lined Tubing

b. **Field Testing Equipment:** Horiba U-22

c. **Required Total Purge Volume (1f x 2c) (gals.):** NA

d. **Total Volume Removed:** _____

e. **Begin Purge Time:** 1030 **End Purge Time:** 1040

Read No.	Lapse Time (min.)	Purge Rate	Temp (deg. C) (±10%)	pH (s.u.) (±0.1)	Spec. Cond. (ms/cm) (±3%)	Eh/ORP (mV) (±10mV)	Diss O2 (mg/L) (±10%)	TURB (NTU) (±10%)	Water Level (ft)
PRE PURGE VALUES									
1	0		22.94	5.90	155.2				
PURGING VALUES									
2	5		23.00	5.86	158.8				

3. SAMPLE COLLECTION DATA **Sampling Personnel:** R. Hanczar / J. Leaver

Sampling Method(s) & Equip: Bladder Pump w/ Dedicated Teflon®-lined Tubing

Sample I.D. (Name, Date, Time): EW-11, 12-13-06,

Sample Analytical Parameters/Method: ~~BTEX-8260B~~, SVOCs (select phenols and PAHs)-8270C

Diss. As, Cr, ~~Cu, Zn 6020~~

Sample Start Time: 1035 **End SampleTime:** 1040

COMMENTS: creosote odor

FTS

GROUNDWATER SAMPLE COLLECTION RECORD WELL NO.: EW-13

Project No.: 045006 **Client:** Beazer
Project Name: Gainesville **Project Location:** Gainsville, FL
Weather Conditions: 75° Cloudy **Sampling Date:** 12-13-06

1. WATER LEVEL DATA (measured from top of inner well casing)

a. Depth to LNAPL: NA (ft) b. Depth to Water: _____ (ft)
c. Depth to DNAPL: NA (ft) d. Total Well Depth: _____ (ft)
e. LNAPL Thickness: (a-b) NA (ft) f. DNAPL Thickness: (c-d) NA (ft)
g. Length of Water Column: _____ (ft) (a-d)
h. Well Volume: _____ (gal)

Conversion Factors (a x cf = h)	
Well I.D.	Conv. Fact. (cf)
1	0.041
2	0.163
4	0.653
6	1.470

2. WELL PURGE DATA Pump House Tap

a. Purge Method: ~~Bladder Pump w/ Dedicated Teflon®-lined Tubing~~
b. Field Testing Equipment: Horiba U-22
c. Required Total Purge Volume (1f x 2c) (gals.): NA
d. Total Volume Removed: _____
e. Begin Purge Time: 1040 End Purge Time: 1050

Read No.	Lapse Time (min.)	Purge Rate	Temp (deg. C) (±10%)	pH (s.u.) (±0.1)	Spec. Cond. (ms/cm) (±3%)	Eh/ORP (mV) (±10mV)	Diss O2 (mg/L) (±10%)	TURB (NTU) (±10%)	Water Level (ft)
PRE PURGE VALUES									
1	0		23.85	5.78	154.6				
PURGING VALUES									
2	5		23.95	5.73	158.3				

RH

3. SAMPLE COLLECTION DATA **Sampling Personnel:** R. Hanczar / J. Leaver

Sampling Method(s) & Equip: Bladder Pump w/ Dedicated Teflon®-lined Tubing
Sample I.D. (Name, Date, Time): EW-13, 12-13-06, 1040
Sample Analytical Parameters/Method: ~~BTEX 8260B,~~ SVOCs (select phenols and PAHs)-8270C
Diss. As, Cr, ~~Cu, Zn 6020~~

Sample Start Time: 1045 **End SampleTime:** 1050
COMMENTS: creosote odor

FTS

GROUNDWATER SAMPLE COLLECTION RECORD

WELL NO.: EW-14

Project No.: 045006 **Client:** Beazer

Project Name: Gainesville **Project Location:** Gainsville, FL

Weather Conditions: 75°, cloudy **Sampling Date:** 12-13-06

1. WATER LEVEL DATA (measured from top of inner well casing)

a. Depth to LNAPL: NA (ft) b. Depth to Water: _____ (ft)

c. Depth to DNAPL: NA (ft) d. Total Well Depth: _____ (ft)

e. LNAPL Thickness: (a-b) NA (ft) f. DNAPL Thickness: (c-d) NA (ft)

g. Length of Water Column: _____ (ft) (a-d)

h. Well Volume: _____ (gal)

Conversion Factors (a x cf = h)	
Well I.D.	Conv. Fact. (cf)
1	0.041
2	0.163
4	0.653
6	1.470

2. WELL PURGE DATA

a. Purge Method: Pump House tap ~~Bladder Pump w/ Dedicated Teflon® lined Tubing~~

b. Field Testing Equipment: Horiba U-22

c. Required Total Purge Volume (1f x 2c) (gals.): NA

d. Total Volume Removed: _____

e. Begin Purge Time: 1055 End Purge Time: 1105

Read No.	Lapse Time (min.)	Purge Rate	Temp (deg. C) (±10%)	pH (s.u.) (±0.1)	Spec. Cond. (ms/cm) (±3%)	Eh/ORP (mV) (±10mV)	Diss O2 (mg/L) (±10%)	TURB (NTU) (±10%)	Water Level (ft)
PRE PURGE VALUES									
1	0		24.60	5.69	175.3				
PURGING VALUES									
2	5		24.89	5.79	172.2				

RH

3. SAMPLE COLLECTION DATA Sampling Personnel: R. Hanczar / J. Leaver

Sampling Method(s) & Equip: ~~Bladder Pump w/ Dedicated Teflon® lined Tubing~~ pump house tap

Sample I.D. (Name, Date, Time): EW-14, 12-13-06, 1055

Sample Analytical Parameters/Method: ~~BTEX-8260B~~, SVOCs (select phenols and PAHs)-8270C

Diss. As, ~~Cr, Cu, Zn-6020~~

Sample Start Time: 1100 End SampleTime: 1105

COMMENTS: creosote odor

FTS

GROUNDWATER SAMPLE COLLECTION RECORD

WELL NO.: EW-15

Project No.: 045006 Client: Beazer

Project Name: Gainesville Project Location: Gainsville, FL

Weather Conditions: 75°, cloudy Sampling Date: 12-13-06

1. WATER LEVEL DATA (measured from top of inner well casing)

a. Depth to LNAPL: NA (ft) b. Depth to Water: _____ (ft)

c. Depth to DNAPL: NA (ft) d. Total Well Depth: _____ (ft)

e. LNAPL Thickness: (a-b) NA (ft) f. DNAPL Thickness: (c-d) NA (ft)

g. Length of Water Column: _____ (ft) (a-d)

h. Well Volume: _____ (gal)

Conversion Factors (a x cf = h)	
Well I.D.	Conv. Fact. (cf)
1	0.041
2	0.163
4	0.653
6	1.470

2. WELL PURGE DATA Pump house tap

a. Purge Method: ~~Bladder Pump w/ Dedicated Teflon® -lined Tubing~~

b. Field Testing Equipment: Horiba U-22

c. Required Total Purge Volume (1f x 2c) (gals.): NA

d. Total Volume Removed: _____

e. Begin Purge Time: 1105 End Purge Time: 1115

Read No.	Lapse Time (min.)	Purge Rate	Temp (deg. C) (±10%)	pH (s.u.) (±0.1)	Spec. Cond. (ms/cm) (±3%)	Eh/ORP (mV) (±10mV)	Diss O2 (mg/L) (±10%)	TURB (NTU) (±10%)	Water Level (ft)
PRE PURGE VALUES									
1	0		24.93	5.34	189.1				
PURGING VALUES									
2	5		25.10	5.32	183.7				

RH

3. SAMPLE COLLECTION DATA Sampling Personnel: R. Hanczar / J. Leaver

Sampling Method(s) & Equip: ~~Bladder Pump w/ Dedicated Teflon® -lined Tubing~~ pump house tap

Sample I.D. (Name, Date, Time): EW-15, 12-13-06, 1110

Sample Analytical Parameters/Method: ~~BTEX-8260B~~; SVOCs (select phenols and PAHs)-8270C

Diss. As, Cr, ~~Cu, Zn-6020~~

Sample Start Time: 1110 End SampleTime: 1115

COMMENTS: creosote odor

FTS

GROUNDWATER SAMPLE COLLECTION RECORD

WELL NO.: EW-16

Project No.: 045006 **Client:** Beazer

Project Name: Gainesville **Project Location:** Gainsville, FL

Weather Conditions: cloudy 75° **Sampling Date:** 12/13/06

1. WATER LEVEL DATA (measured from top of inner well casing)

a. **Depth to LNAPL:** NA (ft) b. **Depth to Water:** _____ (ft)

c. **Depth to DNAPL:** NA (ft) d. **Total Well Depth:** _____ (ft)

e. **LNAPL Thickness:** (a-b) NA (ft) f. **DNAPL Thickness:** (c-d) NA (ft)

g. **Length of Water Column:** _____ (ft) (a-d)

h. **Well Volume:** _____ (gal)

Conversion Factors (a x cf = h)	
Well I.D.	Conv. Fact. (cf)
1	0.041
2	0.163
4	0.653
6	1.470

2. WELL PURGE DATA

a. **Purge Method:** Bladder Pump w/ Dedicated Teflon®-lined Tubing

b. **Field Testing Equipment:** Horiba U-22

c. **Required Total Purge Volume (1f x 2c) (gals.):** NA

d. **Total Volume Removed:** _____

e. **Begin Purge Time:** 1400 **End Purge Time:** 1415

Read No.	Lapse Time (min.)	Purge Rate	Temp (deg. C) (±10%)	pH (s.u.) (±0.1)	Spec. Cond. (ms/cm) (±3%)	Eh/ORP (mV) (±10mV)	Diss O2 (mg/L) (±10%)	TURB (NTU) (±10%)	Water Level (ft)
PRE PURGE VALUES									
1			37.3	5.99	248.5				
PURGING VALUES									
2			37.3	5.99	248.1				

3. SAMPLE COLLECTION DATA **Sampling Personnel:** R. Hanczar / J. Leaver

Sampling Method(s) & Equip: Bladder Pump w/ Dedicated Teflon®-lined Tubing

Sample I.D. (Name, Date, Time): EW-16, 12-13-06, MS, MSD

Sample Analytical Parameters/Method: BTEX-8260B; SVOCs (select phenols and PAHs)-8270C

Diss. As, Cr, ~~Cu, Zn-6020~~

Sample Start Time: 1410 **End SampleTime:** 1415

COMMENTS: MS/MSD collected

FTS

M-05B

GROUNDWATER SAMPLE COLLECTION RECORD WELL NO.:

Project No.: 045006 **Client:** Beazer

Project Name: Gainesville **Project Location:** Gainsville, FL

Weather Conditions: cloudy 63° **Sampling Date:** 12/14/06

1. WATER LEVEL DATA (measured from top of inner well casing)

a. Depth to LNAPL: NA (ft) b. Depth to Water: 16.30 (ft)

c. Depth to DNAPL: NA (ft) d. Total Well Depth: 28.20 (ft)

e. LNAPL Thickness: (a-b) NA (ft) f. DNAPL Thickness: (c-d) NA (ft)

g. Length of Water Column: 11.90 (ft) (a-d)

h. Well Volume: 2.0 (gal)

Conversion Factors (a x cf = h)	
Well I.D.	Conv. Fact. (cf)
1	0.041
(2)	0.163
4	0.653
6	1.470

2. WELL PURGE DATA

a. Purge Method: ~~Bladder Pump w/~~ Dedicated Teflon® ~~-lined Tubing~~ BAILER

b. Field Testing Equipment: Horiba U-22

c. Required Total Purge Volume (1f x 2c) (gals.): ~~NA~~ 6.0

d. Total Volume Removed: 6.0 GALLONS

e. Begin Purge Time: 0745 End Purge Time: 0805

Read No.	Lapse Time (min.)	Purge ~~Rate~~ GAL.	Temp (deg. C) (±10%)	pH (s.u.) (±0.1)	Spec. Cond. (ms/cm) (±3%)	Eh/ORP (mV) (±10mV)	Diss O2 (mg/L) (±10%)	TURB (NTU) (±10%)	Water Level (ft)
PRE PURGE VALUES									
1	0	~~0.25~~	22.85	7.42	.185	—	—	—	—
PURGING VALUES									
2	5	~~2.0~~	23.60	6.24	.188	—	—	—	—
3	10	~~4.0~~	23.64	6.22	.183	—	—	—	—
4	15	~~6.0~~	23.66	6.20	.185	—	—	—	—

3. SAMPLE COLLECTION DATA **Sampling Personnel:** R. Hanczar / J. Leaver

Sampling Method(s) & Equip: ~~Bladder Pump w/~~ Dedicated Teflon® ~~-lined Tubing~~ BAILER

Sample I.D. (Name, Date, Time): MW5B-121406 , 12/14/06 , 0810

Sample Analytical Parameters/Method: ~~BTEX-8260B~~; SVOCs (select phenols and PAHs)-8270C

~~Diss. As, Cr, Cu, Zn-6020~~

Sample Start Time: 0810 **End SampleTime:** 0815

COMMENTS:

FTS

GROUNDWATER SAMPLE COLLECTION RECORD

WELL NO.: M-33B

Project No.: 045006 Client: Beazer

Project Name: Gainesville Project Location: Gainsville, FL

Weather Conditions: SUNNY 70° Sampling Date: 12/14/06

1. WATER LEVEL DATA (measured from top of inner well casing)

a. Depth to LNAPL: NA (ft) b. Depth to Water: 13.05 (ft)

c. Depth to DNAPL: NA (ft) d. Total Well Depth: 27.03 (ft)

e. LNAPL Thickness: (a-b) NA (ft) f. DNAPL Thickness: (c-d) NA (ft)

g. Length of Water Column: 13.98 (ft) (a-d)

h. Well Volume: 2.28 (gal)

Conversion Factors (a x cf = h)	
Well I.D.	Conv. Fact. (cf)
1	0.041
(2)	0.163
4	0.653
6	1.470

2. WELL PURGE DATA

a. Purge Method: ~~Bladder Pump~~ w/ Dedicated Teflon® ~~-lined Tubing~~ BAILER

b. Field Testing Equipment: Horiba U-22

c. Required Total Purge Volume (1f x 2c) (gals.): ~~NA~~ 6.8

d. Total Volume Removed: 7.0 GALLONS

e. Begin Purge Time: 0820 End Purge Time:

Read No.	Lapse Time (min.)	Purge ~~Rate~~ GAL.	Temp (deg. C) (±10%)	pH (s.u.) (±0.1)	Spec. Cond. (ms/cm) (±3%)	Eh/ORP (mV) (±10mV)	Diss O2 (mg/L) (±10%)	TURB (NTU) (±10%)	Water Level (ft)
PRE PURGE VALUES									
1	0		24.35	5.19	165	—	—	—	—
PURGING VALUES									
2	5	2.2	24.53	5.13	164	—	—	—	—
3	8	5	24.58	5.15	153	—	—	—	—
4	12	7	24.52	5.17	154	—	—	—	—

3. SAMPLE COLLECTION DATA Sampling Personnel: R. Hanczar / J. Leaver

Sampling Method(s) & Equip: ~~Bladder Pump~~ w/ Dedicated Teflon® ~~-lined Tubing~~ BAILER

Sample I.D. (Name, Date, Time): M33B-121406, 12/14/06, 0835

Sample Analytical Parameters/Method: ~~BTEX 8260B~~, SVOCs (select phenols and PAHs)-8270C

Diss. As, Cr, ~~Cu, Zn~~-6020, TOTAL AS/CR

Sample Start Time: 0835 End SampleTime: 0840

COMMENTS:

GROUNDWATER SAMPLE COLLECTION RECORD

WELL NO.: ITW-12

Project No.: 045006 Client: Beazer

Project Name: Gainesville Project Location: Gainsville, FL

Weather Conditions: SUNNY Sampling Date: 12/14/06

1. WATER LEVEL DATA (measured from top of inner well casing)

a. Depth to LNAPL: NA (ft) b. Depth to Water: 9.55 (ft)

c. Depth to DNAPL: NA (ft) d. Total Well Depth: 19.52 (ft)

e. LNAPL Thickness: (a-b) NA (ft) f. DNAPL Thickness: (c-d) NA (ft)

g. Length of Water Column: 9.97 (ft) (a-d)

h. Well Volume: 1.63 (gal)

Conversion Factors (a x cf = h)	
Well I.D.	Conv. Fact. (cf)
1	0.041
(2)	0.163
4	0.653
6	1.470

2. WELL PURGE DATA

a. Purge Method: ~~Bladder Pump w/~~ Dedicated Teflon® ~~lined Tubing~~ BAILER

b. Field Testing Equipment: Horiba U-22

c. Required Total Purge Volume (1f x 2c) (gals.): ~~NA~~ 4.9

d. Total Volume Removed: 5.0 GALLONS

e. Begin Purge Time: 0902 End Purge Time: 0915

Read No.	Lapse Time (min.)	Purge ~~Rate~~ GAL.	Temp (deg. C) (±10%)	pH (s.u.) (±0.1)	Spec. Cond. (ms/cm) (±3%)	Eh/ORP (mV) (±10mV)	Diss O2 (mg/L) (±10%)	TURB (NTU) (±10%)	Water Level (ft)
PRE PURGE VALUES									
1	0	0.25	24.06	5.59	.355	—	—	—	—
PURGING VALUES									
2	3	2.0	24.42	5.62	.362	—	—	—	—
3	8	3.5	24.44	5.64	.363	—	—	—	—
4	12	5.0	24.40	5.65	.360	—	—	—	—

3. SAMPLE COLLECTION DATA Sampling Personnel: R. Hanczar / J. Leaver

Sampling Method(s) & Equip: ~~Bladder Pump w/~~ Dedicated Teflon® ~~lined Tubing~~ BAILER

Sample I.D. (Name, Date, Time): ~~AS~~ ITW12-121406 , 12/14/06 , 0916

Sample Analytical Parameters/Method: ~~BTEX-8260B; S~~VOCs (select phenols and PAHs)-8270C

Diss. As, Cr, ~~Cu, Zn~~-6020 , TOTAL AS/CR

Sample Start Time: 0916 End SampleTime: 0928

COMMENTS: TOOK DUP01-121406

FTS

GROUNDWATER SAMPLE COLLECTION RECORD

WELL NO.: ITW-20

Project No.: 045006 **Client:** Beazer

Project Name: Gainesville **Project Location:** Gainsville, FL

Weather Conditions: cloudy 74° **Sampling Date:** 12/14/06

1. WATER LEVEL DATA (measured from top of inner well casing)

a. Depth to LNAPL: NA (ft) b. Depth to Water: 10.71 (ft)

c. Depth to DNAPL: NA (ft) d. Total Well Depth: 29.76 (ft)

e. LNAPL Thickness: (a-b) NA (ft) f. DNAPL Thickness: (c-d) NA (ft)

g. Length of Water Column: 19.05 (ft) (a-d)

h. Well Volume: 3.1 (gal)

2. WELL PURGE DATA

a. Purge Method: ~~Bladder Pump w/~~ Dedicated Teflon® ~~lined Tubing~~ BAILER

b. Field Testing Equipment: Horiba U-22

c. Required Total Purge Volume (1f x 2c) (gals.): ~~NA~~ 9.3

d. Total Volume Removed: 9.3 GALLONS

e. Begin Purge Time: 0940 End Purge Time: 0959

Conversion Factors (a x cf = h)	
Well I.D.	Conv. Fact. (cf)
1	0.041
(2)	0.163
4	0.653
6	1.470

Read No.	Lapse Time (min.)	Purge ~~Rate~~ GAL.	Temp (deg. C) (±10%)	pH (s.u.) (±0.1)	Spec. Cond. (ms/cm) (±3%)	Eh/ORP (mV) (±10mV)	Diss O2 (mg/L) (±10%)	TURB (NTU) (±10%)	Water Level (ft)
PRE PURGE VALUES									
1	0		21.16	5.09	153	—	—	—	—
PURGING VALUES									
2	4	3.1	21.31	4.79	153	—	—	—	—
3	8	6.2	21.35	4.78	151	—	—	—	—
4	12	9.3	21.38	4.73	149	—	—	—	—

3. SAMPLE COLLECTION DATA **Sampling Personnel:** R. Hanczar / J. Leaver

Sampling Method(s) & Equip: ~~Bladder Pump w/~~ Dedicated Teflon® ~~lined Tubing~~ BAILER

Sample I.D. (Name, Date, Time): ITW20-121406 , 12/14/06 , 1000

Sample Analytical Parameters/Method: ~~BTEX 8260B~~; SVOCs (select phenols and PAHs)-8270C

Diss. As, Cr, ~~Cu, Zn~~ 6020 , TOTAL AS/CR

Sample Start Time: 1000 **End SampleTime:** 1006

COMMENTS:

GROUNDWATER SAMPLE COLLECTION RECORD

WELL NO.: ESE-001

Project No.: 045006 **Client:** Beazer
Project Name: Gainesville **Project Location:** Gainsville, FL
Weather Conditions: Cloudy 76° **Sampling Date:** 12/14/06

