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January 6, 2011

Mr. Terry Fox, L.G.  
North Carolina Department of Transportation  
Geotechnical Engineering Unit  
1589 Mail Service Center  
Raleigh, North Carolina 27699-1589

Reference: Gilliani Property Groundwater Assessment and Engineering Analysis  
1426 US 19 East  
Spruce Pine, Mitchell County, North Carolina  
NCDOT Tip No. R-2519B  
WBS Element 35609.1.1  
AECOM Project No. 60187195

Dear Mr. Fox:

AECOM Technical Services of North Carolina, Inc., (AECOM) has completed the groundwater assessment and engineering analysis conducted for the above-referenced property. The work was performed in accordance with the Technical and Cost proposal dated November 4, 2010, and the North Carolina Department of Transportation's (NCDOT's) Notice to Proceed dated November 4, 2010. Activities associated with the assessment consisted of collecting and analyzing groundwater samples, installing piezometers, and providing an engineering analysis of stream construction methods with respect to contaminated media. The purpose of this report is to document the field activities, present the laboratory analyses, and provide recommendations regarding the property.

### **Location and Description**

The Anwer Gilliani Property is located at 1426 US 19E in Spruce Pine, North Carolina. The property is situated on the southwest quadrant of the intersection of US 19E and Old US 19E (Figure 1). Based on a previous Preliminary Site Assessment report (PSA) conducted by AECOM, the site is an active gas station/convenience store (Samir's 8 Gas Station) where five underground storage tanks (USTs) are located. Also located on the property are a former used car lot (Auto Locators LLC) on the west side of the property and an auto repair shop (Summit Repair Shop) on the east side of the building. A small ATM and telephone booth are situated on the easternmost part of the property (Figure 2). According to available information in the North Carolina Department of Environment and Natural Resources (NCDENR) tank registration database, the USTs consist of one 10,000-gallon, one 6,000-gallon, and one 4,000-gallon gasoline tank; one 4,000-gallon diesel fuel tank; and one 3,000-gallon kerosene tank. The structure on the property is a single-story block building with an asphalt parking area. The USTs are located near the northwest corner of the building.

According to the NCDOT, a proposed right-of-way for improvements to US 19 will encompass the Gilliani property. In early to mid-2008, a NCDOT drilling crew encountered soil containing petroleum odors on the west side of the used car lot. The subsequent AECOM PSA indicated that no USTs, other than the registered tanks, were detected on the property. The report also indicated that a significant portion of the property contained subsurface soil contamination in the form of petroleum hydrocarbons (Figure 2). Based on laboratory results of soil samples for total petroleum hydrocarbons, an action level of 10 milligrams per kilogram (mg/kg), and the horizontal and vertical extent of contamination, AECOM estimated a total contaminated soil volume of approximately 3,600 cubic yards for the site.

Part of the road improvements for the area of the Gilliani property includes a stream relocation as shown on Figure 2. According to the NCDOT, the relocated drainage feature will be constructed through the highest concentrations of soil contamination. The anticipated stream depth is averages 14 feet below ground surface (bgs). Because no groundwater analytical data or depth to groundwater information were available, the ability of AECOM to assist NCDOT with evaluation of health and safety concerns relative to construction or surface water risk reduction considerations to be developed, AECOM conducted a preliminary assessment of groundwater conditions. These data were then used to develop a preliminary engineering analysis of potential construction methods.

### **Groundwater Assessment Activities**

In outlining the groundwater assessment with the NCDOT, AECOM was advised that the purpose of the assessment would be to determine the depth of groundwater with respect to the bottom of the proposed drainage feature and to collect groundwater samples for analysis. In order to evaluate the seasonal changes in groundwater depth, piezometers were necessary to permit NCDOT personnel to gauge water levels over time. Six piezometers were installed and additional groundwater samples were collected with Geoprobe equipment.

On November 15-17, 2010, AECOM mobilized to the site to conduct a Geoprobe® direct push investigation to evaluate groundwater conditions throughout the Gilliani Property. Direct push technology (Regional Probing of Wake Forest, North Carolina) was used to eliminate investigation-derived waste. The initial work was to install six piezometers as shown on Figure 2. Because the piezometers would be in-place for more than five days and were located in high-traffic areas, they were installed as permanent wells. A 2-inch diameter probe was advanced to refusal, between 15 and 20 feet, to intercept groundwater. A sufficient amount of 1-inch diameter, factory-slotted, flush-threaded screen was installed through the probe from the bottom of the piezometers to within 5 feet bgs. The probe was removed and sand was placed in the annulus to a depth 2 feet above the screen and a one-foot bentonite seal placed on top of the sand pack. The piezometers were finished with a flush-mounted well vault with a lockable expanding cap. Attachment A includes Well Construction Records for each piezometer.

Following installation, the piezometers were allowed to equilibrate overnight. Prior to sampling, the groundwater depth was measured and recorded. An elevation survey for the piezometers was conducted using a temporary benchmark of 2628 feet at the southwest corner of the building. The groundwater elevations calculated from the survey (Table 1) were used to construct a groundwater elevation map (Figure 3). The potentiometric contours suggest that groundwater flow is to the northwest toward the confluence of the existing stream and Brushy Creek. Following the groundwater depth measurements, AECOM purged the piezometers with a peristaltic pump and discharged the purge water in accordance with North Carolina Department of Environment and Natural Resources (NCDENR) guidelines. A groundwater sample was collected from each piezometer and the samples were submitted, under standard chain-of-custody procedures, to Prism Laboratories in Charlotte, North Carolina, for analysis. All the samples were analyzed for volatile organic compounds (VOCs) using EPA Method 6200B. Based on the soil contamination results, one sample, from piezometer PZ-4, was submitted for analysis of semi-volatile organic compounds (SVOCs) using EPA Method 8270.

After completion of the piezometers, groundwater samples were collected from eight of the nine additional Geoprobe borings (Figure 2). Borings were advanced using one-inch diameter Geoprobe screens until refusal was encountered. Boring GW-1 was advanced to a depth of 9.5 feet bgs and the screen was opened. However, no groundwater was observed. Consequently, no groundwater sample was collected for boring GW-1. Borings GW-2 through GW-9 were advanced to depths ranging from 14.5 to 24 feet bgs. At refusal, the screen was opened and a groundwater sample collected. The samples were transported, under standard chain-of-custody procedures, to Prism Laboratories, for analysis. All the samples were analyzed for VOCs using EPA Method 6200B. Based on the soil contamination results, two samples, from borings GW-2 and GW-3, were submitted for analysis of SVOCs using EPA Method 8270.

One aspect of engineering design to effectively manage groundwater seepage into the ditch is the hydraulic conductivity of the water-bearing material. During groundwater collection, AECOM noted the relative ease with which groundwater entered the boring. As a result, AECOM conducted an inverse specific capacity test on five of the sampling points. The inverse specific capacity test involves measuring the discharge volume over time for a drawdown and calculating hydraulic conductivity. John T. Wilson, et.al., published a paper entitled "Field Estimation of Hydraulic Conductivity for Assessments of Natural Attenuation" in which the inverse specific capacity test is described. The test was conducted by driving a Geoprobe screen to a depth below the top of the water table, or by using the piezometers. The water level was allowed to reach equilibrium and a polyethylene tube was inserted into the well at a distance below the static water level. Water was pumped, via peristaltic pump, at a rate that produced both air and water. The well was pumped until the discharge rate came to equilibrium and the time required to collect 100 milliliters (ml) was recorded. Inverse specific capacity was calculated in milliliters per second per centimeter of drawdown. These results were then multiplied by a calibration factor (generally 0.03) and the estimated hydraulic conductivity calculated (Table 2). Several sources indicate that the test results are comparable to slug test results. The inverse specific capacity test was conducted on piezometers PZ-1, PZ-2, and PZ-3, and on groundwater sampling

points GW-3 and GW-7 (Figure 2). Calculations presented in Table 2 suggest that the estimated hydraulic conductivity at the site ranges from  $2.98 \times 10^{-2}$  to  $5.55 \times 10^{-4}$  centimeters per second (cm/sec). The average conductivity for the site was estimated to be  $8.06 \times 10^{-3}$ , which is consistent with the type of material (fine-grained sand and silt) encountered at the site. This information can be used to evaluate relative seepage that can be expected into the proposed ditch cut for estimating the amount of dewatering that may be required.

### **Discussions with Site Personnel**

During the course of the assessment work, AECOM had discussions with several personnel that either worked at the site or had personal knowledge of the area. According to these sources, the site was backfilled with tailings from the local feldspar mine. These tailings were used until about 1980 instead of engineered fill to minimize settlement. The tailings were a soft powder that compacted easily and firmly. According to the on-site and various on-line sources, part of the feldspar mining process is separating the feldspar from mica and quartz. This process is accomplished by a technique of froth floatation where the specific mineral is floated on foam to separate it from the remaining ore. While hydrofluoric acid is used for the foam, the on-site sources state that fuel oil was also used. Consequently, the tailings used for backfill on the property, and in other areas of Mitchell County, may have contained concentrations of fuel oil (which would show up on a laboratory analysis as diesel range organics). This information appears to coincide with the areas of highest TPH concentrations detected during the PSA. According to the sources, no underground storage tanks have ever existed in the gravel-covered parking area on the west side of the property, but the TPH concentrations are highest in this area. This area is also the one where most of the tailings for backfill were used. Therefore, soil contamination at the site may be from an off-site source as opposed to releases from tanks.

### **Analytical Results**

Based on the laboratory reports, summarized in Table 3 and presented in Attachment B, VOCs were detected in eight of the fourteen groundwater samples collected from the site and SVOCs were detected in two of the three groundwater samples collected for that analysis. Groundwater samples PZ-2, PZ-3, GW-5, GW-7, GW-8, and GW-9 contained no VOC concentrations above the method quantitation limit. Groundwater sample GW-3 contained no SVOC concentrations above the method quantitation limit. The action levels for compounds detected in groundwater are the groundwater quality standards established in 15A NCAC 2L "Classifications and Water Quality Standards Applicable to the Groundwaters of North Carolina." According to these standards, only naphthalene in samples PZ-4 (47 micrograms per liter ( $\mu\text{g/l}$ )), PZ-6 (7.1  $\mu\text{g/l}$ ), and GW-2 (9.4  $\mu\text{g/l}$ ) were present at concentrations above its standard of 6  $\mu\text{g/l}$ . No other compounds were detected above the respective groundwater quality standards. Because the stream will be constructed through the contamination, potential exists for groundwater to discharge into the proposed drainage feature. As such, the analytical results were compared to the surface water standards established in 15A NCAC 2B "Surface Water and Wetlands Standards." In addition, the stream may be classified as a trout stream and more stringent requirements may

be applied. After a comparison of the analytical results and the surface water standards, toluene detected in samples PZ-1 (0.76 µg/l) and PZ-4 (1.0 µg/l) was present above the surface water standard for trout waters of 0.36 µg/l. Additionally, no Class C trout water standard is established for several other VOCs and SVOCs that were detected at multiple locations. If the drainage feature is classified as Class C only, the toluene results would be below the standard of 31.1 µg/l.

## Engineering Analysis

AECOM has prepared this conceptual design approach and the accompanying conceptual level cost estimate to assist NCDOT with decisions regarding construction through the Gilliani Property. Our understanding of the NCDOT work to be conducted involves:

- Widening of US 19E, which will encroach upon the Gilliani Property (currently a gas station)
- Rerouting of the drainage feature located on the South side of US 19
- Open channel construction of the proposed drainage feature

Rerouting the drainage feature, and potentially widening the road, may result in contact with petroleum-contaminated media, as identified during the 2008 EarthTech site investigation and the November 2010 AECOM groundwater sampling. As a result, AECOM has evaluated construction techniques associated with the primary NCDOT routing that bring the drainage feature through the Gilliani property. The layout, assumptions, and construction techniques are outlined as follows.

Overall assumptions made for construction methodologies and cost estimating include:

- Table 1 shows data concerning the groundwater and depth to drilling probe refusal
- The existing drainage ditch and the receiving creek are considered Waters of the State
- Groundwater is impacted with petroleum hydrocarbons, Table 2; and as such will require alternate construction to prevent the inflow of groundwater into the drainage feature that could lead to subsequent surface water quality violations
- Groundwater flows from the southeast to the northwest (Figure 3)
- Soil is known to be contaminated with petroleum products
- Contaminated soil cannot be reused for backfill once excavated unless treatment is provided. However, according to the previous PSA, the upper 5 feet of material is considered unaffected and can therefore be used for backfill.
- Subgrade material is suitable for use without amending it for strength purposes.
- Structures and utilities associated with the former service station will be removed prior to construction work.
- Surface and invert elevations were taken from cross-sections provided by NCDOT for stations 320+00 and 323+00. Table 1 shows the relationship between the assumed elevations of the piezometers and the elevations extrapolated from stations 320+00 to

325+00. This relationship was developed to provide a conceptual site model and should not be construed as a site survey.

- Surface elevation is approximately 2628 above mean sea level (amsl)
- Invert elevation at station 325+00, the upgradient point of stream reroute, is 2,618 ft amsl
- Invert elevation at station 322+50, where the stream reroute encounters impacted soil and groundwater is 2,615 feet amsl.
- Invert elevation at station 320+00, the downgradient point of stream reroute, is 2,611.25 feet amsl.
- Activities (and costs) associated with permitting for the project (in whole or part) are not included in this analysis. Some options such as culvert installation over 300 feet require different levels of stormwater permitting.
- During groundwater sample collection and piezometer installations, the tool hit refusal at varying depths across the site. The source of this variability could be that either undulating original ground surface in the filled areas, saprolite, or boulders were encountered. As such, no competent bedrock is assumed present for the depths of the proposed stream excavations.
- Construction associated with excavation/removal, transport, and disposal of contaminated media is estimated to be one month.

Based on the assumptions and information above, the occurrence (depth and flow direction) and condition of groundwater (presence of petroleum hydrocarbons) is expected to have a substantial affect on the construction. AECOM continues to recommend, at a minimum, monthly collection of groundwater gauging data at the piezometers installed in November 2010 (Attachment C). These data will assist in determining the changes in water table that are to be expected over time, and therefore the magnitude of the forces that might need to be overcome during design of the drainage feature to prevent the inflow of contaminated groundwater as well as to overcome buoyancy factors for the potential liners.

#### Construction Technique Evaluation

The construction of a drainage feature through contaminated media can result in short term project hazards such as potential worker exposure and costs such as offsite disposal of contaminated soil and dewatering considerations. In addition, long term hazards are present such as impacts to surface water (at the site and down stream) since the bottom of the feature will likely be in contact with contaminated soil and/or groundwater. As such, the costs associated with the layouts are sensitive to the following potential hazards:

- Short Term
  - Minimizing construction worker exposure to soil and groundwater
  - Minimizing the amount of soil that must be disposed off site as contaminated
  - Minimizing the amount of water that might need to be removed, treated, and disposed during construction

- Long Term
  - Preventing contaminated water from entering the drainage feature
  - Providing sufficient clean soil at the base of the drainage feature to prevent leaching of petroleum contaminants to the feature

In order to minimize the long term and short term potential impacts, the following construction techniques were evaluated. Each technique provides the ability to mitigate long term hazards presented above. A discussion of short term hazard reductions for each technique is provided below. Note that an open soil-based channel is not an option since soil and groundwater are known to be impacted.

1. Construction Technique 1 - Culvert installation (standard concrete box culvert)
  - Short Term Hazard Reduction
    - Reduces the amount of soil that will need to be removed (and disposed) as compared to an open drainage feature if trench boxes can be used for construction.
    - Dewatering would be limited to shorter sections of culvert installation and only be necessary to the depth of the subgrade for the culvert.
  - Description of Technique
    - Standard excavation of overburden soils (portion reused for backfill)
    - Use of trench boxes for slope stability
    - Sump dewatering and subsequent treatment prior to disposal
    - Seam sealing for prevention of groundwater infiltration or leachate from contaminated soil into culvert
    - 320 feet of double box culvert; assumed same size as that shown upstream
2. Construction Technique 2 - HDPE lining of the bottom of the trench (likely to require a armoring over HDPE for protection from scouring)
  - Short Term Hazard Reduction
    - No significant short term hazard reduction during construction
    - Continuous venting of excavation may be needed to allow workers to enter the trench
  - Description of Technique
    - Standard Excavation of overburden soils
    - Use NCDOT geometry for original open trench layout
    - Over-excavate 2-feet in all dimensions
    - Place HDPE liner up to within 5 feet below grade to protect against contaminated groundwater infiltration and leachate from contaminated soil entering the drainage feature
    - Place 2-feet of rock and soil with plantings for HDPE protection (armoring)
    - Plant armoring of upper 5 feet of feature

3. Construction Technique 3 - Soil mixing to create a stable channel base (uses track hoe mixing of stabilizing material/concrete to create a low permeability/low leaching material that can be shaped into the base of the channel)

- Short Term Hazard Reduction
  - Reduces worker exposure by using mechanical mixing (unlikely to need to be in the excavation)
  - Reduces the need to dewater because mixing can be completed in the wet
- Description of Technique
  - Standard excavation of overburden soils
  - Use NCDOT geometry for original open trench layout
  - Over-excavate 2.5-feet in all dimensions within contaminated media
  - Track-hoe mixing of top 1 foot of exposed soil with hydrated cement-bentonite grout
  - Track-hoe placement of mixed soil-cement in 1.5-foot thick layer to cure in place and form continuous low-permeability barrier to groundwater
  - Place 2-feet of rock/soil with plantings to cover soil-cement barrier
  - Construct and armor the stream bank and channel (channel is underlain by 2 feet of soil and soil-cement barrier)

4. Construction Technique 4 - Concrete channel lining of the bottom of the trench (no soil protection provided for concrete channel)

- Short Term Hazard Reduction - No significant short term hazard reduction during construction
- Description of Technique
  - Standard excavation of overburden soils
  - Use NCDOT geometry for original open trench layout
  - Mudslab installation at base for stability
  - Place concrete up to 5 feet below grade along 250 feet of the alignment to protect against contaminated groundwater infiltration and leachate from contaminated soil entering the drainage feature
  - Armoring and planting of upper 5 feet for long term stability
  - Remaining 70 feet to be open channel excavation (no costs provided)

### Cost Evaluation

The cost evaluation presented in Table 5 was used to evaluate the relative costs associated with the different construction techniques. Also note that only those costs associated with encountering contaminated material is included. Therefore, AECOM has not provided costs for the following:

- Design of the basic routing of the channel; but costs do include the design and planning of the work that is associated with the contaminated media
- Temporary stockpiling of reused soil, transportation and disposal of reusable or contaminated soil

- Permitting of the project or the discharge of treated groundwater
- Permitting of the project from a stormwater perspective
- Backfilling of existing drainage feature not included

Note that the cost estimate provided in Table 5 is a feasibility level estimate that has accuracy on the order of +40% to -30%. This table was developed using industry-accepted unit rates for materials, labor, and equipment, and AECOM-estimated quantities for the project. A detailed cost analysis is beyond the scope of this report; however, a breakdown of estimated costs can be supplied upon request. If desired, AECOM can prepare a reevaluation of the cost estimate to provide a greater degree of accuracy upon receipt of further information from NCDOT, such as an understanding of the groundwater fluctuations over time, and discussions related to long term liability of the contaminated site.

Two additional considerations should be evaluated:

- NCDOT may want to consider alternate geometries for the relocated drainage feature that make it shallower (and wider) through the main portion of the site. If this were possible, only the down gradient end of the feature might need to be lined, as the elevation at the point of discharge to Brushy Creek is unlikely to be altered.
- NCDOT should also consider the leaching potential of the soils into the drainage feature. In our analysis we have assumed that the liner would need to extend up to approximately 5 feet from the surface. If the soils are not expected to leach (which can be analytically tested), then the liner (be it concrete or HDPE, for example) could be placed only in the portions of the drainage feature which are expected to contact groundwater, thereby providing cost reductions.

## Conclusions and Recommendations

A groundwater assessment was conducted to evaluate the Anwer Gilliani Property located at 1426 US 19E in Spruce Pine, Mitchell County, North Carolina. Six piezometers and nine borings were advanced to collect groundwater samples and water elevation data to evaluate the groundwater conditions throughout the property. The laboratory reports of the groundwater samples from these borings suggest that naphthalene concentrations in two of the piezometers and one of the Geoprobe samples were present above the groundwater quality standards and toluene was present at concentrations above the trout stream surface water standards in two sample points.

On the basis of the analytical data, site observations, and information supplied by the NCDOT, AECOM conducted a preliminary engineering analysis of four construction techniques that may be appropriate for the proposed drainage feature relocation. From the perspective of technical feasibility, all four construction techniques are viable. The comparison of costs suggests that HDPE and soil mixing are initially the most cost effective; however, these techniques require the

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most excavation and handling of contaminated soil. Costs for contaminated soil excavation and handling vary widely, depending on the disposal method.

The engineering analysis was prepared based on the groundwater elevation obtained for this report. AECOM recommends that additional groundwater elevation data be collected at least once per month for a minimum of six months beginning in January 2011. This information can then be used to further evaluate groundwater elevation trends versus the bottom of the stream relocation. Significant rises in groundwater elevation may cause one or more of the construction techniques analyzed within this report to become more expensive or less viable due to the amount of contaminated groundwater encountered. For the convenience of the NCDOT, a sample field form for recording water level information is provided in Attachment C.

AECOM appreciates the opportunity to work with the NCDOT on this project. Because compounds were detected above the groundwater quality standards in the groundwater samples, AECOM recommends that a copy of this report be submitted to the Division of Waste Management, UST Section, in the Asheville Regional Office. If you have any questions, please contact me at (919)854-6238.

Sincerely,



Michael W. Branson, P.G.  
Project Manager



Stephanie R. Knight, P.E.  
Senior Principal Engineer

Attachments

c: Project File

TABLE 1

**GROUNDWATER AND INVERT ELEVATIONS**  
**GILLIANI PROPERTY**  
**SPRUCE PINE, MITCHELL COUNTY, NORTH CAROLINA**  
**WBS NO. 35609.1.1**

Sample Location	Surface Elevation (ft)	TOC Elevation (ft)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft)	Depth to Tool Refusal (ft)	Refusal Elevation (ft)	Height of Groundwater above Refusal (ft)	Approximate Invert Elevation (ft)	Height of Groundwater above Invert (ft)
PZ-1	2628	2626.89	12.90	2613.99	15.0	2613.0	0.99	NN	NN
PZ-2	2628	2626.11	12.57	2613.54	15.5	2612.5	1.04	2611.79	1.75
PZ-3	2628	2626.86	12.22	2614.64	20.5	2607.5	7.14	NN	NN
PZ-4	2628	2627.61	9.46	2618.15	15.5	2612.5	5.65	NN	NN
PZ-5	2628	2625.73	11.33	2614.40	18.0	2610.0	4.40	NN	NN
PZ-6	2628	2626.32	9.41	2616.91	16.0	2612.0	4.91	NN	NN
GW-1	2628	NA	NA	NA	9.5	2618.5	NA	NN	NN
GW-2*	2628	NA	NA	2614.00	15.0	2613.0	1.00	2612.81	1.19
GW-3*	2628	NA	NA	2614.50	14.5	2613.5	1.00	2614.27	0.23
GW-4*	2628	NA	NA	2614.50	16.0	2612.0	2.50	NN	NN
GW-5*	2628	NA	NA	2614.50	23.0	2605.0	9.50	NN	NN
GW-6*	2628	NA	NA	2615.50	16.0	2612.0	3.50	2615.00	0.50
GW-7*	2628	NA	NA	2616.00	24.0	2604.0	12.00	2615.57	0.43
GW-8*	2628	NA	NA	2616.50	17.0	2611.0	5.50	2616.27	0.23
GW-9	2628	NA	NA	NA	24.0	2604.0	NA	NN	NN

NA-Not applicable, no casing was set for these locations.

NN-Not necessary; location is not within the alignment of the drainage feature.

TOC-Top of casing

\*Groundwater elevation interpolated from groundwater contour map

Assumed elevation of 2628 feet assigned to temporary benchmark at southwest corner of building.

**TABLE 2**  
**HYDRAULIC CONDUCTIVITY CALCULATIONS**  
**GILLIANI PROPERTY**  
**SPRUCE PINE, MITCHELL COUNTY, NORTH CAROLINA**  
**WBS NO. 35609.1.1**  
**AECOM PROJECT NO. 60187195**

ID	VOLUME (ml)	TIME (sec)	DRAWDOWN (cm)	CALCULATION FACTOR	CALCULATED K
PZ-1	100	93.80	57.61	0.03	5.55E-04
PZ-2	100	39.25	30.48	0.03	2.51E-03
PZ-3	100	10.00	10.06	0.03	2.98E-02
GW-3	100	32.67	48.16	0.03	1.91E-03
GW-7	100	16.23	33.53	0.03	5.51E-03

Calculations derived from John Wilson, et.al, "Field Estimation of Hydraulic Conductivity for Assessments of Natural Attenuation."

Groundwater Sample Analytical Results															
Spruce Pine, Mitchell County, North Carolina															
WBS No. 35609.1.1															
Project No. 60187195															
Analytical Method															
Contaminant of Concern															
Sample ID	Date Collected	Benzene	Ethylbenzene	Toluene	MTBE	Xylenes (Total)	6200B (VOC)								
PZ-1	11/16/2010	0.05	0.57	0.76	<1.0	0.51	<0.05	<0.05	<0.05	<0.05	<1.0	NS	NS	NS	NS
PZ-2	11/16/2010	0.05	<1.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1.0	NS	NS	NS	NS
PZ-3	11/16/2010	0.05	<1.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1.0	NS	NS	NS	NS
PZ-4	11/16/2010	0.05	2.5	1.0	<1.0	47	13	2.6	9.5	1.0	2.2	3.5	2.9	4.4	47
PZ-5	11/17/2010	0.05	<1.5	1.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<1.0	1.8	NS	NS	NS
PZ-6	11/17/2010	0.05	<0.05	<1.5	<0.05	43	13	1.6	0.76	2.4	1.6	9.4	<10	3.9	<10
GW-2	11/16/2010	0.05	0.80	<1.0	13	3.8	1.6	<0.05	<0.05	0.76	2.4	1.6	9.4	<10	<10
GW-3	11/16/2010	0.05	<0.05	<1.5	<0.05	0.52	2.1	0.56	0.05	0.52	0.59	0.54	1.2	NS	NS
GW-4	11/16/2010	0.05	<0.05	<1.5	<0.05	0.56	1.0	<0.05	<0.05	0.56	0.59	0.54	1.2	NS	NS
GW-5	11/17/2010	0.05	<0.05	<1.5	<0.05	0.56	1.0	<0.05	<0.05	0.56	0.59	0.54	1.2	NS	NS
GW-6	11/17/2010	0.05	0.69	<1.0	4.7	1.3	0.56	<0.05	<0.05	0.56	0.8	0.56	5.0	NS	NS
GW-7	11/17/2010	0.05	<0.05	<1.5	<0.05	0.56	1.0	<0.05	<0.05	0.56	0.8	0.56	5.0	NS	NS
GW-8	11/17/2010	0.05	<0.05	<1.5	<0.05	0.56	1.0	<0.05	<0.05	0.56	0.8	0.56	5.0	NS	NS
GW-9	11/17/2010	0.05	<0.05	<1.5	<0.05	0.56	1.0	<0.05	<0.05	0.56	0.8	0.56	5.0	NS	NS
15A NACC 2L GWQS	1	600	500	20	400	400	NE								
Class C Surface Water Standards (TROUT)	51	NE	0.36	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

Blue shaded areas are concentrations detected above the surface water quality standard.  
Yellow shaded areas are concentrations detected above the groundwater quality standard.  
All results are expressed in ug/l unless stated otherwise.  
Bold-face concentrations were detected above the method detection limit.  
NE = Not established  
6200B = EPA Method 6200B for volatile organics  
8270 = EPA Method 8270 for semivolatile organics  
j = Estimated laboratory value

**TABLE 4**

**CONSTRUCTION COST EVALUATION**  
**GILLIANI PROPERTY**  
**SPRUCE PINE, MITCHELL COUNTY, NORTH CAROLINA**  
**WBS NO. 35609.1.1**

Item	Construction Technique			
	Culvert	HDPE	Soil Mixing	Concrete
<b>Costs for Addressing Contaminated Media</b>				
Design (15% of below)	\$115,000	\$48,200	\$51,200	\$55,600
Dewatering and water treatment	\$55,000	\$56,500	\$56,500	\$56,500
Worker Protection	\$49,000	\$49,000	\$49,000	\$49,000
Excavation	\$82,000	\$51,250	\$53,100	\$51,250
Long term groundwater infiltration protection	\$581,000	\$164,000	\$183,000	\$214,250
Cost Subtotal	\$882,000	\$368,950	\$392,800	\$426,600
<b>DOT Provided Costs Necessary to Complete Estimate</b>				
Design of project (route, materials, plans and specifications)	TBD	TBD	TBD	TBD
Excavation of clean overburden (with temporary stockpiling for reuse)	1,900 yds <sup>3</sup>	4,600 yds <sup>3</sup>	4,600 yds <sup>3</sup>	4,600 yds <sup>3</sup>
Excavation of contaminated soil (with direct load to transport off site)	1,700 yds <sup>3</sup>	5,650 yds <sup>3</sup>	6,020 yds <sup>3</sup>	5,650 yds <sup>3</sup>
Backfill and compaction of soil	1,900 yds <sup>3</sup>	1,900 yds <sup>3</sup>	1,900 yds <sup>3</sup>	NA
Remaining clean soil for reuse elsewhere on site	0 yds <sup>3</sup>	2,700 yds <sup>3</sup>	2,700 yds <sup>3</sup>	4,600 yds <sup>3</sup>

NA-Not applicable

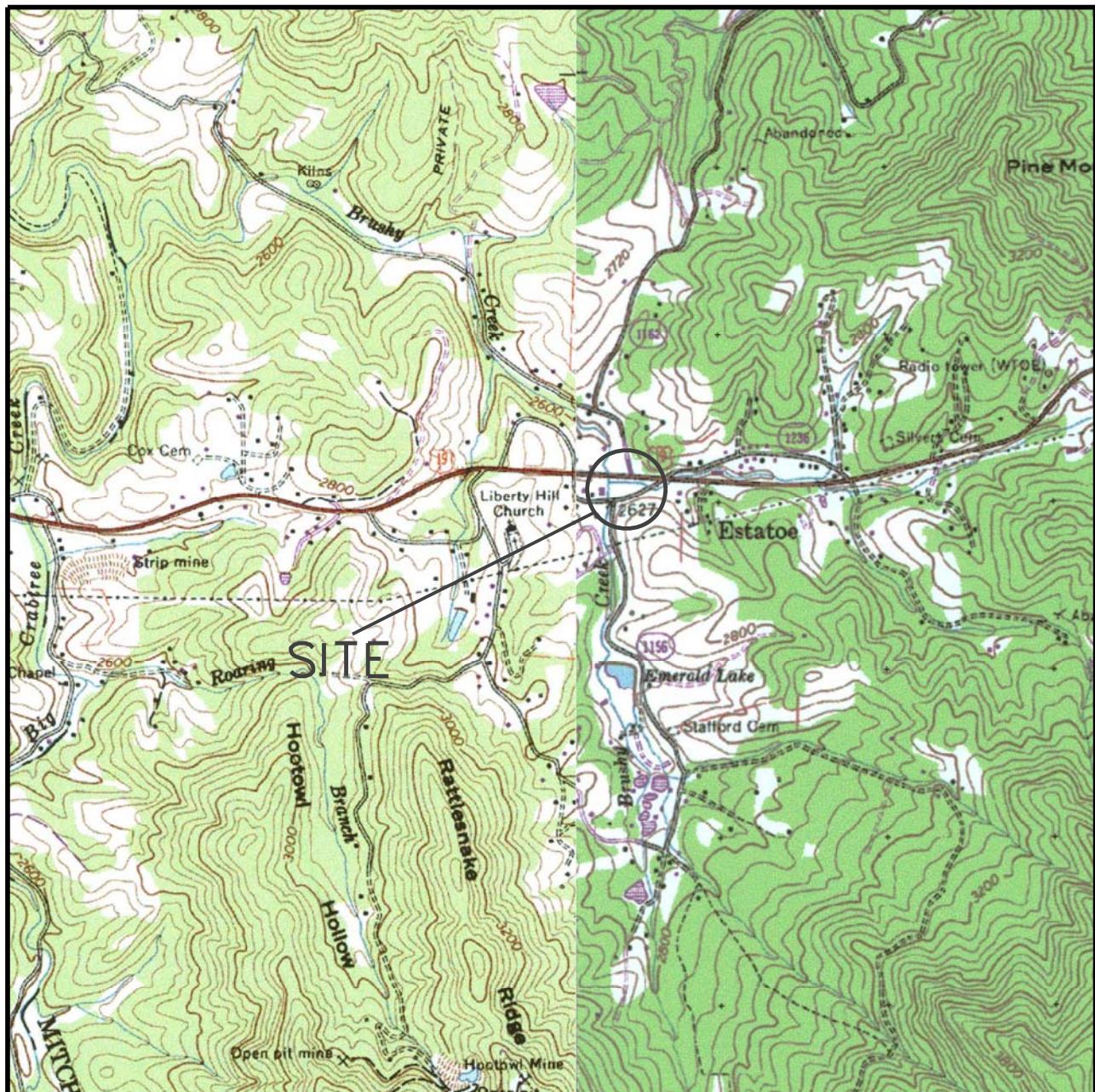
TBD - To be determined

yds<sup>3</sup> - cubic yards

Transportation and disposal of contaminated soil can be on the order of \$80-\$100 per ton, assuming it meets the criteria as alternate cover at a Subtitle D landfill and depending on the location of the landfill (1 yd<sup>3</sup> is approximately equal to 1.5 ton).

