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Additional Groundwater Assessment and Semi-Annual Monitoring Report

Delavan Spray Technologies
Bamberg, South Carolina
DHEC Site ID #02211

H&H Job No. GDR-006
June 11, 2012

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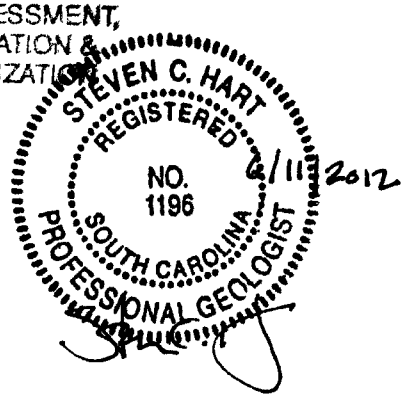

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Additional Groundwater Assessment and Semi-Annual Monitoring Report
Delavan Spray Technologies
Bamberg, South Carolina
DHEC Site ID #02211
H&H Job No. GDR-006

1.0 Introduction

On behalf of Delavan Spray Technologies (Delavan), Hart & Hickman, PC (H&H) has completed additional groundwater assessment and semi-annual groundwater monitoring at the Delavan facility located at 4434 Main Highway (a.k.a., US Highway 301 South) in Bamberg, Bamberg County, South Carolina (Site). Delavan manufactures fuel metering equipment and various spray-type nozzles at the Site. A Site location map is provided as Figure 1, and Site layout is provided as Figure 2.

The purpose of this report is to present the methods and results of additional groundwater assessment and semi-annual groundwater monitoring conducted at the Site in April and May 2012. This report briefly summarizes previous assessment activities (Section 2.0), describes additional groundwater monitoring well installation (Section 3.0), discusses Site geology (Section 4.0), presents the results of semi-annual groundwater monitoring and aquifer testing (Section 5.0), and presents our conclusions based upon the groundwater assessment activities (Section 6.0).

2.0 Background and Previous Assessment Information

H&H initiated soil and groundwater assessment activities at the Site in 2003. The assessment activities indicated the presence of chlorinated volatile organic compounds (VOCs) in groundwater at the Site. The primary compounds of concern are tetrachloroethene (PCE) and its degradation products trichloroethene (TCE), cis-1,2-dichloroethene (DCE), 1,1-dichloroethene (1,1-DCE), and vinyl chloride. In 2005, H&H injected Hydrogen Release Compound® (HRC) into shallow groundwater to stimulate natural biodegradation of compounds in groundwater.

In November 2009, H&H installed five additional monitoring wells. The wells included three deeper on-Site wells and an off-Site shallow and deep well pair south (downgradient) of the Site. Following well installation, H&H gauged and sampled the new and existing monitoring wells. In addition, the wells were re-gauged and re-sampled in April 2010.

In a letter dated November 16, 2010, the South Carolina Department of Health and Environmental Control (DHEC) requested that samples be collected from private water supply wells located in a residential area approximately 2,000 ft west-southwest of the Site. In December 2010 and January 2011, H&H identified and sampled seven private water supply water wells along Hyatt Lane and Water Oak Court in this residential area (Figure 3). PCE was detected in three of the private water supply wells (Bill Hyatt Well No. 1, Donald Hyatt Well, and John Nichols Well). Based upon the presence of PCE in three water supply wells, as a precautionary measure pending a determination as to the source of the PCE, H&H and Delavan voluntarily provided bottled water service and then installed point of entry (POE) carbon filtration systems for these residences in December 2010 and January 2011. In addition, as a precautionary measure, POE systems were also installed in December 2010 and January 2011 at the four other water supply wells/residences that did not contain detectable concentrations of PCE.

Since installation of the POE systems, H&H and Delavan have voluntarily maintained the POE systems and collected pre-filter and post-filter groundwater samples from the water supply wells

on a routine basis (i.e., bi-monthly or quarterly basis). The results of the post-filter sampling results indicate that the POE filtration systems are effectively removing PCE from the well water. The results of the well sampling have been provided to the individual well owners and DHEC. A summary of the water supply well inventory is presented as Table 1, and a summary of the water supply well analytical data is presented as Table 2.

In May 2011, H&H installed two nested well pairs (nested well pairs MW 15/15D and MW-16/16D) between the Site and the Hyatt Lane and Water Oak Court residential properties to further assess groundwater as requested by DHEC. The nested well pairs are located east of the South Carolina Electric and Gas (SCE&G) electrical power line right-of-way between the Site and the Hyatt Lane and Water Oak Court properties (Figure 2). Analytical results of groundwater sampling conducted in May, June, and November 2011 indicated that no VOCs were detected in the groundwater samples collected from the two subject well pairs, and that the deeper groundwater flow is to the south and away from the residential properties. Based upon the additional assessment activities, H&H concluded that the Delavan site is not the source of the VOCs detected in the Hyatt Lane area water supply wells.

In January 2012, DHEC requested that Delavan submit a work plan to further assess groundwater in the deep sandstone aquifer zone in the area of existing site monitoring well pairs MW-15/15D and MW-16/16D. In accordance with DHEC's request, H&H submitted an *Additional Groundwater Assessment Work Plan* to DHEC on March 9, 2012. The work plan included installation of one deeper Type III monitoring well into the sandstone aquifer zone and adjacent to nested well pair MW-15/15D located on the north side of Halfmoon Creek. Following DHEC's work plan approval and securing property access, H&H installed and sampled Type III monitoring well MW-15D1 and completed a semi-annual groundwater monitoring event in May 2012. The methods, results, and conclusions of the additional groundwater assessment, well installation, and groundwater monitoring activities conducted in April and May 2012 are provided in the following sections.

In brief, the results of the additional assessment activities indicate that no VOCs were detected in the groundwater samples collected from the deeper sandstone aquifer zone monitoring well (MW-15D1), and that deeper groundwater flow is confirmed to be to the south and away from the residential properties. The additional assessment activities provide further verification that the Site is not the source of the VOCs detected in the Hyatt Lane area water supply wells.

3.0 Monitoring Well Installation

H&H installed one off-Site monitoring well west of the Site between April 26 and 30, 2012. The deeper Type III monitoring well (identified as MW-15D1) was installed into the sandstone aquifer zone and adjacent to nested well pair MW-15/15D located on the north side of Halfmoon Creek. The location of the new monitoring well is depicted on Figure 2. A boring log and well construction record are provided in Appendix A.

Due to the presence of limestone in previous borings at depths of approximately 25 to 30 ft below ground surface (bgs), the deeper Type III monitoring well was installed using hollow-stem auger and mud rotary techniques. Split-spoon soil samples were collected for soil lithology classification during the installation of the monitoring well.

For deeper monitoring well MW-15D1, a six-inch PVC surface casing was installed from the ground surface to 65 ft bgs. Then, the monitoring well was installed through the surface casing to an approximate depth of 85 ft bgs and constructed of two-inch diameter PVC riser and a 10-ft section of 0.010-inch slotted PVC well screen. The newly installed deeper well was screened across the sandstone aquifer zone at an elevation which corresponds to deeper on-Site well MW-3D1.

Following installation, the well was developed in accordance with standard protocols using an electric submersible pump. Drill cuttings, drilling fluid, and development water were containerized in 55-gallon drums that were labeled and staged on-Site. One composite drill and decon water sample (IDW-1), one composite drill cuttings sample (IDW-2), and one composite development water sample (IDW-3) were collected from the drums for analysis of Toxicity Characteristic Leaching Procedure (TCLP) VOCs and TCLP metals for disposal purposes. The results of the TCLP analyses indicated that all compound concentrations were below the toxicity characteristic hazardous waste levels. Therefore, the investigation-derived waste (IDW) was managed as a non-hazardous waste. The IDW drums were subsequently transported off-Site by a

disposal contractor for proper disposal/treatment at an approved facility. The laboratory report for the IDW composite samples is provided in Appendix B.

Following completion of monitoring well MW-15D1, H&H determined the top of casing and ground surface elevation for the well using surveying techniques.

4.0 Site Geology

Based upon the additional boring, H&H updated cross-sections A-A', B-B', and C-C' to depict geologic and hydrogeologic conditions at and near the Site. The cross-section locations are provided on Figure 2, and the cross-sections are shown on Figures 4, 5, and 6.

The area stratigraphy is generally characterized as follows:

- clayey fine to medium sands to a depth of approximately 10 to 15 ft bgs
- fine to coarse sandy clays and fine sands to approximately 25 ft bgs
- limestone (coquina) characterized by partially (loosely to moderately) cemented coarse shell fragments to a depth of approximately 40 ft bgs
- fossiliferous limestone characterized by loose to well-cemented shell fragments to an approximate depth of 60 ft bgs
- calcareous clayey sandstone characterized by loose to moderately cemented fine to medium sand particles to a depth of approximately 85 ft bgs

Although the above stratigraphy is fairly consistent across the investigation area, the lithological units vary in depth and thickness, and the changes between units are gradual. For example, the shallow limestone zone was encountered in MW-3D1 at a depth of approximately 25 ft bgs as compared to 32 ft bgs in the stratigraphic boring STB-1. Furthermore, this layer is thicker in MW-3D1 (15 ft) as compared to STB-1 (4 ft).

Silty clay layers were encountered in both MW-9D and MW-10D in the northern portion of the Site between approximate depths of 6 to 14 ft and 26 to 30 ft bgs, respectively. However, the silty clay layers were not present in MW-3D1, MW-12D, MW-13D, MW-14D, MW-15D, or MW-16D. The presence of the silty clay appears to limit the downward migration of VOCs in groundwater in the northern portion of the Site.

5.0 Groundwater Monitoring

Following installation of deeper monitoring well MW-15D1, H&H conducted a semi-annual groundwater monitoring event on May 8 and 9, 2012. The locations of the monitoring wells are depicted on Figure 2, and the water level data and well construction information are presented in Table 3. The semi-annual groundwater monitoring event consisted of the following activities:

- gauging the depth to water in 24 monitoring wells;
- purging and sampling of 24 monitoring wells for analysis of VOCs using EPA Method 8260B (reporting EPA 601 list only);
- collecting field geochemical parameters from all sampled monitoring wells including pH, temperature, oxidation-reduction potential (ORP), and dissolved oxygen (DO);
- submitting a trip blank for VOC analysis by EPA Method 8260B (reporting EPA 601 list only) for quality assurance purposes;
- conducting slug tests on nine monitoring wells; and
- containerizing and storing purge water from the monitoring wells in labeled 55-gallon drums.

Details concerning the methods and results of the sampling event are provided below.

5.1 Data Collection Procedures

Prior to monitoring well purging, H&H collected depth to water measurements with an electronic water level meter and in-situ readings of DO using a down-hole probe. Other field parameters, including pH, specific conductivity, temperature, and ORP, were measured and recorded during the well purging process. Each well was purged until either field parameters were stable or until the well was purged dry. Purging was conducted using dedicated disposable polyethylene bailers. Deeper monitoring well MW-15D1 was purged using a decontaminated submersible pump with new dedicated polyethylene tubing. Groundwater sampling forms from the May 2012 sampling are provided in Appendix C.

Test America of Nashville, Tennessee, a South Carolina certified laboratory, conducted the VOC analysis. Laboratory-supplied sample bottles were used for sample collection. Chain-of-custody records were completed for samples collected and included sample description, date collected, time collected, matrix, sample container information, and analyses required. The chain-of-custody records were signed by H&H field personnel prior to placement in iced coolers for shipment to the laboratories. Prior to shipment, a custody seal was placed on the coolers so that potential tampering or opening of the coolers could be detected by the laboratory.

Purge water generated during the sampling activities was containerized in labeled 55-gallon drums. For waste characterization purposes, H&H collected one composite water sample (labeled Drum) from the 55-gallon drums for TCLP VOCs and TCLP metals analyses. The results of the TCLP analyses indicated that all compound concentrations were below the toxicity characteristic hazardous waste levels. Therefore, the IDW was managed as a non-hazardous waste. The IDW drums were subsequently transported off-Site by a disposal contractor for proper disposal/treatment at an approved facility. The laboratory report for the IDW composite sample is provided in Appendix B.

5.2 Groundwater Elevation Data

On May 8, 2012, H&H measured water levels in 24 monitoring wells as part of the semi-annual groundwater monitoring event (Table 3). Water levels ranged from approximately 4 to 14 ft below top of casing elevations in the shallow wells and from approximately 4 to 16 ft in the deeper wells. In general, the shallow and deeper groundwater elevations in May 2012 are approximately 1 to 6 ft shallower than the previous November 2011 gauging event.

Based on the May 2012 dataset, potentiometric maps were developed for the shallow and deeper aquifer zones (Figures 7 and 8). The shallow potentiometric surface map indicates that a north-south trending groundwater trough is located in the center of the Site. A shallow groundwater high exists in the northern portion of the Site with shallow groundwater flow in multiple directions from the high. In the deeper aquifer zone, overall groundwater flow direction was

determined to be toward the south in the general direction of regional surface topography. The hydraulic gradients are approximately 0.005 ft/ft in the shallow zone and 0.0005 ft/ft in the deeper limestone aquifer zone.

H&H evaluated vertical hydraulic gradients for the May 8, 2012 water level dataset using seven well pairs (Table 4). Based on the May 8, 2012 data, the vertical hydraulic gradient between the shallow water table zone and the deeper limestone aquifer zone wells in MW-3/MW-3D, MW-9/MW-9D, MW-10/MW-10D, MW-14/MW-14D, MW-15/MW-15D, and MW-16/MW-16D was downward. For example, the groundwater elevation for well pair MW-3 (shallow) and MW-3D (deeper) is approximately 2.28 ft higher in the shallow well.

The vertical gradient between the deeper sandstone aquifer zone and the overlying limestone aquifer zone was neutral. The difference in hydraulic head between well pairs MW-3D/MW-3D1 and MW-15D/MW-15D1 were 0.02 ft and no difference, respectively. Based upon the vertical gradient data, groundwater appears to move downward into the limestone aquifer unit and then laterally in the limestone aquifer unit which is the primary zone of groundwater transport.

5.3 Groundwater Sampling Results

A summary of recent and historical groundwater monitoring data is provided in Table 5. The laboratory report for the May 2012 sampling event is included in Appendix B.

Figure 9 depicts PCE concentrations in shallow groundwater during the May 2012 sampling event. As indicated on Figure 9, PCE was detected in shallow monitoring wells MW-1 (3,120 µg/l), MW-2 (6.55 µg/l), MW-3 (64.5 µg/l), MW-5 (2.57 µg/l), MW-8 (491 µg/l), MW-9 (755 µg/l), and MW-10 (1,810 µg/l). Other VOCs detected in shallow monitoring wells include TCE, 1,1-DCE, cis-1,2-DCE, and trans-1,2-DCE, which are biodegradation products of PCE. 1,1-DCE may be a degradation product of PCE or a degradation product of 1,1,1-trichloroethane (1,1,1-TCA), which has also been detected in low concentrations in groundwater. No VOCs were

detected in shallow monitoring wells MW-4, MW-6, MW-7, MW-11, MW-14, MW-15, and MW-16. TCE, cis-1,2-DCE, and 1,1-DCE concentrations in shallow groundwater are presented on Figures 10, 11, and 12, respectively.

Figure 13 depicts the PCE concentrations detected in deeper groundwater during the May 2012 event. PCE was detected in deeper monitoring wells MW-3D (520 µg/l), MW-12D (21.4 µg/l), MW-13D (74.3 µg/l), and MW-14D (82.1 µg/l). Other VOCs detected in deeper monitoring wells include TCE, cis-1,2-DCE, and 1,1-DCE. No VOCs were detected in deep monitoring wells MW-3D1, MW-9D, MW-10D, MW-15D, MW-15D1, and MW-16D. TCE, cis-1,2-DCE, and 1,1-DCE concentrations in deeper groundwater are presented on Figures 14, 15, and 16, respectively.

Results of analysis of groundwater samples collected from nested well pairs MW-15/MW-15D and MW-16/MW-16D, and results from newly installed deeper sandstone aquifer monitoring well MW-15D1, did not indicate the presence of VOCs in groundwater between the Site and the off-Site private water supply wells. This is consistent with previous data obtained from monitoring well pairs MW-15/MW-15D and MW-16/MW-16D.

Graphs of PCE concentrations versus time for select wells are provided in Appendix D. The graphs indicate that PCE concentrations are generally decreasing in shallow groundwater over time. For example, PCE decreased in MW-1 from 11,000 µg/l in December 2003 to 3,120 µg/l in May 2012. A similar reduction in PCE concentration has also occurred in monitoring well MW-9 since December 2003. In shallow monitoring well MW-10, PCE decreased steadily from 2005 to 2010 after the HRC injection, then increased from 2010 to 2011, and has since decreased from the previous monitoring event. The presence of stable to increasing concentrations of the PCE daughter compounds TCE and cis-1,2-DCE in these same wells indicates that reductive dechlorination is occurring in the shallow groundwater aquifer.

Reductions in PCE concentrations have also occurred in deeper wells MW-12D and MW-13D located near the western Site boundary. For example, PCE decreased in MW-12D and MW-13D from 451 and 292 µg/l in April 2010 to 21.4 and 74.3 µg/l in May 2012, respectively.

5.4 Geochemical Data

H&H collected field geochemical parameters from all sampled monitoring wells during the May 2012 sampling event to evaluate conditions favorable for or associated with reductive dechlorination of chlorinated VOCs. The collected field geochemical parameters included DO, ORP, pH, and temperature. Geochemical data are summarized on Table 6. A discussion of the individual geochemical indicators for the May 2012 sampling event is provided below.

Dissolved Oxygen:

Reductive dechlorination occurs under anaerobic or low DO conditions. DO concentrations of less than 5 mg/l may be acceptable for anaerobic biodegradation, while concentrations less than 0.5 mg/l are ideal.

The May 2012 data indicates that both aerobic and anaerobic conditions are present in different areas of the Site with concentrations ranging from 0.81 mg/l (MW-4) to 6.64 mg/l (MW-12D). DO concentrations appear most favorable for reductive dechlorination in the areas of MW-4, MW-9, MW-10, and MW-11 where DO concentrations ranged from 0.81 mg/l to 2.13 mg/l.

Redox Potential (ORP):

The ORP of groundwater is a measure of electron activity and is an indicator of the relative tendency of a solution to accept or transfer electrons. ORP of a groundwater system affects biodegradation rates. Reductive dechlorination is most efficient in the ORP range corresponding to sulfate reduction and methanogenesis (less than -100 mV), but reductive dechlorination also occurs in the ORP range associated with nitrate, manganese, and iron reduction (-50 mV to 740 mV).

In May 2012, ORP values ranged from -18 to 322 mV. This range is associated with nitrate, manganese, and ferrous iron reduction.

Temperature and pH:

Temperature does not greatly influence reductive dechlorination, but temperatures greater than 20 °C may accelerate biochemical processes. Groundwater temperatures ranged from 17.8 °C (MW-9 and MW-16D) to 21.7 °C (MW-8) in May 2012. These temperatures are in the range which is considered satisfactory for biodegradation.

The pH of groundwater affects the presence and activity of microbial populations. pH values ranging from 6 to 8 standard units are generally preferable for anaerobic biodegradation. In shallow monitoring wells at the site, pH values are primarily in the range of 4.6 to 6.6 indicating pH values which could potentially inhibit microbial degradation. In deeper wells, pH was generally in the range of 7.1 to 9.1 indicating more favorable conditions for microbial degradation.

Summary

There is evidence that some anaerobic degradation of PCE is occurring at the Site. This evidence includes decreases in PCE concentrations compared to historical maximums in wells and the presence of PCE daughter products (TCE and cis-1,2-DCE). Previous groundwater analytical data indicates that anaerobic degradation may be limited by low organic carbon content in the aquifer which is needed to drive the biodegradation process, and by the presence of low shallow aquifer pH which could inhibit microbial activity.

5.5 Aquifer Testing

To further characterize the aquifers beneath the Site, H&H performed slug tests on several shallow, limestone, and sandstone aquifer zone wells. The shallow wells tested included MW-3, MW-9, and MW-10. The deeper limestone wells tested included MW-3D, MW12D, MW-13D, and MW-15D, and the deeper sandstone wells tested included MW-3D1 and MW-15D1. A slug

of water was removed from each well using an 84-inch long disposable bailer, and the water level recovery in the wells was monitored over time using a Solinst Mini-Troll pressure transducer and data logger. The slug tests were analyzed with AQTESOLV utilizing the method of Bouwer and Rice.

The results of the slug test evaluation indicate that the geometric mean hydraulic conductivity is approximately 0.13 ft/day in the shallow aquifer zone, 28 ft/day in the deeper limestone aquifer zone, and 4.1 ft/day in the deeper sandstone aquifer zone. The deeper limestone aquifer zone has a higher hydraulic conductivity than the shallow and deeper sandstone aquifer zones, which is consistent with field observations of sediments comprising the aquifer zones. The slug tests results are summarized on Table 7, and the slug test data are included in Appendix E.

The average linear groundwater flow velocity of groundwater can be calculated utilizing the following equation (EPA, 1998):

$$V_x = \frac{K}{n_e} \times \frac{dH}{dL}$$

Where:

V_x = average linear groundwater velocity parallel to groundwater flow direction;

K = hydraulic conductivity;

n_e = effective porosity; and

$\frac{dH}{dL}$ = hydraulic gradient

Utilizing the mean hydraulic gradient calculated in Section 5.2 (0.005 ft/ft), the geometric mean hydraulic conductivity for the shallow aquifer zone calculated in Table 7 (0.13 ft/day), and an assumed effective porosity of 0.2, the average groundwater flow velocity is estimated to be approximately 0.003 ft/day (1.1 ft/year) in the shallow aquifer zone. Based on the deeper limestone aquifer zone hydraulic gradient of 0.0005 ft/ft, geometric mean hydraulic conductivity of 28 ft/day, and assumed effective porosity of 0.25 (a higher effective porosity was assumed for the limestone based upon field observation), the calculated groundwater velocity is approximately 0.06 ft/day (20 ft/year).

6.0 Site Conceptual Model

H&H previously developed a preliminary conceptual model for the Site. This preliminary conceptual model was submitted to DHEC in H&H's *Additional Groundwater Assessment and Semi-Annual Monitoring Report* dated January 15, 2010. H&H revised the preliminary conceptual model following the installation/sampling of the two off-site nested well pairs (MW-15/15D and MW-16/16D in May and June 2011. The revised preliminary conceptual model was submitted to DHEC in H&H's *Additional Groundwater Assessment and Semi-Annual Monitoring Report* dated September 6, 2011. Based on the recent data collected, no significant refinements have been made to the revised conceptual model included in the September 6, 2011 report. Please note that the conceptual site model is based upon data collected to date and may be refined based upon future assessment information. The current conceptual model is:

- The Site geology consists of three general units. The upper unit consists of sands, clayey sands, and sandy clays, and contains a higher percentage of clay and silty layers in the northern portion of the Site. The middle zone consists of fossiliferous limestone with poorly to well-cemented shell fragments. The lower zone is a calcareous loose to moderately cemented fine to medium grained clayey sandstone.

- Horizontal shallow groundwater flow is primarily toward a north-south trending groundwater trough located in the center of the Site. A shallow groundwater high exists in the northern portion of the Site with shallow groundwater flow in multiple directions from the high. Shallow groundwater in the southwest of the Site discharges to Halfmoon Creek.

- Horizontal deeper groundwater flow is to the south and is consistent with regional topography and drainage.

- Groundwater also flows vertically due to the presence of vertical hydraulic gradients. In the southern portion of the Site, shallow groundwater in the uppermost sand and clay

aquifer zone flows vertically downward to the underlying fossiliferous limestone aquifer zone. However, downward vertical flow between the shallow and fossiliferous limestone zones is impeded in the northern portion of the Site due to clayey and silty layers at depth in the uppermost unit. Groundwater moves laterally in the fossiliferous limestone aquifer zone which is the primary zone of groundwater transport in the Site area.

- The primary compounds which have been detected in groundwater at the Site are PCE and the degradation products TCE, cis-1,2-DCE, and 1,1-DCE.

- The primary source areas for VOCs in Site groundwater appear to be the former PCE containment areas located east of the building and north of the building.

- Because shallow groundwater flow is primarily to the north-south trending trough in the center of the Site, compounds in shallow groundwater are primarily limited to the Site.

- The highest concentrations of PCE in shallow groundwater are present at the former PCE containment area in the south-central portion of the Site and two undeveloped areas located in the northern portion of the Site.

- PCE in deeper groundwater is present in the southern and western portions of the Site. PCE migration from the shallow aquifer zone into the deeper aquifer in the northern portion of the Site is limited by the presence of clayey and silty layers in the uppermost aquifer zone in the northern portion of the Site.

- Primary transport of VOCs in groundwater is in the fossiliferous limestone aquifer zone. The neutral vertical gradient between the lowermost sandstone zone and the overlying fossiliferous limestone aquifer zone limits deeper vertical migration of VOCs in groundwater.

- Transport of VOCs in the fossiliferous limestone aquifer zone appears to have been previously influenced by operation of the Kinsey water supply well which is now inactive.

- Anaerobic degradation of PCE is occurring at the Site, but may be limited by the low organic carbon content of the aquifer and by the presence of low shallow aquifer pH.

7.0 Summary

H&H conducted additional groundwater assessment and semi-annual groundwater monitoring activities at the Site in April and May 2012. The following summarize the results of the additional groundwater assessment and semi-annual groundwater monitoring.

- The results of additional groundwater assessment indicate that no VOCs were detected in groundwater in the newly installed deeper sandstone aquifer zone monitoring well MW-15D1 located between the Site and the off-Site Hyatt Lane area residential water supply wells. Consistent with previous monitoring events conducted in 2011, the findings from this assessment confirm that deeper groundwater flow from the Site is to the south and that no VOCs were detected in limestone aquifer zone wells MW-15D and MW-16D between the Site and the Hyatt Lane area wells.

- The results of the additional assessment activities provide further verification that the Site is not the source of PCE detected in the Hyatt Lane area private water wells. Therefore, Delavan will no longer be servicing or maintaining the filtration systems on the wells, or conducting periodic groundwater monitoring.

- Based upon the results of the semi-annual groundwater monitoring, PCE concentrations in shallow groundwater are generally decreasing. The presence of stable to increasing concentrations of the PCE daughter compounds TCE and cis-1,2-DCE in these same wells indicates that reductive dechlorination is occurring in the shallow groundwater aquifer. Reductions in PCE concentrations have also occurred in the deeper wells located near the western Site boundary. Previous groundwater analytical data indicates that anaerobic degradation may be limited by low organic carbon content in the aquifer which is needed to drive the biodegradation process, and by the presence of low shallow aquifer pH which could inhibit microbial activity.

Table 1
Water Supply Well Inventory
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006

WSW ID	Tax Parcel ID	Well Address	Owner Information	Well Use	Municipal Water Status
Frazier Well	0072-08-02-1	527 Log Branch Road Bamberg, SC 29003	Lorrine Frazier 623 Calhoun Street Bamberg, SC 29003 (803)-245-4364	Inactive	Available. Water Account Inactive
Thomas Well	0072-08-02-16	589 Log Branch Road Bamberg, SC 29003	Robert A. Thomas 1450 Capernaum Road Bamberg, SC 29003 Phone Number Unknown	Abandoned 11/13/2007	Connected to Municipal Water
John Kinsey Well	0073-80	4336 Main Highway Bamberg, SC 29003	John T. Kinsey 336 Calhoun Street Bamberg, SC 29003 (803) 245-2745	Inactive	Connected to Municipal Water
D. Hyatt Well	0073-00-00-029	4824 Main Highway Bamberg, SC 29003	Donald R. Hyatt 4824 Main Highway Bamberg, SC 29003 (803) 245-0234 or (803) 707-0540	Active w/ Filter Equipment Installed	*Available. Not Connected to Municipal Water
B. Hyatt Well No. 1	0073-00-00-078	4834 Main Highway Bamberg, SC 29003	William H. Hyatt 4834 Main Highway Bamberg, SC 29003 (803) 245-0914 or (803) 682-0060	Active w/ Filter Equipment Installed	*Available. Not Connected to Municipal Water
B. Hyatt Well No. 2	0073-00-00-078	4834 Main Highway Bamberg, SC 29003	William H. Hyatt 4834 Main Highway Bamberg, SC 29003 (803) 245-0914 or (803) 682-0060	Active w/ Filter Equipment Installed	*Available. Not Connected to Municipal Water
L. Dyches Well No. 1	0073-00-00-027	174 Water Oak Court Bamberg, SC 29003	Louise C. Dyches 174 Water Oak Court Bamberg, SC 29003 (803) 245-3474	Active w/ Filter Equipment Installed	*Available. Not Connected to Municipal Water
L. Dyches Well No. 2	0073-00-00-027	139 Water Oak Court Bamberg, SC 29003	Louise C. Dyches 174 Water Oak Court Bamberg, SC 29003 (803) 245-3474	Active w/ Filter Equipment Installed	*Available. Not Connected to Municipal Water
E. Davis Well No. 1	0073-00-00-020	79 Water Oak Court Bamberg, SC 29003	Estelle Davis 79 Water Oak Court Bamberg, SC 29003 (803) 707-0112	Active w/ Filter Equipment Installed	*Available. Not Connected to Municipal Water
J. Nichols Well	0073-00-00-035	64 Water Oak Court Bamberg, SC 29003	John Nichols 64 Water Oak Court Bamberg, SC 29003 (803) 245-2785	Active w/ Filter Equipment Installed	*Available. Not Connected to Municipal Water

Notes:
Information obtained from personal interviews, Bamberg County Tax Assessor, and City of Bamberg Public Works
*Municipal water is available in the site area; however, municipal sewer service is also required when connecting to the municipal water source. No sewer service lines are present in the site area other than a force main.

Table 2
Summary of Water Supply Well Analytical Data
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006

Sample Identification	D. Hyatt WSW															B. Hyatt WSW No. 1														DHEC MCL
	N/A	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	N/A	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	
Date Collected	12/15/2010	12/30/2010		3/16/2011		5/27/2011		8/2/2011		11/9/2011		1/30/2012		4/27/2012		12/16/2010	12/30/2010		3/16/2011		5/27/2011		8/2/2011		11/9/2011		1/30/2012		4/27/2012		
VOCs (8260B)																														
Tetrachloroethene	1.71	2.24	<1.00	1.75	<1.00	<1.0	<1 0	1.95	<1.00	1.81	<1.00	2.03	<1.00	1.34	<1.00	**60.9**	**37.6**	<1.00	**62.0**	<1.00	**100**	<1.0	**26.1**	<1.00	**44.4**	<1.00	**86.6**	<1.00	**25.0**	<1.00	5
Chloromethane	<1.00	<1.00	8.06	<1.00	<1.00	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	7.47	<1.00	<1.00	<1.0	<1.0	<1.00	<1.00	<1.00	<1 00	<1.00	<1 00	<1.00	<1 00	NS

Sample Identification	B. Hyatt WSW No. 2															E. Davis WSW														DHEC MCL
	N/A	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	N/A	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	
Date Collected	12/16/2010	12/30/2010		3/16/2011		5/27/2011		8/2/2011		11/9/2011		1/30/2012		4/27/2012		12/30/2010	1/13/2011		3/16/2011		5/27/2011		8/2/2011		11/9/2011		1/30/2012		4/27/2012		
VOCs (8260B)																														
Tetrachloroethene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.00	<1.00	<1.00	<1 00	<1.00	<1.00	<1.00	<1.00	5
Chloromethane	<1.00	<1.00	7.26	<1.00	<1.00	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	5.55	<1.00	<1.00	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NS

Sample Identification	L. Dyches WSW No. 1															L. Dyches WSW No. 2														DHEC MCL
	N/A	N/A	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	N/A	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	
Date Collected	12/15/2010	12/30/2010	1/13/2011	3/16/2011		5/27/2011		8/2/2011		11/9/2011		1/30/2012		4/27/2012		12/15/2010	12/30/2010		3/16/2011		5/27/2011		8/2/2011		11/9/2011		1/30/2012		4/27/2012		
VOCs (8260B)																														
Tetrachloroethene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	5
Chloromethane	<1.00	<1.00	6.19	<1.00	<1.00	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1 00	<1.00	<1.00	5.78	<1.00	<1.00	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1 00	NS

Sample Identification	J. Nichols WSW																	DHEC MCL
	N/A	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	Pre-Filter	Post-Filter	
Date Collected	1/4/2011	1/13/2011		3/16/2011		5/27/2011		8/2/2011		8/15/2011		11/9/2011		1/30/2012		4/27/2012		
VOCs (8260B)																		
Tetrachloroethene	2.58	3.11	<1.00	3.30	<1.00	<1.0	<1.0	2.51	2.58	2.79	<1.00	2.56	<1.00	2.58	<1.00	2.28	<1.00	5
Chloromethane	<1.00	<1.00	7.23	<1.00	<1.00	<1.0	<1.0	<1.00	<1.00	<1.00	<1 00	<1.00	<1 00	<1.00	<1.00	<1.00	<1.00	NS

Notes
Concentrations reported in micrograms per liter
Laboratory analytical method shown in parentheses
Only analytes detected in at least one sample indicated
Bold indicates concentration exceeds MCL
DHEC = South Carolina Department of Health and Environmental Control
MCL = Maximum Contaminant Level
NS = Not Specified

Table 3 (Page 1 of 1)
Monitoring Well Construction and Groundwater Elevation Data
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006

Well No.	Total Depth	Surface Casing Depth (ft bgs)	Screen Interval (ft bgs)	Ground Surface Elevation	Top of Casing Elevation	6/5/2003		7/9/2003		12/31/2003		1/16/2004		3/14/2005		6/1/2005		9/20/2005		12/12/2005		3/28/2006		6/26/2006	
						Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation
MW-1	18	--	3-18	147.56	147.19	9.70	137.49	8.42	138.77	12.88	134.31	13.02	134.17	12.54	134.65	12.31	134.88	12.66	134.53	13.41	133.78	11.97	135.22	12.16	135.03
MW-2	18	--	3-18	147.81	147.63	5.81	141.82	4.76	142.87	12.52	135.11	12.73	134.90	11.95	135.68	10.56	137.07	12.37	135.26	12.99	134.64	10.59	137.04	10.44	137.19
MW-3	18	--	3-18	148.34	148.11	11.41	136.70	9.20	138.91	14.11	134.00	14.11	134.00	13.54	134.57	13.86	134.25	13.94	134.17	14.58	133.53	13.49	134.62	13.67	134.44
MW-3D	49	24	44-49	148.28	148.12	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-3D1	85	65	75-85	148.12	147.93	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-4	14	--	4-14	147.30	147.03	4.11	142.92	3.59	143.44	10.38	136.65	10.63	136.40	9.24	137.79	10.23	136.80	11.44	135.59	11.81	135.22	7.53	139.50	9.26	137.77
MW-5	14	--	4-14	145.34	145.46	4.72	140.74	3.68	141.78	10.87	134.59	10.81	134.65	8.74	136.72	9.77	135.69	10.51	134.95	11.30	134.16	6.74	138.72	8.74	136.72
MW-6	14	--	4-14	143.45	143.22	2.40	140.82	2.30	140.92	8.09	135.13	7.29	135.93	6.44	136.78	6.38	136.84	8.24	134.98	8.29	134.93	4.17	139.05	6.30	136.92
MW-7	20	--	5-20	149.25	149.03	NI	NI	NI	NI	14.88	134.15	14.93	134.10	13.97	135.06	14.45	134.58	14.52	134.51	15.11	133.92	13.91	135.12	14.22	134.81
MW-8	20	--	5-20	145.95	145.66	NI	NI	NI	NI	12.06	133.60	12.17	133.49	11.97	133.69	12.14	133.52	13.07	132.59	12.81	132.85	11.17	134.49	12.32	133.34
MW-9	20	--	5-20	144.11	143.89	NI	NI	NI	NI	9.82	134.07	9.55	134.34	8.45	135.44	7.61	136.28	10.57	133.32	9.33	134.56	6.91	136.98	8.98	134.91
MW-9D	49	24	44-49	144.80	144.20	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-10	18	--	3-18	142.56	142.19	NI	NI	NI	NI	7.48	134.71	7.52	134.67	5.19	137.00	6.02	136.17	7.51	134.68	7.45	134.74	3.49	138.70	5.82	136.37
MW-10D	48	30	43-48	142.08	141.79	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-11	18	--	3-18	143.77	143.16	NI	NI	NI	NI	8.00	135.16	8.12	135.04	7.48	135.68	7.87	135.29	8.90	134.26	8.63	134.53	6.84	136.32	8.01	135.15
MW-12D	50	30	40-50	147.86	147.65	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-13D	50	30	40-50	146.41	146.23	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-14	20	--	5-20	147.05	146.90	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-14D	50	29	40-50	147.11	146.88	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-15	19	--	4-19	136.13	135.73	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-15D	45	30	35-45	135.93	135.59	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-15D1	85	65	75-85	135.94	135.69	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-16	19	--	4-19	138.74	138.30	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-16D	45	29	35-45	138.70	138.38	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI

Well No.	Total Depth	Surface Casing Depth (ft bgs)	Screen Interval (ft bgs)	Ground Surface Elevation	Top of Casing Elevation	10/6/2006		1/12/2007		1/8/2008		11/4/2009		4/29/2010		10/25/2010		12/15/2010		5/23/2011		11/8/2011		5/8/2012	
						Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation	Depth to Water	Elevation
MW-1	18	--	3-18	147.56	147.19	13.67	133.52	12.06	135.13	13.50	133.69	14.70	132.49	12.20	134.99	14.38	132.81	15.17	132.02	13.29	133.90	14.88	132.31	13.05	134.14
MW-2	18	--	3-18	147.81	147.63	13.13	134.50	10.63	137.00	11.63	136.00	14.15	133.48	11.50	136.13	13.70	133.93	14.84	132.79	12.88	134.75	14.51	133.12	12.94	134.69
MW-3	18	--	3-18	148.34	148.11	14.15	133.96	13.24	134.87	13.62	134.49	15.84	132.27	13.81	134.30	14.56	133.55	15.84	132.27	14.01	134.10	15.65	132.46	13.93	134.18
MW-3D	49	24	44-49	148.28	148.12	NI	NI	NI	NI	16.10	132.02	17.30	130.82	15.03	133.09	17.39	130.73	17.36	130.76	16.75	131.37	17.45	130.67	16.22	131.90
MW-3D1	85	65	75-85	148.12	147.93	NI	NI	NI	NI	NI	NI	17.11	130.82	14.86	133.07	17.32	130.61	17.19	130.74	16.55	131.38	17.29	130.64	16.05	131.88
MW-4	14	--	4-14	147.30	147.03	11.82	135.21	7.79	139.24	9.53	137.50	13.52	133.51	8.95	138.08	12.73	134.30	13.49	133.54	11.37	135.66	Dry	NA	9.44	137.59
MW-5	14	--	4-14	145.34	145.46	11.57	133.89	7.33	138.13	9.09	136.37	12.70	132.76	9.50	135.96	12.31	133.15	13.51	131.95	11.05	134.41	13.45	132.01	8.97	136.49
MW-6	14	--	4-14	143.45	143.22	9.46	133.76	4.90	138.32	6.10	137.12	10.09	133.13	6.50	136.72	10.00	133.22	11.32	131.90	8.40	134.82	11.15	132.07	6.20	137.02
MW-7	20	--	5-20	149.25	149.03	14.99	134.04	13.23	135.80	14.20	134.83	15.93	133.10	14.30	134.73	15.33	133.70	15.89	133.14	14.65	134.38	15.73	133.30	14.39	134.64
MW-8	20	--	5-20	145.95	145.66	13.67	131.99	11.62	134.04	12.85	132.81	14.35	131.31	11.79	133.87	14.35	131.31	14.52	131.14	13.50	132.16	14.60	131.06	12.88	132.78
MW-9	20	--	5-20	144.11	143.89	11.60	132.29	7.41	136.48	8.17	135.72	11.54	132.35	6.81	137.08	11.65	132.24	12.55	131.34	9.20	134.69	12.60	131.29	6.25	137.64
MW-9D	49	24	44-49	144.48	144.20	NI	NI	NI	NI	11.82	132.38	12.89	131.31	10.58	133.62	12.99	131.21	12.98	131.22	12.26	131.94	13.12	131.08	11.78	132.42
MW-10	18	--	3-18	142.56	142.19	8.65	133.54	4.12	138.07	5.66	136.53	9.74	132.45	6.14	136.05	9.73	132.46	10.66	131.53	7.98	134.21	10.57	131.62	5.88	136.31
MW-10D	48	30	43-48	142.08	141.79	NI	NI	NI	NI	9.45	132.34	10.68	131.11	8.38	133.41	10.76	131.03	10.76	131.03	10.02	131.77	10.89	130.90	9.59	132.20
MW-11	18	--	3-18	143.77	143.16	9.26	133.90	7.30	135.86	7.89	135.27	10.01	133.15	8.15	135.01	9.98	133.18	10.92	132.24	9.11	134.05	10.82	132.34	8.39	134.77
MW-12D	50	30	40-50	147.86	147.65	NI	NI	NI	NI	NI	NI	16.69	130.96	14.62	133.03	16.92	130.73	16.87	130.78	16.18	131.47	16.99	130.66	15.69	131.96
MW-13D	50	30	40-50	146.41	146.23	NI	NI	NI	NI	NI	NI	15.55	130.68	13.33	132.90	15.65	130.58	15.61	130.62	14.99	131.24	15.71	130.52	14.44	131.79
MW-14	20	--	5-20	147.05	146.90	NI	NI	NI	NI	NI	NI	15.03	131.87	12.69	134.21	13.99	132.91	14.67	132.23	13.38	133.52	14.52	132.38	12.97	133.93
MW-14D	50	29	40-50	147.11	146.88	NI	NI	NI	NI	NI	NI	16.20	130.68	14.01	132.87	16.34	130.54	16.26	130.62	15.69	131.19	16.37	130.51	15.09	131.79
MW-15	18	--	4-19	136.13	135.73	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	5.44	130.29	6.68	129.05	3.77	131.96
MW-15D	45	30	35-45	135.93	135.59	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	4.55	131.04	5.23	130.36	4.15	131.44
MW-15D1	85	65	75-85	135.94	135.69	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	4.25	131.44
MW-16	19	--	4-19	138.74	138.30	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	6.40	131.90	8.15	130.15	5.26	133.04
MW-16D	45	29	35-45	138.70	138.38	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	7.49	130.89	8.30	130.08	7.05	131.33

Notes:
bgs = below ground surface; NI = Not Installed; NA = Not Applicable
Depth to water measured relative to top of casing.
Top of casing and ground surface elevations surveyed by Edisto Engineers and Surveyors, Inc. on May 23, 2011.
MW-15D1 TOC elevation tied into existing site wells by H&H on April 30, 2012.

Table 4
Vertical Hydraulic Gradients (May 8, 2012)
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006

Well Pair	Location Relative to MW-1	Well Identification	Well Depth (ft)	Groundwater Elevation (ft)	Vertical Gradient
1	Upgradient	MW-3 MW-3D	18 49	134.18 131.90	Downward
	Upgradient	MW-3D MW-3D1	49 85	131.90 131.88	Neutral
2	Downgradient	MW-9 MW-9D	20 49	137.64 132.42	Downward
3	Downgradient	MW-10 MW-10D	18 48	136.31 132.20	Downward
4	Downgradient	MW-14 MW-14D	20 50	133.93 131.79	Downward
5	Downgradient	MW-15 MW-15D	18 45	131.96 131.44	Downward
	Downgradient	MW-15D MW-15D1	45 85	131.44 131.44	Neutral
6	Downgradient	MW-16 MW-16D	19 45	133.04 131.33	Downward

Table 5 (Page 1 of 4)
Summary of Groundwater and Surface Water Analytical Detections
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006

Well No.	Sample Date	Bromoform (µg/l)	Chloromethane (µg/l)	Chlorobenzene (µg/l)	2-Chloroethyl vinyl ether (µg/l)	cis-1,2-DCE (µg/l)	trans-1,2-DCE (µg/l)	PCE (µg/l)	TCE (µg/l)	1,1,2,2-PCE (µg/l)	1,1,1-TCA (µg/l)	1,1-DCE (µg/l)	1,1-DCA (µg/l)	1,3-Dichlorobenzene (µg/l)	trans-1,3-Dichloropropene (µg/l)	MTBE (µg/l)	1,2,4-Trimethylbenzene (µg/l)	Toluene (µg/l)	Xylenes (µg/l)	Vinyl Chloride (µg/l)
Groundwater Samples																				
MW-1	6/4/2003	<50	140	<50	<2,500	<50	<50	**15,000**	<50	<50	<50	<50	<50	<50	<50	<50	<50	<250	<150	<50
	12/30/2003	<800	<800	<800	<2,000	<800	<800	**11,000**	<800	<800	<800	<800	<800	<800	<800	<800	<800	<800	<800	<800
	3/14/2005	1.10	<1.00	1.90	<10.0	10.1	<1.00	**5,470**	**34.8**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	6/1/2005	<1.00	<1.00	<1.00	<10.0	10.1	<1.00	**5,750**	**41.3**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	9/20/2005	<2.00	<1.00	<1.00	<1.00	9.60	<1.00	**3,150**	**38.4**	3.66	<1.00	<1.00	<1.00	1.51	<1.00	NA	NA	NA	NA	<1.00
	12/12/2005	<1.00	<1.00	<1.00	NA	11.4	<1.00	**4,750**	**35.6**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	3/28/2006	<1.00	<1.00	<1.00	NA	11.9	<1.00	**6,580**	**48.1**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	6/26/2006	<1.0	<1.0	<1.0	<50	13	<1.0	**4,100**	**32**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0
	10/21/2006	<1.0	<1.0	<1.0	NA	17.9	<1.0	**9,550**	**65.8**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0
	1/12/2007	<1.00	<1.00	<1.00	NA	23.1	<1.00	**6,790**	**85.6**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	1/9/2008	<1.00	<1.00	<1.00	NA	**102**	<1.00	**5,390**	**83.7**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	11/5/2009	<1.00	<1.00	<1.00	NA	**382**	<1.00	**7,680**	**108**	<1.00	<1.00	1.74	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	4/30/2010	<5.00	<5.00	<5.00	NA	**184**	<5.00	**5,940**	**79.6**	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	NA	NA	NA	NA	<5.00
	10/25/2010	<50.0	<50.0	<50.0	NA	**648**	<50.0	**5,690**	**99.5**	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	NA	NA	NA	NA	<50.0
	5/24/2011	<1.0	<1.0	<1.0	NA	**210**	<1.0	**3,000**	**28.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<2.0
	11/9/2011	<1.00	<1.00	<1.00	NA	**265**	<1.00	**2,320**	**35.0**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/9/2012	<1.00	<1.00	<1.00	NA	**298**	<1.00	**3,120**	**41.4**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
MW-2	6/4/2003	<1.0	<1.0	<1.0	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1 0	<1.0	<5.0	<3.0	<1.0
	12/30/2003	<2	<2	<2	<5	<2	<2	4.5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2
	3/14/2005	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00	4.30	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	3/28/2006	<1.00	<1.00	<1.00	NA	<1.00	<1.00	1.21	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	1/9/2008	<1.00	<1.00	<1.00	NA	<1.00	<1.00	2.50	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	11/5/2009	<1.00	<1.00	<1.00	NA	<1.00	<1.00	1.17	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	4/30/2010	<1.00	<1.00	<1.00	NA	<1.00	<1.00	1.27	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	10/25/2010	<1.00	<1.00	<1.00	NA	<1.00	<1.00	1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/24/2011	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<2.0
	11/9/2011	<1.00	<1.00	<1.00	NA	<1.00	<1.00	1.86	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/9/2012	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**6.55**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
MW-3	6/4/2003	<1.0	<1.0	<1.0	<50	<1.0	<1.0	**74**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<3.0	<1.0
	12/30/2003	<2	<2	<2	<5	<2	<2	**220**	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2
	3/14/2005	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00	**113**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	3/28/2006	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**305**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	1/9/2008	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**59.8**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	11/5/2009	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**82.1**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	4/30/2010	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**238**	1.03	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	10/25/2010	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**391**	2.79	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/24/2011	<1.0	<1.0	<1.0	NA	<1.0	<1.0	**47**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<2.0
	11/9/2011	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**140**	3.23	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/9/2012	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**64.5**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
MW-3D	1/9/2008	<1.00	<1.00	<1.00	NA	5.52	<1.00	**432**	3.33	<1.00	<1.00	**9.68**	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	11/5/2009	<1.00	<1.00	<1.00	NA	8.92	<1.00	**612**	4.11	<1.00	<1.00	**11.8**	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	4/30/2010	<1.00	<1.00	<1.00	NA	9.33	<1.00	**764**	**6.10**	<1.00	<1.00	**9.92**	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	10/26/2010	<1.00	<1.00	<1.00	NA	9.98	<1.00	**544**	4.51	<1.00	<1.00	**11.7**	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/24/2011	<1.0	<1.0	<1.0	NA	9.40	<1.0	**600**	4.70	<1.0	<1.0	**11.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<2.0
	11/9/2011	<1.00	<1.00	<1.00	NA	9.93	<1.00	**526**	4.01	<1.00	<1.00	**10.8**	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/9/2012	<1.00	<1.00	<1.00	NA	8.58	<1.00	**520**	4.48	<1.00	<1.00	**10.3**	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
MW-3D1	11/5/2009	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	4/30/2010	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/24/2011	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<2.0
	11/9/2011	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/9/2012	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
MW-4	6/4/2003	<1.0	<1.0	<1.0	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<3.0	<1.0
	12/30/2003	<2.0	<2	<2	<5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2
	3/14/2005	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	3/28/2006	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	1/9/2008	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	11/5/2009	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	4/29/2010	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	10/25/2010**	<10.0	<10.0	<10.0	NA	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	NA	NA	NA	NA	<10.0
	5/24/2011	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<2.0
	5/8/2012	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
MCL		NS	NS	100	NS	70	100	5	5	NS	200	7	NS	NS	NS	NS	NS	1,000	10,000	2

Table 5 (Page 2 of 4)
Summary of Groundwater and Surface Water Analytical Detections
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006

Well No.	Sample Date	Bromoform (µg/l)	Chloromethane (µg/l)	Chlorobenzene (µg/l)	2-Chloroethyl vinyl ether (µg/l)	cis-1,2-DCE (µg/l)	trans-1,2-DCE (µg/l)	PCE (µg/l)	TCE (µg/l)	1,1,2,2-PCE (µg/l)	1,1,1-TCA (µg/l)	1,1-DCE (µg/l)	1,1-DCA (µg/l)	1,3-Dichlorobenzene (µg/l)	trans-1,3-Dichloropropene (µg/l)	MTBE (µg/l)	1,2,4-Trimethylbenzene (µg/l)	Toluene (µg/l)	Xylenes (µg/l)	Vinyl Chloride (µg/l)
Groundwater Samples																				
MW-5	6/4/2003	<1.0	<1.0	<1.0	<50	<1.0	<1.0	**160**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<3.0	<1.0
	12/31/2003	<2	<2	<2	<5	<2	<2	**230**	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2
	3/14/2005	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00	**345**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	3/28/2006	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**3.79**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	1/9/2008	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**97.6**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	11/5/2009	<1.00	<1.00	<1.00	NA	<1.00	<1.00	2.42	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	4/30/2010	<1.00	<1.00	<1.00	NA	<1.00	<1.00	1.46	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	10/26/2010	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/24/2011	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<2.0
	11/9/2011	<1.00	<1.00	<1.00	NA	<1.00	<1.00	1.55	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/9/2012	<1.00	<1.00	<1.00	NA	<1.00	<1.00	2.57	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
MW-6	6/4/2003	<1.0	<1.0	<1.0	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<3.0	<1.0
	12/31/2003	<2	<2	<2	<5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2
	3/14/2005	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	3/28/2006	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	1/9/2008	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	11/5/2009	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	4/30/2010	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/24/2011	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<2.0
	11/9/2011	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/9/2012	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
MW-7	12/31/2003	<2	<2	<2	<5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	3.3	<2	5.3	<2
	3/14/2005	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	3/28/2006	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	1/9/2008	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	11/5/2009	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	4/30/2010	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/24/2011	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<2.0
	11/8/2011	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/9/2012	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
MW-8	12/31/2003	<2	<2	<2	<5	<2	<2	30	<2	<2	<2	<2	<2	<2	<2	3.1	2.0	1.9J	4.7	<2
	3/14/2005	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00	**135**	1.10	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	3/28/2006	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**102**	1.10	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	1/9/2008	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**159**	1.66	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	11/5/2009	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**94.1**	1.38	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	4/30/2010	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**28.3**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	10/25/2010	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**76.4**	1.22	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/24/2011	<1.0	<1.0	<1.0	NA	<1.0	<1.0	**100**	2.30	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<2.0
	11/9/2011	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**276**	**5.31**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/9/2012	<1.00	<1.00	<1.00	NA	1.11	<1.00	**491**	**8.42**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
MWT-1/MW-9	12/31/2003	<800	<800	<800	<2,000	<800	<800	**7,500**	<800	<800	<800	<800	<800	<800	<800	<800	<800	<800	<2,000	<800
	3/14/2005	<1.00	<1.00	<1.00	<10.0	19.1	<1.00	**3,520**	**76.0**	<1.00	<1.00	**7.30**	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	6/1/2005	<1.00	<1.00	<1.00	96.3	**226**	1.40	**4,670**	**280**	<1.00	<1.00	6.70	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	9/20/2005	33.9	<1.00	<1.00	<1.00	**158**	1.90	**5,000**	**295**	<1.00	1.28	**13.60**	<1.00	<1.00	1.17	NA	NA	NA	NA	<1.00
	12/12/2005	<1.00	<1.00	<1.00	NA	**182**	1.37	**3,920**	**286**	<1.00	2.05	**8.94**	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	3/28/2006	<1.00	<1.00	<1.00	NA	**362**	1.57	**4,560**	**372**	<1.00	<1.00	**8.51**	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	6/26/2006	<1.0	<1.0	<1.0	<50	**520**	1.7	**1,500**	**330**	<1.0	<1.0	**12**	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0
	10/21/2006	<1.0	<1.0	<1.0	NA	**540**	<1.0	**7,490**	**504**	<1.0	<1.0	**23.5**	<1.0	<1.0	<1.0	NA	NA	NA	NA	<1.0
	1/12/2007	<1.00	<1.00	<1.00	NA	**442**	1.97	**5,630**	**626**	<1.00	<1.00	**25.3**	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	1/9/2008	<1.00	<1.00	<1.00	NA	**271**	1.39	**2,410**	**297**	<1.00	1.08	5.01	<1.00	<1.00	1.39	NA	NA	NA	NA	**8.73**
	11/4/2009	<1.00	<1.00	<1.00	NA	**379**	2.21	**2,950**	**559**	<1.00	<1.00	**11.6**	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	4/29/2010	<1.00	<1.00	<1.00	NA	**236**	3.41	**4,170**	**320**	<1.00	<1.00	**11.1**	<1.00	<1.00	<1.00	NA	NA	NA	NA	**4.79**
	10/25/2010	<20.0	<20.0	<20.0	NA	**326**	<20.0	**3,660**	**579**	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	NA	NA	NA	NA	<20.0
	5/24/2011	<10	<10	<10	NA	**160**	<10	**1,200**	**380**	<10	<10	<10	<10	<10	<10	<10	<10	<10	<100	<20
	11/9/2011	<1.00	<1.00	<1.00	NA	**200**	1.47	**4,000**	**450**	<1.00	1.20	**19.7**	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/8/2012	<1.00	<1.00	<1.00	NA	**127**	1.09	**755**	**258**	<1.00	<1.00	2.92	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
MW-9D	1/9/2008	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	11/4/2009	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	4/29/2010	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/24/2011	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1 0	<1.0	<1.0	<10	<2.0
	11/9/2011	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/8/2012	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
MCL		NS	NS	100	NS	70	100	5	5	NS	200	7	NS	NS	NS	NS	NS	1,000	10,000	2

Table 5 (Page 3 of 4)
Summary of Groundwater and Surface Water Analytical Detections
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006

Well No.	Sample Date	Bromoform (µg/l)	Chloromethane (µg/l)	Chlorobenzene (µg/l)	2-Chloroethyl vinyl ether (µg/l)	cis-1,2-DCE (µg/l)	trans-1,2-DCE (µg/l)	PCE (µg/l)	TCE (µg/l)	1,1,2,2-PCE (µg/l)	1,1,1-TCA (µg/l)	1,1-DCE (µg/l)	1,1-DCA (µg/l)	1,3-Dichlorobenzene (µg/l)	trans-1,3-Dichloropropene (µg/l)	MTBE (µg/l)	1,2,4-Trimethylbenzene (µg/l)	Toluene (µg/l)	Xylenes (µg/l)	Vinyl Chloride (µg/l)
Groundwater Samples																				
MWT-2/MW-10	12/31/2003	<200	<200	<200	<500	<200	<200	**5,800**	<200	<200	<200	**520**	<200	<200	<200	<200	<200	<200	<400	<200
	3/14/2005	<1.00	<1.00	1.30	<10.0	40.1	1.00	**4,360**	**62.3**	<1.00	26.4	**18.6**	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	6/1/2005	<1.00	<1.00	<1.00	<10.0	40.8	<1.00	**5,680**	**52.0**	<1.00	12.7	**17.5**	1.70	2.20	<1.00	NA	NA	NA	NA	<1.00
	9/20/2005	17.1	<1.00	<1.00	<1.00	27.8	<1.00	**4,360**	**46.2**	<1.00	9.03	**40.0**	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	12/12/2005	<1.00	<1.00	<1.00	NA	23.2	<1.00	**3,050**	**45.2**	<1.00	11.7	**14.4**	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	3/28/2006	<1.00	<1.00	<1.00	NA	16.8	<1.00	**3,090**	**27.4**	<1.00	6.10	**13.4**	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	6/26/2006	<20	<20	<20	<1,000	21	<20	**1,800**	**31**	<20	<20	<20	<20	<20	<20	NA	NA	NA	NA	<20
	10/21/2006	<100	<100	<100	NA	**121**	<100	**3,380**	**<100**	<100	<100	<100	<100	<100	<100	NA	NA	NA	NA	**114**
	1/12/2007	<1.00	<1.00	<1.00	NA	12.4	<1.00	**2,980**	**32.7**	<1.00	1.22	2.08	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	1/9/2008	<1.00	<1.00	<1.00	NA	**89.1**	<1.00	**3,250**	**71.9**	<1.00	10.9	**24.1**	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	11/4/2009	<1.00	<1.00	<1.00	NA	**1,120**	1.22	**1,600**	**33.9**	<1.00	1.49	**82.2**	1.56	<1.00	<1.00	NA	NA	NA	NA	<1.00
	4/29/2010	<1.00	<1.00	<1.00	NA	**104**	<1.00	**53.8**	3.22	<1.00	<1.00	2.85	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	10/25/2010	<10.0	<10.0	<10.0	NA	**1,270**	<10.0	**1,150**	**129**	<10.0	<10.0	**108**	<10.0	<10.0	<10.0	NA	NA	NA	NA	<10.0
	5/24/2011	<20	<20	<20	NA	**390**	<20	**2,000**	**88**	<20	<20	<20	<20	<20	<20	<20	<20	<20	<200	<40.0
	11/9/2011	<5.00	<5.00	<5.00	NA	**4,250**	<5.00	**4,670**	**154**	<5.00	<5.00	**285**	8.80	<5.00	<5.00	NA	NA	NA	NA	<5.00
	5/8/2012	<1.00	<1.00	<1.00	NA	**885**	17.1	**1,810**	**386**	<1.00	3.70	**7.83**	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
MW-10D	1/9/2008	<1.00	<1.00	<1.00	NA	<1.00	<1.00	4.09	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	11/4/2009	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	4/29/2010	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/24/2011	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<2.0
	11/9/2011	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/8/2012	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
MWT-3/MW-11	12/31/2003	<2	<2	<2	<5	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<4	<2
	3/14/2005	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	3/28/2006	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	1/9/2008	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	11/4/2009	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	4/29/2010	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/24/2011	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<2.0
	11/9/2011	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/8/2012	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
MW-12D	11/5/2009	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**87.7**	<1.00	<1.00	<1.00	1.11	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	4/30/2010	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**451**	<1.00	<1.00	1.13	3.67	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	10/25/2010	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**72.3**	<1.00	<1.00	<1.00	1.07	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/23/2011	<1.0	<1.0	<1.0	NA	<1.0	<1.0	**12.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<2.0
	11/8/2011	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**20.8**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/9/2012	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**21.4**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
MW-13D	11/5/2009	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**96.4**	<1.00	<1.00	<1.00	1.92	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	4/30/2010	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**292**	<1.00	<1.00	3.34	4.60	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	10/25/2010	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**120**	<1.00	<1.00	1.21	3.45	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/23/2011	<1.0	<1.0	<1.0	NA	<1.0	<1.0	**56**	<1.0	<1.0	<1.0	1.60	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<2.0
	11/8/2011	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**74.9**	<1.00	<1.00	<1.00	1.40	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/9/2012	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**74.3**	<1.00	<1.00	<1.00	1.25	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
MW-14	11/5/2009	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	4/30/2010	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	10/25/2010	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/23/2011	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<2.0
	11/8/2011	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/9/2012	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
MW-14D	11/5/2009	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**18.7**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	4/30/2010	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**74.8**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	10/25/2010	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**85.3**	<1.00	<1.00	<1.00	1.12	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/23/2011	<1.0	<1.0	<1.0	NA	<1.0	<1.0	**92.0**	<1.0	<1.0	<1.0	1.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<2.0
	11/8/2011	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**77.3**	<1.00	<1.00	<1.00	1.11	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/9/2012	<1.00	<1.00	<1.00	NA	<1.00	<1.00	**82.1**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
MW-15	5/25/2011	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<2.0
	6/28/2011	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.00	<2.00
	11/8/2011	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/8/2012	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
MW-15D	5/25/2011	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<2.0
	6/28/2011	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.00	<2.00
	11/8/2011	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/8/2012	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
MW-15D1	5/8/2012	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
MCL		NS	NS	100	NS	70	100	5	5	NS	200	7	NS	NS	NS	NS	NS	1,000	10,000	2

Table 5 (Page 4 of 4)
Summary of Groundwater and Surface Water Analytical Detections
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006

Well No.	Sample Date	Bromoform (µg/l)	Chloromethane (µg/l)	Chlorobenzene (µg/l)	2-Chloroethyl vinyl ether (µg/l)	cis-1,2-DCE (µg/l)	trans-1,2-DCE (µg/l)	PCE (µg/l)	TCE (µg/l)	1,1,2,2-PCE (µg/l)	1,1,1-TCA (µg/l)	1,1-DCE (µg/l)	1,1-DCA (µg/l)	1,3-Dichlorobenzene (µg/l)	trans-1,3-Dichloropropene (µg/l)	MTBE (µg/l)	1,2,4-Trimethylbenzene (µg/l)	Toluene (µg/l)	Xylenes (µg/l)	Vinyl Chloride (µg/l)
Groundwater Samples																				
MW-16	5/25/2011	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1 0	<1.0	<1.0	<10	<2.0
	6/28/2011	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.00	<2.00
	11/8/2011	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/8/2012	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
MW-16D	5/25/2011	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<2.0
	6/28/2011	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.00	<2.00
	11/8/2011	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	5/8/2012	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
MCL		NS	NS	100	NS	70	100	5	5	NS	200	7	NS	NS	NS	NS	NS	1,000	10,000	2
Surface Water Sample																				
SW-1	6/5/2003	<1.0	<1.0	<1.0	<50	1.0	<1.0	<1.0	<1.0	NS	<1.0	<1.0	<1.0	<1.0	NS	<1.0	<1.0	<5.0	<3.0	<1.0
	1/9/2008	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	11/4/2009	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00
	4/29/2010	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA	NA	NA	NA	<1.00

Notes:
MWT-1, MWT-2, MWT-3 initially constructed as temporary wells and then converted to permanent wells MW-9, MW-10, and MW-11, respectively
Samples analyzed using EPA Method 8260; except samples collected in and after March 2005 which were analyzed using EPA Method 601
Only analytes detected in at least one sample indicated; Bold indicates concentration exceeds MCL
NS = Not Specified; NA = Not Analyzed; MCL = DHEC Maximum Contaminant Level
October 2006 samples collected in October because September 2006 samples lost by Fed Ex
Chloroform (1.10 µg/l) was detected in MW-3D1 in November 2009
* = Insufficient water column for groundwater sample collection
** = Sample contained too much sediment to run without a 10 times dilution factor

Table 6 (Page 1 of 4)
Summary of Groundwater Geochemical Parameters
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006

Well No.	Sample Date	Dissolved Oxygen (mg/l)	TOC (mg/l)	Methane (mg/l)	Chloride (mg/l)	Nitrate (mg/l)	Sulfate (mg/l)	ORP (mV)	pH (SU)	Temp. (°C)	Ferrous Iron (mg/l)
Groundwater Samples											
MW-1	12/30/2003	2.35	<1.00	0.052	6.60	1.4	7.0	123	4.87	20.7	NA
	3/14/2005	3.62	<1.00	<0.026	8.41	1.28	<1.00	322	4.98	17.9	<0.2
	6/1/2005	3.15	1.48	<0.026	6.14	1.34	<1.00	234	4.94	19.3	<0.2
	9/20/2005	3.44	<1.00	<0.026	6.55	1.32	<1.00	347	4.77	25.4	<0.2
	12/12/2005	3.02	1.60	<0.026	5.73	1.65	<1.00	372	4.91	22.2	<0.2
	3/28/2006	2.96	<1.00	<0.026	6.15	1.32	<1.00	309	4.80	18.1	<0.2
	6/26/2006	3.71	1.1	<0.01	4.5	1.3	<5	314	4.93	20.6	<0.2
	10/6/2006	2.63	NA	NA	NA	NA	NA	323	4.84	23.9	NA
	1/12/2007	0.90	<1.00	<0.026	6.69	1.37	<1.00	288	4.96	21.0	<0 2
	1/9/2008	3.45	<1.00	NA	NA	NA	NA	70	4.39	21 7	NA
	11/5/2009	3.62	NA	NA	NA	NA	NA	218	4.73	22.9	NA
	4/30/2010	5.82	NA	NA	NA	NA	NA	299	4.53	18.0	NA
	10/25/2010	2.88	NA	NA	NA	NA	NA	318	4.62	22.9	NA
	5/24/2011	5.89	NA	NA	NA	NA	NA	319	4.72	19.9	NA
	11/9/2011	2.79	NA	NA	NA	NA	NA	210	5.80	23.0	NA
	5/9/2012	3.04	NA	NA	NA	NA	NA	286	4.80	19 8	NA
MW-2	12/30/2003	1.71	NA	NA	NA	NA	NA	103	4.79	20.6	NA
	3/14/2005	2.64	NA	NA	NA	NA	NA	310	4.68	17.5	<0.2
	3/28/2006	3.80	NA	NA	NA	NA	NA	299	4.82	18.4	<0.2
	1/9/2008	3.35	NA	NA	NA	NA	NA	78	5.08	21 7	NA
	11/5/2009	1.81	NA	NA	NA	NA	NA	2	4.89	23.1	NA
	4/30/2010	4 88	NA	NA	NA	NA	NA	281	4.69	18.7	NA
	10/25/2010	2.30	NA	NA	NA	NA	NA	326	4.93	23.3	NA
	5/24/2011	6.75	NA	NA	NA	NA	NA	310	4.77	20.9	NA
	11/8/2011	3.48	NA	NA	NA	NA	NA	211	4.56	22.4	NA
	5/9/2012	3.04	NA	NA	NA	NA	NA	322	4.61	21.0	NA
MW-3	12/30/2003	2.37	NA	NA	NA	NA	NA	100	5.05	21.4	NA
	3/14/2005	2.47	NA	NA	NA	NA	NA	340	4.93	17.6	<0.2
	3/28/2006	3.90	NA	NA	NA	NA	NA	260	5.16	18.6	<0.2
	1/9/2008	6.28	NA	NA	NA	NA	NA	30	4.74	21.7	NA
	11/5/2009	3.80	NA	NA	NA	NA	NA	36	5.60	22.1	NA
	4/30/2010	5.24	NA	NA	NA	NA	NA	225	5 90	18.0	NA
	10/25/2010	4.34	NA	NA	NA	NA	NA	351	4.75	23.4	NA
	5/24/2011	6.32	NA	NA	NA	NA	NA	265	4.92	19.9	NA
	11/9/2011	4.08	NA	NA	NA	NA	NA	289	4.76	22.2	NA
	5/9/2012	4.16	NA	NA	NA	NA	NA	211	6.21	19.7	NA
MW-3D	1/9/2008	1.15	NA	NA	NA	NA	NA	112	5.70	20.6	NA
	11/5/2009	3.29	NA	NA	NA	NA	NA	148	8.19	20.1	NA
	4/30/2010	7.52	NA	NA	NA	NA	NA	180	8.13	19.3	NA
	10/26/2010	4.52	NA	NA	NA	NA	NA	257	7 55	20.1	NA
	5/24/2011	8.05	NA	NA	NA	NA	NA	102	7.91	20.9	NA
	11/9/2011	2.62	NA	NA	NA	NA	NA	64	7.71	19.9	NA
	5/9/2012	2.71	NA	NA	NA	NA	NA	85	7.65	19.9	NA
MW-3D1	11/5/2009	5.79	NA	NA	NA	NA	NA	134	10.80	20.6	NA
	4/30/2010	3.43	NA	NA	NA	NA	NA	172	8.33	19.7	NA
	10/25/2010	4.75	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/24/2011	4.56	NA	NA	NA	NA	NA	49	7.81	20.5	NA
	11/9/2011	4.68	NA	NA	NA	NA	NA	137	6.97	19.6	NA
	5/9/2012	4.73	NA	NA	NA	NA	NA	21	7.74	19.7	NA
MW-4	12/30/2003	1.38	NA	NA	NA	NA	NA	5	5.26	18.3	NA
	3/14/2005	1.28	NA	NA	NA	NA	NA	25	4.76	15.6	3.6
	3/28/2006	1.42	NA	NA	NA	NA	NA	-28	5.28	15.5	6.6
	1/9/2008	1.12	NA	NA	NA	NA	NA	35	5.79	18.7	NA
	11/5/2009	*	*	*	*	*	*	*	*	*	*
	4/29/2010	1.45	NA	NA	NA	NA	NA	14	5.34	15.1	NA
	10/25/2010	1.78	NA	NA	NA	NA	NA	93	5.42	21.4	NA
	5/24/2011	0.92	NA	NA	NA	NA	NA	35	5.32	17.5	NA
	5/8/2012	0 81	NA	NA	NA	NA	NA	-18	5.64	18.1	NA

Table 6 (Page 2 of 4)
Summary of Groundwater Geochemical Parameters
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006

Well No.	Sample Date	Dissolved Oxygen (mg/l)	TOC (mg/l)	Methane (mg/l)	Chloride (mg/l)	Nitrate (mg/l)	Sulfate (mg/l)	ORP (mV)	pH (SU)	Temp. (°C)	Ferrous Iron (mg/l)
Groundwater Samples											
MW-5	12/31/2003	4.57	NA	NA	NA	NA	NA	95	5.03	19.4	NA
	3/14/2005	4.01	NA	NA	NA	NA	NA	235	4.99	16.4	<0 2
	3/28/2006	5.43	NA	NA	NA	NA	NA	285	5 20	16.7	<0.2
	1/9/2008	9.27	NA	NA	NA	NA	NA	-2	6.55	19.6	NA
	11/5/2009	5.35	NA	NA	NA	NA	NA	208	4.85	22 0	NA
	4/30/2010	7.60	NA	NA	NA	NA	NA	294	4.65	17.1	NA
	10/26/2010	3.59	NA	NA	NA	NA	NA	280	5 86	22.8	NA
	5/24/2011	6.54	NA	NA	NA	NA	NA	230	4.97	19.5	NA
	11/9/2011	NM	NA	NA	NA	NA	NA	162	5.15	21.8	NA
	5/9/2012	6.56	NA	NA	NA	NA	NA	237	5.27	19.8	NA
MW-6	12/31/2003	3.77	NA	NA	NA	NA	NA	86	4.84	18 2	NA
	3/14/2005	1.86	NA	NA	NA	NA	NA	356	4.86	15.7	<0.2
	3/28/2006	4.67	NA	NA	NA	NA	NA	278	5.13	15.3	<0.2
	1/9/2008	8.50	NA	NA	NA	NA	NA	-30	6 06	18.2	NA
	11/5/2009	3.82	NA	NA	NA	NA	NA	209	4.63	21.0	NA
	4/30/2010	5.34	NA	NA	NA	NA	NA	301	4.63	16.6	NA
	10/25/2010	5.40	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/24/2011	4.61	NA	NA	NA	NA	NA	270	4.75	18.8	NA
	11/9/2011	1.61	NA	NA	NA	NA	NA	130	5 15	21.1	NA
	5/9/2012	4.71	NA	NA	NA	NA	NA	281	4.86	19.1	NA
MW-7	12/31/2003	4.01	NA	NA	NA	NA	NA	13	4.89	20.2	NA
	3/14/2005	4.80	NA	NA	NA	NA	NA	425	5.01	17.3	<0.2
	3/28/2006	5.08	NA	NA	NA	NA	NA	196	5.10	18.6	<0.2
	1/9/2008	8.32	NA	NA	NA	NA	NA	-10	4.95	21.7	NA
	11/5/2009	6.82	NA	NA	NA	NA	NA	115	6.94	22.8	NA
	4/30/2010	7.89	NA	NA	NA	NA	NA	245	5.10	17.9	NA
	10/25/2010	7.15	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/24/2011	9.28	NA	NA	NA	NA	NA	181	4.90	19.7	NA
	11/8/2011	7.14	NA	NA	NA	NA	NA	254	5.57	23.0	NA
	5/9/2012	8.01	NA	NA	NA	NA	NA	131	6.60	19.7	NA
MW-8	12/31/2003	4.15	NA	NA	NA	NA	NA	6	4.06	20.2	NA
	3/14/2005	1.80	NA	NA	NA	NA	NA	317	4.69	18.0	<0.2
	3/28/2006	2.65	NA	NA	NA	NA	NA	326	4.82	19.1	<0.2
	1/9/2008	6.12	NA	NA	NA	NA	NA	14.1	5.01	23.1	NA
	11/5/2009	4.42	NA	NA	NA	NA	NA	242.6	4.53	24.4	NA
	4/30/2010	5.65	NA	NA	NA	NA	NA	313	4.42	19.2	NA
	10/25/2010	4.32	NA	NA	NA	NA	NA	358	4.55	25.6	NA
	5/24/2011	6.46	NA	NA	NA	NA	NA	308	4.58	21.4	NA
	11/9/2011	2.05	NA	NA	NA	NA	NA	260	4.56	25.0	NA
	5/9/2012	4.80	NA	NA	NA	NA	NA	276	4.84	21.7	NA
MWT-1/MW-9	12/31/2003	1.33	NA	NA	NA	NA	NA	-114	5.56	17.5	NA
	3/14/2005	2.02	<1.00	<0.026	4.20	0.410	3.03	310	4.87	15.3	<0.2
	6/1/2005	0.78	1 92	<0.026	3.08	0.210	2.84	202	4.98	17.5	<0.2
	9/20/2005	0.13	1.33	<0.026	3.23	0.286	1.24	323	4.72	22.5	<0.2
	12/12/2005	0.78	1.73	<0.026	2.42	0.290	3.43	275	5.05	18.8	<0.2
	3/28/2006	0.91	3.11	<0.026	2.61	0.182	3.16	295	4 90	15.7	<0.2
	6/26/2006	1.54	3.9	<0.01	1.9	0.15	9	217	5.01	19.4	1.6
	10/6/2006	2.76	NA	NA	NA	NA	NA	142	5.43	21.9	NA
	1/12/2007	0.90	<1.00	0.033	3.31	0.266	1.78	233	5.01	17.3	<0.2
	1/9/2008	1.45	<1.00	NA	NA	NA	NA	-13.8	5.62	18.7	NA
	11/4/2009	4.67	NA	NA	NA	NA	NA	126.7	6.05	19.9	NA
	4/29/2010	3.20	NA	NA	NA	NA	NA	220	4.75	15.2	NA
	10/25/2010	5.47	NA	NA	NA	NA	NA	284	4.66	20.8	NA
	5/24/2011	2.80	NA	NA	NA	NA	NA	156	5.18	17 7	NA
	11/8/2011	2.05	NA	NA	NA	NA	NA	273	4.60	19.0	NA
	5/8/2012	2.13	NA	NA	NA	NA	NA	205	4 97	17.8	NA
MW-9D	1/9/2008	2.45	NA	NA	NA	NA	NA	78	7.18	19 2	NA
	11/4/2009	2.60	NA	NA	NA	NA	NA	160	7.72	18.6	NA
	4/29/2010	4.97	NA	NA	NA	NA	NA	-14	7.52	19.3	NA
	10/25/2010	5.85	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/24/2011	0.77	NA	NA	NA	NA	NA	43	7.66	19.2	NA
	11/9/2011	1.75	NA	NA	NA	NA	NA	46	7.20	18.2	NA
	5/8/2012	2.00	NA	NA	NA	NA	NA	14	7.09	19 0	NA

