

# 2011 Annual Groundwater and Surface Water Monitoring Report

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Prepared for  
Owens Corning  
4837 Highway 81 South  
Anderson, South Carolina  
January 2012

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Owens Corning, 4937 Highway 81 South  
Anderson, South Carolina  
January 2012



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Atlanta, Georgia 30328

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## List of Abbreviations

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1,1-DCA	1,1-Dichloroethane	Waterloo	Solinst Waterloo Multilevel Groundwater Monitoring System
1,2-DCA	1,2-Dichloroethane		
1,1-DCE	1,1-Dichloroethene		
1,1,1-TCA	1,1,1-Trichloroethane		
AES	Analytical Environmental Services, Inc.		
amsl	above mean sea level		
bgs	below ground surface		
cis-1,2-DCE	cis-1,2-Dichloroethene		
DO	dissolved oxygen		
DNAPL	dense non-aqueous phase liquid		
EISOP/QAM	Environmental Investigations Standard Operating Procedures and Quality Assurance Manual		
EB	Equipment Blank		
ft	feet or foot		
gpm	gallons per minute		
µg/L	micrograms per liter		
MCL	maximum contaminant level		
NAVD	North American Vertical Datum of 1988		
NTU	nephelometric turbidity unit		
ORP	oxidation-reduction potential		
Owens Corning	Owens Corning Anderson		
PCE	tetrachloroethene		
QA/QC	quality assurance/quality control		
RCRA	Resource Recovery and Conservation Act		
RFI	RCRA Facility Investigation		
RL	Reporting Limit		
SCDHEC	South Carolina Department of Health and Environmental Control		
SESDPROC	Science and Ecosystem Support Division Groundwater Sampling Procedure		
SWMU	Solid Waste Management Unit		
TCE	trichloroethene		
trans-1,2-DCE	trans-1,2-Dichloroethene		
U. S. EPA	United States Environmental Protection Agency		
VOCs	Volatile Organic Compounds		

# Professional Geologist Certification

The 2011 Annual Groundwater and Surface Water Monitoring Report has been prepared under the direction and supervision of a qualified, State of South Carolina licensed, Professional Geologist. Mr. Reinhard Ruhmke, P.G., of Brown and Caldwell was responsible for the overall preparation of the Report.



Reinhard Ruhmke, P.G.  
Managing Geologist  
South Carolina Professional Geologist #2469

January 30, 2012

Date



## Section 1

# Introduction

This 2011 Annual Groundwater and Surface Water Monitoring Report was prepared by Brown and Caldwell on behalf of the Owens Corning Anderson (Owens Corning), South Carolina facility for submittal to the United States Environmental Protection Agency (U.S. EPA) in accordance with the October 1989 Consent Order (89-34-R) with the U.S. EPA under Section 3008(h) of the Resource Recovery and Conservation Act (RCRA). The report summarizes the August 2011 quarterly groundwater monitoring and November 2011 annual surface water and groundwater monitoring events. The results for the February and May 2011 quarterly groundwater sampling events were reported in the *2011 Semiannual Groundwater Sampling Report* dated July 29, 2011. The Consent Order requires that Owens Corning perform annual groundwater monitoring and in 2005 the U.S. EPA required that quarterly groundwater monitoring be conducted for select bedrock wells located in the Northeast Area.

This report fulfills the Consent Order requirements for submitting an Annual RCRA Facility Investigation Groundwater Report for 2011. Section 1 of this report presents an introduction. Section 2 summarizes the surface water and groundwater monitoring activities. Section 3 provides and discusses the analytical results and Section 4 provides conclusions. Appendices to this document contain the groundwater sampling forms, laboratory analytical reports, and historical groundwater data.

The Owens Corning facility is situated on approximately 160 acres of land located at 4837 Highway 81 South in Starr, South Carolina within Anderson County (Site). As shown on Figure 1 the property is bounded by Highway 81 South to the west, True Temper Road to the north, Keys Street to the east, and Harry Drive to the south. The facility is located approximately 4 miles south of the town of Anderson.

The facility began its composite systems business operations in 1951 and since then has engaged in the production of glass fiber reinforcements and similar materials for composite systems. Historical manufacturing processes involved a variety of chemicals, including acids and solvents, some of which were inadvertently released to the environment and resulted in significant Site investigation work that has been reported to the U.S. EPA and the South Carolina Department of Health and Environmental Control (SCDHEC).



## Section 2

# Groundwater and Surface Water Assessment

Brown and Caldwell personnel performed the third quarter groundwater monitoring event between August 1 and 4, 2011 and the annual groundwater monitoring event between November 14 and November 18, 2011. Section 2 provides an overview of these events and includes detailed information on Site hydrogeology and aquifer characteristics, groundwater and surface water sampling locations, sampling procedures and analytical methods.

## 2.1 Subsurface Geology

The Owens Corning Site is located within the Inner Piedmont Belt of the Piedmont Geologic Physiographic Province that is characterized by moderate to high-grade metamorphic rocks of Precambrian to early Paleozoic age. The bedrock in the vicinity of the Site is granitic gneiss which is overlain by overburden comprised of clay and silt soil, and saprolite. The saprolite exhibits some structural characteristics of the parent rock material such as foliation and fracturing. The thickness of the soil and saprolite unit beneath the Site ranges from approximately 5 to 100 feet. The primary lineaments and fracture zones beneath the Site trend in a northeast and southwest orientation (LeGrand and Furcron, 1956). A more detailed description of the subsurface geology beneath the Site can be found in the Supplemental RCRA Facility Investigation (RFI) Report (Brown and Caldwell, 2009), which was prepared by Brown and Caldwell on behalf of Owens Corning for submittal to the U.S. EPA.

## 2.2 Aquifer Characteristics

At the Site, groundwater is present in both the overburden/saprolite unit and the bedrock unit. Water level measurements were collected from 32 wells during the August quarterly monitoring event and from 49 wells during the November annual monitoring event as identified in Tables 1 and 2, respectively. Refer to the Site Map in Figure 1 to identify well locations. This information was used to calculate groundwater elevations and prepare potentiometric maps for the overburden and bedrock aquifers for the August (Figures 2 through 6) and November (Figures 7 through 11) 2011 monitoring events. Ground surface and top of casing elevations are provided in Table 3 and depth to water and groundwater elevations are provided in Tables 1 and 2.

Based on the monitoring well measurements from August 2011, groundwater levels in the overburden aquifer ranged from 4.79 (MW-11) to 21.22 (MW-14) feet below ground surface (bgs) and from 775.43 to 777.15 feet in elevation (North American Vertical Datum of 1988 [NAVD88]). Measurements from the same time period taken from wells in the bedrock aquifer exhibit heads ranging from 7 feet above the top of the casing (MW-38 Zone 2) to 46.26 feet bgs (MW-42 Zone 2) and from 778.18 to 739.16 feet in elevation (NAVD88). In November 2011, the groundwater levels in the overburden aquifer ranged from 3.66 (MW-8) to 26.99 (MW-10) feet bgs and from 797.90 to 796.66 feet in elevation (NAVD88). Measurements from wells in the bedrock aquifer exhibit hydraulic heads ranging from 1.66 feet above top of casing (MW-38 Zone 2) to 43.68 feet bgs (MW-42 Zone 2) and from 772.84 to 741.74 feet in elevation (NAVD88). The variation in head in the bedrock aquifer is highly dependent on both the elevation and fractures present in the wells screened interval.

Based on the August 2011 data, groundwater onsite in both overburden and bedrock aquifers flows toward the fracture zones associated with Betsy Creek, giving an east-northeasterly gradient. This is consistent with the historical groundwater flow direction with the exception that groundwater from SWMU-9 was previously shown flowing more to the north than the northeast. Measurements from the bedrock aquifer wells offsite indicate that flow direction continues to align with Betsy Creek as the stream turns to flow to the north-northeast in the area of MW-35. The magnitude of the horizontal gradient onsite varies depending on the aquifer and fracture zone. Observed horizontal gradients are as follows: 0.0151 in the overburden (calculated between MW-21 and MW-23); 0.0145 in the bedrock aquifer in the 699-740 foot (ft) (NAVD88) zone (calculated between MW-27 and MW-41 Zone 1); 0.0147 in the bedrock aquifer in the 632-699 ft (NAVD88) zone (calculated between MW-15 and MW-22); 0.0101 in the bedrock aquifer in the 574-630 ft (NAVD88) zone (calculated between MW-19 and MW-41 Zone 2); and 0.00872 in the bedrock aquifer in the 430-530 ft (NAVD88) zone (calculated between MW-37 Zone 3 and MW-41 Zone 3). The following vertical gradients were also observed: a downward gradient of 0.0086 in across the overburden/bedrock aquifer (calculated between MW-11 and MW-12); and an upward gradient of 0.0336 at the intersection of Keys Street and True Temper Road across the overburden/bedrock aquifer (calculated between MW-21 and MW-38 Zone 2).

The interim corrective measures bedrock hydraulic containment system started up on November 3, 2011. The system currently pumps groundwater from one of two bedrock extraction wells, EW-1, (located approximately 250 ft north of the intersection between Keys Street and True Temper Road), that has total depth of 450 ft bgs. The pump intake is at 425 ft bgs and currently withdraws groundwater at a rate of 31 gallons per minute (gpm). The hydraulic containment system was active during the November groundwater sampling event, which affected the November 2011 potentiometric surfaces in all bedrock zones (Figures 8 through 11). Additional information regarding the interim corrective measures system will be reported in the Quarterly Performance Monitoring Report that will be submitted to the U.S. EPA and SCDHEC in February 2012. At some point, the second extraction well, EW-2, may be used depending on the performance of extraction well EW-1.

Based on the November 2011 data, groundwater flow in the overburden aquifer was consistent with previous sampling events flowing towards the fracture zones associated with Betsy Creek, giving an east-northeasterly gradient. The overburden aquifer was unaffected by the active pumping of the groundwater treatment system as a surface casing was installed in extraction well, EW-1. Groundwater flow in the bedrock aquifer generally follows the same east-northeasterly gradient along the Betsy Creek fracture zones, but due to the pumping associated with the hydraulic containment system, varying amounts of drawdown were observed in bedrock wells in the vicinity of EW-1. The amount of drawdown is dependant on the interconnectivity between the fracture system in the bedrock zone in which the wells are screened and the fracture system in the open borehole extraction well, EW-1. The distribution of drawdown within the bedrock system was used to aid in developing the bedrock groundwater potentiometric surfaces presented in Figures 8 through 11.

In order to calculate representative horizontal and vertical gradients, wells were selected in areas upgradient and downgradient from the drawdown associated with the pumping at EW-1. Observed horizontal gradients are as follows: 0.0144 in the overburden (calculated between MW-21 and MW-28); 0.0145 in the bedrock aquifer in the 699-740 ft (NAVD88) zone (calculated between MW-27 and MW-41 Zone 1); 0.0159 in the bedrock aquifer in the 632-699 ft (NAVD88) zone (calculated between MW-6 and MW-22); 0.0121 in the bedrock aquifer in the 574-630 ft (NAVD88) zone (calculated between MW-19 and MW-41 Zone 2); and 0.0138 in the bedrock aquifer in the 430-530 ft (NAVD88) zone (calculated between MW-37 Zone 3 and MW-41 Zone 3). The following vertical gradients were also observed: a downward gradient of 0.00313 in SWMU-9 across the overburden/bedrock aquifer (calculated between MW-6 and MW-28); and an upward gradient of 0.0209 at the intersection of Keys Street and True Temper Road across the overburden/bedrock aquifer (calculated between MW-21 and MW-38 Zone 2).

## 2.3 Groundwater Monitoring Wells

The original quarterly groundwater monitoring program included seven bedrock monitoring wells (MW-15, MW-22, MW-29R, MW-33, MW-35, MW-36 and MW-37). MW-33 has since been removed from the quarterly and annual groundwater monitoring program because it has become one of the groundwater extraction wells (EW-1) for the interim corrective measures hydraulic containment system. The removal of this well from the monitoring program is of little consequence since there are several wells in the surrounding area that provide both hydraulic potential and concentration data that are used to model plume behavior. The second extraction well, EW-2, was installed in 2011 and as discussed above, is not being used at this time. MW-38, MW-39, MW-41, MW-42 and MW-43 were installed and added to the quarterly and annual monitoring program in the summer of 2010 and the summer of 2011, respectively.

The annual groundwater monitoring program includes the following 46 overburden, top of rock and bedrock monitoring well locations, as shown on Figure 1:

- Overburden Wells: MW-1, MW-3, MW-4, MW-5, MW-7, MW-11, MW-12, MW-18, MW-26, MW-28, MW-32, TW-43, and TW-45
- Top of Rock Wells: MW-2, MW-9, MW-10, MW-13, MW-14, MW-17, MW-20, MW-21, MW-24, MW-25, MW-30, MW-31, TW-42 and TW-46
- Bedrock Wells: Alloy, MW-6, MW-15, MW-16, MW-19, MW-22, MW-27, MW-29R, MW-35, MW-36, MW-37, MW-38, MW-39, MW-41, MW-42, MW-43, TW-40, TW-41 and TW-44.

Monitoring well TW-45 could not be gauged or sampled in November 2011 because the well collapsed. The need for replacing or abandoning TW-45 will be evaluated in 2012. The locations of the wells are shown on Figure 1 and well construction details are provided in Table 3. Multiple water-bearing zones were gauged and sampled in bedrock wells MW-29R, MW-36, MW-37, MW-38, MW-39, MW-41, MW-42, and MW-43 (Tables 4 and 5). Wells MW-8, MW-23, P1, and P2 were gauged to provide hydraulic head information but were not sampled as part of the quarterly or annual sampling programs.

## 2.4 Surface Water Monitoring Locations

The surface water monitoring program consists of collecting samples from eleven locations (SW-1, SW-3, SW-3A, SW-3B, SW-6, SW-10, SW-11, SW-12, SW-13, SW-14 and SW-15) in Betsy Creek. Surface water samples could not be collected from SW-3A and SW-13 due to the creek being dry at those locations. The surface water samples were collected on November 17, 2011 and their locations are presented on Figure 12.

## 2.5 Groundwater and Surface Water Sampling Procedures

On August 1 and November 14, 2011, depth to groundwater measurements were collected from 32 and 49 monitoring wells locations, respectively. The water level meter was decontaminated between wells with an Alconox® solution and rinsed with distilled water.

Sampling procedures were performed in the same manner as the previous quarterly and annual sampling events. Prior to collecting groundwater samples from the wells, the wells were purged using either a low-flow submersible electric pump or a peristaltic pump. The Solinst Waterloo Multilevel Groundwater Monitoring System (Waterloo) monitoring zones were purged and sampled using their dedicated compressed air driven stainless steel double valve pumps. Groundwater was pumped at an approximate rate of 0.25 gpm through new or dedicated polyethylene tubing equipped with a field-calibrated, in-line YSI® 556 meter to measure field parameters: pH, temperature, specific conductance, oxidation-reduction potential (ORP), and dissolved oxygen (DO). Turbidity was measured using a HF® Scientific DRT-15CE turbidity meter. Purging was considered complete when at least three of the field parameters had stabilized. An attempt was made to obtain turbidity readings of less than 10

Nephelometric Turbidity Units (NTUs); however, this was not achieved for all the wells. Groundwater samples were collected when pH, temperature and specific conductance had stabilized as defined in U.S. EPA's Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (EISOP/QAM), November 2001 and Science and U.S. EPA's Ecosystem Support Division Groundwater Sampling Procedure (SESDPROC-301-RO), February 2007. Groundwater sampling field data sheets documenting the purging activities are included as Appendix A.

Groundwater samples were collected from the wells using the same low-flow pump that was used for purging. The pump was decontaminated between sample locations using an Alconox® solution and rinsed with distilled water. The groundwater samples were labeled, containerized, documented, placed into a cooler containing ice and chilled to approximately 4 degrees Celsius (temperatures verified by laboratory and are reported in the Laboratory Analytical Report in Appendix B). Monitoring wells were sampled from least contaminated to most contaminated, based on previous groundwater monitoring data, to minimize the potential for carryover and cross-contamination between wells.

Surface water samples were collected on November 17, 2011 by manually filling the sample containers with surface water using a pre-cleaned, disposable, 1 liter, polyethylene dipper.

## 2.6 Residential Well Sampling Procedures

During the November 2011 annual sampling event, 13 residential wells were sampled (Figure 13). The wells were sampled in accordance with methods described in U.S. EPA's Field Branches Quality System and Technical Procedures. Wells that pumped into a holding tank were purged of at least one tank volume (generally 15 to 20 gallons) and water quality parameters such as pH, conductivity, temperature, DO, ORP, and turbidity were measured and recorded in a field notebook. After purging, the samples were collected at a low flow rate through a hose connected to the holding tank. Wells that did not utilize a holding tank were sampled directly from the well head. The groundwater samples were labeled, containerized, documented, placed into a cooler containing ice and chilled to about 4 degrees Celsius (temperatures verified by laboratory and are reported in the Laboratory Analytical Report in Appendix B).

Once the analytical data were validated, a letter documenting the results for each well owner was prepared and hand delivered to each well owner by Mr. Steve Tenry, the Anderson Plant Environmental Manager.

## 2.7 Analytical Procedures

Groundwater, surface water, and residential well samples were submitted to Analytical Environmental Services, Inc. (AES) of Atlanta, Georgia for analysis of the focused list of volatile organic compounds (VOCs) using U.S. EPA Method 8260B. The focused list of VOCs included tetrachloroethene (PCE); trichloroethene (TCE); 1,1,1-trichloroethane (1,1,1-TCA); 1,1-dichloroethane (1,1-DCA); 1,2-dichloroethane (1,2-DCA); 1,1-dichloroethene (1,1-DCE); cis-1,2-dichloroethene (cis-1,2-DCE); trans-1,2-dichloroethene (trans-1,2-DCE); vinyl chloride; carbon tetrachloride; chloroform; methylene chloride; benzene; toluene; ethylbenzene and xylenes.

## 2.8 Quality Assurance/Quality Control

The groundwater sampling was performed in accordance with U.S. EPA's EISOP/QAM, November 2001 and U.S. EPA's Science and Ecosystem Support Division Groundwater Sampling Procedure (SESDPROC-301-RO), February 2007. To assess the quality of the sampling program, duplicate samples were collected (approximately one sample for every 20 samples) and analyzed for the focused list of VOCs. One duplicate sample was collected during the August sampling event. One duplicate sample was collected during the residential well sampling and three duplicate groundwater samples were collected during the November sampling event. An evaluation of the analytical results for the duplicate samples showed that the reported constituents and concentrations were similar. Four equipment blanks (EBs)

were collected during the August sampling and five EBs were collected during the November sampling to determine the efficacy of non-dedicated equipment decontamination activities. The EB samples were obtained by collecting distilled water passed through or over decontaminated equipment. Trip blanks, provided by AES, were in all coolers and were submitted for analysis with the groundwater samples. The EB and trip blank samples were analyzed for the same constituents as the groundwater samples. No detections were found in any of the EB or trip blank samples. The analytical reports for these samples are provided in Appendix B.

## Section 3

# Analytical Results

The following section includes the results for the August 2011 quarterly groundwater event and the November 2011 annual surface water, groundwater, and residential well monitoring event. The August event included collecting samples from six bedrock wells located on the northeast portion of the Owens Corning property (including MW-15, MW-22, MW-29R, MW-36, MW-37 and MW-38), and five offsite bedrock wells (MW-35, MW-39, MW-41, MW-42, and MW-43). For the November event, samples were collected from 46 overburden, (as stated in Section 2.3, TW-45 could not be sampled in November 2011 due to damage to the well), top of rock and bedrock wells locations (several samples were collected from eight bedrock wells that have screens across multiple water bearing zones), nine surface water locations, and 13 residential wells.

The August and November 2011 groundwater analytical results are summarized in Tables 4 and 5, respectively. The November 2011 surface water analytical results are summarized in Table 6, and the November 2011 residential well analytical results are summarized in Table 7. Historical groundwater analytical data can be found in previous reports submitted to U.S. EPA and summaries of this information can be found in Appendix C of this report. Analytical reports that include method detection limits and quality assurance/quality control (QA/QC) information are provided in Appendix B.

One analytical parameter, 1,1-DCE, was selected for presentation on isoconcentration contour maps for the August and November events as shown on Figures 14 through 22. This analyte was selected because it is the most prevalent and widespread analyte detected at the Site. A concentration map for 1,1,1-TCA in the overburden, top of rock and bedrock wells was also prepared because it was the parent compound originally released at SWMU-9; it is presented as Figure 23 for the November 2011 event.

## 3.1 Groundwater Analytical Results

### 3.1.1 Overburden and Top of Rock Aquifer

Consistent with observations made during previous monitoring events, during the November 2011 annual sampling event the highest VOC concentrations were detected in the overburden and top of rock aquifer in the vicinity of SWMU-9 where 1,1,1-TCA and 1,1-DCE are the primary VOC constituents (Tables 4 and 5). The highest 1,1,1-TCA and 1,1-DCE concentrations were measured in well MW-28 at 170,000 micrograms per liter ( $\mu\text{g/L}$ ) and 97,000  $\mu\text{g/L}$ , respectively. The 1,1,1-TCA concentrations in this well have fluctuated for years but have consistently been greater than 1 percent of the solubility limit (950,000  $\mu\text{g/L}$ ), thus suggesting the potential presence of dense non-aqueous phase liquid (DNAPL).

Similarly elevated concentrations of 1,1,1-TCA were detected in MW-7 where concentrations have been trending upward: 17,000  $\mu\text{g/L}$  (2007), 24,000  $\mu\text{g/L}$  (2008), 30,000  $\mu\text{g/L}$  (2009), 31,000  $\mu\text{g/L}$  (2010), and 53,000  $\mu\text{g/L}$  (2011). This too may be indicative of nearby DNAPL, which most likely would be in the form of residual stringers given the shallow depth of MW-7 and the absence of a confining clay layer. The only other detection of 1,1,1-TCA during the November event was in MW-32 at a concentration of 13  $\mu\text{g/L}$ , which was lower than in 2010 (22  $\mu\text{g/L}$ ). No other samples produced detections of 1,1,1-TCA above the laboratory reporting limit (RL). The disappearance of 1,1,1-TCA in groundwater is consistent with known transformation mechanisms, particularly aqueous hydrolysis which is a very fast reaction.

Although there were no reported VOC detections other than 1,1,1-TCA and 1,1-DCE in MW-7 and MW-28, these two samples required dilution during analysis by the analytical laboratory that resulted in reporting limits greater than U.S. EPA maximum contaminant levels (MCLs) which are 200 and 7 µg/L, respectively.

Several other overburden and top of rock wells contain 1,1-DCE at levels above the MCL. In the area of monitoring wells MW-11, MW-12, and MW-13, 1,1-DCE concentrations range from 130 to 370 µg/L. In the Northeast Area of the Site, however, concentrations of 1,1-DCE decrease to below the RL of 5 µg/L.

Other VOCs that exceeded MCLs in the overburden and top of rock wells were 1,2-DCA, carbon tetrachloride, TCE, and vinyl chloride. Similar to historical result, monitoring well MW-30, located northeast of SWMU-9, contained the highest concentrations of 1,2-DCA (25 µg/L) and carbon tetrachloride (180 µg/L), and the only detection of TCE (6.0 µg/L) at the Site. The only detection of vinyl chloride was in monitoring well MW-11 (13 µg/L).

### 3.1.2 Bedrock Aquifer

To understand the distribution of 1,1-DCE, isoconcentration maps were created for multiple vertical intervals within the fractured bedrock. The projected distribution of 1,1-DCE over the vertical intervals from 699 ft to 740 ft, 632 ft to 699 ft, 574 ft to 630 ft, and 430 ft to 530 ft (NAVD88) for the August and November events is presented on Figures 14 through 17 and Figures 19 through 22, respectively. Assuming that 1,1-DCE entered the top of bedrock near SWMU-9, the axis of the plume, consistent with the groundwater flow direction and local bedrock fracture patterns as identified in the Bedrock Geologic Map of the Little Mountain Area Anderson South Quadrangle is oriented to the north-northeast. Refer to the *Supplemental RCRA Facility Investigation Report* (Brown and Caldwell, 2009) for a more detailed review of these figures.

Concentrations of 1,1-DCE in well MW-29R Zone 3 and Zone 4 have been relatively stable over the four quarterly monitoring events conducted in 2011. In Zone 3, the concentration of 1,1-DCE varied over the course of the year following the historic trend at this location. In February the concentration was 340 µg/L, then increased to 560 µg/L in May, 420 µg/L in August, then dropped to 300 µg/L in November. In Zone 4, concentrations followed a similar trend, with a concentration of 320 µg/L in February, then increasing to 590 µg/L in May, 390 µg/L in August, and finally decreasing to 300 µg/L during the November monitoring event. Farther north and hydraulically downgradient of MW-29R, 1,1-DCE has not been detected in groundwater above MCLs in any of the three zones of MW-36 during the quarterly monitoring events since it was installed in 2008.

The 1,1-DCE concentration in well MW-37, located on the southeastern edge of the plume, has varied by zone over the past three years. Zone 1 has followed an increasing trend and Zone 3 has displayed a decreasing trend, according to the Mann-Kendall Test (Appendix D). However the 1,1-DCE concentration in Zone 2 has remained relatively stable. In 2011, the concentration of 1,1-DCE in MW-37 Zone 1 was 40 µg/L in February, 9.7 µg/L in May, 140 µg/L in August, and 78 µg/L in November. MW-37 Zone 2 followed a similar fluctuating trend in 2011, containing concentrations of 97 µg/L in February, 190 µg/L in May, 160 µg/L in August, and 310 µg/L in November. The 1,1-DCE concentration in MW-37 Zone 3 was below the RL from February to November. Bedrock well MW-39 was installed during the summer of 2010 southeast of MW-37 to delineate 1,1-DCE in this direction. No VOCs, including 1,1-DCE, were detected above RLs during the August and November monitoring events in groundwater collected from MW-39 (Tables 4 and 5). Accordingly, delineation of the south edge of the plume appears to be complete.

Well MW-35, located northeast of the intersection of True Temper Road and Keys Streets, contained 430 µg/L of 1,1-DCE in August and 330 µg/L of 1,1-DCE in November. Bedrock wells MW-41 and MW-42 were installed during the summer of 2010 to delineate 1,1-DCE in the Northeast Area and added to the

monitoring program. Both wells were installed with nested wells, such that three independent zones could be sampled. The 1,1-DCE concentration in all three zones of MW-41 decreased from August to November. Zone 1 decreased from 400 to 190 µg/L, Zone 2 from 350 to 280 µg/L, and Zone 3 from 110 to 98 µg/L. MW-42 and MW-43 are currently the farthest wells from the Site in the northeast direction. MW-42 is east of the northeastern portion of the plume and MW-43 is north of the northeastern portion of the plume. During the August and November monitoring events, no VOCs were detected above MCLs in groundwater collected from MW-42 and MW-43. Therefore, the plume appears to be delineated to the northeast.

The only other contaminant detected above an MCL in the bedrock wells was carbon tetrachloride. This contaminant was detected in MW-22 and MW-29R Zones 3 and 4 during August and November and additionally in MW-27 in November. The maximum concentration of carbon tetrachloride in bedrock wells was detected in MW-22 at 25 µg/L in August and 24 µg/L in November. No other parameters from the focused list of VOCs were detected above MCLs in the bedrock well samples.

1,1-DCE concentration trends for four bedrock wells, MW-27, MW-35, MW-37 (Zones 1, 2, and 3), and MW-41 (Zones 1, 2 and 3) were determined using the Mann-Kendall Test (Gilbert, 1987). This test is a non-parametric statistical test that is routinely used to identify trends in groundwater concentration data. Data utilized in the test included annual groundwater monitoring data from 2006 through 2011 for MW-27 resulting in six data points. For MW-35 and MW-37, quarterly groundwater monitoring data was utilized from the February, May, August, and November sampling events in 2009 and 2010, and all four events in 2011 for a total of ten data points. MW-41 was installed in August 2010 and six data points were used for the test from all sampling events from August 2010 to November 2011. The Mann-Kendall test can be run on data sets with as few as 4 data points and a maximum of 10. According to the test results at a 90 percent confidence level, 1,1-DCE concentrations in wells MW-27, MW-35, MW-37 Zone 2, MW-41 Zone 1, and MW-41 Zone 2 showed no trend over the time periods described above, which indicates that the majority of the concentrations near the property boundary are stable. Over the same time periods, the 1,1-DCE concentration in MW-37 Zone 1 displayed an increasing trend and the MW-37 Zone 3 and MW-41 Zone 3 results displayed a decreasing trend in 1,1-DCE concentrations. Refer to Appendix D for Mann-Kendall Test results.

## 3.2 Surface Water Analytical Results

Surface water samples were collected from Betsy Creek at nine locations (Figure 12). The creek was dry at locations SW-3A and SW-13, therefore, a sample was not collected. All VOC concentrations measured in November 2011 were below the applicable U.S. EPA Region IV Ecological Risk Assessment, Surface Water Screening Values. The only VOC detected above RLs in surface water samples from Betsy Creek at locations both on and off-Site during the November sampling event was 1,1-DCE. The 1,1-DCE concentrations ranged from 5.1 µg/L at SW-15 to 6.6 µg/L at SW-14. All surface water analytical results are included in Table 6.

## 3.3 Residential Well Analytical Results

None of the parameters from the focused list of VOCs were detected above RLs in the residential well samples. All residential well analytical results are included in Table 7. Locations of the residential wells are provided on Figure 13, with the corresponding well location map ID's provided in Table 8.



## Section 4

# Summary and Conclusions

The third quarterly and the annual groundwater monitoring events were conducted at the Owens Corning Site in August and November 2011, respectively. Samples were collected from 11 bedrock wells during the August quarterly event and from 46 wells and nine surface water locations during the November annual event. In addition, samples were collected from 13 residential wells during the November event. The samples were analyzed for the focused list of VOCs. Multiple water-bearing zones were sampled in bedrock wells MW-29R, MW-36, MW-37, MW-38, MW-39, MW-41, MW-42 and MW-43.

The following conclusions were developed based on the data collected during the quarterly and annual monitoring events summarized in this report:

- Based on historical and recent Site monitoring data 1,1-DCE and 1,1,1-TCA are the primary constituents in groundwater, though 1,1-DCE is the primary constituent that persists beyond SWMU-9 and the property boundary and within both the overburden and bedrock water bearing zones.
- The highest concentrations of 1,1-DCE and 1,1,1-TCA are present in the overburden and top of rock water bearing zones in the vicinity of SWMU-9. Contaminants detected above their MCLs in the overburden and top of rock water bearing zones other than 1,1-DCE and 1,1,1-TCA were 1,2-DCA, carbon tetrachloride, TCE, and vinyl chloride.
- The plume of 1,1-DCE that originates in the vicinity of SWMU-9 travels downgradient towards the northeast and east towards Betsy Creek. The 1,1-DCE and 1,1,1-TCA groundwater plumes appear to be relatively stable and the downgradient boundaries of these plumes in the top of rock aquifer appear to be defined by wells MW-21 and MW-25, which were both non-detect.
- The main contaminant in the bedrock aquifer is 1,1-DCE. Concentration data obtained from Northeast Area bedrock wells MW-27, MW-35, and MW-37 and results from the Mann-Kendall Test at the 90% confidence level revealed that the plume in this area has been relatively stable over the past 3 years. The only increasing 1,1-DCE concentration trend is in MW-37 Zone 1 and the only decreasing trend is in MW-37 Zone 3. The only other VOC detected in bedrock wells above its' MCL was carbon tetrachloride; concentrations of carbon tetrachloride have remained stable at levels less than 30 µg/L over the past 3 years according to Mann-Kendall analysis results.
- Finally, during the August and November monitoring events, no VOCs were detected above MCLs in groundwater collected from the new offsite bedrock wells, MW-39, MW-42, and MW-43. Monitoring well MW-42 and MW-43 are the farthest monitoring wells in the northeast direction from the Site, and monitoring well MW-39 is the farthest in the southeast direction. Therefore, the plume appears to be delineated to the north and east of the Site.



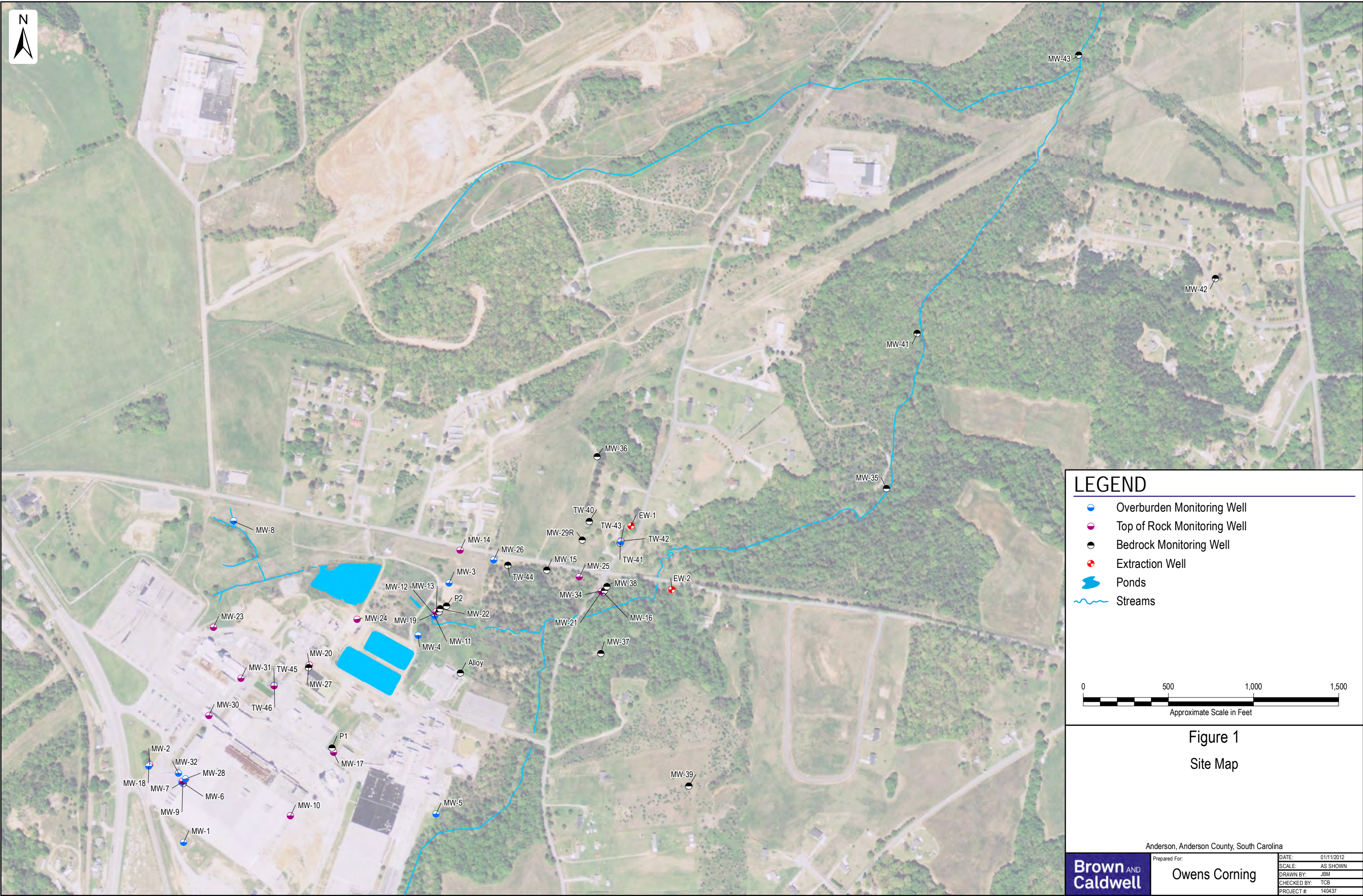
## Section 5

# Limitations

This document was prepared solely for Owens Corning in accordance with professional standards at the time the services were performed and in accordance with the contract between Owens Corning and Brown and Caldwell dated January 11, 2011. This document is governed by the specific scope of work authorized by Owens Corning; it is not intended to be relied upon by any other party except for regulatory authorities contemplated by the scope of work. We have relied on information or instructions provided by Owens Corning and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.

# References

- Brown and Caldwell. 2009. *Supplemental Resource Conservation and Recovery (RCRA) Facility Investigation (RFI) Report*. Owens Corning – Starr Plant, Anderson, South Carolina.
- Brown and Caldwell. September 15, 2010. Phase II Supplemental Investigation Results and Work Plan Addendum. Owens Corning, Anderson, South Carolina.
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- LeGrand, H.E. and A.S. Furcron. 1956. *Geology and Groundwater Resources of Central-East Georgia*. Georgia Geological Survey.
- Soricelli, Anthony<sup>1</sup>, Clendenin, C.W.<sup>2</sup>, and Castle, James W.,<sup>1</sup> *Bedrock Geologic Map of the Little Mountain Area, Anderson South Quadrangle, Anderson County, South Carolina*. (1) Geological Sciences, Clemson University, 340 Brackett Hall, Clemson, South Carolina 29634, [asorice@clemson.edu](mailto:asorice@clemson.edu). (2) South Carolina Geol Survey, 5 Geology Road, Columbia, South Carolina 29212.
- United States Environmental Protection Agency. 2001. Supplemental Guidance to RAGS: Region 4 Bulletins, Ecological Risk Assessment.



**LEGEND**

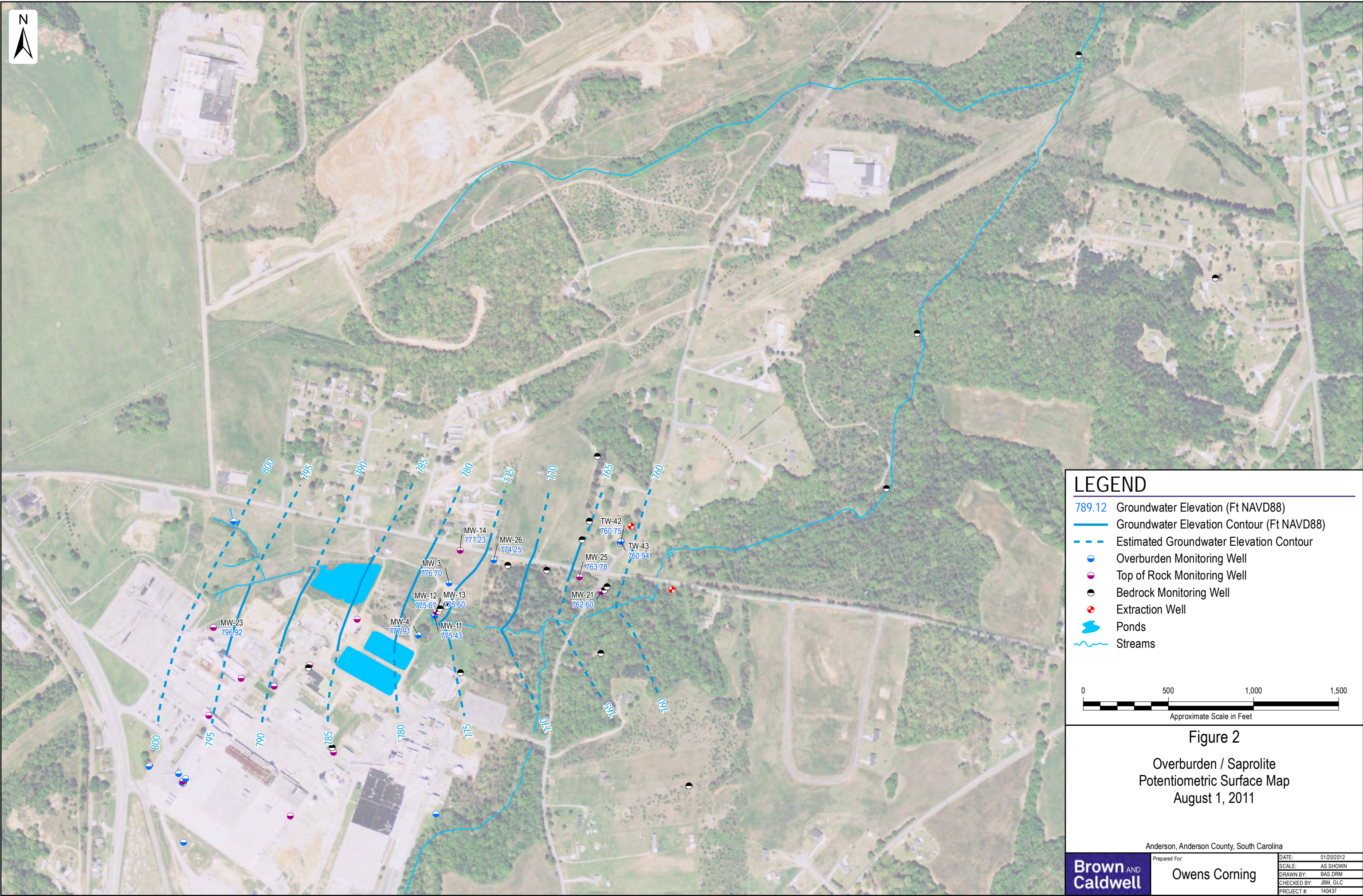
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- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Ponds
- ~ Streams

0 500 1,000 1,500  
Approximate Scale in Feet

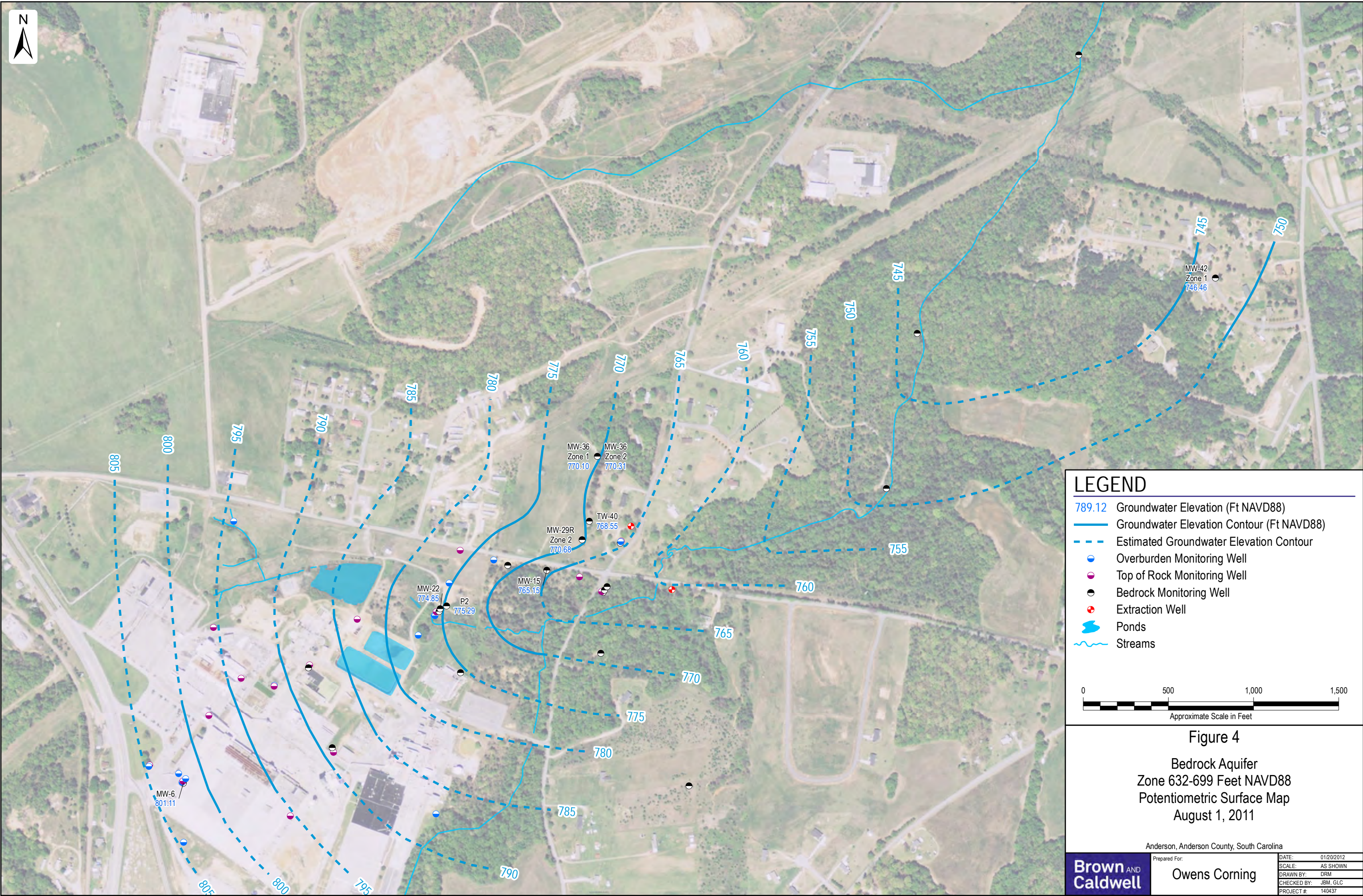
**Figure 1**  
**Site Map**

Anderson, Anderson County, South Carolina

<b>Brown AND Caldwell</b>	Prepared For:	Owens Corning	
	DATE:	01/11/2012	
	SCALE:	AS SHOWN	
	DRAWN BY:	JBM	
	CHECKED BY:	TCB	
		PROJECT #:	140437

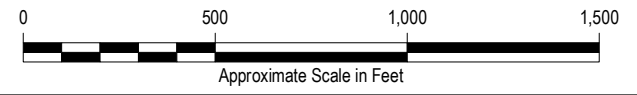






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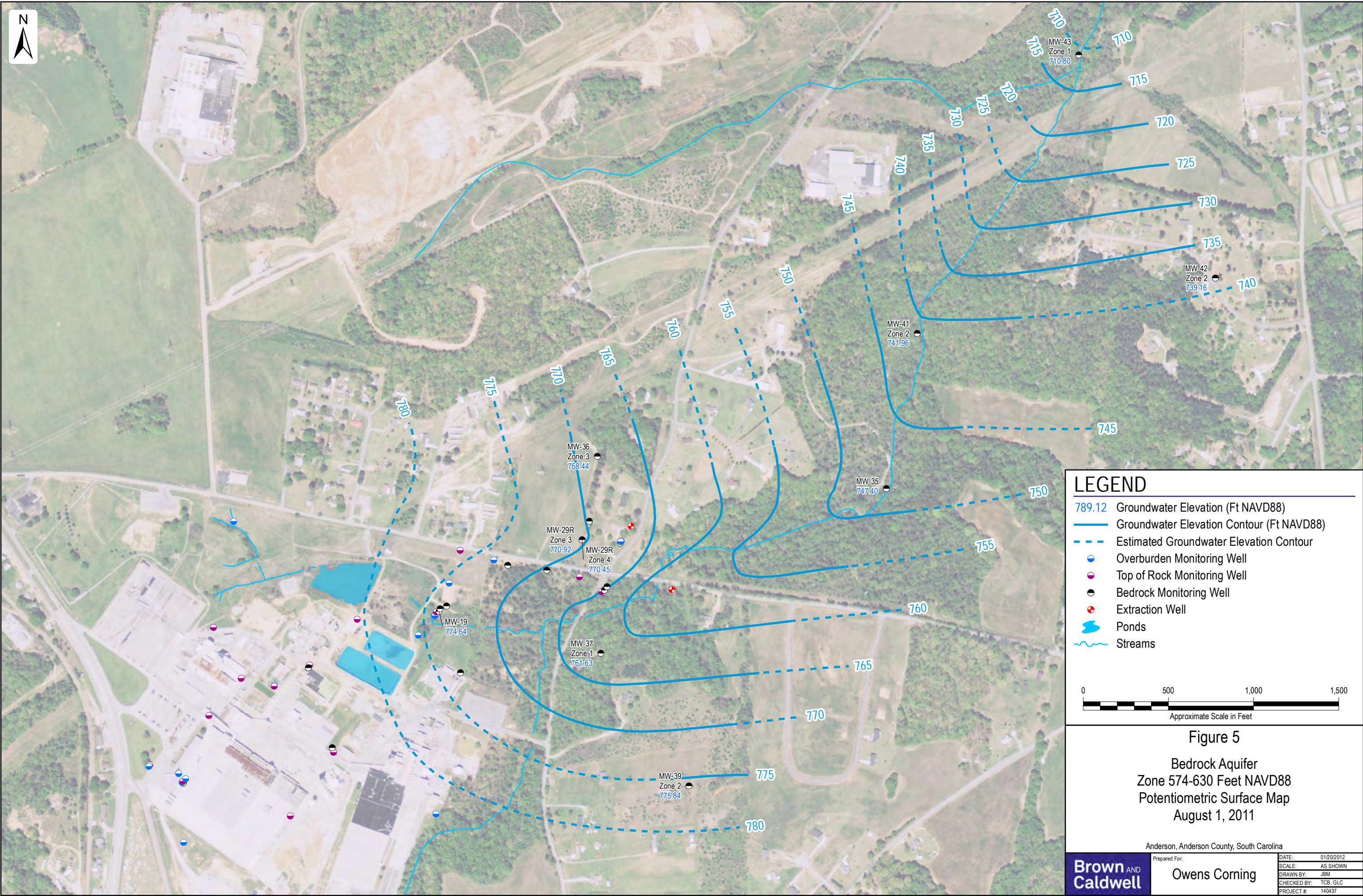
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- Groundwater Elevation Contour (Ft NAVD88)
- - - Estimated Groundwater Elevation Contour
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Ponds
- ~ Streams



**Figure 4**  
 Bedrock Aquifer  
 Zone 632-699 Feet NAVD88  
 Potentiometric Surface Map  
 August 1, 2011

Anderson, Anderson County, South Carolina

<b>Brown AND Caldwell</b>	Prepared For:	Owens Corning	DATE:	01/20/2012
			SCALE:	AS SHOWN
			DRAWN BY:	DRM
			CHECKED BY:	JBM, GLC
			PROJECT #:	140437



**LEGEND**

- 789.12 Groundwater Elevation (Ft NAVD88)
- Groundwater Elevation Contour (Ft NAVD88)
- - - Estimated Groundwater Elevation Contour
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Ponds
- ~ Streams

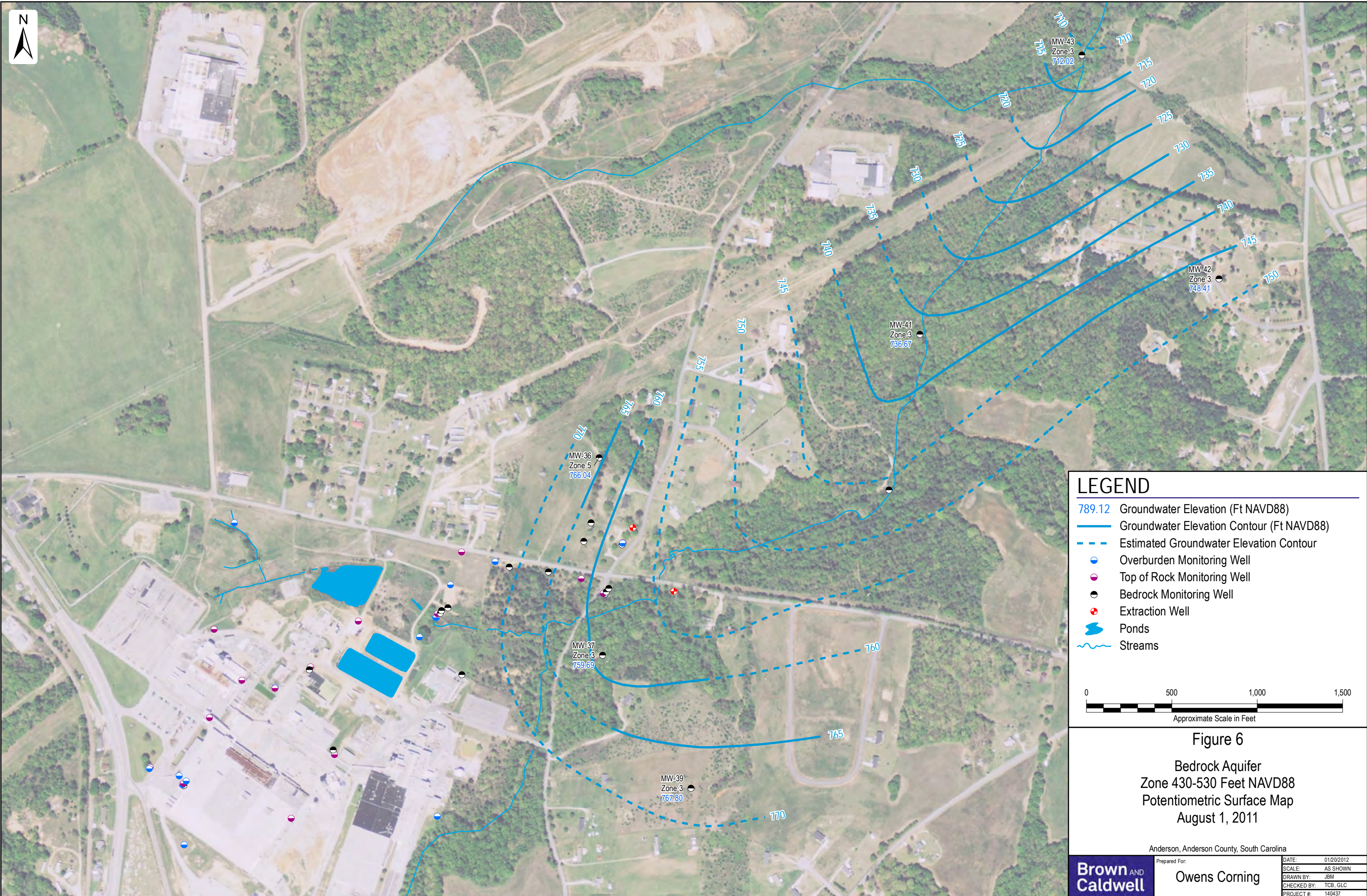
0 500 1,000 1,500  
Approximate Scale in Feet

**Figure 5**  
**Bedrock Aquifer**  
**Zone 574-630 Feet NAVD88**  
**Potentiometric Surface Map**  
**August 1, 2011**

Anderson, Anderson County, South Carolina

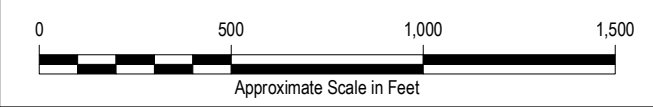
<b>Brown AND Caldwell</b>	Prepared For:	Owens Corning	DATE:	01/20/2012
			SCALE:	AS SHOWN
			DRAWN BY:	JBM
			CHECKED BY:	TCB, GLC
			PROJECT #:	140437





### LEGEND

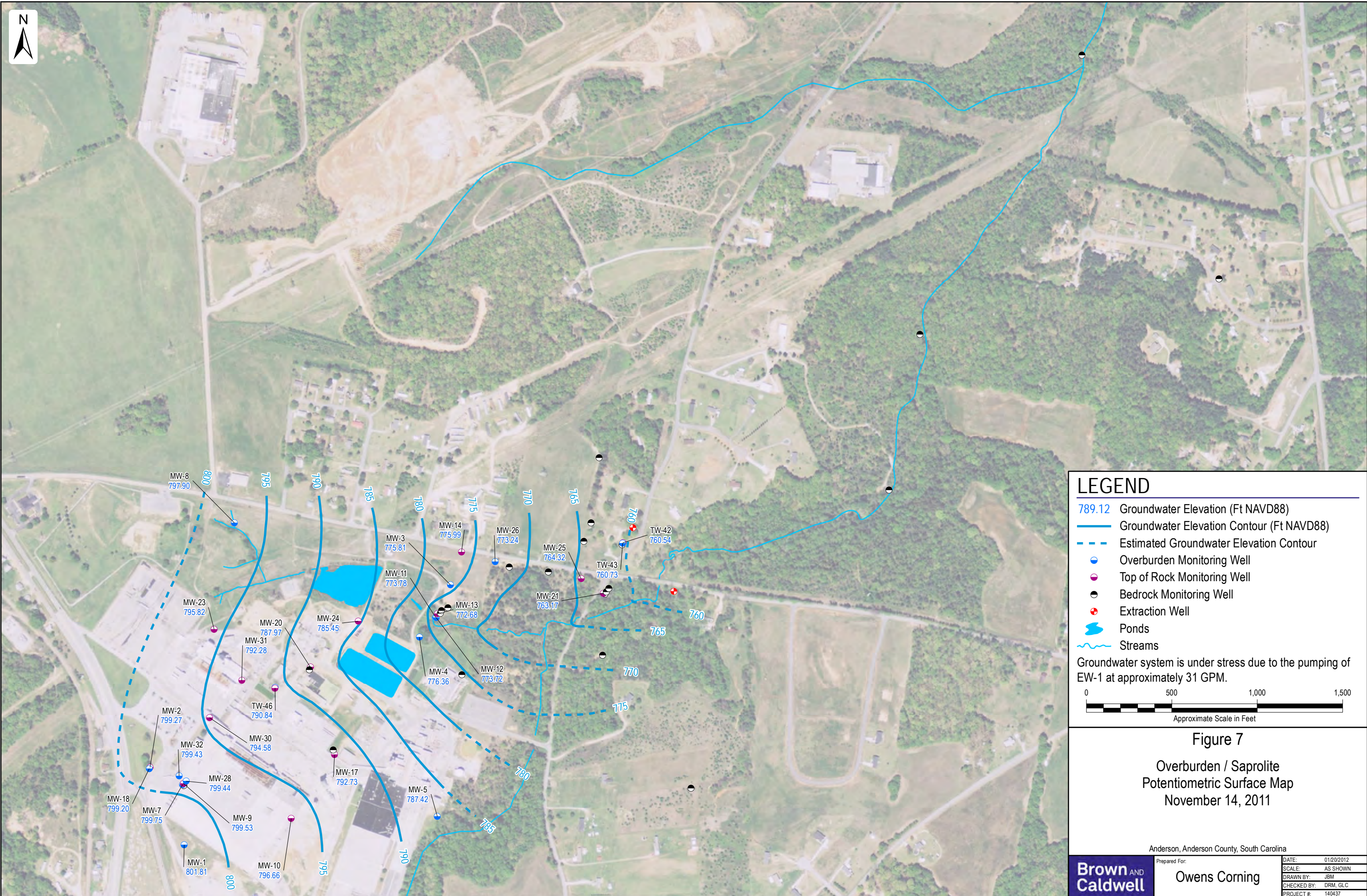
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- Groundwater Elevation Contour (Ft NAVD88)
- - - Estimated Groundwater Elevation Contour
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Ponds
- ~ Streams



**Figure 6**  
 Bedrock Aquifer  
 Zone 430-530 Feet NAVD88  
 Potentiometric Surface Map  
 August 1, 2011

Anderson, Anderson County, South Carolina

<b>Brown AND Caldwell</b>	Prepared For:	Owens Corning	DATE:	01/20/2012
			SCALE:	AS SHOWN
			DRAWN BY:	JBM
			CHECKED BY:	TCB, GLC
			PROJECT #:	140437



**LEGEND**

- 789.12 Groundwater Elevation (Ft NAVD88)
- Groundwater Elevation Contour (Ft NAVD88)
- - - Estimated Groundwater Elevation Contour
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Ponds
- ~ Streams

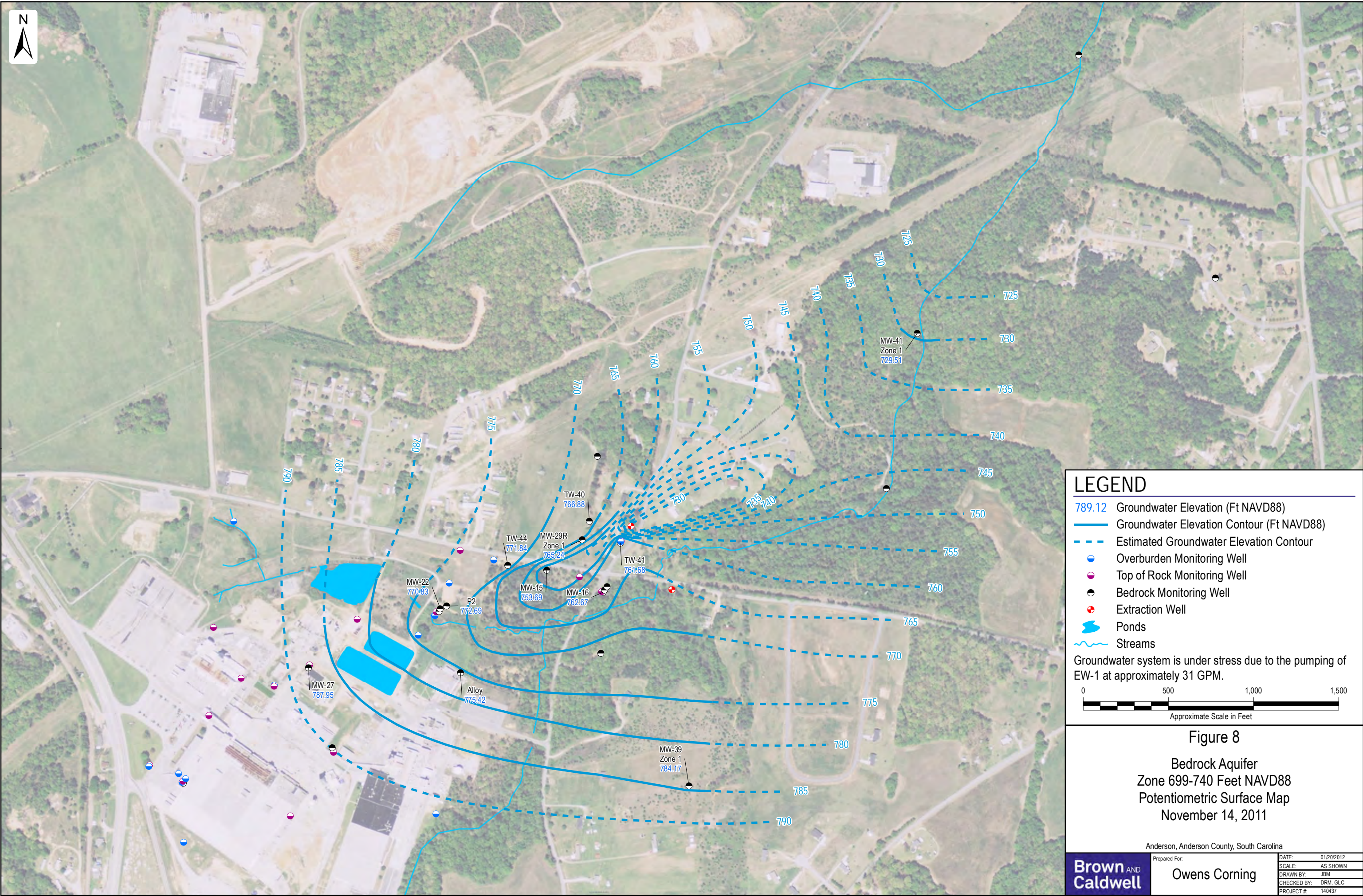
Groundwater system is under stress due to the pumping of EW-1 at approximately 31 GPM.