Contaminated soil quantities derived from AECOM's "Preliminary Site Assessment, Gilliani Property," dated September 12, 2008.

## **FIGURES**



SCALE 1:24,000

1       $\frac{1}{2}$       0      1 MILE

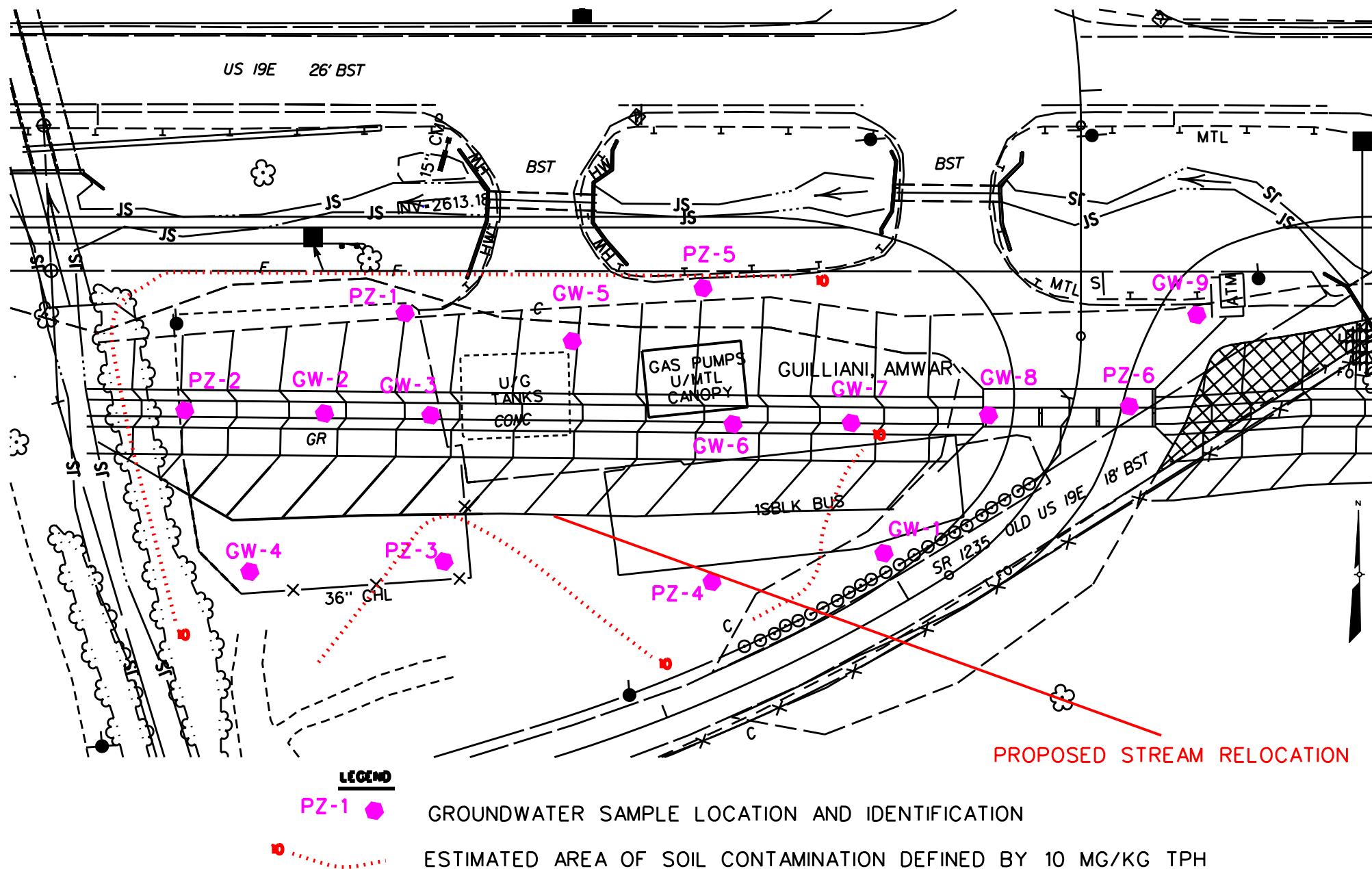
1000    0    1000    2000    3000    4000    5000    6000    7000 FEET

1      .5      0      1 KILOMETER

SOURCE: U.S. GEOLOGICAL SURVEY 7.5 MIN QUADRANGLE: MICAVILLE, NC (REV 1978) AND SPRUCE PINE, NC (REV 1990)

**AECOM**

**FIGURE 1**  
**LOCATION MAP**  
GILLIANI PROPERTY  
SPRUCE PINE, MITCHELL COUNTY, NORTH CAROLINA  
NOVEMBER 2010  
60187195



A horizontal graphic scale bar with tick marks at 0, 25, and 50. The word "GRAPHIC" is printed below the scale.

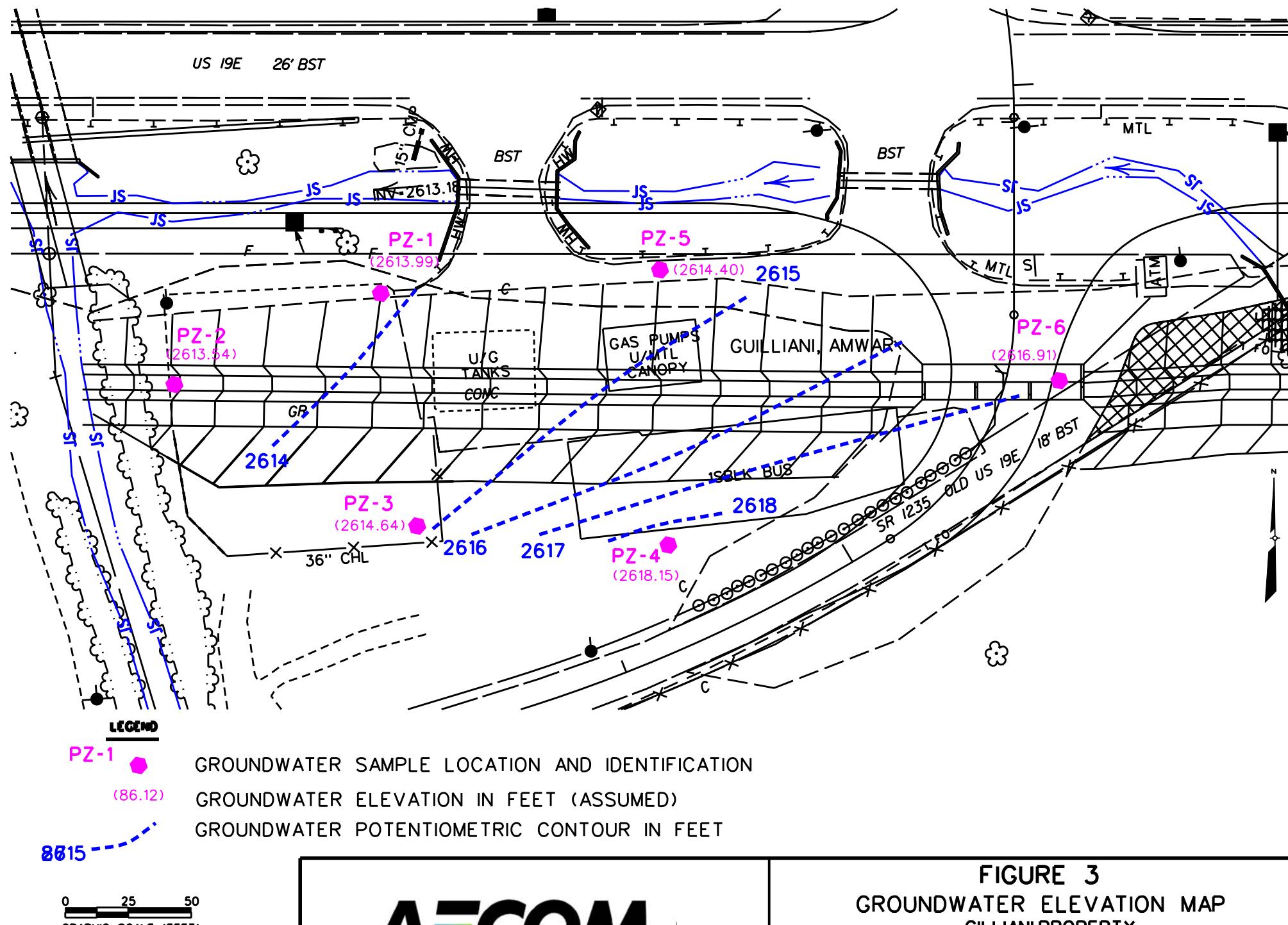
**AECOM**

## **FIGURE 2 SITE MAP GILLIANI PROPERTY**

**SPRUCE PINE, MITCHELL COUNTY, NORTH CAROLINA**

NOVEMBER 2010

60187195



**FIGURE 3**  
**GROUNDWATER ELEVATION MAP**  
**GILLIANI PROPERTY**

SPRUCE PINE, MITCHELL COUNTY, NORTH CAROLINA

NOVEMBER 2010

60187195

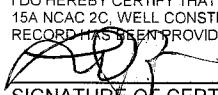
**ATTACHMENT A**



# **NON RESIDENTIAL WELL CONSTRUCTION RECORD**

North Carolina Department of Environment and Natural Resources- Division of Water Quality

## **WELL CONTRACTOR CERTIFICATION # 3322**

<b>1. WELL CONTRACTOR:</b>					
Lawrence D. Opper					
Well Contractor (Individual) Name					
Regional Probing Services					
Well Contractor Company Name					
STREET ADDRESS PO Box 1161					
Wake Forest, NC		27588			
City or Town		State		Zip Code	
(919)-570-5588					
Area code- Phone number					
<b>2. WELL INFORMATION:</b>					
SITE WELL ID #(if applicable) PZ-1					
STATE WELL PERMIT#(if applicable)					
DWQ or OTHER PERMIT #(if applicable)					
WELL USE (Check Applicable Box) Monitoring <input checked="" type="checkbox"/> Municipal/Public <input type="checkbox"/>					
Industrial/Commercial <input type="checkbox"/> Agricultural <input type="checkbox"/> Recovery <input type="checkbox"/> Injection <input type="checkbox"/>					
Irrigation <input type="checkbox"/> Other <input type="checkbox"/> (list use) _____					
DATE DRILLED 11/15/10					
TIME COMPLETED N/A AM <input type="checkbox"/> PM <input type="checkbox"/>					
<b>3. WELL LOCATION:</b>					
CITY: Spruce Pine COUNTY Mitchell					
1426 US 19E					
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)					
TOPOGRAPHIC / LAND SETTING:					
<input type="checkbox"/> Slope <input type="checkbox"/> Valley <input checked="" type="checkbox"/> Flat <input type="checkbox"/> Ridge <input type="checkbox"/> Other (check appropriate box)					
LATITUDE 3 N35.90306		May be in degrees, minutes, seconds or in a decimal format			
LONGITUDE W82.12285					
Latitude/longitude source: <input checked="" type="checkbox"/> GPS <input type="checkbox"/> Topographic map (location of well must be shown on a USGS topo map and attached to this form if not using GPS)					
<b>4. FACILITY-</b> is the name of the business where the well is located.					
FACILITY ID #(if applicable) 0-032288					
NAME OF FACILITY Samir's 8					
STREET ADDRESS 1426 US 19E					
Spruce PIne, NC					
City or Town		State		Zip Code	
CONTACT PERSON Amir Gilliani					
MAILING ADDRESS 1426 US19E					
Spruce Pine NC					
City or Town		State		Zip Code	
(828)-765-1218					
Area code - Phone number					
<b>5. WELL DETAILS:</b>					
a. TOTAL DEPTH: 15'					
b. DOES WELL REPLACE EXISTING WELL? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>					
c. WATER LEVEL Below Top of Casing: ~10 FT. (Use "+" if Above Top of Casing)					
d. TOP OF CASING IS 1 FT. Above Land Surface* *Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.					
e. YIELD (gpm): N/A METHOD OF TEST _____					
f. DISINFECTION: Type NA Amount _____					
g. WATER ZONES (depth):					
From _____ To _____			From _____ To _____		
From _____ To _____			From _____ To _____		
From _____ To _____			From _____ To _____		
<b>6. CASING:</b>					
Depth Diameter Thickness/ Weight Material					
From 0' To 5' Ft. 1" sch40 PVC					
From _____ To _____ Ft. _____					
From _____ To _____ Ft. _____					
<b>7. GROUT:</b> Depth Material Method					
From 0' To 2' Ft. cement pour					
From 2' To 4' Ft. bentonite pour					
From _____ To _____ Ft. _____					
<b>8. SCREEN:</b> Depth Diameter Slot Size Material					
From 5' To 15' Ft. 1 in. .010 in. PVC					
From _____ To _____ Ft. _____ in. _____ in.					
From _____ To _____ Ft. _____ in. _____ in.					
<b>9. SAND/GRAVEL PACK:</b> Depth Size Material					
From 4' To 15' Ft. #2 Sand					
From _____ To _____ Ft. _____					
From _____ To _____ Ft. _____					
<b>10. DRILLING LOG</b>					
From _____ To _____ Formation Description					
0'-5' crushed stone					
5-15' silty/sandy fill materials					
15' Bedrock- drill refusal encountered					
<b>11. REMARKS:</b>					
I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.					
					
12/3/10					
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE					
LAWRENCE D. OPPER					
PRINTED NAME OF PERSON CONSTRUCTING THE WELL					

**Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt.,  
1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.**



# NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

## WELL CONTRACTOR CERTIFICATION # 3322

**1. WELL CONTRACTOR:**

Lawrence D. Opper  
 Well Contractor (Individual) Name  
 Regional Probing Services  
 Well Contractor Company Name  
 STREET ADDRESS PO Box 1161  
 Wake Forest, NC 27588  
 City or Town State Zip Code  
 (919) 570-5588  
 Area code Phone number

**2. WELL INFORMATION:**

SITE WELL ID #(if applicable) PZ-2

STATE WELL PERMIT#(if applicable)

DWQ or OTHER PERMIT #(if applicable)

**WELL USE** (Check Applicable Box) Monitoring  Municipal/Public

Industrial/Commercial  Agricultural  Recovery  Injection

Irrigation  Other  (list use)

**DATE DRILLED** 11/15/10

**TIME COMPLETED** N/A AM  PM

**3. WELL LOCATION:**

CITY: Spruce Pine COUNTY Mitchell

1426 US 19E

(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

**TOPOGRAPHIC / LAND SETTING:**

Slope  Valley  Flat  Ridge  Other  
 (check appropriate box)

LATITUDE 3 N35.90298

May be in degrees,  
 minutes, seconds or  
 in a decimal format

LONGITUDE W82.12314

Latitude/longitude source:  GPS  Topographic map  
*(location of well must be shown on a USGS topo map and attached to this form if not using GPS)*

**4. FACILITY-** is the name of the business where the well is located.

**FACILITY ID #**(if applicable) 0-032288

**NAME OF FACILITY** Samir's 8

**STREET ADDRESS** 1426 US 19E

Spruce Pine, NC  
 City or Town State Zip Code

**CONTACT PERSON** Amir Gilliani

**MAILING ADDRESS** 1426 US19E

Spruce Pine, NC  
 City or Town State Zip Code

(828)- 765-1218

Area code - Phone number

**5. WELL DETAILS:**

a. **TOTAL DEPTH:** 15.5'

b. **DOES WELL REPLACE EXISTING WELL?** YES  NO

c. **WATER LEVEL** Below Top of Casing: ~ FT.  
 (Use "+" if Above Top of Casing)

d. **TOP OF CASING IS** .1 FT. Above Land Surface\*  
 \*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. **YIELD (gpm):** N/A **METHOD OF TEST** \_\_\_\_\_

f. **DISINFECTION:** Type NA Amount \_\_\_\_\_

g. **WATER ZONES** (depth):

From \_\_\_\_\_ To \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_  
 From \_\_\_\_\_ To \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_  
 From \_\_\_\_\_ To \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_

**6. CASING:** Depth Diameter Thickness/  
 From 0' To 5.5' Ft. 1" sch40 PVC

From \_\_\_\_\_ To \_\_\_\_\_ Ft. \_\_\_\_\_

From \_\_\_\_\_ To \_\_\_\_\_ Ft. \_\_\_\_\_

**7. GROUT:** Depth Material Method  
 From 0' To 2' Ft. cement pour  
 From 2' To 4.5' Ft. bentonite pour  
 From \_\_\_\_\_ To \_\_\_\_\_ Ft. \_\_\_\_\_

**8. SCREEN:** Depth Diameter Slot Size Material  
 From 5.5' To 15.5' Ft. 1 in. .010 in. PVC

From \_\_\_\_\_ To \_\_\_\_\_ Ft. \_\_\_\_\_ in.

From \_\_\_\_\_ To \_\_\_\_\_ Ft. \_\_\_\_\_ in.

**9. SAND/GRAVEL PACK:** Depth Size Material  
 From 4.5' To 15.5' Ft. #2 Sand

From \_\_\_\_\_ To \_\_\_\_\_ Ft. \_\_\_\_\_

From \_\_\_\_\_ To \_\_\_\_\_ Ft. \_\_\_\_\_

**10. DRILLING LOG** From To Formation Description  
 0'-5' \_\_\_\_\_ crushed stone

5-15' \_\_\_\_\_ silty/ sandy fill materials

15.5' \_\_\_\_\_ Bedrock-Geoprobe refusal encountered

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# ***NON RESIDENTIAL*** WELL CONSTRUCTION RECORD

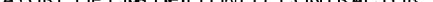
North Carolina Department of Environment and Natural Resources- Division of Water Quality

## **WELL CONTRACTOR CERTIFICATION # 3322**

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH  
15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS  
RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CERTIFIED WELL CONTRACTOR

12-3-10  
DATE

SIGNATURE OF CERTIFIED WELL CONTRACTOR  


Lawrence · Open

**PRINTED NAME OF PERSON CONSTRUCTING THE WELL**

**Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt.,  
1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.**





# ***NON RESIDENTIAL*** WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

## **WELL CONTRACTOR CERTIFICATION # 3322**

<b>1. WELL CONTRACTOR:</b>				
Lawrence D. Opper Well Contractor (Individual) Name				
Regional Probing Services Well Contractor Company Name				
STREET ADDRESS PO Box 1161				
Wake Forest,	NC	27588		
City or Town	State	Zip Code		
(919)- 570-5588 Area code- Phone number				
<b>2. WELL INFORMATION:</b>				
SITE WELL ID #(if applicable) PZ-5				
STATE WELL PERMIT#(if applicable)				
DWQ or OTHER PERMIT #(if applicable)				
WELL USE (Check Applicable Box) Monitoring <input checked="" type="checkbox"/> Municipal/Public <input type="checkbox"/>				
Industrial/Commercial <input type="checkbox"/> Agricultural <input type="checkbox"/> Recovery <input type="checkbox"/> Injection <input type="checkbox"/>				
Irrigation <input type="checkbox"/> Other <input type="checkbox"/> (list use)				
DATE DRILLED 11/16/10				
TIME COMPLETED N/A AM <input type="checkbox"/> PM <input type="checkbox"/>				
<b>3. WELL LOCATION:</b>				
CITY: Spruce Pine		COUNTY Mitchell		
1426 US 19E				
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)				
TOPOGRAPHIC / LAND SETTING:				
<input type="checkbox"/> Slope <input type="checkbox"/> Valley <input checked="" type="checkbox"/> Flat <input type="checkbox"/> Ridge <input type="checkbox"/> Other (check appropriate box)				
LATITUDE	3	N35.90312	May be in degrees, minutes, seconds or in a decimal format	
LONGITUDE		W82.12248		
Latitude/longitude source: <input checked="" type="checkbox"/> GPS <input type="checkbox"/> Topographic map (location of well must be shown on a USGS topo map and attached to this form if not using GPS)				
<b>4. FACILITY-</b> is the name of the business where the well is located.				
FACILITY ID #(if applicable) 0-032288				
NAME OF FACILITY Samir's 8				
STREET ADDRESS 1426 US 19E				
Spruce Pine, NC				
City or Town	State	Zip Code		
CONTACT PERSON Amir Gilliani				
MAILING ADDRESS 1426 US19E				
Spruce Pine	NC			
City or Town	State	Zip Code		
(828)- 765-1218 Area code - Phone number				
<b>5. WELL DETAILS:</b>				
a. TOTAL DEPTH: 18'				
b. DOES WELL REPLACE EXISTING WELL? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>				
c. WATER LEVEL Below Top of Casing: ~10 FT. (Use "+" if Above Top of Casing)				
d. TOP OF CASING IS .1 FT. Above Land Surface* *Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.				
e. YIELD (gpm): N/A METHOD OF TEST _____				
f. DISINFECTION: Type NA Amount _____				
g. WATER ZONES (depth):				
From	To	From	To	
From	To	From	To	
From	To	From	To	
<b>6. CASING:</b>				
From 0'	Depth To 8'	Diameter Ft. 1"	Thickness sch40	Material PVC
From	To	Ft.		
From	To	Ft.		
<b>7. GROUT:</b>				
From 0'	Depth To 2'	Material cement	pour	
From 2.'	To 7'	Ft. bentonite	pour	
From	To	Ft.		
<b>8. SCREEN:</b>				
From 8'	Depth To 18'	Diameter Ft. 1 in.	Slot Size .010 in.	Material PVC
From	To	Ft.	in.	
From	To	Ft.	in.	
<b>9. SAND/GRAVEL PACK:</b>				
From 7'	Depth To 18'	Size Ft. #2	Material Sand	
From	To	Ft.		
From	To	Ft.		
<b>10. DRILLING LOG</b>				
From 0'-5'	To	Formation Description		
5-18'		crushed stone		
18'		silty/ sandy fill materials		
		Bedrock- drill refusal encountered		
<b>11. REMARKS:</b>				
<hr/> <hr/> <hr/>				
I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.				
 <b>12-3-10</b> SIGNATURE OF CERTIFIED WELL CONTRACTOR				
DATE				
PRINTED NAME OF PERSON CONSTRUCTING THE WELL <b>Lawrence D. Opper</b>				

**Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt.,  
1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.**

Form GW-1b  
Rev. 7/05



# **NON RESIDENTIAL WELL CONSTRUCTION RECORD**

North Carolina Department of Environment and Natural Resources- Division of Water Quality

**WELL CONTRACTOR CERTIFICATION # 3322**

<b>1. WELL CONTRACTOR:</b>			
Lawrence D. Opper			
Well Contractor (Individual) Name			
Regional Probing Services			
Well Contractor Company Name			
STREET ADDRESS		PO Box 1161	
Wake Forest,	NC	27588	
City or Town	State	Zip Code	
(919)- 570-5588			
Area code- Phone number			
<b>2. WELL INFORMATION:</b>			
SITE WELL ID #(if applicable) PZ-6			
STATE WELL PERMIT#(if applicable)			
DWQ or OTHER PERMIT #(if applicable)			
WELL USE (Check Applicable Box) Monitoring <input checked="" type="checkbox"/> Municipal/Public <input type="checkbox"/>			
Industrial/Commercial <input type="checkbox"/> Agricultural <input type="checkbox"/> Recovery <input type="checkbox"/> Injection <input type="checkbox"/>			
Irrigation <input type="checkbox"/> Other <input type="checkbox"/> (list use) _____			
<b>DATE DRILLED</b> 11/16/10			
<b>TIME COMPLETED</b> N/A AM <input type="checkbox"/> PM <input type="checkbox"/>			
<b>3. WELL LOCATION:</b>			
CITY: Spruce Pine		COUNTY Mitchell	
1426 US 19E			
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)			
TOPOGRAPHIC / LAND SETTING:			
<input type="checkbox"/> Slope <input type="checkbox"/> Valley <input checked="" type="checkbox"/> Flat <input type="checkbox"/> Ridge <input type="checkbox"/> Other _____ (check appropriate box)			
LATITUDE	3	N35.90302	May be in degrees, minutes, seconds or in a decimal format
LONGITUDE	W82.12186		
Latitude/longitude source: <input checked="" type="checkbox"/> GPS <input type="checkbox"/> Topographic map (location of well must be shown on a USGS topo map and attached to this form if not using GPS)			
<b>4. FACILITY-</b> is the name of the business where the well is located.			
FACILITY ID #(if applicable) 0-032288			
NAME OF FACILITY Samir's 8			
STREET ADDRESS 1426 US 19E			
Spruce Plne,	NC		
City or Town	State	Zip Code	
CONTACT PERSON Amir Gilliani			
MAILING ADDRESS 1426 US19E			
Spruce Pine	NC		
City or Town	State	Zip Code	
(828)- 765-1218			
Area code - Phone number			
<b>5. WELL DETAILS:</b>			
a. TOTAL DEPTH: 15'			
b. DOES WELL REPLACE EXISTING WELL? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>			
c. WATER LEVEL Below Top of Casing: 10 FT. (Use "+" if Above Top of Casing)			
d. TOP OF CASING IS .1 FT. Above Land Surface* *Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.			
e. YIELD (gpm): N/A METHOD OF TEST _____			
f. DISINFECTION: Type NA Amount _____			
g. WATER ZONES (depth):			
From _____ To _____	From _____ To _____		
From _____ To _____	From _____ To _____		
From _____ To _____	From _____ To _____		
<b>6. CASING:</b>			
From 0' To 5'	Ft. 1"	Diameter	Thickness/ sch40
From _____ To _____	Ft. _____	_____	_____
From _____ To _____	Ft. _____	_____	_____
<b>7. GROUT:</b> Depth Material Method			
From 0' To 2'	Ft. _____	cement	pour
From 2' To 4'	Ft. _____	bentonite	pour
From _____ To _____	Ft. _____	_____	_____
<b>8. SCREEN:</b> Depth Diameter Slot Size Material			
From 5' To 15'	Ft. 1 in.	.010 in.	PVC
From _____ To _____	Ft. _____ in.	_____ in.	_____
From _____ To _____	Ft. _____ in.	_____ in.	_____
<b>9. SAND/GRAVEL PACK:</b>			
From 4' To 15'	Ft. #2	Size	Material
From _____ To _____	Ft. _____	_____	_____
From _____ To _____	Ft. _____	_____	_____
<b>10. DRILLING LOG</b>			
From 0'-5'	To	Formation Description	
0'-5'		crushed stone	
5-15'		silty/ sandy fill materials	
15'		Bedrock- drill refusal encountered	
<b>11. REMARKS:</b>			
_____ _____ _____ _____			
I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.			
<i>[Signature]</i> 12-3-10			
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE			
Lawrence D. Opper			
PRINTED NAME OF PERSON CONSTRUCTING THE WELL			

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH  
15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS  
RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

---

SIGNATURE OF CERTIFIED WELL CONTRACTOR

12-3-10

DATE

LAWRENCE D. OPPENHEIMER

---

**PRINTED NAME OF PERSON CONSTRUCTING THE WELL**

---

**Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt.,  
1617 Mail Service Center – Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.**

**ATTACHMENT B**



Full-Service Analytical &  
Environmental Solutions

NC Certification No. 402  
SC Certification No. 99012  
NC Drinking Water Cert No. 37735

## Case Narrative

12/02/2010

AECOM (Earth Tech) NCDOT Proj.  
Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co. (Gilliani)  
Project No.: WBS#35609.1.1  
Lab Submittal Date: 11/19/2010  
Prism Work Order: 0110590

This data package contains the analytical results for the project identified above and includes a Case Narrative, Sample Results and Chain of Custody. Unless otherwise noted, all samples were received in acceptable condition and processed according to the referenced methods.

Data qualifiers are flagged individually on each sample. A key reference for the data qualifiers appears at the end of this case narrative.

Please call if you have any questions relating to this analytical report.

Respectfully,

**PRISM LABORATORIES, INC.**

President/Project Manager

Reviewed By

### Data Qualifiers Key Reference:

- A Client Sample PZ-6 and GW-5: Reporting Limits raised due to amount of soil in the VOAs submitted to the laboratory.
- J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
- L2 LCSD recovery outside of the QC limits. LCS recovery within the limits. No further action taken.
- LH High LCS recovery. Analyte not detected in the sample(s). No further action taken.
- P Recovery outside of the QC limits due to inconsistency during extraction and chromatographic performance of this compound.
- SR Surrogate recovery outside the QC limits.
- BRL Below Reporting Limit
- MDL Method Detection Limit
- RPD Relative Percent Difference
- \* Results reported to the reporting limit. All other results are reported to the MDL with values between MDL and reporting limit indicated with a J.