1. WATER LEVEL DATA (measured from top of inner well casing)

a. Depth to LNAPL: NA (ft) b. Depth to Water: 9.64 (ft)
c. Depth to DNAPL: NA (ft) d. Total Well Depth: 22.30 (ft)
e. LNAPL Thickness: (a-b) NA (ft) f. DNAPL Thickness: (c-d) NA (ft)
g. Length of Water Column: 12.66 (ft) (a-d)
h. Well Volume: 2.1 (gal)

Conversion Factors (a x cf = h)	
Well I.D.	Conv. Fact. (cf)
1	0.041
(2)	0.163
4	0.653
6	1.470

2. WELL PURGE DATA

a. Purge Method: Bladder Pump w/ Dedicated Teflon®-lined Tubing
b. Field Testing Equipment: Horiba U-22
c. Required Total Purge Volume (1f x 2c) (gals.): ~~NA~~ 6.3
d. Total Volume Removed: 6.4 GALLONS
e. Begin Purge Time: 1010 End Purge Time: 1022

Read No.	Lapse Time (min.)	Purge ~~Rate~~ GAL.	Temp (deg. C) (±10%)	pH (s.u.) (±0.1)	Spec. Cond. (ms/cm) (±3%)	Eh/ORP (mV) (±10mV)	Diss O2 (mg/L) (±10%)	TURB (NTU) (±10%)	Water Level (ft)
PRE PURGE VALUES									
1	0	0.25	22.06	4.93	.134	—	—	—	—
PURGING VALUES									
2	3	2.0	22.11	4.94	.133	—	—	—	—
3	8	4.2	22.15	4.92	.130	—	—	—	—
4	12	6.4	22.16	4.90	.129	—	—	—	—

3. SAMPLE COLLECTION DATA **Sampling Personnel:** R. Hanczar / J. Leaver

Sampling Method(s) & Equip: ~~Bladder Pump w/~~ Dedicated Teflon® ~~lined Tubing~~ BAILER
Sample I.D. (Name, Date, Time): ESE001-121406, 12/14/06, 1024
Sample Analytical Parameters/Method: ~~BTEX-8260B;~~ SVOCs (select phenols and PAHs)-8270C
Diss. As, Cr, ~~Cu, Zn~~ 6020, TOTAL AS/CR

Sample Start Time: 1024 End SampleTime: 1030
COMMENTS:

FTS

GROUNDWATER SAMPLE COLLECTION RECORD WELL NO.: EW-17

Project No.: 045006 **Client:** Beazer
Project Name: Gainesville **Project Location:** Gainsville, FL
Weather Conditions: 75° cloudy **Sampling Date:** 12-13-06

1. WATER LEVEL DATA (measured from top of inner well casing)

a. Depth to LNAPL: NA (ft) b. Depth to Water: _____ (ft)
c. Depth to DNAPL: NA (ft) d. Total Well Depth: _____ (ft)
e. LNAPL Thickness: (a-b) NA (ft) f. DNAPL Thickness: (c-d) NA (ft)
g. Length of Water Column: _____ (ft) (a-d)
h. Well Volume: _____ (gal)

Conversion Factors (a x cf = h)	
Well I.D.	Conv. Fact. (cf)
1	0.041
2	0.163
4	0.653
6	1.470

2. WELL PURGE DATA

a. Purge Method: ~~Bladder Pump w/ Dedicated Teflon® -lined Tubing~~ pump house tap
b. Field Testing Equipment: Horiba U-22
c. Required Total Purge Volume (1f x 2c) (gals.): NA
d. Total Volume Removed: _____
e. Begin Purge Time: 1115 End Purge Time: 1125

Read No.	Lapse Time (min.)	Purge Rate	Temp (deg. C) (±10%)	pH (s.u.) (±0.1)	Spec. Cond. (ms/cm) (±3%)	Eh/ORP (mV) (±10mV)	Diss O2 (mg/L) (±10%)	TURB (NTU) (±10%)	Water Level (ft)
PRE PURGE VALUES									
1	0		25.68	6.02	667.5				
PURGING VALUES									
2	5		26.17	6.03	682.0				

RH

3. SAMPLE COLLECTION DATA Sampling Personnel: R. Hanczar / J. Leaver

Sampling Method(s) & Equip: ~~Bladder Pump w/ Dedicated Teflon® -lined Tubing~~ pump house tap
Sample I.D. (Name, Date, Time): EW-17, 12-13-06,
Sample Analytical Parameters/Method: BTEX-8260B; ~~SVOCs (select phenols and PAHs) 8270C~~
Diss. As, Cr, ~~Cu, Zn 6020~~

Sample Start Time: 1120 End SampleTime: 1125
COMMENTS: water fizzing, extremely low D.O., creosote odor

Appendix B

Analytical Laboratory Data

Field and Technical Services, LLC

DATE: **January 9, 2007**

FROM: **Jon Livingston**

SUBJECT: **INORGANIC AND ORGANIC DATA EVALUATION – SVOC, Metals (Total/ Dissolved)**
GAINESVILLE – Floridan
SAMPLE DELIVERY GROUP (SDG) – J0605982

SAMPLES:

DUP01	M05B	M33B
ITW20	ITW12	ESE01
EB01		

Overview

The sample set for SDG J0605982 consists of 6 groundwater samples and one equipment blank. One duplicate pair was collected at well ITW12/ DUP01.

All samples were analyzed for select semivolatile organic compounds (SVOCs), and select metals (total and dissolved). The samples were collected by Field and Technical Services on 12/14/06 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 and dissolved chromium were detected in the equipment blank (EB01) from 12/14/06.
- Total chromium was detected in the laboratory method blank (MB7-1219).

SVOCs – SW846 8270C

No qualifications were made to this fraction.

Metals – SW846 6020

The following analytes were detected in the aqueous equipment blank (EB01) from 12/14/06 at the following concentrations:

Analyte	Maximum Concentration	Blank Action Level
Dissolved Chromium	0.00092 mg/L	0.0046 mg/L
Total Chromium	0.00074 mg/L	0.0037 mg/L

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

The following analytes were detected in the aqueous laboratory method blank (MB7-1219) at the following concentrations:

Analyte	Maximum Concentration	Blank Action Level
Total Chromium	0.00056 mg/L	0.0028 mg/L

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

Field Duplicate Comparison

FIELD DUPLICATE PRECISION

ANALYTE (mg/L)	ITW12	DUP01	RPD
Naphthalene	0.0033 J	0.0071 J	53
2-Methylnaphthalene	0.0013 J	0.0016 J	21
Acenaphthene	0.0041 J	0.0040 J	2
Dibenzofuran	0.0023 J	0.0021 J	9
Fluorene	0.0024 J	0.0024 J	0
Arsenic, Dissolved	0.00053	0.00058	9
Arsenic, Total	0.00035	0.00041	16
Chromium, Dissolved	0.0012	0.0014	15
Chromium, Total	0.0014	0.0013	7

Naphthalene results in the duplicate pair ITW12/ DUP01 will be qualified as estimated, "J", because of field duplicate RPD greater than 30%.

Jon Livingston
Field and Technical Services
Data Analyst

Laboratory Form I's

Client: Beazer East, Inc.
Project: Gainesville/ Site Wide/045006-091
Sample Matrix: Water

Service Request: J0605982
Date Collected: 12/14/2006
Date Received: 12/14/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name: DUP01-121406
Lab Code: J0605982-001

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	5.5	1.9	1	12/18/06	12/28/06	JWG0604056	
2-Methylphenol	ND	U	5.5	0.49	1	12/18/06	12/28/06	JWG0604056	
4-Methylphenol†	ND	U	5.5	0.81	1	12/18/06	12/28/06	JWG0604056	
2,4-Dimethylphenol	ND	U	5.5	0.59	1	12/18/06	12/28/06	JWG0604056	
Naphthalene	**7.1**	J	5.5	0.46	1	12/18/06	12/28/06	JWG0604056	
2-Methylnaphthalene	**1.6**	J	5.5	0.47	1	12/18/06	12/28/06	JWG0604056	
Acenaphthylene	ND	U	5.5	0.38	1	12/18/06	12/28/06	JWG0604056	
Acenaphthene	**4.0**	J	5.5	0.36	1	12/18/06	12/28/06	JWG0604056	
Dibenzofuran	**2.1**	J	5.5	0.49	1	12/18/06	12/28/06	JWG0604056	
Fluorene	**2.4**	J	5.5	0.40	1	12/18/06	12/28/06	JWG0604056	
Pentachlorophenol	ND	U	22	0.43	1	12/18/06	12/28/06	JWG0604056	
Phenanthrene	ND	U	5.5	0.29	1	12/18/06	12/28/06	JWG0604056	
Anthracene	ND	U	5.5	0.29	1	12/18/06	12/28/06	JWG0604056	
Carbazole	ND	U	5.5	0.61	1	12/18/06	12/28/06	JWG0604056	
Fluoranthene	ND	U	5.5	0.29	1	12/18/06	12/28/06	JWG0604056	
Pyrene	ND	U	5.5	0.48	1	12/18/06	12/28/06	JWG0604056	
Benz(a)anthracene	ND	U	5.5	0.62	1	12/18/06	12/28/06	JWG0604056	
Chrysene	ND	U	5.5	0.57	1	12/18/06	12/28/06	JWG0604056	
Benzo(b)fluoranthene	ND	U	5.5	0.64	1	12/18/06	12/28/06	JWG0604056	
Benzo(k)fluoranthene	ND	U	5.5	0.63	1	12/18/06	12/28/06	JWG0604056	
Benzo(a)pyrene	ND	U	5.5	0.61	1	12/18/06	12/28/06	JWG0604056	
Indeno(1,2,3-cd)pyrene	ND	U	5.5	0.59	1	12/18/06	12/28/06	JWG0604056	
Dibenz(a,h)anthracene	ND	U	5.5	0.62	1	12/18/06	12/28/06	JWG0604056	
Benzo(g,h,i)perylene	ND	U	5.5	0.54	1	12/18/06	12/28/06	JWG0604056	

Comments:

Client:	Beazer East, Inc.	**Service Request:**	J0605982
Project:	Gainesville/ Site Wide/045006-091	**Date Collected:**	12/14/2006
Sample Matrix:	Water	**Date Received:**	12/14/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	DUP01-121406	**Units:**	ug/L
Lab Code:	J0605982-001	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	30	10-77	12/28/06	Acceptable
Phenol-d6	19	10-51	12/28/06	Acceptable
Nitrobenzene-d5	61	42-106	12/28/06	Acceptable
2-Fluorobiphenyl	78	43-99	12/28/06	Acceptable
2,4,6-Tribromophenol	95	30-141	12/28/06	Acceptable
Terphenyl-d14	69	23-165	12/28/06	Acceptable

† **Analyte Comments**

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

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Beazer East, Inc.	**Service Request:**	J0605982
Project:	Gainesville/ Site Wide/045006-091	**Date Collected:**	12/14/2006
Sample Matrix:	Water	**Date Received:**	12/14/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	M05B-121406	**Units:**	ug/L
Lab Code:	J0605982-002	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Phenol	ND	U	5.3	1.8	1	12/18/06	12/27/06	JWG0604056	
2-Methylphenol	ND	U	5.3	0.47	1	12/18/06	12/27/06	JWG0604056	
4-Methylphenol†	ND	U	5.3	0.77	1	12/18/06	12/27/06	JWG0604056	
2,4-Dimethylphenol	ND	U	5.3	0.56	1	12/18/06	12/27/06	JWG0604056	
Naphthalene	**0.87**	J	5.3	0.44	1	12/18/06	12/27/06	JWG0604056	
2-Methylnaphthalene	ND	U	5.3	0.45	1	12/18/06	12/27/06	JWG0604056	
Acenaphthylene	ND	U	5.3	0.36	1	12/18/06	12/27/06	JWG0604056	
Acenaphthene	ND	U	5.3	0.34	1	12/18/06	12/27/06	JWG0604056	
Dibenzofuran	ND	U	5.3	0.47	1	12/18/06	12/27/06	JWG0604056	
Fluorene	ND	U	5.3	0.38	1	12/18/06	12/27/06	JWG0604056	
Pentachlorophenol	ND	U	22	0.42	1	12/18/06	12/27/06	JWG0604056	
Phenanthrene	ND	U	5.3	0.28	1	12/18/06	12/27/06	JWG0604056	
Anthracene	ND	U	5.3	0.28	1	12/18/06	12/27/06	JWG0604056	
Carbazole	ND	U	5.3	0.58	1	12/18/06	12/27/06	JWG0604056	
Fluoranthene	ND	U	5.3	0.28	1	12/18/06	12/27/06	JWG0604056	
Pyrene	ND	U	5.3	0.46	1	12/18/06	12/27/06	JWG0604056	
Benz(a)anthracene	ND	U	5.3	0.59	1	12/18/06	12/27/06	JWG0604056	
Chrysene	ND	U	5.3	0.54	1	12/18/06	12/27/06	JWG0604056	
Benzo(b)fluoranthene	ND	U	5.3	0.62	1	12/18/06	12/27/06	JWG0604056	
Benzo(k)fluoranthene	ND	U	5.3	0.60	1	12/18/06	12/27/06	JWG0604056	
Benzo(a)pyrene	ND	U	5.3	0.58	1	12/18/06	12/27/06	JWG0604056	
Indeno(1,2,3-cd)pyrene	ND	U	5.3	0.56	1	12/18/06	12/27/06	JWG0604056	
Dibenz(a,h)anthracene	ND	U	5.3	0.59	1	12/18/06	12/27/06	JWG0604056	
Benzo(g,h,i)perylene	ND	U	5.3	0.52	1	12/18/06	12/27/06	JWG0604056	

Comments:

Client:	Beazer East, Inc.	**Service Request:**	J0605982
Project:	Gainesville/ Site Wide/045006-091	**Date Collected:**	12/14/2006
Sample Matrix:	Water	**Date Received:**	12/14/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	M05B-121406	**Units:**	ug/L
Lab Code:	J0605982-002	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	25	10-77	12/27/06	Acceptable
Phenol-d6	16	10-51	12/27/06	Acceptable
Nitrobenzene-d5	50	42-106	12/27/06	Acceptable
2-Fluorobiphenyl	64	43-99	12/27/06	Acceptable
2,4,6-Tribromophenol	75	30-141	12/27/06	Acceptable
Terphenyl-d14	62	23-165	12/27/06	Acceptable

† **Analyte Comments**

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

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Beazer East, Inc.	**Service Request:**	J0605982
Project:	Gainesville/ Site Wide/045006-091	**Date Collected:**	12/14/2006
Sample Matrix:	Water	**Date Received:**	12/14/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	M33B-121406	**Units:**	ug/L
Lab Code:	J0605982-003	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Phenol	ND	U	5.6	1.9	1	12/18/06	12/27/06	JWG0604056	
2-Methylphenol	ND	U	5.6	0.49	1	12/18/06	12/27/06	JWG0604056	
4-Methylphenol†	ND	U	5.6	0.82	1	12/18/06	12/27/06	JWG0604056	
2,4-Dimethylphenol	ND	U	5.6	0.59	1	12/18/06	12/27/06	JWG0604056	
Naphthalene	**370**		28	2.3	5	12/18/06	12/28/06	JWG0604056	
2-Methylnaphthalene	**31**		5.6	0.47	1	12/18/06	12/27/06	JWG0604056	
Acenaphthylene	**0.73**	J	5.6	0.38	1	12/18/06	12/27/06	JWG0604056	
Acenaphthene	**47**		5.6	0.36	1	12/18/06	12/27/06	JWG0604056	
Dibenzofuran	**58**		5.6	0.49	1	12/18/06	12/27/06	JWG0604056	
Fluorene	**52**		5.6	0.40	1	12/18/06	12/27/06	JWG0604056	
Pentachlorophenol	ND	U	23	0.44	1	12/18/06	12/27/06	JWG0604056	
Phenanthrene	**20**		5.6	0.29	1	12/18/06	12/27/06	JWG0604056	
Anthracene	**2.2**	J	5.6	0.29	1	12/18/06	12/27/06	JWG0604056	
Carbazole	**87**		5.6	0.62	1	12/18/06	12/27/06	JWG0604056	
Fluoranthene	ND	U	5.6	0.29	1	12/18/06	12/27/06	JWG0604056	
Pyrene	ND	U	5.6	0.48	1	12/18/06	12/27/06	JWG0604056	
Benz(a)anthracene	ND	U	5.6	0.63	1	12/18/06	12/27/06	JWG0604056	
Chrysene	ND	U	5.6	0.57	1	12/18/06	12/27/06	JWG0604056	
Benzo(b)fluoranthene	ND	U	5.6	0.65	1	12/18/06	12/27/06	JWG0604056	
Benzo(k)fluoranthene	ND	U	5.6	0.64	1	12/18/06	12/27/06	JWG0604056	
Benzo(a)pyrene	ND	U	5.6	0.62	1	12/18/06	12/27/06	JWG0604056	
Indeno(1,2,3-cd)pyrene	ND	U	5.6	0.59	1	12/18/06	12/27/06	JWG0604056	
Dibenz(a,h)anthracene	ND	U	5.6	0.63	1	12/18/06	12/27/06	JWG0604056	
Benzo(g,h,i)perylene	ND	U	5.6	0.55	1	12/18/06	12/27/06	JWG0604056	

Comments:

Client:	Beazer East, Inc.	**Service Request:**	J0605982
Project:	Gainesville/ Site Wide/045006-091	**Date Collected:**	12/14/2006
Sample Matrix:	Water	**Date Received:**	12/14/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	M33B-121406	**Units:**	ug/L
Lab Code:	J0605982-003	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	34	10-77	12/27/06	Acceptable
Phenol-d6	23	10-51	12/27/06	Acceptable
Nitrobenzene-d5	71	42-106	12/27/06	Acceptable
2-Fluorobiphenyl	78	43-99	12/27/06	Acceptable
2,4,6-Tribromophenol	92	30-141	12/27/06	Acceptable
Terphenyl-d14	72	23-165	12/27/06	Acceptable

† **Analyte Comments**

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

Comments:

Client: Beazer East, Inc.
Project: Gainesville/ Site Wide/045006-091
Sample Matrix: Water

Service Request: J0605982
Date Collected: 12/14/2006
Date Received: 12/14/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name: ITW12-121406
Lab Code: J0605982-004

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	5.6	1.9	1	12/18/06	12/28/06	JWG0604056	
2-Methylphenol	ND	U	5.6	0.49	1	12/18/06	12/28/06	JWG0604056	
4-Methylphenol†	ND	U	5.6	0.82	1	12/18/06	12/28/06	JWG0604056	
2,4-Dimethylphenol	ND	U	5.6	0.59	1	12/18/06	12/28/06	JWG0604056	
Naphthalene	**3.3**	⊹ J	5.6	0.46	1	12/18/06	12/28/06	JWG0604056	
2-Methylnaphthalene	**1.3**	⊹ J	5.6	0.47	1	12/18/06	12/28/06	JWG0604056	
Acenaphthylene	ND	U	5.6	0.38	1	12/18/06	12/28/06	JWG0604056	
Acenaphthene	**4.1**	⊹ J	5.6	0.36	1	12/18/06	12/28/06	JWG0604056	
Dibenzofuran	**2.3**	⊹ J	5.6	0.49	1	12/18/06	12/28/06	JWG0604056	
Fluorene	**2.4**	⊹ J	5.6	0.40	1	12/18/06	12/28/06	JWG0604056	
Pentachlorophenol	ND	U	23	0.44	1	12/18/06	12/28/06	JWG0604056	
Phenanthrene	ND	U	5.6	0.29	1	12/18/06	12/28/06	JWG0604056	
Anthracene	ND	U	5.6	0.29	1	12/18/06	12/28/06	JWG0604056	
Carbazole	ND	U	5.6	0.62	1	12/18/06	12/28/06	JWG0604056	
Fluoranthene	ND	U	5.6	0.29	1	12/18/06	12/28/06	JWG0604056	
Pyrene	ND	U	5.6	0.48	1	12/18/06	12/28/06	JWG0604056	
Benz(a)anthracene	ND	U	5.6	0.63	1	12/18/06	12/28/06	JWG0604056	
Chrysene	ND	U	5.6	0.57	1	12/18/06	12/28/06	JWG0604056	
Benzo(b)fluoranthene	ND	U	5.6	0.65	1	12/18/06	12/28/06	JWG0604056	
Benzo(k)fluoranthene	ND	U	5.6	0.64	1	12/18/06	12/28/06	JWG0604056	
Benzo(a)pyrene	ND	U	5.6	0.62	1	12/18/06	12/28/06	JWG0604056	
Indeno(1,2,3-cd)pyrene	ND	U	5.6	0.59	1	12/18/06	12/28/06	JWG0604056	
Dibenz(a,h)anthracene	ND	U	5.6	0.63	1	12/18/06	12/28/06	JWG0604056	
Benzo(g,h,i)perylene	ND	U	5.6	0.55	1	12/18/06	12/28/06	JWG0604056	

Comments:

Client:	Beazer East, Inc.	**Service Request:**	J0605982
Project:	Gainesville/ Site Wide/045006-091	**Date Collected:**	12/14/2006
Sample Matrix:	Water	**Date Received:**	12/14/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	ITW12-121406	**Units:**	ug/L
Lab Code:	J0605982-004	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	27	10-77	12/28/06	Acceptable
Phenol-d6	18	10-51	12/28/06	Acceptable
Nitrobenzene-d5	59	42-106	12/28/06	Acceptable
2-Fluorobiphenyl	78	43-99	12/28/06	Acceptable
2,4,6-Tribromophenol	92	30-141	12/28/06	Acceptable
Terphenyl-d14	67	23-165	12/28/06	Acceptable

† **Analyte Comments**

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

Comments:

Client: Beazer East, Inc.
Project: Gainesville/ Site Wide/045006-091
Sample Matrix: Water

Service Request: J0605982
Date Collected: 12/14/2006
Date Received: 12/14/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name: ITW20-121406
Lab Code: J0605982-005

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	5.7	2.0	1	12/18/06	12/28/06	JWG0604056	
2-Methylphenol	ND	U	5.7	0.50	1	12/18/06	12/28/06	JWG0604056	
4-Methylphenol†	ND	U	5.7	0.83	1	12/18/06	12/28/06	JWG0604056	
2,4-Dimethylphenol	ND	U	5.7	0.61	1	12/18/06	12/28/06	JWG0604056	
Naphthalene	**2.8**	J	5.7	0.47	1	12/18/06	12/28/06	JWG0604056	
2-Methylnaphthalene	**0.52**	J	5.7	0.48	1	12/18/06	12/28/06	JWG0604056	
Acenaphthylene	ND	U	5.7	0.39	1	12/18/06	12/28/06	JWG0604056	
Acenaphthene	**0.61**	J	5.7	0.37	1	12/18/06	12/28/06	JWG0604056	
Dibenzofuran	ND	U	5.7	0.50	1	12/18/06	12/28/06	JWG0604056	
Fluorene	ND	U	5.7	0.41	1	12/18/06	12/28/06	JWG0604056	
Pentachlorophenol	ND	U	23	0.45	1	12/18/06	12/28/06	JWG0604056	
Phenanthrene	ND	U	5.7	0.30	1	12/18/06	12/28/06	JWG0604056	
Anthracene	ND	U	5.7	0.30	1	12/18/06	12/28/06	JWG0604056	
Carbazole	ND	U	5.7	0.63	1	12/18/06	12/28/06	JWG0604056	
Fluoranthene	ND	U	5.7	0.30	1	12/18/06	12/28/06	JWG0604056	
Pyrene	ND	U	5.7	0.49	1	12/18/06	12/28/06	JWG0604056	
Benz(a)anthracene	ND	U	5.7	0.64	1	12/18/06	12/28/06	JWG0604056	
Chrysene	ND	U	5.7	0.58	1	12/18/06	12/28/06	JWG0604056	
Benzo(b)fluoranthene	ND	U	5.7	0.66	1	12/18/06	12/28/06	JWG0604056	
Benzo(k)fluoranthene	ND	U	5.7	0.65	1	12/18/06	12/28/06	JWG0604056	
Benzo(a)pyrene	ND	U	5.7	0.63	1	12/18/06	12/28/06	JWG0604056	
Indeno(1,2,3-cd)pyrene	ND	U	5.7	0.61	1	12/18/06	12/28/06	JWG0604056	
Dibenz(a,h)anthracene	ND	U	5.7	0.64	1	12/18/06	12/28/06	JWG0604056	
Benzo(g,h,i)perylene	ND	U	5.7	0.56	1	12/18/06	12/28/06	JWG0604056	

Comments:

Client:	Beazer East, Inc.	**Service Request:**	J0605982
Project:	Gainesville/ Site Wide/045006-091	**Date Collected:**	12/14/2006
Sample Matrix:	Water	**Date Received:**	12/14/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	ITW20-121406	**Units:**	ug/L
Lab Code:	J0605982-005	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	30	10-77	12/28/06	Acceptable
Phenol-d6	19	10-51	12/28/06	Acceptable
Nitrobenzene-d5	63	42-106	12/28/06	Acceptable
2-Fluorobiphenyl	75	43-99	12/28/06	Acceptable
2,4,6-Tribromophenol	91	30-141	12/28/06	Acceptable
Terphenyl-d14	64	23-165	12/28/06	Acceptable

† **Analyte Comments**

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

Comments:

Client: Beazer East, Inc.
Project: Gainesville/ Site Wide/045006-091
Sample Matrix: Water

Service Request: J0605982
Date Collected: 12/14/2006
Date Received: 12/14/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name: ESE01-121406
Lab Code: J0605982-006

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	5.7	2.0	1	12/18/06	12/28/06	JWG0604056	
2-Methylphenol	ND	U	5.7	0.50	1	12/18/06	12/28/06	JWG0604056	
4-Methylphenol†	ND	U	5.7	0.83	1	12/18/06	12/28/06	JWG0604056	
2,4-Dimethylphenol	ND	U	5.7	0.61	1	12/18/06	12/28/06	JWG0604056	
Naphthalene	**0.49**	J	5.7	0.47	1	12/18/06	12/28/06	JWG0604056	
2-Methylnaphthalene	ND	U	5.7	0.48	1	12/18/06	12/28/06	JWG0604056	
Acenaphthylene	ND	U	5.7	0.39	1	12/18/06	12/28/06	JWG0604056	
Acenaphthene	**0.62**	J	5.7	0.37	1	12/18/06	12/28/06	JWG0604056	
Dibenzofuran	ND	U	5.7	0.50	1	12/18/06	12/28/06	JWG0604056	
Fluorene	ND	U	5.7	0.41	1	12/18/06	12/28/06	JWG0604056	
Pentachlorophenol	ND	U	23	0.45	1	12/18/06	12/28/06	JWG0604056	
Phenanthrene	ND	U	5.7	0.30	1	12/18/06	12/28/06	JWG0604056	
Anthracene	ND	U	5.7	0.30	1	12/18/06	12/28/06	JWG0604056	
Carbazole	ND	U	5.7	0.63	1	12/18/06	12/28/06	JWG0604056	
Fluoranthene	ND	U	5.7	0.30	1	12/18/06	12/28/06	JWG0604056	
Pyrene	ND	U	5.7	0.49	1	12/18/06	12/28/06	JWG0604056	
Benz(a)anthracene	ND	U	5.7	0.64	1	12/18/06	12/28/06	JWG0604056	
Chrysene	ND	U	5.7	0.58	1	12/18/06	12/28/06	JWG0604056	
Benzo(b)fluoranthene	ND	U	5.7	0.66	1	12/18/06	12/28/06	JWG0604056	
Benzo(k)fluoranthene	ND	U	5.7	0.65	1	12/18/06	12/28/06	JWG0604056	
Benzo(a)pyrene	ND	U	5.7	0.63	1	12/18/06	12/28/06	JWG0604056	
Indeno(1,2,3-cd)pyrene	ND	U	5.7	0.61	1	12/18/06	12/28/06	JWG0604056	
Dibenz(a,h)anthracene	ND	U	5.7	0.64	1	12/18/06	12/28/06	JWG0604056	
Benzo(g,h,i)perylene	ND	U	5.7	0.56	1	12/18/06	12/28/06	JWG0604056	

Comments:

Client: Beazer East, Inc.
Project: Gainesville/ Site Wide/045006-091
Sample Matrix: Water

Service Request: J0605982
Date Collected: 12/14/2006
Date Received: 12/14/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name: ESE01-121406
Lab Code: J0605982-006

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	29	10-77	12/28/06	Acceptable
Phenol-d6	19	10-51	12/28/06	Acceptable
Nitrobenzene-d5	61	42-106	12/28/06	Acceptable
2-Fluorobiphenyl	74	43-99	12/28/06	Acceptable
2,4,6-Tribromophenol	92	30-141	12/28/06	Acceptable
Terphenyl-d14	71	23-165	12/28/06	Acceptable

† **Analyte Comments**

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

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Beazer East, Inc.	**Service Request:**	J0605982
Project:	Gainesville/ Site Wide/045006-091	**Date Collected:**	12/14/2006
Sample Matrix:	Water	**Date Received:**	12/14/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	EB01-121406	**Units:**	ug/L
Lab Code:	J0605982-007	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Phenol	ND	U	5.4	1.9	1	12/18/06	12/28/06	JWG0604056	
2-Methylphenol	ND	U	5.4	0.48	1	12/18/06	12/28/06	JWG0604056	
4-Methylphenol†	ND	U	5.4	0.79	1	12/18/06	12/28/06	JWG0604056	
2,4-Dimethylphenol	ND	U	5.4	0.57	1	12/18/06	12/28/06	JWG0604056	
Naphthalene	ND	U	5.4	0.45	1	12/18/06	12/28/06	JWG0604056	
2-Methylnaphthalene	ND	U	5.4	0.46	1	12/18/06	12/28/06	JWG0604056	
Acenaphthylene	ND	U	5.4	0.37	1	12/18/06	12/28/06	JWG0604056	
Acenaphthene	ND	U	5.4	0.35	1	12/18/06	12/28/06	JWG0604056	
Dibenzofuran	ND	U	5.4	0.48	1	12/18/06	12/28/06	JWG0604056	
Fluorene	ND	U	5.4	0.39	1	12/18/06	12/28/06	JWG0604056	
Pentachlorophenol	ND	U	22	0.42	1	12/18/06	12/28/06	JWG0604056	
Phenanthrene	ND	U	5.4	0.28	1	12/18/06	12/28/06	JWG0604056	
Anthracene	ND	U	5.4	0.28	1	12/18/06	12/28/06	JWG0604056	
Carbazole	ND	U	5.4	0.60	1	12/18/06	12/28/06	JWG0604056	
Fluoranthene	ND	U	5.4	0.28	1	12/18/06	12/28/06	JWG0604056	
Pyrene	ND	U	5.4	0.47	1	12/18/06	12/28/06	JWG0604056	
Benz(a)anthracene	ND	U	5.4	0.61	1	12/18/06	12/28/06	JWG0604056	
Chrysene	ND	U	5.4	0.55	1	12/18/06	12/28/06	JWG0604056	
Benzo(b)fluoranthene	ND	U	5.4	0.63	1	12/18/06	12/28/06	JWG0604056	
Benzo(k)fluoranthene	ND	U	5.4	0.62	1	12/18/06	12/28/06	JWG0604056	
Benzo(a)pyrene	ND	U	5.4	0.60	1	12/18/06	12/28/06	JWG0604056	
Indeno(1,2,3-cd)pyrene	ND	U	5.4	0.57	1	12/18/06	12/28/06	JWG0604056	
Dibenz(a,h)anthracene	ND	U	5.4	0.61	1	12/18/06	12/28/06	JWG0604056	
Benzo(g,h,i)perylene	ND	U	5.4	0.53	1	12/18/06	12/28/06	JWG0604056	

Comments:

Client:	Beazer East, Inc.	**Service Request:**	J0605982
Project:	Gainesville/ Site Wide/045006-091	**Date Collected:**	12/14/2006
Sample Matrix:	Water	**Date Received:**	12/14/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	EB01-121406	**Units:**	ug/L
Lab Code:	J0605982-007	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	27	10-77	12/28/06	Acceptable
Phenol-d6	17	10-51	12/28/06	Acceptable
Nitrobenzene-d5	58	42-106	12/28/06	Acceptable
2-Fluorobiphenyl	73	43-99	12/28/06	Acceptable
2,4,6-Tribromophenol	82	30-141	12/28/06	Acceptable
Terphenyl-d14	78	23-165	12/28/06	Acceptable

† **Analyte Comments**

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

Comments:

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	Beazer East, Inc.	**Service Request:**	J0605982
Project Name:	Gainesville/ Site Wide	**Date Collected:**	12/14/2006
Project Number:	045006-091	**Date Received:**	12/14/2006
Matrix:	WATER		

Dissolved Metals

Sample Name:	DUP01-121406	**Units:**	mg/L
Lab Code:	J0605982-001	**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	12/15/2006	12/22/2006	0.00058	
Chromium	EPA 3005A	6020	0.0020	0.00012	1.0	12/15/2006	01/02/2007	0.0014	XB

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	Beazer East, Inc.		
Project Name:	Gainesville/ Site Wide	**Service Request:**	J0605982
Project Number:	045006-091	**Date Collected:**	12/14/2006
Matrix:	WATER	**Date Received:**	12/14/2006

Dissolved Metals

Sample Name:	M33B-121406	**Units:**	mg/L
Lab Code:	J0605982-003	**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	12/15/2006	12/22/2006	U	
Chromium	EPA 3005A	6020	0.0020	0.00012	1.0	12/15/2006	01/02/2007	0.0013	B

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	Beazer East, Inc.		
Project Name:	Gainesville/ Site Wide	**Service Request:**	J0605982
Project Number:	045006-091	**Date Collected:**	12/14/2006
Matrix:	WATER	**Date Received:**	12/14/2006

Dissolved Metals

Sample Name:	ITW12-121406	**Units:**	mg/L
Lab Code:	J0605982-004	**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	12/15/2006	12/22/2006	0.00053	
Chromium	EPA 3005A	6020	0.0020	0.00012	1.0	12/15/2006	01/02/2007	0.0012	JB

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	Beazer East, Inc.	**Service Request:**	J0605982
Project Name:	Gainesville/ Site Wide	**Date Collected:**	12/14/2006
Project Number:	045006-091	**Date Received:**	12/14/2006
Matrix:	WATER		

Dissolved Metals

Sample Name:	ITW20-121406	**Units:**	mg/L
Lab Code:	J0605982-005	**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	12/15/2006	12/22/2006	0.00062	
Chromium	EPA 3005A	6020	0.0020	0.00012	1.0	12/15/2006	01/02/2007	0.0034	B

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	Beazer East, Inc.	**Service Request:**	J0605982
Project Name:	Gainesville/ Site Wide	**Date Collected:**	12/14/2006
Project Number:	045006-091	**Date Received:**	12/14/2006
Matrix:	WATER		

Dissolved Metals

Sample Name:	ESE01-121406	**Units:**	mg/L
Lab Code:	J0605982-006	**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	12/15/2006	12/22/2006	U	
Chromium	EPA 3005A	6020	0.0020	0.00012	1.0	12/15/2006	01/02/2007	0.0019	J B

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	Beazer East, Inc.	**Service Request:**	J0605982
Project Name:	Gainesville/ Site Wide	**Date Collected:**	12/14/2006
Project Number:	045006-091	**Date Received:**	12/14/2006
Matrix:	WATER		

Dissolved Metals

Sample Name:	EB01-121406	**Units:**	mg/L
Lab Code:	J0605982-007	**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	12/15/2006	12/22/2006	U	
Chromium	EPA 3005A	6020	0.0020	0.00012	1.0	12/15/2006	01/02/2007	0.00092	i

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	Beazer East, Inc.	**Service Request:**	J0605982
Project Name:	Gainesville/ Site Wide	**Date Collected:**	12/14/2006
Project Number:	045006-091	**Date Received:**	12/14/2006
Matrix:	WATER		

Total Metals

Sample Name:	DUP01-121406	**Units:**	mg/L
Lab Code:	J0605982-001	**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	12/19/2006	12/23/2006	0.00041	J
Chromium	EPA 3020A	6020	0.0020	0.00012	1.0	12/19/2006	12/23/2006	0.0013	B

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	Beazer East, Inc.	**Service Request:**	J0605982
Project Name:	Gainesville/ Site Wide	**Date Collected:**	12/14/2006
Project Number:	045006-091	**Date Received:**	12/14/2006
Matrix:	WATER		

Total Metals

Sample Name:	M33B-121406	**Units:**	mg/L
Lab Code:	J0605982-003	**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	12/19/2006	12/23/2006	0.00042	J
Chromium	EPA 3020A	6020	0.0020	0.00012	1.0	12/19/2006	12/23/2006	0.0012	B

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	Beazer East, Inc.	**Service Request:**	J0605982
Project Name:	Gainesville/ Site Wide	**Date Collected:**	12/14/2006
Project Number:	045006-091	**Date Received:**	12/14/2006
Matrix:	WATER		

Total Metals

Sample Name:	ITW12-121406	**Units:**	mg/L
Lab Code:	J0605982-004	**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	12/19/2006	12/23/2006	0.00035	J
Chromium	EPA 3020A	6020	0.0020	0.00012	1.0	12/19/2006	12/23/2006	0.0014	B

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	Beazer East, Inc.	**Service Request:**	J0605982
Project Name:	Gainesville/ Site Wide	**Date Collected:**	12/14/2006
Project Number:	045006-091	**Date Received:**	12/14/2006
Matrix:	WATER		

Total Metals

Sample Name:	ITW20-121406	**Units:**	mg/L
Lab Code:	J0605982-005	**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	12/19/2006	12/23/2006	0.00083	
Chromium	EPA 3020A	6020	0.0020	0.00012	1.0	12/19/2006	12/23/2006	0.0033	B

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	Beazer East, Inc.		
Project Name:	Gainesville/ Site Wide	**Service Request:**	J0605982
Project Number:	045006-091	**Date Collected:**	12/14/2006
Matrix:	WATER	**Date Received:**	12/14/2006

Total Metals

Sample Name:	ESE01-121406	**Units:**	mg/L
Lab Code:	J0605982-006	**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	12/19/2006	12/23/2006	U	
Chromium	EPA 3020A	6020	0.0020	0.00012	1.0	12/19/2006	12/23/2006	0.0019	JB

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	Beazer East, Inc.		
Project Name:	Gainesville/ Site Wide	**Service Request:**	J0605982
Project Number:	045006-091	**Date Collected:**	12/14/2006
Matrix:	WATER	**Date Received:**	12/14/2006

Total Metals

Sample Name:	EB01-121406	**Units:**	mg/L
Lab Code:	J0605982-007	**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	12/19/2006	12/23/2006	U	
Chromium	EPA 3020A	6020	0.0020	0.00012	1.0	12/19/2006	12/23/2006	0.00074	i

Supporting Documentation

8540 Baycenter Road Jacksonville,Florida 32256 (904) 739-2277 (904) 739-2011 fax

Columbia Analytical Services INC.
An Employee - Owned Company

January 02, 2007 Service Request No: J0605982

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

RE: Gainesville/ Site Wide/045006-091

Dear Angela:

Enclosed are the results of the sample(s) submitted to our laboratory on December 14, 2006. For your reference, these analyses have been assigned our service request number J0605982.

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

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	**Service Request No.:**	J0605982
Project:	Gainesville/ Site Wide	**Date Received:**	12/14/06
Sample Matrix:	water		

CASE NARRATIVE

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

Sample Receipt

7 water samples were received for analysis at Columbia Analytical Services on 12/14/06. The following discrepancies were noted upon initial sample inspection. The exceptions are also noted on the cooler receipt and preservation form included in this data package. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 4±2°C upon receipt at the lab except for aqueous samples designated for metals analyses, which were stored at room temperature.

Semivolatile Organics by GC-MS

Batch QC Notes and Discussion

Quality control samples for MS/DMS 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.

No problems were observed with this delivery group.

Metals by ICP-MS

Batch QC Notes and Discussion

Quality control samples for some 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.