0 500 1,000 1,500  
Approximate Scale in Feet

**Figure 7**  
Overburden / Saprolite  
Potentiometric Surface Map  
November 14, 2011

Anderson, Anderson County, South Carolina

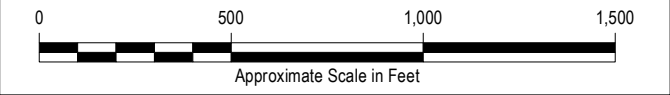
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	DATE:	01/20/2012
	SCALE:	AS SHOWN
	DRAWN BY:	JBM
	CHECKED BY:	DRM, GLC
PROJECT #:	140437	



### LEGEND

- 789.12 Groundwater Elevation (Ft NAVD88)
- Groundwater Elevation Contour (Ft NAVD88)
- - - Estimated Groundwater Elevation Contour
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Ponds
- ~ Streams

Groundwater system is under stress due to the pumping of EW-1 at approximately 31 GPM.



### Figure 8

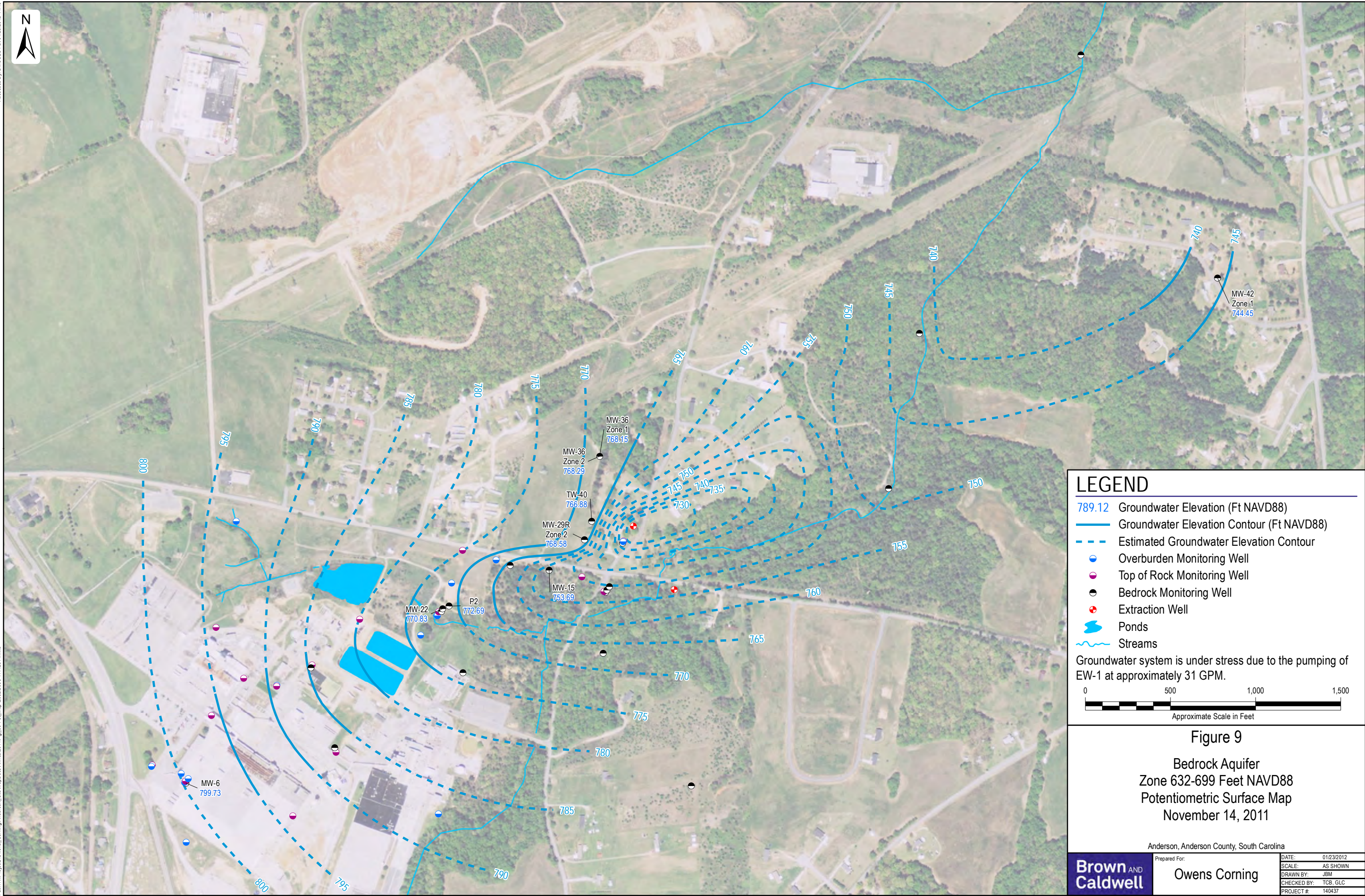
Bedrock Aquifer  
 Zone 699-740 Feet NAVD88  
 Potentiometric Surface Map  
 November 14, 2011

Anderson, Anderson County, South Carolina

**Brown AND Caldwell**

Owens Corning

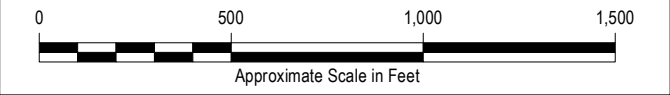
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	SCALE:	AS SHOWN
	DRAWN BY:	JBM
	CHECKED BY:	DRM, GLC
	PROJECT #:	140437



### LEGEND

- 789.12 Groundwater Elevation (Ft NAVD88)
- Groundwater Elevation Contour (Ft NAVD88)
- - - Estimated Groundwater Elevation Contour
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Ponds
- ~ Streams

Groundwater system is under stress due to the pumping of EW-1 at approximately 31 GPM.

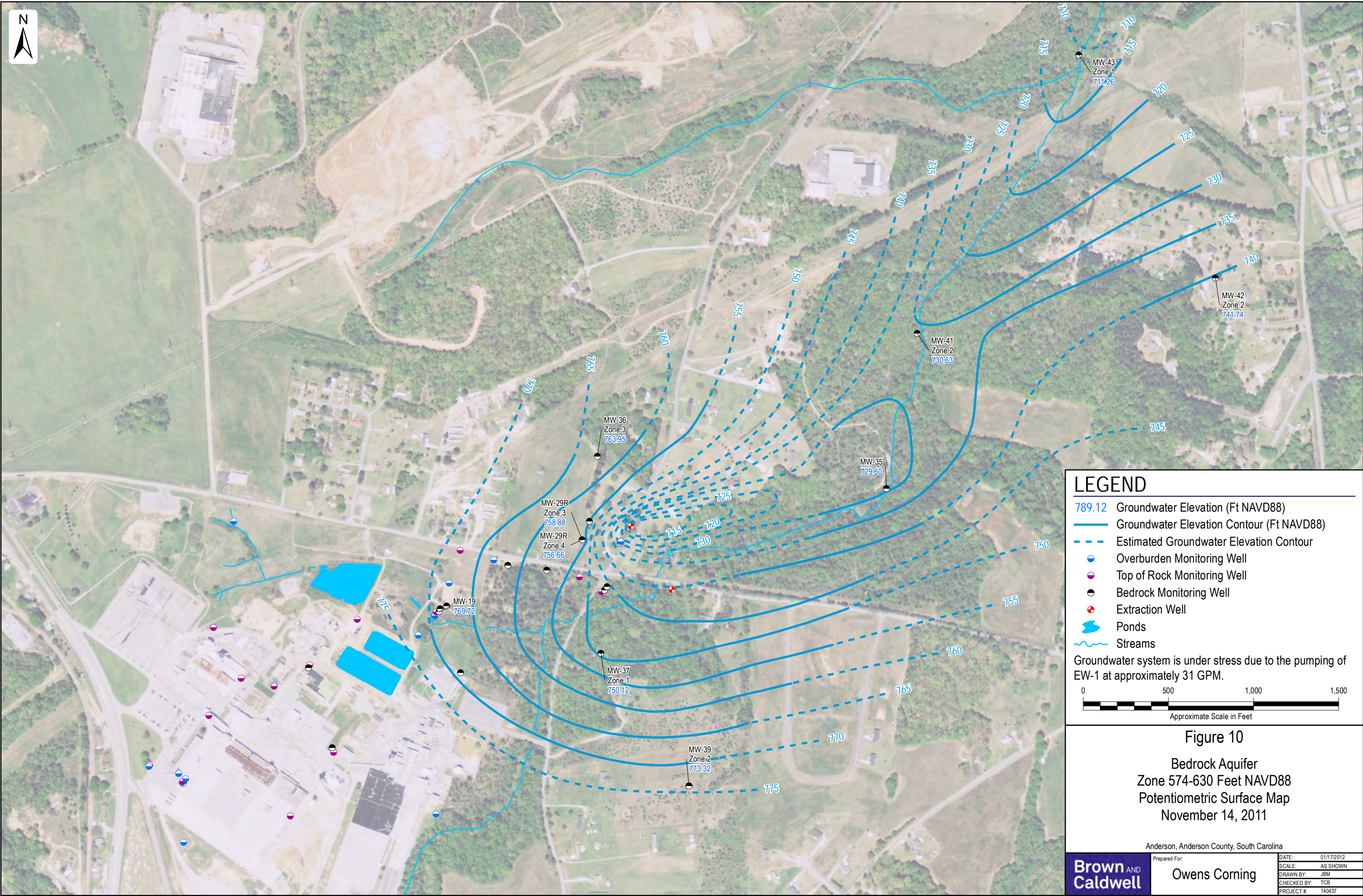


### Figure 9

Bedrock Aquifer  
 Zone 632-699 Feet NAVD88  
 Potentiometric Surface Map  
 November 14, 2011

Anderson, Anderson County, South Carolina

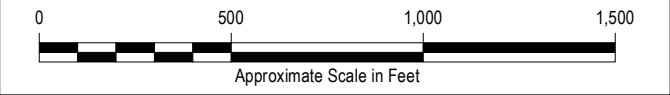
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			SCALE:	AS SHOWN
			DRAWN BY:	JBM
			CHECKED BY:	TCB, GLC
			PROJECT #:	140437



### LEGEND

- 789.12 Groundwater Elevation (Ft NAVD88)
- Groundwater Elevation Contour (Ft NAVD88)
- - - Estimated Groundwater Elevation Contour
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Ponds
- ~ Streams

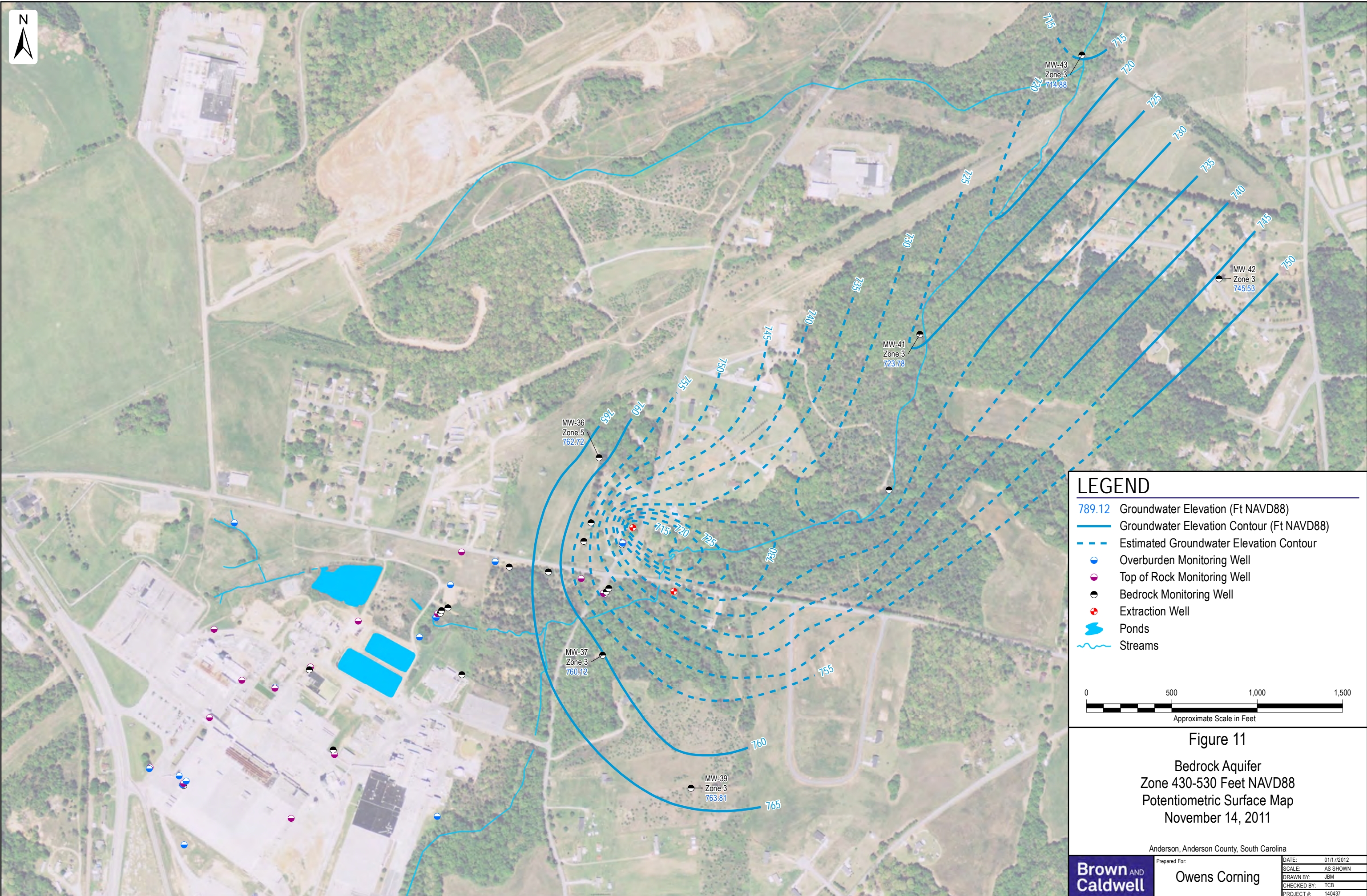
Groundwater system is under stress due to the pumping of EW-1 at approximately 31 GPM.



**Figure 10**  
 Bedrock Aquifer  
 Zone 574-630 Feet NAVD88  
 Potentiometric Surface Map  
 November 14, 2011

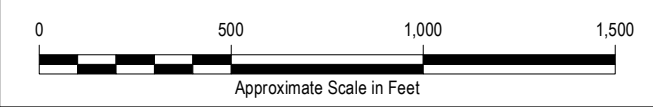
Anderson, Anderson County, South Carolina

<b>Brown AND Caldwell</b>	Prepared For:	Owens Corning	DATE:	01/17/2012
			SCALE:	AS SHOWN
			DRAWN BY:	JBM
			CHECKED BY:	TCB
			PROJECT #:	140437



### LEGEND

- 789.12 Groundwater Elevation (Ft NAVD88)
- Groundwater Elevation Contour (Ft NAVD88)
- - - Estimated Groundwater Elevation Contour
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Ponds
- ~ Streams

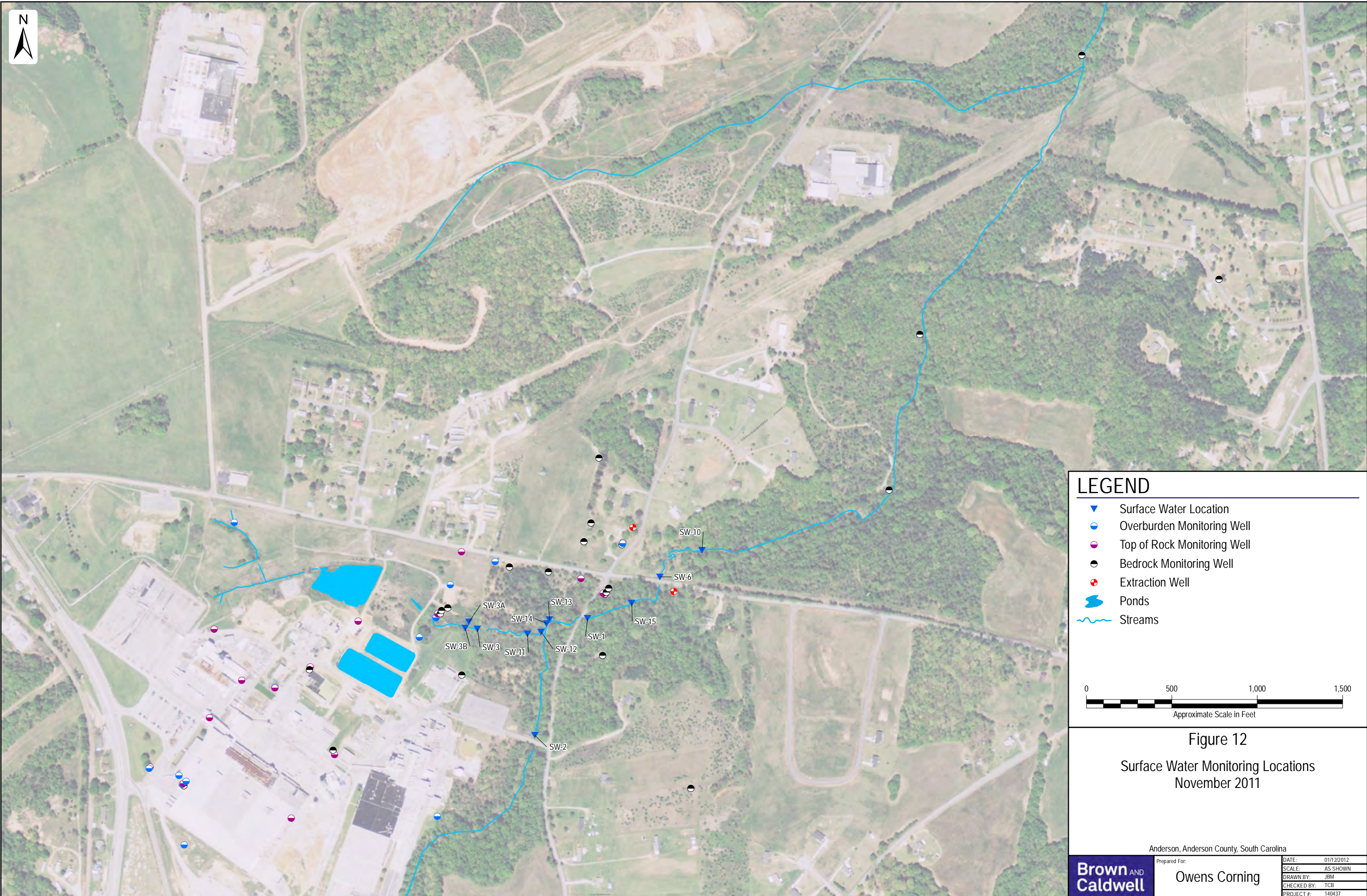


### Figure 11

Bedrock Aquifer  
 Zone 430-530 Feet NAVD88  
 Potentiometric Surface Map  
 November 14, 2011

Anderson, Anderson County, South Carolina

<b>Brown AND Caldwell</b>	Prepared For:	Owens Corning	DATE:	01/17/2012
			SCALE:	AS SHOWN
			DRAWN BY:	JBM
			CHECKED BY:	TCB
			PROJECT #:	140437



**LEGEND**

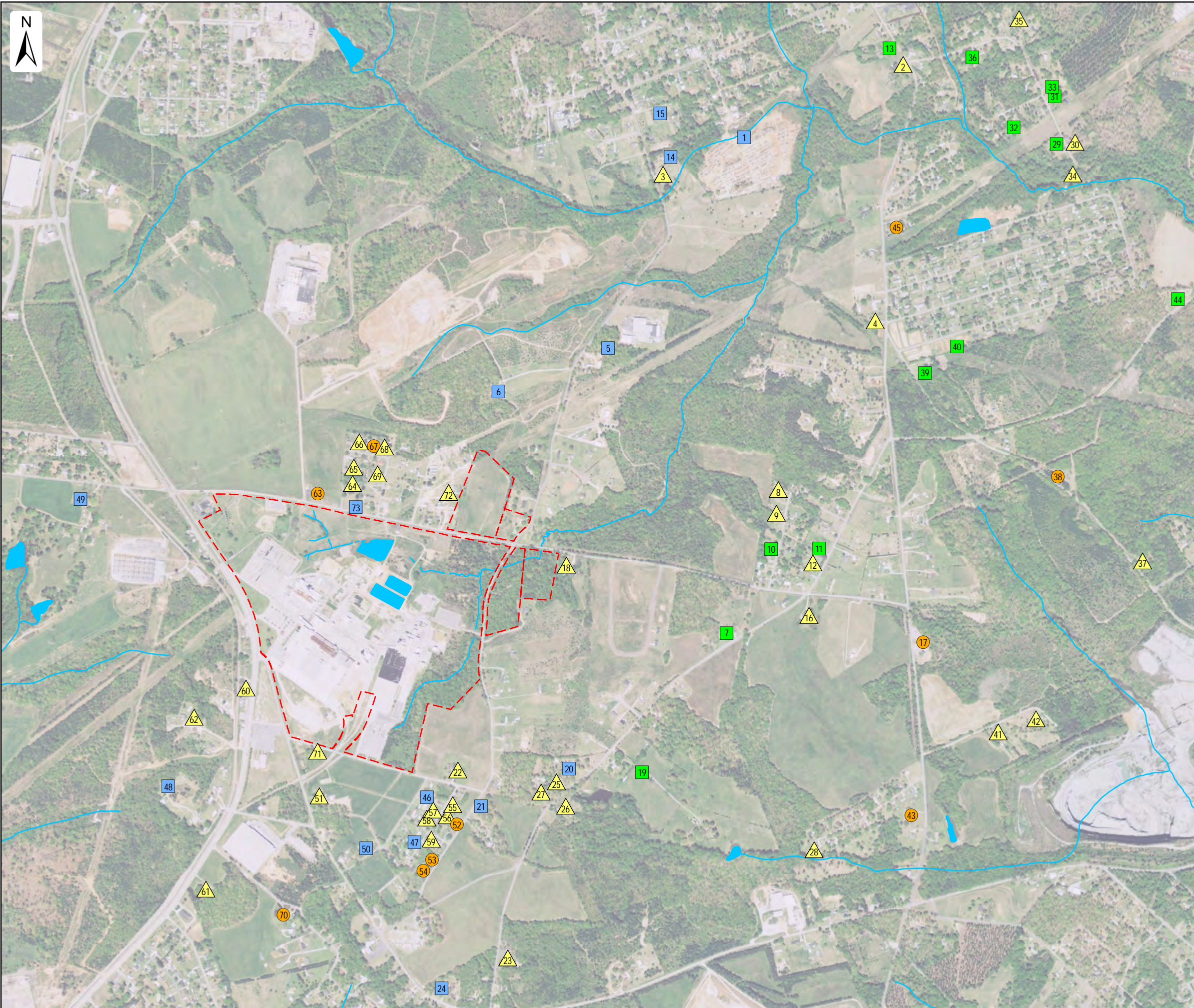
- ▼ Surface Water Location
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- ⊕ Extraction Well
- Ponds
- ~ Streams

0 500 1,000 1,500  
Approximate Scale in Feet

**Figure 12**  
Surface Water Monitoring Locations  
November 2011

Anderson, Anderson County, South Carolina

<b>Brown AND Caldwell</b>	Prepared For:	Owens Corning
	DATE:	01/12/2012
	SCALE:	AS SHOWN
	DRAWN BY:	JBM
	CHECKED BY:	TCB
PROJECT #:		140437



**LEGEND**

- - - Owens Corning Property Boundaries
- Well Sampled Semiannually
- Well Previously Sampled
- ▲ Not in Service
- Well Observed
- 77 A Map ID that corresponds to Table 8 - Addresses of Identified Residential Wells.
- Ponds
- ~ Streams

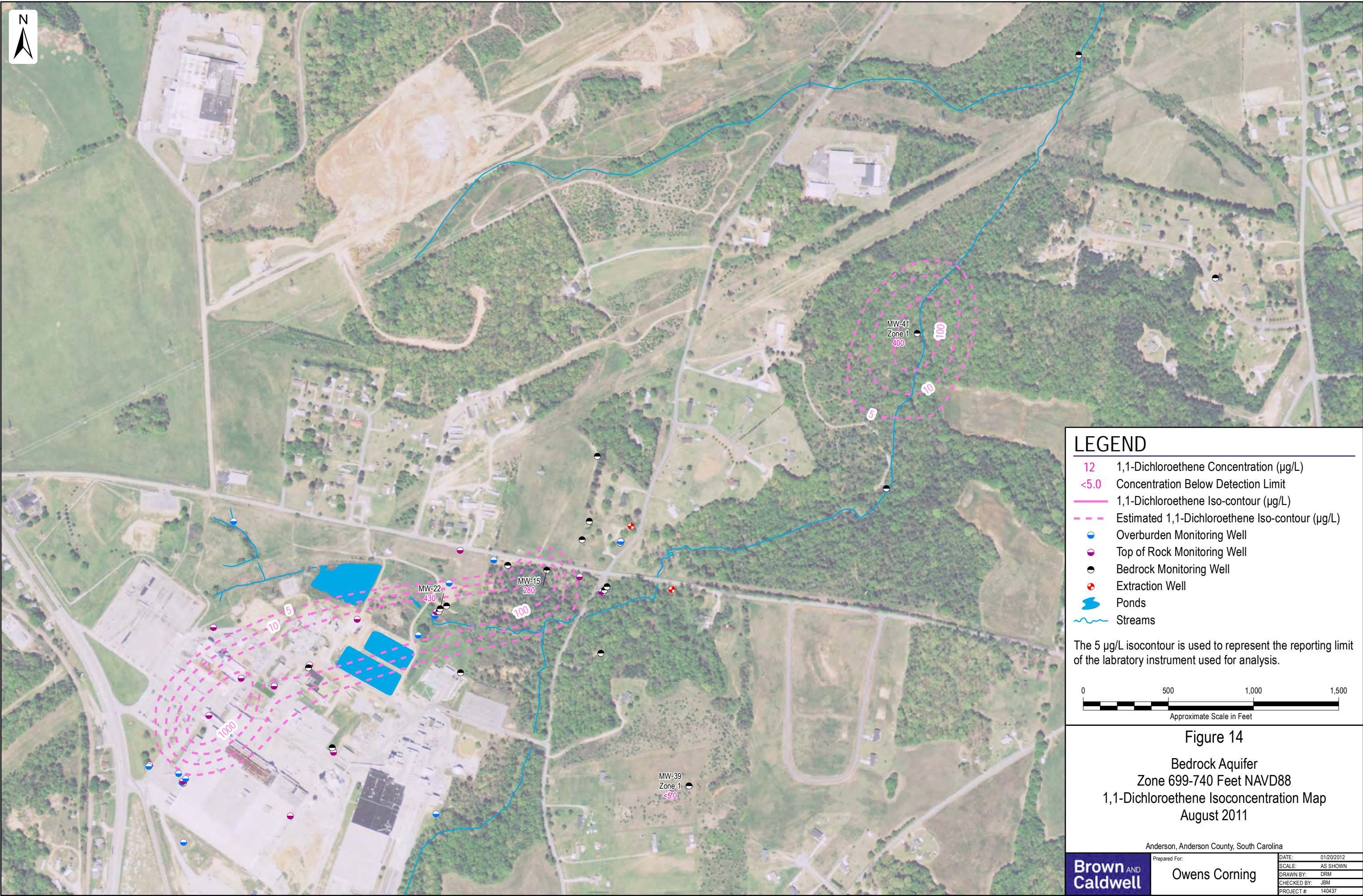
0 500 1,000 1,500  
Approximate Scale in Feet

**Figure 13**  
Residential Well Sampling Location Map  
November 2011

Anderson, Anderson County, South Carolina

<b>Brown AND Caldwell</b>	Prepared For:	Owens Corning
	DATE:	01/12/2012
	SCALE:	AS SHOWN
	DRAWN BY:	DRM
	CHECKED BY:	XXX
PROJECT #:		140437





**LEGEND**

- 12 1,1-Dichloroethene Concentration (µg/L)
- <5.0 Concentration Below Detection Limit
- 1,1-Dichloroethene Iso-contour (µg/L)
- Estimated 1,1-Dichloroethene Iso-contour (µg/L)
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Ponds
- Streams

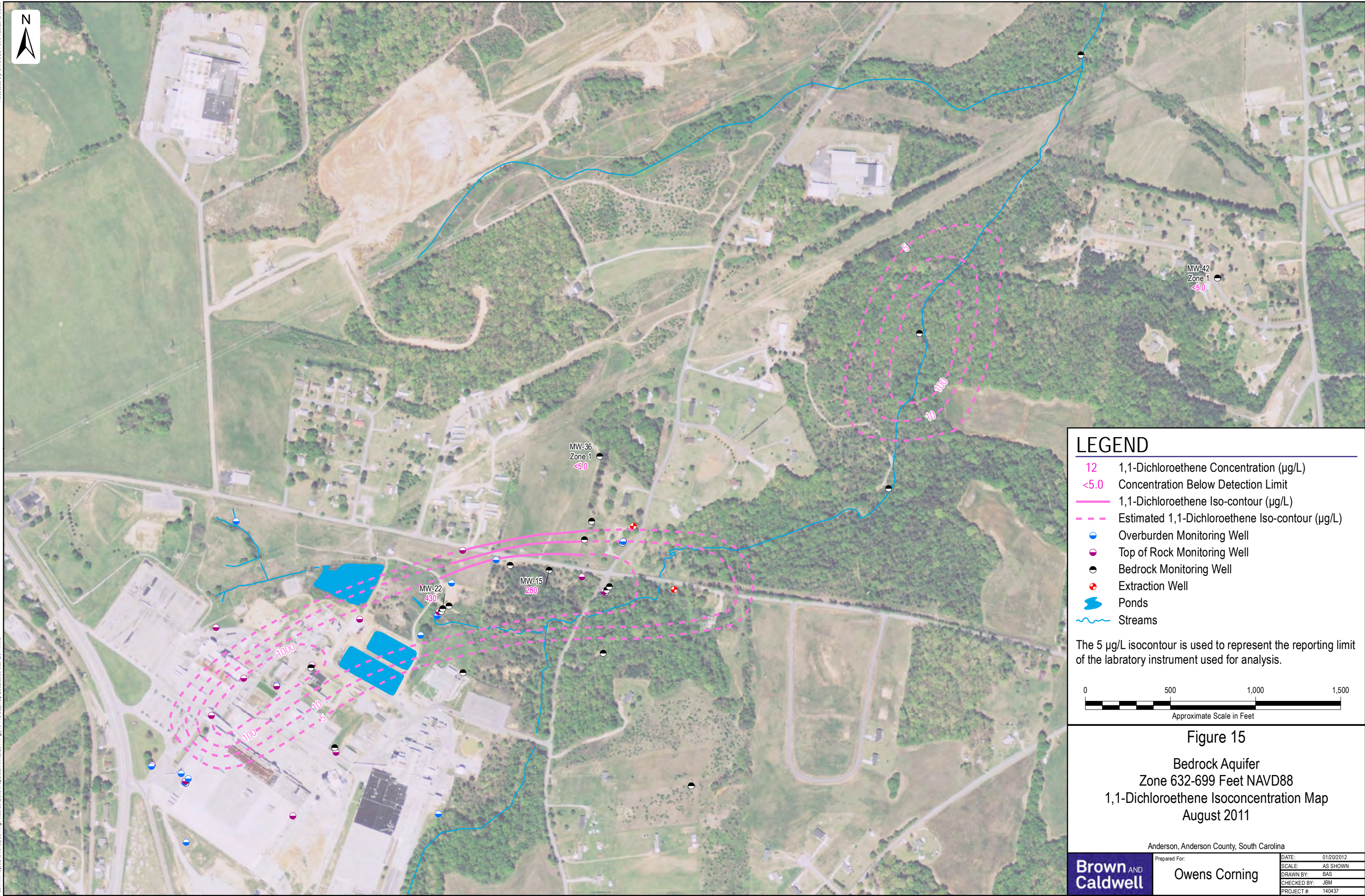
The 5 µg/L isocontour is used to represent the reporting limit of the laboratory instrument used for analysis.

0 500 1,000 1,500  
Approximate Scale in Feet

**Figure 14**  
 Bedrock Aquifer  
 Zone 699-740 Feet NAVD88  
 1,1-Dichloroethene Isoconcentration Map  
 August 2011

Anderson, Anderson County, South Carolina

<b>Brown AND Caldwell</b>	Prepared For:	Owens Corning
	DATE:	01/20/2012
	SCALE:	AS SHOWN
	DRAWN BY:	DRM
	CHECKED BY:	JBM
	PROJECT #:	140437



**LEGEND**

- 12 1,1-Dichloroethene Concentration (µg/L)
- <5.0 Concentration Below Detection Limit
- 1,1-Dichloroethene Iso-contour (µg/L)
- Estimated 1,1-Dichloroethene Iso-contour (µg/L)
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Ponds
- Streams

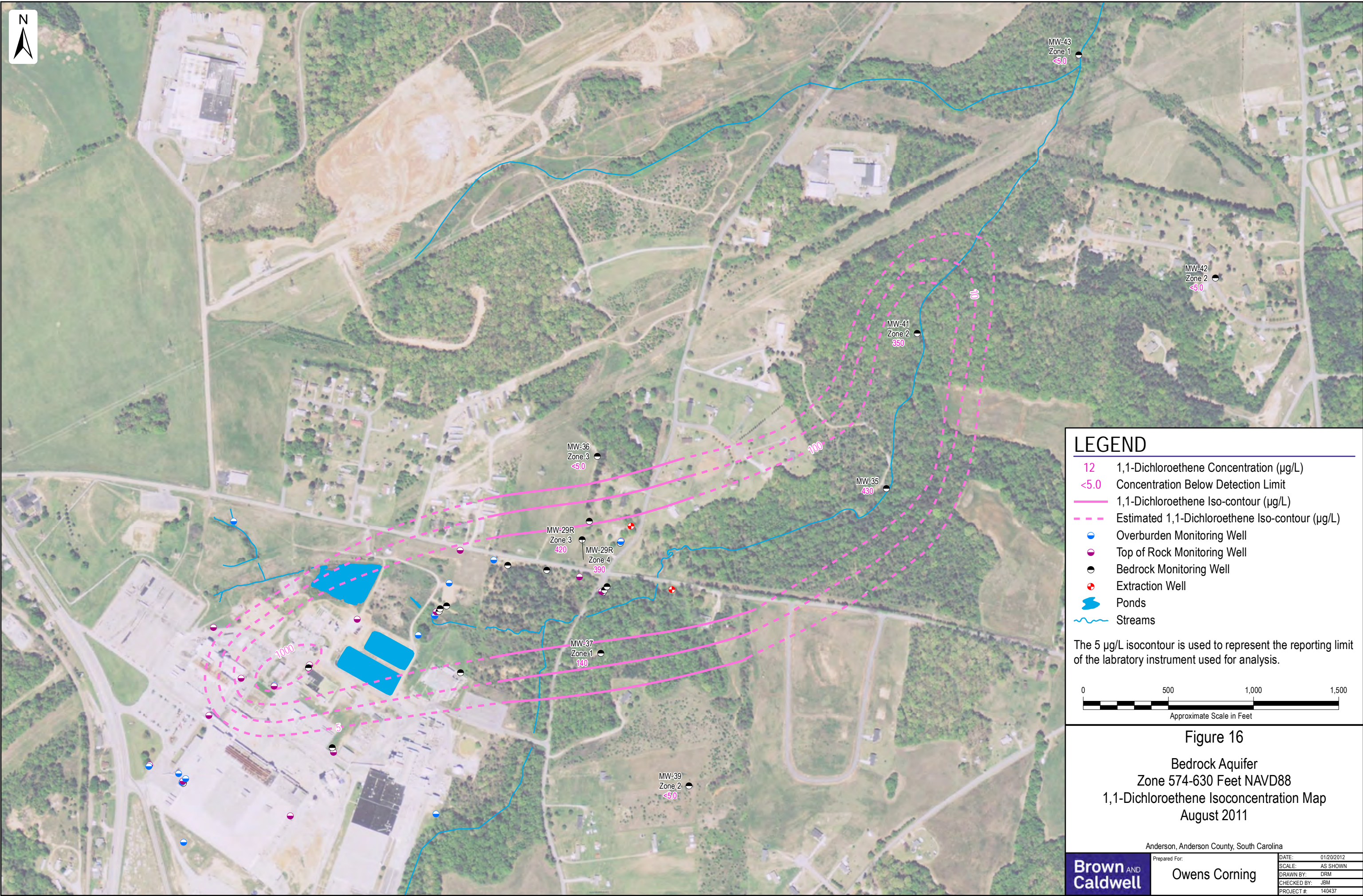
The 5 µg/L isocontour is used to represent the reporting limit of the laboratory instrument used for analysis.

0 500 1,000 1,500  
Approximate Scale in Feet

**Figure 15**  
 Bedrock Aquifer  
 Zone 632-699 Feet NAVD88  
 1,1-Dichloroethene Isoconcentration Map  
 August 2011

Anderson, Anderson County, South Carolina

<b>Brown AND Caldwell</b>	Prepared For:	Owens Corning	DATE:	01/20/2012
			SCALE:	AS SHOWN
			DRAWN BY:	BAS
			CHECKED BY:	JBM
			PROJECT #:	140437



**LEGEND**

- 12 1,1-Dichloroethene Concentration (µg/L)
- <5.0 Concentration Below Detection Limit
- 1,1-Dichloroethene Iso-contour (µg/L)
- - - Estimated 1,1-Dichloroethene Iso-contour (µg/L)
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Ponds
- ~ Streams

The 5 µg/L isocontour is used to represent the reporting limit of the laboratory instrument used for analysis.

0 500 1,000 1,500  
Approximate Scale in Feet

**Figure 16**  
 Bedrock Aquifer  
 Zone 574-630 Feet NAVD88  
 1,1-Dichloroethene Isoconcentration Map  
 August 2011

Anderson, Anderson County, South Carolina

<b>Brown AND Caldwell</b>	Prepared For:	Owens Corning	DATE:	01/20/2012
			SCALE:	AS SHOWN
			DRAWN BY:	DRM
			CHECKED BY:	JBM
			PROJECT #:	140437



**LEGEND**

- 12 1,1-Dichloroethene Concentration (µg/L)
- <5.0 Concentration Below Detection Limit
- 1,1-Dichloroethene Iso-contour (µg/L)
- Estimated 1,1-Dichloroethene Iso-contour (µg/L)
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Ponds
- Streams

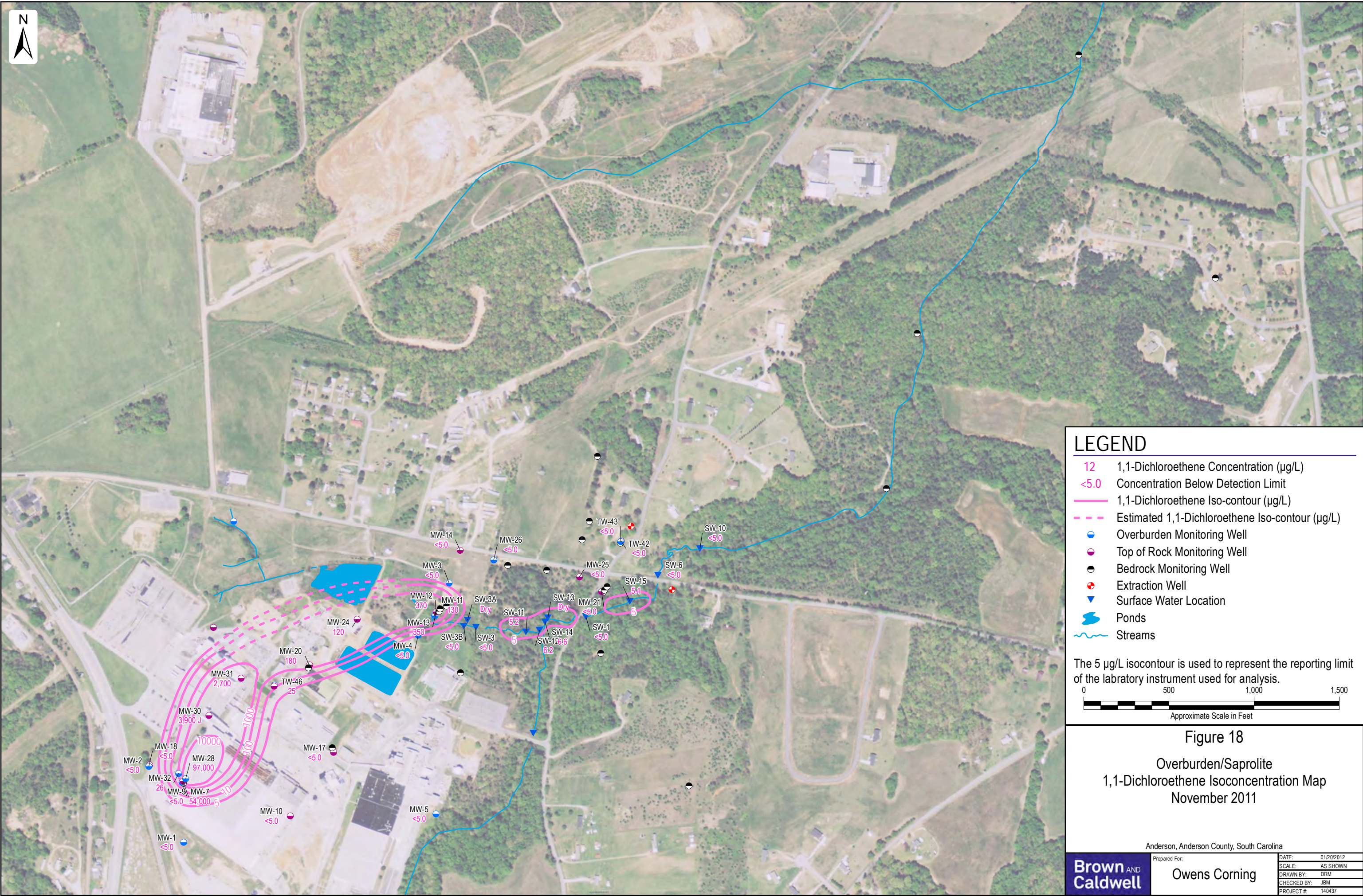
The 5 µg/L isocontour is used to represent the reporting limit of the laboratory instrument used for analysis.

0 500 1,000 1,500  
Approximate Scale in Feet

**Figure 17**  
 Bedrock Aquifer  
 Zone 430-530 Feet NAVD88  
 1,1-Dichloroethene Isoconcentration Map  
 August 2011

Anderson, Anderson County, South Carolina

<b>Brown AND Caldwell</b>	Prepared For:	Owens Corning
	DATE:	01/20/2012
	SCALE:	AS SHOWN
	DRAWN BY:	DRM
	CHECKED BY:	TCB
	PROJECT #:	140437



**LEGEND**

- 12 1,1-Dichloroethene Concentration ( $\mu\text{g/L}$ )
- <5.0 Concentration Below Detection Limit
- 1,1-Dichloroethene Iso-contour ( $\mu\text{g/L}$ )
- Estimated 1,1-Dichloroethene Iso-contour ( $\mu\text{g/L}$ )
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Surface Water Location
- Ponds
- Streams

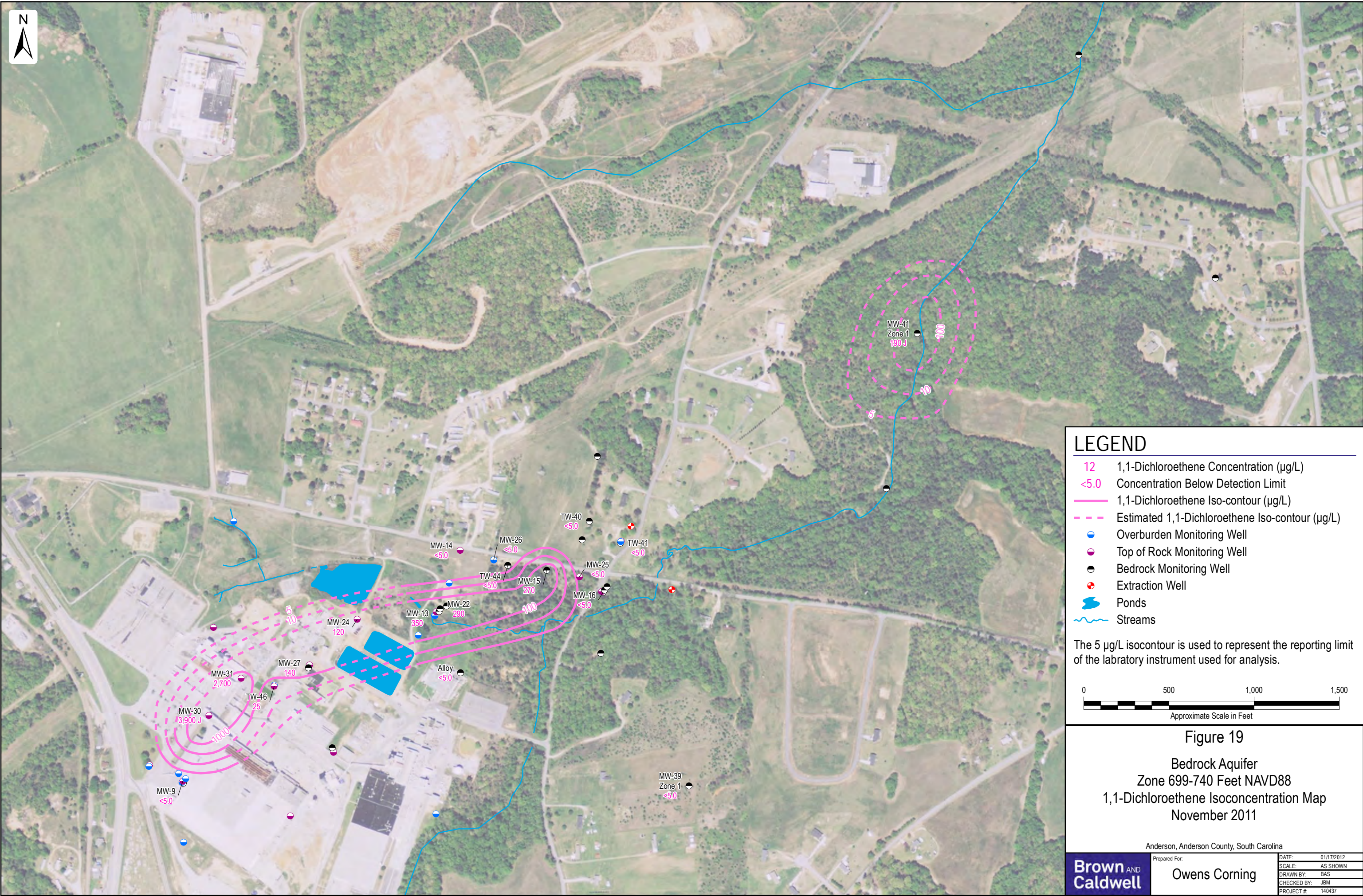
The 5  $\mu\text{g/L}$  isocontour is used to represent the reporting limit of the laboratory instrument used for analysis.

0 500 1,000 1,500  
Approximate Scale in Feet

**Figure 18**  
Overburden/Saprolite  
1,1-Dichloroethene Isoconcentration Map  
November 2011

Anderson, Anderson County, South Carolina

<b>Brown AND Caldwell</b>	Prepared For:	Owens Corning	DATE:	01/20/2012
			SCALE:	AS SHOWN
			DRAWN BY:	DRM
			CHECKED BY:	JBM
			PROJECT #:	140437



**LEGEND**

- 12 1,1-Dichloroethene Concentration (µg/L)
- <5.0 Concentration Below Detection Limit
- 1,1-Dichloroethene Iso-contour (µg/L)
- Estimated 1,1-Dichloroethene Iso-contour (µg/L)
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Ponds
- Streams

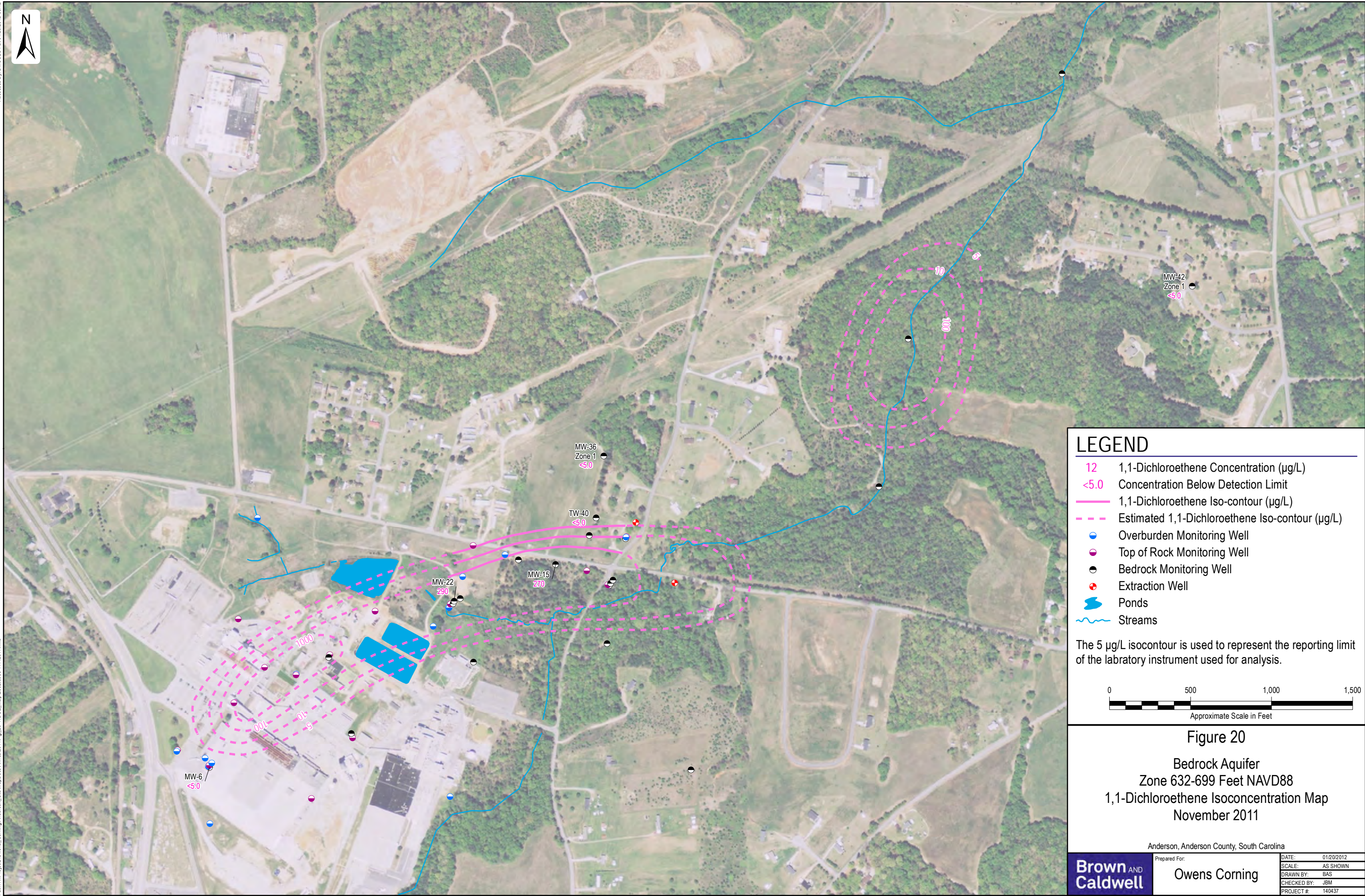
The 5 µg/L isocontour is used to represent the reporting limit of the laboratory instrument used for analysis.

0 500 1,000 1,500  
Approximate Scale in Feet

**Figure 19**  
 Bedrock Aquifer  
 Zone 699-740 Feet NAVD88  
 1,1-Dichloroethene Isoconcentration Map  
 November 2011

Anderson, Anderson County, South Carolina

<b>Brown AND Caldwell</b>	Prepared For:	Owens Corning
	DATE:	01/17/2012
	SCALE:	AS SHOWN
	DRAWN BY:	BAS
	CHECKED BY:	JBM
	PROJECT #:	140437



**LEGEND**

- 12 1,1-Dichloroethene Concentration ( $\mu\text{g/L}$ )
- <math><5.0</math> Concentration Below Detection Limit
- 1,1-Dichloroethene Iso-contour ( $\mu\text{g/L}$ )
- Estimated 1,1-Dichloroethene Iso-contour ( $\mu\text{g/L}$ )
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Ponds
- Streams

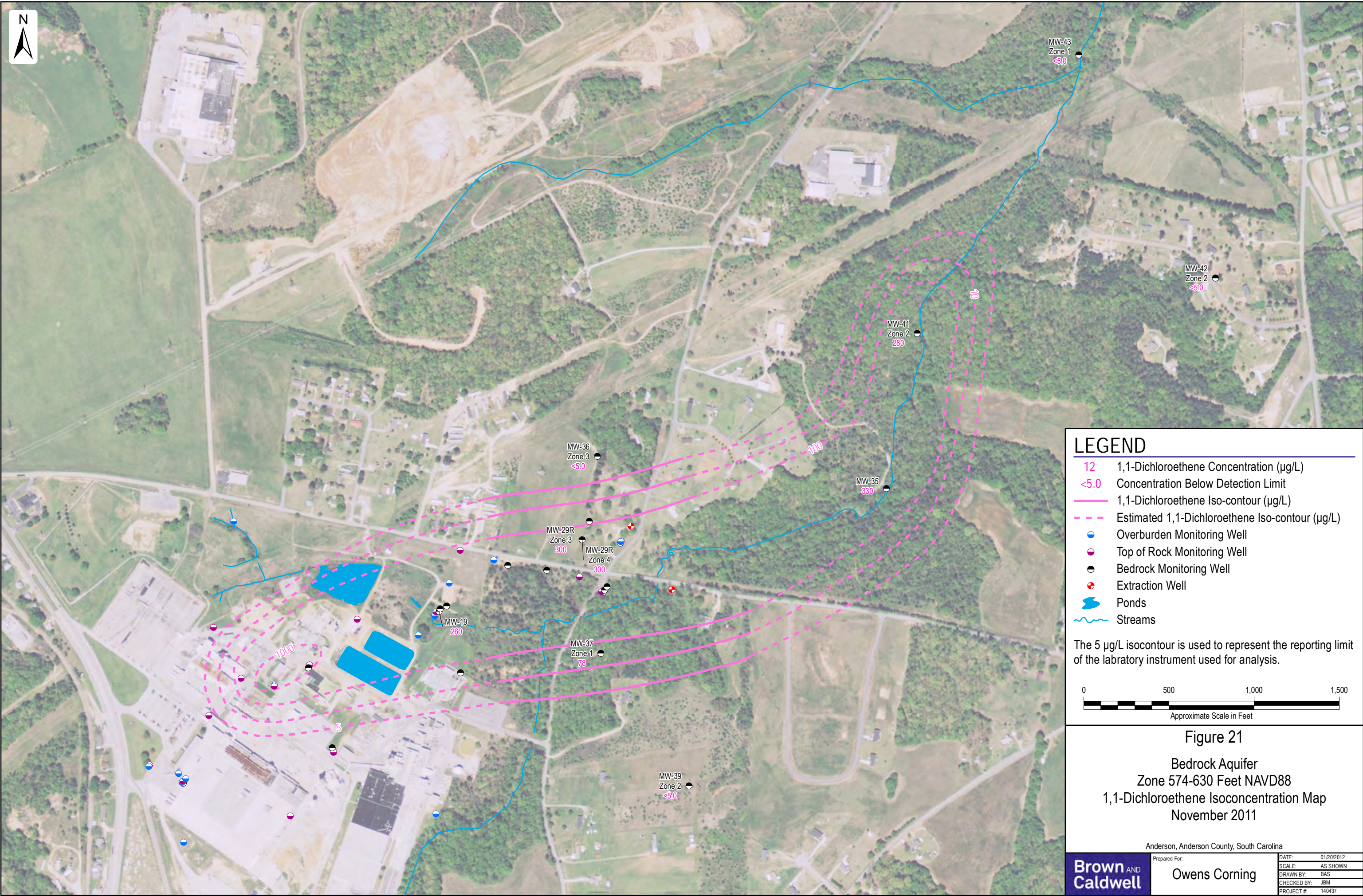
The 5  $\mu\text{g/L}$  isocontour is used to represent the reporting limit of the laboratory instrument used for analysis.

Approximate Scale in Feet

**Figure 20**  
 Bedrock Aquifer  
 Zone 632-699 Feet NAVD88  
 1,1-Dichloroethene Isoconcentration Map  
 November 2011

Anderson, Anderson County, South Carolina

<b>Brown AND Caldwell</b>	Prepared For:	Owens Corning	DATE:	01/20/2012
			SCALE:	AS SHOWN
			DRAWN BY:	BAS
			CHECKED BY:	JBM
			PROJECT #:	140437



**LEGEND**

- 12 1,1-Dichloroethene Concentration (µg/L)
- <5.0 Concentration Below Detection Limit
- 1,1-Dichloroethene Iso-contour (µg/L)
- - - Estimated 1,1-Dichloroethene Iso-contour (µg/L)
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Ponds
- Streams

The 5 µg/L isocontour is used to represent the reporting limit of the laboratory instrument used for analysis.

0 500 1,000 1,500  
Approximate Scale in Feet

**Figure 21**  
 Bedrock Aquifer  
 Zone 574-630 Feet NAVD88  
 1,1-Dichloroethene Isoconcentration Map  
 November 2011

Anderson, Anderson County, South Carolina

<b>Brown AND Caldwell</b>	Prepared For:	Owens Corning	DATE:	01/20/2012
			SCALE:	AS SHOWN
			DRAWN BY:	BAS
			CHECKED BY:	JBM
			PROJECT #:	140437





**LEGEND**

- 12 1,1-Dichloroethene Concentration ( $\mu\text{g/L}$ )
- <math><5.0</math> Concentration Below Detection Limit
- 1,1-Dichloroethene Iso-contour ( $\mu\text{g/L}$ )
- - - Estimated 1,1-Dichloroethene Iso-contour ( $\mu\text{g/L}$ )
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Ponds
- Streams

The 5  $\mu\text{g/L}$  isocontour is used to represent the reporting limit of the laboratory instrument used for analysis.