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Client Sample ID	Lab Sample ID	Matrix	Date Sampled	Date Received
PZ-1	0110590-01	Water	11/16/10	11/19/10
PZ-2	0110590-02	Water	11/16/10	11/19/10
PZ-3	0110590-03	Water	11/16/10	11/19/10
PZ-4	0110590-04	Water	11/16/10	11/19/10
PZ-5	0110590-05	Water	11/17/10	11/19/10
PZ-6	0110590-06	Water	11/17/10	11/19/10
GW-2	0110590-07	Water	11/16/10	11/19/10
GW-3	0110590-08	Water	11/16/10	11/19/10
GW-4	0110590-09	Water	11/16/10	11/19/10
GW-5	0110590-10	Water	11/17/10	11/19/10
GW-6	0110590-11	Water	11/17/10	11/19/10
GW-7	0110590-12	Water	11/17/10	11/19/10
GW-8	0110590-13	Water	11/17/10	11/19/10
GW-9	0110590-14	Water	11/17/10	11/19/10

Samples received in good condition at 1.4 degrees C unless otherwise noted.

AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: PZ-1  
Prism Sample ID: 0110590-01  
Prism Work Order: 0110590  
Time Collected: 11/16/10 11:15  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Volatile Organic Compounds by GC/MS</b>									
1,1,1,2-Tetrachloroethane	BRL	ug/L	0.50	0.070	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
1,1,1-Trichloroethane	BRL	ug/L	0.50	0.075	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
1,1,2,2-Tetrachloroethane	BRL	ug/L	0.50	0.075	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
1,1,2-Trichloroethane	BRL	ug/L	0.50	0.068	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
1,1-Dichloroethane	BRL	ug/L	0.50	0.038	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
1,1-Dichloroethylene	BRL	ug/L	0.50	0.057	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
1,1-Dichloropropylene	BRL	ug/L	0.50	0.072	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
1,2,3-Trichlorobenzene	BRL	ug/L	0.50	0.12	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
1,2,3-Trichloropropane	BRL	ug/L	0.50	0.090	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
1,2,4-Trichlorobenzene	BRL	ug/L	0.50	0.15	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
<b>1,2,4-Trimethylbenzene</b>	<b>0.51</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.038</b>	<b>1</b>	<b>SM6200 B</b>	<b>11/24/10 17:21</b>	<b>LMW</b>	<b>P0K0656</b>
1,2-Dibromo-3-chloropropane	BRL	ug/L	2.0	0.59	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
1,2-Dibromoethane	BRL	ug/L	0.50	0.041	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
1,2-Dichlorobenzene	BRL	ug/L	0.50	0.044	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
1,2-Dichloroethane	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
1,2-Dichloropropane	BRL	ug/L	0.50	0.062	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
1,3,5-Trimethylbenzene	BRL	ug/L	0.50	0.038	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
1,3-Dichlorobenzene	BRL	ug/L	0.50	0.070	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
1,3-Dichloropropane	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
1,4-Dichlorobenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
2,2-Dichloropropane	BRL	ug/L	2.0	0.27	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
2-Chlorotoluene	BRL	ug/L	0.50	0.038	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
4-Chlorotoluene	BRL	ug/L	0.50	0.053	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
4-Isopropyltoluene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Acetone	BRL	ug/L	10	1.5	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Benzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Bromobenzene	BRL	ug/L	0.50	0.088	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Bromochloromethane	BRL	ug/L	0.50	0.050	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Bromodichloromethane	BRL	ug/L	0.50	0.031	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Bromoform	BRL	ug/L	0.50	0.10	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Bromomethane	BRL	ug/L	1.0	0.24	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Carbon Tetrachloride	BRL	ug/L	0.50	0.065	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Chlorobenzene	BRL	ug/L	0.50	0.025	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Chloroethane	BRL	ug/L	0.50	0.088	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Chloroform	BRL	ug/L	0.50	0.053	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Chloromethane	BRL	ug/L	0.50	0.032	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
cis-1,2-Dichloroethylene	BRL	ug/L	0.50	0.061	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
cis-1,3-Dichloropropylene	BRL	ug/L	0.50	0.065	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Dibromochloromethane	BRL	ug/L	0.50	0.062	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Dibromomethane	BRL	ug/L	0.50	0.044	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Dichlorodifluoromethane	BRL	ug/L	1.0	0.057	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Ethanol	BRL	ug/L	200	42	1	SM6200 B	11/24/10 17:21	LMW	P0K0656

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AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: PZ-1  
Prism Sample ID: 0110590-01  
Prism Work Order: 0110590  
Time Collected: 11/16/10 11:15  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Ethylbenzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Hexachlorobutadiene	BRL	ug/L	2.0	0.41	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Isopropyl Ether	BRL	ug/L	0.50	0.042	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Isopropylbenzene (Cumene)	BRL	ug/L	0.50	0.034	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
<b>m,p-Xylenes</b>	<b>0.57 J</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.11</b>	<b>1</b>	<b>SM6200 B</b>	<b>11/24/10 17:21</b>	<b>LMW</b>	<b>P0K0656</b>
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/L	1.0	0.11	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/L	5.0	0.83	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Methyl Isobutyl Ketone	BRL	ug/L	1.0	0.048	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Methylene Chloride	BRL	ug/L	2.0	0.073	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Methyl-tert-Butyl Ether	BRL	ug/L	1.0	0.056	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Naphthalene	BRL	ug/L	1.0	0.094	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
n-Butylbenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
n-Propylbenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
o-Xylene	BRL	ug/L	0.50	0.064	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
sec-Butylbenzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Styrene	BRL	ug/L	0.50	0.034	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
tert-Butylbenzene	BRL	ug/L	0.50	0.11	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Tetrachloroethylene	BRL	ug/L	0.50	0.096	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
<b>Toluene</b>	<b>0.76</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.057</b>	<b>1</b>	<b>SM6200 B</b>	<b>11/24/10 17:21</b>	<b>LMW</b>	<b>P0K0656</b>
trans-1,2-Dichloroethylene	BRL	ug/L	0.50	0.061	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
trans-1,3-Dichloropropylene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Trichloroethylene	BRL	ug/L	0.50	0.044	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Trichlorofluoromethane	BRL	ug/L	0.50	0.050	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Vinyl acetate	BRL	ug/L	5.0	1.3	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
Vinyl chloride	BRL	ug/L	0.50	0.068	1	SM6200 B	11/24/10 17:21	LMW	P0K0656
<b>Xylenes, total</b>	<b>0.57 J</b>	<b>ug/L</b>	<b>1.5</b>	<b>0.17</b>	<b>1</b>	<b>SM6200 B</b>	<b>11/24/10 17:21</b>	<b>LMW</b>	<b>P0K0656</b>

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	101 %	70-130
Dibromofluoromethane	109 %	70-130
Toluene-d8	97 %	70-130



AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: PZ-2  
Prism Sample ID: 0110590-02  
Prism Work Order: 0110590  
Time Collected: 11/16/10 10:40  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Volatile Organic Compounds by GC/MS</b>									
1,1,1,2-Tetrachloroethane	BRL	ug/L	0.50	0.070	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
1,1,1-Trichloroethane	BRL	ug/L	0.50	0.075	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
1,1,2,2-Tetrachloroethane	BRL	ug/L	0.50	0.075	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
1,1,2-Trichloroethane	BRL	ug/L	0.50	0.068	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
1,1-Dichloroethane	BRL	ug/L	0.50	0.038	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
1,1-Dichloroethylene	BRL	ug/L	0.50	0.057	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
1,1-Dichloropropylene	BRL	ug/L	0.50	0.072	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
1,2,3-Trichlorobenzene	BRL	ug/L	0.50	0.12	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
1,2,3-Trichloropropane	BRL	ug/L	0.50	0.090	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
1,2,4-Trichlorobenzene	BRL	ug/L	0.50	0.15	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
1,2,4-Trimethylbenzene	BRL	ug/L	0.50	0.038	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
1,2-Dibromo-3-chloropropane	BRL	ug/L	2.0	0.59	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
1,2-Dibromoethane	BRL	ug/L	0.50	0.041	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
1,2-Dichlorobenzene	BRL	ug/L	0.50	0.044	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
1,2-Dichloroethane	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
1,2-Dichloropropane	BRL	ug/L	0.50	0.062	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
1,3,5-Trimethylbenzene	BRL	ug/L	0.50	0.038	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
1,3-Dichlorobenzene	BRL	ug/L	0.50	0.070	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
1,3-Dichloropropane	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
1,4-Dichlorobenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
2,2-Dichloropropane	BRL	ug/L	2.0	0.27	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
2-Chlorotoluene	BRL	ug/L	0.50	0.038	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
4-Chlorotoluene	BRL	ug/L	0.50	0.053	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
4-Isopropyltoluene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Acetone	BRL	ug/L	10	1.5	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Benzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Bromobenzene	BRL	ug/L	0.50	0.088	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Bromochloromethane	BRL	ug/L	0.50	0.050	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Bromodichloromethane	BRL	ug/L	0.50	0.031	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Bromoform	BRL	ug/L	0.50	0.10	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Bromomethane	BRL	ug/L	1.0	0.24	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Carbon Tetrachloride	BRL	ug/L	0.50	0.065	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Chlorobenzene	BRL	ug/L	0.50	0.025	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Chloroethane	BRL	ug/L	0.50	0.088	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Chloroform	BRL	ug/L	0.50	0.053	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Chloromethane	BRL	ug/L	0.50	0.032	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
cis-1,2-Dichloroethylene	BRL	ug/L	0.50	0.061	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
cis-1,3-Dichloropropylene	BRL	ug/L	0.50	0.065	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Dibromochloromethane	BRL	ug/L	0.50	0.062	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Dibromomethane	BRL	ug/L	0.50	0.044	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Dichlorodifluoromethane	BRL	ug/L	1.0	0.057	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Ethanol	BRL	ug/L	200	42	1	SM6200 B	11/24/10 17:53	LMW	P0K0656

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AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: PZ-2  
Prism Sample ID: 0110590-02  
Prism Work Order: 0110590  
Time Collected: 11/16/10 10:40  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Ethylbenzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Hexachlorobutadiene	BRL	ug/L	2.0	0.41	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Isopropyl Ether	BRL	ug/L	0.50	0.042	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Isopropylbenzene (Cumene)	BRL	ug/L	0.50	0.034	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
m,p-Xylenes	BRL	ug/L	1.0	0.11	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/L	1.0	0.11	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/L	5.0	0.83	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Methyl Isobutyl Ketone	BRL	ug/L	1.0	0.048	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Methylene Chloride	BRL	ug/L	2.0	0.073	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Methyl-tert-Butyl Ether	BRL	ug/L	1.0	0.056	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Naphthalene	BRL	ug/L	1.0	0.094	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
n-Butylbenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
n-Propylbenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
o-Xylene	BRL	ug/L	0.50	0.064	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
sec-Butylbenzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Styrene	BRL	ug/L	0.50	0.034	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
tert-Butylbenzene	BRL	ug/L	0.50	0.11	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Tetrachloroethylene	BRL	ug/L	0.50	0.096	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Toluene	BRL	ug/L	0.50	0.057	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
trans-1,2-Dichloroethylene	BRL	ug/L	0.50	0.061	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
trans-1,3-Dichloropropylene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Trichloroethylene	BRL	ug/L	0.50	0.044	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Trichlorofluoromethane	BRL	ug/L	0.50	0.050	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Vinyl acetate	BRL	ug/L	5.0	1.3	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Vinyl chloride	BRL	ug/L	0.50	0.068	1	SM6200 B	11/24/10 17:53	LMW	P0K0656
Xylenes, total	BRL	ug/L	1.5	0.17	1	SM6200 B	11/24/10 17:53	LMW	P0K0656

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	101 %	70-130
Dibromofluoromethane	111 %	70-130
Toluene-d8	97 %	70-130



AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: PZ-3  
Prism Sample ID: 0110590-03  
Prism Work Order: 0110590  
Time Collected: 11/16/10 11:45  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Volatile Organic Compounds by GC/MS</b>									
1,1,1,2-Tetrachloroethane	BRL	ug/L	0.50	0.070	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
1,1,1-Trichloroethane	BRL	ug/L	0.50	0.075	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
1,1,2,2-Tetrachloroethane	BRL	ug/L	0.50	0.075	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
1,1,2-Trichloroethane	BRL	ug/L	0.50	0.068	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
1,1-Dichloroethane	BRL	ug/L	0.50	0.038	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
1,1-Dichloroethylene	BRL	ug/L	0.50	0.057	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
1,1-Dichloropropylene	BRL	ug/L	0.50	0.072	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
1,2,3-Trichlorobenzene	BRL	ug/L	0.50	0.12	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
1,2,3-Trichloropropane	BRL	ug/L	0.50	0.090	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
1,2,4-Trichlorobenzene	BRL	ug/L	0.50	0.15	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
1,2,4-Trimethylbenzene	BRL	ug/L	0.50	0.038	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
1,2-Dibromo-3-chloropropane	BRL	ug/L	2.0	0.59	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
1,2-Dibromoethane	BRL	ug/L	0.50	0.041	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
1,2-Dichlorobenzene	BRL	ug/L	0.50	0.044	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
1,2-Dichloroethane	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
1,2-Dichloropropane	BRL	ug/L	0.50	0.062	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
1,3,5-Trimethylbenzene	BRL	ug/L	0.50	0.038	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
1,3-Dichlorobenzene	BRL	ug/L	0.50	0.070	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
1,3-Dichloropropane	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
1,4-Dichlorobenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
2,2-Dichloropropane	BRL	ug/L	2.0	0.27	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
2-Chlorotoluene	BRL	ug/L	0.50	0.038	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
4-Chlorotoluene	BRL	ug/L	0.50	0.053	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
4-Isopropyltoluene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Acetone	BRL	ug/L	10	1.5	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Benzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Bromobenzene	BRL	ug/L	0.50	0.088	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Bromochloromethane	BRL	ug/L	0.50	0.050	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Bromodichloromethane	BRL	ug/L	0.50	0.031	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Bromoform	BRL	ug/L	0.50	0.10	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Bromomethane	BRL	ug/L	1.0	0.24	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Carbon Tetrachloride	BRL	ug/L	0.50	0.065	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Chlorobenzene	BRL	ug/L	0.50	0.025	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Chloroethane	BRL	ug/L	0.50	0.088	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Chloroform	BRL	ug/L	0.50	0.053	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Chloromethane	BRL	ug/L	0.50	0.032	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
cis-1,2-Dichloroethylene	BRL	ug/L	0.50	0.061	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
cis-1,3-Dichloropropylene	BRL	ug/L	0.50	0.065	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Dibromochloromethane	BRL	ug/L	0.50	0.062	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Dibromomethane	BRL	ug/L	0.50	0.044	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Dichlorodifluoromethane	BRL	ug/L	1.0	0.057	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Ethanol	BRL	ug/L	200	42	1	SM6200 B	11/24/10 18:21	LMW	P0K0656

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AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: PZ-3  
Prism Sample ID: 0110590-03  
Prism Work Order: 0110590  
Time Collected: 11/16/10 11:45  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Ethylbenzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Hexachlorobutadiene	BRL	ug/L	2.0	0.41	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Isopropyl Ether	BRL	ug/L	0.50	0.042	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Isopropylbenzene (Cumene)	BRL	ug/L	0.50	0.034	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
m,p-Xylenes	BRL	ug/L	1.0	0.11	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/L	1.0	0.11	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/L	5.0	0.83	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Methyl Isobutyl Ketone	BRL	ug/L	1.0	0.048	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Methylene Chloride	BRL	ug/L	2.0	0.073	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Methyl-tert-Butyl Ether	BRL	ug/L	1.0	0.056	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Naphthalene	BRL	ug/L	1.0	0.094	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
n-Butylbenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
n-Propylbenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
o-Xylene	BRL	ug/L	0.50	0.064	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
sec-Butylbenzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Styrene	BRL	ug/L	0.50	0.034	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
tert-Butylbenzene	BRL	ug/L	0.50	0.11	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Tetrachloroethylene	BRL	ug/L	0.50	0.096	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Toluene	BRL	ug/L	0.50	0.057	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
trans-1,2-Dichloroethylene	BRL	ug/L	0.50	0.061	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
trans-1,3-Dichloropropylene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Trichloroethylene	BRL	ug/L	0.50	0.044	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Trichlorofluoromethane	BRL	ug/L	0.50	0.050	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Vinyl acetate	BRL	ug/L	5.0	1.3	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Vinyl chloride	BRL	ug/L	0.50	0.068	1	SM6200 B	11/24/10 18:21	LMW	P0K0656
Xylenes, total	BRL	ug/L	1.5	0.17	1	SM6200 B	11/24/10 18:21	LMW	P0K0656

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	100 %	70-130
Dibromofluoromethane	110 %	70-130
Toluene-d8	98 %	70-130



AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: PZ-4  
Prism Sample ID: 0110590-04  
Prism Work Order: 0110590  
Time Collected: 11/16/10 12:00  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	ug/L	10	2.2	1	8270D	11/25/10 0:26	KC	P0K0641
1,2-Dichlorobenzene	BRL	ug/L	10	1.8	1	8270D	11/25/10 0:26	KC	P0K0641
1,3-Dichlorobenzene	BRL	ug/L	10	1.8	1	8270D	11/25/10 0:26	KC	P0K0641
1,4-Dichlorobenzene	BRL	ug/L	10	2.0	1	8270D	11/25/10 0:26	KC	P0K0641
2,4,5-Trichlorophenol	BRL	ug/L	10	2.5	1	8270D	11/25/10 0:26	KC	P0K0641
2,4,6-Trichlorophenol	BRL	ug/L	10	2.3	1	8270D	11/25/10 0:26	KC	P0K0641
2,4-Dichlorophenol	BRL	ug/L	10	2.4	1	8270D	11/25/10 0:26	KC	P0K0641
2,4-Dimethylphenol	BRL	ug/L	10	2.4	1	8270D	11/25/10 0:26	KC	P0K0641
2,4-Dinitrophenol	BRL	ug/L	10	2.4	1	8270D	11/25/10 0:26	KC	P0K0641
2,4-Dinitrotoluene	BRL	ug/L	10	0.95	1	8270D	11/25/10 0:26	KC	P0K0641
2,6-Dinitrotoluene	BRL	ug/L	10	1.6	1	8270D	11/25/10 0:26	KC	P0K0641
2-Chloronaphthalene	BRL	ug/L	10	2.3	1	8270D	11/25/10 0:26	KC	P0K0641
2-Chlorophenol	BRL	ug/L	10	2.1	1	8270D	11/25/10 0:26	KC	P0K0641
<b>2-Methylnaphthalene</b>	<b>27</b>	<b>ug/L</b>	<b>10</b>	<b>2.6</b>	<b>1</b>	<b>8270D</b>	<b>11/25/10 0:26</b>	<b>KC</b>	<b>P0K0641</b>
2-Methylphenol	BRL	ug/L	10	2.4	1	8270D	11/25/10 0:26	KC	P0K0641
2-Nitroaniline	BRL	ug/L	10	1.9	1	8270D	11/25/10 0:26	KC	P0K0641
2-Nitrophenol	BRL	ug/L	10	2.5	1	8270D	11/25/10 0:26	KC	P0K0641
3,3'-Dichlorobenzidine	BRL	ug/L	10	0.96	1	8270D	11/25/10 0:26	KC	P0K0641
3/4-Methylphenol	BRL	ug/L	10	2.4	1	8270D	11/25/10 0:26	KC	P0K0641
3-Nitroaniline	BRL	ug/L	10	1.3	1	8270D	11/25/10 0:26	KC	P0K0641
4,6-Dinitro-2-methylphenol	BRL	ug/L	10	2.7	1	8270D	11/25/10 0:26	KC	P0K0641
4-Bromophenyl phenyl ether	BRL	ug/L	10	1.8	1	8270D	11/25/10 0:26	KC	P0K0641
4-Chloro-3-methylphenol	BRL	ug/L	10	2.3	1	8270D	11/25/10 0:26	KC	P0K0641
4-Chloroaniline	BRL	ug/L	10	2.5	1	8270D	11/25/10 0:26	KC	P0K0641
4-Chlorophenyl phenyl ether	BRL	ug/L	10	1.8	1	8270D	11/25/10 0:26	KC	P0K0641
4-Nitroaniline	BRL	ug/L	10	0.91	1	8270D	11/25/10 0:26	KC	P0K0641
4-Nitrophenol	BRL	ug/L	10	2.6	1	8270D	11/25/10 0:26	KC	P0K0641
Acenaphthene	BRL	ug/L	10	2.1	1	8270D	11/25/10 0:26	KC	P0K0641
Acenaphthylene	BRL	ug/L	10	2.2	1	8270D	11/25/10 0:26	KC	P0K0641
Aniline	BRL	ug/L	10	2.2	1	8270D	11/25/10 0:26	KC	P0K0641
Anthracene	BRL	ug/L	10	1.2	1	8270D	11/25/10 0:26	KC	P0K0641
Azobenzene	BRL	ug/L	10	1.8	1	8270D	11/25/10 0:26	KC	P0K0641
Benzo(a)anthracene	BRL	ug/L	10	0.95	1	8270D	11/25/10 0:26	KC	P0K0641
Benzo(a)pyrene	BRL	ug/L	10	1.1	1	8270D	11/25/10 0:26	KC	P0K0641
Benzo(b)fluoranthene	BRL	ug/L	10	1.4	1	8270D	11/25/10 0:26	KC	P0K0641
Benzo(g,h,i)perylene	BRL	ug/L	10	2.1	1	8270D	11/25/10 0:26	KC	P0K0641
Benzo(k)fluoranthene	BRL	ug/L	10	1.1	1	8270D	11/25/10 0:26	KC	P0K0641
Benzoic Acid	BRL	ug/L	100	50	1	8270D	11/25/10 0:26	KC	P0K0641
Benzyl alcohol	BRL	ug/L	10	2.1	1	8270D	11/25/10 0:26	KC	P0K0641
bis(2-Chloroethoxy)methane	BRL	ug/L	10	2.2	1	8270D	11/25/10 0:26	KC	P0K0641
Bis(2-Chloroethyl)ether	BRL	ug/L	10	1.9	1	8270D	11/25/10 0:26	KC	P0K0641
Bis(2-chloroisopropyl)ether	BRL	ug/L	10	2.3	1	8270D	11/25/10 0:26	KC	P0K0641

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AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: PZ-4  
Prism Sample ID: 0110590-04  
Prism Work Order: 0110590  
Time Collected: 11/16/10 12:00  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Bis(2-Ethylhexyl)phthalate	BRL	ug/L	10	1.8	1	8270D	11/25/10 0:26	KC	P0K0641
Butyl benzyl phthalate	BRL	ug/L	10	1.5	1	8270D	11/25/10 0:26	KC	P0K0641
Chrysene	BRL	ug/L	10	1.2	1	8270D	11/25/10 0:26	KC	P0K0641
Dibenzo(a,h)anthracene	BRL	ug/L	10	1.8	1	8270D	11/25/10 0:26	KC	P0K0641
Dibenzofuran	BRL	ug/L	10	2.2	1	8270D	11/25/10 0:26	KC	P0K0641
Diethyl phthalate	BRL	ug/L	10	1.4	1	8270D	11/25/10 0:26	KC	P0K0641
Dimethyl phthalate	BRL	ug/L	10	1.6	1	8270D	11/25/10 0:26	KC	P0K0641
Di-n-butyl phthalate	BRL	ug/L	10	1.8	1	8270D	11/25/10 0:26	KC	P0K0641
Di-n-octyl phthalate	BRL	ug/L	10	1.9	1	8270D	11/25/10 0:26	KC	P0K0641
Fluoranthene	BRL	ug/L	10	0.94	1	8270D	11/25/10 0:26	KC	P0K0641
Fluorene	<b>2.8 J</b>	ug/L	<b>10</b>	<b>1.8</b>	<b>1</b>	<b>8270D</b>	<b>11/25/10 0:26</b>	<b>KC</b>	<b>P0K0641</b>
Hexachlorobenzene	BRL	ug/L	10	1.4	1	8270D	11/25/10 0:26	KC	P0K0641
Hexachlorobutadiene	BRL	ug/L	10	2.3	1	8270D	11/25/10 0:26	KC	P0K0641
Hexachlorocyclopentadiene	BRL	ug/L	10	1.8	1	8270D	11/25/10 0:26	KC	P0K0641
Hexachloroethane	BRL	ug/L	10	1.9	1	8270D	11/25/10 0:26	KC	P0K0641
Indeno(1,2,3-cd)pyrene	BRL	ug/L	10	1.6	1	8270D	11/25/10 0:26	KC	P0K0641
Isophorone	BRL	ug/L	10	2.4	1	8270D	11/25/10 0:26	KC	P0K0641
Naphthalene	<b>13</b>	ug/L	<b>10</b>	<b>2.3</b>	<b>1</b>	<b>8270D</b>	<b>11/25/10 0:26</b>	<b>KC</b>	<b>P0K0641</b>
Nitrobenzene	BRL	ug/L	10	2.0	1	8270D	11/25/10 0:26	KC	P0K0641
N-Nitroso-di-n-propylamine	BRL	ug/L	10	2.3	1	8270D	11/25/10 0:26	KC	P0K0641
N-Nitrosodiphenylamine	BRL	ug/L	10	1.6	1	8270D	11/25/10 0:26	KC	P0K0641
Pentachlorophenol	BRL	ug/L	10	1.6	1	8270D	11/25/10 0:26	KC	P0K0641
Phenanthrene	<b>2.7 J</b>	ug/L	<b>10</b>	<b>1.2</b>	<b>1</b>	<b>8270D</b>	<b>11/25/10 0:26</b>	<b>KC</b>	<b>P0K0641</b>
Phenol	BRL	ug/L	10	2.2	1	8270D	11/25/10 0:26	KC	P0K0641
Pyrene	BRL	ug/L	10	1.4	1	8270D	11/25/10 0:26	KC	P0K0641

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	95 %	26-139
2-Fluorobiphenyl	85 %	41-112
2-Fluorophenol	40 %	10-48
Nitrobenzene-d5	66 %	34-102
Phenol-d5	30 %	10-34
Terphenyl-d14	78 %	31-165

#### Volatile Organic Compounds by GC/MS

1,1,1,2-Tetrachloroethane	BRL	ug/L	0.50	0.070	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
1,1,1-Trichloroethane	BRL	ug/L	0.50	0.075	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
1,1,2,2-Tetrachloroethane	BRL	ug/L	0.50	0.075	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
1,1,2-Trichloroethane	BRL	ug/L	0.50	0.068	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
1,1-Dichloroethane	BRL	ug/L	0.50	0.038	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
1,1-Dichloroethylene	BRL	ug/L	0.50	0.057	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
1,1-Dichloropropylene	BRL	ug/L	0.50	0.072	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
1,2,3-Trichlorobenzene	BRL	ug/L	0.50	0.12	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
1,2,3-Trichloropropane	BRL	ug/L	0.50	0.090	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
1,2,4-Trichlorobenzene	BRL	ug/L	0.50	0.15	1	SM6200 B	11/24/10 22:19	LMW	P0K0656

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AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: PZ-4  
Prism Sample ID: 0110590-04  
Prism Work Order: 0110590  
Time Collected: 11/16/10 12:00  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
1,2,4-Trimethylbenzene	47	ug/L	0.50	0.038	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
1,2-Dibromo-3-chloropropane	BRL	ug/L	2.0	0.59	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
1,2-Dibromoethane	BRL	ug/L	0.50	0.041	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
1,2-Dichlorobenzene	BRL	ug/L	0.50	0.044	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
1,2-Dichloroethane	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
1,2-Dichloropropane	BRL	ug/L	0.50	0.062	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
1,3,5-Trimethylbenzene	13	ug/L	0.50	0.038	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
1,3-Dichlorobenzene	BRL	ug/L	0.50	0.070	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
1,3-Dichloropropane	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
1,4-Dichlorobenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
2,2-Dichloropropane	BRL	ug/L	2.0	0.27	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
2-Chlorotoluene	BRL	ug/L	0.50	0.038	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
4-Chlorotoluene	BRL	ug/L	0.50	0.053	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
4-Isopropyltoluene	2.6	ug/L	0.50	0.059	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Acetone	9.5 J	ug/L	10	1.5	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Benzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Bromobenzene	BRL	ug/L	0.50	0.088	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Bromochloromethane	BRL	ug/L	0.50	0.050	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Bromodichloromethane	BRL	ug/L	0.50	0.031	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Bromoform	BRL	ug/L	0.50	0.10	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Bromomethane	BRL	ug/L	1.0	0.24	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Carbon Tetrachloride	BRL	ug/L	0.50	0.065	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Chlorobenzene	BRL	ug/L	0.50	0.025	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Chloroethane	BRL	ug/L	0.50	0.088	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Chloroform	BRL	ug/L	0.50	0.053	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Chloromethane	BRL	ug/L	0.50	0.032	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
cis-1,2-Dichloroethylene	BRL	ug/L	0.50	0.061	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
cis-1,3-Dichloropropylene	BRL	ug/L	0.50	0.065	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Dibromochloromethane	BRL	ug/L	0.50	0.062	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Dibromomethane	BRL	ug/L	0.50	0.044	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Dichlorodifluoromethane	BRL	ug/L	1.0	0.057	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Ethanol	BRL	ug/L	200	42	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Ethylbenzene	2.5	ug/L	0.50	0.054	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Hexachlorobutadiene	BRL	ug/L	2.0	0.41	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Isopropyl Ether	BRL	ug/L	0.50	0.042	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Isopropylbenzene (Cumene)	2.2	ug/L	0.50	0.034	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
m,p-Xylenes	10	ug/L	1.0	0.11	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Methyl Butyl Ketone (2-Hexanone)	1.0	ug/L	1.0	0.11	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/L	5.0	0.83	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Methyl Isobutyl Ketone	BRL	ug/L	1.0	0.048	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Methylene Chloride	BRL	ug/L	2.0	0.073	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Methyl-tert-Butyl Ether	BRL	ug/L	1.0	0.056	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Naphthalene	47	ug/L	1.0	0.094	1	SM6200 B	11/24/10 22:19	LMW	P0K0656

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AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: PZ-4  
Prism Sample ID: 0110590-04  
Prism Work Order: 0110590  
Time Collected: 11/16/10 12:00  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
n-Butylbenzene	3.5	ug/L	0.50	0.059	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
n-Propylbenzene	4.4	ug/L	0.50	0.059	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
o-Xylene	7.5	ug/L	0.50	0.064	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
sec-Butylbenzene	2.9	ug/L	0.50	0.054	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Styrene	BRL	ug/L	0.50	0.034	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
tert-Butylbenzene	BRL	ug/L	0.50	0.11	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Tetrachloroethylene	BRL	ug/L	0.50	0.096	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Toluene	1.0	ug/L	0.50	0.057	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
trans-1,2-Dichloroethylene	BRL	ug/L	0.50	0.061	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
trans-1,3-Dichloropropylene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Trichloroethylene	BRL	ug/L	0.50	0.044	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Trichlorofluoromethane	BRL	ug/L	0.50	0.050	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Vinyl acetate	BRL	ug/L	5.0	1.3	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Vinyl chloride	BRL	ug/L	0.50	0.068	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
Xylenes, total	18	ug/L	1.5	0.17	1	SM6200 B	11/24/10 22:19	LMW	P0K0656
<hr/>									
Surrogate									
4-Bromofluorobenzene									
97 %									
Dibromofluoromethane									
108 %									
Toluene-d8									
97 %									
Control Limits									



AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: PZ-5  
Prism Sample ID: 0110590-05  
Prism Work Order: 0110590  
Time Collected: 11/17/10 09:15  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Volatile Organic Compounds by GC/MS</b>									
1,1,1,2-Tetrachloroethane	BRL	ug/L	0.50	0.070	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
1,1,1-Trichloroethane	BRL	ug/L	0.50	0.075	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
1,1,2,2-Tetrachloroethane	BRL	ug/L	0.50	0.075	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
1,1,2-Trichloroethane	BRL	ug/L	0.50	0.068	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
1,1-Dichloroethane	BRL	ug/L	0.50	0.038	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
1,1-Dichloroethylene	BRL	ug/L	0.50	0.057	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
1,1-Dichloropropylene	BRL	ug/L	0.50	0.072	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
1,2,3-Trichlorobenzene	BRL	ug/L	0.50	0.12	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
1,2,3-Trichloropropane	BRL	ug/L	0.50	0.090	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
1,2,4-Trichlorobenzene	BRL	ug/L	0.50	0.15	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
1,2,4-Trimethylbenzene	BRL	ug/L	0.50	0.038	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
1,2-Dibromo-3-chloropropane	BRL	ug/L	2.0	0.59	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
1,2-Dibromoethane	BRL	ug/L	0.50	0.041	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
1,2-Dichlorobenzene	BRL	ug/L	0.50	0.044	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
1,2-Dichloroethane	BRL	ug/L	0.50	0.054	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
1,2-Dichloropropane	BRL	ug/L	0.50	0.062	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
1,3,5-Trimethylbenzene	BRL	ug/L	0.50	0.038	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
1,3-Dichlorobenzene	BRL	ug/L	0.50	0.070	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
1,3-Dichloropropane	BRL	ug/L	0.50	0.054	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
1,4-Dichlorobenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
2,2-Dichloropropane	BRL	ug/L	2.0	0.27	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
2-Chlorotoluene	BRL	ug/L	0.50	0.038	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
4-Chlorotoluene	BRL	ug/L	0.50	0.053	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
4-Isopropyltoluene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Acetone	BRL	ug/L	10	1.5	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Benzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Bromobenzene	BRL	ug/L	0.50	0.088	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Bromochloromethane	BRL	ug/L	0.50	0.050	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Bromodichloromethane	BRL	ug/L	0.50	0.031	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Bromoform	BRL	ug/L	0.50	0.10	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Bromomethane	BRL	ug/L	1.0	0.24	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Carbon Tetrachloride	BRL	ug/L	0.50	0.065	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Chlorobenzene	BRL	ug/L	0.50	0.025	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Chloroethane	BRL	ug/L	0.50	0.088	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Chloroform	BRL	ug/L	0.50	0.053	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Chloromethane	BRL	ug/L	0.50	0.032	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
cis-1,2-Dichloroethylene	BRL	ug/L	0.50	0.061	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
cis-1,3-Dichloropropylene	BRL	ug/L	0.50	0.065	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Dibromochloromethane	BRL	ug/L	0.50	0.062	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Dibromomethane	BRL	ug/L	0.50	0.044	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Dichlorodifluoromethane	BRL	ug/L	1.0	0.057	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Ethanol	BRL	ug/L	200	42	1	SM6200 B	11/30/10 5:26	LMW	P0K0699

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AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: PZ-5  
Prism Sample ID: 0110590-05  
Prism Work Order: 0110590  
Time Collected: 11/17/10 09:15  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Ethylbenzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Hexachlorobutadiene	BRL	ug/L	2.0	0.41	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Isopropyl Ether	BRL	ug/L	0.50	0.042	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Isopropylbenzene (Cumene)	BRL	ug/L	0.50	0.034	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
m,p-Xylenes	BRL	ug/L	1.0	0.11	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/L	1.0	0.11	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/L	5.0	0.83	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Methyl Isobutyl Ketone	BRL	ug/L	1.0	0.048	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Methylene Chloride	BRL	ug/L	2.0	0.073	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
<b>Methyl-tert-Butyl Ether</b>	<b>1.5</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.056</b>	<b>1</b>	<b>SM6200 B</b>	<b>11/30/10 5:26</b>	<b>LMW</b>	<b>P0K0699</b>
<b>Naphthalene</b>	<b>1.8</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.094</b>	<b>1</b>	<b>SM6200 B</b>	<b>11/30/10 5:26</b>	<b>LMW</b>	<b>P0K0699</b>
n-Butylbenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
n-Propylbenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
o-Xylene	BRL	ug/L	0.50	0.064	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
sec-Butylbenzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Styrene	BRL	ug/L	0.50	0.034	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
tert-Butylbenzene	BRL	ug/L	0.50	0.11	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Tetrachloroethylene	BRL	ug/L	0.50	0.096	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Toluene	BRL	ug/L	0.50	0.057	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
trans-1,2-Dichloroethylene	BRL	ug/L	0.50	0.061	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
trans-1,3-Dichloropropylene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Trichloroethylene	BRL	ug/L	0.50	0.044	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Trichlorofluoromethane	BRL	ug/L	0.50	0.050	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Vinyl acetate	BRL	ug/L	5.0	1.3	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Vinyl chloride	BRL	ug/L	0.50	0.068	1	SM6200 B	11/30/10 5:26	LMW	P0K0699
Xylenes, total	BRL	ug/L	1.5	0.17	1	SM6200 B	11/30/10 5:26	LMW	P0K0699

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	98 %	70-130
Dibromofluoromethane	100 %	70-130
Toluene-d8	99 %	70-130



AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: PZ-6  
Prism Sample ID: 0110590-06  
Prism Work Order: 0110590  
Time Collected: 11/17/10 10:00  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Volatile Organic Compounds by GC/MS</b>									
1,1,1,2-Tetrachloroethane	BRL	ug/L	1.0	0.14	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
1,1,1-Trichloroethane	BRL	ug/L	1.0	0.15	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
1,1,2,2-Tetrachloroethane	BRL	ug/L	1.0	0.15	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
1,1,2-Trichloroethane	BRL	ug/L	1.0	0.14	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
1,1-Dichloroethane	BRL	ug/L	1.0	0.076	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
1,1-Dichloroethylene	BRL	ug/L	1.0	0.11	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
1,1-Dichloropropylene	BRL	ug/L	1.0	0.14	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
1,2,3-Trichlorobenzene	BRL	ug/L	1.0	0.23	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
1,2,3-Trichloropropane	BRL	ug/L	1.0	0.18	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
1,2,4-Trichlorobenzene	BRL	ug/L	1.0	0.30	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
<b>1,2,4-Trimethylbenzene</b>	<b>4.3</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.076</b>	<b>2</b>	<b>SM6200 B</b>	<b>11/29/10 23:40</b>	<b>LMW</b>	<b>P0K0699</b>
1,2-Dibromo-3-chloropropane	BRL	ug/L	4.0	1.2	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
1,2-Dibromoethane	BRL	ug/L	1.0	0.082	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
1,2-Dichlorobenzene	BRL	ug/L	1.0	0.088	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
1,2-Dichloroethane	BRL	ug/L	1.0	0.11	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
1,2-Dichloropropane	BRL	ug/L	1.0	0.12	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
<b>1,3,5-Trimethylbenzene</b>	<b>1.3</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.076</b>	<b>2</b>	<b>SM6200 B</b>	<b>11/29/10 23:40</b>	<b>LMW</b>	<b>P0K0699</b>
1,3-Dichlorobenzene	BRL	ug/L	1.0	0.14	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
1,3-Dichloropropane	BRL	ug/L	1.0	0.11	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
1,4-Dichlorobenzene	BRL	ug/L	1.0	0.12	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
2,2-Dichloropropane	BRL	ug/L	4.0	0.54	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
2-Chlorotoluene	BRL	ug/L	1.0	0.076	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
4-Chlorotoluene	BRL	ug/L	1.0	0.11	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
4-Isopropyltoluene	BRL	ug/L	1.0	0.12	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Acetone	BRL	ug/L	20	3.0	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Benzene	BRL	ug/L	1.0	0.11	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Bromobenzene	BRL	ug/L	1.0	0.18	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Bromochloromethane	BRL	ug/L	1.0	0.10	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Bromodichloromethane	BRL	ug/L	1.0	0.062	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Bromoform	BRL	ug/L	1.0	0.21	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Bromomethane	BRL	ug/L	2.0	0.49	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Carbon Tetrachloride	BRL	ug/L	1.0	0.13	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Chlorobenzene	BRL	ug/L	1.0	0.050	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Chloroethane	BRL	ug/L	1.0	0.18	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Chloroform	BRL	ug/L	1.0	0.11	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Chloromethane	BRL	ug/L	1.0	0.064	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
cis-1,2-Dichloroethylene	BRL	ug/L	1.0	0.12	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
cis-1,3-Dichloropropylene	BRL	ug/L	1.0	0.13	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Dibromochloromethane	BRL	ug/L	1.0	0.12	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Dibromomethane	BRL	ug/L	1.0	0.088	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Dichlorodifluoromethane	BRL	ug/L	2.0	0.11	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Ethanol	BRL	ug/L	400	85	2	SM6200 B	11/29/10 23:40	LMW	P0K0699

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AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: PZ-6  
Prism Sample ID: 0110590-06  
Prism Work Order: 0110590  
Time Collected: 11/17/10 10:00  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Ethylbenzene	BRL	ug/L	1.0	0.11	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Hexachlorobutadiene	BRL	ug/L	4.0	0.82	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Isopropyl Ether	BRL	ug/L	1.0	0.084	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Isopropylbenzene (Cumene)	BRL	ug/L	1.0	0.068	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
m,p-Xylenes	BRL	ug/L	2.0	0.22	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/L	2.0	0.22	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/L	10	1.7	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Methyl Isobutyl Ketone	BRL	ug/L	2.0	0.096	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Methylene Chloride	BRL	ug/L	4.0	0.15	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Methyl-tert-Butyl Ether	BRL	ug/L	2.0	0.11	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
<b>Naphthalene</b>	<b>7.1</b>	<b>ug/L</b>	<b>2.0</b>	<b>0.19</b>	<b>2</b>	<b>SM6200 B</b>	<b>11/29/10 23:40</b>	<b>LMW</b>	<b>P0K0699</b>
n-Butylbenzene	BRL	ug/L	1.0	0.12	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
n-Propylbenzene	BRL	ug/L	1.0	0.12	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
o-Xylene	BRL	ug/L	1.0	0.13	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
sec-Butylbenzene	BRL	ug/L	1.0	0.11	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Styrene	BRL	ug/L	1.0	0.068	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
tert-Butylbenzene	BRL	ug/L	1.0	0.22	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Tetrachloroethylene	BRL	ug/L	1.0	0.19	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Toluene	BRL	ug/L	1.0	0.11	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
trans-1,2-Dichloroethylene	BRL	ug/L	1.0	0.12	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
trans-1,3-Dichloropropylene	BRL	ug/L	1.0	0.11	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Trichloroethylene	BRL	ug/L	1.0	0.088	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Trichlorofluoromethane	BRL	ug/L	1.0	0.10	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Vinyl acetate	BRL	ug/L	10	2.6	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Vinyl chloride	BRL	ug/L	1.0	0.14	2	SM6200 B	11/29/10 23:40	LMW	P0K0699
Xylenes, total	BRL	ug/L	3.0	0.34	2	SM6200 B	11/29/10 23:40	LMW	P0K0699

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	97 %	70-130
Dibromofluoromethane	101 %	70-130
Toluene-d8	98 %	70-130



AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: GW-2  
Prism Sample ID: 0110590-07  
Prism Work Order: 0110590  
Time Collected: 11/16/10 12:30  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	ug/L	10	2.2	1	8270D	11/25/10 1:00	KC	P0K0641
1,2-Dichlorobenzene	BRL	ug/L	10	1.8	1	8270D	11/25/10 1:00	KC	P0K0641
1,3-Dichlorobenzene	BRL	ug/L	10	1.8	1	8270D	11/25/10 1:00	KC	P0K0641
1,4-Dichlorobenzene	BRL	ug/L	10	2.0	1	8270D	11/25/10 1:00	KC	P0K0641
2,4,5-Trichlorophenol	BRL	ug/L	10	2.5	1	8270D	11/25/10 1:00	KC	P0K0641
2,4,6-Trichlorophenol	BRL	ug/L	10	2.3	1	8270D	11/25/10 1:00	KC	P0K0641
2,4-Dichlorophenol	BRL	ug/L	10	2.4	1	8270D	11/25/10 1:00	KC	P0K0641
2,4-Dimethylphenol	BRL	ug/L	10	2.4	1	8270D	11/25/10 1:00	KC	P0K0641
2,4-Dinitrophenol	BRL	ug/L	10	2.4	1	8270D	11/25/10 1:00	KC	P0K0641
2,4-Dinitrotoluene	BRL	ug/L	10	0.95	1	8270D	11/25/10 1:00	KC	P0K0641
2,6-Dinitrotoluene	BRL	ug/L	10	1.6	1	8270D	11/25/10 1:00	KC	P0K0641
2-Chloronaphthalene	BRL	ug/L	10	2.3	1	8270D	11/25/10 1:00	KC	P0K0641
2-Chlorophenol	BRL	ug/L	10	2.1	1	8270D	11/25/10 1:00	KC	P0K0641
<b>2-Methylnaphthalene</b>	<b>3.9 J</b>	<b>ug/L</b>	<b>10</b>	<b>2.6</b>	<b>1</b>	<b>8270D</b>	<b>11/25/10 1:00</b>	<b>KC</b>	<b>P0K0641</b>
2-Methylphenol	BRL	ug/L	10	2.4	1	8270D	11/25/10 1:00	KC	P0K0641
2-Nitroaniline	BRL	ug/L	10	1.9	1	8270D	11/25/10 1:00	KC	P0K0641
2-Nitrophenol	BRL	ug/L	10	2.5	1	8270D	11/25/10 1:00	KC	P0K0641
3,3'-Dichlorobenzidine	BRL	ug/L	10	0.96	1	8270D	11/25/10 1:00	KC	P0K0641
3/4-Methylphenol	BRL	ug/L	10	2.4	1	8270D	11/25/10 1:00	KC	P0K0641
3-Nitroaniline	BRL	ug/L	10	1.3	1	8270D	11/25/10 1:00	KC	P0K0641
4,6-Dinitro-2-methylphenol	BRL	ug/L	10	2.7	1	8270D	11/25/10 1:00	KC	P0K0641
4-Bromophenyl phenyl ether	BRL	ug/L	10	1.8	1	8270D	11/25/10 1:00	KC	P0K0641
4-Chloro-3-methylphenol	BRL	ug/L	10	2.3	1	8270D	11/25/10 1:00	KC	P0K0641
4-Chloroaniline	BRL	ug/L	10	2.5	1	8270D	11/25/10 1:00	KC	P0K0641
4-Chlorophenyl phenyl ether	BRL	ug/L	10	1.8	1	8270D	11/25/10 1:00	KC	P0K0641
4-Nitroaniline	BRL	ug/L	10	0.91	1	8270D	11/25/10 1:00	KC	P0K0641
4-Nitrophenol	BRL	ug/L	10	2.6	1	8270D	11/25/10 1:00	KC	P0K0641
Acenaphthene	BRL	ug/L	10	2.1	1	8270D	11/25/10 1:00	KC	P0K0641
Acenaphthylene	BRL	ug/L	10	2.2	1	8270D	11/25/10 1:00	KC	P0K0641
Aniline	BRL	ug/L	10	2.2	1	8270D	11/25/10 1:00	KC	P0K0641
Anthracene	BRL	ug/L	10	1.2	1	8270D	11/25/10 1:00	KC	P0K0641
Azobenzene	BRL	ug/L	10	1.8	1	8270D	11/25/10 1:00	KC	P0K0641
Benzo(a)anthracene	BRL	ug/L	10	0.95	1	8270D	11/25/10 1:00	KC	P0K0641
Benzo(a)pyrene	BRL	ug/L	10	1.1	1	8270D	11/25/10 1:00	KC	P0K0641
Benzo(b)fluoranthene	BRL	ug/L	10	1.4	1	8270D	11/25/10 1:00	KC	P0K0641
Benzo(g,h,i)perylene	BRL	ug/L	10	2.1	1	8270D	11/25/10 1:00	KC	P0K0641
Benzo(k)fluoranthene	BRL	ug/L	10	1.1	1	8270D	11/25/10 1:00	KC	P0K0641
Benzoic Acid	BRL	ug/L	100	50	1	8270D	11/25/10 1:00	KC	P0K0641
Benzyl alcohol	BRL	ug/L	10	2.1	1	8270D	11/25/10 1:00	KC	P0K0641
bis(2-Chloroethoxy)methane	BRL	ug/L	10	2.2	1	8270D	11/25/10 1:00	KC	P0K0641
Bis(2-Chloroethyl)ether	BRL	ug/L	10	1.9	1	8270D	11/25/10 1:00	KC	P0K0641
Bis(2-chloroisopropyl)ether	BRL	ug/L	10	2.3	1	8270D	11/25/10 1:00	KC	P0K0641

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AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: GW-2  
Prism Sample ID: 0110590-07  
Prism Work Order: 0110590  
Time Collected: 11/16/10 12:30  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Bis(2-Ethylhexyl)phthalate	BRL	ug/L	10	1.8	1	8270D	11/25/10 1:00	KC	P0K0641
Butyl benzyl phthalate	BRL	ug/L	10	1.5	1	8270D	11/25/10 1:00	KC	P0K0641
Chrysene	BRL	ug/L	10	1.2	1	8270D	11/25/10 1:00	KC	P0K0641
Dibenzo(a,h)anthracene	BRL	ug/L	10	1.8	1	8270D	11/25/10 1:00	KC	P0K0641
Dibenzofuran	BRL	ug/L	10	2.2	1	8270D	11/25/10 1:00	KC	P0K0641
Diethyl phthalate	BRL	ug/L	10	1.4	1	8270D	11/25/10 1:00	KC	P0K0641
Dimethyl phthalate	BRL	ug/L	10	1.6	1	8270D	11/25/10 1:00	KC	P0K0641
Di-n-butyl phthalate	BRL	ug/L	10	1.8	1	8270D	11/25/10 1:00	KC	P0K0641
Di-n-octyl phthalate	BRL	ug/L	10	1.9	1	8270D	11/25/10 1:00	KC	P0K0641
Fluoranthene	BRL	ug/L	10	0.94	1	8270D	11/25/10 1:00	KC	P0K0641
Fluorene	BRL	ug/L	10	1.8	1	8270D	11/25/10 1:00	KC	P0K0641
Hexachlorobenzene	BRL	ug/L	10	1.4	1	8270D	11/25/10 1:00	KC	P0K0641
Hexachlorobutadiene	BRL	ug/L	10	2.3	1	8270D	11/25/10 1:00	KC	P0K0641
Hexachlorocyclopentadiene	BRL	ug/L	10	1.8	1	8270D	11/25/10 1:00	KC	P0K0641
Hexachloroethane	BRL	ug/L	10	1.9	1	8270D	11/25/10 1:00	KC	P0K0641
Indeno(1,2,3-cd)pyrene	BRL	ug/L	10	1.6	1	8270D	11/25/10 1:00	KC	P0K0641
Isophorone	BRL	ug/L	10	2.4	1	8270D	11/25/10 1:00	KC	P0K0641
Naphthalene	BRL	ug/L	10	2.3	1	8270D	11/25/10 1:00	KC	P0K0641
Nitrobenzene	BRL	ug/L	10	2.0	1	8270D	11/25/10 1:00	KC	P0K0641
N-Nitroso-di-n-propylamine	BRL	ug/L	10	2.3	1	8270D	11/25/10 1:00	KC	P0K0641
N-Nitrosodiphenylamine	BRL	ug/L	10	1.6	1	8270D	11/25/10 1:00	KC	P0K0641
Pentachlorophenol	BRL	ug/L	10	1.6	1	8270D	11/25/10 1:00	KC	P0K0641
Phenanthrene	BRL	ug/L	10	1.2	1	8270D	11/25/10 1:00	KC	P0K0641
Phenol	BRL	ug/L	10	2.2	1	8270D	11/25/10 1:00	KC	P0K0641
Pyrene	BRL	ug/L	10	1.4	1	8270D	11/25/10 1:00	KC	P0K0641

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	86 %	26-139
2-Fluorobiphenyl	75 %	41-112
2-Fluorophenol	47 %	10-48
Nitrobenzene-d5	74 %	34-102
Phenol-d5	32 %	10-34
Terphenyl-d14	81 %	31-165

#### Volatile Organic Compounds by GC/MS

1,1,1,2-Tetrachloroethane	BRL	ug/L	0.50	0.070	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
1,1,1-Trichloroethane	BRL	ug/L	0.50	0.075	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
1,1,2,2-Tetrachloroethane	BRL	ug/L	0.50	0.075	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
1,1,2-Trichloroethane	BRL	ug/L	0.50	0.068	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
1,1-Dichloroethane	BRL	ug/L	0.50	0.038	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
1,1-Dichloroethylene	BRL	ug/L	0.50	0.057	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
1,1-Dichloropropylene	BRL	ug/L	0.50	0.072	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
1,2,3-Trichlorobenzene	BRL	ug/L	0.50	0.12	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
1,2,3-Trichloropropane	BRL	ug/L	0.50	0.090	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
1,2,4-Trichlorobenzene	BRL	ug/L	0.50	0.15	1	SM6200 B	11/24/10 18:52	LMW	P0K0656

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AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: GW-2  
Prism Sample ID: 0110590-07  
Prism Work Order: 0110590  
Time Collected: 11/16/10 12:30  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
1,2,4-Trimethylbenzene	13	ug/L	0.50	0.038	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
1,2-Dibromo-3-chloropropane	BRL	ug/L	2.0	0.59	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
1,2-Dibromoethane	BRL	ug/L	0.50	0.041	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
1,2-Dichlorobenzene	BRL	ug/L	0.50	0.044	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
1,2-Dichloroethane	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
1,2-Dichloropropane	BRL	ug/L	0.50	0.062	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
1,3,5-Trimethylbenzene	3.8	ug/L	0.50	0.038	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
1,3-Dichlorobenzene	BRL	ug/L	0.50	0.070	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
1,3-Dichloropropane	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
1,4-Dichlorobenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
2,2-Dichloropropane	BRL	ug/L	2.0	0.27	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
2-Chlorotoluene	BRL	ug/L	0.50	0.038	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
4-Chlorotoluene	BRL	ug/L	0.50	0.053	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
4-Isopropyltoluene	1.6	ug/L	0.50	0.059	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Acetone	BRL	ug/L	10	1.5	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Benzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Bromobenzene	BRL	ug/L	0.50	0.088	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Bromochloromethane	BRL	ug/L	0.50	0.050	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Bromodichloromethane	BRL	ug/L	0.50	0.031	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Bromoform	BRL	ug/L	0.50	0.10	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Bromomethane	BRL	ug/L	1.0	0.24	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Carbon Tetrachloride	BRL	ug/L	0.50	0.065	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Chlorobenzene	BRL	ug/L	0.50	0.025	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Chloroethane	BRL	ug/L	0.50	0.088	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Chloroform	BRL	ug/L	0.50	0.053	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Chloromethane	BRL	ug/L	0.50	0.032	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
cis-1,2-Dichloroethylene	BRL	ug/L	0.50	0.061	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
cis-1,3-Dichloropropylene	BRL	ug/L	0.50	0.065	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Dibromochloromethane	BRL	ug/L	0.50	0.062	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Dibromomethane	BRL	ug/L	0.50	0.044	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Dichlorodifluoromethane	BRL	ug/L	1.0	0.057	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Ethanol	BRL	ug/L	200	42	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Ethylbenzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Hexachlorobutadiene	BRL	ug/L	2.0	0.41	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Isopropyl Ether	BRL	ug/L	0.50	0.042	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
<b>Isopropylbenzene (Cumene)</b>	<b>0.76</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.034</b>	<b>1</b>	<b>SM6200 B</b>	<b>11/24/10 18:52</b>	<b>LMW</b>	<b>P0K0656</b>
<b>m,p-Xylenes</b>	<b>0.80 J</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.11</b>	<b>1</b>	<b>SM6200 B</b>	<b>11/24/10 18:52</b>	<b>LMW</b>	<b>P0K0656</b>
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/L	1.0	0.11	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/L	5.0	0.83	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Methyl Isobutyl Ketone	BRL	ug/L	1.0	0.048	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Methylene Chloride	BRL	ug/L	2.0	0.073	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Methyl-tert-Butyl Ether	BRL	ug/L	1.0	0.056	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
<b>Naphthalene</b>	<b>9.4</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.094</b>	<b>1</b>	<b>SM6200 B</b>	<b>11/24/10 18:52</b>	<b>LMW</b>	<b>P0K0656</b>

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AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: GW-2  
Prism Sample ID: 0110590-07  
Prism Work Order: 0110590  
Time Collected: 11/16/10 12:30  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
n-Butylbenzene	2.4	ug/L	0.50	0.059	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
n-Propylbenzene	1.6	ug/L	0.50	0.059	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
o-Xylene	BRL	ug/L	0.50	0.064	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
sec-Butylbenzene	2.0	ug/L	0.50	0.054	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Styrene	BRL	ug/L	0.50	0.034	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
tert-Butylbenzene	BRL	ug/L	0.50	0.11	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Tetrachloroethylene	BRL	ug/L	0.50	0.096	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Toluene	BRL	ug/L	0.50	0.057	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
trans-1,2-Dichloroethylene	BRL	ug/L	0.50	0.061	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
trans-1,3-Dichloropropylene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Trichloroethylene	BRL	ug/L	0.50	0.044	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Trichlorofluoromethane	BRL	ug/L	0.50	0.050	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Vinyl acetate	BRL	ug/L	5.0	1.3	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Vinyl chloride	BRL	ug/L	0.50	0.068	1	SM6200 B	11/24/10 18:52	LMW	P0K0656
Xylenes, total	0.80 J	ug/L	1.5	0.17	1	SM6200 B	11/24/10 18:52	LMW	P0K0656

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	93 %	70-130
Dibromofluoromethane	105 %	70-130
Toluene-d8	92 %	70-130

AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: GW-3  
Prism Sample ID: 0110590-08  
Prism Work Order: 0110590  
Time Collected: 11/16/10 13:15  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Semivolatile Organic Compounds by GC/MS</b>									
1,2,4-Trichlorobenzene	BRL	ug/L	10	2.2	1	8270D	11/25/10 1:35	KC	P0K0641
1,2-Dichlorobenzene	BRL	ug/L	10	1.8	1	8270D	11/25/10 1:35	KC	P0K0641
1,3-Dichlorobenzene	BRL	ug/L	10	1.8	1	8270D	11/25/10 1:35	KC	P0K0641
1,4-Dichlorobenzene	BRL	ug/L	10	2.0	1	8270D	11/25/10 1:35	KC	P0K0641
2,4,5-Trichlorophenol	BRL	ug/L	10	2.5	1	8270D	11/25/10 1:35	KC	P0K0641
2,4,6-Trichlorophenol	BRL	ug/L	10	2.3	1	8270D	11/25/10 1:35	KC	P0K0641
2,4-Dichlorophenol	BRL	ug/L	10	2.4	1	8270D	11/25/10 1:35	KC	P0K0641
2,4-Dimethylphenol	BRL	ug/L	10	2.4	1	8270D	11/25/10 1:35	KC	P0K0641
2,4-Dinitrophenol	BRL	ug/L	10	2.4	1	8270D	11/25/10 1:35	KC	P0K0641
2,4-Dinitrotoluene	BRL	ug/L	10	0.95	1	8270D	11/25/10 1:35	KC	P0K0641
2,6-Dinitrotoluene	BRL	ug/L	10	1.6	1	8270D	11/25/10 1:35	KC	P0K0641
2-Chloronaphthalene	BRL	ug/L	10	2.3	1	8270D	11/25/10 1:35	KC	P0K0641
2-Chlorophenol	BRL	ug/L	10	2.1	1	8270D	11/25/10 1:35	KC	P0K0641
2-Methylnaphthalene	BRL	ug/L	10	2.6	1	8270D	11/25/10 1:35	KC	P0K0641
2-Methylphenol	BRL	ug/L	10	2.4	1	8270D	11/25/10 1:35	KC	P0K0641
2-Nitroaniline	BRL	ug/L	10	1.9	1	8270D	11/25/10 1:35	KC	P0K0641
2-Nitrophenol	BRL	ug/L	10	2.5	1	8270D	11/25/10 1:35	KC	P0K0641
3,3'-Dichlorobenzidine	BRL	ug/L	10	0.96	1	8270D	11/25/10 1:35	KC	P0K0641
3/4-Methylphenol	BRL	ug/L	10	2.4	1	8270D	11/25/10 1:35	KC	P0K0641
3-Nitroaniline	BRL	ug/L	10	1.3	1	8270D	11/25/10 1:35	KC	P0K0641
4,6-Dinitro-2-methylphenol	BRL	ug/L	10	2.7	1	8270D	11/25/10 1:35	KC	P0K0641
4-Bromophenyl phenyl ether	BRL	ug/L	10	1.8	1	8270D	11/25/10 1:35	KC	P0K0641
4-Chloro-3-methylphenol	BRL	ug/L	10	2.3	1	8270D	11/25/10 1:35	KC	P0K0641
4-Chloroaniline	BRL	ug/L	10	2.5	1	8270D	11/25/10 1:35	KC	P0K0641
4-Chlorophenyl phenyl ether	BRL	ug/L	10	1.8	1	8270D	11/25/10 1:35	KC	P0K0641
4-Nitroaniline	BRL	ug/L	10	0.91	1	8270D	11/25/10 1:35	KC	P0K0641
4-Nitrophenol	BRL	ug/L	10	2.6	1	8270D	11/25/10 1:35	KC	P0K0641
Acenaphthene	BRL	ug/L	10	2.1	1	8270D	11/25/10 1:35	KC	P0K0641
Acenaphthylene	BRL	ug/L	10	2.2	1	8270D	11/25/10 1:35	KC	P0K0641
Aniline	BRL	ug/L	10	2.2	1	8270D	11/25/10 1:35	KC	P0K0641
Anthracene	BRL	ug/L	10	1.2	1	8270D	11/25/10 1:35	KC	P0K0641
Azobenzene	BRL	ug/L	10	1.8	1	8270D	11/25/10 1:35	KC	P0K0641
Benzo(a)anthracene	BRL	ug/L	10	0.95	1	8270D	11/25/10 1:35	KC	P0K0641
Benzo(a)pyrene	BRL	ug/L	10	1.1	1	8270D	11/25/10 1:35	KC	P0K0641
Benzo(b)fluoranthene	BRL	ug/L	10	1.4	1	8270D	11/25/10 1:35	KC	P0K0641
Benzo(g,h,i)perylene	BRL	ug/L	10	2.1	1	8270D	11/25/10 1:35	KC	P0K0641
Benzo(k)fluoranthene	BRL	ug/L	10	1.1	1	8270D	11/25/10 1:35	KC	P0K0641
Benzoic Acid	BRL	ug/L	100	50	1	8270D	11/25/10 1:35	KC	P0K0641
Benzyl alcohol	BRL	ug/L	10	2.1	1	8270D	11/25/10 1:35	KC	P0K0641
bis(2-Chloroethoxy)methane	BRL	ug/L	10	2.2	1	8270D	11/25/10 1:35	KC	P0K0641
Bis(2-Chloroethyl)ether	BRL	ug/L	10	1.9	1	8270D	11/25/10 1:35	KC	P0K0641
Bis(2-chloroisopropyl)ether	BRL	ug/L	10	2.3	1	8270D	11/25/10 1:35	KC	P0K0641