Table 6 (Page 3 of 4)
Summary of Groundwater Geochemical Parameters
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006

Well No.	Sample Date	Dissolved Oxygen (mg/l)	TOC (mg/l)	Methane (mg/l)	Chloride (mg/l)	Nitrate (mg/l)	Sulfate (mg/l)	ORP (mV)	pH (SU)	Temp. (°C)	Ferrous Iron (mg/l)
Groundwater Samples											
MWT-2/MW-10	12/31/2003	4.79	NA	NA	NA	NA	NA	-16	5.93	16.5	NA
	3/14/2005	5.30	<1.00	<0.026	4.54	0.200	<1.00	323	4.95	15.1	<0.2
	6/1/2005	4.71	1.46	<0.026	4.51	0.270	<1.00	310	5.44	18.3	0.2
	9/20/2005	3.59	<1.00	<0.026	4.86	0.592 (1)	<1.00	327	5.13	23 2	<0.2
	12/12/2005	5.27	<1.0	<0.026	<1.00	0.320	4 28	239	5.53	19.0	<0.2
	3/28/2006	4.88	<1.0	<0.026	3.93	0.201	1.01	293	5 23	15.8	<0.2
	6/26/2006	5.35	<1	<0.01	2.6	0.2	<5	260	5 29	20.6	<0.2
	10/6/2006	4.60	NA	NA	NA	NA	NA	282	5.19	22.6	NA
	1/12/2007	2.90	<1.00	<0.026	3.68	0.218	<1.00	219	5.66	16.2	<0.2
	1/9/2008	1.25	<1.00	NA	NA	NA	NA	-25	8 15	18.4	NA
	11/4/2009	0.62	NA	NA	NA	NA	NA	206	5 24	20.3	NA
	4/29/2010	2.73	NA	NA	NA	NA	NA	98	4.70	16.0	NA
	10/25/2010	2.40	NA	NA	NA	NA	NA	121	5 73	21.0	NA
	5/24/2011	0.75	NA	NA	NA	NA	NA	130	4.95	17.5	NA
	11/9/2011	0.70	NA	NA	NA	NA	NA	73	5.53	19.3	NA
	5/8/2012	1.01	NA	NA	NA	NA	NA	101	4.71	18.0	NA
MW-10D	1/9/2008	6.35	NA	NA	NA	NA	NA	35	8.69	18.9	NA
	11/4/2009	5.12	NA	NA	NA	NA	NA	276	7.66	18 1	NA
	4/29/2010	5.72	NA	NA	NA	NA	NA	171	7.74	19 5	NA
	10/25/2010	6.73	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/24/2011	5.68	NA	NA	NA	NA	NA	199	7.48	18.3	NA
	11/9/2011	5.97	NA	NA	NA	NA	NA	91	7.68	17.5	NA
	5/8/2012	6.13	NA	NA	NA	NA	NA	28	7.11	18.3	NA
MWT-3/MW-11	12/31/2003	4.58	NA	NA	NA	NA	NA	-144	5.16	17.1	NA
	3/14/2005	0.96	NA	NA	NA	NA	NA	193	5.12	15.6	0.6
	3/28/2006	1.56	NA	NA	NA	NA	NA	76	5.17	15.5	0.6
	1/9/2008	1.05	NA	NA	NA	NA	NA	71	5.81	18.5	NA
	11/4/2009	1.22	NA	NA	NA	NA	NA	250	4.73	19.4	NA
	4/29/2010	1.63	NA	NA	NA	NA	NA	285	4.61	15.5	NA
	10/25/2010	3.27	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/24/2011	0.92	NA	NA	NA	NA	NA	131	4.85	16.5	NA
	11/9/2011	1.93	NA	NA	NA	NA	NA	116	5 20	18.8	NA
	5/8/2012	2.08	NA	NA	NA	NA	NA	139	4.64	17.3	NA
MW-12D	11/5/2009	5.48	NA	NA	NA	NA	NA	-32	11.82	18.0	NA
	4/30/2010	2.61	NA	NA	NA	NA	NA	158	10 60	17.8	NA
	10/25/2010	6.02	NA	NA	NA	NA	NA	153	9.43	18.3	NA
	5/23/2011	7.17	NA	NA	NA	NA	NA	218	9.51	19 2	NA
	11/8/2011	6.72	NA	NA	NA	NA	NA	85	9.20	18.2	NA
	5/9/2012	6.64	NA	NA	NA	NA	NA	147	9 13	18.4	NA
MW-13D	11/5/2009	5.79	NA	NA	NA	NA	NA	68	8.11	18.4	NA
	4/30/2010	5.89	NA	NA	NA	NA	NA	168	9.30	18.1	NA
	10/25/2010	7.15	NA	NA	NA	NA	NA	225	7 82	18.9	NA
	5/23/2011	5.75	NA	NA	NA	NA	NA	241	8.16	19.5	NA
	11/8/2011	4.42	NA	NA	NA	NA	NA	119	8.17	18.8	NA
	5/9/2012	4.51	NA	NA	NA	NA	NA	158	8.03	19.2	NA
MW-14	11/5/2009	2.52	NA	NA	NA	NA	NA	100	6.33	21.8	NA
	4/30/2010	4.65	NA	NA	NA	NA	NA	240	5.09	18.0	NA
	10/25/2010	5.76	NA	NA	NA	NA	NA	306	4.79	22.2	NA
	5/23/2011	5.91	NA	NA	NA	NA	NA	240	5.45	19.4	NA
	11/8/2011	5.46	NA	NA	NA	NA	NA	261	4.73	22.3	NA
	5/9/2012	5 58	NA	NA	NA	NA	NA	241	5.27	19.7	NA
MW-14D	11/5/2009	5.80	NA	NA	NA	NA	NA	76	7.93	20.3	NA
	4/30/2010	4.62	NA	NA	NA	NA	NA	217	7.50	19.8	NA
	10/25/2010	8.86	NA	NA	NA	NA	NA	231	6.73	20.6	NA
	5/23/2011	3.58	NA	NA	NA	NA	NA	211	7.26	20.5	NA
	11/8/2011	3.58	NA	NA	NA	NA	NA	94	7.17	20.0	NA
	5/9/2012	4.11	NA	NA	NA	NA	NA	60	8.23	20.0	NA

Table 6 (Page 4 of 4)
Summary of Groundwater Geochemical Parameters
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006

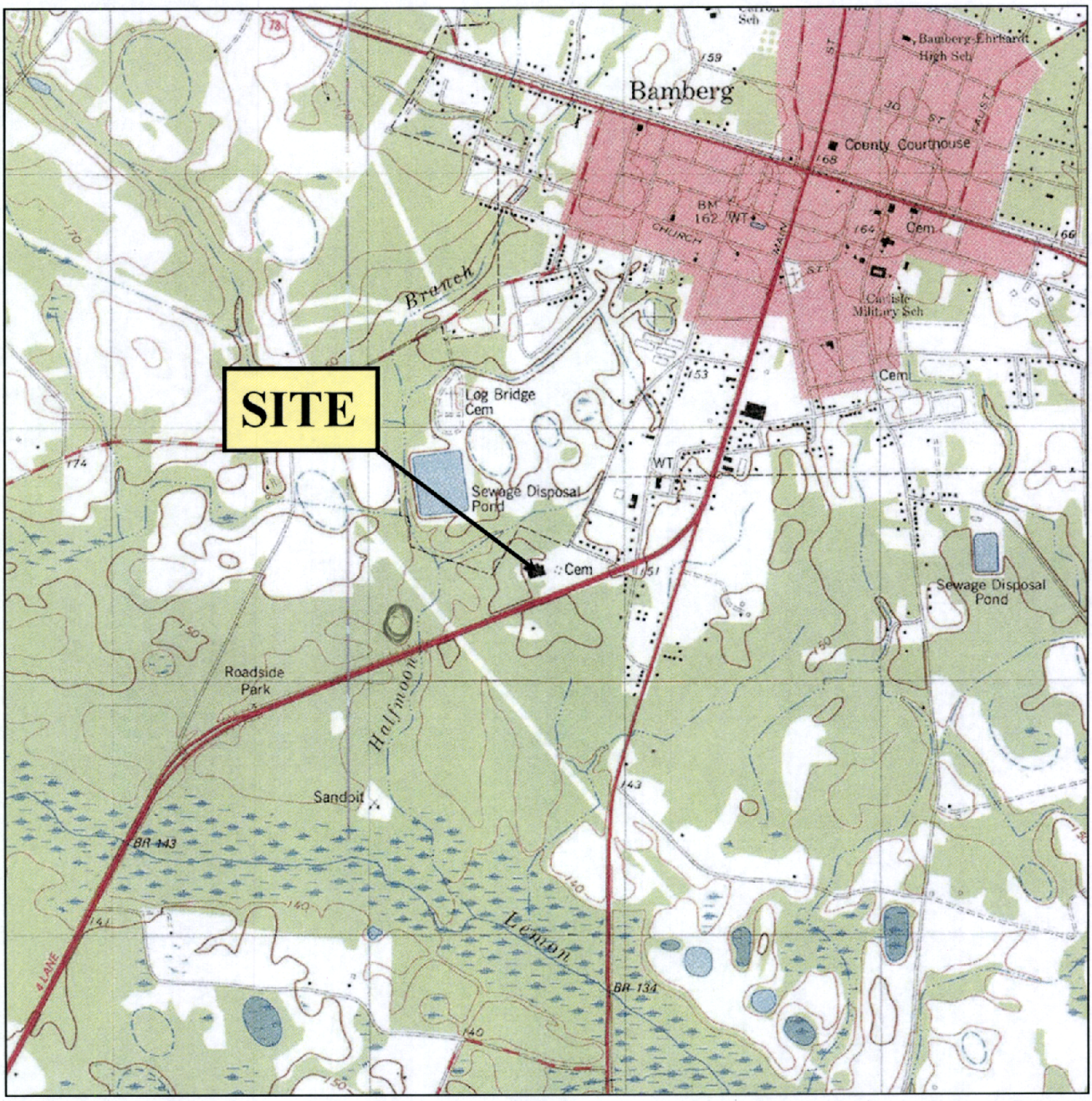
Well No.	Sample Date	Dissolved Oxygen (mg/l)	TOC (mg/l)	Methane (mg/l)	Chloride (mg/l)	Nitrate (mg/l)	Sulfate (mg/l)	ORP (mV)	pH (SU)	Temp. (°C)	Ferrous Iron (mg/l)
Groundwater Samples											
MW-15	5/25/2011	5.10	NA	NA	NA	NA	NA	127	5.43	17.0	NA
	6/28/2011	0.85	NA	NA	NA	NA	NA	70	5.43	18.4	NA
	11/8/2011	1.60	NA	NA	NA	NA	NA	12	5.37	19.9	NA
	5/8/2012	1.73	NA	NA	NA	NA	NA	38	5.53	17.9	NA
MW-15D	5/25/2011	5.35	NA	NA	NA	NA	NA	163	8.87	18.6	NA
	6/28/2011	1.57	NA	NA	NA	NA	NA	37	7.24	18.1	NA
	11/8/2011	1 49	NA	NA	NA	NA	NA	133	7.10	18.2	NA
	5/8/2012	1 61	NA	NA	NA	NA	NA	154	7.20	18.7	NA
MW-15D1	5/8/2012	0.83	NA	NA	NA	NA	NA	83	7.11	18.8	NA
MW-16	5/25/2011	3.50	NA	NA	NA	NA	NA	149	6 91	17.4	NA
	6/28/2011	2.10	NA	NA	NA	NA	NA	211	5.56	19.1	NA
	11/8/2011	1 01	NA	NA	NA	NA	NA	67	6.34	20 4	NA
	5/8/2012	1.04	NA	NA	NA	NA	NA	207	5.22	18.7	NA
MW-16D	5/25/2011	0.91	NA	NA	NA	NA	NA	98	7.68	18.9	NA
	6/28/2011	6.34	NA	NA	NA	NA	NA	148	7.43	18.2	NA
	11/8/2011	4.61	NA	NA	NA	NA	NA	-5	7.29	18.3	NA
	5/8/2012	2.16	NA	NA	NA	NA	NA	110	7.46	17.8	NA

Notes:
MWT-1, MWT-2, MWT-3 initially constructed as temporary wells and then converted to permanent wells MW-9, MW-10, and MW-11, respectively
(1) Sample analysis performed past method-specified holding time
* = Insufficient water column for groundwater sample collection
NA = Not Analyzed; NM = Not Measured (insufficient water column for in-situ measurement)

Table 7
Hydraulic Conductivity Data Summary
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006

Well No.	Date Conducted	Hydraulic Conductivity (ft/day)	Solution Method	Well Depth (ft)	Screen Length (ft)	Aquifer Targeted
MW-3	5/10/2012	0.07	Bouwer-Rice	18	15	Shallow
MW-9	5/10/2012	0.12	Bouwer-Rice	20	15	Shallow
MW-10	5/10/2012	0.26	Bouwer-Rice	20	15	Shallow
Shallow Geometric Mean		0.13				
MW-3D	5/10/2012	88	Bouwer-Rice	49	5	Limestone
MW-12D	5/10/2012	1.2	Bouwer-Rice	50	10	Limestone
MW-13D	5/10/2012	64	Bouwer-Rice	50	10	Limestone
MW-15D	5/10/2012	88	Bouwer-Rice	45	10	Limestone
Limestone Geometric Mean		28				
MW-3D1	5/10/2012	2.5	Bouwer-Rice	85	10	Sandstone
MW-15D1	5/10/2012	6.9	Bouwer-Rice	85	10	Sandstone
Sandstone Geometric Mean		4.1				

Notes:
Slug tests conducted by H&H in May 2012



N

APPROXIMATE

0 2000 4000

SCALE IN FEET

U.S.G.S. QUADRANGLE MAP

BAMBERG, SC 1979 (PHOTO REVISED 1987)

QUADRANGLE
7.5 MINUTE SERIES (TOPOGRAPHIC)

TITLE	SITE LOCATION MAP
PROJECT	DELAVAN SPRAY TECHNOLOGIES BAMBERG, SOUTH CAROLINA

hart hickman
SMARTER ENVIRONMENTAL SOLUTIONS
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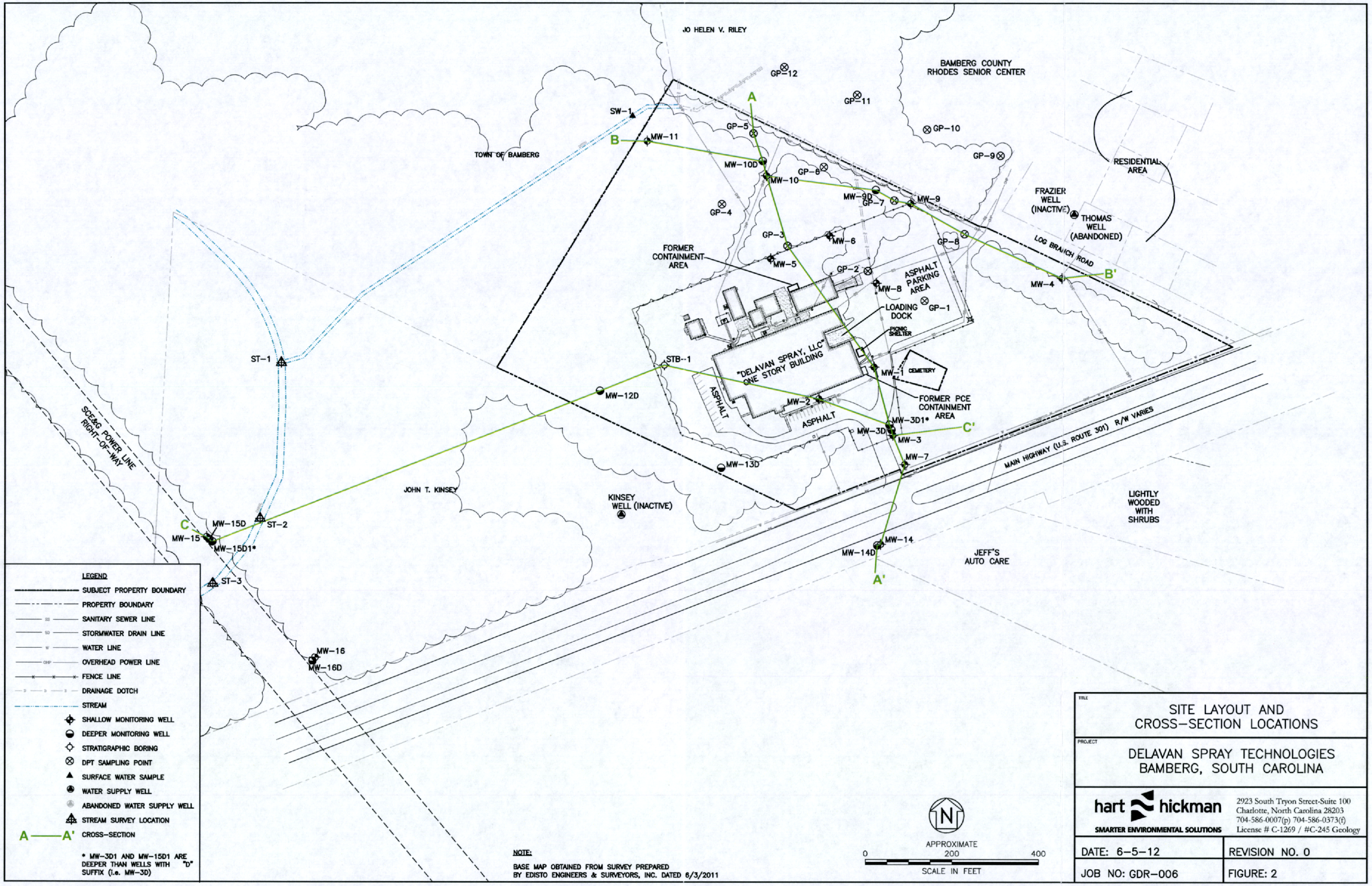
DATE:	6-1-12	REVISION NO:	0
JOB NO:	GDR-006	FIGURE NO:	1



LEGEND

- SUBJECT PROPERTY BOUNDARY
- PROPERTY BOUNDARY
- SANITARY SEWER LINE
- STORMWATER DRAIN LINE
- WATER LINE
- OVERHEAD POWER LINE
- FENCE LINE
- DRAINAGE DOTCH
- STREAM
- SHALLOW MONITORING WELL
- DEEPER MONITORING WELL
- STRATIGRAPHIC BORING
- DPT SAMPLING POINT
- SURFACE WATER SAMPLE
- WATER SUPPLY WELL
- ABANDONED WATER SUPPLY WELL
- STREAM SURVEY LOCATION
- A——A' CROSS-SECTION

* MW-3D1 AND MW-15D1 ARE DEEPER THAN WELLS WITH "D" SUFFIX (i.e. MW-3D)

NOTE:

BASE MAP OBTAINED FROM SURVEY PREPARED BY EDISTO ENGINEERS & SURVEYORS, INC. DATED 6/3/2011

N

APPROXIMATE
0 200 400
SCALE IN FEET

TITLE

SITE LAYOUT AND CROSS-SECTION LOCATIONS

PROJECT

DELAVAN SPRAY TECHNOLOGIES
BAMBERG, SOUTH CAROLINA

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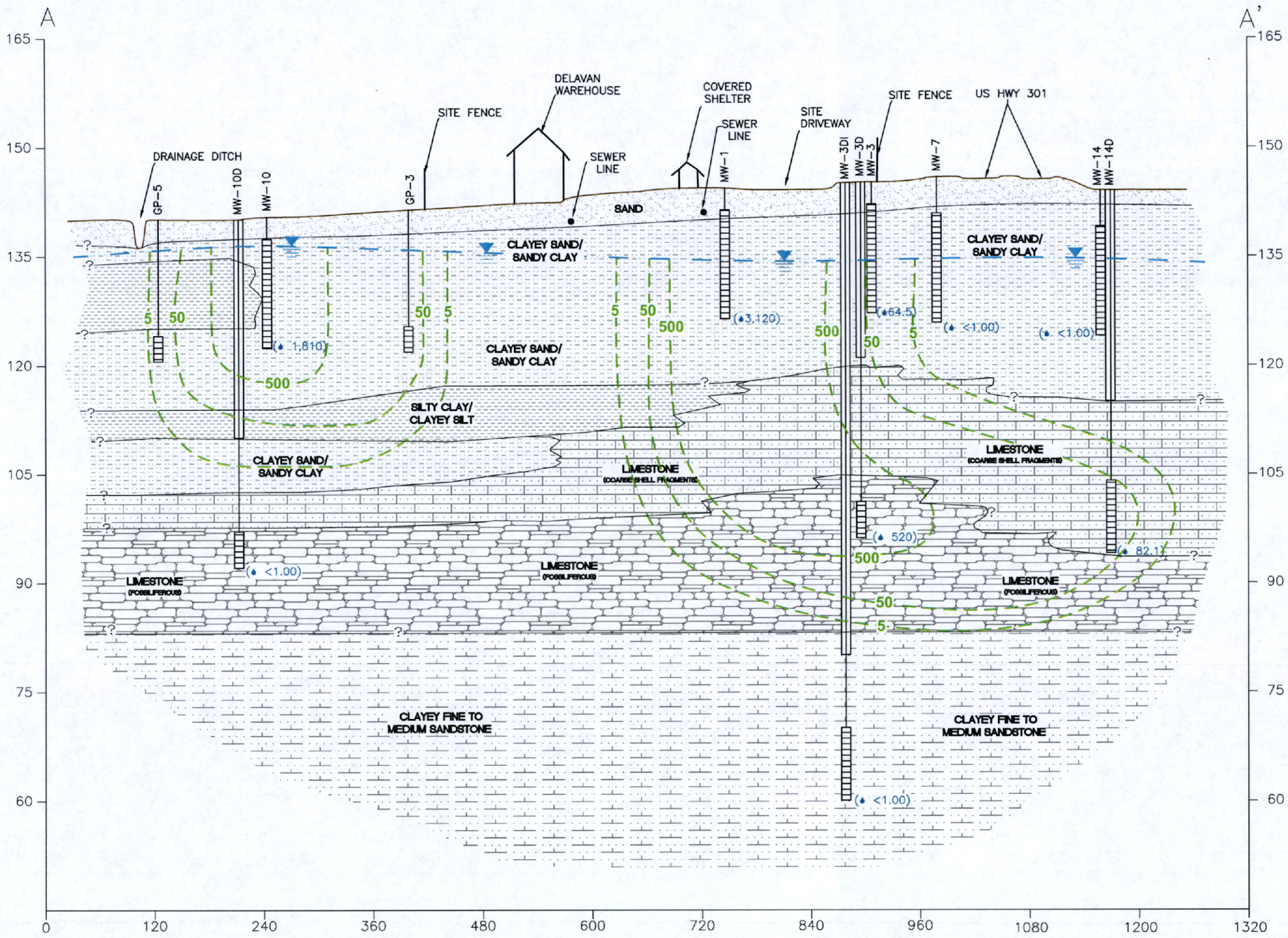
DATE: 6-5-12	REVISION NO. 0
JOB NO: GDR-006	FIGURE: 2

S:\AAA-Master Projects\Goodrich - GDR\GDR-06 Bamberg\April 2012 Assessment\Figures\Section Location.dwg, FIG-2, 6/8/2012 1:22:50 PM, cheam



LEGEND

- SAND
- SILTY CLAY/ CLAYEY SILT
- SANDY CLAY/ CLAYEY SAND
- LIMESTONE (COQUINA)
- LIMESTONE (FOSSILIFEROUS)
- CLAYEY FINE TO MEDIUM SANDSTONE
- SURFACE CASING
- WELL RISER
- WELL SCREEN
- SURFICIAL AQUIFER WATER TABLE ELEVATION (MAY 8, 2012)
- (82.1) GROUNDWATER PCE (µg/L) CONCENTRATION (MAY 2012)
- 5 ESTIMATED PCE ISOCONCENTRATION CONTOUR (µg/L)

APPROXIMATE
0 120 240
SCALE IN FEET
HORIZONTAL SCALE: 1"=120'

APPROXIMATE
0 15 30
SCALE IN FEET
VERTICAL SCALE: 1"=15'

TITLE: GENERALIZED CROSS-SECTION A-A'

PROJECT: DELAVAN SPRAY TECHNOLOGIES
BAMBERG, SOUTH CAROLINA

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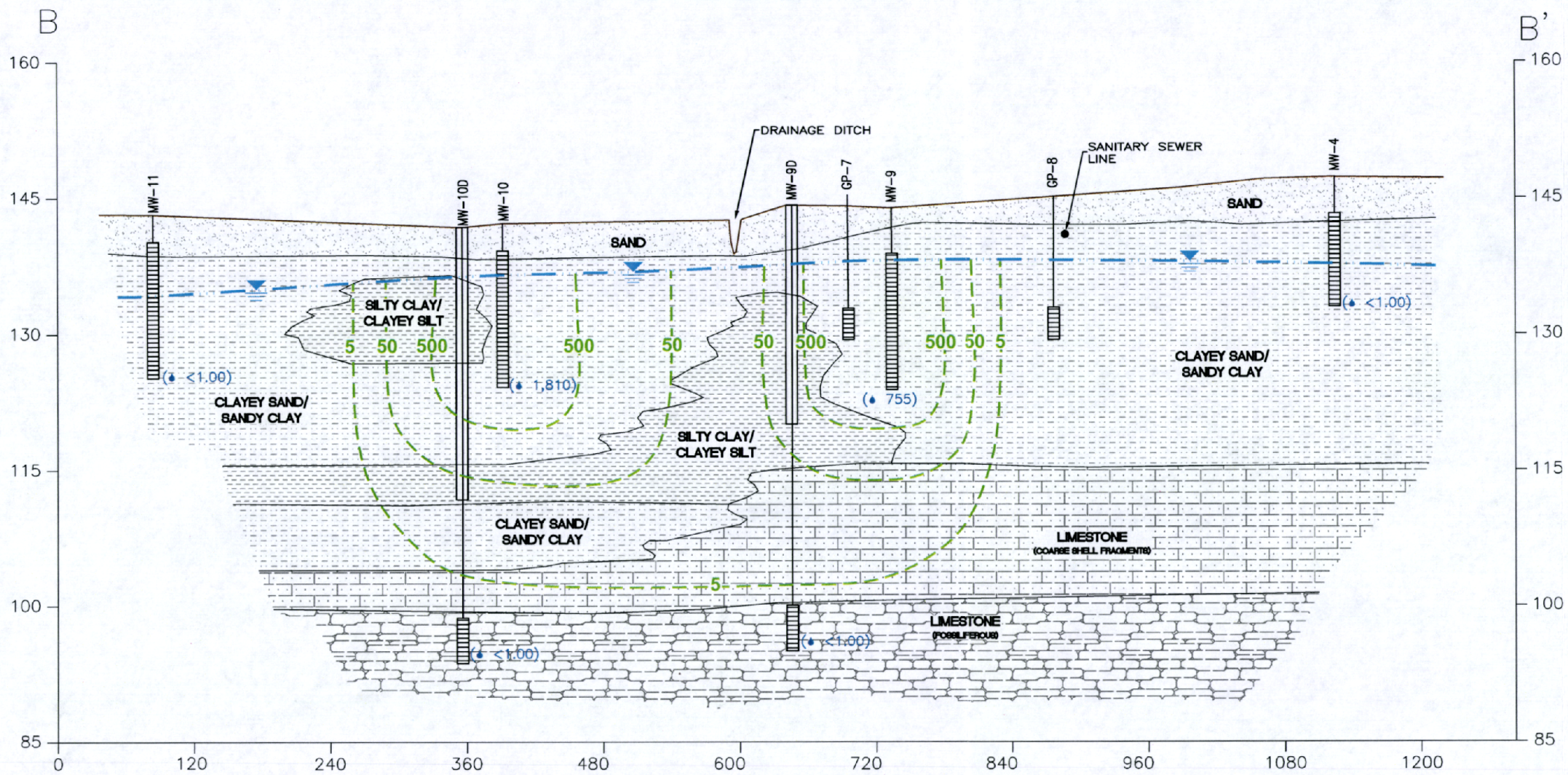
DATE: 6-5-12	REVISION NO. 0
JOB NO: GDR-006	FIGURE: 4

S:\AAA-Master Projects\Goodrich - GDR\GDR-06 Bamberg\April 2012 Assessment\Figures\FIG-4-new.dwg, 11X17 Landscape, 6/8/2012 1:23:45 PM, cheam



TITLE: GENERALIZED CROSS-SECTION B-B'

PROJECT: DELAVAN SPRAY TECHNOLOGIES
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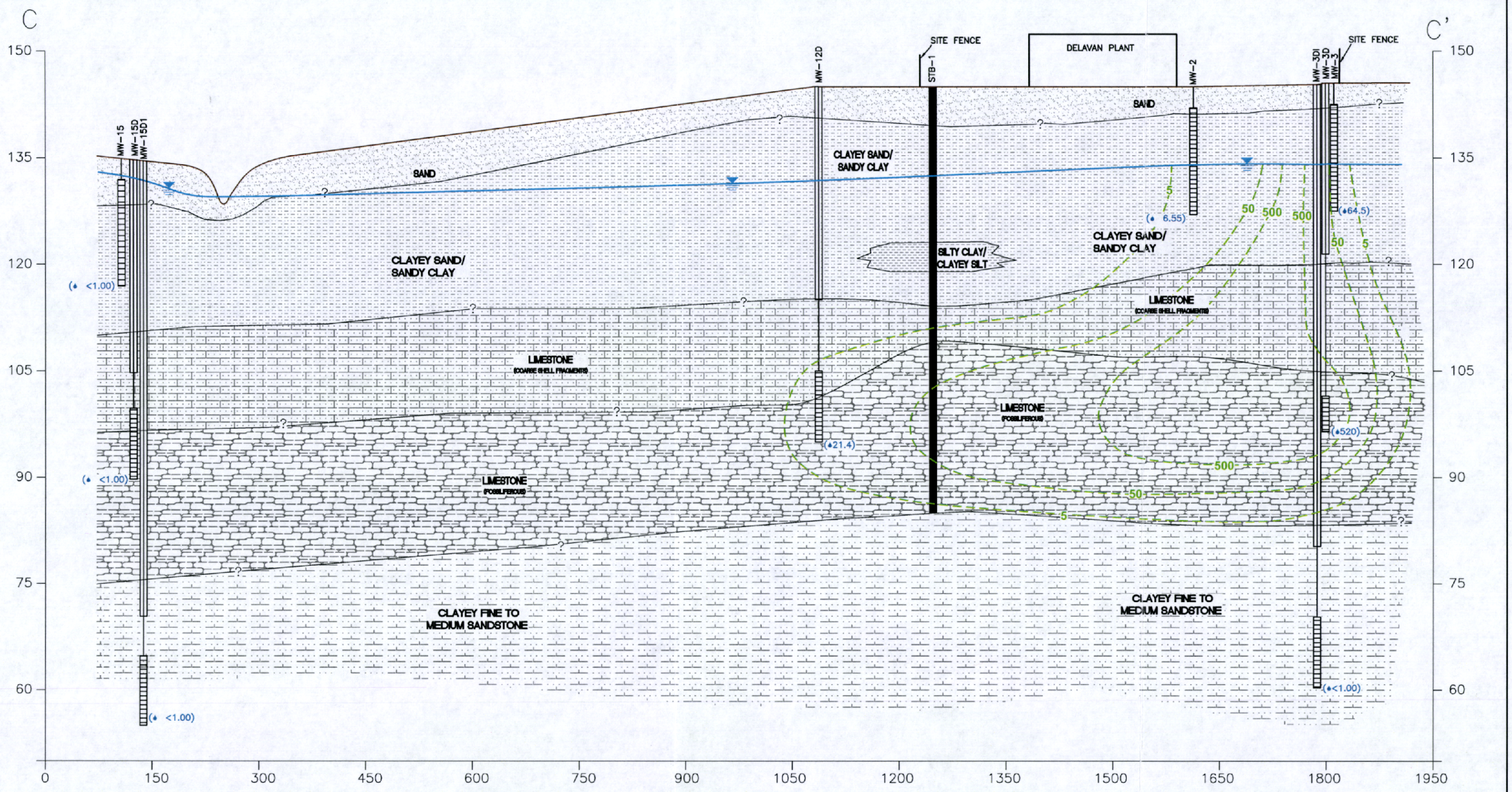
DATE: 6-5-12	REVISION NO. 0
JOB NO: GDR-006	FIGURE: 5

S:\WA-Master Projects\Goodrich - GDR\GDR-06 Bamberg\Vol1 2012 Assessment\Figures\FIG-5-new.dwg, Model, 6/8/2012 1:25:32 PM, cheam



LEGEND

- SAND
- SANDY CLAY/ CLAYEY SAND
- SILTY CLAY/ CLAYEY SILT
- LIMESTONE (COQUINA)
- LIMESTONE (FOSSILIFEROUS)
- CLAYEY FINE TO MEDIUM SANDSTONE
- SURFACE CASING
- WELL RISER
- WELL SCREEN
- SOIL BORING
- SHALLOW AQUIFER WATER TABLE ELEVATION (MAY 8, 2012)
- (<1.00) GROUNDWATER PCE CONCENTRATION (MAY 2012) (µg/L)
- 5 ESTIMATED PCE ISOCONCENTRATION CONTOUR (µg/L)

APPROXIMATE
0 150 300
SCALE IN FEET
HORIZONTAL SCALE: 1"=150'

APPROXIMATE
0 15 30
SCALE IN FEET
VERTICAL SCALE: 1"=15'

TITLE: GENERALIZED CROSS-SECTION C-C'

PROJECT: DELAVAN SPRAY TECHNOLOGIES
BAMBERG, SOUTH CAROLINA

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DATE: 6-5-12 | REVISION NO. 0

JOB NO: GDR-006 | FIGURE: 6

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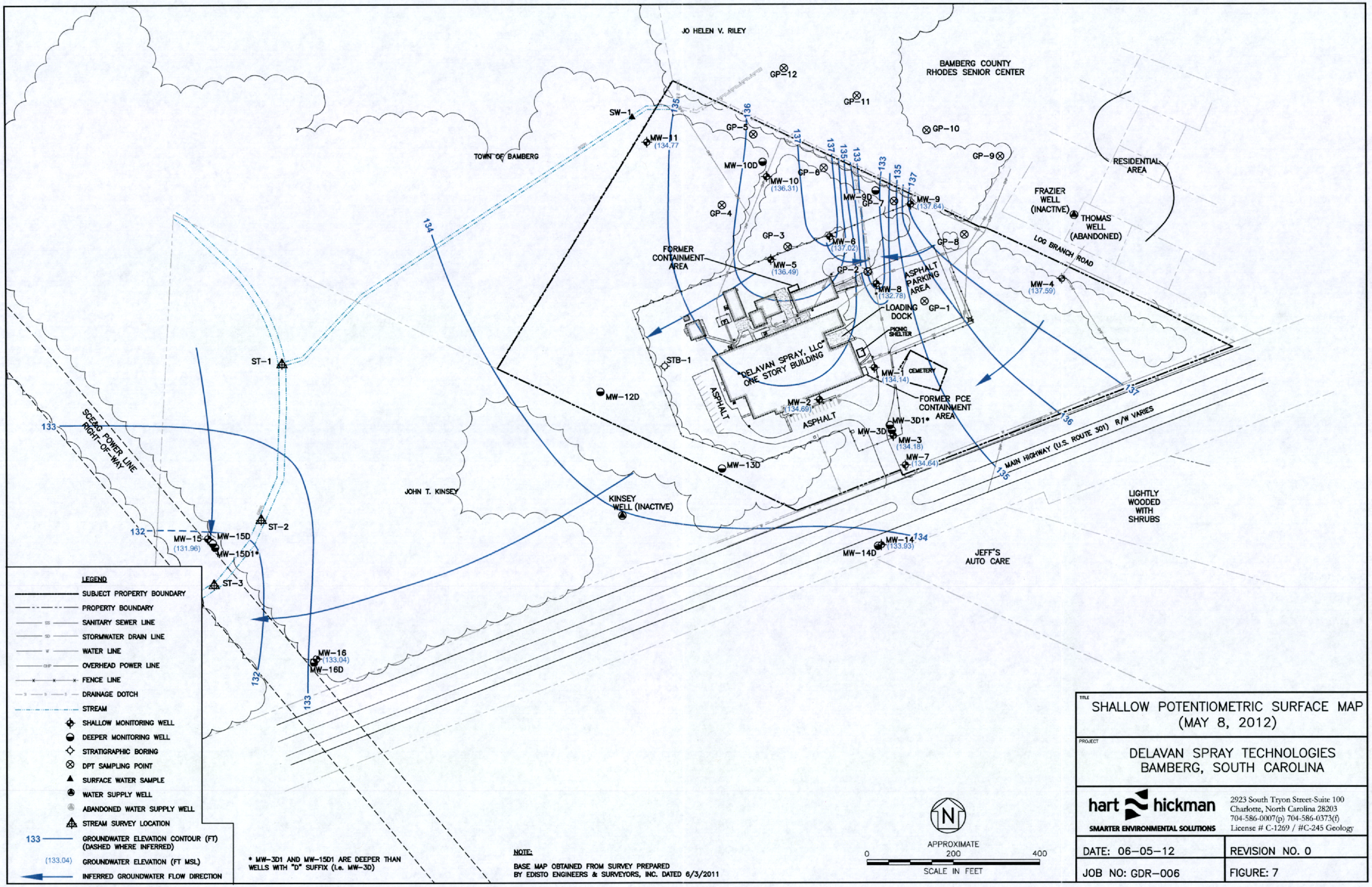

TITLE
SHALLOW POTENTIOMETRIC SURFACE MAP
(MAY 8, 2012)

PROJECT
DELAVAN SPRAY TECHNOLOGIES
BAMBERG, SOUTH CAROLINA

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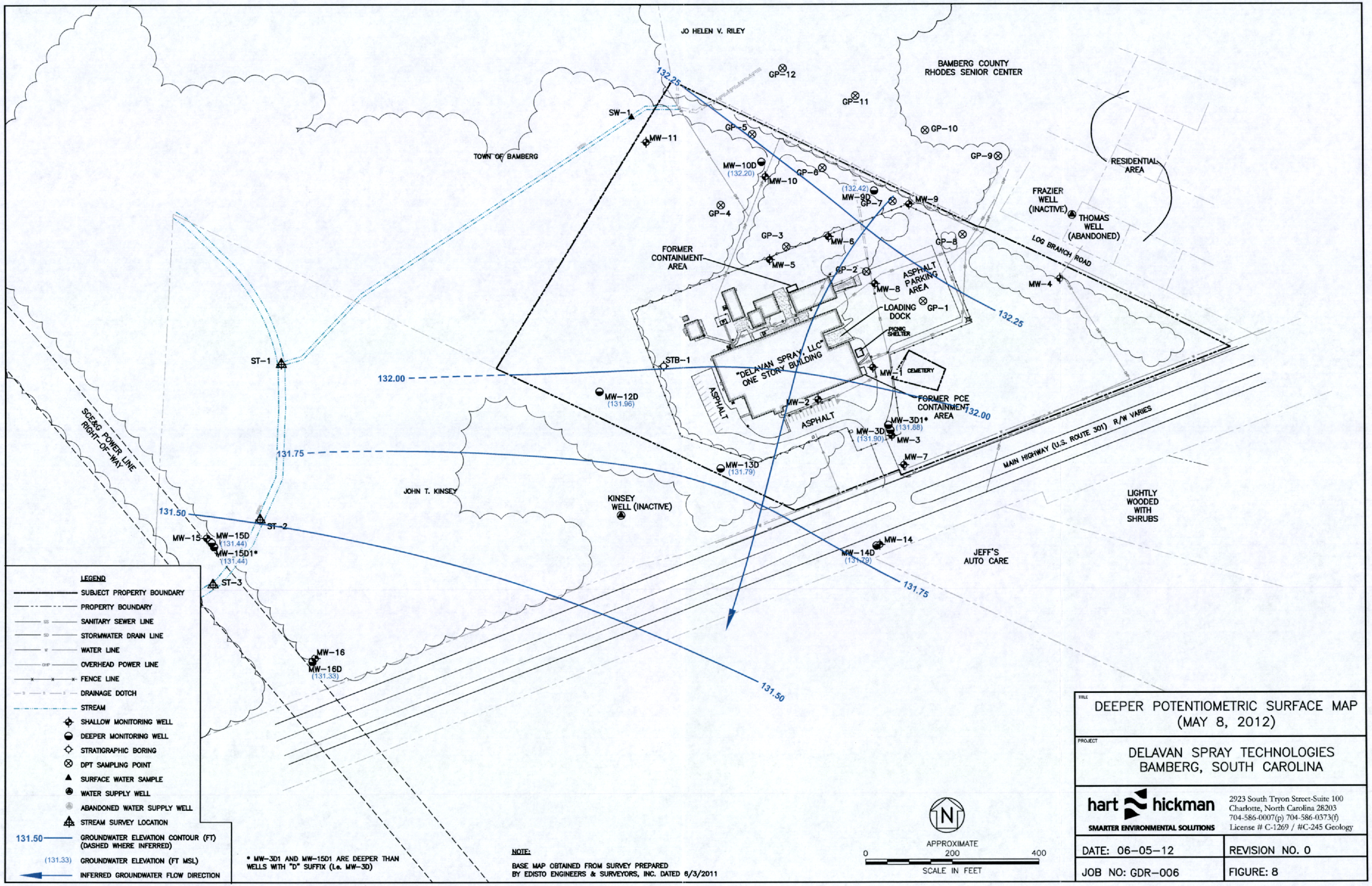
DATE: 06-05-12	REVISION NO. 0
JOB NO: GDR-006	FIGURE: 7

S:\AAA-Master Projects\Goodrich - GDR\GDR-06 Bamberg\April 2012 Assessment\Figures\Surveyed Site Map.dwg, FIG-7, 6/8/2012 1:26:52 PM, cheam



TITLE
DEEPER POTENTIOMETRIC SURFACE MAP
(MAY 8, 2012)

PROJECT
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BAMBERG, SOUTH CAROLINA

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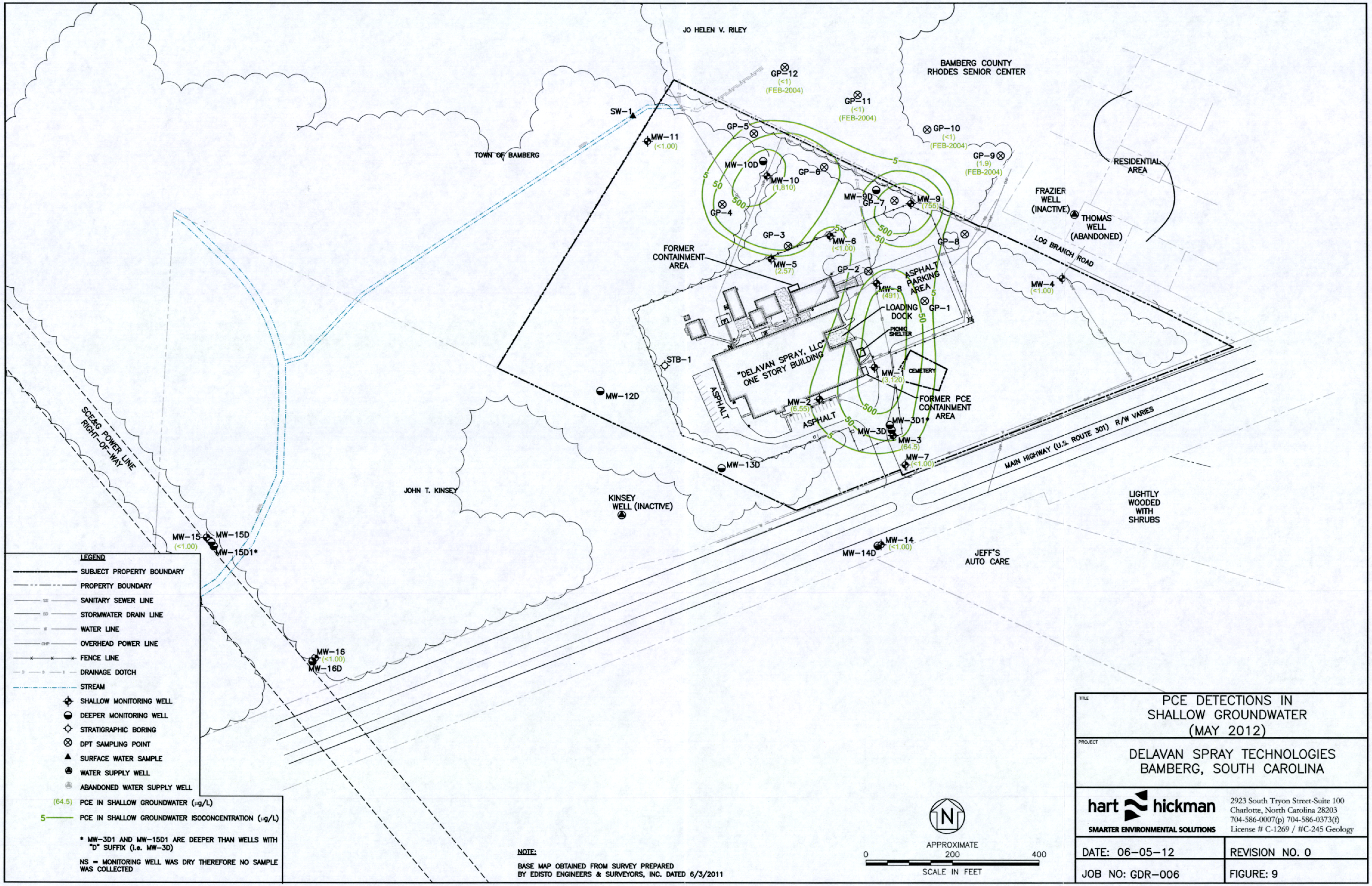
DATE: 06-05-12	REVISION NO. 0
JOB NO: GDR-006	FIGURE: 8

S:\AAA-Master Projects\Goodrich - GDR\GDR-06 Bamberg\April 2012 Assessment\Figures\Surveyed Site Map.dwg, FIG-8, 6/8/2012 1:27:07 PM, chearn



TITLE
PCE DETECTIONS IN SHALLOW GROUNDWATER (MAY 2012)

PROJECT
DELAVAN SPRAY TECHNOLOGIES
BAMBERG, SOUTH CAROLINA

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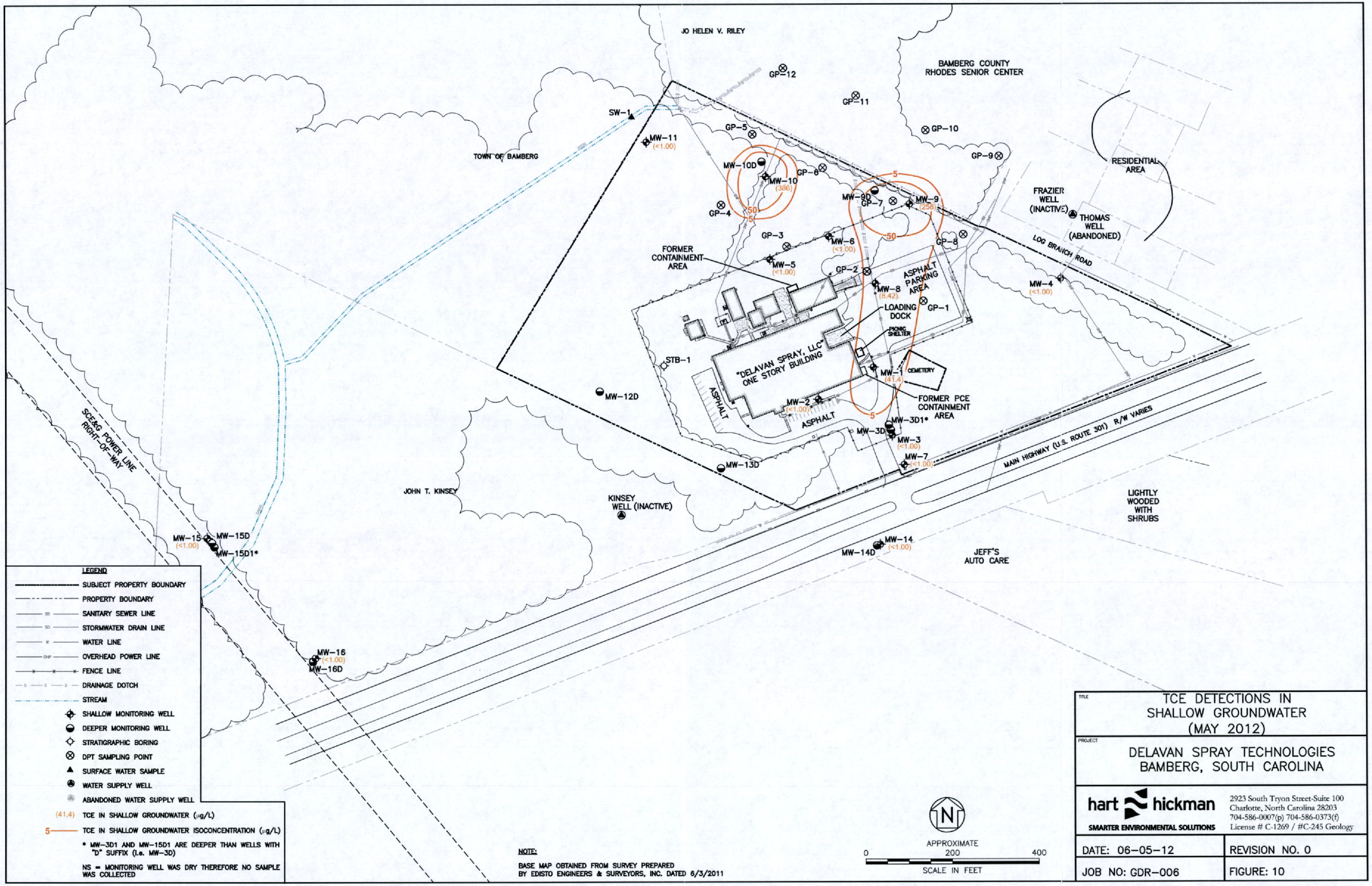
DATE: 06-05-12	REVISION NO. 0
JOB NO: GDR-006	FIGURE: 9

S:\AAA-Master Projects\Goodrich - GDR\GDR-06 Bamberg\April 2012 Assessment\Figures\Surveyed Site Map.dwg, FIG-9, 6/8/2012 1:27:20 PM, cheam



LEGEND

- SUBJECT PROPERTY BOUNDARY
- PROPERTY BOUNDARY
- SANITARY SEWER LINE
- STORMWATER DRAIN LINE
- WATER LINE
- OVERHEAD POWER LINE
- FENCE LINE
- DRAINAGE DOTCH
- STREAM
- SHALLOW MONITORING WELL
- DEEPER MONITORING WELL
- STRATIGRAPHIC BORING
- DPT SAMPLING POINT
- SURFACE WATER SAMPLE
- WATER SUPPLY WELL
- ABANDONED WATER SUPPLY WELL
- (41.4) TCE IN SHALLOW GROUNDWATER (µg/L)
- 5 TCE IN SHALLOW GROUNDWATER ISOCONCENTRATION (µg/L)
- * MW-3D1 AND MW-15D1 ARE DEEPER THAN WELLS WITH "D" SUFFIX (i.e. MW-3D)
- NS = MONITORING WELL WAS DRY THEREFORE NO SAMPLE WAS COLLECTED

NOTE:

BASE MAP OBTAINED FROM SURVEY PREPARED BY EDISTO ENGINEERS & SURVEYORS, INC. DATED 6/3/2011

N

APPROXIMATE
0 200 400
SCALE IN FEET

TITLE: TCE DETECTIONS IN SHALLOW GROUNDWATER (MAY 2012)

PROJECT: DELAVAN SPRAY TECHNOLOGIES BAMBERG, SOUTH CAROLINA

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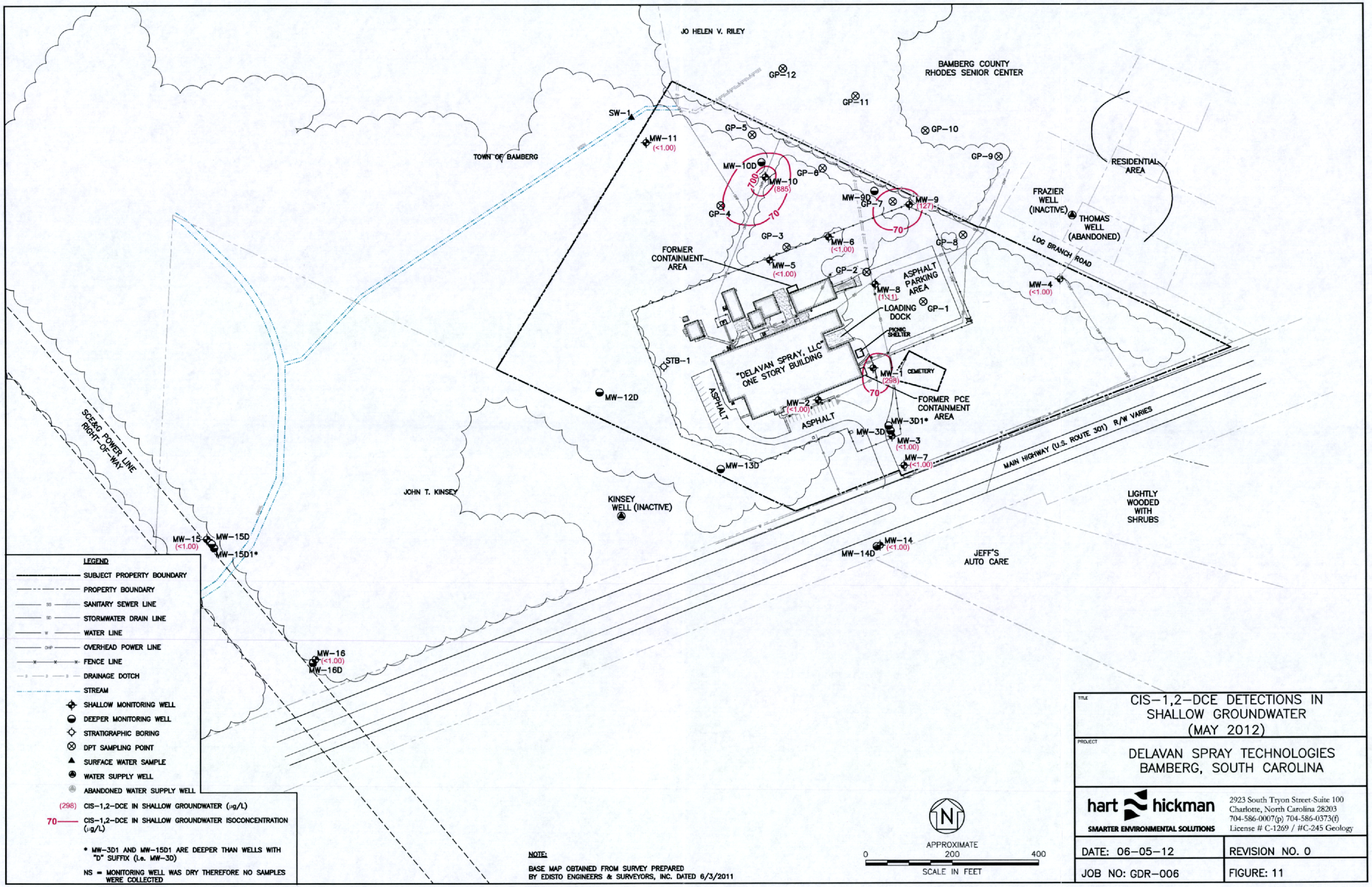
DATE: 06-05-12	REVISION NO. 0
JOB NO: GDR-006	FIGURE: 10

S:\AAA-Master Projects\Goodrich - GDR\GDR-06 Bamberg\April 2012 Assessment\Figures\Surveyed Site Map.dwg, FIG-10, 6/8/2012 1:27:35 PM, chearn



LEGEND

- SUBJECT PROPERTY BOUNDARY
- PROPERTY BOUNDARY
- SANITARY SEWER LINE
- STORMWATER DRAIN LINE
- WATER LINE
- OVERHEAD POWER LINE
- FENCE LINE
- DRAINAGE DOTCH
- STREAM
- SHALLOW MONITORING WELL
- DEEPER MONITORING WELL
- STRATIGRAPHIC BORING
- DPT SAMPLING POINT
- SURFACE WATER SAMPLE
- WATER SUPPLY WELL
- ABANDONED WATER SUPPLY WELL
- (298) CIS-1,2-DCE IN SHALLOW GROUNDWATER (µg/L)
- 70 CIS-1,2-DCE IN SHALLOW GROUNDWATER ISOCONCENTRATION (µg/L)

* MW-3D1 AND MW-15D1 ARE DEEPER THAN WELLS WITH "D" SUFFIX (i.e. MW-3D)

NS = MONITORING WELL WAS DRY THEREFORE NO SAMPLES WERE COLLECTED

NOTE:

BASE MAP OBTAINED FROM SURVEY PREPARED BY EDISTO ENGINEERS & SURVEYORS, INC. DATED 6/3/2011

TITLE: CIS-1,2-DCE DETECTIONS IN SHALLOW GROUNDWATER (MAY 2012)

PROJECT: DELAVAN SPRAY TECHNOLOGIES BAMBERG, SOUTH CAROLINA

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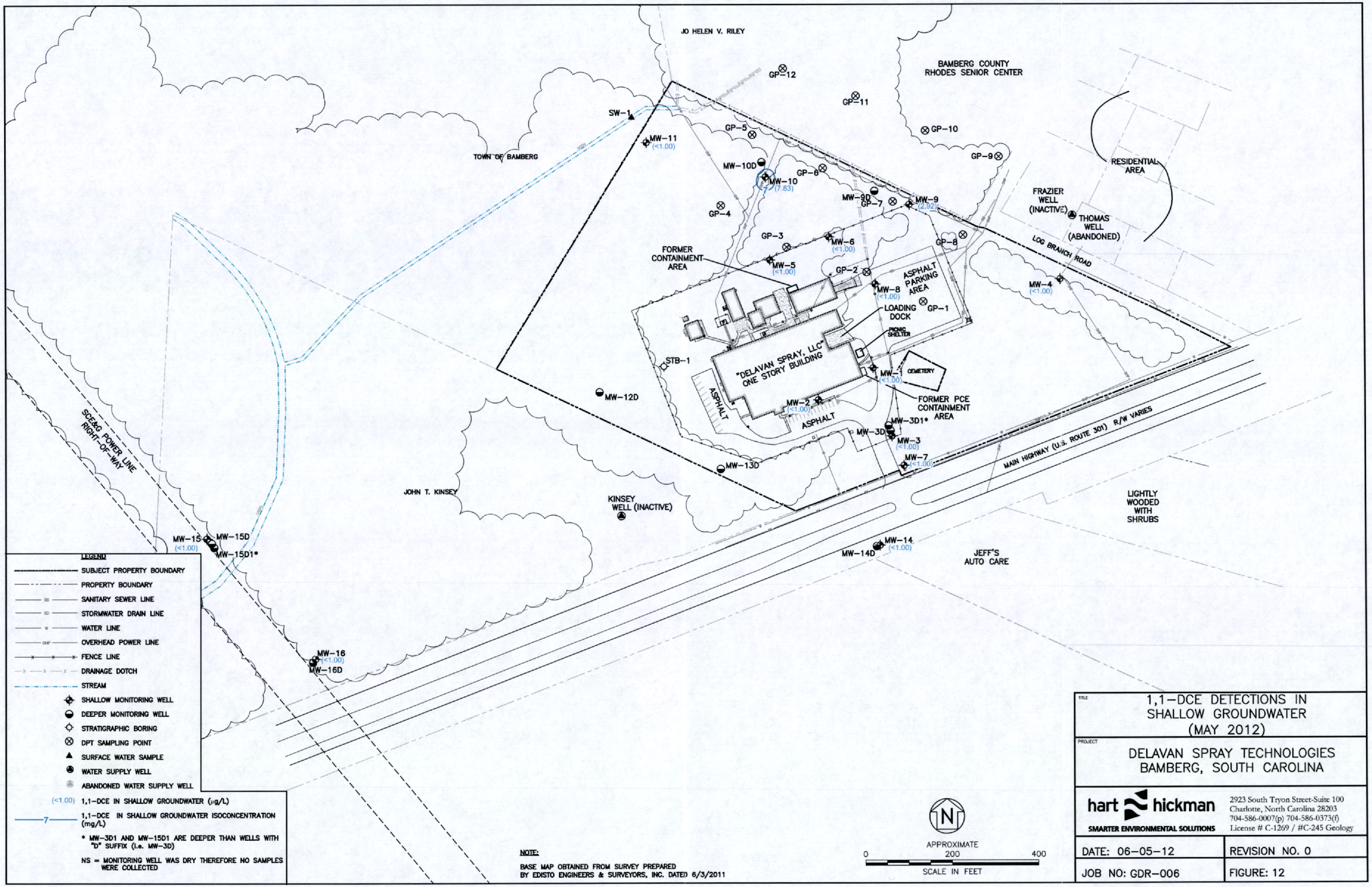
DATE: 06-05-12 | REVISION NO. 0

JOB NO: GDR-006 | FIGURE: 11

S:\AAA-Master Projects\Goodrich - GDR\GDR-06 Bamberg\April 2012 Assessment\Figures\Surveyed Site Map.dwg, FIG-11, 6/8/2012 1:27:50 PM, chearn



LEGEND

- SUBJECT PROPERTY BOUNDARY
- PROPERTY BOUNDARY
- SANITARY SEWER LINE
- STORMWATER DRAIN LINE
- WATER LINE
- OVERHEAD POWER LINE
- FENCE LINE
- DRAINAGE DOTCH
- STREAM
- SHALLOW MONITORING WELL
- DEEPER MONITORING WELL
- STRATIGRAPHIC BORING
- DPT SAMPLING POINT
- SURFACE WATER SAMPLE
- WATER SUPPLY WELL
- ABANDONED WATER SUPPLY WELL
- (<1.00) 1,1-DCE IN SHALLOW GROUNDWATER (µg/L)
- 7 1,1-DCE IN SHALLOW GROUNDWATER ISOCONCENTRATION (mg/L)

* MW-3D1 AND MW-15D1 ARE DEEPER THAN WELLS WITH "D" SUFFIX (i.e. MW-3D)

NS = MONITORING WELL WAS DRY THEREFORE NO SAMPLES WERE COLLECTED

NOTE:

BASE MAP OBTAINED FROM SURVEY PREPARED BY EDISTO ENGINEERS & SURVEYORS, INC. DATED 6/3/2011

N

APPROXIMATE

0 200 400

SCALE IN FEET

TITLE: 1,1-DCE DETECTIONS IN SHALLOW GROUNDWATER (MAY 2012)

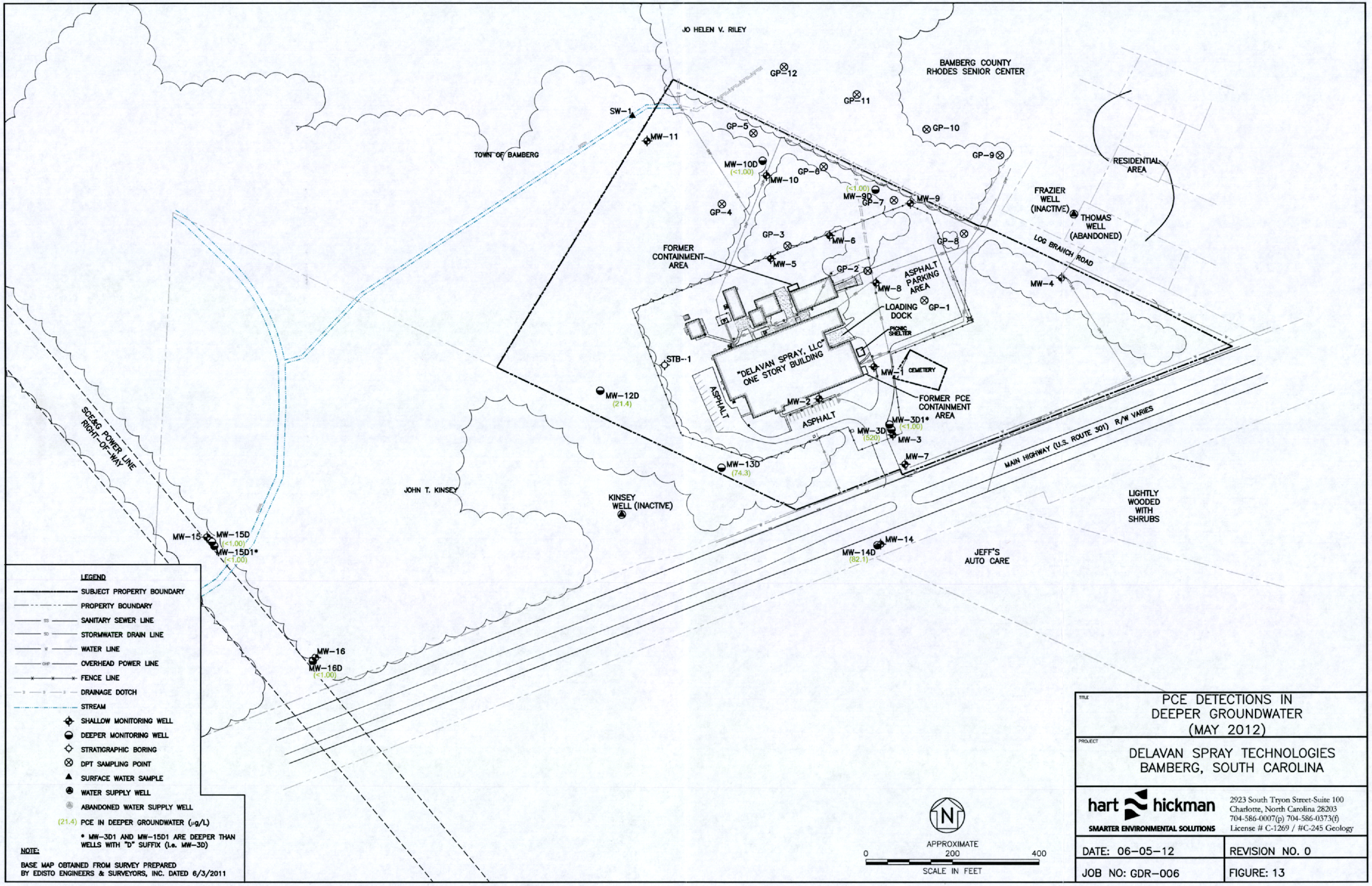
PROJECT: DELAVAN SPRAY TECHNOLOGIES BAMBERG, SOUTH CAROLINA

hart hickman
SMARTER ENVIRONMENTAL SOLUTIONS
2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)
License # C-1269 / #C-245 Geology

DATE: 06-05-12 | REVISION NO. 0

JOB NO: GDR-006 | FIGURE: 12

S:\VAA-Master Projects\Goodrich - GDR\GDR-06 Bamberg\April 2012 Assessment\Figures\Surveyed Site Map.dwg, FIG-12, 6/8/2012 1:28:05 PM, chearn



LEGEND

- SUBJECT PROPERTY BOUNDARY
- PROPERTY BOUNDARY
- SANITARY SEWER LINE
- STORMWATER DRAIN LINE
- WATER LINE
- OVERHEAD POWER LINE
- FENCE LINE
- DRAINAGE DOTCH
- STREAM
- SHALLOW MONITORING WELL
- DEEPER MONITORING WELL
- STRATIGRAPHIC BORING
- DPT SAMPLING POINT
- SURFACE WATER SAMPLE
- WATER SUPPLY WELL
- ABANDONED WATER SUPPLY WELL
- (21.4) PCE IN DEEPER GROUNDWATER (µg/L)
- * MW-3D1 AND MW-15D1 ARE DEEPER THAN WELLS WITH "D" SUFFIX (i.e. MW-3D)

NOTE:

BASE MAP OBTAINED FROM SURVEY PREPARED BY EDISTO ENGINEERS & SURVEYORS, INC. DATED 6/3/2011

APPROXIMATE
0 200 400
SCALE IN FEET

TITLE: PCE DETECTIONS IN DEEPER GROUNDWATER (MAY 2012)

PROJECT: DELAVAN SPRAY TECHNOLOGIES
BAMBERG, SOUTH CAROLINA

hart hickman
SMARTER ENVIRONMENTAL SOLUTIONS
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Charlotte, North Carolina 28203
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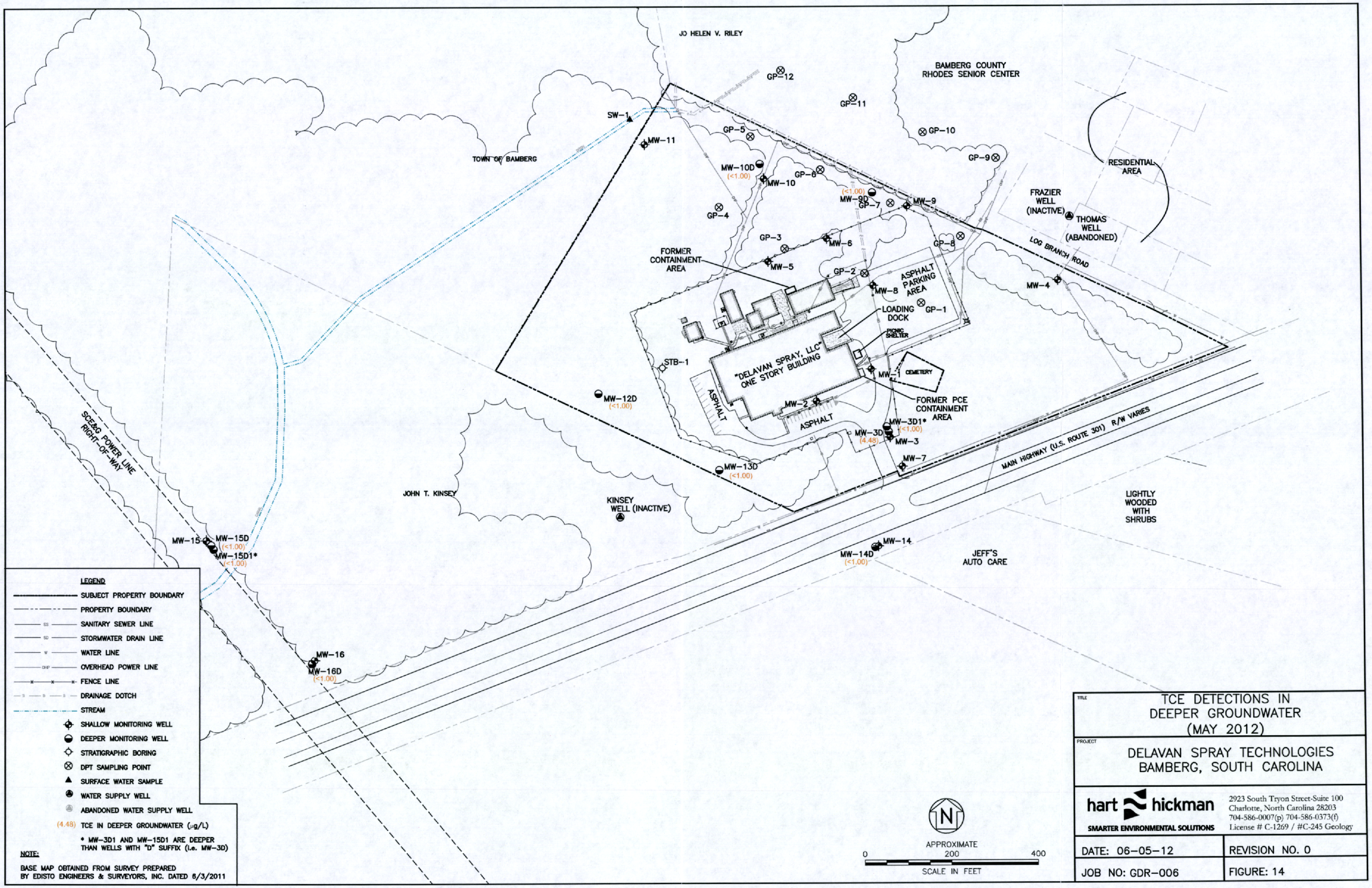
License # C-1269 / #C-245 Geology

DATE: 06-05-12	REVISION NO. 0
JOB NO: GDR-006	FIGURE: 13

S:\VAA-Master Projects\Goodrich - GDR\GDR-06 Bamberg\Vol1 2012 Assessment\Figures\Surveyed Site Map.dwg, FIG-13, 6/8/2012 1:28:24 PM, cheam



LEGEND

- SUBJECT PROPERTY BOUNDARY
- PROPERTY BOUNDARY
- SANITARY SEWER LINE
- STORMWATER DRAIN LINE
- WATER LINE
- OVERHEAD POWER LINE
- FENCE LINE
- DRAINAGE DOTCH
- STREAM
- SHALLOW MONITORING WELL
- DEEPER MONITORING WELL
- STRATIGRAPHIC BORING
- DPT SAMPLING POINT
- SURFACE WATER SAMPLE
- WATER SUPPLY WELL
- ABANDONED WATER SUPPLY WELL
- (4.48) TCE IN DEEPER GROUNDWATER (µg/L)
- * MW-3D1 AND MW-15D1 ARE DEEPER THAN WELLS WITH "D" SUFFIX (i.e. MW-3D)

