

INITIAL ABATEMENT ACTION REPORT FOR CLOSED ORPHAN UNDERGROUND STORAGE TANK

**92 Park Street, Town of Canton Property
Parcel #7
Canton, North Carolina
TIP # B-3656, WBS Element # 33202.1.2
Haywood County**

North Carolina Department of Transportation
Geotechnical Engineering Unit
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

October 14, 2010

6 Initial Abatement Action Report

In addition to reporting initial response and abatement actions and assessment actions and presenting initial site characterization, this newly-created Initial Abatement Action Report must fulfill the requirements, when a release has been discovered, for the following individual reports:

- Site Check Report (Section C)
- UST Closure Report (UST-12) with UST-2 Form (Section D)
- Post-Excavation Soil Contamination Assessment Report (Section H)
- Free Product Recovery Report (Section E)

Check the applicable report(s). Complete Sections A-L, as required, including the sections specifically designated for the reports you have indicated. The Initial Abatement Action Report must be submitted to the appropriate regional office within 90 days following discovery of release.

A. Site Information

1. Site Identification

☐ Date of Report: October 14, 2010
 ☐ Facility I.D.: NA UST Incident Number (if known): NA
 ☐ Site Name: Parcel #7
 ☐ Site Street Address: 92 Park Street
 ☐ City/Town: Canton Zip Code: 28716 County: Haywood
 ☐ Description of Geographical Data Point (e.g., diesel fill port): UST excavation
 ☐ Location Method (GPS, topographical map, other): GPS
 ☐ Latitude (decimal degrees): 35.531884 N Longitude (decimal degrees): 82.841743 W

2. Information about Contacts Associated with the Leaking UST System (Addresses must include street, city, state, zip code and mailing address, if different).

☐ UST Owner: Unknown
 Address: Unknown Tel.: Unknown
 ☐ UST Operator: Unknown
 Address: Unknown Tel.: Unknown
 ☐ Property Owner: Town of Canton
 Address: Unknown Tel.: Unknown
 ☐ Property Occupant: Vacant
 Address: NA Tel.: NA
 ☐ Consultant/Contractor: GEL Engineering of NC, Inc.
 Address: P.O. Box 14262 Tel.: 919-323-8828
 ☐ Analytical Laboratory: Prism Laboratories, Inc. State Certification No. 402
 Address: 449 Springbrook Road, Charlotte, NC 28224 Tel.: 704-529-6364

3. Information about Release

☐ Date Discovered: August 31, 2010
 ☐ Estimated Quantity of Release: None
 ☐ Cause of Release: NA
 ☐ Source of Release (Dispenser/Piping/UST): NA
 ☐ Sizes and contents of UST system(s) from which the release occurred: NA

4. Certification (The title page must display the seal and signature of the certifying P.E. or L.G. and the name and certification number of the company or corporation, if applicable [See 15A NCAC 2L .0103(e)].)

I, Andrew D. Eyer, a Professional Engineer (Licensed Geologist) (circle one) for (firm or company of employment), do certify that the information contained in this report is correct and accurate to the best of my knowledge.
 (Please Affix Seal and Signature)

GEL Engineering of NC, Inc. (Name of company or corporation) is licensed to practice geology (engineering) (circle one or both) in North Carolina. The certification number of the company or corporation is C-301/C-1938.



INITIAL ABATEMENT ACTION REPORT

**Gasoline UST (UST #002)
Parcel #7
Town of Canton Property
92 Park Street
Canton, NC**

B. Site History and Characterization

1. Provide UST owner and operator information.
 - List the names, addresses, telephone numbers, and dates of ownership/operation of all previous UST owners and operators of the UST system(s). Present in table form (Use Reporting Table B-2, Site History, UST Owner/Operator and Other RP Information, from the Guidelines, Appendix B.).

See Table 1 of this report

2. Provide UST information (inclusive of all USTs, currently and historically in place at facility). For each UST, provide the following information in table form (Use Reporting Table B-1, Site History, UST/AST System and Other Release Information, from the Guidelines, Appendix B.):
 - Tank identification number (keyed to a site map showing the locations of all UST systems);
UST #002
 - Last contents of tank;
Gasoline
 - Previous contents of tank (if any);
Not applicable.
 - Capacity of tank in gallons;
700
 - Construction (material and structure);
Steel, single-walled
 - Tank dimensions;
3.5 feet x 9 feet
 - Installation date;
Not Known

B. Site History and Characterization (continued)

2. Provide UST information (continued)

- Description of piping and pump(s) associated with each UST;

No pumps and no product piping observed for UST #002 during UST removal. However, 1.5-inch diameter underground steel product piping for adjacent UST #001 and UST #003 was observed during the removal of UST #001, UST #002, and UST #3. The piping extended westerly approximately 10 feet from the UST excavation at a depth of 1 foot below ground surface, as shown in Figure 2. Piping was connected to UST #001 and UST #003, but was disconnected at the westerly end of the piping. No liquids were observed in the piping, and they were removed as part of the UST closures.

- Status of UST (in use or not in use, closed in place, closed by removal; date of last use, date of closure);

Closed by removal on August 17, 2010. Date of last use unknown.

- Indication of a release

Detected DRO concentrations in three of eight closure soil samples exceeded NCDENR DRO action level.

Provide discussion to supplement Table B-1 and the UST location map in order to clarify the spatial and historical relationships among tanks and between tanks and piping and dispensers and a brief description of all historical compliance issues and releases (indicate incident number)

UST #001, UST #002, and UST #003 were adjacent USTs located at 92 Park Street, as shown in Figure 2. Underground product piping connected to UST #001 and UST #003 was observed and removed during the UST closures. There were no known releases associated with the USTs or the product piping. The history of the UST system has not been documented.

3. Provide non-UST information.

Not applicable.

4. Provide a comprehensive description of the release, including date discovered, cause and source (including tank identification number and contents), and the relationship of historical UST releases, non-UST releases, and off-site releases (indicate incident number) to contamination from current release.

There were no indications of a release from UST #001, UST #002, UST #003, or the associated product piping observed when they were removed on August 16, 2010, and no evidence of deterioration of any of the USTs or piping. Releases from UST #002 and the product piping from UST #001 and UST #003 were suspected based on the analytical results for closure soil samples collected from beneath the UST and the piping.

B. Site History and Characterization (continued)

5. Provide a brief description of site characteristics (including status of facility (active or inactive), land use of site and surrounding area, water supply, topography, vegetation, surface water, wells, buildings, surface cover, soil type, depth to and nature of bedrock, depth to groundwater, direction of groundwater flow, etc.)

The site is currently unpaved and vacant. The site is located adjacent to the Pigeon River, as shown in Figures 1, 2, and 3. Soil observed during UST removals was brown, friable, micaceous, silty, clayey fill material, with various debris (brick, rocks, etc.). Depth to groundwater and direction of groundwater flow are not known. Groundwater flow of the uppermost unconfined aquifer is assumed to be in westerly direction towards the adjacent Pigeon River based on topography shown on Figure 1 of this report. NCDOT is planning modifications to Park Street in the vicinity of the site, as shown in Figure 3.

6. Summarize initial abatement actions, assessment activities, and corrective actions performed to date and list all reports previously submitted.

PID readings of 0.0 ppm were measured in all UST closure samples collected for UST #001, UST #002, UST #003 and the associated product piping following their removal on August 17, 2010. No over-excavation of soil surrounding the former USTs was performed at that time because there was no indication that the soil was impacted.

Soil samples P7-1 and P7-2 were collected at a depth of 7 feet below ground surface from beneath UST #001, soil samples P7-3 and P7-4 were collected at a depth of 7 feet below ground surface from beneath UST #002, soil samples P7-5 and P7-6 were collected at a depth of 7 feet below ground surface from beneath UST #003, soil sample P7-7 was collected at a depth of 2 feet below ground surface from beneath the product piping for UST #003, and soil sample P7-8 was collected at a depth of 2 feet below ground surface from beneath the product piping for UST #001 (see Figure 2). All eight samples were analyzed for GRO and DRO.

A 24-hour release notification (NCDENR Form UST-61) was submitted to the Asheville Regional Office of NCDENR on August 31, 2010 based on the detection of 23 mg/kg DRO in soil sample P7-4, 41 mg/kg DRO in soil sample P7-7, and 41 mg/kg DRO in soil sample P7-8, all of which exceeded the NCDENR DRO action level of 10 mg/kg.

Following the collection of closure soil samples, the UST excavation was backfilled with clean fill material and compacted to 95% Proctor to a depth of 0.5 feet below ground surface (see Photograph 4 in Appendix IX, and compaction report in Appendix X), then capped with 6 inches of ABC stone, which was compacted by the trackhoe to ground surface (see Photographs 5 in Appendix IX).

B. Site History and Characterization (continued)

6. Summarize initial abatement actions, assessment activities, and corrective actions performed to date and list all reports previously submitted (continued)

Confirmation soil samples SB7-4A, SB7-7A, and SB7-8A were collected on September 16, 2010 at the same depths and at the same locations as closure soil samples P7-4, P7-7, and P7-8, respectively. All three confirmation soil samples were analyzed for risk-based parameters specified in NCENR's UST closure guidance document for gasoline USTs (VOCs by 8260B and VPH by the MADEP Method).

C. Site Check Report

Not applicable

D. UST Closure Report (following UST-12 Format) and Site Investigation Report of Permanent Closure or Change-in Service of UST (UST-2 Form)

UST-12 closure report requirements are addressed in this Initial Abatement Action report. A UST-2 Form for the closure of UST #001, UST #002, and UST #003 is provided in Appendix II.

E. Free Product Investigation and Recovery Report

Not applicable

F. Groundwater and Surface Water Investigation

Not applicable

G. Initial Response and Abatement Activities

1. Describe initial response actions performed within 24 hours of the release
 - Submittal of 24-hour Release Report and UST Leak Reporting Form (UST-61);

A completed UST-61 form was submitted to the Asheville Regional Office of NCDENR on August 31, 2010, within 24 hours following discovery of the suspected release (analytical data for closure soil samples).

G. Initial Response and Abatement Activities (continued)

1. Describe initial response actions performed within 24 hours of the release (continued)

- Action to prevent further release and to determine source of the release;

108 gallons and 1304 gallons of residual gasoline/water (> 90% water) was removed from UST #002 and UST #003, respectively, prior to removal of the tanks. No residual liquids were observed in UST #001. In addition, a total of 250 gallons of residual tank bottoms and tank cleaning wastewater was removed from UST #002 and UST #003. Copies of the manifests for disposal of these wastes is provided in Appendix VI. Once the USTs were removed, the exteriors of all three of the USTs were examined, and no corrosion holes or rust were identified on the bottom or sides of any UST.

- Identification and mitigation of hazards due to exposure to pollutants;

Based on observed conditions in the UST excavation following the removal of the USTs, no remaining hazards were identified.

- Identification and mitigation of hazards due to fire, explosion, and vapor hazards;

The atmospheres of UST #001, UST #002, and UST #003 were monitored with a LEL meter prior to their removal. All measurements were < 10% of LEL. All PID measurements for soil from the excavation pit indicated levels of 0.0 ppm. Therefore, no remaining hazards were identified.

2. Describe initial abatement actions performed

- Completion of investigation to confirm presence and determine source of release;

Confirmation soil samples SB7-4A, SB7-7A, and SB7-8A were collected on September 16, 2010 at the same depths and at the same locations as closure soil samples P7-4, P7-7, and P7-8, respectively. All three confirmation soil samples were analyzed for risk-based parameters specified in NCENR's UST closure guidance document for gasoline USTs (VOCs by 8260B and VPH by the MADEP Method).

- Investigation and recovery of free product;

Not applicable....no free product was encountered.

- Continued mitigation and monitoring of fire, explosion, and vapor hazards;

Further mitigation and monitoring of hazards were not required following removal of UST #001, UST #002, and UST #003.

- Remediation of hazards posed by exposed contaminated soil;

Not applicable

G. Initial Response and Abatement Activities (continued)

2. Describe initial abatement actions performed (continued)

- Submittal of 20-Day Report summarizing the progress of the initial actions performed within the 20-day period following the discovery of the release;

A 20-Day Report was not submitted to NCDENR. The Asheville Regional Office of NCDENR stated that one was not required for this suspected release, and that the information required for a 20-Day Report would be provided in the Initial Abatement Action Report.

- Soil excavation activities;

Not applicable....no contaminated soil was encountered.

H. Excavation of Contaminated Soil

1. Describe source and estimated extent of soil contamination determined in initial investigations (e.g., site check, UST system closure), referencing maps and cross-sections in Section J and tables presenting soil sampling information and results in Section K.

No contaminated soil was identified during UST closure activities for UST #001, UST #002, and UST #003.

- Sampling location and depths; locations of tanks; piping dispensers, sumps, areas of staining; utility lines; potential receptors; buildings; relationship of area of contaminated soil to groundwater and bedrock.

Closure soil samples P7-1 through P7-8 (shown in Figure 2) were collected from the excavation bottom beneath UST #001, UST #002, and UST #003, on August 17, 2010 at a depth of 7 feet below ground surface. In addition, closure soil samples were collected from beneath the former product piping associated with UST #001 and UST #003, as shown in Figure 2. Analytical results for the collected soil samples are presented in Table 3 and Appendix VIII, and PID readings for the soil samples are shown on Figure 2. Confirmation soil samples SB7-4A, SB7-7A, and SB7-8A were collected on September 16, 2010 from the same locations as closure soil samples P7-4, P7-7, and P7-8, respectively (see Figure 2). Analytical results for the confirmation soil samples are presented in Table 3 and Appendix VIII.

Parcel #7 is vacant, as shown in Photograph 1 of Appendix IX. Neither bedrock nor groundwater was encountered during closure of the USTs, and both groundwater and bedrock are believed to be greater than 10 feet below the bottom of the UST excavation pit. No piping, dispensers, or pumps or were located in the vicinity of the former USTs.

H. Excavation of Contaminated Soil (continued)

1. Describe source and estimated extent of soil contamination determined in initial investigations (e.g., site check, UST system closure), referencing maps and cross-sections in Section J and tables presenting soil sampling information and results in Section K (continued).

- If part or all of UST system was removed, indicate dimensions of resulting pits and trenches.

A pit 17 feet wide by 20 feet long by 7 feet deep remained following the removal of UST #001, UST #002, and UST #003, as shown in Figure 2.

2. Describe excavation process, referencing maps and cross-sections in Section J, tables presenting soil sampling information and results in section K and disposal manifests and geological logs in Section J.

- Describe type of equipment used.

A trackhoe was used to remove the USTs and backfill the UST excavation. A remote-controlled vibratory roller was used to compact the backfilled material in the excavation to 95% Proctor. The backfill compaction report is provided in Appendix X. Photographs of the UST removals and compaction are provided in Appendix IX.

- Describe field screening, including:

- Physical characteristics of soil samples, as observed during collection;

All soil samples consisted of brown, friable, micaceous, silty, clayey fill material (see Figure 2).

- Field instrumentation used to screen soils;

The samples were screened with a MiniRAE2000 PID.

- Describe field screening, including: (continued)

- Field instrument calibration procedures;

The PID was calibrated to 10.6 parts per million isobutylene using standard calibration gas in accordance with manufacturer's instructions prior to screening.

- Screening results.

PID screening was performed on the eight UST closure samples (P7-1 through P7-8). All eight samples had readings of 0.0 ppm.

- Indicate the final dimensions of the excavation.

17 feet wide by 20 feet long by 7 feet deep

H. Excavation of Contaminated Soil (continued)

2. Describe excavation process, referencing maps and cross-sections in Section J, tables presenting soil sampling information and results in section K and disposal manifests and geological logs in Section J (continued)

- Indicate the volume (in cubic yards) and weight (in tons) of soil excavated from each excavation (show calculations).

No soil was removed for disposal or treatment.

- Describe the relationship of final excavation pit to former UST system, to groundwater, to bedrock, and to structures.

The approximate relationship of the former UST system to the final excavation is shown in Figure 2. Neither bedrock nor groundwater was encountered during closure of the USTs, and both groundwater and bedrock are believed to be greater than 10 feet below the bottom of the UST excavation pit.

- Indicate if the excavation operation ceased on encountering clean soil, groundwater, or bedrock.

The excavation operation ceased following the removal of UST #001, UST #002, and UST #003. There was clean soil on the excavation bottom based on visual and olfactory evidence, as well as PID readings for the UST closure soil samples.

3. Describe post-excavation confirmation soil sampling, referencing maps and cross-sections in Section J, tables presenting soil sampling information and results in Section K, and geological logs in Section L as follows:

- Describe the sample location and depth, and methods of collection and analysis for each excavation.

The locations and depths of soil samples P7-1 through P7-8, as well as confirmation soil samples SB7-4A, SB7-7A, and SB7-8A, are shown in Figure 2. Soil samples P7-1 through P7-4 were collected as grab samples from the trackhoe bucket, using Encore samplers to collect samples for GRO analysis. Soil samples P7-7 and P7-8 were collected as in-situ grab samples from a depth of approximately 1 foot beneath the respective product piping, using Encore samplers to collect samples for GRO analysis.

Confirmation soil samples SB7-4A, SB7-7A, and SB7-8A were collected as grab samples from DPT cores that were obtained from a depth of 7 to 8 feet for SB7-4A, and from a depth of 2 to 3 feet below ground surface for SB7-7A and SB7-8A. Encore samplers were used to collect the soil samples from the DPT cores for VOC and VPH analysis. Sampling protocol is described in Appendix V.

H. Excavation of Contaminated Soil (continued)

3. Describe post-excavation confirmation soil sampling, referencing maps and cross-sections in Section J, tables presenting soil sampling information and results in Section K, and geological logs in Section L as follows (continued):

- Note if multiple excavations were performed sequentially in an area of contaminated soil. i.e., if confirmatory sampling following primary excavation indicated that contaminated soil remained, so that further excavation was performed and a second set of confirmatory samples was collected and analyzed.

No additional excavation was performed following the removal of UST #001, UST #2, and UST #003.

- If contaminated soil was allowed to remain after final excavation, indicate precisely the location and depth of the residual contamination and explain why is not removed.

No contaminated soil was encountered in excavation. PID readings of closure soil samples P7-1 through P7-8 did not indicate that impacted soil remained, so excavation was stopped following removal of UST #001, UST #002, and UST #003.

4. Document soil investigation.

- Provide soil sampling information for all samples collected following excavation and during previous investigations. Refer to table provided in Section K: Table B-3, Summary of Soil sampling results; to figures, in Section J, and to appendices, in Section L. Information should include:

- Lithologic descriptions from logs for boring, excavations;

All soil samples consisted of brown friable, micaceous, silty, clayey fill material (see Figure 2).

- Type of samples;

Soil samples P7-1 through P7-6 were grab samples collected from the bottom of the UST excavation, and soil samples P7-7 and P7-8 were collected as grab samples from beneath the former product piping, as shown in Figure 2.

- Sample collection procedures;

Soil samples P7-1 through P7-6 were collected as grab samples from the trackhoe bucket, using Encore samplers to collect samples for GRO analysis. Soil samples P7-7 and P7-8 were collected as in-situ grab samples from a depth of approximately 1 foot beneath the respective product piping, using Encore samplers to collect samples for GRO analysis.