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AECOM (Earth Tech) NCDOT Proj.  
 Attn: Mike Branson  
 Suite 475, 701 Corporate Center Dr.  
 Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
 (Gilliani)  
 Project No.: WBS#35609.1.1  
 Sample Matrix: Water

Client Sample ID: GW-3  
 Prism Sample ID: 0110590-08  
 Prism Work Order: 0110590  
 Time Collected: 11/16/10 13:15  
 Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Bis(2-Ethylhexyl)phthalate	BRL	ug/L	10	1.8	1	8270D	11/25/10 1:35	KC	P0K0641
Butyl benzyl phthalate	BRL	ug/L	10	1.5	1	8270D	11/25/10 1:35	KC	P0K0641
Chrysene	BRL	ug/L	10	1.2	1	8270D	11/25/10 1:35	KC	P0K0641
Dibenzo(a,h)anthracene	BRL	ug/L	10	1.8	1	8270D	11/25/10 1:35	KC	P0K0641
Dibenzofuran	BRL	ug/L	10	2.2	1	8270D	11/25/10 1:35	KC	P0K0641
Diethyl phthalate	BRL	ug/L	10	1.4	1	8270D	11/25/10 1:35	KC	P0K0641
Dimethyl phthalate	BRL	ug/L	10	1.6	1	8270D	11/25/10 1:35	KC	P0K0641
Di-n-butyl phthalate	BRL	ug/L	10	1.8	1	8270D	11/25/10 1:35	KC	P0K0641
Di-n-octyl phthalate	BRL	ug/L	10	1.9	1	8270D	11/25/10 1:35	KC	P0K0641
Fluoranthene	BRL	ug/L	10	0.94	1	8270D	11/25/10 1:35	KC	P0K0641
Fluorene	BRL	ug/L	10	1.8	1	8270D	11/25/10 1:35	KC	P0K0641
Hexachlorobenzene	BRL	ug/L	10	1.4	1	8270D	11/25/10 1:35	KC	P0K0641
Hexachlorobutadiene	BRL	ug/L	10	2.3	1	8270D	11/25/10 1:35	KC	P0K0641
Hexachlorocyclopentadiene	BRL	ug/L	10	1.8	1	8270D	11/25/10 1:35	KC	P0K0641
Hexachloroethane	BRL	ug/L	10	1.9	1	8270D	11/25/10 1:35	KC	P0K0641
Indeno(1,2,3-cd)pyrene	BRL	ug/L	10	1.6	1	8270D	11/25/10 1:35	KC	P0K0641
Isophorone	BRL	ug/L	10	2.4	1	8270D	11/25/10 1:35	KC	P0K0641
Naphthalene	BRL	ug/L	10	2.3	1	8270D	11/25/10 1:35	KC	P0K0641
Nitrobenzene	BRL	ug/L	10	2.0	1	8270D	11/25/10 1:35	KC	P0K0641
N-Nitroso-di-n-propylamine	BRL	ug/L	10	2.3	1	8270D	11/25/10 1:35	KC	P0K0641
N-Nitrosodiphenylamine	BRL	ug/L	10	1.6	1	8270D	11/25/10 1:35	KC	P0K0641
Pentachlorophenol	BRL	ug/L	10	1.6	1	8270D	11/25/10 1:35	KC	P0K0641
Phenanthrene	BRL	ug/L	10	1.2	1	8270D	11/25/10 1:35	KC	P0K0641
Phenol	BRL	ug/L	10	2.2	1	8270D	11/25/10 1:35	KC	P0K0641
Pyrene	BRL	ug/L	10	1.4	1	8270D	11/25/10 1:35	KC	P0K0641

Surrogate	Recovery	Control Limits
2,4,6-Tribromophenol	83 %	26-139
2-Fluorobiphenyl	91 %	41-112
2-Fluorophenol	52 %	10-48
Nitrobenzene-d5	86 %	34-102
Phenol-d5	36 %	10-34
Terphenyl-d14	79 %	31-165

#### Volatile Organic Compounds by GC/MS

1,1,1,2-Tetrachloroethane	BRL	ug/L	0.50	0.070	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
1,1,1-Trichloroethane	BRL	ug/L	0.50	0.075	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
1,1,2,2-Tetrachloroethane	BRL	ug/L	0.50	0.075	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
1,1,2-Trichloroethane	BRL	ug/L	0.50	0.068	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
1,1-Dichloroethane	BRL	ug/L	0.50	0.038	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
1,1-Dichloroethylene	BRL	ug/L	0.50	0.057	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
1,1-Dichloropropylene	BRL	ug/L	0.50	0.072	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
1,2,3-Trichlorobenzene	BRL	ug/L	0.50	0.12	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
1,2,3-Trichloropropane	BRL	ug/L	0.50	0.090	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
1,2,4-Trichlorobenzene	BRL	ug/L	0.50	0.15	1	SM6200 B	11/24/10 19:22	LMW	P0K0656

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AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: GW-3  
Prism Sample ID: 0110590-08  
Prism Work Order: 0110590  
Time Collected: 11/16/10 13:15  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
1,2,4-Trimethylbenzene	2.1	ug/L	0.50	0.038	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
1,2-Dibromo-3-chloropropane	BRL	ug/L	2.0	0.59	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
1,2-Dibromoethane	BRL	ug/L	0.50	0.041	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
1,2-Dichlorobenzene	BRL	ug/L	0.50	0.044	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
1,2-Dichloroethane	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
1,2-Dichloropropane	BRL	ug/L	0.50	0.062	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
1,3,5-Trimethylbenzene	0.52	ug/L	0.50	0.038	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
1,3-Dichlorobenzene	BRL	ug/L	0.50	0.070	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
1,3-Dichloropropane	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
1,4-Dichlorobenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
2,2-Dichloropropane	BRL	ug/L	2.0	0.27	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
2-Chlorotoluene	BRL	ug/L	0.50	0.038	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
4-Chlorotoluene	BRL	ug/L	0.50	0.053	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
4-Isopropyltoluene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Acetone	BRL	ug/L	10	1.5	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Benzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Bromobenzene	BRL	ug/L	0.50	0.088	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Bromochloromethane	BRL	ug/L	0.50	0.050	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Bromodichloromethane	BRL	ug/L	0.50	0.031	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Bromoform	BRL	ug/L	0.50	0.10	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Bromomethane	BRL	ug/L	1.0	0.24	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Carbon Tetrachloride	BRL	ug/L	0.50	0.065	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Chlorobenzene	BRL	ug/L	0.50	0.025	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Chloroethane	BRL	ug/L	0.50	0.088	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Chloroform	BRL	ug/L	0.50	0.053	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Chloromethane	BRL	ug/L	0.50	0.032	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
cis-1,2-Dichloroethylene	BRL	ug/L	0.50	0.061	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
cis-1,3-Dichloropropylene	BRL	ug/L	0.50	0.065	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Dibromochloromethane	BRL	ug/L	0.50	0.062	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Dibromomethane	BRL	ug/L	0.50	0.044	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Dichlorodifluoromethane	BRL	ug/L	1.0	0.057	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Ethanol	BRL	ug/L	200	42	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Ethylbenzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Hexachlorobutadiene	BRL	ug/L	2.0	0.41	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Isopropyl Ether	BRL	ug/L	0.50	0.042	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Isopropylbenzene (Cumene)	BRL	ug/L	0.50	0.034	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
m,p-Xylenes	BRL	ug/L	1.0	0.11	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/L	1.0	0.11	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/L	5.0	0.83	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Methyl Isobutyl Ketone	BRL	ug/L	1.0	0.048	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Methylene Chloride	BRL	ug/L	2.0	0.073	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Methyl-tert-Butyl Ether	BRL	ug/L	1.0	0.056	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Naphthalene	3.0	ug/L	1.0	0.094	1	SM6200 B	11/24/10 19:22	LMW	P0K0656

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AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: GW-3  
Prism Sample ID: 0110590-08  
Prism Work Order: 0110590  
Time Collected: 11/16/10 13:15  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
n-Butylbenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
n-Propylbenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
o-Xylene	BRL	ug/L	0.50	0.064	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
<b>sec-Butylbenzene</b>	<b>0.59</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.054</b>	<b>1</b>	<b>SM6200 B</b>	<b>11/24/10 19:22</b>	<b>LMW</b>	<b>P0K0656</b>
Styrene	BRL	ug/L	0.50	0.034	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
tert-Butylbenzene	BRL	ug/L	0.50	0.11	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Tetrachloroethylene	BRL	ug/L	0.50	0.096	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Toluene	BRL	ug/L	0.50	0.057	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
trans-1,2-Dichloroethylene	BRL	ug/L	0.50	0.061	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
trans-1,3-Dichloropropylene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Trichloroethylene	BRL	ug/L	0.50	0.044	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Trichlorofluoromethane	BRL	ug/L	0.50	0.050	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Vinyl acetate	BRL	ug/L	5.0	1.3	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Vinyl chloride	BRL	ug/L	0.50	0.068	1	SM6200 B	11/24/10 19:22	LMW	P0K0656
Xylenes, total	BRL	ug/L	1.5	0.17	1	SM6200 B	11/24/10 19:22	LMW	P0K0656

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	101 %	70-130
Dibromofluoromethane	109 %	70-130
Toluene-d8	98 %	70-130



AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: GW-4  
Prism Sample ID: 0110590-09  
Prism Work Order: 0110590  
Time Collected: 11/16/10 14:00  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Volatile Organic Compounds by GC/MS</b>									
1,1,1,2-Tetrachloroethane	BRL	ug/L	0.50	0.070	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
1,1,1-Trichloroethane	BRL	ug/L	0.50	0.075	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
1,1,2,2-Tetrachloroethane	BRL	ug/L	0.50	0.075	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
1,1,2-Trichloroethane	BRL	ug/L	0.50	0.068	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
1,1-Dichloroethane	BRL	ug/L	0.50	0.038	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
1,1-Dichloroethylene	BRL	ug/L	0.50	0.057	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
1,1-Dichloropropylene	BRL	ug/L	0.50	0.072	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
1,2,3-Trichlorobenzene	BRL	ug/L	0.50	0.12	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
1,2,3-Trichloropropane	BRL	ug/L	0.50	0.090	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
1,2,4-Trichlorobenzene	BRL	ug/L	0.50	0.15	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
<b>1,2,4-Trimethylbenzene</b>	<b>0.56</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.038</b>	<b>1</b>	<b>SM6200 B</b>	<b>11/24/10 19:52</b>	<b>LMW</b>	<b>P0K0656</b>
1,2-Dibromo-3-chloropropane	BRL	ug/L	2.0	0.59	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
1,2-Dibromoethane	BRL	ug/L	0.50	0.041	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
1,2-Dichlorobenzene	BRL	ug/L	0.50	0.044	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
1,2-Dichloroethane	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
1,2-Dichloropropane	BRL	ug/L	0.50	0.062	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
1,3,5-Trimethylbenzene	BRL	ug/L	0.50	0.038	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
1,3-Dichlorobenzene	BRL	ug/L	0.50	0.070	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
1,3-Dichloropropane	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
1,4-Dichlorobenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
2,2-Dichloropropane	BRL	ug/L	2.0	0.27	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
2-Chlorotoluene	BRL	ug/L	0.50	0.038	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
4-Chlorotoluene	BRL	ug/L	0.50	0.053	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
4-Isopropyltoluene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Acetone	BRL	ug/L	10	1.5	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Benzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Bromobenzene	BRL	ug/L	0.50	0.088	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Bromochloromethane	BRL	ug/L	0.50	0.050	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Bromodichloromethane	BRL	ug/L	0.50	0.031	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Bromoform	BRL	ug/L	0.50	0.10	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Bromomethane	BRL	ug/L	1.0	0.24	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Carbon Tetrachloride	BRL	ug/L	0.50	0.065	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Chlorobenzene	BRL	ug/L	0.50	0.025	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Chloroethane	BRL	ug/L	0.50	0.088	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Chloroform	BRL	ug/L	0.50	0.053	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Chloromethane	BRL	ug/L	0.50	0.032	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
cis-1,2-Dichloroethylene	BRL	ug/L	0.50	0.061	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
cis-1,3-Dichloropropylene	BRL	ug/L	0.50	0.065	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Dibromochloromethane	BRL	ug/L	0.50	0.062	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Dibromomethane	BRL	ug/L	0.50	0.044	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Dichlorodifluoromethane	BRL	ug/L	1.0	0.057	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Ethanol	BRL	ug/L	200	42	1	SM6200 B	11/24/10 19:52	LMW	P0K0656

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AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: GW-4  
Prism Sample ID: 0110590-09  
Prism Work Order: 0110590  
Time Collected: 11/16/10 14:00  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Ethylbenzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Hexachlorobutadiene	BRL	ug/L	2.0	0.41	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Isopropyl Ether	BRL	ug/L	0.50	0.042	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Isopropylbenzene (Cumene)	BRL	ug/L	0.50	0.034	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
m,p-Xylenes	BRL	ug/L	1.0	0.11	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/L	1.0	0.11	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/L	5.0	0.83	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Methyl Isobutyl Ketone	BRL	ug/L	1.0	0.048	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Methylene Chloride	BRL	ug/L	2.0	0.073	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Methyl-tert-Butyl Ether	BRL	ug/L	1.0	0.056	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
<b>Naphthalene</b>	<b>1.2</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.094</b>	<b>1</b>	<b>SM6200 B</b>	<b>11/24/10 19:52</b>	<b>LMW</b>	<b>P0K0656</b>
n-Butylbenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
n-Propylbenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
o-Xylene	BRL	ug/L	0.50	0.064	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
<b>sec-Butylbenzene</b>	<b>0.54</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.054</b>	<b>1</b>	<b>SM6200 B</b>	<b>11/24/10 19:52</b>	<b>LMW</b>	<b>P0K0656</b>
Styrene	BRL	ug/L	0.50	0.034	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
tert-Butylbenzene	BRL	ug/L	0.50	0.11	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Tetrachloroethylene	BRL	ug/L	0.50	0.096	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Toluene	BRL	ug/L	0.50	0.057	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
trans-1,2-Dichloroethylene	BRL	ug/L	0.50	0.061	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
trans-1,3-Dichloropropylene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Trichloroethylene	BRL	ug/L	0.50	0.044	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Trichlorofluoromethane	BRL	ug/L	0.50	0.050	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Vinyl acetate	BRL	ug/L	5.0	1.3	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Vinyl chloride	BRL	ug/L	0.50	0.068	1	SM6200 B	11/24/10 19:52	LMW	P0K0656
Xylenes, total	BRL	ug/L	1.5	0.17	1	SM6200 B	11/24/10 19:52	LMW	P0K0656

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	96 %	70-130
Dibromofluoromethane	106 %	70-130
Toluene-d8	94 %	70-130



AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: GW-5  
Prism Sample ID: 0110590-10  
Prism Work Order: 0110590  
Time Collected: 11/17/10 08:45  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Volatile Organic Compounds by GC/MS</b>									
1,1,1,2-Tetrachloroethane	BRL	ug/L	1.0	0.14	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
1,1,1-Trichloroethane	BRL	ug/L	1.0	0.15	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
1,1,2,2-Tetrachloroethane	BRL	ug/L	1.0	0.15	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
1,1,2-Trichloroethane	BRL	ug/L	1.0	0.14	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
1,1-Dichloroethane	BRL	ug/L	1.0	0.076	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
1,1-Dichloroethylene	BRL	ug/L	1.0	0.11	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
1,1-Dichloropropylene	BRL	ug/L	1.0	0.14	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
1,2,3-Trichlorobenzene	BRL	ug/L	1.0	0.23	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
1,2,3-Trichloropropane	BRL	ug/L	1.0	0.18	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
1,2,4-Trichlorobenzene	BRL	ug/L	1.0	0.30	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
1,2,4-Trimethylbenzene	BRL	ug/L	1.0	0.076	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
1,2-Dibromo-3-chloropropane	BRL	ug/L	4.0	1.2	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
1,2-Dibromoethane	BRL	ug/L	1.0	0.082	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
1,2-Dichlorobenzene	BRL	ug/L	1.0	0.088	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
1,2-Dichloroethane	BRL	ug/L	1.0	0.11	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
1,2-Dichloropropane	BRL	ug/L	1.0	0.12	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
1,3,5-Trimethylbenzene	BRL	ug/L	1.0	0.076	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
1,3-Dichlorobenzene	BRL	ug/L	1.0	0.14	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
1,3-Dichloropropane	BRL	ug/L	1.0	0.11	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
1,4-Dichlorobenzene	BRL	ug/L	1.0	0.12	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
2,2-Dichloropropane	BRL	ug/L	4.0	0.54	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
2-Chlorotoluene	BRL	ug/L	1.0	0.076	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
4-Chlorotoluene	BRL	ug/L	1.0	0.11	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
4-Isopropyltoluene	BRL	ug/L	1.0	0.12	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Acetone	BRL	ug/L	20	3.0	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Benzene	BRL	ug/L	1.0	0.11	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Bromobenzene	BRL	ug/L	1.0	0.18	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Bromochloromethane	BRL	ug/L	1.0	0.10	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Bromodichloromethane	BRL	ug/L	1.0	0.062	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Bromoform	BRL	ug/L	1.0	0.21	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Bromomethane	BRL	ug/L	2.0	0.49	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Carbon Tetrachloride	BRL	ug/L	1.0	0.13	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Chlorobenzene	BRL	ug/L	1.0	0.050	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Chloroethane	BRL	ug/L	1.0	0.18	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Chloroform	BRL	ug/L	1.0	0.11	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Chloromethane	BRL	ug/L	1.0	0.064	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
cis-1,2-Dichloroethylene	BRL	ug/L	1.0	0.12	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
cis-1,3-Dichloropropylene	BRL	ug/L	1.0	0.13	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Dibromochloromethane	BRL	ug/L	1.0	0.12	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Dibromomethane	BRL	ug/L	1.0	0.088	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Dichlorodifluoromethane	BRL	ug/L	2.0	0.11	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Ethanol	BRL	ug/L	400	85	2	SM6200 B	11/30/10 0:06	LMW	P0K0699

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AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: GW-5  
Prism Sample ID: 0110590-10  
Prism Work Order: 0110590  
Time Collected: 11/17/10 08:45  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Ethylbenzene	BRL	ug/L	1.0	0.11	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Hexachlorobutadiene	BRL	ug/L	4.0	0.82	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Isopropyl Ether	BRL	ug/L	1.0	0.084	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Isopropylbenzene (Cumene)	BRL	ug/L	1.0	0.068	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
m,p-Xylenes	BRL	ug/L	2.0	0.22	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/L	2.0	0.22	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/L	10	1.7	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Methyl Isobutyl Ketone	BRL	ug/L	2.0	0.096	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Methylene Chloride	BRL	ug/L	4.0	0.15	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Methyl-tert-Butyl Ether	BRL	ug/L	2.0	0.11	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Naphthalene	BRL	ug/L	2.0	0.19	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
n-Butylbenzene	BRL	ug/L	1.0	0.12	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
n-Propylbenzene	BRL	ug/L	1.0	0.12	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
o-Xylene	BRL	ug/L	1.0	0.13	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
sec-Butylbenzene	BRL	ug/L	1.0	0.11	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Styrene	BRL	ug/L	1.0	0.068	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
tert-Butylbenzene	BRL	ug/L	1.0	0.22	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Tetrachloroethylene	BRL	ug/L	1.0	0.19	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Toluene	BRL	ug/L	1.0	0.11	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
trans-1,2-Dichloroethylene	BRL	ug/L	1.0	0.12	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
trans-1,3-Dichloropropylene	BRL	ug/L	1.0	0.11	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Trichloroethylene	BRL	ug/L	1.0	0.088	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Trichlorofluoromethane	BRL	ug/L	1.0	0.10	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Vinyl acetate	BRL	ug/L	10	2.6	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Vinyl chloride	BRL	ug/L	1.0	0.14	2	SM6200 B	11/30/10 0:06	LMW	P0K0699
Xylenes, total	BRL	ug/L	3.0	0.34	2	SM6200 B	11/30/10 0:06	LMW	P0K0699

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	97 %	70-130
Dibromofluoromethane	99 %	70-130
Toluene-d8	99 %	70-130

AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: GW-6  
Prism Sample ID: 0110590-11  
Prism Work Order: 0110590  
Time Collected: 11/17/10 09:30  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Volatile Organic Compounds by GC/MS</b>									
1,1,1,2-Tetrachloroethane	BRL	ug/L	0.50	0.070	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
1,1,1-Trichloroethane	BRL	ug/L	0.50	0.075	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
1,1,2,2-Tetrachloroethane	BRL	ug/L	0.50	0.075	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
1,1,2-Trichloroethane	BRL	ug/L	0.50	0.068	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
1,1-Dichloroethane	BRL	ug/L	0.50	0.038	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
1,1-Dichloroethylene	BRL	ug/L	0.50	0.057	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
1,1-Dichloropropylene	BRL	ug/L	0.50	0.072	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
1,2,3-Trichlorobenzene	BRL	ug/L	0.50	0.12	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
1,2,3-Trichloropropane	BRL	ug/L	0.50	0.090	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
1,2,4-Trichlorobenzene	BRL	ug/L	0.50	0.15	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
<b>1,2,4-Trimethylbenzene</b>	<b>4.7</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.038</b>	<b>1</b>	<b>SM6200 B</b>	<b>11/30/10 5:53</b>	<b>LMW</b>	<b>P0K0699</b>
1,2-Dibromo-3-chloropropane	BRL	ug/L	2.0	0.59	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
1,2-Dibromoethane	BRL	ug/L	0.50	0.041	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
1,2-Dichlorobenzene	BRL	ug/L	0.50	0.044	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
1,2-Dichloroethane	BRL	ug/L	0.50	0.054	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
1,2-Dichloropropane	BRL	ug/L	0.50	0.062	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
<b>1,3,5-Trimethylbenzene</b>	<b>1.3</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.038</b>	<b>1</b>	<b>SM6200 B</b>	<b>11/30/10 5:53</b>	<b>LMW</b>	<b>P0K0699</b>
1,3-Dichlorobenzene	BRL	ug/L	0.50	0.070	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
1,3-Dichloropropane	BRL	ug/L	0.50	0.054	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
1,4-Dichlorobenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
2,2-Dichloropropane	BRL	ug/L	2.0	0.27	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
2-Chlorotoluene	BRL	ug/L	0.50	0.038	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
4-Chlorotoluene	BRL	ug/L	0.50	0.053	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
4-Isopropyltoluene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Acetone	BRL	ug/L	10	1.5	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Benzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Bromobenzene	BRL	ug/L	0.50	0.088	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Bromochloromethane	BRL	ug/L	0.50	0.050	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Bromodichloromethane	BRL	ug/L	0.50	0.031	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Bromoform	BRL	ug/L	0.50	0.10	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Bromomethane	BRL	ug/L	1.0	0.24	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Carbon Tetrachloride	BRL	ug/L	0.50	0.065	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Chlorobenzene	BRL	ug/L	0.50	0.025	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Chloroethane	BRL	ug/L	0.50	0.088	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Chloroform	BRL	ug/L	0.50	0.053	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Chloromethane	BRL	ug/L	0.50	0.032	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
cis-1,2-Dichloroethylene	BRL	ug/L	0.50	0.061	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
cis-1,3-Dichloropropylene	BRL	ug/L	0.50	0.065	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Dibromochloromethane	BRL	ug/L	0.50	0.062	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Dibromomethane	BRL	ug/L	0.50	0.044	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Dichlorodifluoromethane	BRL	ug/L	1.0	0.057	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Ethanol	BRL	ug/L	200	42	1	SM6200 B	11/30/10 5:53	LMW	P0K0699

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AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: GW-6  
Prism Sample ID: 0110590-11  
Prism Work Order: 0110590  
Time Collected: 11/17/10 09:30  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Ethylbenzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Hexachlorobutadiene	BRL	ug/L	2.0	0.41	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Isopropyl Ether	BRL	ug/L	0.50	0.042	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Isopropylbenzene (Cumene)	BRL	ug/L	0.50	0.034	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
<b>m,p-Xylenes</b>	<b>0.69 J</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.11</b>	<b>1</b>	<b>SM6200 B</b>	<b>11/30/10 5:53</b>	<b>LMW</b>	<b>P0K0699</b>
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/L	1.0	0.11	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/L	5.0	0.83	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Methyl Isobutyl Ketone	BRL	ug/L	1.0	0.048	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Methylene Chloride	BRL	ug/L	2.0	0.073	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Methyl-tert-Butyl Ether	BRL	ug/L	1.0	0.056	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
<b>Naphthalene</b>	<b>5.0</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.094</b>	<b>1</b>	<b>SM6200 B</b>	<b>11/30/10 5:53</b>	<b>LMW</b>	<b>P0K0699</b>
<b>n-Butylbenzene</b>	<b>0.80</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.059</b>	<b>1</b>	<b>SM6200 B</b>	<b>11/30/10 5:53</b>	<b>LMW</b>	<b>P0K0699</b>
n-Propylbenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
o-Xylene	BRL	ug/L	0.50	0.064	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
sec-Butylbenzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Styrene	BRL	ug/L	0.50	0.034	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
tert-Butylbenzene	BRL	ug/L	0.50	0.11	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Tetrachloroethylene	BRL	ug/L	0.50	0.096	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Toluene	BRL	ug/L	0.50	0.057	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
trans-1,2-Dichloroethylene	BRL	ug/L	0.50	0.061	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
trans-1,3-Dichloropropylene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Trichloroethylene	BRL	ug/L	0.50	0.044	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Trichlorofluoromethane	BRL	ug/L	0.50	0.050	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Vinyl acetate	BRL	ug/L	5.0	1.3	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
Vinyl chloride	BRL	ug/L	0.50	0.068	1	SM6200 B	11/30/10 5:53	LMW	P0K0699
<b>Xylenes, total</b>	<b>0.69 J</b>	<b>ug/L</b>	<b>1.5</b>	<b>0.17</b>	<b>1</b>	<b>SM6200 B</b>	<b>11/30/10 5:53</b>	<b>LMW</b>	<b>P0K0699</b>

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	96 %	70-130
Dibromofluoromethane	102 %	70-130
Toluene-d8	98 %	70-130



AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: GW-7  
Prism Sample ID: 0110590-12  
Prism Work Order: 0110590  
Time Collected: 11/17/10 09:45  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Volatile Organic Compounds by GC/MS</b>									
1,1,1,2-Tetrachloroethane	BRL	ug/L	0.50	0.070	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
1,1,1-Trichloroethane	BRL	ug/L	0.50	0.075	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
1,1,2,2-Tetrachloroethane	BRL	ug/L	0.50	0.075	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
1,1,2-Trichloroethane	BRL	ug/L	0.50	0.068	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
1,1-Dichloroethane	BRL	ug/L	0.50	0.038	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
1,1-Dichloroethylene	BRL	ug/L	0.50	0.057	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
1,1-Dichloropropylene	BRL	ug/L	0.50	0.072	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
1,2,3-Trichlorobenzene	BRL	ug/L	0.50	0.12	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
1,2,3-Trichloropropane	BRL	ug/L	0.50	0.090	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
1,2,4-Trichlorobenzene	BRL	ug/L	0.50	0.15	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
1,2,4-Trimethylbenzene	BRL	ug/L	0.50	0.038	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
1,2-Dibromo-3-chloropropane	BRL	ug/L	2.0	0.59	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
1,2-Dibromoethane	BRL	ug/L	0.50	0.041	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
1,2-Dichlorobenzene	BRL	ug/L	0.50	0.044	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
1,2-Dichloroethane	BRL	ug/L	0.50	0.054	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
1,2-Dichloropropane	BRL	ug/L	0.50	0.062	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
1,3,5-Trimethylbenzene	BRL	ug/L	0.50	0.038	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
1,3-Dichlorobenzene	BRL	ug/L	0.50	0.070	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
1,3-Dichloropropane	BRL	ug/L	0.50	0.054	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
1,4-Dichlorobenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
2,2-Dichloropropane	BRL	ug/L	2.0	0.27	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
2-Chlorotoluene	BRL	ug/L	0.50	0.038	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
4-Chlorotoluene	BRL	ug/L	0.50	0.053	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
4-Isopropyltoluene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Acetone	BRL	ug/L	10	1.5	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Benzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Bromobenzene	BRL	ug/L	0.50	0.088	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Bromochloromethane	BRL	ug/L	0.50	0.050	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Bromodichloromethane	BRL	ug/L	0.50	0.031	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Bromoform	BRL	ug/L	0.50	0.10	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Bromomethane	BRL	ug/L	1.0	0.24	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Carbon Tetrachloride	BRL	ug/L	0.50	0.065	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Chlorobenzene	BRL	ug/L	0.50	0.025	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Chloroethane	BRL	ug/L	0.50	0.088	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Chloroform	BRL	ug/L	0.50	0.053	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Chloromethane	BRL	ug/L	0.50	0.032	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
cis-1,2-Dichloroethylene	BRL	ug/L	0.50	0.061	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
cis-1,3-Dichloropropylene	BRL	ug/L	0.50	0.065	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Dibromochloromethane	BRL	ug/L	0.50	0.062	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Dibromomethane	BRL	ug/L	0.50	0.044	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Dichlorodifluoromethane	BRL	ug/L	1.0	0.057	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Ethanol	BRL	ug/L	200	42	1	SM6200 B	11/30/10 6:20	LMW	P0K0699

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AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: GW-7  
Prism Sample ID: 0110590-12  
Prism Work Order: 0110590  
Time Collected: 11/17/10 09:45  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Ethylbenzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Hexachlorobutadiene	BRL	ug/L	2.0	0.41	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Isopropyl Ether	BRL	ug/L	0.50	0.042	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Isopropylbenzene (Cumene)	BRL	ug/L	0.50	0.034	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
m,p-Xylenes	BRL	ug/L	1.0	0.11	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/L	1.0	0.11	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/L	5.0	0.83	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Methyl Isobutyl Ketone	BRL	ug/L	1.0	0.048	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Methylene Chloride	BRL	ug/L	2.0	0.073	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Methyl-tert-Butyl Ether	BRL	ug/L	1.0	0.056	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Naphthalene	BRL	ug/L	1.0	0.094	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
n-Butylbenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
n-Propylbenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
o-Xylene	BRL	ug/L	0.50	0.064	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
sec-Butylbenzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Styrene	BRL	ug/L	0.50	0.034	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
tert-Butylbenzene	BRL	ug/L	0.50	0.11	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Tetrachloroethylene	BRL	ug/L	0.50	0.096	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Toluene	BRL	ug/L	0.50	0.057	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
trans-1,2-Dichloroethylene	BRL	ug/L	0.50	0.061	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
trans-1,3-Dichloropropylene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Trichloroethylene	BRL	ug/L	0.50	0.044	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Trichlorofluoromethane	BRL	ug/L	0.50	0.050	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Vinyl acetate	BRL	ug/L	5.0	1.3	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Vinyl chloride	BRL	ug/L	0.50	0.068	1	SM6200 B	11/30/10 6:20	LMW	P0K0699
Xylenes, total	BRL	ug/L	1.5	0.17	1	SM6200 B	11/30/10 6:20	LMW	P0K0699