NOTE:

BASE MAP OBTAINED FROM SURVEY PREPARED BY EDISTO ENGINEERS & SURVEYORS, INC. DATED 6/3/2011

N

APPROXIMATE
0 200 400
SCALE IN FEET

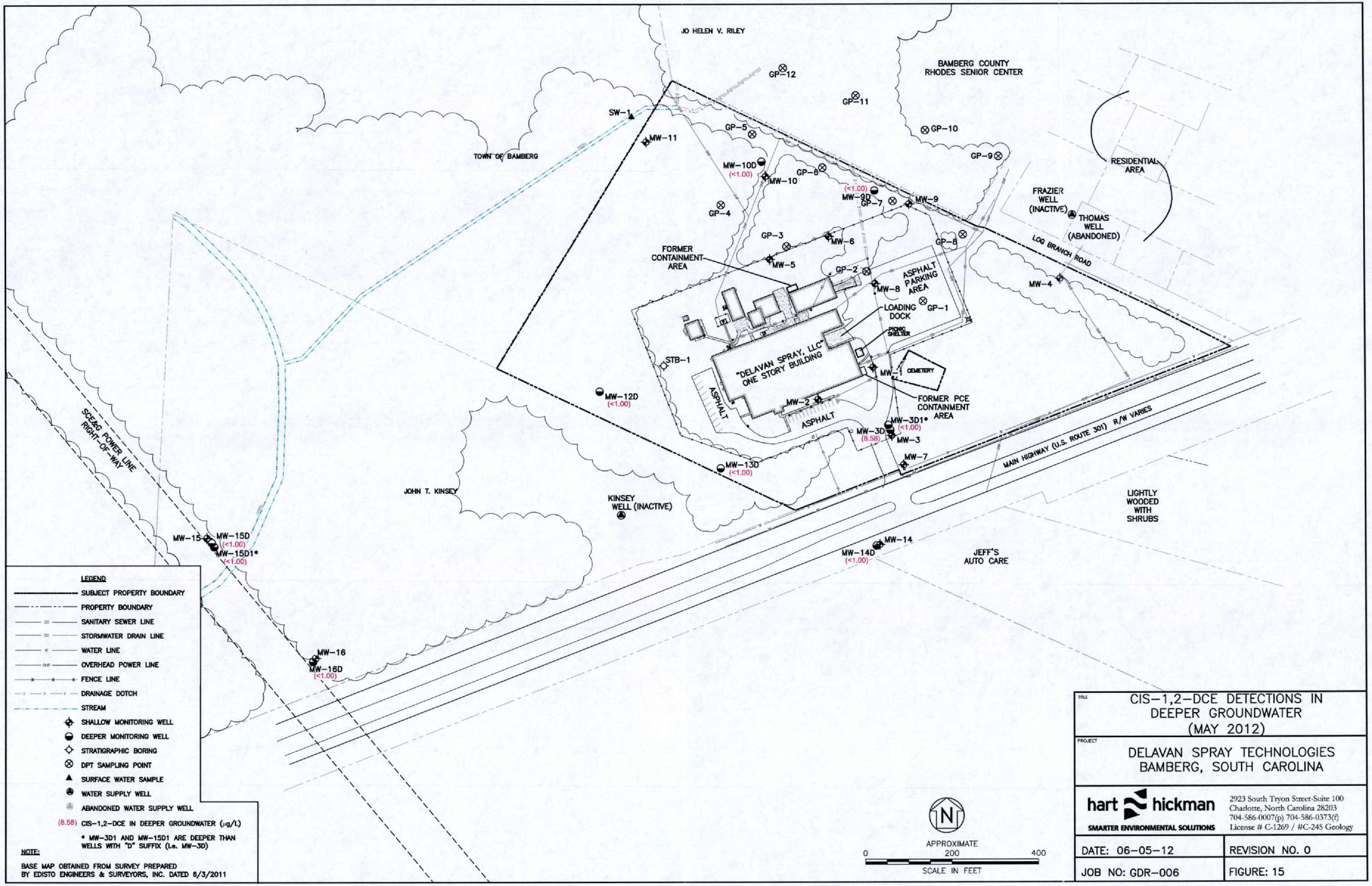
TITLE: TCE DETECTIONS IN DEEPER GROUNDWATER (MAY 2012)

PROJECT: DELAVAN SPRAY TECHNOLOGIES BAMBERG, SOUTH CAROLINA

hart hickman
SMARTER ENVIRONMENTAL SOLUTIONS
2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)
License # C-1269 / #C-245 Geology

DATE: 06-05-12	REVISION NO. 0
JOB NO: GDR-006	FIGURE: 14

S:\AAA-Master Projects\Goodrich - GDR\GDR-06 Bamberg\April 2012 Assessment\Figures\Surveyed Site Map.dwg, FIG-14, 6/8/2012 1:28:39 PM, cheam



LEGEND

- SUBJECT PROPERTY BOUNDARY
- PROPERTY BOUNDARY
- SANITARY SEWER LINE
- STORMWATER DRAIN LINE
- WATER LINE
- OVERHEAD POWER LINE
- FENCE LINE
- DRAINAGE DOTCH
- STREAM
- SHALLOW MONITORING WELL
- DEEPER MONITORING WELL
- STRATIGRAPHIC BORING
- DPT SAMPLING POINT
- SURFACE WATER SAMPLE
- WATER SUPPLY WELL
- ABANDONED WATER SUPPLY WELL
- (8.58) CIS-1,2-DCE IN DEEPER GROUNDWATER (µg/L)
- * MW-3D1 AND MW-15D1 ARE DEEPER THAN WELLS WITH "D" SUFFIX (i.e. MW-3D)

NOTE:

BASE MAP OBTAINED FROM SURVEY PREPARED BY EDISTO ENGINEERS & SURVEYORS, INC. DATED 6/3/2011

N

APPROXIMATE
0 200 400
SCALE IN FEET

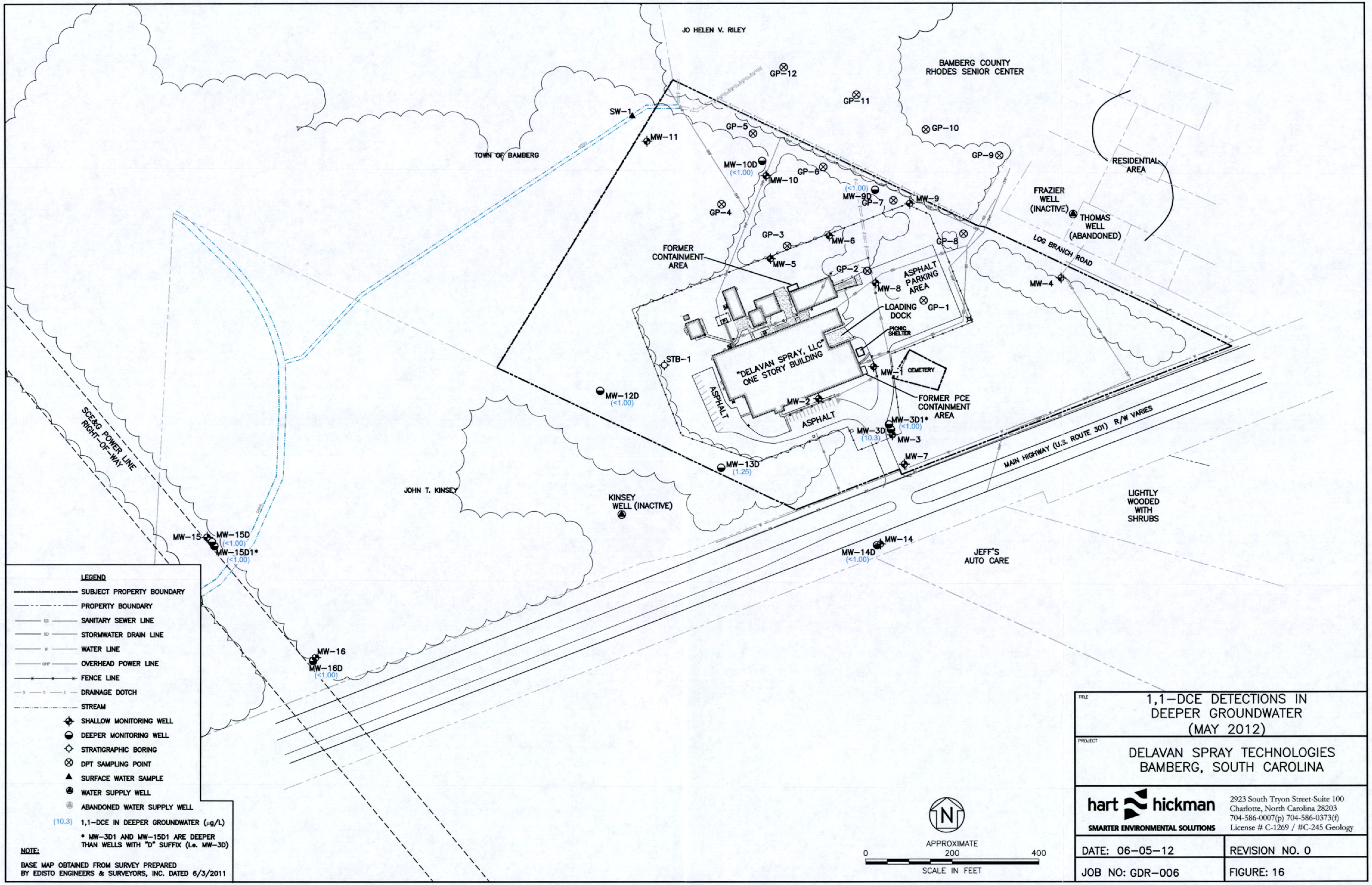
TITLE: CIS-1,2-DCE DETECTIONS IN DEEPER GROUNDWATER (MAY 2012)

PROJECT: DELAVAN SPRAY TECHNOLOGIES BAMBERG, SOUTH CAROLINA

hart hickman
SMARTER ENVIRONMENTAL SOLUTIONS
2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)
License # C-1269 / #C-245 Geology

DATE: 06-05-12	REVISION NO. 0
JOB NO: GDR-006	FIGURE: 15

S:\AAA-Master Projects\Goodrich - GDR\GDR-06 Bamberg\April 2012 Assessment\Figures\Surveyed Site Map.dwg, FIG-15, 6/8/2012 1:28:53 PM, cheam



LEGEND

- SUBJECT PROPERTY BOUNDARY
- PROPERTY BOUNDARY
- SANITARY SEWER LINE
- STORMWATER DRAIN LINE
- WATER LINE
- OVERHEAD POWER LINE
- FENCE LINE
- DRAINAGE DOTCH
- STREAM
- SHALLOW MONITORING WELL
- DEEPER MONITORING WELL
- STRATIGRAPHIC BORING
- DPT SAMPLING POINT
- SURFACE WATER SAMPLE
- WATER SUPPLY WELL
- ABANDONED WATER SUPPLY WELL
- (10.3) 1,1-DCE IN DEEPER GROUNDWATER (µg/L)
- * MW-3D1 AND MW-15D1 ARE DEEPER THAN WELLS WITH "D" SUFFIX (i.e. MW-3D)

NOTE:

BASE MAP OBTAINED FROM SURVEY PREPARED BY EDISTO ENGINEERS & SURVEYORS, INC. DATED 6/3/2011

APPROXIMATE
0 200 400
SCALE IN FEET

TITLE: 1,1-DCE DETECTIONS IN DEEPER GROUNDWATER (MAY 2012)

PROJECT: DELAVAN SPRAY TECHNOLOGIES
BAMBERG, SOUTH CAROLINA

hart hickman
SMARTER ENVIRONMENTAL SOLUTIONS
2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)
License # C-1269 / #C-245 Geology

DATE: 06-05-12 | REVISION NO. 0

JOB NO: GDR-006 | FIGURE: 16

S:\WA-Master Projects\Goodrich - GDR\GDR-06 Bamberg\Work\2012 Assessment\Figures\Surveyed Site Map.dwg, FIG-16, 6/8/2012 1:29:10 PM, chearn

Appendix A

Boring Log and Well Construction Record

hart hickman
SMARTER ENVIRONMENTAL SOLUTIONS

2923 South Tryon Street-Suite 100
Charlotte, North Carolina 28203
704-586-0007(p) 704-586-0373(f)

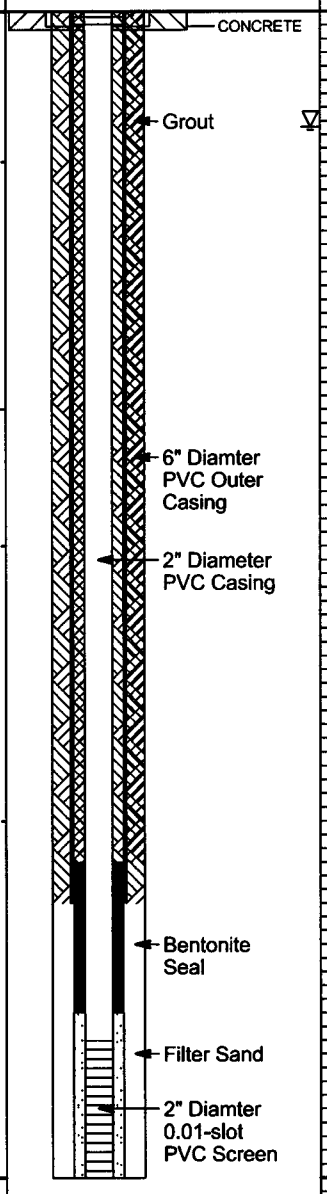
3334 Hillsborough Street
Raleigh, North Carolina 27607
919-847-4241(p) 919-847-4261(f)

BORING NUMBER MW-15D1

PROJECT: Delavan Spray Technologies
JOB NUMBER: GDR-006
LOCATION: Bamberg, South Carolina

DEPTH (ft)	RECOVERY (%)	SAMPLE TYPE NUMBER	OVA (ppm) BKG.	OVA (ppm) SAMP.	LITHOLOGY	MATERIAL DESCRIPTION
0						Moist to very moist, medium stiff, gray, medium grained SAND
10	100	SS	0	0		
						Wet, medium dense, brown, clayey SAND
20	100	SS	0	0		
30	75	SS	0	0		Wet, stiff to hard, tan, calcareous LIMESTONE
	100	SS	0	0		
40	100	SS	0	0		Wet, hard, light tan and light gray, fossiliferous LIMESTONE
	100	SS	0	0		
50	100	SS	0	0		
	100	SS	0	0		
60	100	SS	0	0		Wet, hard, light gray, moderately cemented, well sorted, sub-rounded, medium-grained, SANDSTONE
70						
80						
	100	SS	0	0		
						Bottom of borehole at 85.0 feet.

BORING DIAGRAM



DEPTH (ft)

DRILLING CONTRACTOR: Geologic Exploration
DRILL RIG/ METHOD: Diedrich D-120 / HSA/Mud Rotary
SAMPLING METHOD: Split Spoon
LOGGED BY: RJC/JRS
DRAWN BY:

BORING STARTED: 4/26/12
BORING COMPLETED: 4/30/12
TOTAL DEPTH: 85 ft.
TOP OF CASING ELEV: 135.94 ft.
DEPTH TO WATER: 8.45 ft.

Remarks:

BORING LOG - HART HICKMAN.GDT - 6/5/12 11:51 - S:\AAA-MASTER GINT PROJECTS\GDR-006 MW-15D1.GPJ

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

D H E C — PROMOTE. PROTECT. PROSPER.

1. WELL OWNER INFORMATION:
Name. DELAVAN SPRAY TECHNOLOGIES (last) (first)
Address: 4434 US HIGHWAY 301 SOUTH
City: BAMBERG State: SC Zip: 29003
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** BAMBERG
Name: DELAVAN INDUSTRIES
Street Address: 4434 US HIGHWAY 301 SOUTH
City: BAMBERG Zip: 29003
Latitude. 33° 17' 00.31" Longitude: 81° 03' 07.68"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth. from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
BROWN SAND	5.0	5.0
TAN SANDY CLAY	11.0	16.0
TAN/WHITE SANDY CLAY	12.0	28.0
TAN SAND/LIMESTONE	23.0	51.0
WHITE SILTY SANDY CLAY	18.0	69.0
GRAY SILTY SANDY CLAY	16.0	85.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-15D-1 BENTONITE SEAL FROM 62.0 TO 73.0 FT. 6 INCH PVC CASING GROUTED FROM 0.0 TO 65.0 FT

6. TYPE: ☑ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 85.0 ft. Date Started: 04/27/12 Date Completed: 04/30/12

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH, 6 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 75.0 ft. depth
6.0 in. to 65.0 ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length. 10.0 FEET
Set Between: 75.0 ft. and 85.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 15.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 73.0 ft. to 85.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 62.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed. _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: BRIAN THOMAS **CERT. NO.:** 01465
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 05/08/12
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

Appendix B

Laboratory Analytical Data (April and May 2012)

hart hickman
SMARTER ENVIRONMENTAL SOLUTIONS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Road
Nashville, TN 37204
Tel: 800-765-0980

TestAmerica Job ID: NWE0308
Client Project/Site: GDR.006
Client Project Description: Delevan

For:
Hart & Hickman (2162)
2923 South Tryon Street, Suite 100
Charlotte, NC 28203-5449

Attn: Shannon Cottrill

Authorized for release by:
5/9/2012 11:17:11 AM

Ken A. Hayes
Senior Project Manager
ken.hayes@testamericainc.com

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary 3
Definitions 4
Client Sample Results 5
QC Sample Results 7
QC Association 11
Chronicle 13
Method Summary 14
Certification Summary 15
Chain of Custody 16

Sample Summary

Client: Hart & Hickman (2162)
Project/Site: GDR.006

TestAmerica Job ID: NWE0308

3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
NWE0308-01	IDW-1	Water	04/30/12 16:25	05/02/12 09.00
NWE0308-02	IDW-2	Soil	04/30/12 17:05	05/02/12 09:00
NWE0308-03	IDW-3	Water	04/30/12 17:55	05/02/12 09:00

Qualifiers

GCMS Volatiles

Qualifier	Qualifier Description
B	Analyte was detected in the associated Method Blank.
R2	The RPD exceeded the acceptance limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample ID: IDW-1
Date Collected: 04/30/12 16:25
Date Received: 05/02/12 09:00

Lab Sample ID: NWE0308-01
Matrix: Water

5

Method: SW846 1311/8260B - TCLP Volatile Organic Compounds by EPA Method 1311/8260B - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0100		mg/L		05/07/12 10:27	05/07/12 14:46	10.0
2-Butanone	ND		0.250		mg/L		05/07/12 10:27	05/07/12 14.46	10.0
Carbon Tetrachloride	ND		0.0100		mg/L		05/07/12 10:27	05/07/12 14.46	10.0
Chlorobenzene	ND		0.0100		mg/L		05/07/12 10:27	05/07/12 14.46	10.0
Chloroform	ND		0.0100		mg/L		05/07/12 10:27	05/07/12 14:46	10.0
1,2-Dichloroethane	ND		0.0100		mg/L		05/07/12 10 27	05/07/12 14:46	10.0
1,1-Dichloroethene	ND		0.0100		mg/L		05/07/12 10:27	05/07/12 14:46	10.0
Tetrachloroethene	ND		0.0100		mg/L		05/07/12 10:27	05/07/12 14:46	10.0
Trichloroethene	ND		0.0100		mg/L		05/07/12 10:27	05/07/12 14:46	10.0
Vinyl chloride	ND		0 0100		mg/L		05/07/12 10:27	05/07/12 14:46	10.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*99*		*70 - 130*	*05/07/12 10:27*	*05/07/12 14:46*	*10.0*
Dibromofluoromethane	*96*		*70 - 130*	*05/07/12 10:27*	*05/07/12 14:46*	*10.0*
Toluene-d8	*101*		*80 - 120*	*05/07/12 10:27*	*05/07/12 14:46*	*10.0*
4-Bromofluorobenzene	*110*		*79 - 125*	*05/07/12 10:27*	*05/07/12 14:46*	*10 0*

Method: SW846 1311/6010C - TCLP Metals by 6000/7000 Series Methods - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0 100		mg/L		05/04/12 10:00	05/04/12 23:33	1.00
Barium	**0.276**		0.100		mg/L		05/04/12 10:00	05/04/12 23:33	1.00
Cadmium	ND		0.0100		mg/L		05/04/12 10:00	05/04/12 23:33	1.00
Chromium	**3.83**		0.0500		mg/L		05/04/12 10:00	05/04/12 23:33	1.00
Lead	ND		0.0500		mg/L		05/04/12 10:00	05/04/12 23:33	1.00
Selenium	ND		0.100		mg/L		05/04/12 10:00	05/04/12 23:33	1 00
Silver	ND		0.0500		mg/L		05/04/12 10 00	05/04/12 23:33	1.00

Method: SW846 1311/7470A - TCLP Metals by 6000/7000 Series Methods - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0100		mg/L		05/04/12 06:50	05/07/12 09:36	1.00

Client Sample ID: IDW-2
Date Collected: 04/30/12 17:05
Date Received: 05/02/12 09:00

Lab Sample ID: NWE0308-02
Matrix: Soil

Method: SW846 1311/8260B - TCLP Volatile Organic Compounds by EPA Method 1311/8260B - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0100		mg/L		05/07/12 10.27	05/07/12 15:15	10.0
2-Butanone	ND		0.250		mg/L		05/07/12 10:27	05/07/12 15:15	10.0
Carbon Tetrachloride	ND		0.0100		mg/L		05/07/12 10:27	05/07/12 15:15	10.0
Chlorobenzene	ND		0.0100		mg/L		05/07/12 10:27	05/07/12 15:15	10.0
Chloroform	ND		0.0100		mg/L		05/07/12 10:27	05/07/12 15:15	10.0
1,2-Dichloroethane	ND		0.0100		mg/L		05/07/12 10:27	05/07/12 15:15	10.0
1,1-Dichloroethene	ND		0.0100		mg/L		05/07/12 10:27	05/07/12 15:15	10.0
Tetrachloroethene	ND		0.0100		mg/L		05/07/12 10:27	05/07/12 15:15	10 0
Trichloroethene	ND		0.0100		mg/L		05/07/12 10:27	05/07/12 15 15	10.0
Vinyl chloride	ND		0.0100		mg/L		05/07/12 10:27	05/07/12 15:15	10.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*101*		*70 - 130*	*05/07/12 10:27*	*05/07/12 15:15*	*10.0*
Dibromofluoromethane	*98*		*70 - 130*	*05/07/12 10.27*	*05/07/12 15:15*	*10.0*
Toluene-d8	*100*		*80 - 120*	*05/07/12 10:27*	*05/07/12 15:15*	*10.0*

Client Sample ID: IDW-2

Lab Sample ID: NWE0308-02

Date Collected: 04/30/12 17:05

Matrix: Soil

Date Received: 05/02/12 09:00

Method: SW846 1311/8260B - TCLP Volatile Organic Compounds by EPA Method 1311/8260B - TCLP (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*106*		*79 - 125*	*05/07/12 10:27*	*05/07/12 15:15*	*10.0*

Method: SW846 1311/6010C - TCLP Metals by 6000/7000 Series Methods - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.100		mg/L		05/04/12 10:00	05/04/12 23:43	1.00
Barium	**0.171**		0 100		mg/L		05/04/12 10:00	05/04/12 23:43	1.00
Cadmium	ND		0.0100		mg/L		05/04/12 10:00	05/04/12 23:43	1.00
Chromium	ND		0.0500		mg/L		05/04/12 10:00	05/04/12 23:43	1.00
Lead	ND		0.0500		mg/L		05/04/12 10:00	05/04/12 23 43	1.00
Selenium	ND		0.100		mg/L		05/04/12 10:00	05/04/12 23:43	1.00
Silver	ND		0.0500		mg/L		05/04/12 10 00	05/04/12 23:43	1.00

Method: SW846 1311/7470A - TCLP Metals by 6000/7000 Series Methods - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0100		mg/L		05/04/12 06:50	05/07/12 09:44	1.00

Client Sample ID: IDW-3

Lab Sample ID: NWE0308-03

Date Collected: 04/30/12 17:55

Matrix: Water

Date Received: 05/02/12 09:00

Method: SW846 1311/8260B - TCLP Volatile Organic Compounds by EPA Method 1311/8260B - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0100		mg/L		05/07/12 10:27	05/07/12 15:43	10.0
2-Butanone	ND		0.250		mg/L		05/07/12 10.27	05/07/12 15:43	10 0
Carbon Tetrachloride	ND		0.0100		mg/L		05/07/12 10.27	05/07/12 15:43	10.0
Chlorobenzene	ND		0.0100		mg/L		05/07/12 10:27	05/07/12 15:43	10.0
Chloroform	ND		0.0100		mg/L		05/07/12 10:27	05/07/12 15:43	10.0
1,2-Dichloroethane	ND		0.0100		mg/L		05/07/12 10:27	05/07/12 15:43	10.0
1,1-Dichloroethene	ND		0.0100		mg/L		05/07/12 10:27	05/07/12 15:43	10.0
Tetrachloroethene	ND		0.0100		mg/L		05/07/12 10:27	05/07/12 15:43	10.0
Trichloroethene	ND		0.0100		mg/L		05/07/12 10:27	05/07/12 15:43	10.0
Vinyl chloride	ND		0.0100		mg/L		05/07/12 10.27	05/07/12 15:43	10.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*101*		*70 - 130*	*05/07/12 10:27*	*05/07/12 15:43*	*10.0*
Dibromofluoromethane	*103*		*70 - 130*	*05/07/12 10:27*	*05/07/12 15:43*	*10.0*
Toluene-d8	*99*		*80 - 120*	*05/07/12 10:27*	*05/07/12 15:43*	*10.0*
4-Bromofluorobenzene	*108*		*79 - 125*	*05/07/12 10:27*	*05/07/12 15:43*	*10.0*

Method: SW846 1311/6010C - TCLP Metals by 6000/7000 Series Methods - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.100		mg/L		05/04/12 10 00	05/04/12 23:46	1.00
Barium	ND		0.100		mg/L		05/04/12 10:00	05/04/12 23:46	1.00
Cadmium	ND		0.0100		mg/L		05/04/12 10:00	05/04/12 23:46	1.00
Chromium	ND		0.0500		mg/L		05/04/12 10:00	05/04/12 23:46	1.00
Lead	ND		0.0500		mg/L		05/04/12 10:00	05/04/12 23.46	1.00
Selenium	ND		0 100		mg/L		05/04/12 10:00	05/04/12 23:46	1.00
Silver	ND		0.0500		mg/L		05/04/12 10:00	05/04/12 23:46	1.00

Method: SW846 1311/7470A - TCLP Metals by 6000/7000 Series Methods - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0100		mg/L		05/04/12 06:50	05/07/12 09:46	1.00

Method: SW846 1311/8260B - TCLP Volatile Organic Compounds by EPA Method 1311/8260B

Lab Sample ID: 12E1042-BLK1
Matrix: Water
Analysis Batch: V007595

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 12E1042_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00100		mg/L		05/07/12 10.27	05/07/12 11:53	1.00
2-Butanone	ND		0.0250		mg/L		05/07/12 10:27	05/07/12 11:53	1.00
Carbon Tetrachloride	ND		0.00100		mg/L		05/07/12 10:27	05/07/12 11:53	1 00
Chlorobenzene	ND		0.00100		mg/L		05/07/12 10:27	05/07/12 11:53	1.00
Chloroform	0.00289		0.00100		mg/L		05/07/12 10:27	05/07/12 11:53	1.00
1,2-Dichloroethane	ND		0.00100		mg/L		05/07/12 10:27	05/07/12 11:53	1.00
1,1-Dichloroethene	ND		0.00100		mg/L		05/07/12 10.27	05/07/12 11:53	1.00
Tetrachloroethene	ND		0.00100		mg/L		05/07/12 10:27	05/07/12 11:53	1.00
Trichloroethene	ND		0.00100		mg/L		05/07/12 10:27	05/07/12 11.53	1.00
Vinyl chloride	ND		0.00100		mg/L		05/07/12 10:27	05/07/12 11:53	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*102*		*70 - 130*	*05/07/12 10:27*	*05/07/12 11:53*	*1.00*
Dibromofluoromethane	*103*		*70 - 130*	*05/07/12 10:27*	*05/07/12 11:53*	*1.00*
Toluene-d8	*101*		*80 - 120*	*05/07/12 10.27*	*05/07/12 11:53*	*1 00*
4-Bromofluorobenzene	*106*		*79 - 125*	*05/07/12 10:27*	*05/07/12 11:53*	*1.00*

Lab Sample ID: 12E1042-BLK2
Matrix: Water
Analysis Batch: V007595

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 12E1042_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00100		mg/L		05/07/12 10:27	05/07/12 12:21	1.00
2-Butanone	ND		0.0250		mg/L		05/07/12 10:27	05/07/12 12:21	1.00
Carbon Tetrachloride	ND		0.00100		mg/L		05/07/12 10:27	05/07/12 12:21	1.00
Chlorobenzene	ND		0 00100		mg/L		05/07/12 10:27	05/07/12 12:21	1.00
Chloroform	0 00463		0.00100		mg/L		05/07/12 10 27	05/07/12 12:21	1.00
1,2-Dichloroethane	ND		0.00100		mg/L		05/07/12 10:27	05/07/12 12:21	1.00
1,1-Dichloroethene	ND		0.00100		mg/L		05/07/12 10:27	05/07/12 12.21	1 00
Tetrachloroethene	ND		0.00100		mg/L		05/07/12 10:27	05/07/12 12:21	1.00
Trichloroethene	ND		0.00100		mg/L		05/07/12 10:27	05/07/12 12:21	1.00
Vinyl chloride	ND		0.00100		mg/L		05/07/12 10:27	05/07/12 12:21	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*100*		*70 - 130*	*05/07/12 10:27*	*05/07/12 12:21*	*1.00*
Dibromofluoromethane	*103*		*70 - 130*	*05/07/12 10:27*	*05/07/12 12:21*	*1.00*
Toluene-d8	*100*		*80 - 120*	*05/07/12 10:27*	*05/07/12 12.21*	*1.00*
4-Bromofluorobenzene	*103*		*79 - 125*	*05/07/12 10:27*	*05/07/12 12:21*	*1.00*

Lab Sample ID: 12E1042-BS1
Matrix: Water
Analysis Batch: V007595

Client Sample ID: Lab Control Sample
Prep Type: TCLP
Prep Batch: 12E1042_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	53.8		ug/L		108	80 - 121
2-Butanone	250	258		ug/L		103	62 - 133
Carbon Tetrachloride	50.0	58.1		ug/L		116	64 - 147
Chlorobenzene	50.0	57.0		ug/L		114	80 - 120
Chloroform	50 0	51.2	B	ug/L		102	73 - 129

Method: SW846 1311/8260B - TCLP Volatile Organic Compounds by EPA Method 1311/8260B (Continued)

Lab Sample ID: 12E1042-BS1
Matrix: Water
Analysis Batch: V007595

Client Sample ID: Lab Control Sample
Prep Type: TCLP
Prep Batch: 12E1042_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	50.0	51.6		ug/L		103	77 - 121
1,1-Dichloroethene	50.0	57.2		ug/L		114	79 - 124
Tetrachloroethene	50.0	58.5		ug/L		117	80 - 126
Trichloroethene	50.0	57.2		ug/L		114	80 - 123
Vinyl chloride	50.0	48 8		ug/L		98	68 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4	*95*		*70 - 130*
Dibromofluoromethane	*97*		*70 - 130*
Toluene-d8	*103*		*80 - 120*
4-Bromofluorobenzene	*94*		*79 - 125*

Lab Sample ID: 12E1042-MS1
Matrix: Water
Analysis Batch: V007595

Client Sample ID: Matrix Spike
Prep Type: TCLP
Prep Batch: 12E1042_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		0.500	0 464		mg/L		93	75 - 133
2-Butanone	ND		2.50	2.05		mg/L		82	50 - 138
Carbon Tetrachloride	ND		0.500	0.502		mg/L		100	62 - 164
Chlorobenzene	ND		0.500	0.479		mg/L		96	80 - 129
Chloroform	ND		0.500	0.452	B	mg/L		90	66 - 138
1,2-Dichloroethane	ND		0.500	0.436		mg/L		87	64 - 136
1,1-Dichloroethene	ND		0.500	0.499		mg/L		100	70 - 142
Tetrachloroethene	ND		0.500	0.498		mg/L		100	72 - 145
Trichloroethene	ND		0.500	0.477		mg/L		95	73 - 144
Vinyl chloride	ND		0.500	0.397		mg/L		79	56 - 129

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
1,2-Dichloroethane-d4	*98*		*70 - 130*
Dibromofluoromethane	*100*		*70 - 130*
Toluene-d8	*100*		*80 - 120*
4-Bromofluorobenzene	*93*		*79 - 125*

Lab Sample ID: 12E1042-MSD1
Matrix: Water
Analysis Batch: V007595

Client Sample ID: Matrix Spike Duplicate
Prep Type: TCLP
Prep Batch: 12E1042_P

Analyte	Sample Result	Sample Qualifier	Spike Added	ıtrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		0.500	0.494		mg/L		99	75 - 133	6	17
2-Butanone	ND		2.50	2.20		mg/L		88	50 - 138	7	19
Carbon Tetrachloride	ND		0 500	0.539		mg/L		108	62 - 164	7	19
Chlorobenzene	ND		0.500	0.490		mg/L		98	80 - 129	2	14
Chloroform	ND		0.500	0.471	B	mg/L		94	66 - 138	4	18
1,2-Dichloroethane	ND		0.500	0.470		mg/L		94	64 - 136	7	17
1,1-Dichloroethene	ND		0.500	0 505		mg/L		101	70 - 142	1	17
Tetrachloroethene	ND		0.500	0.520		mg/L		104	72 - 145	4	16
Trichloroethene	ND		0.500	0.518		mg/L		104	73 - 144	8	17

Method: SW846 1311/8260B - TCLP Volatile Organic Compounds by EPA Method 1311/8260B (Continued)

Lab Sample ID: 12E1042-MSD1
Matrix: Water
Analysis Batch: V007595

Client Sample ID: Matrix Spike Duplicate
Prep Type: TCLP
Prep Batch: 12E1042_P

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Du Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	ND		0 500	0.538	R2	mg/L		108	56 - 129	30	17

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
1,2-Dichloroethane-d4	*99*		*70 - 130*
Dibromofluoromethane	*101*		*70 - 130*
Toluene-d8	*102*		*80 - 120*
4-Bromofluorobenzene	*95*		*79 - 125*

Method: SW846 1311/6010C - TCLP Metals by 6000/7000 Series Methods

Lab Sample ID: 12E0977-BLK1
Matrix: Soil
Analysis Batch: 12E0977

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 12E0977_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.100		mg/L		05/04/12 10:00	05/04/12 23:13	1.00
Barium	ND		0.100		mg/L		05/04/12 10:00	05/04/12 23:13	1.00
Cadmium	ND		0.0100		mg/L		05/04/12 10:00	05/04/12 23 13	1.00
Chromium	ND		0.0500		mg/L		05/04/12 10:00	05/04/12 23:13	1.00
Lead	ND		0.0500		mg/L		05/04/12 10:00	05/04/12 23:13	1.00
Selenium	ND		0 100		mg/L		05/04/12 10:00	05/04/12 23:13	1.00
Silver	ND		0.0500		mg/L		05/04/12 10:00	05/04/12 23:13	1.00

Lab Sample ID: 12E0977-BS1
Matrix: Soil
Analysis Batch: 12E0977

Client Sample ID: Lab Control Sample
Prep Type: TCLP
Prep Batch: 12E0977_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	2.00	2.11		mg/L		106	80 - 120
Barium	20.0	22.4		mg/L		112	80 - 120
Cadmium	2 00	2 16		mg/L		108	80 - 120
Chromium	10.0	10.4		mg/L		104	80 - 120
Lead	10.0	10.7		mg/L		107	80 - 120
Selenium	2.00	2.12		mg/L		106	80 - 120
Silver	2.00	2.09		mg/L		105	80 - 120

Lab Sample ID: 12E0977-MS1
Matrix: Soil
Analysis Batch: 12E0977

Client Sample ID: IDW-1
Prep Type: TCLP
Prep Batch: 12E0977_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	ND		2.00	2.18		mg/L		109	75 - 125
Barium	0 276		20.0	22.1		mg/L		109	75 - 125
Cadmium	ND		2.00	2.14		mg/L		107	75 - 125
Chromium	3.83		10.0	14.2		mg/L		104	75 - 125
Lead	ND		10.0	10.7		mg/L		107	75 - 125
Selenium	ND		2.00	2.22		mg/L		111	75 - 125
Silver	ND		2.00	2.07		mg/L		103	75 - 125

Method: SW846 1311/6010C - TCLP Metals by 6000/7000 Series Methods (Continued)

Lab Sample ID: 12E0977-MSD1 — **Client Sample ID: IDW-1**
Matrix: Soil — **Prep Type: TCLP**
Analysis Batch: 12E0977 — **Prep Batch: 12E0977_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Du Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	ND		2.00	2.13		mg/L		107	75 - 125	2	20
Barium	0.276		20.0	21.8		mg/L		108	75 - 125	2	20
Cadmium	ND		2.00	2.11		mg/L		105	75 - 125	1	20
Chromium	3.83		10.0	13.9		mg/L		101	75 - 125	2	20
Lead	ND		10 0	10.6		mg/L		106	75 - 125	1	20
Selenium	ND		2.00	2.18		mg/L		109	75 - 125	2	20
Silver	ND		2.00	2.03		mg/L		102	75 - 125	2	20

Method: SW846 1311/7470A - TCLP Metals by 6000/7000 Series Methods

Lab Sample ID: 12E1036-BLK1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: TCLP**
Analysis Batch: 12E1036 — **Prep Batch: 12E1036_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0100		mg/L		05/04/12 06:50	05/07/12 09:30	1.00

Lab Sample ID: 12E1036-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: TCLP**
Analysis Batch: 12E1036 — **Prep Batch: 12E1036_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.0200	0.0229		mg/L		115	80 - 120

Lab Sample ID: 12E1036-MS1 — **Client Sample ID: IDW-1**
Matrix: Water — **Prep Type: TCLP**
Analysis Batch: 12E1036 — **Prep Batch: 12E1036_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.0200	0.0241		mg/L		120	75 - 125

Lab Sample ID: 12E1036-MSD1 — **Client Sample ID: IDW-1**
Matrix: Water — **Prep Type: TCLP**
Analysis Batch: 12E1036 — **Prep Batch: 12E1036_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Du Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.0200	0.0226		mg/L		113	75 - 125	6	20

QC Association Summary

Client: Hart & Hickman (2162)
Project/Site: GDR.006

TestAmerica Job ID: NWE0308

GCMS Volatiles

Leach Batch: 12E0678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
NWE0308-01	IDW-1	TCLP	Water	TCLP Extraction	
NWE0308-02	IDW-2	TCLP	Soil	TCLP Extraction	
NWE0308-03	IDW-3	TCLP	Water	TCLP Extraction	

Analysis Batch: V007595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E1042-BLK1	Method Blank	TCLP	Water	SW846 1311/8260B	12E1042_P
12E1042-BLK2	Method Blank	TCLP	Water	SW846 1311/8260B	12E1042_P
12E1042-BS1	Lab Control Sample	TCLP	Water	SW846 1311/8260B	12E1042_P
12E1042-MS1	Matrix Spike	TCLP	Water	SW846 1311/8260B	12E1042_P
12E1042-MSD1	Matrix Spike Duplicate	TCLP	Water	SW846 1311/8260B	12E1042_P
NWE0308-01	IDW-1	TCLP	Water	SW846 1311/8260B	12E1042_P
NWE0308-02	IDW-2	TCLP	Soil	SW846 1311/8260B	12E1042_P
NWE0308-03	IDW-3	TCLP	Water	SW846 1311/8260B	12E1042_P

Prep Batch: 12E1042_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E1042-BLK1	Method Blank	TCLP	Water	EPA 5030B	
12E1042-BLK2	Method Blank	TCLP	Water	EPA 5030B	
12E1042-BS1	Lab Control Sample	TCLP	Water	EPA 5030B	
12E1042-MS1	Matrix Spike	TCLP	Water	EPA 5030B	
12E1042-MSD1	Matrix Spike Duplicate	TCLP	Water	EPA 5030B	
NWE0308-01	IDW-1	TCLP	Water	EPA 5030B	12E0678
NWE0308-02	IDW-2	TCLP	Soil	EPA 5030B	12E0678
NWE0308-03	IDW-3	TCLP	Water	EPA 5030B	12E0678

Metals

Leach Batch: 12E0678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
NWE0308-01	IDW-1	TCLP	Water	TCLP Extraction	
NWE0308-02	IDW-2	TCLP	Soil	TCLP Extraction	
NWE0308-03	IDW-3	TCLP	Water	TCLP Extraction	

Analysis Batch: 12E0977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0977-BLK1	Method Blank	TCLP	Soil	SW846 1311/6010C	12E0977_P
12E0977-BS1	Lab Control Sample	TCLP	Soil	SW846 1311/6010C	12E0977_P
12E0977-MS1	IDW-1	TCLP	Soil	SW846 1311/6010C	12E0977_P
12E0977-MSD1	IDW-1	TCLP	Soil	SW846 1311/6010C	12E0977_P
NWE0308-01	IDW-1	TCLP	Water	SW846 1311/6010C	12E0977_P

Metals (Continued)

Analysis Batch: 12E0977 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
NWE0308-02	IDW-2	TCLP	Soil	SW846 1311/6010C	12E0977_P
NWE0308-03	IDW-3	TCLP	Water	SW846 1311/6010C	12E0977_P

Analysis Batch: 12E1036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E1036-BLK1	Method Blank	TCLP	Water	SW846 1311/7470A	12E1036_P
12E1036-BS1	Lab Control Sample	TCLP	Water	SW846 1311/7470A	12E1036_P
12E1036-MS1	IDW-1	TCLP	Water	SW846 1311/7470A	12E1036_P
12E1036-MSD1	IDW-1	TCLP	Water	SW846 1311/7470A	12E1036_P
NWE0308-01	IDW-1	TCLP	Water	SW846 1311/7470A	12E1036_P
NWE0308-02	IDW-2	TCLP	Soil	SW846 1311/7470A	12E1036_P
NWE0308-03	IDW-3	TCLP	Water	SW846 1311/7470A	12E1036_P

Prep Batch: 12E0977_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E0977-BLK1	Method Blank	TCLP	Soil	EPA 3010A / 6010	
12E0977-BS1	Lab Control Sample	TCLP	Soil	EPA 3010A / 6010	
12E0977-MS1	IDW-1	TCLP	Soil	EPA 3010A / 6010	
12E0977-MSD1	IDW-1	TCLP	Soil	EPA 3010A / 6010	
NWE0308-01	IDW-1	TCLP	Water	EPA 3010A / 6010	12E0678
NWE0308-02	IDW-2	TCLP	Soil	EPA 3010A / 6010	12E0678
NWE0308-03	IDW-3	TCLP	Water	EPA 3010A / 6010	12E0678

Prep Batch: 12E1036_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E1036-BLK1	Method Blank	TCLP	Water	EPA 7470	
12E1036-BS1	Lab Control Sample	TCLP	Water	EPA 7470	
12E1036-MS1	IDW-1	TCLP	Water	EPA 7470	
12E1036-MSD1	IDW-1	TCLP	Water	EPA 7470	
NWE0308-01	IDW-1	TCLP	Water	EPA 7470	12E0678
NWE0308-02	IDW-2	TCLP	Soil	EPA 7470	12E0678
NWE0308-03	IDW-3	TCLP	Water	EPA 7470	12E0678

Lab Chronicle

Client: Hart & Hickman (2162)
Project/Site: GDR.006

TestAmerica Job ID: NWE0308

Client Sample ID: IDW-1

Lab Sample ID: NWE0308-01

Date Collected: 04/30/12 16:25

Matrix: Water

Date Received: 05/02/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	TCLP Extraction		10.0	12E0678	05/03/12 16:40	SJM	TAL NSH
TCLP	Prep	EPA 5030B		1.00	12E1042_P	05/07/12 10:27	RWK	TAL NSH
TCLP	Analysis	SW846 1311/8260B		10.0	V007595	05/07/12 14:46	MJH	TAL NSH
TCLP	Leach	TCLP Extraction		1.00	12E0678	05/03/12 16:40	SJM	TAL NSH
TCLP	Prep	EPA 3010A / 6010		1 00	12E0977_P	05/04/12 10:00	ALJ	TAL NSH
TCLP	Analysis	SW846 1311/6010C		1.00	12E0977	05/04/12 23:33	DEB	TAL NSH
TCLP	Prep	EPA 7470		1.00	12E1036_P	05/04/12 06:50	ALJ	TAL NSH
TCLP	Analysis	SW846 1311/7470A		1.00	12E1036	05/07/12 09:36	ALJ	TAL NSH

Client Sample ID: IDW-2

Lab Sample ID: NWE0308-02

Date Collected: 04/30/12 17:05

Matrix: Soil

Date Received: 05/02/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	TCLP Extraction		10.0	12E0678	05/03/12 16:40	SJM	TAL NSH
TCLP	Prep	EPA 5030B		1.00	12E1042_P	05/07/12 10:27	RWK	TAL NSH
TCLP	Analysis	SW846 1311/8260B		10.0	V007595	05/07/12 15:15	MJH	TAL NSH
TCLP	Leach	TCLP Extraction		1.00	12E0678	05/03/12 16:40	SJM	TAL NSH
TCLP	Prep	EPA 3010A / 6010		1.00	12E0977_P	05/04/12 10:00	ALJ	TAL NSH
TCLP	Analysis	SW846 1311/6010C		1.00	12E0977	05/04/12 23:43	DEB	TAL NSH
TCLP	Prep	EPA 7470		1.00	12E1036_P	05/04/12 06:50	ALJ	TAL NSH
TCLP	Analysis	SW846 1311/7470A		1.00	12E1036	05/07/12 09:44	ALJ	TAL NSH

Client Sample ID: IDW-3

Lab Sample ID: NWE0308-03

Date Collected: 04/30/12 17:55

Matrix: Water

Date Received: 05/02/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	TCLP Extraction		10.0	12E0678	05/03/12 16:40	SJM	TAL NSH
TCLP	Prep	EPA 5030B		1.00	12E1042_P	05/07/12 10:27	RWK	TAL NSH
TCLP	Analysis	SW846 1311/8260B		10.0	V007595	05/07/12 15:43	MJH	TAL NSH
TCLP	Leach	TCLP Extraction		1.00	12E0678	05/03/12 16:40	SJM	TAL NSH
TCLP	Prep	EPA 3010A / 6010		1.00	12E0977_P	05/04/12 10:00	ALJ	TAL NSH
TCLP	Analysis	SW846 1311/6010C		1.00	12E0977	05/04/12 23:46	DEB	TAL NSH
TCLP	Prep	EPA 7470		1.00	12E1036_P	05/04/12 06:50	ALJ	TAL NSH
TCLP	Analysis	SW846 1311/7470A		1.00	12E1036	05/07/12 09:46	ALJ	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Road, Nashville, TN 37204, TEL 800-765-0980

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Method Summary

Client: Hart & Hickman (2162)
Project/Site: GDR.006

TestAmerica Job ID: NWE0308

Method	Method Description	Protocol	Laboratory
SW846 1311/8260B	TCLP Volatile Organic Compounds by EPA Method 1311/8260B		TAL NSH
SW846 1311/6010C	TCLP Metals by 6000/7000 Series Methods		TAL NSH
SW846 1311/7470A	TCLP Metals by 6000/7000 Series Methods		TAL NSH

Protocol References:

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Road, Nashville, TN 37204, TEL 800-765-0980

Certification Summary

Client: Hart & Hickman (2162)
Project/Site: GDR.006

TestAmerica Job ID: NWE0308

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Nashville		ACIL		393
TestAmerica Nashville	A2LA	ISO/IEC 17025		0453.07
TestAmerica Nashville	Alabama	State Program	4	41150
TestAmerica Nashville	Alaska (UST)	State Program	10	UST-087
TestAmerica Nashville	Arizona	State Program	9	AZ0473
TestAmerica Nashville	Arkansas DEQ	State Program	6	88-0737
TestAmerica Nashville	California	NELAC	9	1168CA
TestAmerica Nashville	Canadian Assoc Lab Accred (CALA)	Canada		3744
TestAmerica Nashville	Colorado	State Program	8	N/A
TestAmerica Nashville	Connecticut	State Program	1	PH-0220
TestAmerica Nashville	Florida	NELAC	4	E87358
TestAmerica Nashville	Illinois	NELAC	5	200010
TestAmerica Nashville	Iowa	State Program	7	131
TestAmerica Nashville	Kansas	NELAC	7	E-10229
TestAmerica Nashville	Kentucky	State Program	4	90038
TestAmerica Nashville	Kentucky (UST)	State Program	4	19
TestAmerica Nashville	Louisiana	NELAC	6	30613
TestAmerica Nashville	Louisiana	NELAC	6	LA110014
TestAmerica Nashville	Maryland	State Program	3	316
TestAmerica Nashville	Massachusetts	State Program	1	M-TN032
TestAmerica Nashville	Minnesota	NELAC	5	047-999-345
TestAmerica Nashville	Mississippi	State Program	4	N/A
TestAmerica Nashville	Montana (UST)	State Program	8	NA
TestAmerica Nashville	New Hampshire	NELAC	1	2963
TestAmerica Nashville	New Jersey	NELAC	2	TN965
TestAmerica Nashville	New York	NELAC	2	11342
TestAmerica Nashville	North Carolina DENR	State Program	4	387
TestAmerica Nashville	North Dakota	State Program	8	R-146
TestAmerica Nashville	Ohio VAP	State Program	5	CL0033
TestAmerica Nashville	Oklahoma	State Program	6	9412
TestAmerica Nashville	Oregon	NELAC	10	TN200001
TestAmerica Nashville	Pennsylvania	NELAC	3	68-00585
TestAmerica Nashville	Rhode Island	State Program	1	LAO00268
TestAmerica Nashville	South Carolina	State Program	4	84009
TestAmerica Nashville	South Carolina	State Program	4	84009
TestAmerica Nashville	Tennessee	State Program	4	2008
TestAmerica Nashville	Texas	NELAC	6	T104704077-09-TX
TestAmerica Nashville	USDA	Federal		S-48469
TestAmerica Nashville	Utah	NELAC	8	TAN
TestAmerica Nashville	Virginia	NELAC	3	460152
TestAmerica Nashville	Virginia	State Program	3	00323
TestAmerica Nashville	Washington	State Program	10	C789
TestAmerica Nashville	West Virginia DEP	State Program	3	219
TestAmerica Nashville	Wisconsin	State Program	5	998020430
TestAmerica Nashville	Wyoming (UST)	A2LA	8	453.07

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

10

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECE

NWE0308

Cooler Received/Opened On 5/2/2012 @ 0900

1. Tracking # 7624 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID 14740456

2. Temperature of rep. sample or temp blank when opened: 0.9 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 0

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) EE

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None -01 C

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry Ice Other None -03 C

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # NA

I certify that I unloaded the cooler and answered questions 7-14 (intial) A

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO..NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) VI

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) VI

I certify that I attached a label with the unique LIMS number to each container (intial) VI

21. Were there Non-Conformance issues at login? YES...NO Was a PIPE generated? YES...NO...#

BIS = Broken in shipment
Cooler Receipt Form.doc

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Nashville, TN

COOLER RECEIPT FORM

NWE0308

05/09/12 23:59

Cooler Received/Opened On 5/2/2012 @ 0900

1. Tracking # 2230 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID 96210146

2. Temperature of rep. sample or temp blank when opened: 0.7 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where:

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial)

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # NA

I certify that I unloaded the cooler and answered questions 7-14 (intial)

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO..NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial)

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial)

I certify that I attached a label with the unique LIMS number to each container (intial)

21. Were there Non-Conformance issues at login? YES...NO Was a PIPE generated? YES...NO...#

-01

-02

5/2/12

-02

-01 AD

-03 AD

11

BIS = Broken in shipment

Cooler Receipt Form.doc

LF-1

End of Form

Revised 6/24/09

5/9/2012

Chain of Custody Record

NWE0308
05/09/12 23:59

TestAmerica
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TestAmerica Laboratory location: Nashville, TN
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Hart & Hickman, PC	Client Project Manager: Shannon Cottrell	Site Contact:	Lab Contact: Ken Hayes	COC No:
Address: 2923 S. Tryon St. Ste. 100	Telephone: 704 377 4605	Telephone:	Telephone:	1 of 1 COCs
City/State/Zip: Charlotte, NC 28203	Email: scottrill@hearthickman.com	Analysis Turnaround Time (CALENDAR DAYS)	Analyses	
Phone: 704 586 0007		TAT if different from below H&H standard 5 day		
Project Name: Delavan Spray Technologies	Method of Shipment/Carrier:	☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Number: GOR-006	Shipping/Tracking No:			
PO# GOR-006				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composited / Grabbed	TCLP VOCs	TCLP Metals	Sample Specific Notes / Special Instructions:
IDW-1	4/30/12	1625		✓									✓				✓	✓	
IDW-2	↓	1705			✓								✓				✓	✓	
IDW-3	↓	1755		✓									✓				✓	✓	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☑ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☑ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company	Date/Time	Received by	Company	Date/Time
	Hart + Hickman		C. Bonham	TA	5/01/12 1425
C. Bonham	TA	5/01/12 1820			
Relinquished by:	Company	Date/Time	Received in Laboratory by:	Company	Date/Time
				5/2/12 0100	

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5/9/2012

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TAL-0018 (1008)



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Road
Nashville, TN 37204
Tel: 800-765-0980

TestAmerica Job ID: NWE1269
Client Project/Site: GDR-006
Client Project Description: Goodrich - Delavan Monitoring Wells

For:
Hart & Hickman (2162)
2923 South Tryon Street, Suite 100
Charlotte, NC 28203-5449

Attn: Shannon Cottrill

Authorized for release by:
5/16/2012 4:44:45 PM

Ken A. Hayes
Senior Project Manager
ken.hayes@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

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Sample Summary

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1269

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
NWE1269-01	MW-15D	Water	05/08/12 13:15	05/10/12 08 10
NWE1269-02	MW-15	Water	05/08/12 13:35	05/10/12 08:10
NWE1269-03	MW-15D1	Water	05/08/12 14:30	05/10/12 08:10
NWE1269-04	MW-16	Water	05/08/12 14:50	05/10/12 08:10
NWE1269-05	MW-16D	Water	05/08/12 15:20	05/10/12 08:10
NWE1269-06	MW-4	Water	05/08/12 15:55	05/10/12 08:10
NWE1269-07	MW-11	Water	05/08/12 16.30	05/10/12 08:10
NWE1269-08	MW-10D	Water	05/08/12 17.00	05/10/12 08:10
NWE1269-09	MW-10	Water	05/08/12 17:30	05/10/12 08:10
NWE1269-10	MW-9D	Water	05/08/12 18:10	05/10/12 08:10
NWE1269-11	MW-9	Water	05/08/12 18:40	05/10/12 08:10
NWE1269-12	MW-13D	Water	05/09/12 09:10	05/10/12 08:10
NWE1269-13	MW-12D	Water	05/09/12 09:50	05/10/12 08:10
NWE1269-14	MW-3	Water	05/09/12 10:10	05/10/12 08:10
NWE1269-15	MW-3D1	Water	05/09/12 11:05	05/10/12 08:10
NWE1269-16	MW-3D	Water	05/09/12 10:45	05/10/12 08:10
NWE1269-17	MW-7	Water	05/09/12 11:10	05/10/12 08:10
NWE1269-18	MW-14D	Water	05/09/12 12:00	05/10/12 08 10
NWE1269-19	MW-14	Water	05/09/12 12:20	05/10/12 08:10
NWE1269-20	MW-5	Water	05/09/12 12:45	05/10/12 08.10
NWE1269-21	MW-6	Water	05/09/12 13:05	05/10/12 08:10
NWE1269-22	MW-8	Water	05/09/12 13:30	05/10/12 08:10
NWE1269-23	MW-1	Water	05/09/12 14:00	05/10/12 08:10
NWE1269-24	MW-2	Water	05/09/12 14 35	05/10/12 08 10
NWE1269-25	Trip Blank	Water	05/08/12 00:01	05/10/12 08:10

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1269

Client Sample ID: MW-15D
Date Collected: 05/08/12 13:15
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1269-01
Matrix: Water

5

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/08/12 13:15	05/11/12 21:47	1.00
Bromoform	ND		1.00		ug/L		05/08/12 13:15	05/11/12 21 47	1.00
Bromomethane	ND		1 00		ug/L		05/08/12 13:15	05/11/12 21:47	1 00
Carbon Tetrachloride	ND		1 00		ug/L		05/08/12 13:15	05/11/12 21:47	1.00
Chlorobenzene	ND		1 00		ug/L		05/08/12 13:15	05/11/12 21:47	1.00
Chlorodibromomethane	ND		1.00		ug/L		05/08/12 13:15	05/11/12 21:47	1.00
Chloroethane	ND		1.00		ug/L		05/08/12 13:15	05/11/12 21 47	1.00
Chloroform	ND		1.00		ug/L		05/08/12 13:15	05/11/12 21:47	1.00
Chloromethane	ND		1.00		ug/L		05/08/12 13:15	05/11/12 21:47	1.00
1,4-Dichlorobenzene	ND		1 00		ug/L		05/08/12 13.15	05/11/12 21:47	1 00
1,3-Dichlorobenzene	ND		1 00		ug/L		05/08/12 13:15	05/11/12 21:47	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/08/12 13:15	05/11/12 21:47	1.00
1,1-Dichloroethane	ND		1.00		ug/L		05/08/12 13:15	05/11/12 21 47	1.00
1,2-Dichloroethane	ND		1.00		ug/L		05/08/12 13:15	05/11/12 21:47	1.00
cis-1,2-Dichloroethene	ND		1 00		ug/L		05/08/12 13 15	05/11/12 21:47	1 00
1,1-Dichloroethene	ND		1.00		ug/L		05/08/12 13:15	05/11/12 21:47	1.00
trans-1,2-Dichloroethene	ND		1 00		ug/L		05/08/12 13:15	05/11/12 21 47	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/08/12 13:15	05/11/12 21:47	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		05/08/12 13:15	05/11/12 21:47	1 00
trans-1,3-Dichloropropene	ND		1.00		ug/L		05/08/12 13:15	05/11/12 21:47	1.00
Methylene Chloride	ND		5.00		ug/L		05/08/12 13 15	05/11/12 21:47	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/08/12 13:15	05/11/12 21:47	1.00
Tetrachloroethene	ND		1.00		ug/L		05/08/12 13:15	05/11/12 21:47	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		05/08/12 13 15	05/11/12 21:47	1 00
1,1,1-Trichloroethane	ND		1.00		ug/L		05/08/12 13:15	05/11/12 21:47	1.00
Trichloroethene	ND		1.00		ug/L		05/08/12 13:15	05/11/12 21:47	1.00
Trichlorofluoromethane	ND		1.00		ug/L		05/08/12 13:15	05/11/12 21 47	1.00
Vinyl chloride	ND		1.00		ug/L		05/08/12 13:15	05/11/12 21 47	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*95*		*70 - 130*	*05/08/12 13:15*	*05/11/12 21:47*	*1.00*
Dibromofluoromethane	*99*		*70 - 130*	*05/08/12 13:15*	*05/11/12 21:47*	*1 00*
Toluene-d8	*100*		*70 - 130*	*05/08/12 13:15*	*05/11/12 21:47*	*1.00*
4-Bromofluorobenzene	*97*		*70 - 130*	*05/08/12 13:15*	*05/11/12 21:47*	*1.00*

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1269

Client Sample ID: MW-15
Date Collected: 05/08/12 13:35
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1269-02
Matrix: Water

5

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/08/12 13 35	05/11/12 22:15	1.00
Bromoform	ND		1.00		ug/L		05/08/12 13:35	05/11/12 22:15	1.00
Bromomethane	ND		1.00		ug/L		05/08/12 13:35	05/11/12 22:15	1.00
Carbon Tetrachloride	ND		1.00		ug/L		05/08/12 13:35	05/11/12 22 15	1.00
Chlorobenzene	ND		1 00		ug/L		05/08/12 13:35	05/11/12 22:15	1 00
Chlorodibromomethane	ND		1.00		ug/L		05/08/12 13:35	05/11/12 22:15	1.00
Chloroethane	ND		1.00		ug/L		05/08/12 13:35	05/11/12 22:15	1.00
Chloroform	ND		1.00		ug/L		05/08/12 13:35	05/11/12 22:15	1.00
Chloromethane	ND		1 00		ug/L		05/08/12 13:35	05/11/12 22:15	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		05/08/12 13:35	05/11/12 22:15	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/08/12 13:35	05/11/12 22:15	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/08/12 13 35	05/11/12 22:15	1.00
1,1-Dichloroethane	ND		1.00		ug/L		05/08/12 13:35	05/11/12 22:15	1.00
1,2-Dichloroethane	ND		1.00		ug/L		05/08/12 13:35	05/11/12 22.15	1.00
cis-1,2-Dichloroethene	ND		1 00		ug/L		05/08/12 13.35	05/11/12 22:15	1.00
1,1-Dichloroethene	ND		1 00		ug/L		05/08/12 13.35	05/11/12 22:15	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/08/12 13:35	05/11/12 22:15	1 00
1,2-Dichloropropane	ND		1.00		ug/L		05/08/12 13:35	05/11/12 22:15	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		05/08/12 13:35	05/11/12 22:15	1.00
trans-1,3-Dichloropropene	ND		1 00		ug/L		05/08/12 13:35	05/11/12 22:15	1.00
Methylene Chloride	ND		5 00		ug/L		05/08/12 13:35	05/11/12 22:15	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/08/12 13:35	05/11/12 22 15	1.00
Tetrachloroethene	ND		1.00		ug/L		05/08/12 13 35	05/11/12 22 15	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		05/08/12 13 35	05/11/12 22:15	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		05/08/12 13:35	05/11/12 22:15	1.00
Trichloroethene	ND		1.00		ug/L		05/08/12 13:35	05/11/12 22:15	1.00
Trichlorofluoromethane	ND		1.00		ug/L		05/08/12 13:35	05/11/12 22:15	1.00
Vinyl chloride	ND		1.00		ug/L		05/08/12 13:35	05/11/12 22:15	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*95*		*70 - 130*	*05/08/12 13:35*	*05/11/12 22:15*	*1.00*
Dibromofluoromethane	*99*		*70 - 130*	*05/08/12 13:35*	*05/11/12 22:15*	*1.00*
Toluene-d8	*99*		*70 - 130*	*05/08/12 13:35*	*05/11/12 22:15*	*1 00*
4-Bromofluorobenzene	*97*		*70 - 130*	*05/08/12 13:35*	*05/11/12 22:15*	*1.00*

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1269

Client Sample ID: MW-15D1
Date Collected: 05/08/12 14:30
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1269-03
Matrix: Water

5

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
Bromoform	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
Bromomethane	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
Carbon Tetrachloride	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
Chlorobenzene	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
Chlorodibromomethane	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
Chloroethane	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
Chloroform	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
Chloromethane	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
1,1-Dichloroethane	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
1,2-Dichloroethane	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
1,1-Dichloroethene	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
Methylene Chloride	ND		5.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
Tetrachloroethene	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
Trichloroethene	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
Trichlorofluoromethane	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00
Vinyl chloride	ND		1.00		ug/L		05/08/12 14:30	05/11/12 22:43	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*97*		*70 - 130*	*05/08/12 14:30*	*05/11/12 22:43*	*1.00*
Dibromofluoromethane	*100*		*70 - 130*	*05/08/12 14:30*	*05/11/12 22:43*	*1.00*
Toluene-d8	*100*		*70 - 130*	*05/08/12 14:30*	*05/11/12 22:43*	*1.00*
4-Bromofluorobenzene	*99*		*70 - 130*	*05/08/12 14:30*	*05/11/12 22:43*	*1.00*

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1269

Client Sample ID: MW-16
Date Collected: 05/08/12 14:50
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1269-04
Matrix: Water

5

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/08/12 14:50	05/11/12 23:11	1.00
Bromoform	ND		1.00		ug/L		05/08/12 14:50	05/11/12 23:11	1.00
Bromomethane	ND		1.00		ug/L		05/08/12 14:50	05/11/12 23:11	1.00
Carbon Tetrachloride	ND		1.00		ug/L		05/08/12 14:50	05/11/12 23.11	1.00
Chlorobenzene	ND		1 00		ug/L		05/08/12 14:50	05/11/12 23 11	1.00
Chlorodibromomethane	ND		1.00		ug/L		05/08/12 14:50	05/11/12 23:11	1 00
Chloroethane	ND		1.00		ug/L		05/08/12 14:50	05/11/12 23:11	1.00
Chloroform	ND		1.00		ug/L		05/08/12 14:50	05/11/12 23:11	1.00
Chloromethane	ND		1.00		ug/L		05/08/12 14.50	05/11/12 23:11	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		05/08/12 14:50	05/11/12 23:11	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/08/12 14:50	05/11/12 23:11	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/08/12 14:50	05/11/12 23 11	1.00
1,1-Dichloroethane	ND		1 00		ug/L		05/08/12 14:50	05/11/12 23:11	1.00
1,2-Dichloroethane	ND		1 00		ug/L		05/08/12 14:50	05/11/12 23.11	1 00
cis-1,2-Dichloroethene	ND		1 00		ug/L		05/08/12 14:50	05/11/12 23:11	1 00
1,1-Dichloroethene	ND		1.00		ug/L		05/08/12 14 50	05/11/12 23:11	1 00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/08/12 14:50	05/11/12 23:11	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/08/12 14:50	05/11/12 23:11	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		05/08/12 14:50	05/11/12 23:11	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		05/08/12 14:50	05/11/12 23:11	1.00
Methylene Chloride	ND		5.00		ug/L		05/08/12 14:50	05/11/12 23:11	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/08/12 14:50	05/11/12 23:11	1.00
Tetrachloroethene	ND		1 00		ug/L		05/08/12 14:50	05/11/12 23:11	1.00
1,1,2-Trichloroethane	ND		1 00		ug/L		05/08/12 14:50	05/11/12 23 11	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		05/08/12 14:50	05/11/12 23.11	1 00
Trichloroethene	ND		1 00		ug/L		05/08/12 14:50	05/11/12 23:11	1.00
Trichlorofluoromethane	ND		1.00		ug/L		05/08/12 14:50	05/11/12 23:11	1.00
Vinyl chloride	ND		1.00		ug/L		05/08/12 14:50	05/11/12 23:11	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*95*		*70 - 130*	*05/08/12 14:50*	*05/11/12 23.11*	*1 00*
Dibromofluoromethane	*99*		*70 - 130*	*05/08/12 14:50*	*05/11/12 23.11*	*1 00*
Toluene-d8	*100*		*70 - 130*	*05/08/12 14:50*	*05/11/12 23:11*	*1.00*
4-Bromofluorobenzene	*99*		*70 - 130*	*05/08/12 14:50*	*05/11/12 23:11*	*1 00*

Client Sample ID: MW-16D
Date Collected: 05/08/12 15:20
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1269-05
Matrix: Water

5

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/08/12 15:20	05/11/12 23:40	1.00
Bromoform	ND		1.00		ug/L		05/08/12 15.20	05/11/12 23.40	1.00
Bromomethane	ND		1.00		ug/L		05/08/12 15:20	05/11/12 23.40	1.00
Carbon Tetrachloride	ND		1.00		ug/L		05/08/12 15 20	05/11/12 23.40	1.00
Chlorobenzene	ND		1.00		ug/L		05/08/12 15 20	05/11/12 23 40	1.00
Chlorodibromomethane	ND		1.00		ug/L		05/08/12 15:20	05/11/12 23:40	1.00
Chloroethane	ND		1.00		ug/L		05/08/12 15:20	05/11/12 23:40	1.00
Chloroform	ND		1.00		ug/L		05/08/12 15:20	05/11/12 23:40	1 00
Chloromethane	ND		1 00		ug/L		05/08/12 15:20	05/11/12 23:40	1 00
1,4-Dichlorobenzene	ND		1 00		ug/L		05/08/12 15:20	05/11/12 23:40	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/08/12 15:20	05/11/12 23:40	1 00
1,2-Dichlorobenzene	ND		1 00		ug/L		05/08/12 15:20	05/11/12 23:40	1.00
1,1-Dichloroethane	ND		1.00		ug/L		05/08/12 15:20	05/11/12 23:40	1.00
1,2-Dichloroethane	ND		1 00		ug/L		05/08/12 15:20	05/11/12 23:40	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		05/08/12 15:20	05/11/12 23:40	1.00
1,1-Dichloroethene	ND		1.00		ug/L		05/08/12 15 20	05/11/12 23.40	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/08/12 15.20	05/11/12 23 40	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/08/12 15 20	05/11/12 23:40	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		05/08/12 15.20	05/11/12 23:40	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		05/08/12 15.20	05/11/12 23:40	1 00
Methylene Chloride	ND		5.00		ug/L		05/08/12 15:20	05/11/12 23:40	1 00
1,1,2,2-Tetrachloroethane	ND		1 00		ug/L		05/08/12 15:20	05/11/12 23:40	1.00
Tetrachloroethene	ND		1.00		ug/L		05/08/12 15:20	05/11/12 23:40	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		05/08/12 15:20	05/11/12 23:40	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		05/08/12 15:20	05/11/12 23:40	1.00
Trichloroethene	ND		1.00		ug/L		05/08/12 15:20	05/11/12 23:40	1.00
Trichlorofluoromethane	ND		1 00		ug/L		05/08/12 15 20	05/11/12 23.40	1.00
Vinyl chloride	ND		1.00		ug/L		05/08/12 15 20	05/11/12 23 40	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*96*		*70 - 130*	*05/08/12 15.20*	*05/11/12 23.40*	*1 00*
Dibromofluoromethane	*99*		*70 - 130*	*05/08/12 15:20*	*05/11/12 23:40*	*1.00*
Toluene-d8	*100*		*70 - 130*	*05/08/12 15:20*	*05/11/12 23:40*	*1.00*
4-Bromofluorobenzene	*100*		*70 - 130*	*05/08/12 15:20*	*05/11/12 23:40*	*1.00*

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1269

Client Sample ID: MW-4
Date Collected: 05/08/12 15:55
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1269-06
Matrix: Water

5

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/08/12 15:55	05/12/12 00:08	1.00
Bromoform	ND		1.00		ug/L		05/08/12 15:55	05/12/12 00:08	1 00
Bromomethane	ND		1.00		ug/L		05/08/12 15:55	05/12/12 00 08	1.00
Carbon Tetrachloride	ND		1.00		ug/L		05/08/12 15:55	05/12/12 00 08	1.00
Chlorobenzene	ND		1.00		ug/L		05/08/12 15:55	05/12/12 00.08	1.00
Chlorodibromomethane	ND		1.00		ug/L		05/08/12 15:55	05/12/12 00:08	1 00
Chloroethane	ND		1 00		ug/L		05/08/12 15:55	05/12/12 00:08	1.00
Chloroform	ND		1 00		ug/L		05/08/12 15:55	05/12/12 00:08	1.00
Chloromethane	ND		1 00		ug/L		05/08/12 15:55	05/12/12 00 08	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		05/08/12 15:55	05/12/12 00:08	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/08/12 15:55	05/12/12 00:08	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/08/12 15:55	05/12/12 00:08	1.00
1,1-Dichloroethane	ND		1 00		ug/L		05/08/12 15 55	05/12/12 00:08	1.00
1,2-Dichloroethane	ND		1 00		ug/L		05/08/12 15:55	05/12/12 00:08	1 00
cis-1,2-Dichloroethene	ND		1.00		ug/L		05/08/12 15:55	05/12/12 00.08	1.00
1,1-Dichloroethene	ND		1.00		ug/L		05/08/12 15:55	05/12/12 00 08	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/08/12 15:55	05/12/12 00 08	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/08/12 15 55	05/12/12 00:08	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		05/08/12 15:55	05/12/12 00:08	1.00
trans-1,3-Dichloropropene	ND		1 00		ug/L		05/08/12 15 55	05/12/12 00:08	1.00
Methylene Chloride	ND		5.00		ug/L		05/08/12 15:55	05/12/12 00:08	1.00
1,1,2,2-Tetrachloroethane	ND		1 00		ug/L		05/08/12 15:55	05/12/12 00:08	1 00
Tetrachloroethene	ND		1.00		ug/L		05/08/12 15:55	05/12/12 00:08	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		05/08/12 15:55	05/12/12 00:08	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		05/08/12 15:55	05/12/12 00 08	1.00
Trichloroethene	ND		1.00		ug/L		05/08/12 15:55	05/12/12 00.08	1.00
Trichlorofluoromethane	ND		1.00		ug/L		05/08/12 15 55	05/12/12 00:08	1.00
Vinyl chloride	ND		1 00		ug/L		05/08/12 15:55	05/12/12 00:08	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*96*		*70 - 130*	*05/08/12 15:55*	*05/12/12 00.08*	*1.00*
Dibromofluoromethane	*100*		*70 - 130*	*05/08/12 15:55*	*05/12/12 00:08*	*1.00*
Toluene-d8	*100*		*70 - 130*	*05/08/12 15:55*	*05/12/12 00:08*	*1.00*
4-Bromofluorobenzene	*98*		*70 - 130*	*05/08/12 15:55*	*05/12/12 00:08*	*1.00*

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1269

Client Sample ID: MW-11
Date Collected: 05/08/12 16:30
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1269-07
Matrix: Water