0 500 1,000 1,500  
Approximate Scale in Feet

**Figure 22**  
 Bedrock Aquifer  
 Zone 430-530 Feet NAVD88  
 1,1-Dichloroethene Isoconcentration Map  
 November 2011

Anderson, Anderson County, South Carolina

<b>Brown AND Caldwell</b>	Prepared For:	Owens Corning
	DATE:	01/20/2012
	SCALE:	AS SHOWN
	DRAWN BY:	DRM
	CHECKED BY:	JBM
	PROJECT #:	140437

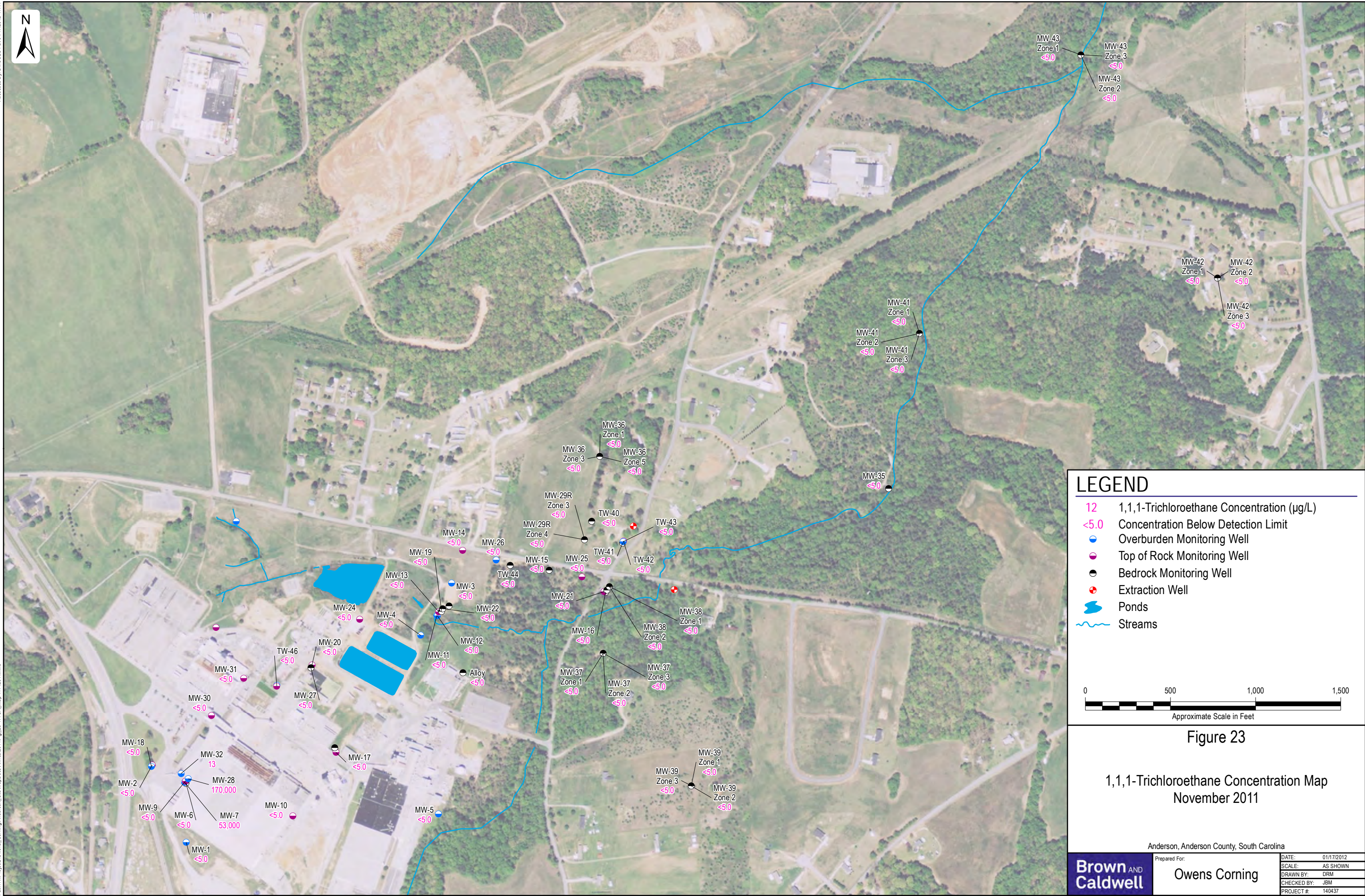


Table 1. Quarterly Sampling Groundwater Elevation Data - August 2011						
Owens Corning - Anderson, SC						
Monitoring Well	Screen Interval (ft bgs)	Screened Interval Location	Surface Elevation (ft NAVD88)	TOC Elevation (ft NAVD88)	Static Depth to Water (ft Below TOC) 8/1/2011	Static Water Elevation, (ft NAVD88) 8/1/2011
MW-3	13-28	O	795.61	796.76	20.06	776.70
MW-4	14.7-29.7	O	796.72	798.38	20.47	777.91
MW-6	123.6-133.6	BR	819.82	819.69	18.58	801.11
MW-11	6.0-16.0	O	778.32	780.22	4.79	775.43
MW-12	23-33	O	778.42	780.95	5.28	775.67
MW-13	67-72	TOR	779.20	782.22	6.62	775.60
MW-14	69.2-74.2	TOR	796.39	798.45	21.22	777.23
MW-15	69.5-99.5	BR	777.11	779.45	14.30	765.15
MW-16	49-59	BR	768.14	770.37	8.38	761.99
MW-19	154-169	BR	779.69	781.81	7.17	774.64
MW-21	6.5-16.5	TOR	768.63	771.15	8.55	762.60
MW-22	78-116	BR	780.45	782.65	7.80	774.85
MW-23	83-93	TOR	808.97	811.47	14.55	796.92
MW-25	40-50	TOR	774.40	776.71	12.93	763.78
MW-26	56.7-66.7	O	790.40	793.09	18.84	774.25
MW-27	69-99	BR	808.93	811.13	22.57	788.56
MW-29R Zone 1	56.7-69.8	BR	784.90	787.03	18.80	768.23
MW-29R Zone 2	127.3-139.5	BR	784.90	787.03	16.35	770.68
MW-29R Zone 3	154.5-169.6	BR	784.90	787.03	16.11	770.92
MW-29R Zone 4	177.6-202.2	BR	784.90	787.03	16.58	770.45
MW-35	152-162	BR	740.90	743.73	-3.67	747.40
MW-36 Zone 1	99.1-116	BR	783.00	785.63	15.53	770.10
MW-36 Zone 2	139.5-150.7	BR	783.00	785.63	15.32	770.31
MW-36 Zone 3	180.2-192.7	BR	783.00	785.63	17.19	768.44
MW-36 Zone 4	225.6-239.2	BR	783.00	785.63	16.81	768.82
MW-36 Zone 5	269.9-275	BR	783.00	785.63	19.59	766.04
MW-37 Zone 1	185-195	BR	780.20	782.92	21.29	761.63
MW-37 Zone 2	222-232	BR	780.20	782.84	17.65	765.19
MW-37 Zone 3	257-272	BR	780.20	782.79	23.10	759.69
MW-38 Zone 1	415-430	BR	768.10	771.23	0.10	771.13
MW-38 Zone 2	479.6-499.6	BR	768.10	771.18	-7.00	778.18
MW-39 Zone 1	95-105	BR	804.10	806.20	19.82	786.38
MW-39 Zone 2	195-215	BR	804.10	806.20	30.36	775.84
MW-39 Zone 3	280-300	BR	804.10	806.20	38.40	767.80
MW-41 Zone 1	17-32	BR	733.40	736.56	6.95	729.61
MW-41 Zone 2	109-129	BR	733.40	736.79	-5.17	741.96
MW-41 Zone 3	279-299	BR	733.40	736.77	0.10	736.67
MW-42 Zone 1	114-129	BR	785.50	785.44	38.98	746.46
MW-42 Zone 2	202-222	BR	785.50	785.42	46.26	739.16
MW-42 Zone 3	265-285	BR	785.50	785.40	36.99	748.41
MW-43 Zone 1	92.5 - 112.5	BR	716.15	719.19	8.39	710.80
MW-43 Zone 2	150 - 180	BR	716.15	719.20	6.22	712.98
MW-43 Zone 3	262.5 - 282.5	BR	716.15	719.17	7.15	712.02
P2	53-115	BR	783.93	785.65	10.36	775.29
Alloy	56-61	BR	789.56	791.69	15.69	776.00
TW-40	84-94	BR	785.81	788.63	20.08	768.55
TW-41	50.3-55.3	BR	775.50	778.84	16.79	762.05
TW-42	21-26	TOR	775.86	778.09	17.34	760.75
TW-43	8.6-18.6	O	775.82	778.15	17.21	760.94
TW-44	64-74	BR	782.68	785.52	12.98	772.54

bgs - below ground surface  
 BR - bedrock  
 O - overburden  
 TOR - top of rock  
 TOC - top of casing  
 NAVD88 - North American Vertical Datum of 1988  
 ft bgs - feet below ground surface

MW-41 Zone 2, MW-38 Zone 2 TOC elevation has been adjusted by adding couplings and ball valve to surveyed elevation at top of casing  
 Static depth to water at artesian wells (MW-36 Zone 1, MW-38 Zone 2, and MW-41 Zone 2) were measured by attaching a pressure gauge to top of ball valve, these values are indicated by the "-" before the measured value

**Table 2. Annual Sampling Groundwater Elevation Data - November 2011**  
**Owens Corning - Anderson, SC**

Monitoring Well	Screen Interval (ft bgs)	Screened Interval Location	Surface Elevation (ft NAVD88)	TOC Elevation (ft NAVD88)	Static Depth to Water (ft Below TOC) 11/14/2011	Static Water Elevation, (ft NAVD88) 11/14/2011
MW-1	55-65	O	824.27	826.62	24.81	801.81
MW-2	56.7-66.7	TOR	820.26	822.68	23.41	799.27
MW-3	13-28	O	795.61	796.76	20.95	775.81
MW-4	14.7-29.7	O	796.72	798.38	22.02	776.36
MW-5	12.0-27.0	O	804.74	806.50	19.08	787.42
MW-6	123.6-133.6	BR	819.82	819.69	19.96	799.73
MW-7	15.9-30.9	O	819.70	819.27	19.52	799.75
MW-8	5.5-20.5	O	799.29	801.56	3.66	797.90
MW-9	94-104	TOR	819.75	819.41	19.88	799.53
MW-10	61.4-71.4	TOR	823.92	823.65	26.99	796.66
MW-11	6.0-16.0	O	778.32	780.22	6.44	773.78
MW-12	23-33	O	778.42	780.95	7.23	773.72
MW-13	67-72	TOR	779.20	782.22	9.54	772.68
MW-14	69.2-74.2	TOR	796.39	798.45	22.46	775.99
MW-15	69.5-99.5	BR	777.11	779.45	25.76	753.69
MW-16	49-59	BR	768.14	770.37	7.70	762.67
MW-17	24.1-39.1	TOR	813.66	816.07	23.34	792.73
MW-18	10.6-25.6	O	820.36	822.71	23.51	799.20
MW-19	154-169	BR	779.69	781.81	12.09	769.72
MW-20	57-67	TOR	808.70	810.95	22.98	787.97
MW-21	6.5-16.5	TOR	768.63	771.15	7.98	763.17
MW-22	78-116	BR	780.45	782.65	11.82	770.83
MW-23	83-93	TOR	808.97	811.47	15.65	795.82
MW-24	61-71	TOR	796.50	796.26	10.81	785.45
MW-25	40-50	TOR	774.40	776.71	12.39	764.32
MW-26	56.7-66.7	O	790.40	793.09	19.85	773.24
MW-27	69-99	BR	808.93	811.13	23.18	787.95
MW-28	21-31	O	819.97	819.77	20.33	799.44
MW-29R Zone 1	56.7-69.8	BR	784.90	787.03	21.79	765.24
MW-29R Zone 2	127.3-139.5	BR	784.90	787.03	18.45	768.58
MW-29R Zone 3	154.5-169.6	BR	784.90	787.03	28.15	758.88
MW-29R Zone 4	177.6-202.2	BR	784.90	787.03	30.37	756.66
MW-30	103-113	TOR	819.50	819.14	24.56	794.58
MW-31	80-90	TOR	818.20	817.96	25.68	792.28
MW-32	25-35	O	819.68	819.40	19.97	799.43
MW-35	152-162	BR	740.90	743.73	14.13	729.60
MW-36 Zone 1	99.1-116	BR	783.00	785.63	17.48	768.15
MW-36 Zone 2	139.5-150.7	BR	783.00	785.63	17.34	768.29
MW-36 Zone 3	180.2-192.7	BR	783.00	785.63	21.68	763.95
MW-36 Zone 4	225.6-239.2	BR	783.00	785.63	21.31	764.32
MW-36 Zone 5	269.9-275	BR	783.00	785.63	22.91	762.72
MW-37 Zone 1	185-195	BR	780.20	782.92	32.80	750.12
MW-37 Zone 2	222-232	BR	780.20	782.84	28.21	754.63
MW-37 Zone 3	257-272	BR	780.20	782.79	22.67	760.12
MW-38 Zone 1	415-430	BR	768.10	771.23	4.66	766.57
MW-38 Zone 2	479.6-499.6	BR	768.10	771.18	-1.66	772.84
MW-39 Zone 1	95-105	BR	804.10	806.20	22.03	784.17
MW-39 Zone 2	195-215	BR	804.10	806.20	32.88	773.32
MW-39 Zone 3	280-300	BR	804.10	806.20	42.39	763.81
MW-41 Zone 1	17-32	BR	733.40	736.56	7.05	729.51
MW-41 Zone 2	109-129	BR	733.40	736.79	6.16	730.63
MW-41 Zone 3	279-299	BR	733.40	736.77	12.99	723.78
MW-42 Zone 1	114-129	BR	785.50	785.44	40.99	744.45
MW-42 Zone 2	202-222	BR	785.50	785.42	43.68	741.74
MW-42 Zone 3	265-285	BR	785.50	785.40	39.87	745.53
MW-43 Zone 1	91.8 - 111.8	BR	716.15	719.19	7.93	711.26
MW-43 Zone 2	149.57 - 179.57	BR	716.15	719.20	5.44	713.76
MW-43 Zone 3	261.8 - 281.8	BR	716.15	719.17	4.29	714.88
P1	24.5-39.5	BR	813.10	815.42	22.82	792.60
P2	53-115	BR	783.93	785.65	12.96	772.69
Alloy	56-61	BR	789.56	791.69	16.27	775.42
TW-40	84-94	BR	785.81	788.63	21.75	766.88
TW-41	50.3-55.3	BR	775.50	778.84	17.16	761.68
TW-42	21-26	TOR	775.86	778.09	17.55	760.54
TW-43	8.6-18.6	O	775.82	778.15	17.42	760.73
TW-44	64-74	BR	782.68	785.52	13.68	771.84
TW-46	83.3-88.3	TOR	816.72	816.58	25.74	790.84

bgs - below ground surface  
BR - bedrock  
O - overburden  
TOR - top of rock  
TOC - top of casing  
NAVD88 - North American Vertical Datum of 1988  
ft bgs - feet below ground surface

MW-41 Zone 2, MW-38 Zone 2 TOC elevation has been adjusted by adding couplings and ball valve to surveyed elevation at top of casing  
Static depth to water readings at artesian well (MW-38 Zone 2) were measured by attaching pressure gauge to top of ball valve, these values are indicated by the "-" before the measured value

**Table 3. Well Construction Details  
Owens Corning - Anderson, SC**

Monitoring Well	Well Type	Date Installed	Screen Interval* (ft bgs)	Top of Screen Interval (ft bgs)	Bottom of Screen Interval (ft bgs)	Top of Screen Interval (ft NAVD88)	Bottom of Screen Interval (ft NAVD88)	Screened Interval Location	Depth to Rock (ft bgs)	Northing (ft - South Carolina State Plane NAD83)	Easting (ft - South Carolina State Plane NAD83)	Surface Elevation (ft NAVD88)	TOC Elevation (ft NAVD88)
MW-1	2" AG	02/22/93	55 - 65	55	65	769.27	759.27	O	>65	950361.45	1499402.43	824.27	826.62
MW-2	2" AG	02/24/93	56.7 - 66.7	56.7	66.7	763.56	753.56	TOR	66	950815.49	1499202.99	820.26	822.68
MW-3	2" AG	10/15/90	13 - 28	13	28	782.61	767.61	O	>31.5	951884.52	1500961.49	795.61	796.76
MW-4	2" AG	10/16/90	14.7 - 29.7	14.7	29.7	782.02	767.02	O	>33	951578.17	1500780.04	796.72	798.38
MW-5	2" AG	10/18/90	12.0 - 27.0	12	27	792.74	777.74	O	>30	950527.98	1500884.25	804.74	806.50
MW-6	2" F	03/16/93	123.6 - 133.6	123.6	133.6	696.22	686.22	BR	105	950709.08	1499400.62	819.82	819.69
MW-7	2" F	10/19/90	15.9 - 30.9	15.9	30.9	803.80	788.80	O	>36.5	950714.02	1499393.19	819.70	819.27
MW-8	2"AG	10/16/90	5.5 - 20.5	5.5	20.5	793.79	778.79	O	>36.5	952247.16	1499696.61	799.29	801.56
MW-9	2" F	03/17/93	94 - 104	94	104	725.75	715.75	TOR	105	950720.70	1499398.33	819.75	819.41
MW-10	2" F	02/18/93	61.4 - 71.4	61.4	71.4	762.52	752.52	TOR	72	950516.57	1500028.94	823.92	823.65
MW-11	2" AG	09/11/85	6.0 - 16.0	6	16	772.32	762.32	O	>16	951694.26	1500875.42	778.32	780.22
MW-12	2" AG	09/11/85	23 - 33	23	33	755.42	745.42	O	>33	951692.46	1500878.27	778.42	780.95
MW-13	2" AG	03/10/93	67 - 72	67	72	712.20	707.20	TOR	61	951715.51	1500885.54	779.20	782.22
MW-14	2" AG	02/10/93	69.2 - 74.2	69.2	74.2	727.19	722.19	TOR	73	952076.49	1501026.29	796.39	798.45
MW-15	2" AG	08/08/93	69.5 - 99.5	69.5	99.5	707.61	677.61	BR	12	951960.13	1501534.65	777.11	779.45
MW-16	2" AG	08/05/93	49 - 59	49	59	719.14	709.14	BR	15	951830.99	1501866.46	768.14	770.37
MW-17	4" AG	02/18/93	24.1 - 39.1	24.1	39.1	789.56	774.56	TOR	39	950890.06	1500282.57	813.66	816.07
MW-18	2" AG	02/15/93	10.6 - 25.6	10.6	25.6	809.76	794.76	O	>30	950807.43	1499198.46	820.36	822.71
MW-19	2" AG	08/05/93	154 - 169	154	169	625.69	610.69	BR	72	951718.14	1500902.65	779.69	781.81
MW-20	2" AG	04/21/93	57 - 67	57	67	751.70	741.70	TOR	64	951403.36	1500142.14	808.70	810.95
MW-21	2" AG	04/23/93	6.5 - 16.5	6.5	16.5	762.13	752.13	TOR	16	951834.28	1501856.83	768.63	771.15
MW-22	8" AG	08/17/93	78 - 116	78	116	702.45	664.45	BR	51	951733.53	1500909.06	780.45	782.65
MW-23	2" AG	06/04/93	83 - 93	83	93	725.97	715.97	TOR	93	951623.62	1499577.68	808.97	811.47
MW-24	2" F	06/04/93	62 - 72	62	72	734.50	724.50	TOR	75	951671.65	1500421.59	796.50	796.27
MW-25	2" AG	06/09/93	40 - 50	40	50	734.40	724.40	TOR	50	951920.70	1501727.14	774.40	776.71
MW-26	2" AG	06/10/93	56.7 - 66.7	56.7	66.7	733.70	723.70	O	>67.5	952020.02	1501223.27	790.40	793.09
MW-27	8" AG	08/11/93	69 - 99	69	99	739.93	709.93	BR	68.5	951386.97	1500135.48	808.93	811.13
MW-28	2" F	04/20/04	21 - 31	21	31	798.97	788.97	O	>31	950735.05	1499414.47	819.97	819.77
MW-29R Zone 1	Waterloo - T	11/06/08	56.7 - 69.8	56.7	69.8	728.20	715.10	BR	53	952139.28	1501742.31	784.90	787.03
MW-29R Zone 2	Waterloo - T	11/06/08	127.3 - 139.5	127.3	139.5	657.60	645.40	BR	53	952139.28	1501742.31	784.90	787.03
MW-29R Zone 3	Waterloo - P & T	11/06/08	154.5 - 169.6	154.5	169.6	630.40	615.30	BR	53	952139.28	1501742.31	784.90	787.03
MW-29R Zone 4	Waterloo - P & T	11/06/08	177.6 - 202.2	177.6	202.2	607.30	582.70	BR	53	952139.28	1501742.31	784.90	787.03
MW-30	2" F	04/13/06	103 - 113	103	113	716.50	706.50	TOR	113	951106.58	1499550.99	819.50	819.14
MW-31	2" F	04/12/06	80 - 90	80	90	738.20	728.20	TOR	90	951325.04	1499740.38	818.20	817.96
MW-32	2" F	04/18/06	25 - 35	25	35	794.68	784.68	O	>35	950765.22	1499373.24	819.68	819.40
MW-34 Zone 1	Waterloo - P & T	11/06/08	59.9 - 60.4	59.9	60.4	708.20	707.70	BR	12	951843.19	1501873.86	768.10	770.06
MW-34 Zone 2	Waterloo - T	11/06/08	114.4 - 114.9	114.4	114.9	653.70	653.20	BR	12	951843.19	1501873.86	768.10	770.06
MW-34 Zone 3	Waterloo - P & T	11/06/08	149.9 - 150.4	149.9	150.4	618.20	617.70	BR	12	951843.19	1501873.86	768.10	770.06
MW-34 Zone 4	Waterloo - T	11/06/08	174.4 - 174.9	174.4	174.9	593.70	593.20	BR	12	951843.19	1501873.86	768.10	770.06
MW-34 Zone 5	Waterloo - P & T	11/06/08	239.9 - 240.4	239.9	240.4	528.20	527.70	BR	12	951843.19	1501873.86	768.10	770.06
MW-35	2" AG	10/02/08	152 - 162	152	162	588.90	578.90	BR	23	952440.05	1503528.88	740.90	743.73
MW-36 Zone 1	Waterloo - P & T	11/06/08	99.1 - 116	99.1	116	683.90	667.00	BR	84	952629.06	1501831.75	783.00	785.63
MW-36 Zone 2	Waterloo - T	11/06/08	139.5 - 150.7	139.5	150.7	643.50	632.30	BR	84	952629.06	1501831.75	783.00	785.63
MW-36 Zone 3	Waterloo - P & T	11/06/08	180.2 - 192.7	180.2	192.7	602.80	590.30	BR	84	952629.06	1501831.75	783.00	785.63
MW-36 Zone 4	Waterloo - T	11/06/08	225.6 - 239.2	225.6	239.2	557.40	543.80	BR	84	952629.06	1501831.75	783.00	785.63
MW-36 Zone 5	Waterloo - P & T	11/06/08	269.9 - 275	269.9	275	513.10	508.00	BR	84	952629.06	1501831.75	783.00	785.63
MW-37 Zone 1	1" AG	09/30/08	185 - 195	185	195	595.20	585.20	BR	87	951472.16	1501852.30	780.20	782.92
MW-37 Zone 2	1" AG	09/30/08	222 - 232	222	232	558.20	548.20	BR	87	951472.48	1501852.13	780.20	782.84
MW-37 Zone 3	1" AG	09/30/08	257 - 272	257	272	523.20	508.20	BR	87	951472.27	1501852.21	780.20	782.79
MW-38 Zone 1	1" AG	07/21/10	415 - 430	415	430	353.10	338.10	BR	8	951863.56	1501888.44	768.10	771.23
MW-38 Zone 2	1" AG	07/21/10	479.6 - 499.6	479.6	499.6	288.50	268.50	BR	8	951863.46	1501888.63	768.10	771.18
MW-39 Zone 1	1" AG	07/19/10	95 - 105	95	105	709.10	699.10	BR	80	950693.36	1502369.57	804.10	806.02
MW-39 Zone 2	1" AG	07/20/10	195 - 215	195	215	609.10	589.10	BR	80	950693.25	1502369.71	804.10	806.02
MW-39 Zone 3	1" AG	07/20/10	280 - 300	280	300	524.10	504.10	BR	80	950693.48	1502369.76	804.10	806.02
MW-41 Zone 1	1" AG	08/04/10	17 - 32	17	32	716.40	701.40	BR	8	953351.51	1503709.74	733.40	736.56
MW-41 Zone 2	1" AG	08/04/10	109 - 129	109	129	624.40	604.40	BR	8	953351.31	1503709.69	733.40	736.79
MW-41 Zone 3	1" AG	08/05/10	279 - 299	279	299	454.40	434.40	BR	8	953351.59	1503709.42	733.40	736.77
MW-42 Zone 1	1" F	07/23/11	114 - 129	114	129	671.50	656.50	BR	108	953676.64	1505460.98	785.50	785.44
MW-42 Zone 2	1" F	07/22/10	202 - 222	202	222	583.50	563.50	BR	108	953676.59	1505460.79	785.50	785.42
MW-42 Zone 3	1" F	07/22/10	265 - 285	265	285	520.50	500.50	BR	108	953676.51	1505460.71	785.50	785.40
MW-43 Zone 1	1" AG	06/07/11	92.5 - 112.5	92.5	112.5	623.65	603.65	BR	71	954986.94	1504658.26	716.15	719.19
MW-43 Zone 2	1" AG	06/07/11	150 - 180	150	180	566.15	536.15	BR	71	954987.00	1504658.04	716.15	719.20
MW-43 Zone 3	1" AG	06/06/11	262.5 - 282.5	262.5	282.5	453.65	433.65	BR	71	954987.15	1504658.24	716.15	719.17
P1	2" AG	02/22/93	24.5 - 39.5	24.5	39.5	788.60	773.60	BR	39	950917.56	1500275.17	813.10	815.42
P2	6" AG	06/22/93	53 - 115	53	115	730.93	668.93	BR	45	951750.01	1500946.57	783.93	785.65
Alloy	2" AG	08/09/93	56 - 61	56	61	733.56	728.56	BR	56	951358.03	1501028.29	789.56	791.69
TW-40	2" AG	08/30/01	84 - 94	84	94	701.81	691.81	BR	30	952247.76	1501784.65	785.81	788.63
TW-41	2" AG	08/27/01	50.3 - 55.3	50.3	55.3	725.20	720.20	BR	25.5	952119.32	1501966.54	775.50	778.84
TW-42	1" AG	08/20/01	21 - 26	21	26	754.86	749.86	TOR	26	952131.39	1501972.00	775.86	778.09
TW-43	1" AG	08/21/01	8.6 - 18.6	8.6	18.6	767.22	757.22	O	>19	952127.92	1501969.26	775.82	778.15
TW-44	2" AG	08/31/01	64 - 74	64	74	718.68	708.68	BR	46	951988.65	1501305.71	782.68	785.52
TW-45	1" F	08/21/01	18.8 - 28.8	18.8	28.8	797.90	787.90	O	>29	951284.02	1499935.21	816.70	816.76
TW-46	2" F	09/05/01	83.3 - 88.3	83.3	88.3	733.42	728.42	TOR	88	951278.63	1499934.00	816.72	816.58

F - flush mount  
AG - above ground  
T - transducer only  
P & T - pump and transducer  
BR - bedrock  
O - overburden  
TOR - top of rock  
bgs - below ground surface  
TOC - top of casing  
NAD83 - North American Datum of 1983  
NAVD88 - North American Vertical Datum of 1988

\*For Waterloo type wells the listed screen interval corresponds to each zones sand pack

Table 4. Quarterly Sampling Groundwater Analytical Results - August 2011  
Owens Corning - Anderson, SC

Sample ID	MCL (ug/L)	MW-15	MW-22	MW-29R Zone 3	MW-29R Zone 4	MW-35	MW-36 Zone 1	MW-36 Zone 3	MW-36 Zone 5	MW-37 Zone 1	MW-37 Zone 2	MW-37 Zone 3	MW-38 Zone 1	MW-38 Zone 2	MW-39 Zone 1	MW-39 Zone 2	MW-39 Zone 3	MW-41 Zone 1	MW-41 Zone 2	MW-41 Zone 3	DUP-080311 <sup>1</sup>	MW-42 Zone 1	MW-42 Zone 2	MW-42 Zone 3	MW-43 Zone 1	MW-43 Zone 2	MW-43 Zone 3	
Sample Date		8/1/11	8/1/11	8/2/11	8/2/11	8/3/11	8/2/11	8/2/11	8/2/11	8/2/11	8/2/11	8/2/11	8/2/11	8/3/11	8/3/11	8/1/11	8/1/11	8/1/11	8/3/11	8/3/11	8/3/11	8/3/11	8/3/11	8/3/11	8/3/11	8/4/11	8/4/11	
Screened Interval (ft)	(ug/L)	69.5 - 99.5	78 - 116	154.5 - 169.6	177.6 - 202.2	152 - 162	99.1 - 116	80.2 - 192	269.9 - 275	185 - 195	222 - 232	257 - 272	415 - 430	479.6 - 499.6	95 - 105	195 - 215	280 - 300	17 - 32	109 - 129	279 - 299	279 - 299	114 - 129	202 - 222	265 - 285	92.5 - 112.5	150 - 180	262.5 - 282.5	
<b>Volatile Organic Compounds</b>																												
1,1,1-Trichloroethane	200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	7	<b>280</b>	<b>430</b>	<b>420</b>	<b>390</b>	<b>430</b>	<5.0	<5.0	<5.0	<b>140</b>	<b>160</b>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<b>400</b>	<b>350</b>	<b>110</b>	<b>93</b>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Benzene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Carbon tetrachloride	5	<5.0	<b>25</b>	<b>19</b>	<b>20</b>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform <sup>2</sup>	80	<5.0	<b>15</b>	<b>15</b>	<b>14</b>	<5.0	<5.0	<5.0	<5.0	<5.0	7.9	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	700	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methylene chloride	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	1,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Xylenes, total	10,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
<b>Field Parameters</b>																												
pH (s.u.)	NA	6.60	5.32	5.62	5.72	6.96	5.86	7.32	7.19	7.58	10.13	7.04	7.58	6.69	6.66	7.65	7.16	7.62	6.83	7.04	NA	9.79	7.40	7.60	7.18	7.84	14.52	
Temperature (degrees C)	NA	18.10	19.07	18.42	18.49	16.46	18.42	30.33	39.94	24.98	31.94	32.38	23.35	18.07	30.56	27.32	30.25	29.29	16.84	30.17	NA	22.96	23.40	24.85	24.49	21.84	25.13	
Specific Conductance (uS/cm)	NA	0.186	0.111	0.129	0.145	0.325	0.112	1.464	3.929	1.155	0.192	0.355	0.353	0.182	0.106	0.620	0.146	0.306	0.286	0.302	NA	0.216	0.684	0.244	0.210	0.307	0.149	
Eh (mV)	NA	98.0	252.3	149.5	142.3	-93.0	245.6	-48.8	-28.1	-175.3	-115.3	-218.4	-198.4	-105.7	-8.7	-208.7	-158.6	-84.5	-47.9	-198.4	NA	-147.8	-151.5	-181.4	61.8	71.9	14.3	
Dissolved Oxygen (mg/L)	NA	0.41	4.24	8.25	7.80	0.11	6.06	4.72	1.96	0.30	0.38	0.12	0.48	0.35	2.13	0.67	2.04	0.29	0.15	0.42	NA	2.85	0.47	0.32	1.48	0.26	0.93	
Turbidity (NTU)	NA	0.43	0.10	0.88	0.46	1.48	0.35	1.18	1.04	2.15	3.8	3.52	3.76	1.46	9.96	9.95	3.56	7.50	1.31	4.49	NA	3.81	8.13	8.33	32.80	65.40	3.15	

ft - feet  
ug/L - micrograms per liter  
uS/cm - microsiemens per centimeter  
mV - millivolts  
mg/L - milligrams per liter  
MCL - Maximum Contaminant Level  
NA - not applicable  
NTU - nephelometric turbidity units  
NA - not applicable  
s.u. - standard units

<sup>1</sup> Duplicate sample Dup-080311 was collected from MW-41 Zone 3

<sup>2</sup> MCL listed for Chloroform is for Total Trihalomethanes

**Bold** VOC results indicate concentration above the MCL

Table 5. Annual Sampling Groundwater Analytical Results - November 2011  
Owens Corning - Anderson, SC

Sample ID	MCL (ug/L)	ALLOY	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-9	MW-10	MW-11	DUP-111711 <sup>1</sup>	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17	MW-18	MW-19	MW-20	MW-21
Sample Date		11/15/11	11/15/11	11/15/11	11/15/11	11/15/11	11/15/11	11/15/11	11/18/11	11/15/11	11/15/11	11/17/11	11/17/11	11/17/11	11/17/11	11/15/11	11/17/11	11/16/11	11/15/11	11/14/11	11/17/11	11/17/11	11/16/11
Screened Interval (ft)		56-61	55-65	56.7-66.7	13-28	14.7-29.7	12.0-27.0	123.6-133.6	15.9-30.9	94-104	61.4-71.4	6.0-16.0	23-33	23-33	67-72	69.2-74.2	69.5-99.5	49-59	24.1-39.1	10.6-25.6	154-169	57-67	6.5-16.5
<b>Volatile Organic Compounds</b>																							
1,1,1-Trichloroethane	200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<b>53,000</b>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2500	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	7	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<b>54,000</b>	<5.0	<5.0	<b>130</b>	<b>170</b>	<b>370</b>	<b>350</b>	<5.0	<b>270</b>	<5.0	<5.0	<5.0	<b>260</b>	<b>180</b>	<5.0
1,2-Dichloroethane	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<b>&lt;2500</b>	<5.0	<5.0	<5.0	<5.0	<5.0	<b>5.1</b>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<b>7.4</b>	<b>12</b>
Benzene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<b>&lt;2500</b>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Carbon tetrachloride	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<b>&lt;2500</b>	<5.0	<5.0	<5.0	<5.0	<b>12</b>	<b>26</b>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<b>58</b>
Chloroform <sup>4</sup>	80	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<b>&lt;2500</b>	<5.0	<5.0	<5.0	<5.0	15.0	16.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	7.0	34.0
cis-1,2-Dichloroethene	70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<b>&lt;2500</b>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	700	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<b>&lt;2500</b>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methylene chloride	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<b>&lt;2500</b>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<b>&lt;2500</b>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	1,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<b>&lt;2500</b>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<b>&lt;2500</b>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<b>&lt;2500</b>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<b>&lt;1000</b>	<2.0	<2.0	<b>13</b>	<b>15</b>	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Xylenes, total	10,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2500	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
<b>Field Parameters</b>																							
pH (s.u.)	-	4.54	4.03	4.79	4.35	6.58	4.18	6.07	4.45	5.93	3.91	6.46	NA	5.59	5.21	3.67	6.59	6.80	4.34	4.09	6.59	5.14	4.54
Temperature (degrees C)	-	19.33	18.58	19.58	18.50	19.32	19.25	19.46	20.60	19.76	20.04	18.36	NA	18.07	19.08	18.72	17.78	18.49	20.20	20.97	18.55	20.37	18.93
Specific Conductance (uS/cm)	-	0.096	0.032	0.058	0.049	0.690	0.053	0.103	1.383	0.080	0.032	0.534	NA	0.164	0.124	0.062	0.203	0.322	0.112	0.035	0.204	0.103	0.057
Eh (mV)	-	294.5	466.3	432.2	194.1	-4.0	457.4	250.8	194.3	343.5	457.8	-5.5	NA	206.3	315.9	452.1	163.2	-10.6	347.8	329.9	52.4	221.4	259.2
Dissolved Oxygen (mg/L)	-	4.60	7.70	6.39	4.25	0.11	1.03	5.78	0.20	7.29	7.67	0.13	NA	1.79	4.21	5.99	0.18	2.05	5.75	58.70	0.11	5.14	5.97
Turbidity (NTU)	-	9.06	9.45	3.99	1.32	0.54	4.60	0.07	2.73	38.20	0.92	0.93	NA	9.58	0.55	1.31	0.74	1.85	2.83	5.49	0.25	5.63	6.95

ft - feet  
MCL - Maximum Contaminant Level  
ug/L - micrograms per liter  
mg/L - milligrams per liter  
uS/cm - microsiemens per centimeter  
mV - millivolts  
NTU - nephelometric turbidity units  
NA - not applicable  
s.u. - standard units

<sup>1</sup> DUP-111711 collected from MW-11  
<sup>2</sup> DUP-111811 collected from MW-30  
<sup>3</sup> DUP-111611 collected from MW-41 Zone 1  
<sup>4</sup> MCL listed for Chloroform is for Total Trihalomethanes  
**Bold** VOC results indicate concentration above the MCL  
J Estimated value detected below reporting limit  
E Estimated (value above quantitation range)

Table 5 - Annual Sampling Groundwater Analytical Results - November 2011

Owens Corning - Anderson, SC

Sample ID	MCL	MW-22	MW-24	MW-25	MW-26	MW-27	MW-28	MW-29R Zone 3	MW-29R Zone 4	MW-30	DUP- 111811 <sup>2</sup>	MW-31	MW-32	MW-35	MW-36 Zone 1	MW-36 Zone 3	MW-36 Zone 5	MW-37 Zone 1	MW-37 Zone 2	MW-37 Zone 3	MW-38 Zone 1	MW-38 Zone 2
Sample Date	(ug/L)	11/18/11	11/17/11	11/16/11	11/16/11	11/17/11	11/18/11	11/15/11	11/15/11	11/18/11	11/18/10	11/18/11	11/17/11	11/18/11	11/14/11	11/15/11	11/14/11	11/17/11	11/17/11	11/17/11	11/17/11	11/17/11
Screened Interval (ft)		78-116	62-72	40-50	56.7-66.7	69-99	21-31	154.5-169.6	177.6-202.2	103-113	109-129	80-90	25-35	152-162	99.1-116	180.2-192.7	269.9-275	185-195	222-232	257-272	415-430	479.6-499.6
<b>Volatile Organic Compounds</b>																						
1,1,1-Trichloroethane	200	<5.0	<5.0	<5.0	<5.0	<5.0	<b>170,000</b>	<5.0	<5.0	<5.0	<5.0	<5.0	13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5000	<5.0	<5.0	18	18	12	12	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	7	<b>290</b>	<b>120</b>	<5.0	<5.0	<b>140</b>	<b>97,000</b>	<b>300</b>	<b>300</b>	<b>3,900 J</b>	<b>5,400 J</b>	<b>2,700</b>	<b>26</b>	<b>330</b>	<5.0	<5.0	<5.0	<b>78</b>	<b>310 E</b>	<5.0	<5.0	<5.0
1,2-Dichloroethane	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5000	<5.0	<5.0	<b>25</b>	<b>27</b>	<b>16</b>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Benzene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Carbon tetrachloride	5	<b>24</b>	<b>16</b>	<5.0	<5.0	<b>5.8</b>	<5000	<b>17</b>	<b>21</b>	<b>180</b>	<b>160</b>	<b>51</b>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform <sup>4</sup>	80	13.0	21.0	<5.0	<5.0	16.0	<5000	11.0	12.0	6.8	6.9	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	9.7	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	70	<5.0	<5.0	<5.0	<5.0	<5.0	<5000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	700	<5.0	<5.0	<5.0	<5.0	<5.0	<5000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methylene chloride	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	1,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	100	<5.0	<5.0	<5.0	<5.0	<5.0	<5000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5000	<5.0	<5.0	<b>6</b>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	2	<2.0	<2.0	<2.0	<2.0	<2.0	<2000	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Xylenes, total	10,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
<b>Field Parameters</b>																						
pH (s.u.)	-	5.31	5.24	4.30	6.03	6.70	4.41	5.51	5.59	5.79	NA	5.72	6.56	7.39	6.17	7.28	7.20	7.53	11.21	6.73	8.08	7.61
Temperature (degrees C)	-	18.78	20.61	17.99	18.73	20.13	21.92	16.96	17.03	19.70	NA	20.31	21.52	16.56	18.34	21.13	16.65	18.76	16.45	14.37	15.09	16.07
Specific Conductance (uS/cm)	-	0.131	0.138	0.052	0.064	0.127	2.355	0.137	0.135	0.091	NA	0.074	0.642	0.349	0.112	1.466	3.379	1.082	0.569	0.323	0.345	0.180
Eh (mV)	-	311.9	150.7	296.0	342.8	34.0	165.1	-8.4	-13.8	177.6	NA	202.2	-82.0	-62.9	10.8	-147.6	-169.2	-145.0	-80.7	-135.4	-337.5	-123.1
Dissolved Oxygen (mg/L)	-	3.64	1.94	7.19	6.06	0.06	0.30	2.16	1.41	4.16	NA	3.20	0.10	0.13	4.06	4.17	1.47	2.33	0.84	0.99	0.18	0.61
Turbidity (NTU)	-	0.67	1.39	7.45	79.40	0.77	6.39	1.42	0.86	9.37	NA	9.47	12.1	0.90	1.15	1.27	2.56	9.89	2.26	8.49	2.59	0.93

ft - feet  
MCL - Maximum Contaminant Level  
ug/L - micrograms per liter  
mg/L - milligrams per liter  
uS/cm - microsiemens per centimeter  
mV - millivolts  
NTU - nephelometric turbidity units  
NA - not applicable  
s.u. - standard units

<sup>1</sup> DUP-111711 collected from MW-11  
<sup>2</sup> DUP-111811 collected from MW-30  
<sup>3</sup> DUP-111611 collected from MW-41 Zone 1  
<sup>4</sup> MCL listed for Chloroform is for Total Trihalometh:  
**Bold** VOC results indicate concentration above the  
**J** Estimated value detected below reporting limit  
**E** Estimated (value above quantitation range)



Table 5. Annual Sampling Groundwater Analytical Results - November 2011

Owens Corning - Anderson, SC

Sample ID	MCL	MW-39 Zone 1	MW-39 Zone 2	MW-39 Zone 3	MW-41 Zone 1	DUP-111611 <sup>3</sup>	MW-41 Zone 2	MW-41 Zone 3	MW-42 Zone 1	MW-42 Zone 2	MW-42 Zone 3	MW-43 Zone 1	MW-43 Zone 2	MW-43 Zone 3	TW-40	TW-41	TW-42	TW-43	TW-44	TW-46
Sample Date		11/15/11	11/15/11	11/15/11	11/16/11	11/16/11	11/16/11	11/16/11	11/15/11	11/16/11	11/16/11	11/14/11	11/15/11	11/15/11	11/16/11	11/16/11	11/17/11	11/15/11	11/16/11	11/17/11
Screened Interval (ft)	(ug/L)	95-105	195-215	280-300	17-32	222-232	109-129	279-299	114-129	202-222	265-285	92.5 - 112.5	150 - 180	262.5 - 282.5	84-94	50.3-55.3	21-26	8.6-18.6	64-74	83.3-88.3
<b>Volatile Organic Compounds</b>																				
1,1,1-Trichloroethane	200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	7	<5.0	<5.0	<5.0	<b>190 J</b>	<b>320 J</b>	<b>280</b>	<b>98</b>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<b>25</b>
1,2-Dichloroethane	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Benzene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Carbon tetrachloride	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform <sup>4</sup>	80	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	23
cis-1,2-Dichloroethene	70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	700	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methylene chloride	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	1,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Xylenes, total	10,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
<b>Field Parameters</b>																				
pH (s.u.)	-	6.77	7.64	7.10	7.42	NA	7.89	7.31	7.19	7.25	6.66	6.49	7.81	6.58	12.32	7.94	5.17	4.88	6.18	6.71
Temperature (degrees C)	-	19.92	20.39	21.81	17.91	NA	19.03	19.41	21.10	18.36	19.57	17.46	17.24	19.00	19.51	19.40	18.18	18.95	18.23	23.62
Specific Conductance (uS/cm)	-	0.088	0.592	0.140	0.261	NA	0.271	0.281	0.196	0.672	0.227	0.110	0.288	0.150	3.879	0.451	0.043	0.043	0.072	0.243
Eh (mV)	-	-25.3	-149.3	-99.9	-34.4	NA	-80.9	-179.1	-149.2	-130.2	-76.7	49.7	-63.7	-135.6	58.8	133.0	-72.3	-4.4	339.0	116.4
Dissolved Oxygen (mg/L)	-	3.43	0.27	0.24	1.06	NA	0.37	0.27	1.15	0.38	0.59	0.71	0.31	1.63	6.06	4.92	4.06	4.29	5.85	4.8
Turbidity (NTU)	-	6.39	4.73	4.86	1.96	NA	0.63	3.25	4.59	8.60	9.11	7.31	31.1	3.25	7.18	9.01	0.75	5.52	20.2	24.8

ft - feet

MCL - Maximum Contaminant Level

ug/L - micrograms per liter

mg/L - milligrams per liter

uS/cm - microsiemens per centimeter

mV - millivolts

NTU - nephelometric turbidity units

NA - not applicable

s.u. - standard units

<sup>1</sup> DUP-111711 collected from MW-11

<sup>2</sup> DUP-111811 collected from MW-30

<sup>3</sup> DUP-111611 collected from MW-41 Zone 1

<sup>4</sup> MCL listed for Chloroform is for Total Trihalometh:

**Bold** VOC results indicate concentration above the MCL

**J** Estimated value detected below reporting limit

**E** Estimated (value above quantitation range)

**Table 6. Annual Surface Water Analytical Results - November 2011**  
**Owens Corning - Anderson, SC**

Sample ID	Surface Water Screening Values <sup>1</sup>		SCDHEC Surface Water Standards <sup>2</sup>		SW-1	SW-3 <sup>3</sup>	SW-3A <sup>3</sup>	SW-3B	SW-6	SW-10	SW-11	SW-12	SW-13	SW-14	SW-15
	Acute (ug/L)	Chronic (ug/L)	For Consumption of Water and Organism	For Consumption of Organism Only	11/17/11	11/17/11	NA	11/17/11	11/17/11	11/17/11	11/17/11	11/17/11	NA	11/17/11	11/17/11
<b>Volatile Organic Compounds</b>															
1,1,1-Trichloroethane	-	-	-	-	<5.0	<5.0	Dry	<5.0	<5.0	<5.0	<5.0	<5.0	Dry	<5.0	<5.0
1,1-Dichloroethane	-	-	-	-	<5.0	<5.0	Dry	<5.0	<5.0	<5.0	<5.0	<5.0	Dry	<5.0	<5.0
1,1-Dichloroethene	3030	303	330	7,100	<5.0	<5.0	Dry	<5.0	<5.0	<5.0	5.2	6.2	Dry	6.6	5.1
1,2-Dichloroethane	11800	2000	0.38	37	<5.0	<5.0	Dry	<5.0	<5.0	<5.0	<5.0	<5.0	Dry	<5.0	<5.0
Benzene	-	-	2.2	51	<5.0	<5.0	Dry	<5.0	<5.0	<5.0	<5.0	<5.0	Dry	<5.0	<5.0
Carbon tetrachloride	3520	352	0.23	1.6	<5.0	<5.0	Dry	<5.0	<5.0	<5.0	<5.0	<5.0	Dry	<5.0	<5.0
Chloroform	2890	289	5.7	470	<5.0	<5.0	Dry	<5.0	<5.0	<5.0	<5.0	<5.0	Dry	<5.0	<5.0
cis-1,2-Dichloroethene	-	-	-	-	<5.0	<5.0	Dry	<5.0	<5.0	<5.0	<5.0	<5.0	Dry	<5.0	<5.0
Ethylbenzene	-	-	530	2,100	<5.0	<5.0	Dry	<5.0	<5.0	<5.0	<5.0	<5.0	Dry	<5.0	<5.0
Methylene chloride	-	-	4.6	590	<5.0	<5.0	Dry	<5.0	<5.0	<5.0	<5.0	<5.0	Dry	<5.0	<5.0
Tetrachloroethene	528	84	0.69	3.3	<5.0	<5.0	Dry	<5.0	<5.0	<5.0	<5.0	<5.0	Dry	<5.0	<5.0
Toluene	-	-	1,300	15,000	<5.0	<5.0	Dry	<5.0	<5.0	<5.0	<5.0	<5.0	Dry	<5.0	<5.0
trans-1,2-Dichloroethene	-	-	-	-	<5.0	<5.0	Dry	<5.0	<5.0	<5.0	<5.0	<5.0	Dry	<5.0	<5.0
Trichloroethene	-	-	2.5	30	<5.0	<5.0	Dry	<5.0	<5.0	<5.0	<5.0	<5.0	Dry	<5.0	<5.0
Vinyl chloride	-	-	0.025	2.4	<2.0	<5.0	Dry	<2.0	<2.0	<2.0	<2.0	<2.0	Dry	<2.0	<2.0
Xylenes, total	-	-	-	-	<5.0	<5.0	Dry	<5.0	<5.0	<5.0	<5.0	<5.0	Dry	<5.0	<5.0
<b>Field Parameters</b>															
pH (s.u.)	-	-	-	-	6.95	7.60	Dry	7.67	6.84	6.92	6.96	7.01	Dry	6.96	7.05
Temperature (degrees C)	-	-	-	-	16.06	16.36	Dry	16.32	15.74	15.81	15.94	16.17	Dry	15.94	15.91
Specific Conductance (uS/cm)	-	-	-	-	0.265	0.345	Dry	0.344	0.255	0.256	0.235	0.305	Dry	0.274	0.257
Eh (mV)	-	-	-	-	-75.5	-57.1	Dry	-52.6	-81.6	-94.0	-71.9	-71.7	Dry	-73.4	-79.0
Dissolved Oxygen (mg/L)	-	-	-	-	5.12	6.21	Dry	6.81	5.39	5.59	5.10	5.78	Dry	5.53	6.06
Turbidity (NTU)	-	-	-	-	4.92	6.13	Dry	7.93	4.74	4.65	5.08	4.92	Dry	5.06	5.10

ug/L - micrograms per liter  
mg/L - milligrams per liter  
uS/cm - microsiemens per centimeter  
mV - millivolts  
NTU - nephelometric turbidity units  
NA - Not Analyzed; not enough water in creek to sample  
Dry - Not enough water in in creek to sample  
SCDHEC - South Carolina Department of Health and Environmental Control  
s.u. - standard units  
SW - Surface Water

<sup>1</sup> Region IV Ecological Risk Assessment Bulletins - Supplement to RAGS  
<sup>2</sup> SCDHEC Water Quality Classifications and Standards (R.61-68), Human Health, as published in USEPA National Recommended Water Quality Criteria  
<sup>3</sup> Samples SW-3 and SW-3A were switched in the field but the displayed data in Table 6 matches the appropriate locations  
**BOLD** - VOC results indicates a concentration above USEPA and/or SCDHEC Surface Water Standard

Table 7. Residential Well Analytical Results - November 2011  
Owens Corning - Anderson, SC

Sample ID	MCL (ug/L)	628 Airline Rd 11/17/11	408 Clinkscales Rd 11/16/11	605 Clinkscales Rd 11/16/11	721 Clinkscales Rd 11/16/11	1303 Clinkscales Rd 11/17/11	119 Cloverhill Dr 11/17/11	115 Elrod Rd 11/17/11	335 Elrod Rd 11/17/11	117 Faye Dr 11/17/11	Dup-111711- 2 <sup>1</sup> 11/17/11	134 Friendship Ln 11/17/11	200 Friendship Ln 11/16/11	200 Kaye Dr 11/17/11	303 Kaye Dr 11/17/11	311 Kaye Dr 11/18/11	412 Kaye Dr 11/17/11
<b>Volatile Organic Compounds</b>																	
1,1,1-Trichloroethane	200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NS	<5.0	<5.0	NS	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NS	<5.0	<5.0	NS	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	7	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NS	<5.0	<5.0	NS	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NS	<5.0	<5.0	NS	<5.0	<5.0	<5.0	<5.0	<5.0
Benzene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NS	<5.0	<5.0	NS	<5.0	<5.0	<5.0	<5.0	<5.0
Carbon tetrachloride	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NS	<5.0	<5.0	NS	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform <sup>2</sup>	80	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NS	<5.0	<5.0	NS	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NS	<5.0	<5.0	NS	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	700	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NS	<5.0	<5.0	NS	<5.0	<5.0	<5.0	<5.0	<5.0
Methylene chloride	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NS	<5.0	<5.0	NS	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NS	<5.0	<5.0	NS	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	1,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NS	<5.0	<5.0	NS	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NS	<5.0	<5.0	NS	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NS	<5.0	<5.0	NS	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	NS	<2.0	<2.0	NS	<2.0	<2.0	<2.0	<2.0	<2.0
Xylenes, total	10,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NS	<5.0	<5.0	NS	<5.0	<5.0	<5.0	<5.0	<5.0
<b>Field Parameters</b>																	
pH (s.u.)	-	6.12	5.70	6.48	5.22	6.04	5.58	5.40	NS	7.24	NA	NS	6.18	6.78	6.11	7.45	5.87
Temperature (degrees C)	-	16.69	17.97	19.33	18.02	16.85	15.90	16.43	NS	15.51	NA	NS	18.16	17.12	16.71	15.10	17.72
Specific Conductance (uS/cm)	-	0.069	0.045	0.076	0.055	0.057	0.039	0.033	NS	0.294	NA	NS	0.163	0.109	0.151	0.206	0.061
Eh (mV)	-	168.5	152.5	-8.5	199.0	246.9	287.3	327.0	NS	223.0	NA	NS	173.6	257.8	287.3	126.3	290.2
Dissolved Oxygen (mg/L)	-	6.48	7.93	2.88	7.87	8.32	7.80	8.13	NS	4.84	NA	NS	6.63	6.21	6.85	6.40	7.79
Turbidity (NTU)	-	1.62	2.28	0.72	0.67	0.73	0.64	0.42	NS	0.00	NA	NS	0.68	0.13	0.03	3.58	0.43

MCL - Maximum Contaminant Level  
ug/L - micrograms per liter  
mg/L - milligrams per liter  
uS/cm - microsiemens per centimeter  
mV - millivolts  
NTU - nephelometric turbidity units  
NS - Not sampled; pump is disconnected  
NA - not applicable  
s.u. - standard units

<sup>1</sup> Duplicate sample Dup-111711-2 was collected from 117 Faye Drive

<sup>2</sup> MCL listed for Chloroform is for Total Trihalomethanes  
**Bold** VOC results indicate concentration above the MCL

**Table 8. Residential Well Location Map ID  
Owens Corning - Anderson, SC**

Map ID*	Location	Map ID*	Location
1	3715 Mabry Street	38	215 Elrod Road
2	634 Airline Road	39	115 Elrod Road
3	3735 Keys Street	40	119 Cloverhill Drive
4	1100 Airline Road	41	122 Kayle Drive
5	3721 Keys Street	42	138 Kayle Drive
6	4004 Keys Street	43	1802 Airline Road
7	605 Clinkscapes Road	44	1303 Clinkscapes Road
8	134 Friendship Lane	45	815 Airline Road
9	138 Friendship Lane	46	300 Jones Road
10	200 Friendship Lane	47	5104 Johnson Street
11	721 Clinkscapes Road	48	104 Herbs Lane
12	711 Clinkscapes Road	49	203 Travis Road
13	628 Airline Road	50	107 Jones Road
14	3731 Keys Street	51	303 Flat Rock Road
15	3713 Keys Street	52	4518 Keys Street
16	624 True Temper Road	53	4608 Keys Street
17	1501 Airline Road	54	4610 Keys Street
18	420 True Temper Road	55	5005 Johnson Street
19	408 Clinkscapes Road	56	5009 Johnson Street
20	401 Clinkscapes Road	57	5010 Johnson Street
21	4515 Keys Street	58	5014 Johnson Street
22	305 Harry Drive	59	5101 Johnson Street
23	150 Clinkscapes Road	60	4906 Highway 81 South
24	943 Flat Rock Road	61	5305 Highway 81 South
25	325 Clinkscapes Road	62	116 Young Road
26	322 Clinkscapes Road	63	201 True Temper Road
27	321 Clinkscapes Road	64	106 Pickens Circle
28	137 Knowlandwood Circle	65	110 Pickens Circle
29	412 Kaye Drive	66	123 Pickens Circle
30	413 Kaye Drive	67	127 Pickens Circle
31	311 Kaye Drive	68	131 Pickens Circle
32	117 Faye Drive	69	136 Pickens Circle
33	303 Kaye Drive	70	206 Wesley Court
34	End of Kaye Drive	71	104 Harry Drive
35	217 Kaye Drive	72	299 True Temper Road
36	200 Kaye Drive	73	119 True Temper Road
37	335 Elrod Road		

\* Map ID corresponds to Figure 13 - Residential Well Sampling Location Map - November 2011

## Appendix A: Groundwater Sampling Field Data Sheets

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# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-15

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 100-001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, South Carolina Weather: ~90°F Sunny Hot

## 2. WELL DATA

Date Measured: 8/1/11 Time: AM Temporary Well:  Yes  No  
 Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 99.5 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 14.30 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 85.2 feet Well Volume: 13.89 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 8/1/11 Time: 1640 Equipment Model(s)  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): Micropryl well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min  
 Calibrated?  Yes  No

1. Monsoon Pump
2. YSI 552
3. DRT-15CE
4. \_\_\_\_\_

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1645	1.25	7.11	18.18	0.256	66.0	1.70	13.5	17.95	
1650	3.0	6.99	18.17	0.218	34.1	1.14	9.75	19.40	
1655	4.0	6.82	18.39	0.202	64.0	1.22	4.57	19.35	
1700	5.0	6.75	18.30	0.197	76.5	1.17	2.52	19.43	
1705	6.0	6.70	18.48	0.195	84.9	1.12	1.50	19.50	

## 4. SAMPLING DATA

Purge data continued on next sheet?  **Geochemical Analyses**  
 Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: MW-15 Sample Date: 8/1/11 Sample Time: 1835 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

~~Geochemical Analyses~~  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

Pump intake c ~94'

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

*[Signature]*



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-22

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 100-001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, South Carolina Weather: ~90°F Sunny Hot

**2. WELL DATA**

Date Measured: 8/1/11 Time: AM Temporary Well:  Yes  No  
 Casing Diameter: 8 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 8 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 116 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 7.80 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 106.2 feet Well Volume: 282.5 gal  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft  
 Screened Interval (from GS): \_\_\_\_\_

**3. PURGE DATA**

Date Purged: 8/1/11 Time: 1527 Equipment Model(s):  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): Micro Purge Well Volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min  
 Calibrated?  Yes  No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1530	3	5.31	19.13	0.111	234.3	4.30	0.37	7.90	
1537	6	5.32	19.05	0.111	247.9	4.07	0.09	7.90	
1542	9	5.32	19.11	0.111	246.7	4.09	0.15	7.90	
1547	12	5.34	19.01	0.111	249.3	4.23	0.11	7.90	
1552	15	5.32	19.07	0.111	252.3	4.24	0.10	7.90	
1555	Sample collected								

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 7.90 Field Filtered?  Yes  No  
 Sample ID: MW-22 Sample Date: 8/1/11 Sample Time: 1555 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Pump intake e ~110

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-29R Zone 3-Waterloo

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 100-001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, South Carolina Weather: -10°F Sunny Hot

**2. WELL DATA**

Date Measured: 8/1/11 Time: AM Temporary Well:  Yes  No  
 Casing Diameter: 2 inches Length of water column calculation:  
 Screen Diameter: 6 inches (9094-Current Dg reading)\*0.02775)\*2.3108) = Length of water column (ft)  
 Sampling Interval: 154.5-169.6 feet Well Vol. calculation:  
 Depth to Static Water: 6769.2 Dg 1 well vol. = [vol sand interval(6") - vol of waterloo casing (2")] + vol of water in tubing(1/4")  
 Depth to Product: — feet = [22.18 gal - 2.52 gal] + (0.0102 gal/ft x length of water column)  
 Length of Water Column: 149.1 feet **1.52**  
 Well Volume: 21.18 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 8/2/11 Time: 1435 Equipment Model(s)  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_ 1. YSI 556  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_ 2. DRT 15CE  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_ 3. \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable 4. \_\_\_\_\_  
 Volume to Purge (minimum): Multiple well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1440	0.35	5.69	18.60	0.133	131.9	9.55	1.28	6775	
1445	0.7	5.58	18.61	0.131	146.2	6.81	1.35	6778	WL = 6775 Dg
1450	1.05	5.54	18.50	0.130	152.1	5.23	1.14	6776	
1500	1.4	5.58	18.47	0.130	152.6	5.11	0.89	6777	Temp = 18.47
1510	1.75	5.57	18.42	0.127	156.1	8.58	0.91	6772	

**4. SAMPLING DATA**

Purge data continued on next sheet?  **Geochemical Analyses**  
 Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 6977 Field Filtered?  Yes  No  
 Sample ID: MW-29R Zone 3 Sample Date: 8/2/11 Sample Time: 1525 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-29R Zone 4-Waterloo

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 100.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, South Carolina Weather: ~95°F Sunny Hot

**2. WELL DATA**

Date Measured: 8/1/11 Time: AM Temporary Well:  Yes  No  
 Casing Diameter: 2 inches Length of water column calculation:  
 Screen Diameter: 6 inches (8932.8-Current Dg reading)\*0.02724)\*2.3108) = Length of water column (ft)  
 Sampling Interval: 177.6-202.2 feet Well Vol. calculation:  
 Depth to Static Water: 6648.7 feet 1 well vol. = [vol sand interval(6" - vol of waterloo casing (2")) + vol of water intubing(1/4")  
 Depth to Product: \_\_\_\_\_ feet = [36.14 gal - 4.11 gal] + (0.0102 gal/ft x length of water column)  
 Length of Water Column: 19.5 feet 1.85  
 Well Volume: 33.88 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 8/2/11 Time: 1525 Equipment Model(s)  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): Minopurge wet volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1530	0.25	5.59	18.43	0.133	157.8	6.73	1.97	6189	
1535	0.5	5.61	18.53	0.133	154.7	8.11	1.82	6193	
1540	0.75	5.61	18.50	0.132	153.0	7.70	1.60	6195	
1550	1.0	5.68	18.53	0.141	147.7	8.04	1.13	6202	
1600	1.25	5.72	18.51	0.143	147.2	8.04	1.21	6202	

**4. SAMPLING DATA**

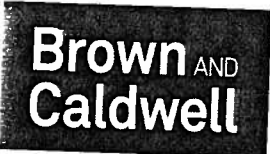
Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 6195 Field Filtered?  Yes  No  
 Sample ID: MW-29R Zone 4 Sample Date: 8/2/11 Sample Time: 1645 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**  
~~Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L~~

**5. COMMENTS**

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.





# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-35

## 1. PROJECT INFORMATION

Project Number: \_\_\_\_\_ Task Number: \_\_\_\_\_ Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: RS  
 Project Location: Anderson SC Weather: sunny ~ 90F

## 2. WELL DATA

Date Measured: \_\_\_\_\_ Time: \_\_\_\_\_ Temporary Well:  Yes  No  
 Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 162 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: Artesian feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: \_\_\_\_\_ feet Well Volume: \_\_\_\_\_ gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 8-3-11 Time: 1643-1673 Equipment Model(s):  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. YSI-556
2. DR1-15LE
3. Huron dipper
4. \_\_\_\_\_

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1634</u> <del>1644</del>	<u>2.00</u>	<u>7.00</u>	<u>27.76</u>	<u>0.328</u>	<u>-142.1</u>	<u>0.10</u>	<u>1.82</u>	—	
<u>1636</u>	<u>4.00</u>	<u>6.84</u>	<u>16.57</u>	<u>0.325</u>	<u>-103.3</u>	<u>0.12</u>	<u>1.76</u>	—	
<u>1638</u>	<u>6.00</u>	<u>6.93</u>	<u>16.14</u>	<u>0.325</u>	<u>-95.8</u>	<u>0.13</u>	<u>1.55</u>	—	
<u>1640</u>	<u>8.00</u>	<u>6.96</u>	<u>16.46</u>	<u>0.325</u>	<u>-93.0</u>	<u>0.11</u>	<u>1.48</u>	—	
<u>1640</u>	<u>Collect sample</u>								

## 4. SAMPLING DATA

Purge data continued on next sheet?