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	97 %	70-130
Dibromofluoromethane	100 %	70-130
Toluene-d8	99 %	70-130



AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: GW-8  
Prism Sample ID: 0110590-13  
Prism Work Order: 0110590  
Time Collected: 11/17/10 10:50  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Volatile Organic Compounds by GC/MS</b>									
1,1,1,2-Tetrachloroethane	BRL	ug/L	0.50	0.070	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
1,1,1-Trichloroethane	BRL	ug/L	0.50	0.075	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
1,1,2,2-Tetrachloroethane	BRL	ug/L	0.50	0.075	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
1,1,2-Trichloroethane	BRL	ug/L	0.50	0.068	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
1,1-Dichloroethane	BRL	ug/L	0.50	0.038	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
1,1-Dichloroethylene	BRL	ug/L	0.50	0.057	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
1,1-Dichloropropylene	BRL	ug/L	0.50	0.072	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
1,2,3-Trichlorobenzene	BRL	ug/L	0.50	0.12	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
1,2,3-Trichloropropane	BRL	ug/L	0.50	0.090	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
1,2,4-Trichlorobenzene	BRL	ug/L	0.50	0.15	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
1,2,4-Trimethylbenzene	BRL	ug/L	0.50	0.038	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
1,2-Dibromo-3-chloropropane	BRL	ug/L	2.0	0.59	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
1,2-Dibromoethane	BRL	ug/L	0.50	0.041	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
1,2-Dichlorobenzene	BRL	ug/L	0.50	0.044	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
1,2-Dichloroethane	BRL	ug/L	0.50	0.054	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
1,2-Dichloropropane	BRL	ug/L	0.50	0.062	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
1,3,5-Trimethylbenzene	BRL	ug/L	0.50	0.038	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
1,3-Dichlorobenzene	BRL	ug/L	0.50	0.070	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
1,3-Dichloropropane	BRL	ug/L	0.50	0.054	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
1,4-Dichlorobenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
2,2-Dichloropropane	BRL	ug/L	2.0	0.27	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
2-Chlorotoluene	BRL	ug/L	0.50	0.038	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
4-Chlorotoluene	BRL	ug/L	0.50	0.053	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
4-Isopropyltoluene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Acetone	BRL	ug/L	10	1.5	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Benzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Bromobenzene	BRL	ug/L	0.50	0.088	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Bromochloromethane	BRL	ug/L	0.50	0.050	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Bromodichloromethane	BRL	ug/L	0.50	0.031	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Bromoform	BRL	ug/L	0.50	0.10	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Bromomethane	BRL	ug/L	1.0	0.24	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Carbon Tetrachloride	BRL	ug/L	0.50	0.065	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Chlorobenzene	BRL	ug/L	0.50	0.025	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Chloroethane	BRL	ug/L	0.50	0.088	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Chloroform	BRL	ug/L	0.50	0.053	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Chloromethane	BRL	ug/L	0.50	0.032	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
cis-1,2-Dichloroethylene	BRL	ug/L	0.50	0.061	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
cis-1,3-Dichloropropylene	BRL	ug/L	0.50	0.065	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Dibromochloromethane	BRL	ug/L	0.50	0.062	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Dibromomethane	BRL	ug/L	0.50	0.044	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Dichlorodifluoromethane	BRL	ug/L	1.0	0.057	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Ethanol	BRL	ug/L	200	42	1	SM6200 B	11/30/10 23:54	LMW	P0K0723

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AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: GW-8  
Prism Sample ID: 0110590-13  
Prism Work Order: 0110590  
Time Collected: 11/17/10 10:50  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Ethylbenzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Hexachlorobutadiene	BRL	ug/L	2.0	0.41	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Isopropyl Ether	BRL	ug/L	0.50	0.042	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Isopropylbenzene (Cumene)	BRL	ug/L	0.50	0.034	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
m,p-Xylenes	BRL	ug/L	1.0	0.11	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/L	1.0	0.11	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/L	5.0	0.83	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Methyl Isobutyl Ketone	BRL	ug/L	1.0	0.048	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Methylene Chloride	BRL	ug/L	2.0	0.073	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Methyl-tert-Butyl Ether	BRL	ug/L	1.0	0.056	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Naphthalene	BRL	ug/L	1.0	0.094	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
n-Butylbenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
n-Propylbenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
o-Xylene	BRL	ug/L	0.50	0.064	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
sec-Butylbenzene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Styrene	BRL	ug/L	0.50	0.034	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
tert-Butylbenzene	BRL	ug/L	0.50	0.11	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Tetrachloroethylene	BRL	ug/L	0.50	0.096	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Toluene	BRL	ug/L	0.50	0.057	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
trans-1,2-Dichloroethylene	BRL	ug/L	0.50	0.061	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
trans-1,3-Dichloropropylene	BRL	ug/L	0.50	0.054	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Trichloroethylene	BRL	ug/L	0.50	0.044	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Trichlorofluoromethane	BRL	ug/L	0.50	0.050	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Vinyl acetate	BRL	ug/L	5.0	1.3	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Vinyl chloride	BRL	ug/L	0.50	0.068	1	SM6200 B	11/30/10 23:54	LMW	P0K0723
Xylenes, total	BRL	ug/L	1.5	0.17	1	SM6200 B	11/30/10 23:54	LMW	P0K0723

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	85 %	70-130
Dibromofluoromethane	86 %	70-130
Toluene-d8	90 %	70-130



AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: GW-9  
Prism Sample ID: 0110590-14  
Prism Work Order: 0110590  
Time Collected: 11/17/10 11:15  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
<b>Volatile Organic Compounds by GC/MS</b>									
1,1,1,2-Tetrachloroethane	BRL	ug/L	0.50	0.070	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
1,1,1-Trichloroethane	BRL	ug/L	0.50	0.075	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
1,1,2,2-Tetrachloroethane	BRL	ug/L	0.50	0.075	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
1,1,2-Trichloroethane	BRL	ug/L	0.50	0.068	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
1,1-Dichloroethane	BRL	ug/L	0.50	0.038	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
1,1-Dichloroethylene	BRL	ug/L	0.50	0.057	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
1,1-Dichloropropylene	BRL	ug/L	0.50	0.072	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
1,2,3-Trichlorobenzene	BRL	ug/L	0.50	0.12	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
1,2,3-Trichloropropane	BRL	ug/L	0.50	0.090	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
1,2,4-Trichlorobenzene	BRL	ug/L	0.50	0.15	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
1,2,4-Trimethylbenzene	BRL	ug/L	0.50	0.038	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
1,2-Dibromo-3-chloropropane	BRL	ug/L	2.0	0.59	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
1,2-Dibromoethane	BRL	ug/L	0.50	0.041	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
1,2-Dichlorobenzene	BRL	ug/L	0.50	0.044	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
1,2-Dichloroethane	BRL	ug/L	0.50	0.054	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
1,2-Dichloropropane	BRL	ug/L	0.50	0.062	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
1,3,5-Trimethylbenzene	BRL	ug/L	0.50	0.038	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
1,3-Dichlorobenzene	BRL	ug/L	0.50	0.070	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
1,3-Dichloropropane	BRL	ug/L	0.50	0.054	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
1,4-Dichlorobenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
2,2-Dichloropropane	BRL	ug/L	2.0	0.27	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
2-Chlorotoluene	BRL	ug/L	0.50	0.038	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
4-Chlorotoluene	BRL	ug/L	0.50	0.053	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
4-Isopropyltoluene	BRL	ug/L	0.50	0.059	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Acetone	BRL	ug/L	10	1.5	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Benzene	BRL	ug/L	0.50	0.054	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Bromobenzene	BRL	ug/L	0.50	0.088	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Bromochloromethane	BRL	ug/L	0.50	0.050	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Bromodichloromethane	BRL	ug/L	0.50	0.031	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Bromoform	BRL	ug/L	0.50	0.10	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Bromomethane	BRL	ug/L	1.0	0.24	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Carbon Tetrachloride	BRL	ug/L	0.50	0.065	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Chlorobenzene	BRL	ug/L	0.50	0.025	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Chloroethane	BRL	ug/L	0.50	0.088	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Chloroform	BRL	ug/L	0.50	0.053	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Chloromethane	BRL	ug/L	0.50	0.032	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
cis-1,2-Dichloroethylene	BRL	ug/L	0.50	0.061	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
cis-1,3-Dichloropropylene	BRL	ug/L	0.50	0.065	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Dibromochloromethane	BRL	ug/L	0.50	0.062	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Dibromomethane	BRL	ug/L	0.50	0.044	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Dichlorodifluoromethane	BRL	ug/L	1.0	0.057	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Ethanol	BRL	ug/L	200	42	1	SM6200 B	12/1/10 0:24	LMW	P0K0723

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AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co.  
(Gilliani)  
Project No.: WBS#35609.1.1  
Sample Matrix: Water

Client Sample ID: GW-9  
Prism Sample ID: 0110590-14  
Prism Work Order: 0110590  
Time Collected: 11/17/10 11:15  
Time Submitted: 11/19/10 07:00

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Ethylbenzene	BRL	ug/L	0.50	0.054	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Hexachlorobutadiene	BRL	ug/L	2.0	0.41	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Isopropyl Ether	BRL	ug/L	0.50	0.042	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Isopropylbenzene (Cumene)	BRL	ug/L	0.50	0.034	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
m,p-Xylenes	BRL	ug/L	1.0	0.11	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/L	1.0	0.11	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/L	5.0	0.83	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Methyl Isobutyl Ketone	BRL	ug/L	1.0	0.048	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Methylene Chloride	BRL	ug/L	2.0	0.073	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Methyl-tert-Butyl Ether	BRL	ug/L	1.0	0.056	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Naphthalene	BRL	ug/L	1.0	0.094	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
n-Butylbenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
n-Propylbenzene	BRL	ug/L	0.50	0.059	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
o-Xylene	BRL	ug/L	0.50	0.064	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
sec-Butylbenzene	BRL	ug/L	0.50	0.054	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Styrene	BRL	ug/L	0.50	0.034	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
tert-Butylbenzene	BRL	ug/L	0.50	0.11	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Tetrachloroethylene	BRL	ug/L	0.50	0.096	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Toluene	BRL	ug/L	0.50	0.057	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
trans-1,2-Dichloroethylene	BRL	ug/L	0.50	0.061	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
trans-1,3-Dichloropropylene	BRL	ug/L	0.50	0.054	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Trichloroethylene	BRL	ug/L	0.50	0.044	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Trichlorofluoromethane	BRL	ug/L	0.50	0.050	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Vinyl acetate	BRL	ug/L	5.0	1.3	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Vinyl chloride	BRL	ug/L	0.50	0.068	1	SM6200 B	12/1/10 0:24	LMW	P0K0723
Xylenes, total	BRL	ug/L	1.5	0.17	1	SM6200 B	12/1/10 0:24	LMW	P0K0723

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	97 %	70-130
Dibromofluoromethane	94 %	70-130
Toluene-d8	101 %	70-130

AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co. (Gilliani)  
Project No: WBS#35609.1.1

Prism Work Order: 0110590  
Time Submitted: 11/19/10 7:00:00AM

#### Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Notes
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#### Batch P0K0656 - SM6200 B

**Blank (P0K0656-BLK1)** Prepared & Analyzed: 11/24/10

1,1,1,2-Tetrachloroethane	BRL	0.50	ug/L
1,1,1-Trichloroethane	BRL	0.50	ug/L
1,1,2,2-Tetrachloroethane	BRL	0.50	ug/L
1,1,2-Trichloroethane	BRL	0.50	ug/L
1,1-Dichloroethane	BRL	0.50	ug/L
1,1-Dichloroethylene	BRL	0.50	ug/L
1,1-Dichloropropylene	BRL	0.50	ug/L
1,2,3-Trichlorobenzene	BRL	0.50	ug/L
1,2,3-Trichloropropane	BRL	0.50	ug/L
1,2,4-Trichlorobenzene	BRL	0.50	ug/L
1,2,4-Trimethylbenzene	BRL	0.50	ug/L
1,2-Dibromo-3-chloropropane	BRL	2.0	ug/L
1,2-Dibromoethane	BRL	0.50	ug/L
1,2-Dichlorobenzene	BRL	0.50	ug/L
1,2-Dichloroethane	BRL	0.50	ug/L
1,2-Dichloropropane	BRL	0.50	ug/L
1,3,5-Trimethylbenzene	BRL	0.50	ug/L
1,3-Dichlorobenzene	BRL	0.50	ug/L
1,3-Dichloropropane	BRL	0.50	ug/L
1,4-Dichlorobenzene	BRL	0.50	ug/L
2,2-Dichloropropane	BRL	2.0	ug/L
2-Chlorotoluene	BRL	0.50	ug/L
4-Chlorotoluene	BRL	0.50	ug/L
4-Isopropyltoluene	BRL	0.50	ug/L
Acetone	BRL	10	ug/L
Benzene	BRL	0.50	ug/L
Bromobenzene	BRL	0.50	ug/L
Bromochloromethane	BRL	0.50	ug/L
Bromodichloromethane	BRL	0.50	ug/L
Bromoform	BRL	0.50	ug/L
Bromomethane	BRL	1.0	ug/L
Carbon Tetrachloride	BRL	0.50	ug/L
Chlorobenzene	BRL	0.50	ug/L
Chloroethane	BRL	0.50	ug/L
Chloroform	BRL	0.50	ug/L
Chloromethane	BRL	0.50	ug/L
cis-1,2-Dichloroethylene	BRL	0.50	ug/L
cis-1,3-Dichloropropylene	BRL	0.50	ug/L
Dibromochloromethane	BRL	0.50	ug/L
Dibromomethane	BRL	0.50	ug/L
Dichlorodifluoromethane	BRL	1.0	ug/L
Ethanol	BRL	200	ug/L
Ethylbenzene	BRL	0.50	ug/L
Hexachlorobutadiene	BRL	2.0	ug/L
Isopropyl Ether	BRL	0.50	ug/L
Isopropylbenzene (Cumene)	BRL	0.50	ug/L

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Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co. (Gilliani)  
Project No: WBS#35609.1.1

Prism Work Order: 0110590  
Time Submitted: 11/19/10 7:00:00AM

#### Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch P0K0656 - SM6200 B

Blank (P0K0656-BLK1)		Prepared & Analyzed: 11/24/10				
m,p-Xylenes	BRL	1.0	ug/L			
Methyl Butyl Ketone (2-Hexanone)	BRL	1.0	ug/L			
Methyl Ethyl Ketone (2-Butanone)	BRL	5.0	ug/L			
Methyl Isobutyl Ketone	BRL	1.0	ug/L			
Methylene Chloride	BRL	2.0	ug/L			
Methyl-tert-Butyl Ether	BRL	1.0	ug/L			
Naphthalene	BRL	1.0	ug/L			
n-Butylbenzene	BRL	0.50	ug/L			
n-Propylbenzene	BRL	0.50	ug/L			
o-Xylene	BRL	0.50	ug/L			
sec-Butylbenzene	BRL	0.50	ug/L			
Styrene	BRL	0.50	ug/L			
tert-Butylbenzene	BRL	0.50	ug/L			
Tetrachloroethylene	BRL	0.50	ug/L			
Toluene	BRL	0.50	ug/L			
trans-1,2-Dichloroethylene	BRL	0.50	ug/L			
trans-1,3-Dichloropropylene	BRL	0.50	ug/L			
Trichloroethylene	BRL	0.50	ug/L			
Trichlorofluoromethane	BRL	0.50	ug/L			
Vinyl acetate	BRL	5.0	ug/L			
Vinyl chloride	BRL	0.50	ug/L			
Xylenes, total	BRL	1.5	ug/L			
Surrogate: 4-Bromofluorobenzene	24.8		ug/L	25.0	99	70-130
Surrogate: Dibromofluoromethane	27.1		ug/L	25.0	108	70-130
Surrogate: Toluene-d8	24.4		ug/L	25.0	97	70-130

LCS (P0K0656-BS1)		Prepared & Analyzed: 11/24/10				
1,1,1,2-Tetrachloroethane	22.2	0.50	ug/L	20.0	111	70-130
1,1,1-Trichloroethane	23.3	0.50	ug/L	20.0	117	70-130
1,1,2,2-Tetrachloroethane	19.6	0.50	ug/L	20.0	98	70-130
1,1,2-Trichloroethane	24.0	0.50	ug/L	20.0	120	70-130
1,1-Dichloroethane	23.1	0.50	ug/L	20.0	116	70-130
1,1-Dichloroethylene	26.0	0.50	ug/L	20.0	130	70-130
1,1-Dichloropropylene	24.3	0.50	ug/L	20.0	121	70-130
1,2,3-Trichlorobenzene	18.5	0.50	ug/L	20.0	93	70-130
1,2,3-Trichloropropane	18.2	0.50	ug/L	20.0	91	70-130
1,2,4-Trichlorobenzene	17.3	0.50	ug/L	20.0	87	70-130
1,2,4-Trimethylbenzene	19.5	0.50	ug/L	20.0	98	70-130
1,2-Dibromo-3-chloropropane	18.1	2.0	ug/L	20.0	91	70-130
1,2-Dibromoethane	22.5	0.50	ug/L	20.0	113	70-130
1,2-Dichlorobenzene	18.4	0.50	ug/L	20.0	92	70-130
1,2-Dichloroethane	23.0	0.50	ug/L	20.0	115	70-130
1,2-Dichloropropane	23.6	0.50	ug/L	20.0	118	70-130
1,3,5-Trimethylbenzene	19.0	0.50	ug/L	20.0	95	70-130
1,3-Dichlorobenzene	19.4	0.50	ug/L	20.0	97	70-130
1,3-Dichloropropane	22.0	0.50	ug/L	20.0	110	70-130
1,4-Dichlorobenzene	19.0	0.50	ug/L	20.0	95	70-130

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AECOM (Earth Tech) NCDOT Proj.  
 Attn: Mike Branson  
 Suite 475, 701 Corporate Center Dr.  
 Raleigh, NC 27607

Project: NCDOT: Mitchell Co. (Gilliani)  
 Project No: WBS#35609.1.1

Prism Work Order: 0110590  
 Time Submitted: 11/19/10 7:00:00AM

**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0K0656 - SM6200 B**

LCS (P0K0656-BS1)	Prepared & Analyzed: 11/24/10						
2,2-Dichloropropane	26.1	2.0	ug/L	20.0	130	70-130	
2-Chlorotoluene	19.4	0.50	ug/L	20.0	97	70-130	
4-Chlorotoluene	20.3	0.50	ug/L	20.0	101	70-130	
4-Isopropyltoluene	19.0	0.50	ug/L	20.0	95	70-130	
Acetone	17.6	10	ug/L	20.0	88	40-160	
Benzene	23.3	0.50	ug/L	20.0	117	70-130	
Bromobenzene	19.6	0.50	ug/L	20.0	98	70-130	
Bromochloromethane	24.9	0.50	ug/L	20.0	125	70-130	
Bromodichloromethane	23.2	0.50	ug/L	20.0	116	70-130	
Bromoform	22.4	0.50	ug/L	20.0	112	70-130	
Bromomethane	28.0	1.0	ug/L	20.0	140	60-140	
Carbon Tetrachloride	25.9	0.50	ug/L	20.0	130	70-130	
Chlorobenzene	21.7	0.50	ug/L	20.0	108	70-130	
Chloroethane	24.7	0.50	ug/L	20.0	123	60-140	
Chloroform	24.0	0.50	ug/L	20.0	120	70-130	
Chloromethane	22.7	0.50	ug/L	20.0	113	60-140	
cis-1,2-Dichloroethylene	24.3	0.50	ug/L	20.0	121	70-130	
cis-1,3-Dichloropropylene	24.8	0.50	ug/L	20.0	124	70-130	
Dibromochloromethane	21.4	0.50	ug/L	20.0	107	70-130	
Dibromomethane	23.8	0.50	ug/L	20.0	119	70-130	
Dichlorodifluoromethane	28.0	1.0	ug/L	20.0	140	60-140	
Ethanol	182	200	ug/L	200	91	60-140	J
Ethylbenzene	21.4	0.50	ug/L	20.0	107	70-130	
Hexachlorobutadiene	20.6	2.0	ug/L	20.0	103	70-130	
Isopropyl Ether	23.9	0.50	ug/L	20.0	120	70-130	
Isopropylbenzene (Cumene)	20.8	0.50	ug/L	20.0	104	70-130	
m,p-Xylenes	43.9	1.0	ug/L	40.0	110	70-130	
Methyl Butyl Ketone (2-Hexanone)	21.2	1.0	ug/L	20.0	106	60-140	
Methyl Ethyl Ketone (2-Butanone)	21.6	5.0	ug/L	20.0	108	60-140	
Methyl Isobutyl Ketone	23.9	1.0	ug/L	20.0	120	60-140	
Methylene Chloride	24.1	2.0	ug/L	20.0	121	70-130	
Methyl-tert-Butyl Ether	20.7	1.0	ug/L	20.0	104	70-130	
Naphthalene	17.1	1.0	ug/L	20.0	85	70-130	
n-Butylbenzene	18.8	0.50	ug/L	20.0	94	70-130	
n-Propylbenzene	20.3	0.50	ug/L	20.0	102	70-130	
o-Xylene	21.4	0.50	ug/L	20.0	107	70-130	
sec-Butylbenzene	19.2	0.50	ug/L	20.0	96	70-130	
Styrene	22.9	0.50	ug/L	20.0	115	70-130	
tert-Butylbenzene	18.3	0.50	ug/L	20.0	92	70-130	
Tetrachloroethylene	21.8	0.50	ug/L	20.0	109	70-130	
Toluene	23.1	0.50	ug/L	20.0	115	70-130	
trans-1,2-Dichloroethylene	24.1	0.50	ug/L	20.0	120	70-130	
trans-1,3-Dichloropropylene	24.6	0.50	ug/L	20.0	123	70-130	
Trichloroethylene	23.5	0.50	ug/L	20.0	117	70-130	
Trichlorofluoromethane	25.0	0.50	ug/L	20.0	125	60-140	
Vinyl acetate	26.6	5.0	ug/L	20.0	133	60-140	

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AECOM (Earth Tech) NCDOT Proj.  
 Attn: Mike Branson  
 Suite 475, 701 Corporate Center Dr.  
 Raleigh, NC 27607

Project: NCDOT: Mitchell Co. (Gilliani)  
 Project No: WBS#35609.1.1

Prism Work Order: 0110590  
 Time Submitted: 11/19/10 7:00:00AM

**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P0K0656 - SM6200 B</b>										
<b>LCS (P0K0656-BS1)</b>										
Prepared & Analyzed: 11/24/10										
Vinyl chloride	26.5	0.50	ug/L	20.0	132	60-140				
Xylenes, total	65.3	1.5	ug/L	60.0	109	70-130				
<i>Surrogate: 4-Bromofluorobenzene</i>	26.0		ug/L	25.0	104	70-130				
<i>Surrogate: Dibromofluoromethane</i>	26.6		ug/L	25.0	107	70-130				
<i>Surrogate: Toluene-d8</i>	24.9		ug/L	25.0	100	70-130				
<b>LCS Dup (P0K0656-BSD1)</b>										
Prepared & Analyzed: 11/24/10										
1,1,1,2-Tetrachloroethane	20.0	0.50	ug/L	20.0	100	70-130	10	200		
1,1,1-Trichloroethane	21.2	0.50	ug/L	20.0	106	70-130	9	200		
1,1,2,2-Tetrachloroethane	18.8	0.50	ug/L	20.0	94	70-130	4	200		
1,1,2-Trichloroethane	22.5	0.50	ug/L	20.0	112	70-130	7	200		
1,1-Dichloroethane	21.0	0.50	ug/L	20.0	105	70-130	10	200		
1,1-Dichloroethylene	23.8	0.50	ug/L	20.0	119	70-130	9	200		
1,1-Dichloropropylene	22.0	0.50	ug/L	20.0	110	70-130	10	200		
1,2,3-Trichlorobenzene	16.9	0.50	ug/L	20.0	85	70-130	9	200		
1,2,3-Trichloropropane	17.8	0.50	ug/L	20.0	89	70-130	2	200		
1,2,4-Trichlorobenzene	16.0	0.50	ug/L	20.0	80	70-130	8	200		
1,2,4-Trimethylbenzene	17.7	0.50	ug/L	20.0	88	70-130	10	200		
1,2-Dibromo-3-chloropropane	18.2	2.0	ug/L	20.0	91	70-130	0.7	200		
1,2-Dibromoethane	21.1	0.50	ug/L	20.0	105	70-130	7	200		
1,2-Dichlorobenzene	16.7	0.50	ug/L	20.0	84	70-130	10	200		
1,2-Dichloroethane	21.7	0.50	ug/L	20.0	109	70-130	6	200		
1,2-Dichloropropane	21.4	0.50	ug/L	20.0	107	70-130	10	200		
1,3,5-Trimethylbenzene	17.2	0.50	ug/L	20.0	86	70-130	10	200		
1,3-Dichlorobenzene	17.7	0.50	ug/L	20.0	88	70-130	9	200		
1,3-Dichloropropane	20.6	0.50	ug/L	20.0	103	70-130	6	200		
1,4-Dichlorobenzene	17.2	0.50	ug/L	20.0	86	70-130	10	200		
2,2-Dichloropropane	23.5	2.0	ug/L	20.0	117	70-130	11	200		
2-Chlorotoluene	17.5	0.50	ug/L	20.0	87	70-130	10	200		
4-Chlorotoluene	18.4	0.50	ug/L	20.0	92	70-130	10	200		
4-Isopropyltoluene	17.0	0.50	ug/L	20.0	85	70-130	11	200		
Acetone	21.1	10	ug/L	20.0	106	40-160	18	200		
Benzene	21.3	0.50	ug/L	20.0	106	70-130	9	200		
Bromobenzene	17.8	0.50	ug/L	20.0	89	70-130	9	200		
Bromochloromethane	22.7	0.50	ug/L	20.0	114	70-130	9	200		
Bromodichloromethane	21.7	0.50	ug/L	20.0	108	70-130	7	200		
Bromoform	21.0	0.50	ug/L	20.0	105	70-130	6	200		
Bromomethane	27.5	1.0	ug/L	20.0	137	60-140	2	200		
Carbon Tetrachloride	23.2	0.50	ug/L	20.0	116	70-130	11	200		
Chlorobenzene	19.5	0.50	ug/L	20.0	97	70-130	11	200		
Chloroethane	21.2	0.50	ug/L	20.0	106	60-140	15	200		
Chloroform	21.8	0.50	ug/L	20.0	109	70-130	10	200		
Chloromethane	19.1	0.50	ug/L	20.0	95	60-140	17	200		
cis-1,2-Dichloroethylene	21.9	0.50	ug/L	20.0	110	70-130	10	200		
cis-1,3-Dichloropropylene	23.0	0.50	ug/L	20.0	115	70-130	8	200		
Dibromochloromethane	19.8	0.50	ug/L	20.0	99	70-130	7	200		
Dibromomethane	22.4	0.50	ug/L	20.0	112	70-130	6	200		

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AECOM (Earth Tech) NCDOT Proj.  
 Attn: Mike Branson  
 Suite 475, 701 Corporate Center Dr.  
 Raleigh, NC 27607

Project: NCDOT: Mitchell Co. (Gilliani)  
 Project No: WBS#35609.1.1

Prism Work Order: 0110590  
 Time Submitted: 11/19/10 7:00:00AM

**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0K0656 - SM6200 B**

LCS Dup (P0K0656-BSD1)										Prepared & Analyzed: 11/24/10
Dichlorodifluoromethane	27.0	1.0	ug/L	20.0	135	60-140	4	200		
Ethanol	242	200	ug/L	200	121	60-140	29	200		
Ethylbenzene	19.2	0.50	ug/L	20.0	96	70-130	11	200		
Hexachlorobutadiene	18.6	2.0	ug/L	20.0	93	70-130	10	200		
Isopropyl Ether	21.8	0.50	ug/L	20.0	109	70-130	9	200		
Isopropylbenzene (Cumene)	18.7	0.50	ug/L	20.0	94	70-130	11	200		
m,p-Xylenes	39.4	1.0	ug/L	40.0	99	70-130	11	200		
Methyl Butyl Ketone (2-Hexanone)	21.9	1.0	ug/L	20.0	109	60-140	3	200		
Methyl Ethyl Ketone (2-Butanone)	21.7	5.0	ug/L	20.0	109	60-140	0.5	200		
Methyl Isobutyl Ketone	23.7	1.0	ug/L	20.0	118	60-140	1	200		
Methylene Chloride	21.6	2.0	ug/L	20.0	108	70-130	11	200		
Methyl-tert-Butyl Ether	20.1	1.0	ug/L	20.0	101	70-130	3	200		
Naphthalene	16.7	1.0	ug/L	20.0	84	70-130	2	200		
n-Butylbenzene	16.7	0.50	ug/L	20.0	83	70-130	12	200		
n-Propylbenzene	18.3	0.50	ug/L	20.0	92	70-130	11	200		
o-Xylene	19.2	0.50	ug/L	20.0	96	70-130	11	200		
sec-Butylbenzene	17.2	0.50	ug/L	20.0	86	70-130	12	200		
Styrene	20.8	0.50	ug/L	20.0	104	70-130	10	200		
tert-Butylbenzene	16.8	0.50	ug/L	20.0	84	70-130	9	200		
Tetrachloroethylene	19.4	0.50	ug/L	20.0	97	70-130	12	200		
Toluene	21.1	0.50	ug/L	20.0	105	70-130	9	200		
trans-1,2-Dichloroethylene	21.7	0.50	ug/L	20.0	109	70-130	10	200		
trans-1,3-Dichloropropylene	23.2	0.50	ug/L	20.0	116	70-130	6	200		
Trichloroethylene	21.5	0.50	ug/L	20.0	108	70-130	9	200		
Trichlorofluoromethane	22.1	0.50	ug/L	20.0	110	60-140	12	200		
Vinyl acetate	25.1	5.0	ug/L	20.0	126	60-140	5	200		
Vinyl chloride	23.4	0.50	ug/L	20.0	117	60-140	12	200		
Xylenes, total	58.6	1.5	ug/L	60.0	98	70-130	11	200		
Surrogate: 4-Bromofluorobenzene	24.7		ug/L	25.0	99	70-130				
Surrogate: Dibromofluoromethane	25.7		ug/L	25.0	103	70-130				
Surrogate: Toluene-d8	23.6		ug/L	25.0	94	70-130				

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AECOM (Earth Tech) NCDOT Proj.  
 Attn: Mike Branson  
 Suite 475, 701 Corporate Center Dr.  
 Raleigh, NC 27607