H. Excavation of Contaminated Soil (continued)

4. Document soil investigation (continued).

- Provide soil sampling information for all samples collected following excavation and during previous investigations. Refer to table provided in Section K: Table B-3, Summary of Soil sampling results; to figures, in Section J, and to appendices, in Section L. Information should include: (continued)

- Sample collection procedures (continued);

Confirmation soil samples SB7-4A, SB7-7A, and SB7-8A were collected as grab samples from DPT cores that were obtained from a depth of 7 to 8 feet for SB7-4A, and from a depth of 2 to 3 feet below ground surface for SB7-7A and SB7-8A. Encore samplers were used to collect the soil samples from the DPT cores for VOC and VPH analysis. Sampling protocol is described in Appendix V.

- Locations of the soil samples;

The soil sample locations are shown in Figure 2.

- Depths of the soil samples;

The soil sample depths (7 feet below ground surface for soil samples P7-1 through P7-6, and 2 feet below ground surface for soil samples P7-7 and P7-8) are shown in Figure 2.

- Time/date collected;

Closure soil samples P7-1 through P7-8 were collected on August 17, 2010. Confirmation soil samples SB7-4A, SB7-7A, and SB7-8A were collected on September 16, 2010. The times of the sample collections are provided on the Chain of Custody form in Appendix VII.

- Sample identification;

Soil sample IDs were P7-1 through P7-8, and SB7-4A, SB7-7A, and SB7-8A, as shown in Figure 2.

- Indication of phase of sampling: site check, closure, IAA, etc.;

All soil samples were collected as part of the UST closure.

- Methods of soil sample analysis

Soil samples P7-1 through P7-8 were analyzed for gasoline range organics (GRO) and diesel range organics (DRO) by EPA Method 8015. Confirmation soil samples SB7-4A, SB7-7A, and SB7-8A were analyzed for volatile petroleum hydrocarbons (VPH) by the MADEP Method and volatile organic compounds (VOCs) by EPA Method 8260B.

H. Excavation of Contaminated Soil (continued)

4. Document soil investigation (continued).

- Document quality-control measures information, including:

- Sample handling procedures including sample preservation techniques and sample transport procedures;

Sample handling procedures are described in Appendix V. Sample containers and Encore samplers were new, and samples requiring preservation (GRO, VPH, and VOCs) were placed in sample containers provided by lab with pre-measured preservative. All samples were placed on ice in a cooler, and transported to the laboratory within 48 hours following completion of soil sampling activities.

- Decontamination procedures;

The trackhoe used for UST removal and soil sampling was decontaminated by the subcontractor prior to arrival at the site. No other equipment used in the soil sampling required decontamination.

- Time and date samples were submitted to lab;

Soil samples P7-1 through P7-8 were submitted to the laboratory at 3:15 PM on August 20, 2010. Confirmation soil samples SB7-4A, SB7-7A, and SB7-8A were submitted to the laboratory at 12:15 PM on September 17, 2010.

- Collection of samples for quality control purposes.

No quality control samples were collected for analysis.

- Describe soil investigation results, including:

- Presentation of analytical results for soil samples;

Certificates of Analysis for the collected soil samples are presented in Appendix VIII, and the results are summarized in Table 3.

- Discussion of the results in relation to the appropriate cleanup levels, Identifying the samples that exceed the lower of the residential MSCCs or the soil-to-groundwater MSCCs.

None of the confirmation soil samples (SB7-4A, SB7-7A, and SB7-8A) exceeded established MSCC soil standards.

- Discussion of effect of quality control sample results on the interpretation of soil sample results.

Not applicable...no quality control samples were collected.

H. Excavation of Contaminated Soil (continued)

5. Describe disposal of contaminated soil, referencing tables presenting soil sampling information and results in Section K and disposal manifests in Section L, as follows:

- Indicate volume and weight of contaminated soil removed from each excavation at site;

Not applicable. No contaminated soil was removed from the UST excavation.

- Describe construction of any stockpile of contaminated soil, describe collection and analysis of stockpile samples;

Not applicable.

- Indicate if soil was treated onsite;

Soil was not treated onsite.

- Indicate if soil was transported offsite for disposal and, if so, by whom and to what destination;

Contaminated soil was not transported offsite for disposal.

- Confirm the excavation was back-filled with clean soil;

The excavation was backfilled with clean fill material from an offsite source and compacted to 95% Proctor by the subcontractor.

6. Present conclusions, as follows:

- Briefly summarize excavation process;

Not applicable. No excavation following removal of the USTs.

- Describe the extent of final excavation and collection of confirmatory soil samples;

The dimensions of the final excavation are shown in Figure 2. UST closure soil samples (P7-1 through P7-6) were collected as grab samples from undisturbed soil obtained from the bottom of the UST excavation using the trackhoe bucket. Product piping closure samples (P7-7 and P7-8) were collected in-situ from a depth of 1 foot below the former product piping. Confirmation soil samples SB7-4A, SB7-7A, and SB7-8A were collected as grab samples from DPT cores that were obtained from the same depths and locations as closure samples P7-4, P7-7, and P7-8, respectively.

- Indicate if excavation ceased on encountering groundwater or bedrock;

No groundwater or bedrock was encountered during the excavation process.

H. Excavation of Contaminated Soil (continued)

6. Present conclusions, as follows (continued):

- Indicate whether soil contamination levels in exceedance of the lowest MSCCs remain in the excavation, further excavation being determined infeasible by the UST Section, or soil contaminant levels in final excavation confirmatory samples were equal to or below the lowest MSCCs.

Based on the analytical results for confirmation soil samples SB7-4A, SB7-7A, and SB7-8A, no soil in exceedance of established MSCCs remains in the backfilled excavation.

I. Conclusions

1. If soil contaminant levels in exceedance of the lowest MSCCs remain in the excavation(s) (further excavation being determined infeasible by the UST Section), if groundwater or bedrock has been encountered in proximity to contamination, or if free product is present, it should be concluded that a Limited Site Assessment must be performed and a report submitted within 120 days of discovery of the release; but
2. If soil contaminant levels in final excavation confirmatory samples were equal to or below the lowest MSCCs and if groundwater, bedrock, and free product were not encountered in the excavation(s), then no further action should be requested.

No further action is requested. No constituents were detected in any of the confirmation soil samples (SB7-4A, SB7-7A, and SB7-8A) at levels equal to or exceeding MSCCs. No groundwater, bedrock, or free product was encountered in the excavation.

J. Figures

1. A topographic map illustrating the area within 1500-foot radius of the source of the release;

Attached as Figure 1 of this report

2. Site map and cross-sections illustrating the UST system(s)/excavation area(s), drawn to scale;

Attached as Figure 2 of this report

3. Map(s) and geological cross-sections, drawn to scale, depicting all soil analytical results obtained to date and final confirmatory sample results;

Attached as Figure 2 of this report.

J. Figures (continued)

4. Map(s) and geological cross-sections, drawn to scale, depicting groundwater and surface water analytical results;

Not applicable.

5. A free product map showing thickness (in feet) and extent of free product using contour lines;

Not applicable.

6. Potential receptor map that clearly identifies water supply wells and other potential receptors.

Not applicable...no known receptors.

K. Tables

1. Site history

Attached as Table 1 of this report.

2. Public and private water supply well and other receptor information

Attached as Table 2 of this report.

3. Field screening results

PID screening was performed on the eight UST closure samples (P7-1 through P7-8). All eight samples had readings of 0.0 ppm. Therefore, no table has been included.

4. Summary of soil sampling results

Attached as Table 3 of this report.

5. Summary of groundwater and surface water sampling results

Not applicable.

6. Monitoring and remediation well construction information

Not applicable.

7. Free product recovery information

Not applicable.

K. Tables (continued)

8. Cumulative volume of free product recovered from site

Not applicable.

9. Current and historical groundwater elevations and free product thickness

Not applicable.

L. Appendices

A. Tightness testing results and supporting documentation

Not applicable.

B. Notification of Intent: UST Permanent Closure or Change-in-Service (UST-3 Form)

Attached as Appendix I.

C. Site Investigation Report for Permanent Closure or Change-in-Service of UST (UST-2 Form)

Attached as Appendix II.

D. Site specific Health and Safety Plan (HASP)

Attached as Appendix III.

E. Certificate of UST disposal

Attached as Appendix IV.

F. Groundwater field measurements

Not applicable.

G. Standard procedures

Attached as Appendix V.

H. Soil, water, free product, and sludge disposal manifests and soil treatment permits

Attached as Appendix VI.

I. Complete chain-of-custody records

Attached as Appendix VII.

J. Copy of all laboratory analytical records

Attached as Appendix VIII.

L. Appendices (continued)

K. Photographs

Attached as Appendix IX.

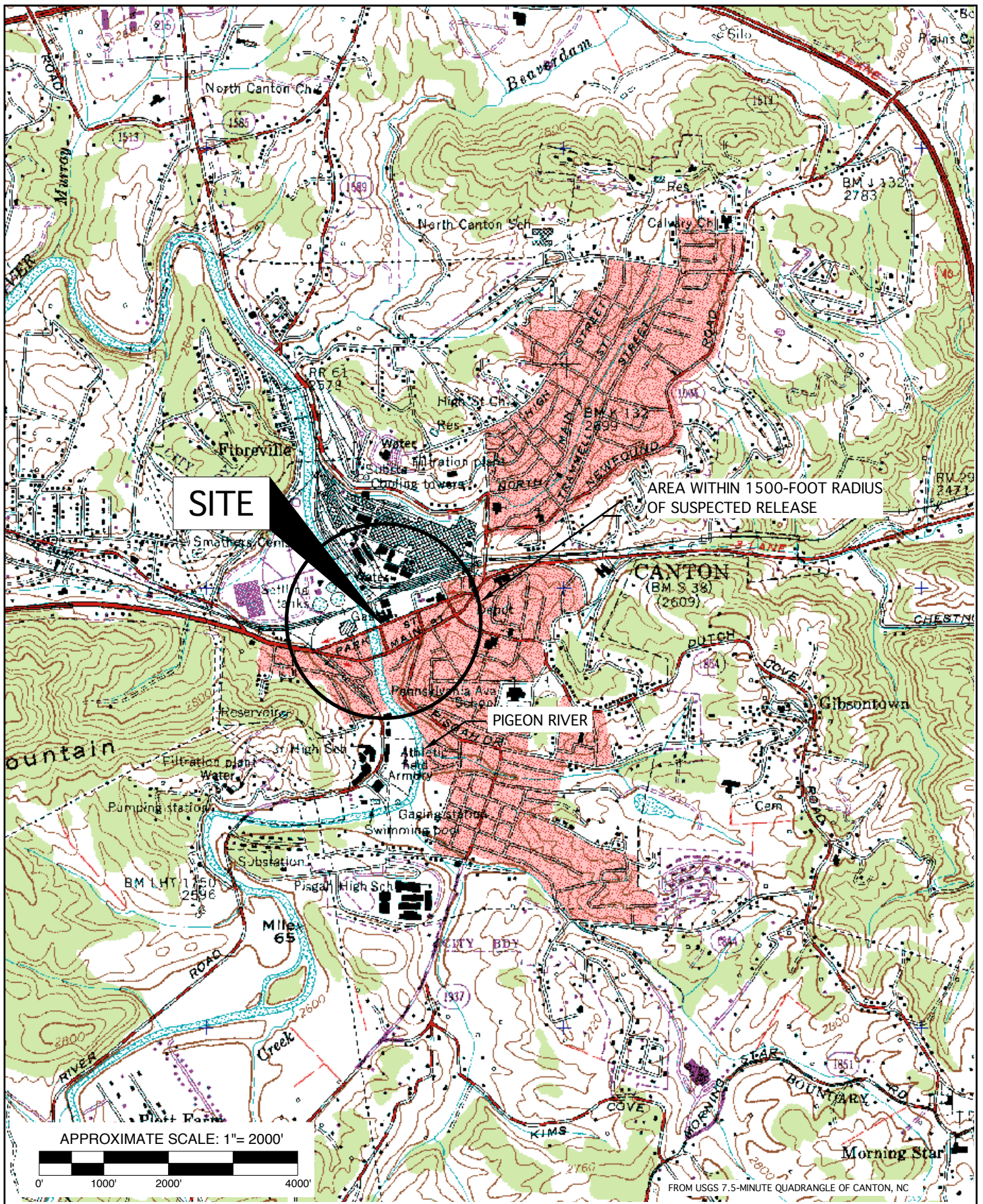
L. Geologic logs for excavation(s)/borings

No borings were constructed. Description of excavation lithology is provided on Figure 2 of this report

M. Monitoring well construction forms

Not applicable.

FIGURES



SITE

AREA WITHIN 1500-FOOT RADIUS OF SUSPECTED RELEASE

PIGEON RIVER

APPROXIMATE SCALE: 1" = 2000'



FROM USGS 7.5-MINUTE QUADRANGLE OF CANTON, NC

GEL Engineering of NC, Inc.
an Affiliate of THE GEL GROUP, Inc.



Post Office Box 14262
Research Triangle Park, NC 27709
(919) 544-1100

PROJECT: ncdt00410

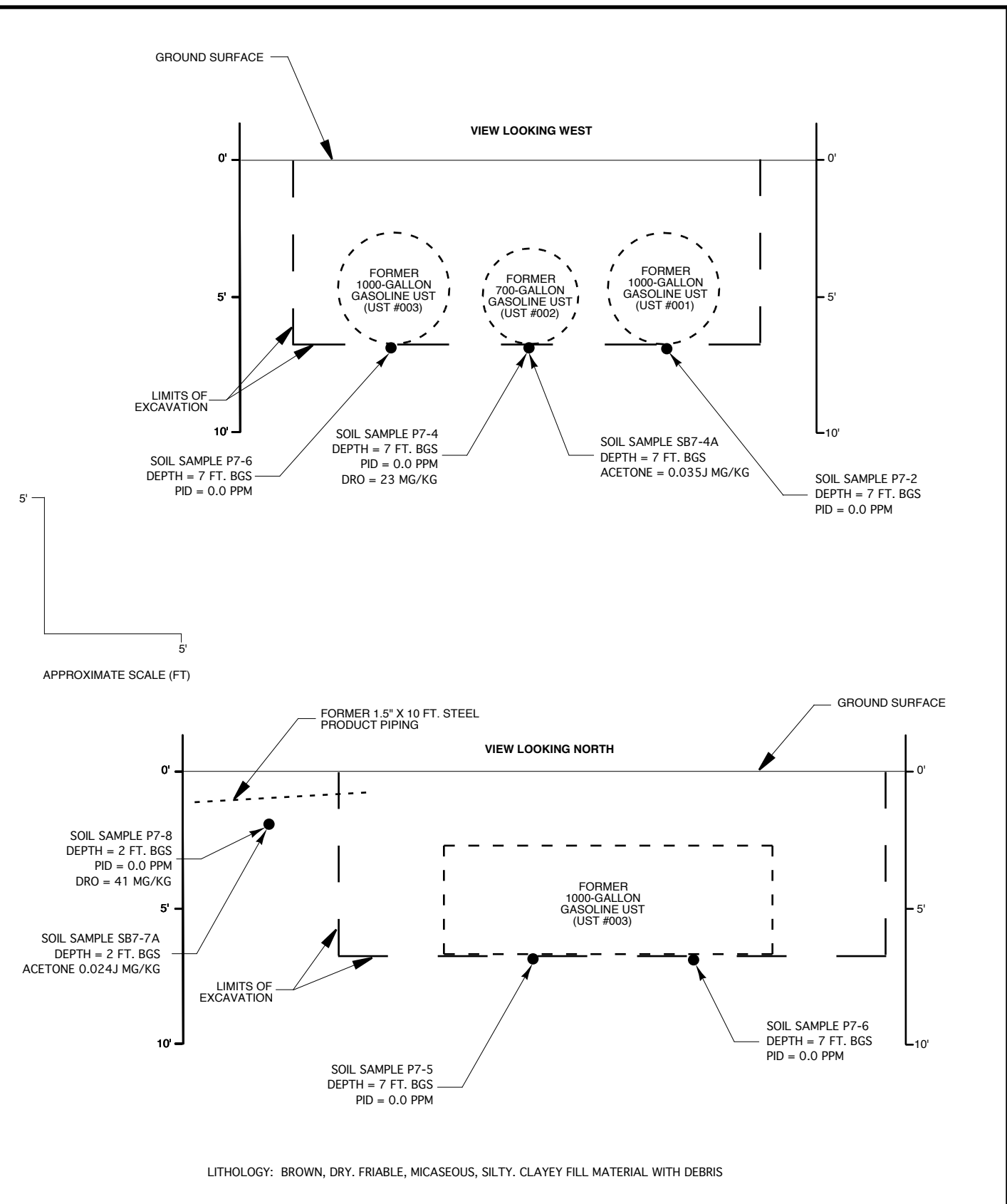
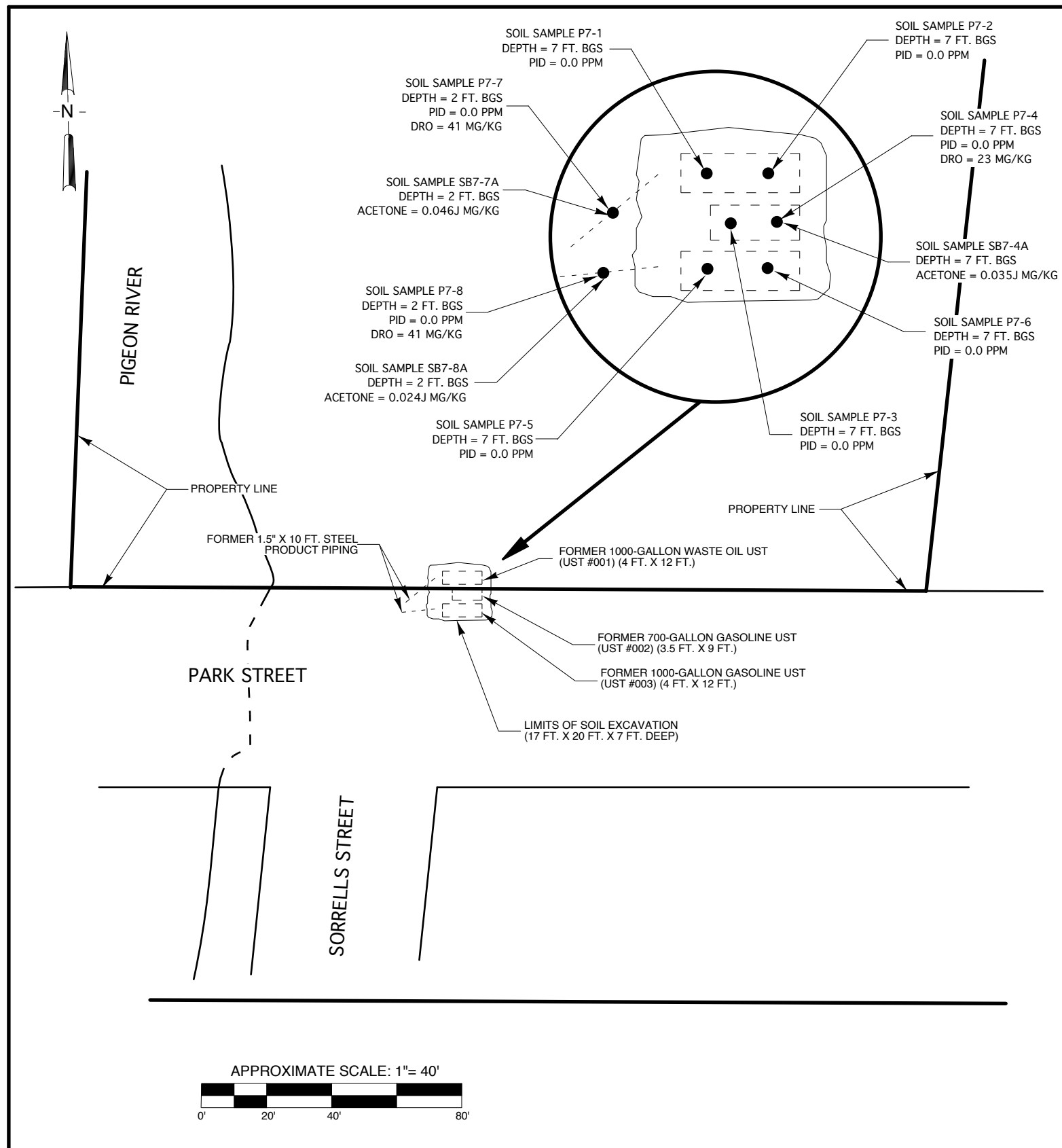
INITIAL ABATEMENT ACTION REPORT
PARCEL #7
92 PARK STREET
CANTON, NORTH CAROLINA
STATE PROJECT B-3656, WBS #33202.1.2

TOPOGRAPHIC MAP SHOWING
LOCATION OF SITE

FIGURE
1

DATE: September 29, 2010

DRAWN BY: ADE APPRV. BY:



GEL ENGINEERING of NC, Inc.
an Affiliate of THE GEL GROUP, INC.