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: MW-35 Sample Date: 8-3-11 Sample Time: 1640 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature \_\_\_\_\_



# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-36 Zone 1-Waterloo

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 100.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, South Carolina Weather: ~75°F Sunny Hot

## 2. WELL DATA

Date Measured: 8/1/11 Time: AM Temporary Well:  Yes  No  
 Casing Diameter: 2 inches Length of water column calculation:  
 Screen Diameter: 6 inches (8558.7-Current Dg reading)\*0.01797\*2.3108) = Length of water column (ft)  
 Sampling Interval: 99.1-116 feet Well Vol. calculation:  
 Depth to Static Water: 6328.1 Dg 1 well vol. = [vol sand interval(6") - vol of waterloo casing (2")] + vol of tubing(1/4")  
 Depth to Product: \_\_\_\_\_ feet = [24.83 gal - 2.82 gal] + (0.0102 gal/ft x length of water column)  
 Length of Water Column: 67.9 feet 22.01  
 Well Volume: 22.7 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 8/2/11 Time: 0825  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_ Equipment Model(s)  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: Dedicated Pump  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): Micro purge with volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level (ft)	Comments
0830	0.25	5.54	18.41	0.113	258.1	4.73	6338.6	0.46	
0835	0.5	5.70	18.39	0.112	252.7	7.44	6339.2	0.51	Producing a lot of bubbles at start of cycle. May be difficult for DO to stabilize.
0840	0.75	5.99	18.35	0.114	205.2	7.19	6339.1	0.29	
0850	1.0	5.84	18.36	0.113	247.4	6.09	6338.5	0.25	
0900	1.25	5.87	18.41	0.111	243.8	6.96	6339.2	0.22	

## 4. SAMPLING DATA

Purge data continued on next sheet?   
 Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 6338.9 Dg Field Filtered?  Yes  No  
 Sample ID: MW-36 Sample Date: 8/2/11 Sample Time: 0915 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

~~Geochemical Analyses~~  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.





# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-36 Zone 3-Waterloo

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 100.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, South Carolina Weather: ~80F Sunny Hot

## 2. WELL DATA

Date Measured: 8/1/11 Time: AM Temporary Well:  Yes  No  
 Casing Diameter: 2 inches Length of water column calculation:  
 (9093.1-Current Dg reading)\*0.02725\*2.3108 = Length of water column (ft)  
 Screen Diameter: 6 inches Well Vol. calculation:  
 1 well vol. = [vol sand interval(6") - vol of waterloo casing (2") + vol of water in tubing(1/4")  
 = [18.36 gal - 2.09 gal] + (0.0102 x length of water column)  
 1.67  
 Sampling Interval: 180.2-192.7 feet  
 Depth to Static Water: 646.1 feet  
 Depth to Product: \_\_\_\_\_ feet  
 Length of Water Column: 165.4 feet Well Volume: 17.96 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 8/2/11 Time: 0920 Equipment Model(s)  
 Purge Method:  Bailor, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailor  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): Minimum well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level (ft)	Comments
0925	0.1	7.23	26.45	1.377	201.8	5.74	2.70	7871.0	
0950	0.2	7.26	25.37	1.428	195.2	6.10	1.50	8072.5	Automatically lost water in flow line, had to wait while filled back up
0955	0.25	7.09	25.15	1.418	190.6	4.89	1.87	8205.6	
1000	0.3	7.10	25.75	1.417	179.6	5.46	1.41	8314.2	
1015	0.4	7.14	27.02	1.422	170.5	6.75	0.81	8381.5	

## 4. SAMPLING DATA

Purge data continued on next sheet?   
 Method(s):  Bailor, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailor  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 8806.1 Field Filtered?  Yes  No  
 Sample ID: 12-36 zone 3 Sample Date: 8/2/11 Sample Time: 1130 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Geochemical Analyses  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

\_\_\_\_\_  
 \_\_\_\_\_  
 Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature [Signature]





**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-36 Zone 5-Waterloo

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 100.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, South Carolina Weather: ~85°F Sunny Hot

**2. WELL DATA**

Date Measured: 8/1/11 Time: AM Temporary Well:  Yes  No  
 Casing Diameter: 2 inches Length of water column calculation:  
 Screen Diameter: 6 inches (8843.2-Current Dg reading)\*0.03897\*2.3108 = Length of water column (ft)  
 Sampling Interval: 269.9-275 feet Well Vol. calculation:  
 Depth to Static Water: 6047.6 feet 1 well vol. = [vol sand interval(6") - vol of waterloo casing (2")] + vol of water in tubing(1/4")  
 Depth to Product: 0 feet = [7.49 gal - 0.85 gal] + (0.0102 x length of water column)  
 Length of Water Column: 251.45 feet 2.53  
 Well Volume: 9.21 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 8/2/11 Time: 1140 Equipment Model(s)  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_ 1. YSI 572  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_ 2. DRT 152E  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_ 3. \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable 4. \_\_\_\_\_  
 Volume to Purge (minimum): Micro-purge well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level (D)	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1145	0.15	6.62	21.01	3.493	-12.9	4.85	7509.4	7509.4	Twb = 3.75
1150	0.3	6.66	22.57	3.504	-48.9	4.00	3.67	7570.1	
1200	0.45	6.79	25.13	3.545	-72.1	3.65	2.61	7655	
1210	0.6	6.86	27.84	3.615	-95.7	4.00	3.18	7688	
1220	0.75	6.88	29.37	3.649	-78.9	3.59	2.91	7737	

**4. SAMPLING DATA**

Purge data continued on next sheet?  **Geochemical Analyses**  
 Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 3760 Dg Field Filtered?  Yes  No  
 Sample ID: MW-36 2005 Sample Date: 8/2/11 Sample Time: 1420 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-37 Zone 1

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 100.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: BS  
 Project Location: Anderson, South Carolina Weather: SUNNY - 80°

**2. WELL DATA**

Date Measured: 8-2-11 Time: AM Temporary Well:  Yes  No  
 Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 195 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 21.29 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 173.71 feet Well Volume: 7.12 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 8-2-11 Time: 0828 Equipment Model(s)  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. DED Bladder Pump
2. YSI-556
3. DRY-156
4. Heron dipper

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>0838</u>	<u>0.10</u>	<u>7.12</u>	<u>22.60</u>	<u>1.177</u>	<u>-145.3</u>	<u>1.41</u>	<u>3.68</u>	<u>21.30'</u>	
<u>0850</u>	<u>0.15</u>	<u>7.35</u>	<u>23.47</u>	<u>1.165</u>	<u>-150.6</u>	<u>1.13</u>	<u>3.56</u>	<u>22.50'</u>	
<u>0905</u>	<u>0.25</u>	<u>7.46</u>	<u>23.14</u>	<u>1.169</u>	<u>-156.8</u>	<u>0.97</u>	<u>3.47</u>	<u>23.60'</u>	<u>24.60'</u>
<u>0920</u>	<u>0.35</u>	<u>7.43</u>	<u>22.32</u>	<u>1.157</u>	<u>-176.6</u>	<u>0.51</u>	<u>2.07</u>	<u>28.45'</u>	
<u>0935</u>	<u>0.50</u>	<u>7.50</u>	<u>22.46</u>	<u>1.160</u>	<u>-181.7</u>	<u>0.441</u>	<u>2.06</u>	<u>31.40'</u>	

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: MW-37 Zone 1 Sample Date: 8-2-11 Sample Time: 1040 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-37 Zone 2

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 100.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: BC  
 Project Location: Anderson, South Carolina Weather: Sunny ~ 85°F

**2. WELL DATA** Date Measured: 8.1.11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 232 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 17.65 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 214.35 feet Well Volume: 8.78 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA** Date Purged: 8.2.11 Time: 1100 Equipment Model(s):

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons

Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. QED Bladder Pump
2. YSI-554
3. Heron dipper
4. DRT-15GE

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1120	0.10	9.18	28.89	0.217	-150.6	2.69	3.63	17.72'	
1130	0.20	9.74	27.47	0.169	-162.1	1.37	3.25	17.72'	
1140	0.30	9.82	27.37	0.168	-148.6	0.81	3.56	17.72'	
1150	0.40	9.84	27.30	0.169	-137.5	0.67	3.15	17.72'	
1200	0.50	9.88	27.86	0.171	-135.1	0.59	2.76	17.72'	

**4. SAMPLING DATA** Purge data continued on next sheet?

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No

Sample ID: MW-37 Zone 2 Sample Date: 8.2.11 Sample Time: 1315 # of Containers: 2

Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS** Pump intake at 80 feet

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-37 Zone 3

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 100.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: RS  
 Project Location: Anderson, South Carolina Weather: Sunny ~ 70°F

**2. WELL DATA**

Date Measured: 8.1.11 Time: AM Temporary Well:  Yes  No  
 Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 272 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 23.10 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: - feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 248.9 feet Well Volume: 10.20 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 8.2.11 Time: 1420 Equipment Model(s)  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. QED Bladder Pump
2. 451-556
3. DR7-152E
4. Heron dipper

1430

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<del>1430</del>	0.10	7.14	35.54	0.325	-213.1	1.63	9.75	21.95'	
1440	0.15	6.95	34.35	0.453	-193.0	0.59	4.93	24.70'	
1455	0.25	7.30	35.86	0.457	-224.3	0.31	3.79	27.95'	
1505	0.35	7.41	36.26	0.445	-237.7	0.25	3.56	30.20'	
1515	0.45	7.40	36.26	0.430	-249.1	0.26	3.45	32.50'	

**4. SAMPLING DATA**

Purge data continued on next sheet?   
 Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: MW-37 Zone 3 Sample Date: 8.2.11 Sample Time: 1625 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: EB-050211 # of Containers: 2

**Geochemical Analyses**  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

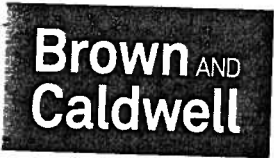
**5. COMMENTS**

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature: [Signature]







# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-38 Zone 1

## 1. PROJECT INFORMATION

Project Number: \_\_\_\_\_ Task Number: \_\_\_\_\_ Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: BS  
 Project Location: Anderson SC Weather: Sunny & 79°F

## 2. WELL DATA

Date Measured: 8.1.11 Time: AM Temporary Well:  Yes  No  
 Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 430 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: \_\_\_\_\_ feet Well Volume: \_\_\_\_\_ gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: \_\_\_\_\_ Time: 0815 Equipment Model(s)  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
<u>0825</u>	<u>0.10</u>	<u>7.31</u>	<u>23.74</u>	<u>0.357</u>	<u>-180.1</u>	<u>0.96</u>	<u>3.00</u>	<u>5.30'</u>	
<u>0835</u>	<u>0.20</u>	<u>7.44</u>	<u>23.81</u>	<u>0.358</u>	<u>-189.7</u>	<u>0.82</u>	<u>2.50</u>	<u>6.35'</u>	
<u>0845</u>	<u>0.30</u>	<u>7.53</u>	<u>23.64</u>	<u>0.354</u>	<u>-195.0</u>	<u>0.69</u>	<u>2.75</u>	<u>8.85</u>	
<u>0900</u>	<u>0.45</u>	<u>7.57</u>	<u>23.30</u>	<u>0.354</u>	<u>-197.8</u>	<u>1.07</u>	<u>3.29</u>	<u>13.55'</u>	
<u>0915</u>	<u>0.55</u>	<u>7.53</u>	<u>23.41</u>	<u>0.352</u>	<u>-196.5</u>	<u>0.55</u>	<u>3.35</u>	<u>16.65'</u>	

## 4. SAMPLING DATA

Purge data continued on next sheet?

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: MW-38 Zone 1 Sample Date: 8-3-11 Sample Time: 0930 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

Pump intake at 90'.

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature \_\_\_\_\_



WELL ID: MW-38 Zone 2

### 1. PROJECT INFORMATION

Project Number: \_\_\_\_\_ Task Number: \_\_\_\_\_ Area of Concern: \_\_\_\_\_  
 Client: DWRUS Corning Personnel: RS  
 Project Location: Andersen SC Weather: Sunny & 80°F

### 2. WELL DATA

Date Measured: 8.1.11 Time: \_\_\_\_\_ Temporary Well:  Yes  No  
 Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: Artesian feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: \_\_\_\_\_ feet Well Volume: \_\_\_\_\_ gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

### 3. PURGE DATA

Date Purged: 8.3.11 Time: 0950 Equipment Model(s):  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. Artesian
2. VS1-556
3. DZ1-1566
4. \_\_\_\_\_

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
<u>0950</u>	<u>0.05</u>	<u>7.63</u>	<u>26.60</u>	<u>0.189</u>	<u>-55.7</u>	<u>0.83</u>	<u>1.70</u>	—	
<u>0953</u>	<u>1.50</u>	<u>7.63</u>	<u>18.24</u>	<u>0.183</u>	<u>-149.3</u>	<u>0.40</u>	<u>1.63</u>	—	
<u>0956</u>	<u>3.00</u>	<u>7.14</u>	<u>17.98</u>	<u>0.182</u>	<u>-126.0</u>	<u>0.512</u>	<u>1.52</u>	—	
<u>0959</u>	<u>5.00</u>	<u>6.69</u>	<u>18.07</u>	<u>0.182</u>	<u>-105.7</u>	<u>0.35</u>	<u>1.46</u>	—	
<u>1:00</u>	<u>collected sample</u>								

0955  
0957

### 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: MW 38 Zone 2 Sample Date: 8.3.11 Sample Time: 1:00 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Purge data continued on next sheet?   
**Geochemical Analyses**  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

### 5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

## GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: ~~MW-39 Zone 1~~

MW-39 Zone 1

### 1. PROJECT INFORMATION

Project Number: \_\_\_\_\_ Task Number: \_\_\_\_\_ Area of Concern: \_\_\_\_\_  
 Client: Owens Learning Personnel: BS  
 Project Location: Anderson Pl Weather: Sunny ~90°F

### 2. WELL DATA

Date Measured: 8.11 Time: Am Temporary Well:  Yes  No  
 Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1" inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 105 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 19.82 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: — feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 85.18 feet Well Volume: 3.49 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

### 3. PURGE DATA

Date Purged: 8.1.11 Time: 1151 Equipment Model(s):  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. DED bladder
2. YS-556
3. DRY-156E
4. Heon dipper

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1200	0.05	6.62	35.33	0.140	-168.3	2.90	3.54	19.90'	
1215	0.10	6.82	33.77	0.147	-135.4	2.13	24.9	19.90'	Water is greyish.
1230	0.15	5.58	28.77	0.114	29.3	1.25	55.8	19.90'	possibly from
1245	0.25	6.90	30.85	0.103	-39.7	1.34	21.7	19.95'	grout b/c well
1255	0.40	6.93	32.84	0.103	-36.0	1.38	13.9	19.95'	not developed.

### 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: MW-39 Zone 1 Sample Date: 8.1.11 Sample Time: 1155 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Purge data continued on next sheet?

**Geochemical Analyses**

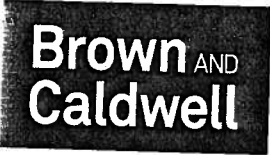
Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

### 5. COMMENTS

Purged for 2 hours & sampled

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.





# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-39 Zone 2

## 1. PROJECT INFORMATION

Project Number: \_\_\_\_\_ Task Number: \_\_\_\_\_ Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: PI  
 Project Location: Anderson SC Weather: Sunny ~95°F

## 2. WELL DATA

Date Measured: 8.1.11 Time: AM Temporary Well:  Yes  No  
 Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 215 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 30.36 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 184.64 feet Well Volume: 7.57 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 8.1.11 Time: 1430 Equipment Model(s)  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. QED Bladder Pump
2. YSI-580
3. DRT-15CE
4. Heron dipper

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1440	0.05	7.59	35.51	0.638	-198.7	2.61	10.9	29.60'	
1450	0.10	7.65	29.88	0.631	-204.8	1.72	9.73	29.60'	
1500	0.15	7.56	28.06	0.622	-199.2	1.04	9.60	29.65'	
1510	0.20	7.69	28.71	0.623	-209.6	0.79	9.97	35.25'	
1520	0.30	7.65	27.32	0.620	-208.7	0.67	9.95	35.26'	

1525 Collected sample

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: MW-39 Zone 2 Sample Date: 8.1.11 Sample Time: 1525 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: EB-060111 # of Containers: 2

### Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

## GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-39 zone 3

### 1. PROJECT INFORMATION

Project Number: \_\_\_\_\_ Task Number: \_\_\_\_\_ Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: BS  
 Project Location: Anderson SC Weather: Sunny ~ 25°F

### 2. WELL DATA

Date Measured: 8.1.11 Time: AM Temporary Well:  Yes  No  
 Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 300 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 38.40 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: - feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 261.6 feet Well Volume: 10.72 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

### 3. PURGE DATA

Date Purged: 8.1.11 Time: HOOR 1618 Equipment Model(s):  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. GED Bladder Pump
2. YS-556
3. DRT-154E
4. Heron dipper

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1628</u>	<u>0.05</u>	<u>7.25</u>	<u>33.58</u>	<u>0.149</u>	<u>-156.8</u>	<u>2.49</u>	<u>4.15</u>	<u>38.50'</u>	
<u>1649</u>	<u>0.10</u>	<u>7.17</u>	<u>33.34</u>	<u>0.148</u>	<u>-139.1</u>	<u>1.73</u>	<u>6.90</u>	<u>38.50'</u>	
<u>1700</u>	<u>0.20</u>	<u>7.22</u>	<u>37.19</u>	<u>0.150</u>	<u>-118.4</u>	<u>1.72</u>	<u>8.95</u>	<u>42.01'</u>	
<u>1716</u>	<u>0.25</u>	<u>7.17</u>	<u>34.60</u>	<u>0.150</u>	<u>-146.2</u>	<u>1.09</u>	<u>9.25</u>	<u>43.25'</u>	
<u>1726</u>	<u>0.30</u>	<u>7.17</u>	<u>34.86</u>	<u>0.149</u>	<u>-141.2</u>	<u>2.11</u>	<u>10.9</u>	<u>44.45'</u>	

### 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: MW-39 zone 3 Sample Date: 8.1.11 Sample Time: 1820 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Purge data continued on next sheet?

**Geochemical Analyses**  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

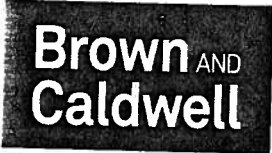
### 5. COMMENTS

Pump mtdk ~ 80°F, had it at ~ 120' before but it was not working as well, purged for 2 hours.

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.







# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 2061

## 1. PROJECT INFORMATION

Project Number: \_\_\_\_\_ Task Number: \_\_\_\_\_ Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: BS  
 Project Location: Anderson SC Weather: Sunny 85°F

## 2. WELL DATA

Date Measured: \_\_\_\_\_ Time: \_\_\_\_\_ Temporary Well:  Yes  No  
 Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 32 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 6.95' feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 25.05 feet Well Volume: 1.02 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 8-3-11 Time: 1040 Equipment Model(s):  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 3 well volumes or 3.08 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. RED Bladder Pump
2. YSI-556
3. DRT-154
4. Heron dipper

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1050	0.10	7.28	27.89	0.342	-60.4	1.45	24.7	7.00'	
1100	0.20	7.24	25.15	0.305	-42.0	0.72	10.30	6.95'	
1110	0.30	7.29	25.10	0.303	-35.6	0.55	12.6	6.95'	
1120	0.40	7.32	25.84	0.303	-34.8	0.53	10.1	6.95'	
1130	0.50	7.36	26.60	0.303	-36.4	0.47	10.2	6.95'	

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: MW-41 2061 Sample Date: 8-3-11 Sample Time: 1245 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Geochemical Analyses  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

Pump intake at ~ 30'

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



## GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 Zone 2

### 1. PROJECT INFORMATION

Project Number: \_\_\_\_\_ Task Number: \_\_\_\_\_ Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: BS  
 Project Location: Anderson SC Weather: Sunny ~ 100°F

### 2. WELL DATA

Date Measured: 8.1.11 Time: AM Temporary Well:  Yes  No  
 Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 129 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: Archie feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: \_\_\_\_\_ feet Well Volume: \_\_\_\_\_ gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

### 3. PURGE DATA

Date Purged: 8.3.11 Time: 1605 Equipment Model(s):  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. YSI-554
2. DR T-15CE
3. \_\_\_\_\_
4. \_\_\_\_\_

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1606</u>	<u>2.00</u>	<u>6.81</u>	<u>16.79</u>	<u>0.283</u>	<u>-73.7</u>	<u>0.17</u>	<u>1.41</u>	—	
<u>1609</u>	<u>5.00</u>	<u>6.95</u>	<u>16.78</u>	<u>0.286</u>	<u>-60.4</u>	<u>0.16</u>	<u>1.26</u>	—	
<u>1612</u>	<u>7.00</u>	<u>6.83</u>	<u>16.84</u>	<u>0.286</u>	<u>-47.9</u>	<u>0.15</u>	<u>1.31</u>	—	
<u>1615</u>	<u>Collected ed sample</u>								

### 4. SAMPLING DATA

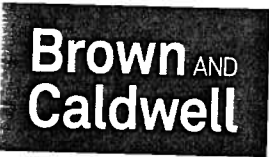
Purge data continued on next sheet?

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: MW-41 Zone 2 Sample Date: 8.3.11 Sample Time: 1615 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Geochemical Analyses  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

### 5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 Zone 3

## 1. PROJECT INFORMATION

Project Number: \_\_\_\_\_ Task Number: \_\_\_\_\_ Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: BS  
 Project Location: Anderson SC Weather: Sunny - 95° F

## 2. WELL DATA

Date Measured: 8-2-11 Time: AM Temporary Well:  Yes  No  
 Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 300 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 0.1 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: \_\_\_\_\_ feet Well Volume: \_\_\_\_\_ gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 8-3-11 Time: 1340 Equipment Model(s)  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. RED Bladder Pump
2. YSI-854
3. ORT-1524
4. Hydra digger

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1350	0.10	7.74	32.16	0.709	-227.9	0.99	4.56	4.10'	
1400	0.20	7.41	33.00	0.306	-230.1	0.75	4.76	7.15'	
1410	0.30	7.40	32.32	0.304	-220.1	0.67	4.65	10.76'	
1420	0.40	7.39	32.51	0.304	-208.5	0.65	4.16	12.85'	
1430	0.50	7.37	34.02	0.325	-216.5	0.62	4.27	14.70'	

## 4. SAMPLING DATA

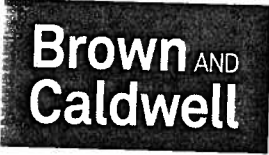
Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: MW-41 Zone 3 Sample Date: 8-3-11 Sample Time: 1545 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: Dup-080311 # of Containers: 2  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Purge data continued on next sheet?   
**Geochemical Analyses**  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.





# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42 zone 1

## 1. PROJECT INFORMATION

Project Number: \_\_\_\_\_ Task Number: \_\_\_\_\_ Area of Concern: \_\_\_\_\_  
 Client: Dolens Coring Personnel: DM  
 Project Location: Anderson, SC Weather: ~80°F Sunny Hot

## 2. WELL DATA

Date Measured: 8/2/11 ~~8/1/11~~ Time: PM Temporary Well:  Yes  No  
 Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 129 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 38.98 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 90.02 feet Well Volume: 3.69 gal Screened Interval (from GS): 114-129  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 8/3/11 Time: 0830 Equipment Model(s)  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): Micro-purge well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
0850	YSI Full	7.08	24.51	0.283	-98.6	4.07	11.5	38.75	
0855	0.05	7.45	23.88	0.223	-105.6	2.44	7.36	39.14	
0900	0.1	8.06	23.68	0.204	-135.1	3.94	6.16	39.15	
0915	0.2	8.39	22.59	0.198	-146.2	3.86	5.13	39.17	
0930	0.3	8.52	22.58	0.197	-157.3	3.50	4.27	39.16	

## 4. SAMPLING DATA

Purge data continued on next sheet?   
 Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 31.18 Field Filtered?  Yes  No  
 Sample ID: MW-42 zone 1 Sample Date: 8/3/11 Sample Time: 1035 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: EB-080311 # of Containers: 2  
 @ 1050

~~Geochemical Analyses~~  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

Pump intake @ 100' b/t/c

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature [Signature]





## GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42 zone 2

### 1. PROJECT INFORMATION

Project Number: \_\_\_\_\_ Task Number: \_\_\_\_\_ Area of Concern: \_\_\_\_\_  
 Client: Orens Corning Personnel: DM  
 Project Location: rd Anderson, SC Weather: -90°F Sunny Hot

### 2. WELL DATA

Date Measured: 8/1/11 Time: 2:45 PM Temporary Well:  Yes  No  
 Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 205 222 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 46.26 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 175.74 feet Well Volume: 7.21 gal Screened Interval (from GS): 202-222  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

### 3. PURGE DATA

Date Purged: 8/3/11 Time: 1100 Equipment Model(s):  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): Micropurge well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. QED Bladder (1")
2. YSI 53L
3. DRT 15LE
4. \_\_\_\_\_

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 μS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1110	YSI Full	8.36	24.06	0.668	-116.7	4.62	4.47	46.30	
1115	0.25	7.73	22.82	0.680	-146.0	2.91	3.97	47.94	
1120	0.5	7.59	21.97	0.679	-165.0	2.11	3.49	49.85	
1135	<del>0.5</del> 1.0	7.60	25.43	0.686	-165.0	1.11	4.97	53.18	
1150	1.5	7.60	28.47	0.697	-181.7	0.97	5.49	56.15	

Purge data continued on next sheet?

### 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 75.00 Field Filtered?  Yes  No  
 Sample ID: MW-42 zone 2 Sample Date: 8/3/11 Sample Time: 1305 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

#### Geochemical Analyses

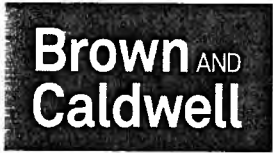
Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

### 5. COMMENTS

Pump intake c ~100'

Note: include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.





# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42 Zone 3

## 1. PROJECT INFORMATION

Project Number: \_\_\_\_\_ Task Number: \_\_\_\_\_ Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, SC Weather: ~95°F Sunny Hot

## 2. WELL DATA

Date Measured: 8/1/11 Time: AM Temporary Well:  Yes  No  
 Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 285 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 36.99 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 248.01 feet Well Volume: 10.17 gal Screened Interval (from GS): 265-285  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 8/3/11 Time: 1400 Equipment Model(s):  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): Many purges well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

- YSI 556
- GED Bladder (1")
- DRT-15CE
- \_\_\_\_\_

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1410	YSI Full	7.27	27.00	0.236	-91.4	5.73	8.64	36.85	
1415	0.15	7.46	25.46	0.244	-136.4	1.63	8.87	38.26	
1420	0.20	7.65	24.93	0.249	-157.7	1.05	7.73	39.42	
1440	0.4	7.74	25.17	0.247	-178.7	0.61	8.64	43.39	
1500	0.6	7.68	25.13	0.245	-182.8	0.44	9.57	46.98	

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 91.05 Field Filtered?  Yes  No  
 Sample ID: MW-42 Zone 3 Sample Date: 8/3/11 Sample Time: 1605 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

### Geochemical Analyses

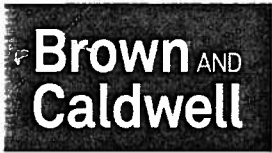
~~Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L~~

## 5. COMMENTS

Pump intake @ 100'

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.





# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 zone 1

## 1. PROJECT INFORMATION

Project Number: \_\_\_\_\_ Task Number: \_\_\_\_\_ Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, SC Weather: -95°F Sunny Hot

## 2. WELL DATA

Date Measured: 6/1/11 Time: PM Temporary Well:  Yes  No

Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 112.5 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 8.31 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: — feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 104.19 feet Well Volume: 4.27 gal Screened Interval (from GS): 92.5-112.5  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 8/3/11 Time: 1645 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): Mmmmm well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

- QED Bladder (1")
- YSI 536
- DRT 15CE
- \_\_\_\_\_

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1655	YSI Full	7.56	34.80	0.196	18.7	3.88	24.2	8.60	
1700	0.15	7.34	31.95	0.187	32.4	2.62	20.1	8.54	
1705	0.20	7.27	29.85	0.183	37.5	2.26	18.5	8.58	
1725	0.4	7.21	27.92	0.179	844.7	1.65	15.2	8.57	
1745	0.6	7.18	26.90	0.172	50.4	1.60	15.9	8.60	

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 8.54 Field Filtered?  Yes  No  
 Sample ID: MW-43 zone 1 Sample Date: 8/3/11 Sample Time: 1850 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Geochemical Analyses  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

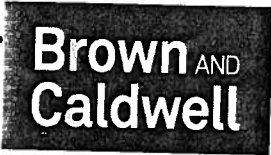
## 5. COMMENTS

Unable to tag bottom (New well), WL meter not long enough. Used TD on well tags on stickup that drillers left Pump intake @ ~150'

Note: include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature: [Signature]





# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 Zone 2

## 1. PROJECT INFORMATION

Project Number: \_\_\_\_\_ Task Number: \_\_\_\_\_ Area of Concern: \_\_\_\_\_  
 Client: Dwens Corning Personnel: DM  
 Project Location: Anderson, SC Weather: ~75F Overcast

## 2. WELL DATA

Date Measured: 8/11/11 Time: AM Temporary Well:  Yes  No  
 Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 180 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 6.22 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 173.78 feet Well Volume: 7.12 gal Screened Interval (from GS): 150-180  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 8/11/11 Time: 0800 Equipment Model(s)  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): Micropurge well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

- YSI 556
- QED Bladder (1")
- DRT-15CE
- \_\_\_\_\_

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
0805	YSI Full	7.08	24.67	0.438	164.9	2.75	113	6.59	
0810	0.15	7.42	23.03	0.335	141.4	1.27	88.7	6.84	
0815	0.2	7.51	22.67	0.332	131.6	0.89	65.1	6.95	
0825	0.3	7.61	22.00	0.330	117.0	0.62	63.8	7.10	
0835	0.4	7.73	21.87	0.329	101.2	0.50	62.7	7.04	

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: MW-43 Zone 2 Sample Date: 8/11/11 Sample Time: 1005 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Purge data continued on next sheet?  **Geochemical Analyses**  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

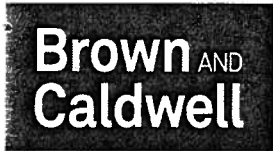
Pump intake @ ~95'

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature: [Signature]







# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 Zone 3

## 1. PROJECT INFORMATION

Project Number: \_\_\_\_\_ Task Number: \_\_\_\_\_ Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: BS  
 Project Location: Anderson St Weather: 8 Cloudy ~ 75°F

## 2. WELL DATA

Date Measured: 8.1.11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 282.5 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 7.15 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 275.35 feet Well Volume: 11.28 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 8.4.11 Time: 0817 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons

Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. QED Bladder Pump
2. YSI-556
3. DP T-15CE
4. Hean sizer

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
0827	0.10	9.98	25.80	0.185	32.2	1.87	3.16	5.76'	
0837	0.20	12.14	25.76	0.156	25.0	1.08	3.80	8.10'	
0856	0.40	<del>14.09</del> 15.36	24.06	0.150	37.2	0.74	4.02	13.50'	
0906	0.60	16.22	23.56	0.149	35.7	0.72	5.21	15.86'	
0920	0.70	17.50	23.37	0.148	30.5	0.72	5.06	19.89'	

17.50

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No

Sample ID: MW-43 Zone 3 Sample Date: 8.4.11 Sample Time: 1020 # of Containers: 2

Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Equipment Blank Collected?  Yes  No ID: EB-080411 @ 0755 # of Containers: 2

### Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

Difficulty calibrating pH meter, pH readings may be off.

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: Alloy

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, South Carolina Weather: ~60°F Partly Cloudy

**2. WELL DATA**

Date Measured: 11/14/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 61 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 16.27 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: - feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 44.73 feet Well Volume: 7.29 gal Screened Interval (from GS): \_\_\_\_\_

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11/15/11 Time: 0917 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 3 well volumes or 21.87 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. Monsoon Pump
2. YSI-556
3. LaMotte 2026
4. Heon Dipper

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
0926	3.425	4.99	19.36	0.096	315.3	4.98	46.6	19.94	
0937	7.5	4.53	19.34	0.097	292.2	4.59	71.7	21.19	
0946	11.25	4.50	19.34	0.096	310.0	4.51	46.3	21.81	
0953	15.0	4.56	19.33	0.096	300.8	4.63	28.3	21.79	
1000	18.75	4.53	19.34	0.096	296.7	4.62	12.3	21.79	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 21.80 Field Filtered?  Yes  No  
 Sample ID: Alloy Sample Date: 11/15/11 Sample Time: 21:10 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Pump intake @ ~66' bgs

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature [Signature]



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-1

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, South Carolina Weather: ~65F Partly Cloudy

**2. WELL DATA**

Date Measured: 11/15/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 65 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 24.81 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 40.19 feet Well Volume: 6.55 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11/15/11 Time: 1102 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 3 well volumes or 19.65 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. Monsoon Pump
2. YSI-556
3. La Motte 2020
4. Heron Dipper

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1109	3.25	4.88	18.49	0.032	380.1	7.59	85.1	30.05	
1119	6.5	4.35	18.54	0.033	416.1	7.57	121	30.40	
1129	9.75	4.05	18.54	0.032	435.4	7.59	70.8	30.94	
1139	13.0	3.98	18.52	0.032	443.1	7.54	72.2	31.55	
1149	16.25	3.97	18.55	0.032	445.6	7.58	36.9	31.66	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 32.58 Field Filtered?  Yes  No  
 Sample ID: MW-1 Sample Date: 11/15/11 Sample Time: 1225 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

~~Geochemical Analyses~~  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Pump intake c. ~60' bgs

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



WELL ID: MW-2

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, South Carolina Weather: ~70°F Partly Cloudy

**2. WELL DATA**

Date Measured: 11/14/11 Time: PM Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 66.7 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 23.41 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: — feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 43.29 feet Well Volume: 7.06 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11/14/11 Time: 1545 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 3 well volumes or 21.18 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. YSI-556
2. DRT-1501 Manson Pump
3. LaMotte 2020
4. Hvon D.ppe

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1556	3.5	5.65	19.74	0.060	375.3	6.58	24.0	28.10	Steadily increased pump rate.
1616	7.0	5.52	19.64	0.059	388.5	5.55	19.8	29.92	
1623	10.5	5.43	19.63	0.059	395.0	6.50	6.52	30.47	
1630	14.0	5.08	19.50	0.058	414.7	6.42	5.33	31.12	
1643	17.5	4.79	19.58	0.058	432.5	6.37	12.7	32.48	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 32.87 Field Filtered?  Yes  No  
 Sample ID: MW-2 Sample Date: 11/14/11 Sample Time: 1700 # of Containers: 1  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Pump intake c ~ 61' bgs.

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.







# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-3

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: Eileen Russell  
 Project Location: Anderson, South Carolina Weather: Partly Cloudy, ~60°

## 2. WELL DATA

Date Measured: 11/15/11 Time: 0730 AM Temporary Well:  Yes  No  
 Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 28 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 20.95 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: — feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 7.05 feet Well Volume: 1.149 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 11/15/11 Time: 0730 Equipment Model(s)  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 3 well volumes or 3.45 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. YSI 556
2. LaMotte 2020
3. Monsoon Pump
4. Heron Dipper

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2 C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>0730</u>	<u>0</u>	<u>4.21</u>	<u>17.75</u>	<u>0.047</u>	<u>112.0</u>	<u>1.55</u>	<u>11.35</u>	<u>21.31</u>	
<u>0740</u>	<u>0.5</u>	<u>4.36</u>	<u>18.56</u>	<u>0.048</u>	<u>27.7</u>	<u>1.83</u>	<u>22.8</u>	<u>21.37</u>	
<u>0750</u>	<u>1</u>	<u>4.48</u>	<u>18.27</u>	<u>0.049</u>	<u>26.8</u>	<u>2.11</u>	<u>4.89</u>	<u>21.38</u>	
<u>0800</u>	<u>1.5</u>	<u>4.55</u>	<u>18.57</u>	<u>0.049</u>	<u>67.4</u>	<u>2.90</u>	<u>3.72</u>	<u>21.31</u>	
<u>0805</u>	<u>2.0</u>	<u>4.43</u>	<u>18.18</u>	<u>0.048</u>	<u>86.9</u>	<u>3.47</u>	<u>12.8</u>	<u>21.34</u>	

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 21.38 Field Filtered?  Yes  No  
 Sample ID: MW-3 Sample Date: 11/15/11 Sample Time: 0840 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

~~Geochemical Analyses~~  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Eileen Russell  
Signature



# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-3

### 3. PURGE DATA (continued from page 1)

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2 °C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
0810	2.5	4.40	18.55	0.048	113.1	4.09	13.8	21.43	
0820	3.5	4.35	18.44	0.048	117.2	4.03	2-30	<21.41	pump @ 21.41
0830	4.5	4.30	18.05	0.048	157.6	4.27	1.81	21.40	
0835	5.5	4.35	18.50	0.049	194.1	4.25	1.32	21.38	
0840	Sample Collected								
<i>EMR</i>									

Purge data continued on next sheet?

*Eileen Russell*

Signature



# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-4

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: Eileen Russell  
 Project Location: Anderson, South Carolina Weather: Cloudy ~60°

## 2. WELL DATA

Date Measured: 11/14/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 29.7 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 22.02 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: — feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 7.68 feet Well Volume: 1.25 gal Screened Interval (from GS): \_\_\_\_\_

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 11/15/11 Time: 0920 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 3 well volumes or 3.75 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. YSI 556
2. LAMOTHE 2020
3. Monsoon Pump
4. Herron Dipper

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
0920	0	6.65	18.80	0.705	31.5	1.76	102.9	22.53	
0930	0.5	6.62	19.28	0.705	26.6	0.47	30.5	22.71	
0940	1.25	6.63	19.34	0.703	14.7	0.17	4.89	22.93	
0950	2	6.61	19.44	0.700	6.7	0.13	1.89	23.15	
1000	2.75	6.61	19.27	0.695	0.9	0.12	0.87	23.39	

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 23.74 Field Filtered?  Yes  No  
 Sample ID: MW-4 Sample Date: 11/15/11 Sample Time: 1020 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

~~Geochemical Analyses~~  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Eileen Russell  
 Signature



# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID:     MW-4    

### 3. PURGE DATA (continued from page 1)

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2° C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments																																																																																																																																		
1010	3.5	6.60	19.24	0.694	-1.9	0.11	0.73	23.62																																																																																																																																			
1015	4	6.58	19.32	0.690	-4.0	0.11	0.54	23.74																																																																																																																																			
1020	Sample Collected <del>_____</del>																																																																																																																																										
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Purge data continued on next sheet?

*Allen Russell*

Signature



# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-5

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: Eileen Russell  
 Project Location: Anderson, South Carolina Weather: Cloudy, humid, ~60°

## 2. WELL DATA

Date Measured: 11/14/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 27 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 19.08 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 7.92 feet Well Volume: 1.29 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 11/15/11 Time: 1055 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 3 well volumes or 3.87 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. YSI 556
2. LaMotte 2020
3. Monsoon Pump
4. Heron Dipper

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1055</u>	<u>0</u>	<u>4.20</u>	<u>18.99</u>	<u>0.052</u>	<u>303.5</u>	<u>1.72</u>	<u>84.9</u>	<u>19.99</u>	
<u>1105</u>	<u>0.50</u>	<u>4.20</u>	<u>19.34</u>	<u>0.053</u>	<u>368.1</u>	<u>1.81</u>	<u>42.4</u>	<u>20.26</u>	
<u>1110</u>	<u>1</u>	<u>4.19</u>	<u>19.42</u>	<u>0.053</u>	<u>378.8</u>	<u>1.46</u>	<u>26.9</u>	<u>20.07</u>	
<u>1120</u>	<u>2</u>	<u>4.15</u>	<u>19.42</u>	<u>0.052</u>	<u>421.7</u>	<u>1.24</u>	<u>20.0</u>	<u>20.31</u>	
<u>1125</u>	<u>2.5</u>	<u>4.15</u>	<u>19.25</u>	<u>0.052</u>	<u>455.9</u>	<u>1.19</u>	<u>5.81</u>	<u>20.86</u>	

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 20.50 Field Filtered?  Yes  No  
 Sample ID: MW-5 Sample Date: 11/15/11 Sample Time: 1140 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

### Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Eileen Russell  
 Signature





# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-6

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: Eileen Russell  
 Project Location: Anderson, South Carolina Weather: Cloudy, ~65°, humid

## 2. WELL DATA

Date Measured: 11/14/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 133.6 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 179.6 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 113.64 feet Well Volume: 18.52 gal Screened Interval (from GS): \_\_\_\_\_

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 11/15/11 Time: 1530

Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Volume to Purge (minimum): 1 well volumes or 55.56 gallons 11/15/11  
18.52 gallons

Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min

Calibrated?  Yes  No

1. YSI 556
2. La Mothe 2020
3. Monsoon Pump
4. Herron Dipper

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1530	0	6.57	20.13	0.110	251.4	5.40	5.29	21.35	
1545	3	6.50	19.49	0.110	245.8	4.95	1.08	23.52	
1600	7	6.12	19.40	0.106	257.2	5.58	0.20	23.97	
1615	12	5.96	19.41	0.104	260.8	5.70	0.07	23.74	
1630	16.5	5.97	19.36	0.103	257.1	5.75	-0.29	23.60	

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Depth to Water at Time of Sampling: 23.14 Field Filtered?  Yes  No

Sample ID: MW-6 Sample Date: 11/15/11 Sample Time: 1650 # of Containers: 2

Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

### Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L

DO: \_\_\_\_\_ mg/L

Nitrate: \_\_\_\_\_ mg/L

Sulfate: \_\_\_\_\_ mg/L

Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

pump cord only long enough to go 120 ft. deep.

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.





**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-7

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: Dr  
 Project Location: Anderson, South Carolina Weather: ~55°F Sunny Clear

**2. WELL DATA**

Date Measured: 11/14/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 30.9 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 19.52 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 11.38 feet Well Volume: 1.85 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11/18/11 Time: 1018 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 3 well volumes or 5.56 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. Monsoon Pump
2. La Motte 2020
3. YSI-556
4. Heon Dipper

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1023	2.5	4.50	21.08	1.234	230.2	0.59	18.9	21.22	
1028	5.0	4.50	21.09	1.310	201.0	0.34	16.0	22.32	
1033	5.5	4.48	20.93	1.345	196.0	0.26	6.86	22.73	
1038	6.5	4.46	20.61	1.366	193.5	0.23	4.45	22.82	
1043	7.5	4.45	20.60	1.383	194.3	0.20	2.73	22.93	

1045 Sample collected

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 22.93 Field Filtered?  Yes  No  
 Sample ID: MW-7 Sample Date: 11/18/11 Sample Time: 1045 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Pump intake @ ~28'

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



WELL ID: MW-9

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, South Carolina Weather: ~65°F overcast

**2. WELL DATA**

Date Measured: 11/14/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 104 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 19.88 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: -84.12 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 84.12 feet Well Volume: 13.71 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11/15/11 Time: 1540 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 3 well volumes or 41.13 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. Monsoon Pump
2. YSI-556
3. Hyron Dopper
4. La Motte 2020

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1555	2.5	5.98	20.40	0.085	334.5	7.05	279	24.65	
1605	5.0	5.92	20.14	0.084	342.2	7.12	164	26.76	
1615	7.5	5.93	20.04	0.083	341.9	7.15	205	27.52	
1625	10	5.91	19.89	0.083	343.9	7.17	286	29.43	
1635	12.5	5.92	19.83	0.081	345.0	7.25	273	30.40	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 31.05 Field Filtered?  Yes  No  
 Sample ID: MW-9 Sample Date: 11/15/11 Sample Time: 1745 # of Containers: \_\_\_\_\_  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**  
~~Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L~~

**5. COMMENTS**

collected Pump intake @ ~99' bgs. Purged for 2 hrs. Sample when turb = 38.2 NTU

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature [Signature]



WELL ID: MW-10

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, South Carolina Weather: ~60°F Partly Cloudy

**2. WELL DATA**

Date Measured: 11/14/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 71.4 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 26.99 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: — feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 44.41 feet Well Volume: 7.24 gal Screened Interval (from GS): \_\_\_\_\_

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11/15/11 Time: 1327 1341 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 3 well volumes or 21.72 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. Monsoon Pump
2. YSI-556
3. LaMontte 2020
4. Heron Dipper

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1346	3.5	4.83	20.06	0.031	394.9	7.70	11.2	30.60	
1353	7.25	4.63	20.06	0.032	409.3	7.70	4.36	30.75	
1401	10.75	4.44	20.06	0.032	421.5	7.68	4.81	30.80	
1409	14.5	4.35	20.06	0.032	429.4	7.67	2.10	30.74	
1416	18.0	4.15	20.02	0.032	442.0	7.68	2.51	30.95	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 31.97 Field Filtered?  Yes  No  
 Sample ID: MW-10 Sample Date: 11/15/11 Sample Time: 1435 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Pump intake c ~76' bgs

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



WELL ID: MW-11

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, South Carolina Weather: ~60°F Partly Cloudy

**2. WELL DATA**

Date Measured: 11/14/11 Time: 1327 AM Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 16 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 12.09 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 391 feet Well Volume: 0.63 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11/17/11 Time: 1327 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 3 well volumes or 1.91 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. Monsoon Pump
2. VSI-556
3. Heron Dipper
4. La Motte 2020

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1332	0.5	6.46	18.14	0.529	6.4	0.57	9.90	6.99	
1337	1.0	6.46	18.20	0.535	1.6	0.30	4.67	6.97	
1342	2.0	6.44	18.25	0.534	-0.3	0.23	1.79	7.00	
1347	3.0	6.45	18.34	0.540	-5.6	0.16	1.66	7.04	
1352	4.0	6.46	18.36	0.534	-5.5	0.13	0.93	7.28	

1355 Sample collected

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 7.28 Field Filtered?  Yes  No  
 Sample ID: MW-11 Sample Date: 11/17/11 Sample Time: 1355 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: DWP-111711 e "1355" # of Containers: 2  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Geochemical Analyses

~~Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L~~

**5. COMMENTS**

Pump intake @ ~14'

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.





**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-12

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, South Carolina Weather: ~60°F Sunny, Clear

**2. WELL DATA**

Date Measured: 11/14/11 Time: PM Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 33 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 7.23 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: — feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 25.77 feet Well Volume: 4.20 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11/17/11 Time: 1410 Equipment Model(s): \_\_\_\_\_

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 3 well volumes or 12.6 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. Monsoon Pump
2. YSI-556
3. LaMotte 2080
4. Heron Dipper

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1415</u>	<u>0.5</u>	<u>5.66</u>	<u>18.07</u>	<u>0.168</u>	<u>231.2</u>	<u>2.45</u>	<u>15.1</u>	<u>18.65</u>	
<u>1420</u>	<u>1.25</u>	<u>5.70</u>	<u>18.02</u>	<u>0.168</u>	<u>235.7</u>	<u>2.45</u>	<u>16.6</u>	<u>12.97</u>	
<u>1425</u>	<u>2.0</u>	<u>5.66</u>	<u>18.08</u>	<u>0.167</u>	<u>240.0</u>	<u>1.86</u>	<u>15.0</u>	<u>13.37</u>	
<u>1430</u>	<u>2.75</u>	<u>5.64</u>	<u>18.16</u>	<u>0.167</u>	<u>240.8</u>	<u>1.47</u>	<u>15.7</u>	<u>13.95</u>	
<u>1435</u>	<u>3.5</u>	<u>5.64</u>	<u>18.01</u>	<u>0.166</u>	<u>238.7</u>	<u>1.40</u>	<u>36.9</u>	<u>13.34</u>	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 14.63 Field Filtered?  Yes  No  
 Sample ID: MW-12 Sample Date: 11/17/11 Sample Time: 1515 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**  
~~Ferrous Iron: \_\_\_\_\_ mg/L~~  
~~DO: \_\_\_\_\_ mg/L~~  
~~Nitrate: \_\_\_\_\_ mg/L~~  
~~Sulfate: \_\_\_\_\_ mg/L~~  
~~Alkalinity: \_\_\_\_\_ mg/L~~

**5. COMMENTS**

Pump intake e ~29' bgs

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature [Signature]



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-13

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, South Carolina Weather: ~60°F Sunny, Clear

**2. WELL DATA**

Date Measured: 11/14/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 72 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 9.54 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: - feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 62.46 feet Well Volume: 10.18 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11/17/11 Time: 1545 Equipment Model(s): \_\_\_\_\_

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 3 well volumes or 30.54 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1550	4.0	5.29	19.02	0.124	300.9	4.27	4.39	9.65	
1555	8.0	5.27	19.04	0.124	308.1	4.24	1.93	9.66	
1600	12.0	5.25	19.06	0.124	312.5	4.20	1.16	9.67	
1605	16.0	5.23	19.07	0.124	314.4	4.19	1.35	9.68	
1610	20.0	5.22	19.08	0.124	316.4	4.18	0.63	9.70	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 9.70 Field Filtered?  Yes  No  
 Sample ID: MW-13 Sample Date: 11/17/11 Sample Time: 1625 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**  
~~Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L~~

**5. COMMENTS**

Pump intake @ ~65'

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature [Signature]





# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-14

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, South Carolina Weather: ~55°F Scattered clouds

## 2. WELL DATA

Date Measured: 11/14/11 Time: AM Temporary Well:  Yes  No  
 Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 74.2 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 22.46 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: — feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 51.74 feet Well Volume: 8.43 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 11/15/11 Time: 0723 Equipment Model(s)  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 3 well volumes or 25.3 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

- YSI-536
- La Motte 2020
- Monsoon Pump
- Heon Dipper

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
0737	4.25	5.51	18.60	0.067	349.4	6.48	11.8	31.27	
0756	8.5	4.99	18.67	0.066	380.1	6.26	5.79	33.53	
0805	12.75	4.53	18.73	0.064	409.5	6.13	4.61	36.25	
0816	17.0	4.23	18.75	0.063	427.9	6.07	3.82	38.25	
0826	21.25	3.88	18.71	0.063	450.2	6.09	2.99	41.29	

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 42.31 Field Filtered?  Yes  No  
 Sample ID: MW-14 Sample Date: 11/15/11 Sample Time: 0845 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

### Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

Pump intake @ ~70' bgs

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.





# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-15

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200-001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, South Carolina Weather: ~60°F overcast

**2. WELL DATA** Date Measured: 11/14/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 99.5 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 25.67 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: - feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 73.83 feet Well Volume: 12.03 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA** Date Purged: 11/17/11 Time: 1017 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Volume to Purge (minimum): 3 well volumes or 36.09 gallons

Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. Monsoon Pump
2. YSI-552
3. LaMotte 2020
4. Heron Dipper

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1022	2.0	7.01	17.51	0.247	105.2	0.68	6.17	31.19	
1027	4.0	6.74	17.58	0.224	143.9	0.63	3.72	31.95	
1032	5.0	6.65	17.63	0.215	158.9	0.50	2.27	32.78	
1037	6.5	6.62	17.65	0.213	162.3	0.39	1.69	33.48	
1042	8.0	6.61	17.66	0.211	163.3	0.33	1.68	33.92	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Depth to Water at Time of Sampling: 34.27 Field Filtered?  Yes  No

Sample ID: MW-15 Sample Date: 11/17/11 Sample Time: 1115 # of Containers: 2

Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**

Ferrous Iron:	_____ mg/L
DO:	_____ mg/L
Nitrate:	_____ mg/L
Sulfate:	_____ mg/L
Alkalinity:	_____ mg/L

**5. COMMENTS** Pump intake c. ~94' bgs

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature [Signature]







# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-16

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: Eileen Russell  
 Project Location: Anderson, South Carolina Weather: Raining, ~65°

## 2. WELL DATA

Date Measured: 11/14/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 59 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 7.70 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: — feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 51.3 feet Well Volume: 8.36 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 11/16/11 Time: 0800 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 1 well volumes or 8.36 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

- YSI 556
- Monsoon Pump
- La Motte 2020
- Herron Dipper

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>0800</u>	<u>0</u>	<u>6.64</u>	<u>17.61</u>	<u>0.306</u>	<u>-81.3</u>	<u>2.52</u>	<u>3.48</u>	<u>16.20</u>	
<u>0815</u>	<u>4</u>	<u>6.73</u>	<u>17.90</u>	<u>0.307</u>	<u>-111.6</u>	<u>0.27</u>	<u>2.97</u>	<u>23.31</u>	
<u>0825</u>	<u>6</u>	<u>6.79</u>	<u>17.87</u>	<u>0.308</u>	<u>-88.7</u>	<u>0.46</u>	<u>3.81</u>	<u>27.16</u>	
<u>0835</u>	<u>6.5</u>	<u>6.90</u>	<u>18.09</u>	<u>0.308</u>	<u>-68.0</u>	<u>0.55</u>	<u>2.27</u>	<u>27.96</u>	
<u>0845</u>	<u>7</u>	<u>6.83</u>	<u>18.18</u>	<u>0.313</u>	<u>-41.4</u>	<u>1.61</u>	<u>2.37</u>	<u>31.94</u>	

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 39.62 Field Filtered?  Yes  No  
 Sample ID: MW-16 Sample Date: 11/16/11 Sample Time: 0930 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

~~Geochemical Analyses~~  
 Ferrus Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Eileen Russell  
 Signature



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-17

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: Eileen Russell  
 Project Location: Anderson, South Carolina Weather: Cloudy, ~65°

**2. WELL DATA**

Date Measured: 11/14/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 4 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 4 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 39.1 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 23-34 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: — feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 15.76 feet Well Volume: 10.5 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11/15/11 Time: 12:35 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 3 well volumes or 31.5 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. YSI 556
2. La Motte 2020
3. Monsoon Pump
4. Heron Dipper

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1235</u>	<u>0</u>	<u>4.53</u>	<u>20.07</u>	<u>0.117</u>	<u>329.5</u>	<u>5.95</u>	<u>121</u>	<u>24.07</u>	
<u>1245</u>	<u>2.5</u>	<u>4.59</u>	<u>20.23</u>	<u>0.116</u>	<u>354.3</u>	<u>5.57</u>	<u>164</u>	<u>23.92</u>	
<u>1255</u>	<u>6</u>	<u>4.62</u>	<u>20.21</u>	<u>0.114</u>	<u>358.3</u>	<u>5.68</u>	<u>28.3</u>	<u>23.98</u>	
<u>1305</u>	<u>9</u>	<u>4.53</u>	<u>20.21</u>	<u>0.113</u>	<u>361.5</u>	<u>5.69</u>	<u>7.29</u>	<u>24.01</u>	
<u>1315</u>	<u>12</u>	<u>4.40</u>	<u>20.20</u>	<u>0.113</u>	<u>366.6</u>	<u>5.70</u>	<u>2.74</u>	<u>24.01</u>	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 24.01 Field Filtered?  Yes  No  
 Sample ID: MW-17 Sample Date: 11/15/11 Sample Time: 1400 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

*Eileen Russell*

Signature



# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-17

### 3. PURGE DATA (continued from page 1)

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1325	16	4.36	20.23	0.113	366.7	5.70	1.90	23.99	
1335	21	4.34	20.20	0.113	363.3	5.71	1.49	24.07	
1345	26	4.30	20.20	0.112	343.4	5.77	1.50	24.06	
1355	32	4.34	20.20	0.112	347.8	5.75	2.83	24.01	
1400	Sample Collected								
<i>EMR</i>									

Purge data continued on next sheet?

Eileen Russell  
Signature



# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-18

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: E. Russell, D. McCoy  
 Project Location: Anderson, South Carolina Weather: Partly Cloudy, 60s

## 2. WELL DATA

Date Measured: 11/14/2011 Time: pm Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 25.6 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 23.51 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 2.09 feet Well Volume: 0.34 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 11/14/2011 Time: 15:25 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 3 well volumes or 1.02 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. YSI-556
2. LAMOTHE 2020
3. MONSOON PUMP
4. HERON DIPPER

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
15:25	0	3.28	20.32	0.039	303.8	5.40	66.0	25.55	
15:30	0.50	4.02	20.68	0.035	301.9	60.6	19.0	25.83	DO is %.
15:35	1.0	4.09	20.93	0.035	321.5	58.7	16.4	25.82	DO is %.
15:40	3.0	4.09	20.97	0.035	329.9	58.7	5.49	25.85	DO is %.
15:45	Sample Collected								

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 25.85 Field Filtered?  Yes  No  
 Sample ID: MW-18 Sample Date: 11/14/11 Sample Time: 15:45 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: EB-11411 @ 1500 # of Containers: 2

~~Geochemical Analyses~~  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

5. COMMENTS EB-11411 collected before sample purge because this is the first well sampled and EB-11411 will verify decon of equipment provider.

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Eileen Russell  
 Signature





# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-19

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, South Carolina Weather: ~60°F Partly Cloudy

## 2. WELL DATA

Date Measured: 11/14/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 169 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 12.09 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 156.91 feet Well Volume: 25.58 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 11/17/11 Time: 1215 Equipment Model(s): \_\_\_\_\_

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 3 well volumes or 76.73 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. Monsoon Pump
2. YSI-556
3. Heron Dipper
4. LaMotte 2028

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1220	3.5	6.86	18.85	0.202	-75.6	0.55	2.63	<u>DM</u> <u>16.77</u>	
1225	7.0	6.80	18.68	0.222	-52.1	0.31	1.02	<u>DM</u> <u>17.64</u>	
1230	10.5	6.70	18.60	0.213	-7.0	0.23	1.04	<u>17.94</u>	
1235	15.5	6.65	18.58	0.209	9.9	0.19	0.72	<u>18.13</u>	
1240	20	6.63	18.58	0.205	21.9	0.16	0.30	<u>18.29</u>	

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 18.35 Field Filtered?  Yes  No  
 Sample ID: MW-19 Sample Date: 11/17/11 Sample Time: 1300 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

### Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

Pump intake @ ~120' bgs

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.





**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-20

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: Eileen Russell  
 Project Location: Anderson, South Carolina Weather: Sunny, windy, ~55°

**2. WELL DATA**

Date Measured: 11/14/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 67 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 22.98 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 44.02 feet Well Volume: 7.17 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11/17/11 Time: 1455 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 1 well volumes or 7.17 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. YSI 556
2. La Motte 2020
3. Heron Dipper
4. Monsoon Pump

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1455	0	5.05	20.32	0.073	196.9	5.51	99.6	23.02	
1505	2	5.07	20.46	0.081	210.4	5.20	78.2	23.16	
1515	4.5	5.12	20.39	0.101	218.3	4.97	21.4	23.16	
1525	6	5.21	20.39	0.103	213.0	5.01	7.35	23.08	
1535	7.5	5.14	20.37	0.103	221.4	5.14	5.63	23.18	

1540 Sample Collected

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 23.18 Field Filtered?  Yes  No  
 Sample ID: MW-20 Sample Date: 11/17/11 Sample Time: 1540 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

~~Geochemical Analyses~~  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Eileen Russell





# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-21

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: Eileen Russell  
 Project Location: Anderson, South Carolina Weather: Raining, ~65°

## 2. WELL DATA

Date Measured: 11/14/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 16.5 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 7.98 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: 1 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 8.52 feet Well Volume: 1.38 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 11/16/11 Time: 0950 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 1 well volumes or 1.38 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. YSI 556
2. La Motte 2020
3. Herron Dipper
4. Monsoon Pump

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>0950</u>	<u>0</u>	<u>4.56</u>	<u>18.87</u>	<u>0.057</u>	<u>201.5</u>	<u>6.20</u>	<u>14.7</u>	<u>7.85</u>	
<u>1000</u>	<u>1</u>	<u>4.58</u>	<u>18.85</u>	<u>0.057</u>	<u>227.4</u>	<u>6.00</u>	<u>11.4</u>	<u>7.99</u>	
<u>1005</u>	<u>1.5</u>	<u>4.43</u>	<u>18.90</u>	<u>0.057</u>	<u>251.1</u>	<u>5.93</u>	<u>7.86</u>	<u>7.99</u>	
<u>1010</u>	<u>2</u>	<u>4.44</u>	<u>18.96</u>	<u>0.057</u>	<u>259.6</u>	<u>5.96</u>	<u>3.65</u>	<u>7.88</u>	
<u>1015</u>	<u>2.5</u>	<u>4.54</u>	<u>18.93</u>	<u>0.057</u>	<u>259.2</u>	<u>5.97</u>	<u>6.95</u>	<u>7.89</u>	

1020 Sample Collected Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 7.89 Field Filtered?  Yes  No  
 Sample ID: MW-21 Sample Date: 11/16/11 Sample Time: 1020 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

~~Geochemical Analyses~~  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

\_\_\_\_\_

\_\_\_\_\_

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Eileen Russell



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-22

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200-001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, South Carolina Weather: ~45°F Sunny Clear

**2. WELL DATA**

Date Measured: 11/14/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 8 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 8 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 116 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 11.82 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: - feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 104.18 feet Well Volume: 271.91 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft 8" = 2.67"

**3. PURGE DATA**

Date Purged: 11/18/11 Time: 0848 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 3 well volumes or 815.73 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. Monsoon Pump
2. LaMare 2020
3. YSI-552
4. Horn Dipper

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
0853	<u>2.5</u> <u>4.0</u>	5.33	18.74	0.131	304.4	4.00	0.76	11.88	
0858	7.0	5.33	18.77	0.131	308.3	3.75	0.77	11.89	
0903	10.5	5.31	18.77	0.131	311.7	3.70	0.65	11.89	
0908	15	5.30	18.78	0.131	312.4	3.66	1.06	11.89	
0913	19	5.30	18.78	0.131	312.3	3.64	1.01	11.89	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 11.89 Field Filtered?  Yes  No  
 Sample ID: MW-22 Sample Date: 11/18/11 Sample Time: 0920 # of Containers: \_\_\_\_\_  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: EB-111811 @ 1005 # of Containers: \_\_\_\_\_

**Geochemical Analyses**

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Pump intake @ ~100'

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-24

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: Eileen Russell  
 Project Location: Anderson, South Carolina Weather: Sunny, ~60°

**2. WELL DATA**

Date Measured: 11/14/11 Time: AM Temporary Well:  Yes  No  
 Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 71 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 10.81 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 60.19 feet Well Volume: 9.81 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11/17/11 Time: 1140 Equipment Model(s)  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 1 well volumes or 9.81 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. YSI 556
2. La Motte 2020
3. Heron Dipper
4. Monsoon Pump

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1140	0	5.41	20.51	0.136	184.8	0.97	33.3	10.45	
1150	1	5.42	20.77	0.135	192.6	0.30	40.3	13.63	
1200	3	5.42	20.73	0.137	24.1	0.51	13.4	14.81	
1210	4	5.25	20.62	0.136	35.2	1.17	6.80	15.92	
1220	5	5.28	20.59	0.137	51.1	1.42	4.54	17.23	

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 21.02 Field Filtered?  Yes  No  
 Sample ID: MW-24 Sample Date: 11/17/11 Sample Time: 1255 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Purge data continued on next sheet?