Approved by Tamara D. Kissinger Date 1/2/07

Acronyms

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

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/ Site Wide/045006-091

Service Request: J0605982

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
J0605982-001	DUP01-121406	12/14/06	00:00
J0605982-002	M05B-121406	12/14/06	08:10
J0605982-003	M33B-121406	12/14/06	08:35
J0605982-004	ITW12-121406	12/14/06	09:16
J0605982-005	ITW20-121406	12/14/06	10:00
J0605982-006	ESE01-121406	12/14/06	10:24
J0605982-007	EB01-121406	12/14/06	09:30

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Beazer East, Inc.	**Service Request:**	J0605982
Project:	Gainesville/ Site Wide/045006-091	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	JWG0604056-4	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Phenol	ND	U	5.0	1.7	1	12/18/06	12/26/06	JWG0604056	
2-Methylphenol	ND	U	5.0	0.44	1	12/18/06	12/26/06	JWG0604056	
4-Methylphenol†	ND	U	5.0	0.73	1	12/18/06	12/26/06	JWG0604056	
2,4-Dimethylphenol	ND	U	5.0	0.53	1	12/18/06	12/26/06	JWG0604056	
Naphthalene	ND	U	5.0	0.41	1	12/18/06	12/26/06	JWG0604056	
2-Methylnaphthalene	ND	U	5.0	0.42	1	12/18/06	12/26/06	JWG0604056	
Acenaphthylene	ND	U	5.0	0.34	1	12/18/06	12/26/06	JWG0604056	
Acenaphthene	ND	U	5.0	0.32	1	12/18/06	12/26/06	JWG0604056	
Dibenzofuran	ND	U	5.0	0.44	1	12/18/06	12/26/06	JWG0604056	
Fluorene	ND	U	5.0	0.36	1	12/18/06	12/26/06	JWG0604056	
Pentachlorophenol	ND	U	20	0.39	1	12/18/06	12/26/06	JWG0604056	
Phenanthrene	ND	U	5.0	0.26	1	12/18/06	12/26/06	JWG0604056	
Anthracene	ND	U	5.0	0.26	1	12/18/06	12/26/06	JWG0604056	
Carbazole	ND	U	5.0	0.55	1	12/18/06	12/26/06	JWG0604056	
Fluoranthene	ND	U	5.0	0.26	1	12/18/06	12/26/06	JWG0604056	
Pyrene	ND	U	5.0	0.43	1	12/18/06	12/26/06	JWG0604056	
Benz(a)anthracene	ND	U	5.0	0.56	1	12/18/06	12/26/06	JWG0604056	
Chrysene	ND	U	5.0	0.51	1	12/18/06	12/26/06	JWG0604056	
Benzo(b)fluoranthene	ND	U	5.0	0.58	1	12/18/06	12/26/06	JWG0604056	
Benzo(k)fluoranthene	ND	U	5.0	0.57	1	12/18/06	12/26/06	JWG0604056	
Benzo(a)pyrene	ND	U	5.0	0.55	1	12/18/06	12/26/06	JWG0604056	
Indeno(1,2,3-cd)pyrene	ND	U	5.0	0.53	1	12/18/06	12/26/06	JWG0604056	
Dibenz(a,h)anthracene	ND	U	5.0	0.56	1	12/18/06	12/26/06	JWG0604056	
Benzo(g,h,i)perylene	ND	U	5.0	0.49	1	12/18/06	12/26/06	JWG0604056	

Comments:

Client:	Beazer East, Inc.	**Service Request:**	J0605982
Project:	Gainesville/ Site Wide/045006-091	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	JWG0604056-4	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	28	10-77	12/26/06	Acceptable
Phenol-d6	16	10-51	12/26/06	Acceptable
Nitrobenzene-d5	55	42-106	12/26/06	Acceptable
2-Fluorobiphenyl	65	43-99	12/26/06	Acceptable
2,4,6-Tribromophenol	67	30-141	12/26/06	Acceptable
Terphenyl-d14	70	23-165	12/26/06	Acceptable

† **Analyte Comments**

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

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Beazer East, Inc. **Service Request:** J0605982
Project: Gainesville/ Site Wide/045006-091
Sample Matrix: Water

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

Extraction Method: EPA 3510C **Units:** PERCENT
Analysis Method: 8270C **Level:** Low

Sample Name	Lab Code	Sur1	Sur2	Sur3	Sur4	Sur5	Sur6
DUP01-121406	J0605982-001	30	19	61	78	95	69
M05B-121406	J0605982-002	25	16	50	64	75	62
M33B-121406	J0605982-003	34	23	71	78	92	72
ITW12-121406	J0605982-004	27	18	59	78	92	67
ITW20-121406	J0605982-005	30	19	63	75	91	64
ESE01-121406	J0605982-006	29	19	61	74	92	71
EB01-121406	J0605982-007	27	17	58	73	82	78
Method Blank	JWG0604056-4	28	16	55	65	67	70
Lab Control Sample	JWG0604056-3	38	22	70	76	77	69

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.	**Service Request:**	J0605982
Project:	Gainesville/ Site Wide/045006-091	**Date Extracted:**	12/18/2006
Sample Matrix:	Water	**Date Analyzed:**	12/26/2006

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

Extraction Method:	EPA 3510C	**Units:**	ug/L
Analysis Method:	8270C	**Basis:**	NA
		Level:	Low
		Extraction Lot:	JWG0604056

	Lab Control Sample JWG0604056-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Phenol	16.0	50.0	32	12-54
2-Methylphenol	27.9	50.0	56	21-100
4-Methylphenol	48.5	75.0	65	15-93
2,4-Dimethylphenol	30.8	50.0	62	38-86
Naphthalene	36.1	50.0	72	44-97
2-Methylnaphthalene	36.6	50.0	73	46-97
Acenaphthylene	40.2	50.0	80	45-99
Acenaphthene	39.1	50.0	78	42-106
Dibenzofuran	39.4	50.0	79	49-103
Fluorene	38.5	50.0	77	54-97
Pentachlorophenol	32.5	50.0	65	44-120
Phenanthrene	40.1	50.0	80	52-99
Anthracene	43.1	50.0	86	52-104
Carbazole	41.9	50.0	84	48-118
Fluoranthene	41.0	50.0	82	52-110
Pyrene	31.6	50.0	63	53-100
Benz(a)anthracene	37.0	50.0	74	49-114
Chrysene	37.8	50.0	76	50-113
Benzo(b)fluoranthene	41.0	50.0	82	56-103
Benzo(k)fluoranthene	37.0	50.0	74	48-110
Benzo(a)pyrene	42.6	50.0	85	56-107
Indeno(1,2,3-cd)pyrene	44.9	50.0	90	54-115
Dibenz(a,h)anthracene	44.7	50.0	89	51-125
Benzo(g,h,i)perylene	46.4	50.0	93	53-116

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

Analytical Report

Client:	Beazer East, Inc.	**Service Request:**	J0605982
Project Name:	Gainesville/ Site Wide	**Date Collected:**	N/A
Project Number:	045006-091	**Date Received:**	N/A
Matrix:	WATER		

Dissolved Metals

Sample Name:	Method Blank	**Units:**	mg/L
Lab Code:	MB10-1215	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic	EPA 3005A	6020	0.0005	0.00028	1.0	12/15/2006	12/22/2006	U	
Chromium	EPA 3005A	6020	0.002	0.0001	1.0	12/15/2006	01/02/2007	U	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	Beazer East, Inc.		
Project Name:	Gainesville/ Site Wide	**Service Request:**	J0605982
Project Number:	045006-091	**Date Collected:**	N/A
Matrix:	WATER	**Date Received:**	N/A

Total Metals

Sample Name:	Method Blank	**Units:**	mg/L
Lab Code:	MB7-1219	**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	12/19/2006	12/23/2006	U	
Chromium	EPA 3020A	6020	0.0020	0.00012	1.0	12/19/2006	12/23/2006	0.00056	i

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	Beazer East, Inc.	**Service Request:**	J0605982
Project Name:	Gainesville/ Site Wide	**Date Collected:**	12/14/2006
Project Number:	045006-091	**Date Received:**	12/14/2006
Matrix:	WATER	**Date Extracted:**	12/19/2006
		Date Analyzed:	12/23/2006

Matrix Spike Summary
Total Metals

Sample Name:	EB01-121406S	**Units:**	mg/L
Lab Code:	J0605982-007S	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	Spike Level	Sample Results	Spike Sample Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Arsenic	EPA 3020A	6020	0.00050	0.05	U	0.054	108	75 - 125	
Chromium	EPA 3020A	6020	0.0020	0.05	0.00074	0.050	99	75 - 125	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	Beazer East, Inc.	**Service Request:**	J0605982
Project Name:	Gainesville/ Site Wide	**Date Collected:**	12/14/2006
Project Number:	045006-091	**Date Received:**	12/14/2006
Matrix:	WATER	**Date Extracted:**	12/19/2006
		Date Analyzed:	12/23/2006

Matrix Spike Summary
Total Metals

Sample Name:	EB01-121406SD	**Units:**	mg/L
Lab Code:	J0605982-007SD	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	Spike Level	Sample Results	Spike Sample Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Arsenic	EPA 3020A	6020	0.00050	0.05	U	0.053	106	75 - 125	
Chromium	EPA 3020A	6020	0.0020	0.05	0.00074	0.050	99	75 - 125	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	Beazer East, Inc.	**Service Request:**	J0605982
Project Name:	Gainesville/ Site Wide	**Date Collected:**	12/14/2006
Project Number:	045006-091	**Date Received:**	12/14/2006
Matrix:	WATER	**Date Extracted:**	12/19/2006
		Date Analyzed:	12/23/2006

Matrix Spike/Matrix Spike Duplicate Summary
Total Metals

Sample Name:	EB01-121406	**Units:**	mg/L
Lab Code:	J0605982-007 J0605982-007SD	**Basis:**	N/A

Analyte	Prep Method	Analysis Method	MRL	Spike Sample Results	Spiked Duplicate Results	Relative Percent Difference	CAS Percent Difference Acceptance Limits	Result Notes
Arsenic	EPA 3020A	6020	0.00050	0.054	0.053	1.9	30	
Chromium	EPA 3020A	6020	0.0020	0.050	0.050	<1.0	30	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	Beazer East, Inc.	**Service Request:**	J0605982
Project Name:	Gainesville/ Site Wide	**Date Collected:**	N/A
Project Number:	045006-091	**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	12/19/2006
		Date Analyzed:	12/23/2006

Laboratory Control Sample Summary
Total Metals

Sample Name:	Lab Control Sample	**Units:**	mg/L
Lab Code:	LCS7-1219	**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	0.052	104	80 - 120	
Chromium	EPA 3020A	6020	0.0020	0.05	0.049	98	80 - 120	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client:	Beazer East, Inc.	**Service Request:**	J0605982
Project Name:	Gainesville/ Site Wide	**Date Collected:**	N/A
Project Number:	045006-091	**Date Received:**	N/A
Matrix:	WATER	**Date Extracted:**	12/15/2006
		Date Analyzed:	12/22/2006

Laboratory Control Sample Summary
Dissolved Metals

Sample Name:	Lab Control Sample	**Units:**	mg/L
Lab Code:	LCS10-1215	**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	0.052	104	80 - 120	
Chromium	EPA 3005A	6020	0.002	0.05	0.051	102	80 - 120	

Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form

Client: Deeres Service Request #

Project: Site Wide

Cooler received on 12-14-06 and opened on 12-14-06 by fes

COURIER: CAS UPS FEDEX DHL CLIENT Tracking #

1	Were custody seals on outside of cooler?	Yes	(No)	N/A
2	Were seals intact, signed and dated?	Yes	No	(N/A)
3	Were custody papers properly filled out?	Yes	No	(N/A)
4	Temperature of cooler(s) upon receipt (Should be 4 +/- 2 degrees C)	-0.1°C	-0.2°C -0.4°C -0.3°C	
5	Correct Temperature?	(Yes)	No	N/A
6	Were Ice or Ice Packs present	(Yes)	No	N/A
7	Did all bottles arrive in good condition (unbroken, etc....)?	(Yes)	No	N/A
8	Were all bottle labels complete (sample ID, preservation, etc....)?	Yes	(No)	N/A
9	Did all bottle labels and tags agree with custody papers?	(Yes)	No	N/A
10	Were the correct bottles used for the tests indicated?	(Yes)	No	N/A
11	Were all of the preserved bottles received with the appropriate preservative?	(Yes)	No	N/A

HNO3 pH<2 H2SO4 pH<2 ZnAc2/NaOH pH>9 NaOH pH>12 HCl pH<2

Preservative additions noted below

12	Were all samples received within analysis holding times?	(Yes)	No	N/A
13	Were VOA vials checked for absence of air bubbles? If present, note below	Yes	No	(N/A)
14	Where did the bottles originate?	(CAS)	Client	

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

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

One label was blank; matched up to correct sample through process of elimination TDK 12/14/06

Client approval to run samples if discrepancies noted: Date

SR # : J Date: 12/4-06 Initials: JC

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

	Bottle Code																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	40mL	40mL	40mL	40mL	125mL	125mL	125mL	125mL	250mL	250mL	250mL	250mL	250mL	250mL	250mL	500mL	500mL	500mL	1L	1L	1L	1L	1L	2oz	4oz	8oz	16oz	5g	100mL	Misc.
Container	G	G	G	G	P	P	P	P	P	P	P	P	P	G	G	P	P	P	P	P	G	G	G	G	G	G	G	ENC	P	Misc.
Pres.		HCl	Sodium Thiosulfate	H2SO4		HCl	H2SO4	HNO3		H2SO4	HNO3	ZnAcetate NaOH	NaOH		HNO3		H2SO4	HNO3		HNO3		HCl	H2SO4						Sodium Thiosulfate	
Req. pH	N/A	<2	N/A	<2	N/A	<2	<2	<2	N/A	<2	<2	>9	>12	N/A	<2	N/A	<2	<2	N/A	<2	N/A	<2	<2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample #	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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-039																														
-040																														

Columbia Analytical Services INC.
An Employee - Owned Company
www.caslab.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

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

PAGE 1 OF 1

SR # J0605982

CAS Contact [redacted]

Project Name: GAINESVILLE / SITE WIDE	Project Number: 045006-091
Project Manager: KAREN FROMME	Email Address:
Company/Address: FTS 200 THIRD AVE CARNEGIE, PA 15106	
Phone #: (412) 279-3363	FAX#: (412) 279-4332
Sampler's Signature: Jeff Leaver	Sampler's Printed Name: JEFF LEAVER

ANALYSIS REQUESTED (Include Method Number a[redacted]

PRESERVATIVE

NUMBER OF CONTAINERS

8270 C

0155. AS/CR

TOTAL AS/CR

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	8270 C	0155. AS/CR	TOTAL AS/CR	REMARKS/ ALTERNATE DESCRIPTION
DUP01-121406		12/14/06	—	GW	4	X	X	X	
MOSB-121406			0810		2	X			
M33B-121406			0835		4	X	X	X	
ITW12-121406			0916						
ITW20-121406			1000						
ESE001-121406			1024						
EB01-121406		↓	0930	↓	↓	↓	↓	↓	

SPECIAL INSTRUCTIONS/COMMENTS

See QAPP ☐

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. Speicalized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

1 RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Jeff Leaver	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: JEFF LEAVER	Printed Name: STEVE MCMICHAEL	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: FTS	Firm: CAS	Firm:	Firm:	Firm:	Firm:
Date/Time: 12/14/06	Date/Time: 12-14-06 14:41	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

JSCOC-08/28/06

Field and Technical Services, LLC

DATE: **January 10, 2007**

FROM: **Jon Livingston**

SUBJECT: **INORGANIC AND ORGANIC DATA EVALUATION – BTEX, SVOCs, Metals (Dissolved)**
GAINESVILLE – Shallow Aquifer
SAMPLE DELIVERY GROUP (SDG) – J0605945

SAMPLES:

EW-1	EW-2	EW-3
EW-5	EW-6	EW-8
EW-9	EW-10	EW-11
EW-13	EW-14	EW-15
EW-16	EW-17	

Overview

The sample set for SDG J0605945 consists of 14 groundwater samples.

All samples were analyzed for select volatile organic compounds (VOCs), select semivolatile organic compounds (SVOCs), and select metals (dissolved). The samples were collected by Field and Technical Services on 12/13/06 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

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

Summary of Data Evaluation

- Total and dissolved chromium was detected in the method blank (J0605945-MBW).
- SVOC surrogate recovery was less than control limits in a few samples.
- The sample EW-13 recovered the internal standard naphthalene-d8 less than the lower control limit causing the sample to be analyzed at a dilution.
- The MS/MSD of sample EW-16 recovered many compounds outside the established quality control limits.

  The MS/MSD of sample EW-16 recovered total and dissolved arsenic greater than the upper quality control limits.

VOCs – SW846 8260B

No qualifications were made to this fraction.

SVOCs – SW846 8270C

The samples EW-3, EW-5, and EW-9 recovered the surrogate nitrobenzene less than the lower control limits. Sample EW-6 recovered nitrobenzene and 2-fluorobiphenyl less than the lower control limits. No action was taken based on only one surrogate from each acid/ base fraction was recovered less than the lower control limit.

The internal standard naphthalene-d8 was recovered less than the control limits in sample EW-13. The subsequent dilution was acceptable and shall be used in place of the initial analysis.

The MS/MSD of sample EW-16 recovered naphthalene, acenaphthene, fluorene, pentachlorophenol, and phenanthrene greater than the upper quality control limits. No action was taken as the sample concentration was four times greater than the spiking solution concentration. Anthracene, carbazole, and fluoranthene were recovered greater than the upper quality control limit. Indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene, and benzo(g,h,i)perylene were recovered less than the lower quality control limit. No action was taken based on matrix spike recoveries alone. The analysis was in control demonstrated by the successful recovery of the LCS.

Metals – SW846 6020

The following analytes were detected in the aqueous method blank (J0605945-MBW) at the following concentrations:

Analyte	Maximum Concentration	Blank Action Level
Dissolved Chromium	0.00018 mg/L	0.0009 mg/L
Total Chromium	0.0004 mg/L	0.002 mg/L

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

The MS/MSD of sample EW-16 recovered total and dissolved arsenic greater than upper quality control limit. No action was taken based on the sample concentration was greater than four times the spiking solution concentrations.

Jon Livingston
Field and Technical Services
Data Analyst

Laboratory Form I's

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Collected:**	12/13/2006
Sample Matrix:	Water	**Date Received:**	12/13/2006

Volatile Organic Compounds by GC/MS

Sample Name:	EW-2	**Units:**	ug/L
Lab Code:	J0605945-002	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzene	ND	U	1.0	0.088	1	12/17/06	12/17/06	JWG0604036	
Toluene	ND	U	1.0	0.13	1	12/17/06	12/17/06	JWG0604036	
Ethylbenzene	ND	U	1.0	0.12	1	12/17/06	12/17/06	JWG0604036	
m,p-Xylenes	ND	U	2.0	0.19	1	12/17/06	12/17/06	JWG0604036	
o-Xylene	ND	U	1.0	0.083	1	12/17/06	12/17/06	JWG0604036	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	90	71-122	12/17/06	Acceptable
4-Bromofluorobenzene	84	79-120	12/17/06	Acceptable
Toluene-d8	107	88-117	12/17/06	Acceptable
Dibromofluoromethane	84	82-116	12/17/06	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Collected:**	12/13/2006
Sample Matrix:	Water	**Date Received:**	12/13/2006

Volatile Organic Compounds by GC/MS

Sample Name:	EW-16	**Units:**	ug/L
Lab Code:	J0605945-013	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzene	**0.41**	J	1.0	0.088	1	12/17/06	12/17/06	JWG0604036	
Toluene	**0.72**	J	1.0	0.13	1	12/17/06	12/17/06	JWG0604036	
Ethylbenzene	**1.3**		1.0	0.12	1	12/17/06	12/17/06	JWG0604036	
m,p-Xylenes	**2.7**		2.0	0.19	1	12/17/06	12/17/06	JWG0604036	
o-Xylene	**1.6**		1.0	0.083	1	12/17/06	12/17/06	JWG0604036	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	92	71-122	12/17/06	Acceptable
4-Bromofluorobenzene	85	79-120	12/17/06	Acceptable
Toluene-d8	109	88-117	12/17/06	Acceptable
Dibromofluoromethane	87	82-116	12/17/06	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Collected:**	12/13/2006
Sample Matrix:	Water	**Date Received:**	12/13/2006

Volatile Organic Compounds by GC/MS

Sample Name:	EW-17	**Units:**	ug/L
Lab Code:	J0605945-014	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzene	**83**		1.0	0.088	1	12/18/06	12/18/06	JWG0604036	
Toluene	**180**		1.0	0.13	1	12/18/06	12/18/06	JWG0604036	
Ethylbenzene	**89**		1.0	0.12	1	12/18/06	12/18/06	JWG0604036	
m,p-Xylenes	**160**		2.0	0.19	1	12/18/06	12/18/06	JWG0604036	
o-Xylene	**82**		1.0	0.083	1	12/18/06	12/18/06	JWG0604036	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	89	71-122	12/18/06	Acceptable
4-Bromofluorobenzene	86	79-120	12/18/06	Acceptable
Toluene-d8	103	88-117	12/18/06	Acceptable
Dibromofluoromethane	85	82-116	12/18/06	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Collected:**	12/13/2006
Sample Matrix:	Water	**Date Received:**	12/13/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	EW-1	**Units:**	ug/L
Lab Code:	J0605945-001	**Basis:**	NA
Extraction Method:	EPA 3540C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Phenol	ND	U	5.3	1.8	1	12/15/06	12/26/06	JWG0604040	
2-Methylphenol	ND	U	5.3	0.46	1	12/15/06	12/26/06	JWG0604040	
4-Methylphenol†	ND	U	5.3	0.77	1	12/15/06	12/26/06	JWG0604040	
2,4-Dimethylphenol	ND	U	5.3	0.56	1	12/15/06	12/26/06	JWG0604040	
Naphthalene	ND	U	5.3	0.43	1	12/15/06	12/26/06	JWG0604040	
2-Methylnaphthalene	ND	U	5.3	0.44	1	12/15/06	12/26/06	JWG0604040	
Acenaphthylene	ND	U	5.3	0.36	1	12/15/06	12/26/06	JWG0604040	
Acenaphthene	ND	U	5.3	0.34	1	12/15/06	12/26/06	JWG0604040	
Dibenzofuran	ND	U	5.3	0.46	1	12/15/06	12/26/06	JWG0604040	
Fluorene	ND	U	5.3	0.38	1	12/15/06	12/26/06	JWG0604040	
Pentachlorophenol	ND	U	21	0.41	1	12/15/06	12/26/06	JWG0604040	
Phenanthrene	ND	U	5.3	0.28	1	12/15/06	12/26/06	JWG0604040	
Anthracene	ND	U	5.3	0.28	1	12/15/06	12/26/06	JWG0604040	
Carbazole	ND	U	5.3	0.58	1	12/15/06	12/26/06	JWG0604040	
Fluoranthene	ND	U	5.3	0.28	1	12/15/06	12/26/06	JWG0604040	
Pyrene	ND	U	5.3	0.45	1	12/15/06	12/26/06	JWG0604040	
Benz(a)anthracene	ND	U	5.3	0.59	1	12/15/06	12/26/06	JWG0604040	
Chrysene	ND	U	5.3	0.54	1	12/15/06	12/26/06	JWG0604040	
Benzo(b)fluoranthene	ND	U	5.3	0.61	1	12/15/06	12/26/06	JWG0604040	
Benzo(k)fluoranthene	ND	U	5.3	0.60	1	12/15/06	12/26/06	JWG0604040	
Benzo(a)pyrene	ND	U	5.3	0.58	1	12/15/06	12/26/06	JWG0604040	
Indeno(1,2,3-cd)pyrene	ND	U	5.3	0.56	1	12/15/06	12/26/06	JWG0604040	
Dibenz(a,h)anthracene	ND	U	5.3	0.59	1	12/15/06	12/26/06	JWG0604040	
Benzo(g,h,i)perylene	ND	U	5.3	0.52	1	12/15/06	12/26/06	JWG0604040	