5

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/08/12 16:30	05/12/12 00:36	1.00
Bromoform	ND		1.00		ug/L		05/08/12 16:30	05/12/12 00:36	1.00
Bromomethane	ND		1.00		ug/L		05/08/12 16.30	05/12/12 00:36	1.00
Carbon Tetrachloride	ND		1.00		ug/L		05/08/12 16:30	05/12/12 00:36	1.00
Chlorobenzene	ND		1.00		ug/L		05/08/12 16:30	05/12/12 00:36	1.00
Chlorodibromomethane	ND		1.00		ug/L		05/08/12 16:30	05/12/12 00:36	1.00
Chloroethane	ND		1.00		ug/L		05/08/12 16:30	05/12/12 00:36	1.00
Chloroform	ND		1.00		ug/L		05/08/12 16:30	05/12/12 00:36	1.00
Chloromethane	ND		1 00		ug/L		05/08/12 16:30	05/12/12 00 36	1 00
1,4-Dichlorobenzene	ND		1.00		ug/L		05/08/12 16:30	05/12/12 00:36	1.00
1,3-Dichlorobenzene	ND		1 00		ug/L		05/08/12 16 30	05/12/12 00 36	1.00
1,2-Dichlorobenzene	ND		1 00		ug/L		05/08/12 16 30	05/12/12 00:36	1 00
1,1-Dichloroethane	ND		1 00		ug/L		05/08/12 16 30	05/12/12 00 36	1 00
1,2-Dichloroethane	ND		1 00		ug/L		05/08/12 16 30	05/12/12 00.36	1 00
cis-1,2-Dichloroethene	ND		1.00		ug/L		05/08/12 16:30	05/12/12 00 36	1.00
1,1-Dichloroethene	ND		1.00		ug/L		05/08/12 16:30	05/12/12 00:36	1.00
trans-1,2-Dichloroethene	ND		1 00		ug/L		05/08/12 16 30	05/12/12 00.36	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/08/12 16:30	05/12/12 00:36	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		05/08/12 16.30	05/12/12 00:36	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		05/08/12 16:30	05/12/12 00:36	1.00
Methylene Chloride	ND		5.00		ug/L		05/08/12 16:30	05/12/12 00:36	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/08/12 16:30	05/12/12 00:36	1.00
Tetrachloroethene	ND		1.00		ug/L		05/08/12 16:30	05/12/12 00:36	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		05/08/12 16:30	05/12/12 00.36	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		05/08/12 16:30	05/12/12 00 36	1.00
Trichloroethene	ND		1 00		ug/L		05/08/12 16:30	05/12/12 00:36	1 00
Trichlorofluoromethane	ND		1.00		ug/L		05/08/12 16:30	05/12/12 00:36	1.00
Vinyl chloride	ND		1 00		ug/L		05/08/12 16 30	05/12/12 00:36	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*95*		*70 - 130*	*05/08/12 16:30*	*05/12/12 00:36*	*1.00*
Dibromofluoromethane	*99*		*70 - 130*	*05/08/12 16.30*	*05/12/12 00:36*	*1.00*
Toluene-d8	*101*		*70 - 130*	*05/08/12 16:30*	*05/12/12 00:36*	*1 00*
4-Bromofluorobenzene	*97*		*70 - 130*	*05/08/12 16:30*	*05/12/12 00:36*	*1.00*

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1269

Client Sample ID: MW-10D
Date Collected: 05/08/12 17:00
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1269-08
Matrix: Water

5

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/08/12 17:00	05/12/12 01:04	1.00
Bromoform	ND		1.00		ug/L		05/08/12 17:00	05/12/12 01:04	1 00
Bromomethane	ND		1.00		ug/L		05/08/12 17:00	05/12/12 01:04	1 00
Carbon Tetrachloride	ND		1.00		ug/L		05/08/12 17:00	05/12/12 01.04	1.00
Chlorobenzene	ND		1.00		ug/L		05/08/12 17:00	05/12/12 01:04	1.00
Chlorodibromomethane	ND		1 00		ug/L		05/08/12 17:00	05/12/12 01:04	1.00
Chloroethane	ND		1 00		ug/L		05/08/12 17 00	05/12/12 01:04	1.00
Chloroform	ND		1.00		ug/L		05/08/12 17:00	05/12/12 01:04	1.00
Chloromethane	ND		1.00		ug/L		05/08/12 17:00	05/12/12 01:04	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		05/08/12 17:00	05/12/12 01.04	1 00
1,3-Dichlorobenzene	ND		1 00		ug/L		05/08/12 17:00	05/12/12 01:04	1 00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/08/12 17:00	05/12/12 01:04	1.00
1,1-Dichloroethane	ND		1.00		ug/L		05/08/12 17:00	05/12/12 01:04	1.00
1,2-Dichloroethane	ND		1 00		ug/L		05/08/12 17:00	05/12/12 01:04	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		05/08/12 17:00	05/12/12 01:04	1 00
1,1-Dichloroethene	ND		1.00		ug/L		05/08/12 17:00	05/12/12 01:04	1.00
trans-1,2-Dichloroethene	ND		1 00		ug/L		05/08/12 17:00	05/12/12 01:04	1.00
1,2-Dichloropropane	ND		1 00		ug/L		05/08/12 17:00	05/12/12 01:04	1 00
cis-1,3-Dichloropropene	ND		1 00		ug/L		05/08/12 17:00	05/12/12 01:04	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		05/08/12 17:00	05/12/12 01:04	1.00
Methylene Chloride	ND		5.00		ug/L		05/08/12 17.00	05/12/12 01:04	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/08/12 17:00	05/12/12 01:04	1.00
Tetrachloroethene	ND		1.00		ug/L		05/08/12 17:00	05/12/12 01:04	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		05/08/12 17:00	05/12/12 01:04	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		05/08/12 17:00	05/12/12 01:04	1.00
Trichloroethene	ND		1.00		ug/L		05/08/12 17 00	05/12/12 01:04	1.00
Trichlorofluoromethane	ND		1.00		ug/L		05/08/12 17:00	05/12/12 01:04	1.00
Vinyl chloride	ND		1.00		ug/L		05/08/12 17:00	05/12/12 01:04	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*94*		*70 - 130*	*05/08/12 17:00*	*05/12/12 01.04*	*1.00*
Dibromofluoromethane	*99*		*70 - 130*	*05/08/12 17:00*	*05/12/12 01:04*	*1.00*
Toluene-d8	*101*		*70 - 130*	*05/08/12 17:00*	*05/12/12 01:04*	*1.00*
4-Bromofluorobenzene	*101*		*70 - 130*	*05/08/12 17:00*	*05/12/12 01:04*	*1.00*

Client Sample ID: MW-10
Date Collected: 05/08/12 17:30
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1269-09
Matrix: Water

5

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/08/12 17:30	05/12/12 01:32	1.00
Bromoform	ND		1.00		ug/L		05/08/12 17:30	05/12/12 01:32	1.00
Bromomethane	ND		1.00		ug/L		05/08/12 17:30	05/12/12 01:32	1.00
Carbon Tetrachloride	ND		1.00		ug/L		05/08/12 17:30	05/12/12 01:32	1.00
Chlorobenzene	ND		1.00		ug/L		05/08/12 17:30	05/12/12 01:32	1.00
Chlorodibromomethane	ND		1.00		ug/L		05/08/12 17:30	05/12/12 01:32	1.00
Chloroethane	ND		1.00		ug/L		05/08/12 17:30	05/12/12 01:32	1.00
Chloroform	ND		1.00		ug/L		05/08/12 17:30	05/12/12 01:32	1.00
Chloromethane	ND		1.00		ug/L		05/08/12 17:30	05/12/12 01:32	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		05/08/12 17:30	05/12/12 01:32	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/08/12 17:30	05/12/12 01:32	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/08/12 17:30	05/12/12 01:32	1.00
1,1-Dichloroethane	ND		1.00		ug/L		05/08/12 17:30	05/12/12 01:32	1.00
1,2-Dichloroethane	ND		1.00		ug/L		05/08/12 17:30	05/12/12 01:32	1.00
1,1-Dichloroethene	**7.83**		1.00		ug/L		05/08/12 17:30	05/12/12 01:32	1.00
trans-1,2-Dichloroethene	**17.1**		1.00		ug/L		05/08/12 17:30	05/12/12 01:32	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/08/12 17:30	05/12/12 01:32	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		05/08/12 17:30	05/12/12 01:32	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		05/08/12 17:30	05/12/12 01:32	1.00
Methylene Chloride	ND		5.00		ug/L		05/08/12 17:30	05/12/12 01:32	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/08/12 17:30	05/12/12 01:32	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		05/08/12 17:30	05/12/12 01:32	1.00
1,1,1-Trichloroethane	**3.70**		1.00		ug/L		05/08/12 17:30	05/12/12 01:32	1.00
Trichlorofluoromethane	ND		1.00		ug/L		05/08/12 17:30	05/12/12 01:32	1.00
Vinyl chloride	ND		1.00		ug/L		05/08/12 17:30	05/12/12 01:32	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*96*		*70 - 130*	*05/08/12 17:30*	*05/12/12 01:32*	*1.00*
Dibromofluoromethane	*102*		*70 - 130*	*05/08/12 17:30*	*05/12/12 01:32*	*1.00*
Toluene-d8	*99*		*70 - 130*	*05/08/12 17:30*	*05/12/12 01:32*	*1.00*
4-Bromofluorobenzene	*98*		*70 - 130*	*05/08/12 17:30*	*05/12/12 01:32*	*1.00*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**885**		10.0		ug/L		05/08/12 17:30	05/15/12 03:47	10.0
Trichloroethene	**386**		10.0		ug/L		05/08/12 17:30	05/15/12 03:47	10.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*92*		*70 - 130*	*05/08/12 17:30*	*05/15/12 03:47*	*10.0*
Dibromofluoromethane	*100*		*70 - 130*	*05/08/12 17:30*	*05/15/12 03:47*	*10.0*
Toluene-d8	*99*		*70 - 130*	*05/08/12 17:30*	*05/15/12 03:47*	*10.0*
4-Bromofluorobenzene	*99*		*70 - 130*	*05/08/12 17:30*	*05/15/12 03:47*	*10.0*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**1810**		20.0		ug/L		05/08/12 17:30	05/15/12 14:10	20.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*94*		*70 - 130*	*05/08/12 17:30*	*05/15/12 14:10*	*20.0*
Dibromofluoromethane	*99*		*70 - 130*	*05/08/12 17:30*	*05/15/12 14:10*	*20.0*
Toluene-d8	*100*		*70 - 130*	*05/08/12 17:30*	*05/15/12 14:10*	*20.0*
4-Bromofluorobenzene	*99*		*70 - 130*	*05/08/12 17:30*	*05/15/12 14:10*	*20.0*

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1269

Client Sample ID: MW-9D
Date Collected: 05/08/12 18:10
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1269-10
Matrix: Water

5

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/08/12 18:10	05/12/12 06:42	1.00
Bromoform	ND		1.00		ug/L		05/08/12 18:10	05/12/12 06:42	1.00
Bromomethane	ND		1 00		ug/L		05/08/12 18 10	05/12/12 06:42	1.00
Carbon Tetrachloride	ND		1 00		ug/L		05/08/12 18:10	05/12/12 06:42	1.00
Chlorobenzene	ND		1.00		ug/L		05/08/12 18.10	05/12/12 06:42	1.00
Chlorodibromomethane	ND		1.00		ug/L		05/08/12 18:10	05/12/12 06:42	1 00
Chloroethane	ND		1.00		ug/L		05/08/12 18:10	05/12/12 06:42	1.00
Chloroform	ND		1.00		ug/L		05/08/12 18 10	05/12/12 06:42	1.00
Chloromethane	ND		1 00		ug/L		05/08/12 18:10	05/12/12 06:42	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		05/08/12 18:10	05/12/12 06:42	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/08/12 18:10	05/12/12 06 42	1.00
1,2-Dichlorobenzene	ND		1 00		ug/L		05/08/12 18:10	05/12/12 06:42	1.00
1,1-Dichloroethane	ND		1.00		ug/L		05/08/12 18 10	05/12/12 06:42	1.00
1,2-Dichloroethane	ND		1 00		ug/L		05/08/12 18 10	05/12/12 06:42	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		05/08/12 18:10	05/12/12 06:42	1.00
1,1-Dichloroethene	ND		1.00		ug/L		05/08/12 18:10	05/12/12 06 42	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/08/12 18:10	05/12/12 06:42	1 00
1,2-Dichloropropane	ND		1.00		ug/L		05/08/12 18:10	05/12/12 06:42	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		05/08/12 18:10	05/12/12 06:42	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		05/08/12 18:10	05/12/12 06:42	1.00
Methylene Chloride	ND		5.00		ug/L		05/08/12 18:10	05/12/12 06:42	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/08/12 18:10	05/12/12 06 42	1.00
Tetrachloroethene	ND		1 00		ug/L		05/08/12 18:10	05/12/12 06:42	1.00
1,1,2-Trichloroethane	ND		1 00		ug/L		05/08/12 18 10	05/12/12 06:42	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		05/08/12 18:10	05/12/12 06:42	1 00
Trichloroethene	ND		1.00		ug/L		05/08/12 18.10	05/12/12 06:42	1 00
Trichlorofluoromethane	ND		1.00		ug/L		05/08/12 18:10	05/12/12 06:42	1.00
Vinyl chloride	ND		1.00		ug/L		05/08/12 18:10	05/12/12 06:42	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*96*		*70 - 130*	*05/08/12 18:10*	*05/12/12 06:42*	*1.00*
Dibromofluoromethane	*99*		*70 - 130*	*05/08/12 18:10*	*05/12/12 06:42*	*1.00*
Toluene-d8	*100*		*70 - 130*	*05/08/12 18:10*	*05/12/12 06:42*	*1 00*
4-Bromofluorobenzene	*99*		*70 - 130*	*05/08/12 18:10*	*05/12/12 06:42*	*1 00*

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1269

Client Sample ID: MW-9
Date Collected: 05/08/12 18:40
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1269-11
Matrix: Water

5

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/08/12 18:40	05/12/12 07:10	1.00
Bromoform	ND		1.00		ug/L		05/08/12 18:40	05/12/12 07:10	1.00
Bromomethane	ND		1.00		ug/L		05/08/12 18:40	05/12/12 07:10	1.00
Carbon Tetrachloride	ND		1.00		ug/L		05/08/12 18:40	05/12/12 07:10	1.00
Chlorobenzene	ND		1.00		ug/L		05/08/12 18:40	05/12/12 07:10	1.00
Chlorodibromomethane	ND		1.00		ug/L		05/08/12 18:40	05/12/12 07:10	1.00
Chloroethane	ND		1.00		ug/L		05/08/12 18:40	05/12/12 07:10	1.00
Chloroform	ND		1.00		ug/L		05/08/12 18:40	05/12/12 07:10	1.00
Chloromethane	ND		1.00		ug/L		05/08/12 18:40	05/12/12 07:10	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		05/08/12 18:40	05/12/12 07:10	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/08/12 18:40	05/12/12 07:10	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/08/12 18:40	05/12/12 07:10	1.00
1,1-Dichloroethane	ND		1.00		ug/L		05/08/12 18:40	05/12/12 07:10	1.00
1,2-Dichloroethane	ND		1.00		ug/L		05/08/12 18:40	05/12/12 07:10	1.00
cis-1,2-Dichloroethene	**127**		1.00		ug/L		05/08/12 18:40	05/12/12 07:10	1.00
1,1-Dichloroethene	**2.92**		1.00		ug/L		05/08/12 18:40	05/12/12 07:10	1.00
trans-1,2-Dichloroethene	**1.09**		1.00		ug/L		05/08/12 18:40	05/12/12 07:10	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/08/12 18:40	05/12/12 07:10	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		05/08/12 18:40	05/12/12 07:10	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		05/08/12 18:40	05/12/12 07:10	1.00
Methylene Chloride	ND		5.00		ug/L		05/08/12 18:40	05/12/12 07:10	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/08/12 18:40	05/12/12 07:10	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		05/08/12 18:40	05/12/12 07:10	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		05/08/12 18:40	05/12/12 07:10	1.00
Trichlorofluoromethane	ND		1.00		ug/L		05/08/12 18:40	05/12/12 07:10	1.00
Vinyl chloride	ND		1.00		ug/L		05/08/12 18:40	05/12/12 07:10	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*97*		*70 - 130*	*05/08/12 18:40*	*05/12/12 07:10*	*1.00*
Dibromofluoromethane	*101*		*70 - 130*	*05/08/12 18:40*	*05/12/12 07:10*	*1.00*
Toluene-d8	*99*		*70 - 130*	*05/08/12 18:40*	*05/12/12 07:10*	*1.00*
4-Bromofluorobenzene	*98*		*70 - 130*	*05/08/12 18:40*	*05/12/12 07:10*	*1.00*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**755**		10.0		ug/L		05/08/12 18:40	05/15/12 02:50	10.0
Trichloroethene	**258**		10.0		ug/L		05/08/12 18:40	05/15/12 02:50	10.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*91*		*70 - 130*	*05/08/12 18:40*	*05/15/12 02:50*	*10.0*
Dibromofluoromethane	*100*		*70 - 130*	*05/08/12 18:40*	*05/15/12 02:50*	*10.0*
Toluene-d8	*101*		*70 - 130*	*05/08/12 18:40*	*05/15/12 02:50*	*10.0*
4-Bromofluorobenzene	*101*		*70 - 130*	*05/08/12 18:40*	*05/15/12 02:50*	*10.0*

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1269

Client Sample ID: MW-13D
Date Collected: 05/09/12 09:10
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1269-12
Matrix: Water

5

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/09/12 09:10	05/12/12 07:38	1.00
Bromoform	ND		1.00		ug/L		05/09/12 09.10	05/12/12 07:38	1.00
Bromomethane	ND		1.00		ug/L		05/09/12 09:10	05/12/12 07:38	1 00
Carbon Tetrachloride	ND		1.00		ug/L		05/09/12 09:10	05/12/12 07:38	1.00
Chlorobenzene	ND		1.00		ug/L		05/09/12 09:10	05/12/12 07:38	1.00
Chlorodibromomethane	ND		1.00		ug/L		05/09/12 09:10	05/12/12 07:38	1.00
Chloroethane	ND		1.00		ug/L		05/09/12 09:10	05/12/12 07:38	1.00
Chloroform	ND		1 00		ug/L		05/09/12 09:10	05/12/12 07:38	1 00
Chloromethane	ND		1 00		ug/L		05/09/12 09 10	05/12/12 07:38	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		05/09/12 09:10	05/12/12 07:38	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/09/12 09:10	05/12/12 07 38	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/09/12 09 10	05/12/12 07:38	1.00
1,1-Dichloroethane	ND		1.00		ug/L		05/09/12 09:10	05/12/12 07:38	1 00
1,2-Dichloroethane	ND		1 00		ug/L		05/09/12 09:10	05/12/12 07:38	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		05/09/12 09:10	05/12/12 07:38	1.00
1,1-Dichloroethene	**1.25**		1.00		ug/L		05/09/12 09:10	05/12/12 07:38	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/09/12 09.10	05/12/12 07:38	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/09/12 09.10	05/12/12 07:38	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		05/09/12 09:10	05/12/12 07.38	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		05/09/12 09:10	05/12/12 07:38	1 00
Methylene Chloride	ND		5 00		ug/L		05/09/12 09:10	05/12/12 07:38	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/09/12 09:10	05/12/12 07:38	1.00
Tetrachloroethene	**74.3**		1.00		ug/L		05/09/12 09:10	05/12/12 07 38	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		05/09/12 09.10	05/12/12 07:38	1.00
1,1,1-Trichloroethane	ND		1 00		ug/L		05/09/12 09 10	05/12/12 07:38	1.00
Trichloroethene	ND		1.00		ug/L		05/09/12 09:10	05/12/12 07:38	1 00
Trichlorofluoromethane	ND		1.00		ug/L		05/09/12 09:10	05/12/12 07:38	1.00
Vinyl chloride	ND		1.00		ug/L		05/09/12 09:10	05/12/12 07:38	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*98*		*70 - 130*	*05/09/12 09:10*	*05/12/12 07:38*	*1.00*
Dibromofluoromethane	*100*		*70 - 130*	*05/09/12 09:10*	*05/12/12 07:38*	*1.00*
Toluene-d8	*100*		*70 - 130*	*05/09/12 09:10*	*05/12/12 07:38*	*1.00*
4-Bromofluorobenzene	*96*		*70 - 130*	*05/09/12 09:10*	*05/12/12 07:38*	*1.00*

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1269

Client Sample ID: MW-12D
Date Collected: 05/09/12 09:50
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1269-13
Matrix: Water

5

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/09/12 09:50	05/12/12 08 06	1.00
Bromoform	ND		1.00		ug/L		05/09/12 09:50	05/12/12 08:06	1.00
Bromomethane	ND		1.00		ug/L		05/09/12 09:50	05/12/12 08:06	1.00
Carbon Tetrachloride	ND		1.00		ug/L		05/09/12 09:50	05/12/12 08:06	1.00
Chlorobenzene	ND		1.00		ug/L		05/09/12 09:50	05/12/12 08:06	1.00
Chlorodibromomethane	ND		1.00		ug/L		05/09/12 09:50	05/12/12 08:06	1.00
Chloroethane	ND		1.00		ug/L		05/09/12 09:50	05/12/12 08:06	1.00
Chloroform	ND		1.00		ug/L		05/09/12 09:50	05/12/12 08:06	1.00
Chloromethane	ND		1.00		ug/L		05/09/12 09:50	05/12/12 08:06	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		05/09/12 09:50	05/12/12 08:06	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/09/12 09:50	05/12/12 08:06	1 00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/09/12 09:50	05/12/12 08:06	1 00
1,1-Dichloroethane	ND		1.00		ug/L		05/09/12 09.50	05/12/12 08:06	1 00
1,2-Dichloroethane	ND		1.00		ug/L		05/09/12 09 50	05/12/12 08:06	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		05/09/12 09:50	05/12/12 08:06	1.00
1,1-Dichloroethene	ND		1 00		ug/L		05/09/12 09:50	05/12/12 08:06	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/09/12 09:50	05/12/12 08.06	1.00
1,2-Dichloropropane	ND		1 00		ug/L		05/09/12 09.50	05/12/12 08:06	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		05/09/12 09 50	05/12/12 08 06	1.00
trans-1,3-Dichloropropene	ND		1 00		ug/L		05/09/12 09 50	05/12/12 08:06	1.00
Methylene Chloride	ND		5.00		ug/L		05/09/12 09:50	05/12/12 08:06	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/09/12 09:50	05/12/12 08 06	1.00
Tetrachloroethene	**21.4**		1.00		ug/L		05/09/12 09:50	05/12/12 08.06	1.00
1,1,2-Trichloroethane	ND		1 00		ug/L		05/09/12 09:50	05/12/12 08:06	1 00
1,1,1-Trichloroethane	ND		1.00		ug/L		05/09/12 09:50	05/12/12 08:06	1 00
Trichloroethene	ND		1.00		ug/L		05/09/12 09:50	05/12/12 08:06	1 00
Trichlorofluoromethane	ND		1.00		ug/L		05/09/12 09:50	05/12/12 08:06	1 00
Vinyl chloride	ND		1.00		ug/L		05/09/12 09:50	05/12/12 08:06	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*97*		*70 - 130*	*05/09/12 09:50*	*05/12/12 08:06*	*1.00*
Dibromofluoromethane	*100*		*70 - 130*	*05/09/12 09:50*	*05/12/12 08:06*	*1.00*
Toluene-d8	*99*		*70 - 130*	*05/09/12 09:50*	*05/12/12 08:06*	*1.00*
4-Bromofluorobenzene	*95*		*70 - 130*	*05/09/12 09.50*	*05/12/12 08:06*	*1.00*

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1269

Client Sample ID: MW-3
Date Collected: 05/09/12 10:10
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1269-14
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/09/12 10:10	05/12/12 08:35	1 00
Bromoform	ND		1.00		ug/L		05/09/12 10:10	05/12/12 08 35	1.00
Bromomethane	ND		1.00		ug/L		05/09/12 10.10	05/12/12 08.35	1.00
Carbon Tetrachloride	ND		1.00		ug/L		05/09/12 10 10	05/12/12 08:35	1.00
Chlorobenzene	ND		1.00		ug/L		05/09/12 10:10	05/12/12 08:35	1.00
Chlorodibromomethane	ND		1.00		ug/L		05/09/12 10:10	05/12/12 08:35	1.00
Chloroethane	ND		1.00		ug/L		05/09/12 10:10	05/12/12 08:35	1.00
Chloroform	ND		1 00		ug/L		05/09/12 10:10	05/12/12 08:35	1.00
Chloromethane	ND		1.00		ug/L		05/09/12 10 10	05/12/12 08:35	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		05/09/12 10 10	05/12/12 08:35	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/09/12 10:10	05/12/12 08:35	1 00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/09/12 10:10	05/12/12 08:35	1.00
1,1-Dichloroethane	ND		1 00		ug/L		05/09/12 10:10	05/12/12 08:35	1 00
1,2-Dichloroethane	ND		1.00		ug/L		05/09/12 10:10	05/12/12 08:35	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		05/09/12 10:10	05/12/12 08:35	1.00
1,1-Dichloroethene	ND		1.00		ug/L		05/09/12 10:10	05/12/12 08:35	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/09/12 10:10	05/12/12 08:35	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/09/12 10:10	05/12/12 08.35	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		05/09/12 10 10	05/12/12 08:35	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		05/09/12 10 10	05/12/12 08:35	1.00
Methylene Chloride	ND		5.00		ug/L		05/09/12 10.10	05/12/12 08:35	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/09/12 10:10	05/12/12 08:35	1.00
Tetrachloroethene	**64.5**		1.00		ug/L		05/09/12 10:10	05/12/12 08:35	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		05/09/12 10:10	05/12/12 08 35	1.00
1,1,1-Trichloroethane	ND		1 00		ug/L		05/09/12 10:10	05/12/12 08:35	1.00
Trichloroethene	ND		1.00		ug/L		05/09/12 10 10	05/12/12 08:35	1.00
Trichlorofluoromethane	ND		1.00		ug/L		05/09/12 10:10	05/12/12 08:35	1.00
Vinyl chloride	ND		1.00		ug/L		05/09/12 10:10	05/12/12 08:35	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*97*		*70 - 130*	*05/09/12 10:10*	*05/12/12 08:35*	*1.00*
Dibromofluoromethane	*100*		*70 - 130*	*05/09/12 10.10*	*05/12/12 08:35*	*1.00*
Toluene-d8	*100*		*70 - 130*	*05/09/12 10:10*	*05/12/12 08:35*	*1.00*
4-Bromofluorobenzene	*100*		*70 - 130*	*05/09/12 10:10*	*05/12/12 08:35*	*1.00*

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1269

Client Sample ID: MW-3D1
Date Collected: 05/09/12 11:05
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1269-15
Matrix: Water

5

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/09/12 11.05	05/12/12 09:03	1.00
Bromoform	ND		1 00		ug/L		05/09/12 11:05	05/12/12 09:03	1 00
Bromomethane	ND		1.00		ug/L		05/09/12 11:05	05/12/12 09:03	1.00
Carbon Tetrachloride	ND		1.00		ug/L		05/09/12 11:05	05/12/12 09 03	1.00
Chlorobenzene	ND		1.00		ug/L		05/09/12 11:05	05/12/12 09:03	1.00
Chlorodibromomethane	ND		1 00		ug/L		05/09/12 11:05	05/12/12 09:03	1 00
Chloroethane	ND		1 00		ug/L		05/09/12 11 05	05/12/12 09:03	1 00
Chloroform	ND		1.00		ug/L		05/09/12 11:05	05/12/12 09:03	1.00
Chloromethane	ND		1.00		ug/L		05/09/12 11:05	05/12/12 09:03	1.00
1,4-Dichlorobenzene	ND		1 00		ug/L		05/09/12 11:05	05/12/12 09.03	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/09/12 11 05	05/12/12 09:03	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/09/12 11:05	05/12/12 09:03	1.00
1,1-Dichloroethane	ND		1.00		ug/L		05/09/12 11:05	05/12/12 09 03	1.00
1,2-Dichloroethane	ND		1.00		ug/L		05/09/12 11:05	05/12/12 09:03	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		05/09/12 11:05	05/12/12 09:03	1 00
1,1-Dichloroethene	ND		1.00		ug/L		05/09/12 11 05	05/12/12 09:03	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/09/12 11:05	05/12/12 09:03	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/09/12 11:05	05/12/12 09 03	1.00
cis-1,3-Dichloropropene	ND		1 00		ug/L		05/09/12 11:05	05/12/12 09:03	1 00
trans-1,3-Dichloropropene	ND		1.00		ug/L		05/09/12 11 05	05/12/12 09:03	1.00
Methylene Chlonde	ND		5.00		ug/L		05/09/12 11:05	05/12/12 09:03	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/09/12 11:05	05/12/12 09:03	1.00
Tetrachloroethene	ND		1.00		ug/L		05/09/12 11.05	05/12/12 09:03	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		05/09/12 11:05	05/12/12 09:03	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		05/09/12 11:05	05/12/12 09:03	1.00
Trichloroethene	ND		1.00		ug/L		05/09/12 11:05	05/12/12 09:03	1.00
Trichlorofluoromethane	ND		1.00		ug/L		05/09/12 11.05	05/12/12 09:03	1 00
Vinyl chloride	ND		1.00		ug/L		05/09/12 11:05	05/12/12 09:03	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*98*		*70 - 130*	*05/09/12 11:05*	*05/12/12 09:03*	*1.00*
Dibromofluoromethane	*99*		*70 - 130*	*05/09/12 11.05*	*05/12/12 09:03*	*1.00*
Toluene-d8	*99*		*70 - 130*	*05/09/12 11:05*	*05/12/12 09:03*	*1 00*
4-Bromofluorobenzene	*96*		*70 - 130*	*05/09/12 11:05*	*05/12/12 09:03*	*1 00*

Client Sample ID: MW-3D
Date Collected: 05/09/12 10:45
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1269-16
Matrix: Water

5

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/09/12 10:45	05/12/12 09:31	1.00
Bromoform	ND		1.00		ug/L		05/09/12 10 45	05/12/12 09:31	1.00
Bromomethane	ND		1.00		ug/L		05/09/12 10:45	05/12/12 09:31	1.00
Carbon Tetrachloride	ND		1.00		ug/L		05/09/12 10:45	05/12/12 09 31	1 00
Chlorobenzene	ND		1.00		ug/L		05/09/12 10:45	05/12/12 09:31	1.00
Chlorodibromomethane	ND		1.00		ug/L		05/09/12 10:45	05/12/12 09:31	1.00
Chloroethane	ND		1.00		ug/L		05/09/12 10 45	05/12/12 09:31	1.00
Chloroform	ND		1 00		ug/L		05/09/12 10 45	05/12/12 09:31	1.00
Chloromethane	ND		1.00		ug/L		05/09/12 10:45	05/12/12 09:31	1 00
1,4-Dichlorobenzene	ND		1.00		ug/L		05/09/12 10:45	05/12/12 09:31	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/09/12 10:45	05/12/12 09:31	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/09/12 10:45	05/12/12 09:31	1.00
1,1-Dichloroethane	ND		1 00		ug/L		05/09/12 10:45	05/12/12 09:31	1.00
1,2-Dichloroethane	ND		1.00		ug/L		05/09/12 10:45	05/12/12 09:31	1.00
cis-1,2-Dichloroethene	**8.58**		1.00		ug/L		05/09/12 10:45	05/12/12 09 31	1 00
1,1-Dichloroethene	**10.3**		1.00		ug/L		05/09/12 10:45	05/12/12 09 31	1 00
trans-1,2-Dichloroethene	ND		1 00		ug/L		05/09/12 10 45	05/12/12 09:31	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/09/12 10:45	05/12/12 09:31	1.00
cis-1,3-Dichloropropene	ND		1 00		ug/L		05/09/12 10 45	05/12/12 09:31	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		05/09/12 10:45	05/12/12 09:31	1.00
Methylene Chloride	ND		5.00		ug/L		05/09/12 10:45	05/12/12 09:31	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/09/12 10:45	05/12/12 09 31	1 00
1,1,2-Trichloroethane	ND		1.00		ug/L		05/09/12 10:45	05/12/12 09:31	1.00
1,1,1-Trichloroethane	ND		1 00		ug/L		05/09/12 10 45	05/12/12 09:31	1.00
Trichloroethene	**4.48**		1 00		ug/L		05/09/12 10 45	05/12/12 09:31	1.00
Trichlorofluoromethane	ND		1.00		ug/L		05/09/12 10:45	05/12/12 09:31	1.00
Vinyl chloride	ND		1.00		ug/L		05/09/12 10:45	05/12/12 09:31	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*99*		*70 - 130*	*05/09/12 10:45*	*05/12/12 09:31*	*1.00*
Dibromofluoromethane	*100*		*70 - 130*	*05/09/12 10:45*	*05/12/12 09:31*	*1 00*
Toluene-d8	*98*		*70 - 130*	*05/09/12 10:45*	*05/12/12 09:31*	*1.00*
4-Bromofluorobenzene	*96*		*70 - 130*	*05/09/12 10:45*	*05/12/12 09.31*	*1.00*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**520**		10.0		ug/L		05/09/12 10:45	05/15/12 04:15	10.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*91*		*70 - 130*	*05/09/12 10 45*	*05/15/12 04:15*	*10.0*
Dibromofluoromethane	*98*		*70 - 130*	*05/09/12 10:45*	*05/15/12 04:15*	*10.0*
Toluene-d8	*100*		*70 - 130*	*05/09/12 10:45*	*05/15/12 04:15*	*10.0*
4-Bromofluorobenzene	*99*		*70 - 130*	*05/09/12 10:45*	*05/15/12 04:15*	*10.0*

Client Sample ID: MW-7
Date Collected: 05/09/12 11:10
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1269-17
Matrix: Water

5

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/09/12 11 10	05/15/12 00 30	1.00
Bromoform	ND		1 00		ug/L		05/09/12 11:10	05/15/12 00 30	1.00
Bromomethane	ND		1.00		ug/L		05/09/12 11:10	05/15/12 00:30	1.00
Carbon Tetrachloride	ND		1.00		ug/L		05/09/12 11:10	05/15/12 00:30	1.00
Chlorobenzene	ND		1.00		ug/L		05/09/12 11:10	05/15/12 00:30	1.00
Chlorodibromomethane	ND		1.00		ug/L		05/09/12 11:10	05/15/12 00:30	1.00
Chloroethane	ND		1.00		ug/L		05/09/12 11:10	05/15/12 00 30	1.00
Chloroform	ND		1.00		ug/L		05/09/12 11:10	05/15/12 00:30	1 00
Chloromethane	ND		1 00		ug/L		05/09/12 11:10	05/15/12 00:30	1.00
1,4-Dichlorobenzene	ND		1 00		ug/L		05/09/12 11:10	05/15/12 00:30	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/09/12 11:10	05/15/12 00 30	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/09/12 11:10	05/15/12 00:30	1.00
1,1-Dichloroethane	ND		1.00		ug/L		05/09/12 11:10	05/15/12 00:30	1.00
1,2-Dichloroethane	ND		1 00		ug/L		05/09/12 11 10	05/15/12 00:30	1 00
cis-1,2-Dichloroethene	ND		1 00		ug/L		05/09/12 11:10	05/15/12 00:30	1.00
1,1-Dichloroethene	ND		1 00		ug/L		05/09/12 11:10	05/15/12 00:30	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/09/12 11:10	05/15/12 00:30	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/09/12 11:10	05/15/12 00.30	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		05/09/12 11:10	05/15/12 00:30	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		05/09/12 11:10	05/15/12 00:30	1.00
Methylene Chloride	ND		5.00		ug/L		05/09/12 11:10	05/15/12 00:30	1.00
1,1,2,2-Tetrachloroethane	ND		1 00		ug/L		05/09/12 11:10	05/15/12 00:30	1.00
Tetrachloroethene	ND		1.00		ug/L		05/09/12 11:10	05/15/12 00:30	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		05/09/12 11:10	05/15/12 00:30	1.00
1,1,1-Trichloroethane	ND		1 00		ug/L		05/09/12 11:10	05/15/12 00:30	1.00
Trichloroethene	ND		1 00		ug/L		05/09/12 11:10	05/15/12 00:30	1.00
Trichlorofluoromethane	ND		1.00		ug/L		05/09/12 11:10	05/15/12 00:30	1.00
Vinyl chloride	ND		1.00		ug/L		05/09/12 11 10	05/15/12 00.30	1 00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*92*		*70 - 130*	*05/09/12 11:10*	*05/15/12 00:30*	*1.00*
Dibromofluoromethane	*99*		*70 - 130*	*05/09/12 11:10*	*05/15/12 00:30*	*1.00*
Toluene-d8	*99*		*70 - 130*	*05/09/12 11:10*	*05/15/12 00:30*	*1.00*
4-Bromofluorobenzene	*99*		*70 - 130*	*05/09/12 11:10*	*05/15/12 00:30*	*1.00*

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1269

Client Sample ID: MW-14D
Date Collected: 05/09/12 12:00
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1269-18
Matrix: Water

5

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/09/12 12:00	05/12/12 10:27	1.00
Bromoform	ND		1.00		ug/L		05/09/12 12:00	05/12/12 10 27	1.00
Bromomethane	ND		1.00		ug/L		05/09/12 12:00	05/12/12 10 27	1.00
Carbon Tetrachloride	ND		1.00		ug/L		05/09/12 12:00	05/12/12 10:27	1.00
Chlorobenzene	ND		1.00		ug/L		05/09/12 12 00	05/12/12 10 27	1 00
Chlorodibromomethane	ND		1.00		ug/L		05/09/12 12 00	05/12/12 10:27	1.00
Chloroethane	ND		1.00		ug/L		05/09/12 12 00	05/12/12 10:27	1.00
Chloroform	ND		1 00		ug/L		05/09/12 12.00	05/12/12 10:27	1.00
Chloromethane	ND		1.00		ug/L		05/09/12 12:00	05/12/12 10:27	1.00
1,4-Dichlorobenzene	ND		1 00		ug/L		05/09/12 12:00	05/12/12 10:27	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/09/12 12:00	05/12/12 10:27	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/09/12 12:00	05/12/12 10:27	1 00
1,1-Dichloroethane	ND		1.00		ug/L		05/09/12 12:00	05/12/12 10:27	1.00
1,2-Dichloroethane	ND		1.00		ug/L		05/09/12 12:00	05/12/12 10:27	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		05/09/12 12 00	05/12/12 10:27	1.00
1,1-Dichloroethene	ND		1 00		ug/L		05/09/12 12:00	05/12/12 10:27	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/09/12 12:00	05/12/12 10 27	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/09/12 12:00	05/12/12 10 27	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		05/09/12 12:00	05/12/12 10 27	1 00
trans-1,3-Dichloropropene	ND		1.00		ug/L		05/09/12 12:00	05/12/12 10:27	1 00
Methylene Chloride	ND		5.00		ug/L		05/09/12 12:00	05/12/12 10:27	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/09/12 12 00	05/12/12 10:27	1 00
Tetrachloroethene	**82.1**		1.00		ug/L		05/09/12 12 00	05/12/12 10:27	1.00
1,1,2-Trichloroethane	ND		1 00		ug/L		05/09/12 12:00	05/12/12 10:27	1.00
1,1,1-Trichloroethane	ND		1 00		ug/L		05/09/12 12.00	05/12/12 10:27	1.00
Trichloroethene	ND		1.00		ug/L		05/09/12 12:00	05/12/12 10:27	1.00
Trichlorofluoromethane	ND		1 00		ug/L		05/09/12 12:00	05/12/12 10:27	1.00
Vinyl chloride	ND		1.00		ug/L		05/09/12 12:00	05/12/12 10:27	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*98*		*70 - 130*	*05/09/12 12.00*	*05/12/12 10:27*	*1.00*
Dibromofluoromethane	*100*		*70 - 130*	*05/09/12 12:00*	*05/12/12 10:27*	*1.00*
Toluene-d8	*99*		*70 - 130*	*05/09/12 12:00*	*05/12/12 10:27*	*1.00*
4-Bromofluorobenzene	*96*		*70 - 130*	*05/09/12 12.00*	*05/12/12 10:27*	*1.00*

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1269

Client Sample ID: MW-14
Date Collected: 05/09/12 12:20
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1269-19
Matrix: Water

5

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/09/12 12:20	05/12/12 10:55	1.00
Bromoform	ND		1.00		ug/L		05/09/12 12:20	05/12/12 10:55	1 00
Bromomethane	ND		1.00		ug/L		05/09/12 12:20	05/12/12 10:55	1.00
Carbon Tetrachloride	ND		1.00		ug/L		05/09/12 12:20	05/12/12 10:55	1.00
Chlorobenzene	ND		1.00		ug/L		05/09/12 12:20	05/12/12 10:55	1.00
Chlorodibromomethane	ND		1.00		ug/L		05/09/12 12:20	05/12/12 10:55	1.00
Chloroethane	ND		1.00		ug/L		05/09/12 12:20	05/12/12 10:55	1 00
Chloroform	ND		1.00		ug/L		05/09/12 12:20	05/12/12 10:55	1.00
Chloromethane	ND		1.00		ug/L		05/09/12 12:20	05/12/12 10:55	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		05/09/12 12:20	05/12/12 10:55	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/09/12 12:20	05/12/12 10:55	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/09/12 12:20	05/12/12 10:55	1.00
1,1-Dichloroethane	ND		1.00		ug/L		05/09/12 12:20	05/12/12 10:55	1.00
1,2-Dichloroethane	ND		1.00		ug/L		05/09/12 12:20	05/12/12 10:55	1.00
cis-1,2-Dichloroethene	ND		1 00		ug/L		05/09/12 12:20	05/12/12 10:55	1.00
1,1-Dichloroethene	ND		1 00		ug/L		05/09/12 12:20	05/12/12 10:55	1 00
trans-1,2-Dichloroethene	ND		1 00		ug/L		05/09/12 12:20	05/12/12 10:55	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/09/12 12:20	05/12/12 10:55	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		05/09/12 12:20	05/12/12 10:55	1.00
trans-1,3-Dichloropropene	ND		1 00		ug/L		05/09/12 12:20	05/12/12 10:55	1.00
Methylene Chloride	ND		5 00		ug/L		05/09/12 12:20	05/12/12 10:55	1 00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/09/12 12:20	05/12/12 10:55	1.00
Tetrachloroethene	ND		1.00		ug/L		05/09/12 12:20	05/12/12 10:55	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		05/09/12 12:20	05/12/12 10:55	1 00
1,1,1-Trichloroethane	ND		1.00		ug/L		05/09/12 12:20	05/12/12 10:55	1.00
Trichloroethene	ND		1.00		ug/L		05/09/12 12:20	05/12/12 10:55	1 00
Trichlorofluoromethane	ND		1.00		ug/L		05/09/12 12:20	05/12/12 10:55	1 00
Vinyl chloride	ND		1.00		ug/L		05/09/12 12.20	05/12/12 10:55	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*99*		*70 - 130*	*05/09/12 12:20*	*05/12/12 10:55*	*1.00*
Dibromofluoromethane	*100*		*70 - 130*	*05/09/12 12:20*	*05/12/12 10:55*	*1.00*
Toluene-d8	*98*		*70 - 130*	*05/09/12 12:20*	*05/12/12 10:55*	*1.00*
4-Bromofluorobenzene	*96*		*70 - 130*	*05/09/12 12:20*	*05/12/12 10:55*	*1.00*

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1269

Client Sample ID: MW-5
Date Collected: 05/09/12 12:45
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1269-20
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/09/12 12 45	05/12/12 11:24	1.00
Bromoform	ND		1.00		ug/L		05/09/12 12 45	05/12/12 11:24	1.00
Bromomethane	ND		1 00		ug/L		05/09/12 12:45	05/12/12 11:24	1.00
Carbon Tetrachloride	ND		1 00		ug/L		05/09/12 12:45	05/12/12 11:24	1.00
Chlorobenzene	ND		1.00		ug/L		05/09/12 12:45	05/12/12 11:24	1.00
Chlorodibromomethane	ND		1.00		ug/L		05/09/12 12:45	05/12/12 11.24	1.00
Chloroethane	ND		1.00		ug/L		05/09/12 12:45	05/12/12 11:24	1.00
Chloroform	ND		1.00		ug/L		05/09/12 12:45	05/12/12 11:24	1 00
Chloromethane	ND		1.00		ug/L		05/09/12 12 45	05/12/12 11:24	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		05/09/12 12 45	05/12/12 11:24	1.00
1,3-Dichlorobenzene	ND		1 00		ug/L		05/09/12 12:45	05/12/12 11:24	1.00
1,2-Dichlorobenzene	ND		1 00		ug/L		05/09/12 12:45	05/12/12 11:24	1.00
1,1-Dichloroethane	ND		1.00		ug/L		05/09/12 12:45	05/12/12 11:24	1 00
1,2-Dichloroethane	ND		1.00		ug/L		05/09/12 12:45	05/12/12 11 24	1 00
cis-1,2-Dichloroethene	ND		1.00		ug/L		05/09/12 12:45	05/12/12 11:24	1.00
1,1-Dichloroethene	ND		1.00		ug/L		05/09/12 12:45	05/12/12 11:24	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/09/12 12 45	05/12/12 11:24	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/09/12 12:45	05/12/12 11:24	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		05/09/12 12:45	05/12/12 11:24	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		05/09/12 12:45	05/12/12 11:24	1.00
Methylene Chloride	ND		5.00		ug/L		05/09/12 12:45	05/12/12 11:24	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/09/12 12:45	05/12/12 11:24	1.00
Tetrachloroethene	**2.57**		1.00		ug/L		05/09/12 12:45	05/12/12 11:24	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		05/09/12 12:45	05/12/12 11:24	1.00
1,1,1-Trichloroethane	ND		1 00		ug/L		05/09/12 12 45	05/12/12 11.24	1.00
Trichloroethene	ND		1 00		ug/L		05/09/12 12 45	05/12/12 11 24	1 00
Trichlorofluoromethane	ND		1 00		ug/L		05/09/12 12:45	05/12/12 11:24	1.00
Vinyl chloride	ND		1.00		ug/L		05/09/12 12:45	05/12/12 11:24	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*100*		*70 - 130*	*05/09/12 12:45*	*05/12/12 11:24*	*1.00*
Dibromofluoromethane	*100*		*70 - 130*	*05/09/12 12:45*	*05/12/12 11:24*	*1.00*
Toluene-d8	*100*		*70 - 130*	*05/09/12 12:45*	*05/12/12 11:24*	*1.00*
4-Bromofluorobenzene	*96*		*70 - 130*	*05/09/12 12:45*	*05/12/12 11:24*	*1.00*

Client Sample ID: MW-6
Date Collected: 05/09/12 13:05
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1269-21
Matrix: Water

5

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/09/12 13:05	05/12/12 11:52	1.00
Bromoform	ND		1.00		ug/L		05/09/12 13.05	05/12/12 11:52	1.00
Bromomethane	ND		1 00		ug/L		05/09/12 13:05	05/12/12 11:52	1.00
Carbon Tetrachloride	ND		1 00		ug/L		05/09/12 13:05	05/12/12 11:52	1 00
Chlorobenzene	ND		1 00		ug/L		05/09/12 13:05	05/12/12 11:52	1 00
Chlorodibromomethane	ND		1 00		ug/L		05/09/12 13:05	05/12/12 11:52	1 00
Chloroethane	ND		1.00		ug/L		05/09/12 13:05	05/12/12 11:52	1.00
Chloroform	ND		1 00		ug/L		05/09/12 13:05	05/12/12 11:52	1 00
Chloromethane	ND		1 00		ug/L		05/09/12 13:05	05/12/12 11:52	1.00
1,4-Dichlorebenzene	ND		1 00		ug/L		05/09/12 13:05	05/12/12 11:52	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/09/12 13:05	05/12/12 11 52	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/09/12 13:05	05/12/12 11 52	1.00
1,1-Dichloroethane	ND		1 00		ug/L		05/09/12 13:05	05/12/12 11:52	1.00
1,2-Dichloroethane	ND		1.00		ug/L		05/09/12 13.05	05/12/12 11:52	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		05/09/12 13:05	05/12/12 11:52	1.00
1,1-Dichloroethene	ND		1.00		ug/L		05/09/12 13.05	05/12/12 11:52	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/09/12 13:05	05/12/12 11 52	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/09/12 13 05	05/12/12 11:52	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		05/09/12 13:05	05/12/12 11:52	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		05/09/12 13:05	05/12/12 11:52	1.00
Methylene Chloride	ND		5.00		ug/L		05/09/12 13:05	05/12/12 11:52	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/09/12 13:05	05/12/12 11:52	1.00
Tetrachloroethene	ND		1.00		ug/L		05/09/12 13:05	05/12/12 11:52	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		05/09/12 13:05	05/12/12 11.52	1 00
1,1,1-Trichloroethane	ND		1.00		ug/L		05/09/12 13:05	05/12/12 11 52	1 00
Trichloroethene	ND		1.00		ug/L		05/09/12 13:05	05/12/12 11 52	1.00
Trichlorofluoromethane	ND		1 00		ug/L		05/09/12 13:05	05/12/12 11:52	1.00
Vinyl chloride	ND		1 00		ug/L		05/09/12 13:05	05/12/12 11.52	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*100*		*70 - 130*	*05/09/12 13:05*	*05/12/12 11:52*	*1 00*
Dibromofluoromethane	*101*		*70 - 130*	*05/09/12 13:05*	*05/12/12 11:52*	*1.00*
Toluene-d8	*99*		*70 - 130*	*05/09/12 13:05*	*05/12/12 11:52*	*1.00*
4-Bromofluorobenzene	*95*		*70 - 130*	*05/09/12 13:05*	*05/12/12 11:52*	*1.00*

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1269

Client Sample ID: MW-8
Date Collected: 05/09/12 13:30
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1269-22
Matrix: Water

5

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/09/12 13:30	05/12/12 12.20	1.00
Bromoform	ND		1.00		ug/L		05/09/12 13:30	05/12/12 12:20	1.00
Bromomethane	ND		1.00		ug/L		05/09/12 13:30	05/12/12 12:20	1.00
Carbon Tetrachloride	ND		1 00		ug/L		05/09/12 13:30	05/12/12 12:20	1 00
Chlorobenzene	ND		1 00		ug/L		05/09/12 13 30	05/12/12 12 20	1 00
Chlorodibromomethane	ND		1.00		ug/L		05/09/12 13:30	05/12/12 12.20	1.00
Chloroethane	ND		1.00		ug/L		05/09/12 13:30	05/12/12 12:20	1.00
Chloroform	ND		1.00		ug/L		05/09/12 13:30	05/12/12 12:20	1.00
Chloromethane	ND		1 00		ug/L		05/09/12 13 30	05/12/12 12:20	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		05/09/12 13.30	05/12/12 12 20	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/09/12 13:30	05/12/12 12:20	1 00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/09/12 13:30	05/12/12 12 20	1 00
1,1-Dichloroethane	ND		1 00		ug/L		05/09/12 13:30	05/12/12 12:20	1.00
1,2-Dichloroethane	ND		1 00		ug/L		05/09/12 13 30	05/12/12 12:20	1.00
cis-1,2-Dichloroethene	**1.11**		1.00		ug/L		05/09/12 13 30	05/12/12 12:20	1.00
1,1-Dichloroethene	ND		1.00		ug/L		05/09/12 13:30	05/12/12 12:20	1 00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/09/12 13:30	05/12/12 12 20	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/09/12 13:30	05/12/12 12:20	1.00
cis-1,3-Dichloropropene	ND		1 00		ug/L		05/09/12 13:30	05/12/12 12.20	1.00
trans-1,3-Dichloropropene	ND		1 00		ug/L		05/09/12 13:30	05/12/12 12:20	1.00
Methylene Chloride	ND		5 00		ug/L		05/09/12 13 30	05/12/12 12:20	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/09/12 13:30	05/12/12 12:20	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		05/09/12 13:30	05/12/12 12:20	1 00
1,1,1-Trichloroethane	ND		1.00		ug/L		05/09/12 13:30	05/12/12 12 20	1.00
Trichloroethene	**8.42**		1.00		ug/L		05/09/12 13:30	05/12/12 12:20	1.00
Trichlorofluoromethane	ND		1 00		ug/L		05/09/12 13:30	05/12/12 12 20	1 00
Vinyl chloride	ND		1.00		ug/L		05/09/12 13 30	05/12/12 12:20	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*100*		*70 - 130*	*05/09/12 13:30*	*05/12/12 12:20*	*1.00*
Dibromofluoromethane	*101*		*70 - 130*	*05/09/12 13:30*	*05/12/12 12.20*	*1.00*
Toluene-d8	*98*		*70 - 130*	*05/09/12 13:30*	*05/12/12 12.20*	*1.00*
4-Bromofluorobenzene	*94*		*70 - 130*	*05/09/12 13:30*	*05/12/12 12:20*	*1.00*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**491**		10.0		ug/L		05/09/12 13 30	05/15/12 04:43	10.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*91*		*70 - 130*	*05/09/12 13:30*	*05/15/12 04:43*	*10.0*
Dibromofluoromethane	*98*		*70 - 130*	*05/09/12 13:30*	*05/15/12 04.43*	*10.0*
Toluene-d8	*99*		*70 - 130*	*05/09/12 13:30*	*05/15/12 04.43*	*10.0*
4-Bromofluorobenzene	*100*		*70 - 130*	*05/09/12 13:30*	*05/15/12 04:43*	*10.0*

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1269

Client Sample ID: MW-1
Date Collected: 05/09/12 14:00
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1269-23
Matrix: Water

5

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/09/12 14:00	05/12/12 12:48	1.00
Bromoform	ND		1.00		ug/L		05/09/12 14:00	05/12/12 12:48	1 00
Bromomethane	ND		1.00		ug/L		05/09/12 14.00	05/12/12 12:48	1 00
Carbon Tetrachloride	ND		1.00		ug/L		05/09/12 14 00	05/12/12 12:48	1 00
Chlorobenzene	ND		1.00		ug/L		05/09/12 14 00	05/12/12 12:48	1 00
Chlorodibromomethane	ND		1.00		ug/L		05/09/12 14 00	05/12/12 12:48	1 00
Chloroethane	ND		1.00		ug/L		05/09/12 14:00	05/12/12 12:48	1.00
Chloroform	ND		1 00		ug/L		05/09/12 14 00	05/12/12 12:48	1 00
Chloromethane	ND		1.00		ug/L		05/09/12 14 00	05/12/12 12:48	1 00
1,4-Dichlorobenzene	ND		1.00		ug/L		05/09/12 14.00	05/12/12 12:48	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/09/12 14 00	05/12/12 12:48	1 00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/09/12 14:00	05/12/12 12:48	1.00
1,1-Dichloroethane	ND		1.00		ug/L		05/09/12 14:00	05/12/12 12:48	1.00
1,2-Dichloroethane	ND		1 00		ug/L		05/09/12 14:00	05/12/12 12:48	1.00
1,1-Dichloroethene	ND		1.00		ug/L		05/09/12 14:00	05/12/12 12:48	1 00
trans-1,2-Dichloroethene	ND		1 00		ug/L		05/09/12 14:00	05/12/12 12:48	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/09/12 14:00	05/12/12 12:48	1 00
cis-1,3-Dichloropropene	ND		1 00		ug/L		05/09/12 14:00	05/12/12 12:48	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		05/09/12 14:00	05/12/12 12.48	1.00
Methylene Chloride	ND		5 00		ug/L		05/09/12 14:00	05/12/12 12.48	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/09/12 14:00	05/12/12 12:48	1.00
1,1,2-Trichloroethane	ND		1 00		ug/L		05/09/12 14:00	05/12/12 12 48	1.00
1,1,1-Trichloroethane	ND		1 00		ug/L		05/09/12 14:00	05/12/12 12:48	1.00
Trichloroethene	**41.4**		1 00		ug/L		05/09/12 14:00	05/12/12 12.48	1.00
Trichlorofluoromethane	ND		1.00		ug/L		05/09/12 14:00	05/12/12 12:48	1.00
Vinyl chloride	ND		1.00		ug/L		05/09/12 14:00	05/12/12 12.48	1 00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*101*		*70 - 130*	*05/09/12 14:00*	*05/12/12 12:48*	*1.00*
Dibromofluoromethane	*102*		*70 - 130*	*05/09/12 14:00*	*05/12/12 12.48*	*1.00*
Toluene-d8	*98*		*70 - 130*	*05/09/12 14:00*	*05/12/12 12:48*	*1.00*
4-Bromofluorobenzene	*95*		*70 - 130*	*05/09/12 14:00*	*05/12/12 12:48*	*1.00*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**298**		10 0		ug/L		05/09/12 14:00	05/15/12 01:54	10.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*93*		*70 - 130*	*05/09/12 14:00*	*05/15/12 01:54*	*10 0*
Dibromofluoromethane	*101*		*70 - 130*	*05/09/12 14:00*	*05/15/12 01.54*	*10.0*
Toluene-d8	*100*		*70 - 130*	*05/09/12 14:00*	*05/15/12 01.54*	*10.0*
4-Bromofluorobenzene	*99*		*70 - 130*	*05/09/12 14:00*	*05/15/12 01:54*	*10.0*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**3120**		100		ug/L		05/09/12 14:00	05/15/12 02 22	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*92*		*70 - 130*	*05/09/12 14:00*	*05/15/12 02:22*	*100*
Dibromofluoromethane	*101*		*70 - 130*	*05/09/12 14:00*	*05/15/12 02:22*	*100*
Toluene-d8	*100*		*70 - 130*	*05/09/12 14:00*	*05/15/12 02:22*	*100*
4-Bromofluorobenzene	*100*		*70 - 130*	*05/09/12 14:00*	*05/15/12 02:22*	*100*

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1269

Client Sample ID: MW-2
Date Collected: 05/09/12 14:35
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1269-24
Matrix: Water

5

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/09/12 14 35	05/15/12 00:58	1.00
Bromoform	ND		1.00		ug/L		05/09/12 14:35	05/15/12 00:58	1.00
Bromomethane	ND		1.00		ug/L		05/09/12 14:35	05/15/12 00 58	1 00
Carbon Tetrachloride	ND		1.00		ug/L		05/09/12 14:35	05/15/12 00 58	1.00
Chlorobenzene	ND		1 00		ug/L		05/09/12 14:35	05/15/12 00:58	1.00
Chlorodibromomethane	ND		1 00		ug/L		05/09/12 14:35	05/15/12 00:58	1.00
Chloroethane	ND		1 00		ug/L		05/09/12 14:35	05/15/12 00:58	1.00
Chloroform	ND		1.00		ug/L		05/09/12 14.35	05/15/12 00:58	1.00
Chloromethane	ND		1.00		ug/L		05/09/12 14:35	05/15/12 00 58	1 00
1,4-Dichlorobenzene	ND		1.00		ug/L		05/09/12 14:35	05/15/12 00 58	1 00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/09/12 14:35	05/15/12 00.58	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/09/12 14:35	05/15/12 00:58	1.00
1,1-Dichloroethane	ND		1 00		ug/L		05/09/12 14:35	05/15/12 00:58	1.00
1,2-Dichloroethane	ND		1.00		ug/L		05/09/12 14:35	05/15/12 00:58	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		05/09/12 14 35	05/15/12 00 58	1 00
1,1-Dichloroethene	ND		1.00		ug/L		05/09/12 14:35	05/15/12 00.58	1 00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/09/12 14.35	05/15/12 00 58	1 00
1,2-Dichloropropane	ND		1.00		ug/L		05/09/12 14:35	05/15/12 00:58	1.00
cis-1,3-Dichloropropene	ND		1 00		ug/L		05/09/12 14:35	05/15/12 00:58	1.00
trans-1,3-Dichloropropene	ND		1 00		ug/L		05/09/12 14:35	05/15/12 00:58	1.00
Methylene Chlonde	ND		5.00		ug/L		05/09/12 14 35	05/15/12 00:58	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/09/12 14.35	05/15/12 00:58	1.00
Tetrachloroethene	**6.55**		1.00		ug/L		05/09/12 14:35	05/15/12 00:58	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		05/09/12 14:35	05/15/12 00:58	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		05/09/12 14 35	05/15/12 00 58	1 00
Trichloroethene	ND		1.00		ug/L		05/09/12 14:35	05/15/12 00:58	1 00
Trichlorofluoromethane	ND		1 00		ug/L		05/09/12 14:35	05/15/12 00:58	1.00
Vinyl chloride	ND		1 00		ug/L		05/09/12 14:35	05/15/12 00:58	1 00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*93*		*70 - 130*	*05/09/12 14.35*	*05/15/12 00.58*	*1.00*
Dibromofluoromethane	*101*		*70 - 130*	*05/09/12 14:35*	*05/15/12 00.58*	*1.00*
Toluene-d8	*99*		*70 - 130*	*05/09/12 14:35*	*05/15/12 00:58*	*1.00*
4-Bromofluorobenzene	*99*		*70 - 130*	*05/09/12 14:35*	*05/15/12 00:58*	*1.00*

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1269

Client Sample ID: Trip Blank
Date Collected: 05/08/12 00:01
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1269-25
Matrix: Water

5

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/08/12 00.01	05/11/12 18:30	1.00
Bromoform	ND		1.00		ug/L		05/08/12 00:01	05/11/12 18.30	1 00
Bromomethane	ND		1 00		ug/L		05/08/12 00 01	05/11/12 18:30	1.00
Carbon Tetrachloride	ND		1.00		ug/L		05/08/12 00:01	05/11/12 18:30	1.00
Chlorobenzene	ND		1.00		ug/L		05/08/12 00:01	05/11/12 18:30	1.00
Chlorodibromomethane	ND		1 00		ug/L		05/08/12 00:01	05/11/12 18:30	1.00
Chloroethane	ND		1 00		ug/L		05/08/12 00:01	05/11/12 18:30	1.00
Chloroform	ND		1.00		ug/L		05/08/12 00:01	05/11/12 18:30	1.00
Chloromethane	ND		1.00		ug/L		05/08/12 00:01	05/11/12 18 30	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		05/08/12 00:01	05/11/12 18:30	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/08/12 00:01	05/11/12 18:30	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/08/12 00 01	05/11/12 18:30	1.00
1,1-Dichloroethane	ND		1.00		ug/L		05/08/12 00.01	05/11/12 18 30	1 00
1,2-Dichloroethane	ND		1.00		ug/L		05/08/12 00:01	05/11/12 18:30	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		05/08/12 00:01	05/11/12 18:30	1.00
1,1-Dichloroethene	ND		1.00		ug/L		05/08/12 00 01	05/11/12 18:30	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/08/12 00:01	05/11/12 18:30	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/08/12 00:01	05/11/12 18:30	1 00
cis-1,3-Dichloropropene	ND		1 00		ug/L		05/08/12 00:01	05/11/12 18:30	1.00
trans-1,3-Dichloropropene	ND		1 00		ug/L		05/08/12 00 01	05/11/12 18:30	1.00
Methylene Chlonde	ND		5.00		ug/L		05/08/12 00:01	05/11/12 18 30	1 00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/08/12 00:01	05/11/12 18:30	1.00
Tetrachloroethene	ND		1.00		ug/L		05/08/12 00:01	05/11/12 18:30	1.00
1,1,2-Trichloroethane	ND		1 00		ug/L		05/08/12 00 01	05/11/12 18:30	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		05/08/12 00:01	05/11/12 18:30	1.00
Trichloroethene	ND		1 00		ug/L		05/08/12 00:01	05/11/12 18:30	1.00
Trichlorofluoromethane	ND		1 00		ug/L		05/08/12 00:01	05/11/12 18:30	1 00
Vinyl chloride	ND		1.00		ug/L		05/08/12 00:01	05/11/12 18:30	1 00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*95*		*70 - 130*	*05/08/12 00.01*	*05/11/12 18:30*	*1 00*
Dibromofluoromethane	*99*		*70 - 130*	*05/08/12 00:01*	*05/11/12 18:30*	*1.00*
Toluene-d8	*100*		*70 - 130*	*05/08/12 00:01*	*05/11/12 18:30*	*1.00*
4-Bromofluorobenzene	*98*		*70 - 130*	*05/08/12 00:01*	*05/11/12 18:30*	*1 00*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Lab Sample ID: 12E2470-BLK1
Matrix: Water
Analysis Batch: V007946

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12E2470_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1 00		ug/L		05/10/12 16.38	05/11/12 17:33	1.00
Bromoform	ND		1.00		ug/L		05/10/12 16 38	05/11/12 17:33	1.00
Bromomethane	ND		1.00		ug/L		05/10/12 16.38	05/11/12 17:33	1.00
Carbon Tetrachloride	ND		1.00		ug/L		05/10/12 16:38	05/11/12 17:33	1.00
Chlorobenzene	ND		1 00		ug/L		05/10/12 16:38	05/11/12 17:33	1.00
Chlorodibromomethane	ND		1.00		ug/L		05/10/12 16:38	05/11/12 17 33	1 00
Chloroethane	ND		1.00		ug/L		05/10/12 16:38	05/11/12 17 33	1.00
Chloroform	ND		1.00		ug/L		05/10/12 16:38	05/11/12 17:33	1.00
Chloromethane	ND		1.00		ug/L		05/10/12 16:38	05/11/12 17:33	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		05/10/12 16:38	05/11/12 17:33	1.00
1,3-Dichlorobenzene	ND		1 00		ug/L		05/10/12 16:38	05/11/12 17:33	1.00
1,2-Dichlorobenzene	ND		1 00		ug/L		05/10/12 16:38	05/11/12 17.33	1.00
1,1-Dichloroethane	ND		1.00		ug/L		05/10/12 16.38	05/11/12 17:33	1.00
1,2-Dichloroethane	ND		1.00		ug/L		05/10/12 16:38	05/11/12 17:33	1.00
cis-1,2-Dichloroethene	ND		1 00		ug/L		05/10/12 16:38	05/11/12 17:33	1.00
1,1-Dichloroethene	ND		1.00		ug/L		05/10/12 16:38	05/11/12 17:33	1.00
trans-1,2-Dichloroethene	ND		1 00		ug/L		05/10/12 16:38	05/11/12 17:33	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/10/12 16:38	05/11/12 17:33	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		05/10/12 16:38	05/11/12 17 33	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		05/10/12 16.38	05/11/12 17 33	1 00
Methylene Chloride	ND		5.00		ug/L		05/10/12 16:38	05/11/12 17:33	1.00
1,1,2,2-Tetrachloroethane	ND		1 00		ug/L		05/10/12 16:38	05/11/12 17:33	1.00
Tetrachloroethene	ND		1.00		ug/L		05/10/12 16:38	05/11/12 17:33	1.00
1,1,2-Trichloroethane	ND		1 00		ug/L		05/10/12 16:38	05/11/12 17:33	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		05/10/12 16:38	05/11/12 17:33	1.00
Trichloroethene	ND		1.00		ug/L		05/10/12 16:38	05/11/12 17 33	1.00
Trichlorofluoromethane	ND		1.00		ug/L		05/10/12 16:38	05/11/12 17:33	1.00
Vinyl chloride	ND		1.00		ug/L		05/10/12 16:38	05/11/12 17:33	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*96*		*70 - 130*	*05/10/12 16:38*	*05/11/12 17:33*	*1.00*
Dibromofluoromethane	*99*		*70 - 130*	*05/10/12 16:38*	*05/11/12 17.33*	*1.00*
Toluene-d8	*100*		*70 - 130*	*05/10/12 16:38*	*05/11/12 17.33*	*1.00*
4-Bromofluorobenzene	*98*		*70 - 130*	*05/10/12 16:38*	*05/11/12 17.33*	*1.00*

Lab Sample ID: 12E2470-BS1
Matrix: Water
Analysis Batch: V007946

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E2470_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromodichloromethane	50.0	56.7		ug/L		113	75 - 129
Bromoform	50.0	50.3		ug/L		101	46 - 145
Bromomethane	50.0	43 3		ug/L		87	41 - 150
Carbon Tetrachloride	50.0	61.1		ug/L		122	64 - 147
Chlorobenzene	50.0	56 6		ug/L		113	80 - 120
Chlorodibromomethane	50 0	54 2		ug/L		108	69 - 133
Chloroethane	50.0	54 9		ug/L		110	72 - 120
Chloroform	50.0	56.4		ug/L		113	73 - 129
Chloromethane	50 0	35.6		ug/L		71	12 - 150

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 12E2470-BS1
Matrix: Water
Analysis Batch: V007946

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E2470_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	50.0	53.8		ug/L		108	80 - 120
1,3-Dichlorobenzene	50.0	55.6		ug/L		111	80 - 122
1,2-Dichlorobenzene	50.0	54.5		ug/L		109	80 - 121
1,1-Dichloroethane	50.0	57 8		ug/L		116	78 - 125
1,2-Dichloroethane	50.0	50 8		ug/L		102	77 - 121
cis-1,2-Dichloroethene	50.0	56.8		ug/L		114	76 - 125
1,1-Dichloroethene	50 0	60.3		ug/L		121	79 - 124
trans-1,2-Dichloroethene	50.0	54 8		ug/L		110	79 - 126
1,2-Dichloropropane	50.0	54 7		ug/L		109	75 - 120
cis-1,3-Dichloropropene	50.0	64.7		ug/L		129	74 - 140
trans-1,3-Dichloropropene	50 0	58.1		ug/L		116	63 - 134
Methylene Chloride	50 0	55.4		ug/L		111	79 - 123
1,1,2,2-Tetrachloroethane	50.0	54.0		ug/L		108	69 - 131
Tetrachloroethene	50.0	56.7		ug/L		113	80 - 126
1,1,2-Trichloroethane	50 0	55.1		ug/L		110	80 - 124
1,1,1-Trichloroethane	50.0	62 3		ug/L		125	78 - 135
Trichloroethene	50.0	56.1		ug/L		112	80 - 123
Trichlorofluoromethane	50 0	54.5		ug/L		109	65 - 124
Vinyl chloride	50.0	55 2		ug/L		110	68 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4	*88*		*70 - 130*
Dibromofluoromethane	*99*		*70 - 130*
Toluene-d8	*100*		*70 - 130*
4-Bromofluorobenzene	*103*		*70 - 130*

Lab Sample ID: 12E2470-BSD1
Matrix: Water
Analysis Batch: V007946

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 12E2470_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromodichloromethane	50.0	51.4		ug/L		103	75 - 129	10	18
Bromoform	50.0	46.7		ug/L		93	46 - 145	7	16
Bromomethane	50.0	42.2		ug/L		84	41 - 150	3	50
Carbon Tetrachloride	50.0	54.5		ug/L		109	64 - 147	11	19
Chlorobenzene	50.0	51 1		ug/L		102	80 - 120	10	14
Chlorodibromomethane	50.0	50.2		ug/L		100	69 - 133	8	15
Chloroethane	50.0	48.4		ug/L		97	72 - 120	13	20
Chloroform	50.0	51 4		ug/L		103	73 - 129	9	18
Chloromethane	50.0	40.7		ug/L		81	12 - 150	13	31
1,4-Dichlorobenzene	50.0	50.2		ug/L		100	80 - 120	7	15
1,3-Dichlorobenzene	50 0	51.2		ug/L		102	80 - 122	8	15
1,2-Dichlorobenzene	50.0	50 0		ug/L		100	80 - 121	9	15
1,1-Dichloroethane	50.0	51.9		ug/L		104	78 - 125	11	17
1,2-Dichloroethane	50 0	47.2		ug/L		94	77 - 121	7	17
cis-1,2-Dichloroethene	50.0	51.3		ug/L		103	76 - 125	10	17
1,1-Dichloroethene	50.0	53.9		ug/L		108	79 - 124	11	17
trans-1,2-Dichloroethene	50 0	49.2		ug/L		98	79 - 126	11	16
1,2-Dichloropropane	50.0	49.3		ug/L		99	75 - 120	10	17

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 12E2470-BSD1
Matrix: Water
Analysis Batch: V007946

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 12E2470_P

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene			50.0	59.1		ug/L		118	74 - 140	9	15
trans-1,3-Dichloropropene			50.0	53.2		ug/L		106	63 - 134	9	14
Methylene Chloride			50.0	52.4		ug/L		105	79 - 123	6	17
1,1,2,2-Tetrachloroethane			50.0	50.0		ug/L		100	69 - 131	8	20
Tetrachloroethene			50.0	51.4		ug/L		103	80 - 126	10	16
1,1,2-Trichloroethane			50 0	51 0		ug/L		102	80 - 124	8	15
1,1,1-Trichloroethane			50.0	56.5		ug/L		113	78 - 135	10	17
Trichloroethene			50.0	50.5		ug/L		101	80 - 123	11	17
Trichlorofluoromethane			50.0	46.7		ug/L		93	65 - 124	15	18
Vinyl chloride			50 0	48 6		ug/L		97	68 - 120	13	17

Surrogate	*LCS Dup %Recovery*	*LCS Dup Qualifier*	*Limits*
1,2-Dichloroethane-d4	*90*		*70 - 130*
Dibromofluoromethane	*99*		*70 - 130*
Toluene-d8	*99*		*70 - 130*
4-Bromofluorobenzene	*102*		*70 - 130*

Lab Sample ID: 12E2470-MS1
Matrix: Water
Analysis Batch: V007946

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 12E2470_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Bromodichloromethane	ND		50.0	56.0		ug/L		112	70 - 140
Bromoform	ND		50.0	47.0		ug/L		94	42 - 147
Bromomethane	ND		50.0	48.5		ug/L		97	16 - 163
Carbon Tetrachloride	ND		50.0	65 1		ug/L		130	62 - 164
Chlorobenzene	ND		50.0	55.6		ug/L		111	80 - 129
Chlorodibromomethane	ND		50.0	52.1		ug/L		104	66 - 140
Chloroethane	ND		50 0	61 9		ug/L		124	58 - 137
Chloroform	ND		50.0	55.0		ug/L		110	66 - 138
Chloromethane	ND		50.0	7.09		ug/L		14	10 - 169
1,4-Dichlorobenzene	ND		50.0	51.2		ug/L		102	78 - 126
1,3-Dichlorobenzene	ND		50.0	51.5		ug/L		103	77 - 131
1,2-Dichlorobenzene	ND		50.0	49.9		ug/L		100	79 - 128
1,1-Dichloroethane	ND		50.0	58.4		ug/L		117	71 - 139
1,2-Dichloroethane	ND		50.0	53.0		ug/L		106	64 - 136
cis-1,2-Dichloroethene	ND		50.0	56.7		ug/L		113	68 - 138
1,1-Dichloroethene	ND		50.0	61.6		ug/L		123	70 - 142
trans-1,2-Dichloroethene	ND		50.0	55.9		ug/L		112	66 - 143
1,2-Dichloropropane	ND		50.0	53.3		ug/L		107	67 - 131
cis-1,3-Dichloropropene	ND		50.0	60.0		ug/L		120	71 - 141
trans-1,3-Dichloropropene	ND		50.0	54.2		ug/L		108	59 - 135
Methylene Chloride	ND		50.0	56.4		ug/L		113	64 - 139
1,1,2,2-Tetrachloroethane	ND		50.0	53.6		ug/L		107	56 - 143
Tetrachloroethene	ND		50.0	61.0		ug/L		122	72 - 145
1,1,2-Trichloroethane	ND		50.0	53.9		ug/L		108	74 - 134
1,1,1-Trichloroethane	ND		50.0	64.7		ug/L		129	76 - 149
Trichloroethene	ND		50.0	56.3		ug/L		113	73 - 144
Trichlorofluoromethane	ND		50.0	65 9		ug/L		132	58 - 139

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 12E2470-MS1
Matrix: Water
Analysis Batch: V007946

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 12E2470_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	ND		50 0	62.6		ug/L		125	56 - 129

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
1,2-Dichloroethane-d4	*96*		*70 - 130*
Dibromofluoromethane	*102*		*70 - 130*
Toluene-d8	*98*		*70 - 130*
4-Bromofluorobenzene	*99*		*70 - 130*