P.O. BOX 14262
RESEARCH TRIANGLE PARK, NC 27709
(919) 544-1100

PROJECT: ncdt00410

INITIAL ABATEMENT ACTION REPORT

PARCEL #7
92 PARK STREET
CANTON, NORTH CAROLINA
STATE PROJECT B-3656, WBS #33202.1.2

DATE: October 4, 2010

SITE PLAN

DRAWN BY: ADE

APPRV. BY:

FIGURE
2

FIGURE 3

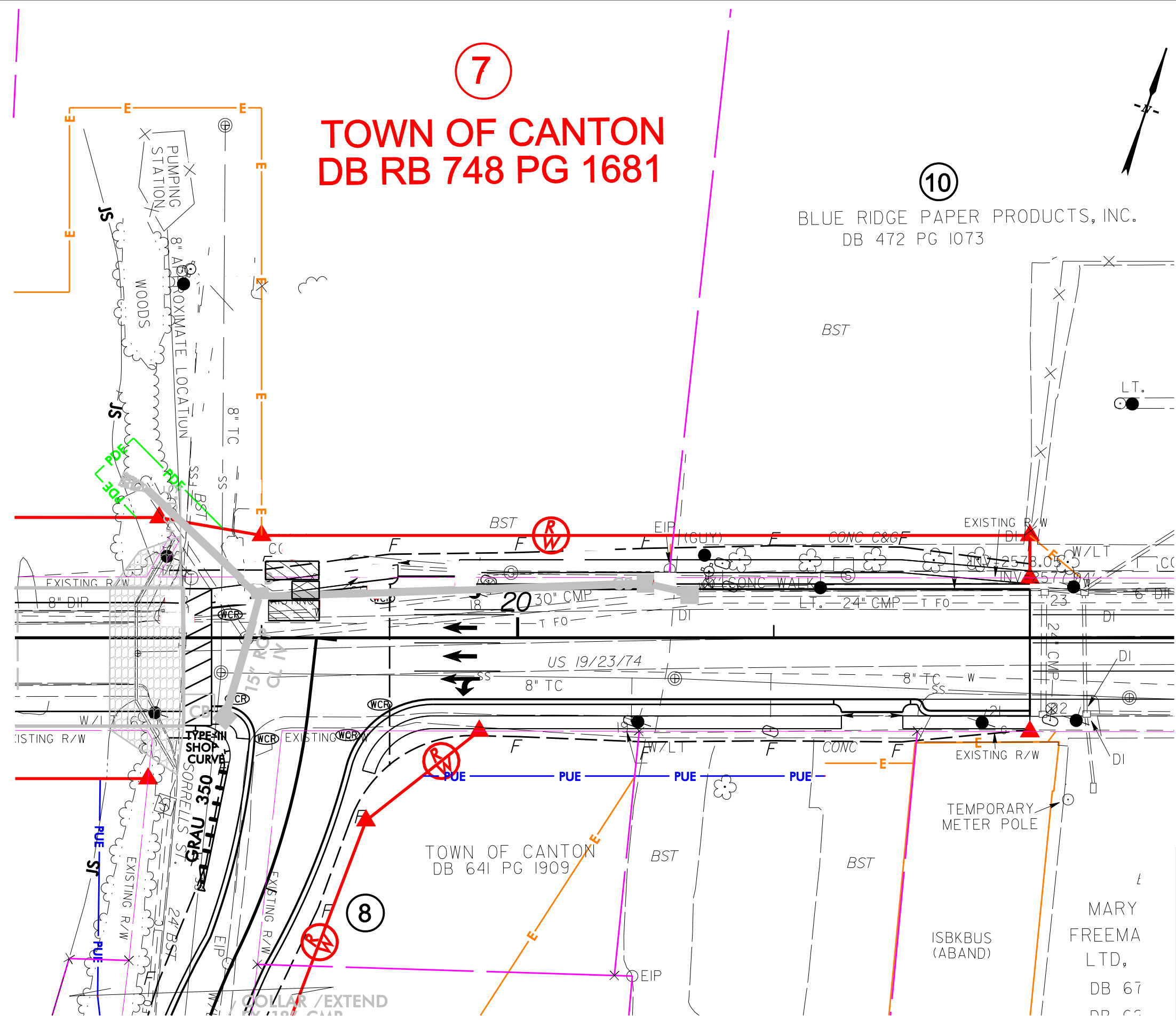
**NCDOT Design Proposed for Park Street Right-of-Way
(modified from Figure 4 of URS Preliminary Site
Assessment Report, dated May 14, 2010)**

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Prepared by
URS
URS Corporation - North Carolina
1600 Perimeter Park Drive, Suite 400
Morriseville, NC 27560
TELEPHONE (919) 461-1100 FAX (919) 461-1415

LEGEND

- PROPOSED RIGHT-OF-WAY
- PROPOSED EASEMENT
- PROPOSED DRAINAGE STRUCTURE
- APPROXIMATE LOCATION OF EM-GI ANOMALY



PARCEL 7 - TOWN OF CANTON NCDOT WBS. 33202.I.2 HAYWOOD COUNTY CANTON, NORTH CAROLINA		
URS Corporation - North Carolina 1600 Perimeter Park Drive Morriseville, North Carolina 27560 TELEPHONE (919) 461-1100 FAX (919) 461-1415		
DRN BY: EGE	DATE: 5-5-10	STATE PROJECT: B-3656
CHECKED BY: VK	DATE: 5-5-10	FIGURE

TABLES

TABLE 1
Site History

Table B-1: Site History – UST/AST System and Other Release Information

Revision Date: NA Incident Number and Name: 92 Park Street, Canton, NC

UST ID Number	Current/Last Contents *	Previous Contents *	Capacity (in gallons)	Construction Details **	Tank Dimensions	Description of Associated Piping and Pumps	Date Tank Installed	Status of UST ***	Was release associated with the UST System?
001	Gasoline	Gasoline	1000	Steel, Single-walled	4' x 12'	1.5" x 10' prod. piping	Not Known	Closed (Removed on 8/17/10)	NA
002	Gasoline	Gasoline	700	Steel, Single-walled	3.5' x 9'	None Observed	Not Known	Closed (Removed on 8/17/10)	NA

Add additional records as necessary

AST ID Number	Current/Last Contents *	Previous Contents *	Capacity (in gallons)	Construction Details **	Tank Dimensions	Description of Associated Piping and Pumps	Date Tank Installed	Status of AST ***	Was release associated with the AST System?
NA									

Add additional records as necessary

Incident Number	Material Released	Date of Release	Description of Release
NA	N/A	N/A	One of two closure soil samples for UST #002 and closure samples for product piping sections formerly connected to UST #001 and UST #003 indicated slightly elevated TPH levels. However, confirmation soil samples did not confirm that there had been a release(s).

Add additional records as necessary

* Gasoline (unleaded or leaded), diesel, used oil, waste oil, aviation fuel, etc., or pesticides, non-halogenated or halogenated solvents, etc.

** Fiberglass (single- or double-walled), steel (single- or double-walled), steel with FRP (single- or double-walled), steel with liner, other, unknown.

*** Currently operational, not in use or temporarily closed (specify date), permanently closed in place (specify date), permanently closed by removal (specify date)

Table B-1: Site History – UST/AST System and Other Release Information

Revision Date: NA Incident Number and Name: 92 Park Street, Canton, NC

UST ID Number	Current/Last Contents *	Previous Contents *	Capacity (in gallons)	Construction Details **	Tank Dimensions	Description of Associated Piping and Pumps	Date Tank Installed	Status of UST ***	Was release associated with the UST System?
003	Gasoline	Gasoline	1000	Steel, Single-walled	4' x 12'	1.5" x 10' prod. piping	Not Known	Closed (Removed on 8/17/10)	NA

Add additional records as necessary

AST ID Number	Current/Last Contents *	Previous Contents *	Capacity (in gallons)	Construction Details **	Tank Dimensions	Description of Associated Piping and Pumps	Date Tank Installed	Status of AST ***	Was release associated with the AST System?
NA									

Add additional records as necessary

Incident Number	Material Released	Date of Release	Description of Release
NA	NA	N/A	Closure sample for product piping section formerly connected to UST #003 indicated slightly elevated TPH level. However, confirmation soil sample did not confirm that there had been a release.

Add additional records as necessary

* Gasoline (unleaded or leaded), diesel, used oil, waste oil, aviation fuel, etc., or pesticides, non-halogenated or halogenated solvents, etc.

** Fiberglass (single- or double-walled), steel (single- or double-walled), steel with FRP (single- or double-walled), steel with liner, other, unknown.

*** Currently operational, not in use or temporarily closed (specify date), permanently closed in place (specify date), permanently closed by removal (specify date)

Table B-2: Site History - UST/AST Owner/Operator and Other Responsible Party Information

Revision Date: N/A Incident Number and Name: 92 Park Street, Canton, NC

UST ID Number	N/A		Facility ID Number	N/A	
Name of Owner			Dates of Operation (mm/dd/yy to mm/dd/yy)		
Abandoned in proposed NCDOT right-of-way			Not known		
Street Address					
Not known					
City		State	Zip	Telephone Number	
Not known				Not known	
Name of Operator			Dates of Operation (mm/dd/yy to mm/dd/yy)		
Not known			Not known		
Street Address					
Not known					
City		State	Zip	Telephone Number	
Not known				Not known	
Incident Number	N/A				
Name of Other Responsible Party			Dates of Release(s) (mm/dd/yy to mm/dd/yy)		
N/A			N/A		
Street Address					
N/A					
City		State	Zip	Telephone Number	
N/A				N/A	

Add additional records for all owners, operators and responsible parties as necessary

TABLE 2

Public and Private Water Supply and Other Receptor Information

Table B-5: Public and Private Water Supply Well and Other Receptor Information

Revision Date: NA Incident Number and Name: 92 Park Street, Canton, NC Facility ID#: NA

(Include the following information. The well number (can use tax number), well owner and user names, addresses and telephone numbers, use of the well (potable, agricultural, etc.), well depth, type of well (i.e., drilled or bored), well casing depth, well screen interval and distance of well from the source area of the release)

Public and Private Water Supply Wells

Well #	Well Owner/ User (indicate which)	Address	Phone Number	Well Use	Well Depth (ft BGS)	Type of Well	Well Casing Depth (ft. BGS)	Well Screen Interval (\bar{x} to \bar{y} ft. BGS)	Distance from source area of release (ft.)	Up or downgradient
	Not known (no known well at 92 Park Street, and no known wells in neighborhood)									

Ft BGS = feet below ground surface

Other Receptors

(other public water supplies, reservoirs, water supply lines, surface water bodies, wellhead protection areas, recharge areas for deep aquifers, subsurface structures)

Receptor ID	Description	Location	Contact	Phone Number	Usage			Up or down- gradient	Distance from source area of release (ft.)
NA	NA								

Table B-6: Property Owners/ Occupants

Revision Date: NA Incident No. and Name: NA Facility ID#: NA

Tax Parcel Number/ Map ID	Owner/ Occupant Name (Last, First MI)	Address
	Owner: Town of Canton (site is vacant)	Owner address is unknown

TABLE 3

Summary of Soil Sampling Results

Table B-3: Summary of Soil Sampling Results

Revision Date: NA Incident Number and Name: 92 Park Street, Canton, NC

Facility ID#: NA

Analytical Method (e.g., VOC by EPA 8260) →					EPA 8015									
Contaminant of Concern →					DRO									
Sample ID	Date Collected (m/dd/yy)	Source Area (eg. Tank pit 1)	Sample Depth (ft BGS)	Incident Phase (Closure, 20Day, LSA, etc.)										
P7-1	8/17/10	Pit Bottom	7	Closure	< 9.7									
P7-2	8/17/10	Pit Bottom	7	Closure	< 9.7									
P7-3	8/17/10	Pit Bottom	7	Closure	< 9.6									
P7-4	8/17/10	Pit Bottom	7	Closure	23									
P7-5	8/17/10	Pit Bottom	7	Closure	< 9.9									
Soil to groundwater MSCC (mg/kg)					None									
Residential MSCC (mg/kg)					None									
Industrial/Commercial MSCC (mg/kg)					None									

Indicate method detection limit for contaminants when analyzed, but not detected (e.g., < 1, 10, 42)

List any contaminant detected above the method detection limit

MSCC = maximum soil contaminant concentration

ft. BGS = feet below ground surface

Results must be reported in mg/kg.

mg/kg =milligrams per kilogram

Table B-3: Summary of Soil Sampling Results

Revision Date: NA Incident Number and Name: 92 Park Street, Canton, NC

Facility ID#: NA

Analytical Method (e.g., VOC by EPA 8260) →					EPA 8015									
Contaminant of Concern →														
Sample ID	Date Collected (m/dd/yy)	Source Area (eg. Tank pit 1)	Sample Depth (ft BGS)	Incident Phase (Closure, 20Day, LSA, etc.)	DRO									
P7-6	8/17/10	Pit Bottom	7	Closure	< 9.9									
P7-7	8/17/10	Beneath Piping	2	Closure	41									
P7-8	8/17/10	Beneath Piping	2	Closure	41									
Soil to groundwater MSCC (mg/kg)					None									
Residential MSCC (mg/kg)					None									
Industrial/Commercial MSCC (mg/kg)					None									

Indicate method detection limit for contaminants when analyzed, but not detected (e.g., < 1, 10, 42)

List any contaminant detected above the method detection limit

MSCC = maximum soil contaminant concentration

ft. BGS = feet below ground surface

Results must be reported in mg/kg.

mg/kg =milligrams per kilogram

Table B-3: Summary of Soil Sampling Results

Revision Date: NA Incident Number and Name: 92 Park Street, Canton, NC

Facility ID#: NA

Analytical Method (e.g., VOC by EPA 8260) →					EPA 8260								
Contaminant of Concern →					Acetone								
Sample ID	Date Collected (m/dd/yy)	Source Area (eg. Tank pit 1)	Sample Depth (ft BGS)	Incident Phase (Closure, 20Day, LSA, etc.)									
SB7-4A	9/16/10	Pit Bottom	7	Closure	0.035J								
SB7-7A	9/16/10	Beneath Piping	2	Closure	0.046J								
SB7-8A	9/16/10	Beneath Piping	2	Closure	0.024J								
Soil to groundwater MSCC (mg/kg)					24								
Residential MSCC (mg/kg)					14,000								
Industrial/Commercial MSCC (mg/kg)					360,000								

Indicate method detection limit for contaminants when analyzed, but not detected (e.g., < 1, 10, 42)

List any contaminant detected above the method detection limit

MSCC = maximum soil contaminant concentration

ft. BGS = feet below ground surface

Results must be reported in mg/kg.

mg/kg =milligrams per kilogram

APPENDICES

APPENDIX I

**Notice of Intent: UST Permanent Closure
or Change-in-Service (UST-3 Form)**

UST-3 Notice of Intent: UST Permanent Closure or Change-in-Service

Return completed form to:

The DWM Regional Office located in the area where the facility is located. Send a copy to the Central Office in Raleigh so that the status of the tank may be changed to "PERMANENTLY CLOSED" and your tank fee account can be closed out. SEE MAP ON THE BACK OF THIS FORM FOR THE CENTRAL AND REGIONAL OFFICE ADDRESSES.

STATE USE ONLY

I.D. # _____

Date Received _____

INSTRUCTIONS (READ THIS FIRST)

Complete and return at least **thirty (30) days** prior to closure or change-in-service activities. If a Professional Engineer (P.E.) or a Licensed Geologist (L.G.) provides supervision for closure or change-in-service site assessment activities and signs and seals all closure reports then at least a **five (5) working days** notice is acceptable.

Completed UST closure or change-in-service site assessment reports, along with a copy of the UST-2 form, should be submitted to the appropriate Division of Waste Management (DWM) Regional Office within thirty (30) days following closure activities. The UST-2 form should also be submitted to the Central Office in Raleigh so that the status of the tanks may be changed to permanently closed and your tank fee account can be closed out.

UST closure and change-in-service site assessments must be completed in accordance with the latest version of the *Guidelines for Tank Closure*. The *Guidelines for Tank Closure* can be obtained at www.wastenotnc.org.

You must make sure that USTs removed from your property are disposed of properly. When choosing a closure contractor, ask where the tank(s) will be taken for disposal. Usually, USTs are cleaned and cut up for scrap metal. This is dangerous work and must be performed by a qualified company. Tanks disposed of illegally in fields or other dumpsites can leak petroleum products and sludge into the environment. If your tanks are disposed of improperly, you could be held responsible for the cleanup of any environmental damage that occurs.

I. OWNERSHIP OF TANKS		II. LOCATION	
Owner Name (Corporation, Individual, Public Agency, or Other Entity) Orphan tanks - Unknown		Facility Name or Company Town of Canton Property	
Street Address		Facility ID # (If known)	
City	County	Street Address 90 - 92 Park Street	
State	Zip Code	City Canton	County Haywood Zip Code 28716
Phone Number		Phone Number	

III. CONTACT PERSONNEL

Name: Cheryl Youngblood	Company Name: NCDOT	Job Title: Sr. Proj. Engineer	Phone Number: 919-250-4088
--------------------------------	----------------------------	--------------------------------------	-----------------------------------

IV. TANK REMOVAL, CLOSURE IN PLACE, CHANGE-IN SERVICE

- Contact local fire marshal.
- Plan entire closure event.
- Conduct Site Soil Assessment.
- If removing tanks or closing in place, refer to API Publication 2015 *Cleaning Petroleum Storage Tanks* and 1604 *Removal and Disposal of Used Underground Petroleum Storage Tanks*.
- Provide a sketch locating piping, tanks and soil sampling locations.
- Submit a closure report in the format of UST-12 (including the form UST-2) within thirty (30) days following the site investigation.
- If a release from the tanks has occurred, the site assessment portion of the tank closure must be conducted under the supervision of a P.E. or L.G., with all closure site assessment reports bearing the signature and seal of the P.E. or L.G. If a release has not occurred, the supervision, signature or seal of a P.E. or L.G. is not required.
- Keep closure records for three (3) years.