Comments:

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Collected:**	12/13/2006
Sample Matrix:	Water	**Date Received:**	12/13/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	EW-1	**Units:**	ug/L
Lab Code:	J0605945-001	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	25	10-77	12/26/06	Acceptable
Phenol-d6	14	10-51	12/26/06	Acceptable
Nitrobenzene-d5	48	42-106	12/26/06	Acceptable
2-Fluorobiphenyl	59	43-99	12/26/06	Acceptable
2,4,6-Tribromophenol	58	30-141	12/26/06	Acceptable
Terphenyl-d14	60	23-165	12/26/06	Acceptable

† Analyte Comments

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

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Collected:**	12/13/2006
Sample Matrix:	Water	**Date Received:**	12/13/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	EW-2	**Units:**	ug/L
Lab Code:	J0605945-002	**Basis:**	NA
Extraction Method:	EPA 3540C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Phenol	ND	U	5.4	1.9	1	12/15/06	12/26/06	JWG0604040	
2-Methylphenol	ND	U	5.4	0.48	1	12/15/06	12/26/06	JWG0604040	
4-Methylphenol†	ND	U	5.4	0.79	1	12/15/06	12/26/06	JWG0604040	
2,4-Dimethylphenol	ND	U	5.4	0.57	1	12/15/06	12/26/06	JWG0604040	
Naphthalene	ND	U	5.4	0.45	1	12/15/06	12/26/06	JWG0604040	
2-Methylnaphthalene	ND	U	5.4	0.46	1	12/15/06	12/26/06	JWG0604040	
Acenaphthylene	ND	U	5.4	0.37	1	12/15/06	12/26/06	JWG0604040	
Acenaphthene	ND	U	5.4	0.35	1	12/15/06	12/26/06	JWG0604040	
Dibenzofuran	ND	U	5.4	0.48	1	12/15/06	12/26/06	JWG0604040	
Fluorene	ND	U	5.4	0.39	1	12/15/06	12/26/06	JWG0604040	
Pentachlorophenol	ND	U	22	0.42	1	12/15/06	12/26/06	JWG0604040	
Phenanthrene	ND	U	5.4	0.28	1	12/15/06	12/26/06	JWG0604040	
Anthracene	ND	U	5.4	0.28	1	12/15/06	12/26/06	JWG0604040	
Carbazole	ND	U	5.4	0.60	1	12/15/06	12/26/06	JWG0604040	
Fluoranthene	ND	U	5.4	0.28	1	12/15/06	12/26/06	JWG0604040	
Pyrene	ND	U	5.4	0.47	1	12/15/06	12/26/06	JWG0604040	
Benz(a)anthracene	ND	U	5.4	0.61	1	12/15/06	12/26/06	JWG0604040	
Chrysene	ND	U	5.4	0.55	1	12/15/06	12/26/06	JWG0604040	
Benzo(b)fluoranthene	ND	U	5.4	0.63	1	12/15/06	12/26/06	JWG0604040	
Benzo(k)fluoranthene	ND	U	5.4	0.62	1	12/15/06	12/26/06	JWG0604040	
Benzo(a)pyrene	ND	U	5.4	0.60	1	12/15/06	12/26/06	JWG0604040	
Indeno(1,2,3-cd)pyrene	ND	U	5.4	0.57	1	12/15/06	12/26/06	JWG0604040	
Dibenz(a,h)anthracene	ND	U	5.4	0.61	1	12/15/06	12/26/06	JWG0604040	
Benzo(g,h,i)perylene	ND	U	5.4	0.53	1	12/15/06	12/26/06	JWG0604040	

Comments:

Client: Beazer East, Inc.
Project: Gainesville, FL/045006-091
Sample Matrix: Water

Service Request: J0605945
Date Collected: 12/13/2006
Date Received: 12/13/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name: EW-2
Lab Code: J0605945-002

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	21	10-77	12/26/06	Acceptable
Phenol-d6	12	10-51	12/26/06	Acceptable
Nitrobenzene-d5	42	42-106	12/26/06	Acceptable
2-Fluorobiphenyl	50	43-99	12/26/06	Acceptable
2,4,6-Tribromophenol	52	30-141	12/26/06	Acceptable
Terphenyl-d14	58	23-165	12/26/06	Acceptable

† **Analyte Comments**

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

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Collected:**	12/13/2006
Sample Matrix:	Water	**Date Received:**	12/13/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	EW-3	**Units:**	ug/L
Lab Code:	J0605945-003	**Basis:**	NA
Extraction Method:	EPA 3540C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Phenol	ND	U	5.5	1.9	1	12/15/06	12/26/06	JWG0604040	
2-Methylphenol	ND	U	5.5	0.49	1	12/15/06	12/26/06	JWG0604040	
4-Methylphenol†	ND	U	5.5	0.81	1	12/15/06	12/26/06	JWG0604040	
2,4-Dimethylphenol	ND	U	5.5	0.59	1	12/15/06	12/26/06	JWG0604040	
Naphthalene	**87**		5.5	0.46	1	12/15/06	12/26/06	JWG0604040	
2-Methylnaphthalene	**6.1**		5.5	0.47	1	12/15/06	12/26/06	JWG0604040	
Acenaphthylene	**0.51**	J	5.5	0.38	1	12/15/06	12/26/06	JWG0604040	
Acenaphthene	**38**		5.5	0.36	1	12/15/06	12/26/06	JWG0604040	
Dibenzofuran	**23**		5.5	0.49	1	12/15/06	12/26/06	JWG0604040	
Fluorene	**23**		5.5	0.40	1	12/15/06	12/26/06	JWG0604040	
Pentachlorophenol	ND	U	22	0.43	1	12/15/06	12/26/06	JWG0604040	
Phenanthrene	**5.8**		5.5	0.29	1	12/15/06	12/26/06	JWG0604040	
Anthracene	**0.95**	J	5.5	0.29	1	12/15/06	12/26/06	JWG0604040	
Carbazole	**36**		5.5	0.61	1	12/15/06	12/26/06	JWG0604040	
Fluoranthene	ND	U	5.5	0.29	1	12/15/06	12/26/06	JWG0604040	
Pyrene	ND	U	5.5	0.48	1	12/15/06	12/26/06	JWG0604040	
Benz(a)anthracene	ND	U	5.5	0.62	1	12/15/06	12/26/06	JWG0604040	
Chrysene	ND	U	5.5	0.57	1	12/15/06	12/26/06	JWG0604040	
Benzo(b)fluoranthene	ND	U	5.5	0.64	1	12/15/06	12/26/06	JWG0604040	
Benzo(k)fluoranthene	ND	U	5.5	0.63	1	12/15/06	12/26/06	JWG0604040	
Benzo(a)pyrene	ND	U	5.5	0.61	1	12/15/06	12/26/06	JWG0604040	
Indeno(1,2,3-cd)pyrene	ND	U	5.5	0.59	1	12/15/06	12/26/06	JWG0604040	
Dibenz(a,h)anthracene	ND	U	5.5	0.62	1	12/15/06	12/26/06	JWG0604040	
Benzo(g,h,i)perylene	ND	U	5.5	0.54	1	12/15/06	12/26/06	JWG0604040	

Comments:

Analytical Results

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Collected:**	12/13/2006
Sample Matrix:	Water	**Date Received:**	12/13/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	EW-3	**Units:**	ug/L
Lab Code:	J0605945-003	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	21	10-77	12/26/06	Acceptable
Phenol-d6	12	10-51	12/26/06	Acceptable
Nitrobenzene-d5	41	42-106	12/26/06	Outside Control Limits
2-Fluorobiphenyl	53	43-99	12/26/06	Acceptable
2,4,6-Tribromophenol	67	30-141	12/26/06	Acceptable
Terphenyl-d14	55	23-165	12/26/06	Acceptable

† **Analyte Comments**

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

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Collected:**	12/13/2006
Sample Matrix:	Water	**Date Received:**	12/13/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	EW-5	**Units:**	ug/L
Lab Code:	J0605945-004	**Basis:**	NA
Extraction Method:	EPA 3540C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Phenol	ND	U	5.3	1.8	1	12/15/06	12/26/06	JWG0604040	
2-Methylphenol	ND	U	5.3	0.47	1	12/15/06	12/26/06	JWG0604040	
4-Methylphenol†	ND	U	5.3	0.77	1	12/15/06	12/26/06	JWG0604040	
2,4-Dimethylphenol	ND	U	5.3	0.56	1	12/15/06	12/26/06	JWG0604040	
Naphthalene	**7.6**		5.3	0.44	1	12/15/06	12/26/06	JWG0604040	
2-Methylnaphthalene	ND	U	5.3	0.45	1	12/15/06	12/26/06	JWG0604040	
Acenaphthylene	ND	U	5.3	0.36	1	12/15/06	12/26/06	JWG0604040	
Acenaphthene	**11**		5.3	0.34	1	12/15/06	12/26/06	JWG0604040	
Dibenzofuran	**2.3**	J	5.3	0.47	1	12/15/06	12/26/06	JWG0604040	
Fluorene	**3.6**	J	5.3	0.38	1	12/15/06	12/26/06	JWG0604040	
Pentachlorophenol	ND	U	22	0.42	1	12/15/06	12/26/06	JWG0604040	
Phenanthrene	**0.59**	J	5.3	0.28	1	12/15/06	12/26/06	JWG0604040	
Anthracene	**0.47**	J	5.3	0.28	1	12/15/06	12/26/06	JWG0604040	
Carbazole	**1.5**	J	5.3	0.58	1	12/15/06	12/26/06	JWG0604040	
Fluoranthene	**1.5**	J	5.3	0.28	1	12/15/06	12/26/06	JWG0604040	
Pyrene	**0.55**	J	5.3	0.46	1	12/15/06	12/26/06	JWG0604040	
Benz(a)anthracene	ND	U	5.3	0.59	1	12/15/06	12/26/06	JWG0604040	
Chrysene	ND	U	5.3	0.54	1	12/15/06	12/26/06	JWG0604040	
Benzo(b)fluoranthene	ND	U	5.3	0.62	1	12/15/06	12/26/06	JWG0604040	
Benzo(k)fluoranthene	ND	U	5.3	0.60	1	12/15/06	12/26/06	JWG0604040	
Benzo(a)pyrene	ND	U	5.3	0.58	1	12/15/06	12/26/06	JWG0604040	
Indeno(1,2,3-cd)pyrene	ND	U	5.3	0.56	1	12/15/06	12/26/06	JWG0604040	
Dibenz(a,h)anthracene	ND	U	5.3	0.59	1	12/15/06	12/26/06	JWG0604040	
Benzo(g,h,i)perylene	ND	U	5.3	0.52	1	12/15/06	12/26/06	JWG0604040	

Comments:

Client: Beazer East, Inc.
Project: Gainesville, FL/045006-091
Sample Matrix: Water

Service Request: J0605945
Date Collected: 12/13/2006
Date Received: 12/13/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name: EW-5
Lab Code: J0605945-004

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	18	10-77	12/26/06	Acceptable
Phenol-d6	11	10-51	12/26/06	Acceptable
Nitrobenzene-d5	34	42-106	12/26/06	Outside Control Limits
2-Fluorobiphenyl	48	43-99	12/26/06	Acceptable
2,4,6-Tribromophenol	64	30-141	12/26/06	Acceptable
Terphenyl-d14	51	23-165	12/26/06	Acceptable

† Analyte Comments

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

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Collected:**	12/13/2006
Sample Matrix:	Water	**Date Received:**	12/13/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	EW-6	**Units:**	ug/L
Lab Code:	J0605945-005	**Basis:**	NA
Extraction Method:	EPA 3540C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Phenol	ND	U	5.7	2.0	1	12/15/06	12/27/06	JWG0604040	
2-Methylphenol	ND	U	5.7	0.50	1	12/15/06	12/27/06	JWG0604040	
4-Methylphenol†	ND	U	5.7	0.83	1	12/15/06	12/27/06	JWG0604040	
2,4-Dimethylphenol	ND	U	5.7	0.60	1	12/15/06	12/27/06	JWG0604040	
Naphthalene	ND	U	5.7	0.47	1	12/15/06	12/27/06	JWG0604040	
2-Methylnaphthalene	ND	U	5.7	0.48	1	12/15/06	12/27/06	JWG0604040	
Acenaphthylene	ND	U	5.7	0.39	1	12/15/06	12/27/06	JWG0604040	
Acenaphthene	ND	U	5.7	0.36	1	12/15/06	12/27/06	JWG0604040	
Dibenzofuran	ND	U	5.7	0.50	1	12/15/06	12/27/06	JWG0604040	
Fluorene	ND	U	5.7	0.41	1	12/15/06	12/27/06	JWG0604040	
Pentachlorophenol	ND	U	23	0.44	1	12/15/06	12/27/06	JWG0604040	
Phenanthrene	ND	U	5.7	0.30	1	12/15/06	12/27/06	JWG0604040	
Anthracene	ND	U	5.7	0.30	1	12/15/06	12/27/06	JWG0604040	
Carbazole	ND	U	5.7	0.62	1	12/15/06	12/27/06	JWG0604040	
Fluoranthene	**0.55**	J	5.7	0.30	1	12/15/06	12/27/06	JWG0604040	
Pyrene	ND	U	5.7	0.49	1	12/15/06	12/27/06	JWG0604040	
Benz(a)anthracene	ND	U	5.7	0.63	1	12/15/06	12/27/06	JWG0604040	
Chrysene	ND	U	5.7	0.58	1	12/15/06	12/27/06	JWG0604040	
Benzo(b)fluoranthene	ND	U	5.7	0.66	1	12/15/06	12/27/06	JWG0604040	
Benzo(k)fluoranthene	ND	U	5.7	0.65	1	12/15/06	12/27/06	JWG0604040	
Benzo(a)pyrene	ND	U	5.7	0.62	1	12/15/06	12/27/06	JWG0604040	
Indeno(1,2,3-cd)pyrene	ND	U	5.7	0.60	1	12/15/06	12/27/06	JWG0604040	
Dibenz(a,h)anthracene	ND	U	5.7	0.63	1	12/15/06	12/27/06	JWG0604040	
Benzo(g,h,i)perylene	ND	U	5.7	0.56	1	12/15/06	12/27/06	JWG0604040	

Comments:

Analytical Results

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Collected:**	12/13/2006
Sample Matrix:	Water	**Date Received:**	12/13/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	EW-6	**Units:**	ug/L
Lab Code:	J0605945-005	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	16	10-77	12/27/06	Acceptable
Phenol-d6	10	10-51	12/27/06	Acceptable
Nitrobenzene-d5	36	42-106	12/27/06	Outside Control Limits
2-Fluorobiphenyl	33	43-99	12/27/06	Outside Control Limits
2,4,6-Tribromophenol	50	30-141	12/27/06	Acceptable
Terphenyl-d14	29	23-165	12/27/06	Acceptable

† **Analyte Comments**

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

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Collected:**	12/13/2006
Sample Matrix:	Water	**Date Received:**	12/13/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	EW-8	**Units:**	ug/L
Lab Code:	J0605945-006	**Basis:**	NA
Extraction Method:	EPA 3540C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Phenol	ND	U	5.5	1.9	1	12/15/06	12/27/06	JWG0604040	
2-Methylphenol	ND	U	5.5	0.49	1	12/15/06	12/27/06	JWG0604040	
4-Methylphenol†	ND	U	5.5	0.81	1	12/15/06	12/27/06	JWG0604040	
2,4-Dimethylphenol	ND	U	5.5	0.59	1	12/15/06	12/27/06	JWG0604040	
Naphthalene	ND	U	5.5	0.46	1	12/15/06	12/27/06	JWG0604040	
2-Methylnaphthalene	ND	U	5.5	0.47	1	12/15/06	12/27/06	JWG0604040	
Acenaphthylene	ND	U	5.5	0.38	1	12/15/06	12/27/06	JWG0604040	
Acenaphthene	**2.8**	J	5.5	0.36	1	12/15/06	12/27/06	JWG0604040	
Dibenzofuran	**2.9**	J	5.5	0.49	1	12/15/06	12/27/06	JWG0604040	
Fluorene	**4.1**	J	5.5	0.40	1	12/15/06	12/27/06	JWG0604040	
Pentachlorophenol	ND	U	22	0.43	1	12/15/06	12/27/06	JWG0604040	
Phenanthrene	**0.89**	J	5.5	0.29	1	12/15/06	12/27/06	JWG0604040	
Anthracene	ND	U	5.5	0.29	1	12/15/06	12/27/06	JWG0604040	
Carbazole	**6.0**		5.5	0.61	1	12/15/06	12/27/06	JWG0604040	
Fluoranthene	ND	U	5.5	0.29	1	12/15/06	12/27/06	JWG0604040	
Pyrene	ND	U	5.5	0.48	1	12/15/06	12/27/06	JWG0604040	
Benz(a)anthracene	ND	U	5.5	0.62	1	12/15/06	12/27/06	JWG0604040	
Chrysene	ND	U	5.5	0.57	1	12/15/06	12/27/06	JWG0604040	
Benzo(b)fluoranthene	ND	U	5.5	0.64	1	12/15/06	12/27/06	JWG0604040	
Benzo(k)fluoranthene	ND	U	5.5	0.63	1	12/15/06	12/27/06	JWG0604040	
Benzo(a)pyrene	ND	U	5.5	0.61	1	12/15/06	12/27/06	JWG0604040	
Indeno(1,2,3-cd)pyrene	ND	U	5.5	0.59	1	12/15/06	12/27/06	JWG0604040	
Dibenz(a,h)anthracene	ND	U	5.5	0.62	1	12/15/06	12/27/06	JWG0604040	
Benzo(g,h,i)perylene	ND	U	5.5	0.54	1	12/15/06	12/27/06	JWG0604040	

Comments:

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Collected:**	12/13/2006
Sample Matrix:	Water	**Date Received:**	12/13/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	EW-8	**Units:**	ug/L
Lab Code:	J0605945-006	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	24	10-77	12/27/06	Acceptable
Phenol-d6	14	10-51	12/27/06	Acceptable
Nitrobenzene-d5	50	42-106	12/27/06	Acceptable
2-Fluorobiphenyl	56	43-99	12/27/06	Acceptable
2,4,6-Tribromophenol	69	30-141	12/27/06	Acceptable
Terphenyl-d14	58	23-165	12/27/06	Acceptable

† Analyte Comments

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

Comments:

Client: Beazer East, Inc.
Project: Gainesville, FL/045006-091
Sample Matrix: Water

Service Request: J0605945
Date Collected: 12/13/2006
Date Received: 12/13/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name: EW-9
Lab Code: J0605945-007