~~Geochemical Analyses~~  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Eileen Russell

Signature





**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-25

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: Eileen Russell  
 Project Location: Anderson, South Carolina Weather: cloudy, ~60°

**2. WELL DATA** Date Measured: 11/14/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 50 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 12.39 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 37.61 feet Well Volume: 6.13 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA** Date Purged: 11/16/11 Time: 1105 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Volume to Purge (minimum): 1 well volumes or 6.13 gallons

Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1105	0	4.43	17.80	0.052	273.2	7.44	218	12.28	
1115	1	4.25	17.70	0.052	287.5	7.37	62.2	13.21	
1125	2.5	4.09	17.64	0.052	300.4	7.34	34.8	13.12	
1135	4.5	4.00	17.68	0.052	311.9	7.34	22.3	13.06	
1145	6.5	4.13	17.73	0.052	307.2	7.13	13.3	12.95	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Depth to Water at Time of Sampling: 12.72 Field Filtered?  Yes  No

Sample ID: MW-25 Sample Date: 11/16/11 Sample Time: 1215 # of Containers: 2

Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID:     MW-25    

**3. PURGE DATA** (continued from page   1  )

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1150	7.5	4.28	17.97	0.052	298.3	7.15	25.6	12.91	
1155	8.5	4.56	18.08	0.052	282.4	6.56	15.6	12.81	
1200	9.5	4.19	17.75	0.052	304.1	7.23	4.26	13.02	
1205	10	4.16	17.80	0.052	305.1	7.26	5.99	13.04	
1210	10.5	4.30	17.99	0.052	296.0	7.19	7.45	12.72	
1215	Sample Collected								
EMK									

Purge data continued on next sheet?

*Eileen Russell*

Signature



# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-26

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, South Carolina Weather: ~60°F Rain

## 2. WELL DATA

Date Measured: 11/14/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 66.7 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 19.85 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: - feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 46.85 feet Well Volume: 7.64 gal Screened Interval (from GS): \_\_\_\_\_

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 11/16/11 Time: 0755 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Volume to Purge (minimum): 3 well volumes or 22.92 gallons

Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

- Monsoon Pump
- YSI-556
- Deron Dipper
- LaMotte 2020

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
0815	3.0	6.12	18.56	0.063	318.4	6.01	370	26.39	
0830	4.75	6.07	18.65	0.064	330.0	6.07	187	27.48	
0845	6.0	6.07	18.71	0.064	334.7	6.10	162	28.23	
0900	7.75	6.06	18.72	0.064	335.3	6.12	116	28.84	
0915	9.5	6.05	18.69	0.064	339.8	6.14	87.7	31.05	

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Depth to Water at Time of Sampling: 33.78 Field Filtered?  Yes  No

Sample ID: MW-26 Sample Date: 11/16/11 Sample Time: 1000 # of Containers: 2

Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

### Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

Pump intake @ ~61' bgs, Purged for 2 hrs sample collected when turb = 79.4 NTU.

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-27

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: Eileen Russell  
 Project Location: Anderson, South Carolina Weather: Sunny partly cloudy, 55°, windy

**2. WELL DATA**

Date Measured: 11/14/11 Time: AM Temporary Well:  Yes  No  
 Casing Diameter: 8 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 8 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 99 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 23.18 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 76.92 feet Well Volume: 197.96 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11/17/11 Time: 1320 Equipment Model(s)  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): until stable well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. YSI 556
2. La Motte 2020
3. Heron Dipper
4. Monsoon Pump

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1320	0	7.02	19.83	0.174	109.0	1.66	80.0	23.18	
1330	1	7.39	19.99	0.190	2.1	0.33	46.1	23.29	
1335	3	7.29	20.09	0.172	-26.9	0.05	64.3	23.42	
1340	5	7.10	20.07	0.154	-29.1	0.05	15.2	23.37	
1345	7	6.88	20.06	0.141	-11.8	0.05	2.98	23.37	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 214 23.31 Field Filtered?  Yes  No  
 Sample ID: MW-27 Sample Date: 11/17/11 Sample Time: 1420 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-27

### 3. PURGE DATA (continued from page 1)

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1350	9	6.87	20.05	0.138	26.5	0.12	48.6	23.29	
1355	11	6.88	20.07	0.137	21.8	0.09	17.2	23.29	
1400	12	6.74	20.02	0.129	26.2	0.09	2.12	23.29	
1405	13	6.73	20.13	0.128	29.2	0.08	4.56	23.30	
1410	14	6.70	20.15	0.127	33.7	0.07	0.60	23.29	
1415	15	6.70	20.13	0.127	34.0	0.06	0.77	23.31	
1420	Sample collected								
BTNR									

Purge data continued on next sheet?

Eileen Russell  
Signature



# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-28

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, South Carolina Weather: ~60°F Sunny clear

## 2. WELL DATA

Date Measured: 11/18/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 31 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 20.33 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: — feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 10.67 feet Well Volume: 1.74 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 11/18/11 Time: 1108 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: (Pump) Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 3 well volumes or 5.22 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

- Monsoon Pump
- LaMotte 2020
- YSI-556
- Heron Dipper

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1113	0.5	4.51	21.49	2.217	161.3	0.68	30.8	22.13	
1118	1.5	4.81	21.77	1.746	157.3	0.46	11.34	22.47	
1123	2.5	4.81	21.80	1.848	146.8	0.35	7.57	23.14	
1128	3.5	4.70	21.84	1.958	148.7	0.30	6.14	23.33	
1133	9.5	4.48	22.05	2.240	163.1	0.29	5.86	23.64	

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: (Pump) Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: (Tubing) Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 24.18 Field Filtered?  Yes  No  
 Sample ID: MW-28 Sample Date: 11/18/11 Sample Time: 1150 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

### Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

Pump intake @ ~ 28'

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.







# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-29R Zone 3-Waterloo

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 200-001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: BS  
 Project Location: Anderson, South Carolina Weather: Sunny ~ 60°F

## 2. WELL DATA

Date Measured: 11.14.11 Time: PM Temporary Well:  Yes  No

Casing Diameter: 2 inches  
 Screen Diameter: 6 inches  
 Sampling Interval: 154.5-169.6 feet  
 Depth to Static Water: 6957.7 Dg  
 Depth to Product: \_\_\_\_\_ feet  
 Length of Water Column: \_\_\_\_\_ feet

Length of water column calculation:  
 (9094-Current Dg reading)\*0.02775)\*2.3108) = Length of water column (ft)  
 Well Vol. calculation:  
 1 well vol. = [vol sand interval(6") - vol of waterloo casing (2") + vol of water in tubing(1/4")  
 = [22.18 gal - 2.52 gal] + (0.0102 gal/ft x length of water column)

Well Volume: \_\_\_\_\_ gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 11.15.11 Time: 0710 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons

Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

- Bookan
- YSI-556
- DR7-1SC
- \_\_\_\_\_

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
0713	.10	5.26	16.92	0.134	6.9	2.10	2.00	6965.5	
0716	.25	5.27	16.94	0.140	3.5	2.60	3.69	6958.9	
0719	.75	5.43	16.94	0.139	-1.5	2.50	2.12	6965.4	
0721	1.00	5.48	16.94	0.138	-4.0	2.52	1.53	6965.4	
0724	1.25	5.50	16.95	0.138	-5.3	2.53	1.49	6966.8	

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No

Sample ID: MW-29R Zone-3 Sample Date: 11.15.11 Sample Time: 0735 # of Containers: 2

Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

### Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.





# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-29R Zone 4-Waterloo

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: BS  
 Project Location: Anderson, South Carolina Weather: Sunny ~ 70°F

## 2. WELL DATA

Date Measured: 11-14-11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 2 inches Length of water column calculation:  
 Screen Diameter: 6 inches (8932.8-Current Dg reading)\*0.02724)\*2.3108) = Length of water column (ft)  
 Sampling Interval: 177.6-202.2 feet Well Vol. calculation:  
 Depth to Static Water: 6268.7 feet 1 well vol. = [vol sand interval(6") - vol of waterloo casing (2")] + vol of water intubing(1/4")  
 Depth to Product: \_\_\_\_\_ feet = [36.14 gal - 4.11 gal] + (0.0102 gal/ft x length of water column)  
 Length of Water Column: \_\_\_\_\_ feet Well Volume: \_\_\_\_\_ gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 11-15-11 Time: 0746 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. Geokan
2. Y11-556
3. Lanora 2020
4. \_\_\_\_\_

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>0749</u>	<u>0.20</u>	<u>5.56</u>	<u>17.03</u>	<u>0.136</u>	<u>-11.9</u>	<u>1.45</u>	<u>1.65</u>	<u>6283.7</u>	
<u>0752</u>	<u>0.40</u>	<u>5.57</u>	<u>17.01</u>	<u>0.136</u>	<u>-12.9</u>	<u>1.45</u>	<u>1.63</u>	<u>6283.7</u>	
<u>0755</u>	<u>0.60</u>	<u>5.58</u>	<u>17.02</u>	<u>0.135</u>	<u>-13.7</u>	<u>1.40</u>	<u>0.97</u>	<u>6283.7</u>	
<u>0758</u>	<u>0.80</u>	<u>5.58</u>	<u>17.02</u>	<u>0.135</u>	<u>-13.6</u>	<u>1.43</u>	<u>0.92</u>	<u>6283.7</u>	
<u>0801</u>	<u>1.00</u>	<u>5.59</u>	<u>17.03</u>	<u>0.135</u>	<u>-13.8</u>	<u>1.41</u>	<u>0.86</u>	<u>6283.7</u>	

0805 Collect sample

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: MW-29R Zone 4 Sample Date: 11-15-11 Sample Time: 0805 # of Containers: \_\_\_\_\_  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

### Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-30

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: BS  
 Project Location: Anderson, South Carolina Weather: Sunny ~ 55°F

**2. WELL DATA**

Date Measured: 11-18-11 Time: 4M Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 113 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 25.68 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: 87.32 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 87.32 feet Well Volume: 14.58 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11-18-11 Time: 1010 Equipment Model(s) \_\_\_\_\_

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. Monsoon
2. YSI-554
3. Lanette 200
4. Herndipex

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1020	2.50	5.90	19.22	0.102	145.4	4.05	52.9	28.44'	
1030	4.00	5.77	19.46	0.093	161.6	3.85	35.9	28.87'	
1040	6.00	5.75	19.35	0.093	176.2	4.03	39.7	29.45'	
1050	8.00	5.74	19.38	0.092	179.4	4.05	29.9	29.10'	
1100	10.00	5.73	19.28	0.091	183.9	4.09	24.5	29.25'	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: MW-30 Sample Date: 11-18-11 Sample Time: 1215 # of Containers: 2  
 Duplicate Sample Collected?  Yes 600 ID: Dup-111811-01200 # of Containers: 2  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-31

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: BS  
 Project Location: Anderson, South Carolina Weather: Sunny ~ 40°F

**2. WELL DATA**

Date Measured: 11.14.11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 90 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 24.56 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 65.44 feet Well Volume: 10.92 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11.18.11 Time: 0724 Equipment Model(s): \_\_\_\_\_

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 3 well volumes or 32.78 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. Mauson
2. YSI 556
3. Lanette 2070
4. Howan digger

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
0729	2.00	5.93	19.82	0.068	283.4	2.62	2480	29.18'	
0734	3.50	5.86	20.02	0.070	228.9	2.08	981	29.05'	
0744	6.00	5.76	20.08	0.072	228.4	2.15	192	29.15'	
0754	9.25	5.75	20.27	0.073	225.4	2.32	92.5	29.10'	
0804	11.00	5.77	19.89	0.073	216.4	2.50	59.6	27.98'	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: MW-31 Sample Date: 11.18.11 Sample Time: 0925 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Inter at ~ 87'

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.







# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-32

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, South Carolina Weather: ~60°F Overcast

## 2. WELL DATA

Date Measured: 11/14/11 Time: AM Temporary Well:  Yes  No  
 Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 35 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 19.97 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: — feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 15.09 feet Well Volume: 2.45 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 11/17/11 Time: 0727 Equipment Model(s):  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 3 well volumes or 7.35 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. YSI-536
2. Heron Dipper
3. LaMotte 2020
4. Monsoon Pump

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
0737	3.30	6.66	21.81	0.764	-145.3	0.69	236	20.96	
0747	5.25	6.61	21.79	0.702	-135.3	0.29	142	20.78	Decreased pump rate to lower turbidity
0757	7.0	6.60	21.75	0.682	-110.2	0.22	131	20.47	
0807	8.75	6.58	21.87	0.676	-117.2	0.17	82.9	20.51	
0817	10.0	6.56	21.63	0.655	-115.4	0.14	63.5	20.52	

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 20.19 Field Filtered?  Yes  No  
 Sample ID: MW-32 Sample Date: 11/17/11 Sample Time: 0930 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

### Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

Pump intake e ~ 30' bgs. Purged for 2 hrs. Sample collected when turb. =

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature [Signature]



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-35

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, South Carolina Weather: ~40°F Sunny Clear

**2. WELL DATA**

Date Measured: 14 Nov 11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 162 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 14.5 Artesian feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 147.5 feet Well Volume: 24.10 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11/18/11 Time: 0725 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 3 well volumes or 72.31 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. Monsoon Pump
2. La Motte 2020
3. Huron Dipper
4. YSI-556

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
0730	5.0	7.47	16.14	0.338	-122.3	0.33	2.73	12.90	
0735	9.0	7.46	16.26	0.338	-121.0	0.23	1.29	12.92	
0740	13.0	7.43	16.38	0.349	-106.0	0.19	1.43	12.93	
0745	16.0	7.43	16.48	0.351	-102.5	0.16	1.71	12.94	
0750	19.0	7.41	16.52	0.349	-92.8	0.16	1.58	12.95	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 13.00 Field Filtered?  Yes  No  
 Sample ID: MW-35 Sample Date: 11/18/11 Sample Time: 0810 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Pump intake @ ~65'. Was not prepared to purge of Monsoon b/c not artesian. Need to conserve tubing. WL measurements taken from TOC and bottom of artesian cap (removed to purge)

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-36 Zone 1-Waterloo

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: BS  
 Project Location: Anderson, South Carolina Weather: Sunny - 70°F

**2. WELL DATA**

Date Measured: 11-14-11 Time: PM Temporary Well:  Yes  No

Casing Diameter: 2 inches  
 Screen Diameter: 6 inches  
 Sampling Interval: 99.1-116 feet  
 Depth to Static Water: 6375.5 Dg  
 Depth to Product: \_\_\_\_\_ feet  
 Length of Water Column: 90.65 feet

Length of water column calculation:  
 (8558.7-Current Dg reading)\*0.01797\*2.3108 = Length of water column (ft)  
 Well Vol. calculation:  
 1 well vol. = [vol sand interval(6") - vol of waterloo casing (2")] + vol of tubing(1/4")  
 = [24.83 gal - 2.82 gal] + (0.0102 gal/ft x length of water column) = 90.65 0.924

Well Volume: 22.93 gal  
 Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11-14-11 Time: 1432 Equipment Model(s): \_\_\_\_\_

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: Waterloo

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons

Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. Geokon
2. YSI-556
3. LaMotte 2020
4. \_\_\_\_\_

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 μS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
		<u>6.20</u>	<u>18.48</u>					<u>09</u>	
<u>1437</u>	<u>0.50</u>	<u>6.45</u>	<u>18.43</u>	<u>0.112</u>	<u>41.0</u>	<u>5.24</u>	<u>1.41</u>	<u>6376.3</u>	
<u>1442</u>	<u>0.75</u>	<u>6.09</u>	<u>18.48</u>	<u>0.111</u>	<u>29.2</u>	<u>4.19</u>	<u>1.24</u>	<u>6375.0</u>	
<u>1447</u>	<u>1.00</u>	<u>6.15</u>	<u>18.44</u>	<u>0.113</u>	<u>32.0</u>	<u>7.89</u>	<u>4.29</u>	<u>6375.6</u>	
<u>1452</u>	<u>1.25</u>	<u>6.13</u>	<u>17.58</u>	<u>0.107</u>	<u>35.0</u>	<u>9.82</u>	<u>1.10</u>	<u>6377.1</u>	
<u>1457</u>	<u>2.00</u>	<u>6.58</u>	<u>18.28</u>	<u>0.120</u>	<u>21.9</u>	<u>8.11</u>	<u>1.79</u>	<u>6375.1</u>	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No

Sample ID: MW-36 Zone 1 Sample Date: 11-14-11 Sample Time: 1525 # of Containers: 2

Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-36 Zone 3-Waterloo

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: BS  
 Project Location: Anderson, South Carolina Weather: Cloudy w 65°F

**2. WELL DATA**

Date Measured: 11.14.11 Time: PM Temporary Well:  Yes  No

Casing Diameter: 2 inches  
 Screen Diameter: 6 inches  
 Sampling Interval: 180.2-192.7 feet  
 Depth to Static Water: 6536.8 feet  
 Depth to Product: \_\_\_\_\_ feet  
 Length of Water Column: 160.9 feet

Length of water column calculation:  
 (9093.1-Current Dg reading)\*0.02725)\*2.3108) = Length of water column (ft) 160.9  
 Well Vol. calculation:  
 1 well vol. = [vol sand interval(6") - vol of waterloo casing (2") + vol of water in tubing(1/4")  
 = [18.36 gal - 2.09 gal] + (0.0102 x length of water column)  
 Well Volume: \_\_\_\_\_ gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11.14.11 Time: 1530 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials:  Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Materials:  Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. Geokon
2. Y31-556
3. Lamotte 2020
4. \_\_\_\_\_

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1535	0.10	7.11	18.53	1.420	0.9	4.78	0.49	<u>Dg</u> 6671.3	
1540	.20	7.09	19.10	1.420	-0.3	3.89	0.42	6643.2	
1545	.30	7.06	19.07	1.450	-1.6	3.58	1.34	8799.3	
1555	.35	7.09	19.80	1.452	-36.7	3.14	0.42	8898.4	
1600	.40	7.19	20.38	1.463	-102.7	3.17	2.33	8958.6	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials:  Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 11-15.1' Field Filtered?  Yes  No  
 Sample ID: MW-36 Zone 3-11-14-11 Sample Date: 11-14-11 Sample Time: 1645 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: 0815 # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Purged dry + recharge overnight

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.





**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-36 Zone 5-Waterloo

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: BS  
 Project Location: Anderson, South Carolina Weather: Cloudy ~ 65°F

**2. WELL DATA**

Date Measured: 11-14-11 Time: PM Temporary Well:  Yes  No

Casing Diameter: 2 inches  
 Screen Diameter: 6 inches  
 Sampling Interval: 269.9-275 feet  
 Depth to Static Water: 605.7 feet  
 Depth to Product: \_\_\_\_\_ feet  
 Length of Water Column: \_\_\_\_\_ feet

Length of water column calculation:  
 (8843.2-Current Dg reading)\*0.03897\*2.3108) = Length of water column (ft)  
 Well Vol. calculation:  
 1 well vol. = [vol sand interval(6") - vol of waterloo casing (2")] + vol of water in tubing(1/4")  
 = [7.49 gal - 0.85 gal] + (0.0102 x length of water column)

Well Volume: \_\_\_\_\_ gal  
 Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11-14-11 Time: 1700 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_

Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons

Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. GeoKon
2. YSI-556
3. DRT-15CF
4. \_\_\_\_\_

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1705	.10	6.87	17.95	3.842	-30.9	3.07	4.10	7213.4	
1715	.15	6.91	18.38	3.804	-106.0	2.82	3.62	7416.6	
1725	.20	7.03	18.29	3.793	-147.6	2.35	2.47	7411.5	
1735	.30	7.12	17.99	3.759	-167.8	1.68	3.06	7538.2	
1745	.40	7.17	17.58	3.718	-173.5	1.55	2.57	7536.2	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No

Sample ID: MW-36 Zone 5 Sample Date: 11/14/11 Sample Time: 1820 # of Containers: 2

Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-37 Zone 1

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: JBM  
 Project Location: Anderson, South Carolina Weather: -70F, Overcast, Humid, Rainy

**2. WELL DATA**

Date Measured: 14 Nov 11 Time: \_\_\_\_\_ Temporary Well:  Yes  No

Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 195 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 32.80 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: \_\_\_\_\_ feet Well Volume: \_\_\_\_\_ gal Screened Interval (from GS): \_\_\_\_\_

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 16 Nov 11 Time: \_\_\_\_\_ Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons

Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. YSI SSC MPS
2. Solinst H<sub>2</sub>O Lead
3. QED MP50
4. Lanette 2020 WE

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
<u>1445</u>	<u>Spur</u>								
<u>1455</u>	<u>YSI full</u>	<u>6.74</u>	<u>18.64</u>	<u>1.081</u>	<u>-91.4</u>	<u>3.25</u>	<u>—</u>	<u>36.90</u>	<u>Sulfur Odor</u>
<u>1505</u>	<u>1L</u>	<u>7.02</u>	<u>18.72</u>	<u>1.081</u>	<u>-113.9</u>	<u>2.50</u>	<u>—</u>	<u>38.82</u>	<u>"</u>
<u>1515</u>	<u>1.5L</u>	<u>7.19</u>	<u>18.80</u>	<u>1.081</u>	<u>-128.6</u>	<u>2.25</u>	<u>1.08</u>	<u>40.71</u>	<u>"</u>
<u>1525</u>	<u>1.75</u>	<u>7.22</u>	<u>18.79</u>	<u>1.082</u>	<u>-133.9</u>	<u>2.26</u>	<u>—</u>	<u>42.35</u>	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No

Sample ID: MW-37 Zone 1 Sample Date: 16 Nov 11 Sample Time: 1650 # of Containers: 2

Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.





# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-37 Zone 2

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: \_\_\_\_\_  
 Project Location: Anderson, South Carolina Weather: \_\_\_\_\_

## 2. WELL DATA

Date Measured: 14 Nov 11 Time: \_\_\_\_\_ Temporary Well:  Yes  No

Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 232 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 28.21 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 203.79 feet Well Volume: \_\_\_\_\_ gal Screened Interval (from GS): \_\_\_\_\_

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 17 Nov 11 Time: \_\_\_\_\_ Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons

Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. YSE SPC MPS
2. LaMotte 2020VE
3. Schist H<sub>2</sub>O Level
4. RED MP50

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
<u>1040</u>	<u>Spin</u>								
<u>1055</u>	<u>YSE F<sub>2</sub></u>	<u>9.01</u>	<u>15.68</u>	<u>0.168</u>	<u>-113.2</u>	<u>2.37</u>	<u>—</u>	<u>28.23</u>	
<u>1105</u>	<u>750 mL</u>	<u>9.72</u>	<u>15.91</u>	<u>0.174</u>	<u>-110.6</u>	<u>1.62</u>	<u>4.61</u>	<u>28.21</u>	
<u>1115</u>	<u>1.0 L</u>	<u>10.06</u>	<u>15.95</u>	<u>0.196</u>	<u>-107.1</u>	<u>1.21</u>	<u>—</u>	<u>28.25</u>	
<u>1125</u>	<u>1.25 L</u>	<u>10.29</u>	<u>16.01</u>	<u>0.210</u>	<u>-106.1</u>	<u>1.09</u>	<u>—</u>	<u>28.23</u>	

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No

Sample ID: MW-37 Zone 2 Sample Date: 11/19/11 Sample Time: 1250 # of Containers: 2

Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: 2

Equipment Blank Collected?  Yes  No ID: EB-11711 @ 1025 # of Containers: 2

### Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

5. COMMENTS EB-11711 @ 1025; inch ~ 85'

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

  
Signature



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-37 Zone 3

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: \_\_\_\_\_  
 Project Location: Anderson, South Carolina Weather: \_\_\_\_\_

**2. WELL DATA**

Date Measured: 14 Nov 11 Time: \_\_\_\_\_ Temporary Well:  Yes  No

Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 272 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 27.61 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: 249.39 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 6 feet Well Volume: 10.22 gal Screened Interval (from GS): \_\_\_\_\_

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 17 Nov 11 Time: \_\_\_\_\_ Equipment Model(s): \_\_\_\_\_

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons

Was well purged dry?  Yes  No

Pumping Rate: \_\_\_\_\_ gal/min

Calibrated?  Yes  No

1. YSI 856 PPS
2. Lantra 2020 UE
3. Schmit H9
4. Q15D MP50

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
<u>0745</u>	<u>Start</u>								
<u>0800</u>	<u>YSI Full</u>	<u>6.91</u>	<u>15.37</u>	<u>0.398</u>	<u>-82.4</u>	<u>2.09</u>	<u>—</u>	<u>24.31</u>	<u>Clear, grey</u>
<u>0810</u>	<u>750 mL</u>	<u>7.02</u>	<u>15.22</u>	<u>0.419</u>	<u>-93.2</u>	<u>1.53</u>	<u>2.05</u>	<u>26.82</u>	
<u>0820</u>	<u>1L</u>	<u>7.07</u>	<u>15.05</u>	<u>0.427</u>	<u>-100.7</u>	<u>1.31</u>	<u>—</u>	<u>29.12</u>	
<u>0830</u>	<u>1.25L</u>	<u>7.13</u>	<u>15.15</u>	<u>0.433</u>	<u>-113.9</u>	<u>1.13</u>	<u>—</u>	<u>32.39</u>	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No

Sample ID: MW-37 2003 Sample Date: 11/17/11 Sample Time: 1000 # of Containers: 2

Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

intake ~ 85 feet

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature \_\_\_\_\_





**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-38 Zone 1

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: BS  
 Project Location: Anderson, South Carolina Weather: Cloudy

**2. WELL DATA**

Date Measured: 11-14-11 Time: Am Temporary Well:  Yes  No

Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 430 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 4.66 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 475.34 feet Well Volume: 17.43 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 14 Nov 11 Time: 0800 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons

Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. OED Bladder
2. M8-50
3. 431-556
4. Lamotte 2020

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
<u>0810</u>	<u>0.10</u>	<u>8.07</u>	<u>15.86</u>	<u>0.340</u>	<u>-293.1</u>	<u>0.46</u>	<u>2.96</u>	<u>11.45'</u>	
<u>0820</u>	<u>0.20</u>	<u>8.10</u>	<u>15.39</u>	<u>0.341</u>	<u>-298.6</u>	<u>0.42</u>	<u>2.51</u>	<u>14.77'</u>	
<u>0830</u>	<u>0.30</u>	<u>8.12</u>	<u>15.12</u>	<u>0.341</u>	<u>-302.1</u>	<u>0.42</u>	<u>2.85</u>	<u>17.33'</u>	
<u>0840</u>	<u>0.40</u>	<u>8.17</u>	<u>15.18</u>	<u>0.342</u>	<u>-313.6</u>	<u>0.38</u>	<u>2.76</u>	<u>20.56'</u>	
<u>0850</u>	<u>0.50</u>	<u>8.15</u>	<u>15.03</u>	<u>0.342</u>	<u>-316.4</u>	<u>0.35</u>	<u>2.67</u>	<u>23.45'</u>	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No

Sample ID: MW-38 Zone 1 Sample Date: 11-17-11 Sample Time: 1005 # of Containers: 2

Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Intake at 80'

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-38 Zone 2

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: BS  
 Project Location: Anderson, South Carolina Weather: Cloudy ~ 70°F

**2. WELL DATA** Date Measured: 11 Nov 11 Time: 11:15 AM Temporary Well:  Yes  No

Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 499.6 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: +20" feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: — feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 499.6 feet Well Volume: 20.48 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA** Date Purged: 11-12-11 Time: 1338 Equipment Model(s):  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1348	0.02	7.58	16.41	0.180	-67.8	3.84	1.36	—	
1358	0.05	7.68	17.28	0.180	-86.3	2.73	2.75		Tub = 1.25
1408	0.15	7.69	17.29	0.179	-89.5	2.33	1.50		
1418	0.20	7.64	16.80	0.179	-98.9	2.72	1.62		1.72 = 00
1428	0.25	7.61	16.71	0.179	-101.0	1.62	1.25	✓	

Purge data continued on next sheet?

**4. SAMPLING DATA**

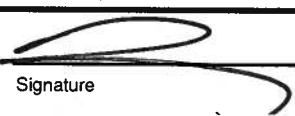
Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: MW-38 Zone 2 Sample Date: 11-17-11 Sample Time: 1540 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**

Ferrous Iron: \_\_\_\_\_ mg/L  
 DC: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS** Artesian, really slow flow.

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature 



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-39 Zone 1

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: BS  
 Project Location: Anderson, South Carolina Weather: Cloudy ~ 60°F

**2. WELL DATA**

Date Measured: 14 Nov 11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 105 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 22.03 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: — feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 82.97 feet Well Volume: 3.40 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11-15-11 Time: 0910 Equipment Model(s): \_\_\_\_\_

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min  
 Calibrated?  Yes  No

1. DED Bladder Pump
2. MP-50
3. Landate 2020
4. Solinst 420 6W1  
451-556

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
0925	0.10	7.03	18.35	0.168	-29.5	2.47	107.9	22.16'	
0940	0.20	6.85	18.39	0.101	-25.2	2.92	64.6	22.17'	
0955	0.30	6.75	18.92	0.089	-24.4	3.32	11.2	22.17'	
1005	0.40	6.75	19.15	0.088	-24.3	3.37	6.05	22.17'	
1015	0.50	6.78	19.50	0.088	-25.3	3.42	5.48	22.17'	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: MW-39 Zone 1 Sample Date: 11-15-11 Sample Time: 1030 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Intake at ~ 95'

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.





# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-39 Zone 2

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: BS  
 Project Location: Anderson, South Carolina Weather: Sunny ~ 70°F

## 2. WELL DATA

Date Measured: 11/15/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 215 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 32.88 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 182.12 feet Well Volume: 7.46 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 11-15-11 Time: 1115 Equipment Model(s): \_\_\_\_\_

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min  
 Calibrated?  Yes  No

1. QED Bladder
2. MP-50
3. Y31-556
4. Lamotte 2020  
Solinst H<sub>2</sub>O Lvl.

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1125	0.05	7.55	22.66	0.593	-141.8	1.58	5.27	33.95'	
1135	0.10	7.62	21.45	0.593	-157.5	0.83	5.35	35.96'	
1145	0.20	7.62	20.75	0.592	-155.1	0.49	4.21	38.45'	
1155	0.30	7.64	20.62	0.592	-152.9	0.40	4.97	41.26'	
1205	0.40	7.64	20.57	0.592	-152.5	0.36	5.23	43.66'	

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: MW-39 Zone 2 Sample Date: 11-15-11 Sample Time: 1240 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

### Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

Intake at ~80'

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature \_\_\_\_\_







# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-39 Zone 3

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: BS  
 Project Location: Anderson, South Carolina Weather: Sunny ~ 75°F

## 2. WELL DATA

Date Measured: 11/15/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 300 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 42.39 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 257.61 feet Well Volume: 10.56 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 11-15-11 Time: 1310 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. DEB Bladder
2. MP-30
3. YSI-556
4. Lamotte 2020

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1320	0.10	7.36	20.54	0.140	-147.0	0.81	2.61	45.82'	
1330	0.20	7.36	20.26	0.139	-150.2	0.48	2.40	49.65'	
1340	0.30	7.34	19.94	0.138	-149.1	0.40	2.13	45.20'	
1350	0.50	7.34	19.71	0.139	-146.2	0.35	2.56	56.92'	
1400	0.60	7.30	19.20	0.139	-139.6	0.33	2.35	61.90'	

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: MW-39 Zone 3 Sample Date: 11-15-11 Sample Time: 1515 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Geochemical Analyses  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

Enter at ~ 85'

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature:



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-41 Zone 1

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: BS  
 Project Location: Anderson, South Carolina Weather: Rain & 66°F

**2. WELL DATA**

Date Measured: 11/16/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 400.39 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 7.05' feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: — feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 31.45 feet Well Volume: 1.30 gal Screened Interval (from GS): \_\_\_\_\_

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11-16-11 Time: 0814 Equipment Model(s): \_\_\_\_\_

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons

Was well purged dry?  Yes  No

Pumping Rate: \_\_\_\_\_ gal/min

Calibrated?  Yes  No

1. QED Bladder
2. YSI-556
3. Leak-It 202
4. Part-15CE

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
<u>0824</u>	<u>0.10</u>	<u>6.91</u>	<u>18.21</u>	<u>0.323</u>	<u>-10.5</u>	<u>1.31</u>	<u>8.61</u>	<u>7.05'</u>	
<u>0834</u>	<u>0.20</u>	<u>7.23</u>	<u>18.06</u>	<u>0.272</u>	<u>-7.0</u>	<u>1.26</u>	<u>7.91</u>	<u>7.05'</u>	
<u>0835</u>	<u>0.30</u>	<u>7.33</u>	<u>18.02</u>	<u>0.267</u>	<u>-11.7</u>	<u>1.25</u>	<u>21.1</u>	<u>7.05'</u>	
<u>0844</u>	<u>0.40</u>	<u>7.34</u>	<u>17.91</u>	<u>0.266</u>	<u>-16.1</u>	<u>1.22</u>	<u>17.8</u>	<u>7.05'</u>	
<u>0904</u>	<u>0.50</u>	<u>7.40</u>	<u>17.99</u>	<u>0.266</u>	<u>-21.4</u>	<u>1.17</u>	<u>12.3</u>	<u>7.05'</u>	

*0844  
0854*

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No

Sample ID: MW-41 Zone 1 Sample Date: 11-16-11 Sample Time: 1015 # of Containers: 2

Duplicate Sample Collected?  Yes  No ID: Dup-11/16/11 @ 0800 # of Containers: 2

Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Intake at ~ 37'

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-41 Zone 2

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: BS  
 Project Location: Anderson, South Carolina Weather: Rain

**2. WELL DATA**

Date Measured: 11/16/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 129 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 616' feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 122.84 feet Well Volume: 5.03 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11/16/11 Time: 1110 Equipment Model(s): \_\_\_\_\_

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. 250 Bladder
2. MV-50
3. Compu 2020
4. YSI-556

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1120	0.10	7.87	18.91	0.271	-72.0	0.97	1.57	5.53	
1130	0.20	7.88	18.74	0.271	-77.7	0.63	0.95	5.53	
1140	0.30	7.90	18.78	0.271	-80.1	0.51	0.86	5.53	
1150	0.40	7.89	19.02	0.270	-79.1	0.43	0.75	5.53	
1200	0.50	7.89	19.03	0.271	-80.9	0.37	0.63	5.53	

1205 collect sample

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: MW41 Zone 2 Sample Date: 11/16/11 Sample Time: 1205 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Frack at 90'

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-41 Zone 3

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: BS  
 Project Location: Anderson, South Carolina Weather: Cloudy ~ 71°F

**2. WELL DATA**

Date Measured: 11 Nov 11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 299 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 12.99 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: - feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 286.01 feet Well Volume: 11.72 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11-16-11 Time: 1345 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. QEB Bladder
2. MP-50
3. Lanette 2020
4. YSI-586

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1355	0.10	7.32	20.68	0.283	-172.1	0.99	2.48	13.46'	
1405	0.20	7.38	20.56	0.283	-182.2	0.70	2.16	15.46'	
1417	0.30	7.38	20.41	0.283	-184.0	0.58	4.10	16.43'	
1427	0.40	7.37	20.34	0.282	-185.1	0.54	2.50	18.55'	
1437	0.50	7.36	20.27	0.282	-184.8	0.49	3.07	20.30'	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: MW-41 2011-3 Sample Date: 11-16-11 Sample Time: 1550 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: EB-111611 6 1600 # of Containers: 2

**Geochemical Analyses**

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Intake at ~ 90'

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.







# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42 Zone 1

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: JBA  
 Project Location: Anderson, South Carolina Weather: ~70F over

## 2. WELL DATA

Date Measured: 14 Nov 11 Time: \_\_\_\_\_ Temporary Well:  Yes  No

Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 129 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 40.99 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: 88.01 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 88.01 feet Well Volume: 3.61 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 15 Nov 11 Time: \_\_\_\_\_ Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons

Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

- YSI SSC MP3
- Lanote 2020WE
- Solka + H<sub>2</sub>O Lin
- RED MP50

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
<u>1400</u>	<u>Sm</u>								
<u>1900</u>	<u>YSI Full</u>	<u>6.55</u>	<u>22.82</u>	<u>0.194</u>	<u>-81.1</u>	<u>4.33</u>	<u>—</u>	<u>41.12</u>	<u>(500) ml</u>
<u>1510</u>	<u>700 mL</u>	<u>6.54</u>	<u>22.57</u>	<u>0.194</u>	<u>-104.8</u>	<u>285</u>	<u>5.46</u>	<u>41.18</u>	
<u>1520</u>	<u>900 mL</u>	<u>6.44</u>	<u>22.08</u>	<u>0.193</u>	<u>-106.4</u>	<u>2.91</u>	<u>—</u>	<u>41.25</u>	
<u>1530</u>	<u>1.1 L</u>	<u>6.54</u>	<u>21.79</u>	<u>0.198</u>	<u>-118.7</u>	<u>2.79</u>		<u>41.27</u>	

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No

Sample ID: MW-42 Zone 1 Sample Date: 15 Nov 11 Sample Time: 1645 # of Containers: 2

Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_


Equipment Blank Collected?  Yes  No ID: EB-111411 # of Containers: 2

### Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS EB-111411 @ 1400

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

  
Signature



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-42 Zone 2

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: JBN  
 Project Location: Anderson, South Carolina Weather: 65°F; Rain, Overcast

**2. WELL DATA**

Date Measured: 14 Nov 11 Time: \_\_\_\_\_ Temporary Well:  Yes  No

Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 222 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 43.68 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: 778 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 778.32 feet Well Volume: 7.31 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 18 Nov 11 Time: \_\_\_\_\_ Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. YSI 556 MPS
2. Laurel 220VE
3. RED MP50
4. Solinet 120 Lm

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
<u>0800</u>	<u>Spot</u>	—	—	—	—	—	—	—	—
<u>0820</u>	<u>YSI full</u>	<u>7.17</u>	<u>18.63</u>	<u>0.670</u>	<u>-85.6</u>	<u>2.50</u>	—	<u>46.01</u>	
<u>0830</u>	<u>750 mL</u>	<u>7.21</u>	<u>18.67</u>	<u>0.671</u>	<u>-101.4</u>	<u>1.59</u>	—	<u>48.19</u>	
<u>0840</u>	<u>1.0 L</u>	<u>7.22</u>	<u>18.71</u>	<u>0.671</u>	<u>-109.7</u>	<u>1.44</u>	<u>1.96</u>	<u>50.12</u>	
<u>0850</u>	<u>1.25L</u>	<u>7.23</u>	<u>18.72</u>	<u>0.671</u>	<u>-117.7</u>	<u>1.09</u>	—	<u>51.25</u>	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: MW-42 Zone 2 Sample Date: 16 Nov 11 Sample Time: 1005 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

inlet @ ~80 feet for

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

JBN  
 Signature



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: MW-42 Zone 3

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: JBM  
 Project Location: Anderson, South Carolina Weather: ~65°F, Overcast

**2. WELL DATA** Date Measured: 14 Nov 11 Time: \_\_\_\_\_ Temporary Well:  Yes  No

Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 285 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 39.87 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: \_\_\_\_\_ feet Well Volume: \_\_\_\_\_ gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA** Date Purged: 16 Nov 11 Time: \_\_\_\_\_ Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1055</u>	<u>Start</u>								
<u>1115</u>	<u>YSI 44</u>	<u>6.58</u>	<u>19.58</u>	<u>0.238</u>	<u>-62.4</u>	<u>2.25</u>	<u>—</u>	<u>42.95</u>	
<u>1125</u>	<u>Flow</u>	<u>6.58</u>	<u>19.23</u>	<u>0.224</u>	<u>-66.3</u>	<u>1.64</u>	<u>—</u>	<u>45.43</u>	
<u>1135</u>	<u>1.0L</u>	<u>6.60</u>	<u>19.11</u>	<u>0.226</u>	<u>-69.4</u>	<u>1.12</u>	<u>5.36</u>	<u>48.27</u>	
<u>1145</u>	<u>1.25L</u>	<u>6.63</u>	<u>19.6</u>	<u>0.225</u>	<u>-70.9</u>	<u>0.97</u>	<u>—</u>	<u>49.96</u>	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: MW-42 Zone 3 Sample Date: 16 Nov 11 Sample Time: 1300 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS** inlets @ 275'

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

*[Signature]*  
Signature





# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 Zone 1

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: JBN  
 Project Location: Anderson, South Carolina Weather: 70° F, Cl

**2. WELL DATA** Date Measured: 11/14/11 Time: 1411 Temporary Well:  Yes  No

Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 793 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 114.94 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 106.91 feet Well Volume: 4.38 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA** Date Purged: 11/14/11 Time: 1500 Equipment Model(s):

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1505</u>	<u>Start</u>								<u>YSI Lab C 1507</u>
<u>1546</u>	<u>0.5L</u>	<u>6.14</u>	<u>18.41</u>	<u>0.115</u>	<u>29.1</u>	<u>1.80</u>	<u>9.91</u>	<u>8.04'</u>	<u>Gray-Sulfur Sulf</u>
<u>1550</u>	<u>0.75 L</u>	<u>6.25</u>	<u>18.19</u>	<u>0.114</u>	<u>26.8</u>	<u>1.00</u>	<u>13.21</u>	<u>8.05</u>	<u>"</u>
<u>1600</u>	<u>0.80 L</u>	<u>6.36</u>	<u>18.16</u>	<u>0.114</u>	<u>25.7</u>	<u>0.78</u>	<u>11.08</u>	<u>8.06</u>	<u>"</u>
<u>1610</u>	<u>0.95 L</u>	<u>6.39</u>	<u>18.06</u>	<u>0.113</u>	<u>29.1</u>	<u>0.56</u>	<u>10.4</u>	<u>8.03</u>	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: MW-43 Zone 1 Sample Date: 11/14/11 Sample Time: 1705 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**

Ferrous Iron: 7 mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

1/2 Signature







# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 Zone 2

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: JDA  
 Project Location: Anderson, South Carolina Weather: ~85°F Partly Cloudy

## 2. WELL DATA

Date Measured: 14 Mar 11 Time: \_\_\_\_\_ Temporary Well:  Yes  No

Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 182.62 feet From:  Top of Well Casing (TOC)  Top of Protective Casing   
 Depth to Static Water: 5.49 feet From:  Top of Well Casing (TOC)  Top of Protective Casing   
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing   
 Length of Water Column: 177.18 feet Well Volume: 7.26 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 15 Mar 11 Time: 0900

Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

- VSI 556 MP5
- Lamotte 220 VC
- Solinst H2S L
- RED MP50

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons

Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
<u>7:22</u>	<u>Start</u>								
<u>0750</u>	<u>VSI Fill</u>	<u>7.40</u>	<u>14.64</u>	<u>0.292</u>	<u>5.6</u>	<u>2.86</u>	<u>—</u>	<u>5.61</u>	<u>(500 ml)</u>
<u>0800</u>	<u>70ml Test</u>	<u>7.56</u>	<u>15.24</u>	<u>0.291</u>	<u>-10.2</u>	<u>2.07</u>	<u>31.7</u>	<u>5.87</u>	<u>Clear Sample, Sulf</u>
<u>0810</u>	<u>1.0L</u>	<u>7.67</u>	<u>15.79</u>	<u>0.290</u>	<u>-223</u>	<u>1.36</u>		<u>5.91</u>	
<u>0820</u>	<u>1.4L</u>	<u>7.74</u>	<u>16.15</u>	<u>0.289</u>	<u>-33.2</u>	<u>0.88</u>	<u>2014</u>	<u>5.99</u>	<u>Sulfur Sulf</u>

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No

Sample ID: MW-43 Zone 2 Sample Date: 15 Mar 11 Sample Time: 0925 # of Containers: 2

Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

### Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

1 inch ~ 100'

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

1/2

JDA  
Signature





# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 Zone 3

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: JDN  
 Project Location: Anderson, South Carolina Weather: 70°F Overcast

## 2. WELL DATA

Date Measured: 14 Nov 11 Time: \_\_\_\_\_ Temporary Well:  Yes  No

Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 288.82 feet From:  Top of Well Casing (TOC)  Top of Protective Casing   
 Depth to Static Water: 4.29 feet From:  Top of Well Casing (TOC)  Top of Protective Casing   
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing   
 Length of Water Column: \_\_\_\_\_ feet Well Volume: \_\_\_\_\_ gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 15 Nov 11 Time: 1000 Equipment Model(s): \_\_\_\_\_

Purge Method:  Bailor, Size: \_\_\_\_\_  Bladder Pump  2' Sub. Pump  4' Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailor  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes

1. YSI 656 MPS
2. Lorain 220VLE
3. Solar H2O L
4. RED MP60

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1012</u>	<u>Start</u>								
<u>1025</u>	<u>YSI Fall</u>	<u>7.15</u>	<u>17.99</u>	<u>0.168</u>	<u>-134.1</u>	<u>1.36</u>	<u>—</u>	<u>5.69</u>	<u>Sound</u>
<u>1035</u>	<u>1.8L</u>	<u>7.31</u>	<u>17.87</u>	<u>0.170</u>	<u>-159.3</u>	<u>0.87</u>	<u>4.28</u>	<u>11.06</u>	<u>-Clear, Gray Flats</u>
<u>1045</u>	<u>2.0L</u>	<u>7.01</u>	<u>18.13</u>	<u>0.161</u>	<u>-154.3</u>	<u>0.74</u>	<u>—</u>	<u>16.31</u>	
<u>1055</u>	<u>2.8L</u>	<u>6.89</u>	<u>18.37</u>	<u>0.157</u>	<u>-152.0</u>	<u>0.77</u>	<u>4.05</u>	<u>20.00</u>	

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailor, Size: \_\_\_\_\_  Bladder Pump  2' Sub. Pump  4' Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailor  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: MW43 2m 3 Sample Date: 15 Nov 11 Sample Time: 1220 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

### Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

in the @ 100' toe

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

1/2

Signature





# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: TW-40

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, South Carolina Weather: ~65°F Overcast

## 2. WELL DATA

Date Measured: 11/14/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 94 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 21.75 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: - feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 72.25 feet Well Volume: 11.78 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 11/16/11 Time: 1418 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 3 well volumes or 35.33 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min  
 Calibrated?  Yes  No

1. Monsoon Pump
2. YSI-556
3. Heon Dippe
4. LaMotte 2020  
(3pt pH)

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1423	0.25	12.34	17.92	3.998	24.1	6.71	9.97	26.52	
1428	0.75	12.35	18.33	3.998	28.4	6.33	6.01	28.81	
1433	1.75	12.35	18.16	3.969	32.3	6.14	4.85	35.89	Time = 1443
1453	2.75	12.35	18.30	3.971	37.3	6.31	6.26	38.65	
1458	3.25	12.35	18.37	3.957	38.7	6.26	6.63	42.76	

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 74.95 Field Filtered?  Yes  No  
 Sample ID: TW-40 Sample Date: 11/16/11 Sample Time: 1620 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

~~Geochemical Analyses~~  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

Pump intake c ~ 89' bgs

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: TW-41

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: Eileen Russell  
 Project Location: Anderson, South Carolina Weather: cloudy, ~60, humid

**2. WELL DATA**

Date Measured: 11/14/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 55.3 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 17.16 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: — feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 38.14 feet Well Volume: 6.21 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11/16/11 Time: 1305 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 1 well volumes or 6.21 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. YSI 556
2. La Motte 2020
3. Monsoon Pump
4. Herron Dipper

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1305	0	7.86	18.53	0.451	196.0	4.78	109.2	14.45	
1315	1	8.01	18.46	0.312	175.6	8.19	24.1	26.95	
1325	3.5	7.90	18.56	0.451	166.7	4.56	17.8	31.36	
1335	4.5	7.95	18.90	0.451	152.7	4.28	8.56	35.72	
1345	5.5	7.93	19.16	0.451	143.7	4.64	6.71	40.90	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 49.08 Field Filtered?  Yes  No  
 Sample ID: TW-41 Sample Date: 11/16/11 Sample Time: 1405 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Eileen Russell





**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: TW-42

**1. PROJECT INFORMATION**  
 Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: BS  
 Project Location: Anderson, South Carolina Weather: Sunny ~ 65°F

**2. WELL DATA** Date Measured: 11/17/11 Time: 11:15-11 AM Temporary Well:  Yes  No  
 Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 26 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 17.55 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 8.45 feet Well Volume: 346 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA** Date Purged: 11.17.11 Time: 1045 Equipment Model(s):  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 3 well volumes or 1.03 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1055	0.15	6.53	16.31	0.053	-107.4	4.29	62.5	17.57'	
1105	0.30	5.94	16.28	0.049	-98.8	4.30	37.4	17.57	
1115	0.45	5.51	16.36	0.047	-95.2	4.20	14.5	17.57	
1125	0.60	5.36	16.81	0.048	-96.2	4.14	6.20	17.57	
1135	0.75	5.30	16.99	0.045	-96.2	4.09	3.83	17.57'	

Purge data continued on next sheet?

**4. SAMPLING DATA**  
 Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: TW-42 Sample Date: 11.17.11 Sample Time: 1250 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS** Intake at 25.5'

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature \_\_\_\_\_



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: TW-43

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 200.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: BS  
 Project Location: Anderson, South Carolina Weather: Cloudy

**2. WELL DATA**

Date Measured: 11/15/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 1 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 18.6 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 17.42 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: — feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 1.18 feet Well Volume: 0.048 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11-15-11 Time: 1658 Equipment Model(s): \_\_\_\_\_

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 3 well volumes or 0.145 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. DED Bladder
2. MP-50
3. Y-1-556
4. Lanorm. 2020

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level (ft)	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1708	.05	4.96	20.66	0.046	-0.6	4.57	234	17.43'	
1718	.10	4.87	20.01	0.045	-1.6	4.46	141	17.43'	
1723	.13	4.88	19.80	0.044	-2.9	4.32	71.5	17.43'	
1730	.15	4.88	19.33	0.043	-3.5	4.41	25.8	17.43'	
1735	.20	4.84	19.15	0.043	-1.7	4.35	14.1	17.43'	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: TW-43 Sample Date: 11-15-11 Sample Time: 1750 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

not enough water to sample. BS 11-15-11

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: TW-44

**1. PROJECT INFORMATION**  
 Project Number: 138670 Task Number: 300.003 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM  
 Project Location: Anderson, South Carolina Weather: ~65°F Overcast

**2. WELL DATA** Date Measured: 11/14/11 Time: AM Temporary Well:  Yes  No  
 Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 74 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 13.68 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: — feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 60.32 feet Well Volume: 9.83 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA** Date Purged: 11/16/11 Time: 1102 Equipment Model(s):  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 3 well volumes or 29.5 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±1% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1107	2.5	6.11	18.13	0.072	333.3	6.38	87.0	19.60	
1117	5	6.17	18.18	0.072	333.1	5.99	84.0	19.85	
1132	8.5	6.17	18.18	0.071	336.1	5.89	71.4	19.54	
1147	11.5	6.17	18.18	0.071	337.4	5.89	54.6	19.81	
1157	14	6.17	18.20	0.071	337.8	5.86	32.3	19.60	

**4. SAMPLING DATA** Purge data continued on next sheet?   
 Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 20.6 Field Filtered?  Yes  No  
 Sample ID: TW-44 Sample Date: 11/16/11 Sample Time: 1305 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

~~Geochemical Analyses~~  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS** Pump intake @ ~75' bgs. Purged for 2 hrs, sample collected when turb = 20.2

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature: [Signature]





# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: TW-46

## 1. PROJECT INFORMATION

Project Number: 136868 Task Number: 400.001 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: Eileen Russell  
 Project Location: Anderson, South Carolina Weather: Raining, ~55°

## 2. WELL DATA

Date Measured: 11/19/11 Time: AM Temporary Well:  Yes  No

Casing Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: 2 inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: 88.3 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: 25.74 feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: 62.56 feet Well Volume: 10.2 gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 11/17/11 Time: 0730 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): 1 well volumes or 10.2 gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. YSI 556
2. Monsoon Pump
3. Herron Dipper
4. LaMotte 2020

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
<u>0730</u>	<u>0</u>	<u>11.63</u>	<u>19.31</u>	<u>0.004</u>	<u>0.7</u>	<u>7.43</u>	<u>91.8</u>	<u>24.73</u>	
<u>0740</u>	<u>1</u>	<u>11.75</u>	<u>19.65</u>	<u>1.776</u>	<u>-97.3</u>	<u>0.28</u>	<u>21.8</u>	<u>33.64</u>	
<u>0750</u>	<u>3</u>	<u>11.71</u>	<u>20.62</u>	<u>1.621</u>	<u>-120.0</u>	<u>0.32</u>	<u>19.8</u>	<u>37.86</u>	
<u>0800</u>	<u>4.5</u>	<u>11.66</u>	<u>20.56</u>	<u>1.643</u>	<u>-106.5</u>	<u>0.51</u>	<u>17.9</u>	<u>53.18</u>	
<u>0810</u>	<u>6</u>	<u>11.67</u>	<u>21.03</u>	<u>1.482</u>	<u>-116.3</u>	<u>0.29</u>	<u>12.0</u>	<u>57.17</u>	

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 81.62 Field Filtered?  Yes  No  
 Sample ID: TW-46 Sample Date: 11/17/11 Sample Time: 1050 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

### Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

Pump stopped working, pulled up to troubleshoot, had to replace motor because it had corroded.

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Eileen Russell



# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID:      TW-46     

3. PURGE DATA (continued from page <u>  1  </u> )									
Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
0820	8	11.53	21.71	1.254	-99.9	<del>2.27</del> 2.27	6.78	64.05	
0830	9.5	11.46	21.75	1.187	-72.1	1.54	11.1	71.93	
0840	10.5	11.33	21.43	0.851	-62.1	2.32	12.5	80.51	
0845	Pump stopped working - pulled up to troubleshoot. Had to change motor because it had corroded								
1000	11	7.19	20.38	0.252	120.2	1.58	30.1	68.53	
1005	11.5	7.21	19.95	0.264	116.2	1.88	33.3	69.64	
<del>1010</del> 110	12	7.15	20.69	0.273	113.1	2.33	22.4	71.91	
1015	12.5	7.11	21.85	0.276	114.7	2.96	27.0	75.28	
1020	13	7.14	22.07	0.281	112.8	3.61	24.2	77.52	
1025	13.5	7.09	22.32	0.276	113.9	3.70	16.4	79.06	
1030	14	7.09	21.75	0.276	113.4	3.79	12.9	79.65	
1035	14.5	6.84	22.91	0.256	117.3	3.13	25.9	80.96	
1040	15	6.78	22.95	0.258	124.8	3.85	32.0	81.80	
1045	15.5	6.71	23.62	0.243	116.4	4.80	24.8	>81.62	pump @ 81.62
1050	Sample Collected								
EMR									

Purge data continued on next sheet?

Signature Gileen Russell





# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 311 Kaye Dr

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 300.003 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM + BS  
 Project Location: Anderson, South Carolina Weather: \_\_\_\_\_

## 2. WELL DATA

Date Measured: \_\_\_\_\_ Time: \_\_\_\_\_ Temporary Well:  Yes  No

Casing Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: \_\_\_\_\_ feet Well Volume: \_\_\_\_\_ gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 11/18/11 Time: 130 1329 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. YSI-576
2. LaMotte 2026
3. \_\_\_\_\_
4. \_\_\_\_\_

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
<u>1330</u>	<u>5</u>	<u>7.45</u>	<u>15.10</u>	<u>0.206</u>	<u>126.3</u>	<u>6.40</u>	<u>3.58</u>		

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: 311 Kaye Dr Sample Date: 11/18/11 Sample Time: 1330 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

### Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

New resident, only been there ~2 months

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 628 Airline Rd

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 300.003 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: \_\_\_\_\_  
 Project Location: Anderson, South Carolina Weather: \_\_\_\_\_

## 2. WELL DATA

Date Measured: \_\_\_\_\_ Time: \_\_\_\_\_ Temporary Well:  Yes  No  
 Casing Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: \_\_\_\_\_ feet Well Volume: \_\_\_\_\_ gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 11-17-11 Time: 1730 Equipment Model(s)  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_ 1. YSL-556  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_ 2. Lamotte 2020  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_ 3. \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable 4. \_\_\_\_\_  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
<u>1730</u>	<u>5.0</u>	<u>6.12</u>	<u>16.69</u>	<u>0.069</u>	<u>168.5</u>	<u>6.48</u>	<u>1.62</u>		

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: 628 Airline Rd Sample Date: 11-17-11 Sample Time: 1735 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

### Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

sampling with T-Fitting.

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 119 Cloverhill Dr

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 300.003 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: \_\_\_\_\_  
 Project Location: Anderson, South Carolina Weather: \_\_\_\_\_

**2. WELL DATA** Date Measured: \_\_\_\_\_ Time: \_\_\_\_\_ Temporary Well:  Yes  No

Casing Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: \_\_\_\_\_ feet Well Volume: \_\_\_\_\_ gal Screened Interval (from GS): \_\_\_\_\_  
*Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft*

**3. PURGE DATA** Date Purged: 11.17.11 Time: 1635 Equipment Model(s): \_\_\_\_\_

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_ 1. YS2-556

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable 2. \_\_\_\_\_

Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable 3. \_\_\_\_\_

Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons 4. \_\_\_\_\_

Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1635</u>	<u>5</u>	<u>5.58</u>	<u>15.90</u>	<u>0.039</u>	<u>287.3</u>	<u>7.80</u>	<u>0.64</u>		

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
119 Cloverhill Dr.

Sample ID: \_\_\_\_\_ Sample Date: 11.17.11 Sample Time: 1640 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

\_\_\_\_\_

\_\_\_\_\_

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature \_\_\_\_\_

**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: 408 Clinkscales Rd

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 300.003 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM, DS, + ER  
 Project Location: Anderson, South Carolina Weather: ~60°F Overcast

**2. WELL DATA**

Date Measured: \_\_\_\_\_ Time: \_\_\_\_\_ Temporary Well:  Yes  No  
 Casing Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: \_\_\_\_\_ feet Well Volume: \_\_\_\_\_ gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11/16/11 Time: 1706 Equipment Model(s)  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_ 1. YSI-556  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_ 2. LaMotte 2020  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_ 3. \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable 4. \_\_\_\_\_  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1708</u>	<u>5</u>	<u>5.70</u>	<u>17.94</u>	<u>0.045</u>	<u>152.5</u>	<u>7.93</u>	<u>2.28</u>	—	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: \_\_\_\_\_ Sample Date: 11/16/11 Sample Time: 1710 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Geochemical Analyses

~~Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L~~

**5. COMMENTS**

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: 605 Clinkscales Rd

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 300.003 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM, BS, ER  
 Project Location: Anderson, South Carolina Weather: Moop Overcast

**2. WELL DATA**

Date Measured: \_\_\_\_\_ Time: \_\_\_\_\_ Temporary Well:  Yes  No  
 Casing Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: \_\_\_\_\_ feet Well Volume: \_\_\_\_\_ gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11/16/11 Time: 1653 Equipment Model(s)  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_ 1. YSI-556  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_ 2. LaMotte 2020  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_ 3. \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable 4. \_\_\_\_\_  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
<u>1655</u>	<u>5</u>	<u>6.48</u>	<u>19.33</u>	<u>0.076</u>	<u>-8.5</u>	<u>2.88</u>	<u>0.72</u>	<u>-</u>	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: 605 Clinkscales Rd Sample Date: 11/16/11 Sample Time: 1655 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Geochemical Analyses

~~Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L~~

**5. COMMENTS**

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: 721 Clinkscales Rd

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 300.003 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM, BF, ER  
 Project Location: Anderson, South Carolina Weather: \_\_\_\_\_

**2. WELL DATA**

Date Measured: \_\_\_\_\_ Time: \_\_\_\_\_ Temporary Well:  Yes  No

Casing Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: \_\_\_\_\_ feet Well Volume: \_\_\_\_\_ gal Screened Interval (from GS): \_\_\_\_\_

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11/16/11 Time: 1716 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. YSI-556
2. Labette 2020
3. \_\_\_\_\_
4. \_\_\_\_\_

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1720</u>	<u>5</u>	<u>5.22</u>	<u>18.02</u>	<u>0.055</u>	<u>199.0</u>	<u>7.87</u>	<u>0.67</u>	—	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: 721 Clinkscales Rd Field Filtered?  Yes  No  
 Sample ID: \_\_\_\_\_ Sample Date: 11/16/11 Sample Time: 1720 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

~~Geochemical Analyses~~  
 Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: 1303 Clinkscales Rd

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 300.003 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: \_\_\_\_\_  
 Project Location: Anderson, South Carolina Weather: \_\_\_\_\_

**2. WELL DATA**

Date Measured: \_\_\_\_\_ Time: \_\_\_\_\_ Temporary Well:  Yes  No

Casing Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: \_\_\_\_\_ feet Well Volume: \_\_\_\_\_ gal Screened Interval (from GS): \_\_\_\_\_

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11-17-11 Time: 1620 Equipment Model(s): \_\_\_\_\_

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. YS1-554
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1620</u>	<u>5</u>	<u>6.04</u>	<u>16.85</u>	<u>0.057</u>	<u>246.9</u>	<u>8.32</u>	<u>0.73</u>	<u>—</u>	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: 1303 Clinkscales Rd Sample Date: 11-17-11 Sample Time: 1620 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 115 Elrod Rd

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 300.003 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: BS  
 Project Location: Anderson, South Carolina Weather: \_\_\_\_\_

**2. WELL DATA** Date Measured: \_\_\_\_\_ Time: \_\_\_\_\_ Temporary Well:  Yes  No

Casing Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: \_\_\_\_\_ feet Well Volume: \_\_\_\_\_ gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA** Date Purged: 11.12.11 Time: 1625 Equipment Model(s): \_\_\_\_\_

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons

Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1625</u>	<u>5</u>	<u>5.40</u>	<u>16.43</u>	<u>0.033</u>	<u>327.0</u>	<u>8.13</u>	<u>0.42</u>		

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: 115 Elrod Rd Sample Date: 11.12.11 Sample Time: 1630 # of Containers: \_\_\_\_\_  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.





# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 335 Elrod Rd

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 300.003 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM, ER, BS  
 Project Location: Anderson, South Carolina Weather: ~65°F overcast

## 2. WELL DATA

Date Measured: 11/16/19 Time: 1730 Temporary Well:  Yes  No

Casing Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: \_\_\_\_\_ feet Well Volume: \_\_\_\_\_ gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: \_\_\_\_\_ Time: \_\_\_\_\_ Equipment Model(s) \_\_\_\_\_

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_ 1. \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_ 2. \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_ 3. \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable 4. \_\_\_\_\_  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
NO SAMPLE = WELL BROKEN									

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: \_\_\_\_\_ Sample Date: \_\_\_\_\_ Sample Time: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

### Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

Electrical issue w/ pump according to owner.

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature [Handwritten Signature]

**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: 117 Faye Dr

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 300.003 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: \_\_\_\_\_  
 Project Location: Anderson, South Carolina Weather: \_\_\_\_\_

**2. WELL DATA**

Date Measured: \_\_\_\_\_ Time: \_\_\_\_\_ Temporary Well:  Yes  No

Casing Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: \_\_\_\_\_ feet Well Volume: \_\_\_\_\_ gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11-17-11 Time: 1720

Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1720</u>	<u>5.0</u>	<u>7.14</u>	<u>15.51</u>	<u>0.294</u>	<u>223.0</u>	<u>4.84</u>	<u>0.00</u>		

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No

Sample ID: 11-17-11 Sample Date: 11-17-11 Sample Time: 1725 # of Containers: \_\_\_\_\_

117 Faye Dr. Duplicate Sample Collected?  Yes  No ID: Dup-111711-2 # of Containers: \_\_\_\_\_

Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: 200 Friendship Ln

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 300.003 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: DM, BS, + ER  
 Project Location: Anderson, South Carolina Weather: ~ 60°F overcast

**2. WELL DATA**

Date Measured: \_\_\_\_\_ Time: \_\_\_\_\_ Temporary Well:  Yes  No

Casing Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: \_\_\_\_\_ feet Well Volume: \_\_\_\_\_ gal Screened Interval (from GS): \_\_\_\_\_

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11/16/11 Time: 1643 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

1. YSI-556
2. LaMotte 2020
3. \_\_\_\_\_
4. \_\_\_\_\_

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
<u>1645</u>	<u>5</u>	<u>6.18</u>	<u>18.16</u>	<u>0.163</u>	<u>173.6</u>	<u>6.63</u>	<u>0.68</u>	<u>-</u>	

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: 200 Friendship Ln Sample Date: 11/16/11 Sample Time: 1645 # of Containers: 2  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Geochemical Analyses

~~Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L~~

**5. COMMENTS**

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

**GROUNDWATER SAMPLING FIELD DATA SHEET**

WELL ID: 200 Kaye Dr

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 300.003 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: \_\_\_\_\_  
 Project Location: Anderson, South Carolina Weather: \_\_\_\_\_

**2. WELL DATA**

Date Measured: \_\_\_\_\_ Time: \_\_\_\_\_ Temporary Well:  Yes  No  
 Casing Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: \_\_\_\_\_ feet Well Volume: \_\_\_\_\_ gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA**

Date Purged: 11-17-11 Time: 1645 Equipment Model(s)  
 Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons  
 Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
<u>1645</u>	<u>5</u>	<u>6.78</u>	<u>17.12</u>	<u>0.109</u>	<u>257.8</u>	<u>6.21</u>	<u>0.13</u>		

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_  
 Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable  
 Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No  
 Sample ID: 200 Kaye Dr. Sample Date: 11-17-11 Sample Time: 1650 # of Containers: \_\_\_\_\_  
 Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_  
 Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 303 Kaye Dr

## 1. PROJECT INFORMATION

Project Number: 138670 Task Number: 300.003 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: \_\_\_\_\_  
 Project Location: Anderson, South Carolina Weather: \_\_\_\_\_

## 2. WELL DATA

Date Measured: \_\_\_\_\_ Time: \_\_\_\_\_ Temporary Well:  Yes  No

Casing Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: \_\_\_\_\_ feet Well Volume: \_\_\_\_\_ gal Screened Interval (from GS): \_\_\_\_\_

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

## 3. PURGE DATA

Date Purged: 11.17.11 Time: 1655 Equipment Model(s): \_\_\_\_\_

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

1. YS1-556
2. Leantek 200
3. \_\_\_\_\_
4. \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons

Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1655</u>	<u>5.0</u>	<u>6.11</u>	<u>16.71</u>	<u>0.151</u>	<u>287.3</u>	<u>6.85</u>	<u>0.03</u>		

Purge data continued on next sheet?

## 4. SAMPLING DATA

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No

Sample ID: 303 Kaye Dr Sample Date: 11.17.11 Sample Time: 1700 # of Containers: \_\_\_\_\_

Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

### Geochemical Analyses

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

## 5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.



# GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 412 Kaye Dr

**1. PROJECT INFORMATION**

Project Number: 138670 Task Number: 300.003 Area of Concern: \_\_\_\_\_  
 Client: Owens Corning Personnel: \_\_\_\_\_  
 Project Location: Anderson, South Carolina Weather: \_\_\_\_\_

**2. WELL DATA** Date Measured: \_\_\_\_\_ Time: \_\_\_\_\_ Temporary Well:  Yes  No

Casing Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Screen Diameter: \_\_\_\_\_ inches Type:  PVC  Stainless  Galv. Steel  Teflon®  Other: \_\_\_\_\_  
 Total Depth of Well: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Static Water: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Depth to Product: \_\_\_\_\_ feet From:  Top of Well Casing (TOC)  Top of Protective Casing  Other: \_\_\_\_\_  
 Length of Water Column: \_\_\_\_\_ feet Well Volume: \_\_\_\_\_ gal Screened Interval (from GS): \_\_\_\_\_  
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

**3. PURGE DATA** Date Purged: 11.17.11 Time: 1705 Equipment Model(s)

Purge Method:  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Rope/Tubing  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Volume to Purge (minimum): \_\_\_\_\_ well volumes or \_\_\_\_\_ gallons

Was well purged dry?  Yes  No Pumping Rate: \_\_\_\_\_ gal/min Calibrated?  Yes  No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1705</u>	<u>5.0</u>	<u>5.87</u>	<u>17.72</u>	<u>0.061</u>	<u>290.2</u>	<u>7.79</u>	<u>0.43</u>		

Purge data continued on next sheet?

**4. SAMPLING DATA**

Method(s):  Bailer, Size: \_\_\_\_\_  Bladder Pump  2" Sub. Pump  4" Sub. Pump  
 Centrifugal Pump  Peristaltic Pump  Inertial Lift Pump  Other: \_\_\_\_\_

Materials: Pump/Bailer  Polyethylene  Stainless  PVC  Teflon®  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Materials: Tubing/Rope  Polyethylene  Polypropylene  Teflon®  Nylon  Other: \_\_\_\_\_  
 Dedicated  Prepared Off-Site  Field-Cleaned  Disposable

Depth to Water at Time of Sampling: \_\_\_\_\_ Field Filtered?  Yes  No

Sample ID: 412 Kaye Dr. Sample Date: 11.17.11 Sample Time: 1710 # of Containers: \_\_\_\_\_

Duplicate Sample Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

Equipment Blank Collected?  Yes  No ID: \_\_\_\_\_ # of Containers: \_\_\_\_\_

**Geochemical Analyses**

Ferrous Iron: \_\_\_\_\_ mg/L  
 DO: \_\_\_\_\_ mg/L  
 Nitrate: \_\_\_\_\_ mg/L  
 Sulfate: \_\_\_\_\_ mg/L  
 Alkalinity: \_\_\_\_\_ mg/L

**5. COMMENTS**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

## Appendix B: Laboratory Analytical Reports

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ANALYTICAL ENVIRONMENTAL SERVICES, INC.

November 29, 2011

Tamara Berryman  
BROWN AND CALDWELL  
990 Hammond Drive  
Atlanta GA 30328

TEL: (770) 394-2997  
FAX: (770) 396-9495

RE: Owens Corning - Annual GW Samples

Dear Tamara Berryman:

Order No: 1111G63

Analytical Environmental Services, Inc. received 91 samples on 11/18/2011 4:15:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative. AES' certifications are as follows:

-South Carolina Certification number 98016003 for Clean Water Act and for Solid and Hazardous Waste, effective until 6/30/12.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Sharissa Hall  
Project Manager





**ANALYTICAL ENVIRONMENTAL SERVICES, INC**  
 3785 Presidential Parkway, Atlanta GA 30340-3704  
**AES** TEL: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

**CHAIN OF CUSTODY**

Work Order: **111663**

Date: **11/18/11** Page **1** of **7**

#	SAMPLE ID	SIGNED BY:	SAMPLED		Grab	Composite	Matrix (See codes)	ANALYSIS REQUESTED		REMARKS	No # of Containers
			DATE	TIME				Visit our website <a href="http://www.aesatlanta.com">www.aesatlanta.com</a> to check on the status of your results, place bottle orders, etc.	PRESERVATION (See codes)		
1	SW-1	<i>[Signature]</i>	11/17/11	1540	X		SW				2
2	SV-3A	<i>[Signature]</i>	11/17/11	1730							2
3	SV-3B	<i>[Signature]</i>	11/17/11	1720							2
4	SV-6	<i>[Signature]</i>	11/17/11	1510							2
5	SV-10	<i>[Signature]</i>	11/17/11	1455							2
6	SV-11	<i>[Signature]</i>	11/17/11	1655							2
7	SV-12	<i>[Signature]</i>	11/17/11	1625							2
8	SV-14	<i>[Signature]</i>	11/17/11	1605							2
9	SV-15	<i>[Signature]</i>	11/17/11	1530							2
10	EB-1144	<i>[Signature]</i>	11/17/11	1500			W				2
11	EB-1151	<i>[Signature]</i>	11/15/11	1400			W				2
12	EB-1161	<i>[Signature]</i>	11/16/11	1600			W				2
13	EB-1171	<i>[Signature]</i>	11/17/11	1025			W				2
14	EB-1181	<i>[Signature]</i>	11/17/11	1005			W				2

RELINQUISHED BY: <i>[Signature]</i>	DATE/TIME RECEIVED BY: <i>[Signature]</i>	DATE/TIME: 11/18/11 1600
1: <i>[Signature]</i>	1: <i>[Signature]</i>	1: 11/18/11 4:15
2: <i>[Signature]</i>	2: <i>[Signature]</i>	2: 11/18/11 4:15
3: <i>[Signature]</i>	3: <i>[Signature]</i>	3: 11/18/11 4:15

PROJECT NAME: <b>Orens County - Annand GW Supply</b>	PROJECT INFORMATION
PROJECT #: <b>1404375200.001</b>	
SITE ADDRESS: <b>Anderson, SC</b>	
SEND REPORT TO: <b>T.Bennett @ Bannockburn.com</b>	
INVOICE TO: (IF DIFFERENT FROM ABOVE)	
QUOTE #:	PO#:

SHIPMENT METHOD	OUT	VIA:
	IN	VIA:
		GREYHOUND
		UPS MAIL COURIER
		OTHER

SPECIAL INSTRUCTIONS/COMMENTS:  
 \* Focused list of VOCs = 111-TEA, 11-DEA, 11-DCE, cis-1,2-DCE, trans-1,2-DCE, VC, benzene, chlorobenzene, methylene chloride

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water  
 PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+H = Sulfuric acid + ice S/M+I = Sulfuric acid + ice

DATA PACKAGE: I ( ) II ( ) III ( ) IV ( )  
 E-mail? (Y/N): Fax? (Y/N)  
 STATE PROGRAM (if any):

White Copy - Original, Yellow Copy - Client



# ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

# CHAIN OF CUSTODY

Work Order: 1111G63

Date: 11/15/11 Page 2 of 7

#	SAMPLE ID	DATE	TIME	PRESERVATION (See codes)			REMARKS	No # of Containers
				Matrix	Composite	Grab		
1	Atlay	11/15/11	1010			GU		
2	MV-1	11/15/11	1725					
3	MV-2	11/14/11	1700					
4	MV-3	11/15/11	0840					
5	MV-4	11/15/11	1020					
6	MV-5	11/15/11	1140					
7	MV-6	11/15/11	1650					
8	MV-7	11/15/11	1045					
9	MV-9	11/15/11	1745					
10	MV-10	11/15/11	1435					
11	MV-11	11/14/11	1355					
12	MV-12	11/14/11	1515					
13	MV-13	11/17/11	1625					
14	MV-14	11/15/11	0845					

Visit our website [www.aesatlanta.com](http://www.aesatlanta.com) to check on the status of your results, place bottle orders, etc.

ANALYSIS REQUESTED

WCC (Forward list)

PRESCRIPTION (See codes)

REMARKS

No # of Containers

PROJECT INFORMATION

PROJECT NAME: Dues Coning - Amend 6U Smpg

PROJECT #: 140437.2001001

SITE ADDRESS:

SEND REPORT TO:

INVOICE TO: (IF DIFFERENT FROM ABOVE)

QUOTE #:

PO#:

RECEIPT

Total # of Containers

Turnaround Time Request

Standard 5 Business Days

2 Business Day Rush

Next Business Day Rush

Same Day Rush (auth req.)

Other

STATE PROGRAM (if any):

E-mail?  Y /  N

Fax?  Y /  N

DATA PACKAGE: I  II  III  IV

SHIPMENT METHOD

OUT

IN

VIA: CLIENT FedEx UPS MAIL COURIER

GREYHOUND OTHER

SPECIAL INSTRUCTIONS/COMMENTS:

Forward list of VOCs - project

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.

SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+1 = Hydrochloric acid + ice I = Ice only N = Nitric acid S+1 = Sulfuric acid + ice SAM+1 = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

#	SAMPLE ID	SAMPLED		Grab	Composite	Matrix (See codes)	ANALYSIS REQUESTED		REMARKS	No # of Containers
		DATE	TIME				PRESERVATION (See codes)			
1	MV-15	11/17/11	1115	X		GW				
2	MV-16	11/16/11	0930							
3	MV-17	11/15/11	1400							
4	MV-18	11/14/11	1545							
5	MV-19	11/17/11	1300							
6	MV-20	11/17/11	1540							
7	MV-21	11/16/11	1020							
8	MV-22	11/18/11	0920							
9	MV-24	11/17/11	1255							
10	MV-25	11/16/11	1215							
11	MV-26	11/16/11	1000							
12	MV-27	11/17/11	1420							
13	MV-28	11/18/11	1150							
14	MV-29R Zone 3	11/15/11	0935							

RELINQUISHED BY: *[Signature]* DATE/TIME: 11/18/11 1600 RECEIVED BY: *[Signature]* DATE/TIME: 11/18/11 475

PROJECT NAME: **Over Coring - Annual GW Sample**  
 PROJECT #: **140437.000.001**  
 SITE ADDRESS: \_\_\_\_\_  
 SEND REPORT TO: \_\_\_\_\_  
 INVOICE TO: \_\_\_\_\_ (IF DIFFERENT FROM ABOVE)  
 QUOTE #: \_\_\_\_\_ PO#: \_\_\_\_\_

STATE PROGRAM (if any): \_\_\_\_\_ E-mail?  /N; Fax?  Y  
 DATA PACKAGE: I  II  III  IV

Turnaround Time Request:  Standard 5 Business Days  
 2 Business Day Rush  
 Next Business Day Rush  
 Same Day Rush (auth req.)  
 Other

RECEIPT: Total # of Containers: **29**

SPECIAL INSTRUCTIONS/COMMENTS: **Found list see page 1**

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.  
 SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water  
 PRESERVATIVE CODES: H+1 = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

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**ANALYTICAL ENVIRONMENTAL SERVICES, INC**  
 3785 Presidential Parkway, Atlanta GA 30340-3704  
**AES** TEL: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

**CHAIN OF CUSTODY**

Work Order: 1111663

Date: 11/18/11 Page 4 of 7

#	SAMPLE ID	DATE	SAMPLED		TIME	Grab	Composite	Matrix (See codes)	ANALYSIS REQUESTED	PRESERVATION (See codes)	REMARKS	No # of Containers
			DATE	TIME								
1	MU-29R Zone 4	11/15/11			0805	X		GV				
2	MU-30	11/15/11			1215							
3	MU-31	11/18/11			0925							
4	MU-32	11/17/11			0930							
5	MU-35	11/18/11			0810							
6	MU-36 Zone 1	11/14/11			1525							
7	MU-36 Zone 2	11/15/11			0815							
8	MU-36 Zone 3	11/14/11			1820							
9	MU-37 Zone 1	11/16/11			1650							
10	MU-37 Zone 2	11/17/11			1250							
11	MU-37 Zone 3	11/17/11			1000							
12	MU-38 Zone 1	11/17/11			1005							
13	MU-38 Zone 2	11/17/11			1546							
14	MU-39 Zone 1	11/15/11			1030							

COMPANY: **Brown + Caldwell**

PHONE: \_\_\_\_\_  
 FAX: \_\_\_\_\_  
 SIGNATURE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PROJECT NAME: **Over Lining - Amd 6U Supts**

PROJECT #: **MO457-200.001**

SITE ADDRESS: \_\_\_\_\_

RELINQUISHED BY: \_\_\_\_\_ DATE/TIME: 11-18-11 1600

RECEIVED BY: \_\_\_\_\_ DATE/TIME: 11/18/11 9:45

SHIPMENT METHOD: \_\_\_\_\_ VIA: \_\_\_\_\_

SPECIAL INSTRUCTIONS/COMMENTS: **Found list of VOCs - See page 1**

STATE PROGRAM (if any): \_\_\_\_\_ E-mail?  / N: \_\_\_\_\_ Fax?  Y /  N

DATA PACKAGE: I  II  III  IV  V

TURNAROUND TIME REQUEST:  Standard 5 Business Days  2 Business Day Rush  Next Business Day Rush  Same Day Rush (auth req.)  Other \_\_\_\_\_

QUOTE #: \_\_\_\_\_ PO#: \_\_\_\_\_

SEND REPORT TO: \_\_\_\_\_ INVOICE TO: \_\_\_\_\_ (IF DIFFERENT FROM ABOVE)

TURNAROUND TIME IS NOT INDICATED. AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) O = Other (specify) WW = Waste Water PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client



**ANALYTICAL ENVIRONMENTAL SERVICES, INC**  
 3785 Presidential Parkway, Atlanta GA 30340-3704  
**AES** TEL: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

**CHAIN OF CUSTODY**

Work Order: 111663

Page 5 of 7

Date: 11/18/11

#	SAMPLE ID	SAMPLED		Grab	Composite	Matrix (See codes)	ANALYSIS REQUESTED	REMARKS	No # of Containers
		DATE	TIME						
1	MU-39 Zone 2	11/15/11	1240	X		GW	VOCs (Total / Pt)		2
2	MU-39 Zone 3	11/15/11	1515						
3	MU-41 Zone 1	11/16/11	1015						
4	MU-41 Zone 2	11/16/11	1205						
5	MU-41 Zone 3	11/16/11	1550						
6	MU-42 Zone 1	11/15/11	1645						
7	MU-42 Zone 2	11/16/11	1005						
8	MU-42 Zone 3	11/16/11	1300						
9	MU-43 Zone 1	11/14/11	1705						
10	MU-43 Zone 2	11/15/11	0925						
11	MU-43 Zone 3	11/15/11	1220						
12	TW-40	11/16/11	1620						
13	TW-41	11/16/11	1405						
14	TW-42	11/17/11	1250						

COMPANY: Brant Caldwell

PHONE: \_\_\_\_\_  
 FAX: \_\_\_\_\_  
 SIGNATURE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

RELINQUISHED BY: \_\_\_\_\_  
 DATE/TIME: 11-18-11 1600

RECEIVED BY: \_\_\_\_\_  
 DATE/TIME: 11/19/11 9:15

PROJECT NAME: Over Conly - Amul GW Sapho  
 PROJECT #: 140537200.001  
 SITE ADDRESS: \_\_\_\_\_

SEND REPORT TO: \_\_\_\_\_  
 INVOICE TO: \_\_\_\_\_  
 QUOTE #: \_\_\_\_\_

SHIPMENT METHOD: \_\_\_\_\_  
 OUT: / / VIA: \_\_\_\_\_  
 IN: / / VIA: \_\_\_\_\_  
 CLIENT:  UPS MAIL COURIER  
 GREYHOUND OTHER: \_\_\_\_\_

SPECIAL INSTRUCTIONS/COMMENTS: \_\_\_\_\_

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.  
 SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water  
 PRESERVATIVE CODES: H+1 = Hydrochloric acid + ice I = Ice only N = Nitric acid S+H = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

STATE PROGRAM (if any): \_\_\_\_\_  
 E-mail?  FAX?   
 DATA PACKAGE: I  II  III  IV

TURNAROUND TIME REQUEST:  
 Standard 5 Business Days  
 2 Business Day Rush  
 Next Business Day Rush  
 Same Day Rush (auth req.)  
 Other

RECEIPT: Total # of Containers: 25



**ANALYTICAL ENVIRONMENTAL SERVICES, INC**  
 3785 Presidential Parkway, Atlanta GA 30340-3704  
**AES** TEL: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

**CHAIN OF CUSTODY**

Work Order: **111663**

Date: **11/18/11** Page **6** of **7**

#	SAMPLE ID	DATE	TIME	SAMPLING		COMPOSITE	MATRIX (See codes)	ANALYSIS REQUESTED	REMARKS	No # of Containers
				DATE	TIME					
1	TV-43	11/15/11	1750	X			GV			
2	TV-44	11/16/11	1305							
3	TV-46	11/17/11	1050							
4	628 Avline Rd	11/17/11	1735							
5	119 Clavhill Dr	11/17/11	1640							
6	408 Clarkscoles Rd	11/16/11	1710							
7	605 Clarkscoles Rd	11/16/11	1655							
8	721 Clarkscoles Rd	11/16/11	1720							
9	1308 Clarkscoles Rd	11/17/11	1620							
10	115 E. Fred Rd	11/17/11	1630							
11	117 Foye DR	11/17/11	1725							
12	200 Friendship Lane	11/16/11	1645							
13	200 Moyer Dr	11/17/11	1650							
14	303 Moyer Dr	11/17/11	1700							

RELINQUISHED BY: *[Signature]* DATE/TIME: 11-18-11 11:00  
 RECEIVED BY: *[Signature]* DATE/TIME: 11/18/11 4:15

PROJECT NAME: \_\_\_\_\_ PROJECT #: \_\_\_\_\_  
 SITE ADDRESS: \_\_\_\_\_  
 SEND REPORT TO: \_\_\_\_\_  
 INVOICE TO: \_\_\_\_\_ (IF DIFFERENT FROM ABOVE)  
 QUOTE #: \_\_\_\_\_ PO#: \_\_\_\_\_

SHIPMENT METHOD: \_\_\_\_\_  
 OUT: / / VIA: \_\_\_\_\_  
 IN: / / VIA: \_\_\_\_\_  
 CLIENT:  GREYHOUND  UPS  MAIL  COURIER  OTHER

SPECIAL INSTRUCTIONS/COMMENTS:  
**Found list of Voocs - see page 1**

STATE PROGRAM (if any): \_\_\_\_\_  
 B-mail?  N: \_\_\_\_\_ Fax?  Y:  N: \_\_\_\_\_  
 DATA PACKAGE:  I  II  III  IV

Turnaround Time Request:  
 Standard 5 Business Days  
 2 Business Day Rush  
 Next Business Day Rush  
 Same Day Rush (auth req.)  
 Other

RECEIPT: Total # of Containers: **23**

Visit our website [www.aesatlanta.com](http://www.aesatlanta.com)  
 to check on the status of your results, place bottle orders, etc.

White Copy - Original, Yellow Copy - Client



**ANALYTICAL ENVIRONMENTAL SERVICES, INC**  
 3785 Presidential Parkway, Atlanta GA 30340-3704  
**AES** TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

**CHAIN OF CUSTODY**

Work Order: 111663

Date: 11/18/11 Page 7 of 7

#	SAMPLE ID	SAMPLED		Composite	Matrix (See codes)	PRESERVATION (See codes)	REMARKS	No # of Containers
		DATE	TIME					
1	DUP-11/17/11	11/17/11	1200	X	GU			2
2	DUP-11/16/11	11/16/11	0800		GU			2
3	DUP-11/17/11-2	11/17/11	1425		GW			2
4	412 Kaye Dr	11/17/11	1710					2
5	DUP-11/18/11	11/18/11	1200					2
6	311 Kaye Drive	11/18/11	1330	N				2
7	<del>Arto-22</del> Bs 11-18-11	11/18/11	1042					2
8	EB-11/18/11	11-18-11	1005	X	W			2
9	<del>Arto-3</del> Bs 11-18-11							2
10	Trip Blank			X	W			2
11								
12								
13								
14								

RELINQUISHED BY: <u>[Signature]</u>	DATE/TIME: <u>11/18/11 600</u>	RECEIVED BY: <u>[Signature]</u>	DATE/TIME: <u>11/18/11 4:15</u>
PROJECT NAME: <u>One Camy - Anal GW Samples</u>	PROJECT #: <u>1404187.100.001</u>	SITE ADDRESS:	
SEND REPORT TO:			
INVOICE TO: (IF DIFFERENT FROM ABOVE)			
QUOTE #:			
PO#:			

TURNAROUND TIME REQUEST:	RECEIPT
<input checked="" type="radio"/> Standard 5 Business Days	Total # of Containers: <u>16</u>
<input type="radio"/> 2 Business Day Rush	
<input type="radio"/> Next Business Day Rush	
<input type="radio"/> Same Day Rush (auth req.)	
<input type="radio"/> Other	

STATE PROGRAM (if any): \_\_\_\_\_  
 E-mail?  Y  N; Fax?  Y  N  
 DATA PACKAGE: I  II  III  IV

COMPANY: Brown + Caldwell

PHONE: \_\_\_\_\_

SAMPLED BY: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

ANALYSIS REQUESTED: \_\_\_\_\_

Visit our website [www.aesatlanta.com](http://www.aesatlanta.com) to check on the status of your results, place bottle orders, etc.

Special Instructions/Comments: Found list of VOCs - See page 1

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SIV = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water  
 PRESERVATIVE CODES: H+1 = Hydrochloric acid + ice I = Ice only N = Nitric acid S+1 = Sulfuric acid + ice S/M+1 = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

**Client:** BROWN AND CALDWELL  
**Project:** Owens Corning - Annual GW Samples  
**Lab ID:** 1111G63

**Case Narrative**

Sample EB-111811 was listed on the COC twice with the same collection date and time, but only one set was received. The laboratory proceeded with analysis with the samples that were received. There was only one set of samples collected for EB-111811 per John Meadows via email 11/23/2011 10:34am.

Sample 1111G63-054A was listed on the COC as MW 38 Zone 3 but listed on the sample vials as MW 38 Zone 1. Sample ID was reported as MW 38 Zone 1 per John Meadows via email 11/29/2011 11:14am.

One of the vials for sample SW-14 was labeled with sample ID SW-12, but the collection date/time matched and the samples were received in sets. The samples were reported as SW-14 per John Meadows via email 11/23/2011 10:34am.

Volatile Organic Compounds Analysis by Method 8260B:

Due to sample matrix, samples 1111G63-022A and -041A required dilution during preparation and/or analysis resulting in elevated reporting limits.

1,1-Dichloroethene value for sample 1111G63-052A is "E" qualified indicating an estimated value over linear calibration range. Sample could not be diluted and reanalyzed because both vials were used for analysis.



**Analytical Environmental Services, Inc**

**Date:** 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> SW-1
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 3:40:00 PM
<b>Lab ID:</b> 1111G63-001	<b>Matrix:</b> Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154510	1	11/22/2011 19:26	AR
1,1-Dichloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 19:26	AR
Methylene chloride	BRL	5.0		ug/L	154510	1	11/22/2011 19:26	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 19:26	AR
1,1-Dichloroethane	BRL	5.0		ug/L	154510	1	11/22/2011 19:26	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 19:26	AR
Chloroform	BRL	5.0		ug/L	154510	1	11/22/2011 19:26	AR
1,1,1-Trichloroethane	BRL	5.0		ug/L	154510	1	11/22/2011 19:26	AR
Carbon tetrachloride	BRL	5.0		ug/L	154510	1	11/22/2011 19:26	AR
Benzene	BRL	5.0		ug/L	154510	1	11/22/2011 19:26	AR
1,2-Dichloroethane	BRL	5.0		ug/L	154510	1	11/22/2011 19:26	AR
Trichloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 19:26	AR
Toluene	BRL	5.0		ug/L	154510	1	11/22/2011 19:26	AR
Tetrachloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 19:26	AR
Ethylbenzene	BRL	5.0		ug/L	154510	1	11/22/2011 19:26	AR
Xylenes, Total	BRL	5.0		ug/L	154510	1	11/22/2011 19:26	AR
Surr: 4-Bromofluorobenzene	92.6	67.4-123		%REC	154510	1	11/22/2011 19:26	AR
Surr: Dibromofluoromethane	98.1	75.5-128		%REC	154510	1	11/22/2011 19:26	AR
Surr: Toluene-d8	94.5	70-120		%REC	154510	1	11/22/2011 19:26	AR

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> SW-3A
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 5:30:00 PM
<b>Lab ID:</b> 1111G63-002	<b>Matrix:</b> Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154510	1	11/22/2011 20:40	AR
1,1-Dichloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 20:40	AR
Methylene chloride	BRL	5.0		ug/L	154510	1	11/22/2011 20:40	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 20:40	AR
1,1-Dichloroethane	BRL	5.0		ug/L	154510	1	11/22/2011 20:40	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 20:40	AR
Chloroform	BRL	5.0		ug/L	154510	1	11/22/2011 20:40	AR
1,1,1-Trichloroethane	BRL	5.0		ug/L	154510	1	11/22/2011 20:40	AR
Carbon tetrachloride	BRL	5.0		ug/L	154510	1	11/22/2011 20:40	AR
Benzene	BRL	5.0		ug/L	154510	1	11/22/2011 20:40	AR
1,2-Dichloroethane	BRL	5.0		ug/L	154510	1	11/22/2011 20:40	AR
Trichloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 20:40	AR
Toluene	BRL	5.0		ug/L	154510	1	11/22/2011 20:40	AR
Tetrachloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 20:40	AR
Ethylbenzene	BRL	5.0		ug/L	154510	1	11/22/2011 20:40	AR
Xylenes, Total	BRL	5.0		ug/L	154510	1	11/22/2011 20:40	AR
Surr: 4-Bromofluorobenzene	92.3	67.4-123		%REC	154510	1	11/22/2011 20:40	AR
Surr: Dibromofluoromethane	97.5	75.5-128		%REC	154510	1	11/22/2011 20:40	AR
Surr: Toluene-d8	92.9	70-120		%REC	154510	1	11/22/2011 20:40	AR

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> SW-3B
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 5:20:00 PM
<b>Lab ID:</b> 1111G63-003	<b>Matrix:</b> Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154510	1	11/22/2011 21:05	AR
1,1-Dichloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 21:05	AR
Methylene chloride	BRL	5.0		ug/L	154510	1	11/22/2011 21:05	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 21:05	AR
1,1-Dichloroethane	BRL	5.0		ug/L	154510	1	11/22/2011 21:05	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 21:05	AR
Chloroform	BRL	5.0		ug/L	154510	1	11/22/2011 21:05	AR
1,1,1-Trichloroethane	BRL	5.0		ug/L	154510	1	11/22/2011 21:05	AR
Carbon tetrachloride	BRL	5.0		ug/L	154510	1	11/22/2011 21:05	AR
Benzene	BRL	5.0		ug/L	154510	1	11/22/2011 21:05	AR
1,2-Dichloroethane	BRL	5.0		ug/L	154510	1	11/22/2011 21:05	AR
Trichloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 21:05	AR
Toluene	BRL	5.0		ug/L	154510	1	11/22/2011 21:05	AR
Tetrachloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 21:05	AR
Ethylbenzene	BRL	5.0		ug/L	154510	1	11/22/2011 21:05	AR
Xylenes, Total	BRL	5.0		ug/L	154510	1	11/22/2011 21:05	AR
Surr: 4-Bromofluorobenzene	90.7	67.4-123		%REC	154510	1	11/22/2011 21:05	AR
Surr: Dibromofluoromethane	99.6	75.5-128		%REC	154510	1	11/22/2011 21:05	AR
Surr: Toluene-d8	93.3	70-120		%REC	154510	1	11/22/2011 21:05	AR

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> SW-6
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 3:10:00 PM
<b>Lab ID:</b> 1111G63-004	<b>Matrix:</b> Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154510	1	11/22/2011 21:30	AR
1,1-Dichloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 21:30	AR
Methylene chloride	BRL	5.0		ug/L	154510	1	11/22/2011 21:30	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 21:30	AR
1,1-Dichloroethane	BRL	5.0		ug/L	154510	1	11/22/2011 21:30	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 21:30	AR
Chloroform	BRL	5.0		ug/L	154510	1	11/22/2011 21:30	AR
1,1,1-Trichloroethane	BRL	5.0		ug/L	154510	1	11/22/2011 21:30	AR
Carbon tetrachloride	BRL	5.0		ug/L	154510	1	11/22/2011 21:30	AR
Benzene	BRL	5.0		ug/L	154510	1	11/22/2011 21:30	AR
1,2-Dichloroethane	BRL	5.0		ug/L	154510	1	11/22/2011 21:30	AR
Trichloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 21:30	AR
Toluene	BRL	5.0		ug/L	154510	1	11/22/2011 21:30	AR
Tetrachloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 21:30	AR
Ethylbenzene	BRL	5.0		ug/L	154510	1	11/22/2011 21:30	AR
Xylenes, Total	BRL	5.0		ug/L	154510	1	11/22/2011 21:30	AR
Surr: 4-Bromofluorobenzene	88.1	67.4-123		%REC	154510	1	11/22/2011 21:30	AR
Surr: Dibromofluoromethane	98.5	75.5-128		%REC	154510	1	11/22/2011 21:30	AR
Surr: Toluene-d8	93.3	70-120		%REC	154510	1	11/22/2011 21:30	AR

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> SW-10
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 2:55:00 PM
<b>Lab ID:</b> 1111G63-005	<b>Matrix:</b> Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154510	1	11/22/2011 21:55	AR
1,1-Dichloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 21:55	AR
Methylene chloride	BRL	5.0		ug/L	154510	1	11/22/2011 21:55	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 21:55	AR
1,1-Dichloroethane	BRL	5.0		ug/L	154510	1	11/22/2011 21:55	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 21:55	AR
Chloroform	BRL	5.0		ug/L	154510	1	11/22/2011 21:55	AR
1,1,1-Trichloroethane	BRL	5.0		ug/L	154510	1	11/22/2011 21:55	AR
Carbon tetrachloride	BRL	5.0		ug/L	154510	1	11/22/2011 21:55	AR
Benzene	BRL	5.0		ug/L	154510	1	11/22/2011 21:55	AR
1,2-Dichloroethane	BRL	5.0		ug/L	154510	1	11/22/2011 21:55	AR
Trichloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 21:55	AR
Toluene	BRL	5.0		ug/L	154510	1	11/22/2011 21:55	AR
Tetrachloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 21:55	AR
Ethylbenzene	BRL	5.0		ug/L	154510	1	11/22/2011 21:55	AR
Xylenes, Total	BRL	5.0		ug/L	154510	1	11/22/2011 21:55	AR
Surr: 4-Bromofluorobenzene	92	67.4-123		%REC	154510	1	11/22/2011 21:55	AR
Surr: Dibromofluoromethane	103	75.5-128		%REC	154510	1	11/22/2011 21:55	AR
Surr: Toluene-d8	93.3	70-120		%REC	154510	1	11/22/2011 21:55	AR

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> SW-11
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 4:55:00 PM
<b>Lab ID:</b> 1111G63-006	<b>Matrix:</b> Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154510	1	11/22/2011 22:19	AR
1,1-Dichloroethene	5.2	5.0		ug/L	154510	1	11/22/2011 22:19	AR
Methylene chloride	BRL	5.0		ug/L	154510	1	11/22/2011 22:19	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 22:19	AR
1,1-Dichloroethane	BRL	5.0		ug/L	154510	1	11/22/2011 22:19	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 22:19	AR
Chloroform	BRL	5.0		ug/L	154510	1	11/22/2011 22:19	AR
1,1,1-Trichloroethane	BRL	5.0		ug/L	154510	1	11/22/2011 22:19	AR
Carbon tetrachloride	BRL	5.0		ug/L	154510	1	11/22/2011 22:19	AR
Benzene	BRL	5.0		ug/L	154510	1	11/22/2011 22:19	AR
1,2-Dichloroethane	BRL	5.0		ug/L	154510	1	11/22/2011 22:19	AR
Trichloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 22:19	AR
Toluene	BRL	5.0		ug/L	154510	1	11/22/2011 22:19	AR
Tetrachloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 22:19	AR
Ethylbenzene	BRL	5.0		ug/L	154510	1	11/22/2011 22:19	AR
Xylenes, Total	BRL	5.0		ug/L	154510	1	11/22/2011 22:19	AR
Surr: 4-Bromofluorobenzene	88.3	67.4-123		%REC	154510	1	11/22/2011 22:19	AR
Surr: Dibromofluoromethane	104	75.5-128		%REC	154510	1	11/22/2011 22:19	AR
Surr: Toluene-d8	95.5	70-120		%REC	154510	1	11/22/2011 22:19	AR

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> SW-12
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 4:25:00 PM
<b>Lab ID:</b> 1111G63-007	<b>Matrix:</b> Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154510	1	11/22/2011 22:44	AR
1,1-Dichloroethene	6.2	5.0		ug/L	154510	1	11/22/2011 22:44	AR
Methylene chloride	BRL	5.0		ug/L	154510	1	11/22/2011 22:44	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 22:44	AR
1,1-Dichloroethane	BRL	5.0		ug/L	154510	1	11/22/2011 22:44	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 22:44	AR
Chloroform	BRL	5.0		ug/L	154510	1	11/22/2011 22:44	AR
1,1,1-Trichloroethane	BRL	5.0		ug/L	154510	1	11/22/2011 22:44	AR
Carbon tetrachloride	BRL	5.0		ug/L	154510	1	11/22/2011 22:44	AR
Benzene	BRL	5.0		ug/L	154510	1	11/22/2011 22:44	AR
1,2-Dichloroethane	BRL	5.0		ug/L	154510	1	11/22/2011 22:44	AR
Trichloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 22:44	AR
Toluene	BRL	5.0		ug/L	154510	1	11/22/2011 22:44	AR
Tetrachloroethene	BRL	5.0		ug/L	154510	1	11/22/2011 22:44	AR
Ethylbenzene	BRL	5.0		ug/L	154510	1	11/22/2011 22:44	AR
Xylenes, Total	BRL	5.0		ug/L	154510	1	11/22/2011 22:44	AR
Surr: 4-Bromofluorobenzene	87.2	67.4-123		%REC	154510	1	11/22/2011 22:44	AR
Surr: Dibromofluoromethane	105	75.5-128		%REC	154510	1	11/22/2011 22:44	AR
Surr: Toluene-d8	96.2	70-120		%REC	154510	1	11/22/2011 22:44	AR

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> SW-14
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 4:05:00 PM
<b>Lab ID:</b> 1111G63-008	<b>Matrix:</b> Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154510	1	11/24/2011 02:55	GK
1,1-Dichloroethene	6.6	5.0		ug/L	154510	1	11/24/2011 02:55	GK
Methylene chloride	BRL	5.0		ug/L	154510	1	11/24/2011 02:55	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 02:55	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 02:55	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 02:55	GK
Chloroform	BRL	5.0		ug/L	154510	1	11/24/2011 02:55	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 02:55	GK
Carbon tetrachloride	BRL	5.0		ug/L	154510	1	11/24/2011 02:55	GK
Benzene	BRL	5.0		ug/L	154510	1	11/24/2011 02:55	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 02:55	GK
Trichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 02:55	GK
Toluene	BRL	5.0		ug/L	154510	1	11/24/2011 02:55	GK
Tetrachloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 02:55	GK
Ethylbenzene	BRL	5.0		ug/L	154510	1	11/24/2011 02:55	GK
Xylenes, Total	BRL	5.0		ug/L	154510	1	11/24/2011 02:55	GK
Surr: 4-Bromofluorobenzene	98.1	67.4-123		%REC	154510	1	11/24/2011 02:55	GK
Surr: Dibromofluoromethane	110	75.5-128		%REC	154510	1	11/24/2011 02:55	GK
Surr: Toluene-d8	102	70-120		%REC	154510	1	11/24/2011 02:55	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



**Analytical Environmental Services, Inc**

**Date:** 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> SW-15
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 3:30:00 PM
<b>Lab ID:</b> 1111G63-009	<b>Matrix:</b> Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154510	1	11/24/2011 03:25	GK
1,1-Dichloroethene	5.1	5.0		ug/L	154510	1	11/24/2011 03:25	GK
Methylene chloride	BRL	5.0		ug/L	154510	1	11/24/2011 03:25	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 03:25	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 03:25	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 03:25	GK
Chloroform	BRL	5.0		ug/L	154510	1	11/24/2011 03:25	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 03:25	GK
Carbon tetrachloride	BRL	5.0		ug/L	154510	1	11/24/2011 03:25	GK
Benzene	BRL	5.0		ug/L	154510	1	11/24/2011 03:25	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 03:25	GK
Trichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 03:25	GK
Toluene	BRL	5.0		ug/L	154510	1	11/24/2011 03:25	GK
Tetrachloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 03:25	GK
Ethylbenzene	BRL	5.0		ug/L	154510	1	11/24/2011 03:25	GK
Xylenes, Total	BRL	5.0		ug/L	154510	1	11/24/2011 03:25	GK
Surr: 4-Bromofluorobenzene	96	67.4-123		%REC	154510	1	11/24/2011 03:25	GK
Surr: Dibromofluoromethane	112	75.5-128		%REC	154510	1	11/24/2011 03:25	GK
Surr: Toluene-d8	102	70-120		%REC	154510	1	11/24/2011 03:25	GK

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> EB-111411
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/14/2011 3:00:00 PM
<b>Lab ID:</b> 1111G63-010	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154510	1	11/24/2011 00:27	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 00:27	GK
Methylene chloride	BRL	5.0		ug/L	154510	1	11/24/2011 00:27	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 00:27	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 00:27	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 00:27	GK
Chloroform	BRL	5.0		ug/L	154510	1	11/24/2011 00:27	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 00:27	GK
Carbon tetrachloride	BRL	5.0		ug/L	154510	1	11/24/2011 00:27	GK
Benzene	BRL	5.0		ug/L	154510	1	11/24/2011 00:27	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 00:27	GK
Trichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 00:27	GK
Toluene	BRL	5.0		ug/L	154510	1	11/24/2011 00:27	GK
Tetrachloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 00:27	GK
Ethylbenzene	BRL	5.0		ug/L	154510	1	11/24/2011 00:27	GK
Xylenes, Total	BRL	5.0		ug/L	154510	1	11/24/2011 00:27	GK
Surr: 4-Bromofluorobenzene	97.9	67.4-123		%REC	154510	1	11/24/2011 00:27	GK
Surr: Dibromofluoromethane	111	75.5-128		%REC	154510	1	11/24/2011 00:27	GK
Surr: Toluene-d8	98.6	70-120		%REC	154510	1	11/24/2011 00:27	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> EB-111511
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/15/2011 2:00:00 PM
<b>Lab ID:</b> 1111G63-011	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154510	1	11/24/2011 00:56	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 00:56	GK
Methylene chloride	BRL	5.0		ug/L	154510	1	11/24/2011 00:56	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 00:56	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 00:56	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 00:56	GK
Chloroform	BRL	5.0		ug/L	154510	1	11/24/2011 00:56	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 00:56	GK
Carbon tetrachloride	BRL	5.0		ug/L	154510	1	11/24/2011 00:56	GK
Benzene	BRL	5.0		ug/L	154510	1	11/24/2011 00:56	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 00:56	GK
Trichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 00:56	GK
Toluene	BRL	5.0		ug/L	154510	1	11/24/2011 00:56	GK
Tetrachloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 00:56	GK
Ethylbenzene	BRL	5.0		ug/L	154510	1	11/24/2011 00:56	GK
Xylenes, Total	BRL	5.0		ug/L	154510	1	11/24/2011 00:56	GK
Surr: 4-Bromofluorobenzene	93.8	67.4-123		%REC	154510	1	11/24/2011 00:56	GK
Surr: Dibromofluoromethane	109	75.5-128		%REC	154510	1	11/24/2011 00:56	GK
Surr: Toluene-d8	99.7	70-120		%REC	154510	1	11/24/2011 00:56	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> EB-111611
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/16/2011 4:00:00 PM
<b>Lab ID:</b> 1111G63-012	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154510	1	11/24/2011 01:26	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 01:26	GK
Methylene chloride	BRL	5.0		ug/L	154510	1	11/24/2011 01:26	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 01:26	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 01:26	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 01:26	GK
Chloroform	BRL	5.0		ug/L	154510	1	11/24/2011 01:26	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 01:26	GK
Carbon tetrachloride	BRL	5.0		ug/L	154510	1	11/24/2011 01:26	GK
Benzene	BRL	5.0		ug/L	154510	1	11/24/2011 01:26	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 01:26	GK
Trichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 01:26	GK
Toluene	BRL	5.0		ug/L	154510	1	11/24/2011 01:26	GK
Tetrachloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 01:26	GK
Ethylbenzene	BRL	5.0		ug/L	154510	1	11/24/2011 01:26	GK
Xylenes, Total	BRL	5.0		ug/L	154510	1	11/24/2011 01:26	GK
Surr: 4-Bromofluorobenzene	94.5	67.4-123		%REC	154510	1	11/24/2011 01:26	GK
Surr: Dibromofluoromethane	109	75.5-128		%REC	154510	1	11/24/2011 01:26	GK
Surr: Toluene-d8	96.7	70-120		%REC	154510	1	11/24/2011 01:26	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> EB-111711
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 10:25:00 AM
<b>Lab ID:</b> 1111G63-013	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154510	1	11/24/2011 01:56	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 01:56	GK
Methylene chloride	BRL	5.0		ug/L	154510	1	11/24/2011 01:56	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 01:56	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 01:56	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 01:56	GK
Chloroform	BRL	5.0		ug/L	154510	1	11/24/2011 01:56	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 01:56	GK
Carbon tetrachloride	BRL	5.0		ug/L	154510	1	11/24/2011 01:56	GK
Benzene	BRL	5.0		ug/L	154510	1	11/24/2011 01:56	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 01:56	GK
Trichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 01:56	GK
Toluene	BRL	5.0		ug/L	154510	1	11/24/2011 01:56	GK
Tetrachloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 01:56	GK
Ethylbenzene	BRL	5.0		ug/L	154510	1	11/24/2011 01:56	GK
Xylenes, Total	BRL	5.0		ug/L	154510	1	11/24/2011 01:56	GK
Surr: 4-Bromofluorobenzene	95.2	67.4-123		%REC	154510	1	11/24/2011 01:56	GK
Surr: Dibromofluoromethane	109	75.5-128		%REC	154510	1	11/24/2011 01:56	GK
Surr: Toluene-d8	100	70-120		%REC	154510	1	11/24/2011 01:56	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> EB-111811
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/18/2011 10:05:00 AM
<b>Lab ID:</b> 1111G63-014	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154510	1	11/24/2011 02:26	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 02:26	GK
Methylene chloride	BRL	5.0		ug/L	154510	1	11/24/2011 02:26	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 02:26	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 02:26	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 02:26	GK
Chloroform	BRL	5.0		ug/L	154510	1	11/24/2011 02:26	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 02:26	GK
Carbon tetrachloride	BRL	5.0		ug/L	154510	1	11/24/2011 02:26	GK
Benzene	BRL	5.0		ug/L	154510	1	11/24/2011 02:26	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 02:26	GK
Trichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 02:26	GK
Toluene	BRL	5.0		ug/L	154510	1	11/24/2011 02:26	GK
Tetrachloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 02:26	GK
Ethylbenzene	BRL	5.0		ug/L	154510	1	11/24/2011 02:26	GK
Xylenes, Total	BRL	5.0		ug/L	154510	1	11/24/2011 02:26	GK
Surr: 4-Bromofluorobenzene	98.1	67.4-123		%REC	154510	1	11/24/2011 02:26	GK
Surr: Dibromofluoromethane	108	75.5-128		%REC	154510	1	11/24/2011 02:26	GK
Surr: Toluene-d8	101	70-120		%REC	154510	1	11/24/2011 02:26	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> ALLOY
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/15/2011 10:10:00 AM
<b>Lab ID:</b> 1111G63-015	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154510	1	11/24/2011 03:55	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 03:55	GK
Methylene chloride	BRL	5.0		ug/L	154510	1	11/24/2011 03:55	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 03:55	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 03:55	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 03:55	GK
Chloroform	BRL	5.0		ug/L	154510	1	11/24/2011 03:55	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 03:55	GK
Carbon tetrachloride	BRL	5.0		ug/L	154510	1	11/24/2011 03:55	GK
Benzene	BRL	5.0		ug/L	154510	1	11/24/2011 03:55	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 03:55	GK
Trichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 03:55	GK
Toluene	BRL	5.0		ug/L	154510	1	11/24/2011 03:55	GK
Tetrachloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 03:55	GK
Ethylbenzene	BRL	5.0		ug/L	154510	1	11/24/2011 03:55	GK
Xylenes, Total	BRL	5.0		ug/L	154510	1	11/24/2011 03:55	GK
Surr: 4-Bromofluorobenzene	94.8	67.4-123		%REC	154510	1	11/24/2011 03:55	GK
Surr: Dibromofluoromethane	114	75.5-128		%REC	154510	1	11/24/2011 03:55	GK
Surr: Toluene-d8	103	70-120		%REC	154510	1	11/24/2011 03:55	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-1
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/15/2011 12:25:00 PM
<b>Lab ID:</b> 1111G63-016	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154510	1	11/24/2011 04:24	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 04:24	GK
Methylene chloride	BRL	5.0		ug/L	154510	1	11/24/2011 04:24	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 04:24	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 04:24	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 04:24	GK
Chloroform	BRL	5.0		ug/L	154510	1	11/24/2011 04:24	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 04:24	GK
Carbon tetrachloride	BRL	5.0		ug/L	154510	1	11/24/2011 04:24	GK
Benzene	BRL	5.0		ug/L	154510	1	11/24/2011 04:24	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 04:24	GK
Trichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 04:24	GK
Toluene	BRL	5.0		ug/L	154510	1	11/24/2011 04:24	GK
Tetrachloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 04:24	GK
Ethylbenzene	BRL	5.0		ug/L	154510	1	11/24/2011 04:24	GK
Xylenes, Total	BRL	5.0		ug/L	154510	1	11/24/2011 04:24	GK
Surr: 4-Bromofluorobenzene	94.5	67.4-123		%REC	154510	1	11/24/2011 04:24	GK
Surr: Dibromofluoromethane	113	75.5-128		%REC	154510	1	11/24/2011 04:24	GK
Surr: Toluene-d8	102	70-120		%REC	154510	1	11/24/2011 04:24	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-2
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/14/2011 5:00:00 PM
<b>Lab ID:</b> 1111G63-017	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154510	1	11/24/2011 04:54	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 04:54	GK
Methylene chloride	BRL	5.0		ug/L	154510	1	11/24/2011 04:54	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 04:54	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 04:54	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 04:54	GK
Chloroform	BRL	5.0		ug/L	154510	1	11/24/2011 04:54	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 04:54	GK
Carbon tetrachloride	BRL	5.0		ug/L	154510	1	11/24/2011 04:54	GK
Benzene	BRL	5.0		ug/L	154510	1	11/24/2011 04:54	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 04:54	GK
Trichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 04:54	GK
Toluene	BRL	5.0		ug/L	154510	1	11/24/2011 04:54	GK
Tetrachloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 04:54	GK
Ethylbenzene	BRL	5.0		ug/L	154510	1	11/24/2011 04:54	GK
Xylenes, Total	BRL	5.0		ug/L	154510	1	11/24/2011 04:54	GK
Surr: 4-Bromofluorobenzene	97.2	67.4-123		%REC	154510	1	11/24/2011 04:54	GK
Surr: Dibromofluoromethane	109	75.5-128		%REC	154510	1	11/24/2011 04:54	GK
Surr: Toluene-d8	102	70-120		%REC	154510	1	11/24/2011 04:54	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-3
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/15/2011 8:40:00 AM
<b>Lab ID:</b> 1111G63-018	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154510	1	11/24/2011 05:24	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 05:24	GK
Methylene chloride	BRL	5.0		ug/L	154510	1	11/24/2011 05:24	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 05:24	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 05:24	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 05:24	GK
Chloroform	BRL	5.0		ug/L	154510	1	11/24/2011 05:24	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 05:24	GK
Carbon tetrachloride	BRL	5.0		ug/L	154510	1	11/24/2011 05:24	GK
Benzene	BRL	5.0		ug/L	154510	1	11/24/2011 05:24	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 05:24	GK
Trichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 05:24	GK
Toluene	BRL	5.0		ug/L	154510	1	11/24/2011 05:24	GK
Tetrachloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 05:24	GK
Ethylbenzene	BRL	5.0		ug/L	154510	1	11/24/2011 05:24	GK
Xylenes, Total	BRL	5.0		ug/L	154510	1	11/24/2011 05:24	GK
Surr: 4-Bromofluorobenzene	101	67.4-123		%REC	154510	1	11/24/2011 05:24	GK
Surr: Dibromofluoromethane	109	75.5-128		%REC	154510	1	11/24/2011 05:24	GK
Surr: Toluene-d8	97	70-120		%REC	154510	1	11/24/2011 05:24	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-4
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/15/2011 10:20:00 AM
<b>Lab ID:</b> 1111G63-019	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154510	1	11/24/2011 05:53	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 05:53	GK
Methylene chloride	BRL	5.0		ug/L	154510	1	11/24/2011 05:53	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 05:53	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 05:53	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 05:53	GK
Chloroform	BRL	5.0		ug/L	154510	1	11/24/2011 05:53	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 05:53	GK
Carbon tetrachloride	BRL	5.0		ug/L	154510	1	11/24/2011 05:53	GK
Benzene	BRL	5.0		ug/L	154510	1	11/24/2011 05:53	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154510	1	11/24/2011 05:53	GK
Trichloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 05:53	GK
Toluene	BRL	5.0		ug/L	154510	1	11/24/2011 05:53	GK
Tetrachloroethene	BRL	5.0		ug/L	154510	1	11/24/2011 05:53	GK
Ethylbenzene	BRL	5.0		ug/L	154510	1	11/24/2011 05:53	GK
Xylenes, Total	BRL	5.0		ug/L	154510	1	11/24/2011 05:53	GK
Surr: 4-Bromofluorobenzene	95.1	67.4-123		%REC	154510	1	11/24/2011 05:53	GK
Surr: Dibromofluoromethane	110	75.5-128		%REC	154510	1	11/24/2011 05:53	GK
Surr: Toluene-d8	99.5	70-120		%REC	154510	1	11/24/2011 05:53	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-5
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/15/2011 11:40:00 AM
<b>Lab ID:</b> 1111G63-020	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154510	1	11/25/2011 11:01	MR
1,1-Dichloroethene	BRL	5.0		ug/L	154510	1	11/25/2011 11:01	MR
Methylene chloride	BRL	5.0		ug/L	154510	1	11/25/2011 11:01	MR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/25/2011 11:01	MR
1,1-Dichloroethane	BRL	5.0		ug/L	154510	1	11/25/2011 11:01	MR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154510	1	11/25/2011 11:01	MR
Chloroform	BRL	5.0		ug/L	154510	1	11/25/2011 11:01	MR
1,1,1-Trichloroethane	BRL	5.0		ug/L	154510	1	11/25/2011 11:01	MR
Carbon tetrachloride	BRL	5.0		ug/L	154510	1	11/25/2011 11:01	MR
Benzene	BRL	5.0		ug/L	154510	1	11/25/2011 11:01	MR
1,2-Dichloroethane	BRL	5.0		ug/L	154510	1	11/25/2011 11:01	MR
Trichloroethene	BRL	5.0		ug/L	154510	1	11/25/2011 11:01	MR
Toluene	BRL	5.0		ug/L	154510	1	11/25/2011 11:01	MR
Tetrachloroethene	BRL	5.0		ug/L	154510	1	11/25/2011 11:01	MR
Ethylbenzene	BRL	5.0		ug/L	154510	1	11/25/2011 11:01	MR
Xylenes, Total	BRL	5.0		ug/L	154510	1	11/25/2011 11:01	MR
Surr: 4-Bromofluorobenzene	90.6	67.4-123		%REC	154510	1	11/25/2011 11:01	MR
Surr: Dibromofluoromethane	105	75.5-128		%REC	154510	1	11/25/2011 11:01	MR
Surr: Toluene-d8	95.6	70-120		%REC	154510	1	11/25/2011 11:01	MR

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-6
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/15/2011 4:50:00 PM
<b>Lab ID:</b> 1111G63-021	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154545	1	11/23/2011 13:41	AR
1,1-Dichloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 13:41	AR
Methylene chloride	BRL	5.0		ug/L	154545	1	11/23/2011 13:41	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 13:41	AR
1,1-Dichloroethane	BRL	5.0		ug/L	154545	1	11/23/2011 13:41	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 13:41	AR
Chloroform	BRL	5.0		ug/L	154545	1	11/23/2011 13:41	AR
1,1,1-Trichloroethane	BRL	5.0		ug/L	154545	1	11/23/2011 13:41	AR
Carbon tetrachloride	BRL	5.0		ug/L	154545	1	11/23/2011 13:41	AR
Benzene	BRL	5.0		ug/L	154545	1	11/23/2011 13:41	AR
1,2-Dichloroethane	BRL	5.0		ug/L	154545	1	11/23/2011 13:41	AR
Trichloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 13:41	AR
Toluene	BRL	5.0		ug/L	154545	1	11/23/2011 13:41	AR
Tetrachloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 13:41	AR
Ethylbenzene	BRL	5.0		ug/L	154545	1	11/23/2011 13:41	AR
Xylenes, Total	BRL	5.0		ug/L	154545	1	11/23/2011 13:41	AR
Surr: 4-Bromofluorobenzene	89.9	67.4-123		%REC	154545	1	11/23/2011 13:41	AR
Surr: Dibromofluoromethane	101	75.5-128		%REC	154545	1	11/23/2011 13:41	AR
Surr: Toluene-d8	93.1	70-120		%REC	154545	1	11/23/2011 13:41	AR

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-7
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/18/2011 10:45:00 AM
<b>Lab ID:</b> 1111G63-022	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	1000		ug/L	154545	500	11/23/2011 12:26	AR
1,1-Dichloroethene	54000	2500		ug/L	154545	500	11/23/2011 12:26	AR
Methylene chloride	BRL	2500		ug/L	154545	500	11/23/2011 12:26	AR
trans-1,2-Dichloroethene	BRL	2500		ug/L	154545	500	11/23/2011 12:26	AR
1,1-Dichloroethane	BRL	2500		ug/L	154545	500	11/23/2011 12:26	AR
cis-1,2-Dichloroethene	BRL	2500		ug/L	154545	500	11/23/2011 12:26	AR
Chloroform	BRL	2500		ug/L	154545	500	11/23/2011 12:26	AR
1,1,1-Trichloroethane	53000	2500		ug/L	154545	500	11/23/2011 12:26	AR
Carbon tetrachloride	BRL	2500		ug/L	154545	500	11/23/2011 12:26	AR
Benzene	BRL	2500		ug/L	154545	500	11/23/2011 12:26	AR
1,2-Dichloroethane	BRL	2500		ug/L	154545	500	11/23/2011 12:26	AR
Trichloroethene	BRL	2500		ug/L	154545	500	11/23/2011 12:26	AR
Toluene	BRL	2500		ug/L	154545	500	11/23/2011 12:26	AR
Tetrachloroethene	BRL	2500		ug/L	154545	500	11/23/2011 12:26	AR
Ethylbenzene	BRL	2500		ug/L	154545	500	11/23/2011 12:26	AR
Xylenes, Total	BRL	2500		ug/L	154545	500	11/23/2011 12:26	AR
Surr: 4-Bromofluorobenzene	88.1	67.4-123		%REC	154545	500	11/23/2011 12:26	AR
Surr: Dibromofluoromethane	106	75.5-128		%REC	154545	500	11/23/2011 12:26	AR
Surr: Toluene-d8	92.3	70-120		%REC	154545	500	11/23/2011 12:26	AR