Lab Sample ID: 12E2470-MSD1
Matrix: Water
Analysis Batch: V007946

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total
Prep Batch: 12E2470_P

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromodichloromethane	ND		50 0	55.4		ug/L		111	70 - 140	0 9	18
Bromoform	ND		50.0	48.0		ug/L		96	42 - 147	2	16
Bromomethane	ND		50.0	52.6		ug/L		105	16 - 163	8	50
Carbon Tetrachloride	ND		50.0	64.6		ug/L		129	62 - 164	0.7	19
Chlorobenzene	ND		50 0	55.4		ug/L		111	80 - 129	0.5	14
Chlorodibromomethane	ND		50 0	51.9		ug/L		104	66 - 140	0.4	15
Chloroethane	ND		50.0	60 3		ug/L		121	58 - 137	3	20
Chloroform	ND		50.0	54.6		ug/L		109	66 - 138	0.5	18
Chloromethane	ND		50.0	9.59		ug/L		19	10 - 169	30	31
1,4-Dichlorobenzene	ND		50.0	51.0		ug/L		102	78 - 126	0.4	15
1,3-Dichlorobenzene	ND		50.0	51.8		ug/L		104	77 - 131	0 7	15
1,2-Dichlorobenzene	ND		50.0	49.3		ug/L		99	79 - 128	1	15
1,1-Dichloroethane	ND		50.0	57.6		ug/L		115	71 - 139	1	17
1,2-Dichloroethane	ND		50.0	52.2		ug/L		104	64 - 136	2	17
cis-1,2-Dichloroethene	ND		50 0	56.3		ug/L		113	68 - 138	0.8	17
1,1-Dichloroethene	ND		50.0	62.2		ug/L		124	70 - 142	1	17
trans-1,2-Dichloroethene	ND		50.0	54.9		ug/L		110	66 - 143	2	16
1,2-Dichloropropane	ND		50.0	52 7		ug/L		105	67 - 131	1	17
cis-1,3-Dichloropropene	ND		50.0	60.1		ug/L		120	71 - 141	0 2	15
trans-1,3-Dichloropropene	ND		50.0	54.6		ug/L		109	59 - 135	0.9	14
Methylene Chloride	ND		50.0	56 7		ug/L		113	64 - 139	0.6	17
1,1,2,2-Tetrachloroethane	ND		50.0	52.4		ug/L		105	56 - 143	2	20
Tetrachloroethene	ND		50 0	56.9		ug/L		114	72 - 145	7	16
1,1,2-Trichloroethane	ND		50 0	54.4		ug/L		109	74 - 134	0.9	15
1,1,1-Trichloroethane	ND		50.0	64.2		ug/L		128	76 - 149	0.7	17
Trichloroethene	ND		50.0	56.1		ug/L		112	73 - 144	0.4	17
Trichlorofluoromethane	ND		50.0	68.3		ug/L		137	58 - 139	4	18
Vinyl chloride	ND		50.0	64.1		ug/L		128	56 - 129	2	17

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
1,2-Dichloroethane-d4	*94*		*70 - 130*
Dibromofluoromethane	*103*		*70 - 130*
Toluene-d8	*99*		*70 - 130*
4-Bromofluorobenzene	*97*		*70 - 130*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 12E3248-BLK1
Matrix: Water
Analysis Batch: V008146

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12E3248_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/14/12 11 45	05/15/12 13:14	1.00
Bromoform	ND		1.00		ug/L		05/14/12 11:45	05/15/12 13:14	1.00
Bromomethane	ND		1.00		ug/L		05/14/12 11:45	05/15/12 13.14	1 00
Carbon Tetrachloride	ND		1.00		ug/L		05/14/12 11:45	05/15/12 13:14	1.00
Chlorobenzene	ND		1.00		ug/L		05/14/12 11:45	05/15/12 13:14	1.00
Chlorodibromomethane	ND		1.00		ug/L		05/14/12 11:45	05/15/12 13:14	1.00
Chloroethane	ND		1.00		ug/L		05/14/12 11 45	05/15/12 13:14	1.00
Chloroform	ND		1.00		ug/L		05/14/12 11:45	05/15/12 13:14	1.00
Chloromethane	ND		1.00		ug/L		05/14/12 11:45	05/15/12 13:14	1.00
1,4-Dichlorobenzene	ND		1 00		ug/L		05/14/12 11:45	05/15/12 13 14	1 00
1,3-Dichlorobenzene	ND		1 00		ug/L		05/14/12 11:45	05/15/12 13.14	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/14/12 11 45	05/15/12 13:14	1.00
1,1-Dichloroethane	ND		1.00		ug/L		05/14/12 11:45	05/15/12 13:14	1.00
1,2-Dichloroethane	ND		1.00		ug/L		05/14/12 11.45	05/15/12 13:14	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		05/14/12 11:45	05/15/12 13:14	1.00
1,1-Dichloroethene	ND		1.00		ug/L		05/14/12 11:45	05/15/12 13:14	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/14/12 11:45	05/15/12 13:14	1.00
1,2-Dichloropropane	ND		1 00		ug/L		05/14/12 11:45	05/15/12 13 14	1 00
cis-1,3-Dichloropropene	ND		1.00		ug/L		05/14/12 11:45	05/15/12 13:14	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		05/14/12 11:45	05/15/12 13:14	1.00
Methylene Chloride	ND		5.00		ug/L		05/14/12 11 45	05/15/12 13:14	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/14/12 11.45	05/15/12 13:14	1.00
Tetrachloroethene	ND		1.00		ug/L		05/14/12 11:45	05/15/12 13:14	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		05/14/12 11:45	05/15/12 13:14	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		05/14/12 11:45	05/15/12 13:14	1.00
Trichloroethene	ND		1 00		ug/L		05/14/12 11:45	05/15/12 13 14	1 00
Trichlorofluoromethane	ND		1.00		ug/L		05/14/12 11:45	05/15/12 13.14	1.00
Vinyl chloride	ND		1.00		ug/L		05/14/12 11:45	05/15/12 13:14	1 00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*93*		*70 - 130*	*05/14/12 11:45*	*05/15/12 13:14*	*1.00*
Dibromofluoromethane	*100*		*70 - 130*	*05/14/12 11:45*	*05/15/12 13:14*	*1 00*
Toluene-d8	*99*		*70 - 130*	*05/14/12 11:45*	*05/15/12 13:14*	*1.00*
4-Bromofluorobenzene	*97*		*70 - 130*	*05/14/12 11:45*	*05/15/12 13:14*	*1.00*

Lab Sample ID: 12E3248-BS1
Matrix: Water
Analysis Batch: V008146

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E3248_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromodichloromethane	50.0	53.9		ug/L		108	75 - 129
Bromoform	50.0	45.2		ug/L		90	46 - 145
Bromomethane	50.0	57.3		ug/L		115	41 - 150
Carbon Tetrachloride	50.0	58.3		ug/L		117	64 - 147
Chlorobenzene	50.0	53.3		ug/L		107	80 - 120
Chlorodibromomethane	50.0	49.8		ug/L		100	69 - 133
Chloroethane	50.0	48.5		ug/L		97	72 - 120
Chloroform	50.0	57.4		ug/L		115	73 - 129
Chloromethane	50.0	39.0		ug/L		78	12 - 150

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 12E3248-BS1
Matrix: Water
Analysis Batch: V008146

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E3248_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	50.0	50 8		ug/L		102	80 - 120
1,3-Dichlorobenzene	50 0	53.2		ug/L		106	80 - 122
1,2-Dichlorobenzene	50.0	50 0		ug/L		100	80 - 121
1,1-Dichloroethane	50.0	57.2		ug/L		114	78 - 125
1,2-Dichloroethane	50.0	48.2		ug/L		96	77 - 121
cis-1,2-Dichloroethene	50.0	56.7		ug/L		113	76 - 125
1,1-Dichloroethene	50.0	57.7		ug/L		115	79 - 124
trans-1,2-Dichloroethene	50 0	58.8		ug/L		118	79 - 126
1,2-Dichloropropane	50.0	51.5		ug/L		103	75 - 120
cis-1,3-Dichloropropene	50 0	60.1		ug/L		120	74 - 140
trans-1,3-Dichloropropene	50.0	53.2		ug/L		106	63 - 134
Methylene Chloride	50 0	55.5		ug/L		111	79 - 123
1,1,2,2-Tetrachloroethane	50 0	50.0		ug/L		100	69 - 131
Tetrachloroethene	50.0	54.0		ug/L		108	80 - 126
1,1,2-Trichloroethane	50.0	50.6		ug/L		101	80 - 124
1,1,1-Trichloroethane	50.0	59.2		ug/L		118	78 - 135
Trichloroethene	50.0	53.9		ug/L		108	80 - 123
Trichlorofluoromethane	50.0	50.6		ug/L		101	65 - 124
Vinyl chloride	50.0	49.6		ug/L		99	68 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4	*88*		*70 - 130*
Dibromofluoromethane	*104*		*70 - 130*
Toluene-d8	*99*		*70 - 130*
4-Bromofluorobenzene	*104*		*70 - 130*

Lab Sample ID: 12E3248-BSD1
Matrix: Water
Analysis Batch: V008146

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 12E3248_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromodichloromethane	50.0	53.9		ug/L		108	75 - 129	0	18
Bromoform	50 0	45.8		ug/L		92	46 - 145	1	16
Bromomethane	50.0	59 8		ug/L		120	41 - 150	4	50
Carbon Tetrachloride	50.0	58.7		ug/L		117	64 - 147	0.6	19
Chlorobenzene	50.0	54.2		ug/L		108	80 - 120	2	14
Chlorodibromomethane	50.0	51.0		ug/L		102	69 - 133	2	15
Chloroethane	50.0	53.4		ug/L		107	72 - 120	10	20
Chloroform	50.0	58.0		ug/L		116	73 - 129	1	18
Chloromethane	50.0	40.8		ug/L		82	12 - 150	5	31
1,4-Dichlorobenzene	50.0	51 4		ug/L		103	80 - 120	1	15
1,3-Dichlorobenzene	50.0	52.8		ug/L		106	80 - 122	0.8	15
1,2-Dichlorobenzene	50.0	49.0		ug/L		98	80 - 121	2	15
1,1-Dichloroethane	50 0	58.5		ug/L		117	78 - 125	2	17
1,2-Dichloroethane	50 0	48.1		ug/L		96	77 - 121	0.2	17
cis-1,2-Dichloroethene	50.0	57 7		ug/L		115	76 - 125	2	17
1,1-Dichloroethene	50.0	58.6		ug/L		117	79 - 124	2	17
trans-1,2-Dichloroethene	50.0	59.3		ug/L		119	79 - 126	0.8	16
1,2-Dichloropropane	50.0	51.4		ug/L		103	75 - 120	0.1	17

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 12E3248-BSD1 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total**
Analysis Batch: V008146 — **Prep Batch: 12E3248_P**

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	50.0	60.2		ug/L		120	74 - 140	0.2	15
trans-1,3-Dichloropropene	50.0	53.6		ug/L		107	63 - 134	0.8	14
Methylene Chloride	50.0	56 1		ug/L		112	79 - 123	1	17
1,1,2,2-Tetrachloroethane	50.0	48.0		ug/L		96	69 - 131	4	20
Tetrachloroethene	50.0	55.3		ug/L		111	80 - 126	3	16
1,1,2-Trichloroethane	50.0	51.2		ug/L		102	80 - 124	1	15
1,1,1-Trichloroethane	50 0	59.7		ug/L		119	78 - 135	0.8	17
Trichloroethene	50.0	54.4		ug/L		109	80 - 123	0.9	17
Trichlorofluoromethane	50.0	50.1		ug/L		100	65 - 124	0.9	18
Vinyl chloride	50.0	50 6		ug/L		101	68 - 120	2	17

Surrogate	*LCS Dup %Recovery*	*LCS Dup Qualifier*	*Limits*
1,2-Dichloroethane-d4	*88*		*70 - 130*
Dibromofluoromethane	*104*		*70 - 130*
Toluene-d8	*99*		*70 - 130*
4-Bromofluorobenzene	*100*		*70 - 130*

Lab Sample ID: 12E3248-MS1 — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total**
Analysis Batch: V008146 — **Prep Batch: 12E3248_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Bromodichloromethane	ND		50 0	54.1		ug/L		108	70 - 140
Bromoform	ND		50.0	48.0		ug/L		96	42 - 147
Bromomethane	ND		50.0	52.7		ug/L		105	16 - 163
Carbon Tetrachloride	ND		50.0	61.4		ug/L		123	62 - 164
Chlorobenzene	ND		50.0	54 0		ug/L		108	80 - 129
Chlorodibromomethane	ND		50.0	52 0		ug/L		104	66 - 140
Chloroethane	ND		50.0	50.3		ug/L		101	58 - 137
Chloroform	ND		50.0	54 5		ug/L		109	66 - 138
Chloromethane	ND		50.0	37 1		ug/L		74	10 - 169
1,4-Dichlorobenzene	ND		50.0	51 4		ug/L		103	78 - 126
1,3-Dichlorobenzene	ND		50.0	52 4		ug/L		105	77 - 131
1,2-Dichlorobenzene	ND		50.0	50 7		ug/L		101	79 - 128
1,1-Dichloroethane	ND		50.0	58.2		ug/L		116	71 - 139
1,2-Dichloroethane	ND		50.0	49.0		ug/L		98	64 - 136
cis-1,2-Dichloroethene	ND		50 0	57.6		ug/L		115	68 - 138
1,1-Dichloroethene	ND		50.0	60.4		ug/L		121	70 - 142
trans-1,2-Dichloroethene	ND		50.0	58.2		ug/L		116	66 - 143
1,2-Dichloropropane	ND		50.0	51 6		ug/L		103	67 - 131
cis-1,3-Dichloropropene	ND		50.0	61.1		ug/L		122	71 - 141
trans-1,3-Dichloropropene	ND		50.0	55.0		ug/L		110	59 - 135
Methylene Chloride	ND		50.0	54.2		ug/L		108	64 - 139
1,1,2,2-Tetrachloroethane	ND		50.0	52.0		ug/L		104	56 - 143
Tetrachloroethene	ND		50.0	55.7		ug/L		111	72 - 145
1,1,2-Trichloroethane	ND		50.0	52.7		ug/L		105	74 - 134
1,1,1-Trichloroethane	ND		50.0	61.9		ug/L		124	76 - 149
Trichloroethene	ND		50.0	54.8		ug/L		110	73 - 144
Trichlorofluoromethane	ND		50.0	52.9		ug/L		106	58 - 139

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 12E3248-MS1
Matrix: Water
Analysis Batch: V008146

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 12E3248_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	ND		50 0	49.6		ug/L		99	56 - 129

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
1,2-Dichloroethane-d4	*91*		*70 - 130*
Dibromofluoromethane	*104*		*70 - 130*
Toluene-d8	*99*		*70 - 130*
4-Bromofluorobenzene	*102*		*70 - 130*

Lab Sample ID: 12E3248-MSD1
Matrix: Water
Analysis Batch: V008146

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total
Prep Batch: 12E3248_P

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Du Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromodichloromethane	ND		50.0	52 6		ug/L		105	70 - 140	3	18
Bromoform	ND		50.0	46.8		ug/L		94	42 - 147	3	16
Bromomethane	ND		50.0	52.1		ug/L		104	16 - 163	1	50
Carbon Tetrachloride	ND		50.0	59.1		ug/L		118	62 - 164	4	19
Chlorobenzene	ND		50.0	52.2		ug/L		104	80 - 129	3	14
Chlorodibromomethane	ND		50 0	50.4		ug/L		101	66 - 140	3	15
Chloroethane	ND		50.0	47.8		ug/L		96	58 - 137	5	20
Chloroform	ND		50.0	52.9		ug/L		106	66 - 138	3	18
Chloromethane	ND		50.0	35 0		ug/L		70	10 - 169	6	31
1,4-Dichlorobenzene	ND		50.0	49 6		ug/L		99	78 - 126	3	15
1,3-Dichlorobenzene	ND		50.0	50.8		ug/L		102	77 - 131	3	15
1,2-Dichlorobenzene	ND		50.0	49.1		ug/L		98	79 - 128	3	15
1,1-Dichloroethane	ND		50.0	55 2		ug/L		110	71 - 139	5	17
1,2-Dichloroethane	ND		50.0	47.4		ug/L		95	64 - 136	3	17
cis-1,2-Dichloroethene	ND		50.0	55.5		ug/L		111	68 - 138	4	17
1,1-Dichloroethene	ND		50 0	57.2		ug/L		114	70 - 142	6	17
trans-1,2-Dichloroethene	ND		50.0	56 2		ug/L		112	66 - 143	4	16
1,2-Dichloropropane	ND		50.0	49 5		ug/L		99	67 - 131	4	17
cis-1,3-Dichloropropene	ND		50 0	58.9		ug/L		118	71 - 141	4	15
trans-1,3-Dichloropropene	ND		50 0	53.4		ug/L		107	59 - 135	3	14
Methylene Chloride	ND		50.0	52.2		ug/L		104	64 - 139	4	17
1,1,2,2-Tetrachloroethane	ND		50.0	51.5		ug/L		103	56 - 143	0.8	20
Tetrachloroethene	ND		50 0	54.0		ug/L		108	72 - 145	3	16
1,1,2-Trichloroethane	ND		50.0	51.5		ug/L		103	74 - 134	2	15
1,1,1-Trichloroethane	ND		50.0	59.9		ug/L		120	76 - 149	3	17
Trichloroethene	ND		50 0	52.4		ug/L		105	73 - 144	4	17
Trichlorofluoromethane	ND		50.0	50.1		ug/L		100	58 - 139	5	18
Vinyl chloride	ND		50.0	47.8		ug/L		96	56 - 129	4	17

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
1,2-Dichloroethane-d4	*92*		*70 - 130*
Dibromofluoromethane	*104*		*70 - 130*
Toluene-d8	*99*		*70 - 130*
4-Bromofluorobenzene	*101*		*70 - 130*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 12E3276-BLK1
Matrix: Water
Analysis Batch: V008118

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12E3276_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/10/12 12:49	05/12/12 06:14	1.00
Bromoform	ND		1.00		ug/L		05/10/12 12:49	05/12/12 06:14	1.00
Bromomethane	ND		1 00		ug/L		05/10/12 12:49	05/12/12 06:14	1.00
Carbon Tetrachloride	ND		1.00		ug/L		05/10/12 12:49	05/12/12 06:14	1.00
Chlorobenzene	ND		1.00		ug/L		05/10/12 12 49	05/12/12 06:14	1.00
Chlorodibromomethane	ND		1.00		ug/L		05/10/12 12:49	05/12/12 06:14	1.00
Chloroethane	ND		1.00		ug/L		05/10/12 12.49	05/12/12 06:14	1.00
Chloroform	ND		1 00		ug/L		05/10/12 12:49	05/12/12 06:14	1.00
Chloromethane	ND		1.00		ug/L		05/10/12 12:49	05/12/12 06:14	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		05/10/12 12:49	05/12/12 06:14	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/10/12 12:49	05/12/12 06:14	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/10/12 12.49	05/12/12 06.14	1.00
1,1-Dichloroethane	ND		1.00		ug/L		05/10/12 12:49	05/12/12 06:14	1.00
1,2-Dichloroethane	ND		1 00		ug/L		05/10/12 12:49	05/12/12 06:14	1.00
cis-1,2-Dichloroethene	ND		1 00		ug/L		05/10/12 12:49	05/12/12 06:14	1.00
1,1-Dichloroethene	ND		1 00		ug/L		05/10/12 12:49	05/12/12 06 14	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/10/12 12 49	05/12/12 06 14	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/10/12 12 49	05/12/12 06 14	1 00
cis-1,3-Dichloropropene	ND		1.00		ug/L		05/10/12 12.49	05/12/12 06.14	1 00
trans-1,3-Dichloropropene	ND		1.00		ug/L		05/10/12 12:49	05/12/12 06:14	1.00
Methylene Chloride	ND		5.00		ug/L		05/10/12 12:49	05/12/12 06:14	1.00
1,1,2,2-Tetrachloroethane	ND		1 00		ug/L		05/10/12 12:49	05/12/12 06:14	1.00
Tetrachloroethene	ND		1 00		ug/L		05/10/12 12:49	05/12/12 06:14	1.00
1,1,2-Trichloroethane	ND		1 00		ug/L		05/10/12 12:49	05/12/12 06:14	1.00
1,1,1-Trichloroethane	ND		1 00		ug/L		05/10/12 12:49	05/12/12 06:14	1.00
Trichloroethene	ND		1 00		ug/L		05/10/12 12:49	05/12/12 06 14	1 00
Trichlorofluoromethane	ND		1.00		ug/L		05/10/12 12 49	05/12/12 06:14	1.00
Vinyl chloride	ND		1.00		ug/L		05/10/12 12 49	05/12/12 06:14	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*97*		*70 - 130*	*05/10/12 12:49*	*05/12/12 06:14*	*1.00*
Dibromofluoromethane	*100*		*70 - 130*	*05/10/12 12:49*	*05/12/12 06.14*	*1.00*
Toluene-d8	*99*		*70 - 130*	*05/10/12 12:49*	*05/12/12 06:14*	*1.00*
4-Bromofluorobenzene	*99*		*70 - 130*	*05/10/12 12:49*	*05/12/12 06:14*	*1.00*

Lab Sample ID: 12E3276-BS1
Matrix: Water
Analysis Batch: V008118

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E3276_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromodichloromethane	50 0	52.8		ug/L		106	75 - 129
Bromoform	50.0	43.2		ug/L		86	46 - 145
Bromomethane	50.0	49.2		ug/L		98	41 - 150
Carbon Tetrachloride	50.0	58.5		ug/L		117	64 - 147
Chlorobenzene	50.0	53 5		ug/L		107	80 - 120
Chlorodibromomethane	50.0	48 6		ug/L		97	69 - 133
Chloroethane	50.0	56 3		ug/L		113	72 - 120
Chloroform	50.0	54.0		ug/L		108	73 - 129
Chloromethane	50.0	52 0		ug/L		104	12 - 150

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 12E3276-BS1
Matrix: Water
Analysis Batch: V008118

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E3276_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	50.0	50.8		ug/L		102	80 - 120
1,3-Dichlorobenzene	50 0	51.3		ug/L		103	80 - 122
1,2-Dichlorobenzene	50 0	49.4		ug/L		99	80 - 121
1,1-Dichloroethane	50.0	54.4		ug/L		109	78 - 125
1,2-Dichloroethane	50.0	49.2		ug/L		98	77 - 121
cis-1,2-Dichloroethene	50.0	53.1		ug/L		106	76 - 125
1,1-Dichloroethene	50.0	56.9		ug/L		114	79 - 124
trans-1,2-Dichloroethene	50.0	51.6		ug/L		103	79 - 126
1,2-Dichloropropane	50.0	50.4		ug/L		101	75 - 120
cis-1,3-Dichloropropene	50.0	57.3		ug/L		115	74 - 140
trans-1,3-Dichloropropene	50.0	50 3		ug/L		101	63 - 134
Methylene Chloride	50.0	54 4		ug/L		109	79 - 123
1,1,2,2-Tetrachloroethane	50.0	46.0		ug/L		92	69 - 131
Tetrachloroethene	50.0	53.4		ug/L		107	80 - 126
1,1,2-Trichloroethane	50.0	49.4		ug/L		99	80 - 124
1,1,1-Trichloroethane	50.0	59.2		ug/L		118	78 - 135
Trichloroethene	50 0	53.0		ug/L		106	80 - 123
Trichlorofluoromethane	50 0	61.2		ug/L		122	65 - 124
Vinyl chloride	50 0	58.2		ug/L		116	68 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4	*90*		*70 - 130*
Dibromofluoromethane	*101*		*70 - 130*
Toluene-d8	*98*		*70 - 130*
4-Bromofluorobenzene	*100*		*70 - 130*

Lab Sample ID: 12E3276-BSD1
Matrix: Water
Analysis Batch: V008118

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 12E3276_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromodichloromethane	50.0	52 5		ug/L		105	75 - 129	0.4	18
Bromoform	50.0	43.9		ug/L		88	46 - 145	2	16
Bromomethane	50.0	51.0		ug/L		102	41 - 150	4	50
Carbon Tetrachloride	50.0	58.0		ug/L		116	64 - 147	0 7	19
Chlorobenzene	50.0	53 1		ug/L		106	80 - 120	0 8	14
Chlorodibromomethane	50.0	49.0		ug/L		98	69 - 133	0.8	15
Chloroethane	50.0	55.7		ug/L		111	72 - 120	1	20
Chloroform	50.0	53.4		ug/L		107	73 - 129	1	18
Chloromethane	50.0	51.2		ug/L		102	12 - 150	2	31
1,4-Dichlorobenzene	50 0	51 6		ug/L		103	80 - 120	2	15
1,3-Dichlorobenzene	50 0	52.2		ug/L		104	80 - 122	2	15
1,2-Dichlorobenzene	50.0	49 8		ug/L		100	80 - 121	0 8	15
1,1-Dichloroethane	50.0	54 1		ug/L		108	78 - 125	0.7	17
1,2-Dichloroethane	50.0	48.6		ug/L		97	77 - 121	1	17
cis-1,2-Dichloroethene	50 0	52.2		ug/L		104	76 - 125	2	17
1,1-Dichloroethene	50 0	56.4		ug/L		113	79 - 124	0.8	17
trans-1,2-Dichloroethene	50.0	51.6		ug/L		103	79 - 126	0.1	16
1,2-Dichloropropane	50.0	49.9		ug/L		100	75 - 120	0.9	17

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 12E3276-BSD1
Matrix: Water
Analysis Batch: V008118

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 12E3276_P

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene			50.0	57.1		ug/L		114	74 - 140	0.4	15
trans-1,3-Dichloropropene			50.0	50.8		ug/L		102	63 - 134	1	14
Methylene Chloride			50 0	54.0		ug/L		108	79 - 123	0.6	17
1,1,2,2-Tetrachloroethane			50.0	45.8		ug/L		92	69 - 131	0.5	20
Tetrachloroethene			50.0	52.8		ug/L		106	80 - 126	1	16
1,1,2-Trichloroethane			50.0	49.9		ug/L		100	80 - 124	1	15
1,1,1-Trichloroethane			50.0	58.5		ug/L		117	78 - 135	1	17
Trichloroethene			50.0	52.5		ug/L		105	80 - 123	0 8	17
Trichlorofluoromethane			50.0	60 1		ug/L		120	65 - 124	2	18
Vinyl chloride			50.0	57 4		ug/L		115	68 - 120	1	17

Surrogate	*LCS Dup %Recovery*	*LCS Dup Qualifier*	*Limits*
1,2-Dichloroethane-d4	*90*		*70 - 130*
Dibromofluoromethane	*101*		*70 - 130*
Toluene-d8	*99*		*70 - 130*
4-Bromofluorobenzene	*99*		*70 - 130*

Lab Sample ID: 12E3276-MS1
Matrix: Water
Analysis Batch: V008118

Client Sample ID: MW-3D1
Prep Type: Total
Prep Batch: 12E3276_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Bromodichloromethane	ND		50.0	53.5		ug/L		107	70 - 140
Bromoform	ND		50.0	45.4		ug/L		91	42 - 147
Bromomethane	ND		50.0	57 6		ug/L		115	16 - 163
Carbon Tetrachloride	ND		50.0	61.5		ug/L		123	62 - 164
Chlorobenzene	ND		50 0	53.8		ug/L		108	80 - 129
Chlorodibromomethane	ND		50.0	50.5		ug/L		101	66 - 140
Chloroethane	ND		50.0	55.1		ug/L		110	58 - 137
Chloroform	ND		50.0	55 0		ug/L		110	66 - 138
Chloromethane	ND		50.0	40.5		ug/L		81	10 - 169
1,4-Dichlorobenzene	ND		50.0	51.3		ug/L		103	78 - 126
1,3-Dichlorobenzene	ND		50.0	52 6		ug/L		105	77 - 131
1,2-Dichlorobenzene	ND		50.0	49.9		ug/L		100	79 - 128
1,1-Dichloroethane	ND		50.0	59.0		ug/L		118	71 - 139
1,2-Dichloroethane	ND		50.0	47.8		ug/L		96	64 - 136
cis-1,2-Dichloroethene	ND		50.0	58.0		ug/L		116	68 - 138
1,1-Dichloroethene	ND		50.0	60.4		ug/L		121	70 - 142
trans-1,2-Dichloroethene	ND		50.0	59.2		ug/L		118	66 - 143
1,2-Dichloropropane	ND		50.0	51.4		ug/L		103	67 - 131
cis-1,3-Dichloropropene	ND		50 0	60.0		ug/L		120	71 - 141
trans-1,3-Dichloropropene	ND		50.0	53.3		ug/L		107	59 - 135
Methylene Chloride	ND		50.0	54.2		ug/L		108	64 - 139
1,1,2,2-Tetrachloroethane	ND		50.0	48.6		ug/L		97	56 - 143
Tetrachloroethene	ND		50.0	55 5		ug/L		111	72 - 145
1,1,2-Trichloroethane	ND		50 0	50.9		ug/L		102	74 - 134
1,1,1-Trichloroethane	ND		50.0	61.5		ug/L		123	76 - 149
Trichloroethene	ND		50.0	54.8		ug/L		110	73 - 144
Trichlorofluoromethane	ND		50.0	54.6		ug/L		109	58 - 139

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 12E3276-MS1
Matrix: Water
Analysis Batch: V008118

Client Sample ID: MW-3D1
Prep Type: Total
Prep Batch: 12E3276_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	ND		50.0	51.9		ug/L		104	56 - 129

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
1,2-Dichloroethane-d4	*88*		*70 - 130*
Dibromofluoromethane	*105*		*70 - 130*
Toluene-d8	*99*		*70 - 130*
4-Bromofluorobenzene	*101*		*70 - 130*

Lab Sample ID: 12E3276-MSD1
Matrix: Water
Analysis Batch: V008118

Client Sample ID: MW-3D1
Prep Type: Total
Prep Batch: 12E3276_P

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromodichloromethane	ND		50 0	54.3		ug/L		109	70 - 140	1	18
Bromoform	ND		50.0	47.1		ug/L		94	42 - 147	4	16
Bromomethane	ND		50.0	60.7		ug/L		121	16 - 163	5	50
Carbon Tetrachloride	ND		50.0	62.1		ug/L		124	62 - 164	1	19
Chlorobenzene	ND		50 0	54.5		ug/L		109	80 - 129	1	14
Chlorodibromomethane	ND		50.0	51.8		ug/L		104	66 - 140	2	15
Chloroethane	ND		50.0	54.1		ug/L		108	58 - 137	2	20
Chloroform	ND		50.0	54.9		ug/L		110	66 - 138	0.2	18
Chloromethane	ND		50.0	40.2		ug/L		80	10 - 169	0.9	31
1,4-Dichlorobenzene	ND		50.0	52 1		ug/L		104	78 - 126	2	15
1,3-Dichlorobenzene	ND		50.0	53 3		ug/L		107	77 - 131	1	15
1,2-Dichlorobenzene	ND		50.0	50.7		ug/L		101	79 - 128	2	15
1,1-Dichloroethane	ND		50.0	59.5		ug/L		119	71 - 139	0.8	17
1,2-Dichloroethane	ND		50.0	48.6		ug/L		97	64 - 136	1	17
cis-1,2-Dichloroethene	ND		50.0	58.3		ug/L		117	68 - 138	0.4	17
1,1-Dichloroethene	ND		50.0	61.9		ug/L		124	70 - 142	2	17
trans-1,2-Dichloroethene	ND		50.0	59.0		ug/L		118	66 - 143	0.3	16
1,2-Dichloropropane	ND		50.0	51 9		ug/L		104	67 - 131	0.9	17
cis-1,3-Dichloropropene	ND		50.0	61.0		ug/L		122	71 - 141	2	15
trans-1,3-Dichloropropene	ND		50.0	54.4		ug/L		109	59 - 135	2	14
Methylene Chloride	ND		50.0	55 0		ug/L		110	64 - 139	2	17
1,1,2,2-Tetrachloroethane	ND		50 0	50.5		ug/L		101	56 - 143	4	20
Tetrachloroethene	ND		50 0	56.2		ug/L		112	72 - 145	1	16
1,1,2-Trichloroethane	ND		50.0	52.0		ug/L		104	74 - 134	2	15
1,1,1-Trichloroethane	ND		50.0	62.1		ug/L		124	76 - 149	1	17
Trichloroethene	ND		50.0	54.9		ug/L		110	73 - 144	0.1	17
Trichlorofluoromethane	ND		50.0	53 5		ug/L		107	58 - 139	2	18
Vinyl chloride	ND		50.0	52 1		ug/L		104	56 - 129	0.3	17

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
1,2-Dichloroethane-d4	*88*		*70 - 130*
Dibromofluoromethane	*104*		*70 - 130*
Toluene-d8	*99*		*70 - 130*
4-Bromofluorobenzene	*102*		*70 - 130*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 12E3308-BLK1
Matrix: Water
Analysis Batch: V008057

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 12E3308_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.00		ug/L		05/13/12 14:06	05/15/12 00:01	1.00
Bromoform	ND		1.00		ug/L		05/13/12 14:06	05/15/12 00:01	1.00
Bromomethane	ND		1 00		ug/L		05/13/12 14:06	05/15/12 00:01	1.00
Carbon Tetrachloride	ND		1 00		ug/L		05/13/12 14:06	05/15/12 00:01	1.00
Chlorobenzene	ND		1 00		ug/L		05/13/12 14:06	05/15/12 00 01	1 00
Chlorodibromomethane	ND		1.00		ug/L		05/13/12 14:06	05/15/12 00 01	1 00
Chloroethane	ND		1.00		ug/L		05/13/12 14:06	05/15/12 00 01	1.00
Chloroform	ND		1 00		ug/L		05/13/12 14:06	05/15/12 00:01	1.00
Chloromethane	ND		1 00		ug/L		05/13/12 14:06	05/15/12 00:01	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		05/13/12 14.06	05/15/12 00:01	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/13/12 14:06	05/15/12 00:01	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/13/12 14:06	05/15/12 00 01	1.00
1,1-Dichloroethane	ND		1.00		ug/L		05/13/12 14:06	05/15/12 00:01	1.00
1,2-Dichloroethane	ND		1.00		ug/L		05/13/12 14:06	05/15/12 00:01	1 00
cis-1,2-Dichloroethene	ND		1.00		ug/L		05/13/12 14.06	05/15/12 00:01	1.00
1,1-Dichloroethene	ND		1 00		ug/L		05/13/12 14:06	05/15/12 00:01	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/13/12 14 06	05/15/12 00:01	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/13/12 14.06	05/15/12 00:01	1.00
cis-1,3-Dichloropropene	ND		1 00		ug/L		05/13/12 14:06	05/15/12 00:01	1.00
trans-1,3-Dichloropropene	ND		1 00		ug/L		05/13/12 14:06	05/15/12 00 01	1.00
Methylene Chloride	ND		5.00		ug/L		05/13/12 14:06	05/15/12 00 01	1 00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/13/12 14:06	05/15/12 00:01	1 00
Tetrachloroethene	ND		1.00		ug/L		05/13/12 14:06	05/15/12 00.01	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		05/13/12 14:06	05/15/12 00:01	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		05/13/12 14:06	05/15/12 00:01	1.00
Trichloroethene	ND		1.00		ug/L		05/13/12 14 06	05/15/12 00:01	1.00
Trichlorofluoromethane	ND		1.00		ug/L		05/13/12 14 06	05/15/12 00:01	1.00
Vinyl chloride	ND		1.00		ug/L		05/13/12 14 06	05/15/12 00:01	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*92*		*70 - 130*	*05/13/12 14:06*	*05/15/12 00:01*	*1.00*
Dibromofluoromethane	*100*		*70 - 130*	*05/13/12 14.06*	*05/15/12 00:01*	*1.00*
Toluene-d8	*98*		*70 - 130*	*05/13/12 14:06*	*05/15/12 00:01*	*1.00*
4-Bromofluorobenzene	*98*		*70 - 130*	*05/13/12 14:06*	*05/15/12 00:01*	*1.00*

Lab Sample ID: 12E3308-BS1
Matrix: Water
Analysis Batch: V008057

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E3308_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromodichloromethane	50.0	52.2		ug/L		104	75 - 129
Bromoform	50.0	44.0		ug/L		88	46 - 145
Bromomethane	50.0	59.8		ug/L		120	41 - 150
Carbon Tetrachloride	50.0	56.8		ug/L		114	64 - 147
Chlorobenzene	50 0	52.7		ug/L		105	80 - 120
Chlorodibromomethane	50.0	48.8		ug/L		98	69 - 133
Chloroethane	50 0	52.6		ug/L		105	72 - 120
Chloroform	50 0	55.7		ug/L		111	73 - 129
Chloromethane	50.0	48.8		ug/L		98	12 - 150

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 12E3308-BS1
Matrix: Water
Analysis Batch: V008057

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 12E3308_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	50.0	51.0		ug/L		102	80 - 120
1,3-Dichlorobenzene	50.0	52 4		ug/L		105	80 - 122
1,2-Dichlorobenzene	50.0	50.6		ug/L		101	80 - 121
1,1-Dichloroethane	50.0	56.8		ug/L		114	78 - 125
1,2-Dichloroethane	50.0	48.0		ug/L		96	77 - 121
cis-1,2-Dichloroethene	50 0	55.3		ug/L		111	76 - 125
1,1-Dichloroethene	50.0	57.5		ug/L		115	79 - 124
trans-1,2-Dichloroethene	50 0	57.4		ug/L		115	79 - 126
1,2-Dichloropropane	50.0	50.7		ug/L		101	75 - 120
cis-1,3-Dichloropropene	50.0	57.1		ug/L		114	74 - 140
trans-1,3-Dichloropropene	50.0	51.0		ug/L		102	63 - 134
Methylene Chloride	50.0	57 1		ug/L		114	79 - 123
1,1,2,2-Tetrachloroethane	50.0	50.1		ug/L		100	69 - 131
Tetrachloroethene	50.0	52.9		ug/L		106	80 - 126
1,1,2-Trichloroethane	50.0	50.8		ug/L		102	80 - 124
1,1,1-Trichloroethane	50.0	58.3		ug/L		117	78 - 135
Trichloroethene	50.0	52 9		ug/L		106	80 - 123
Trichlorofluoromethane	50 0	48 8		ug/L		98	65 - 124
Vinyl chloride	50 0	49.7		ug/L		99	68 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4	*88*		*70 - 130*
Dibromofluoromethane	*105*		*70 - 130*
Toluene-d8	*99*		*70 - 130*
4-Bromofluorobenzene	*102*		*70 - 130*

Lab Sample ID: 12E3308-BSD1
Matrix: Water
Analysis Batch: V008057

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 12E3308_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromodichloromethane	50.0	52.2		ug/L		104	75 - 129	0.06	18
Bromoform	50.0	44 5		ug/L		89	46 - 145	1	16
Bromomethane	50.0	61.9		ug/L		124	41 - 150	3	50
Carbon Tetrachloride	50 0	57.1		ug/L		114	64 - 147	0.5	19
Chlorobenzene	50.0	52.7		ug/L		105	80 - 120	0	14
Chlorodibromomethane	50.0	49.1		ug/L		98	69 - 133	0.6	15
Chloroethane	50.0	52 4		ug/L		105	72 - 120	0 3	20
Chloroform	50.0	55 5		ug/L		111	73 - 129	0.3	18
Chloromethane	50 0	48.2		ug/L		96	12 - 150	1	31
1,4-Dichlorobenzene	50 0	51.1		ug/L		102	80 - 120	0.1	15
1,3-Dichlorobenzene	50.0	52.3		ug/L		105	80 - 122	0 04	15
1,2-Dichlorobenzene	50.0	50.3		ug/L		101	80 - 121	0.5	15
1,1-Dichloroethane	50.0	57.0		ug/L		114	78 - 125	0.3	17
1,2-Dichloroethane	50.0	47.9		ug/L		96	77 - 121	0.4	17
cis-1,2-Dichloroethene	50.0	56.0		ug/L		112	76 - 125	1	17
1,1-Dichloroethene	50 0	57.8		ug/L		116	79 - 124	0 7	17
trans-1,2-Dichloroethene	50.0	57.4		ug/L		115	79 - 126	0.1	16
1,2-Dichloropropane	50.0	50.5		ug/L		101	75 - 120	0.3	17

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 12E3308-BSD1
Matrix: Water
Analysis Batch: V008057

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 12E3308_P

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene			50 0	58 5		ug/L		117	74 - 140	2	15
trans-1,3-Dichloropropene			50.0	51.5		ug/L		103	63 - 134	1	14
Methylene Chlonde			50.0	57 2		ug/L		114	79 - 123	0 2	17
1,1,2,2-Tetrachloroethane			50.0	48.8		ug/L		98	69 - 131	3	20
Tetrachloroethene			50.0	53.0		ug/L		106	80 - 126	0.2	16
1,1,2-Trichloroethane			50.0	50.6		ug/L		101	80 - 124	0.4	15
1,1,1-Trichloroethane			50.0	58.4		ug/L		117	78 - 135	0.3	17
Trichloroethene			50.0	52.8		ug/L		106	80 - 123	0.3	17
Trichlorofluoromethane			50.0	49.6		ug/L		99	65 - 124	2	18
Vinyl chloride			50.0	49.6		ug/L		99	68 - 120	0.2	17

Surrogate	*LCS Dup %Recovery*	*LCS Dup Qualifier*	*Limits*
1,2-Dichloroethane-d4	*88*		*70 - 130*
Dibromofluoromethane	*104*		*70 - 130*
Toluene-d8	*98*		*70 - 130*
4-Bromofluorobenzene	*102*		*70 - 130*

Lab Sample ID: 12E3308-MS1
Matrix: Water
Analysis Batch: V008057

Client Sample ID: MW-8
Prep Type: Total
Prep Batch: 12E3308_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Bromodichloromethane	ND		500	540		ug/L		108	70 - 140
Bromoform	ND		500	434		ug/L		87	42 - 147
Bromomethane	ND		500	337		ug/L		67	16 - 163
Carbon Tetrachloride	ND		500	614		ug/L		123	62 - 164
Chlorobenzene	ND		500	544		ug/L		109	80 - 129
Chlorodibromomethane	ND		500	494		ug/L		99	66 - 140
Chloroethane	ND		500	501		ug/L		100	58 - 137
Chloroform	ND		500	561		ug/L		112	66 - 138
Chloromethane	ND		500	385		ug/L		77	10 - 169
1,4-Dichlorobenzene	ND		500	503		ug/L		101	78 - 126
1,3-Dichlorobenzene	ND		500	514		ug/L		103	77 - 131
1,2-Dichlorobenzene	ND		500	484		ug/L		97	79 - 128
1,1-Dichloroethane	ND		500	601		ug/L		120	71 - 139
1,2-Dichloroethane	ND		500	486		ug/L		97	64 - 136
cis-1,2-Dichloroethene	ND		500	585		ug/L		117	68 - 138
1,1-Dichloroethene	ND		500	612		ug/L		122	70 - 142
trans-1,2-Dichloroethene	ND		500	612		ug/L		122	66 - 143
1,2-Dichloropropane	ND		500	521		ug/L		104	67 - 131
cis-1,3-Dichloropropene	ND		500	586		ug/L		117	71 - 141
trans-1,3-Dichloropropene	ND		500	509		ug/L		102	59 - 135
Methylene Chloride	ND		500	563		ug/L		113	64 - 139
1,1,2,2-Tetrachloroethane	ND		500	482		ug/L		96	56 - 143
Tetrachloroethene	491		500	994		ug/L		101	72 - 145
1,1,2-Trichloroethane	ND		500	504		ug/L		101	74 - 134
1,1,1-Trichloroethane	ND		500	619		ug/L		124	76 - 149
Trichloroethene	8.70		500	565		ug/L		111	73 - 144
Trichlorofluoromethane	ND		500	535		ug/L		107	58 - 139

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 12E3308-MS1
Matrix: Water
Analysis Batch: V008057

Client Sample ID: MW-8
Prep Type: Total
Prep Batch: 12E3308_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	ND		500	545		ug/L		109	56 - 129

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
1,2-Dichloroethane-d4	*86*		*70 - 130*
Dibromofluoromethane	*103*		*70 - 130*
Toluene-d8	*98*		*70 - 130*
4-Bromofluorobenzene	*104*		*70 - 130*

Lab Sample ID: 12E3308-MSD1
Matrix: Water
Analysis Batch: V008057

Client Sample ID: MW-8
Prep Type: Total
Prep Batch: 12E3308_P

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromodichloromethane	ND		500	533		ug/L		107	70 - 140	1	18
Bromoform	ND		500	433		ug/L		87	42 - 147	0.2	16
Bromomethane	ND		500	547		ug/L		109	16 - 163	48	50
Carbon Tetrachloride	ND		500	614		ug/L		123	62 - 164	0.02	19
Chlorobenzene	ND		500	544		ug/L		109	80 - 129	0.1	14
Chlorodibromomethane	ND		500	492		ug/L		98	66 - 140	0.3	15
Chloroethane	ND		500	551		ug/L		110	58 - 137	10	20
Chloroform	ND		500	556		ug/L		111	66 - 138	0.9	18
Chloromethane	ND		500	403		ug/L		81	10 - 169	4	31
1,4-Dichlorobenzene	ND		500	514		ug/L		103	78 - 126	2	15
1,3-Dichlorobenzene	ND		500	521		ug/L		104	77 - 131	1	15
1,2-Dichlorobenzene	ND		500	493		ug/L		99	79 - 128	2	15
1,1-Dichloroethane	ND		500	592		ug/L		118	71 - 139	2	17
1,2-Dichloroethane	ND		500	476		ug/L		95	64 - 136	2	17
cis-1,2-Dichloroethene	ND		500	571		ug/L		114	68 - 138	2	17
1,1-Dichloroethene	ND		500	615		ug/L		123	70 - 142	0.5	17
trans-1,2-Dichloroethene	ND		500	609		ug/L		122	66 - 143	0.6	16
1,2-Dichloropropane	ND		500	515		ug/L		103	67 - 131	1	17
cis-1,3-Dichloropropene	ND		500	586		ug/L		117	71 - 141	0 05	15
trans-1,3-Dichloropropene	ND		500	508		ug/L		102	59 - 135	0.3	14
Methylene Chloride	ND		500	550		ug/L		110	64 - 139	2	17
1,1,2,2-Tetrachloroethane	ND		500	486		ug/L		97	56 - 143	0 7	20
Tetrachloroethene	491		500	987		ug/L		99	72 - 145	0.7	16
1,1,2-Trichloroethane	ND		500	502		ug/L		100	74 - 134	0.2	15
1,1,1-Trichloroethane	ND		500	618		ug/L		124	76 - 149	0.3	17
Trichloroethene	8.70		500	560		ug/L		110	73 - 144	0.9	17
Trichlorofluoromethane	ND		500	543		ug/L		109	58 - 139	1	18
Vinyl chloride	ND		500	536		ug/L		107	56 - 129	2	17

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
1,2-Dichloroethane-d4	*87*		*70 - 130*
Dibromofluoromethane	*105*		*70 - 130*
Toluene-d8	*100*		*70 - 130*
4-Bromofluorobenzene	*104*		*70 - 130*

GCMS Volatiles

Analysis Batch: V007946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E2470-BLK1	Method Blank	Total	Water	SW846 8260B	12E2470_P
12E2470-BS1	Lab Control Sample	Total	Water	SW846 8260B	12E2470_P
12E2470-BSD1	Lab Control Sample Dup	Total	Water	SW846 8260B	12E2470_P
12E2470-MS1	Matrix Spike	Total	Water	SW846 8260B	12E2470_P
12E2470-MSD1	Matrix Spike Duplicate	Total	Water	SW846 8260B	12E2470_P
NWE1269-01	MW-15D	Total	Water	SW846 8260B	12E2470_P
NWE1269-02	MW-15	Total	Water	SW846 8260B	12E2470_P
NWE1269-03	MW-15D1	Total	Water	SW846 8260B	12E2470_P
NWE1269-04	MW-16	Total	Water	SW846 8260B	12E2470_P
NWE1269-05	MW-16D	Total	Water	SW846 8260B	12E2470_P
NWE1269-06	MW-4	Total	Water	SW846 8260B	12E2470_P
NWE1269-07	MW-11	Total	Water	SW846 8260B	12E2470_P
NWE1269-08	MW-10D	Total	Water	SW846 8260B	12E2470_P
NWE1269-09	MW-10	Total	Water	SW846 8260B	12E2470_P
NWE1269-25	Trip Blank	Total	Water	SW846 8260B	12E2470_P

Analysis Batch: V008057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E3308-BLK1	Method Blank	Total	Water	SW846 8260B	12E3308_P
12E3308-BS1	Lab Control Sample	Total	Water	SW846 8260B	12E3308_P
12E3308-BSD1	Lab Control Sample Dup	Total	Water	SW846 8260B	12E3308_P
12E3308-MS1	MW-8	Total	Water	SW846 8260B	12E3308_P
12E3308-MSD1	MW-8	Total	Water	SW846 8260B	12E3308_P
NWE1269-09 - RE1	MW-10	Total	Water	SW846 8260B	12E3308_P
NWE1269-11 - RE1	MW-9	Total	Water	SW846 8260B	12E3308_P
NWE1269-16 - RE1	MW-3D	Total	Water	SW846 8260B	12E3308_P
NWE1269-17 - RE1	MW-7	Total	Water	SW846 8260B	12E3308_P
NWE1269-22 - RE1	MW-8	Total	Water	SW846 8260B	12E3308_P
NWE1269-23 - RE1	MW-1	Total	Water	SW846 8260B	12E3308_P
NWE1269-23 - RE2	MW-1	Total	Water	SW846 8260B	12E3308_P
NWE1269-24 - RE1	MW-2	Total	Water	SW846 8260B	12E3308_P

Analysis Batch: V008118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E3276-BLK1	Method Blank	Total	Water	SW846 8260B	12E3276_P
12E3276-BS1	Lab Control Sample	Total	Water	SW846 8260B	12E3276_P
12E3276-BSD1	Lab Control Sample Dup	Total	Water	SW846 8260B	12E3276_P
12E3276-MS1	MW-3D1	Total	Water	SW846 8260B	12E3276_P
12E3276-MSD1	MW-3D1	Total	Water	SW846 8260B	12E3276_P
NWE1269-10	MW-9D	Total	Water	SW846 8260B	12E3276_P
NWE1269-11	MW-9	Total	Water	SW846 8260B	12E3276_P
NWE1269-12	MW-13D	Total	Water	SW846 8260B	12E3276_P
NWE1269-13	MW-12D	Total	Water	SW846 8260B	12E3276_P
NWE1269-14	MW-3	Total	Water	SW846 8260B	12E3276_P
NWE1269-15	MW-3D1	Total	Water	SW846 8260B	12E3276_P
NWE1269-16	MW-3D	Total	Water	SW846 8260B	12E3276_P
NWE1269-18	MW-14D	Total	Water	SW846 8260B	12E3276_P
NWE1269-19	MW-14	Total	Water	SW846 8260B	12E3276_P
NWE1269-20	MW-5	Total	Water	SW846 8260B	12E3276_P
NWE1269-21	MW-6	Total	Water	SW846 8260B	12E3276_P
NWE1269-22	MW-8	Total	Water	SW846 8260B	12E3276_P
NWE1269-23	MW-1	Total	Water	SW846 8260B	12E3276_P

GCMS Volatiles (Continued)

Analysis Batch: V008146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E3248-BLK1	Method Blank	Total	Water	SW846 8260B	12E3248_P
12E3248-BS1	Lab Control Sample	Total	Water	SW846 8260B	12E3248_P
12E3248-BSD1	Lab Control Sample Dup	Total	Water	SW846 8260B	12E3248_P
12E3248-MS1	Matrix Spike	Total	Water	SW846 8260B	12E3248_P
12E3248-MSD1	Matrix Spike Duplicate	Total	Water	SW846 8260B	12E3248_P
NWE1269-09 - RE2	MW-10	Total	Water	SW846 8260B	12E3248_P

Prep Batch: 12E2470_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E2470-BLK1	Method Blank	Total	Water	EPA 5030B	
12E2470-BS1	Lab Control Sample	Total	Water	EPA 5030B	
12E2470-BSD1	Lab Control Sample Dup	Total	Water	EPA 5030B	
12E2470-MS1	Matrix Spike	Total	Water	EPA 5030B	
12E2470-MSD1	Matrix Spike Duplicate	Total	Water	EPA 5030B	
NWE1269-01	MW-15D	Total	Water	EPA 5030B	
NWE1269-02	MW-15	Total	Water	EPA 5030B	
NWE1269-03	MW-15D1	Total	Water	EPA 5030B	
NWE1269-04	MW-16	Total	Water	EPA 5030B	
NWE1269-05	MW-16D	Total	Water	EPA 5030B	
NWE1269-06	MW-4	Total	Water	EPA 5030B	
NWE1269-07	MW-11	Total	Water	EPA 5030B	
NWE1269-08	MW-10D	Total	Water	EPA 5030B	
NWE1269-09	MW-10	Total	Water	EPA 5030B	
NWE1269-25	Trip Blank	Total	Water	EPA 5030B	

Prep Batch: 12E3248_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E3248-BLK1	Method Blank	Total	Water	EPA 5030B	
12E3248-BS1	Lab Control Sample	Total	Water	EPA 5030B	
12E3248-BSD1	Lab Control Sample Dup	Total	Water	EPA 5030B	
12E3248-MS1	Matrix Spike	Total	Water	EPA 5030B	
12E3248-MSD1	Matrix Spike Duplicate	Total	Water	EPA 5030B	
NWE1269-09 - RE2	MW-10	Total	Water	EPA 5030B	

Prep Batch: 12E3276_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E3276-BLK1	Method Blank	Total	Water	EPA 5030B	
12E3276-BS1	Lab Control Sample	Total	Water	EPA 5030B	
12E3276-BSD1	Lab Control Sample Dup	Total	Water	EPA 5030B	
12E3276-MS1	MW-3D1	Total	Water	EPA 5030B	
12E3276-MSD1	MW-3D1	Total	Water	EPA 5030B	
NWE1269-10	MW-9D	Total	Water	EPA 5030B	
NWE1269-11	MW-9	Total	Water	EPA 5030B	
NWE1269-12	MW-13D	Total	Water	EPA 5030B	
NWE1269-13	MW-12D	Total	Water	EPA 5030B	
NWE1269-14	MW-3	Total	Water	EPA 5030B	
NWE1269-15	MW-3D1	Total	Water	EPA 5030B	
NWE1269-16	MW-3D	Total	Water	EPA 5030B	
NWE1269-18	MW-14D	Total	Water	EPA 5030B	
NWE1269-19	MW-14	Total	Water	EPA 5030B	
NWE1269-20	MW-5	Total	Water	EPA 5030B	
NWE1269-21	MW-6	Total	Water	EPA 5030B	

GCMS Volatiles (Continued)

Prep Batch: 12E3276_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
NWE1269-22	MW-8	Total	Water	EPA 5030B	
NWE1269-23	MW-1	Total	Water	EPA 5030B	

Prep Batch: 12E3308_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E3308-BLK1	Method Blank	Total	Water	EPA 5030B	
12E3308-BS1	Lab Control Sample	Total	Water	EPA 5030B	
12E3308-BSD1	Lab Control Sample Dup	Total	Water	EPA 5030B	
12E3308-MS1	MW-8	Total	Water	EPA 5030B	
12E3308-MSD1	MW-8	Total	Water	EPA 5030B	
NWE1269-09 - RE1	MW-10	Total	Water	EPA 5030B	
NWE1269-11 - RE1	MW-9	Total	Water	EPA 5030B	
NWE1269-16 - RE1	MW-3D	Total	Water	EPA 5030B	
NWE1269-17 - RE1	MW-7	Total	Water	EPA 5030B	
NWE1269-22 - RE1	MW-8	Total	Water	EPA 5030B	
NWE1269-23 - RE1	MW-1	Total	Water	EPA 5030B	
NWE1269-23 - RE2	MW-1	Total	Water	EPA 5030B	
NWE1269-24 - RE1	MW-2	Total	Water	EPA 5030B	

Client Sample ID: MW-15D — **Lab Sample ID: NWE1269-01**
Date Collected: 05/08/12 13:15 — **Matrix: Water**
Date Received: 05/10/12 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	12E2470_P	05/08/12 13:15	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	V007946	05/11/12 21:47	FKG	TAL NSH

Client Sample ID: MW-15 — **Lab Sample ID: NWE1269-02**
Date Collected: 05/08/12 13:35 — **Matrix: Water**
Date Received: 05/10/12 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	12E2470_P	05/08/12 13:35	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	V007946	05/11/12 22:15	FKG	TAL NSH

Client Sample ID: MW-15D1 — **Lab Sample ID: NWE1269-03**
Date Collected: 05/08/12 14:30 — **Matrix: Water**
Date Received: 05/10/12 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	12E2470_P	05/08/12 14:30	TSP	TAL NSH
Total	Analysis	SW846 8260B		1 00	V007946	05/11/12 22:43	FKG	TAL NSH

Client Sample ID: MW-16 — **Lab Sample ID: NWE1269-04**
Date Collected: 05/08/12 14:50 — **Matrix: Water**
Date Received: 05/10/12 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1 00	12E2470_P	05/08/12 14:50	TSP	TAL NSH
Total	Analysis	SW846 8260B		1 00	V007946	05/11/12 23:11	FKG	TAL NSH

Client Sample ID: MW-16D — **Lab Sample ID: NWE1269-05**
Date Collected: 05/08/12 15:20 — **Matrix: Water**
Date Received: 05/10/12 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	12E2470_P	05/08/12 15:20	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	V007946	05/11/12 23:40	FKG	TAL NSH

Client Sample ID: MW-4 — **Lab Sample ID: NWE1269-06**
Date Collected: 05/08/12 15:55 — **Matrix: Water**
Date Received: 05/10/12 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	12E2470_P	05/08/12 15:55	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	V007946	05/12/12 00:08	FKG	TAL NSH

Lab Chronicle

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1269

Client Sample ID: MW-11 — **Lab Sample ID: NWE1269-07**
Date Collected: 05/08/12 16:30 — **Matrix: Water**
Date Received: 05/10/12 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	12E2470_P	05/08/12 16:30	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	V007946	05/12/12 00:36	FKG	TAL NSH

Client Sample ID: MW-10D — **Lab Sample ID: NWE1269-08**
Date Collected: 05/08/12 17:00 — **Matrix: Water**
Date Received: 05/10/12 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	12E2470_P	05/08/12 17:00	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	V007946	05/12/12 01:04	FKG	TAL NSH

Client Sample ID: MW-10 — **Lab Sample ID: NWE1269-09**
Date Collected: 05/08/12 17:30 — **Matrix: Water**
Date Received: 05/10/12 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	12E2470_P	05/08/12 17:30	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	V007946	05/12/12 01:32	FKG	TAL NSH
Total	Prep	EPA 5030B	RE1	1.00	12E3308_P	05/08/12 17:30	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	10.0	V008057	05/15/12 03:47	FKG	TAL NSH
Total	Prep	EPA 5030B	RE2	1 00	12E3248_P	05/08/12 17:30	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE2	20.0	V008146	05/15/12 14:10	FKG	TAL NSH

Client Sample ID: MW-9D — **Lab Sample ID: NWE1269-10**
Date Collected: 05/08/12 18:10 — **Matrix: Water**
Date Received: 05/10/12 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	12E3276_P	05/08/12 18:10	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	V008118	05/12/12 06:42	FKG	TAL NSH

Client Sample ID: MW-9 — **Lab Sample ID: NWE1269-11**
Date Collected: 05/08/12 18:40 — **Matrix: Water**
Date Received: 05/10/12 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	12E3276_P	05/08/12 18:40	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	V008118	05/12/12 07:10	FKG	TAL NSH
Total	Prep	EPA 5030B	RE1	1.00	12E3308_P	05/08/12 18:40	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	10.0	V008057	05/15/12 02:50	FKG	TAL NSH

Client Sample ID: MW-13D — **Lab Sample ID: NWE1269-12**
Date Collected: 05/09/12 09:10 — **Matrix: Water**
Date Received: 05/10/12 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	12E3276_P	05/09/12 09:10	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	V008118	05/12/12 07:38	FKG	TAL NSH

Client Sample ID: MW-12D — **Lab Sample ID: NWE1269-13**
Date Collected: 05/09/12 09:50 — **Matrix: Water**
Date Received: 05/10/12 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1 00	12E3276_P	05/09/12 09:50	TSP	TAL NSH
Total	Analysis	SW846 8260B		1 00	V008118	05/12/12 08.06	FKG	TAL NSH

Client Sample ID: MW-3 — **Lab Sample ID: NWE1269-14**
Date Collected: 05/09/12 10:10 — **Matrix: Water**
Date Received: 05/10/12 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	12E3276_P	05/09/12 10:10	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	V008118	05/12/12 08:35	FKG	TAL NSH

Client Sample ID: MW-3D1 — **Lab Sample ID: NWE1269-15**
Date Collected: 05/09/12 11:05 — **Matrix: Water**
Date Received: 05/10/12 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	12E3276_P	05/09/12 11:05	TSP	TAL NSH
Total	Analysis	SW846 8260B		1 00	V008118	05/12/12 09:03	FKG	TAL NSH

Client Sample ID: MW-3D — **Lab Sample ID: NWE1269-16**
Date Collected: 05/09/12 10:45 — **Matrix: Water**
Date Received: 05/10/12 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	12E3276_P	05/09/12 10:45	TSP	TAL NSH
Total	Analysis	SW846 8260B		1 00	V008118	05/12/12 09:31	FKG	TAL NSH
Total	Prep	EPA 5030B	RE1	1.00	12E3308_P	05/09/12 10:45	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	10 0	V008057	05/15/12 04.15	FKG	TAL NSH

Client Sample ID: MW-7 — **Lab Sample ID: NWE1269-17**
Date Collected: 05/09/12 11:10 — **Matrix: Water**
Date Received: 05/10/12 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B	RE1	1.00	12E3308_P	05/09/12 11:10	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	1 00	V008057	05/15/12 00:30	FKG	TAL NSH

Lab Chronicle

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1269

Client Sample ID: MW-14D — **Lab Sample ID: NWE1269-18**
Date Collected: 05/09/12 12:00 — **Matrix: Water**
Date Received: 05/10/12 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	12E3276_P	05/09/12 12.00	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	V008118	05/12/12 10:27	FKG	TAL NSH

Client Sample ID: MW-14 — **Lab Sample ID: NWE1269-19**
Date Collected: 05/09/12 12:20 — **Matrix: Water**
Date Received: 05/10/12 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	12E3276_P	05/09/12 12:20	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	V008118	05/12/12 10:55	FKG	TAL NSH

Client Sample ID: MW-5 — **Lab Sample ID: NWE1269-20**
Date Collected: 05/09/12 12:45 — **Matrix: Water**
Date Received: 05/10/12 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	12E3276_P	05/09/12 12:45	TSP	TAL NSH
Total	Analysis	SW846 8260B		1 00	V008118	05/12/12 11:24	FKG	TAL NSH

Client Sample ID: MW-6 — **Lab Sample ID: NWE1269-21**
Date Collected: 05/09/12 13:05 — **Matrix: Water**
Date Received: 05/10/12 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	12E3276_P	05/09/12 13:05	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	V008118	05/12/12 11.52	FKG	TAL NSH

Client Sample ID: MW-8 — **Lab Sample ID: NWE1269-22**
Date Collected: 05/09/12 13:30 — **Matrix: Water**
Date Received: 05/10/12 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1 00	12E3276_P	05/09/12 13:30	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	V008118	05/12/12 12:20	FKG	TAL NSH
Total	Prep	EPA 5030B	RE1	1.00	12E3308_P	05/09/12 13:30	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	10.0	V008057	05/15/12 04:43	FKG	TAL NSH

Client Sample ID: MW-1 — **Lab Sample ID: NWE1269-23**
Date Collected: 05/09/12 14:00 — **Matrix: Water**
Date Received: 05/10/12 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1 00	12E3276_P	05/09/12 14:00	TSP	TAL NSH
Total	Analysis	SW846 8260B		1 00	V008118	05/12/12 12:48	FKG	TAL NSH

Lab Chronicle

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1269

Client Sample ID: MW-1

Lab Sample ID: NWE1269-23

Date Collected: 05/09/12 14:00

Matrix: Water

Date Received: 05/10/12 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B	RE1	1.00	12E3308_P	05/09/12 14:00	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	10.0	V008057	05/15/12 01:54	FKG	TAL NSH
Total	Prep	EPA 5030B	RE2	1.00	12E3308_P	05/09/12 14:00	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE2	100	V008057	05/15/12 02:22	FKG	TAL NSH

Client Sample ID: MW-2

Lab Sample ID: NWE1269-24

Date Collected: 05/09/12 14:35

Matrix: Water

Date Received: 05/10/12 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B	RE1	1.00	12E3308_P	05/09/12 14:35	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	1.00	V008057	05/15/12 00:58	FKG	TAL NSH

Client Sample ID: Trip Blank

Lab Sample ID: NWE1269-25

Date Collected: 05/08/12 00:01

Matrix: Water

Date Received: 05/10/12 08:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	12E2470_P	05/08/12 00:01	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	V007946	05/11/12 18:30	FKG	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Road, Nashville, TN 37204, TEL 800-765-0980

8

Method Summary

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1269

Method	Method Description	Protocol	Laboratory
SW846 8260B	Volatile Organic Compounds by EPA Method 8260B		TAL NSH

Protocol References:

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Road, Nashville, TN 37204, TEL 800-765-0980

Certification Summary

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1269

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Nashville		ACIL		393
TestAmerica Nashville	A2LA	ISO/IEC 17025		0453.07
TestAmerica Nashville	Alabama	State Program	4	41150
TestAmerica Nashville	Alaska (UST)	State Program	10	UST-087
TestAmerica Nashville	Arizona	State Program	9	AZ0473
TestAmerica Nashville	Arkansas DEQ	State Program	6	88-0737
TestAmerica Nashville	California	NELAC	9	1168CA
TestAmerica Nashville	Canadian Assoc Lab Accred (CALA)	Canada		3744
TestAmerica Nashville	Colorado	State Program	8	N/A
TestAmerica Nashville	Connecticut	State Program	1	PH-0220
TestAmerica Nashville	Florida	NELAC	4	E87358
TestAmerica Nashville	Illinois	NELAC	5	200010
TestAmerica Nashville	Iowa	State Program	7	131
TestAmerica Nashville	Kansas	NELAC	7	E-10229
TestAmerica Nashville	Kentucky	State Program	4	90038
TestAmerica Nashville	Kentucky (UST)	State Program	4	19
TestAmerica Nashville	Louisiana	NELAC	6	30613
TestAmerica Nashville	Louisiana	NELAC	6	LA110014
TestAmerica Nashville	Maryland	State Program	3	316
TestAmerica Nashville	Massachusetts	State Program	1	M-TN032
TestAmerica Nashville	Minnesota	NELAC	5	047-999-345
TestAmerica Nashville	Mississippi	State Program	4	N/A
TestAmerica Nashville	Montana (UST)	State Program	8	NA
TestAmerica Nashville	New Hampshire	NELAC	1	2963
TestAmerica Nashville	New Jersey	NELAC	2	TN965
TestAmerica Nashville	New York	NELAC	2	11342
TestAmerica Nashville	North Carolina DENR	State Program	4	387
TestAmerica Nashville	North Dakota	State Program	8	R-146
TestAmerica Nashville	Ohio VAP	State Program	5	CL0033
TestAmerica Nashville	Oklahoma	State Program	6	9412
TestAmerica Nashville	Oregon	NELAC	10	TN200001
TestAmerica Nashville	Pennsylvania	NELAC	3	68-00585
TestAmerica Nashville	Rhode Island	State Program	1	LAO00268
TestAmerica Nashville	South Carolina	State Program	4	84009
TestAmerica Nashville	South Carolina	State Program	4	84009
TestAmerica Nashville	Tennessee	State Program	4	2008
TestAmerica Nashville	Texas	NELAC	6	T104704077-09-TX
TestAmerica Nashville	USDA	Federal		S-48469
TestAmerica Nashville	Utah	NELAC	8	TAN
TestAmerica Nashville	Virginia	NELAC	3	460152
TestAmerica Nashville	Virginia	State Program	3	00323
TestAmerica Nashville	Washington	State Program	10	C789
TestAmerica Nashville	West Virginia DEP	State Program	3	219
TestAmerica Nashville	Wisconsin	State Program	5	998020430
TestAmerica Nashville	Wyoming (UST)	A2LA	8	453.07

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

10

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER REC

NWE1269

Cooler Received/Opened On 5/10/2012@ 8:10

1. Tracking # 1370 (last 4 digits, FedEx)

Courier: Fedex IR Gun ID 18290455

2. Temperature of rep. sample or temp blank when opened: 1.4 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 Front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) CJH

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry Ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # NA

I certify that I unloaded the cooler and answered questions 7-14 (intial) _____

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO..NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) _____

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) _____

I certify that I attached a label with the unique LIMS number to each container (intial) _____

21. Were there Non-Conformance issues at login? YES..NO Was a PIPE generated? YES...NO #_____

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

5/16/2012

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Hart & Hickman	Client Project Manager: Shannon Cottrill	Site Contact: Brett Byrn	Lab Contact:	COC No:
Address: 2923 S Tryon St. Ste 100	Telephone: 704-586-0007	Telephone: 704-302-4408	Telephone:	1 of 3 COCs
City/State/Zip: Charlotte, NC 28203	Email: scottrill@harthickman.com		Analyses	
Phone: 704-586-0007		TAT if different from below ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: GDR Delavan	Method of Shipment/Carrier: Fedex			
Project Number: GDR.006	Shipping/Tracking No:			
PO #				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite (C) or Grab (G)	8260 GOI list only	Sample Specific Notes / Special Instructions:
1 MW-15D	5/8/12	1315		X						3					N	G	X	
2 MW-15	5/8/12	1335		X						3					N	G	X	
3 MW-15D1	5/8/12	1430		X						3					N	G	X	
4 MW-16	5/8/12	1450		X						3					N	G	X	
5 MW-16D	5/8/12	1520		X						3					N	G	X	
6 MW-4	5/8/12	1555		X						3					N	G	X	
7 MW-11	5/8/12	1630		X						3					N	G	X	
8 MW-10D	5/8/12	1700		X						3					N	G	X	
9 MW-10	5/8/12	1730		X						3					N	G	X	
10 MW-9D	5/8/12	1810		X						3					N	G	X	

NWE1269
05/17/12 23:59

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by: [signature]	Company: Hart & Hickman	Date/Time: 5/9/12 1800	Received by: Fed Ex	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: JAN 1.4	Date/Time: 5-10-12 08:10

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TAL-0018 (1008)

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

5/16/2012

Client Contact				
Company Name: Hart & Hickman	Client Project Manager: Stanton Cottrill	Site Contact: Brett Byrn	Lab Contact:	COC No:
Address: 2923 S Tryon St Ste 100	Telephone: 704-586-0007	Telephone: 704-302-4408	Telephone:	2 of 3 COCs
City/State/Zip: Charlotte, NC 28203	Email: scottrill@hartandhickman.com	Analysis Turnaround Time	Analyses	
Phone: 704-586-0007		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day	8260 soil list only	
Project Name: GDR Delavan	Method of Shipment/Carrier: Fedex			
Project Number: GDR.006	Shipping/Tracking No:			
PO#				

	Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:				Sample Specific Notes / Special Instructions:
11	MW-9	5/8/12	1840		X						3					N	G	X	
13	MW-13D	5/9/12	910		X						3					N	G	X	
14	MW-12D	5/9/12	950		X						3					N	G	X	
15	MW-3	5/9/12	1010		X						3					N	G	X	
16	MW-3D1	5/9/12	1105		X						3					N	G	X	
17	MW-3D	5/9/12	1045		X						3					N	G	X	
18	MW-7	5/9/12	1110		X						3					N	G	X	
19	MW-14D	5/9/12	1200		X						3					N	G	X	
20	MW-14	5/9/12	1220		X						3					N	G	X	
22	MW-5	5/9/12	1245		X						3					N	G	X	

NWE1269
05/17/12 23:59

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company: Hart & Hickman	Date/Time: 5/9/12 1800	Received by: FedEx	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TAN 1.4	Date/Time: 5-10-12 08:10

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TAL-0018 (1008)

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Hart & Hickman	Client Project Manager: Shannon Cottrill	Site Contact: Brett Byrn	Lab Contact:	COC No:
Address: 2923 S Tryon st. ste 100	Telephone: 704-586-0007	Telephone: 704-302-4408	Telephone:	3 of 3 COCs
City/State/Zip: Charlotte, NC 28203	Email: scottrill@harthickman.com	Analysis Turnaround Time (Unless Stated)	Analyses	Lab Use Only
Phone: 704-586-0007		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in Client ☐ Lab Pickup ☐ Lab Sampling ☐ Job SDG No.
Project Name: GDR Deleven	Method of Shipment/Carrier: Fedex			
Project Number: GDR, 006	Shipping/Tracking No:			
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite (C) Grab (G)	8260 601 list only	Sample Specific Notes / Special Instructions:
MW-6	5/9/12	1305		x						3					N	G	x	
MW-8	5/9/12	1330		x						3					N	G	x	
MW-1	5/9/12	1400		x						3					N	G	x	
MW-2	5/9/12	1435		x						3					N	G	x	
trip blank				x						2					N	G	x	

NWE1269
05/17/12 23:59

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Brett Byrn	Hart & Hickman	5/9/12 1800			
			Received in Laboratory by: [signature]	TAN 1.4	5-10-12 08:10

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TAL-0018 (1008)

5/16/2012

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Road
Nashville, TN 37204
Tel: 800-765-0980

TestAmerica Job ID: NWE1279
Client Project/Site: GDR-006
Client Project Description:
Goodrich - Delavan Monitoring Wells (Full VOC)

For:
Hart & Hickman (2162)
2923 South Tryon Street, Suite 100
Charlotte, NC 28203-5449

Attn: Shannon Cottrill

Authorized for release by:
5/16/2012 7:25:42 PM

Ken A. Hayes
Senior Project Manager
ken.hayes@testamericainc.com

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1279

3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
NWE1279-01	Drum	Water	05/09/12 15:00	05/10/12 08:10

Definitions/Glossary

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1279

Qualifiers

GCMS Volatiles

Qualifier	Qualifier Description
B	Analyte was detected in the associated Method Blank.
M8	The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).
R2	The RPD exceeded the acceptance limit

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1279

Client Sample ID: Drum
Date Collected: 05/09/12 15:00
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1279-01
Matrix: Water

5

Method: SW846 1311/8260B - TCLP Volatile Organic Compounds by EPA Method 1311/8260B - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0100		mg/L		05/14/12 08:12	05/14/12 17:05	10.0
2-Butanone	ND		0 250		mg/L		05/14/12 08:12	05/14/12 17.05	10.0
Carbon Tetrachloride	ND		0 0100		mg/L		05/14/12 08:12	05/14/12 17 05	10.0
Chlorobenzene	ND		0 0100		mg/L		05/14/12 08:12	05/14/12 17:05	10.0
Chloroform	ND	B	0 0100		mg/L		05/14/12 08:12	05/14/12 17:05	10.0
1,2-Dichloroethane	ND		0 0100		mg/L		05/14/12 08:12	05/14/12 17.05	10.0
1,1-Dichloroethene	ND		0 0100		mg/L		05/14/12 08:12	05/14/12 17 05	10 0
Tetrachloroethene	**0.0391**		0.0100		mg/L		05/14/12 08:12	05/14/12 17.05	10.0
Trichloroethene	ND		0.0100		mg/L		05/14/12 08:12	05/14/12 17.05	10.0
Vinyl chloride	ND		0 0100		mg/L		05/14/12 08:12	05/14/12 17:05	10.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*100*		*70 - 130*	*05/14/12 08:12*	*05/14/12 17:05*	*10.0*
Dibromofluoromethane	*99*		*70 - 130*	*05/14/12 08:12*	*05/14/12 17:05*	*10.0*
Toluene-d8	*100*		*80 - 120*	*05/14/12 08:12*	*05/14/12 17:05*	*10.0*
4-Bromofluorobenzene	*105*		*79 - 125*	*05/14/12 08:12*	*05/14/12 17:05*	*10.0*