Extraction Method: EPA 3540C
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	5.5	1.9	1	12/15/06	12/27/06	JWG0604040	
2-Methylphenol	ND	U	5.5	0.48	1	12/15/06	12/27/06	JWG0604040	
4-Methylphenol†	ND	U	5.5	0.80	1	12/15/06	12/27/06	JWG0604040	
2,4-Dimethylphenol	ND	U	5.5	0.58	1	12/15/06	12/27/06	JWG0604040	
Naphthalene	ND	U	5.5	0.45	1	12/15/06	12/27/06	JWG0604040	
2-Methylnaphthalene	ND	U	5.5	0.46	1	12/15/06	12/27/06	JWG0604040	
Acenaphthylene	ND	U	5.5	0.37	1	12/15/06	12/27/06	JWG0604040	
Acenaphthene	**5.7**		5.5	0.35	1	12/15/06	12/27/06	JWG0604040	
Dibenzofuran	**2.3**	J	5.5	0.48	1	12/15/06	12/27/06	JWG0604040	
Fluorene	**4.5**	J	5.5	0.40	1	12/15/06	12/27/06	JWG0604040	
Pentachlorophenol	ND	U	22	0.43	1	12/15/06	12/27/06	JWG0604040	
Phenanthrene	ND	U	5.5	0.29	1	12/15/06	12/27/06	JWG0604040	
Anthracene	**0.30**	J	5.5	0.29	1	12/15/06	12/27/06	JWG0604040	
Carbazole	ND	U	5.5	0.60	1	12/15/06	12/27/06	JWG0604040	
Fluoranthene	**0.70**	J	5.5	0.29	1	12/15/06	12/27/06	JWG0604040	
Pyrene	ND	U	5.5	0.47	1	12/15/06	12/27/06	JWG0604040	
Benz(a)anthracene	ND	U	5.5	0.61	1	12/15/06	12/27/06	JWG0604040	
Chrysene	ND	U	5.5	0.56	1	12/15/06	12/27/06	JWG0604040	
Benzo(b)fluoranthene	ND	U	5.5	0.64	1	12/15/06	12/27/06	JWG0604040	
Benzo(k)fluoranthene	ND	U	5.5	0.62	1	12/15/06	12/27/06	JWG0604040	
Benzo(a)pyrene	ND	U	5.5	0.60	1	12/15/06	12/27/06	JWG0604040	
Indeno(1,2,3-cd)pyrene	ND	U	5.5	0.58	1	12/15/06	12/27/06	JWG0604040	
Dibenz(a,h)anthracene	ND	U	5.5	0.61	1	12/15/06	12/27/06	JWG0604040	
Benzo(g,h,i)perylene	ND	U	5.5	0.54	1	12/15/06	12/27/06	JWG0604040	

Comments:

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Collected:**	12/13/2006
Sample Matrix:	Water	**Date Received:**	12/13/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	EW-9	**Units:**	ug/L
Lab Code:	J0605945-007	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	20	10-77	12/27/06	Acceptable
Phenol-d6	11	10-51	12/27/06	Acceptable
Nitrobenzene-d5	41	42-106	12/27/06	Outside Control Limits
2-Fluorobiphenyl	51	43-99	12/27/06	Acceptable
2,4,6-Tribromophenol	61	30-141	12/27/06	Acceptable
Terphenyl-d14	55	23-165	12/27/06	Acceptable

† **Analyte Comments**

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

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Collected:**	12/13/2006
Sample Matrix:	Water	**Date Received:**	12/13/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	EW-10	**Units:**	ug/L
Lab Code:	J0605945-008	**Basis:**	NA
Extraction Method:	EPA 3540C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Phenol	ND	U	5.4	1.9	1	12/15/06	12/27/06	JWG0604040	
2-Methylphenol	ND	U	5.4	0.47	1	12/15/06	12/27/06	JWG0604040	
4-Methylphenol†	ND	U	5.4	0.78	1	12/15/06	12/27/06	JWG0604040	
2,4-Dimethylphenol	ND	U	5.4	0.57	1	12/15/06	12/27/06	JWG0604040	
Naphthalene	ND	U	5.4	0.44	1	12/15/06	12/27/06	JWG0604040	
2-Methylnaphthalene	ND	U	5.4	0.45	1	12/15/06	12/27/06	JWG0604040	
Acenaphthylene	ND	U	5.4	0.37	1	12/15/06	12/27/06	JWG0604040	
Acenaphthene	ND	U	5.4	0.35	1	12/15/06	12/27/06	JWG0604040	
Dibenzofuran	ND	U	5.4	0.47	1	12/15/06	12/27/06	JWG0604040	
Fluorene	ND	U	5.4	0.39	1	12/15/06	12/27/06	JWG0604040	
Pentachlorophenol	ND	U	22	0.42	1	12/15/06	12/27/06	JWG0604040	
Phenanthrene	ND	U	5.4	0.28	1	12/15/06	12/27/06	JWG0604040	
Anthracene	ND	U	5.4	0.28	1	12/15/06	12/27/06	JWG0604040	
Carbazole	ND	U	5.4	0.59	1	12/15/06	12/27/06	JWG0604040	
Fluoranthene	ND	U	5.4	0.28	1	12/15/06	12/27/06	JWG0604040	
Pyrene	ND	U	5.4	0.46	1	12/15/06	12/27/06	JWG0604040	
Benz(a)anthracene	ND	U	5.4	0.60	1	12/15/06	12/27/06	JWG0604040	
Chrysene	ND	U	5.4	0.55	1	12/15/06	12/27/06	JWG0604040	
Benzo(b)fluoranthene	ND	U	5.4	0.62	1	12/15/06	12/27/06	JWG0604040	
Benzo(k)fluoranthene	ND	U	5.4	0.61	1	12/15/06	12/27/06	JWG0604040	
Benzo(a)pyrene	ND	U	5.4	0.59	1	12/15/06	12/27/06	JWG0604040	
Indeno(1,2,3-cd)pyrene	ND	U	5.4	0.57	1	12/15/06	12/27/06	JWG0604040	
Dibenz(a,h)anthracene	ND	U	5.4	0.60	1	12/15/06	12/27/06	JWG0604040	
Benzo(g,h,i)perylene	ND	U	5.4	0.53	1	12/15/06	12/27/06	JWG0604040	

Comments:

Client: Beazer East, Inc.
Project: Gainesville, FL/045006-091
Sample Matrix: Water

Service Request: J0605945
Date Collected: 12/13/2006
Date Received: 12/13/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name: EW-10
Lab Code: J0605945-008

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	21	10-77	12/27/06	Acceptable
Phenol-d6	13	10-51	12/27/06	Acceptable
Nitrobenzene-d5	43	42-106	12/27/06	Acceptable
2-Fluorobiphenyl	62	43-99	12/27/06	Acceptable
2,4,6-Tribromophenol	70	30-141	12/27/06	Acceptable
Terphenyl-d14	55	23-165	12/27/06	Acceptable

† **Analyte Comments**

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

Comments:

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Collected:**	12/13/2006
Sample Matrix:	Water	**Date Received:**	12/13/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	EW-11	**Units:**	ug/L
Lab Code:	J0605945-009	**Basis:**	NA
Extraction Method:	EPA 3540C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Phenol	ND	U	5.5	1.9	1	12/15/06	12/27/06	JWG0604040	
2-Methylphenol	ND	U	5.5	0.49	1	12/15/06	12/27/06	JWG0604040	
4-Methylphenol†	ND	U	5.5	0.81	1	12/15/06	12/27/06	JWG0604040	
2,4-Dimethylphenol	ND	U	5.5	0.59	1	12/15/06	12/27/06	JWG0604040	
Naphthalene	ND	U	5.5	0.46	1	12/15/06	12/27/06	JWG0604040	
2-Methylnaphthalene	ND	U	5.5	0.47	1	12/15/06	12/27/06	JWG0604040	
Acenaphthylene	ND	U	5.5	0.38	1	12/15/06	12/27/06	JWG0604040	
Acenaphthene	**9.4**		5.5	0.36	1	12/15/06	12/27/06	JWG0604040	
Dibenzofuran	**3.0**	J	5.5	0.49	1	12/15/06	12/27/06	JWG0604040	
Fluorene	**4.2**	J	5.5	0.40	1	12/15/06	12/27/06	JWG0604040	
Pentachlorophenol	ND	U	22	0.43	1	12/15/06	12/27/06	JWG0604040	
Phenanthrene	**0.41**	J	5.5	0.29	1	12/15/06	12/27/06	JWG0604040	
Anthracene	ND	U	5.5	0.29	1	12/15/06	12/27/06	JWG0604040	
Carbazole	**3.8**	J	5.5	0.61	1	12/15/06	12/27/06	JWG0604040	
Fluoranthene	**0.55**	J	5.5	0.29	1	12/15/06	12/27/06	JWG0604040	
Pyrene	ND	U	5.5	0.48	1	12/15/06	12/27/06	JWG0604040	
Benz(a)anthracene	ND	U	5.5	0.62	1	12/15/06	12/27/06	JWG0604040	
Chrysene	ND	U	5.5	0.57	1	12/15/06	12/27/06	JWG0604040	
Benzo(b)fluoranthene	ND	U	5.5	0.64	1	12/15/06	12/27/06	JWG0604040	
Benzo(k)fluoranthene	ND	U	5.5	0.63	1	12/15/06	12/27/06	JWG0604040	
Benzo(a)pyrene	ND	U	5.5	0.61	1	12/15/06	12/27/06	JWG0604040	
Indeno(1,2,3-cd)pyrene	ND	U	5.5	0.59	1	12/15/06	12/27/06	JWG0604040	
Dibenz(a,h)anthracene	ND	U	5.5	0.62	1	12/15/06	12/27/06	JWG0604040	
Benzo(g,h,i)perylene	ND	U	5.5	0.54	1	12/15/06	12/27/06	JWG0604040	

Comments:

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Collected:**	12/13/2006
Sample Matrix:	Water	**Date Received:**	12/13/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	EW-11	**Units:**	ug/L
Lab Code:	J0605945-009	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	22	10-77	12/27/06	Acceptable
Phenol-d6	14	10-51	12/27/06	Acceptable
Nitrobenzene-d5	46	42-106	12/27/06	Acceptable
2-Fluorobiphenyl	61	43-99	12/27/06	Acceptable
2,4,6-Tribromophenol	73	30-141	12/27/06	Acceptable
Terphenyl-d14	57	23-165	12/27/06	Acceptable

† Analyte Comments

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

Comments:

Client: Beazer East, Inc.
Project: Gainesville, FL/045006-091
Sample Matrix: Water

Service Request: J0605945
Date Collected: 12/13/2006
Date Received: 12/13/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name: EW-13
Lab Code: J0605945-010

Units: ug/L
Basis: NA

Extraction Method: EPA 3540C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Phenol	ND	U	5.4	1.9	1	12/15/06	12/27/06	JWG0604040	
2-Methylphenol	ND	U	5.4	0.48	1	12/15/06	12/27/06	JWG0604040	
4-Methylphenol†	ND	U	5.4	0.79	1	12/15/06	12/27/06	JWG0604040	
2,4-Dimethylphenol	**27**	X J	54	5.7	10	12/15/06	12/27/06	JWG0604040	
Naphthalene	**3800**		270	23	50	12/15/06	12/27/06	JWG0604040	
2-Methylnaphthalene	**410**		54	4.6	10	12/15/06	12/27/06	JWG0604040	
Acenaphthylene	**13**		5.4	0.37	1	12/15/06	12/27/06	JWG0604040	
Acenaphthene	**310**		54	3.5	10	12/15/06	12/27/06	JWG0604040	
Dibenzofuran	**140**		5.4	0.48	1	12/15/06	12/27/06	JWG0604040	
Fluorene	**190**		54	3.9	10	12/15/06	12/27/06	JWG0604040	
Pentachlorophenol	**0.84**	X J	22	0.42	1	12/15/06	12/27/06	JWG0604040	
Phenanthrene	**91**		5.4	0.28	1	12/15/06	12/27/06	JWG0604040	
Anthracene	**7.1**		5.4	0.28	1	12/15/06	12/27/06	JWG0604040	
Carbazole	**390**		54	6.0	10	12/15/06	12/27/06	JWG0604040	
Fluoranthene	**4.3**	X J	5.4	0.28	1	12/15/06	12/27/06	JWG0604040	
Pyrene	**1.5**	X J	5.4	0.47	1	12/15/06	12/27/06	JWG0604040	
Benz(a)anthracene	ND	U	5.4	0.61	1	12/15/06	12/27/06	JWG0604040	
Chrysene	ND	U	5.4	0.55	1	12/15/06	12/27/06	JWG0604040	
Benzo(b)fluoranthene	ND	U	5.4	0.63	1	12/15/06	12/27/06	JWG0604040	
Benzo(k)fluoranthene	ND	U	5.4	0.62	1	12/15/06	12/27/06	JWG0604040	
Benzo(a)pyrene	ND	U	5.4	0.60	1	12/15/06	12/27/06	JWG0604040	
Indeno(1,2,3-cd)pyrene	ND	U	5.4	0.57	1	12/15/06	12/27/06	JWG0604040	
Dibenz(a,h)anthracene	ND	U	5.4	0.61	1	12/15/06	12/27/06	JWG0604040	
Benzo(g,h,i)perylene	ND	U	5.4	0.53	1	12/15/06	12/27/06	JWG0604040	

Comments:

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Collected:**	12/13/2006
Sample Matrix:	Water	**Date Received:**	12/13/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	EW-13	**Units:**	ug/L
Lab Code:	J0605945-010	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	24	10-77	12/27/06	Acceptable
Phenol-d6	10	10-51	12/27/06	Acceptable
Nitrobenzene-d5	56	42-106	12/27/06	Acceptable
2-Fluorobiphenyl	60	43-99	12/27/06	Acceptable
2,4,6-Tribromophenol	73	30-141	12/27/06	Acceptable
Terphenyl-d14	49	23-165	12/27/06	Acceptable

† **Analyte Comments**

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

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Collected:**	12/13/2006
Sample Matrix:	Water	**Date Received:**	12/13/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	EW-14	**Units:**	ug/L
Lab Code:	J0605945-011	**Basis:**	NA
Extraction Method:	EPA 3540C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Phenol	ND	U	5.4	1.9	1	12/15/06	12/27/06	JWG0604040	
2-Methylphenol	ND	U	5.4	0.47	1	12/15/06	12/27/06	JWG0604040	
4-Methylphenol†	ND	U	5.4	0.78	1	12/15/06	12/27/06	JWG0604040	
2,4-Dimethylphenol	**14**		5.4	0.57	1	12/15/06	12/27/06	JWG0604040	
Naphthalene	**1400**		54	4.4	10	12/15/06	12/27/06	JWG0604040	
2-Methylnaphthalene	**400**		54	4.5	10	12/15/06	12/27/06	JWG0604040	
Acenaphthylene	**10**		5.4	0.37	1	12/15/06	12/27/06	JWG0604040	
Acenaphthene	**290**		54	3.5	10	12/15/06	12/27/06	JWG0604040	
Dibenzofuran	**140**		5.4	0.47	1	12/15/06	12/27/06	JWG0604040	
Fluorene	**190**		54	3.9	10	12/15/06	12/27/06	JWG0604040	
Pentachlorophenol	**1.1**	J	22	0.42	1	12/15/06	12/27/06	JWG0604040	
Phenanthrene	**130**		5.4	0.28	1	12/15/06	12/27/06	JWG0604040	
Anthracene	**19**		5.4	0.28	1	12/15/06	12/27/06	JWG0604040	
Carbazole	**320**		54	5.9	10	12/15/06	12/27/06	JWG0604040	
Fluoranthene	**9.5**		5.4	0.28	1	12/15/06	12/27/06	JWG0604040	
Pyrene	**2.4**	J	5.4	0.46	1	12/15/06	12/27/06	JWG0604040	
Benz(a)anthracene	ND	U	5.4	0.60	1	12/15/06	12/27/06	JWG0604040	
Chrysene	ND	U	5.4	0.55	1	12/15/06	12/27/06	JWG0604040	
Benzo(b)fluoranthene	ND	U	5.4	0.62	1	12/15/06	12/27/06	JWG0604040	
Benzo(k)fluoranthene	ND	U	5.4	0.61	1	12/15/06	12/27/06	JWG0604040	
Benzo(a)pyrene	ND	U	5.4	0.59	1	12/15/06	12/27/06	JWG0604040	
Indeno(1,2,3-cd)pyrene	ND	U	5.4	0.57	1	12/15/06	12/27/06	JWG0604040	
Dibenz(a,h)anthracene	ND	U	5.4	0.60	1	12/15/06	12/27/06	JWG0604040	
Benzo(g,h,i)perylene	ND	U	5.4	0.53	1	12/15/06	12/27/06	JWG0604040	

Comments:

Client: Beazer East, Inc.
Project: Gainesville, FL/045006-091
Sample Matrix: Water

Service Request: J0605945
Date Collected: 12/13/2006
Date Received: 12/13/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name: EW-14
Lab Code: J0605945-011

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	21	10-77	12/27/06	Acceptable
Phenol-d6	17	10-51	12/27/06	Acceptable
Nitrobenzene-d5	93	42-106	12/27/06	Acceptable
2-Fluorobiphenyl	57	43-99	12/27/06	Acceptable
2,4,6-Tribromophenol	67	30-141	12/27/06	Acceptable
Terphenyl-d14	50	23-165	12/27/06	Acceptable

† **Analyte Comments**

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

Comments:

Client: Beazer East, Inc.
Project: Gainesville, FL/045006-091
Sample Matrix: Water

Service Request: J0605945
Date Collected: 12/13/2006
Date Received: 12/13/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name: EW-15
Lab Code: J0605945-012

Extraction Method: EPA 3540C
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	5.5	1.9	1	12/15/06	12/27/06	JWG0604040	
2-Methylphenol	ND	U	5.5	0.49	1	12/15/06	12/27/06	JWG0604040	
4-Methylphenol†	ND	U	5.5	0.81	1	12/15/06	12/27/06	JWG0604040	
2,4-Dimethylphenol	ND	U	5.5	0.59	1	12/15/06	12/27/06	JWG0604040	
Naphthalene	**170**		5.5	0.46	1	12/15/06	12/27/06	JWG0604040	
2-Methylnaphthalene	**64**		5.5	0.47	1	12/15/06	12/27/06	JWG0604040	
Acenaphthylene	**1.2**	J	5.5	0.38	1	12/15/06	12/27/06	JWG0604040	
Acenaphthene	**100**		5.5	0.36	1	12/15/06	12/27/06	JWG0604040	
Dibenzofuran	**87**		5.5	0.49	1	12/15/06	12/27/06	JWG0604040	
Fluorene	**110**		11	0.80	2	12/15/06	12/27/06	JWG0604040	
Pentachlorophenol	**11**	J	22	0.43	1	12/15/06	12/27/06	JWG0604040	
Phenanthrene	**54**		5.5	0.29	1	12/15/06	12/27/06	JWG0604040	
Anthracene	**8.9**		5.5	0.29	1	12/15/06	12/27/06	JWG0604040	
Carbazole	**49**		5.5	0.61	1	12/15/06	12/27/06	JWG0604040	
Fluoranthene	**3.8**	J	5.5	0.29	1	12/15/06	12/27/06	JWG0604040	
Pyrene	**0.90**	J	5.5	0.48	1	12/15/06	12/27/06	JWG0604040	
Benz(a)anthracene	ND	U	5.5	0.62	1	12/15/06	12/27/06	JWG0604040	
Chrysene	ND	U	5.5	0.57	1	12/15/06	12/27/06	JWG0604040	
Benzo(b)fluoranthene	ND	U	5.5	0.64	1	12/15/06	12/27/06	JWG0604040	
Benzo(k)fluoranthene	ND	U	5.5	0.63	1	12/15/06	12/27/06	JWG0604040	
Benzo(a)pyrene	ND	U	5.5	0.61	1	12/15/06	12/27/06	JWG0604040	
Indeno(1,2,3-cd)pyrene	ND	U	5.5	0.59	1	12/15/06	12/27/06	JWG0604040	
Dibenz(a,h)anthracene	ND	U	5.5	0.62	1	12/15/06	12/27/06	JWG0604040	
Benzo(g,h,i)perylene	ND	U	5.5	0.54	1	12/15/06	12/27/06	JWG0604040	

Comments:

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Collected:**	12/13/2006
Sample Matrix:	Water	**Date Received:**	12/13/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	EW-15	**Units:**	ug/L
Lab Code:	J0605945-012	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	19	10-77	12/27/06	Acceptable
Phenol-d6	12	10-51	12/27/06	Acceptable
Nitrobenzene-d5	44	42-106	12/27/06	Acceptable
2-Fluorobiphenyl	55	43-99	12/27/06	Acceptable
2,4,6-Tribromophenol	69	30-141	12/27/06	Acceptable
Terphenyl-d14	54	23-165	12/27/06	Acceptable