V. WORK TO BE PERFORMED BY

Contractor Name: Brian Bauer		Contractor Company Name: Mountain Environmental Group	
Address: 1560 Pisgah Drive, Canton		State: NC	Zip Code: 28716 Phone No: 828-648-5556
Primary Consultant Name: Andrew Eyer		Primary Consultant Company Name: GEL Engineering of NC, Inc. Consultant Phone No: 919-323-8828	

VI. TANKS SCHEDULED FOR CLOSURE OR CHANGE-IN-SERVICE

Tank ID No.	Size in Gallons	Last Contents	Proposed Activity		
			Removal	Change-In-Service	
				Abandonment in Place *	New Contents Stored
1	8,000 (assumed)	Gasoline (assumed)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2	5,000 (assumed)	Gasoline (assumed)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3	8,000 (assumed)	Gasoline (assumed)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	

* Prior written approval to abandon a tank in place must be received from a DWM Regional Office.

VII. OWNER OR OWNER'S AUTHORIZED REPRESENTATIVE

I understand that I can be held responsible for environmental damage resulting from the improper disposal of my USTs.

Print name and official title: **Andrew D. Eyer of GEL Engineering of NC, Inc. for NCDOT**

Signature 	Date Signed 8/11/10	SCHEDULED REMOVAL DATE 08/17/10	Notify your DWM Regional Office 48 hours before this date if scheduled removal date changes
--	-------------------------------	---	---

APPENDIX II

Site Investigation Report for Permanent Closure or Change-in-Service of UST (UST-2 Form)

UST-2 Site Investigation Report for Permanent Closure or Change-in-Service of UST

Return completed form to:

The DWM Regional Office located in the area where the facility is located. Send a copy to the Central Office in Raleigh so that the status of the tank may be changed to "PERMANENTLY CLOSED" and your tank fee account can be closed out. SEE MAP ON THE BACK OF THIS FORM FOR THE CENTRAL AND REGIONAL OFFICE ADDRESSES.

STATE USE ONLY:

I.D. # _____

Date Received _____

INSTRUCTIONS (READ THIS FIRST)

For more than five UST systems you may attach additional forms as needed.

Permanent closure – For permanent closure, complete all sections of this form.

Change-in-service – For change-in-service where UST systems will be converted from containing a regulated substance to storing a non-regulated substance, complete sections I, II, III, IV, and VIII

Effective February 1, 1995, all UST closure/change-in-service reports must be submitted in the format provided in the UST-12 form. UST closure and change-in-services must be completed in accordance with the latest version of the *Guidelines for Tank Closure*. A copy of the UST-12 form and the *Guidelines for Tank Closure* can be obtained at www.wastenotnc.org.

You must make sure that USTs removed from your property are disposed of properly. When choosing a closure contractor, ask where the tank(s) will be taken for disposal. Usually, USTs are cleaned and cut up for scrap metal. This is dangerous work and must be performed by a qualified company. Tanks disposed of illegally in fields or other dumpsites can leak petroleum products and sludge into the environment. If your tanks are disposed of improperly, you could be held responsible for the cleanup of any environmental damage that occurs.

NOTE: If a release from the tank(s) has occurred, the site assessment portion of the tank closure must be conducted under the supervision of a P.E. or L.G., with all closure site assessment reports bearing the signature and seal of the P.E. or L.G.

I. OWNERSHIP OF TANKS				II. LOCATION OF TANKS			
Owner Name (Corporation, Individual, Public Agency, or Other Entity) Unknown (orphan USTs)				Facility Name or Company Vacant			
Street Address Unknown				Facility ID # (If known) NA			
City	Unknown	County	Unknown	Street Address 92 Park Street			
State	Unknown	Zip Code	Unknown	City	Canton	County	Haywood
Phone Number Unknown				Zip Code 28716			
				Phone Number NA			

III. CONTACT PERSONNEL

Contact for Facility: Cheryl Youngblood, NCDOT Geotech Engineering Unit	Job Title: GeoEnvironmental Project Mgr.	Phone. No: 919-250-4088
Closure Contractor Name: Brian Bauer	Closure Contractor Company: Mtn. Environmental Group	Address: 1569 Pisgah Dr., Canton, NC 28716
Primary Consultant Name: Andrew Eyer	Primary Consultant Company: GEL Engineering of NC, Inc.	Address: P.O. Box 14262
		Phone. No: 828-648-5556
		Phone. No: 919-323-8828

IV. UST INFORMATION FOR REGISTERED UST SYSTEMS							V. EXCAVATION CONDITION					
Tank ID No.	Size in Gallons	Tank Dimensions	Last Contents	Last Use Date	Permanent Close Date	Change-in-Service Date	Water in excavation		Free product		Notable odor or visible soil contamination	
							Yes	No	Yes	No	Yes	No
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

VI. UST INFORMATION FOR UNREGISTERED UST SYSTEMS							VII. EXCAVATION CONDITION					
Tank ID No.	Size in Gallons	Tank Dimensions	Last Contents	Last Use Date	Permanent Close Date	Tank Owner Name *	Water in excavation		Free product		Notable odor or visible soil contamination	
							Yes	No	Yes	No	Yes	No
001	1000	4' x 12'	Gasoline	Unknown	08/17/10	Unknown	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
002	700	3.5' x 9'	Gasoline	Unknown	08/17/10	Unknown	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
003	1000	4' x 12'	Gasoline	Unknown	08/17/10	Unknown	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

* If the tank owner address is different from the one listed in Section I., then enter the street address, city, state, zip code and telephone no. below:

VIII. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true accurate and complete.

Print name and official title of owner or owner's authorized representative Andrew D. Eyer, Rep. For NCDOT	Signature 	Date Signed 10/14/10
---	---	-------------------------

APPENDIX III

Site Specific Health and Safety Plan (HASP)

THE GEL GROUP, INC.
FIELD SERVICE'S SITE SAFETY PLAN

~~Revision Date: June 1, 2005~~

Project Code: ncdt00410
Project Description: Oversight of UST closures + soil sampling
Project Manager: Andrew Eyer Extension: _____ Pager/Cell: 919-210-3658

HAZARDS LIKELY TO BE ENCOUNTERED:

Expected Contaminant at Site: Petroleum

<input type="checkbox"/> Electrocutation/Shock	<input type="checkbox"/> Toxic Atmosphere	<input checked="" type="checkbox"/> Pinch Points
<input checked="" type="checkbox"/> Slip/Trip/Fall	<input checked="" type="checkbox"/> Excavation	<input type="checkbox"/> Flying Debris
<input type="checkbox"/> Manual Lifting	<input type="checkbox"/> Confined Space	<input checked="" type="checkbox"/> Vehicle Traffic
<input checked="" type="checkbox"/> Rough/Sharp Material	<input checked="" type="checkbox"/> Noise	<input type="checkbox"/> Railway Traffic
<input checked="" type="checkbox"/> Rotating/Moving Machinery	<input type="checkbox"/> Flammable Materials	<input type="checkbox"/> Asbestos/Lead
<input type="checkbox"/> Hot Surfaces/Steam Cleaner	<input checked="" type="checkbox"/> Chemicals	<input checked="" type="checkbox"/> Heat/Cold
<input type="checkbox"/> Overhead Hazard	<input type="checkbox"/> Insects	

PERSONAL PROTECTIVE EQUIPMENT NEEDED:

<input checked="" type="checkbox"/> Safety Glasses	<input type="checkbox"/> Work Gloves
<input type="checkbox"/> Hearing Protection	<input checked="" type="checkbox"/> Chemical Resistant Gloves _____
<input checked="" type="checkbox"/> Hard Hat	<input checked="" type="checkbox"/> Protective Clothing _____
<input checked="" type="checkbox"/> Steel-toed Boots	<input checked="" type="checkbox"/> Traffic Control Measures
<input type="checkbox"/> Snake Boots	<input type="checkbox"/> OVA/4-Gas Meter
<input type="checkbox"/> Fall Protection Equipment	<input type="checkbox"/> Buddy System
<input type="checkbox"/> Respiratory Protection	<input type="checkbox"/> Other

ADDITIONAL SAFETY MEASURES, PROCEDURES OR OPERATIONS TO FOLLOW:

Do not enter excavations deeper than 5 feet
UST contractor to operator its corporate HASP

LOCATION OF NEAREST MEDICAL ASSISTANCE: ATTACH MAP TO HOSPITAL

Haywood Regional Medical Center, 262 Leroy George Drive, Clyde, NC, 828-452-8202

DOES THE CLIENT HAVE A FIRST-AID FACILITY AND DO YOU KNOW WHERE IT IS LOCATED?

Yes No
Phone No _____

WILL YOU BE OPERATING UNDER THE CLIENT'S SITE SAFETY PLAN ALSO?

Yes _____ No

IF YES, HAVE YOU REVIEWED THE CLIENT'S SITE SAFETY PLAN, AND DO YOU UNDERSTAND, AND ARE YOU IN AGREEMENT WITH ALL ASPECTS OF THE PLAN?

Yes NA No _____

IF YES, ARE ALL GEE/GEG PERSONNEL PROPERLY TRAINED FOR THE SAFETY HAZARDS OF THIS WORK?

Yes NA NO _____

IF THE ANSWER TO THE ABOVE IS "NO", THESE EMPLOYEES MAY NOT ENTER THE WORK SITE UNTIL PROPERLY TRAINED.

IN CASE OF A SAFETY INCIDENT:

EMERGENCY PHONE NUMBER FOR MEDICAL ASSISTANCE: 911 or Site # _____

HUMAN RESOURCES: Nancy Lacy, 843-556-8171

CORPORATE SAFETY DIRECTOR: John Crawford, 843-556-8171

GEE/GEG PROJECT MANAGER: Andrew Eyer

(printed)

PROJECT MANAGER'S SIGNATURE 

DATE: August 12, 2010

I have read and understand the information presented above:

 Date: 8/16/10

Date: _____

Date: _____

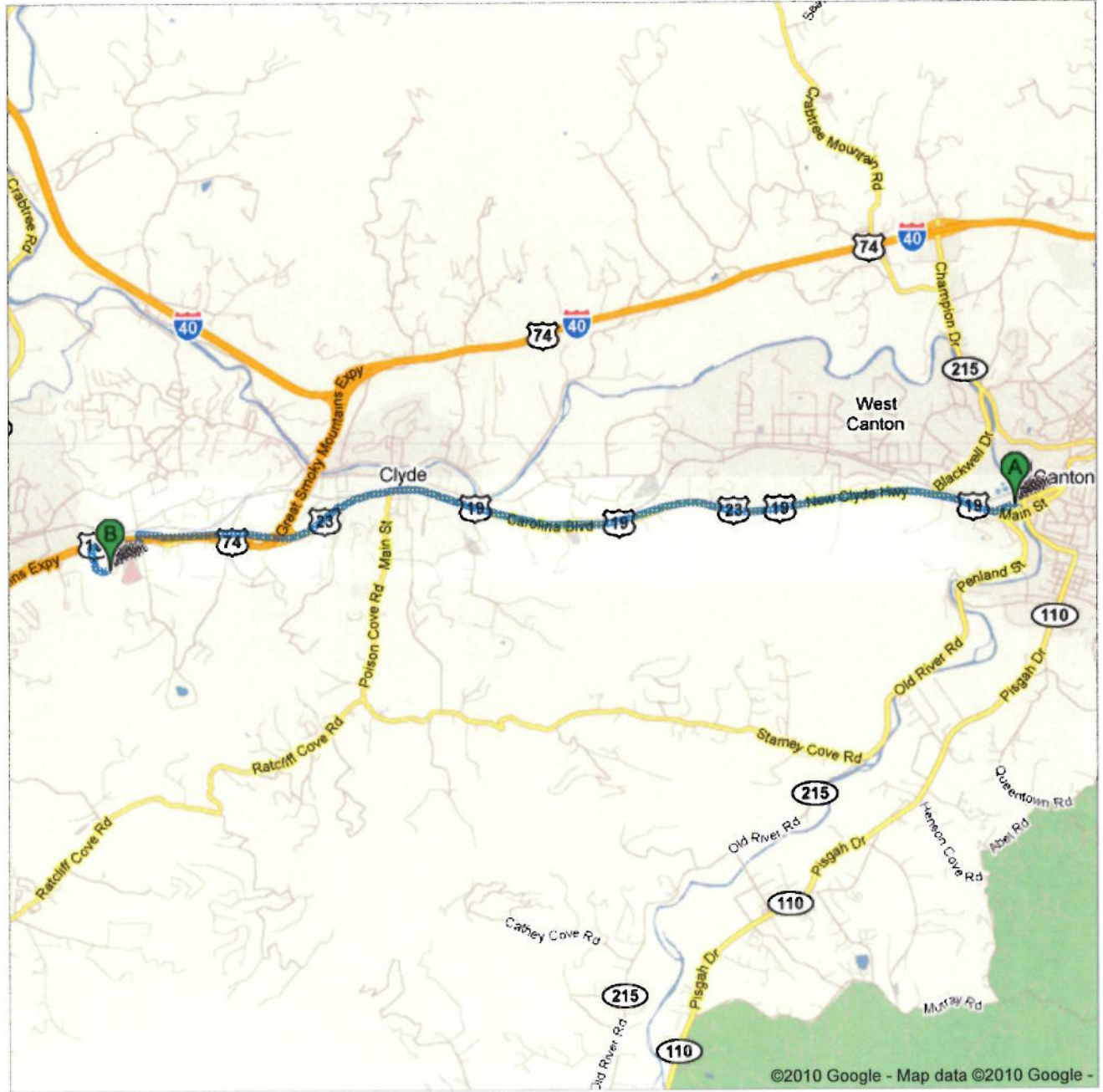
Date: _____


Date: _____









Directions to 262 Leroy George Dr, Clyde, NC 28721
6.2 mi – about 9 mins

Save trees. Go green!
Download Google Maps on your phone at google.com/gmm



 101 Park St, Canton, NC 28716

- 
 1. Head **southwest** on **US-19 S/US-23 S/Park St** toward **Penland St** go 5.1 mi
 Continue to follow US-19 S/US-23 S total 5.1 mi
 About 7 mins
- 
 2. Take the ramp onto **US-19 S/US-23 S/US-74 W** go 0.4 mi
total 5.5 mi
- 
 3. Take exit **105** for **W Jones Cove** go 0.2 mi
total 5.6 mi
- 
 4. Turn **left** at **Jones Cove Rd** go 282 ft
total 5.7 mi
- 
 5. Take the 1st **right** onto **Hospital Dr** go 0.3 mi
 About 1 min total 6.0 mi
- 
 6. Take the 1st **left** onto **Leroy George Dr** go 0.2 mi
 Destination will be on the right total 6.2 mi

 262 Leroy George Dr, Clyde, NC 28721

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

Map data ©2010 Google

Directions weren't right? Please find your route on maps.google.com and click "Report a problem" at the bottom left.

APPENDIX IV

Certificate of UST Disposal

TANK DISPOSAL MANIFEST

00 EEDI-1C

Tank Location and Owner/Authorized Representative Certification:

Tank Location: Downtown Canton
Physical Address: Parcel # 7
Canton, NC
Tank Owner or Authorized Representative: ANDREW EYER (FOR NCDOT)
Phone No: _____

The undersigned certifies that the tanks listed on this manifest have been removed from the premises of the tank owner.

ANDREW EYER (FOR NCDOT) [Signature] 8/18/10
Printed Name Signature Date

Description of Tanks:

Tank No.	Capacity	Previous Contents	Comments
001	1,000 gal	gas	
002	7,000 gal	gas	
003	1,000 gal	gas	

Transporters:

The undersigned transporters certify that the above listed tanks have been transported to:

Mountain Environmental Services, Inc.,
1560 Pisgah Drive, Canton, NC 28716
Printed Name: Matthew Blackburn
Signature: [Signature]
Date: 8/17/10

The metal recycling facility listed below under Disposal Certification
Printed Name: Matt Browning
Signature: [Signature]
Date: 8/24/10

Cleaning and Demolition Certification:

The undersigned certifies that the above listed tanks have been cleaned and demolished according to American Petroleum Institute (API) Recommended Practice 1604, "Removal and Disposal of Used Underground Petroleum Storage Tanks", and API Publication 2015, "Cleaning Petroleum Storage Tanks".

Matthew Blackburn [Signature] 8/17/10
Printed Name Signature Date

Disposal Certification:

The undersigned certifies that the cleaned and demolished tanks listed above have +accepted by the metal recycling facility.

Recycling Facility: x Mountain Metals Recycling
x SONIA GRIBBLE x Sonia Gribble x 8-24-10
Printed Name Signature Date

APPENDIX V
Standard Procedures

Field Procedures for Soil Screening and Sampling

UST Closure Soil Samples and Confirmation Soil Samples

92 Park Street

Canton, North Carolina

August 17, 2010 and September 16, 2010

Following the removal of UST #001, UST #002, and UST #003 on August 17, 2010, soil samples P7-1 through P7-8 were collected with the trackhoe bucket at two locations beneath each of the former USTs on the excavation bottom. Encore samplers were used to collect soil samples from the bucket for analysis of gasoline range organics (GRO). The soil samples were transferred to new sample containers and placed in a cooler with ice.

Following the removal of the sections of product piping formerly connected to UST #001 and UST #003, in-situ soil samples P7-8 and P7-7, respectively, were collected from a depth of approximately 1 foot beneath the piping (i.e., 2 feet below ground surface). Encore samplers were used to collect in-situ soil samples for analysis of GRO. The soil samples were transferred to new sample containers and placed in a cooler with ice. All collected closure soil samples were kept on ice until submittal to the laboratory.

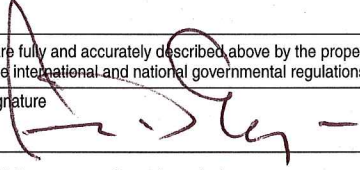
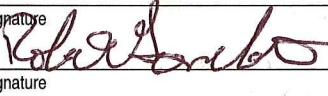

For each closure soil sample, soil was also transferred from each soil sampling location to a sealed plastic bag and allowed to equilibrate for approximately 5 minutes. The soil was then screened using a MiniRAE2000 photoionization detector (PID) that had been calibrated to 10.6 parts per million (ppm) isobutylene prior to conducting the soil screening. The PID probe was inserted through a small opening in the plastic bag for a measurement.

Confirmation soil samples SB7-4A, SB7-7A, and SB7-8A were collected on September 16, 2010 using a decontaminated AMS direct push technology (DPT) rig. For confirmation sample SB7-4A, the 1.5-inch diameter DPT probe was advanced to a depth of 7 feet below ground surface at the location where closure sample P7-4 had been collected on August 17, 2010. A new acetate core barrel was then inserted into the DPT probe, and soil was collected from 7 feet to 8 feet below ground surface by advancing the DPT probe. Once the core had been retrieved, the acetate core barrel was incised and split apart to expose the soil core. An Encore sampler was used to collect soil sample SB7-7A from the core, transferred into new pre-preserved sample containers, and placed in a cooler with ice. The sample was kept on ice until submittal to the laboratory.