Method: SW846 1311/6010C - TCLP Metals by 6000/7000 Series Methods - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0 100		mg/L		05/15/12 10.45	05/15/12 21:08	1.00
Barium	ND		0 100		mg/L		05/15/12 10:45	05/15/12 21:08	1 00
Cadmium	ND		0 0100		mg/L		05/15/12 10:45	05/15/12 21:08	1.00
Chromium	ND		0 0500		mg/L		05/15/12 10 45	05/15/12 21:08	1.00
Lead	ND		0 0500		mg/L		05/15/12 10 45	05/15/12 21:08	1.00
Selenium	ND		0 100		mg/L		05/15/12 10:45	05/15/12 21:08	1.00
Silver	ND		0.0500		mg/L		05/15/12 10.45	05/15/12 21 08	1.00

Method: SW846 1311/7470A - TCLP Metals by 6000/7000 Series Methods - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0100		mg/L		05/14/12 09 44	05/16/12 08:20	1.00

Method: SW846 1311/8260B - TCLP Volatile Organic Compounds by EPA Method 1311/8260B

Lab Sample ID: 12E2991-BLK1
Matrix: Water
Analysis Batch: V008081

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 12E2991_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00100		mg/L		05/14/12 08:12	05/14/12 13:02	1.00
2-Butanone	ND		0.0250		mg/L		05/14/12 08:12	05/14/12 13:02	1.00
Carbon Tetrachloride	ND		0.00100		mg/L		05/14/12 08:12	05/14/12 13:02	1.00
Chlorobenzene	ND		0.00100		mg/L		05/14/12 08:12	05/14/12 13:02	1.00
Chloroform	0.00192		0.00100		mg/L		05/14/12 08:12	05/14/12 13:02	1.00
1,2-Dichloroethane	ND		0.00100		mg/L		05/14/12 08:12	05/14/12 13:02	1.00
1,1-Dichloroethene	ND		0.00100		mg/L		05/14/12 08:12	05/14/12 13:02	1.00
Tetrachloroethene	ND		0.00100		mg/L		05/14/12 08:12	05/14/12 13:02	1.00
Trichloroethene	ND		0.00100		mg/L		05/14/12 08:12	05/14/12 13:02	1.00
Vinyl chloride	ND		0.00100		mg/L		05/14/12 08:12	05/14/12 13:02	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*98*		*70 - 130*	*05/14/12 08:12*	*05/14/12 13:02*	*1.00*
Dibromofluoromethane	*97*		*70 - 130*	*05/14/12 08:12*	*05/14/12 13:02*	*1.00*
Toluene-d8	*100*		*80 - 120*	*05/14/12 08:12*	*05/14/12 13:02*	*1.00*
4-Bromofluorobenzene	*104*		*79 - 125*	*05/14/12 08:12*	*05/14/12 13:02*	*1.00*

Lab Sample ID: 12E2991-BLK2
Matrix: Water
Analysis Batch: V008081

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 12E2991_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00100		mg/L		05/14/12 08:12	05/14/12 13:38	1.00
2-Butanone	ND		0.0250		mg/L		05/14/12 08:12	05/14/12 13:38	1.00
Carbon Tetrachloride	ND		0.00100		mg/L		05/14/12 08:12	05/14/12 13:38	1.00
Chlorobenzene	ND		0.00100		mg/L		05/14/12 08:12	05/14/12 13:38	1.00
Chloroform	0.00295		0.00100		mg/L		05/14/12 08:12	05/14/12 13:38	1.00
1,2-Dichloroethane	ND		0.00100		mg/L		05/14/12 08:12	05/14/12 13:38	1.00
1,1-Dichloroethene	ND		0.00100		mg/L		05/14/12 08:12	05/14/12 13:38	1.00
Tetrachloroethene	ND		0.00100		mg/L		05/14/12 08:12	05/14/12 13:38	1.00
Trichloroethene	ND		0.00100		mg/L		05/14/12 08:12	05/14/12 13:38	1.00
Vinyl chloride	ND		0.00100		mg/L		05/14/12 08:12	05/14/12 13:38	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*98*		*70 - 130*	*05/14/12 08:12*	*05/14/12 13:38*	*1.00*
Dibromofluoromethane	*99*		*70 - 130*	*05/14/12 08:12*	*05/14/12 13:38*	*1.00*
Toluene-d8	*100*		*80 - 120*	*05/14/12 08:12*	*05/14/12 13:38*	*1.00*
4-Bromofluorobenzene	*101*		*79 - 125*	*05/14/12 08:12*	*05/14/12 13:38*	*1.00*

Lab Sample ID: 12E2991-BS1
Matrix: Water
Analysis Batch: V008081

Client Sample ID: Lab Control Sample
Prep Type: TCLP
Prep Batch: 12E2991_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	47.1		ug/L		94	80 - 121
2-Butanone	250	240		ug/L		96	62 - 133
Carbon Tetrachloride	50.0	52.6		ug/L		105	64 - 147
Chlorobenzene	50.0	50.0		ug/L		100	80 - 120
Chloroform	50.0	49.0	B	ug/L		98	73 - 129

Method: SW846 1311/8260B - TCLP Volatile Organic Compounds by EPA Method 1311/8260B (Continued)

Lab Sample ID: 12E2991-BS1
Matrix: Water
Analysis Batch: V008081

Client Sample ID: Lab Control Sample
Prep Type: TCLP
Prep Batch: 12E2991_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	50 0	45.6		ug/L		91	77 - 121
1,1-Dichloroethene	50 0	50.0		ug/L		100	79 - 124
Tetrachloroethene	50.0	52.0		ug/L		104	80 - 126
Trichloroethene	50 0	49 1		ug/L		98	80 - 123
Vinyl chloride	50.0	38 9		ug/L		78	68 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4	*95*		*70 - 130*
Dibromofluoromethane	*96*		*70 - 130*
Toluene-d8	*103*		*80 - 120*
4-Bromofluorobenzene	*99*		*79 - 125*

Lab Sample ID: 12E2991-MS1
Matrix: Water
Analysis Batch: V008081

Client Sample ID: Matrix Spike
Prep Type: TCLP
Prep Batch: 12E2991_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		0 500	0 452		mg/L		90	75 - 133
2-Butanone	ND		2 50	2.01		mg/L		81	50 - 138
Carbon Tetrachloride	ND		0.500	0.504		mg/L		101	62 - 164
Chlorobenzene	ND		0.500	0.442		mg/L		88	80 - 129
Chloroform	0.0135		0 500	0 471	B	mg/L		91	66 - 138
1,2-Dichloroethane	ND		0.500	0.430		mg/L		86	64 - 136
1,1-Dichloroethene	ND		0.500	0.480		mg/L		96	70 - 142
Tetrachloroethene	ND		0.500	0.468		mg/L		94	72 - 145
Trichloroethene	ND		0.500	0.462		mg/L		92	73 - 144
Vinyl chloride	ND		0.500	0 434		mg/L		87	56 - 129

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
1,2-Dichloroethane-d4	*98*		*70 - 130*
Dibromofluoromethane	*101*		*70 - 130*
Toluene-d8	*100*		*80 - 120*
4-Bromofluorobenzene	*97*		*79 - 125*

Lab Sample ID: 12E2991-MSD1
Matrix: Water
Analysis Batch: V008081

Client Sample ID: Matrix Spike Duplicate
Prep Type: TCLP
Prep Batch: 12E2991_P

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		0.500	0.280	M8 R2	mg/L		56	75 - 133	47	17
2-Butanone	ND		2.50	1.20	M8 R2	mg/L		48	50 - 138	51	19
Carbon Tetrachloride	ND		0 500	0.312	R2	mg/L		62	62 - 164	47	19
Chlorobenzene	ND		0.500	0 284	M8 R2	mg/L		57	80 - 129	44	14
Chloroform	0.0135		0.500	0.294	B M8 R2	mg/L		56	66 - 138	46	18
1,2-Dichloroethane	ND		0.500	0.263	M8 R2	mg/L		53	64 - 136	48	17
1,1-Dichloroethene	ND		0.500	0.298	M8 R2	mg/L		60	70 - 142	47	17
Tetrachloroethene	ND		0 500	0.296	M8 R2	mg/L		59	72 - 145	45	16
Trichloroethene	ND		0.500	0.299	M8 R2	mg/L		60	73 - 144	43	17

Method: SW846 1311/8260B - TCLP Volatile Organic Compounds by EPA Method 1311/8260B (Continued)

Lab Sample ID: 12E2991-MSD1 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: TCLP**
Analysis Batch: V008081 — **Prep Batch: 12E2991_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	ND		0.500	0.266	M8 R2	mg/L		53	56 - 129	48	17

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
1,2-Dichloroethane-d4	*100*		*70 - 130*
Dibromofluoromethane	*99*		*70 - 130*
Toluene-d8	*100*		*80 - 120*
4-Bromofluorobenzene	*95*		*79 - 125*

Method: SW846 1311/6010C - TCLP Metals by 6000/7000 Series Methods

Lab Sample ID: 12E3057-BLK1 — **Client Sample ID: Method Blank**
Matrix: Soil — **Prep Type: TCLP**
Analysis Batch: 12E3057 — **Prep Batch: 12E3057_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0100		mg/L		05/15/12 10:45	05/15/12 20:58	1.00
Barium	ND		0.0100		mg/L		05/15/12 10:45	05/15/12 20:58	1 00
Cadmium	ND		0 00100		mg/L		05/15/12 10:45	05/15/12 20:58	1.00
Chromium	ND		0.00500		mg/L		05/15/12 10:45	05/15/12 20:58	1 00
Lead	ND		0.00500		mg/L		05/15/12 10:45	05/15/12 20:58	1 00
Selenium	ND		0 0100		mg/L		05/15/12 10:45	05/15/12 20:58	1.00
Silver	ND		0.00500		mg/L		05/15/12 10 45	05/15/12 20:58	1.00

Lab Sample ID: 12E3057-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Soil — **Prep Type: TCLP**
Analysis Batch: 12E3057 — **Prep Batch: 12E3057_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.200	0.179		mg/L		89	80 - 120
Barium	2.00	1.88		mg/L		94	80 - 120
Cadmium	0.200	0.182		mg/L		91	80 - 120
Chromium	1.00	0.876		mg/L		88	80 - 120
Lead	1.00	0 900		mg/L		90	80 - 120
Selenium	0.200	0 179		mg/L		89	80 - 120
Silver	0.200	0 175		mg/L		87	80 - 120

Lab Sample ID: 12E3057-MS1 — **Client Sample ID: Drum**
Matrix: Soil — **Prep Type: TCLP**
Analysis Batch: 12E3057 — **Prep Batch: 12E3057_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	ND		0.200	0.217		mg/L		108	75 - 125
Barium	ND		2.00	2.24		mg/L		112	75 - 125
Cadmium	ND		0.200	0.215		mg/L		108	75 - 125
Chromium	ND		1.00	1.03		mg/L		103	75 - 125
Lead	ND		1.00	1.07		mg/L		107	75 - 125
Selenium	ND		0.200	0.216		mg/L		108	75 - 125
Silver	ND		0.200	0.207		mg/L		103	75 - 125

Method: SW846 1311/6010C - TCLP Metals by 6000/7000 Series Methods (Continued)

Lab Sample ID: 12E3057-MSD1
Matrix: Soil
Analysis Batch: 12E3057

Client Sample ID: Drum
Prep Type: TCLP
Prep Batch: 12E3057_P

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Du Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	ND		0 200	0 215		mg/L		108	75 - 125	0.6	20
Barium	ND		2.00	2 24		mg/L		112	75 - 125	0.4	20
Cadmium	ND		0.200	0 216		mg/L		108	75 - 125	0 2	20
Chromium	ND		1 00	1.03		mg/L		103	75 - 125	0.4	20
Lead	ND		1.00	1.06		mg/L		106	75 - 125	0.4	20
Selenium	ND		0.200	0.217		mg/L		108	75 - 125	0.5	20
Silver	ND		0 200	0 207		mg/L		103	75 - 125	0.05	20

Method: SW846 1311/7470A - TCLP Metals by 6000/7000 Series Methods

Lab Sample ID: 12E3020-BLK1
Matrix: Water
Analysis Batch: 12E3020

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 12E3020_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0 0100		mg/L		05/14/12 10:25	05/16/12 08:14	1.00

Lab Sample ID: 12E3020-BS1
Matrix: Water
Analysis Batch: 12E3020

Client Sample ID: Lab Control Sample
Prep Type: TCLP
Prep Batch: 12E3020_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0 0200	0.0201		mg/L		100	80 - 120

Lab Sample ID: 12E3020-MS1
Matrix: Water
Analysis Batch: 12E3020

Client Sample ID: Drum
Prep Type: TCLP
Prep Batch: 12E3020_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.0200	0.0200		mg/L		100	75 - 125

Lab Sample ID: 12E3020-MSD1
Matrix: Water
Analysis Batch: 12E3020

Client Sample ID: Drum
Prep Type: TCLP
Prep Batch: 12E3020_P

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Du Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.0200	0 0195		mg/L		97	75 - 125	3	20

QC Association Summary

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1279

GCMS Volatiles

Leach Batch: 12E2819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
NWE1279-01	Drum	TCLP	Water	TCLP Extraction	

Analysis Batch: V008081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E2991-BLK1	Method Blank	TCLP	Water	SW846 1311/8260B	12E2991_P
12E2991-BLK2	Method Blank	TCLP	Water	SW846 1311/8260B	12E2991_P
12E2991-BS1	Lab Control Sample	TCLP	Water	SW846 1311/8260B	12E2991_P
12E2991-MS1	Matrix Spike	TCLP	Water	SW846 1311/8260B	12E2991_P
12E2991-MSD1	Matrix Spike Duplicate	TCLP	Water	SW846 1311/8260B	12E2991_P
NWE1279-01	Drum	TCLP	Water	SW846 1311/8260B	12E2991_P

Prep Batch: 12E2991_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E2991-BLK1	Method Blank	TCLP	Water	EPA 5030B	
12E2991-BLK2	Method Blank	TCLP	Water	EPA 5030B	
12E2991-BS1	Lab Control Sample	TCLP	Water	EPA 5030B	
12E2991-MS1	Matrix Spike	TCLP	Water	EPA 5030B	
12E2991-MSD1	Matrix Spike Duplicate	TCLP	Water	EPA 5030B	
NWE1279-01	Drum	TCLP	Water	EPA 5030B	12E2819

Metals

Leach Batch: 12E2819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
NWE1279-01	Drum	TCLP	Water	TCLP Extraction	

Analysis Batch: 12E3020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E3020-BLK1	Method Blank	TCLP	Water	SW846 1311/7470A	12E3020_P
12E3020-BS1	Lab Control Sample	TCLP	Water	SW846 1311/7470A	12E3020_P
12E3020-MS1	Drum	TCLP	Water	SW846 1311/7470A	12E3020_P
12E3020-MSD1	Drum	TCLP	Water	SW846 1311/7470A	12E3020_P
NWE1279-01	Drum	TCLP	Water	SW846 1311/7470A	12E3020_P

Analysis Batch: 12E3057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E3057-BLK1	Method Blank	TCLP	Soil	SW846 1311/6010C	12E3057_P
12E3057-BS1	Lab Control Sample	TCLP	Soil	SW846 1311/6010C	12E3057_P
12E3057-MS1	Drum	TCLP	Soil	SW846 1311/6010C	12E3057_P
12E3057-MSD1	Drum	TCLP	Soil	SW846 1311/6010C	12E3057_P

Metals (Continued)

Analysis Batch: 12E3057 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
NWE1279-01	Drum	TCLP	Water	SW846 1311/6010C	12E3057_P

Prep Batch: 12E3020_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E3020-BLK1	Method Blank	TCLP	Water	EPA 7470	
12E3020-BS1	Lab Control Sample	TCLP	Water	EPA 7470	
12E3020-MS1	Drum	TCLP	Water	EPA 7470	
12E3020-MSD1	Drum	TCLP	Water	EPA 7470	
NWE1279-01	Drum	TCLP	Water	EPA 7470	12E2819

Prep Batch: 12E3057_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E3057-BLK1	Method Blank	TCLP	Soil	EPA 3010A / 6010	
12E3057-BS1	Lab Control Sample	TCLP	Soil	EPA 3010A / 6010	
12E3057-MS1	Drum	TCLP	Soil	EPA 3010A / 6010	
12E3057-MSD1	Drum	TCLP	Soil	EPA 3010A / 6010	
NWE1279-01	Drum	TCLP	Water	EPA 3010A / 6010	12E2819

Lab Chronicle

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1279

Client Sample ID: Drum
Date Collected: 05/09/12 15:00
Date Received: 05/10/12 08:10

Lab Sample ID: NWE1279-01
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	TCLP Extraction		10.0	12E2819	05/13/12 15.15	SJM	TAL NSH
TCLP	Prep	EPA 5030B		1.00	12E2991_P	05/14/12 08 12	RWK	TAL NSH
TCLP	Analysis	SW846 1311/8260B		10.0	V008081	05/14/12 17:05	MJH	TAL NSH
TCLP	Leach	TCLP Extraction		1.00	12E2819	05/13/12 15:15	SJM	TAL NSH
TCLP	Prep	EPA 3010A / 6010		1.00	12E3057_P	05/15/12 10:45	LTB	TAL NSH
TCLP	Analysis	SW846 1311/6010C		1.00	12E3057	05/15/12 21:08	LTB	TAL NSH
TCLP	Prep	EPA 7470		1.00	12E3020_P	05/14/12 09.44	NLI	TAL NSH
TCLP	Analysis	SW846 1311/7470A		1 00	12E3020	05/16/12 08 20	NLI	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Road, Nashville, TN 37204, TEL 800-765-0980

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Method Summary

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1279

Method	Method Description	Protocol	Laboratory
SW846 1311/8260B	TCLP Volatile Organic Compounds by EPA Method 1311/8260B		TAL NSH
SW846 1311/6010C	TCLP Metals by 6000/7000 Series Methods		TAL NSH
SW846 1311/7470A	TCLP Metals by 6000/7000 Series Methods		TAL NSH

Protocol References:

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Road, Nashville, TN 37204, TEL 800-765-0980

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Certification Summary

Client: Hart & Hickman (2162)
Project/Site: GDR-006

TestAmerica Job ID: NWE1279

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Nashville		ACIL		393
TestAmerica Nashville	A2LA	ISO/IEC 17025		0453.07
TestAmerica Nashville	Alabama	State Program	4	41150
TestAmerica Nashville	Alaska (UST)	State Program	10	UST-087
TestAmerica Nashville	Arizona	State Program	9	AZ0473
TestAmerica Nashville	Arkansas DEQ	State Program	6	88-0737
TestAmerica Nashville	California	NELAC	9	1168CA
TestAmerica Nashville	Canadian Assoc Lab Accred (CALA)	Canada		3744
TestAmerica Nashville	Colorado	State Program	8	N/A
TestAmerica Nashville	Connecticut	State Program	1	PH-0220
TestAmerica Nashville	Florida	NELAC	4	E87358
TestAmerica Nashville	Illinois	NELAC	5	200010
TestAmerica Nashville	Iowa	State Program	7	131
TestAmerica Nashville	Kansas	NELAC	7	E-10229
TestAmerica Nashville	Kentucky	State Program	4	90038
TestAmerica Nashville	Kentucky (UST)	State Program	4	19
TestAmerica Nashville	Louisiana	NELAC	6	30613
TestAmerica Nashville	Louisiana	NELAC	6	LA110014
TestAmerica Nashville	Maryland	State Program	3	316
TestAmerica Nashville	Massachusetts	State Program	1	M-TN032
TestAmerica Nashville	Minnesota	NELAC	5	047-999-345
TestAmerica Nashville	Mississippi	State Program	4	N/A
TestAmerica Nashville	Montana (UST)	State Program	8	NA
TestAmerica Nashville	New Hampshire	NELAC	1	2963
TestAmerica Nashville	New Jersey	NELAC	2	TN965
TestAmerica Nashville	New York	NELAC	2	11342
TestAmerica Nashville	North Carolina DENR	State Program	4	387
TestAmerica Nashville	North Dakota	State Program	8	R-146
TestAmerica Nashville	Ohio VAP	State Program	5	CL0033
TestAmerica Nashville	Oklahoma	State Program	6	9412
TestAmerica Nashville	Oregon	NELAC	10	TN200001
TestAmerica Nashville	Pennsylvania	NELAC	3	68-00585
TestAmerica Nashville	Rhode Island	State Program	1	LAO00268
TestAmerica Nashville	South Carolina	State Program	4	84009
TestAmerica Nashville	South Carolina	State Program	4	84009
TestAmerica Nashville	Tennessee	State Program	4	2008
TestAmerica Nashville	Texas	NELAC	6	T104704077-09-TX
TestAmerica Nashville	USDA	Federal		S-48469
TestAmerica Nashville	Utah	NELAC	8	TAN
TestAmerica Nashville	Virginia	NELAC	3	460152
TestAmerica Nashville	Virginia	State Program	3	00323
TestAmerica Nashville	Washington	State Program	10	C789
TestAmerica Nashville	West Virginia DEP	State Program	3	219
TestAmerica Nashville	Wisconsin	State Program	5	998020430
TestAmerica Nashville	Wyoming (UST)	A2LA	8	453 07

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER REC

NWE1279

Cooler Received/Opened On 5/10/2012@ 8:10

1. Tracking # 1370 (last 4 digits, FedEx)

Courier: Fedex IR Gun ID 18290455

2. Temperature of rep. sample or temp blank when opened: 1.4 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 Front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (Intial) JH

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # NA

I certify that I unloaded the cooler and answered questions 7-14 (intial) JH

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO..NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) JH

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) JH

I certify that I attached a label with the unique LIMS number to each container (intial) JH

21. Were there Non-Conformance Issues at login? YES...NO Was a PIPE generated? YES...NO...#_____

11

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: _____
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other _____

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: Hart & Hickman	Client Project Manager: Shannon Cottrill	Site Contact: Brett Byrn	Lab Contact:	COC No:
Address: 2923 S Tryon St. Ste 100	Telephone: 704-586-0007	Telephone: 704 302-4402	Telephone:	1 of 1 COCs
City/State/Zip: Charlotte, NC 28203	Email: scottc@harthickman.com	Analysis Turnaround Time (CALENDAR DAYS or WORK DAYS)	Analyses	
Phone: 704-586-0007		TAT if different from below _____ ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: GDR Delaven	Method of Shipment/Carrier: Fedex			
Project Number: GDR.006	Shipping/Tracking No:			
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	Filtered Sample (Y/N)	MS/MSD (Y/N)	TCLP Metals	TCLP VOC's	Sample Specific Notes / Special Instructions:
DRUM	5/9/12	1500		X									X		N	C	X	X	

NWE1279
05/17/12 23:59

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by	Company:	Date/Time:
Relinquished by:	Company: Hart & Hickman	Date/Time: 5/9/12 1800	Received by: FedEx	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TAN	Date/Time: 5-10-12 08:10

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TAL-0018 (1008)

5/16/2012

Appendix C

Groundwater Sampling Forms (May 2012)

hart hickman
SMARTER ENVIRONMENTAL SOLUTIONS

Hart & Hickman
A Professional Corporation

Ground Water Sampling Form

GENERAL INFORMATION

Job No.: GDR-006 Well No.: MW-1 Date: 5/9/12

Site Name: Delavan Spray Technologies Location: Bamberg, South Carolina

Sample Type (X) Grab ( ) Composite ( ) Other_____

Sampling Equipment (X) Dedicated ( ) Decontaminated (X) Bailer ( ) Pump

Material (X) PVC ( ) Stainless Steel ( ) Teflon ( ) Other_____

Decontamination Method: —

WELL INFORMATION

Coordinates: NA Top of Casing (TOC) Elevation_____ ft msl

Material (X) PVC ( ) Carbon Steel ( ) Stainless Steel ( ) Other:_____

Measurements from (TOC) Riser_____ ft Water Level 13.05 ft Bottom_____ ft

PURGING INFORMATION

Gallons per Well Volume 0.8 Purging Method (X) Bailing ( ) Pumping ( ) Other_____

Volume	Time	pH (SU)	Temp. (°C)	S. Cond. (umhos/cm)	Redox	Turbidity (NTU)
1	1345	4.84	20.1	36.65	292	—
2	1350	4.83	20.0	32.81	296	—
3	1355	4.80	17.8	38.04	286	—

Weather Conditions:_____

Sample Condition: ( ) Clear ( ) Cloudy ( ) Other:_____ Odor:_____

Field Filtration: ( ) Yes (X) No

Containers (Types, Numbers, Preservatives): 40 ml clear glass VOAs, 3, HCL

Comments: VOCs by EPA 8260B

Sample Collector: Brett Byrn, Grant Barrier Date: 5/9/12 Time: 1400

File: Ground Water Sampling Form.xls, GW Form

Hart & Hickman
A Professional Corporation

Ground Water Sampling Form

GENERAL INFORMATION

Job No.: GDR-006 Well No.: MW-2 Date: 5/2/12

Site Name: Delavan Spray Technologies Location: Bamberg, South Carolina

Sample Type (X) Grab ( ) Composite ( ) Other

Sampling Equipment (X) Dedicated ( ) Decontaminated (X) Bailer ( ) Pump

Material (X) PVC ( ) Stainless Steel ( ) Teflon ( ) Other

Decontamination Method: —

WELL INFORMATION

Coordinates: NA Top of Casing (TOC) Elevation ft msl

Material (X) PVC ( ) Carbon Steel ( ) Stainless Steel ( ) Other:

Measurements from (TOC) Riser ft Water Level 12.94 ft Bottom ft

PURGING INFORMATION

Gallons per Well Volume 0.8 Purging Method (X) Bailing ( ) Pumping ( ) Other

Volume	Time	pH (SU)	Temp. (°C)	S. Cond. (umhos/cm)	Redox	Turbidity (NTU)
1	1410	4.74	21.7	32.96	311	—
2	1415	4.65	21.1	31.42	320	—
3	1420	4.62	21.0	32.87	322	—
4	1425	4.61	21.0	33.03	322	—

Weather Conditions:

Sample Condition: ( ) Clear ( ) Cloudy ( ) Other: Odor:

Field Filtration: ( ) Yes (X) No

Containers (Types, Numbers, Preservatives): 40 ml clear glass VOAs, 3, HCL

Comments: VOCs by EPA 8260B

Sample Collector: Brett Byrn, Grant Barrier Date: 5/2/12 Time: 1435

File: Ground Water Sampling Form.xls, GW Form

Hart & Hickman
A Professional Corporation

Ground Water Sampling Form

GENERAL INFORMATION

Job No.: GDR-006 Well No.: MW-3 Date: 5/9/12

Site Name: Delavan Spray Technologies Location: Bamberg, South Carolina

Sample Type (X) Grab ( ) Composite ( ) Other

Sampling Equipment (x) Dedicated ( ) Decontaminated (x) Bailer ( ) Pump

Material (X) PVC ( ) Stainless Steel ( ) Teflon ( ) Other

Decontamination Method: —

WELL INFORMATION

Coordinates: NA Top of Casing (TOC) Elevation ft msl

Material (X) PVC ( ) Carbon Steel ( ) Stainless Steel ( ) Other:

Measurements from (TOC) Riser ft Water Level 13.93 ft Bottom ft

PURGING INFORMATION

Gallons per Well Volume 0.65 Purging Method (X) Bailing ( ) Pumping ( ) Other

Volume	Time	pH (SU)	Temp. (°C)	S. Cond. (umhos/cm)	Redox	Turbidity (NTU)
1	1009	6.80	19.8	23.35	161	—
2	1004	6.29	19.7	21.98	203	—
3	1007	6.23	19.7	20.16	209	—
4	1009	6.21	19.7	20.11	211	—

Weather Conditions:

Sample Condition: ( ) Clear ( ) Cloudy ( ) Other: Odor:

Field Filtration: ( ) Yes (X) No

Containers (Types, Numbers, Preservatives): 40 ml clear glass VOAs, 3, HCL

Comments: VOCs by EPA 8260B

Sample Collector: Brett Byrn, Grant Barrier Date: 5/9/12 Time: 1010

Hart & Hickman
A Professional Corporation

Ground Water Sampling Form

GENERAL INFORMATION

Job No.: GDR-006 Well No.: MW-3D Date: 5/9/12

Site Name: Delavan Spray Technologies Location: Bamberg, South Carolina

Sample Type (X) Grab ( ) Composite ( ) Other_____

Sampling Equipment (x) Dedicated ( ) Decontaminated (x) Bailer ( ) Pump

Material (X) PVC ( ) Stainless Steel ( ) Teflon ( ) Other_____

Decontamination Method: —

WELL INFORMATION

Coordinates: NA Top of Casing (TOC) Elevation_____ ft msl

Material (X) PVC ( ) Carbon Steel ( ) Stainless Steel ( ) Other:_____

Measurements from (TOC) Riser_____ ft Water Level 16.22 ft Bottom_____ ft

PURGING INFORMATION

Gallons per Well Volume 5.2 Purging Method (X) Bailing ( ) Pumping ( ) Other_____

Volume	Time	pH (SU)	Temp. (°C)	S. Cond. (umhos/cm)	Redox	Turbidity (NTU)
1	1020	7.84	19.9	235.7	70	—
2	1027	7.71	19.8	237.8	80	—
3	1034	7.67	19.8	238.9	84	—
4	1041	7.65	19.9	240.0	85	—

Weather Conditions:_____

Sample Condition: ( ) Clear ( ) Cloudy ( ) Other:_____ Odor:_____

Field Filtration: ( ) Yes (X) No

Containers (Types, Numbers, Preservatives): 40 ml clear glass VOAs, 3, HCL

Comments: VOCs by EPA 8260B

Sample Collector: Brett Byrn, Grant Barrier Date: 5/9/12 Time: 1045

Hart & Hickman
A Professional Corporation

Ground Water Sampling Form

GENERAL INFORMATION

Job No.: GDR-006 Well No.: MW-3D1 Date: 5/9/12

Site Name: Delavan Spray Technologies Location: Bamberg, South Carolina

Sample Type (X) Grab ( ) Composite ( ) Other

Sampling Equipment (X) Dedicated ( ) Decontaminated (X) Bailer ( ) Pump

Material (X) PVC ( ) Stainless Steel ( ) Teflon ( ) Other

Decontamination Method: —

WELL INFORMATION

Coordinates: NA Top of Casing (TOC) Elevation ft msl

Material (X) PVC ( ) Carbon Steel ( ) Stainless Steel ( ) Other:

Measurements from (TOC) Riser ft Water Level 16.05 ft Bottom ft

PURGING INFORMATION

Gallons per Well Volume 11 Purging Method (X) Bailing ( ) Pumping ( ) Other

Volume	Time	pH (SU)	Temp. (°C)	S. Cond. (umhos/cm)	Redox	Turbidity (NTU)
1	1015	7.35	20.1	239.3	143	—
2	1030	7.67	19.8	237.9	61	—
3	1045	7.68	19.8	238.1	42	—
4	1100	7.74	19.7	238.1	21	—

Weather Conditions:

Sample Condition: ( ) Clear ( ) Cloudy ( ) Other: Odor:

Field Filtration: ( ) Yes (X) No

Containers (Types, Numbers, Preservatives): 40 ml clear glass VOAs, 3, HCL

Comments: VOCs by EPA 8260B

Sample Collector: Brett Byrn, Grant Barrier Date: 5/9/12 Time: 1105

Hart & Hickman
A Professional Corporation

Ground Water Sampling Form

GENERAL INFORMATION

Job No.: GDR-006 Well No.: MW - 4 Date: 5/8/12

Site Name: Delavan Spray Technologies Location: Bamberg, South Carolina

Sample Type (X) Grab ( ) Composite ( ) Other_____

Sampling Equipment (X) Dedicated ( ) Decontaminated (X) Bailer ( ) Pump

Material (X) PVC ( ) Stainless Steel ( ) Teflon ( ) Other_____

Decontamination Method: —

WELL INFORMATION

Coordinates: NA Top of Casing (TOC) Elevation_____ ft msl

Material (X) PVC ( ) Carbon Steel ( ) Stainless Steel ( ) Other:_____

Measurements from (TOC) Riser_____ ft Water Level 9.44 ft Bottom_____ ft

PURGING INFORMATION

Gallons per Well Volume 0.7 Purging Method (X) Bailing ( ) Pumping ( ) Other_____

Volume	Time	pH (SU)	Temp. (°C)	S. Cond. (umhos/cm)	Redox	Turbidity (NTU)
1	1545	5.71	18.3	164.2	-22	—
2	1550	5.64	18.1	166.4	-12	—
well Goes Dry while Purging						

Weather Conditions:_____

Sample Condition: ( ) Clear ( ) Cloudy ( ) Other:_____ Odor:_____

Field Filtration: ( ) Yes (X) No

Containers (Types, Numbers, Preservatives): 40 ml clear glass VOAs, 3, HCL

Comments: VOCs by EPA 8260B

Sample Collector: Brett Byrn, Grant Barrier Date: 5/8/12 Time: 1555

Hart & Hickman
A Professional Corporation

Ground Water Sampling Form

GENERAL INFORMATION

Job No.: GDR-006 Well No.: MW-5 Date: 5/9/12

Site Name: Delavan Spray Technologies Location: Bamberg, South Carolina

Sample Type (X) Grab ( ) Composite ( ) Other

Sampling Equipment (X) Dedicated ( ) Decontaminated (X) Bailer ( ) Pump

Material (X) PVC ( ) Stainless Steel ( ) Teflon ( ) Other

Decontamination Method: —

WELL INFORMATION

Coordinates: NA Top of Casing (TOC) Elevation ft msl

Material (X) PVC ( ) Carbon Steel ( ) Stainless Steel ( ) Other:

Measurements from (TOC) Riser ft Water Level 8.97 ft Bottom ft

PURGING INFORMATION

Gallons per Well Volume 0.8 Purging Method (X) Bailing ( ) Pumping ( ) Other

Volume	Time	pH (SU)	Temp. (°C)	S. Cond. (umhos/cm)	Redox	Turbidity (NTU)
1	1235	5.35	19.8	22.25	234	—
2	1237	5.37	19.8	22.31	242	—
3	1249	5.32	19.8	21.85	252	—
4	1242	5.27	19.8	22.64	237	—

Weather Conditions:

Sample Condition: ( ) Clear ( ) Cloudy ( ) Other: Odor:

Field Filtration: ( ) Yes (X) No

Containers (Types, Numbers, Preservatives): 40 ml clear glass VOAs, 3, HCL

Comments: VOCs by EPA 8260B

Sample Collector: Brett Byrn, Grant Barrier Date: 5/9/12 Time: 1245

Hart & Hickman
A Professional Corporation

Ground Water Sampling Form

GENERAL INFORMATION

Job No.: GDR-006 Well No.: MW-6 Date: 5/9/12

Site Name: Delavan Spray Technologies Location: Bamberg, South Carolina

Sample Type (X) Grab ( ) Composite ( ) Other_____

Sampling Equipment (X) Dedicated ( ) Decontaminated (X) Bailer ( ) Pump

Material (X) PVC ( ) Stainless Steel ( ) Teflon ( ) Other_____

Decontamination Method: —

WELL INFORMATION

Coordinates: NA Top of Casing (TOC) Elevation_____ ft msl

Material (X) PVC ( ) Carbon Steel ( ) Stainless Steel ( ) Other:_____

Measurements from (TOC) Riser_____ ft Water Level 6.20 ft Bottom_____ ft

PURGING INFORMATION

Gallons per Well Volume 1.2 Purging Method (X) Bailing ( ) Pumping ( ) Other_____

Volume	Time	pH (SU)	Temp. (°C)	S. Cond. (umhos/cm)	Redox	Turbidity (NTU)
1	1252	4.80	19.4	18.35	291	—
2	1255	4.83	19.3	18.55	288	—
3	1300	4.86	19.1	19.01	281	—

Weather Conditions:_____

Sample Condition: ( ) Clear ( ) Cloudy ( ) Other:_____ Odor:_____

Field Filtration: ( ) Yes (X) No

Containers (Types, Numbers, Preservatives): 40 ml clear glass VOAs, 3, HCL

Comments: VOCs by EPA 8260B

Sample Collector: Brett Byrn, Grant Barrier Date: 5/9/12 Time: 1305

File: Ground Water Sampling Form.xls, GW Form

Hart & Hickman
A Professional Corporation

Ground Water Sampling Form

GENERAL INFORMATION

Job No.: GDR-006 Well No.: MW-7 Date: 5/9/12

Site Name: Delavan Spray Technologies Location: Bamberg, South Carolina

Sample Type (X) Grab ( ) Composite ( ) Other_____

Sampling Equipment (X) Dedicated ( ) Decontaminated (X) Bailer ( ) Pump

Material (X) PVC ( ) Stainless Steel ( ) Teflon ( ) Other_____

Decontamination Method: —

WELL INFORMATION

Coordinates: NA Top of Casing (TOC) Elevation_____ ft msl

Material (X) PVC ( ) Carbon Steel ( ) Stainless Steel ( ) Other:_____

Measurements from (TOC) Riser_____ ft Water Level 14.39 ft Bottom_____ ft

PURGING INFORMATION

Gallons per Well Volume 0.9 Purging Method (X) Bailing ( ) Pumping ( ) Other_____

Volume	Time	pH (SU)	Temp. (°C)	S. Cond. (umhos/cm)	Redox	Turbidity (NTU)
1	1055	6.68	20.3	17.14	131	—
2	1100	6.61	19.8	17.15	136	—
3	1105	6.60	19.7	17.21	139	—

Weather Conditions:_____

Sample Condition: ( ) Clear ( ) Cloudy ( ) Other:_____ Odor:_____

Field Filtration: ( ) Yes (X) No

Containers (Types, Numbers, Preservatives): 40 ml clear glass VOAs, 3, HCL

Comments: VOCs by EPA 8260B

Sample Collector: Brett Byrn, Grant Barrier Date: 5/9/12 Time: 1110

File: Ground Water Sampling Form.xls, GW Form

Hart & Hickman
A Professional Corporation

Ground Water Sampling Form

GENERAL INFORMATION

Job No.: GDR-006 Well No.: MW-8 Date: 5/9/12

Site Name: Delavan Spray Technologies Location: Bamberg, South Carolina

Sample Type (X) Grab ( ) Composite ( ) Other_____

Sampling Equipment (X) Dedicated ( ) Decontaminated (X) Bailer ( ) Pump

Material (X) PVC ( ) Stainless Steel ( ) Teflon ( ) Other_____

Decontamination Method: —

WELL INFORMATION

Coordinates: NA Top of Casing (TOC) Elevation_____ ft msl

Material (X) PVC ( ) Carbon Steel ( ) Stainless Steel ( ) Other:_____

Measurements from (TOC) Riser_____ ft Water Level 12.68 ft Bottom_____ ft

PURGING INFORMATION

Gallons per Well Volume 1.1 Purging Method (X) Bailing ( ) Pumping ( ) Other_____

Volume	Time	pH (SU)	Temp. (°C)	S. Cond. (umhos/cm)	Redox	Turbidity (NTU)
1	1315	4.62	21.9	33.72	294	—
2	1318	4.81	21.8	33.58	290	—
3	1322	4.83	21.7	34.34	282	—
4	1327	4.84	21.7	34.66	276	—

Weather Conditions:_____

Sample Condition: ( ) Clear ( ) Cloudy ( ) Other:_____ Odor:_____

Field Filtration: ( ) Yes (X) No

Containers (Types, Numbers, Preservatives): 40 ml clear glass VOAs, 3, HCL

Comments: VOCs by EPA 8260B

Sample Collector: Brett Byrn, Grant Barrier Date: 5/9/12 Time: 1330

Hart & Hickman
A Professional Corporation

Ground Water Sampling Form

GENERAL INFORMATION

Job No.: GDR-006 Well No.: MW-9 Date: 5/8/17

Site Name: Delavan Spray Technologies Location: Bamberg, South Carolina

Sample Type (X) Grab ( ) Composite ( ) Other_____

Sampling Equipment (X) Dedicated ( ) Decontaminated (X) Bailer ( ) Pump

Material (X) PVC ( ) Stainless Steel ( ) Teflon ( ) Other_____

Decontamination Method: —

WELL INFORMATION

Coordinates: NA Top of Casing (TOC) Elevation_____ ft msl

Material (X) PVC ( ) Carbon Steel ( ) Stainless Steel ( ) Other:_____

Measurements from (TOC) Riser_____ ft Water Level 6.25 ft Bottom_____ ft

PURGING INFORMATION

Gallons per Well Volume 2.2 Purging Method (X) Bailing ( ) Pumping ( ) Other_____

Volume	Time	pH (SU)	Temp. (°C)	S. Cond. (umhos/cm)	Redox	Turbidity (NTU)
1	1825	5.69	17.9	24.45	178	—
2	1830	5.11	17.7	24.40	187	—
3	1834	5.04	17.8	24.30	196	—
4	1838	4.97	17.8	24.20	205	—

Weather Conditions:_____

Sample Condition: ( ) Clear ( ) Cloudy ( ) Other:_____ Odor:_____

Field Filtration: ( ) Yes (X) No

Containers (Types, Numbers, Preservatives): 40 ml clear glass VOAs, 3, HCL

Comments: VOCs by EPA 8260B

Sample Collector: Brett Byrn, Grant Barrier Date: 5/8/17 Time: 1840

File: Ground Water Sampling Form.xls, GW Form

Hart & Hickman
A Professional Corporation

Ground Water Sampling Form

GENERAL INFORMATION

Job No.: GDR-006 Well No.: MW-9D Date: 5/8/12

Site Name: Delavan Spray Technologies Location: Bamberg, South Carolina

Sample Type (X) Grab ( ) Composite ( ) Other_____

Sampling Equipment (X) Dedicated ( ) Decontaminated (X) Bailer ( ) Pump

Material (X) PVC ( ) Stainless Steel ( ) Teflon ( ) Other_____

Decontamination Method:_____

WELL INFORMATION

Coordinates: NA Top of Casing (TOC) Elevation_____ ft msl

Material (X) PVC ( ) Carbon Steel ( ) Stainless Steel ( ) Other:_____

Measurements from (TOC) Riser_____ ft Water Level 11.78 ft Bottom_____ ft

PURGING INFORMATION

Gallons per Well Volume 6 Purging Method (X) Bailing ( ) Pumping ( ) Other_____

Volume	Time	pH (SU)	Temp. (°C)	S. Cond. (umhos/cm)	Redox	Turbidity (NTU)
1	1745	6.20	19.2	225.3	19	—
2	1755	7.07	19.1	225.1	15	—
3	1805	7.09	19.0	224.9	14	—

Weather Conditions:_____

Sample Condition: ( ) Clear ( ) Cloudy ( ) Other:_____ Odor:_____

Field Filtration: ( ) Yes (X) No

Containers (Types, Numbers, Preservatives): 40 ml clear glass VOAs, 3, HCL

Comments: VOCs by EPA 8260B

Sample Collector: Brett Byrn, Grant Barrier Date: 5/8/12 Time: 1810

Hart & Hickman
A Professional Corporation

Ground Water Sampling Form

GENERAL INFORMATION

Job No.: GDR-006 Well No.: MW-10 Date: 5/8/12

Site Name: Delavan Spray Technologies Location: Bamberg, South Carolina

Sample Type (X) Grab ( ) Composite ( ) Other_____

Sampling Equipment (x) Dedicated ( ) Decontaminated (x) Bailer ( ) Pump

Material (X) PVC ( ) Stainless Steel ( ) Teflon ( ) Other_____

Decontamination Method: —

WELL INFORMATION

Coordinates: NA Top of Casing (TOC) Elevation_____ ft msl

Material (X) PVC ( ) Carbon Steel ( ) Stainless Steel ( ) Other:_____

Measurements from (TOC) Riser_____ ft Water Level 5.68 ft Bottom_____ ft

PURGING INFORMATION

Gallons per Well Volume 1.9 Purging Method (X) Bailing ( ) Pumping ( ) Other_____

Volume	Time	pH (SU)	Temp. (°C)	S. Cond. (umhos/cm)	Redox	Turbidity (NTU)
1	1710	5.03	18.5	55.60	85	—
2	1715	4.99	18.1	49.23	95	—
3	1720	4.74	18.1	46.41	98	—
4	1725	4.71	18.0	43.63	101	—

Weather Conditions:_____

Sample Condition: ( ) Clear ( ) Cloudy ( ) Other:_____ Odor:_____

Field Filtration: ( ) Yes (X) No

Containers (Types, Numbers, Preservatives): 40 ml clear glass VOAs, 3, HCL

Comments: VOCs by EPA 8260B

Sample Collector: Brett Byrn, Grant Barrier Date: 5/8/12 Time: 1730

File: Ground Water Sampling Form.xls, GW Form

Hart & Hickman
A Professional Corporation

Ground Water Sampling Form

GENERAL INFORMATION

Job No.: GDR-006 Well No.: MW-10D Date: 5/8/12

Site Name: Delavan Spray Technologies Location: Bamberg, South Carolina

Sample Type (X) Grab ( ) Composite ( ) Other_____

Sampling Equipment (X) Dedicated ( ) Decontaminated (X) Bailer ( ) Pump

Material (X) PVC ( ) Stainless Steel ( ) Teflon ( ) Other_____

Decontamination Method: —

WELL INFORMATION

Coordinates: NA Top of Casing (TOC) Elevation_____ ft msl

Material (X) PVC ( ) Carbon Steel ( ) Stainless Steel ( ) Other:_____

Measurements from (TOC) Riser_____ ft Water Level 9.59 ft Bottom_____ ft

PURGING INFORMATION

Gallons per Well Volume 6 1 Purging Method (X) Bailing ( ) Pumping ( ) Other_____

Volume	Time	pH (SU)	Temp. (°C)	S. Cond. (umhos/cm)	Redox	Turbidity (NTU)
1	1637	6.92	18.3	221.9	78	—
2	1642	6.99	18.3	224.2	32	—
3	1650	7.05	18.4	223.6	30	—
4	1658	7.11	18.3	224.0	28	—

Weather Conditions:_____

Sample Condition: ( ) Clear ( ) Cloudy ( ) Other:_____ Odor:_____

Field Filtration: ( ) Yes (X) No

Containers (Types, Numbers, Preservatives): 40 ml clear glass VOAs, 3, HCL

Comments: VOCs by EPA 8260B

Sample Collector: Brett Byrn, Grant Barrier Date: 5/8/12 Time: 1705

File: Ground Water Sampling Form.xls, GW Form

Hart & Hickman
A Professional Corporation

Ground Water Sampling Form

GENERAL INFORMATION

Job No.: GDR-006 Well No.: MW-11 Date: 5/8/17

Site Name: Delavan Spray Technologies Location: Bamberg, South Carolina

Sample Type (X) Grab ( ) Composite ( ) Other_____

Sampling Equipment (X) Dedicated ( ) Decontaminated (X) Bailer ( ) Pump

Material (X) PVC ( ) Stainless Steel ( ) Teflon ( ) Other_____

Decontamination Method: —

WELL INFORMATION

Coordinates: NA Top of Casing (TOC) Elevation — ft msl

Material (X) PVC ( ) Carbon Steel ( ) Stainless Steel ( ) Other:_____

Measurements from (TOC) Riser_____ ft Water Level 8.39 ft Bottom_____ ft

PURGING INFORMATION

Gallons per Well Volume 1.5 Purging Method (X) Bailing ( ) Pumping ( ) Other_____

Volume	Time	pH (SU)	Temp. (°C)	S. Cond. (umhos/cm)	Redox	Turbidity (NTU)
1	1628	4.94	17.8	251.9	105	—
2	1623	4.66	17.4	246.6	132	—
3	1625	4.67	17.3	241.1	136	—
4	1627	4.64	17.3	238.4	139	—

Weather Conditions:_____

Sample Condition: ( ) Clear ( ) Cloudy ( ) Other:_____ Odor:_____

Field Filtration: ( ) Yes (X) No

Containers (Types, Numbers, Preservatives): 40 ml clear glass VOAs, 3, HCL

Comments: VOCs by EPA 8260B

Sample Collector: Brett Byrn, Grant Barrier Date: 5/8/17 Time: 1630

Hart & Hickman
A Professional Corporation

Ground Water Sampling Form

GENERAL INFORMATION

Job No.: GDR-006 Well No.: MW-12D Date: 5/9/12

Site Name: Delavan Spray Technologies Location: Bamberg, South Carolina

Sample Type (X) Grab ( ) Composite ( ) Other_____

Sampling Equipment ( ) Dedicated ( ) Decontaminated ( ) Bailer ( ) Pump

Material (X) PVC ( ) Stainless Steel ( ) Teflon ( ) Other_____

Decontamination Method:_____

WELL INFORMATION

Coordinates: NA Top of Casing (TOC) Elevation_____ ft msl

Material (X) PVC ( ) Carbon Steel ( ) Stainless Steel ( ) Other:_____

Measurements from (TOC) Riser_____ ft Water Level 15.67 ft Bottom_____ ft

PURGING INFORMATION

Gallons per Well Volume 5.5 Purging Method (X) Bailing ( ) Pumping ( ) Other_____

Volume	Time	pH (SU)	Temp. (°C)	S. Cond. (umhos/cm)	Redox	Turbidity (NTU)
1	920	9.45	18.4	210.5	141	—
2	928	9.20	18.5	244.3	145	—
3	936	9.15	18.4	242.9	146	—
4	945	9.13	18.4	250.9	147	—

Weather Conditions:_____

Sample Condition: ( ) Clear ( ) Cloudy ( ) Other:_____ Odor:_____

Field Filtration: ( ) Yes (X) No

Containers (Types, Numbers, Preservatives): 40 ml clear glass VOAs, 3, HCL

Comments: VOCs by EPA 8260B

Sample Collector: Brett Byrn, Grant Barrier Date: 5/9/12 Time: 950

Hart & Hickman
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Ground Water Sampling Form

GENERAL INFORMATION

Job No.: GDR-006 Well No.: MW-13D Date: 5/9/12

Site Name: Delavan Spray Technologies Location: Bamberg, South Carolina

Sample Type (X) Grab ( ) Composite ( ) Other_____

Sampling Equipment (x) Dedicated ( ) Decontaminated (x) Bailer ( ) Pump

Material (X) PVC ( ) Stainless Steel ( ) Teflon ( ) Other_____

Decontamination Method:_____

WELL INFORMATION

Coordinates: NA Top of Casing (TOC) Elevation_____ ft msl

Material (X) PVC ( ) Carbon Steel ( ) Stainless Steel ( ) Other:_____

Measurements from (TOC) Riser_____ ft Water Level 14.44 ft Bottom_____ ft

PURGING INFORMATION

Gallons per Well Volume 5.7 Purging Method (X) Bailing ( ) Pumping ( ) Other_____

Volume	Time	pH (SU)	Temp. (°C)	S. Cond. (umhos/cm)	Redox	Turbidity (NTU)
1	840	9.27	18.9	204.5	187	—
2	855	8.19	19.0	237.6	170	—
3	900	8.08	19.1	239.9	164	—
4	905	8.03	19.2	241.3	158	—

Weather Conditions:_____

Sample Condition: ( ) Clear ( ) Cloudy ( ) Other:_____ Odor:_____

Field Filtration: ( ) Yes (X) No

Containers (Types, Numbers, Preservatives): 40 ml clear glass VOAs, 3, HCL

Comments: VOCs by EPA 8260B

Sample Collector: Brett Byrn, Grant Barrier Date: 5/9/12 Time: 910

File: Ground Water Sampling Form.xls, GW Form

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Ground Water Sampling Form

GENERAL INFORMATION

Job No.: GDR-006 Well No.: MW-14 Date: 5/9/12

Site Name: Delavan Spray Technologies Location: Bamberg, South Carolina

Sample Type (X) Grab ( ) Composite ( ) Other

Sampling Equipment ( ) Dedicated ( ) Decontaminated ( ) Bailer ( ) Pump

Material (X) PVC ( ) Stainless Steel ( ) Teflon ( ) Other

Decontamination Method: —

WELL INFORMATION

Coordinates: NA Top of Casing (TOC) Elevation ft msl

Material (X) PVC ( ) Carbon Steel ( ) Stainless Steel ( ) Other:

Measurements from (TOC) Riser ft Water Level 12.17 ft Bottom ft

PURGING INFORMATION

Gallons per Well Volume 1.1 Purging Method (X) Bailing ( ) Pumping ( ) Other

Volume	Time	pH (SU)	Temp. (°C)	S. Cond. (umhos/cm)	Redox	Turbidity (NTU)
1	1205	6.30	19.5	32.26	169	—
2	1209	5.39	19.6	33.16	223	—
3	1214	5.34	19.7	34.93	239	—
4	1218	5.27	19.7	35.42	241	—

Weather Conditions:

Sample Condition: ( ) Clear ( ) Cloudy ( ) Other: Odor:

Field Filtration: ( ) Yes (X) No

Containers (Types, Numbers, Preservatives): 40 ml clear glass VOAs, 3, HCL

Comments: VOCs by EPA 8260B

Sample Collector: Brett Byrn, Grant Barrier Date: 5/9/12 Time: 1229

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Ground Water Sampling Form

GENERAL INFORMATION

Job No.: GDR-006 Well No.: MW-140 Date: 5/9/12

Site Name: Delavan Spray Technologies Location: Bamberg, South Carolina

Sample Type (X) Grab ( ) Composite ( ) Other

Sampling Equipment (X) Dedicated ( ) Decontaminated (X) Bailer ( ) Pump

Material (X) PVC ( ) Stainless Steel ( ) Teflon ( ) Other

Decontamination Method: —

WELL INFORMATION

Coordinates: NA Top of Casing (TOC) Elevation ft msl

Material (X) PVC ( ) Carbon Steel ( ) Stainless Steel ( ) Other:

Measurements from (TOC) Riser ft Water Level 15.07 ft Bottom ft

PURGING INFORMATION

Gallons per Well Volume 5.6 Purging Method (X) Bailing ( ) Pumping ( ) Other

Volume	Time	pH (SU)	Temp. (°C)	S. Cond. (umhos/cm)	Redox	Turbidity (NTU)
1	1120	10.17	20.3	256.3	98	—
2	1130	8.37	20.2	244.1	76	—
3	1140	8.29	20.1	243.2	69	—
4	1150	8.23	20.0	242.9	60	—

Weather Conditions:

Sample Condition: ( ) Clear ( ) Cloudy ( ) Other: Odor:

Field Filtration: ( ) Yes (X) No

Containers (Types, Numbers, Preservatives): 40 ml clear glass VOAs, 3, HCL

Comments: VOCs by EPA 8260B

Sample Collector: Brett Byrn, Grant Barrier Date: 5/9/12 Time: 1200

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Ground Water Sampling Form

GENERAL INFORMATION

Job No.: GDR-006 Well No.: MW-15 Date: 5/8/12

Site Name: Delavan Spray Technologies Location: Bamberg, South Carolina

Sample Type (X) Grab ( ) Composite ( ) Other

Sampling Equipment (x) Dedicated ( ) Decontaminated (x) Bailer ( ) Pump

Material (X) PVC ( ) Stainless Steel ( ) Teflon ( ) Other

Decontamination Method: →

WELL INFORMATION

Coordinates: NA Top of Casing (TOC) Elevation ft msl

Material (X) PVC ( ) Carbon Steel ( ) Stainless Steel ( ) Other:

Measurements from (TOC) Riser ft Water Level 3.77 ft Bottom ft

PURGING INFORMATION

Gallons per Well Volume 2.3 Purging Method (X) Bailing ( ) Pumping ( ) Other

Volume	Time	pH (SU)	Temp. (°C)	S. Cond. (umhos/cm)	Redox	Turbidity (NTU)
1	1320	6.02	18.9	486.5	-22	—
2	1325	5.55	18.0	457.5	36	—
3	1330	5.53	17.9	453.4	38	—
4	1335	5.53	17.9	449.6	38	—

Weather Conditions:

Sample Condition: ( ) Clear ( ) Cloudy ( ) Other: Odor:

Field Filtration: ( ) Yes (X) No

Containers (Types, Numbers, Preservatives): 40 ml clear glass VOAs, 3, HCL

Comments: VOCs by EPA 8260B

Sample Collector: Brett Byrn, Grant Barrier Date: 5/8/12 Time: 1335

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Ground Water Sampling Form

GENERAL INFORMATION

Job No.: GDR-006 Well No.: MW-150 Date: 5/8/12

Site Name: Delavan Spray Technologies Location: Bamberg, South Carolina

Sample Type (X) Grab ( ) Composite ( ) Other_____

Sampling Equipment (X) Dedicated ( ) Decontaminated (X) Bailer ( ) Pump

Material (X) PVC ( ) Stainless Steel ( ) Teflon ( ) Other_____

Decontamination Method: —

WELL INFORMATION

Coordinates: NA Top of Casing (TOC) Elevation_____ ft msl

Material (X) PVC ( ) Carbon Steel ( ) Stainless Steel ( ) Other:_____

Measurements from (TOC) Riser – ft Water Level 4.15 ft Bottom – ft

PURGING INFORMATION

Gallons per Well Volume 6.5 Purging Method (X) Bailing ( ) Pumping ( ) Other_____

Volume	Time	pH (SU)	Temp. (°C)	S. Cond. (umhos/cm)	Redox	Turbidity (NTU)
1	1230	7.49	18.8	449.0	147	—
2	1240	7.31	18.8	451.7	150	—
3	1250	7.25	18.7	453.7	152	—
4	1300	7.20	18.7	454.5	154	—

Weather Conditions:_____

Sample Condition: ( ) Clear ( ) Cloudy ( ) Other:_____ Odor:_____

Field Filtration: ( ) Yes (X) No

Containers (Types, Numbers, Preservatives): 40 ml clear glass VOAs, 3, HCL

Comments: VOCs by EPA 8260B

Sample Collector: Brett Byrn, Grant Barrier Date: 5/8/12 Time: 1315

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Ground Water Sampling Form

GENERAL INFORMATION

Job No.: GDR-006 Well No.: MW-1501 Date: 5/8/12

Site Name: Delavan Spray Technologies Location: Bamberg, South Carolina

Sample Type (X) Grab ( ) Composite ( ) Other

Sampling Equipment (X) Dedicated ( ) Decontaminated ( ) Bailer (X) Pump

Material (X) PVC ( ) Stainless Steel ( ) Teflon ( ) Other

Decontamination Method: Standard

WELL INFORMATION

Coordinates: NA Top of Casing (TOC) Elevation ft msl

Material (X) PVC ( ) Carbon Steel ( ) Stainless Steel ( ) Other:

Measurements from (TOC) Riser ft Water Level 4.25 ft Bottom ft

PURGING INFORMATION

Gallons per Well Volume 12.9 Purging Method ( ) Bailing (X) Pumping ( ) Other

Volume	Time	pH (SU)	Temp. (°C)	S. Cond. (umhos/cm)	Redox	Turbidity (NTU)
1	1300	7.21	20.1	207.3	24	—
2	1330	7.05	20.0	215.1	89	—
3	1400	7.09	19.8	216.4	78	—
4	1420	7.11	18.8	220.1	83	—

Weather Conditions:

Sample Condition: ( ) Clear ( ) Cloudy ( ) Other: Odor:

Field Filtration: ( ) Yes (X) No

Containers (Types, Numbers, Preservatives): 40 ml clear glass VOAs, 3, HCL

Comments: VOCs by EPA 8260B

Sample Collector: Brett Byrn, Grant Barrier Date: 5/8/12 Time: 1430

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Ground Water Sampling Form

GENERAL INFORMATION

Job No.: GDR-006 Well No.: MW-16 Date: 5/8/12

Site Name: Delavan Spray Technologies Location: Bamberg, South Carolina

Sample Type (X) Grab ( ) Composite ( ) Other_____

Sampling Equipment (X) Dedicated ( ) Decontaminated (X) Bailer ( ) Pump

Material (X) PVC ( ) Stainless Steel ( ) Teflon ( ) Other_____

Decontamination Method: —

WELL INFORMATION

Coordinates: NA Top of Casing (TOC) Elevation_____ ft msl

Material (X) PVC ( ) Carbon Steel ( ) Stainless Steel ( ) Other:_____

Measurements from (TOC) Riser_____ ft Water Level 5.26 ft Bottom_____ ft

PURGING INFORMATION

Gallons per Well Volume 2.2 Purging Method (X) Bailing ( ) Pumping ( ) Other_____

Volume	Time	pH (SU)	Temp. (°C)	S. Cond. (umhos/cm)	Redox	Turbidity (NTU)
1	1430	6.15	18.6	35.75	159	—
2	1435	5.32	18.7	35.73	209	—
3	1440	5.24	18.7	32.95	206	—
4	1445	5.22	18.7	30.17	207	—

Weather Conditions:_____

Sample Condition: ( ) Clear ( ) Cloudy ( ) Other:_____ Odor:_____

Field Filtration: ( ) Yes (X) No

Containers (Types, Numbers, Preservatives): 40 ml clear glass VOAs, 3, HCL

Comments: VOCs by EPA 8260B

Sample Collector: Brett Byrn, Grant Barrier Date: 5/8/12 Time: 1450

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Ground Water Sampling Form

GENERAL INFORMATION

Job No.: GDR-006 Well No.: MW-160 Date: 5/8/12

Site Name: Delavan Spray Technologies Location: Bamberg, South Carolina

Sample Type (X) Grab ( ) Composite ( ) Other_____

Sampling Equipment (X) Dedicated ( ) Decontaminated (X) Bailer ( ) Pump

Material (X) PVC ( ) Stainless Steel ( ) Teflon ( ) Other_____

Decontamination Method: —

WELL INFORMATION

Coordinates: NA Top of Casing (TOC) Elevation_____ ft msl

Material (X) PVC ( ) Carbon Steel ( ) Stainless Steel ( ) Other:_____

Measurements from (TOC) Riser_____ ft Water Level 7.05 ft Bottom_____ ft

PURGING INFORMATION

Gallons per Well Volume 6 Purging Method (X) Bailing ( ) Pumping ( ) Other_____

Volume	Time	pH (SU)	Temp. (°C)	S. Cond. (umhos/cm)	Redox	Turbidity (NTU)
1	1500	7.21	18.6	347.2	73	—
2	1505	7.38	18.7	365.1	103	—
3	1510	7.41	18.9	371.1	108	—
4	1520	7.46	17.8	374.3	110	—

Weather Conditions:_____

Sample Condition: ( ) Clear ( ) Cloudy ( ) Other:_____ Odor:_____

Field Filtration: ( ) Yes (X) No

Containers (Types, Numbers, Preservatives): 40 ml clear glass VOAs, 3, HCL

Comments: VOCs by EPA 8260B

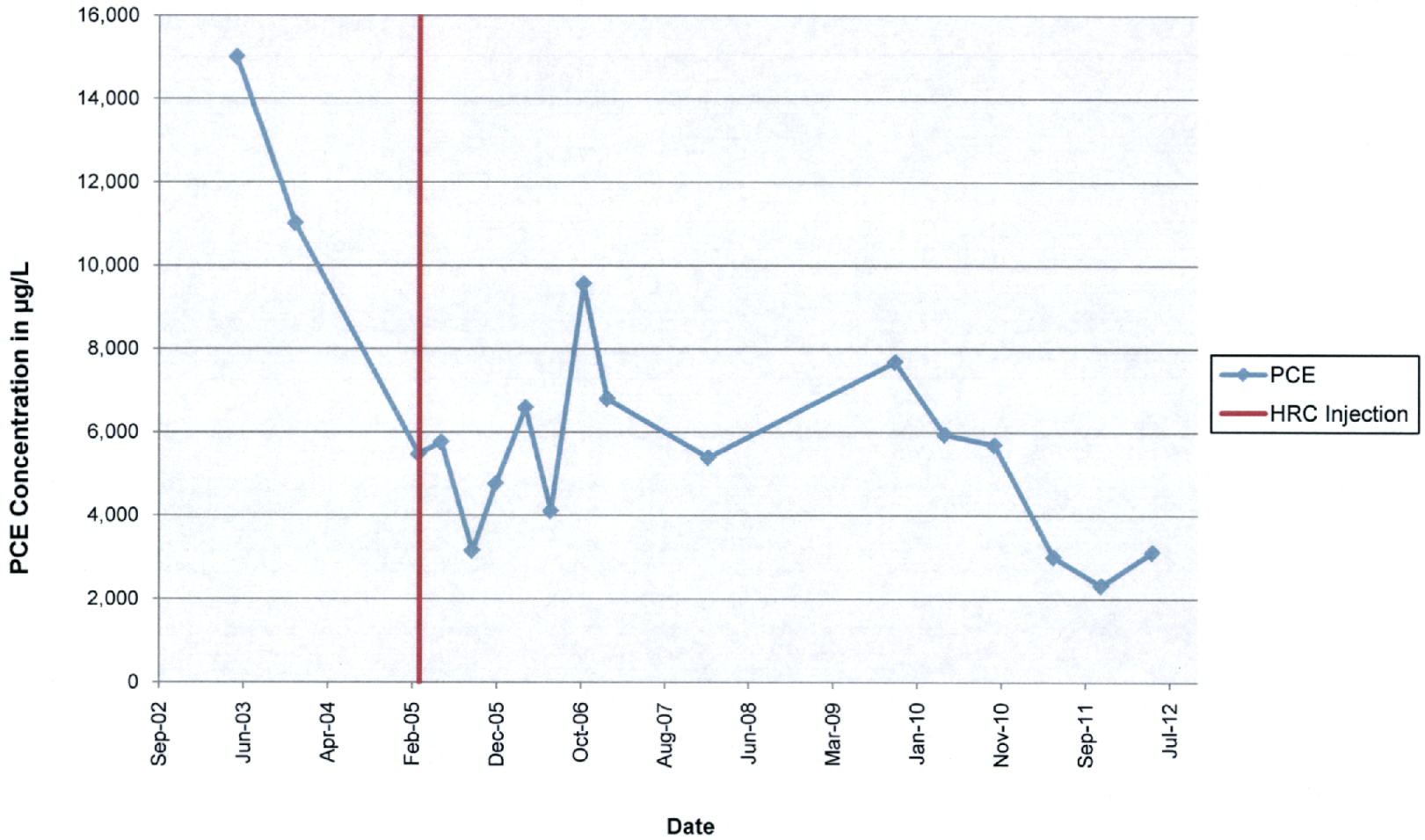
Sample Collector: Brett Byrn, Grant Barrier Date: 5/8/12 Time: 1520

File: Ground Water Sampling Form.xls, GW Form

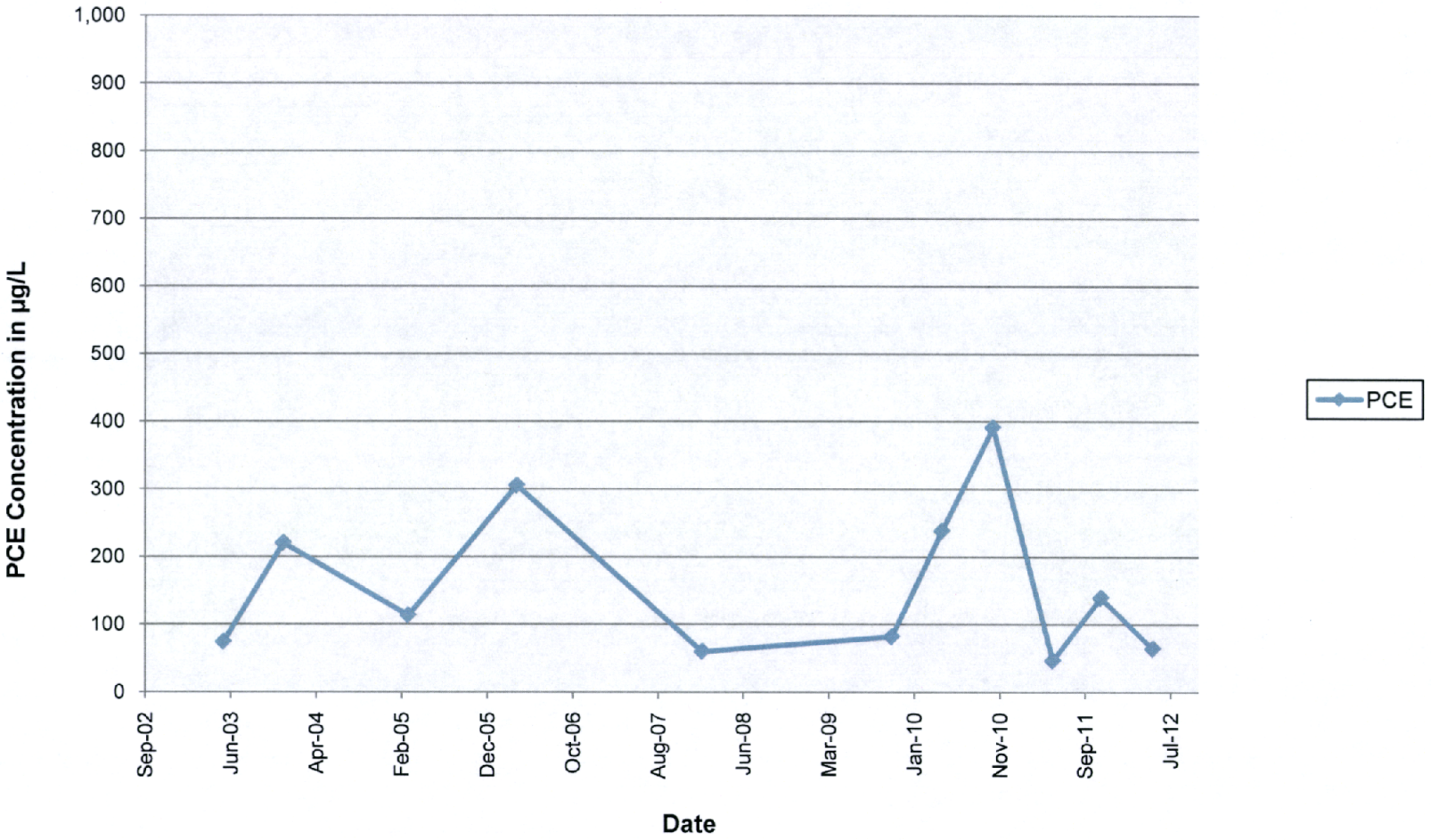
Appendix D

PCE Concentration Graphs

MW-1 PCE Concentrations vs Time
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006



MW-3 PCE Concentrations vs Time
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006



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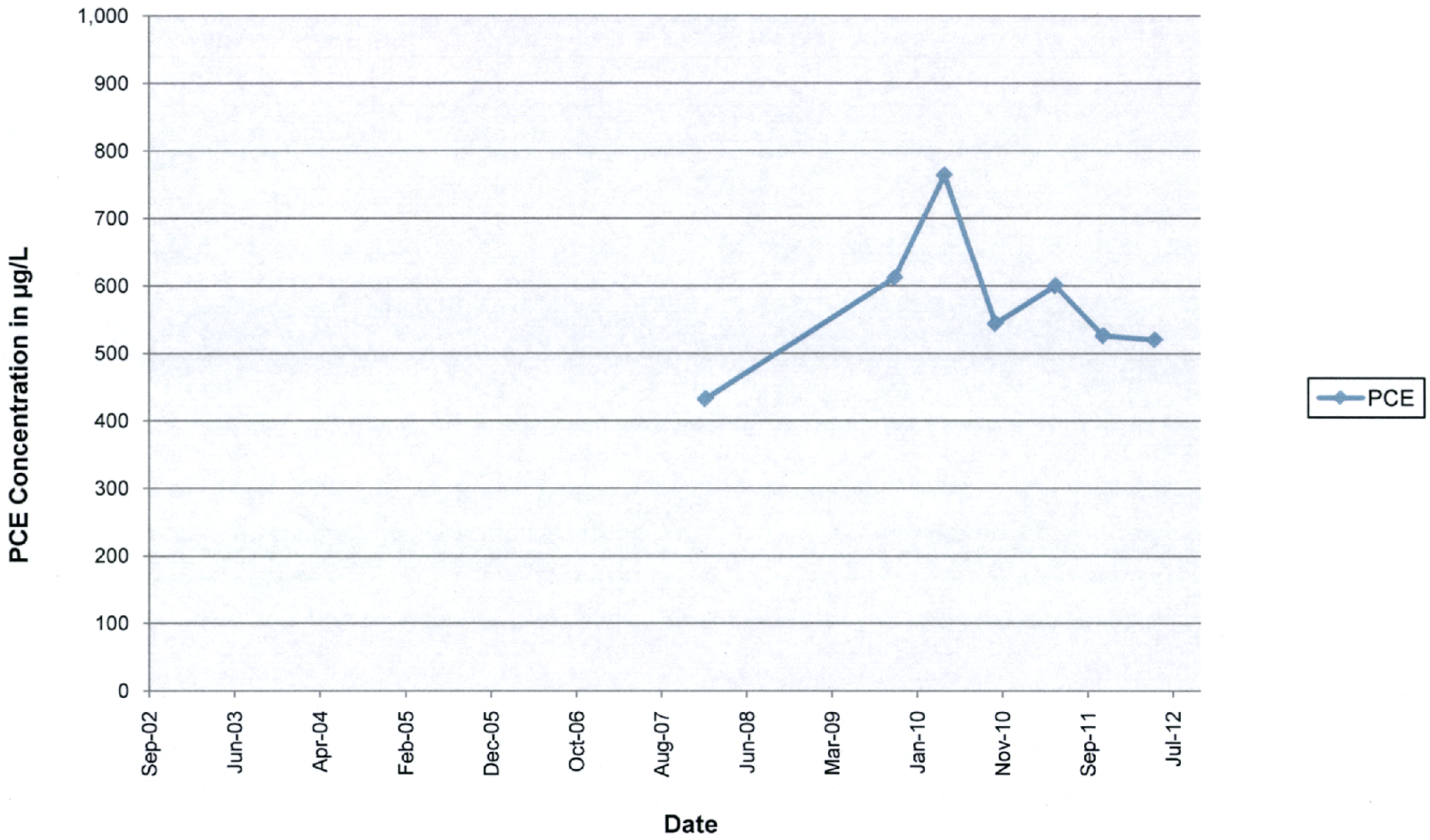
MW-3D PCE Concentrations vs Time
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006