Project: NCDOT: Mitchell Co. (Gilliani)  
 Project No: WBS#35609.1.1

Prism Work Order: 0110590  
 Time Submitted: 11/19/10 7:00:00AM

**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0K0699 - SM6200 B**

**Blank (P0K0699-BLK1)** Prepared & Analyzed: 11/29/10

1,1,1,2-Tetrachloroethane	BRL	0.50	ug/L
1,1,1-Trichloroethane	BRL	0.50	ug/L
1,1,2,2-Tetrachloroethane	BRL	0.50	ug/L
1,1,2-Trichloroethane	BRL	0.50	ug/L
1,1-Dichloroethane	BRL	0.50	ug/L
1,1-Dichloroethylene	BRL	0.50	ug/L
1,1-Dichloropropylene	BRL	0.50	ug/L
1,2,3-Trichlorobenzene	BRL	0.50	ug/L
1,2,3-Trichloropropane	BRL	0.50	ug/L
1,2,4-Trichlorobenzene	BRL	0.50	ug/L
1,2,4-Trimethylbenzene	BRL	0.50	ug/L
1,2-Dibromo-3-chloropropane	BRL	2.0	ug/L
1,2-Dibromoethane	BRL	0.50	ug/L
1,2-Dichlorobenzene	BRL	0.50	ug/L
1,2-Dichloroethane	BRL	0.50	ug/L
1,2-Dichloropropane	BRL	0.50	ug/L
1,3,5-Trimethylbenzene	BRL	0.50	ug/L
1,3-Dichlorobenzene	BRL	0.50	ug/L
1,3-Dichloropropane	BRL	0.50	ug/L
1,4-Dichlorobenzene	BRL	0.50	ug/L
2,2-Dichloropropane	BRL	2.0	ug/L
2-Chlorotoluene	BRL	0.50	ug/L
4-Chlorotoluene	BRL	0.50	ug/L
4-Isopropyltoluene	BRL	0.50	ug/L
Acetone	BRL	10	ug/L
Benzene	BRL	0.50	ug/L
Bromobenzene	BRL	0.50	ug/L
Bromochloromethane	BRL	0.50	ug/L
Bromodichloromethane	BRL	0.50	ug/L
Bromoform	BRL	0.50	ug/L
Bromomethane	BRL	1.0	ug/L
Carbon Tetrachloride	BRL	0.50	ug/L
Chlorobenzene	BRL	0.50	ug/L
Chloroethane	BRL	0.50	ug/L
Chloroform	BRL	0.50	ug/L
Chloromethane	BRL	0.50	ug/L
cis-1,2-Dichloroethylene	BRL	0.50	ug/L
cis-1,3-Dichloropropylene	BRL	0.50	ug/L
Dibromochloromethane	BRL	0.50	ug/L
Dibromomethane	BRL	0.50	ug/L
Dichlorodifluoromethane	BRL	1.0	ug/L
Ethanol	BRL	200	ug/L
Ethylbenzene	BRL	0.50	ug/L
Hexachlorobutadiene	BRL	2.0	ug/L
Isopropyl Ether	BRL	0.50	ug/L
Isopropylbenzene (Cumene)	BRL	0.50	ug/L

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Raleigh, NC 27607

Project: NCDOT: Mitchell Co. (Gilliani)  
Project No: WBS#35609.1.1

Prism Work Order: 0110590  
Time Submitted: 11/19/10 7:00:00AM

#### Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch P0K0699 - SM6200 B

Blank (P0K0699-BLK1)		Prepared & Analyzed: 11/29/10				
m,p-Xylenes	BRL	1.0	ug/L			
Methyl Butyl Ketone (2-Hexanone)	BRL	1.0	ug/L			
Methyl Ethyl Ketone (2-Butanone)	BRL	5.0	ug/L			
Methyl Isobutyl Ketone	BRL	1.0	ug/L			
Methylene Chloride	BRL	2.0	ug/L			
Methyl-tert-Butyl Ether	BRL	1.0	ug/L			
Naphthalene	BRL	1.0	ug/L			
n-Butylbenzene	BRL	0.50	ug/L			
n-Propylbenzene	BRL	0.50	ug/L			
o-Xylene	BRL	0.50	ug/L			
sec-Butylbenzene	BRL	0.50	ug/L			
Styrene	BRL	0.50	ug/L			
tert-Butylbenzene	BRL	0.50	ug/L			
Tetrachloroethylene	BRL	0.50	ug/L			
Toluene	BRL	0.50	ug/L			
trans-1,2-Dichloroethylene	BRL	0.50	ug/L			
trans-1,3-Dichloropropylene	BRL	0.50	ug/L			
Trichloroethylene	BRL	0.50	ug/L			
Trichlorofluoromethane	BRL	0.50	ug/L			
Vinyl acetate	BRL	5.0	ug/L			
Vinyl chloride	BRL	0.50	ug/L			
Xylenes, total	BRL	1.5	ug/L			
Surrogate: 4-Bromofluorobenzene	23.8		ug/L	25.0	95	70-130
Surrogate: Dibromofluoromethane	24.9		ug/L	25.0	100	70-130
Surrogate: Toluene-d8	24.5		ug/L	25.0	98	70-130

LCS (P0K0699-BS1)		Prepared & Analyzed: 11/29/10				
1,1,1,2-Tetrachloroethane	18.0	0.50	ug/L	20.0	90	70-130
1,1,1-Trichloroethane	17.0	0.50	ug/L	20.0	85	70-130
1,1,2,2-Tetrachloroethane	18.5	0.50	ug/L	20.0	93	70-130
1,1,2-Trichloroethane	19.7	0.50	ug/L	20.0	99	70-130
1,1-Dichloroethane	17.9	0.50	ug/L	20.0	89	70-130
1,1-Dichloroethylene	19.7	0.50	ug/L	20.0	99	70-130
1,1-Dichloropropylene	17.5	0.50	ug/L	20.0	88	70-130
1,2,3-Trichlorobenzene	17.4	0.50	ug/L	20.0	87	70-130
1,2,3-Trichloropropane	17.9	0.50	ug/L	20.0	90	70-130
1,2,4-Trichlorobenzene	17.3	0.50	ug/L	20.0	87	70-130
1,2,4-Trimethylbenzene	19.3	0.50	ug/L	20.0	97	70-130
1,2-Dibromo-3-chloropropane	19.7	2.0	ug/L	20.0	98	70-130
1,2-Dibromoethane	19.2	0.50	ug/L	20.0	96	70-130
1,2-Dichlorobenzene	18.7	0.50	ug/L	20.0	94	70-130
1,2-Dichloroethane	17.9	0.50	ug/L	20.0	89	70-130
1,2-Dichloropropane	19.1	0.50	ug/L	20.0	96	70-130
1,3,5-Trimethylbenzene	18.9	0.50	ug/L	20.0	95	70-130
1,3-Dichlorobenzene	18.6	0.50	ug/L	20.0	93	70-130
1,3-Dichloropropane	19.0	0.50	ug/L	20.0	95	70-130
1,4-Dichlorobenzene	18.4	0.50	ug/L	20.0	92	70-130

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AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co. (Gilliani)  
Project No: WBS#35609.1.1

Prism Work Order: 0110590  
Time Submitted: 11/19/10 7:00:00AM

#### Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch P0K0699 - SM6200 B

##### LCS (P0K0699-BS1)

Prepared & Analyzed: 11/29/10

2,2-Dichloropropane	16.8	2.0	ug/L	20.0	84	70-130
2-Chlorotoluene	18.6	0.50	ug/L	20.0	93	70-130
4-Chlorotoluene	19.6	0.50	ug/L	20.0	98	70-130
4-Isopropyltoluene	18.6	0.50	ug/L	20.0	93	70-130
Acetone	17.2	10	ug/L	20.0	86	40-160
Benzene	18.7	0.50	ug/L	20.0	94	70-130
Bromobenzene	18.4	0.50	ug/L	20.0	92	70-130
Bromochloromethane	19.8	0.50	ug/L	20.0	99	70-130
Bromodichloromethane	18.3	0.50	ug/L	20.0	91	70-130
Bromoform	16.9	0.50	ug/L	20.0	85	70-130
Bromomethane	20.0	1.0	ug/L	20.0	100	60-140
Carbon Tetrachloride	16.1	0.50	ug/L	20.0	80	70-130
Chlorobenzene	18.2	0.50	ug/L	20.0	91	70-130
Chloroethane	19.6	0.50	ug/L	20.0	98	60-140
Chloroform	18.9	0.50	ug/L	20.0	95	70-130
Chloromethane	12.8	0.50	ug/L	20.0	64	60-140
cis-1,2-Dichloroethylene	19.7	0.50	ug/L	20.0	98	70-130
cis-1,3-Dichloropropylene	19.8	0.50	ug/L	20.0	99	70-130
Dibromochloromethane	18.4	0.50	ug/L	20.0	92	70-130
Dibromomethane	18.8	0.50	ug/L	20.0	94	70-130
Dichlorodifluoromethane	14.7	1.0	ug/L	20.0	73	60-140
Ethanol	208	200	ug/L	200	104	60-140
Ethylbenzene	16.7	0.50	ug/L	20.0	84	70-130
Hexachlorobutadiene	15.4	2.0	ug/L	20.0	77	70-130
Isopropyl Ether	19.2	0.50	ug/L	20.0	96	70-130
Isopropylbenzene (Cumene)	19.5	0.50	ug/L	20.0	97	70-130
m,p-Xylenes	36.3	1.0	ug/L	40.0	91	70-130
Methyl Butyl Ketone (2-Hexanone)	16.1	1.0	ug/L	20.0	80	60-140
Methyl Ethyl Ketone (2-Butanone)	16.6	5.0	ug/L	20.0	83	60-140
Methyl Isobutyl Ketone	19.5	1.0	ug/L	20.0	97	60-140
Methylene Chloride	19.1	2.0	ug/L	20.0	95	70-130
Methyl-tert-Butyl Ether	17.8	1.0	ug/L	20.0	89	70-130
Naphthalene	16.7	1.0	ug/L	20.0	84	70-130
n-Butylbenzene	18.0	0.50	ug/L	20.0	90	70-130
n-Propylbenzene	18.9	0.50	ug/L	20.0	94	70-130
o-Xylene	18.5	0.50	ug/L	20.0	92	70-130
sec-Butylbenzene	18.4	0.50	ug/L	20.0	92	70-130
Styrene	19.9	0.50	ug/L	20.0	99	70-130
tert-Butylbenzene	18.2	0.50	ug/L	20.0	91	70-130
Tetrachloroethylene	17.6	0.50	ug/L	20.0	88	70-130
Toluene	18.3	0.50	ug/L	20.0	92	70-130
trans-1,2-Dichloroethylene	19.6	0.50	ug/L	20.0	98	70-130
trans-1,3-Dichloropropylene	19.6	0.50	ug/L	20.0	98	70-130
Trichloroethylene	19.0	0.50	ug/L	20.0	95	70-130
Trichlorofluoromethane	14.8	0.50	ug/L	20.0	74	60-140
Vinyl acetate	18.8	5.0	ug/L	20.0	94	60-140

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 Suite 475, 701 Corporate Center Dr.  
 Raleigh, NC 27607

Project: NCDOT: Mitchell Co. (Gilliani)  
 Project No: WBS#35609.1.1

Prism Work Order: 0110590  
 Time Submitted: 11/19/10 7:00:00AM

**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P0K0699 - SM6200 B</b>										
<b>LCS (P0K0699-BS1)</b>										
Prepared & Analyzed: 11/29/10										
Vinyl chloride	17.1	0.50	ug/L	20.0	86	60-140				
Xylenes, total	54.7	1.5	ug/L	60.0	91	70-130				
<i>Surrogate: 4-Bromofluorobenzene</i>	25.1		ug/L	25.0	100	70-130				
<i>Surrogate: Dibromofluoromethane</i>	24.6		ug/L	25.0	98	70-130				
<i>Surrogate: Toluene-d8</i>	23.8		ug/L	25.0	95	70-130				
<b>LCS Dup (P0K0699-BSD1)</b>										
Prepared & Analyzed: 11/29/10										
1,1,1,2-Tetrachloroethane	21.3	0.50	ug/L	20.0	107	70-130	17	200		
1,1,1-Trichloroethane	20.0	0.50	ug/L	20.0	100	70-130	16	200		
1,1,2,2-Tetrachloroethane	21.2	0.50	ug/L	20.0	106	70-130	13	200		
1,1,2-Trichloroethane	22.7	0.50	ug/L	20.0	114	70-130	14	200		
1,1-Dichloroethane	20.5	0.50	ug/L	20.0	103	70-130	14	200		
1,1-Dichloroethylene	22.5	0.50	ug/L	20.0	112	70-130	13	200		
1,1-Dichloropropylene	20.8	0.50	ug/L	20.0	104	70-130	17	200		
1,2,3-Trichlorobenzene	20.0	0.50	ug/L	20.0	100	70-130	14	200		
1,2,3-Trichloropropane	22.1	0.50	ug/L	20.0	110	70-130	21	200		
1,2,4-Trichlorobenzene	19.9	0.50	ug/L	20.0	99	70-130	14	200		
1,2,4-Trimethylbenzene	21.8	0.50	ug/L	20.0	109	70-130	12	200		
1,2-Dibromo-3-chloropropane	22.6	2.0	ug/L	20.0	113	70-130	14	200		
1,2-Dibromoethane	22.4	0.50	ug/L	20.0	112	70-130	16	200		
1,2-Dichlorobenzene	21.1	0.50	ug/L	20.0	106	70-130	12	200		
1,2-Dichloroethane	20.5	0.50	ug/L	20.0	103	70-130	14	200		
1,2-Dichloropropane	22.2	0.50	ug/L	20.0	111	70-130	15	200		
1,3,5-Trimethylbenzene	21.6	0.50	ug/L	20.0	108	70-130	13	200		
1,3-Dichlorobenzene	21.5	0.50	ug/L	20.0	107	70-130	14	200		
1,3-Dichloropropane	21.2	0.50	ug/L	20.0	106	70-130	11	200		
1,4-Dichlorobenzene	21.2	0.50	ug/L	20.0	106	70-130	14	200		
2,2-Dichloropropane	19.8	2.0	ug/L	20.0	99	70-130	16	200		
2-Chlorotoluene	21.9	0.50	ug/L	20.0	110	70-130	16	200		
4-Chlorotoluene	22.4	0.50	ug/L	20.0	112	70-130	13	200		
4-Isopropyltoluene	21.4	0.50	ug/L	20.0	107	70-130	14	200		
Acetone	20.7	10	ug/L	20.0	103	40-160	19	200		
Benzene	21.7	0.50	ug/L	20.0	109	70-130	15	200		
Bromobenzene	21.4	0.50	ug/L	20.0	107	70-130	15	200		
Bromochloromethane	24.2	0.50	ug/L	20.0	121	70-130	20	200		
Bromodichloromethane	21.5	0.50	ug/L	20.0	108	70-130	16	200		
Bromoform	20.0	0.50	ug/L	20.0	100	70-130	17	200		
Bromomethane	26.2	1.0	ug/L	20.0	131	60-140	27	200		
Carbon Tetrachloride	21.5	0.50	ug/L	20.0	108	70-130	29	200		
Chlorobenzene	21.2	0.50	ug/L	20.0	106	70-130	15	200		
Chloroethane	24.6	0.50	ug/L	20.0	123	60-140	22	200		
Chloroform	21.8	0.50	ug/L	20.0	109	70-130	14	200		
Chloromethane	15.9	0.50	ug/L	20.0	79	60-140	21	200		
cis-1,2-Dichloroethylene	23.0	0.50	ug/L	20.0	115	70-130	15	200		
cis-1,3-Dichloropropylene	23.1	0.50	ug/L	20.0	116	70-130	16	200		
Dibromochloromethane	21.3	0.50	ug/L	20.0	106	70-130	15	200		
Dibromomethane	22.5	0.50	ug/L	20.0	113	70-130	18	200		

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AECOM (Earth Tech) NCDOT Proj.  
 Attn: Mike Branson  
 Suite 475, 701 Corporate Center Dr.  
 Raleigh, NC 27607

Project: NCDOT: Mitchell Co. (Gilliani)  
 Project No: WBS#35609.1.1

Prism Work Order: 0110590  
 Time Submitted: 11/19/10 7:00:00AM

**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0K0699 - SM6200 B**

LCS Dup (P0K0699-BSD1)										Prepared & Analyzed: 11/29/10
Dichlorodifluoromethane	17.9	1.0	ug/L	20.0	89	60-140	20	200		
Ethanol	240	200	ug/L	200	120	60-140	15	200		
Ethylbenzene	19.3	0.50	ug/L	20.0	97	70-130	14	200		
Hexachlorobutadiene	16.9	2.0	ug/L	20.0	85	70-130	9	200		
Isopropyl Ether	21.8	0.50	ug/L	20.0	109	70-130	13	200		
Isopropylbenzene (Cumene)	22.8	0.50	ug/L	20.0	114	70-130	16	200		
m,p-Xylenes	42.0	1.0	ug/L	40.0	105	70-130	15	200		
Methyl Butyl Ketone (2-Hexanone)	18.8	1.0	ug/L	20.0	94	60-140	16	200		
Methyl Ethyl Ketone (2-Butanone)	20.7	5.0	ug/L	20.0	104	60-140	22	200		
Methyl Isobutyl Ketone	22.8	1.0	ug/L	20.0	114	60-140	15	200		
Methylene Chloride	22.1	2.0	ug/L	20.0	111	70-130	15	200		
Methyl-tert-Butyl Ether	20.4	1.0	ug/L	20.0	102	70-130	14	200		
Naphthalene	18.9	1.0	ug/L	20.0	94	70-130	12	200		
n-Butylbenzene	20.8	0.50	ug/L	20.0	104	70-130	15	200		
n-Propylbenzene	22.0	0.50	ug/L	20.0	110	70-130	15	200		
o-Xylene	21.5	0.50	ug/L	20.0	108	70-130	15	200		
sec-Butylbenzene	21.2	0.50	ug/L	20.0	106	70-130	14	200		
Styrene	23.1	0.50	ug/L	20.0	115	70-130	15	200		
tert-Butylbenzene	20.6	0.50	ug/L	20.0	103	70-130	13	200		
Tetrachloroethylene	20.8	0.50	ug/L	20.0	104	70-130	16	200		
Toluene	21.6	0.50	ug/L	20.0	108	70-130	16	200		
trans-1,2-Dichloroethylene	23.1	0.50	ug/L	20.0	115	70-130	16	200		
trans-1,3-Dichloropropylene	23.1	0.50	ug/L	20.0	116	70-130	16	200		
Trichloroethylene	22.5	0.50	ug/L	20.0	113	70-130	17	200		
Trichlorofluoromethane	18.1	0.50	ug/L	20.0	90	60-140	20	200		
Vinyl acetate	21.3	5.0	ug/L	20.0	106	60-140	12	200		
Vinyl chloride	20.8	0.50	ug/L	20.0	104	60-140	19	200		
Xylenes, total	63.5	1.5	ug/L	60.0	106	70-130	15	200		
Surrogate: 4-Bromofluorobenzene	25.1		ug/L	25.0	100	70-130				
Surrogate: Dibromofluoromethane	24.8		ug/L	25.0	99	70-130				
Surrogate: Toluene-d8	23.8		ug/L	25.0	95	70-130				

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AECOM (Earth Tech) NCDOT Proj.  
 Attn: Mike Branson  
 Suite 475, 701 Corporate Center Dr.  
 Raleigh, NC 27607

Project: NCDOT: Mitchell Co. (Gilliani)  
 Project No: WBS#35609.1.1

Prism Work Order: 0110590  
 Time Submitted: 11/19/10 7:00:00AM

**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0K0723 - SM6200 B**

**Blank (P0K0723-BLK1)** Prepared & Analyzed: 11/30/10

1,1,1,2-Tetrachloroethane	BRL	0.50	ug/L
1,1,1-Trichloroethane	BRL	0.50	ug/L
1,1,2,2-Tetrachloroethane	BRL	0.50	ug/L
1,1,2-Trichloroethane	BRL	0.50	ug/L
1,1-Dichloroethane	BRL	0.50	ug/L
1,1-Dichloroethylene	BRL	0.50	ug/L
1,1-Dichloropropylene	BRL	0.50	ug/L
1,2,3-Trichlorobenzene	BRL	0.50	ug/L
1,2,3-Trichloropropane	BRL	0.50	ug/L
1,2,4-Trichlorobenzene	BRL	0.50	ug/L
1,2,4-Trimethylbenzene	BRL	0.50	ug/L
1,2-Dibromo-3-chloropropane	BRL	2.0	ug/L
1,2-Dibromoethane	BRL	0.50	ug/L
1,2-Dichlorobenzene	BRL	0.50	ug/L
1,2-Dichloroethane	BRL	0.50	ug/L
1,2-Dichloropropane	BRL	0.50	ug/L
1,3,5-Trimethylbenzene	BRL	0.50	ug/L
1,3-Dichlorobenzene	BRL	0.50	ug/L
1,3-Dichloropropane	BRL	0.50	ug/L
1,4-Dichlorobenzene	BRL	0.50	ug/L
2,2-Dichloropropane	BRL	2.0	ug/L
2-Chlorotoluene	BRL	0.50	ug/L
4-Chlorotoluene	BRL	0.50	ug/L
4-Isopropyltoluene	BRL	0.50	ug/L
Acetone	BRL	10	ug/L
Benzene	BRL	0.50	ug/L
Bromobenzene	BRL	0.50	ug/L
Bromochloromethane	BRL	0.50	ug/L
Bromodichloromethane	BRL	0.50	ug/L
Bromoform	BRL	0.50	ug/L
Bromomethane	BRL	1.0	ug/L
Carbon Tetrachloride	BRL	0.50	ug/L
Chlorobenzene	BRL	0.50	ug/L
Chloroethane	BRL	0.50	ug/L
Chloroform	BRL	0.50	ug/L
Chloromethane	BRL	0.50	ug/L
cis-1,2-Dichloroethylene	BRL	0.50	ug/L
cis-1,3-Dichloropropylene	BRL	0.50	ug/L
Dibromochloromethane	BRL	0.50	ug/L
Dibromomethane	BRL	0.50	ug/L
Dichlorodifluoromethane	BRL	1.0	ug/L
Ethanol	BRL	200	ug/L
Ethylbenzene	BRL	0.50	ug/L
Hexachlorobutadiene	BRL	2.0	ug/L
Isopropyl Ether	BRL	0.50	ug/L
Isopropylbenzene (Cumene)	BRL	0.50	ug/L

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 Attn: Mike Branson  
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 Raleigh, NC 27607

Project: NCDOT: Mitchell Co. (Gilliani)  
 Project No: WBS#35609.1.1

Prism Work Order: 0110590  
 Time Submitted: 11/19/10 7:00:00AM

**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0K0723 - SM6200 B**

<b>Blank (P0K0723-BLK1)</b>		Prepared & Analyzed: 11/30/10				
m,p-Xylenes	BRL	1.0	ug/L			
Methyl Butyl Ketone (2-Hexanone)	BRL	1.0	ug/L			
Methyl Ethyl Ketone (2-Butanone)	BRL	5.0	ug/L			
Methyl Isobutyl Ketone	BRL	1.0	ug/L			
Methylene Chloride	BRL	2.0	ug/L			
Methyl-tert-Butyl Ether	BRL	1.0	ug/L			
Naphthalene	BRL	1.0	ug/L			
n-Butylbenzene	BRL	0.50	ug/L			
n-Propylbenzene	BRL	0.50	ug/L			
o-Xylene	BRL	0.50	ug/L			
sec-Butylbenzene	BRL	0.50	ug/L			
Styrene	BRL	0.50	ug/L			
tert-Butylbenzene	BRL	0.50	ug/L			
Tetrachloroethylene	BRL	0.50	ug/L			
Toluene	BRL	0.50	ug/L			
trans-1,2-Dichloroethylene	BRL	0.50	ug/L			
trans-1,3-Dichloropropylene	BRL	0.50	ug/L			
Trichloroethylene	BRL	0.50	ug/L			
Trichlorofluoromethane	BRL	0.50	ug/L			
Vinyl acetate	BRL	5.0	ug/L			
Vinyl chloride	BRL	0.50	ug/L			
Xylenes, total	BRL	1.5	ug/L			
Surrogate: 4-Bromofluorobenzene	24.2		ug/L	25.0	97	70-130
Surrogate: Dibromofluoromethane	24.0		ug/L	25.0	96	70-130
Surrogate: Toluene-d8	25.2		ug/L	25.0	101	70-130

<b>LCS (P0K0723-BS1)</b>		Prepared & Analyzed: 11/30/10				
1,1,1,2-Tetrachloroethane	22.0	0.50	ug/L	20.0	110	70-130
1,1,1-Trichloroethane	17.9	0.50	ug/L	20.0	90	70-130
1,1,2,2-Tetrachloroethane	21.2	0.50	ug/L	20.0	106	70-130
1,1,2-Trichloroethane	19.4	0.50	ug/L	20.0	97	70-130
1,1-Dichloroethane	18.8	0.50	ug/L	20.0	94	70-130
1,1-Dichloroethylene	19.6	0.50	ug/L	20.0	98	70-130
1,1-Dichloropropylene	18.2	0.50	ug/L	20.0	91	70-130
1,2,3-Trichlorobenzene	22.3	0.50	ug/L	20.0	112	70-130
1,2,3-Trichloropropane	21.3	0.50	ug/L	20.0	107	70-130
1,2,4-Trichlorobenzene	21.1	0.50	ug/L	20.0	106	70-130
1,2,4-Trimethylbenzene	22.0	0.50	ug/L	20.0	110	70-130
1,2-Dibromo-3-chloropropane	21.7	2.0	ug/L	20.0	108	70-130
1,2-Dibromoethane	22.5	0.50	ug/L	20.0	112	70-130
1,2-Dichlorobenzene	21.6	0.50	ug/L	20.0	108	70-130
1,2-Dichloroethane	20.0	0.50	ug/L	20.0	100	70-130
1,2-Dichloropropane	19.4	0.50	ug/L	20.0	97	70-130
1,3,5-Trimethylbenzene	21.3	0.50	ug/L	20.0	107	70-130
1,3-Dichlorobenzene	22.0	0.50	ug/L	20.0	110	70-130
1,3-Dichloropropane	21.8	0.50	ug/L	20.0	109	70-130
1,4-Dichlorobenzene	21.5	0.50	ug/L	20.0	108	70-130

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AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co. (Gilliani)  
Project No: WBS#35609.1.1

Prism Work Order: 0110590  
Time Submitted: 11/19/10 7:00:00AM

#### Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch P0K0723 - SM6200 B

LCS (P0K0723-BS1)	Prepared & Analyzed: 11/30/10						
2,2-Dichloropropane	17.1	2.0	ug/L	20.0	85	70-130	
2-Chlorotoluene	21.8	0.50	ug/L	20.0	109	70-130	
4-Chlorotoluene	22.8	0.50	ug/L	20.0	114	70-130	
4-Isopropyltoluene	20.9	0.50	ug/L	20.0	105	70-130	
Acetone	13.6	10	ug/L	20.0	68	40-160	
Benzene	19.0	0.50	ug/L	20.0	95	70-130	
Bromobenzene	22.4	0.50	ug/L	20.0	112	70-130	
Bromochloromethane	20.5	0.50	ug/L	20.0	103	70-130	
Bromodichloromethane	19.6	0.50	ug/L	20.0	98	70-130	
Bromoform	22.8	0.50	ug/L	20.0	114	70-130	
Bromomethane	19.2	1.0	ug/L	20.0	96	60-140	
Carbon Tetrachloride	18.9	0.50	ug/L	20.0	95	70-130	
Chlorobenzene	21.6	0.50	ug/L	20.0	108	70-130	
Chloroethane	14.5	0.50	ug/L	20.0	72	60-140	
Chloroform	19.8	0.50	ug/L	20.0	99	70-130	
Chloromethane	15.8	0.50	ug/L	20.0	79	60-140	
cis-1,2-Dichloroethylene	20.0	0.50	ug/L	20.0	100	70-130	
cis-1,3-Dichloropropylene	19.8	0.50	ug/L	20.0	99	70-130	
Dibromochloromethane	21.7	0.50	ug/L	20.0	108	70-130	
Dibromomethane	20.2	0.50	ug/L	20.0	101	70-130	
Dichlorodifluoromethane	14.2	1.0	ug/L	20.0	71	60-140	
Ethanol	247	200	ug/L	200	124	60-140	
Ethylbenzene	21.2	0.50	ug/L	20.0	106	70-130	
Hexachlorobutadiene	22.4	2.0	ug/L	20.0	112	70-130	
Isopropyl Ether	19.3	0.50	ug/L	20.0	97	70-130	
Isopropylbenzene (Cumene)	22.4	0.50	ug/L	20.0	112	70-130	
m,p-Xylenes	43.9	1.0	ug/L	40.0	110	70-130	
Methyl Butyl Ketone (2-Hexanone)	21.6	1.0	ug/L	20.0	108	60-140	
Methyl Ethyl Ketone (2-Butanone)	16.5	5.0	ug/L	20.0	83	60-140	
Methyl Isobutyl Ketone	20.6	1.0	ug/L	20.0	103	60-140	
Methylene Chloride	18.5	2.0	ug/L	20.0	92	70-130	
Methyl-tert-Butyl Ether	17.9	1.0	ug/L	20.0	89	70-130	
Naphthalene	23.8	1.0	ug/L	20.0	119	70-130	
n-Butylbenzene	21.0	0.50	ug/L	20.0	105	70-130	
n-Propylbenzene	21.9	0.50	ug/L	20.0	110	70-130	
o-Xylene	21.5	0.50	ug/L	20.0	107	70-130	
sec-Butylbenzene	20.7	0.50	ug/L	20.0	104	70-130	
Styrene	23.4	0.50	ug/L	20.0	117	70-130	
tert-Butylbenzene	20.3	0.50	ug/L	20.0	101	70-130	
Tetrachloroethylene	20.8	0.50	ug/L	20.0	104	70-130	
Toluene	19.0	0.50	ug/L	20.0	95	70-130	
trans-1,2-Dichloroethylene	19.0	0.50	ug/L	20.0	95	70-130	
trans-1,3-Dichloropropylene	20.1	0.50	ug/L	20.0	100	70-130	
Trichloroethylene	19.0	0.50	ug/L	20.0	95	70-130	
Trichlorofluoromethane	15.6	0.50	ug/L	20.0	78	60-140	
Vinyl acetate	19.9	5.0	ug/L	20.0	99	60-140	

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AECOM (Earth Tech) NCDOT Proj.  
 Attn: Mike Branson  
 Suite 475, 701 Corporate Center Dr.  
 Raleigh, NC 27607