For confirmation samples SB7-7A and SB7-8A, the DPT probe was advanced to a depth of 2 feet at each of the respective locations where closure samples P7-7 and P7-8 had been collected on August 17, 2010. A new acetate core barrel was then inserted into the DPT probe, and soil was collected from 2 feet to 3 feet below ground surface by advancing the DPT probe. Once the core had been retrieved, the acetate core barrel was incised and split apart to expose the soil core. An Encore sampler was used to collect soil sample SB7-7A and SB7-8A from their respective cores, transferred into new pre-preserved sample containers, and placed in a cooler with ice. All collected confirmation soil samples were kept on ice until submittal to the laboratory.

APPENDIX VI

Manifests

NON-HAZARDOUS WASTE MANIFEST		1. Generator ID Number	2. Page 1 of 1	3. Emergency Response Phone 1-800-261-6031	4. Waste Tracking Number NCDOT-MTN-1		
5. Generator's Name and Mailing Address NCDOT Geotech Engineering Unit 1589 Mail Service Center, Raleigh, NC 27699			Generator's Site Address (if different than mailing address) Town of Canton Parcel 7				
Generator's Phone:			U.S. EPA ID Number				
6. Transporter 1 Company Name Mountain Environmental			U.S. EPA ID Number				
7. Transporter 2 Company Name			U.S. EPA ID Number				
8. Designated Facility Name and Site Address Mountain Environmental 1560 Pisgah Dr. Canton, NC 28716			U.S. EPA ID Number				
Facility's Phone: (828)6485556							
9. Waste Shipping Name and Description		10. Containers		11. Total Quantity	12. Unit Wt./Vol.		
		No.	Type				
1. Non Regulated waste, Non Hazardous liquid, N.O.S. (petroleum/petroleum impctd water)		001	VT	1412	gal		
2.							
3.							
4.							
13. Special Handling Instructions and Additional Information							
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.							
Generator's/Offoror's Printed/Typed Name Andrew Eyer (FOR NCDOT)			Signature 		Month	Day	Year
					8	17	10
15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____							
16. Transporter Acknowledgment of Receipt of Materials							
Transporter 1 Printed/Typed Name Robert Gambert			Signature 		Month	Day	Year
					8	17	10
Transporter 2 Printed/Typed Name			Signature		Month	Day	Year
17. Discrepancy							
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
Manifest Reference Number:							
17b. Alternate Facility (or Generator)			U.S. EPA ID Number				
Facility's Phone:							
17c. Signature of Alternate Facility (or Generator)					Month	Day	Year
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a							
Printed/Typed Name Matthew Blackburn			Signature 		Month	Day	Year
					8	17	10

GENERATOR

INT'L

TRANSPORTER

DESIGNATED FACILITY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number

2. Page 1 of 1

3. Emergency Response Phone

4. Waste Tracking Number

1

1-800-261-0031

NC DOT-MTN-2

5. Generator's Name and Mailing Address

NC DOT
Geotech Engineering Unit

Generator's Site Address (if different than mailing address)

Town of Canton
Parcel 7

Generator's Phone:

1589 Mail Service Center, Raleigh, NC 27699

6. Transporter 1 Company Name

Mountain Environmental

U.S. EPA ID Number

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

Mountain Environmental
1560 Pisgah Dr.
Canton, NC 28714

U.S. EPA ID Number

Facility's Phone:

9. Waste Shipping Name and Description

10. Containers

11. Total Quantity

12. Unit Wt./Vol.

No.	Type
001	MD

250

P

1. Non regulated waste, Nonhazardous, N.O.S.
(Petroleum waste/tank cleaning)

13. Special Handling Instructions and Additional Information

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offoror's Printed/Typed Name

Signature

Month Day Year

ANDREW EYER (FOR NCDOT)



8 | 17 | 10

INT'L

15. International Shipments

Import to U.S.

Export from U.S.

Port of entry/exit:

Date leaving U.S.:

Transporter Signature (for exports only):

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

Signature

Month Day Year

Matthew Blackburn



8 | 17 | 10

Transporter 2 Printed/Typed Name

Signature

Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space

Quantity

Type

Residue

Partial Rejection

Full Rejection

Manifest Reference Number:

U.S. EPA ID Number

17b. Alternate Facility (or Generator)

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name

Signature

Month Day Year

Matthew Blackburn



8 | 17 | 10

APPENDIX VII

Chain-of-Custody Records

August 17, 2010 Closure Soil Samples



Full-Service Analytical & Environmental Solutions

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

Client Company Name: GEL Eng. of NC

Report To/Contact Name: ANDREW EYER

Reporting Address: P.O. Box 14262

DURHAM, NC 27709

Phone: 919-323-8828 Fax (Yes) (No)

Email (Yes) (No) Email Address: ade@gel.com

EDD Type: PDF Excel Other

Site Location Name: PARCELO 7

Site Location Physical Address: 92 PARK ST.

CANTON, NC

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1 QUOTE # TO ENSURE PROPER BILLING: _____

Project Name: WBS 33202.1.2, TIP B-31056

Short Hold Analysis: (Yes) (No) UST Project: (Yes) (No)

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

Invoice To: NC DOT GEOTECH ENA UNIT

Address: 1589 MAIL SERVICE CENTER

RALEIGH, NC 27699

Purchase Order No./Billing Reference _____

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)

LAB USE ONLY			
	YES	NO	N/A
Samples INTACT upon arrival?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Received ON WET ICE? Temp <u>4.9</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PROPER PRESERVATIVES indicated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Received WITHIN HOLDING TIMES?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CUSTODY SEALS INTACT?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VOLATILES rec'd W/OUT HEADSPACE?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PROPER CONTAINERS used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL

Certification: NELAC USACE FL NC

SC OTHER N/A

Water Chlorinated: YES NO

Sample Iced Upon Collection: YES NO

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	SAMPLE CONTAINER			PRESERVATIVES	ANALYSES REQUESTED				REMARKS	PRISM LAB ID NO.	
				*TYPE SEE BELOW	NO.	SIZE		DRO	GRD					
P7-1	8/17/10	1317	SOIL	G;C	3		(g Po) METHANOL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					01
P7-2		1320						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					02
P7-3		1330						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					03
P7-4		1333						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					04
P7-5		1355						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					05
P7-6		1400						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					06
P7-7		1408						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					07
P7-8		1416						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					08

Sampler's Signature: [Signature] Sampled By (Print Name): ANDREW EYER Affiliation: GEL

PRESS DOWN FIRMLY - 3 COPIES

Upon relinquishing, this Chain of Custody is your authorization for Prism to proceed with the analyses as requested above. Any changes must be submitted in writing to the Prism Project Manager. There will be charges for any changes after analyses have been initialized.

Relinquished By: (Signature)	Received By: (Signature)	Date	Military/Hours
<u>[Signature]</u>	<u>Alex Lass...</u>	8/20/10	1215
<u>Alex Lass...</u>	<u>[Signature]</u>	8/25/10	1355
<u>[Signature]</u>	<u>[Signature]</u>	8/25/10	1515

Method of Shipment: Fed Ex UPS Hand delivered Prism Field Service Other

NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST COC UNTIL RECEIVED AT THE LABORATORY.

COC Group No. 0080585

Additional Comments:

PRISM USE ONLY	
Site Arrival Time:	
Site Departure Time:	
Field Tech Fee:	
Mileage:	

SEE REVERSE FOR TERMS & CONDITIONS

NPDES: NC SC NC SC

GROUNDWATER: NC SC

DRINKING WATER: NC SC

SOLID WASTE: NC SC

RCRA: NC SC

CERCLA: NC SC

LANDFILL: NC SC

OTHER: NC SC

*CONTAINER TYPE CODES: A = Amber C = Clear G = Glass P = Plastic; TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)

September 16, 2010 Confirmation Soil Sample (SB4-3A)



Full-Service Analytical & Environmental Solutions

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

Client Company Name: GEL Eng. OF NC

Report To/Contact Name: A. EYER

Reporting Address: P.O. Box 14262
RTP NC 27709

Phone: 919-323-8828 Fax (Yes) (No):

Email (Yes) (No) Email Address: ade@gel.com

EDD Type: PDF Excel Other

Site Location Name: CANTON, HAYWOOD CO.

Site Location Physical Address: 92/101 PARK ST
CANTON, NC

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1 QUOTE # TO ENSURE PROPER BILLING: _____

Project Name: UST REMOVALS, B3656

Short Hold Analysis: (Yes) (No) UST Project: (Yes) (No)

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

Invoice To: NC DOT

Address: Raleigh, NC

Purchase Order No./Billing Reference WBS 33202.1.2

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)

LAB USE ONLY		YES	NO	N/A
Samples INTACT upon arrival?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Received ON WET ICE? Temp <u>3.7</u>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PROPER PRESERVATIVES indicated?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Received WITHIN HOLDING TIMES?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CUSTODY SEALS INTACT?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VOLATILES rec'd W/OUT HEADSPACE?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PROPER CONTAINERS used?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL

Certification: NELAC USACE FL NC

SC OTHER N/A

Water Chlorinated: YES NO

Sample Iced Upon Collection: YES NO

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	SAMPLE CONTAINER			PRESERVATIVES	ANALYSES REQUESTED				REMARKS	PRISM LAB ID NO.	
				*TYPE SEE BELOW	NO.	SIZE		8260	VPH					
SB7-4A	9/16/10	0845	Soil	VOA	5	40mL	SOD. BISULF METH	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				8260 + KTB E PIPE	01
SB7-7A	9/16/10	0922						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				"	02
SB7-8A	9/16/10	0940						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				"	03
SB4-3A	9/16/10	1005						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				"	04

Sampler's Signature: [Signature] Sampled By (Print Name): ANDREW D. EYER Affiliation: GEL

PRESS DOWN FIRMLY - 3 COPIES

Upon relinquishing, this Chain of Custody is your authorization for Prism to proceed with the analyses as requested above. Any changes must be submitted in writing to the Prism Project Manager. There will be charges for any changes after analyses have been initialized.

Relinquished By: (Signature) <u>[Signature]</u>	Received By: (Signature) <u>Alex Lassiter</u>	Date <u>09/17/10</u>	Military/Hours <u>0820</u>
Relinquished By: (Signature) <u>Alex Lassiter</u>	Received By: (Signature) <u>[Signature]</u>	Date <u>9/17/10</u>	1030
Relinquished By: (Signature) <u>[Signature]</u>	Received For Prism Laboratories By: <u>[Signature]</u>	Date <u>9/17/10</u>	1215

Additional Comments:

PRISM USE ONLY	
Site Arrival Time:	
Site Departure Time:	
Field Tech Fee:	
Mileage:	

Method of Shipment: NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST COC UNTIL RECEIVED AT THE LABORATORY.

Fed Ex UPS Hand-delivered Prism Field Service Other

NPDES: <u>UST</u>	GROUNDWATER:	DRINKING WATER:	SOLID WASTE:	RCRA:	CERCLA:	LANDFILL:	OTHER:
<input type="checkbox"/> NC <input type="checkbox"/> SC <input checked="" type="checkbox"/> NC <input type="checkbox"/> SC	<input type="checkbox"/> NC <input type="checkbox"/> SC	<input type="checkbox"/> NC <input type="checkbox"/> SC	<input type="checkbox"/> NC <input type="checkbox"/> SC	<input type="checkbox"/> NC <input type="checkbox"/> SC	<input type="checkbox"/> NC <input type="checkbox"/> SC	<input type="checkbox"/> NC <input type="checkbox"/> SC	<input type="checkbox"/> NC <input type="checkbox"/> SC

*CONTAINER TYPE CODES: A = Amber C = Clear G = Glass P = Plastic; TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)

SEE REVERSE FOR TERMS & CONDITIONS

ORIGINAL

APPENDIX VIII

Laboratory Analytical Records

August 17, 2010 Closure Soil Samples



Full-Service Analytical &
Environmental Solutions

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

Case Narrative

08/31/2010

GEL Engineering of NC, Inc.
Andrew Eyer
P. O. Box 14262
RTP, NC 27709

Project: Parcel 7, 92 Park St., Canton, NC
Project No.: WBS# 33202.1.2
Lab Submittal Date: 08/20/2010
Prism Work Order: 0080585

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.

VP Laboratory Services

Reviewed By

Data Qualifiers Key Reference:

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.

This report should not be reproduced, except in its entirety, without the written consent of Prism Laboratories, Inc.

449 Springbrook Road - P.O. Box 240543 - Charlotte, NC 28224-0543
Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409



Sample Receipt Summary

08/31/2010

Prism Work Order: 0080585

Client Sample ID	Lab Sample ID	Matrix	Date Sampled	Date Received
P7-1	0080585-01	Solid	08/17/10	08/20/10
P7-2	0080585-02	Solid	08/17/10	08/20/10
P7-3	0080585-03	Solid	08/17/10	08/20/10
P7-4	0080585-04	Solid	08/17/10	08/20/10
P7-5	0080585-05	Solid	08/17/10	08/20/10
P7-6	0080585-06	Solid	08/17/10	08/20/10
P7-7	0080585-07	Solid	08/17/10	08/20/10
P7-8	0080585-08	Solid	08/17/10	08/20/10

Samples received in good condition at 4.9 degrees C unless otherwise noted.



GEL Engineering of NC, Inc.
Attn: Andrew Eyer
P. O. Box 14262
RTP, NC 27709

Project: Parcel 7, 92 Park St., Canton,
NC
Project No.: WBS# 33202.1.2
Sample Matrix: Solid

Client Sample ID: P7-1
Prism Sample ID: 0080585-01
Prism Work Order: 0080585
Time Collected: 08/17/10 13:17
Time Submitted: 08/20/10 15:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									
Diesel Range Organics	BRL	mg/kg dry	9.7	1.6	1	*8015C	8/25/10 14:21	JMV	P0H0519
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			93 %		49-124	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	6.4	0.83	50	*8015C	8/27/10 20:50	HPE	P0H0623
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			107 %		55-129	
General Chemistry Parameters									
% Solids	71.9	% by Weight	0.100	0.100	1	*SM2540 G	8/23/10 14:30	JAB	P0H0517

GEL Engineering of NC, Inc.
 Attn: Andrew Eyer
 P. O. Box 14262
 RTP, NC 27709

Project: Parcel 7, 92 Park St., Canton, NC
 Project No.: WBS# 33202.1.2
 Sample Matrix: Solid

Client Sample ID: P7-2
 Prism Sample ID: 0080585-02
 Prism Work Order: 0080585
 Time Collected: 08/17/10 13:20
 Time Submitted: 08/20/10 15:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
-----------	--------	-------	--------------	-----	-----------------	--------	--------------------	---------	----------

Diesel Range Organics by GC/FID

Diesel Range Organics	BRL	mg/kg dry	9.7	1.6	1	*8015C	8/25/10 14:56	JMV	P0H0519
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			100 %		49-124	

Gasoline Range Organics by GC/FID

Gasoline Range Organics	BRL	mg/kg dry	6.3	0.82	50	*8015C	8/27/10 21:23	HPE	P0H0623
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			95 %		55-129	

General Chemistry Parameters

% Solids	72.1	% by Weight	0.100	0.100	1	*SM2540 G	8/23/10 14:30	JAB	P0H0517
----------	------	-------------	-------	-------	---	-----------	---------------	-----	---------

GEL Engineering of NC, Inc.
Attn: Andrew Eyer
P. O. Box 14262
RTP, NC 27709

Project: Parcel 7, 92 Park St., Canton,
NC
Project No.: WBS# 33202.1.2
Sample Matrix: Solid

Client Sample ID: P7-3
Prism Sample ID: 0080585-03
Prism Work Order: 0080585
Time Collected: 08/17/10 13:30
Time Submitted: 08/20/10 15:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
-----------	--------	-------	--------------	-----	-----------------	--------	--------------------	---------	----------

Diesel Range Organics by GC/FID

Diesel Range Organics	BRL	mg/kg dry	9.6	1.6	1	*8015C	8/25/10 17:19	JMV	P0H0519
			Surrogate				Recovery		Control Limits
			o-Terphenyl				82 %		49-124

Gasoline Range Organics by GC/FID

Gasoline Range Organics	BRL	mg/kg dry	6.4	0.83	50	*8015C	8/27/10 21:55	HPE	P0H0623
			Surrogate				Recovery		Control Limits
			a,a,a-Trifluorotoluene				69 %		55-129

General Chemistry Parameters

% Solids	72.6	% by Weight	0.100	0.100	1	*SM2540 G	8/23/10 14:30	JAB	P0H0517
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GEL Engineering of NC, Inc.
Attn: Andrew Eyer
P. O. Box 14262
RTP, NC 27709

Project: Parcel 7, 92 Park St., Canton,
NC
Project No.: WBS# 33202.1.2
Sample Matrix: Solid

Client Sample ID: P7-4
Prism Sample ID: 0080585-04
Prism Work Order: 0080585
Time Collected: 08/17/10 13:33
Time Submitted: 08/20/10 15:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									
Diesel Range Organics	23	mg/kg dry	9.8	1.6	1	*8015C	8/25/10 17:54	JMV	P0H0519
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			112 %		49-124	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	6.5	0.85	50	*8015C	8/27/10 23:32	HPE	P0H0623
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			118 %		55-129	
General Chemistry Parameters									
% Solids	70.6	% by Weight	0.100	0.100	1	*SM2540 G	8/23/10 14:30	JAB	P0H0517

GEL Engineering of NC, Inc.
Attn: Andrew Eyer
P. O. Box 14262
RTP, NC 27709

Project: Parcel 7, 92 Park St., Canton,
NC
Project No.: WBS# 33202.1.2
Sample Matrix: Solid

Client Sample ID: P7-5
Prism Sample ID: 0080585-05
Prism Work Order: 0080585
Time Collected: 08/17/10 13:55
Time Submitted: 08/20/10 15:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									
Diesel Range Organics	BRL	mg/kg dry	9.9	1.6	1	*8015C	8/25/10 15:32	JMV	P0H0519
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			96 %		49-124	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	5.2	0.68	50	*8015C	8/28/10 0:04	HPE	P0H0623
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			87 %		55-129	
General Chemistry Parameters									
% Solids	70.4	% by Weight	0.100	0.100	1	*SM2540 G	8/23/10 14:30	JAB	P0H0517

GEL Engineering of NC, Inc.
Attn: Andrew Eyer
P. O. Box 14262
RTP, NC 27709

Project: Parcel 7, 92 Park St., Canton,
NC
Project No.: WBS# 33202.1.2
Sample Matrix: Solid

Client Sample ID: P7-6
Prism Sample ID: 0080585-06
Prism Work Order: 0080585
Time Collected: 08/17/10 14:00
Time Submitted: 08/20/10 15:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
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Diesel Range Organics by GC/FID

Diesel Range Organics	BRL	mg/kg dry	9.9	1.6	1	*8015C	8/25/10 16:07	JMV	P0H0519
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			82 %		49-124	

Gasoline Range Organics by GC/FID

Gasoline Range Organics	BRL	mg/kg dry	6.8	0.88	50	*8015C	8/30/10 10:50	HPE	P0H0623
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			109 %		55-129	

General Chemistry Parameters

% Solids	70.2	% by Weight	0.100	0.100	1	*SM2540 G	8/23/10 14:30	JAB	P0H0517
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GEL Engineering of NC, Inc.
Attn: Andrew Eyer
P. O. Box 14262
RTP, NC 27709

Project: Parcel 7, 92 Park St., Canton,
NC
Project No.: WBS# 33202.1.2
Sample Matrix: Solid