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-9
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/15/2011 5:45:00 PM
<b>Lab ID:</b> 1111G63-023	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154545	1	11/23/2011 14:06	AR
1,1-Dichloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 14:06	AR
Methylene chloride	BRL	5.0		ug/L	154545	1	11/23/2011 14:06	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 14:06	AR
1,1-Dichloroethane	BRL	5.0		ug/L	154545	1	11/23/2011 14:06	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 14:06	AR
Chloroform	BRL	5.0		ug/L	154545	1	11/23/2011 14:06	AR
1,1,1-Trichloroethane	BRL	5.0		ug/L	154545	1	11/23/2011 14:06	AR
Carbon tetrachloride	BRL	5.0		ug/L	154545	1	11/23/2011 14:06	AR
Benzene	BRL	5.0		ug/L	154545	1	11/23/2011 14:06	AR
1,2-Dichloroethane	BRL	5.0		ug/L	154545	1	11/23/2011 14:06	AR
Trichloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 14:06	AR
Toluene	BRL	5.0		ug/L	154545	1	11/23/2011 14:06	AR
Tetrachloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 14:06	AR
Ethylbenzene	BRL	5.0		ug/L	154545	1	11/23/2011 14:06	AR
Xylenes, Total	BRL	5.0		ug/L	154545	1	11/23/2011 14:06	AR
Surr: 4-Bromofluorobenzene	86.5	67.4-123		%REC	154545	1	11/23/2011 14:06	AR
Surr: Dibromofluoromethane	104	75.5-128		%REC	154545	1	11/23/2011 14:06	AR
Surr: Toluene-d8	94	70-120		%REC	154545	1	11/23/2011 14:06	AR

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-10
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/15/2011 2:35:00 PM
<b>Lab ID:</b> 1111G63-024	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154545	1	11/23/2011 15:21	AR
1,1-Dichloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 15:21	AR
Methylene chloride	BRL	5.0		ug/L	154545	1	11/23/2011 15:21	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 15:21	AR
1,1-Dichloroethane	BRL	5.0		ug/L	154545	1	11/23/2011 15:21	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 15:21	AR
Chloroform	BRL	5.0		ug/L	154545	1	11/23/2011 15:21	AR
1,1,1-Trichloroethane	BRL	5.0		ug/L	154545	1	11/23/2011 15:21	AR
Carbon tetrachloride	BRL	5.0		ug/L	154545	1	11/23/2011 15:21	AR
Benzene	BRL	5.0		ug/L	154545	1	11/23/2011 15:21	AR
1,2-Dichloroethane	BRL	5.0		ug/L	154545	1	11/23/2011 15:21	AR
Trichloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 15:21	AR
Toluene	BRL	5.0		ug/L	154545	1	11/23/2011 15:21	AR
Tetrachloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 15:21	AR
Ethylbenzene	BRL	5.0		ug/L	154545	1	11/23/2011 15:21	AR
Xylenes, Total	BRL	5.0		ug/L	154545	1	11/23/2011 15:21	AR
Surr: 4-Bromofluorobenzene	87.6	67.4-123		%REC	154545	1	11/23/2011 15:21	AR
Surr: Dibromofluoromethane	104	75.5-128		%REC	154545	1	11/23/2011 15:21	AR
Surr: Toluene-d8	93.5	70-120		%REC	154545	1	11/23/2011 15:21	AR

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-11
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 1:55:00 PM
<b>Lab ID:</b> 1111G63-025	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	13	2.0		ug/L	154545	1	11/23/2011 15:45	AR
1,1-Dichloroethene	130	5.0		ug/L	154545	1	11/23/2011 15:45	AR
Methylene chloride	BRL	5.0		ug/L	154545	1	11/23/2011 15:45	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 15:45	AR
1,1-Dichloroethane	BRL	5.0		ug/L	154545	1	11/23/2011 15:45	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 15:45	AR
Chloroform	BRL	5.0		ug/L	154545	1	11/23/2011 15:45	AR
1,1,1-Trichloroethane	BRL	5.0		ug/L	154545	1	11/23/2011 15:45	AR
Carbon tetrachloride	BRL	5.0		ug/L	154545	1	11/23/2011 15:45	AR
Benzene	BRL	5.0		ug/L	154545	1	11/23/2011 15:45	AR
1,2-Dichloroethane	BRL	5.0		ug/L	154545	1	11/23/2011 15:45	AR
Trichloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 15:45	AR
Toluene	BRL	5.0		ug/L	154545	1	11/23/2011 15:45	AR
Tetrachloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 15:45	AR
Ethylbenzene	BRL	5.0		ug/L	154545	1	11/23/2011 15:45	AR
Xylenes, Total	BRL	5.0		ug/L	154545	1	11/23/2011 15:45	AR
Surr: 4-Bromofluorobenzene	85.6	67.4-123		%REC	154545	1	11/23/2011 15:45	AR
Surr: Dibromofluoromethane	106	75.5-128		%REC	154545	1	11/23/2011 15:45	AR
Surr: Toluene-d8	95.7	70-120		%REC	154545	1	11/23/2011 15:45	AR

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-12
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 3:15:00 PM
<b>Lab ID:</b> 1111G63-026	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154545	1	11/23/2011 16:36	AR
1,1-Dichloroethene	370	50		ug/L	154545	10	11/23/2011 17:00	AR
Methylene chloride	BRL	5.0		ug/L	154545	1	11/23/2011 16:36	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 16:36	AR
1,1-Dichloroethane	BRL	5.0		ug/L	154545	1	11/23/2011 16:36	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 16:36	AR
Chloroform	15	5.0		ug/L	154545	1	11/23/2011 16:36	AR
1,1,1-Trichloroethane	BRL	5.0		ug/L	154545	1	11/23/2011 16:36	AR
Carbon tetrachloride	12	5.0		ug/L	154545	1	11/23/2011 16:36	AR
Benzene	BRL	5.0		ug/L	154545	1	11/23/2011 16:36	AR
1,2-Dichloroethane	BRL	5.0		ug/L	154545	1	11/23/2011 16:36	AR
Trichloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 16:36	AR
Toluene	BRL	5.0		ug/L	154545	1	11/23/2011 16:36	AR
Tetrachloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 16:36	AR
Ethylbenzene	BRL	5.0		ug/L	154545	1	11/23/2011 16:36	AR
Xylenes, Total	BRL	5.0		ug/L	154545	1	11/23/2011 16:36	AR
Surr: 4-Bromofluorobenzene	83.5	67.4-123		%REC	154545	1	11/23/2011 16:36	AR
Surr: 4-Bromofluorobenzene	87	67.4-123		%REC	154545	10	11/23/2011 17:00	AR
Surr: Dibromofluoromethane	105	75.5-128		%REC	154545	1	11/23/2011 16:36	AR
Surr: Dibromofluoromethane	106	75.5-128		%REC	154545	10	11/23/2011 17:00	AR
Surr: Toluene-d8	95.2	70-120		%REC	154545	1	11/23/2011 16:36	AR
Surr: Toluene-d8	94.9	70-120		%REC	154545	10	11/23/2011 17:00	AR

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-13
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 4:25:00 PM
<b>Lab ID:</b> 1111G63-027	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154545	1	11/23/2011 17:25	AR
1,1-Dichloroethene	350	50		ug/L	154545	10	11/23/2011 17:50	AR
Methylene chloride	BRL	5.0		ug/L	154545	1	11/23/2011 17:25	AR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 17:25	AR
1,1-Dichloroethane	BRL	5.0		ug/L	154545	1	11/23/2011 17:25	AR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 17:25	AR
Chloroform	16	5.0		ug/L	154545	1	11/23/2011 17:25	AR
1,1,1-Trichloroethane	BRL	5.0		ug/L	154545	1	11/23/2011 17:25	AR
Carbon tetrachloride	26	5.0		ug/L	154545	1	11/23/2011 17:25	AR
Benzene	BRL	5.0		ug/L	154545	1	11/23/2011 17:25	AR
1,2-Dichloroethane	5.1	5.0		ug/L	154545	1	11/23/2011 17:25	AR
Trichloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 17:25	AR
Toluene	BRL	5.0		ug/L	154545	1	11/23/2011 17:25	AR
Tetrachloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 17:25	AR
Ethylbenzene	BRL	5.0		ug/L	154545	1	11/23/2011 17:25	AR
Xylenes, Total	BRL	5.0		ug/L	154545	1	11/23/2011 17:25	AR
Surr: 4-Bromofluorobenzene	86.2	67.4-123		%REC	154545	1	11/23/2011 17:25	AR
Surr: 4-Bromofluorobenzene	87	67.4-123		%REC	154545	10	11/23/2011 17:50	AR
Surr: Dibromofluoromethane	106	75.5-128		%REC	154545	10	11/23/2011 17:50	AR
Surr: Dibromofluoromethane	109	75.5-128		%REC	154545	1	11/23/2011 17:25	AR
Surr: Toluene-d8	95.5	70-120		%REC	154545	1	11/23/2011 17:25	AR
Surr: Toluene-d8	95.6	70-120		%REC	154545	10	11/23/2011 17:50	AR

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-14
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/15/2011 8:45:00 AM
<b>Lab ID:</b> 1111G63-028	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154545	1	11/25/2011 14:21	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154545	1	11/25/2011 14:21	GK
Methylene chloride	BRL	5.0		ug/L	154545	1	11/25/2011 14:21	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/25/2011 14:21	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154545	1	11/25/2011 14:21	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/25/2011 14:21	GK
Chloroform	BRL	5.0		ug/L	154545	1	11/25/2011 14:21	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154545	1	11/25/2011 14:21	GK
Carbon tetrachloride	BRL	5.0		ug/L	154545	1	11/25/2011 14:21	GK
Benzene	BRL	5.0		ug/L	154545	1	11/25/2011 14:21	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154545	1	11/25/2011 14:21	GK
Trichloroethene	BRL	5.0		ug/L	154545	1	11/25/2011 14:21	GK
Toluene	BRL	5.0		ug/L	154545	1	11/25/2011 14:21	GK
Tetrachloroethene	BRL	5.0		ug/L	154545	1	11/25/2011 14:21	GK
Ethylbenzene	BRL	5.0		ug/L	154545	1	11/25/2011 14:21	GK
Xylenes, Total	BRL	5.0		ug/L	154545	1	11/25/2011 14:21	GK
Surr: 4-Bromofluorobenzene	88.1	67.4-123		%REC	154545	1	11/25/2011 14:21	GK
Surr: Dibromofluoromethane	110	75.5-128		%REC	154545	1	11/25/2011 14:21	GK
Surr: Toluene-d8	95.3	70-120		%REC	154545	1	11/25/2011 14:21	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-15
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 11:15:00 AM
<b>Lab ID:</b> 1111G63-029	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154545	1	11/23/2011 19:29	GK
1,1-Dichloroethene	270	50		ug/L	154545	10	11/23/2011 19:54	GK
Methylene chloride	BRL	5.0		ug/L	154545	1	11/23/2011 19:29	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 19:29	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154545	1	11/23/2011 19:29	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 19:29	GK
Chloroform	BRL	5.0		ug/L	154545	1	11/23/2011 19:29	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154545	1	11/23/2011 19:29	GK
Carbon tetrachloride	BRL	5.0		ug/L	154545	1	11/23/2011 19:29	GK
Benzene	BRL	5.0		ug/L	154545	1	11/23/2011 19:29	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154545	1	11/23/2011 19:29	GK
Trichloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 19:29	GK
Toluene	BRL	5.0		ug/L	154545	1	11/23/2011 19:29	GK
Tetrachloroethene	BRL	5.0		ug/L	154545	1	11/23/2011 19:29	GK
Ethylbenzene	BRL	5.0		ug/L	154545	1	11/23/2011 19:29	GK
Xylenes, Total	BRL	5.0		ug/L	154545	1	11/23/2011 19:29	GK
Surr: 4-Bromofluorobenzene	86.4	67.4-123		%REC	154545	10	11/23/2011 19:54	GK
Surr: 4-Bromofluorobenzene	83.9	67.4-123		%REC	154545	1	11/23/2011 19:29	GK
Surr: Dibromofluoromethane	104	75.5-128		%REC	154545	1	11/23/2011 19:29	GK
Surr: Dibromofluoromethane	104	75.5-128		%REC	154545	10	11/23/2011 19:54	GK
Surr: Toluene-d8	92.8	70-120		%REC	154545	10	11/23/2011 19:54	GK
Surr: Toluene-d8	94.3	70-120		%REC	154545	1	11/23/2011 19:29	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-16
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/16/2011 9:30:00 AM
<b>Lab ID:</b> 1111G63-030	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154545	1	11/25/2011 13:59	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154545	1	11/25/2011 13:59	GK
Methylene chloride	BRL	5.0		ug/L	154545	1	11/25/2011 13:59	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/25/2011 13:59	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154545	1	11/25/2011 13:59	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/25/2011 13:59	GK
Chloroform	BRL	5.0		ug/L	154545	1	11/25/2011 13:59	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154545	1	11/25/2011 13:59	GK
Carbon tetrachloride	BRL	5.0		ug/L	154545	1	11/25/2011 13:59	GK
Benzene	BRL	5.0		ug/L	154545	1	11/25/2011 13:59	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154545	1	11/25/2011 13:59	GK
Trichloroethene	BRL	5.0		ug/L	154545	1	11/25/2011 13:59	GK
Toluene	BRL	5.0		ug/L	154545	1	11/25/2011 13:59	GK
Tetrachloroethene	BRL	5.0		ug/L	154545	1	11/25/2011 13:59	GK
Ethylbenzene	BRL	5.0		ug/L	154545	1	11/25/2011 13:59	GK
Xylenes, Total	BRL	5.0		ug/L	154545	1	11/25/2011 13:59	GK
Surr: 4-Bromofluorobenzene	93.3	67.4-123		%REC	154545	1	11/25/2011 13:59	GK
Surr: Dibromofluoromethane	107	75.5-128		%REC	154545	1	11/25/2011 13:59	GK
Surr: Toluene-d8	98.6	70-120		%REC	154545	1	11/25/2011 13:59	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-17
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/15/2011 2:00:00 PM
<b>Lab ID:</b> 1111G63-031	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154545	1	11/24/2011 03:57	JT
1,1-Dichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 03:57	JT
Methylene chloride	BRL	5.0		ug/L	154545	1	11/24/2011 03:57	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 03:57	JT
1,1-Dichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 03:57	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 03:57	JT
Chloroform	BRL	5.0		ug/L	154545	1	11/24/2011 03:57	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 03:57	JT
Carbon tetrachloride	BRL	5.0		ug/L	154545	1	11/24/2011 03:57	JT
Benzene	BRL	5.0		ug/L	154545	1	11/24/2011 03:57	JT
1,2-Dichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 03:57	JT
Trichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 03:57	JT
Toluene	BRL	5.0		ug/L	154545	1	11/24/2011 03:57	JT
Tetrachloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 03:57	JT
Ethylbenzene	BRL	5.0		ug/L	154545	1	11/24/2011 03:57	JT
Xylenes, Total	BRL	5.0		ug/L	154545	1	11/24/2011 03:57	JT
Surr: 4-Bromofluorobenzene	88.3	67.4-123		%REC	154545	1	11/24/2011 03:57	JT
Surr: Dibromofluoromethane	113	75.5-128		%REC	154545	1	11/24/2011 03:57	JT
Surr: Toluene-d8	85.5	70-120		%REC	154545	1	11/24/2011 03:57	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-18
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/14/2011 3:45:00 PM
<b>Lab ID:</b> 1111G63-032	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154545	1	11/24/2011 04:25	JT
1,1-Dichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 04:25	JT
Methylene chloride	BRL	5.0		ug/L	154545	1	11/24/2011 04:25	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 04:25	JT
1,1-Dichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 04:25	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 04:25	JT
Chloroform	BRL	5.0		ug/L	154545	1	11/24/2011 04:25	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 04:25	JT
Carbon tetrachloride	BRL	5.0		ug/L	154545	1	11/24/2011 04:25	JT
Benzene	BRL	5.0		ug/L	154545	1	11/24/2011 04:25	JT
1,2-Dichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 04:25	JT
Trichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 04:25	JT
Toluene	BRL	5.0		ug/L	154545	1	11/24/2011 04:25	JT
Tetrachloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 04:25	JT
Ethylbenzene	BRL	5.0		ug/L	154545	1	11/24/2011 04:25	JT
Xylenes, Total	BRL	5.0		ug/L	154545	1	11/24/2011 04:25	JT
Surr: 4-Bromofluorobenzene	85.8	67.4-123		%REC	154545	1	11/24/2011 04:25	JT
Surr: Dibromofluoromethane	111	75.5-128		%REC	154545	1	11/24/2011 04:25	JT
Surr: Toluene-d8	87.4	70-120		%REC	154545	1	11/24/2011 04:25	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-19
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 1:00:00 PM
<b>Lab ID:</b> 1111G63-033	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154545	1	11/24/2011 06:46	JT
1,1-Dichloroethene	260	50		ug/L	154545	10	11/24/2011 07:14	JT
Methylene chloride	BRL	5.0		ug/L	154545	1	11/24/2011 06:46	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 06:46	JT
1,1-Dichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 06:46	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 06:46	JT
Chloroform	7.0	5.0		ug/L	154545	1	11/24/2011 06:46	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 06:46	JT
Carbon tetrachloride	BRL	5.0		ug/L	154545	1	11/24/2011 06:46	JT
Benzene	BRL	5.0		ug/L	154545	1	11/24/2011 06:46	JT
1,2-Dichloroethane	7.4	5.0		ug/L	154545	1	11/24/2011 06:46	JT
Trichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 06:46	JT
Toluene	BRL	5.0		ug/L	154545	1	11/24/2011 06:46	JT
Tetrachloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 06:46	JT
Ethylbenzene	BRL	5.0		ug/L	154545	1	11/24/2011 06:46	JT
Xylenes, Total	BRL	5.0		ug/L	154545	1	11/24/2011 06:46	JT
Surr: 4-Bromofluorobenzene	85.7	67.4-123		%REC	154545	1	11/24/2011 06:46	JT
Surr: 4-Bromofluorobenzene	88	67.4-123		%REC	154545	10	11/24/2011 07:14	JT
Surr: Dibromofluoromethane	113	75.5-128		%REC	154545	1	11/24/2011 06:46	JT
Surr: Dibromofluoromethane	113	75.5-128		%REC	154545	10	11/24/2011 07:14	JT
Surr: Toluene-d8	85.1	70-120		%REC	154545	10	11/24/2011 07:14	JT
Surr: Toluene-d8	87.3	70-120		%REC	154545	1	11/24/2011 06:46	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-20
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 3:40:00 PM
<b>Lab ID:</b> 1111G63-034	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154545	1	11/24/2011 07:42	JT
1,1-Dichloroethene	180	50		ug/L	154545	10	11/24/2011 08:11	JT
Methylene chloride	BRL	5.0		ug/L	154545	1	11/24/2011 07:42	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 07:42	JT
1,1-Dichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 07:42	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 07:42	JT
Chloroform	34	5.0		ug/L	154545	1	11/24/2011 07:42	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 07:42	JT
Carbon tetrachloride	58	5.0		ug/L	154545	1	11/24/2011 07:42	JT
Benzene	BRL	5.0		ug/L	154545	1	11/24/2011 07:42	JT
1,2-Dichloroethane	12	5.0		ug/L	154545	1	11/24/2011 07:42	JT
Trichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 07:42	JT
Toluene	BRL	5.0		ug/L	154545	1	11/24/2011 07:42	JT
Tetrachloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 07:42	JT
Ethylbenzene	BRL	5.0		ug/L	154545	1	11/24/2011 07:42	JT
Xylenes, Total	BRL	5.0		ug/L	154545	1	11/24/2011 07:42	JT
Surr: 4-Bromofluorobenzene	85.2	67.4-123		%REC	154545	1	11/24/2011 07:42	JT
Surr: 4-Bromofluorobenzene	87.3	67.4-123		%REC	154545	10	11/24/2011 08:11	JT
Surr: Dibromofluoromethane	110	75.5-128		%REC	154545	10	11/24/2011 08:11	JT
Surr: Dibromofluoromethane	115	75.5-128		%REC	154545	1	11/24/2011 07:42	JT
Surr: Toluene-d8	86	70-120		%REC	154545	1	11/24/2011 07:42	JT
Surr: Toluene-d8	93.3	70-120		%REC	154545	10	11/24/2011 08:11	JT

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-21
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/16/2011 10:20:00 AM
<b>Lab ID:</b> 1111G63-035	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154545	1	11/24/2011 04:53	JT
1,1-Dichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 04:53	JT
Methylene chloride	BRL	5.0		ug/L	154545	1	11/24/2011 04:53	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 04:53	JT
1,1-Dichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 04:53	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 04:53	JT
Chloroform	BRL	5.0		ug/L	154545	1	11/24/2011 04:53	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 04:53	JT
Carbon tetrachloride	BRL	5.0		ug/L	154545	1	11/24/2011 04:53	JT
Benzene	BRL	5.0		ug/L	154545	1	11/24/2011 04:53	JT
1,2-Dichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 04:53	JT
Trichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 04:53	JT
Toluene	BRL	5.0		ug/L	154545	1	11/24/2011 04:53	JT
Tetrachloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 04:53	JT
Ethylbenzene	BRL	5.0		ug/L	154545	1	11/24/2011 04:53	JT
Xylenes, Total	BRL	5.0		ug/L	154545	1	11/24/2011 04:53	JT
Surr: 4-Bromofluorobenzene	86.5	67.4-123		%REC	154545	1	11/24/2011 04:53	JT
Surr: Dibromofluoromethane	111	75.5-128		%REC	154545	1	11/24/2011 04:53	JT
Surr: Toluene-d8	86.7	70-120		%REC	154545	1	11/24/2011 04:53	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-22
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/18/2011 9:20:00 AM
<b>Lab ID:</b> 1111G63-036	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154545	1	11/24/2011 08:39	JT
1,1-Dichloroethene	290	50		ug/L	154545	10	11/24/2011 09:07	JT
Methylene chloride	BRL	5.0		ug/L	154545	1	11/24/2011 08:39	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 08:39	JT
1,1-Dichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 08:39	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 08:39	JT
Chloroform	13	5.0		ug/L	154545	1	11/24/2011 08:39	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 08:39	JT
Carbon tetrachloride	24	5.0		ug/L	154545	1	11/24/2011 08:39	JT
Benzene	BRL	5.0		ug/L	154545	1	11/24/2011 08:39	JT
1,2-Dichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 08:39	JT
Trichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 08:39	JT
Toluene	BRL	5.0		ug/L	154545	1	11/24/2011 08:39	JT
Tetrachloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 08:39	JT
Ethylbenzene	BRL	5.0		ug/L	154545	1	11/24/2011 08:39	JT
Xylenes, Total	BRL	5.0		ug/L	154545	1	11/24/2011 08:39	JT
Surr: 4-Bromofluorobenzene	83.9	67.4-123		%REC	154545	1	11/24/2011 08:39	JT
Surr: 4-Bromofluorobenzene	86.1	67.4-123		%REC	154545	10	11/24/2011 09:07	JT
Surr: Dibromofluoromethane	113	75.5-128		%REC	154545	10	11/24/2011 09:07	JT
Surr: Dibromofluoromethane	117	75.5-128		%REC	154545	1	11/24/2011 08:39	JT
Surr: Toluene-d8	86.9	70-120		%REC	154545	1	11/24/2011 08:39	JT
Surr: Toluene-d8	87.9	70-120		%REC	154545	10	11/24/2011 09:07	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-24
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 12:55:00 PM
<b>Lab ID:</b> 1111G63-037	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154545	1	11/24/2011 05:21	JT
1,1-Dichloroethene	120	5.0		ug/L	154545	1	11/24/2011 05:21	JT
Methylene chloride	BRL	5.0		ug/L	154545	1	11/24/2011 05:21	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 05:21	JT
1,1-Dichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 05:21	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 05:21	JT
Chloroform	21	5.0		ug/L	154545	1	11/24/2011 05:21	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 05:21	JT
Carbon tetrachloride	16	5.0		ug/L	154545	1	11/24/2011 05:21	JT
Benzene	BRL	5.0		ug/L	154545	1	11/24/2011 05:21	JT
1,2-Dichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 05:21	JT
Trichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 05:21	JT
Toluene	BRL	5.0		ug/L	154545	1	11/24/2011 05:21	JT
Tetrachloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 05:21	JT
Ethylbenzene	BRL	5.0		ug/L	154545	1	11/24/2011 05:21	JT
Xylenes, Total	BRL	5.0		ug/L	154545	1	11/24/2011 05:21	JT
Surr: 4-Bromofluorobenzene	83.5	67.4-123		%REC	154545	1	11/24/2011 05:21	JT
Surr: Dibromofluoromethane	115	75.5-128		%REC	154545	1	11/24/2011 05:21	JT
Surr: Toluene-d8	87.1	70-120		%REC	154545	1	11/24/2011 05:21	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-25
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/16/2011 12:15:00 PM
<b>Lab ID:</b> 1111G63-038	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154545	1	11/24/2011 05:49	JT
1,1-Dichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 05:49	JT
Methylene chloride	BRL	5.0		ug/L	154545	1	11/24/2011 05:49	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 05:49	JT
1,1-Dichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 05:49	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 05:49	JT
Chloroform	BRL	5.0		ug/L	154545	1	11/24/2011 05:49	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 05:49	JT
Carbon tetrachloride	BRL	5.0		ug/L	154545	1	11/24/2011 05:49	JT
Benzene	BRL	5.0		ug/L	154545	1	11/24/2011 05:49	JT
1,2-Dichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 05:49	JT
Trichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 05:49	JT
Toluene	BRL	5.0		ug/L	154545	1	11/24/2011 05:49	JT
Tetrachloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 05:49	JT
Ethylbenzene	BRL	5.0		ug/L	154545	1	11/24/2011 05:49	JT
Xylenes, Total	BRL	5.0		ug/L	154545	1	11/24/2011 05:49	JT
Surr: 4-Bromofluorobenzene	86.2	67.4-123		%REC	154545	1	11/24/2011 05:49	JT
Surr: Dibromofluoromethane	116	75.5-128		%REC	154545	1	11/24/2011 05:49	JT
Surr: Toluene-d8	88.2	70-120		%REC	154545	1	11/24/2011 05:49	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-26
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/16/2011 10:00:00 AM
<b>Lab ID:</b> 1111G63-039	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154545	1	11/24/2011 06:18	JT
1,1-Dichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 06:18	JT
Methylene chloride	BRL	5.0		ug/L	154545	1	11/24/2011 06:18	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 06:18	JT
1,1-Dichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 06:18	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 06:18	JT
Chloroform	BRL	5.0		ug/L	154545	1	11/24/2011 06:18	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 06:18	JT
Carbon tetrachloride	BRL	5.0		ug/L	154545	1	11/24/2011 06:18	JT
Benzene	BRL	5.0		ug/L	154545	1	11/24/2011 06:18	JT
1,2-Dichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 06:18	JT
Trichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 06:18	JT
Toluene	BRL	5.0		ug/L	154545	1	11/24/2011 06:18	JT
Tetrachloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 06:18	JT
Ethylbenzene	BRL	5.0		ug/L	154545	1	11/24/2011 06:18	JT
Xylenes, Total	BRL	5.0		ug/L	154545	1	11/24/2011 06:18	JT
Surr: 4-Bromofluorobenzene	88.3	67.4-123		%REC	154545	1	11/24/2011 06:18	JT
Surr: Dibromofluoromethane	118	75.5-128		%REC	154545	1	11/24/2011 06:18	JT
Surr: Toluene-d8	88.4	70-120		%REC	154545	1	11/24/2011 06:18	JT

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-27
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 2:20:00 PM
<b>Lab ID:</b> 1111G63-040	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154545	1	11/24/2011 06:23	GK
1,1-Dichloroethene	140	50		ug/L	154545	10	11/25/2011 15:35	JT
Methylene chloride	BRL	5.0		ug/L	154545	1	11/24/2011 06:23	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 06:23	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 06:23	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 06:23	GK
Chloroform	16	5.0		ug/L	154545	1	11/24/2011 06:23	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 06:23	GK
Carbon tetrachloride	5.8	5.0		ug/L	154545	1	11/24/2011 06:23	GK
Benzene	BRL	5.0		ug/L	154545	1	11/24/2011 06:23	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154545	1	11/24/2011 06:23	GK
Trichloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 06:23	GK
Toluene	BRL	5.0		ug/L	154545	1	11/24/2011 06:23	GK
Tetrachloroethene	BRL	5.0		ug/L	154545	1	11/24/2011 06:23	GK
Ethylbenzene	BRL	5.0		ug/L	154545	1	11/24/2011 06:23	GK
Xylenes, Total	BRL	5.0		ug/L	154545	1	11/24/2011 06:23	GK
Surr: 4-Bromofluorobenzene	88.1	67.4-123		%REC	154545	10	11/25/2011 15:35	JT
Surr: 4-Bromofluorobenzene	96.1	67.4-123		%REC	154545	1	11/24/2011 06:23	GK
Surr: Dibromofluoromethane	112	75.5-128		%REC	154545	1	11/24/2011 06:23	GK
Surr: Dibromofluoromethane	111	75.5-128		%REC	154545	10	11/25/2011 15:35	JT
Surr: Toluene-d8	85.5	70-120		%REC	154545	10	11/25/2011 15:35	JT
Surr: Toluene-d8	104	70-120		%REC	154545	1	11/24/2011 06:23	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-28
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/18/2011 11:50:00 AM
<b>Lab ID:</b> 1111G63-041	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2000		ug/L	154557	1000	11/23/2011 13:25	SB
1,1-Dichloroethene	97000	5000		ug/L	154557	1000	11/23/2011 13:25	SB
Methylene chloride	BRL	5000		ug/L	154557	1000	11/23/2011 13:25	SB
trans-1,2-Dichloroethene	BRL	5000		ug/L	154557	1000	11/23/2011 13:25	SB
1,1-Dichloroethane	BRL	5000		ug/L	154557	1000	11/23/2011 13:25	SB
cis-1,2-Dichloroethene	BRL	5000		ug/L	154557	1000	11/23/2011 13:25	SB
Chloroform	BRL	5000		ug/L	154557	1000	11/23/2011 13:25	SB
1,1,1-Trichloroethane	170000	25000		ug/L	154557	5000	11/25/2011 16:31	JT
Carbon tetrachloride	BRL	5000		ug/L	154557	1000	11/23/2011 13:25	SB
Benzene	BRL	5000		ug/L	154557	1000	11/23/2011 13:25	SB
1,2-Dichloroethane	BRL	5000		ug/L	154557	1000	11/23/2011 13:25	SB
Trichloroethene	BRL	5000		ug/L	154557	1000	11/23/2011 13:25	SB
Toluene	BRL	5000		ug/L	154557	1000	11/23/2011 13:25	SB
Tetrachloroethene	BRL	5000		ug/L	154557	1000	11/23/2011 13:25	SB
Ethylbenzene	BRL	5000		ug/L	154557	1000	11/23/2011 13:25	SB
Xylenes, Total	BRL	5000		ug/L	154557	1000	11/23/2011 13:25	SB
Surr: 4-Bromofluorobenzene	88.1	67.4-123		%REC	154557	5000	11/25/2011 16:31	JT
Surr: 4-Bromofluorobenzene	96.7	67.4-123		%REC	154557	1000	11/23/2011 13:25	SB
Surr: Dibromofluoromethane	116	75.5-128		%REC	154557	5000	11/25/2011 16:31	JT
Surr: Dibromofluoromethane	115	75.5-128		%REC	154557	1000	11/23/2011 13:25	SB
Surr: Toluene-d8	86.4	70-120		%REC	154557	5000	11/25/2011 16:31	JT
Surr: Toluene-d8	91.1	70-120		%REC	154557	1000	11/23/2011 13:25	SB

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-29R ZONE 3
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/15/2011 7:35:00 AM
<b>Lab ID:</b> 1111G63-042	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154557	1	11/23/2011 18:36	SB
1,1-Dichloroethene	300	50		ug/L	154557	10	11/23/2011 19:04	SB
Methylene chloride	BRL	5.0		ug/L	154557	1	11/23/2011 18:36	SB
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/23/2011 18:36	SB
1,1-Dichloroethane	BRL	5.0		ug/L	154557	1	11/23/2011 18:36	SB
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/23/2011 18:36	SB
Chloroform	11	5.0		ug/L	154557	1	11/23/2011 18:36	SB
1,1,1-Trichloroethane	BRL	5.0		ug/L	154557	1	11/23/2011 18:36	SB
Carbon tetrachloride	17	5.0		ug/L	154557	1	11/23/2011 18:36	SB
Benzene	BRL	5.0		ug/L	154557	1	11/23/2011 18:36	SB
1,2-Dichloroethane	BRL	5.0		ug/L	154557	1	11/23/2011 18:36	SB
Trichloroethene	BRL	5.0		ug/L	154557	1	11/23/2011 18:36	SB
Toluene	BRL	5.0		ug/L	154557	1	11/23/2011 18:36	SB
Tetrachloroethene	BRL	5.0		ug/L	154557	1	11/23/2011 18:36	SB
Ethylbenzene	BRL	5.0		ug/L	154557	1	11/23/2011 18:36	SB
Xylenes, Total	BRL	5.0		ug/L	154557	1	11/23/2011 18:36	SB
Surr: 4-Bromofluorobenzene	91.3	67.4-123		%REC	154557	1	11/23/2011 18:36	SB
Surr: 4-Bromofluorobenzene	91.5	67.4-123		%REC	154557	10	11/23/2011 19:04	SB
Surr: Dibromofluoromethane	96	75.5-128		%REC	154557	1	11/23/2011 18:36	SB
Surr: Dibromofluoromethane	98.3	75.5-128		%REC	154557	10	11/23/2011 19:04	SB
Surr: Toluene-d8	86.8	70-120		%REC	154557	1	11/23/2011 18:36	SB
Surr: Toluene-d8	88.8	70-120		%REC	154557	10	11/23/2011 19:04	SB

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-29R ZONE 4
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/15/2011 8:05:00 AM
<b>Lab ID:</b> 1111G63-043	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154557	1	11/23/2011 19:32	SB
1,1-Dichloroethene	300	50		ug/L	154557	10	11/23/2011 20:00	SB
Methylene chloride	BRL	5.0		ug/L	154557	1	11/23/2011 19:32	SB
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/23/2011 19:32	SB
1,1-Dichloroethane	BRL	5.0		ug/L	154557	1	11/23/2011 19:32	SB
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/23/2011 19:32	SB
Chloroform	12	5.0		ug/L	154557	1	11/23/2011 19:32	SB
1,1,1-Trichloroethane	BRL	5.0		ug/L	154557	1	11/23/2011 19:32	SB
Carbon tetrachloride	21	5.0		ug/L	154557	1	11/23/2011 19:32	SB
Benzene	BRL	5.0		ug/L	154557	1	11/23/2011 19:32	SB
1,2-Dichloroethane	BRL	5.0		ug/L	154557	1	11/23/2011 19:32	SB
Trichloroethene	BRL	5.0		ug/L	154557	1	11/23/2011 19:32	SB
Toluene	BRL	5.0		ug/L	154557	1	11/23/2011 19:32	SB
Tetrachloroethene	BRL	5.0		ug/L	154557	1	11/23/2011 19:32	SB
Ethylbenzene	BRL	5.0		ug/L	154557	1	11/23/2011 19:32	SB
Xylenes, Total	BRL	5.0		ug/L	154557	1	11/23/2011 19:32	SB
Surr: 4-Bromofluorobenzene	90.5	67.4-123		%REC	154557	1	11/23/2011 19:32	SB
Surr: 4-Bromofluorobenzene	93.3	67.4-123		%REC	154557	10	11/23/2011 20:00	SB
Surr: Dibromofluoromethane	102	75.5-128		%REC	154557	1	11/23/2011 19:32	SB
Surr: Dibromofluoromethane	104	75.5-128		%REC	154557	10	11/23/2011 20:00	SB
Surr: Toluene-d8	87	70-120		%REC	154557	1	11/23/2011 19:32	SB
Surr: Toluene-d8	88	70-120		%REC	154557	10	11/23/2011 20:00	SB

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-30
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/18/2011 12:15:00 PM
<b>Lab ID:</b> 1111G63-044	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154557	1	11/25/2011 14:49	GK
1,1-Dichloroethene	3900	250		ug/L	154557	50	11/23/2011 17:39	SB
Methylene chloride	BRL	5.0		ug/L	154557	1	11/25/2011 14:49	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 14:49	GK
1,1-Dichloroethane	18	5.0		ug/L	154557	1	11/25/2011 14:49	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 14:49	GK
Chloroform	6.8	5.0		ug/L	154557	1	11/25/2011 14:49	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 14:49	GK
Carbon tetrachloride	180	150		ug/L	154557	50	11/23/2011 17:39	SB
Benzene	BRL	5.0		ug/L	154557	1	11/25/2011 14:49	GK
1,2-Dichloroethane	25	5.0		ug/L	154557	1	11/25/2011 14:49	GK
Trichloroethene	6.0	5.0		ug/L	154557	1	11/25/2011 14:49	GK
Toluene	BRL	5.0		ug/L	154557	1	11/25/2011 14:49	GK
Tetrachloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 14:49	GK
Ethylbenzene	BRL	5.0		ug/L	154557	1	11/25/2011 14:49	GK
Xylenes, Total	BRL	5.0		ug/L	154557	1	11/25/2011 14:49	GK
Surr: 4-Bromofluorobenzene	86.8	67.4-123		%REC	154557	50	11/23/2011 17:39	SB
Surr: 4-Bromofluorobenzene	90.3	67.4-123		%REC	154557	1	11/25/2011 14:49	GK
Surr: Dibromofluoromethane	101	75.5-128		%REC	154557	50	11/23/2011 17:39	SB
Surr: Dibromofluoromethane	109	75.5-128		%REC	154557	1	11/25/2011 14:49	GK
Surr: Toluene-d8	94.1	70-120		%REC	154557	1	11/25/2011 14:49	GK
Surr: Toluene-d8	89.4	70-120		%REC	154557	50	11/23/2011 17:39	SB

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-31
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/18/2011 9:25:00 AM
<b>Lab ID:</b> 1111G63-045	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154557	1	11/25/2011 15:18	GK
1,1-Dichloroethene	2700	250		ug/L	154557	50	11/23/2011 18:08	SB
Methylene chloride	BRL	5.0		ug/L	154557	1	11/25/2011 15:18	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 15:18	GK
1,1-Dichloroethane	12	5.0		ug/L	154557	1	11/25/2011 15:18	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 15:18	GK
Chloroform	BRL	5.0		ug/L	154557	1	11/25/2011 15:18	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 15:18	GK
Carbon tetrachloride	51	5.0		ug/L	154557	1	11/25/2011 15:18	GK
Benzene	BRL	5.0		ug/L	154557	1	11/25/2011 15:18	GK
1,2-Dichloroethane	16	5.0		ug/L	154557	1	11/25/2011 15:18	GK
Trichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 15:18	GK
Toluene	BRL	5.0		ug/L	154557	1	11/25/2011 15:18	GK
Tetrachloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 15:18	GK
Ethylbenzene	BRL	5.0		ug/L	154557	1	11/25/2011 15:18	GK
Xylenes, Total	BRL	5.0		ug/L	154557	1	11/25/2011 15:18	GK
Surr: 4-Bromofluorobenzene	90.8	67.4-123		%REC	154557	50	11/23/2011 18:08	SB
Surr: 4-Bromofluorobenzene	86.5	67.4-123		%REC	154557	1	11/25/2011 15:18	GK
Surr: Dibromofluoromethane	96.9	75.5-128		%REC	154557	50	11/23/2011 18:08	SB
Surr: Dibromofluoromethane	109	75.5-128		%REC	154557	1	11/25/2011 15:18	GK
Surr: Toluene-d8	89.6	70-120		%REC	154557	50	11/23/2011 18:08	SB
Surr: Toluene-d8	89.3	70-120		%REC	154557	1	11/25/2011 15:18	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-32
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 9:30:00 AM
<b>Lab ID:</b> 1111G63-046	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154557	1	11/25/2011 16:03	JT
1,1-Dichloroethene	26	5.0		ug/L	154557	1	11/25/2011 16:03	JT
Methylene chloride	BRL	5.0		ug/L	154557	1	11/25/2011 16:03	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 16:03	JT
1,1-Dichloroethane	12	5.0		ug/L	154557	1	11/25/2011 16:03	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 16:03	JT
Chloroform	BRL	5.0		ug/L	154557	1	11/25/2011 16:03	JT
1,1,1-Trichloroethane	13	5.0		ug/L	154557	1	11/25/2011 16:03	JT
Carbon tetrachloride	BRL	5.0		ug/L	154557	1	11/25/2011 16:03	JT
Benzene	BRL	5.0		ug/L	154557	1	11/25/2011 16:03	JT
1,2-Dichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 16:03	JT
Trichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 16:03	JT
Toluene	BRL	5.0		ug/L	154557	1	11/25/2011 16:03	JT
Tetrachloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 16:03	JT
Ethylbenzene	BRL	5.0		ug/L	154557	1	11/25/2011 16:03	JT
Xylenes, Total	BRL	5.0		ug/L	154557	1	11/25/2011 16:03	JT
Surr: 4-Bromofluorobenzene	89	67.4-123		%REC	154557	1	11/25/2011 16:03	JT
Surr: Dibromofluoromethane	113	75.5-128		%REC	154557	1	11/25/2011 16:03	JT
Surr: Toluene-d8	85.2	70-120		%REC	154557	1	11/25/2011 16:03	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-35
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/18/2011 8:10:00 AM
<b>Lab ID:</b> 1111G63-047	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154557	1	11/23/2011 20:28	SB
1,1-Dichloroethene	330	50		ug/L	154557	10	11/25/2011 16:59	JT
Methylene chloride	BRL	5.0		ug/L	154557	1	11/23/2011 20:28	SB
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/23/2011 20:28	SB
1,1-Dichloroethane	BRL	5.0		ug/L	154557	1	11/23/2011 20:28	SB
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/23/2011 20:28	SB
Chloroform	BRL	5.0		ug/L	154557	1	11/23/2011 20:28	SB
1,1,1-Trichloroethane	BRL	5.0		ug/L	154557	1	11/23/2011 20:28	SB
Carbon tetrachloride	BRL	5.0		ug/L	154557	1	11/23/2011 20:28	SB
Benzene	BRL	5.0		ug/L	154557	1	11/23/2011 20:28	SB
1,2-Dichloroethane	BRL	5.0		ug/L	154557	1	11/23/2011 20:28	SB
Trichloroethene	BRL	5.0		ug/L	154557	1	11/23/2011 20:28	SB
Toluene	BRL	5.0		ug/L	154557	1	11/23/2011 20:28	SB
Tetrachloroethene	BRL	5.0		ug/L	154557	1	11/23/2011 20:28	SB
Ethylbenzene	BRL	5.0		ug/L	154557	1	11/23/2011 20:28	SB
Xylenes, Total	BRL	5.0		ug/L	154557	1	11/23/2011 20:28	SB
Surr: 4-Bromofluorobenzene	87.6	67.4-123		%REC	154557	10	11/25/2011 16:59	JT
Surr: 4-Bromofluorobenzene	89.3	67.4-123		%REC	154557	1	11/23/2011 20:28	SB
Surr: Dibromofluoromethane	100	75.5-128		%REC	154557	1	11/23/2011 20:28	SB
Surr: Dibromofluoromethane	112	75.5-128		%REC	154557	10	11/25/2011 16:59	JT
Surr: Toluene-d8	84.7	70-120		%REC	154557	10	11/25/2011 16:59	JT
Surr: Toluene-d8	89.6	70-120		%REC	154557	1	11/23/2011 20:28	SB

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-36 ZONE 1
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/14/2011 3:25:00 PM
<b>Lab ID:</b> 1111G63-048	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154557	1	11/25/2011 17:28	JT
1,1-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 17:28	JT
Methylene chloride	BRL	5.0		ug/L	154557	1	11/25/2011 17:28	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 17:28	JT
1,1-Dichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 17:28	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 17:28	JT
Chloroform	BRL	5.0		ug/L	154557	1	11/25/2011 17:28	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 17:28	JT
Carbon tetrachloride	BRL	5.0		ug/L	154557	1	11/25/2011 17:28	JT
Benzene	BRL	5.0		ug/L	154557	1	11/25/2011 17:28	JT
1,2-Dichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 17:28	JT
Trichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 17:28	JT
Toluene	BRL	5.0		ug/L	154557	1	11/25/2011 17:28	JT
Tetrachloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 17:28	JT
Ethylbenzene	BRL	5.0		ug/L	154557	1	11/25/2011 17:28	JT
Xylenes, Total	BRL	5.0		ug/L	154557	1	11/25/2011 17:28	JT
Surr: 4-Bromofluorobenzene	84.3	67.4-123		%REC	154557	1	11/25/2011 17:28	JT
Surr: Dibromofluoromethane	112	75.5-128		%REC	154557	1	11/25/2011 17:28	JT
Surr: Toluene-d8	84.9	70-120		%REC	154557	1	11/25/2011 17:28	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



Analytical Environmental Services, Inc

Date: 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-36 ZONE 3
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/15/2011 8:15:00 AM
<b>Lab ID:</b> 1111G63-049	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154557	1	11/25/2011 17:56	JT
1,1-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 17:56	JT
Methylene chloride	BRL	5.0		ug/L	154557	1	11/25/2011 17:56	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 17:56	JT
1,1-Dichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 17:56	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 17:56	JT
Chloroform	BRL	5.0		ug/L	154557	1	11/25/2011 17:56	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 17:56	JT
Carbon tetrachloride	BRL	5.0		ug/L	154557	1	11/25/2011 17:56	JT
Benzene	BRL	5.0		ug/L	154557	1	11/25/2011 17:56	JT
1,2-Dichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 17:56	JT
Trichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 17:56	JT
Toluene	BRL	5.0		ug/L	154557	1	11/25/2011 17:56	JT
Tetrachloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 17:56	JT
Ethylbenzene	BRL	5.0		ug/L	154557	1	11/25/2011 17:56	JT
Xylenes, Total	BRL	5.0		ug/L	154557	1	11/25/2011 17:56	JT
Surr: 4-Bromofluorobenzene	87.4	67.4-123		%REC	154557	1	11/25/2011 17:56	JT
Surr: Dibromofluoromethane	114	75.5-128		%REC	154557	1	11/25/2011 17:56	JT
Surr: Toluene-d8	86.7	70-120		%REC	154557	1	11/25/2011 17:56	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-36 ZONE 5
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/14/2011 6:20:00 PM
<b>Lab ID:</b> 1111G63-050	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154557	1	11/25/2011 18:24	JT
1,1-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 18:24	JT
Methylene chloride	BRL	5.0		ug/L	154557	1	11/25/2011 18:24	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 18:24	JT
1,1-Dichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 18:24	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 18:24	JT
Chloroform	BRL	5.0		ug/L	154557	1	11/25/2011 18:24	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 18:24	JT
Carbon tetrachloride	BRL	5.0		ug/L	154557	1	11/25/2011 18:24	JT
Benzene	BRL	5.0		ug/L	154557	1	11/25/2011 18:24	JT
1,2-Dichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 18:24	JT
Trichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 18:24	JT
Toluene	BRL	5.0		ug/L	154557	1	11/25/2011 18:24	JT
Tetrachloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 18:24	JT
Ethylbenzene	BRL	5.0		ug/L	154557	1	11/25/2011 18:24	JT
Xylenes, Total	BRL	5.0		ug/L	154557	1	11/25/2011 18:24	JT
Surr: 4-Bromofluorobenzene	88.8	67.4-123		%REC	154557	1	11/25/2011 18:24	JT
Surr: Dibromofluoromethane	117	75.5-128		%REC	154557	1	11/25/2011 18:24	JT
Surr: Toluene-d8	85.6	70-120		%REC	154557	1	11/25/2011 18:24	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-37 ZONE 1
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/16/2011 4:50:00 PM
<b>Lab ID:</b> 1111G63-051	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154557	1	11/25/2011 18:53	JT
1,1-Dichloroethene	78	5.0		ug/L	154557	1	11/25/2011 18:53	JT
Methylene chloride	BRL	5.0		ug/L	154557	1	11/25/2011 18:53	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 18:53	JT
1,1-Dichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 18:53	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 18:53	JT
Chloroform	BRL	5.0		ug/L	154557	1	11/25/2011 18:53	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 18:53	JT
Carbon tetrachloride	BRL	5.0		ug/L	154557	1	11/25/2011 18:53	JT
Benzene	BRL	5.0		ug/L	154557	1	11/25/2011 18:53	JT
1,2-Dichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 18:53	JT
Trichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 18:53	JT
Toluene	BRL	5.0		ug/L	154557	1	11/25/2011 18:53	JT
Tetrachloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 18:53	JT
Ethylbenzene	BRL	5.0		ug/L	154557	1	11/25/2011 18:53	JT
Xylenes, Total	BRL	5.0		ug/L	154557	1	11/25/2011 18:53	JT
Surr: 4-Bromofluorobenzene	85.3	67.4-123		%REC	154557	1	11/25/2011 18:53	JT
Surr: Dibromofluoromethane	115	75.5-128		%REC	154557	1	11/25/2011 18:53	JT
Surr: Toluene-d8	84.2	70-120		%REC	154557	1	11/25/2011 18:53	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-37 ZONE 2
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 12:50:00 PM
<b>Lab ID:</b> 1111G63-052	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154557	1	11/25/2011 19:49	JT
1,1-Dichloroethene	310	5.0	E	ug/L	154557	1	11/25/2011 19:49	JT
Methylene chloride	BRL	5.0		ug/L	154557	1	11/25/2011 19:49	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 19:49	JT
1,1-Dichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 19:49	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 19:49	JT
Chloroform	9.7	5.0		ug/L	154557	1	11/25/2011 19:49	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 19:49	JT
Carbon tetrachloride	BRL	5.0		ug/L	154557	1	11/25/2011 19:49	JT
Benzene	BRL	5.0		ug/L	154557	1	11/25/2011 19:49	JT
1,2-Dichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 19:49	JT
Trichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 19:49	JT
Toluene	BRL	5.0		ug/L	154557	1	11/25/2011 19:49	JT
Tetrachloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 19:49	JT
Ethylbenzene	BRL	5.0		ug/L	154557	1	11/25/2011 19:49	JT
Xylenes, Total	BRL	5.0		ug/L	154557	1	11/25/2011 19:49	JT
Surr: 4-Bromofluorobenzene	88.7	67.4-123		%REC	154557	1	11/25/2011 19:49	JT
Surr: Dibromofluoromethane	120	75.5-128		%REC	154557	1	11/25/2011 19:49	JT
Surr: Toluene-d8	84.7	70-120		%REC	154557	1	11/25/2011 19:49	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-37 ZONE 3
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 10:00:00 AM
<b>Lab ID:</b> 1111G63-053	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154557	1	11/25/2011 20:17	JT
1,1-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 20:17	JT
Methylene chloride	BRL	5.0		ug/L	154557	1	11/25/2011 20:17	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 20:17	JT
1,1-Dichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 20:17	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 20:17	JT
Chloroform	BRL	5.0		ug/L	154557	1	11/25/2011 20:17	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 20:17	JT
Carbon tetrachloride	BRL	5.0		ug/L	154557	1	11/25/2011 20:17	JT
Benzene	BRL	5.0		ug/L	154557	1	11/25/2011 20:17	JT
1,2-Dichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 20:17	JT
Trichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 20:17	JT
Toluene	BRL	5.0		ug/L	154557	1	11/25/2011 20:17	JT
Tetrachloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 20:17	JT
Ethylbenzene	BRL	5.0		ug/L	154557	1	11/25/2011 20:17	JT
Xylenes, Total	BRL	5.0		ug/L	154557	1	11/25/2011 20:17	JT
Surr: 4-Bromofluorobenzene	96.7	67.4-123		%REC	154557	1	11/25/2011 20:17	JT
Surr: Dibromofluoromethane	123	75.5-128		%REC	154557	1	11/25/2011 20:17	JT
Surr: Toluene-d8	86.1	70-120		%REC	154557	1	11/25/2011 20:17	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-38 ZONE 1
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 10:05:00 AM
<b>Lab ID:</b> 1111G63-054	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154557	1	11/25/2011 14:28	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 14:28	GK
Methylene chloride	BRL	5.0		ug/L	154557	1	11/25/2011 14:28	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 14:28	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 14:28	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 14:28	GK
Chloroform	BRL	5.0		ug/L	154557	1	11/25/2011 14:28	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 14:28	GK
Carbon tetrachloride	BRL	5.0		ug/L	154557	1	11/25/2011 14:28	GK
Benzene	BRL	5.0		ug/L	154557	1	11/25/2011 14:28	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 14:28	GK
Trichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 14:28	GK
Toluene	BRL	5.0		ug/L	154557	1	11/25/2011 14:28	GK
Tetrachloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 14:28	GK
Ethylbenzene	BRL	5.0		ug/L	154557	1	11/25/2011 14:28	GK
Xylenes, Total	BRL	5.0		ug/L	154557	1	11/25/2011 14:28	GK
Surr: 4-Bromofluorobenzene	96.1	67.4-123		%REC	154557	1	11/25/2011 14:28	GK
Surr: Dibromofluoromethane	111	75.5-128		%REC	154557	1	11/25/2011 14:28	GK
Surr: Toluene-d8	98.3	70-120		%REC	154557	1	11/25/2011 14:28	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-38 ZONE 2
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 3:40:00 PM
<b>Lab ID:</b> 1111G63-055	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154557	1	11/25/2011 14:57	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 14:57	GK
Methylene chloride	BRL	5.0		ug/L	154557	1	11/25/2011 14:57	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 14:57	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 14:57	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 14:57	GK
Chloroform	BRL	5.0		ug/L	154557	1	11/25/2011 14:57	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 14:57	GK
Carbon tetrachloride	BRL	5.0		ug/L	154557	1	11/25/2011 14:57	GK
Benzene	BRL	5.0		ug/L	154557	1	11/25/2011 14:57	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 14:57	GK
Trichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 14:57	GK
Toluene	BRL	5.0		ug/L	154557	1	11/25/2011 14:57	GK
Tetrachloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 14:57	GK
Ethylbenzene	BRL	5.0		ug/L	154557	1	11/25/2011 14:57	GK
Xylenes, Total	BRL	5.0		ug/L	154557	1	11/25/2011 14:57	GK
Surr: 4-Bromofluorobenzene	94.8	67.4-123		%REC	154557	1	11/25/2011 14:57	GK
Surr: Dibromofluoromethane	103	75.5-128		%REC	154557	1	11/25/2011 14:57	GK
Surr: Toluene-d8	98.1	70-120		%REC	154557	1	11/25/2011 14:57	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-39 ZONE 1
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/15/2011 10:30:00 AM
<b>Lab ID:</b> 1111G63-056	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154557	1	11/25/2011 15:27	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 15:27	GK
Methylene chloride	BRL	5.0		ug/L	154557	1	11/25/2011 15:27	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 15:27	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 15:27	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 15:27	GK
Chloroform	BRL	5.0		ug/L	154557	1	11/25/2011 15:27	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 15:27	GK
Carbon tetrachloride	BRL	5.0		ug/L	154557	1	11/25/2011 15:27	GK
Benzene	BRL	5.0		ug/L	154557	1	11/25/2011 15:27	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 15:27	GK
Trichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 15:27	GK
Toluene	BRL	5.0		ug/L	154557	1	11/25/2011 15:27	GK
Tetrachloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 15:27	GK
Ethylbenzene	BRL	5.0		ug/L	154557	1	11/25/2011 15:27	GK
Xylenes, Total	BRL	5.0		ug/L	154557	1	11/25/2011 15:27	GK
Surr: 4-Bromofluorobenzene	95.6	67.4-123		%REC	154557	1	11/25/2011 15:27	GK
Surr: Dibromofluoromethane	109	75.5-128		%REC	154557	1	11/25/2011 15:27	GK
Surr: Toluene-d8	99	70-120		%REC	154557	1	11/25/2011 15:27	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-39 ZONE 2
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/15/2011 12:40:00 PM
<b>Lab ID:</b> 1111G63-057	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154557	1	11/25/2011 20:46	JT
1,1-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 20:46	JT
Methylene chloride	BRL	5.0		ug/L	154557	1	11/25/2011 20:46	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 20:46	JT
1,1-Dichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 20:46	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 20:46	JT
Chloroform	BRL	5.0		ug/L	154557	1	11/25/2011 20:46	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 20:46	JT
Carbon tetrachloride	BRL	5.0		ug/L	154557	1	11/25/2011 20:46	JT
Benzene	BRL	5.0		ug/L	154557	1	11/25/2011 20:46	JT
1,2-Dichloroethane	BRL	5.0		ug/L	154557	1	11/25/2011 20:46	JT
Trichloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 20:46	JT
Toluene	BRL	5.0		ug/L	154557	1	11/25/2011 20:46	JT
Tetrachloroethene	BRL	5.0		ug/L	154557	1	11/25/2011 20:46	JT
Ethylbenzene	BRL	5.0		ug/L	154557	1	11/25/2011 20:46	JT
Xylenes, Total	BRL	5.0		ug/L	154557	1	11/25/2011 20:46	JT
Surr: 4-Bromofluorobenzene	94.2	67.4-123		%REC	154557	1	11/25/2011 20:46	JT
Surr: Dibromofluoromethane	115	75.5-128		%REC	154557	1	11/25/2011 20:46	JT
Surr: Toluene-d8	85.8	70-120		%REC	154557	1	11/25/2011 20:46	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-39 ZONE 3
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/15/2011 3:15:00 PM
<b>Lab ID:</b> 1111G63-058	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154569	1	11/24/2011 00:51	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 00:51	GK
Methylene chloride	BRL	5.0		ug/L	154569	1	11/24/2011 00:51	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 00:51	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 00:51	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 00:51	GK
Chloroform	BRL	5.0		ug/L	154569	1	11/24/2011 00:51	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 00:51	GK
Carbon tetrachloride	BRL	5.0		ug/L	154569	1	11/24/2011 00:51	GK
Benzene	BRL	5.0		ug/L	154569	1	11/24/2011 00:51	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 00:51	GK
Trichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 00:51	GK
Toluene	BRL	5.0		ug/L	154569	1	11/24/2011 00:51	GK
Tetrachloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 00:51	GK
Ethylbenzene	BRL	5.0		ug/L	154569	1	11/24/2011 00:51	GK
Xylenes, Total	BRL	5.0		ug/L	154569	1	11/24/2011 00:51	GK
Surr: 4-Bromofluorobenzene	88.5	67.4-123		%REC	154569	1	11/24/2011 00:51	GK
Surr: Dibromofluoromethane	104	75.5-128		%REC	154569	1	11/24/2011 00:51	GK
Surr: Toluene-d8	94.5	70-120		%REC	154569	1	11/24/2011 00:51	GK