† Analyte Comments

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

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Collected:**	12/13/2006
Sample Matrix:	Water	**Date Received:**	12/13/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	EW-16	**Units:**	ug/L
Lab Code:	J0605945-013	**Basis:**	NA
Extraction Method:	EPA 3540C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Phenol	ND	U	5.4	1.9	1	12/15/06	12/27/06	JWG0604040	
2-Methylphenol	ND	U	5.4	0.48	1	12/15/06	12/27/06	JWG0604040	
4-Methylphenol†	ND	U	5.4	0.79	1	12/15/06	12/27/06	JWG0604040	
2,4-Dimethylphenol	**0.70**	J	5.4	0.57	1	12/15/06	12/27/06	JWG0604040	
Naphthalene	**300**		27	2.3	5	12/15/06	12/27/06	JWG0604040	
2-Methylnaphthalene	**150**		5.4	0.46	1	12/15/06	12/27/06	JWG0604040	
Acenaphthylene	**4.2**	J	5.4	0.37	1	12/15/06	12/27/06	JWG0604040	
Acenaphthene	**220**		27	1.8	5	12/15/06	12/27/06	JWG0604040	
Dibenzofuran	**150**		5.4	0.48	1	12/15/06	12/27/06	JWG0604040	
Fluorene	**210**		27	2.0	5	12/15/06	12/27/06	JWG0604040	
Pentachlorophenol	**9100**		2200	42	100	12/15/06	12/27/06	JWG0604040	
Phenanthrene	**220**		27	1.4	5	12/15/06	12/27/06	JWG0604040	
Anthracene	**28**		5.4	0.28	1	12/15/06	12/27/06	JWG0604040	
Carbazole	**84**		5.4	0.60	1	12/15/06	12/27/06	JWG0604040	
Fluoranthene	**14**		5.4	0.28	1	12/15/06	12/27/06	JWG0604040	
Pyrene	**2.3**	J	5.4	0.47	1	12/15/06	12/27/06	JWG0604040	
Benz(a)anthracene	ND	U	5.4	0.61	1	12/15/06	12/27/06	JWG0604040	
Chrysene	ND	U	5.4	0.55	1	12/15/06	12/27/06	JWG0604040	
Benzo(b)fluoranthene	ND	U	5.4	0.63	1	12/15/06	12/27/06	JWG0604040	
Benzo(k)fluoranthene	ND	U	5.4	0.62	1	12/15/06	12/27/06	JWG0604040	
Benzo(a)pyrene	ND	U	5.4	0.60	1	12/15/06	12/27/06	JWG0604040	
Indeno(1,2,3-cd)pyrene	ND	U	5.4	0.57	1	12/15/06	12/27/06	JWG0604040	
Dibenz(a,h)anthracene	ND	U	5.4	0.61	1	12/15/06	12/27/06	JWG0604040	
Benzo(g,h,i)perylene	ND	U	5.4	0.53	1	12/15/06	12/27/06	JWG0604040	

Comments:

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Collected:**	12/13/2006
Sample Matrix:	Water	**Date Received:**	12/13/2006

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	EW-16	**Units:**	ug/L
Lab Code:	J0605945-013	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	20	10-77	12/27/06	Acceptable
Phenol-d6	13	10-51	12/27/06	Acceptable
Nitrobenzene-d5	46	42-106	12/27/06	Acceptable
2-Fluorobiphenyl	56	43-99	12/27/06	Acceptable
2,4,6-Tribromophenol	84	30-141	12/27/06	Acceptable
Terphenyl-d14	51	23-165	12/27/06	Acceptable

† **Analyte Comments**

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

Comments:

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project Name:	Gainesville, FL	**Date Collected:**	12/13/06
Project Number:	045006-091	**Date Received:**	12/13/06
Matrix:	WATER		

TOTAL METALS

Sample Name:	EW-5	Unit:	mg/L (ppm)
Lab Code:	J0605945-004	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Results	Result Notes
Arsenic	EPA 3020A	6020	0.00050	0.00028	1.0	12/18/06	12/22/2006	0.042	
Chromium	EPA 3020A	6020	0.0020	0.00012	1.0	12/18/06	12/22/2006	0.0013	J U

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project Name:	Gainesville, FL	**Date Collected:**	12/13/06
Project Number:	045006-091	**Date Received:**	12/13/06
Matrix:	WATER		

TOTAL METALS

Sample Name:	EW-6	Unit:	mg/L (ppm)
Lab Code:	J0605945-005	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Results	Result Notes
Arsenic	EPA 3020A	6020	0.00050	0.00028	1.0	12/18/06	12/22/2006	0.0016	
Chromium	EPA 3020A	6020	0.0020	0.00012	1.0	12/18/06	12/22/2006	0.0028	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project Name:	Gainesville, FL	**Date Collected:**	12/13/06
Project Number:	045006-091	**Date Received:**	12/13/06
Matrix:	WATER		

TOTAL METALS

Sample Name:	EW-8	Unit:	mg/L (ppm)
Lab Code:	J0605945-006	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Results	Result Notes
Arsenic	EPA 3020A	6020	0.00050	0.00028	1.0	12/18/06	12/22/2006	0.011	
Chromium	EPA 3020A	6020	0.0020	0.00012	1.0	12/18/06	12/22/2006	0.0010	J U

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project Name:	Gainesville, FL	**Date Collected:**	12/13/06
Project Number:	045006-091	**Date Received:**	12/13/06
Matrix:	WATER		

TOTAL METALS

Sample Name:	EW-9	Unit:	mg/L (ppm)
Lab Code:	J0605945-007	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Results	Result Notes
Arsenic	EPA 3020A	6020	0.00050	0.00028	1.0	12/18/06	12/22/2006	0.064	
Chromium	EPA 3020A	6020	0.0020	0.00012	1.0	12/18/06	12/22/2006	0.0012	J U

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project Name:	Gainesville, FL	**Date Collected:**	12/13/06
Project Number:	045006-091	**Date Received:**	12/13/06
Matrix:	WATER		

TOTAL METALS

Sample Name:	EW-10	Unit:	mg/L (ppm)
Lab Code:	J0605945-008	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Results	Result Notes
Arsenic	EPA 3020A	6020	0.00050	0.00028	1.0	12/18/06	12/22/2006	0.060	
Chromium	EPA 3020A	6020	0.0020	0.00012	1.0	12/18/06	12/22/2006	0.049	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project Name:	Gainesville, FL	**Date Collected:**	12/13/06
Project Number:	045006-091	**Date Received:**	12/13/06
Matrix:	WATER		

TOTAL METALS

Sample Name:	EW-11	Unit:	mg/L (ppm)
Lab Code:	J0605945-009	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Results	Result Notes
Arsenic	EPA 3020A	6020	0.00050	0.00028	1.0	12/18/06	12/22/2006	0.031	
Chromium	EPA 3020A	6020	0.0020	0.00012	1.0	12/18/06	12/22/2006	0.0089	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: Beazer East, Inc.
Project Name: Gainesville, FL
Project Number: 045006-091
Matrix: WATER

Service Request: J0605945
Date Collected: 12/13/06
Date Received: 12/13/06

TOTAL METALS

Sample Name: EW-13
Lab Code: J0605945-010
Test Notes:

Unit: mg/L (ppm)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Results	Result Notes
Arsenic	EPA 3020A	6020	0.00050	0.00028	1.0	12/18/06	12/22/2006	0.027	
Chromium	EPA 3020A	6020	0.0020	0.00012	1.0	12/18/06	12/22/2006	0.0016	J U

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: Beazer East, Inc.
Project Name: Gainesville, FL
Project Number: 045006-091
Matrix: WATER

Service Request: J0605945
Date Collected: 12/13/06
Date Received: 12/13/06

TOTAL METALS

Sample Name: EW-14
Lab Code: J0605945-011
Test Notes:

Unit: mg/L (ppm)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Results	Result Notes
Arsenic	EPA 3020A	6020	0.00050	0.00028	1.0	12/18/06	12/22/2006	0.042	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project Name:	Gainesville, FL	**Date Collected:**	12/13/06
Project Number:	045006-091	**Date Received:**	12/13/06
Matrix:	WATER		

TOTAL METALS

Sample Name:	EW-15	Unit:	mg/L (ppm)
Lab Code:	J0605945-012	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Results	Result Notes
Arsenic	EPA 3020A	6020	0.00050	0.00028	1.0	12/18/06	12/22/2006	0.079	
Chromium	EPA 3020A	6020	0.0020	0.00012	1.0	12/18/06	12/22/2006	0.0019	J

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: Beazer East, Inc.
Project Name: Gainesville, FL
Project Number: 045006-091
Matrix: WATER

Service Request: J0605945
Date Collected: 12/13/06
Date Received: 12/13/06

TOTAL METALS

Sample Name: EW-16
Lab Code: J0605945-013
Test Notes:

Unit: mg/L (ppm)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Results	Result Notes
Arsenic	EPA 3020A	6020	0.010	0.0057	20	12/18/06	12/28/2006	5.1	
Chromium	EPA 3020A	6020	0.0020	0.00012	1.0	12/18/06	12/22/2006	0.0053	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: Beazer East, Inc.
Project Name: Gainesville, FL
Project Number: 045006-091
Matrix: WATER

Service Request: J0605945
Date Collected: 12/13/06
Date Received: 12/13/06

TOTAL METALS

Sample Name: EW-17
Lab Code: J0605945-014
Test Notes:

Unit: mg/L (ppm)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Results	Result Notes
Arsenic	EPA 3020A	6020	0.00050	0.00028	1.0	12/18/06	12/22/2006	0.0072	
Chromium	EPA 3020A	6020	0.0020	0.00012	1.0	12/18/06	12/22/2006	0.0016	J U

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: Beazer East, Inc.
Project Name: Gainesville, FL
Project Number: 045006-091
Matrix: WATER

Service Request: J0605945
Date Collected: 12/13/06
Date Received: 12/13/06

DISSOLVED METALS

Sample Name: EW-5
Lab Code: J0605945-004
Test Notes:

Unit: mg/L (ppm)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Results	Result Notes
Arsenic	EPA 3005	6020	0.00050	0.00028	1.0	12/15/06	12/22/2006	0.047	
Chromium	EPA 3005	6020	0.0020	0.00012	1.0	12/15/06	12/22/2006	0.0010	J

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: Beazer East, Inc.
Project Name: Gainesville, FL
Project Number: 045006-091
Matrix: WATER

Service Request: J0605945
Date Collected: 12/13/06
Date Received: 12/13/06

DISSOLVED METALS

Sample Name: EW-6
Lab Code: J0605945-005
Test Notes:

Unit: mg/L (ppm)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Results	Result Notes
Arsenic	EPA 3005	6020	0.00050	0.00028	1.0	12/15/06	12/22/2006	0.0028	
Chromium	EPA 3005	6020	0.0020	0.00012	1.0	12/15/06	12/22/2006	0.0038	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: Beazer East, Inc.
Project Name: Gainesville, FL
Project Number: 045006-091
Matrix: WATER

Service Request: J0605945
Date Collected: 12/13/06
Date Received: 12/13/06

DISSOLVED METALS

Sample Name: EW-8
Lab Code: J0605945-006
Test Notes:

Unit: mg/L (ppm)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Results	Result Notes
Arsenic	EPA 3005	6020	0.00050	0.00028	1.0	12/15/06	12/22/2006	0.0092	
Chromium	EPA 3005	6020	0.0020	0.00012	1.0	12/15/06	12/22/2006	0.00079	J U

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project Name:	Gainesville, FL	**Date Collected:**	12/13/06
Project Number:	045006-091	**Date Received:**	12/13/06
Matrix:	WATER		

DISSOLVED METALS

Sample Name: EW-9
Lab Code: J0605945-007
Test Notes:

Unit: mg/L (ppm)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Results	Result Notes
Arsenic	EPA 3005	6020	0.00050	0.00028	1.0	12/15/06	12/22/2006	0.021	
Chromium	EPA 3005	6020	0.0020	0.00012	1.0	12/15/06	12/22/2006	0.00060	J

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: Beazer East, Inc.
Project Name: Gainesville, FL
Project Number: 045006-091
Matrix: WATER

Service Request: J0605945
Date Collected: 12/13/06
Date Received: 12/13/06

DISSOLVED METALS

Sample Name: EW-10
Lab Code: J0605945-008
Test Notes:

Unit: mg/L (ppm)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Results	Result Notes
Arsenic	EPA 3005	6020	0.00050	0.00028	1.0	12/15/06	12/22/2006	0.00073	
Chromium	EPA 3005	6020	0.0020	0.00012	1.0	12/15/06	12/22/2006	0.00075	X U

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: Beazer East, Inc.
Project Name: Gainesville, FL
Project Number: 045006-091
Matrix: WATER

Service Request: J0605945
Date Collected: 12/13/06
Date Received: 12/13/06

DISSOLVED METALS

Sample Name: EW-11
Lab Code: J0605945-009
Test Notes:

Unit: mg/L (ppm)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Results	Result Notes
Arsenic	EPA 3005	6020	0.00050	0.00028	1.0	12/15/06	12/22/2006	0.036	
Chromium	EPA 3005	6020	0.0020	0.00012	1.0	12/15/06	12/22/2006	0.0014	J

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project Name:	Gainesville, FL	**Date Collected:**	12/13/06
Project Number:	045006-091	**Date Received:**	12/13/06
Matrix:	WATER		

DISSOLVED METALS

Sample Name: EW-13
Lab Code: J0605945-010
Test Notes:

Unit: mg/L (ppm)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Results	Result Notes
Arsenic	EPA 3005	6020	0.00050	0.00028	1.0	12/15/06	12/22/2006	0.027	
Chromium	EPA 3005	6020	0.0020	0.00012	1.0	12/15/06	12/22/2006	0.0016	J

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: Beazer East, Inc.
Project Name: Gainesville, FL
Project Number: 045006-091
Matrix: WATER

Service Request: J0605945
Date Collected: 12/13/06
Date Received: 12/13/06

DISSOLVED METALS

Sample Name: EW-14
Lab Code: J0605945-011
Test Notes:

Unit: mg/L (ppm)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Results	Result Notes
Arsenic	EPA 3005	6020	0.00050	0.00028	1.0	12/15/06	12/22/2006	0.033	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: Beazer East, Inc.
Project Name: Gainesville, FL
Project Number: 045006-091
Matrix: WATER

Service Request: J0605945
Date Collected: 12/13/06
Date Received: 12/13/06

DISSOLVED METALS

Sample Name: EW-15
Lab Code: J0605945-012
Test Notes:

Unit: mg/L (ppm)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Results	Result Notes
Arsenic	EPA 3005	6020	0.00050	0.00028	1.0	12/15/06	12/22/2006	0.077	
Chromium	EPA 3005	6020	0.0020	0.00012	1.0	12/15/06	12/22/2006	0.0015	J

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project Name:	Gainesville, FL	**Date Collected:**	12/13/06
Project Number:	045006-091	**Date Received:**	12/13/06
Matrix:	WATER		

DISSOLVED METALS

Sample Name:	EW-16	Unit:	mg/L (ppm)
Lab Code:	J0605945-013	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Results	Result Notes
Arsenic	EPA 3005	6020	0.00050	0.00028	1.0	12/15/06	12/22/2006	4.7	
Chromium	EPA 3005	6020	0.0020	0.00012	1.0	12/15/06	12/22/2006	0.0050	

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: Beazer East, Inc.
Project Name: Gainesville, FL
Project Number: 045006-091
Matrix: WATER

Service Request: J0605945
Date Collected: 12/13/06
Date Received: 12/13/06

DISSOLVED METALS

Sample Name: EW-17
Lab Code: J0605945-014
Test Notes:

Unit: mg/L (ppm)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Results	Result Notes
Arsenic	EPA 3005	6020	0.00050	0.00028	1.0	12/15/06	12/18/2006	0.0066	
Chromium	EPA 3005	6020	0.0020	0.00012	1.0	12/15/06	12/18/2006	0.0012	J

Supporting Documentation

8540 Baycenter Road Jacksonville,Florida 32256 (904) 739-2277 (904) 739-2011 fax

Columbia Analytical Services INC.
An Employee - Owned Company

January 02, 2007 Service Request No: J0605945

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

RE: Gainesville, FL/045006-091

Dear Angela:

Enclosed are the results of the sample(s) submitted to our laboratory on December 13, 2006. For your reference, these analyses have been assigned our service request number J0605945.

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

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	**Service Request No.:**	J0605945
Project:	Gainesville, FL	**Date Received:**	12/13/06
Sample Matrix:	water		

CASE NARRATIVE

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

Sample Receipt

14 water samples were received for analysis at Columbia Analytical Services on 12/13/06. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 4±2°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

No problems were observed with this delivery group.

Semivolatile Organics by GC-MS

Surrogate Exceptions

The control criteria were exceeded for the following surrogate in samples EW-3, EW-5, and EW-9 due to suspected matrix interferences: Nitrobenzene-d5. An emulsion was formed in sample during the extraction procedure, which is suspected of adversely affecting the recovery. No further corrective action was appropriate.

The control criteria were exceeded for the following surrogates in sample EW-6 due to suspected matrix interferences: Nitrobenzene-d5 and 2-Fluorobiphenyl. An emulsion was formed in sample during the extraction procedure, which is suspected of adversely affecting the recovery. No further corrective action was appropriate.

The recovery of the following surrogate in sample EW-13 was reported from a dilution analysis due to matrix interferences: Nitrobenzene-d5. No further corrective action was appropriate.

Internal Standard Exceptions

The internal standard recovery of Naphthalene-d8 in sample EW-13 was outside control criteria because of suspected matrix interference. The sample required dilution analysis and had acceptable internal standard recovery. Affected analytes are reported from the dilution analysis.

Matrix Spike Recovery Exceptions

The control criteria for matrix spike and duplicate matrix spike recovery of most analytes for sample EW-16 are not applicable. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

Elevated Method Reporting Limits

Sample EW-13 had elevated reporting limit for 2,4-Dimethylphenol due to matrix interference (See Internal Standard Exceptions).

Approved by Tom D. Hissing Date 1/2/07

Metals by ICP-MS

Matrix Spike Recovery Exceptions

The control criteria for matrix spike recoveries of Arsenic for sample EW-16 (Total and Dissolved) are not applicable. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

Approved by Tamara D. Kissinger Date 1/2/07

Florida DEP Data Qualifiers

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

Acronyms

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

Client: Field and Technical Services, LLC
Project: Gainesville, FL/045006-091

Service Request: J0605945

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
J0605945-001	EW-1	12/13/06	09:20
J0605945-002	EW-2	12/13/06	09:30
J0605945-003	EW-3	12/13/06	09:45
J0605945-004	EW-5	12/13/06	10:00
J0605945-005	EW-6	12/13/06	10:10
J0605945-006	EW-8	12/13/06	10:15
J0605945-007	EW-9	12/13/06	10:25
J0605945-008	EW-10	12/13/06	12:45
J0605945-009	EW-11	12/13/06	10:35
J0605945-010	EW-13	12/13/06	10:45
J0605945-011	EW-14	12/13/06	11:00
J0605945-012	EW-15	12/13/06	11:10
J0605945-013	EW-16	12/13/06	14:20
J0605945-014	EW-17	12/13/06	11:20

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	JWG0604036-4	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzene	ND	U	1.0	0.088	1	12/17/06	12/17/06	JWG0604036	
Toluene	ND	U	1.0	0.13	1	12/17/06	12/17/06	JWG0604036	
Ethylbenzene	ND	U	1.0	0.12	1	12/17/06	12/17/06	JWG0604036	
m,p-Xylenes	ND	U	2.0	0.19	1	12/17/06	12/17/06	JWG0604036	
o-Xylene	ND	U	1.0	0.083	1	12/17/06	12/17/06	JWG0604036	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,2-Dichloroethane-d4	89	71-122	12/17/06	Acceptable
4-Bromofluorobenzene	86	79-120	12/17/06	Acceptable
Toluene-d8	108	88-117	12/17/06	Acceptable
Dibromofluoromethane	84	82-116	12/17/06	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Beazer East, Inc.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	JWG0604040-4	**Basis:**	NA
Extraction Method:	EPA 3540C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Phenol	ND	U	5.0	1.7	1	12/15/06	12/26/06	JWG0604040	
2-Methylphenol	ND	U	5.0	0.44	1	12/15/06	12/26/06	JWG0604040	
4-Methylphenol†	ND	U	5.0	0.73	1	12/15/06	12/26/06	JWG0604040	
2,4-Dimethylphenol	ND	U	5.0	0.53	1	12/15/06	12/26/06	JWG0604040	
Naphthalene	ND	U	5.0	0.41	1	12/15/06	12/26/06	JWG0604040	
2-Methylnaphthalene	ND	U	5.0	0.42	1	12/15/06	12/26/06	JWG0604040	
Acenaphthylene	ND	U	5.0	0.34	1	12/15/06	12/26/06	JWG0604040	
Acenaphthene	ND	U	5.0	0.32	1	12/15/06	12/26/06	JWG0604040	
Dibenzofuran	ND	U	5.0	0.44	1	12/15/06	12/26/06	JWG0604040	
Fluorene	ND	U	5.0	0.36	1	12/15/06	12/26/06	JWG0604040	
Pentachlorophenol	ND	U	20	0.39	1	12/15/06	12/26/06	JWG0604040	
Phenanthrene	ND	U	5.0	0.26	1	12/15/06	12/26/06	JWG0604040	
Anthracene	ND	U	5.0	0.26	1	12/15/06	12/26/06	JWG0604040	
Carbazole	ND	U	5.0	0.55	1	12/15/06	12/26/06	JWG0604040	
Fluoranthene	ND	U	5.0	0.26	1	12/15/06	12/26/06	JWG0604040	
Pyrene	ND	U	5.0	0.43	1	12/15/06	12/26/06	JWG0604040	
Benz(a)anthracene	ND	U	5.0	0.56	1	12/15/06	12/26/06	JWG0604040	
Chrysene	ND	U	5.0	0.51	1	12/15/06	12/26/06	JWG0604040	
Benzo(b)fluoranthene	ND	U	5.0	0.58	1	12/15/06	12/26/06	JWG0604040	
Benzo(k)fluoranthene	ND	U	5.0	0.57	1	12/15/06	12/26/06	JWG0604040	
Benzo(a)pyrene	ND	U	5.0	0.55	1	12/15/06	12/26/06	JWG0604040	
Indeno(1,2,3-cd)pyrene	ND	U	5.0	0.53	1	12/15/06	12/26/06	JWG0604040	
Dibenz(a,h)anthracene	ND	U	5.0	0.56	1	12/15/06	12/26/06	JWG0604040	
Benzo(g,h,i)perylene	ND	U	5.0	0.49	1	12/15/06	12/26/06	JWG0604040	