Client Sample ID: P7-7
Prism Sample ID: 0080585-07
Prism Work Order: 0080585
Time Collected: 08/17/10 14:08
Time Submitted: 08/20/10 15:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									
Diesel Range Organics	41	mg/kg dry	8.9	1.4	1	*8015C	8/25/10 21:26	JMV	P0H0519
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			97 %		49-124	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	30	mg/kg dry	6.9	0.90	50	*8015C	8/30/10 11:22	HPE	P0H0623
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			99 %		55-129	
General Chemistry Parameters									
% Solids	78.7	% by Weight	0.100	0.100	1	*SM2540 G	8/23/10 14:30	JAB	P0H0517

GEL Engineering of NC, Inc.
Attn: Andrew Eyer
P. O. Box 14262
RTP, NC 27709

Project: Parcel 7, 92 Park St., Canton,
NC
Project No.: WBS# 33202.1.2
Sample Matrix: Solid

Client Sample ID: P7-8
Prism Sample ID: 0080585-08
Prism Work Order: 0080585
Time Collected: 08/17/10 14:16
Time Submitted: 08/20/10 15:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									
Diesel Range Organics	41	mg/kg dry	7.7	1.2	1	*8015C	8/25/10 22:02	JMV	P0H0519
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			100 %		49-124	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	5.3	0.68	50	*8015C	8/30/10 11:54	HPE	P0H0623
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			110 %		55-129	
General Chemistry Parameters									
% Solids	90.7	% by Weight	0.100	0.100	1	*SM2540 G	8/23/10 14:30	JAB	P0H0517

GEL Engineering of NC, Inc.
 Attn: Andrew Eyer
 P. O. Box 14262
 RTP, NC 27709

Project: Parcel 7, 92 Park St., Canton,
 NC
 Project No: WBS# 33202.1.2

Prism Work Order: 0080585
 Time Submitted: 8/20/10 3:15:00PM

Gasoline Range Organics by GC/FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0H0623 - 5035										
Blank (P0H0623-BLK1) Prepared & Analyzed: 08/27/10										
Gasoline Range Organics	BRL	5.0	mg/kg wet							
Surrogate: a,a,a-Trifluorotoluene	5.00		mg/kg wet	5.00		100	55-129			
LCS (P0H0623-BS1) Prepared & Analyzed: 08/27/10										
Gasoline Range Organics	43.2	5.0	mg/kg wet	50.0		86	67-116			
Surrogate: a,a,a-Trifluorotoluene	5.60		mg/kg wet	5.00		112	55-129			
LCS Dup (P0H0623-BSD1) Prepared & Analyzed: 08/27/10										
Gasoline Range Organics	44.0	5.0	mg/kg wet	50.0		88	67-116	2	200	
Surrogate: a,a,a-Trifluorotoluene	5.70		mg/kg wet	5.00		114	55-129			

GEL Engineering of NC, Inc.
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P. O. Box 14262
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Project: Parcel 7, 92 Park St., Canton,
NC
Project No: WBS# 33202.1.2

Prism Work Order: 0080585
Time Submitted: 8/20/10 3:15:00PM

Diesel Range Organics by GC/FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0H0519 - 3545A										
Blank (P0H0519-BLK1)										
					Prepared: 08/23/10 Analyzed: 08/24/10					
Diesel Range Organics	BRL	7.0	mg/kg wet							
Surrogate: <i>o</i> -Terphenyl	1.66		mg/kg wet	1.59		104	49-124			
LCS (P0H0519-BS1)										
					Prepared: 08/23/10 Analyzed: 08/24/10					
Diesel Range Organics	62.2	7.0	mg/kg wet	79.8		78	55-109			
Surrogate: <i>o</i> -Terphenyl	2.10		mg/kg wet	1.60		132	49-124			SR
LCS Dup (P0H0519-BSD1)										
					Prepared: 08/23/10 Analyzed: 08/25/10					
Diesel Range Organics	65.4	7.0	mg/kg wet	79.9		82	55-109	5	200	
Surrogate: <i>o</i> -Terphenyl	2.19		mg/kg wet	1.60		137	49-124			SR

GEL Engineering of NC, Inc.
 Attn: Andrew Eyer
 P. O. Box 14262
 RTP, NC 27709

Project: Parcel 7, 92 Park St., Canton,
 NC
 Project No: WBS# 33202.1.2

Prism Work Order: 0080585
 Time Submitted: 8/20/10 3:15:00PM

General Chemistry Parameters - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch P0H0517 - NO PREP

Duplicate (P0H0517-DUP2) **Source: 0080585-05** Prepared & Analyzed: 08/23/10

% Solids	70.4	0.100	% by Weight		70.4			0	20	
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Duplicate (P0H0517-DUP3) **Source: 0080585-06** Prepared & Analyzed: 08/23/10

% Solids	70.1	0.100	% by Weight		70.2			0.1	20	
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Sample Extraction Data

Prep Method: 3545A

Lab Number	Batch	Initial	Final	Date
0080585-01	P0H0519	25.15 g	1 mL	08/23/10
0080585-02	P0H0519	25.14 g	1 mL	08/23/10
0080585-03	P0H0519	25.07 g	1 mL	08/23/10
0080585-04	P0H0519	25.18 g	1 mL	08/23/10
0080585-05	P0H0519	25.02 g	1 mL	08/23/10
0080585-06	P0H0519	25.07 g	1 mL	08/23/10
0080585-07	P0H0519	25.09 g	1 mL	08/23/10
0080585-08	P0H0519	25.05 g	1 mL	08/23/10

Prep Method: 5035

Lab Number	Batch	Initial	Final	Date
0080585-01	P0H0623	5.44 g	5 mL	08/27/10
0080585-02	P0H0623	5.49 g	5 mL	08/27/10
0080585-03	P0H0623	5.42 g	5 mL	08/27/10
0080585-04	P0H0623	5.43 g	5 mL	08/27/10
0080585-05	P0H0623	6.78 g	5 mL	08/27/10
0080585-06	P0H0623	5.26 g	5 mL	08/27/10
0080585-07	P0H0623	4.6 g	5 mL	08/27/10
0080585-08	P0H0623	5.25 g	5 mL	08/27/10

NO PREP

Lab Number	Batch	Initial	Final	Date
0080585-01	P0H0517	30 g	30 mL	08/23/10
0080585-02	P0H0517	30 g	30 mL	08/23/10
0080585-03	P0H0517	30 g	30 mL	08/23/10
0080585-04	P0H0517	30 g	30 mL	08/23/10
0080585-05	P0H0517	30 g	30 mL	08/23/10
0080585-06	P0H0517	30 g	30 mL	08/23/10
0080585-07	P0H0517	30 g	30 mL	08/23/10
0080585-08	P0H0517	30 g	30 mL	08/23/10

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September 16, 2010 Confirmation Soil Sample (SB4-3A)



GEL Engineering of NC, Inc.
Andrew Eyer
P. O. Box 14262
RTP, NC 27709

Project: NCDOT: Canton UST Removals (B3656)
Project No.: WBS# 33202.1.2
Lab Submittal Date: 09/17/2010
Prism Work Order: 0090413

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.

VP Laboratory Services

Reviewed By

Data Qualifiers Key Reference:

- J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
- 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
SB7-4A	0090413-01	Solid	09/16/10	09/17/10
SB7-7A	0090413-02	Solid	09/16/10	09/17/10
SB7-8A	0090413-03	Solid	09/16/10	09/17/10
SB4-3A	0090413-04	Solid	09/16/10	09/17/10

Samples received in good condition at 3.7 degrees C unless otherwise noted.

Summary of Detections

09/30/2010

Prism Work Order: 0090413

Prism ID	Client ID	Parameter	Method	Result	Units
0090413-01	SB7-4A	Acetone	8260B	0.035 J	mg/kg dry
0090413-02	SB7-7A	Acetone	8260B	0.046 J	mg/kg dry
0090413-03	SB7-8A	Acetone	8260B	0.024 J	mg/kg dry
0090413-04	SB4-3A	Acetone	8260B	0.021 J	mg/kg dry
0090413-04	SB4-3A	Benzene	8260B	0.0066	mg/kg dry
0090413-04	SB4-3A	Toluene	8260B	0.0046 J	mg/kg dry

GEL Engineering of NC, Inc.
Attn: Andrew Eyer
P. O. Box 14262
RTP, NC 27709

Project: NCDOT: Canton UST
Removals (B3656)
Project No.: WBS# 33202.1.2
Sample Matrix: Solid

Client Sample ID: SB7-4A
Prism Sample ID: 0090413-01
Prism Work Order: 0090413
Time Collected: 09/16/10 08:45
Time Submitted: 09/17/10 12:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	85.2	% by Weight	0.100	0.100	1	*SM2540 G	9/23/10 15:40	JAB	P010474
Volatile Organic Compounds by GC/MS									
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0045	0.0010	1	8260B	9/20/10 17:39	KLA	P010384
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0045	0.0013	1	8260B	9/20/10 17:39	KLA	P010384
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0045	0.0013	1	8260B	9/20/10 17:39	KLA	P010384
1,1-Dichloroethane	BRL	mg/kg dry	0.0045	0.0012	1	8260B	9/20/10 17:39	KLA	P010384
1,1-Dichloroethylene	BRL	mg/kg dry	0.0045	0.0011	1	8260B	9/20/10 17:39	KLA	P010384
1,1-Dichloropropylene	BRL	mg/kg dry	0.0045	0.00095	1	8260B	9/20/10 17:39	KLA	P010384
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0045	0.0015	1	8260B	9/20/10 17:39	KLA	P010384
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0045	0.0019	1	8260B	9/20/10 17:39	KLA	P010384
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0045	0.0012	1	8260B	9/20/10 17:39	KLA	P010384
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0045	0.0011	1	8260B	9/20/10 17:39	KLA	P010384
1,2-Dibromoethane	BRL	mg/kg dry	0.0045	0.0013	1	8260B	9/20/10 17:39	KLA	P010384
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0045	0.0012	1	8260B	9/20/10 17:39	KLA	P010384
1,2-Dichloroethane	BRL	mg/kg dry	0.0045	0.0012	1	8260B	9/20/10 17:39	KLA	P010384
1,2-Dichloropropane	BRL	mg/kg dry	0.0045	0.0014	1	8260B	9/20/10 17:39	KLA	P010384
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0045	0.0012	1	8260B	9/20/10 17:39	KLA	P010384
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0045	0.0011	1	8260B	9/20/10 17:39	KLA	P010384
1,3-Dichloropropane	BRL	mg/kg dry	0.0045	0.00094	1	8260B	9/20/10 17:39	KLA	P010384
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0045	0.0011	1	8260B	9/20/10 17:39	KLA	P010384
2,2-Dichloropropane	BRL	mg/kg dry	0.0045	0.0011	1	8260B	9/20/10 17:39	KLA	P010384
2-Chlorotoluene	BRL	mg/kg dry	0.0045	0.0012	1	8260B	9/20/10 17:39	KLA	P010384
4-Chlorotoluene	BRL	mg/kg dry	0.0045	0.0011	1	8260B	9/20/10 17:39	KLA	P010384
4-Isopropyltoluene	BRL	mg/kg dry	0.0045	0.0013	1	8260B	9/20/10 17:39	KLA	P010384
Acetone	0.035 J	mg/kg dry	0.045	0.0020	1	8260B	9/20/10 17:39	KLA	P010384
Benzene	BRL	mg/kg dry	0.0027	0.0012	1	8260B	9/20/10 17:39	KLA	P010384
Bromobenzene	BRL	mg/kg dry	0.0045	0.0011	1	8260B	9/20/10 17:39	KLA	P010384
Bromochloromethane	BRL	mg/kg dry	0.0045	0.0012	1	8260B	9/20/10 17:39	KLA	P010384
Bromodichloromethane	BRL	mg/kg dry	0.0045	0.0010	1	8260B	9/20/10 17:39	KLA	P010384
Bromoform	BRL	mg/kg dry	0.0045	0.00099	1	8260B	9/20/10 17:39	KLA	P010384
Bromomethane	BRL	mg/kg dry	0.0091	0.0011	1	8260B	9/20/10 17:39	KLA	P010384
Carbon Tetrachloride	BRL	mg/kg dry	0.0045	0.0013	1	8260B	9/20/10 17:39	KLA	P010384
Chlorobenzene	BRL	mg/kg dry	0.0045	0.0010	1	8260B	9/20/10 17:39	KLA	P010384
Chloroethane	BRL	mg/kg dry	0.0091	0.0024	1	8260B	9/20/10 17:39	KLA	P010384
Chloroform	BRL	mg/kg dry	0.0045	0.0011	1	8260B	9/20/10 17:39	KLA	P010384
Chloromethane	BRL	mg/kg dry	0.0045	0.0011	1	8260B	9/20/10 17:39	KLA	P010384
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0045	0.0011	1	8260B	9/20/10 17:39	KLA	P010384
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0045	0.0011	1	8260B	9/20/10 17:39	KLA	P010384
Dibromochloromethane	BRL	mg/kg dry	0.0045	0.0011	1	8260B	9/20/10 17:39	KLA	P010384
Dichlorodifluoromethane	BRL	mg/kg dry	0.0045	0.00094	1	8260B	9/20/10 17:39	KLA	P010384
Ethylbenzene	BRL	mg/kg dry	0.0045	0.00095	1	8260B	9/20/10 17:39	KLA	P010384

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GEL Engineering of NC, Inc.
 Attn: Andrew Eyer
 P. O. Box 14262
 RTP, NC 27709

Project: NCDOT: Canton UST
 Removals (B3656)
 Project No.: WBS# 33202.1.2
 Sample Matrix: Solid

Client Sample ID: SB7-4A
 Prism Sample ID: 0090413-01
 Prism Work Order: 0090413
 Time Collected: 09/16/10 08:45
 Time Submitted: 09/17/10 12:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Isopropyl Ether	BRL	mg/kg dry	0.0045	0.0011	1	8260B	9/20/10 17:39	KLA	POI0384
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0045	0.0010	1	8260B	9/20/10 17:39	KLA	POI0384
m,p-Xylenes	BRL	mg/kg dry	0.0091	0.0024	1	8260B	9/20/10 17:39	KLA	POI0384
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.045	0.0014	1	8260B	9/20/10 17:39	KLA	POI0384
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.091	0.0012	1	8260B	9/20/10 17:39	KLA	POI0384
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.045	0.00099	1	8260B	9/20/10 17:39	KLA	POI0384
Methylene Chloride	BRL	mg/kg dry	0.0045	0.0012	1	8260B	9/20/10 17:39	KLA	POI0384
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.0091	0.00095	1	8260B	9/20/10 17:39	KLA	POI0384
Naphthalene	BRL	mg/kg dry	0.0091	0.0025	1	8260B	9/20/10 17:39	KLA	POI0384
n-Butylbenzene	BRL	mg/kg dry	0.0045	0.0017	1	8260B	9/20/10 17:39	KLA	POI0384
n-Propylbenzene	BRL	mg/kg dry	0.0045	0.0013	1	8260B	9/20/10 17:39	KLA	POI0384
o-Xylene	BRL	mg/kg dry	0.0045	0.0010	1	8260B	9/20/10 17:39	KLA	POI0384
sec-Butylbenzene	BRL	mg/kg dry	0.0045	0.0012	1	8260B	9/20/10 17:39	KLA	POI0384
Styrene	BRL	mg/kg dry	0.0045	0.00089	1	8260B	9/20/10 17:39	KLA	POI0384
tert-Butylbenzene	BRL	mg/kg dry	0.0045	0.0012	1	8260B	9/20/10 17:39	KLA	POI0384
Tetrachloroethylene	BRL	mg/kg dry	0.0045	0.0012	1	8260B	9/20/10 17:39	KLA	POI0384
Toluene	BRL	mg/kg dry	0.0045	0.0011	1	8260B	9/20/10 17:39	KLA	POI0384
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0045	0.00090	1	8260B	9/20/10 17:39	KLA	POI0384
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0045	0.00091	1	8260B	9/20/10 17:39	KLA	POI0384
Trichloroethylene	BRL	mg/kg dry	0.0045	0.0013	1	8260B	9/20/10 17:39	KLA	POI0384
Trichlorofluoromethane	BRL	mg/kg dry	0.0045	0.0013	1	8260B	9/20/10 17:39	KLA	POI0384
Vinyl acetate	BRL	mg/kg dry	0.023	0.0031	1	8260B	9/20/10 17:39	KLA	POI0384
Vinyl chloride	BRL	mg/kg dry	0.0045	0.0012	1	8260B	9/20/10 17:39	KLA	POI0384
Xylenes, total	BRL	mg/kg dry	0.014	0.0034	1	8260B	9/20/10 17:39	KLA	POI0384

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	96 %	70-130
Dibromofluoromethane	102 %	84-123
Toluene-d8	93 %	76-129

Volatile Petroleum Hydrocarbons by GC/PID/FID

C5-C8 Aliphatics	BRL	mg/kg dry	13	4.9	100	MADEP VPH	9/24/10 17:12	hea	POI0485
C9-C12 Aliphatics	BRL	mg/kg dry	13	4.7	100	MADEP VPH	9/24/10 17:12	hea	POI0485
C9-C10 Aromatics	BRL	mg/kg dry	13	1.4	100	MADEP VPH	9/24/10 17:12	hea	POI0485

Surrogate	Recovery	Control Limits
2,5-Dibromotoluene (PID)	73 %	70-130
2,5-Dibromotoluene (FID)	93 %	70-130

GEL Engineering of NC, Inc.
 Attn: Andrew Eyer
 P. O. Box 14262
 RTP, NC 27709

Project: NCDOT: Canton UST
 Removals (B3656)
 Project No.: WBS# 33202.1.2
 Sample Matrix: Solid