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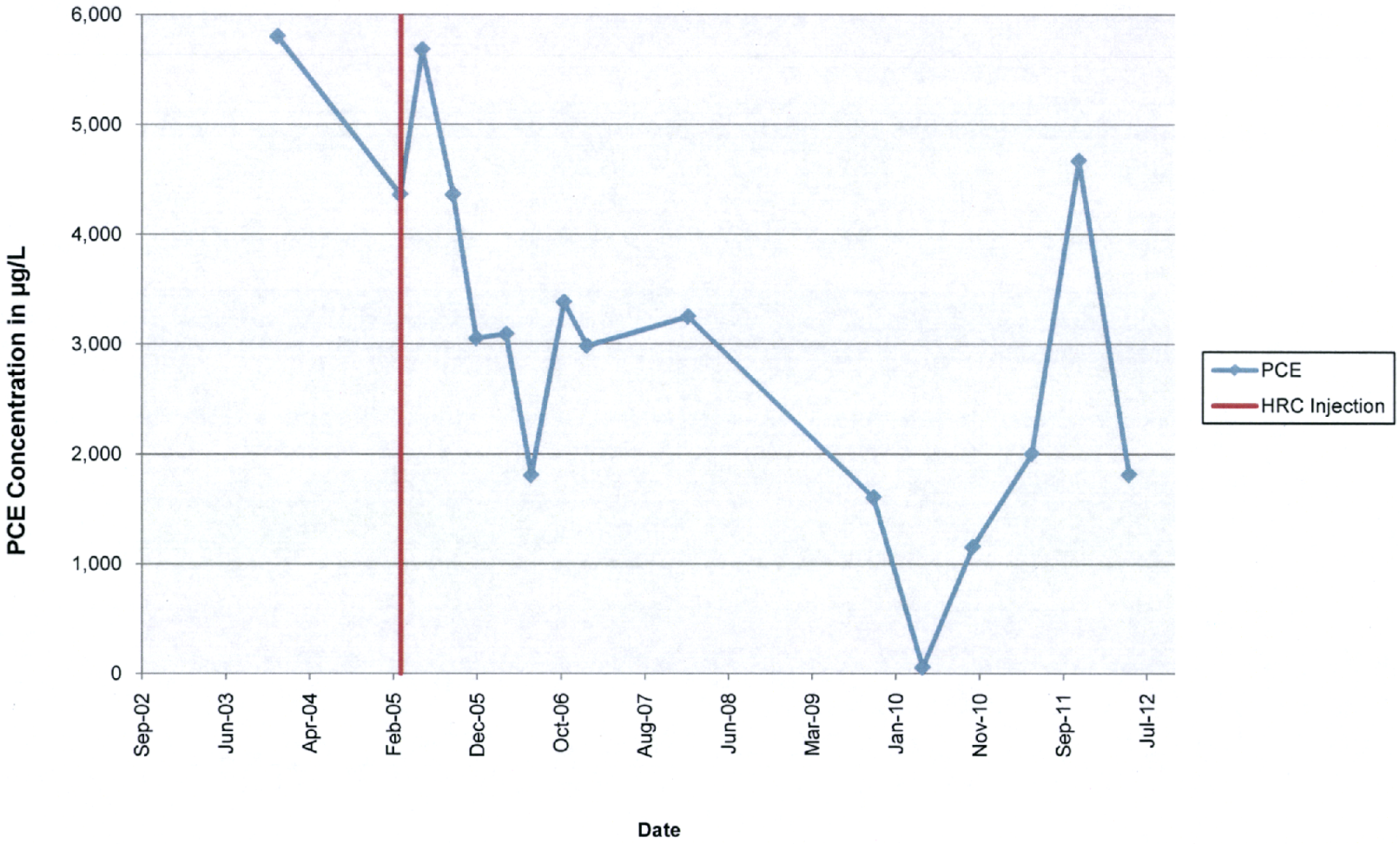
MW-9 PCE Concentrations vs Time
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006



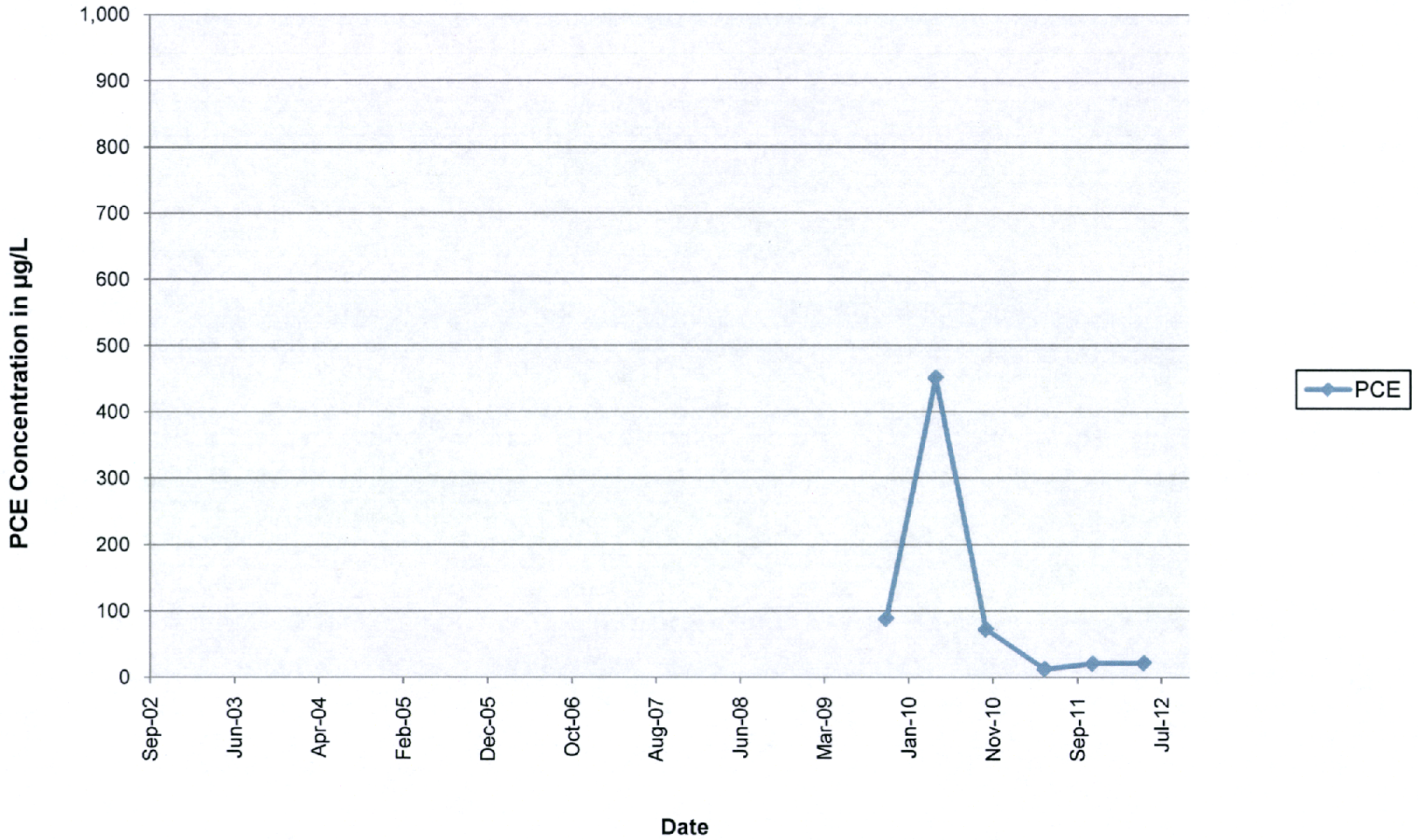
Hart & Hickman, PC

MW-10 PCE Concentration vs Time
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006



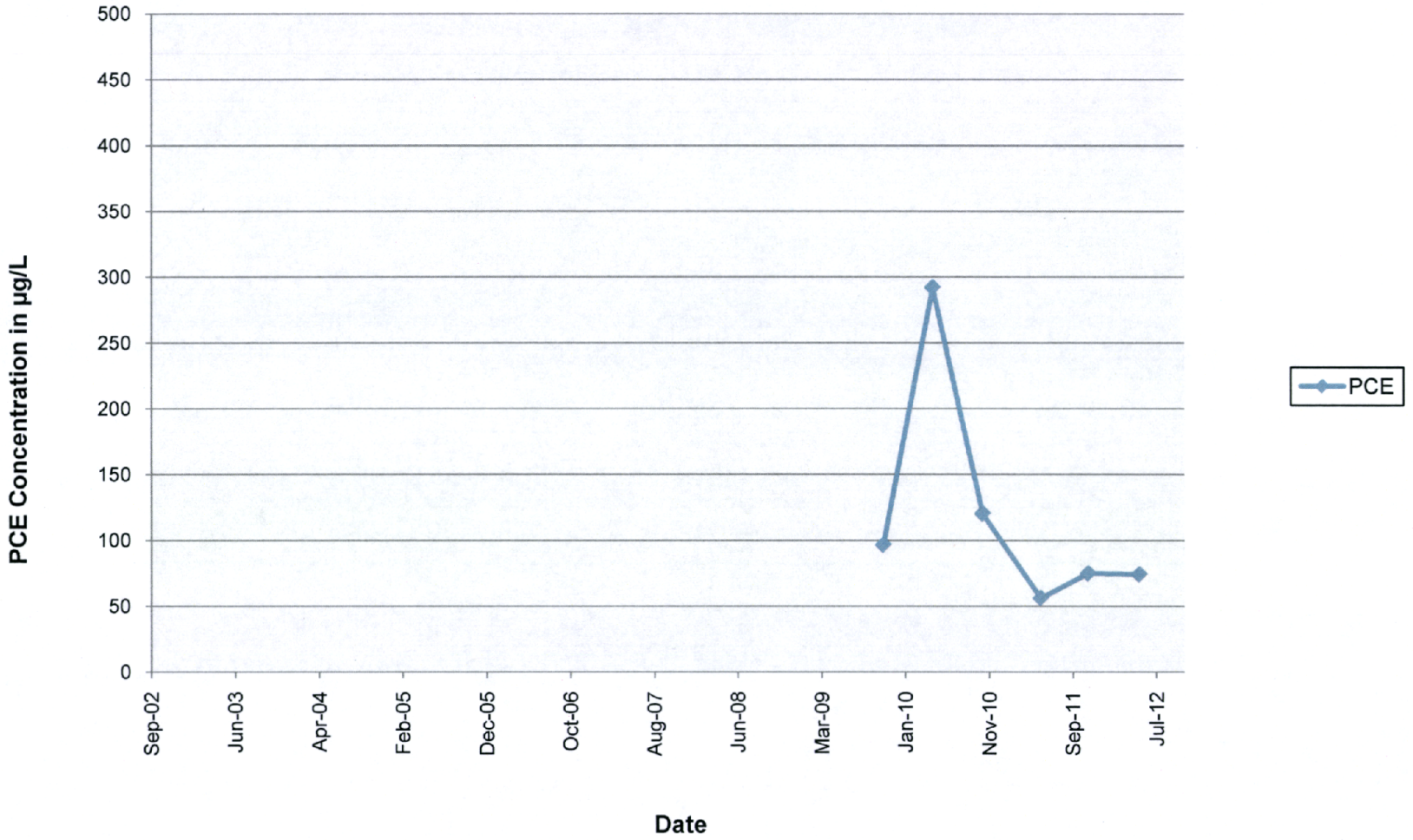
Hart & Hickman, PC

MW-12D PCE Concentration vs Time
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006



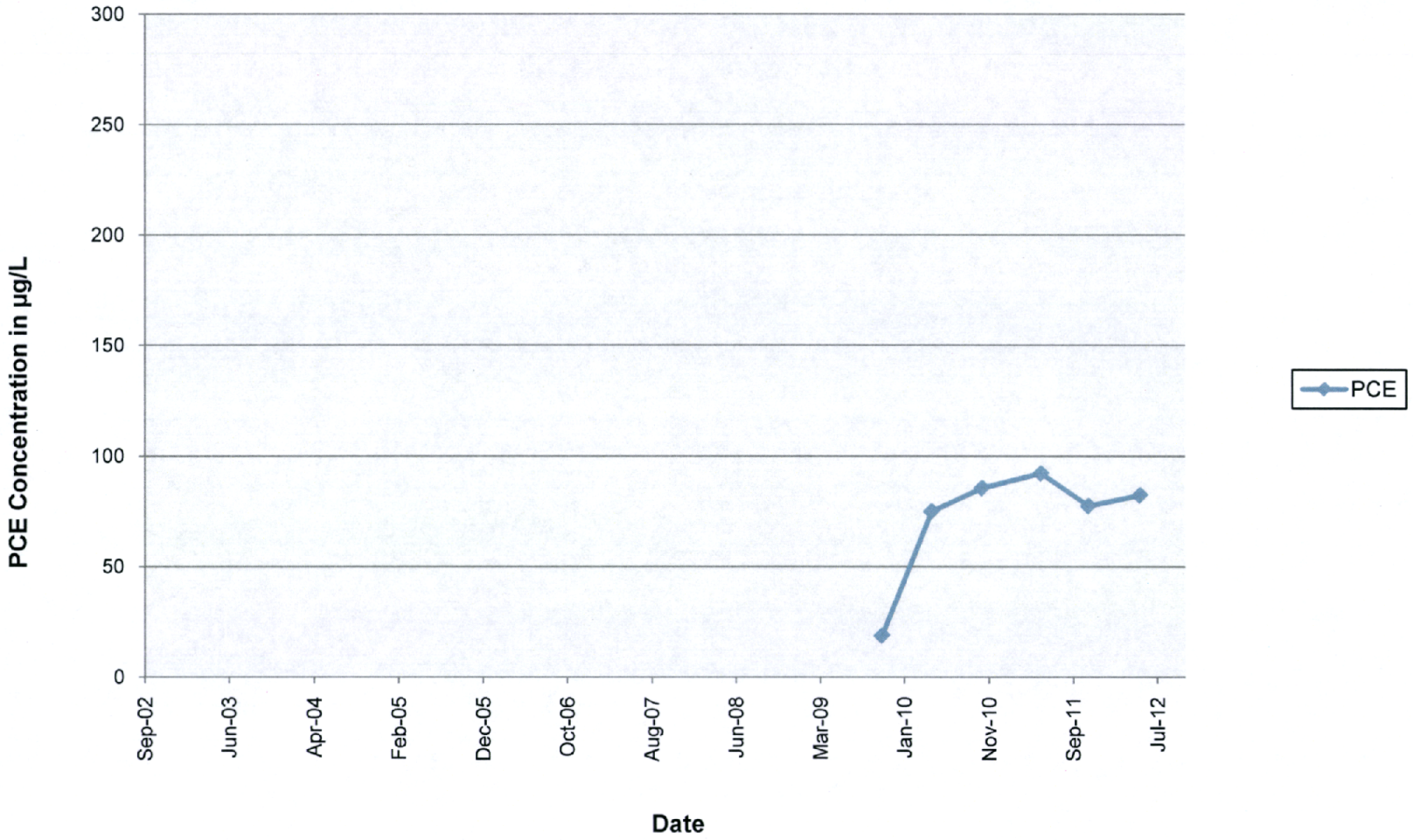
Hart & Hickman, PC

MW-13D PCE Concentration vs Time
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006



Hart & Hickman, PC

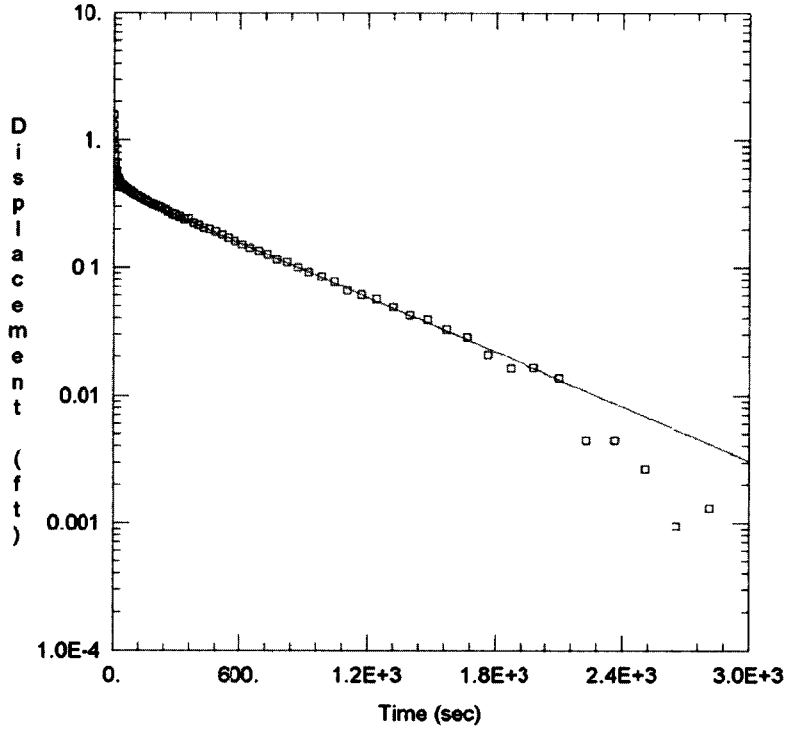
MW-14D PCE Concentration vs Time
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006



Hart & Hickman, PC

Appendix E

Slug Test Data



WELL TEST ANALYSIS

Data Set: S:\...\MW-3 Final.aqt
Date: 06/06/12 Time: 12:03:15

PROJECT INFORMATION

Company: Hart & Hickman
Client: Delavan Spray Technollgies
Project: GDR-006
Location: Bamberg, SC
Test Well: MW-3
Test Date: 5/10/2012

AQUIFER DATA

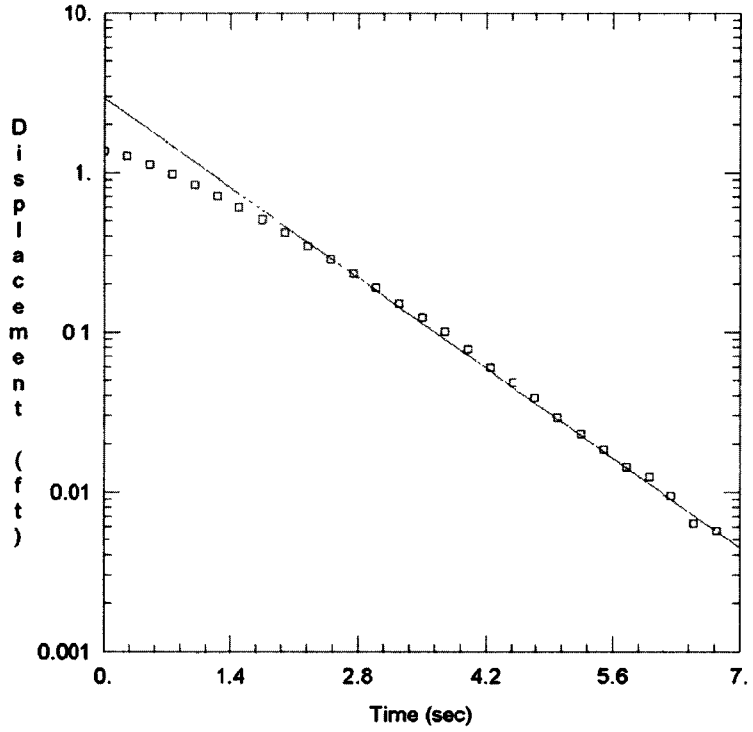
Saturated Thickness: 20. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-3)

Initial Displacement: 1.56 ft
Total Well Penetration Depth: 13.51 ft
Casing Radius: 0.083 ft
Static Water Column Height: 13.51 ft
Screen Length: 13.51 ft
Wellbore Radius: 0.66 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.07095 ft/day
y0 = 0.4149 ft



WELL TEST ANALYSIS

Data Set: S:\...\MW-3D Final.aqt
Date: 06/06/12 Time: 12:04:41

PROJECT INFORMATION

Company: Hart & Hickman
Client: Delavan Spray Technollgies
Project: GDR-006
Location: Bamberg, SC
Test Well: MW-3D
Test Date: 5/10/2012

AQUIFER DATA

Saturated Thickness: 50. ft Anisotropy Ratio (Kz/Kr): 1.

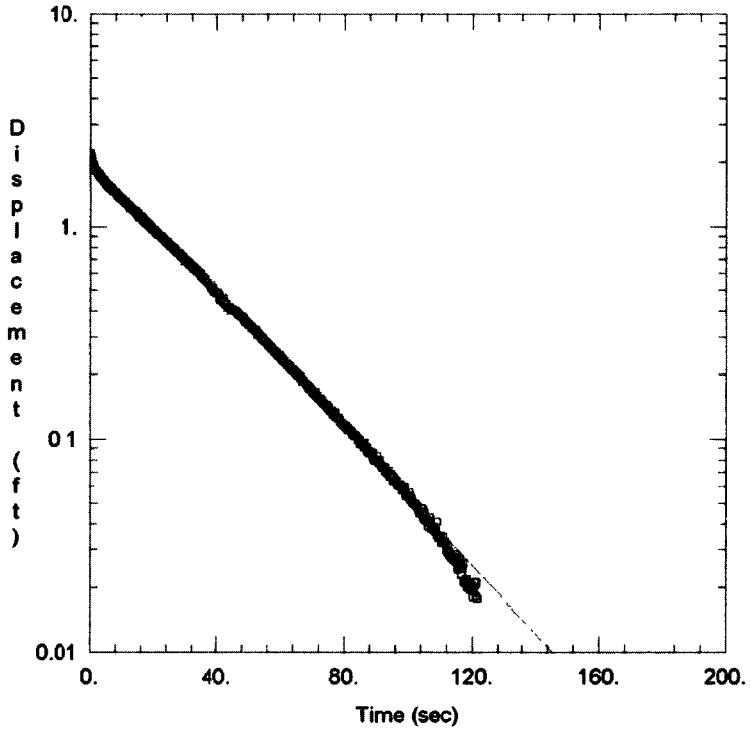
WELL DATA (MW-3D)

Initial Displacement: 1.36 ft
Total Well Penetration Depth: 33. ft
Casing Radius: 0.083 ft
Static Water Column Height: 33. ft
Screen Length: 5. ft
Wellbore Radius: 0.66 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 87.7 ft/day y0 = 2.934 ft



WELL TEST ANALYSIS

Data Set: S:\...\MW-3D1 Final.aqt
Date: 06/06/12 Time: 12:04:01

PROJECT INFORMATION

Company: Hart & Hickman
Client: Delavan Spray Technologies
Project: GDR-006
Location: Bamberg, SC
Test Well: MW-3D1
Test Date: 5/10/2012

AQUIFER DATA

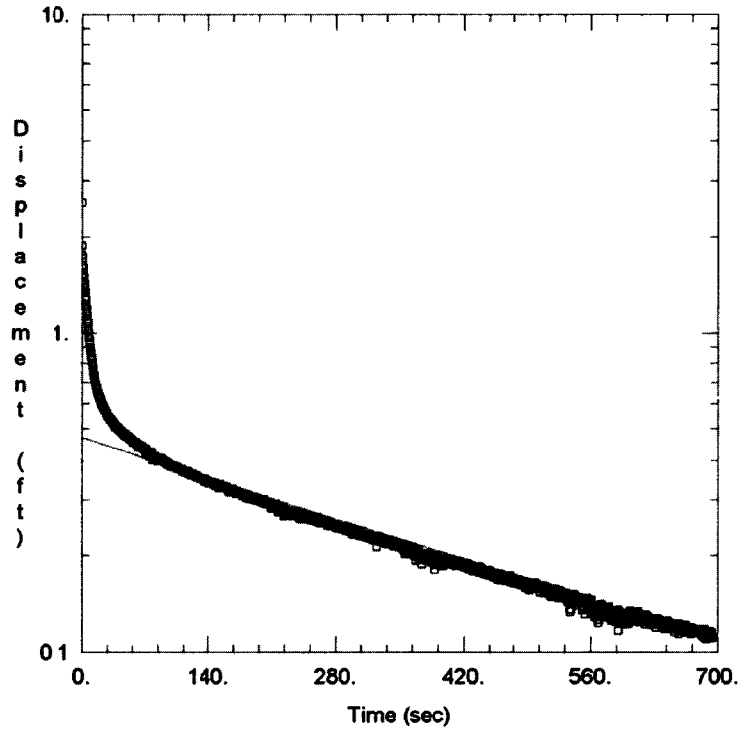
Saturated Thickness: 90. ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-3D1)

Initial Displacement: 2.21 ft
Total Well Penetration Depth: 70. ft
Casing Radius: 0.083 ft
Static Water Column Height: 70. ft
Screen Length: 10. ft
Wellbore Radius: 0.66 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 2.482 ft/day
y0 = 2.022 ft



WELL TEST ANALYSIS

Data Set: S:\...\MW-9 Final.aqt
Date: 06/06/12 Time: 12:05:20

PROJECT INFORMATION

Company: Hart & Hickman
Client: Delavan Spray Technologies
Project: GDR-006
Location: Bamberg, SC
Test Well: MW-9
Test Date: 5/10/2012

AQUIFER DATA

Saturated Thickness: 20. ft Anisotropy Ratio (Kz/Kr): 1.

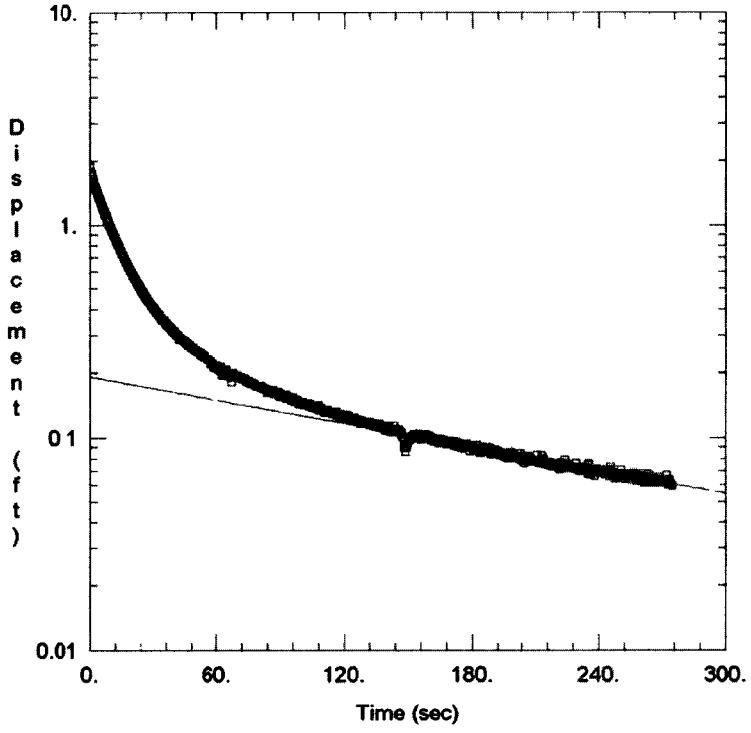
WELL DATA (MW-9)

Initial Displacement: 2.56 ft
Total Well Penetration Depth: 6.82 ft
Casing Radius: 0.083 ft
Static Water Column Height: 6.82 ft
Screen Length: 6.82 ft
Wellbore Radius: 0.66 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.442E-6 ft/sec y0 = 0.4695 ft



WELL TEST ANALYSIS

Data Set: S:\...\MW-10 Final.aqt
Date: 06/06/12 Time: 12:06:13

PROJECT INFORMATION

Company: Hart & Hickman
Client: Delavan Spray Technologies
Project: GDR-006
Location: Bamberg, SC
Test Well: MW-10
Test Date: 5/10/2012

AQUIFER DATA

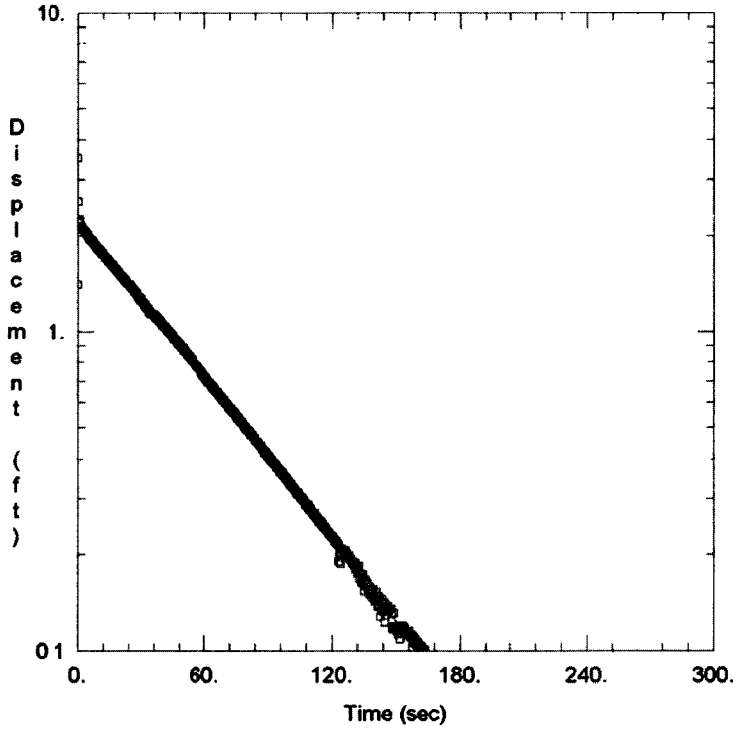
Saturated Thickness: 20. ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-10)

Initial Displacement: 1.89 ft
Total Well Penetration Depth: 6.2 ft
Casing Radius: 0.083 ft
Static Water Column Height: 6.2 ft
Screen Length: 6.2 ft
Wellbore Radius: 0.66 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.2603 ft/day
y0 = 0.1932 ft



WELL TEST ANALYSIS

Data Set: S:\...\MW-12D Final.aqt
Date: 06/06/12 Time: 12:06:53

PROJECT INFORMATION

Company: Hart & Hickman
Client: Delavan Spray Technology
Project: GDR-006
Location: Bamberg, SC
Test Well: MW-12D
Test Date: 5/10/2012

AQUIFER DATA

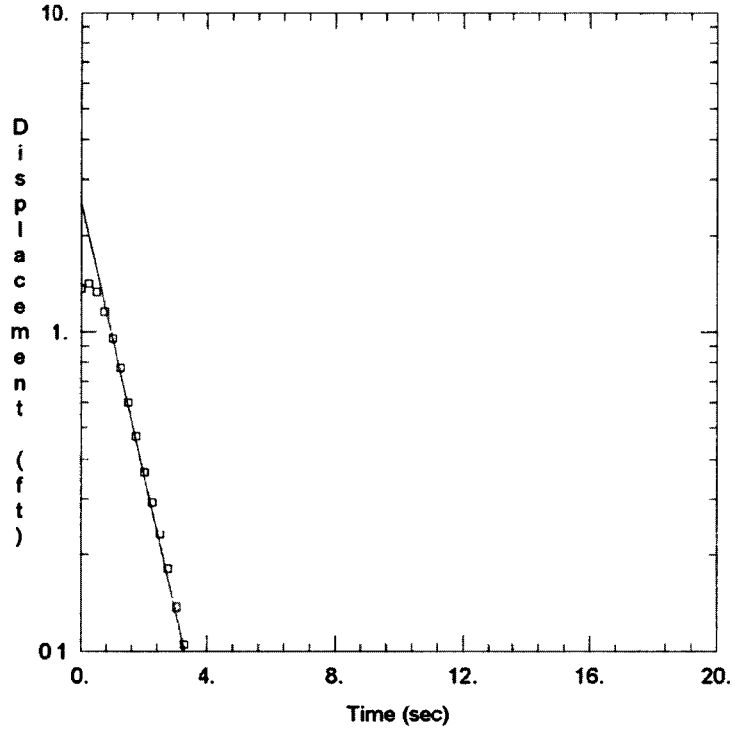
Saturated Thickness: 50. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-12D)

Initial Displacement: 3.51 ft Static Water Column Height: 34. ft
Total Well Penetration Depth: 34. ft Screen Length: 10. ft
Casing Radius: 0.083 ft Wellbore Radius: 0.66 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
K = 1.2 ft/day y0 = 2.206 ft



WELL TEST ANALYSIS

Data Set: S:\...\MW-13D Final.aqt
Date: 06/06/12 Time: 12:07:31

PROJECT INFORMATION

Company: Hart & Hickman
Client: Delavan Spray Technology
Project: GDR-006
Location: Bamberg, SC
Test Well: MW-13D
Test Date: 5/10/2012

AQUIFER DATA

Saturated Thickness: 50. ft Anisotropy Ratio (Kz/Kr): 1.

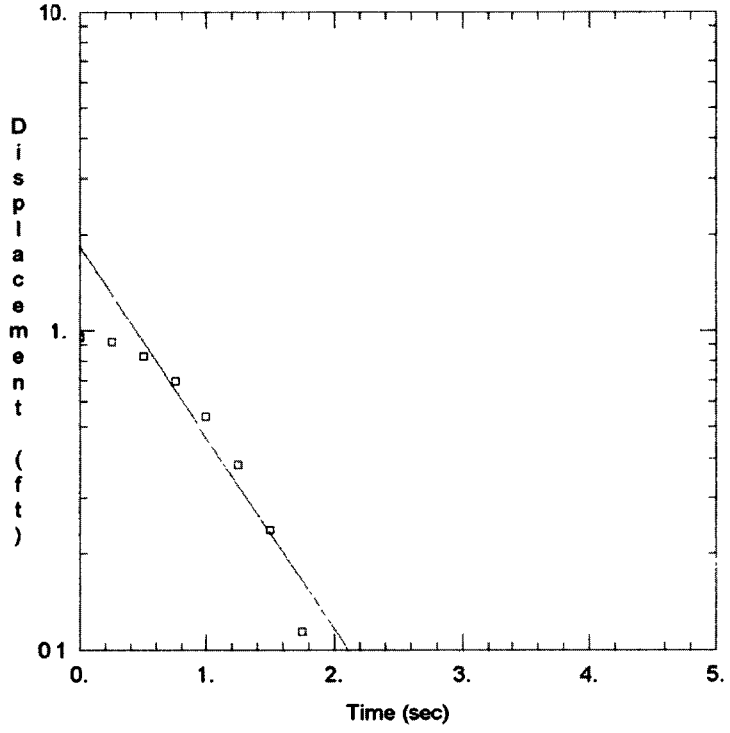
WELL DATA (MW-13D)

Initial Displacement: 1.36 ft
Total Well Penetration Depth: 35. ft
Casing Radius: 0.083 ft
Static Water Column Height: 35. ft
Screen Length: 10. ft
Wellbore Radius: 0.66 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 62.45 ft/day y0 = 2.546 ft



WELL TEST ANALYSIS

Data Set: S:\...\MW-15D Final.aqt
Date: 06/06/12 Time: 12:10:10

PROJECT INFORMATION

Company: Hart & Hickman
Client: Delavan Spray Technology
Project: GDR-006
Location: Bamberg, SC
Test Well: MW-15D
Test Date: 5/10/2012

AQUIFER DATA

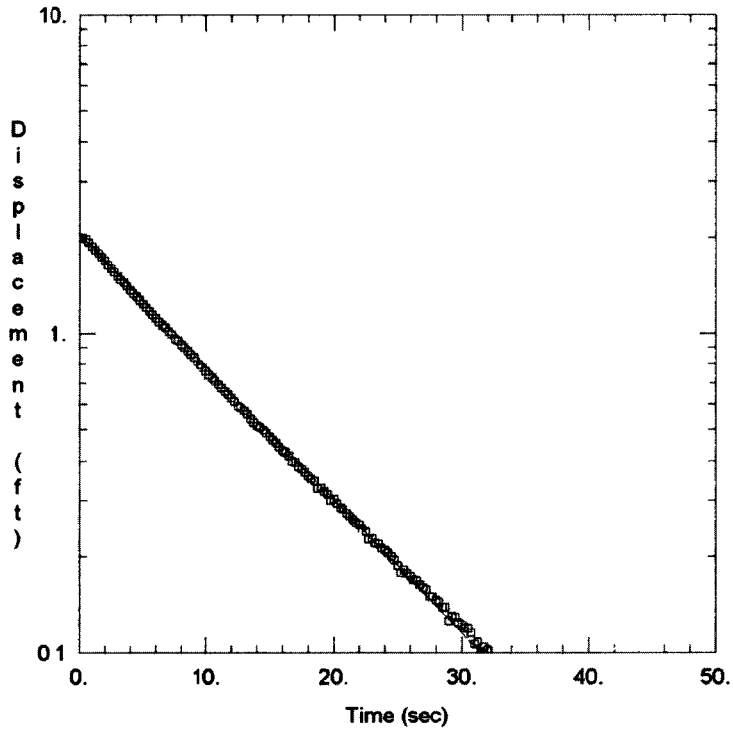
Saturated Thickness: 55. ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-15D)

Initial Displacement: 0.95 ft
Total Well Penetration Depth: 40. ft
Casing Radius: 0.083 ft
Static Water Column Height: 40. ft
Screen Length: 10. ft
Wellbore Radius: 0.66 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 88.36 ft/day
y0 = 1.83 ft



WELL TEST ANALYSIS

Data Set: S:\...\MW-15D1 Final.aqt
Date: 06/06/12 Time: 12:09:33

PROJECT INFORMATION

Company: Hart & Hickman
Client: Delavan Spray Technology
Project: GDR-006
Location: Bamberg, SC
Test Well: MW-15D1
Test Date: 5/10/2012

AQUIFER DATA

Saturated Thickness: 90. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-15D1)

Initial Displacement: 2. ft Static Water Column Height: 80. ft
Total Well Penetration Depth: 80. ft Screen Length: 10. ft
Casing Radius: 0.083 ft Wellbore Radius: 0.66 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
K = 6.848 ft/day y0 = 2.058 ft

Appendix E
Slug Test Data
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006

MW-3 Slug Test Data	
Time (seconds)	Drawdown (feet)
0.00	1.57
1.44	1.31
2.94	1.08
4.50	0.90
6.18	0.76
7.98	0.67
9.84	0.62
11.88	0 58
13 98	0.55
16.20	0.53
18.60	0.52
21.12	0.51
23.76	0.50
26.58	0.48
29.58	0.47
32.76	0.46
36.12	0.44
39.72	0.45
43.32	0.44
47.52	0.43
51.72	0.43
55.92	0.42
60.72	0.41
66.12	0.41
70.92	0.41
76.92	0.40
82.92	0.39
88.92	0.39
95.52	0.38
102.72	0.37
110.52	0 37
118.32	0.36
126.72	0 35
135.72	0.35
145.32	0 34
154.92	0.33
165.72	0.33
177 12	0.32
189.12	0.31
201.72	0.31
214.92	0.30
229.32	0.29
244.32	0.28
259.92	0.27
276.72	0.26
294.72	0.26
313.32	0.25
333.72	0.24
354.74	0.24
376.92	0.23
400.92	0.22
426 12	0.21
452.52	0.20
480.72	0.19
510.72	0.18
542.52	0.17
576.12	0.16
612.12	0.15
648.12	0 14
690.12	0.14
732.12	0.13
774.12	0.12
822.12	0.11
876.12	0 10
924.12	0.09
984.12	0.08
1044.12	0.08
1104.12	0.07
1170.12	0.06
1242.12	0.06
1320.12	0.05
1398.12	0.04
1482.12	0.04
1572.12	0.03
1668.12	0.03
1764.12	0.02
1872.12	0.02
1986.12	0.02
2106.12	0.01
2232.12	0.00
2364.12	0.00
2508.12	0 00
2658.12	0.00
2814.12	0 00
2982.12	0.00

MW-3D Slug Test Data	
Time (seconds)	Drawdown (feet)
0.00	1.36
0.25	1.27
0.50	1.12
0.75	0.98
1.00	0 84
1.25	0.71
1.50	0.60
1.75	0.51
2.00	0.42
2.25	0 35
2.50	0.28
2.75	0.23
3.00	0.19
3.25	0.15
3 50	0.12
3.75	0.10
4.00	0.08
4.25	0.06
4.50	0.05
4.75	0.04
5.00	0.03
5.25	0.02
5.50	0.02
5.75	0.01
6.00	0 01
6.25	0.01
6 50	0.01
6.75	0.01
7.00	0.01
7 25	0.01
7.50	0.01
7.75	0.01
8.00	0.01
8.25	0.01
8.50	0.01
8.75	0.01
9.00	0.01

MW-3D1 Slug Test Data									
Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)
0.00	2.20	29.75	0.68	59.50	0.25	89.25	0.09	119.00	0.02
0.25	2.14	30.00	0.70	59.75	0.24	89.50	0.08	119.25	0.02
0.50	2 10	30.25	0.70	60.00	0 25	89.75	0.08	119 50	0.02
0.75	1 99	30.50	0.68	60.25	0.24	90.00	0.08	119.75	0.02
1.00	1.95	30.75	0.68	60.50	0.24	90.25	0.08	120 00	0.02
1.25	1.91	31.00	0.67	60.75	0.24	90.50	0 08	120.25	0.02
1.50	1.88	31 25	0.66	61.00	0.23	90.75	0.08	120.50	0.02
1 75	1.85	31.50	0.67	61.25	0.23	91.00	0.08	120.75	0.02
2.00	1 83	31.75	0.66	61.50	0.23	91 25	0.08	121.00	0.02
2.25	1.80	32.00	0.64	61.75	0.23	91.50	0.08	121.25	0.02
2.50	1.78	32.25	0.65	62.00	0.22	91.75	0.08	121.50	0.02
2.75	1.76	32.50	0.63	62.25	0.22	92 00	0 07		
3.00	1.74	32.75	0.64	62.50	0.22	92.25	0.07		
3.25	1.72	33.00	0.63	62 75	0.22	92.50	0.07		
3.50	1.70	33.25	0.63	63.00	0.22	92.75	0.07		
3 75	1.69	33.50	0.62	63.25	0.22	93.00	0.07		
4.00	1.67	33.75	0.61	63.50	0 21	93.25	0.07		
4.25	1.65	34.00	0.61	63.75	0.21	93.50	0.07		
4.50	1.63	34.25	0.60	64.00	0.21	93.75	0.07		
4.75	1.61	34.50	0 60	64.25	0.21	94.00	0.07		
5.00	1.59	34.75	0.59	64.50	0.21	94.25	0.07		
5.25	1.58	35.00	0.59	64 75	0.21	94.50	0.07		
5.50	1.57	35.25	0.58	65.00	0.20	94.75	0.07		
5 75	1.53	35.50	0.58	65.25	0.20	95.00	0.07		
6 00	1.54	35.75	0.57	65.50	0.20	95.25	0.07		
6.25	1.52	36.00	0.56	65.75	0.20	95.50	0.06		
6.50	1.51	36.25	0.56	66.00	0.20	95 75	0.07		
6.75	1.50	36 50	0.56	66.25	0.19	96 00	0.06		
7.00	1.49	36.75	0 55	66.50	0.19	96.25	0.06		
7.25	1 47	37.00	0.54	66 75	0.19	96.50	0.06		
7.50	1 46	37.25	0.54	67.00	0.19	96 75	0.06		
7 75	1.45	37.50	0 54	67.25	0.19	97.00	0.06		
8.00	1.44	37.75	0.53	67.50	0.19	97.25	0.06		
8.25	1.42	38.00	0.52	67.75	0.19	97.50	0.06		
8 50	1.41	38.25	0.51	68.00	0.18	97.75	0.06		
8.75	1 40	38.50	0.53	68.25	0.18	98.00	0.06		
9.00	1.39	38.75	0.50	68.50	0.18	98.25	0.06		
9.25	1.37	39 00	0.50	68.75	0.18	98.50	0.06		
9.50	1.36	39.25	0 51	69.00	0.17	98.75	0.06		
9.75	1.35	39.50	0.49	69.25	0.18	99.00	0.06		
10.00	1.34	39.75	0 49	69.50	0.17	99.25	0.06		
10.25	1.33	40.00	0.49	69.75	0.17	99.50	0 05		
10.50	1.32	40.25	0.48	70.00	0.17	99 75	0 05		
10.75	1.31	40.50	0.49	70.25	0.17	100 00	0.05		
11 00	1.30	40.75	0.48	70.50	0.16	100.25	0.06		
11 25	1.29	41.00	0.48	70.75	0.17	100.50	0.05		
11.50	1.28	41.25	0.45	71.00	0.17	100 75	0.05		
11.75	1.27	41 50	0.46	71.25	0.16	101.00	0.05		
12.00	1.26	41.75	0.45	71.50	0.16	101.25	0.05		
12.25	1 25	42.00	0.46	71.75	0.16	101.50	0.05		
12 50	1.24	42.25	0.44	72 00	0.16	101.75	0.05		
12.75	1.23	42.50	0.44	72 25	0.16	102.00	0.05		
13.00	1 21	42.75	0.45	72.50	0.15	102.25	0 05		
13 25	1.21	43.00	0 43	72 75	0.15	102.50	0.05		
13.50	1.20	43.25	0.43	73.00	0.15	102 75	0 05		
13 75	1.19	43.50	0.43	73.25	0.15	103.00	0.05		
14.00	1.18	43.75	0.42	73.50	0 15	103 25	0 05		
14.25	1.17	44.00	0.42	73.75	0 15	103 50	0 05		
14 50	1.16	44.25	0.42	74.00	0.15	103.75	0.04		
14.75	1.15	44.50	0.40	74.25	0.14	104.00	0.05		
15.00	1.14	44.75	0.41	74.50	0.15	104.25	0.05		
15.25	1.13	45.00	0.41	74.75	0.14	104.50	0.05		
15.50	1 11	45.25	0.41	75.00	0.14	104.75	0.05		
15.75	1.11	45.50	0.41	75.25	0.14	105.00	0.04		
16.00	1 11	45.75	0.40	75.50	0.14	105.25	0.05		
16.25	1 10	46.00	0.40	75.75	0.14	105.50	0.04		
16.50	1.09	46.25	0.40	76.00	0.14	105.75	0.04		
16.75	1 08	46.50	0.39	76.25	0.14	106.00	0.04		
17.00	1.07	46.75	0.39	76.50	0 13	106.25	0 04		
17 25	1.06	47.00	0.39	76.75	0.13	106.50	0.04		
17.50	1.05	47.25	0.39	77.00	0.13	106.75	0.04		
17 75	1.05	47.50	0.38	77.25	0.13	107.00	0.04		
18 00	1.04	47.75	0 38	77.50	0.13	107.25	0.04		
18.25	1.03	48.00	0.38	77.75	0.13	107 50	0.04		
18.50	1.02	48.25	0.37	78.00	0.13	107.75	0.04		
18.75	1.01	48.50	0.37	78.25	0.13	108.00	0.04		
19.00	1.00	48 75	0.37	78.50	0.12	108.25	0.04		
19.25	1.00	49.00	0.36	78.75	0.12	108.50	0.04		
19.50	0.99	49.25	0.36	79 00	0.12	108.75	0.04		
19.75	0 98	49.50	0.36	79.25	0.12	109.00	0.04		
20.00	0.97	49.75	0 35	79.50	0.12	109.25	0.04		
20.25	0.96	50.00	0.35	79.75	0.12	109.50	0 03		
20.50	0.96	50.25	0.35	80.00	0.12	109.75	0.03		
20.75	0.95	50.50	0.34	80.25	0.12	110.00	0 03		
21.00	0.94	50.75	0 34	80.50	0.11	110.25	0.03		
21 25	0.93	51.00	0.34	80.75	0.12	110 50	0.03		
21.50	0.93	51 25	0.33	81.00	0.11	110.75	0.03		
21.75	0.92	51.50	0.33	81.25	0.11	111.00	0.03		
22.00	0.91	51 75	0.33	81.50	0.11	111.25	0.03		
22.25	0.90	52.00	0.32	81.75	0.11	111.50	0.03		
22.50	0.89	52.25	0.33	82.00	0.11	111.75	0.03		
22.75	0.89	52.50	0 32	82.25	0.11	112.00	0.03		
23.00	0.88	52.75	0.32	82 50	0.11	112.25	0.03		
23.25	0.87	53.00	0 31	82.75	0.11	112.50	0.03		
23.50	0.87	53.25	0 31	83.00	0.10	112.75	0.03		
23 75	0.86	53.50	0 31	83.25	0.10	113.00	0.03		
24.00	0.85	53.75	0.31	83.50	0.10	113.25	0.03		
24.25	0.84	54.00	0.30	83.75	0.10	113.50	0.03		
24 50	0.84	54.25	0.30	84.00	0 10	113.75	0.03		
24.75	0.83	54.50	0.30	84.25	0.10	114.00	0.03		
25.00	0.82	54.75	0.29	84.50	0.10	114.25	0.03		
25.25	0 82	55.00	0.29	84.75	0.10	114.50	0.03		
25.50	0.81	55.25	0.29	85.00	0.10	114.75	0.03		
25.75	0.80	55.50	0.29	85.25	0.10	115.00	0.03		
26.00	0.80	55.75	0.28	85.50	0.09	115.25	0.03		
26 25	0.79	56.00	0.28	85 75	0.10	115.50	0.03		
26 50	0.78	56.25	0.28	86.00	0.10	115 75	0 02		
26.75	0.78	56.50	0.27	86.25	0.09	116.00	0.03		
27.00	0.77	56 75	0.28	86.50	0.10	116.25	0.03		
27.25	0.76	57 00	0.27	86.75	0.09	116.50	0.03		
27.50	0.76	57.25	0.27	87.00	0.09	116.75	0.02		
27.75	0.75	57.50	0.27	87.25	0.09	117.00	0.02		
28.00	0 75	57.75	0.26	87.50	0.09	117.25	0.03		
28.25	0.74	58.00	0.26	87 75	0.09	117.50	0.02		
28.50	0.73	58.25	0 26	88.00	0.09	117.75	0.02		
28.75	0.72	58.50	0.26	88 25	0.09	118.00	0.02		
29 00	0.72	58.75	0.25	88.50	0.09	118.25	0.02		
29.25	0.72	59.00	0.25	88.75	0.09	118.50	0.02		
29.50	0.71	59.25	0.25	89.00	0.08	118.75	0.02		

Appendix E
Slug Test Data
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006

MW-9 Slug Test Data															
Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)
0.00	2.56	29.75	0.55	59.50	0.45	89.25	0.40	119.00	0.36	148.75	0.33	178.50	0.31	208.25	0.29
0.25	1.45	30.00	0.55	59.75	0.45	89.50	0.40	119.25	0.36	149.00	0.34	178.75	0.31	208 50	0.29
0.50	1 75	30.25	0.55	60.00	0.45	89.75	0.40	119.50	0.36	149.25	0.34	179.00	0.31	208.75	0.29
0.75	1.88	30.50	0.54	60.25	0.45	90.00	0.40	119.75	0.36	149.50	0.33	179.25	0.31	209.00	0.29
1.00	1.50	30.75	0.54	60.50	0 45	90.25	0.40	120.00	0.36	149.75	0.33	179.50	0.31	209.25	0.29
1.25	1.72	31.00	0.54	60.75	0 45	90.50	0.40	120.25	0.36	150.00	0.34	179.75	0.31	209.50	0.28
1.50	1 63	31.25	0.54	61.00	0.45	90 75	0.40	120.50	0.36	150.25	0.34	180.00	0.31	209.75	0.29
1.75	1.52	31.50	0.54	61.25	0.45	91.00	0.40	120.75	0.36	150.50	0.33	180.25	0.31	210.00	0.29
2.00	1.60	31 75	0.54	61.50	0 44	91.25	0.40	121.00	0.36	150 75	0.33	180.50	0.31	210.25	0.29
2.25	1.50	32.00	0.54	61.75	0.45	91.50	0.40	121.25	0 36	151.00	0.33	180.75	0.31	210.74	0.29
2.50	1 48	32.25	0.54	62.00	0.45	91.75	0.40	121.50	0.36	151.25	0.34	181.00	0.31	210.96	0.28
2.75	1.49	32.50	0.53	62.25	0.45	92.00	0.40	121 75	0.36	151.50	0.33	181.25	0.31	211.18	0 29
3.00	1.43	32.75	0.53	62.51	0.44	92.25	0.40	122.00	0.36	151.75	0.33	181.50	0.31	211 50	0.28
3.25	1.41	33.00	0.53	62.75	0.44	92.50	0.40	122.25	0.36	152.00	0.33	181.75	0.31	211.73	0.29
3.50	1.38	33.25	0.53	63 00	0.44	92.75	0.40	122.50	0 36	152.25	0.33	182.00	0.31	211.94	0.29
3 75	1.35	33.50	0.53	63.25	0 44	93.00	0.40	122.75	0.36	152.50	0.34	182.25	0.31	212.16	0.29
4.00	1.33	33.75	0.53	63.50	0.44	93.25	0.39	123.00	0.36	152.75	0.33	182.50	0.30	212.38	0.28
4.25	1.30	34.00	0.53	63 75	0.44	93.50	0.39	123 25	0.36	153.00	0.33	182.75	0.31	212.60	0.29
4 50	1.28	34.25	0.53	64.00	0.44	93.75	0.39	123.50	0.36	153.25	0.33	183.00	0.31	212 82	0.29
4.75	1.26	34.50	0.52	64.25	0.44	94.00	0.39	123.75	0.36	153.50	0.33	183.25	0 31	213 04	0.29
5.00	1.23	34.75	0.52	64.50	0.44	94.25	0 39	124 00	0.36	153.75	0 33	183.50	0.31	213.26	0.29
5.25	1.21	35.00	0.52	64.75	0.44	94.50	0.39	124 25	0.36	154.00	0.33	183.75	0.31	213.50	0.29
5.50	1.19	35.25	0.52	65.00	0.44	94.75	0.39	124 50	0.36	154.25	0 33	184.00	0.30	213.75	0.29
5.75	1.17	35.50	0.52	65.25	0.44	95.00	0.39	124.75	0.36	154.50	0.33	184.25	0.31	214.00	0.29
6.00	1.15	35.75	0.52	65.50	0.44	95 25	0.39	125.00	0.36	154.75	0.33	184.50	0 30	214 25	0.29
6.25	1.13	36.00	0.52	65 75	0.44	95.50	0.39	125.25	0.36	155.00	0.33	184.75	0.31	214.50	0 29
6.50	1.10	36.25	0.52	66.00	0.44	95.75	0.39	125.50	0.35	155.25	0.33	185.00	0.31	214 75	0.29
6.75	1.09	36.50	0.52	66.25	0.44	96.00	0.39	125.75	0.36	155.50	0.33	185 25	0.31	215.00	0.29
7.00	1.07	36.75	0.52	66.50	0.44	96.25	0.39	126.00	0.35	155.75	0.33	185.50	0.31	215 25	0.29
7.25	1.05	37.00	0.51	66.75	0.44	96.50	0.39	126.25	0.36	156.00	0.33	185.75	0.31	215 50	0.28
7.50	1.03	37.25	0 51	67.00	0.44	96 75	0.38	126.50	0.36	156.25	0.33	186 00	0 31	215.75	0.29
7.75	1.01	37.50	0.51	67.25	0.44	97.00	0.39	126.75	0.35	156.50	0.33	186.25	0.31	216.00	0.29
8.00	0.99	37.75	0.51	67.50	0.44	97.25	0.39	127.00	0.36	156 75	0.33	186.50	0.31	216.25	0.28
8.25	0.98	38 00	0.51	67.75	0 44	97.50	0.38	127.25	0.35	157.00	0.33	186.75	0.31	216 50	0.29
8.50	0.97	38.25	0.51	68.00	0.43	97 75	0.39	127.50	0.35	157.25	0.33	187.00	0 31	216.75	0.29
8.75	0.95	38.50	0.51	68.25	0.44	98.00	0.39	127.75	0.35	157 50	0.33	187 25	0.30	217.00	0.28
9.00	0 93	38.75	0.51	68.50	0.43	98 25	0.39	128.00	0.35	157 75	0.33	187 50	0.31	217.25	0.29
9.25	0.92	39 00	0.51	68.75	0.43	98 50	0.38	128.25	0.35	158.00	0.33	187.75	0.31	217.50	0.28
9.50	0.90	39.25	0.50	69.00	0 43	98.75	0.38	128.50	0.35	158.25	0.33	188.00	0.31	217.77	0.28
9.75	0 89	39.50	0.51	69.25	0.43	99.00	0.39	128.75	0.35	158.50	0.33	188.25	0.30	218.00	0.29
10.00	0.88	39.75	0.50	69.50	0 43	99.25	0.38	129.00	0.35	158.75	0.33	188.50	0.31	218.25	0.29
10.25	0.87	40 00	0.50	69.75	0.43	99.50	0.39	129.25	0.35	159.00	0.33	188.75	0.31	218.50	0.28
10.50	0.86	40.25	0 50	70.02	0.43	99.75	0.39	129.50	0.35	159.25	0.33	189.00	0.31	218.88	0.27
10.75	0 84	40.50	0.50	70.25	0.43	100.00	0.39	129.75	0.35	159.50	0.33	189.25	0.31	219.10	0.28
11.00	0.83	40.75	0.50	70.50	0 43	100.25	0.38	130.00	0.35	159.75	0.33	189.50	0.31	219.32	0.28
11.25	0.83	41.00	0.50	70.75	0.43	100.50	0.39	130.25	0.35	160.00	0.33	189.75	0.30	219.69	0.28
11.50	0.82	41.25	0.50	71 03	0.42	100.75	0.38	130.50	0.35	160.25	0.33	190.00	0.30	219.91	0.28
11.75	0.80	41.50	0.50	71.25	0.43	101.00	0.38	130.75	0.35	160.50	0.33	190.25	0.30	220.13	0 28
12.00	0.79	41.75	0 50	71.50	0.43	101.25	0.38	131.00	0.35	160.75	0.33	190.50	0.30	220.46	0.28
12.25	0.79	42.00	0 50	71.75	0.43	101.50	0 38	131.25	0.35	161.00	0.33	190.75	0.30	220.68	0.27
12.50	0.78	42.25	0.49	72.12	0.42	101.75	0.38	131.50	0.35	161.25	0.33	191.00	0.30	220.90	0.28
12.75	0.77	42.50	0.49	72.34	0.42	102.00	0.38	131.75	0.35	161.50	0.33	191.25	0.31	221 13	0.28
13.00	0.76	42.75	0.49	72 56	0.42	102.25	0.38	132 00	0.35	161.75	0.33	191.50	0.30	221.35	0.28
13.25	0.75	43.00	0.49	72.93	0.42	102.50	0 38	132 25	0.35	162.00	0.32	191 75	0.30	221.57	0.28
13 50	0.75	43.25	0.49	73.15	0.42	102.75	0.38	132.50	0.35	162.25	0.32	192.00	0.30	221.79	0 28
13.75	0.74	43.50	0.49	73 37	0.42	103.00	0.38	132.75	0.35	162.50	0 32	192.25	0.30	222.01	0.28
14.00	0.73	43.75	0.49	73.59	0.42	103.25	0.38	133.00	0.35	162.75	0.33	192.50	0.30	222.25	0 28
14.25	0.73	44.00	0.49	73.93	0.42	103.50	0.38	133.25	0.35	163.00	0.32	192.75	0.30	222.50	0 28
14.50	0.72	44.25	0.49	74.15	0.41	103.75	0 38	133 50	0.35	163.25	0.33	193 00	0.30	222.75	0.29
14.75	0.71	44.50	0.49	74.37	0.42	104.00	0.38	133.75	0.35	163.50	0.32	193.25	0.30	223.00	0.28
15.00	0.71	44.75	0.49	74.59	0.42	104.25	0.38	134.00	0.35	163.75	0.33	193.50	0.30	223.25	0.27
15.25	0 70	45.00	0.49	74.81	0.42	104.50	0.38	134.25	0.34	164.00	0.33	193 75	0.30	223.52	0.28
15.50	0.70	45.25	0.49	75.03	0.41	104.75	0.38	134.50	0.35	164.25	0.32	194.00	0.30	223 75	0 27
15.75	0.69	45.50	0.48	75.28	0.41	105 00	0.38	134.75	0.35	164.50	0.32	194.25	0.30	224.12	0.27
16.00	0.69	45.75	0.48	75.51	0.42	105 25	0.38	135.00	0.35	164 75	0.32	194 50	0 30	224.34	0.28
16.25	0.68	46.00	0.49	75.75	0 42	105.50	0.38	135.25	0.34	165.00	0.32	194.75	0.30	224.56	0.27
16.50	0.68	46 25	0.48	76.00	0.42	105.75	0.38	135.50	0.35	165.25	0.32	195.00	0.30	224.89	0.27
16.75	0 67	46.50	0.48	76.25	0.42	106.00	0.38	135.75	0 35	165 50	0.32	195.25	0.30	225.11	0.28
17.00	0.67	46.75	0.48	76.50	0 42	106.25	0.38	136.00	0.34	165.75	0.32	195.50	0.30	225.33	0.28
17 25	0.67	47.00	0.48	76.75	0.42	106 50	0.38	136.25	0.35	166.00	0.32	195.75	0.30	225.67	0.27
17.50	0.66	47.25	0.48	77.00	0.42	106.75	0.38	136.50	0 35	166.25	0.33	196.00	0.30	225.89	0.27
17.75	0.66	47.50	0.48	77.25	0.42	107.00	0.38	136.75	0 35	166.50	0.32	196.25	0.30	226.11	0.28
18.00	0.65	47.75	0.48	77.50	0 42	107.25	0.38	137.00	0.35	166.75	0.32	196.50	0.30	226.48	0.27
18.25	0.65	48.00	0.48	77.75	0 42	107 50	0.38	137.25	0.35	167.00	0.32	196.75	0.30	226.70	0.27
18.50	0.64	48.25	0.48	78.00	0.40	107.75	0.38	137.50	0.34	167.25	0.32	197.00	0.30	226.92	0.28
18.75	0.65	48.50	0.48	78 37	0.41	108.00	0.38	137.75	0 35	167.50	0.33	197.25	0.30	227.29	0.27
19.00	0.64	48.75	0 48	78.59	0.41	108 25	0.37	138.00	0.35	167.75	0.32	197.50	0.30	227.51	0.27
19.25	0.64	49.00	0.48	78.81	0.41	108.50	0.38	138.25	0.35	168.00	0.32	197.75	0.30	227.73	0.28
19.50	0.63	49.25	0.47	79.16	0.41	108.75	0.37	138.50	0.35	168.25	0.32	198.00	0.30	228.10	0.28
19.75	0.63	49.50	0 47	79.38	0.41	109.00	0.37	138.75	0.34	168.50	0.32	198.25	0.30	228.32	0.27
20.00	0.63	49.75	0.48	79.60	0.41	109.25	0.38	139.00	0.34	168.75	0.32	198.50	0.30	228.54	0.28
20.25	0.62	50.00	0.47	79.97	0.41	109.50	0 37	139.25	0.34	169.00	0.32	198.75	0.30	228.91	0.27
20.50	0.62	50.25	0.47	80.19	0.41	109.75	0 37	139 50	0.34	169.25	0.32	199.00	0.30	229.13	0.27
20.75	0.62	50 50	0.47	80.41	0.41	110.00	0.37	139.75	0.35	169.50	0 32	199.25	0.30	229 35	0 27
21.00	0.62	50.75	0.47	80.78	0.41	110.25	0.37	140.00	0.34	169.75	0.32	199 50	0.29	229.72	0.27
21.25	0.61	51.00	0.47	81.00	0 41	110.50	0.38	140.25	0.34	170.00	0.32	199.75	0.30	229.94	0.27
21.50	0.61	51.25	0.47	81.22	0 41	110.75	0.37	140.50	0.34	170.25	0.32	200.00	0.30	230.16	0 27
21.75	0 61	51.50	0.47	81.59	0.40	111.00	0.37	140.75	0.34	170.50	0.32	200.25	0.30	230 53	0.27
22.00	0.61	51.75	0.47	81.81	0.40	111.25	0.37	141.00	0 34	170.75	0.32	200.50	0.30	230.75	0.27
22.25	0.60	52.00	0 47	82.03	0.41	111.50	0.37	141.25	0.34	171.00	0.32	200 75	0.30	230.97	0.27
22 50	0.60	52.25	0 47	82.40	0.40	111.75	0.37	141.50	0.34	171.25	0.32	201.00	0.30	231.34	0.27
22.75	0.60	52.50	0.47	82 63	0.40	112.00	0.37	141.75	0.34	171.50	0.31	201.25	0.30	231.56	0 27
23.00	0.59	52.75	0.47	82.85	0.41	112.25	0.37	142.00	0.34	171.75	0.32	201.50	0 30	231.78	0.28
23.25	0.59	53.00	0.47	83 09	0.40	112.50	0 37	142.25	0.34	172.00	0.32	201.75	0.29	232.16	0.27
23.50	0.59	53.25	0.47	83.45	0.40	112.75	0.37	142.50	0.34	172.25	0.32	202.00	0.30	232.38	0.27
23.75	0.59	53.50	0.46	83.67	0.40	113.00	0.37	142.75	0.34	172.50	0.32	202.25	0.30	232.60	0.27
24.00	0.59	53 75	0.46	83.89	0.40	113.25	0.37	143 00	0.34	172.75	0.32	202.50	0.29	232.96	0.27
24.25	0.58	54.00	0.46	84.18	0.41	113.50	0.37	143.25	0.34	173.00	0.32	202.75	0.30	233.18	0.27
24.50	0 58	54.25	0.46	84.40	0.41	113.75	0.37	143.50	0.34	173.25	0.32	203.00	0.29	233.40	0.27
24.75	0.58	54.50	0.46	84.62	0.40	114.00	0 37	143.75	0.34	173.50	0.31	203.25	0.30	233.78	0.27
25.00	0.58	54 75	0.46	84.84	0.41	114.25	0.37	144.00	0.34	173.75	0.32	203.50	0.30	234.00	0.27
25.25	0.57	55.00	0.46	85.06	0 40	114.50	0.37	144.25	0.34	174.00	0.32	203 75	0.30	234.22	0.27
25.50	0.57	55.25	0.46	85.28	0.40	114 75	0.37	144.50	0.34	174.25	0.32	204.00	0.29	234 44	0.27
25.75	0.57	55.50	0.46	85.50	0.41	115.00	0.37	144.75	0.34	174.50	0.32	204.25	0.30	234.81	0.27
26.00	0.57	55.75	0.46	85.72	0.40	115.25	0.37	145.00	0.34	174.75	0.31	204.50	0.29	235.03	0.27
26.25	0.57	56.00	0.46	85.94	0.41	115.50	0.37	145 25	0.34	175.00	0.32	204.75	0.29	235.25	0.27
26.50	0.57	56.25	0 46	86.16	0.40	115.75	0.37	145.50	0 34	175.25	0.32	205.00	0.29	235.47	0.27
26.75	0.57	56.50	0.45	86 38	0.41	116.00	0.37	145.75	0.34	175.50	0 31	205.25	0.29	235.84	0.27
27.00	0.57	56.75	0.46	86.60	0.41	116.25	0.36	146.00	0.34	175.75	0.32	205.50	0.30	236.06	0.27
27.25	0.56	57.00	0.46	86.82	0.41	116.50	0.37	146.25	0.34	176.00	0.31	205.75	0.29	236 28	0.27
27.50	0.56	57.25	0.46	87.03	0.40	116.75	0.36	146.50	0.34	176.25	0.31	206.00	0.29	236.51	0.27
27.75	0.56	57.50	0.45	87.25	0.40	117 00	0.36	146.75	0.34	176 50	0.31	206.25	0.30	236.74	0.27
28.00	0.55	57.75	0.46	87.50	0.40	117.25	0.37	147.00	0.34	176.75	0.32	206.50	0.29	236.97	0.27
28.25	0.56	58.00	0.45	87.75	0 40	117.50	0.37	147.25	0.34	177.00	0.31	206.75	0.29	237.19	0.27
28.50	0.56	58.25	0.45	88.00	0.40	117.75	0.36	147.50	0.34	177.25	0.32	207.00	0.29	237.41	0.27
28.75	0.55	58.50	0 46	88.25	0.40	118.00	0.37	147.75	0.34	177.50	0.31	207.25	0.29	237.63	0.27
29.00	0.55	58.75	0.46	88.50	0.40	118.25	0 36	148.00	0.34	177.75	0 31	207.50	0.29	237.85	0.27
29.25	0.55	59.00	0.45	88.75	0.40	118.50	0 36	148.25	0.34	178.00	0 32	207.75	0.29	238.07	0.27
29.50	0.55	59.25	0.46	89.00	0.40	118.75	0.36	148.50	0.34	178.25	0.31	208.00	0.29	238.29	0.27

Appendix E
Slug Test Data
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006