Project: NCDOT: Mitchell Co. (Gilliani)  
 Project No: WBS#35609.1.1

Prism Work Order: 0110590  
 Time Submitted: 11/19/10 7:00:00AM

**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P0K0723 - SM6200 B</b>										
<b>LCS (P0K0723-BS1)</b>										
Prepared & Analyzed: 11/30/10										
Vinyl chloride	17.3	0.50	ug/L	20.0	86	60-140				
Xylenes, total	65.4	1.5	ug/L	60.0	109	70-130				
<i>Surrogate: 4-Bromofluorobenzene</i>	24.1		ug/L	25.0	96	70-130				
<i>Surrogate: Dibromofluoromethane</i>	23.7		ug/L	25.0	95	70-130				
<i>Surrogate: Toluene-d8</i>	25.4		ug/L	25.0	102	70-130				
<b>LCS Dup (P0K0723-BSD1)</b>										
Prepared & Analyzed: 11/30/10										
1,1,1,2-Tetrachloroethane	20.3	0.50	ug/L	20.0	102	70-130	8	200		
1,1,1-Trichloroethane	16.6	0.50	ug/L	20.0	83	70-130	7	200		
1,1,2,2-Tetrachloroethane	20.4	0.50	ug/L	20.0	102	70-130	4	200		
1,1,2-Trichloroethane	18.3	0.50	ug/L	20.0	91	70-130	6	200		
1,1-Dichloroethane	17.7	0.50	ug/L	20.0	88	70-130	7	200		
1,1-Dichloroethylene	18.2	0.50	ug/L	20.0	91	70-130	7	200		
1,1-Dichloropropylene	17.0	0.50	ug/L	20.0	85	70-130	7	200		
1,2,3-Trichlorobenzene	22.5	0.50	ug/L	20.0	113	70-130	1	200		
1,2,3-Trichloropropane	21.0	0.50	ug/L	20.0	105	70-130	2	200		
1,2,4-Trichlorobenzene	21.0	0.50	ug/L	20.0	105	70-130	0.7	200		
1,2,4-Trimethylbenzene	21.3	0.50	ug/L	20.0	106	70-130	3	200		
1,2-Dibromo-3-chloropropane	21.0	2.0	ug/L	20.0	105	70-130	3	200		
1,2-Dibromoethane	21.8	0.50	ug/L	20.0	109	70-130	3	200		
1,2-Dichlorobenzene	20.7	0.50	ug/L	20.0	104	70-130	4	200		
1,2-Dichloroethane	19.1	0.50	ug/L	20.0	95	70-130	5	200		
1,2-Dichloropropane	18.5	0.50	ug/L	20.0	93	70-130	4	200		
1,3,5-Trimethylbenzene	20.5	0.50	ug/L	20.0	102	70-130	4	200		
1,3-Dichlorobenzene	20.9	0.50	ug/L	20.0	104	70-130	5	200		
1,3-Dichloropropane	21.3	0.50	ug/L	20.0	106	70-130	3	200		
1,4-Dichlorobenzene	20.6	0.50	ug/L	20.0	103	70-130	5	200		
2,2-Dichloropropane	15.4	2.0	ug/L	20.0	77	70-130	10	200		
2-Chlorotoluene	20.6	0.50	ug/L	20.0	103	70-130	5	200		
4-Chlorotoluene	22.0	0.50	ug/L	20.0	110	70-130	3	200		
4-Isopropyltoluene	19.9	0.50	ug/L	20.0	99	70-130	5	200		
Acetone	13.1	10	ug/L	20.0	65	40-160	4	200		
Benzene	17.8	0.50	ug/L	20.0	89	70-130	7	200		
Bromobenzene	21.6	0.50	ug/L	20.0	108	70-130	4	200		
Bromochloromethane	19.6	0.50	ug/L	20.0	98	70-130	5	200		
Bromodichloromethane	18.9	0.50	ug/L	20.0	94	70-130	4	200		
Bromoform	21.0	0.50	ug/L	20.0	105	70-130	8	200		
Bromomethane	18.3	1.0	ug/L	20.0	92	60-140	5	200		
Carbon Tetrachloride	17.8	0.50	ug/L	20.0	89	70-130	6	200		
Chlorobenzene	20.6	0.50	ug/L	20.0	103	70-130	5	200		
Chloroethane	14.2	0.50	ug/L	20.0	71	60-140	2	200		
Chloroform	18.9	0.50	ug/L	20.0	95	70-130	5	200		
Chloromethane	14.2	0.50	ug/L	20.0	71	60-140	10	200		
cis-1,2-Dichloroethylene	19.0	0.50	ug/L	20.0	95	70-130	5	200		
cis-1,3-Dichloropropylene	19.0	0.50	ug/L	20.0	95	70-130	4	200		
Dibromochloromethane	20.6	0.50	ug/L	20.0	103	70-130	5	200		
Dibromomethane	19.2	0.50	ug/L	20.0	96	70-130	5	200		

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AECOM (Earth Tech) NCDOT Proj.  
 Attn: Mike Branson  
 Suite 475, 701 Corporate Center Dr.  
 Raleigh, NC 27607

Project: NCDOT: Mitchell Co. (Gilliani)  
 Project No: WBS#35609.1.1

Prism Work Order: 0110590  
 Time Submitted: 11/19/10 7:00:00AM

**Volatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0K0723 - SM6200 B**

LCS Dup (P0K0723-BSD1)										Prepared & Analyzed: 11/30/10
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Dichlorodifluoromethane	13.4	1.0	ug/L	20.0	67	60-140	6	200		
Ethanol	251	200	ug/L	200	125	60-140	1	200		
Ethylbenzene	20.2	0.50	ug/L	20.0	101	70-130	5	200		
Hexachlorobutadiene	21.3	2.0	ug/L	20.0	106	70-130	5	200		
Isopropyl Ether	18.7	0.50	ug/L	20.0	94	70-130	3	200		
Isopropylbenzene (Cumene)	21.5	0.50	ug/L	20.0	107	70-130	4	200		
m,p-Xylenes	41.6	1.0	ug/L	40.0	104	70-130	5	200		
Methyl Butyl Ketone (2-Hexanone)	20.1	1.0	ug/L	20.0	100	60-140	8	200		
Methyl Ethyl Ketone (2-Butanone)	16.0	5.0	ug/L	20.0	80	60-140	3	200		
Methyl Isobutyl Ketone	18.8	1.0	ug/L	20.0	94	60-140	9	200		
Methylene Chloride	17.8	2.0	ug/L	20.0	89	70-130	4	200		
Methyl-tert-Butyl Ether	16.2	1.0	ug/L	20.0	81	70-130	10	200		
Naphthalene	23.6	1.0	ug/L	20.0	118	70-130	0.5	200		
n-Butylbenzene	19.7	0.50	ug/L	20.0	99	70-130	6	200		
n-Propylbenzene	20.8	0.50	ug/L	20.0	104	70-130	5	200		
o-Xylene	20.4	0.50	ug/L	20.0	102	70-130	5	200		
sec-Butylbenzene	19.6	0.50	ug/L	20.0	98	70-130	5	200		
Styrene	22.9	0.50	ug/L	20.0	115	70-130	2	200		
tert-Butylbenzene	19.5	0.50	ug/L	20.0	97	70-130	4	200		
Tetrachloroethylene	19.2	0.50	ug/L	20.0	96	70-130	8	200		
Toluene	17.8	0.50	ug/L	20.0	89	70-130	6	200		
trans-1,2-Dichloroethylene	17.0	0.50	ug/L	20.0	85	70-130	11	200		
trans-1,3-Dichloropropylene	19.2	0.50	ug/L	20.0	96	70-130	4	200		
Trichloroethylene	17.9	0.50	ug/L	20.0	90	70-130	6	200		
Trichlorofluoromethane	14.7	0.50	ug/L	20.0	73	60-140	6	200		
Vinyl acetate	19.4	5.0	ug/L	20.0	97	60-140	2	200		
Vinyl chloride	16.9	0.50	ug/L	20.0	84	60-140	2	200		
Xylenes, total	62.0	1.5	ug/L	60.0	103	70-130	5	200		
Surrogate: 4-Bromofluorobenzene	23.7		ug/L	25.0	95	70-130				
Surrogate: Dibromofluoromethane	22.7		ug/L	25.0	91	70-130				
Surrogate: Toluene-d8	24.7		ug/L	25.0	99	70-130				

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AECOM (Earth Tech) NCDOT Proj.  
Attn: Mike Branson  
Suite 475, 701 Corporate Center Dr.  
Raleigh, NC 27607

Project: NCDOT: Mitchell Co. (Gilliani)  
Project No: WBS#35609.1.1

Prism Work Order: 0110590  
Time Submitted: 11/19/10 7:00:00AM

#### Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch P0K0641 - 3510C MS

**Blank (P0K0641-BLK1)** Prepared: 11/23/10 Analyzed: 11/24/10

1,2,4-Trichlorobenzene	BRL	10	ug/L
1,2-Dichlorobenzene	BRL	10	ug/L
1,3-Dichlorobenzene	BRL	10	ug/L
1,4-Dichlorobenzene	BRL	10	ug/L
2,4,5-Trichlorophenol	BRL	10	ug/L
2,4,6-Trichlorophenol	BRL	10	ug/L
2,4-Dichlorophenol	BRL	10	ug/L
2,4-Dimethylphenol	BRL	10	ug/L
2,4-Dinitrophenol	BRL	10	ug/L
2,4-Dinitrotoluene	BRL	10	ug/L
2,6-Dinitrotoluene	BRL	10	ug/L
2-Chloronaphthalene	BRL	10	ug/L
2-Chlorophenol	BRL	10	ug/L
2-Methylnaphthalene	BRL	10	ug/L
2-Methylphenol	BRL	10	ug/L
2-Nitroaniline	BRL	10	ug/L
2-Nitrophenol	BRL	10	ug/L
3,3'-Dichlorobenzidine	BRL	10	ug/L
3/4-Methylphenol	BRL	10	ug/L
3-Nitroaniline	BRL	10	ug/L
4,6-Dinitro-2-methylphenol	BRL	10	ug/L
4-Bromophenyl phenyl ether	BRL	10	ug/L
4-Chloro-3-methylphenol	BRL	10	ug/L
4-Chloroaniline	BRL	10	ug/L
4-Chlorophenyl phenyl ether	BRL	10	ug/L
4-Nitroaniline	BRL	10	ug/L
4-Nitrophenol	BRL	10	ug/L
Acenaphthene	BRL	10	ug/L
Acenaphthylene	BRL	10	ug/L
Aniline	BRL	10	ug/L
Anthracene	BRL	10	ug/L
Azobenzene	BRL	10	ug/L
Benzo(a)anthracene	BRL	10	ug/L
Benzo(a)pyrene	BRL	10	ug/L
Benzo(b)fluoranthene	BRL	10	ug/L
Benzo(g,h,i)perylene	BRL	10	ug/L
Benzo(k)fluoranthene	BRL	10	ug/L
Benzoic Acid	BRL	100	ug/L
Benzyl alcohol	BRL	10	ug/L
bis(2-Chloroethoxy)methane	BRL	10	ug/L
Bis(2-Chloroethyl)ether	BRL	10	ug/L
Bis(2-chloroisopropyl)ether	BRL	10	ug/L
Bis(2-Ethylhexyl)phthalate	BRL	10	ug/L
Butyl benzyl phthalate	BRL	10	ug/L
Chrysene	BRL	10	ug/L
Dibenzo(a,h)anthracene	BRL	10	ug/L

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 Raleigh, NC 27607

Project: NCDOT: Mitchell Co. (Gilliani)  
 Project No: WBS#35609.1.1

Prism Work Order: 0110590  
 Time Submitted: 11/19/10 7:00:00AM

**Semivolatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0K0641 - 3510C MS**

<b>Blank (P0K0641-BLK1)</b>										Prepared: 11/23/10 Analyzed: 11/24/10
Dibenzofuran	BRL	10	ug/L							
Diethyl phthalate	BRL	10	ug/L							
Dimethyl phthalate	BRL	10	ug/L							
Di-n-butyl phthalate	BRL	10	ug/L							
Di-n-octyl phthalate	BRL	10	ug/L							
Fluoranthene	BRL	10	ug/L							
Fluorene	BRL	10	ug/L							
Hexachlorobenzene	BRL	10	ug/L							
Hexachlorobutadiene	BRL	10	ug/L							
Hexachlorocyclopentadiene	BRL	10	ug/L							
Hexachloroethane	BRL	10	ug/L							
Indeno(1,2,3-cd)pyrene	BRL	10	ug/L							
Isophorone	BRL	10	ug/L							
Naphthalene	BRL	10	ug/L							
Nitrobenzene	BRL	10	ug/L							
N-Nitroso-di-n-propylamine	BRL	10	ug/L							
N-Nitrosodiphenylamine	BRL	10	ug/L							
Pentachlorophenol	BRL	10	ug/L							
Phenanthrene	BRL	10	ug/L							
Phenol	BRL	10	ug/L							
Pyrene	BRL	10	ug/L							
2-Ethyl Hexanol	0.00		ug/L							
1,3-Dichloro-2-methyl-propene	0.00		ug/L							
<i>Surrogate: 2,4,6-Tribromophenol</i>	66.1		ug/L	100		66	26-139			
<i>Surrogate: 2-Fluorobiphenyl</i>	36.2		ug/L	50.0		72	41-112			
<i>Surrogate: 2-Fluorophenol</i>	56.5		ug/L	100		57	10-48			SR
<i>Surrogate: Nitrobenzene-d5</i>	39.9		ug/L	50.0		80	34-102			
<i>Surrogate: Phenol-d5</i>	39.4		ug/L	100		39	10-34			SR
<i>Surrogate: Terphenyl-d14</i>	35.8		ug/L	50.0		72	31-165			

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Raleigh, NC 27607

Project: NCDOT: Mitchell Co. (Gilliani)  
Project No: WBS#35609.1.1

Prism Work Order: 0110590  
Time Submitted: 11/19/10 7:00:00AM

### Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch P0K0641 - 3510C MS

LCS (P0K0641-BS2)	Prepared: 11/23/10 Analyzed: 11/24/10									
1,2,4-Trichlorobenzene	35.2	10	ug/L	50.0	70	39-102				
1,2-Dichlorobenzene	35.9	10	ug/L	50.0	72	46-90				
1,3-Dichlorobenzene	34.4	10	ug/L	50.0	69	31-100				
1,4-Dichlorobenzene	36.0	10	ug/L	50.0	72	45-89				
2,4,5-Trichlorophenol	43.4	10	ug/L	50.0	87	60-108				
2,4,6-Trichlorophenol	40.2	10	ug/L	50.0	80	48-118				
2,4-Dichlorophenol	41.3	10	ug/L	50.0	83	38-107				
2,4-Dimethylphenol	38.4	10	ug/L	50.0	77	26-108				
2,4-Dinitrophenol	37.8	10	ug/L	50.0	76	10-157				
2,4-Dinitrotoluene	36.9	10	ug/L	50.0	74	61-139				
2,6-Dinitrotoluene	39.4	10	ug/L	50.0	79	55-141				
2-Chloronaphthalene	47.2	10	ug/L	50.0	94	46-114				
2-Chlorophenol	39.5	10	ug/L	50.0	79	39-80				
2-Methylnaphthalene	39.2	10	ug/L	50.0	78	39-107				
2-Methylphenol	35.5	10	ug/L	50.0	71	24-73				
2-Nitroaniline	42.4	10	ug/L	50.0	85	65-123				
2-Nitrophenol	42.0	10	ug/L	50.0	84	40-111				
3,3'-Dichlorobenzidine	49.0	10	ug/L	50.0	98	25-203				
3/4-Methylphenol	34.6	10	ug/L	50.0	69	22-84				
3-Nitroaniline	44.3	10	ug/L	50.0	89	66-131				
4,6-Dinitro-2-methylphenol	44.1	10	ug/L	50.0	88	31-155				
4-Bromophenyl phenyl ether	42.3	10	ug/L	50.0	85	50-131				
4-Chloro-3-methylphenol	46.0	10	ug/L	50.0	92	48-94				
4-Chloroaniline	52.7	10	ug/L	50.0	105	45-120				
4-Chlorophenyl phenyl ether	40.0	10	ug/L	50.0	80	55-125				
4-Nitroaniline	45.3	10	ug/L	50.0	91	63-138				
4-Nitrophenol	17.1	10	ug/L	50.0	34	10-89				
Acenaphthene	39.6	10	ug/L	50.0	79	53-118				
Acenaphthylene	40.4	10	ug/L	50.0	81	52-121				
Aniline	65.0	10	ug/L	50.0	130	24-105				LH
Anthracene	43.7	10	ug/L	50.0	87	59-138				
Azobenzene	34.2	10	ug/L	50.0	68	65-123				
Benzo(a)anthracene	46.7	10	ug/L	50.0	93	63-138				
Benzo(a)pyrene	48.0	10	ug/L	50.0	96	67-142				
Benzo(b)fluoranthene	46.0	10	ug/L	50.0	92	58-151				
Benzo(g,h,i)perylene	45.6	10	ug/L	50.0	91	47-151				
Benzo(k)fluoranthene	48.2	10	ug/L	50.0	96	45-155				
Benzoic Acid	BRL	100	ug/L	50.0		10-125				P
Benzyl alcohol	35.0	10	ug/L	50.0	70	25-77				
bis(2-Chloroethoxy)methane	39.8	10	ug/L	50.0	80	42-119				
Bis(2-Chloroethyl)ether	41.3	10	ug/L	50.0	83	38-109				
Bis(2-chloroisopropyl)ether	39.4	10	ug/L	50.0	79	31-117				
Bis(2-Ethylhexyl)phthalate	48.9	10	ug/L	50.0	98	52-165				
Butyl benzyl phthalate	48.2	10	ug/L	50.0	96	51-162				
Chrysene	47.8	10	ug/L	50.0	96	59-137				
Dibenzo(a,h)anthracene	47.2	10	ug/L	50.0	94	43-161				

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 Raleigh, NC 27607

Project: NCDOT: Mitchell Co. (Gilliani)  
 Project No: WBS#35609.1.1

Prism Work Order: 0110590  
 Time Submitted: 11/19/10 7:00:00AM

**Semivolatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0K0641 - 3510C MS**

LCS (P0K0641-BS2)	Prepared: 11/23/10		Analyzed: 11/24/10	
Dibenzofuran	40.8	10	ug/L	50.0
Diethyl phthalate	46.4	10	ug/L	50.0
Dimethyl phthalate	45.0	10	ug/L	50.0
Di-n-butyl phthalate	46.6	10	ug/L	50.0
Di-n-octyl phthalate	53.3	10	ug/L	50.0
Fluoranthene	50.5	10	ug/L	50.0
Fluorene	43.2	10	ug/L	50.0
Hexachlorobenzene	41.1	10	ug/L	50.0
Hexachlorobutadiene	39.7	10	ug/L	50.0
Hexachlorocyclopentadiene	38.5	10	ug/L	50.0
Hexachloroethane	35.3	10	ug/L	50.0
Indeno(1,2,3-cd)pyrene	44.9	10	ug/L	50.0
Isophorone	37.2	10	ug/L	50.0
Naphthalene	39.7	10	ug/L	50.0
Nitrobenzene	33.8	10	ug/L	50.0
N-Nitroso-di-n-propylamine	41.4	10	ug/L	50.0
N-Nitrosodiphenylamine	44.8	10	ug/L	50.0
Pentachlorophenol	38.6	10	ug/L	50.0
Phenanthrene	41.3	10	ug/L	50.0
Phenol	17.9	10	ug/L	50.0
Pyrene	46.9	10	ug/L	50.0
Surrogate: 2,4,6-Tribromophenol	77.3		ug/L	100
Surrogate: 2-Fluorobiphenyl	42.6		ug/L	50.0
Surrogate: 2-Fluorophenol	49.5		ug/L	100
Surrogate: Nitrobenzene-d5	43.7		ug/L	50.0
Surrogate: Phenol-d5	32.1		ug/L	100
Surrogate: Terphenyl-d14	43.8		ug/L	50.0

SR

SR

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 Raleigh, NC 27607

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Prism Work Order: 0110590  
 Time Submitted: 11/19/10 7:00:00AM

**Semivolatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P0K0641 - 3510C MS</b>										
<b>LCS Dup (P0K0641-BSD2)</b>										
Prepared: 11/23/10 Analyzed: 11/24/10										
1,2,4-Trichlorobenzene	35.7	10	ug/L	50.0	71	39-102	1	200		
1,2-Dichlorobenzene	34.6	10	ug/L	50.0	69	46-90	4	200		
1,3-Dichlorobenzene	34.7	10	ug/L	50.0	69	31-100	0.7	200		
1,4-Dichlorobenzene	35.0	10	ug/L	50.0	70	45-89	3	200		
2,4,5-Trichlorophenol	44.3	10	ug/L	50.0	89	60-108	2	200		
2,4,6-Trichlorophenol	42.7	10	ug/L	50.0	85	48-118	6	200		
2,4-Dichlorophenol	42.0	10	ug/L	50.0	84	38-107	2	200		
2,4-Dimethylphenol	39.5	10	ug/L	50.0	79	26-108	3	200		
2,4-Dinitrophenol	41.8	10	ug/L	50.0	84	10-157	10	200		
2,4-Dinitrotoluene	41.7	10	ug/L	50.0	83	61-139	12	200		
2,6-Dinitrotoluene	39.3	10	ug/L	50.0	79	55-141	0.4	200		
2-Chloronaphthalene	49.4	10	ug/L	50.0	99	46-114	5	200		
2-Chlorophenol	40.4	10	ug/L	50.0	81	39-80	2	200		L2
2-Methylnaphthalene	37.9	10	ug/L	50.0	76	39-107	3	200		
2-Methylphenol	37.6	10	ug/L	50.0	75	24-73	6	200		L2
2-Nitroaniline	48.5	10	ug/L	50.0	97	65-123	13	200		
2-Nitrophenol	41.8	10	ug/L	50.0	84	40-111	0.5	200		
3,3'-Dichlorobenzidine	44.1	10	ug/L	50.0	88	25-203	11	200		
3/4-Methylphenol	34.2	10	ug/L	50.0	68	22-84	1	200		
3-Nitroaniline	49.8	10	ug/L	50.0	100	66-131	12	200		
4,6-Dinitro-2-methylphenol	46.7	10	ug/L	50.0	93	31-155	6	200		
4-Bromophenyl phenyl ether	46.9	10	ug/L	50.0	94	50-131	10	200		
4-Chloro-3-methylphenol	43.7	10	ug/L	50.0	87	48-94	5	200		
4-Chloroaniline	52.5	10	ug/L	50.0	105	45-120	0.3	200		
4-Chlorophenyl phenyl ether	43.4	10	ug/L	50.0	87	55-125	8	200		
4-Nitroaniline	47.5	10	ug/L	50.0	95	63-138	5	200		
4-Nitrophenol	21.1	10	ug/L	50.0	42	10-89	21	200		
Acenaphthene	43.6	10	ug/L	50.0	87	53-118	10	200		
Acenaphthylene	43.2	10	ug/L	50.0	86	52-121	7	200		
Aniline	63.9	10	ug/L	50.0	128	24-105	2	200		LH
Anthracene	49.2	10	ug/L	50.0	98	59-138	12	200		
Azobenzene	38.1	10	ug/L	50.0	76	65-123	11	200		
Benzo(a)anthracene	46.3	10	ug/L	50.0	93	63-138	0.8	200		
Benzo(a)pyrene	49.9	10	ug/L	50.0	100	67-142	4	200		
Benzo(b)fluoranthene	45.3	10	ug/L	50.0	91	58-151	2	200		
Benzo(g,h,i)perylene	51.5	10	ug/L	50.0	103	47-151	12	200		
Benzo(k)fluoranthene	49.4	10	ug/L	50.0	99	45-155	2	200		
Benzoic Acid	BRL	100	ug/L	50.0		10-125		200		P
Benzyl alcohol	35.6	10	ug/L	50.0	71	25-77	2	200		
bis(2-Chloroethoxy)methane	42.0	10	ug/L	50.0	84	42-119	5	200		
Bis(2-Chloroethyl)ether	41.7	10	ug/L	50.0	83	38-109	1	200		
Bis(2-chloroisopropyl)ether	39.3	10	ug/L	50.0	79	31-117	0.3	200		
Bis(2-Ethylhexyl)phthalate	44.9	10	ug/L	50.0	90	52-165	9	200		
Butyl benzyl phthalate	48.9	10	ug/L	50.0	98	51-162	2	200		
Chrysene	46.1	10	ug/L	50.0	92	59-137	4	200		
Dibenzo(a,h)anthracene	49.8	10	ug/L	50.0	100	43-161	5	200		

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Prism Work Order: 0110590  
 Time Submitted: 11/19/10 7:00:00AM

**Semivolatile Organic Compounds by GC/MS - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0K0641 - 3510C MS**

LCS Dup (P0K0641-BSD2)					Prepared: 11/23/10		Analyzed: 11/24/10		
Dibenzofuran	42.7	10	ug/L	50.0	85	63-115	5	200	
Diethyl phthalate	48.0	10	ug/L	50.0	96	54-135	3	200	
Dimethyl phthalate	47.3	10	ug/L	50.0	95	46-135	5	200	
Di-n-butyl phthalate	46.4	10	ug/L	50.0	93	51-142	0.6	200	
Di-n-octyl phthalate	50.3	10	ug/L	50.0	101	54-160	6	200	
Fluoranthene	51.7	10	ug/L	50.0	103	52-137	2	200	
Fluorene	43.4	10	ug/L	50.0	87	56-122	0.6	200	
Hexachlorobenzene	44.7	10	ug/L	50.0	89	57-129	8	200	
Hexachlorobutadiene	36.2	10	ug/L	50.0	72	34-110	9	200	
Hexachlorocyclopentadiene	38.1	10	ug/L	50.0	76	27-120	1	200	
Hexachloroethane	33.2	10	ug/L	50.0	66	37-98	6	200	
Indeno(1,2,3-cd)pyrene	49.9	10	ug/L	50.0	100	24-172	11	200	
Isophorone	39.7	10	ug/L	50.0	79	44-117	7	200	
Naphthalene	38.4	10	ug/L	50.0	77	37-108	3	200	
Nitrobenzene	35.3	10	ug/L	50.0	71	29-120	4	200	
N-Nitroso-di-n-propylamine	40.8	10	ug/L	50.0	82	42-115	1	200	
N-Nitrosodiphenylamine	49.1	10	ug/L	50.0	98	69-142	9	200	
Pentachlorophenol	41.2	10	ug/L	50.0	82	42-156	6	200	
Phenanthrene	45.5	10	ug/L	50.0	91	60-133	10	200	
Phenol	20.9	10	ug/L	50.0	42	10-47	15	200	
Pyrene	53.6	10	ug/L	50.0	107	50-152	13	200	
Surrogate: 2,4,6-Tribromophenol	81.3		ug/L	100	81	26-139			
Surrogate: 2-Fluorobiphenyl	43.4		ug/L	50.0	87	41-112			
Surrogate: 2-Fluorophenol	54.0		ug/L	100	54	10-48			SR
Surrogate: Nitrobenzene-d5	43.7		ug/L	50.0	87	34-102			
Surrogate: Phenol-d5	36.6		ug/L	100	37	10-34			SR
Surrogate: Terphenyl-d14	45.1		ug/L	50.0	90	31-165			

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### Sample Extraction Data

**Prep Method: 3510C MS**

Lab Number	Batch	Initial	Final	Date
0110590-04	P0K0641	1000 mL	1 mL	11/23/10
0110590-07	P0K0641	1000 mL	1 mL	11/23/10
0110590-08	P0K0641	1000 mL	1 mL	11/23/10

**Prep Method: SM6200 B**

Lab Number	Batch	Initial	Final	Date
0110590-01	P0K0656	10 mL	10 mL	11/24/10
0110590-02	P0K0656	10 mL	10 mL	11/24/10
0110590-03	P0K0656	10 mL	10 mL	11/24/10
0110590-04	P0K0656	10 mL	10 mL	11/24/10
0110590-05	P0K0699	10 mL	10 mL	11/29/10
0110590-06	P0K0699	10 mL	10 mL	11/29/10
0110590-07	P0K0656	10 mL	10 mL	11/24/10
0110590-08	P0K0656	10 mL	10 mL	11/24/10
0110590-09	P0K0656	10 mL	10 mL	11/24/10
0110590-10	P0K0699	10 mL	10 mL	11/29/10
0110590-11	P0K0699	10 mL	10 mL	11/29/10
0110590-12	P0K0699	10 mL	10 mL	11/29/10
0110590-13	P0K0723	10 mL	10 mL	11/30/10
0110590-14	P0K0723	10 mL	10 mL	11/30/10



# CHAIN OF CUSTODY RECORD

Full-Service Analytical &  
Environmental Solutions

LABORATORIES, INC.  
449 Springbrook Road • P.O. Box 240543 • Charlotte, NC 28224-0543  
Phone: 704/529-6364 • Fax: 704/525-0409

Client Company Name: AE Clean

Report To/Contact Name: Mike Branstrom  
Reporting Address: 701 Crescente Center Dr., Suite 475, Charlotte, NC 27607

Phone: 919 854 6238 Fax (No) 919 854 6259  
Email: (No) Email Address Mike\_Branstrom@Ae.com

EDD Type: PDF  Excel  Other

Site Location Name: 6114 Avdi  
Site Location Physical Address: US 19E

Sampling Date: 11/16/10 Sampling Time: 0845 (No) 0845 (Am)  
Sampling Matrix: Water (Soil, Water or Sludge)

Sample Collected: 1040 Military Hours: 1115  
Sampling Location: Lot#1 (Site ID)

Sample Container: Cg (Type: Glass)  
Preservatives: Voa (Size: 3)

Sample Container: Cg (Type: Glass)  
Preservatives: Voa (Size: 3)

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Preservatives: Voa (Size: 3)

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Preservatives: Voa (Size: 3)

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Preservatives: Voa (Size: 3)

Sample Container: Cg (Type: Glass)  
Preservatives: Voa (Size: 3)

Sample Container: Cg (Type: Glass)  
Preservatives: Voa (Size: 3)

PAGE 1 or 2 QUOTE # TO ENSURE PROPER BILLING.

Project Name: NCDOT - mitchell Co.

Short Hold Analysis: (Yes) (No)

UST Project: (No)

\*Please ATTACH any project specific reporting (QC LEVEL I II III IV provisions and/or QC Requirements

Invoice To: NCDO T

Address:

Purchase Order No./Billing Reference WBSS H 35609.1.1

Requested Due Date:  1 Day  2 Days  3 Days  4 Days  5 Days

"Working Days"  6-9 Days  Standard 10 days  Rush Work Must Be Pre-Approved

Samples received after 15:00 will be processed next business day.

Turnaround time is based on business days, excluding weekends and holidays.

(SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)

ANALYSES REQUESTED

REMARKS

PRISM LAB ID NO.

01

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**ATTACHMENT C**

# GROUNDWATER SAMPLING FIELD LOG



Project Name \_\_\_\_\_

Well ID \_\_\_\_\_ Sample Purpose \_\_\_\_\_ Personnel \_\_\_\_\_

Date/Time \_\_\_\_\_ In \_\_\_\_\_ Out \_\_\_\_\_ Weather \_\_\_\_\_

## I. WELL INFORMATION

Reference Point Elevation (ft) \_\_\_\_\_

Well Diameter \_\_\_\_\_ 1" Well Depth From Measuring Point (ft) \_\_\_\_\_

Water Depth From Measuring Point (ft) \_\_\_\_\_ GW Elevation from Measuring Point \_\_\_\_\_

## II. WELL VOLUME INFORMATION

Volume of Water Purged (L) \_\_\_\_\_

## III. EVACUATION INFORMATION

Evacuation Method \_\_\_\_\_

Calibration Standards \_\_\_\_\_ 7 \_\_\_\_\_ 4 \_\_\_\_\_ 10

Purge Volume (L)      Temp (°C)      pH      SpC ( $\mu$ mhos)      Turbidity (NTUs)

## IV. FIELD MEASUREMENTS

Temp (°C) \_\_\_\_\_ pH \_\_\_\_\_ SpC ( $\mu$ mhos) \_\_\_\_\_ Turbidity (NTUs) \_\_\_\_\_

## V. SAMPLE DESTINATION

Shipped to \_\_\_\_\_ Via \_\_\_\_\_ By \_\_\_\_\_

---

Field Services Coordinator