Client Sample ID: SB7-7A
 Prism Sample ID: 0090413-02
 Prism Work Order: 0090413
 Time Collected: 09/16/10 09:22
 Time Submitted: 09/17/10 12:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	79.4	% by Weight	0.100	0.100	1	*SM2540 G	9/23/10 15:40	JAB	P010474
Volatile Organic Compounds by GC/MS									
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0047	0.0011	1	8260B	9/20/10 18:14	KLA	P010384
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0047	0.0013	1	8260B	9/20/10 18:14	KLA	P010384
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0047	0.0013	1	8260B	9/20/10 18:14	KLA	P010384
1,1-Dichloroethane	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:14	KLA	P010384
1,1-Dichloroethylene	BRL	mg/kg dry	0.0047	0.0011	1	8260B	9/20/10 18:14	KLA	P010384
1,1-Dichloropropylene	BRL	mg/kg dry	0.0047	0.00098	1	8260B	9/20/10 18:14	KLA	P010384
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0047	0.0015	1	8260B	9/20/10 18:14	KLA	P010384
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0047	0.0020	1	8260B	9/20/10 18:14	KLA	P010384
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0047	0.0013	1	8260B	9/20/10 18:14	KLA	P010384
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:14	KLA	P010384
1,2-Dibromoethane	BRL	mg/kg dry	0.0047	0.0013	1	8260B	9/20/10 18:14	KLA	P010384
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0047	0.0013	1	8260B	9/20/10 18:14	KLA	P010384
1,2-Dichloroethane	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:14	KLA	P010384
1,2-Dichloropropane	BRL	mg/kg dry	0.0047	0.0014	1	8260B	9/20/10 18:14	KLA	P010384
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0047	0.0013	1	8260B	9/20/10 18:14	KLA	P010384
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0047	0.0011	1	8260B	9/20/10 18:14	KLA	P010384
1,3-Dichloropropane	BRL	mg/kg dry	0.0047	0.00097	1	8260B	9/20/10 18:14	KLA	P010384
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:14	KLA	P010384
2,2-Dichloropropane	BRL	mg/kg dry	0.0047	0.0011	1	8260B	9/20/10 18:14	KLA	P010384
2-Chlorotoluene	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:14	KLA	P010384
4-Chlorotoluene	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:14	KLA	P010384
4-Isopropyltoluene	BRL	mg/kg dry	0.0047	0.0014	1	8260B	9/20/10 18:14	KLA	P010384
Acetone	0.046 J	mg/kg dry	0.047	0.0020	1	8260B	9/20/10 18:14	KLA	P010384
Benzene	BRL	mg/kg dry	0.0028	0.0013	1	8260B	9/20/10 18:14	KLA	P010384
Bromobenzene	BRL	mg/kg dry	0.0047	0.0011	1	8260B	9/20/10 18:14	KLA	P010384
Bromochloromethane	BRL	mg/kg dry	0.0047	0.0013	1	8260B	9/20/10 18:14	KLA	P010384
Bromodichloromethane	BRL	mg/kg dry	0.0047	0.0011	1	8260B	9/20/10 18:14	KLA	P010384
Bromoform	BRL	mg/kg dry	0.0047	0.0010	1	8260B	9/20/10 18:14	KLA	P010384
Bromomethane	BRL	mg/kg dry	0.0094	0.0012	1	8260B	9/20/10 18:14	KLA	P010384
Carbon Tetrachloride	BRL	mg/kg dry	0.0047	0.0014	1	8260B	9/20/10 18:14	KLA	P010384
Chlorobenzene	BRL	mg/kg dry	0.0047	0.0011	1	8260B	9/20/10 18:14	KLA	P010384
Chloroethane	BRL	mg/kg dry	0.0094	0.0024	1	8260B	9/20/10 18:14	KLA	P010384
Chloroform	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:14	KLA	P010384
Chloromethane	BRL	mg/kg dry	0.0047	0.0011	1	8260B	9/20/10 18:14	KLA	P010384
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0047	0.0011	1	8260B	9/20/10 18:14	KLA	P010384
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0047	0.0011	1	8260B	9/20/10 18:14	KLA	P010384
Dibromochloromethane	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:14	KLA	P010384
Dichlorodifluoromethane	BRL	mg/kg dry	0.0047	0.00097	1	8260B	9/20/10 18:14	KLA	P010384
Ethylbenzene	BRL	mg/kg dry	0.0047	0.00098	1	8260B	9/20/10 18:14	KLA	P010384

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GEL Engineering of NC, Inc.
 Attn: Andrew Eyer
 P. O. Box 14262
 RTP, NC 27709

Project: NCDOT: Canton UST
 Removals (B3656)
 Project No.: WBS# 33202.1.2
 Sample Matrix: Solid

Client Sample ID: SB7-7A
 Prism Sample ID: 0090413-02
 Prism Work Order: 0090413
 Time Collected: 09/16/10 09:22
 Time Submitted: 09/17/10 12:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Isopropyl Ether	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:14	KLA	POI0384
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0047	0.0011	1	8260B	9/20/10 18:14	KLA	POI0384
m,p-Xylenes	BRL	mg/kg dry	0.0094	0.0025	1	8260B	9/20/10 18:14	KLA	POI0384
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.047	0.0014	1	8260B	9/20/10 18:14	KLA	POI0384
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.094	0.0012	1	8260B	9/20/10 18:14	KLA	POI0384
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.047	0.0010	1	8260B	9/20/10 18:14	KLA	POI0384
Methylene Chloride	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:14	KLA	POI0384
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.0094	0.00098	1	8260B	9/20/10 18:14	KLA	POI0384
Naphthalene	BRL	mg/kg dry	0.0094	0.0025	1	8260B	9/20/10 18:14	KLA	POI0384
n-Butylbenzene	BRL	mg/kg dry	0.0047	0.0017	1	8260B	9/20/10 18:14	KLA	POI0384
n-Propylbenzene	BRL	mg/kg dry	0.0047	0.0013	1	8260B	9/20/10 18:14	KLA	POI0384
o-Xylene	BRL	mg/kg dry	0.0047	0.0010	1	8260B	9/20/10 18:14	KLA	POI0384
sec-Butylbenzene	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:14	KLA	POI0384
Styrene	BRL	mg/kg dry	0.0047	0.00092	1	8260B	9/20/10 18:14	KLA	POI0384
tert-Butylbenzene	BRL	mg/kg dry	0.0047	0.0013	1	8260B	9/20/10 18:14	KLA	POI0384
Tetrachloroethylene	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:14	KLA	POI0384
Toluene	BRL	mg/kg dry	0.0047	0.0011	1	8260B	9/20/10 18:14	KLA	POI0384
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0047	0.00093	1	8260B	9/20/10 18:14	KLA	POI0384
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0047	0.00094	1	8260B	9/20/10 18:14	KLA	POI0384
Trichloroethylene	BRL	mg/kg dry	0.0047	0.0013	1	8260B	9/20/10 18:14	KLA	POI0384
Trichlorofluoromethane	BRL	mg/kg dry	0.0047	0.0013	1	8260B	9/20/10 18:14	KLA	POI0384
Vinyl acetate	BRL	mg/kg dry	0.023	0.0032	1	8260B	9/20/10 18:14	KLA	POI0384
Vinyl chloride	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:14	KLA	POI0384
Xylenes, total	BRL	mg/kg dry	0.014	0.0035	1	8260B	9/20/10 18:14	KLA	POI0384

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	97 %	70-130
Dibromofluoromethane	104 %	84-123
Toluene-d8	93 %	76-129

Volatile Petroleum Hydrocarbons by GC/PID/FID

C5-C8 Aliphatics	BRL	mg/kg dry	14	5.3	100	MADEP VPH	9/28/10 12:39	hea	POI0485
C9-C12 Aliphatics	BRL	mg/kg dry	14	5.1	100	MADEP VPH	9/28/10 12:39	hea	POI0485
C9-C10 Aromatics	BRL	mg/kg dry	14	1.5	100	MADEP VPH	9/28/10 12:39	hea	POI0485

Surrogate	Recovery	Control Limits
2,5-Dibromotoluene (PID)	92 %	70-130
2,5-Dibromotoluene (FID)	87 %	70-130

GEL Engineering of NC, Inc.
 Attn: Andrew Eyer
 P. O. Box 14262
 RTP, NC 27709

Project: NCDOT: Canton UST
 Removals (B3656)
 Project No.: WBS# 33202.1.2
 Sample Matrix: Solid

Client Sample ID: SB7-8A
 Prism Sample ID: 0090413-03
 Prism Work Order: 0090413
 Time Collected: 09/16/10 09:40
 Time Submitted: 09/17/10 12:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	81.2	% by Weight	0.100	0.100	1	*SM2540 G	9/23/10 15:40	JAB	P010474
Volatile Organic Compounds by GC/MS									
1,1,1-Trichloroethane	BRL	mg/kg dry	0.0047	0.0011	1	8260B	9/20/10 18:48	KLA	P010384
1,1,2,2-Tetrachloroethane	BRL	mg/kg dry	0.0047	0.0013	1	8260B	9/20/10 18:48	KLA	P010384
1,1,2-Trichloroethane	BRL	mg/kg dry	0.0047	0.0013	1	8260B	9/20/10 18:48	KLA	P010384
1,1-Dichloroethane	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:48	KLA	P010384
1,1-Dichloroethylene	BRL	mg/kg dry	0.0047	0.0011	1	8260B	9/20/10 18:48	KLA	P010384
1,1-Dichloropropylene	BRL	mg/kg dry	0.0047	0.00098	1	8260B	9/20/10 18:48	KLA	P010384
1,2,3-Trichlorobenzene	BRL	mg/kg dry	0.0047	0.0015	1	8260B	9/20/10 18:48	KLA	P010384
1,2,3-Trichloropropane	BRL	mg/kg dry	0.0047	0.0019	1	8260B	9/20/10 18:48	KLA	P010384
1,2,4-Trichlorobenzene	BRL	mg/kg dry	0.0047	0.0013	1	8260B	9/20/10 18:48	KLA	P010384
1,2,4-Trimethylbenzene	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:48	KLA	P010384
1,2-Dibromoethane	BRL	mg/kg dry	0.0047	0.0013	1	8260B	9/20/10 18:48	KLA	P010384
1,2-Dichlorobenzene	BRL	mg/kg dry	0.0047	0.0013	1	8260B	9/20/10 18:48	KLA	P010384
1,2-Dichloroethane	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:48	KLA	P010384
1,2-Dichloropropane	BRL	mg/kg dry	0.0047	0.0014	1	8260B	9/20/10 18:48	KLA	P010384
1,3,5-Trimethylbenzene	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:48	KLA	P010384
1,3-Dichlorobenzene	BRL	mg/kg dry	0.0047	0.0011	1	8260B	9/20/10 18:48	KLA	P010384
1,3-Dichloropropane	BRL	mg/kg dry	0.0047	0.00096	1	8260B	9/20/10 18:48	KLA	P010384
1,4-Dichlorobenzene	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:48	KLA	P010384
2,2-Dichloropropane	BRL	mg/kg dry	0.0047	0.0011	1	8260B	9/20/10 18:48	KLA	P010384
2-Chlorotoluene	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:48	KLA	P010384
4-Chlorotoluene	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:48	KLA	P010384
4-Isopropyltoluene	BRL	mg/kg dry	0.0047	0.0014	1	8260B	9/20/10 18:48	KLA	P010384
Acetone	0.024 J	mg/kg dry	0.047	0.0020	1	8260B	9/20/10 18:48	KLA	P010384
Benzene	BRL	mg/kg dry	0.0028	0.0012	1	8260B	9/20/10 18:48	KLA	P010384
Bromobenzene	BRL	mg/kg dry	0.0047	0.0011	1	8260B	9/20/10 18:48	KLA	P010384
Bromochloromethane	BRL	mg/kg dry	0.0047	0.0013	1	8260B	9/20/10 18:48	KLA	P010384
Bromodichloromethane	BRL	mg/kg dry	0.0047	0.0011	1	8260B	9/20/10 18:48	KLA	P010384
Bromoform	BRL	mg/kg dry	0.0047	0.0010	1	8260B	9/20/10 18:48	KLA	P010384
Bromomethane	BRL	mg/kg dry	0.0093	0.0012	1	8260B	9/20/10 18:48	KLA	P010384
Carbon Tetrachloride	BRL	mg/kg dry	0.0047	0.0014	1	8260B	9/20/10 18:48	KLA	P010384
Chlorobenzene	BRL	mg/kg dry	0.0047	0.0011	1	8260B	9/20/10 18:48	KLA	P010384
Chloroethane	BRL	mg/kg dry	0.0093	0.0024	1	8260B	9/20/10 18:48	KLA	P010384
Chloroform	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:48	KLA	P010384
Chloromethane	BRL	mg/kg dry	0.0047	0.0011	1	8260B	9/20/10 18:48	KLA	P010384
cis-1,2-Dichloroethylene	BRL	mg/kg dry	0.0047	0.0011	1	8260B	9/20/10 18:48	KLA	P010384
cis-1,3-Dichloropropylene	BRL	mg/kg dry	0.0047	0.0011	1	8260B	9/20/10 18:48	KLA	P010384
Dibromochloromethane	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:48	KLA	P010384
Dichlorodifluoromethane	BRL	mg/kg dry	0.0047	0.00097	1	8260B	9/20/10 18:48	KLA	P010384
Ethylbenzene	BRL	mg/kg dry	0.0047	0.00098	1	8260B	9/20/10 18:48	KLA	P010384

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GEL Engineering of NC, Inc.
 Attn: Andrew Eyer
 P. O. Box 14262
 RTP, NC 27709

Project: NCDOT: Canton UST
 Removals (B3656)
 Project No.: WBS# 33202.1.2
 Sample Matrix: Solid

Client Sample ID: SB7-8A
 Prism Sample ID: 0090413-03
 Prism Work Order: 0090413
 Time Collected: 09/16/10 09:40
 Time Submitted: 09/17/10 12:15

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Isopropyl Ether	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:48	KLA	POI0384
Isopropylbenzene (Cumene)	BRL	mg/kg dry	0.0047	0.0010	1	8260B	9/20/10 18:48	KLA	POI0384
m,p-Xylenes	BRL	mg/kg dry	0.0093	0.0025	1	8260B	9/20/10 18:48	KLA	POI0384
Methyl Butyl Ketone (2-Hexanone)	BRL	mg/kg dry	0.047	0.0014	1	8260B	9/20/10 18:48	KLA	POI0384
Methyl Ethyl Ketone (2-Butanone)	BRL	mg/kg dry	0.093	0.0012	1	8260B	9/20/10 18:48	KLA	POI0384
Methyl Isobutyl Ketone	BRL	mg/kg dry	0.047	0.0010	1	8260B	9/20/10 18:48	KLA	POI0384
Methylene Chloride	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:48	KLA	POI0384
Methyl-tert-Butyl Ether	BRL	mg/kg dry	0.0093	0.00098	1	8260B	9/20/10 18:48	KLA	POI0384
Naphthalene	BRL	mg/kg dry	0.0093	0.0025	1	8260B	9/20/10 18:48	KLA	POI0384
n-Butylbenzene	BRL	mg/kg dry	0.0047	0.0017	1	8260B	9/20/10 18:48	KLA	POI0384
n-Propylbenzene	BRL	mg/kg dry	0.0047	0.0013	1	8260B	9/20/10 18:48	KLA	POI0384
o-Xylene	BRL	mg/kg dry	0.0047	0.0010	1	8260B	9/20/10 18:48	KLA	POI0384
sec-Butylbenzene	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:48	KLA	POI0384
Styrene	BRL	mg/kg dry	0.0047	0.00091	1	8260B	9/20/10 18:48	KLA	POI0384
tert-Butylbenzene	BRL	mg/kg dry	0.0047	0.0013	1	8260B	9/20/10 18:48	KLA	POI0384
Tetrachloroethylene	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:48	KLA	POI0384
Toluene	BRL	mg/kg dry	0.0047	0.0011	1	8260B	9/20/10 18:48	KLA	POI0384
trans-1,2-Dichloroethylene	BRL	mg/kg dry	0.0047	0.00092	1	8260B	9/20/10 18:48	KLA	POI0384
trans-1,3-Dichloropropylene	BRL	mg/kg dry	0.0047	0.00093	1	8260B	9/20/10 18:48	KLA	POI0384
Trichloroethylene	BRL	mg/kg dry	0.0047	0.0013	1	8260B	9/20/10 18:48	KLA	POI0384
Trichlorofluoromethane	BRL	mg/kg dry	0.0047	0.0013	1	8260B	9/20/10 18:48	KLA	POI0384
Vinyl acetate	BRL	mg/kg dry	0.023	0.0032	1	8260B	9/20/10 18:48	KLA	POI0384
Vinyl chloride	BRL	mg/kg dry	0.0047	0.0012	1	8260B	9/20/10 18:48	KLA	POI0384
Xylenes, total	BRL	mg/kg dry	0.014	0.0035	1	8260B	9/20/10 18:48	KLA	POI0384

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	96 %	70-130
Dibromofluoromethane	103 %	84-123
Toluene-d8	93 %	76-129

Volatile Petroleum Hydrocarbons by GC/PID/FID

C5-C8 Aliphatics	BRL	mg/kg dry	15	5.6	100	MADEP VPH	9/24/10 18:22	hea	POI0485
C9-C12 Aliphatics	BRL	mg/kg dry	15	5.4	100	MADEP VPH	9/24/10 18:22	hea	POI0485
C9-C10 Aromatics	BRL	mg/kg dry	15	1.6	100	MADEP VPH	9/24/10 18:22	hea	POI0485

Surrogate	Recovery	Control Limits
2,5-Dibromotoluene (PID)	73 %	70-130
2,5-Dibromotoluene (FID)	98 %	70-130



GEL Engineering of NC, Inc.
 Attn: Andrew Eyer
 P. O. Box 14262
 RTP, NC 27709

Project: NCDOT: Canton UST
 Removals (B3656)
 Project No: WBS# 33202.1.2

Prism Work Order: 0090413
 Time Submitted: 9/17/2010 12:15:00PM

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0I0384 - 5035										
Blank (P0I0384-BLK1)										
Prepared & Analyzed: 09/20/10										
1,1,1-Trichloroethane	BRL	0.0050	mg/kg wet							
1,1,2,2-Tetrachloroethane	BRL	0.0050	mg/kg wet							
1,1,2-Trichloroethane	BRL	0.0050	mg/kg wet							
1,1-Dichloroethane	BRL	0.0050	mg/kg wet							
1,1-Dichloroethylene	BRL	0.0050	mg/kg wet							
1,1-Dichloropropylene	BRL	0.0050	mg/kg wet							
1,2,3-Trichlorobenzene	BRL	0.0050	mg/kg wet							
1,2,3-Trichloropropane	BRL	0.0050	mg/kg wet							
1,2,4-Trichlorobenzene	BRL	0.0050	mg/kg wet							
1,2,4-Trimethylbenzene	BRL	0.0050	mg/kg wet							
1,2-Dibromoethane	BRL	0.0050	mg/kg wet							
1,2-Dichlorobenzene	BRL	0.0050	mg/kg wet							
1,2-Dichloroethane	BRL	0.0050	mg/kg wet							
1,2-Dichloropropane	BRL	0.0050	mg/kg wet							
1,3,5-Trimethylbenzene	BRL	0.0050	mg/kg wet							
1,3-Dichlorobenzene	BRL	0.0050	mg/kg wet							
1,3-Dichloropropane	BRL	0.0050	mg/kg wet							
1,4-Dichlorobenzene	BRL	0.0050	mg/kg wet							
2,2-Dichloropropane	BRL	0.0050	mg/kg wet							
2-Chlorotoluene	BRL	0.0050	mg/kg wet							
4-Chlorotoluene	BRL	0.0050	mg/kg wet							
4-Isopropyltoluene	BRL	0.0050	mg/kg wet							
Acetone	BRL	0.050	mg/kg wet							
Benzene	BRL	0.0030	mg/kg wet							
Bromobenzene	BRL	0.0050	mg/kg wet							
Bromochloromethane	BRL	0.0050	mg/kg wet							
Bromodichloromethane	BRL	0.0050	mg/kg wet							
Bromoform	BRL	0.0050	mg/kg wet							
Bromomethane	BRL	0.010	mg/kg wet							
Carbon Tetrachloride	BRL	0.0050	mg/kg wet							
Chlorobenzene	BRL	0.0050	mg/kg wet							
Chloroethane	BRL	0.010	mg/kg wet							
Chloroform	BRL	0.0050	mg/kg wet							
Chloromethane	BRL	0.0050	mg/kg wet							
cis-1,2-Dichloroethylene	BRL	0.0050	mg/kg wet							
cis-1,3-Dichloropropylene	BRL	0.0050	mg/kg wet							
Dibromochloromethane	BRL	0.0050	mg/kg wet							
Dichlorodifluoromethane	BRL	0.0050	mg/kg wet							
Ethylbenzene	BRL	0.0050	mg/kg wet							
Isopropyl Ether	BRL	0.0050	mg/kg wet							
Isopropylbenzene (Cumene)	BRL	0.0050	mg/kg wet							
m,p-Xylenes	BRL	0.010	mg/kg wet							
Methyl Butyl Ketone (2-Hexanone)	BRL	0.050	mg/kg wet							
Methyl Ethyl Ketone (2-Butanone)	BRL	0.10	mg/kg wet							
Methyl Isobutyl Ketone	BRL	0.050	mg/kg wet							
Methylene Chloride	BRL	0.0050	mg/kg wet							