MW-9 Slug Test Data (Continued)																	
Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)
238.51	0.27	267.75	0.26	297.50	0.24	327.25	0.23	357.15	0 21	387.59	0.20	416.50	0.19	446.25	0.18	476.00	0 17
238.73	0.27	268.00	0.26	297.75	0.24	327.50	0.23	357.37	0 21	387.81	0.20	416.75	0.19	446.50	0.18	476 25	0 17
238.95	0.27	268.25	0.26	298.00	0.24	327.75	0.22	357.59	0 21	388.04	0.20	417.00	0.19	446.75	0.18	476.50	0.16
239.16	0.27	268.50	0.26	298.25	0.23	328.00	0.23	357.81	0.21	388.28	0.18	417.25	0.19	447.00	0.18	476.75	0.16
239.38	0.27	268.75	0.26	298.50	0 24	328.25	0.22	358.03	0.21	388 62	0 19	417.50	0.19	447.25	0.17	477.00	0.16
239.75	0 26	269.00	0.26	298.75	0.24	328.50	0.22	358.25	0.21	388.84	0.19	417.75	0.19	447.50	0.18	477.25	0.17
239.97	0.26	269.25	0.26	299.00	0 24	328.75	0.23	358.50	0.21	389.06	0.19	418.00	0.19	447.75	0.18	477 50	0.16
240.20	0.27	269.50	0.26	299.25	0.24	329.00	0.22	358.75	0.21	389.39	0.19	418.25	0.19	448.00	0.18	477.75	0.17
240.56	0.26	269.75	0.26	299.50	0.24	329.25	0.22	359.00	0.21	389.61	0 19	418.50	0.19	448.25	0.17	478 00	0.17
240.78	0.26	270 00	0.25	299.75	0.23	329.50	0 22	359.25	0.21	389.83	0.20	418.75	0.19	448.50	0.18	478.25	0.17
241.01	0.27	270.25	0.26	300.00	0.24	329.75	0.23	359.50	0.21	390.17	0.19	419 00	0.19	448.75	0.18	478.50	0.17
241.38	0.27	270.50	0.25	300.25	0.24	330.00	0.23	359 75	0.21	390.39	0.19	419 25	0.19	449.00	0 17	478.75	0.17
241.60	0.26	270.75	0 25	300.50	0.24	330.25	0.22	360.00	0.21	390.61	0.20	419.50	0.19	449.25	0.17	479.00	0.17
241.82	0.27	271.00	0.25	300.75	0.24	330.50	0.22	360.25	0.21	390.98	0.19	419 75	0.19	449.50	0 18	479.25	0.17
242.19	0.26	271.25	0.25	301.00	0.24	330.75	0.23	360.50	0.21	391.20	0.19	420.00	0.19	449.75	0.18	479.50	0.17
242.41	0.26	271.50	0.25	301.25	0 24	331.00	0.22	360.75	0 21	391.42	0.20	420.25	0.19	450.00	0.17	479.75	0.16
242.63	0.27	271.75	0.25	301.50	0.24	331.25	0.22	361.00	0.21	391.79	0.19	420.50	0.18	450.25	0.18	480.00	0.16
242.95	0.26	272.00	0.25	301.75	0 24	331.50	0.22	361.25	0.21	392.01	0.19	420.75	0.19	450.50	0.18	480.25	0.17
243 17	0.27	272 25	0.25	302.00	0 24	331.75	0.22	361.50	0.21	392.23	0.19	421.00	0.18	450.75	0.18	480.50	0 17
243.40	0.27	272.50	0.25	302.25	0.24	332.00	0.22	361.75	0.21	392.60	0.19	421.25	0.19	451.00	0.18	480.75	0.16
243.62	0.27	272.75	0.25	302.50	0.24	332 25	0.22	362.00	0.21	392.82	0.19	421.50	0.19	451.25	0.18	481.00	0.17
243.84	0.27	273.00	0.25	302.75	0.24	332.50	0.22	362.25	0.21	393.04	0.19	421.75	0.19	451.50	0.17	481.25	0.17
244 06	0.27	273.25	0.26	303.00	0.24	332.75	0.22	362.50	0.21	393.41	0.19	422.00	0.19	451.75	0.17	481.50	0.16
244 28	0.27	273.50	0.26	303.25	0.24	333.00	0 22	362.75	0.21	393.63	0 19	422.25	0.19	452.00	0.17	481.75	0.17
244.49	0.27	273.75	0.26	303.50	0.24	333.25	0.22	363.00	0.21	393.85	0.19	422.50	0.19	452 25	0.17	482.00	0.16
244.71	0.27	274.00	0.25	303.75	0.24	333.50	0.22	363 25	0.21	394.22	0.19	422.75	0.19	452 50	0.18	482.25	0 17
244.93	0.27	274.25	0.25	304.00	0.23	333.75	0.22	363.50	0.21	394.44	0.19	423 00	0.19	452 75	0.17	482 50	0.17
245.15	0.27	274.50	0.25	304.25	0.24	334.00	0.22	363.75	0.21	394.66	0.19	423.25	0.19	453.00	0.18	482.75	0.17
245.37	0.27	274.75	0.25	304.50	0.24	334.25	0.22	364.00	0.21	395.03	0.19	423.50	0.19	453.25	0.17	483.00	0.17
245.59	0.27	275.00	0.25	304.75	0.24	334.50	0.22	364 25	0.20	395.25	0.19	423 75	0 19	453.50	0.18	483.25	0.16
245.81	0.27	275.25	0.25	305.00	0.24	334.75	0 22	364.50	0 20	395.48	0.19	424.00	0.19	453.75	0.17	483 50	0.17
246.03	0.27	275.50	0.25	305.25	0.24	335.00	0.22	364.75	0.21	395.84	0 19	424.25	0.19	454.00	0.17	483.75	0.16
246.25	0.26	275.75	0.25	305.50	0.24	335.25	0.22	365 00	0.21	396.06	0.19	424 50	0 19	454.25	0 17	484.00	0.17
246.47	0.26	276.00	0.25	305.75	0.24	335.50	0.22	365.25	0.21	396 28	0.19	424.75	0.19	454.50	0.17	484.25	0.17
246 68	0.26	276.25	0.25	306 00	0.24	335.75	0.22	365.50	0.21	396.65	0.19	425.00	0.18	454.75	0.17	484.50	0.16
246.90	0.27	276.50	0.25	306 25	0.23	336.00	0.22	365.75	0.20	396.87	0.19	425.25	0.19	455.00	0.18	484.75	0.17
247.12	0.27	276.75	0.25	306.50	0.23	336 25	0.22	366.13	0.20	397.09	0.20	425.50	0.19	455.25	0.18	485.00	0.16
247.34	0.27	277.00	0.25	306.75	0.24	336 50	0.22	366.35	0.20	397.32	0 20	425.75	0.19	455.50	0.18	485.25	0.16
247.56	0.27	277.25	0 25	307.00	0.24	336 75	0.22	366.57	0.20	397.69	0 19	426.00	0.18	455.75	0.17	485.50	0.16
247 78	0.27	277.50	0.25	307.25	0.23	337.00	0.22	366.94	0.20	397.91	0.19	426.25	0.18	456.00	0.17	485 75	0.16
248.00	0.27	277.75	0.25	307.50	0.23	337.25	0.22	367.16	0.20	398.13	0.19	426.50	0.18	456.25	0.17	486.00	0 17
248.25	0.27	278.00	0.25	307.75	0.23	337.50	0.22	367 38	0.20	398.35	0.19	426.75	0.18	456.50	0.17	486.25	0.16
248.50	0.27	278.25	0.25	308.00	0.23	337 75	0.22	367.72	0.20	398.72	0.19	427.00	0.19	456.75	0.17	486.50	0.17
248.75	0.27	278.50	0.25	308.25	0.23	338.00	0.22	367 94	0.20	398.94	0.19	427 25	0.18	457.00	0.17	486.75	0.17
249.00	0.27	278.75	0.25	308.50	0.23	338.25	0.22	368.16	0.20	399.16	0.19	427 50	0.19	457.25	0.17	487.00	0.16
249.25	0.27	279.00	0.25	308.75	0.23	338.50	0.22	368.38	0 19	399.38	0.19	427 75	0.19	457 50	0.17	487.25	0.17
249.50	0.27	279.25	0.25	309.00	0.24	338.75	0.22	368.63	0.20	399.70	0.19	428.00	0.18	457 75	0 17	487.50	0.16
249.75	0.27	279.50	0.25	309.25	0.23	339.00	0.22	368.85	0.21	399.92	0 19	428.25	0.19	458.00	0.17	487.75	0.16
250.00	0.27	279.75	0.25	309.50	0.23	339.25	0.22	369.08	0.21	400.14	0.19	428.50	0.18	458.25	0.17	488.00	0.16
250.25	0.27	280.00	0.25	309.75	0.23	339 50	0.22	369.29	0.20	400.38	0.19	428.75	0.18	458.50	0.17	488.25	0.16
250.50	0.27	280.25	0.25	310.00	0.23	339.75	0.22	369.51	0.21	400.60	0.19	429.00	0.18	458.75	0.17	488.50	0.16
250.75	0.27	280 50	0.25	310.25	0 23	340.00	0.22	369.75	0.20	400.82	0.19	429.25	0.19	459.00	0.17	488.75	0.16
251.00	0.27	280 75	0.25	310.50	0.23	340.25	0.22	370.00	0.21	401.04	0.19	429.50	0.18	459.25	0.17	489.00	0.16
251.25	0.27	281.00	0.25	310.75	0.23	340.50	0 22	370.25	0.21	401.26	0.20	429.75	0.18	459.50	0.18	489.25	0.16
251 50	0.26	281.25	0.25	311.00	0.23	340.75	0.22	370 50	0.21	401.48	0.20	430.00	0.18	459.75	0 17	489 50	0.16
251.75	0.26	281.50	0 25	311.25	0.23	341.00	0.22	370 75	0.21	401.70	0.19	430.25	0.18	460.00	0 17	489.75	0.16
252.00	0.27	281.75	0.25	311.50	0.23	341.25	0.22	371.00	0.21	401.92	0.20	430.50	0.18	460.25	0.17	490.00	0.16
252.25	0.27	282.00	0.25	311.75	0.23	341.50	0.22	371.25	0 21	402.14	0.19	430 75	0 18	460 50	0.17	490.25	0.17
252.50	0.26	282.25	0.25	312.00	0 23	341.75	0.22	371.66	0.20	402.35	0.19	431.00	0.18	460.75	0 17	490.50	0.16
252.75	0.26	282.50	0.25	312.25	0.23	342.00	0.22	371.88	0.20	402 57	0.20	431.25	0.18	461.00	0.17	490.75	0.16
253.00	0.27	282 75	0.24	312.50	0.23	342.25	0.22	372.10	0 20	402.79	0.20	431.50	0.18	461.25	0 17	491.00	0.16
253.25	0.27	283.00	0.25	312.75	0.23	342.50	0.21	372.32	0.20	403.01	0.19	431.75	0.18	461.50	0.17	491.25	0 16
253 50	0.27	283.25	0 25	313.00	0.23	342 75	0.22	372.69	0.20	403.23	0.19	432.00	0.18	461.75	0.17	491.50	0.16
253.75	0.26	283.50	0.25	313.25	0.23	343.00	0.22	372.91	0.20	403.45	0.19	432.25	0.18	462.00	0.17	491.75	0.16
254.00	0 26	283.75	0.25	313.50	0.23	343.25	0.22	373.14	0.20	403.67	0.19	432.50	0.18	462.25	0.17	492.00	0.16
254.25	0.26	284.00	0 25	313.75	0.23	343 50	0.21	373.49	0.20	403.89	0.19	432.75	0.18	462.50	0.17	492 25	0.16
254.50	0.26	284.25	0.25	314.00	0.23	343.75	0.22	373.71	0.19	404.11	0.19	433 00	0.18	462.75	0.17	492.50	0.16
254.75	0.27	284.50	0.25	314.25	0.23	344.00	0.22	373 93	0.20	404.32	0.19	433.25	0.19	463.00	0.17	492.75	0.16
255.00	0.26	284.75	0.25	314.50	0.23	344.25	0.22	374 26	0.20	404.54	0.19	433.50	0.18	463.25	0 17	493 00	0.16
255.25	0.26	285.00	0.25	314.75	0.23	344.50	0.21	374.48	0 20	404.76	0.19	433.75	0.18	463.50	0.17	493.25	0.16
255.50	0.26	285.25	0.25	315.00	0.23	344.75	0.22	374.70	0.19	404.98	0.19	434.00	0 18	463.75	0.17	493.50	0.16
255.75	0.26	285 50	0.24	315.25	0 23	345.00	0.21	375.07	0.20	405 20	0.19	434.25	0.18	464.00	0.17	493.75	0.16
256.00	0.26	285.75	0.25	315.50	0.23	345.25	0.22	375.29	0.20	405.42	0.19	434.50	0.18	464.25	0.17	494.00	0.16
256.25	0.26	286.00	0.25	315.75	0.23	345 50	0.22	375.51	0.20	405.64	0.19	434.75	0.18	464.50	0.17	494.25	0.16
256.50	0.26	286.25	0.24	316.00	0.23	345.75	0.22	375.88	0.20	405.86	0.19	435.00	0.18	464.75	0.17	494.50	0.16
256.75	0.26	286.50	0 24	316.25	0.23	346.00	0.22	376.10	0.20	406.08	0 19	435.25	0.18	465.00	0.17	494.75	0.16
257.00	0 26	286.75	0.25	316.50	0.23	346.25	0 22	376.32	0.20	406.29	0.19	435.50	0.18	465.25	0.17	495.00	0.16
257.25	0.26	287.00	0.25	316.75	0.23	346.50	0.22	376.69	0.20	406.51	0.19	435.75	0.18	465.50	0.17	495 25	0 16
257.50	0.26	287.25	0.25	317.00	0.23	346.75	0.22	376 91	0.20	406.73	0.19	436.00	0.18	465.75	0.17	495.50	0.16
257.75	0.26	287.50	0.25	317.25	0.23	347.00	0.22	377 13	0.20	406.95	0.19	436.25	0.18	466.00	0.17	495.75	0.16
258.00	0.26	287.75	0.25	317.50	0.23	347.25	0.21	377.50	0.20	407.17	0.19	436 50	0 18	466.25	0.17	496 00	0.16
258.25	0.26	288.00	0.24	317.75	0.23	347.50	0.22	377 72	0.20	407 39	0.19	436.75	0 19	466 50	0.17	496.25	0.16
258.50	0.26	288.25	0.25	318.00	0.23	347.75	0.22	377.94	0 20	407.61	0.19	437.00	0.18	466.75	0.17	496.50	0.16
258.75	0.26	288.50	0.25	318.25	0.23	348 00	0.22	378.31	0 20	407.83	0.19	437.25	0.18	467.00	0 17	496.75	0.16
259.00	0.26	288.75	0.24	318.50	0.23	348.25	0.22	378.53	0 20	408.04	0.19	437.50	0.18	467.25	0 17	497.00	0.16
259.25	0.26	289.00	0.24	318.75	0.23	348.50	0.21	378.75	0.20	408 26	0.19	437.75	0.18	467.50	0.17	497.25	0.16
259.50	0.26	289.25	0 25	319.00	0.23	348.75	0 22	379.12	0.19	408.48	0.19	438.00	0.18	467.75	0.17	497.50	0.16
259.75	0.26	289.50	0 24	319.25	0.23	349 00	0.21	379.34	0.19	408.70	0.19	438.25	0.18	468.00	0.17	497.75	0.17
260.00	0.26	289.75	0.25	319.50	0.23	349.25	0.21	379.56	0.20	408.92	0.19	438.50	0.18	468.25	0.17	498.00	0.16
260.25	0.26	290.00	0.24	319.75	0.23	349.50	0.21	379.93	0.20	409.14	0.19	438.75	0.18	468.50	0.17	498.25	0 16
260.50	0.26	290.25	0.24	320.00	0.23	349.75	0 21	380.15	0.20	409.36	0.19	439.00	0.18	468.75	0.17	498.50	0.16
260.75	0.26	290.50	0.24	320.25	0.22	350.00	0.22	380.37	0.20	409.58	0.19	439.25	0.18	469.00	0.17	498.75	0.16
261.00	0.26	290.75	0.24	320.50	0.23	350.25	0.21	380.59	0 20	409.80	0.19	439.50	0.18	469.25	0.17	499.00	0.16
261.25	0.26	291 00	0.24	320.75	0.23	350 50	0.21	380.96	0 19	410.01	0.19	439.75	0.18	469.50	0.17	499.25	0.16
261.50	0.26	291.25	0.24	321.00	0.22	350.75	0.22	381.18	0.19	410.25	0.19	440.00	0.18	469.75	0.17	499.50	0.16
261.75	0.26	291.50	0.24	321.25	0.23	351.00	0.21	381.40	0.20	410.50	0.19	440.25	0.18	470.00	0 17	499.75	0.16
262.00	0.26	291.75	0.24	321.50	0.23	351.25	0.21	381.62	0.20	410 75	0.19	440.50	0.18	470.25	0.17	500.00	0.16
262.25	0.26	292.00	0.24	321.75	0.23	351.50	0.22	381 99	0.19	411.00	0.19	440.75	0.18	470.50	0.17	500.25	0.16
262.50	0.25	292.25	0.24	322.00	0.23	351.75	0.21	382.21	0.20	411.25	0.19	441.00	0.18	470.75	0.17	500.50	0.16
262.75	0.26	292.50	0.24	322.25	0.23	352.00	0 21	382.43	0.20	411.50	0.19	441.25	0 18	471.00	0.17	500 75	0.16
263.00	0.26	292.75	0.24	322.50	0 23	352.25	0.21	382.65	0.20	411.75	0.19	441 50	0.18	471 25	0.17	501 00	0.16
263.25	0.26	293.00	0.24	322 75	0.23	352.50	0.21	383.02	0.19	412.00	0.19	441.75	0.18	471 50	0.17	501.25	0.16
263.50	0.26	293 25	0.25	323.00	0.23	352 75	0.22	383.24	0.20	412.25	0.19	442.00	0.18	471.75	0.17	501.50	0.16
263.75	0.26	293.50	0.24	323.25	0.23	353.00	0.21	383.46	0.20	412.50	0.19	442.25	0.18	472.00	0.17	501.75	0.16
264.00	0.26	293.75	0 24	323.50	0.23	353.25	0.21	383.68	0.20	412.75	0.19	442.50	0.18	472.25	0.17	502 00	0 16
264.25	0 26	294.00	0.24	323.75	0.23	353.50	0 21	384.05	0.19	413.00	0.19	442.75	0.18	472.50	0.17	502.25	0.16
264.50	0.26	294.25	0.24	324.00	0.23	353.75	0.21	384.27	0.19	413.25	0.19	443.00	0 18	472.75	0.17	502.51	0.16
264.75	0.26	294 50	0.24	324.25	0.23	354.00	0.22	384.49	0.20	413.50	0.19	443.25	0.18	473.00	0.17	502.75	0.16
265.00	0.26	294.75	0.24	324 50	0.23	354.25	0.21	384.72	0.20	413.75	0.19	443.50	0.17	473.25	0.16	503.00	0.16
265.25	0.25	295.00	0.24	324.75	0.23	354 50	0.21	385.08	0.19	414.00	0.19	443.75	0.18	473.50	0.17	503.25	0.16
265.50	0.26	295.25	0.24	325.00	0.21	354.75	0.21	385.30	0.19	414.25	0 19	444.00	0.18	473.75	0.17	503.50	0.16
265.75	0.26	295.50	0.24	325.25	0.23	355.00	0.21	385.52	0.20	414.50	0.19	444.25	0.18	474.00	0.17	503.75	0.16
266.00	0.25	295.75	0.24	325.50	0.23	355.25	0.21	385.75	0.20	414 75	0.19	444.50	0.18	474.25	0.17	504 00	0.16
266.25	0.26	296.00	0.24	325.75	0.23	355.50	0.21	386.12	0.19	415 00	0.19	444.75	0.17	474.50	0.17	504.25	0.16
266.50	0.26	296.25	0.24	326.00	0.23	355.95	0.20	386.34	0.19	415.25	0.19	445.00	0.18	474 75	0.17	504.50	0.16
266.75	0.26	296.50	0.24	326.25	0.22	356.17	0.20	386.56	0.19	415.50	0.19	445.25	0.18	475.00	0.17	504.75	0.16
267.00	0.26	296.75	0.24	326.50	0.23	356.39	0.21	386.78	0 20	415.75	0.19	445.50	0.18	475.25	0.17	505.00	0.15
267.25	0.25	297.00	0.24	326.75	0.22	356.71	0.21	387.15	0.19	416.00	0.19	445.75	0.18	475.50	0.17	505.25	0 16
267.50	0.25	297.25	0.24	327.00	0.22	356.94	0.21	387.37	0.19	416.25	0.19	446 00	0.18	475.75	0.17	505.50	0.16

Appendix E
Slug Test Data
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006

MW-9 Slug Test Data (Continued)

Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)
505.75	0 16	535.50	0.15	565 71	0.14	597.01	0.13	624 75	0.13	654.50	0.12	684.25	0 11
506.00	0.16	535.75	0.15	565 93	0.13	597.38	0.12	625.00	0.13	654.75	0.12	684.50	0.11
506.25	0.16	536.00	0.15	566.30	0.14	597.60	0 13	625.25	0.13	655.00	0 12	684.75	0.12
506.50	0.16	536.25	0.15	566.52	0.13	597.82	0 13	625.50	0.13	655 25	0.12	685.00	0.12
506.75	0.16	536.50	0.15	566.74	0.13	598.19	0.12	625.75	0.13	655.50	0.12	685.25	0.11
507.00	0.16	536 75	0.15	567.11	0 14	598.41	0.12	626.00	0.13	655.75	0.12	685.50	0.11
507.25	0.16	537.00	0.15	567.33	0.13	598.63	0.13	626.25	0.13	656.00	0 12	685.75	0.11
507.50	0.16	537.25	0.15	567.56	0 14	599.00	0.12	626.50	0.12	656.25	0.12	686.00	0.12
507.75	0 16	537.50	0.15	567.89	0.13	599.22	0.12	626.75	0.13	656.50	0.12	686.25	0.12
508.00	0.16	537.75	0.15	568.11	0.13	599.44	0.13	627.00	0 13	656.75	0.12	686.50	0.11
508.25	0.16	538.00	0.13	568 33	0.12	599.80	0.12	627 25	0.12	657.00	0.12	686.75	0.12
508.50	0.16	538.48	0.14	568.68	0.13	600 02	0.13	627 50	0.13	657.25	0.11	687.00	0.11
508.75	0.16	538.70	0.14	568.90	0.13	600.24	0 13	627.75	0 12	657.50	0.12	687.25	0.12
509.00	0.16	538.92	0.14	569.12	0.13	600.61	0.12	628.00	0.13	657.75	0.12	687.50	0.12
509.25	0.16	539 23	0.15	569.45	0.13	600.83	0.12	628.25	0.13	658.00	0.12	687.75	0 11
509.50	0.15	539.45	0 15	569.67	0 13	601.05	0.13	628.50	0.13	658.25	0.12	688.00	0.11
509 75	0.16	539.67	0.14	569.89	0 14	601.27	0 13	628.75	0.12	658.50	0 12	688.25	0.11
510.00	0 15	539.89	0.15	570.26	0.13	601.49	0.13	629.00	0.12	658.75	0.12	688.50	0.12
510.25	0.16	540.11	0.14	570.49	0 13	601.71	0.13	629.25	0.12	659.00	0.12	688.75	0.11
510.50	0.16	540.33	0.15	570.71	0.14	601.96	0.13	629.50	0.13	659.25	0.12	689.00	0.11
510.75	0.16	540.55	0.15	571.05	0.13	602.18	0.13	629.75	0.12	659.50	0.12	689 25	0.11
511.00	0.16	540.77	0.15	571.27	0.13	602.40	0.13	630.00	0 13	659.75	0.12	689.50	0.11
511.25	0.16	541.00	0.15	571.49	0.14	602.62	0 13	630.25	0 13	660.00	0.12	689.75	0.11
511.50	0.16	541.25	0.14	571.86	0.13	602.83	0.13	630.50	0 13	660.25	0.12	690.00	0.11
511.75	0.16	541.50	0.15	572.08	0.13	603.05	0.13	630.75	0.13	660.50	0.12	690.25	0.12
512.00	0.16	541.75	0.15	572.30	0.14	603.27	0.13	631.00	0.13	660.75	0.12	690 50	0.12
512.25	0.16	542 00	0.14	572.67	0.13	603.49	0 13	631.25	0.13	661.00	0.12	690.75	0.11
512.50	0.16	542.25	0 15	572.89	0.13	603.71	0.13	631.50	0.12	661.25	0.12	691.00	0 11
512 75	0.16	542.50	0.15	573.11	0 14	603.93	0.13	631.75	0.13	661.50	0.12	691.25	0 11
513.00	0.16	542.75	0.15	573.48	0.13	604.15	0.13	632.00	0.13	661 75	0.12	691.50	0.11
513.25	0.16	543.00	0.15	573.70	0.13	604.37	0.13	632.25	0.12	662.00	0.12	691.75	0.11
513.50	0.16	543.25	0.15	573 92	0.13	604.59	0.13	632.50	0 12	662.25	0.12	692.00	0.12
513.75	0.15	543.50	0.15	574.29	0.14	604.81	0.13	632.75	0.13	662.50	0.12	692.25	0.12
514.00	0.16	543.75	0.15	574.51	0.13	605.03	0.13	633.00	0.13	662.75	0.12	692.50	0.11
514.25	0.16	544.00	0.14	574 73	0.13	605 25	0.13	633.25	0.13	663.00	0.12	692.75	0.11
514.50	0.15	544.25	0.14	575.10	0.13	605.47	0 13	633.50	0.13	663.25	0.12	693.00	0.11
514.75	0.15	544.50	0.15	575.32	0.13	605.69	0 13	633.75	0.12	663.50	0.12	693.25	0 11
515.00	0.15	544.75	0.14	575.54	0 13	605.91	0 13	634.00	0.12	663.75	0.12	693.50	0.11
515.25	0 15	545.00	0.14	575.91	0 13	606.12	0.13	634 25	0.12	664.00	0.12	693.75	0.11
515.50	0.15	545.25	0.14	576.13	0 13	606.34	0 13	634.50	0.13	664.25	0.12	694.00	0 11
515.75	0.15	545.50	0.14	576.35	0.13	606.56	0.13	634.75	0.12	664 50	0 12	694.25	0.12
516.00	0.15	545.75	0.14	576.72	0.13	606.78	0.13	635.00	0.13	664.75	0 12	694.50	0.12
516 25	0.15	546 00	0.15	576.94	0.14	607.00	0.13	635.25	0 13	665.00	0.11	694.75	0.11
516.50	0.16	546.25	0.15	577.16	0.13	607.22	0.13	635.50	0.13	665.25	0.12		
516.75	0.15	546.50	0.15	577.41	0.14	607.44	0.13	635.75	0 12	665.50	0.12		
517.00	0.16	546.75	0.14	577.63	0.13	607.66	0.13	636.00	0 13	665.75	0.12		
517.25	0.16	547.00	0.14	577 85	0.14	607.88	0.13	636.25	0.13	666.00	0.12		
517.50	0.15	547.25	0.15	578 07	0.14	608.10	0.13	636 50	0.12	666.25	0.12		
517.75	0.16	547.50	0 15	578.29	0.14	608.31	0 13	636.75	0.12	666.50	0.12		
518.00	0.15	547 75	0.15	578.51	0.14	608.53	0 13	637.00	0.13	666.75	0.12		
518.25	0.16	548.00	0.14	578.73	0.14	608.75	0.13	637.25	0.12	667.00	0 12		
518.50	0.16	548 25	0.14	578.95	0 14	608.97	0.13	637.50	0.12	667.25	0 12		
518.75	0.15	548.50	0.15	579.17	0.14	609.19	0.13	637.75	0.12	667.50	0.12		
519.00	0.15	548.75	0.15	579.39	0.14	609.41	0.13	638.00	0 12	667.75	0.12		
519.25	0.15	549.00	0.15	579.61	0.14	609.63	0.13	638.25	0 12	668.00	0.12		
519.50	0 15	549.25	0.15	579.83	0.13	609.85	0 12	638.50	0.12	668.25	0.12		
519.75	0.15	549.50	0.15	580.20	0.13	610.07	0.13	638.75	0 12	668.50	0.12		
520.00	0.16	549.75	0.15	580.42	0.13	610 29	0.13	639.00	0.13	668.75	0.12		
520.25	0 16	550 00	0.15	580.63	0.13	610.51	0.13	639.25	0.12	669.00	0.12		
520.50	0.16	550.25	0.15	581.01	0.13	610.72	0.13	639.50	0.12	669.25	0.12		
520.75	0.16	550.50	0.15	581.23	0.13	610.94	0.13	639.75	0.12	669 50	0 12		
521.00	0.15	550.75	0.14	581.45	0.13	611.16	0.13	640.00	0.12	669.75	0 12		
521.25	0.15	551.00	0.14	581.82	0.13	611.38	0.13	640.25	0.13	670.00	0.11		
521.50	0.15	551.35	0.14	582 04	0.13	611.60	0.13	640.50	0.12	670.25	0.12		
521.75	0.15	551.57	0.14	582.26	0.13	611 82	0.13	640 75	0.12	670.50	0.12		
522.00	0 15	551 79	0.15	582.63	0.13	612.04	0 13	641.00	0.13	670.75	0.12		
522.25	0 16	552 16	0.14	582.85	0.13	612.26	0 13	641.25	0 12	671.00	0.12		
522.50	0.15	552.38	0.14	583.07	0.13	612.47	0.13	641.50	0.12	671.25	0.11		
522 75	0.15	552.60	0.14	583.44	0 13	612.69	0.13	641.75	0.12	671.50	0.12		
523 00	0.15	552.85	0.15	583.66	0.13	612.91	0.13	642.00	0.12	671.75	0.12		
523.25	0.15	553.18	0.14	583.88	0.13	613.13	0.13	642.25	0.12	672.00	0 12		
523.50	0.15	553.40	0.14	584 25	0.13	613.35	0.13	642.50	0.12	672.25	0.12		
523.75	0.15	553.62	0.14	584.47	0.13	613.57	0.13	642.75	0.12	672.50	0.12		
524.00	0.15	553.85	0.13	584.70	0.13	613 79	0.13	643.00	0.12	672.75	0.12		
524.25	0.15	554.09	0.14	585.07	0 13	614.01	0.13	643.25	0.12	673.00	0.12		
524.50	0.16	554.32	0 15	585.29	0.13	614.23	0.13	643.50	0 12	673.25	0.12		
524.75	0.15	554.54	0.14	585.51	0 13	614 45	0.13	643 75	0.12	673.50	0.12		
525 00	0.15	554.76	0.14	585.88	0.13	614.68	0.13	644.00	0.12	673.75	0.12		
525 25	0.15	555.00	0.14	586.10	0.13	614.90	0 13	644.25	0.12	674.00	0.12		
525.50	0.16	555.25	0.15	586.32	0.13	615.12	0.13	644.50	0.12	674 25	0.12		
525.75	0.15	555.50	0.14	586.69	0.13	615.33	0.13	644.75	0.13	674.50	0.12		
526.00	0.15	555.75	0.14	586 91	0.13	615.55	0.12	645.00	0.12	674.75	0.12		
526.25	0.15	556.00	0.14	587 13	0.13	615.77	0.13	645.25	0 12	675.00	0.12		
526.50	0.15	556.25	0.14	587.49	0.13	615 99	0.13	645.50	0.12	675.25	0.12		
526.75	0.15	556.50	0.15	587.71	0.13	616.21	0.13	645 75	0.13	675.50	0.12		
527.00	0 15	556.75	0 14	587.93	0.13	616 43	0 13	646.00	0 12	675.75	0.12		
527.25	0.15	557.00	0.14	588.31	0.13	616 65	0.12	646.25	0.12	676.00	0.11		
527.50	0.15	557.25	0.14	588.53	0.13	616.87	0.13	646.50	0.12	676.25	0.12		
527.77	0.15	557.50	0.14	588.75	0.13	617.09	0.13	646.75	0.12	676.50	0.11		
528.00	0.15	557.75	0.15	589.12	0.13	617.31	0.13	647.00	0.12	676.75	0.12		
528.25	0.15	558.00	0.14	589 34	0.13	617.53	0.13	647.25	0.12	677.00	0.12		
528.50	0.15	558.25	0.14	589.56	0.14	617 75	0.13	647.50	0.12	677.25	0.12		
528.75	0 15	558.50	0.14	589.81	0.12	618.00	0.13	647 75	0.12	677.50	0.12		
529.00	0.15	558.75	0.14	590.14	0.12	618 25	0.13	648.00	0.12	677.75	0.12		
529.25	0.15	559.00	0.14	590.36	0.13	618.50	0.13	648.25	0.12	678.00	0.12		
529 50	0.15	559.25	0.14	590.58	0.13	618.75	0.13	648.50	0.12	678.25	0.12		
529.75	0.15	559.50	0.14	590.91	0.13	619.00	0.13	648.75	0.12	678.50	0 12		
530.00	0.15	559.75	0.14	591.13	0.13	619.25	0.13	649.00	0 12	678.75	0 11		
530.25	0.15	560.00	0.14	591.35	0.13	619.50	0.13	649.25	0.12	679.00	0.12		
530.50	0.15	560.38	0.13	591.69	0.13	619 75	0.13	649.50	0.12	679.25	0.12		
530.75	0.15	560.60	0.13	591.91	0.13	620.00	0.12	649 75	0.12	679.50	0.12		
531.00	0.15	560.82	0.15	592.13	0.13	620.25	0.13	650.00	0.12	679.75	0.11		
531.25	0.15	561.19	0.13	592.50	0.13	620.50	0.13	650.25	0.12	680.00	0 12		
531.50	0.15	561 41	0.14	592.73	0.13	620.75	0.12	650.50	0.12	680.25	0 12		
531.75	0.15	561.63	0.14	592.95	0.13	621.00	0.13	650.75	0.12	680.50	0.11		
532.00	0.15	562.00	0.13	593.32	0.13	621.25	0.13	651.00	0.12	680.75	0.12		
532.25	0.15	562.22	0.13	593.54	0.13	621.50	0.13	651.25	0.12	681.00	0.12		
532.50	0.15	562.44	0.14	593.76	0.13	621 75	0.13	651.50	0 12	681.25	0.12		
532.75	0.15	562.81	0.14	594.13	0.13	622.00	0.13	651.75	0.12	681.50	0.12		
533.00	0.15	563 03	0.13	594.35	0.13	622.25	0.13	652.00	0.12	681.75	0 12		
533 25	0.15	563.26	0.13	594.57	0.13	622.50	0.13	652.25	0.12	682 00	0.12		
533.50	0.15	563.63	0.14	594.94	0.13	622.75	0.13	652.50	0.12	682.25	0.11		
533.75	0 15	563.85	0.13	595.16	0.12	623 00	0.13	652.75	0.12	682.50	0.11		
534.00	0.15	564.07	0.13	595.38	0.13	623.25	0.13	653.02	0.12	682.75	0.12		
534.25	0.15	564.44	0.14	595.75	0.13	623 50	0.13	653.25	0.12	683.00	0.11		
534.50	0 15	564.66	0.13	595.97	0.13	623.75	0 12	653.50	0.12	683.25	0.11		
534.75	0.15	564.88	0.14	596.19	0.13	624.00	0.13	653.75	0.12	683 50	0.11		
535 00	0.15	565.13	0.13	596.56	0.12	624.25	0.13	654.00	0.12	683.75	0.11		
535 25	0.14	565.49	0.14	596.78	0.13	624.50	0.13	654.25	0 12	684.00	0.12		

Appendix E
Slug Test Data
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006

MW-10 Slug Test Data															
Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)
0.00	1.90	29.75	0.41	59.50	0.22	89.25	0.16	119.00	0.13	148.75	0.09	178 50	0.09	208.25	0 08
0.25	1.87	30.00	0.41	59.75	0.22	89.50	0.16	119 25	0.13	149.00	0.09	178.75	0.09	208.50	0.08
0.50	1.79	30.25	0.40	60.00	0.21	89.75	0.16	119.50	0 13	149.25	0.09	179.00	0.09	208.75	0.08
0 75	1.74	30.50	0.40	60 25	0.22	90.00	0.16	119.75	0.12	149 50	0.09	179.25	0.09	209.00	0.08
1.00	1.70	30.75	0.40	60.50	0.22	90.25	0.16	120.00	0 13	149.75	0.09	179.50	0.09	209.25	0.08
1.25	1.72	31.00	0.40	60.75	0.22	90.50	0.16	120.25	0.12	150.00	0 10	179.75	0.09	209.50	0.08
1.50	1.65	31 25	0.39	61.00	0.21	90.75	0.16	120.50	0 12	150.25	0.10	180.00	0.09	209.75	0.08
1 75	1.61	31.50	0 39	61.25	0.21	91.00	0.16	120 75	0.13	150.50	0.10	180 25	0.09	210.00	0.08
2.00	1.58	31.75	0 39	61.50	0.21	91.25	0 16	121.00	0.12	150.75	0.10	180.50	0.09	210.25	0.08
2.25	1.55	32.00	0.38	61.75	0.21	91.50	0.16	121.25	0.13	151.00	0.10	180.75	0.09	210.50	0.08
2.50	1.52	32.25	0.38	62.00	0.21	91.75	0.16	121.50	0.12	151.25	0.10	181.00	0.09	210.75	0.08
2.75	1.50	32.50	0 38	62.25	0.21	92.00	0.16	121.75	0 12	151.50	0.10	181.25	0.09	211.00	0.08
3.00	1.47	32.75	0.38	62 50	0.21	92.25	0.16	122.00	0.12	151.75	0.10	181.50	0.09	211.25	0.08
3.25	1.45	33.00	0.37	62.75	0.20	92.50	0.16	122.25	0.13	152.00	0.10	181.75	0.09	211.50	0.08
3.50	1.43	33.25	0.37	63.00	0.20	92.75	0.16	122.50	0.12	152.25	0.10	182.00	0 09	211.75	0.08
3.75	1.40	33 50	0.36	63.25	0.20	93.00	0 16	122.75	0.12	152 50	0.10	182.25	0.09	212.00	0.08
4.00	1.38	33.75	0.36	63.50	0.20	93.25	0.15	123.00	0.12	152.75	0.10	182 50	0.09	212.25	0.08
4.25	1 36	34.00	0.36	63.75	0.20	93.50	0.16	123.25	0.12	153.00	0 10	182.75	0.09	212.50	0.08
4.50	1.33	34.25	0.36	64.00	0.20	93.75	0.15	123.50	0.12	153.25	0.10	183.00	0.09	212.75	0.08
4.75	1.32	34.50	0.36	64.25	0.21	94 00	0.15	123.75	0.12	153.50	0.10	183.25	0.09	213.00	0.08
5.00	1.30	34.75	0.35	64.50	0.20	94.25	0.15	124.00	0.12	153.75	0.10	183.50	0.09	213.25	0.08
5.25	1.27	35.00	0.36	64.75	0.20	94.50	0.15	124.25	0.12	154.00	0.10	183.75	0.09	213.50	0.08
5.50	1.25	35.25	0.35	65.00	0.21	94 75	0.15	124.50	0.12	154.25	0.10	184.00	0.09	213.75	0.08
5.75	1.24	35.50	0.35	65.25	0.20	95.00	0.15	124.75	0.12	154.50	0.10	184.25	0.09	214.00	0.08
6.00	1.22	35.75	0.35	65.50	0.20	95.25	0.15	125.00	0.12	154.75	0.10	184.50	0 09	214.25	0.08
6.25	1.20	36.00	0.35	65.75	0.20	95.50	0.15	125.25	0 12	155.00	0.10	184.75	0.09	214 50	0.08
6.50	1 18	36.25	0.34	66.00	0.20	95.75	0.15	125.50	0.12	155.25	0.10	185.00	0.09	214.75	0.08
6.75	1 16	36.50	0.34	66.25	0.20	96.00	0.15	125.75	0.12	155.50	0.10	185.25	0.09	215.00	0.08
7.00	1.15	36.75	0.34	66.50	0 20	96.25	0 15	126.00	0.12	155.75	0.10	185.50	0.09	215 25	0.08
7.25	1.13	37.00	0.33	66.75	0.19	96.50	0.15	126.25	0 12	156.00	0.10	185.75	0.09	215.50	0.08
7.50	1.11	37.25	0.33	67 00	0.20	96 75	0.15	126.50	0.12	156.25	0 10	186.00	0.09	215.75	0.08
7.75	1.10	37.50	0.33	67.25	0.20	97 00	0.15	126.75	0.12	156.50	0 10	186.25	0.09	216.00	0.07
8.00	1.08	37.75	0.33	67 50	0.18	97.25	0.15	127.00	0.12	156.75	0.10	186.50	0.09	216.25	0.08
8.25	1.07	38.00	0.33	67.75	0.20	97.50	0.15	127.25	0.12	157.00	0.10	186.75	0.09	216.50	0.08
8.50	1.05	38.25	0.32	68.00	0.20	97.75	0.15	127.50	0.12	157.25	0.10	187.00	0.09	216.75	0 07
8.75	1.03	38.50	0.32	68.25	0.20	98.00	0.15	127.75	0 12	157 50	0.10	187.25	0.09	217.00	0 07
9.00	1.02	38.75	0.32	68 50	0.20	98.25	0.15	128.00	0.12	157.75	0.10	187.50	0.09	217.25	0.08
9 25	1.01	39.00	0.32	68.75	0 19	98.50	0.15	128.25	0.12	158.00	0.10	187.75	0 09	217.50	0.08
9.50	0.99	39.25	0.32	69.00	0 20	98.75	0 14	128.50	0.12	158 25	0.10	188.00	0.09	217.75	0 08
9 75	0.98	39 50	0.32	69.25	0 19	99.00	0.15	128.75	0.12	158.50	0.10	188.25	0 09	218.00	0.08
10.00	0.97	39.75	0 31	69.50	0.20	99.25	0.15	129.00	0.12	158.75	0.10	188.50	0.09	218.25	0.07
10 25	0.95	40.00	0.31	69.75	0 19	99.50	0.15	129 25	0.12	159.00	0.10	188.75	0.08	218.50	0.08
10.50	0.94	40.25	0.31	70.00	0 19	99 75	0.15	129.50	0.12	159.25	0.10	189.00	0.09	218.75	0.07
10.75	0.93	40.50	0.31	70.25	0.19	100.00	0.15	129.75	0.12	159.50	0.10	189.25	0.08	219.00	0.08
11.00	0.92	40.75	0.30	70 50	0.19	100.25	0.15	130.00	0.12	159.75	0.10	189.50	0.08	219.25	0.08
11.25	0.90	41.00	0.31	70.75	0.19	100.50	0.15	130.25	0.12	160.00	0 10	189.75	0.09	219.50	0.08
11.50	0.89	41.25	0.30	71.00	0.19	100.75	0.14	130.50	0.12	160.25	0.10	190.00	0.08	219.75	0.07
11.75	0 88	41.50	0.30	71.25	0.19	101.00	0.15	130.75	0.12	160.50	0.10	190.25	0.09	220.00	0.07
12 00	0.87	41.75	0.30	71.50	0.19	101.25	0.14	131.00	0.12	160.75	0.10	190.50	0.09	220.25	0.07
12.25	0 86	42.00	0.30	71.75	0.19	101.50	0.14	131.25	0.12	161.00	0.10	190.75	0.09	220.50	0.08
12.50	0 84	42.25	0.29	72.00	0.19	101.75	0.14	131.50	0.12	161.25	0.10	191.00	0.08	220.75	0.07
12.75	0.84	42.50	0.29	72.25	0.19	102 00	0.14	131.75	0.12	161.50	0.10	191.25	0.09	221.00	0.08
13.00	0.82	42.75	0.29	72.50	0 19	102.25	0.14	132.00	0 11	161.75	0.10	191.50	0.09	221.25	0.07
13.25	0.81	43.00	0 29	72.75	0.19	102 50	0.14	132.25	0.12	162.00	0.10	191.75	0.08	221.50	0.08
13.50	0 81	43.25	0.29	73.00	0.19	102.75	0.14	132.50	0 12	162.25	0.10	192.00	0 09	221.75	0.07
13.75	0.80	43.50	0.29	73.25	0.19	103.00	0.14	132.75	0.12	162.50	0.10	192.25	0.08	222.00	0.07
14.00	0.78	43.75	0.29	73.50	0.19	103.25	0.14	133.00	0.12	162.75	0.10	192.50	0.08	222.25	0.07
14.25	0 77	44.00	0.29	73 75	0.19	103.50	0.14	133.25	0 12	163.00	0.10	192.75	0.08	222 50	0.08
14 50	0.76	44.25	0.29	74.00	0.19	103.75	0.14	133 50	0.11	163 25	0.10	193.00	0.08	222 75	0.07
14.75	0.76	44.50	0.28	74.25	0.18	104 00	0.14	133 75	0.12	163 50	0.10	193.25	0.09	223.00	0.07
15.00	0.74	44 75	0.28	74.50	0.18	104.25	0.14	134.00	0.12	163.75	0 10	193.50	0.08	223.25	0.08
15.25	0.73	45.00	0.28	74.75	0.19	104.50	0 14	134.25	0.11	164.00	0.10	193.75	0.08	223 50	0.07
15.50	0.73	45.25	0.28	75 00	0.18	104.75	0.14	134.50	0.12	164.25	0.09	194.00	0.08	223 75	0.07
15.75	0.72	45.50	0.28	75.25	0.18	105 00	0.14	134 75	0.11	164 50	0.10	194.25	0.09	224.00	0 08
16.00	0.71	45.75	0.28	75.50	0 18	105.25	0.14	135 00	0.11	164 75	0 09	194.50	0.08	224.25	0.08
16.25	0 70	46.00	0.27	75.75	0.18	105.50	0 14	135.25	0.11	165.00	0.10	194.75	0 08	224.50	0.07
16.50	0.69	46.25	0.28	76 00	0.18	105.75	0.14	135.50	0.11	165.25	0.10	195.00	0.08	224 75	0.07
16.75	0.68	46.50	0.27	76.25	0 18	106.00	0.14	135.75	0 11	165.50	0.10	195.25	0.08	225.00	0.07
17.00	0.67	46.75	0.27	76.50	0.18	106.25	0 14	136.00	0 12	165.75	0.09	195.50	0.08	225.25	0.08
17.25	0.67	47.00	0.27	76.75	0.18	106.50	0.14	136.25	0.11	166 00	0.09	195.75	0.08	225.50	0.07
17.50	0.66	47 25	0.27	77.00	0 18	106.75	0.14	136.50	0.12	166.25	0.10	196.00	0.08	225.75	0.07
17.75	0.65	47.50	0.27	77.25	0.18	107.00	0.14	136.75	0.11	166.50	0.10	196.25	0.08	226.00	0.07
18.00	0.64	47.75	0.26	77.50	0.18	107 25	0.14	137.00	0.11	166.75	0.10	196.50	0.08	226.25	0 07
18.25	0.64	48 00	0.26	77.75	0.18	107.50	0 14	137.25	0 11	167.00	0.10	196.75	0.08	226.50	0.07
18.50	0.63	48.25	0.26	78.00	0.18	107.75	0.14	137.50	0.11	167.25	0.09	197.00	0.08	226.75	0.07
18 75	0.62	48.50	0.26	78.25	0.18	108.00	0.14	137 75	0.11	167.50	0.10	197.25	0.08	227 00	0.07
19.00	0.62	48.75	0.26	78.50	0.18	108.25	0.14	138.00	0.11	167.75	0.10	197.50	0.08	227.25	0.07
19.25	0.61	49.00	0.26	78.75	0.18	108.50	0 13	138.25	0.11	168.00	0.09	197.75	0.08	227.50	0.07
19.50	0.60	49.25	0.26	79.00	0.17	108.75	0 14	138.50	0.11	168.25	0.09	198.00	0.08	227.75	0.07
19 75	0.59	49.50	0.26	79.25	0 17	109.00	0.13	138.75	0.11	168.50	0.09	198.25	0.08	228.00	0.07
20.00	0.59	49.75	0.26	79.50	0.18	109.25	0.14	139.00	0 11	168.75	0.09	198.50	0.09	228.25	0.07
20.25	0 58	50.00	0.26	79.75	0.18	109.50	0 14	139.25	0 11	169.00	0.10	198.75	0.08	228.50	0.07
20.50	0.57	50 25	0.25	80.00	0.18	109.75	0.14	139.50	0.11	169.25	0.09	199.00	0.08	228.75	0.07
20.75	0.57	50.50	0.25	80.25	0 18	110.00	0.14	139.75	0.11	169.50	0.09	199.25	0.08	229.00	0.07
21.00	0.56	50.75	0.25	80.50	0.17	110 25	0.13	140.00	0.11	169.75	0.10	199.50	0.08	229.25	0.07
21.25	0.56	51 00	0.25	80.75	0.17	110.50	0.13	140 25	0.11	170.00	0.09	199.75	0.08	229.50	0.08
21.50	0.56	51.25	0.25	81 00	0.17	110.75	0 14	140.50	0.11	170.25	0.09	200.00	0.08	229.75	0.07
21.75	0.55	51.50	0.25	81.25	0.18	111.00	0.13	140.75	0.11	170 50	0.09	200.25	0 08	230.00	0.07
22.00	0.54	51.75	0.25	81.50	0.17	111 25	0.13	141.00	0.11	170.75	0.10	200.50	0.08	230.25	0.07
22.25	0.53	52.00	0.25	81.75	0.17	111.50	0 13	141.25	0.11	171.00	0.09	200.75	0.08	230.50	0.07
22.50	0.54	52.25	0.25	82.00	0.17	111 75	0.14	141 50	0.11	171.25	0.09	201.00	0.08	230 75	0.07
22.75	0.53	52.50	0.24	82.25	0 17	112.00	0.13	141.75	0.11	171.50	0 10	201.25	0.08	231.00	0.07
23.00	0.52	52.75	0.25	82.50	0.17	112.25	0.13	142.00	0.11	171.75	0.09	201.50	0.08	231.25	0.07
23.25	0.52	53.00	0.24	82 75	0.17	112.50	0.14	142.25	0.11	172.00	0.09	201 75	0.08	231.50	0.07
23.50	0.51	53.25	0.24	83.00	0.17	112.75	0.13	142.50	0.11	172.25	0.09	202.00	0.08	231 75	0.07
23 75	0.51	53.50	0.24	83.25	0.17	113.00	0.13	142.75	0.11	172.50	0 09	202.25	0.08	232.00	0.07
24.00	0.50	53.75	0.24	83.50	0 17	113.25	0.13	143.00	0.11	172.75	0 09	202.50	0.08	232.25	0.07
24.25	0.49	54.00	0.24	83 75	0.17	113.50	0 13	143.25	0.11	173.00	0.09	202.75	0.08	232.50	0.07
24.50	0.49	54.25	0.24	84 00	0.16	113.75	0.13	143.50	0 11	173.25	0.09	203 00	0.08	232.75	0.07
24.75	0 48	54.50	0.24	84.25	0.17	114.00	0.13	143.75	0 11	173.50	0.09	203.25	0.08	233.00	0.07
25.00	0.48	54 75	0.24	84.50	0.17	114.25	0.13	144.00	0.11	173.75	0.09	203.50	0.08	233.25	0.07
25.25	0.48	55.00	0.24	84 75	0.17	114.50	0.13	144.25	0 11	174.00	0.09	203.75	0.08	233.50	0.07
25.50	0 48	55.25	0.24	85.00	0.17	114.75	0.13	144.50	0.11	174.25	0.09	204.00	0.08	233.75	0.07
25.75	0.47	55.50	0.23	85.25	0.17	115.00	0.13	144.75	0.11	174.50	0.09	204 25	0.08	234.00	0.07
26.00	0 46	55.75	0.23	85.50	0.17	115.25	0.13	145.00	0.11	174.75	0 09	204.50	0.08	234.25	0.07
26.25	0.46	56.00	0.23	85.75	0.17	115.50	0.13	145.25	0.11	175.00	0.09	204 75	0.08	234.50	0.07
26.50	0.46	56.25	0.23	86.00	0.16	115.75	0.13	145.50	0.11	175.25	0.09	205.00	0.08	234.75	0.07
26.75	0.45	56.50	0.23	86.25	0.17	116.00	0.13	145 75	0.11	175.50	0.09	205.25	0.08	235.00	0 07
27.00	0 45	56 75	0.23	86.50	0.16	116.25	0.13	146.00	0.11	175.75	0.09	205.50	0.08	235.25	0.07
27.25	0.45	57.00	0.23	86.75	0.17	116.50	0.13	146.25	0.11	176.00	0.09	205.75	0.08	235.50	0.08
27.50	0.44	57.25	0.22	87 00	0.16	116.75	0 13	146.50	0.11	176.25	0.09	206.00	0.08	235.75	0.07
27.75	0.44	57.50	0.22	87.25	0.16	117.00	0.13	146 75	0.10	176 50	0.09	206.25	0.08	236.00	0 07
28.00	0.43	57 75	0.23	87.50	0.16	117.25	0.13	147.00	0.10	176 75	0.09	206.50	0.08	236.25	0.07
28.25	0.43	58.00	0.22	87.75	0.16	117.50	0.13	147.25	0.10	177.00	0.09	206.75	0 08	236.50	0.07
28.50	0.43	58.25	0.22	88 00	0.16	117.75	0.13	147.50	0 10	177.25	0.09	207.00	0.08	236.75	0.07
28.75	0.42	58.50	0.22	88.25	0.16	118.00	0.13	147.75	0 10	177.50	0.09	207.25	0.08	237.00	0.07
29.00	0.42	58.75	0.22	88.50	0.16	118.25	0.13	148.00	0.10	177.75	0.09	207.50	0.08	237.25	0.07
29.25	0.41	59.00	0.21	88.75	0.16	118.50	0.12	148.25	0 09	178.00	0.09	207.75	0.08	237 50	0.07
29.50	0.42	59.25	0.22	89.00	0.16	118 75	0.12	148 50	0.09	178.25	0.09	208.00	0.08	237.75	0.07

Appendix E
Slug Test Data
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006

MW-12D Slug Test Data (Continued)

Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)
180.00	0.07	210 00	0.05	240.00	0.03
180.25	0.07	210.25	0.04	240.25	0.03
180.50	0 07	210.50	0.05	240.50	0.03
180.75	0.07	210.75	0.04	240.75	0.03
181.00	0.07	211.00	0.05	241.00	0.03
181.25	0.07	211.25	0.05	241.25	0.03
181.50	0.07	211.50	0.04	241.50	0.03
181.75	0.07	211.75	0.05	241.75	0.03
182 00	0.07	212.00	0.04	242.00	0.03
182 25	0.07	212.25	0.05	242.25	0.03
182.50	0.07	212.50	0.04	242.50	0.03
182.75	0.07	212.75	0.04	242.75	0.03
183.00	0.07	213 00	0.04	243.00	0.03
183.25	0.07	213.25	0 04	243.25	0.03
183.50	0.07	213 50	0.04	243.50	0.03
183.75	0.07	213.75	0.04	243.75	0.03
184.00	0.07	214.00	0.05	244.00	0 02
184.25	0.07	214.25	0.04	244.25	0.02
184.50	0.07	214.50	0.04	244.50	0.03
184.75	0.07	214.75	0.04	244.75	0 02
185.00	0.07	215.00	0.04	245.00	0.03
185.25	0.07	215.25	0.04	245.25	0.03
185.50	0.07	215.50	0.04	245.50	0.03
185.75	0.07	215.75	0.04	245.75	0.03
186.00	0.07	216.00	0.04	246.00	0.03
186.25	0.06	216.25	0.04	246.25	0.03
186.50	0.07	216.50	0.04	246.50	0.03
186.75	0.07	216.75	0.04	246.75	0.03
187.00	0.06	217.00	0.04	247.00	0.03
187.25	0.06	217.25	0.04	247.25	0.03
187.50	0.07	217.50	0.04	247.50	0.03
187.75	0.06	217.75	0.04	247.75	0.03
188.00	0 06	218.00	0.04	248.00	0.03
188.25	0.06	218 25	0.04	248.25	0.03
188.50	0 06	218.50	0.04	248.50	0.03
188.75	0 06	218.75	0 04	248.75	0.03
189.00	0.06	219 00	0.04	249.00	0.03
189 25	0.06	219 25	0.04	249.25	0.03
189.50	0.06	219.50	0.04	249.50	0.03
189.75	0.06	219 75	0.04	249.75	0.03
190.00	0.06	220.00	0.04	250.00	0.03
190.25	0.06	220.25	0 04	250.25	0 03
190.50	0.06	220.50	0.04		
190.75	0 06	220.75	0 04		
191.00	0 06	221.00	0.04		
191 25	0.06	221.25	0.04		
191.50	0.06	221 50	0.04		
191.75	0.06	221.75	0.04		
192.00	0.06	222 00	0.04		
192.25	0.06	222.25	0.04		
192.50	0.06	222.50	0.04		
192.75	0.06	222.75	0.04		
193.00	0.06	223.00	0.04		
193.25	0.06	223.25	0.04		
193.50	0.06	223.50	0.04		
193.75	0.06	223.75	0.04		
194 00	0.06	224.00	0.04		
194.25	0.06	224.25	0.04		
194.50	0.06	224.50	0.05		
194.75	0.06	224 75	0.04		
195.00	0.06	225.00	0.04		
195.25	0.06	225.25	0 04		
195.50	0.06	225.50	0.04		
195.75	0.05	225 75	0.04		
196.00	0.06	226 00	0.04		
196.25	0.06	226.25	0.04		
196.50	0.06	226.50	0.04		
196.75	0.06	226.75	0.04		
197.00	0.05	227.00	0.04		
197.25	0.05	227.25	0.04		
197.50	0.06	227.50	0.04		
197.75	0.06	227.75	0.04		
198.00	0.06	228.00	0.04		
198.25	0.05	228.25	0 03		
198.50	0.05	228.50	0.04		
198.75	0.05	228.75	0.04		
199.00	0.06	229.00	0.04		
199.25	0.05	229.25	0.04		
199.50	0.06	229.50	0.04		
199.75	0.05	229.75	0.04		
200.00	0.05	230.00	0.04		
200.25	0.05	230.25	0 04		
200.50	0.05	230.50	0.04		
200.75	0.05	230.75	0.04		
201.00	0.05	231.00	0.03		
201.25	0.05	231 25	0.04		
201.50	0.05	231.50	0.03		
201.75	0.05	231.75	0.03		
202.00	0.05	232.00	0.04		
202.25	0.05	232 25	0.04		
202.50	0.05	232.50	0.04		
202.75	0.05	232.75	0.03		
203.00	0.05	233.00	0.03		
203.25	0.05	233.25	0.03		
203.50	0.05	233.50	0.04		
203.75	0.05	233.75	0.03		
204.00	0.05	234.00	0.04		
204.25	0.05	234.25	0.03		
204.50	0.05	234.50	0.03		
204.75	0.05	234.75	0.03		
205.00	0.05	235.00	0.03		
205 25	0.05	235.25	0.03		
205.50	0.05	235.50	0.03		
205.75	0.05	235.75	0.03		
206.00	0.05	236.00	0 03		
206.25	0.05	236.25	0.03		
206.50	0.05	236.50	0.03		
206.75	0.05	236.75	0.03		
207.00	0.04	237.00	0.03		
207.25	0.05	237.25	0.03		
207.50	0 05	237.50	0.03		
207.75	0.04	237.75	0 03		
208.00	0.05	238.00	0 03		
208.25	0.05	238.25	0.03		
208.50	0.05	238 50	0.03		
208.75	0.05	238.75	0.03		
209.00	0.05	239.00	0.03		
209 25	0.05	239.25	0.03		
209.50	0.04	239.50	0.03		
209.75	0.05	239.75	0.03		

MW-13D Slug Test Data

Time (seconds)	Drawdown (feet)
0.00	0.03
0.25	0 03
0.50	0.03
0.75	0.03
1.00	0.03
1.25	0.03
1.50	0.03
1.75	0.03
2.00	0.03
2 25	0.03
2.50	0.03
2.75	0.03
3.00	0.03
3.25	0.03
3.50	0 03
3.75	0.03
4.00	0 02
4.25	0.02
4.50	0.03
4.75	0.02
5.00	0.03
5.25	0.03
5.50	0.03
5.75	0.03
6.00	0.03
6 25	0.03
6.50	0.03
6 75	0.03
7 00	0.03
7.25	0.03
7.50	0.03
7 75	0.03
8.00	0.03
8.25	0.03
8.50	0.03
8.75	0.03
9.00	0.03
9.25	0.03
9.50	0.03
9.75	0.03
10.00	0.03
10.25	0 03

MW-15D Slug Test Data

Time (seconds)	Drawdown (feet)
0	0.030775
0.25	0.02972
0.5	0.031801
0.75	0 031801
1	0.031694
1 25	0.034014
1.5	0.031336
1.75	0.030405
2	0.031092
2.25	0.030657
2.5	0.031694
2.75	0.031092
3	0.032032
3.25	0.034439
3.5	0.027996
3.75	0.031694
4	0.020897
4.25	0.022051
4.5	0 03227
4.75	0.020462

MW-15D1 Slug Test Data

Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)
0.00	2.00	30.00	0 12
0.25	2.00	30.25	0 12
0.50	1 98	30.50	0.12
0.75	1.93	30.75	0.12
1.00	1.88	31 00	0.11
1.25	1.83	31 25	0.11
1.50	1.78	31.50	0.10
1.75	1.73	31.75	0.10
2.00	1.69	32 00	0.10
2.25	1.64	32.25	0 10
2.50	1.59	32.50	0.10
2.75	1.55	32.75	0 10
3.00	1.51	33 00	0.09
3.25	1.47	33.25	0.09
3.50	1.44	33.50	0.08
3 75	1.40	33.75	0.09
4.00	1.37	34.00	0.09
4 25	1 33	34 25	0.09
4.50	1.30	34 50	0.09
4.75	1.27	34.75	0.08
5.00	1.23	35.00	0.07
5.25	1.21	35.25	0 08
5 50	1.18	35 50	0.07
5.75	1.15	35.75	0.07
6.00	1.12	36 00	0.08
6.25	1.09	36.25	0.06
6.50	1.06	36.50	0.07
6.75	1.04	36.75	0.06
7.00	1.02	37.00	0.07
7.25	0.99	37.25	0.07
7.50	0.96	37 50	0.06
7.75	0.95	37.75	0.06
8.00	0.92	38.00	0.06
8.25	0 90	38 25	0.06
8.50	0.88	38.50	0.06
8.75	0.86	38.75	0.05
9.00	0.84	39.00	0.05
9.25	0 82	39.25	0.05
9.50	0.80	39.50	0.05
9.75	0.78	39.75	0.05
10.00	0.76	40.00	0.04
10.25	0.74	40.25	0.05
10.50	0.73	40.50	0 05
10.75	0.71	40.75	0 05
11.00	0.69	41.00	0 05
11.25	0.67	41.25	0.05
11 50	0.66	41.50	0.05
11 75	0 64	41.75	0.03
12 00	0.63	42.00	0.04
12.25	0.61	42.25	0.04
12.50	0.59	42.50	0.03
12.75	0 59	42.75	0.03
13.00	0.57	43.00	0.04
13.25	0.56	43.25	0.04
13.50	0.54	43.50	0.02
13.75	0.53	43.75	0.03
14.00	0.51	44.00	0.02
14.25	0.51	44 25	0.03
14.50	0.50	44.50	0.02
14.75	0.49	44.75	0.02
15.00	0.47	45.00	0.03
15.25	0.46	45 25	0.03
15.50	0.45	45.50	0.02
15.75	0.44	45.75	0.02
16.00	0.43	46.00	0.02
16.25	0.43	46.25	0.03
16.50	0.41	46.50	0.01
16 75	0.40	46.75	0.02
17.00	0.40	47.00	0.03
17.25	0.38	47 25	0.02
17.50	0.38	47.50	0.01
17.75	0.37	47 75	0.02
18.00	0.36	48.00	0.03
18.25	0.35		
18.50	0.35		
18.75	0.33		
19.00	0.33		
19.25	0.32		
19.50	0 31		
19 75	0 30		
20.00	0.30		
20.25	0 29		
20 50	0.28		
20.75	0.28		
21.00	0.27		
21.25	0.27		
21.50	0.26		
21.75	0 26		
22.00	0.25		
22.25	0.24		
22.50	0 24		
22 75	0.23		
23.00	0.23		
23 25	0.22		
23.50	0.22		
23.75	0.21		
24.00	0 21		
24.25	0.20		
24.50	0.20		
24.75	0.19		
25 00	0.19		
25.25	0.18		
25.50	0.18		
25.75	0 18		
26.00	0.17		
26.25	0.17		
26.50	0 17		
26.75	0 16		
27.00	0.16		
27.25	0.16		
27.50	0.15		
27.75	0.15		
28.00	0.15		
28.25	0.14		
28.50	0.14		
28.75	0.14		
29.00	0.13		
29.25	0.13		
29.50	0.13		
29.75	0.12		

Appendix E
Slug Test Data
Delavan Spray Technologies
Bamberg, South Carolina
H&H Job No. GDR-006

MW-10 Slug Test Data (Continued)

Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)
238.00	0.07	267.75	0 06
238.25	0.07	268.00	0.06
238.50	0.07	268.25	0.06
238.75	0 07	268 50	0.07
239 00	0.07	268.75	0 06
239.25	0.07	269 00	0.06
239.50	0.07	269.25	0.06
239 75	0.07	269.50	0.06
240.00	0.07	269.75	0.06
240.25	0.07	270 00	0.06
240.50	0.07	270.25	0 06
240.75	0.07	270.50	0 06
241.00	0.07	270.75	0.06
241.25	0.07	271.00	0.06
241.50	0.07	271.25	0 06
241 75	0.07	271.50	0.06
242 00	0.07	271.75	0.06
242.25	0.07	272.00	0.06
242 50	0.07	272.25	0.06
242.75	0.07	272.50	0.07
243.00	0.07	272.75	0.06
243.25	0.07	273.00	0.06
243.50	0.07	273.25	0.06
243.75	0.07	273.50	0.06
244.00	0.07	273.75	0.06
244.25	0.07	274.00	0.06
244.50	0.07	274.25	0.06
244.75	0.07	274 50	0.06
245.00	0.07	274 75	0.06
245.25	0.07	275.00	0.06
245.50	0.07		
245.75	0.07		
246.00	0.07		
246.25	0.07		
246.50	0.07		
246.75	0.07		
247.00	0.07		
247.25	0.07		
247.50	0.07		
247.75	0.06		
248 00	0.07		
248.25	0.07		
248.50	0.07		
248 75	0.07		
249.00	0.07		
249.25	0.07		
249.50	0.07		
249.75	0.07		
250.00	0 07		
250.25	0.07		
250.50	0.07		
250.75	0.07		
251.00	0.06		
251 25	0.07		
251 50	0.07		
251.75	0.07		
252.00	0.06		
252.25	0.07		
252.50	0.07		
252.75	0.07		
253.00	0.07		
253.25	0.07		
253.50	0.07		
253.75	0.07		
254 00	0.07		
254.25	0.07		
254.50	0.07		
254.75	0.06		
255.00	0.06		
255.25	0.07		
255.50	0.07		
255.75	0.06		
256.00	0.07		
256.25	0.06		
256.50	0.07		
256.75	0 07		
257 00	0.06		
257.25	0.07		
257.50	0.07		
257.75	0.06		
258.00	0.07		
258.25	0.06		
258.50	0.07		
258.75	0.07		
259.00	0.07		
259.25	0.07		
259.50	0.06		
259.75	0.07		
260.00	0.07		
260.25	0.06		
260.50	0.06		
260.75	0.07		
261.00	0.06		
261.25	0.06		
261.50	0.06		
261.75	0.06		
262.00	0.06		
262.25	0.06		
262 50	0.06		
262.75	0.06		
263.00	0.06		
263.25	0.06		
263.50	0.07		
263.75	0 07		
264.00	0.06		
264 25	0.06		
264.50	0.07		
264.75	0 06		
265 00	0.06		
265.25	0.06		
265.50	0.06		
265.75	0.07		
266.00	0.06		
266.25	0.06		
266.50	0.06		
266.75	0 06		
267.00	0.06		
267.25	0 06		
267.50	0 06		

MW-12D Slug Test Data

Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)	Time (seconds)	Drawdown (feet)
0.00	3 52	30.00	1 26	60.00	0.73	90.00	0.41	120 00	0.23	150.00	0.12
0 25	1.40	30.25	1.25	60.25	0.73	90.25	0 41	120.25	0.23	150 25	0 12
0.50	2.56	30.50	1.24	60.50	0.72	90.50	0.41	120.50	0.23	150.50	0.12
0.75	2.23	30.75	1.24	60.75	0.72	90 75	0.40	120.75	0.23	150 75	0 12
1.00	2.21	31.00	1.23	61.00	0.71	91.00	0.40	121.00	0.22	151.00	0.11
1.25	2.21	31.25	1.23	61.25	0 71	91 25	0.40	121.25	0.22	151.25	0 11
1.50	2.16	31.50	1.22	61.50	0.71	91.50	0.40	121.50	0.22	151 50	0.12
1.75	2.16	31.75	1.21	61 75	0.70	91.75	0.40	121.75	0.22	151.75	0.11
2.00	2.14	32.00	1.21	62.00	0.70	92.00	0 39	122.00	0.22	152.00	0.12
2.25	2.13	32.25	1.19	62.25	0 70	92 25	0.40	122.25	0.22	152.25	0.12
2.50	2.12	32.50	1.19	62.50	0.70	92.50	0.39	122.50	0.22	152.50	0.12
2.75	2.09	32.75	1.19	62.75	0.69	92.75	0.39	122.75	0.22	152.75	0.12
3.00	2.09	33 00	1.18	63.00	0.69	93.00	0.39	123.00	0.21	153.00	0.12
3.25	2 09	33.25	1.18	63.25	0.69	93.25	0.39	123.25	0.19	153.25	0.12
3.50	2.07	33.50	1.18	63.50	0.68	93.50	0.38	123.50	0.20	153.50	0.12
3.75	2.06	33.75	1.15	63.75	0 68	93.75	0.38	123.75	0.20	153.75	0.12
4.00	2.04	34.00	1.16	64.00	0.68	94 00	0.38	124.00	0.19	154.00	0.12
4.25	2.03	34.25	1 15	64.25	0.67	94.25	0.38	124 25	0 20	154.25	0 12
4.50	2.02	34.50	1.15	64 50	0.67	94.50	0.38	124.50	0.21	154.50	0.12
4.75	2.01	34.75	1.14	64 75	0.66	94.75	0.37	124.75	0.21	154.75	0.12
5.00	2.00	35.00	1.13	65.00	0.66	95.00	0.37	125.00	0.21	155.00	0 11
5.25	1.99	35.25	1.14	65 25	0.66	95.25	0.37	125.25	0.21	155.25	0.11
5.50	1.98	35 50	1.14	65.50	0.66	95 50	0.37	125.50	0.21	155.50	0.12
5.75	1.96	35.75	1.13	65.75	0.65	95.75	0.37	125.75	0.20	155 75	0 12
6.00	1.96	36.00	1.13	66.00	0.65	96.00	0 37	126 00	0.20	156.00	0.11
6.25	1.95	36.25	1.12	66.25	0.65	96.25	0.36	126.25	0.20	156.25	0.12
6.50	1.94	36.50	1 12	66.50	0.65	96 50	0.36	126.50	0.21	156.50	0.11
6.75	1 93	36.75	1 11	66.75	0.64	96 75	0.36	126.75	0.20	156.75	0.11
7.00	1.93	37.00	1 11	67.00	0.64	97.00	0.36	127 00	0.20	157.00	0.11
7.25	1.91	37.25	1.11	67.25	0.64	97.25	0.36	127 25	0 20	157.25	0.11
7.50	1.91	37.50	1.10	67.50	0 63	97.50	0.36	127.50	0.20	157.50	0.11
7.75	1.89	37.75	1.10	67.75	0 63	97.75	0.36	127.75	0.20	157.75	0.11
8.00	1.88	38.00	1.09	68.00	0.63	98.00	0.35	128.00	0.20	158.00	0.11
8.25	1.88	38.25	1.09	68 25	0.62	98.25	0.35	128.25	0.19	158.25	0.11
8.50	1.86	38.50	1.08	68.50	0 62	98.50	0.35	128.50	0.20	158.50	0.11
8.75	1.86	38.75	1.08	68.75	0.62	98.75	0 35	128.75	0.19	158.75	0.11
9.00	1.85	39.00	1.07	69.00	0.61	99.00	0.35	129.00	0.19	159.00	0.11
9.25	1.84	39.25	1.07	69.25	0.61	99.25	0.34	129.25	0.19	159.25	0.11
9 50	1.83	39.50	1.07	69.50	0.61	99.50	0.34	129.50	0.19	159.50	0.11
9.75	1.83	39.75	1 06	69.75	0.61	99.75	0.34	129 75	0 19	159 75	0 10
10.00	1 81	40.00	1.06	70.00	0.60	100.00	0.34	130.00	0.19	160.00	0.11
10.25	1 80	40.25	1.05	70.25	0.60	100.25	0.33	130.25	0.19	160.25	0.10
10.50	1.79	40.50	1.05	70.50	0.60	100.50	0.33	130 50	0 18	160 50	0 11
10.75	1.80	40.75	1.04	70 75	0.60	100.75	0.33	130.75	0.19	160.75	0.10
11.00	1.78	41.00	1.04	71 00	0.59	101.00	0.33	131.00	0.19	161.00	0.11
11.25	1.77	41.25	1.03	71.25	0 59	101.25	0.33	131.25	0.18	161.25	0.10
11.50	1.76	41.50	1.03	71.50	0.59	101.50	0 33	131.50	0.18	161 50	0.10
11.75	1.75	41.75	1.02	71.75	0.58	101.75	0.33	131.75	0.18	161.75	0.09
12.00	1.75	42.00	1.02	72.00	0.58	102.00	0.33	132.00	0.17	162.00	0.10
12.25	1.74	42 25	1.01	72.25	0.58	102 25	0.33	132.25	0.18	162.25	0.10
12.50	1 73	42.50	1 01	72.50	0.58	102.50	0.32	132.50	0.18	162.50	0.10
12.75	1.72	42.75	1.00	72.75	0.57	102.75	0.32	132.75	0.18	162.75	0.10
13.00	1.71	43.00	1 00	73.00	0.57	103.00	0.32	133.00	0.17	163.00	0.10
13.25	1.71	43.25	0.99	73.25	0.57	103.25	0.32	133.25	0.17	163.25	0.10
13.50	1.70	43.50	0 99	73.50	0.56	103.50	0.31	133.50	0.17	163.50	0.10
13.75	1.69	43.75	0.99	73.75	0.56	103.75	0.31	133.75	0.17	163.75	0.10
14.00	1.69	44.00	0.98	74.00	0.56	104.00	0.31	134 00	0 16	164.00	0.10
14.25	1.68	44.25	0.98	74.25	0.56	104.25	0.31	134.25	0.16	164.25	0.10
14.50	1.67	44 50	0.97	74.50	0.56	104.50	0.31	134.50	0.17	164.50	0 10
14.75	1.66	44.75	0.97	74.75	0.55	104.75	0.31	134.75	0.17	164.75	0.10
15.00	1.65	45.00	0.97	75.00	0.55	105.00	0.31	135.00	0.16	165.00	0 10
15.25	1.65	45.25	0.96	75.25	0.54	105.25	0.31	135.25	0.15	165.25	0 10
15.50	1.65	45.50	0.95	75.50	0.54	105 50	0.30	135.50	0.17	165.50	0.10
15.75	1.63	45.75	0.95	75.75	0.54	105.75	0.30	135.75	0.17	165.75	0.09
16.00	1 63	46.00	0.94	76.00	0.54	106.00	0.30	136.00	0.16	166.00	0.10
16.25	1.62	46.25	0.94	76.25	0.54	106 25	0.30	136.25	0 16	166.25	0.10
16.50	1.61	46.50	0.94	76.50	0.53	106.50	0.30	136.50	0 16	166 50	0.09
16.75	1.61	46.75	0 93	76.75	0.53	106.75	0.30	136.75	0.16	166.75	0.10
17 00	1.60	47.00	0.93	77.00	0.53	107.00	0.29	137 00	0 15	167.00	0.09
17.25	1.59	47.25	0.93	77.25	0.53	107.25	0.29	137.25	0.15	167.25	0.09
17.50	1.58	47.50	0.92	77 50	0.52	107.50	0.29	137.50	0.16	167.50	0.09
17.75	1.58	47.75	0.92	77 75	0.52	107.75	0.29	137.75	0.15	167 75	0.09
18.00	1.57	48.00	0.91	78.00	0 52	108.00	0 29	138.00	0.15	168 00	0.09
18.25	1 56	48.25	0.91	78.25	0.52	108.25	0.29	138.25	0.16	168.25	0.09
18.50	1.55	48.50	0.90	78.50	0 51	108.50	0 29	138.50	0.16	168.50	0 09
18.75	1.55	48 75	0.90	78.75	0.51	108.75	0.29	138.75	0.15	168.75	0.09
19.00	1.54	49.00	0.90	79.00	0.51	109 00	0.29	139.00	0.15	169.00	0 09
19.25	1.53	49.25	0.89	79.25	0 51	109.25	0.28	139.25	0.15	169.25	0.09
19.50	1.53	49.50	0.89	79.50	0.50	109.50	0.28	139.50	0 16	169 50	0.09
19.75	1.52	49.75	0.89	79.75	0.50	109.75	0.28	139.75	0.15	169.75	0.09
20.00	1.52	50.00	0.88	80.00	0.50	110.00	0.28	140.00	0.14	170.00	0.09
20.25	1.51	50.25	0.87	80.25	0.50	110.25	0.28	140.25	0.14	170.25	0.09
20.50	1.50	50.50	0.87	80.50	0.49	110.50	0.27	140.50	0.15	170.50	0.09
20.75	1.49	50.75	0.87	80.75	0 49	110.75	0.27	140.75	0.14	170.75	0.09
21 00	1.48	51 00	0.86	81.00	0.49	111.00	0.27	141.00	0.14	171.00	0.09
21.25	1.48	51.25	0 86	81.25	0.49	111.25	0.27	141.25	0.15	171.25	0.09
21.50	1.47	51.50	0 86	81.50	0.49	111.50	0.27	141.50	0.15	171.50	0.09
21.75	1.47	51.75	0 85	81.75	0.48	111.75	0.27	141.75	0.14	171.75	0.09
22.00	1.46	52.00	0 84	82.00	0.48	112.00	0.27	142.00	0.14	172.00	0.08
22.25	1.45	52.25	0.84	82 25	0 48	112.25	0.27	142.25	0.14	172.25	0.09
22.50	1.45	52.50	0.84	82.50	0.48	112.50	0.26	142.50	0.15	172.50	0.08
22.75	1.43	52.75	0.84	82.75	0.47	112.75	0.26	142.75	0.13	172.75	0.08
23.00	1.43	53.00	0.83	83.00	0.47	113.00	0 26	143.00	0 14	173.00	0.08
23.25	1 43	53.25	0.83	83.25	0 47	113.25	0.26	143.25	0.14	173.25	0.08
23.50	1 41	53.50	0.82	83.50	0 46	113.50	0 26	143.50	0.15	173.50	0.08
23.75	1.41	53.75	0.82	83.75	0.47	113 75	0.25	143.75	0.13	173.75	0.08
24.00	1.41	54.00	0.82	84.00	0.46	114.00	0.26	144.00	0.13	174.00	0.08
24.25	1.40	54.25	0.81	84.25	0.46	114.25	0.25	144.25	0.14	174.25	0.08
24.50	1.40	54.50	0.81	84.50	0.45	114.50	0.25	144.50	0.14	174.50	0 08
24 75	1.39	54.75	0.80	84.75	0.45	114.75	0.26	144.75	0.12	174.75	0.08
25.00	1.38	55.00	0.80	85.00	0.45	115.00	0.25	145.00	0.13	175 00	0.08
25.25	1.38	55.25	0.80	85.25	0.45	115.25	0.25	145.25	0.14	175.25	0.08
25.50	1.37	55.50	0.79	85.50	0.45	115.50	0.25	145 50	0.14	175.50	0.08
25.75	1.36	55.75	0.79	85.75	0.45	115.75	0 25	145 75	0.14	175.75	0.08
26.00	1.36	56.00	0.78	86.00	0.44	116.00	0.25	146.00	0.14	176.00	0.08
26.25	1.36	56.25	0.78	86.25	0.44	116.25	0.25	146.25	0.13	176.25	0.08
26.50	1.35	56.50	0.78	86.50	0.44	116.50	0.24	146.50	0.14	176.50	0 08
26.75	1.33	56.75	0.78	86.75	0.44	116 75	0.24	146.75	0.13	176.75	0.08
27.00	1.34	57.00	0 77	87.00	0.44	117.00	0.24	147.00	0.13	177.00	0.08
27.25	1.33	57.25	0.77	87.25	0.43	117.25	0.24	147.25	0.13	177.25	0.08
27 50	1.32	57.50	0 77	87.50	0.43	117.50	0.24	147.50	0.14	177.50	0.08
27.75	1.32	57.75	0.76	87 75	0.43	117.75	0.24	147.75	0.14	177.75	0.08
28.00	1.31	58.00	0.76	88.00	0.43	118.00	0.24	148.00	0.13	178.00	0.07
28 25	1.31	58.25	0.75	88.25	0.42	118.25	0.24	148.25	0.13	178.25	0.08
28.50	1.29	58.50	0.75	88.50	0.42	118.50	0.23	148.50	0.12	178.50	0.07
28.75	1.28	58.75	0.75	88.75	0.42	118.75	0.23	148.75	0.12	178.75	0.07
29.00	1.28	59 00	0.74	89.00	0.42	119.00	0.23	149.00	0.13	179.00	0.07
29.25	1.28	59.25	0.74	89.25	0.42	119.25	0.23	149.25	0.12	179.25	0.08
29.50	1.26	59.50	0.74	89.50	0.41	119.50	0.23	149.50	0.12	179.50	0.07
29.75	1 26	59.75	0.73	89.75	0.41	119 75	0.23	149.75	0.12	179.75	0.08