Comments:

Client: Beazer East, Inc.
Project: Gainesville, FL/045006-091
Sample Matrix: Water

Service Request: J0605945
Date Collected: NA
Date Received: NA

Semi-Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: JWG0604040-4

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	25	10-77	12/26/06	Acceptable
Phenol-d6	15	10-51	12/26/06	Acceptable
Nitrobenzene-d5	48	42-106	12/26/06	Acceptable
2-Fluorobiphenyl	60	43-99	12/26/06	Acceptable
2,4,6-Tribromophenol	61	30-141	12/26/06	Acceptable
Terphenyl-d14	65	23-165	12/26/06	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, FL
Project Number: 045006-091
Matrix: WATER

Service Request: J0605945
Date Collected: NA
Date Received: NA

TOTAL METALS

Sample Name: Method Blank
Lab Code: J0605945-MBW
Test Notes:

Unit: mg/L (ppm)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Results	Result Notes
Arsenic	EPA 3020A	6020	0.00050	0.00028	1.0	12/18/06	12/22/2006	U	
Chromium	EPA 3020A	6020	0.0020	0.00012	1.0	12/18/06	12/22/2006	0.00040	i

COLUMBIA ANALYTICAL SERVICES, INC

Analytical Report

Client: Beazer East, Inc.
Project Name: Gainesville, FL
Project Number: 045006-091
Matrix: WATER

Service Request: J0605945
Date Collected: NA
Date Received: NA

DISSOLVED METALS

Sample Name: Method Blank
Lab Code: J0605945-MBW
Test Notes:

Unit: mg/L (ppm)
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Results	Result Notes
Arsenic	EPA 3005	6020	0.00050	0.00028	1.0	12/15/06	12/22/2006	U	
Arsenic	EPA 3005	6020	0.00050	0.00028	1.0	12/15/06	12/18/2006	U	
Chromium	EPA 3005	6020	0.0020	0.00012	1.0	12/15/06	12/22/2006	0.00018	i
Chromium	EPA 3005	6020	0.0020	0.00012	1.0	12/15/06	12/18/2006	U	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Beazer East, Inc.
Project: Gainesville, FL/045006-091
Sample Matrix: Water

Service Request: J0605945

Surrogate Recovery Summary
Volatile Organic Compounds by GC/MS

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3	Sur4
EW-2	J0605945-002	90	84	107	84
EW-16	J0605945-013	92	85	109	87
EW-17	J0605945-014	89	86	103	85
Method Blank	JWG0604036-4	89	86	108	84
EW-16MS	JWG0604036-1	94	86	105	86
EW-16DMS	JWG0604036-2	88	89	105	87
Lab Control Sample	JWG0604036-3	93	87	107	85

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.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Extracted:**	12/17/2006
Sample Matrix:	Water	**Date Analyzed:**	12/17/2006 - 12/18/2006

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

Sample Name:	EW-16	**Units:**	ug/L
Lab Code:	J0605945-013	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B	**Extraction Lot:**	JWG0604036

Analyte Name	Sample Result	EW-16MS JWG0604036-1 Matrix Spike			EW-16DMS JWG0604036-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
Benzene	0.41	20.0	20.0	98	19.8	20.0	97	78-123	1	30
Toluene	0.72	22.8	20.0	111	23.0	20.0	111	86-119	0	30
Ethylbenzene	1.3	23.3	20.0	110	22.9	20.0	108	87-122	1	30
m,p-Xylenes	2.7	41.9	40.0	98	41.4	40.0	97	82-120	1	30
o-Xylene	1.6	21.7	20.0	100	21.8	20.0	101	85-119	1	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.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Extracted:**	12/17/2006
Sample Matrix:	Water	**Date Analyzed:**	12/17/2006

Lab Control Spike Summary
Volatile Organic Compounds by GC/MS

Extraction Method:	EPA 5030B	**Units:**	ug/L
Analysis Method:	8260B	**Basis:**	NA
		Level:	Low
		Extraction Lot:	JWG0604036

	Lab Control Sample JWG0604036-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Benzene	18.2	20.0	91	79-119
Toluene	21.1	20.0	105	86-117
Ethylbenzene	20.7	20.0	103	90-118
m,p-Xylenes	36.8	40.0	92	86-121
o-Xylene	19.4	20.0	97	89-119

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. **Service Request:** J0605945
Project: Gainesville, FL/045006-091
Sample Matrix: Water

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

Extraction Method: EPA 3540C **Units:** PERCENT
Analysis Method: 8270C **Level:** Low

Sample Name	Lab Code	Sur1	Sur2	Sur3	Sur4	Sur5	Sur6
EW-1	J0605945-001	25	14	48	59	58	60
EW-2	J0605945-002	21	12	42	50	52	58
EW-3	J0605945-003	21	12	41 #	53	67	55
EW-5	J0605945-004	18	11	34 #	48	64	51
EW-6	J0605945-005	16	10	36 #	33 #	50	29
EW-8	J0605945-006	24	14	50	56	69	58
EW-9	J0605945-007	20	11	41 #	51	61	55
EW-10	J0605945-008	21	13	43	62	70	55
EW-11	J0605945-009	22	14	46	61	73	57
EW-13	J0605945-010	24	10	56 D	60	73	49
EW-14	J0605945-011	21	17	93	57	67	50
EW-15	J0605945-012	19	12	44	55	69	54
EW-16	J0605945-013	20	13	46	56	84	51
Method Blank	JWG0604040-4	25	15	48	60	61	65
EW-16MS	JWG0604040-1	27	17	63	67	103	52
EW-16DMS	JWG0604040-2	27	17	59	61	92	49
Lab Control Sample	JWG0604040-3	30	19	61	68	69	63

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.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Extracted:**	12/15/2006
Sample Matrix:	Water	**Date Analyzed:**	12/26/2006

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

Sample Name:	EW-16	**Units:**	ug/L
Lab Code:	J0605945-013	**Basis:**	NA
Extraction Method:	EPA 3540C	**Level:**	Low
Analysis Method:	8270C	**Extraction Lot:**	JWG0604040

Analyte Name	Sample Result	EW-16MS JWG0604040-1 Matrix Spike			EW-16DMS JWG0604040-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
Phenol	ND	13.7	52.1	26	14.1	52.6	27	10-70	3	30
2-Methylphenol	ND	26.1	52.1	50	25.4	52.6	48	32-96	3	30
4-Methylphenol	ND	41.9	78.1	54	40.9	78.9	52	12-106	2	30
2,4-Dimethylphenol	0.70	34.6	52.1	65	33.6	52.6	62	35-88	3	30
Naphthalene	300	238E	52.1	-114 #	242E	52.6	-105 #	44-93	2	30
2-Methylnaphthalene	150	198E	52.1	86	182E	52.6	55	48-91	9	30
Acenaphthylene	4.2	42.9	52.1	74	42.0	52.6	72	46-95	2	30
Acenaphthene	220	211E	52.1	-16 #	202E	52.6	-34 #	48-96	5	30
Dibenzofuran	150	194E	52.1	88	180E	52.6	61	49-101	7	30
Fluorene	210	206E	52.1	0 #	192E	52.6	-25 *	54-95	7	30
Pentachlorophenol	9100	4480E	52.1	-8948#	4140E	52.6	-9497#	18-141	8	30
Phenanthrene	220	321E	52.1	190 #	292E	52.6	132 #	52-95	10	30
Anthracene	28	84.6	52.1	108 *	82.3	52.6	102 *	53-101	3	30
Carbazole	84	160	52.1	146 *	151	52.6	127 *	52-126	6	30
Fluoranthene	14	79.1	52.1	125 *	75.1	52.6	116 *	54-103	5	30
Pyrene	2.3	29.5	52.1	52	29.1	52.6	51	49-103	1	30
Benz(a)anthracene	ND	38.5	52.1	74	37.1	52.6	70	55-104	4	30
Chrysene	ND	38.2	52.1	73	37.5	52.6	71	47-105	2	30
Benzo(b)fluoranthene	ND	41.9	52.1	81	37.9	52.6	72	54-105	10	30
Benzo(k)fluoranthene	ND	31.1	52.1	60	34.8	52.6	66	50-101	11	30
Benzo(a)pyrene	ND	45.0	52.1	86	42.7	52.6	81	56-100	5	30
Indeno(1,2,3-cd)pyrene	ND	21.3	52.1	41 *	17.7	52.6	34 *	50-115	19	30
Dibenz(a,h)anthracene	ND	23.5	52.1	45	19.6	52.6	37 *	44-124	18	30
Benzo(g,h,i)perylene	ND	13.0	52.1	25 *	9.60	52.6	18 *	51-114	30	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.	**Service Request:**	J0605945
Project:	Gainesville, FL/045006-091	**Date Extracted:**	12/15/2006
Sample Matrix:	Water	**Date Analyzed:**	12/26/2006

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

Extraction Method:	EPA 3540C	**Units:**	ug/L
Analysis Method:	8270C	**Basis:**	NA
		Level:	Low
		Extraction Lot:	JWG0604040

	Lab Control Sample JWG0604040-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Phenol	12.3	50.0	25	12-54
2-Methylphenol	25.0	50.0	50	21-100
4-Methylphenol	45.0	75.0	60	15-93
2,4-Dimethylphenol	28.0	50.0	56	38-86
Naphthalene	33.0	50.0	66	44-97
2-Methylnaphthalene	35.1	50.0	70	46-97
Acenaphthylene	37.6	50.0	75	45-99
Acenaphthene	37.4	50.0	75	42-106
Dibenzofuran	36.8	50.0	74	49-103
Fluorene	37.1	50.0	74	54-97
Pentachlorophenol	29.1	50.0	58	44-120
Phenanthrene	40.3	50.0	81	52-99
Anthracene	42.1	50.0	84	52-104
Carbazole	41.8	50.0	84	48-118
Fluoranthene	43.6	50.0	87	52-110
Pyrene	31.0	50.0	62	53-100
Benz(a)anthracene	37.5	50.0	75	49-114
Chrysene	37.4	50.0	75	50-113
Benzo(b)fluoranthene	39.8	50.0	80	56-103
Benzo(k)fluoranthene	31.6	50.0	63	48-110
Benzo(a)pyrene	42.7	50.0	85	56-107
Indeno(1,2,3-cd)pyrene	41.4	50.0	83	54-115
Dibenz(a,h)anthracene	42.0	50.0	84	51-125
Benzo(g,h,i)perylene	43.1	50.0	86	53-116

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, FL
Project Number: 045006-091
Matrix: WATER

Service Request: J0605945
Date Collected: 12/13/06
Date Received: 12/13/06
Date Extracted: 12/18/06
Date Analyzed: 12/28/2006

Matrix Spike Summary
TOTAL METALS

Sample Name: EW-16S
Lab Code: J0605945-013S
Test Notes:

Unit: mg/L
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	Spike Level	Sample Results	Spiked Sample Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Arsenic	EPA 3020A	6020	0.010	0.0500	5.13	5.23	200	75-125	
Chromium	EPA 3020A	6020	0.0020	0.0500	0.00527	0.0547	99	75-125	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client: Beazer East, Inc.
Project Name: Gainesville, FL
Project Number: 045006-091
Matrix: WATER

Service Request: J0605945
Date Collected: 12/13/06
Date Received: 12/13/06
Date Extracted: 12/18/06
Date Analyzed: 12/28/2006

Matrix Spike/Matrix Spike Duplicate Summary
TOTAL METALS

Sample Name: EW-16
Lab Code: J0605945-013S J0605945-013SD
Test Notes:

Unit: mg/L
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	Spiked Sample Results	Spiked Duplicate Results	Relative Percent Difference	CAS Percent Difference Acceptance Limits	Result Notes
Arsenic	EPA 3020A	6020	0.010	5.23	5.32	1.7	20	
Chromium	EPA 3020A	6020	0.0020	0.0547	0.0563	2.7	20	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client: Beazer East, Inc.
Project Name: Gainesville, FL
Project Number: 045006-091
Matrix: WATER

Service Request: J0605945
Date Collected: NA
Date Received: NA
Date Extracted: 12/18/06
Date Analyzed: 12/22/2006

Laboratory Control Sample Summary
TOTAL METALS

Sample Name: Laboratory Control Sample
Lab Code: J0605945-LCSW
Test Notes:

Unit: mg/L
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Arsenic	EPA 3020A	6020	0.00050	0.0500	0.0507	101	80-120	
Chromium	EPA 3020A	6020	0.0020	0.0500	0.0508	102	80-120	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client: Beazer East, Inc.
Project Name: Gainesville, FL
Project Number: 045006-091
Matrix: WATER

Service Request: J0605945
Date Collected: 12/13/06
Date Received: 12/13/06
Date Extracted: 12/15/06
Date Analyzed: 12/22/2006

Matrix Spike Summary
DISSOLVED METALS

Sample Name: EW-16S
Lab Code: J0605945-013S
Test Notes:

Unit: mg/L
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	Spike Level	Sample Results	Spiked Sample Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Arsenic	EPA 3005	6020	0.00050	0.0500	4.71	4.99	560	75-125	
Chromium	EPA 3005	6020	0.0020	0.0500	0.00501	0.0526	95	75-125	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client: Beazer East, Inc.
Project Name: Gainesville, FL
Project Number: 045006-091
Matrix: WATER

Service Request: J0605945
Date Collected: 12/13/06
Date Received: 12/13/06
Date Extracted: 12/15/06
Date Analyzed: 12/22/2006

Matrix Spike/Matrix Spike Duplicate Summary
DISSOLVED METALS

Sample Name: EW-16
Lab Code: J0605945-013S J0605945-013SD
Test Notes:

Unit: mg/L
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	Spiked Sample Results	Spiked Duplicate Results	Relative Percent Difference	CAS Percent Difference Acceptance Limits	Result Notes
Arsenic	EPA 3005	6020	0.00050	4.99	4.67	6.6	20	
Chromium	EPA 3005	6020	0.0020	0.0526	0.0528	<1.0	20	

COLUMBIA ANALYTICAL SERVICES, INC

QA/QC Report

Client: Beazer East, Inc.
Project Name: Gainesville, FL
Project Number: 045006-091
Matrix: WATER

Service Request: J0605945
Date Collected: NA
Date Received: NA
Date Extracted: 12/15/06
Date Analyzed: 12/22/2006

Laboratory Control Sample Summary
DISSOLVED METALS

Sample Name: Laboratory Control Sample
Lab Code: J0605945-LCSW
Test Notes:

Unit: mg/L
Basis: NA

Analyte	Prep Method	Analysis Method	MRL	True Value	Results	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Arsenic	EPA 3005	6020	0.00050	0.0500	0.0480	96	80-120	
Arsenic	EPA 3005	6020	0.00050	0.0500	0.0492	98	80-120	
Chromium	EPA 3005	6020	0.0020	0.0500	0.0466	93	80-120	
Chromium	EPA 3005	6020	0.0020	0.0500	0.0477	95	80-120	

Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form

Client: Beazer Service Request # J0605945

Project: Gainesville FL

Cooler received on 12.13.06 and opened on 12.13.06 by KW

COURIER: (CAS) UPS FEDEX DHL CLIENT Tracking #

1	Were custody seals on outside of cooler?	Yes	(No)	N/A
2	Were seals intact, signed and dated?	Yes	No	(N/A)
3	Were custody papers properly filled out?	(Yes)	No	N/A
4	Temperature of cooler(s) upon receipt (Should be 4 +/- 2 degrees C)	0.1, 0.0, 0.1, 0.2		
5	Correct Temperature?	(Yes)	No	N/A
6	Were Ice or Ice Packs present	(Yes)	No	N/A
7	Did all bottles arrive in good condition (unbroken, etc....)?	(Yes)	No	N/A
8	Were all bottle labels complete (sample ID, preservation, etc....)?	(Yes)	No	N/A
9	Did all bottle labels and tags agree with custody papers?	(Yes)	No	N/A
10	Were the correct bottles used for the tests indicated?	(Yes)	No	N/A
11	Were all of the preserved bottles received with the appropriate preservative?	(Yes)	No	N/A

(HNO3 pH<2) H2SO4 pH<2 ZnAc2/NaOH pH>9 NaOH pH>12 (HCl pH<2)

Preservative additions noted below

12	Were all samples received within analysis holding times?	(Yes)	No	N/A
13	Were VOA vials checked for absence of air bubbles? If present, note below	(Yes)	No	N/A
14	Where did the bottles originate?	(CAS)	Client	

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

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

Client approval to run samples if discrepancies noted: Date:

SR #: J0605945 Date: 12.13.06 Initials: KW

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

	Bottle Code																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	40mL	40mL	40mL	40mL	125mL	125mL	125mL	125mL	250mL	250mL	250mL	250mL	250mL	250mL	250mL	500mL	500mL	500mL	1L	1L	1L	1L	1L	2oz	4oz	8oz	16oz	5g	100mL	Misc.
Container	G	G	G	G	P	P	P	P	P	P	P	P	P	G	G	P	P	P	P	P	G	G	G	G	G	G	G	ENC	P	Misc.
Pres.		HCl	Sodium Thiosulfate	H2SO4		HCl	H2SO4	HNO3		H2SO4	HNO3	ZnAcetate NaOH	NaOH		HNO3		H2SO4	HNO3		HNO3		HCl	H2SO4						Sodium Thiosulfate	
Req. pH	N/A	<2	N/A	<2	N/A	<2	<2	<2	N/A	<2	<2	>9	>12	N/A	<2	N/A	<2	<2	N/A	<2	N/A	<2	<2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sample #	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-001																					3									
-002		3																			2									
-003																					2									
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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

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PAGE 1 OF 2

SR # JC605945

[redacted]

Project Name: Gainesville, Fl	Project Number: 045006-091
Project Manager: Karen Fromme	Email Address:
Company/Address: Field & Technical Services 200 3rd Ave Carnegie, PA 15106	
Phone #: (412) 279-3363	FAX#: (412) 279-4332
Sampler's Signature:	Sampler's Printed Name: Mike McKinney

ANALYSIS REQUESTED (Include Method Number and

PRESERVATIVE: 0 | 1 | 2

NUMBER OF CONTAINERS

SVOCs-8270C

BTEX-8260B

Diss $ Total As, Cr

RH

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

REMARKS/ ALTERNATE DESCRIPTION

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX																
EW-1		12/13/06	0920	GW	2	2														
EW-2		12/13/06	0930	GW	5	2	3													
EW-3		12/13/06	0945	GW	2	2														
EW-5		12/13/06	1000	GW	4	2		2												
EW-6		12/13/06	1010	GW	4	2		2												
EW-8		12/13/06	1015	GW	4	2		2												
EW-9		12/13/06	1025	GW	4	2		2												
EW-10		12/13/06	1245	GW	4	2		2												
EW-11		12/13/06	1035	GW	4	2		2												
EW-13		12/13/06	1045	GW	4	2		2												

RH

SPECIAL INSTRUCTIONS/COMMENTS

RH

See QAPP ☐

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_X_ 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
_X_ IV. Data Validation Report with Raw Data
___ V. Speicalized Forms / Custom Report
Edata ___ Yes ___ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Rory Hanczar	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name:	Printed Name: Steve McMillon	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: FTS	Firm: CAS	Firm:	Firm:	Firm:	Firm:
Date/Time: 12/13/06, 14:00	Date/Time: 12-13-06 1438	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

JSCOC-08/28/06

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

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PAGE 2 OF 2

SR # J0605945
CAS Contact

Project Name: Gainesville, FL,	Project Number: 045006-091
Project Manager: Karen Fromme	Email Address:
Company/Address: Field & Technical Services 200 3rd Ave. Carnegie, PA 15106	
Phone #: (412) 279-3363	FAX#: (412) 279-4332
Sampler's Signature:	Sampler's Printed Name: Mike McKinney

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 0 1 2

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	SVOC's-8270C	BTEX-8260B	Diss. & Total As, Cr		REMARKS/ ALTERNATE DESCRIPTION
1 EW-14		12/13/06		GW	4	2		2		Arsenic only
2 EW-15		12/13/06		GW	4	2		2		
3 EW-16-MS		12/13/06		GW	7	2	3	2		MS
4 EW-17		12/13/06		GW	5		3	2		
EW-16		12/13/06			7	2	3	2		
EW-16-MSD		12/13/06			7	2	3	2		MSD

RH

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS

See QAPP ☐

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_X_ 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
_X_ IV. Data Validation Report with Raw Data
____ V. Speicalized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature:	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: Rory Hanczar	Printed Name: Steve McMillen	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: FTS	Firm: CAS	Firm:	Firm:	Firm:	Firm:
Date/Time: 12/13/06	Date/Time: 12-13-06 14:38	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

JSCOC-08/28/06