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GEL Engineering of NC, Inc.
 Attn: Andrew Eyer
 P. O. Box 14262
 RTP, NC 27709

Project: NCDOT: Canton UST
 Removals (B3656)
 Project No: WBS# 33202.1.2

Prism Work Order: 0090413
 Time Submitted: 9/17/2010 12:15:00PM

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P010384 - 5035										
Blank (P010384-BLK1)										
Prepared & Analyzed: 09/20/10										
Methyl-tert-Butyl Ether	BRL	0.010	mg/kg wet							
Naphthalene	BRL	0.010	mg/kg wet							
n-Butylbenzene	BRL	0.0050	mg/kg wet							
n-Propylbenzene	BRL	0.0050	mg/kg wet							
o-Xylene	BRL	0.0050	mg/kg wet							
sec-Butylbenzene	BRL	0.0050	mg/kg wet							
Styrene	BRL	0.0050	mg/kg wet							
tert-Butylbenzene	BRL	0.0050	mg/kg wet							
Tetrachloroethylene	BRL	0.0050	mg/kg wet							
Toluene	BRL	0.0050	mg/kg wet							
trans-1,2-Dichloroethylene	BRL	0.0050	mg/kg wet							
trans-1,3-Dichloropropylene	BRL	0.0050	mg/kg wet							
Trichloroethylene	BRL	0.0050	mg/kg wet							
Trichlorofluoromethane	BRL	0.0050	mg/kg wet							
Vinyl acetate	BRL	0.025	mg/kg wet							
Vinyl chloride	BRL	0.0050	mg/kg wet							
Xylenes, total	BRL	0.015	mg/kg wet							
Surrogate: 4-Bromofluorobenzene	49.4		ug/L	50.0		99	70-130			
Surrogate: Dibromofluoromethane	51.2		ug/L	50.0		102	84-123			
Surrogate: Toluene-d8	47.5		ug/L	50.0		95	76-129			
LCS (P010384-BS1)										
Prepared & Analyzed: 09/20/10										
1,1-Dichloroethylene	0.0569	0.0050	mg/kg wet	0.0500		114	67-149			
Benzene	0.0475	0.0030	mg/kg wet	0.0500		95	74-127			
Chlorobenzene	0.0451	0.0050	mg/kg wet	0.0500		90	74-118			
Toluene	0.0471	0.0050	mg/kg wet	0.0500		94	71-129			
Trichloroethylene	0.0512	0.0050	mg/kg wet	0.0500		102	75-133			
Surrogate: 4-Bromofluorobenzene	51.3		ug/L	50.0		103	70-130			
Surrogate: Dibromofluoromethane	52.0		ug/L	50.0		104	84-123			
Surrogate: Toluene-d8	46.4		ug/L	50.0		93	76-129			

GEL Engineering of NC, Inc.
Attn: Andrew Eyer
P. O. Box 14262
RTP, NC 27709

Project: NCDOT: Canton UST
Removals (B3656)
Project No: WBS# 33202.1.2

Prism Work Order: 0090413
Time Submitted: 9/17/2010 12:15:00PM

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0I0384 - 5035										
LCS Dup (P0I0384-BSD1)										
Prepared & Analyzed: 09/20/10										
1,1-Dichloroethylene	0.0578	0.0050	mg/kg wet	0.0500		116	67-149	2	200	
Benzene	0.0480	0.0030	mg/kg wet	0.0500		96	74-127	1	200	
Chlorobenzene	0.0456	0.0050	mg/kg wet	0.0500		91	74-118	1	200	
Toluene	0.0477	0.0050	mg/kg wet	0.0500		95	71-129	1	200	
Trichloroethylene	0.0516	0.0050	mg/kg wet	0.0500		103	75-133	0.8	200	
Surrogate: 4-Bromofluorobenzene	50.3		ug/L	50.0		101	70-130			
Surrogate: Dibromofluoromethane	52.1		ug/L	50.0		104	84-123			
Surrogate: Toluene-d8	46.5		ug/L	50.0		93	76-129			

GEL Engineering of NC, Inc.
Attn: Andrew Eyer
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RTP, NC 27709

Project: NCDOT: Canton UST
Removals (B3656)
Project No: WBS# 33202.1.2

Prism Work Order: 0090413
Time Submitted: 9/17/2010 12:15:00PM

Volatile Petroleum Hydrocarbons by GC/PID/FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0I0485 - MADEP VPH (S)										
Blank (P0I0485-BLK1)										
Prepared & Analyzed: 09/24/10										
C5-C8 Aliphatics	BRL	5.0	mg/kg wet							
C9-C12 Aliphatics	BRL	5.0	mg/kg wet							
C9-C10 Aromatics	BRL	5.0	mg/kg wet							
Surrogate: 2,5-Dibromotoluene (PID)	6.71		mg/kg wet	8.33		81	70-130			
Surrogate: 2,5-Dibromotoluene (FID)	8.62		mg/kg wet	8.33		103	70-130			
LCS (P0I0485-BS1)										
Prepared & Analyzed: 09/24/10										
C5-C8 Aliphatics	31.4	5.0	mg/kg wet	32.0		98	70-130			
C9-C10 Aromatics	8.65	5.0	mg/kg wet	10.7		81	70-130			
C9-C12 Aliphatic	35.9	5.0	mg/kg wet	32.0		112	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	7.82		mg/kg wet	8.33		94	70-130			
Surrogate: 2,5-Dibromotoluene (FID)	9.89		mg/kg wet	8.33		119	70-130			
LCS Dup (P0I0485-BSD1)										
Prepared: 09/24/10 Analyzed: 09/25/10										
C5-C8 Aliphatics	30.6	5.0	mg/kg wet	32.0		96	70-130	2	200	
C9-C10 Aromatics	7.50	5.0	mg/kg wet	10.7		70	70-130	14	200	
C9-C12 Aliphatic	31.8	5.0	mg/kg wet	32.0		100	70-130	12	200	
Surrogate: 2,5-Dibromotoluene (PID)	5.68		mg/kg wet	8.33		68	70-130			
Surrogate: 2,5-Dibromotoluene (FID)	8.26		mg/kg wet	8.33		99	70-130			SR

GEL Engineering of NC, Inc.
Attn: Andrew Eyer
P. O. Box 14262
RTP, NC 27709

Project: NCDOT: Canton UST
Removals (B3656)
Project No: WBS# 33202.1.2

Prism Work Order: 0090413
Time Submitted: 9/17/2010 12:15:00PM

General Chemistry Parameters - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch P0I0474 - NO PREP

Blank (P0I0474-BLK1)

Prepared & Analyzed: 09/23/10

% Solids	100	0.100	% by Weight							
----------	-----	-------	-------------	--	--	--	--	--	--	--

Sample Extraction Data

NO PREP

Lab Number	Batch	Initial	Final	Date
0090413-01	P0I0474	30 g	30 mL	09/23/10
0090413-02	P0I0474	30 g	30 mL	09/23/10
0090413-03	P0I0474	30 g	30 mL	09/23/10
0090413-04	P0I0474	30 g	30 mL	09/23/10

Prep Method: 5035

Lab Number	Batch	Initial	Final	Date
0090413-01	P0I0384	6.45 g	5 mL	09/20/10
0090413-02	P0I0384	6.7 g	5 mL	09/20/10
0090413-03	P0I0384	6.59 g	5 mL	09/20/10
0090413-04	P0I0384	6.55 g	5 mL	09/20/10

Prep Method: MADEP VPH (S)

Lab Number	Batch	Initial	Final	Date
0090413-01	P0I0485	6.58 g	16 mL	09/24/10
0090413-02	P0I0485	6.62 g	16 mL	09/24/10
0090413-03	P0I0485	6.05 g	16 mL	09/24/10
0090413-04	P0I0485	5.49 g	16 mL	09/24/10

APPENDIX IX

Photographs



Photograph 1: View looking northwest at initial excavation of USTs at Parcel #7. Fill pipe cover for UST #003 is shown in center foreground.



Photograph 2: View looking east at removal of UST #003.



Photograph 3: View looking east at removal of UST #002. UST #001 product piping is shown in lower left.



Photograph 4: View looking south at compaction of backfill material in UST pit using remote-controlled vibratory roller.



Photograph 5: View looking east at collection of confirmation soil sample SB7-4A. Confirmation soil sample locations SB7-7A and SB7-8 are marked by pink flags in foreground.

APPENDIX X

Compaction Report for Backfilled UST Excavation



MACTEC Engineering and Consulting, Inc.
1308 Patton Avenue – Asheville, North Carolina 28806
(828) 252-8130 phone/(828) 251-9690 fax

CMT Transmittal

TO: GEL Engineering of NC, Inc.
P.O. Box 14262
Durham, NC 27709

Date: August 23, 2010

Job Number: 6685101891.01

ATTN: Mr. Andrew Eyer
(ade@gel.com)

Job Name: NCDOT UST Backfill -
Canton, NC

ATTACHED IS THE FOLLOWING:

NO. OF Sheets	CORRESPONDENCE OR ITEM
1	Daily Work Summary dated August 13, 2010
1	Compaction Test # 1 dated August 17, 2010
1	Daily Work Summary dated August 18, 2010
1	Report of Field Density Tests performed on August 18, 2010
1	Sketch of Density Test Locations dated August 18, 2010

cc:

A handwritten signature in cursive script, reading "Jill M. Hamburg", is written over a horizontal line.



MACTEC Engineering and Consulting, Inc.
 1308 Patton Avenue – Asheville, North Carolina 28806
 Phone (828) 252-8130 ~ Fax (828) 251-9690

DAILY WORK SUMMARY

Date: 8-13-10 Page 1 of 1
 Project Name: Canton Det Ust Project Number: 6685101891.01
 Project Location: Canton, NC Client: _____ Office Time: 1.25 HRS
 Requested By: contractor On-Site Contact: Mike Able
 Arrived On-Site: 2:45p Departed Site: 3:15p Travel Time: .75 Total Time Charged: 1.5 HRS
 Density Tests Performed: Y^(N) Test Numbers: _____ Nuclear Density Gauge Charge: _____ (day)
 Concrete Testing Performed: Y^(N) No. Cylinders Cast: _____ Round Trip Mileage 30 (miles)

take w
cont. lo
in proct
sample

SUMMARY OF OBSERVATIONS AND WORK PERFORMED

Tech traveled to borrow site at 150 Sunset Heights Rd. and met with Mike Able. Tech picked up a soil sample from borrow area to transport back to the lab and log in to run a proctor test. Cont. advised they will probably be working on site next Wednesday.

Weather conditions at time of testing: Clear/Partly Cloudy/Cloudy/Light Rain/Heavy Rain/Snow/Sleet

Temp. 85°F

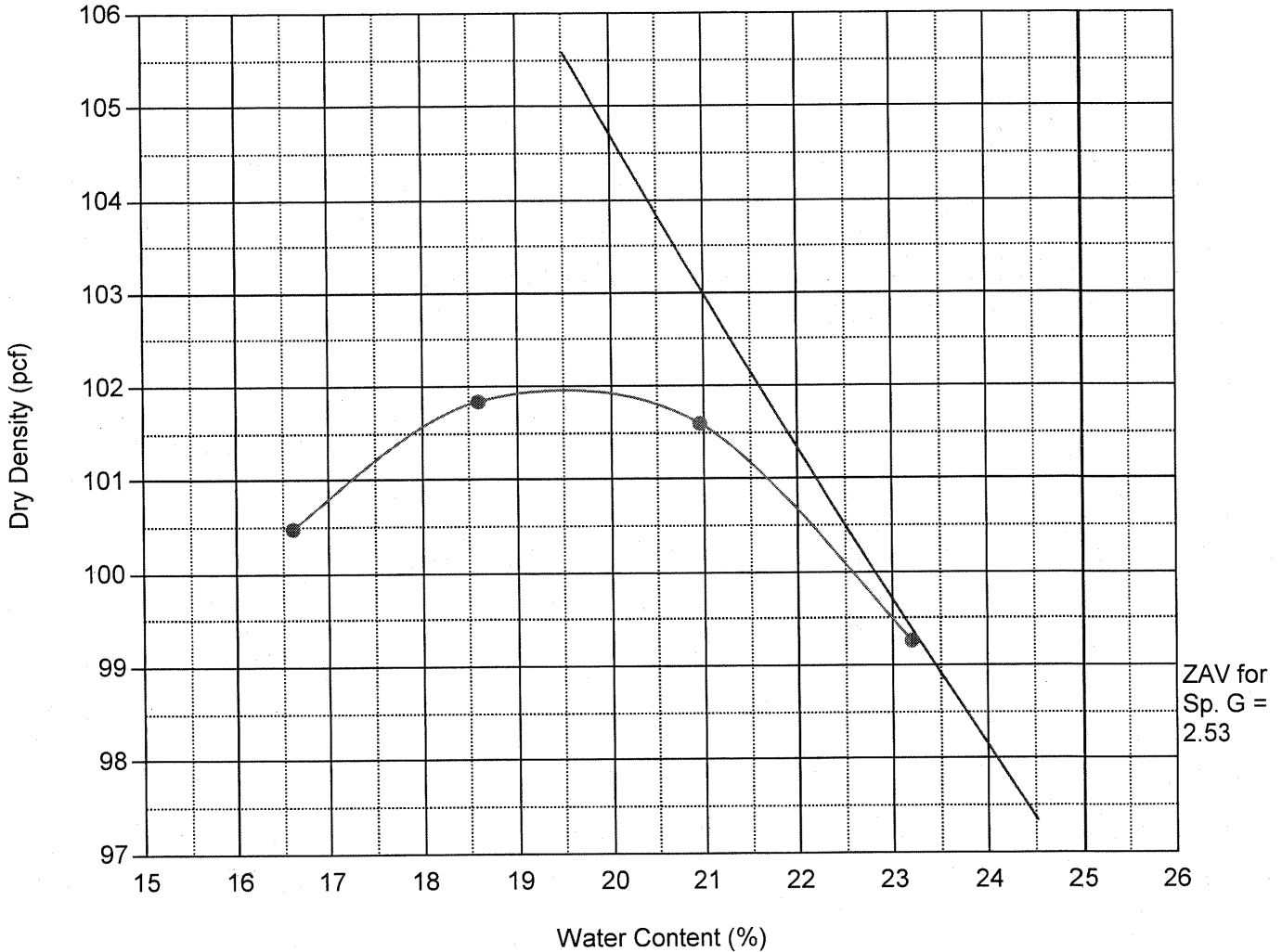
Submitted by: Mike Dula ^(MD)


Date: 8-13-10

Reviewed by: Jill M. Hemburg

Date: 8/24/10

Compaction Test Report



Test Results	Material Description
Test Specification: ASTM D698 Standard Proctor Method A Maximum Dry Density: 102.0 pcf Optimum Moisture: 19.5 %	Brn/Red sl. micaceous, sl. silty SAND
Client: GEL Engineering of NC, Inc. Project: Canton DOT UST Project No. 6685101891.01 Test No: 1 ID: Date: 8/17/2010 Source: Borrow Site 150 Sunset Heights Road	Remarks: Natural Field Moisture: 16.5%
	Tested By: Jimmy High Checked By: <i>J. Hamburg</i>



MACTEC Engineering and Consulting, Inc.
 1308 Patton Avenue – Asheville, North Carolina 28806
 Phone (828) 252-8130 ~ Fax (828) 251-9690

DAILY WORK SUMMARY

Date: 8-18-10 Page 1 of 1
 Project Name: CANTON DOT UST Project Number: 6685101891.01
 Project Location: CANTON N.C Client: GEL Office Time: _____
 Requested By: CONTRACTOR On-Site Contact: ANDREW W GEL
 Arrived On-Site: 9:30 Departed Site: 12:45 Travel Time: .75 Total Time Charged: 4.6
 Density Tests Performed: Y/N y Test Numbers: 1-3 Nuclear Density Gauge Charge: - (day)
 Concrete Testing Performed: Y/N n No. Cylinders Cast: - Round Trip Mileage 30 (miles)

SUMMARY OF OBSERVATIONS AND WORK PERFORMED

TECH WAS ON SITE AS REQUESTED TO TEST THE BACKFILL BEING PLACED WHERE TANKS HAD BEEN REMOVED. TECH PERFORMED DENSITIES AS NEEDED ON THE SOIL. THESE TESTS INDICATED THE COMPACTION TO BE ABOVE THE 95% REQUIRED. NO TESTS WERE NEEDED ON THE ASCL BEM PLACES IN THE LAST 6". SEE ATTACHED WORKSHEET & SKETCH DATED 8-18-10 FOR DETAILS

contractor used a walk-behind vibratory roller to compact the soil fill. just

Weather conditions at time of testing: Clear/Partly Cloudy/Cloudy/Light Rain/Heavy Rain/Snow/Sleet

Temp. 50°s

Submitted by: Jimmy High *JH*

Reviewed by: Jill M Hemburg

Date: 8-18-10

Date: 8/24/10

REPORT OF FIELD DENSITY TESTS

1308 Patton Avenue
Asheville, North Carolina 28806



CLIENT: GEL Engineering of NC, Inc.

PROJECT: Canton DOT UST

JOB NUMBER: 6685101891.01

Test Date	Test Number	Moisture Content (%)	Dry Density (PCF)	Proctor Number	Max. Dry Density (pcf)	Optimum Moisture (%)	Compaction (%)	Specified Compaction (%)	ASTM Test Method	Elevation or Depth
8/18/2010	1	14.6	101.2	1	102.0	19.5	99.2	95	D2937	-1.5
Location: 6 ft. east and 7 ft. north of southwest corner of pit										
Comments:										
Drive Tube Volume: 0.033(cu. ft.)						Moisture Test Method: D4959				
8/18/2010	2	14.4	98.7	1	102.0	19.5	96.8	95	D2937	-0.5
Location: Northwest Corner										
Comments:										
Drive Tube Volume: 0.033(cu. ft.)						Moisture Test Method: D4959				
8/18/2010	3	14.8	100.2	1	102.0	19.5	98.2	95	D2937	-0.8
Location: Southeast Corner										
Comments:										
Drive Tube Volume: 0.033(cu. ft.)						Moisture Test Method: D4959				

REMARKS

Performed in General Accordance With Referenced ASTM Methods
<< Denotes Percent Compaction or Moisture is Less Than Specified.

RESPECTFULLY SUBMITTED

The results presented in this report relate only to the items tested. This report shall not be reproduced, except in full, without written approval from MACTEC Engineering and Consulting.



MACTEC Engineering and Consulting, Inc.
1308 Patton Avenue
Asheville, NC 28806

JOB NO. 6685101891.01 SHEET 1 OF 1

PHASE _____ TASK _____

JOB NAME CANTON DOT UST

BY J. D. Light DATE 8-18-10

CHECKED BY JMT DATE 8/24/10