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-41 ZONE 1
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/16/2011 10:15:00 AM
<b>Lab ID:</b> 1111G63-059	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154569	1	11/23/2011 22:23	GK
1,1-Dichloroethene	190	5.0		ug/L	154569	1	11/23/2011 22:23	GK
Methylene chloride	BRL	5.0		ug/L	154569	1	11/23/2011 22:23	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/23/2011 22:23	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154569	1	11/23/2011 22:23	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/23/2011 22:23	GK
Chloroform	BRL	5.0		ug/L	154569	1	11/23/2011 22:23	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154569	1	11/23/2011 22:23	GK
Carbon tetrachloride	BRL	5.0		ug/L	154569	1	11/23/2011 22:23	GK
Benzene	BRL	5.0		ug/L	154569	1	11/23/2011 22:23	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154569	1	11/23/2011 22:23	GK
Trichloroethene	BRL	5.0		ug/L	154569	1	11/23/2011 22:23	GK
Toluene	BRL	5.0		ug/L	154569	1	11/23/2011 22:23	GK
Tetrachloroethene	BRL	5.0		ug/L	154569	1	11/23/2011 22:23	GK
Ethylbenzene	BRL	5.0		ug/L	154569	1	11/23/2011 22:23	GK
Xylenes, Total	BRL	5.0		ug/L	154569	1	11/23/2011 22:23	GK
Surr: 4-Bromofluorobenzene	91	67.4-123		%REC	154569	1	11/23/2011 22:23	GK
Surr: Dibromofluoromethane	101	75.5-128		%REC	154569	1	11/23/2011 22:23	GK
Surr: Toluene-d8	95.3	70-120		%REC	154569	1	11/23/2011 22:23	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-41 ZONE 2
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/16/2011 12:05:00 PM
<b>Lab ID:</b> 1111G63-060	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154569	1	11/24/2011 00:02	GK
1,1-Dichloroethene	280	50		ug/L	154569	10	11/24/2011 00:26	GK
Methylene chloride	BRL	5.0		ug/L	154569	1	11/24/2011 00:02	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 00:02	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 00:02	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 00:02	GK
Chloroform	BRL	5.0		ug/L	154569	1	11/24/2011 00:02	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 00:02	GK
Carbon tetrachloride	BRL	5.0		ug/L	154569	1	11/24/2011 00:02	GK
Benzene	BRL	5.0		ug/L	154569	1	11/24/2011 00:02	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 00:02	GK
Trichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 00:02	GK
Toluene	BRL	5.0		ug/L	154569	1	11/24/2011 00:02	GK
Tetrachloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 00:02	GK
Ethylbenzene	BRL	5.0		ug/L	154569	1	11/24/2011 00:02	GK
Xylenes, Total	BRL	5.0		ug/L	154569	1	11/24/2011 00:02	GK
Surr: 4-Bromofluorobenzene	87.7	67.4-123		%REC	154569	1	11/24/2011 00:02	GK
Surr: 4-Bromofluorobenzene	87.1	67.4-123		%REC	154569	10	11/24/2011 00:26	GK
Surr: Dibromofluoromethane	104	75.5-128		%REC	154569	10	11/24/2011 00:26	GK
Surr: Dibromofluoromethane	101	75.5-128		%REC	154569	1	11/24/2011 00:02	GK
Surr: Toluene-d8	93.6	70-120		%REC	154569	10	11/24/2011 00:26	GK
Surr: Toluene-d8	94.1	70-120		%REC	154569	1	11/24/2011 00:02	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-41 ZONE 3
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/16/2011 3:50:00 PM
<b>Lab ID:</b> 1111G63-061	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154569	1	11/24/2011 01:16	GK
1,1-Dichloroethene	98	5.0		ug/L	154569	1	11/24/2011 01:16	GK
Methylene chloride	BRL	5.0		ug/L	154569	1	11/24/2011 01:16	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 01:16	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 01:16	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 01:16	GK
Chloroform	BRL	5.0		ug/L	154569	1	11/24/2011 01:16	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 01:16	GK
Carbon tetrachloride	BRL	5.0		ug/L	154569	1	11/24/2011 01:16	GK
Benzene	BRL	5.0		ug/L	154569	1	11/24/2011 01:16	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 01:16	GK
Trichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 01:16	GK
Toluene	BRL	5.0		ug/L	154569	1	11/24/2011 01:16	GK
Tetrachloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 01:16	GK
Ethylbenzene	BRL	5.0		ug/L	154569	1	11/24/2011 01:16	GK
Xylenes, Total	BRL	5.0		ug/L	154569	1	11/24/2011 01:16	GK
Surr: 4-Bromofluorobenzene	85.6	67.4-123		%REC	154569	1	11/24/2011 01:16	GK
Surr: Dibromofluoromethane	108	75.5-128		%REC	154569	1	11/24/2011 01:16	GK
Surr: Toluene-d8	94.3	70-120		%REC	154569	1	11/24/2011 01:16	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-42 ZONE 1
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/15/2011 4:45:00 PM
<b>Lab ID:</b> 1111G63-062	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154569	1	11/24/2011 01:41	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 01:41	GK
Methylene chloride	BRL	5.0		ug/L	154569	1	11/24/2011 01:41	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 01:41	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 01:41	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 01:41	GK
Chloroform	BRL	5.0		ug/L	154569	1	11/24/2011 01:41	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 01:41	GK
Carbon tetrachloride	BRL	5.0		ug/L	154569	1	11/24/2011 01:41	GK
Benzene	BRL	5.0		ug/L	154569	1	11/24/2011 01:41	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 01:41	GK
Trichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 01:41	GK
Toluene	BRL	5.0		ug/L	154569	1	11/24/2011 01:41	GK
Tetrachloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 01:41	GK
Ethylbenzene	BRL	5.0		ug/L	154569	1	11/24/2011 01:41	GK
Xylenes, Total	BRL	5.0		ug/L	154569	1	11/24/2011 01:41	GK
Surr: 4-Bromofluorobenzene	86.8	67.4-123		%REC	154569	1	11/24/2011 01:41	GK
Surr: Dibromofluoromethane	106	75.5-128		%REC	154569	1	11/24/2011 01:41	GK
Surr: Toluene-d8	95.4	70-120		%REC	154569	1	11/24/2011 01:41	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-42 ZONE 2
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/16/2011 10:05:00 AM
<b>Lab ID:</b> 1111G63-063	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154569	1	11/24/2011 02:06	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 02:06	GK
Methylene chloride	BRL	5.0		ug/L	154569	1	11/24/2011 02:06	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 02:06	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 02:06	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 02:06	GK
Chloroform	BRL	5.0		ug/L	154569	1	11/24/2011 02:06	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 02:06	GK
Carbon tetrachloride	BRL	5.0		ug/L	154569	1	11/24/2011 02:06	GK
Benzene	BRL	5.0		ug/L	154569	1	11/24/2011 02:06	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 02:06	GK
Trichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 02:06	GK
Toluene	BRL	5.0		ug/L	154569	1	11/24/2011 02:06	GK
Tetrachloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 02:06	GK
Ethylbenzene	BRL	5.0		ug/L	154569	1	11/24/2011 02:06	GK
Xylenes, Total	BRL	5.0		ug/L	154569	1	11/24/2011 02:06	GK
Surr: 4-Bromofluorobenzene	87.6	67.4-123		%REC	154569	1	11/24/2011 02:06	GK
Surr: Dibromofluoromethane	109	75.5-128		%REC	154569	1	11/24/2011 02:06	GK
Surr: Toluene-d8	95.6	70-120		%REC	154569	1	11/24/2011 02:06	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-42 ZONE 3
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/16/2011 1:00:00 PM
<b>Lab ID:</b> 1111G63-064	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154569	1	11/24/2011 02:31	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 02:31	GK
Methylene chloride	BRL	5.0		ug/L	154569	1	11/24/2011 02:31	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 02:31	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 02:31	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 02:31	GK
Chloroform	BRL	5.0		ug/L	154569	1	11/24/2011 02:31	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 02:31	GK
Carbon tetrachloride	BRL	5.0		ug/L	154569	1	11/24/2011 02:31	GK
Benzene	BRL	5.0		ug/L	154569	1	11/24/2011 02:31	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 02:31	GK
Trichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 02:31	GK
Toluene	BRL	5.0		ug/L	154569	1	11/24/2011 02:31	GK
Tetrachloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 02:31	GK
Ethylbenzene	BRL	5.0		ug/L	154569	1	11/24/2011 02:31	GK
Xylenes, Total	BRL	5.0		ug/L	154569	1	11/24/2011 02:31	GK
Surr: 4-Bromofluorobenzene	86.5	67.4-123		%REC	154569	1	11/24/2011 02:31	GK
Surr: Dibromofluoromethane	110	75.5-128		%REC	154569	1	11/24/2011 02:31	GK
Surr: Toluene-d8	97.8	70-120		%REC	154569	1	11/24/2011 02:31	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



**Analytical Environmental Services, Inc**

**Date:** 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-43 ZONE 1
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/14/2011 5:05:00 PM
<b>Lab ID:</b> 1111G63-065	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154569	1	11/24/2011 02:56	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 02:56	GK
Methylene chloride	BRL	5.0		ug/L	154569	1	11/24/2011 02:56	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 02:56	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 02:56	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 02:56	GK
Chloroform	BRL	5.0		ug/L	154569	1	11/24/2011 02:56	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 02:56	GK
Carbon tetrachloride	BRL	5.0		ug/L	154569	1	11/24/2011 02:56	GK
Benzene	BRL	5.0		ug/L	154569	1	11/24/2011 02:56	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 02:56	GK
Trichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 02:56	GK
Toluene	BRL	5.0		ug/L	154569	1	11/24/2011 02:56	GK
Tetrachloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 02:56	GK
Ethylbenzene	BRL	5.0		ug/L	154569	1	11/24/2011 02:56	GK
Xylenes, Total	BRL	5.0		ug/L	154569	1	11/24/2011 02:56	GK
Surr: 4-Bromofluorobenzene	85.3	67.4-123		%REC	154569	1	11/24/2011 02:56	GK
Surr: Dibromofluoromethane	109	75.5-128		%REC	154569	1	11/24/2011 02:56	GK
Surr: Toluene-d8	96.4	70-120		%REC	154569	1	11/24/2011 02:56	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-43 ZONE 2
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/15/2011 9:25:00 AM
<b>Lab ID:</b> 1111G63-066	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154569	1	11/24/2011 03:21	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 03:21	GK
Methylene chloride	BRL	5.0		ug/L	154569	1	11/24/2011 03:21	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 03:21	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 03:21	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 03:21	GK
Chloroform	BRL	5.0		ug/L	154569	1	11/24/2011 03:21	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 03:21	GK
Carbon tetrachloride	BRL	5.0		ug/L	154569	1	11/24/2011 03:21	GK
Benzene	BRL	5.0		ug/L	154569	1	11/24/2011 03:21	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 03:21	GK
Trichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 03:21	GK
Toluene	BRL	5.0		ug/L	154569	1	11/24/2011 03:21	GK
Tetrachloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 03:21	GK
Ethylbenzene	BRL	5.0		ug/L	154569	1	11/24/2011 03:21	GK
Xylenes, Total	BRL	5.0		ug/L	154569	1	11/24/2011 03:21	GK
Surr: 4-Bromofluorobenzene	85.4	67.4-123		%REC	154569	1	11/24/2011 03:21	GK
Surr: Dibromofluoromethane	112	75.5-128		%REC	154569	1	11/24/2011 03:21	GK
Surr: Toluene-d8	96.1	70-120		%REC	154569	1	11/24/2011 03:21	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-43 ZONE 3
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/15/2011 12:20:00 PM
<b>Lab ID:</b> 1111G63-067	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154569	1	11/24/2011 03:45	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 03:45	GK
Methylene chloride	BRL	5.0		ug/L	154569	1	11/24/2011 03:45	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 03:45	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 03:45	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 03:45	GK
Chloroform	BRL	5.0		ug/L	154569	1	11/24/2011 03:45	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 03:45	GK
Carbon tetrachloride	BRL	5.0		ug/L	154569	1	11/24/2011 03:45	GK
Benzene	BRL	5.0		ug/L	154569	1	11/24/2011 03:45	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 03:45	GK
Trichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 03:45	GK
Toluene	BRL	5.0		ug/L	154569	1	11/24/2011 03:45	GK
Tetrachloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 03:45	GK
Ethylbenzene	BRL	5.0		ug/L	154569	1	11/24/2011 03:45	GK
Xylenes, Total	BRL	5.0		ug/L	154569	1	11/24/2011 03:45	GK
Surr: 4-Bromofluorobenzene	86	67.4-123		%REC	154569	1	11/24/2011 03:45	GK
Surr: Dibromofluoromethane	113	75.5-128		%REC	154569	1	11/24/2011 03:45	GK
Surr: Toluene-d8	97	70-120		%REC	154569	1	11/24/2011 03:45	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> TW-40
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/16/2011 4:20:00 PM
<b>Lab ID:</b> 1111G63-068	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154569	1	11/24/2011 04:10	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 04:10	GK
Methylene chloride	BRL	5.0		ug/L	154569	1	11/24/2011 04:10	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 04:10	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 04:10	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 04:10	GK
Chloroform	BRL	5.0		ug/L	154569	1	11/24/2011 04:10	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 04:10	GK
Carbon tetrachloride	BRL	5.0		ug/L	154569	1	11/24/2011 04:10	GK
Benzene	BRL	5.0		ug/L	154569	1	11/24/2011 04:10	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 04:10	GK
Trichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 04:10	GK
Toluene	BRL	5.0		ug/L	154569	1	11/24/2011 04:10	GK
Tetrachloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 04:10	GK
Ethylbenzene	BRL	5.0		ug/L	154569	1	11/24/2011 04:10	GK
Xylenes, Total	BRL	5.0		ug/L	154569	1	11/24/2011 04:10	GK
Surr: 4-Bromofluorobenzene	85.9	67.4-123		%REC	154569	1	11/24/2011 04:10	GK
Surr: Dibromofluoromethane	113	75.5-128		%REC	154569	1	11/24/2011 04:10	GK
Surr: Toluene-d8	97.1	70-120		%REC	154569	1	11/24/2011 04:10	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> TW-41
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/16/2011 2:05:00 PM
<b>Lab ID:</b> 1111G63-069	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154569	1	11/24/2011 04:34	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 04:34	GK
Methylene chloride	BRL	5.0		ug/L	154569	1	11/24/2011 04:34	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 04:34	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 04:34	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 04:34	GK
Chloroform	BRL	5.0		ug/L	154569	1	11/24/2011 04:34	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 04:34	GK
Carbon tetrachloride	BRL	5.0		ug/L	154569	1	11/24/2011 04:34	GK
Benzene	BRL	5.0		ug/L	154569	1	11/24/2011 04:34	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 04:34	GK
Trichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 04:34	GK
Toluene	BRL	5.0		ug/L	154569	1	11/24/2011 04:34	GK
Tetrachloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 04:34	GK
Ethylbenzene	BRL	5.0		ug/L	154569	1	11/24/2011 04:34	GK
Xylenes, Total	BRL	5.0		ug/L	154569	1	11/24/2011 04:34	GK
Surr: 4-Bromofluorobenzene	84.1	67.4-123		%REC	154569	1	11/24/2011 04:34	GK
Surr: Dibromofluoromethane	112	75.5-128		%REC	154569	1	11/24/2011 04:34	GK
Surr: Toluene-d8	96.3	70-120		%REC	154569	1	11/24/2011 04:34	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> TW-42
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 12:50:00 PM
<b>Lab ID:</b> 1111G63-070	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154569	1	11/24/2011 04:58	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 04:58	GK
Methylene chloride	BRL	5.0		ug/L	154569	1	11/24/2011 04:58	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 04:58	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 04:58	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 04:58	GK
Chloroform	BRL	5.0		ug/L	154569	1	11/24/2011 04:58	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 04:58	GK
Carbon tetrachloride	BRL	5.0		ug/L	154569	1	11/24/2011 04:58	GK
Benzene	BRL	5.0		ug/L	154569	1	11/24/2011 04:58	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 04:58	GK
Trichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 04:58	GK
Toluene	BRL	5.0		ug/L	154569	1	11/24/2011 04:58	GK
Tetrachloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 04:58	GK
Ethylbenzene	BRL	5.0		ug/L	154569	1	11/24/2011 04:58	GK
Xylenes, Total	BRL	5.0		ug/L	154569	1	11/24/2011 04:58	GK
Surr: 4-Bromofluorobenzene	82.7	67.4-123		%REC	154569	1	11/24/2011 04:58	GK
Surr: Dibromofluoromethane	114	75.5-128		%REC	154569	1	11/24/2011 04:58	GK
Surr: Toluene-d8	97.7	70-120		%REC	154569	1	11/24/2011 04:58	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> TW-43
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/15/2011 5:50:00 PM
<b>Lab ID:</b> 1111G63-071	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154569	1	11/24/2011 05:23	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 05:23	GK
Methylene chloride	BRL	5.0		ug/L	154569	1	11/24/2011 05:23	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 05:23	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 05:23	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 05:23	GK
Chloroform	BRL	5.0		ug/L	154569	1	11/24/2011 05:23	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 05:23	GK
Carbon tetrachloride	BRL	5.0		ug/L	154569	1	11/24/2011 05:23	GK
Benzene	BRL	5.0		ug/L	154569	1	11/24/2011 05:23	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 05:23	GK
Trichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 05:23	GK
Toluene	BRL	5.0		ug/L	154569	1	11/24/2011 05:23	GK
Tetrachloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 05:23	GK
Ethylbenzene	BRL	5.0		ug/L	154569	1	11/24/2011 05:23	GK
Xylenes, Total	BRL	5.0		ug/L	154569	1	11/24/2011 05:23	GK
Surr: 4-Bromofluorobenzene	84.5	67.4-123		%REC	154569	1	11/24/2011 05:23	GK
Surr: Dibromofluoromethane	118	75.5-128		%REC	154569	1	11/24/2011 05:23	GK
Surr: Toluene-d8	99.4	70-120		%REC	154569	1	11/24/2011 05:23	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> TW-44
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/16/2011 1:05:00 PM
<b>Lab ID:</b> 1111G63-072	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154569	1	11/24/2011 05:47	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 05:47	GK
Methylene chloride	BRL	5.0		ug/L	154569	1	11/24/2011 05:47	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 05:47	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 05:47	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 05:47	GK
Chloroform	BRL	5.0		ug/L	154569	1	11/24/2011 05:47	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 05:47	GK
Carbon tetrachloride	BRL	5.0		ug/L	154569	1	11/24/2011 05:47	GK
Benzene	BRL	5.0		ug/L	154569	1	11/24/2011 05:47	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154569	1	11/24/2011 05:47	GK
Trichloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 05:47	GK
Toluene	BRL	5.0		ug/L	154569	1	11/24/2011 05:47	GK
Tetrachloroethene	BRL	5.0		ug/L	154569	1	11/24/2011 05:47	GK
Ethylbenzene	BRL	5.0		ug/L	154569	1	11/24/2011 05:47	GK
Xylenes, Total	BRL	5.0		ug/L	154569	1	11/24/2011 05:47	GK
Surr: 4-Bromofluorobenzene	85.1	67.4-123		%REC	154569	1	11/24/2011 05:47	GK
Surr: Dibromofluoromethane	112	75.5-128		%REC	154569	1	11/24/2011 05:47	GK
Surr: Toluene-d8	96.8	70-120		%REC	154569	1	11/24/2011 05:47	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



**Analytical Environmental Services, Inc**

**Date:** 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> TW-46
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 10:50:00 AM
<b>Lab ID:</b> 1111G63-073	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154569	1	11/25/2011 13:29	MR
1,1-Dichloroethene	25	5.0		ug/L	154569	1	11/25/2011 13:29	MR
Methylene chloride	BRL	5.0		ug/L	154569	1	11/25/2011 13:29	MR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/25/2011 13:29	MR
1,1-Dichloroethane	BRL	5.0		ug/L	154569	1	11/25/2011 13:29	MR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/25/2011 13:29	MR
Chloroform	23	5.0		ug/L	154569	1	11/25/2011 13:29	MR
1,1,1-Trichloroethane	BRL	5.0		ug/L	154569	1	11/25/2011 13:29	MR
Carbon tetrachloride	BRL	5.0		ug/L	154569	1	11/25/2011 13:29	MR
Benzene	BRL	5.0		ug/L	154569	1	11/25/2011 13:29	MR
1,2-Dichloroethane	BRL	5.0		ug/L	154569	1	11/25/2011 13:29	MR
Trichloroethene	BRL	5.0		ug/L	154569	1	11/25/2011 13:29	MR
Toluene	BRL	5.0		ug/L	154569	1	11/25/2011 13:29	MR
Tetrachloroethene	BRL	5.0		ug/L	154569	1	11/25/2011 13:29	MR
Ethylbenzene	BRL	5.0		ug/L	154569	1	11/25/2011 13:29	MR
Xylenes, Total	BRL	5.0		ug/L	154569	1	11/25/2011 13:29	MR
Surr: 4-Bromofluorobenzene	89.1	67.4-123		%REC	154569	1	11/25/2011 13:29	MR
Surr: Dibromofluoromethane	104	75.5-128		%REC	154569	1	11/25/2011 13:29	MR
Surr: Toluene-d8	94.4	70-120		%REC	154569	1	11/25/2011 13:29	MR

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> 628 AIRLINE RD
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 5:35:00 PM
<b>Lab ID:</b> 1111G63-074	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154569	1	11/25/2011 13:54	MR
1,1-Dichloroethene	BRL	5.0		ug/L	154569	1	11/25/2011 13:54	MR
Methylene chloride	BRL	5.0		ug/L	154569	1	11/25/2011 13:54	MR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/25/2011 13:54	MR
1,1-Dichloroethane	BRL	5.0		ug/L	154569	1	11/25/2011 13:54	MR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154569	1	11/25/2011 13:54	MR
Chloroform	BRL	5.0		ug/L	154569	1	11/25/2011 13:54	MR
1,1,1-Trichloroethane	BRL	5.0		ug/L	154569	1	11/25/2011 13:54	MR
Carbon tetrachloride	BRL	5.0		ug/L	154569	1	11/25/2011 13:54	MR
Benzene	BRL	5.0		ug/L	154569	1	11/25/2011 13:54	MR
1,2-Dichloroethane	BRL	5.0		ug/L	154569	1	11/25/2011 13:54	MR
Trichloroethene	BRL	5.0		ug/L	154569	1	11/25/2011 13:54	MR
Toluene	BRL	5.0		ug/L	154569	1	11/25/2011 13:54	MR
Tetrachloroethene	BRL	5.0		ug/L	154569	1	11/25/2011 13:54	MR
Ethylbenzene	BRL	5.0		ug/L	154569	1	11/25/2011 13:54	MR
Xylenes, Total	BRL	5.0		ug/L	154569	1	11/25/2011 13:54	MR
Surr: 4-Bromofluorobenzene	90.9	67.4-123		%REC	154569	1	11/25/2011 13:54	MR
Surr: Dibromofluoromethane	105	75.5-128		%REC	154569	1	11/25/2011 13:54	MR
Surr: Toluene-d8	92.8	70-120		%REC	154569	1	11/25/2011 13:54	MR

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> 119 CLOVERHILL DR
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 4:40:00 PM
<b>Lab ID:</b> 1111G63-075	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154497	1	11/25/2011 14:19	MR
1,1-Dichloroethene	BRL	5.0		ug/L	154497	1	11/25/2011 14:19	MR
Methylene chloride	BRL	5.0		ug/L	154497	1	11/25/2011 14:19	MR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/25/2011 14:19	MR
1,1-Dichloroethane	BRL	5.0		ug/L	154497	1	11/25/2011 14:19	MR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/25/2011 14:19	MR
Chloroform	BRL	5.0		ug/L	154497	1	11/25/2011 14:19	MR
1,1,1-Trichloroethane	BRL	5.0		ug/L	154497	1	11/25/2011 14:19	MR
Carbon tetrachloride	BRL	5.0		ug/L	154497	1	11/25/2011 14:19	MR
Benzene	BRL	5.0		ug/L	154497	1	11/25/2011 14:19	MR
1,2-Dichloroethane	BRL	5.0		ug/L	154497	1	11/25/2011 14:19	MR
Trichloroethene	BRL	5.0		ug/L	154497	1	11/25/2011 14:19	MR
Toluene	BRL	5.0		ug/L	154497	1	11/25/2011 14:19	MR
Tetrachloroethene	BRL	5.0		ug/L	154497	1	11/25/2011 14:19	MR
Ethylbenzene	BRL	5.0		ug/L	154497	1	11/25/2011 14:19	MR
Xylenes, Total	BRL	5.0		ug/L	154497	1	11/25/2011 14:19	MR
Surr: 4-Bromofluorobenzene	87.3	67.4-123		%REC	154497	1	11/25/2011 14:19	MR
Surr: Dibromofluoromethane	107	75.5-128		%REC	154497	1	11/25/2011 14:19	MR
Surr: Toluene-d8	95.3	70-120		%REC	154497	1	11/25/2011 14:19	MR

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> 408 CLINKSCALES RD
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/16/2011 5:10:00 PM
<b>Lab ID:</b> 1111G63-076	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154497	1	11/25/2011 14:44	MR
1,1-Dichloroethene	BRL	5.0		ug/L	154497	1	11/25/2011 14:44	MR
Methylene chloride	BRL	5.0		ug/L	154497	1	11/25/2011 14:44	MR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/25/2011 14:44	MR
1,1-Dichloroethane	BRL	5.0		ug/L	154497	1	11/25/2011 14:44	MR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/25/2011 14:44	MR
Chloroform	BRL	5.0		ug/L	154497	1	11/25/2011 14:44	MR
1,1,1-Trichloroethane	BRL	5.0		ug/L	154497	1	11/25/2011 14:44	MR
Carbon tetrachloride	BRL	5.0		ug/L	154497	1	11/25/2011 14:44	MR
Benzene	BRL	5.0		ug/L	154497	1	11/25/2011 14:44	MR
1,2-Dichloroethane	BRL	5.0		ug/L	154497	1	11/25/2011 14:44	MR
Trichloroethene	BRL	5.0		ug/L	154497	1	11/25/2011 14:44	MR
Toluene	BRL	5.0		ug/L	154497	1	11/25/2011 14:44	MR
Tetrachloroethene	BRL	5.0		ug/L	154497	1	11/25/2011 14:44	MR
Ethylbenzene	BRL	5.0		ug/L	154497	1	11/25/2011 14:44	MR
Xylenes, Total	BRL	5.0		ug/L	154497	1	11/25/2011 14:44	MR
Surr: 4-Bromofluorobenzene	90.4	67.4-123		%REC	154497	1	11/25/2011 14:44	MR
Surr: Dibromofluoromethane	107	75.5-128		%REC	154497	1	11/25/2011 14:44	MR
Surr: Toluene-d8	94.5	70-120		%REC	154497	1	11/25/2011 14:44	MR

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> 605 CLINKSCALES RD
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/16/2011 4:55:00 PM
<b>Lab ID:</b> 1111G63-077	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154497	1	11/25/2011 15:09	MR
1,1-Dichloroethene	BRL	5.0		ug/L	154497	1	11/25/2011 15:09	MR
Methylene chloride	BRL	5.0		ug/L	154497	1	11/25/2011 15:09	MR
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/25/2011 15:09	MR
1,1-Dichloroethane	BRL	5.0		ug/L	154497	1	11/25/2011 15:09	MR
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/25/2011 15:09	MR
Chloroform	BRL	5.0		ug/L	154497	1	11/25/2011 15:09	MR
1,1,1-Trichloroethane	BRL	5.0		ug/L	154497	1	11/25/2011 15:09	MR
Carbon tetrachloride	BRL	5.0		ug/L	154497	1	11/25/2011 15:09	MR
Benzene	BRL	5.0		ug/L	154497	1	11/25/2011 15:09	MR
1,2-Dichloroethane	BRL	5.0		ug/L	154497	1	11/25/2011 15:09	MR
Trichloroethene	BRL	5.0		ug/L	154497	1	11/25/2011 15:09	MR
Toluene	BRL	5.0		ug/L	154497	1	11/25/2011 15:09	MR
Tetrachloroethene	BRL	5.0		ug/L	154497	1	11/25/2011 15:09	MR
Ethylbenzene	BRL	5.0		ug/L	154497	1	11/25/2011 15:09	MR
Xylenes, Total	BRL	5.0		ug/L	154497	1	11/25/2011 15:09	MR
Surr: 4-Bromofluorobenzene	88.4	67.4-123		%REC	154497	1	11/25/2011 15:09	MR
Surr: Dibromofluoromethane	108	75.5-128		%REC	154497	1	11/25/2011 15:09	MR
Surr: Toluene-d8	96.9	70-120		%REC	154497	1	11/25/2011 15:09	MR

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> 721 CLINKSCALES RD
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/16/2011 5:20:00 PM
<b>Lab ID:</b> 1111G63-078	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154497	1	11/22/2011 20:58	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 20:58	GK
Methylene chloride	BRL	5.0		ug/L	154497	1	11/22/2011 20:58	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 20:58	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154497	1	11/22/2011 20:58	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 20:58	GK
Chloroform	BRL	5.0		ug/L	154497	1	11/22/2011 20:58	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154497	1	11/22/2011 20:58	GK
Carbon tetrachloride	BRL	5.0		ug/L	154497	1	11/22/2011 20:58	GK
Benzene	BRL	5.0		ug/L	154497	1	11/22/2011 20:58	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154497	1	11/22/2011 20:58	GK
Trichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 20:58	GK
Toluene	BRL	5.0		ug/L	154497	1	11/22/2011 20:58	GK
Tetrachloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 20:58	GK
Ethylbenzene	BRL	5.0		ug/L	154497	1	11/22/2011 20:58	GK
Xylenes, Total	BRL	5.0		ug/L	154497	1	11/22/2011 20:58	GK
Surr: 4-Bromofluorobenzene	96.7	67.4-123		%REC	154497	1	11/22/2011 20:58	GK
Surr: Dibromofluoromethane	109	75.5-128		%REC	154497	1	11/22/2011 20:58	GK
Surr: Toluene-d8	97.4	70-120		%REC	154497	1	11/22/2011 20:58	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> 1303 CLINKSCALES RD
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 4:20:00 PM
<b>Lab ID:</b> 1111G63-079	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154497	1	11/22/2011 21:28	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 21:28	GK
Methylene chloride	BRL	5.0		ug/L	154497	1	11/22/2011 21:28	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 21:28	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154497	1	11/22/2011 21:28	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 21:28	GK
Chloroform	BRL	5.0		ug/L	154497	1	11/22/2011 21:28	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154497	1	11/22/2011 21:28	GK
Carbon tetrachloride	BRL	5.0		ug/L	154497	1	11/22/2011 21:28	GK
Benzene	BRL	5.0		ug/L	154497	1	11/22/2011 21:28	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154497	1	11/22/2011 21:28	GK
Trichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 21:28	GK
Toluene	BRL	5.0		ug/L	154497	1	11/22/2011 21:28	GK
Tetrachloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 21:28	GK
Ethylbenzene	BRL	5.0		ug/L	154497	1	11/22/2011 21:28	GK
Xylenes, Total	BRL	5.0		ug/L	154497	1	11/22/2011 21:28	GK
Surr: 4-Bromofluorobenzene	93.9	67.4-123		%REC	154497	1	11/22/2011 21:28	GK
Surr: Dibromofluoromethane	108	75.5-128		%REC	154497	1	11/22/2011 21:28	GK
Surr: Toluene-d8	97.8	70-120		%REC	154497	1	11/22/2011 21:28	GK

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> 115 ELROD RD
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 4:30:00 PM
<b>Lab ID:</b> 1111G63-080	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154497	1	11/22/2011 21:57	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 21:57	GK
Methylene chloride	BRL	5.0		ug/L	154497	1	11/22/2011 21:57	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 21:57	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154497	1	11/22/2011 21:57	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 21:57	GK
Chloroform	BRL	5.0		ug/L	154497	1	11/22/2011 21:57	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154497	1	11/22/2011 21:57	GK
Carbon tetrachloride	BRL	5.0		ug/L	154497	1	11/22/2011 21:57	GK
Benzene	BRL	5.0		ug/L	154497	1	11/22/2011 21:57	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154497	1	11/22/2011 21:57	GK
Trichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 21:57	GK
Toluene	BRL	5.0		ug/L	154497	1	11/22/2011 21:57	GK
Tetrachloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 21:57	GK
Ethylbenzene	BRL	5.0		ug/L	154497	1	11/22/2011 21:57	GK
Xylenes, Total	BRL	5.0		ug/L	154497	1	11/22/2011 21:57	GK
Surr: 4-Bromofluorobenzene	93.4	67.4-123		%REC	154497	1	11/22/2011 21:57	GK
Surr: Dibromofluoromethane	111	75.5-128		%REC	154497	1	11/22/2011 21:57	GK
Surr: Toluene-d8	99.8	70-120		%REC	154497	1	11/22/2011 21:57	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> 117 FAYE DR
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 5:25:00 PM
<b>Lab ID:</b> 1111G63-081	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154497	1	11/22/2011 22:27	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 22:27	GK
Methylene chloride	BRL	5.0		ug/L	154497	1	11/22/2011 22:27	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 22:27	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154497	1	11/22/2011 22:27	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 22:27	GK
Chloroform	BRL	5.0		ug/L	154497	1	11/22/2011 22:27	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154497	1	11/22/2011 22:27	GK
Carbon tetrachloride	BRL	5.0		ug/L	154497	1	11/22/2011 22:27	GK
Benzene	BRL	5.0		ug/L	154497	1	11/22/2011 22:27	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154497	1	11/22/2011 22:27	GK
Trichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 22:27	GK
Toluene	BRL	5.0		ug/L	154497	1	11/22/2011 22:27	GK
Tetrachloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 22:27	GK
Ethylbenzene	BRL	5.0		ug/L	154497	1	11/22/2011 22:27	GK
Xylenes, Total	BRL	5.0		ug/L	154497	1	11/22/2011 22:27	GK
Surr: 4-Bromofluorobenzene	96.2	67.4-123		%REC	154497	1	11/22/2011 22:27	GK
Surr: Dibromofluoromethane	111	75.5-128		%REC	154497	1	11/22/2011 22:27	GK
Surr: Toluene-d8	100	70-120		%REC	154497	1	11/22/2011 22:27	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc**

**Date:** 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> 200 FRIENDSHIP LANE
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/16/2011 4:45:00 PM
<b>Lab ID:</b> 1111G63-082	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154497	1	11/22/2011 22:57	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 22:57	GK
Methylene chloride	BRL	5.0		ug/L	154497	1	11/22/2011 22:57	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 22:57	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154497	1	11/22/2011 22:57	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 22:57	GK
Chloroform	BRL	5.0		ug/L	154497	1	11/22/2011 22:57	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154497	1	11/22/2011 22:57	GK
Carbon tetrachloride	BRL	5.0		ug/L	154497	1	11/22/2011 22:57	GK
Benzene	BRL	5.0		ug/L	154497	1	11/22/2011 22:57	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154497	1	11/22/2011 22:57	GK
Trichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 22:57	GK
Toluene	BRL	5.0		ug/L	154497	1	11/22/2011 22:57	GK
Tetrachloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 22:57	GK
Ethylbenzene	BRL	5.0		ug/L	154497	1	11/22/2011 22:57	GK
Xylenes, Total	BRL	5.0		ug/L	154497	1	11/22/2011 22:57	GK
Surr: 4-Bromofluorobenzene	94.1	67.4-123		%REC	154497	1	11/22/2011 22:57	GK
Surr: Dibromofluoromethane	109	75.5-128		%REC	154497	1	11/22/2011 22:57	GK
Surr: Toluene-d8	100	70-120		%REC	154497	1	11/22/2011 22:57	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> 200 KAYE DR
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 4:50:00 PM
<b>Lab ID:</b> 1111G63-083	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154497	1	11/22/2011 23:26	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 23:26	GK
Methylene chloride	BRL	5.0		ug/L	154497	1	11/22/2011 23:26	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 23:26	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154497	1	11/22/2011 23:26	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 23:26	GK
Chloroform	BRL	5.0		ug/L	154497	1	11/22/2011 23:26	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154497	1	11/22/2011 23:26	GK
Carbon tetrachloride	BRL	5.0		ug/L	154497	1	11/22/2011 23:26	GK
Benzene	BRL	5.0		ug/L	154497	1	11/22/2011 23:26	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154497	1	11/22/2011 23:26	GK
Trichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 23:26	GK
Toluene	BRL	5.0		ug/L	154497	1	11/22/2011 23:26	GK
Tetrachloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 23:26	GK
Ethylbenzene	BRL	5.0		ug/L	154497	1	11/22/2011 23:26	GK
Xylenes, Total	BRL	5.0		ug/L	154497	1	11/22/2011 23:26	GK
Surr: 4-Bromofluorobenzene	95.6	67.4-123		%REC	154497	1	11/22/2011 23:26	GK
Surr: Dibromofluoromethane	109	75.5-128		%REC	154497	1	11/22/2011 23:26	GK
Surr: Toluene-d8	98.8	70-120		%REC	154497	1	11/22/2011 23:26	GK

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> 303 KAYE DR
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 5:00:00 PM
<b>Lab ID:</b> 1111G63-084	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154497	1	11/22/2011 23:56	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 23:56	GK
Methylene chloride	BRL	5.0		ug/L	154497	1	11/22/2011 23:56	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 23:56	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154497	1	11/22/2011 23:56	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 23:56	GK
Chloroform	BRL	5.0		ug/L	154497	1	11/22/2011 23:56	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154497	1	11/22/2011 23:56	GK
Carbon tetrachloride	BRL	5.0		ug/L	154497	1	11/22/2011 23:56	GK
Benzene	BRL	5.0		ug/L	154497	1	11/22/2011 23:56	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154497	1	11/22/2011 23:56	GK
Trichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 23:56	GK
Toluene	BRL	5.0		ug/L	154497	1	11/22/2011 23:56	GK
Tetrachloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 23:56	GK
Ethylbenzene	BRL	5.0		ug/L	154497	1	11/22/2011 23:56	GK
Xylenes, Total	BRL	5.0		ug/L	154497	1	11/22/2011 23:56	GK
Surr: 4-Bromofluorobenzene	93.9	67.4-123		%REC	154497	1	11/22/2011 23:56	GK
Surr: Dibromofluoromethane	106	75.5-128		%REC	154497	1	11/22/2011 23:56	GK
Surr: Toluene-d8	98.8	70-120		%REC	154497	1	11/22/2011 23:56	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> DUP-111711
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 12:00:00 PM
<b>Lab ID:</b> 1111G63-085	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	15	2.0		ug/L	154497	1	11/23/2011 01:24	GK
1,1-Dichloroethene	170	5.0		ug/L	154497	1	11/23/2011 01:24	GK
Methylene chloride	BRL	5.0		ug/L	154497	1	11/23/2011 01:24	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 01:24	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154497	1	11/23/2011 01:24	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 01:24	GK
Chloroform	BRL	5.0		ug/L	154497	1	11/23/2011 01:24	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154497	1	11/23/2011 01:24	GK
Carbon tetrachloride	BRL	5.0		ug/L	154497	1	11/23/2011 01:24	GK
Benzene	BRL	5.0		ug/L	154497	1	11/23/2011 01:24	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154497	1	11/23/2011 01:24	GK
Trichloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 01:24	GK
Toluene	BRL	5.0		ug/L	154497	1	11/23/2011 01:24	GK
Tetrachloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 01:24	GK
Ethylbenzene	BRL	5.0		ug/L	154497	1	11/23/2011 01:24	GK
Xylenes, Total	BRL	5.0		ug/L	154497	1	11/23/2011 01:24	GK
Surr: 4-Bromofluorobenzene	93.9	67.4-123		%REC	154497	1	11/23/2011 01:24	GK
Surr: Dibromofluoromethane	110	75.5-128		%REC	154497	1	11/23/2011 01:24	GK
Surr: Toluene-d8	103	70-120		%REC	154497	1	11/23/2011 01:24	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> DUP-111611
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/16/2011 8:00:00 AM
<b>Lab ID:</b> 1111G63-086	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154497	1	11/23/2011 01:54	GK
1,1-Dichloroethene	320	50		ug/L	154497	10	11/23/2011 23:57	GK
Methylene chloride	BRL	5.0		ug/L	154497	1	11/23/2011 01:54	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 01:54	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154497	1	11/23/2011 01:54	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 01:54	GK
Chloroform	BRL	5.0		ug/L	154497	1	11/23/2011 01:54	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154497	1	11/23/2011 01:54	GK
Carbon tetrachloride	BRL	5.0		ug/L	154497	1	11/23/2011 01:54	GK
Benzene	BRL	5.0		ug/L	154497	1	11/23/2011 01:54	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154497	1	11/23/2011 01:54	GK
Trichloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 01:54	GK
Toluene	BRL	5.0		ug/L	154497	1	11/23/2011 01:54	GK
Tetrachloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 01:54	GK
Ethylbenzene	BRL	5.0		ug/L	154497	1	11/23/2011 01:54	GK
Xylenes, Total	BRL	5.0		ug/L	154497	1	11/23/2011 01:54	GK
Surr: 4-Bromofluorobenzene	93	67.4-123		%REC	154497	1	11/23/2011 01:54	GK
Surr: 4-Bromofluorobenzene	95.1	67.4-123		%REC	154497	10	11/23/2011 23:57	GK
Surr: Dibromofluoromethane	106	75.5-128		%REC	154497	10	11/23/2011 23:57	GK
Surr: Dibromofluoromethane	113	75.5-128		%REC	154497	1	11/23/2011 01:54	GK
Surr: Toluene-d8	97.5	70-120		%REC	154497	10	11/23/2011 23:57	GK
Surr: Toluene-d8	103	70-120		%REC	154497	1	11/23/2011 01:54	GK

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> DUP-111711-2
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 5:25:00 PM
<b>Lab ID:</b> 1111G63-087	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154497	1	11/23/2011 02:23	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 02:23	GK
Methylene chloride	BRL	5.0		ug/L	154497	1	11/23/2011 02:23	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 02:23	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154497	1	11/23/2011 02:23	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 02:23	GK
Chloroform	BRL	5.0		ug/L	154497	1	11/23/2011 02:23	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154497	1	11/23/2011 02:23	GK
Carbon tetrachloride	BRL	5.0		ug/L	154497	1	11/23/2011 02:23	GK
Benzene	BRL	5.0		ug/L	154497	1	11/23/2011 02:23	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154497	1	11/23/2011 02:23	GK
Trichloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 02:23	GK
Toluene	BRL	5.0		ug/L	154497	1	11/23/2011 02:23	GK
Tetrachloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 02:23	GK
Ethylbenzene	BRL	5.0		ug/L	154497	1	11/23/2011 02:23	GK
Xylenes, Total	BRL	5.0		ug/L	154497	1	11/23/2011 02:23	GK
Surr: 4-Bromofluorobenzene	97.3	67.4-123		%REC	154497	1	11/23/2011 02:23	GK
Surr: Dibromofluoromethane	109	75.5-128		%REC	154497	1	11/23/2011 02:23	GK
Surr: Toluene-d8	99.6	70-120		%REC	154497	1	11/23/2011 02:23	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> 412 KAYE DR
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/17/2011 5:10:00 PM
<b>Lab ID:</b> 1111G63-088	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154497	1	11/23/2011 00:25	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 00:25	GK
Methylene chloride	BRL	5.0		ug/L	154497	1	11/23/2011 00:25	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 00:25	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154497	1	11/23/2011 00:25	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 00:25	GK
Chloroform	BRL	5.0		ug/L	154497	1	11/23/2011 00:25	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154497	1	11/23/2011 00:25	GK
Carbon tetrachloride	BRL	5.0		ug/L	154497	1	11/23/2011 00:25	GK
Benzene	BRL	5.0		ug/L	154497	1	11/23/2011 00:25	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154497	1	11/23/2011 00:25	GK
Trichloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 00:25	GK
Toluene	BRL	5.0		ug/L	154497	1	11/23/2011 00:25	GK
Tetrachloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 00:25	GK
Ethylbenzene	BRL	5.0		ug/L	154497	1	11/23/2011 00:25	GK
Xylenes, Total	BRL	5.0		ug/L	154497	1	11/23/2011 00:25	GK
Surr: 4-Bromofluorobenzene	93.2	67.4-123		%REC	154497	1	11/23/2011 00:25	GK
Surr: Dibromofluoromethane	108	75.5-128		%REC	154497	1	11/23/2011 00:25	GK
Surr: Toluene-d8	100	70-120		%REC	154497	1	11/23/2011 00:25	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> DUP-111811
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/18/2011 12:00:00 PM
<b>Lab ID:</b> 1111G63-089	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154497	1	11/23/2011 02:53	GK
1,1-Dichloroethene	5400	250		ug/L	154497	50	11/23/2011 23:28	GK
Methylene chloride	BRL	5.0		ug/L	154497	1	11/23/2011 02:53	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 02:53	GK
1,1-Dichloroethane	18	5.0		ug/L	154497	1	11/23/2011 02:53	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 02:53	GK
Chloroform	6.9	5.0		ug/L	154497	1	11/23/2011 02:53	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154497	1	11/23/2011 02:53	GK
Carbon tetrachloride	160	150		ug/L	154497	50	11/23/2011 23:28	GK
Benzene	BRL	5.0		ug/L	154497	1	11/23/2011 02:53	GK
1,2-Dichloroethane	27	5.0		ug/L	154497	1	11/23/2011 02:53	GK
Trichloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 02:53	GK
Toluene	BRL	5.0		ug/L	154497	1	11/23/2011 02:53	GK
Tetrachloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 02:53	GK
Ethylbenzene	BRL	5.0		ug/L	154497	1	11/23/2011 02:53	GK
Xylenes, Total	BRL	5.0		ug/L	154497	1	11/23/2011 02:53	GK
Surr: 4-Bromofluorobenzene	93.9	67.4-123		%REC	154497	50	11/23/2011 23:28	GK
Surr: 4-Bromofluorobenzene	93.5	67.4-123		%REC	154497	1	11/23/2011 02:53	GK
Surr: Dibromofluoromethane	107	75.5-128		%REC	154497	50	11/23/2011 23:28	GK
Surr: Dibromofluoromethane	110	75.5-128		%REC	154497	1	11/23/2011 02:53	GK
Surr: Toluene-d8	101	70-120		%REC	154497	50	11/23/2011 23:28	GK
Surr: Toluene-d8	104	70-120		%REC	154497	1	11/23/2011 02:53	GK

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 29-Nov-11

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> 311 KAYE DRIVE
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/18/2011 1:30:00 PM
<b>Lab ID:</b> 1111G63-090	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154497	1	11/23/2011 00:55	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 00:55	GK
Methylene chloride	BRL	5.0		ug/L	154497	1	11/23/2011 00:55	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 00:55	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154497	1	11/23/2011 00:55	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 00:55	GK
Chloroform	BRL	5.0		ug/L	154497	1	11/23/2011 00:55	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154497	1	11/23/2011 00:55	GK
Carbon tetrachloride	BRL	5.0		ug/L	154497	1	11/23/2011 00:55	GK
Benzene	BRL	5.0		ug/L	154497	1	11/23/2011 00:55	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154497	1	11/23/2011 00:55	GK
Trichloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 00:55	GK
Toluene	BRL	5.0		ug/L	154497	1	11/23/2011 00:55	GK
Tetrachloroethene	BRL	5.0		ug/L	154497	1	11/23/2011 00:55	GK
Ethylbenzene	BRL	5.0		ug/L	154497	1	11/23/2011 00:55	GK
Xylenes, Total	BRL	5.0		ug/L	154497	1	11/23/2011 00:55	GK
Surr: 4-Bromofluorobenzene	95.8	67.4-123		%REC	154497	1	11/23/2011 00:55	GK
Surr: Dibromofluoromethane	109	75.5-128		%REC	154497	1	11/23/2011 00:55	GK
Surr: Toluene-d8	100	70-120		%REC	154497	1	11/23/2011 00:55	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> TRIP BLANK
<b>Project Name:</b> Owens Corning - Annual GW Samples	<b>Collection Date:</b> 11/18/2011
<b>Lab ID:</b> 1111G63-092	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	154497	1	11/22/2011 20:28	GK
1,1-Dichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 20:28	GK
Methylene chloride	BRL	5.0		ug/L	154497	1	11/22/2011 20:28	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 20:28	GK
1,1-Dichloroethane	BRL	5.0		ug/L	154497	1	11/22/2011 20:28	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 20:28	GK
Chloroform	BRL	5.0		ug/L	154497	1	11/22/2011 20:28	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	154497	1	11/22/2011 20:28	GK
Carbon tetrachloride	BRL	5.0		ug/L	154497	1	11/22/2011 20:28	GK
Benzene	BRL	5.0		ug/L	154497	1	11/22/2011 20:28	GK
1,2-Dichloroethane	BRL	5.0		ug/L	154497	1	11/22/2011 20:28	GK
Trichloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 20:28	GK
Toluene	BRL	5.0		ug/L	154497	1	11/22/2011 20:28	GK
Tetrachloroethene	BRL	5.0		ug/L	154497	1	11/22/2011 20:28	GK
Ethylbenzene	BRL	5.0		ug/L	154497	1	11/22/2011 20:28	GK
Xylenes, Total	BRL	5.0		ug/L	154497	1	11/22/2011 20:28	GK
Surr: 4-Bromofluorobenzene	97.8	67.4-123		%REC	154497	1	11/22/2011 20:28	GK
Surr: Dibromofluoromethane	105	75.5-128		%REC	154497	1	11/22/2011 20:28	GK
Surr: Toluene-d8	97.4	70-120		%REC	154497	1	11/22/2011 20:28	GK

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Brown + Caldwell

Work Order Number 1111G63

Checklist completed by Roth Still 11/22/11  
Signature Date

Carrier name: FedEx  UPS  Courier  Client  US Mail  Other

Shipping container/cooler in good condition? Yes  No  Not Present

Custody seals intact on shipping container/cooler? Yes  No  Not Present

Custody seals intact on sample bottles? Yes  No  Not Present

Container/Temp Blank temperature in compliance? (4°C±2)\* Yes  No

Cooler #1 4.20 Cooler #2 \_\_\_\_\_ Cooler #3 \_\_\_\_\_ Cooler #4 \_\_\_\_\_ Cooler #5 \_\_\_\_\_ Cooler #6 \_\_\_\_\_

Chain of custody present? Yes  No

Chain of custody signed when relinquished and received? Yes  No

Chain of custody agrees with sample labels? Yes  No

Samples in proper container/bottle? Yes  No

Sample containers intact? Yes  No

Sufficient sample volume for indicated test? Yes  No

All samples received within holding time? Yes  No

Was TAT marked on the COC? Yes  No

Proceed with Standard TAT as per project history? Yes  No  Not Applicable

Water - VOA vials have zero headspace? No VOA vials submitted  Yes  No

Water - pH acceptable upon receipt? Yes  No  Not Applicable

Adjusted? \_\_\_\_\_ Checked by \_\_\_\_\_

Sample Condition: Good  Other(Explain) \_\_\_\_\_

(For diffusive samples or AIHA lead) Is a known blank included? Yes  No

See Case Narrative for resolution of the Non-Conformance.

\* Samples do not have to comply with the given range for certain parameters.

Client: BROWN AND CALDWELL  
 Project: Owens Corning - Annual GW Samples  
 Lab Order: 1111G63

## Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1111G63-001A	SW-1	11/17/2011 3:40:00PM	Surface Water	Volatile Organic Compounds by GC/MS		11/22/2011	11/22/2011
1111G63-002A	SW-3A	11/17/2011 5:30:00PM	Surface Water	Volatile Organic Compounds by GC/MS		11/22/2011	11/22/2011
1111G63-003A	SW-3B	11/17/2011 5:20:00PM	Surface Water	Volatile Organic Compounds by GC/MS		11/22/2011	11/22/2011
1111G63-004A	SW-6	11/17/2011 3:10:00PM	Surface Water	Volatile Organic Compounds by GC/MS		11/22/2011	11/22/2011
1111G63-005A	SW-10	11/17/2011 2:55:00PM	Surface Water	Volatile Organic Compounds by GC/MS		11/22/2011	11/22/2011
1111G63-006A	SW-11	11/17/2011 4:55:00PM	Surface Water	Volatile Organic Compounds by GC/MS		11/22/2011	11/22/2011
1111G63-007A	SW-12	11/17/2011 4:25:00PM	Surface Water	Volatile Organic Compounds by GC/MS		11/22/2011	11/22/2011
1111G63-008A	SW-14	11/17/2011 4:05:00PM	Surface Water	Volatile Organic Compounds by GC/MS		11/22/2011	11/24/2011
1111G63-009A	SW-15	11/17/2011 3:30:00PM	Surface Water	Volatile Organic Compounds by GC/MS		11/22/2011	11/24/2011
1111G63-010A	EB-111411	11/14/2011 3:00:00PM	Aqueous	Volatile Organic Compounds by GC/MS		11/22/2011	11/24/2011
1111G63-011A	EB-111511	11/15/2011 2:00:00PM	Aqueous	Volatile Organic Compounds by GC/MS		11/22/2011	11/24/2011
1111G63-012A	EB-111611	11/16/2011 4:00:00PM	Aqueous	Volatile Organic Compounds by GC/MS		11/22/2011	11/24/2011
1111G63-013A	EB-111711	11/17/2011 10:25:00AM	Aqueous	Volatile Organic Compounds by GC/MS		11/22/2011	11/24/2011
1111G63-014A	EB-111811	11/18/2011 10:05:00AM	Aqueous	Volatile Organic Compounds by GC/MS		11/22/2011	11/24/2011
1111G63-015A	ALLOY	11/15/2011 10:10:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/22/2011	11/24/2011
1111G63-016A	MW-1	11/15/2011 12:25:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/22/2011	11/24/2011
1111G63-017A	MW-2	11/14/2011 5:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/22/2011	11/24/2011
1111G63-018A	MW-3	11/15/2011 8:40:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/22/2011	11/24/2011
1111G63-019A	MW-4	11/15/2011 10:20:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/22/2011	11/24/2011
1111G63-020A	MW-5	11/15/2011 11:40:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/22/2011	11/25/2011
1111G63-021A	MW-6	11/15/2011 4:50:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/23/2011
1111G63-022A	MW-7	11/18/2011 10:45:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/23/2011
1111G63-023A	MW-9	11/15/2011 5:45:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/23/2011
1111G63-024A	MW-10	11/15/2011 2:35:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/23/2011
1111G63-025A	MW-11	11/17/2011 1:55:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/23/2011
1111G63-026A	MW-12	11/17/2011 3:15:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/23/2011
1111G63-027A	MW-13	11/17/2011 4:25:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/23/2011
1111G63-028A	MW-14	11/15/2011 8:45:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/25/2011
1111G63-029A	MW-15	11/17/2011 11:15:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/23/2011

Client: BROWN AND CALDWELL  
 Project: Owens Corning - Annual GW Samples  
 Lab Order: 1111G63

## Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1111G63-030A	MW-16	11/16/2011 9:30:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/25/2011
1111G63-031A	MW-17	11/15/2011 2:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/24/2011
1111G63-032A	MW-18	11/14/2011 3:45:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/24/2011
1111G63-033A	MW-19	11/17/2011 1:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/24/2011
1111G63-034A	MW-20	11/17/2011 3:40:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/24/2011
1111G63-035A	MW-21	11/16/2011 10:20:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/24/2011
1111G63-036A	MW-22	11/18/2011 9:20:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/24/2011
1111G63-037A	MW-24	11/17/2011 12:55:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/24/2011
1111G63-038A	MW-25	11/16/2011 12:15:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/24/2011
1111G63-039A	MW-26	11/16/2011 10:00:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/24/2011
1111G63-040A	MW-27	11/17/2011 2:20:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/24/2011
1111G63-040A	MW-27	11/17/2011 2:20:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/25/2011
1111G63-041A	MW-28	11/18/2011 11:50:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/23/2011
1111G63-041A	MW-28	11/18/2011 11:50:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/25/2011
1111G63-042A	MW-29R ZONE 3	11/15/2011 7:35:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/23/2011
1111G63-043A	MW-29R ZONE 4	11/15/2011 8:05:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/23/2011
1111G63-044A	MW-30	11/18/2011 12:15:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/23/2011
1111G63-044A	MW-30	11/18/2011 12:15:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/25/2011
1111G63-045A	MW-31	11/18/2011 9:25:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/23/2011
1111G63-045A	MW-31	11/18/2011 9:25:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/25/2011
1111G63-046A	MW-32	11/17/2011 9:30:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/25/2011
1111G63-047A	MW-35	11/18/2011 8:10:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/23/2011
1111G63-047A	MW-35	11/18/2011 8:10:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/25/2011
1111G63-048A	MW-36 ZONE 1	11/14/2011 3:25:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/25/2011
1111G63-049A	MW-36 ZONE 3	11/15/2011 8:15:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/25/2011
1111G63-050A	MW-36 ZONE 5	11/14/2011 6:20:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/25/2011
1111G63-051A	MW-37 ZONE 1	11/16/2011 4:50:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/25/2011
1111G63-052A	MW-37 ZONE 2	11/17/2011 12:50:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/25/2011
1111G63-053A	MW-37 ZONE 3	11/17/2011 10:00:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/25/2011

Client: BROWN AND CALDWELL  
 Project: Owens Corning - Annual GW Samples  
 Lab Order: 1111G63

## Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1111G63-054A	MW-38 ZONE 1	11/17/2011 10:05:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/25/2011
1111G63-055A	MW-38 ZONE 2	11/17/2011 3:40:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/25/2011
1111G63-056A	MW-39 ZONE 1	11/15/2011 10:30:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/25/2011
1111G63-057A	MW-39 ZONE 2	11/15/2011 12:40:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/25/2011
1111G63-058A	MW-39 ZONE 3	11/15/2011 3:15:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/24/2011
1111G63-059A	MW-41 ZONE 1	11/16/2011 10:15:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/23/2011
1111G63-060A	MW-41 ZONE 2	11/16/2011 12:05:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/24/2011
1111G63-061A	MW-41 ZONE 3	11/16/2011 3:50:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/24/2011
1111G63-062A	MW-42 ZONE 1	11/15/2011 4:45:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/24/2011
1111G63-063A	MW-42 ZONE 2	11/16/2011 10:05:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/24/2011
1111G63-064A	MW-42 ZONE 3	11/16/2011 1:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/24/2011
1111G63-065A	MW-43 ZONE 1	11/14/2011 5:05:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/24/2011
1111G63-066A	MW-43 ZONE 2	11/15/2011 9:25:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/24/2011
1111G63-067A	MW-43 ZONE 3	11/15/2011 12:20:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/24/2011
1111G63-068A	TW-40	11/16/2011 4:20:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/24/2011
1111G63-069A	TW-41	11/16/2011 2:05:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/24/2011
1111G63-070A	TW-42	11/17/2011 12:50:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/24/2011
1111G63-071A	TW-43	11/15/2011 5:50:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/24/2011
1111G63-072A	TW-44	11/16/2011 1:05:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/24/2011
1111G63-073A	TW-46	11/17/2011 10:50:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/25/2011
1111G63-074A	628 AIRLINE RD	11/17/2011 5:35:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/23/2011	11/25/2011
1111G63-075A	119 CLOVERHILL DR	11/17/2011 4:40:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/22/2011	11/25/2011
1111G63-076A	408 CLINKSCALES RD	11/16/2011 5:10:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/22/2011	11/25/2011
1111G63-077A	605 CLINKSCALES RD	11/16/2011 4:55:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/22/2011	11/25/2011
1111G63-078A	721 CLINKSCALES RD	11/16/2011 5:20:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/22/2011	11/22/2011
1111G63-079A	1303 CLINKSCALES RD	11/17/2011 4:20:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/22/2011	11/22/2011
1111G63-080A	115 ELROD RD	11/17/2011 4:30:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/22/2011	11/22/2011
1111G63-081A	117 FAYE DR	11/17/2011 5:25:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/22/2011	11/22/2011
1111G63-082A	200 FRIENDSHIP LANE	11/16/2011 4:45:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/22/2011	11/22/2011

**Client:** BROWN AND CALDWELL  
**Project:** Owens Corning - Annual GW Samples  
**Lab Order:** 1111G63

**Dates Report**

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Collection Date</b>	<b>Matrix</b>	<b>Test Name</b>	<b>TCLP Date</b>	<b>Prep Date</b>	<b>Analysis Date</b>
1111G63-083A	200 KAYE DR	11/17/2011 4:50:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/22/2011	11/22/2011
1111G63-084A	303 KAYE DR	11/17/2011 5:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/22/2011	11/22/2011
1111G63-085A	DUP-111711	11/17/2011 12:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/22/2011	11/23/2011
1111G63-086A	DUP-111611	11/16/2011 8:00:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/22/2011	11/23/2011
1111G63-087A	DUP-111711-2	11/17/2011 5:25:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/22/2011	11/23/2011
1111G63-088A	412 KAYE DR	11/17/2011 5:10:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/22/2011	11/23/2011
1111G63-089A	DUP-111811	11/18/2011 12:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/22/2011	11/23/2011
1111G63-090A	311 KAYE DRIVE	11/18/2011 1:30:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/22/2011	11/23/2011
1111G63-092A	TRIP BLANK	11/18/2011 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		11/22/2011	11/22/2011



Client: BROWN AND CALDWELL  
 Project Name: Owens Corning - Annual GW Samples  
 Workorder: 1111G63

**ANALYTICAL QC SUMMARY REPORT**

BatchID: 154497

Sample ID: <b>MB-154497</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>11/22/2011</b>	Run No: <b>209891</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>154497</b>	Analysis Date: <b>11/22/2011</b>	Seq No: <b>4388551</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	0
1,1-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	0
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
1,2-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	0
Benzene	BRL	5.0	0	0	0	0	0	0	0	0	0
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0	0
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0	0
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	0
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	0
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Toluene	BRL	5.0	0	0	0	0	0	0	0	0	0
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Vinyl chloride	BRL	2.0	0	0	0	0	0	0	0	0	0
Xylenes, Total	BRL	5.0	0	0	0	0	0	0	0	0	0
Surr: 4-Bromofluorobenzene	46.01	0	50	0	92	67.4	123	0	0	0	0
Surr: Dibromofluoromethane	54.17	0	50	0	108	75.5	128	0	0	0	0
Surr: Toluene-d8	48.88	0	50	0	97.8	70	120	0	0	0	0

Sample ID: <b>LCS-154497</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>11/22/2011</b>	Run No: <b>209891</b>							
SampleType: <b>LCS</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>154497</b>	Analysis Date: <b>11/22/2011</b>	Seq No: <b>4388550</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	50.39	5.0	50	0	101	60	140	0	0	0	0
Benzene	45.41	5.0	50	0	90.8	70	130	0	0	0	0
Toluene	44.54	5.0	50	0	89.1	70	130	0	0	0	0

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

**Client:** BROWN AND CALDWELL  
**Project Name:** Owens Corning - Annual GW Samples  
**Workorder:** 1111G63

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 154497**

Sample ID: <b>LCS-154497</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>11/22/2011</b>	Run No: <b>209891</b>							
SampleType: <b>LCS</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>154497</b>	Analysis Date: <b>11/22/2011</b>	Seq No: <b>4388550</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Trichloroethene	38.93	5.0	50	0	77.9	70	130	0	0	0	
Surr: 4-Bromofluorobenzene	51.81	0	50	0	104	67.4	123	0	0	0	
Surr: Dibromofluoromethane	53.64	0	50	0	107	75.5	128	0	0	0	
Surr: Toluene-d8	52.11	0	50	0	104	70	120	0	0	0	

Sample ID: <b>1111G30-001AMS</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>11/22/2011</b>	Run No: <b>209891</b>							
SampleType: <b>MS</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>154497</b>	Analysis Date: <b>11/22/2011</b>	Seq No: <b>4388891</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	57.35	5.0	50	0	115	50.1	179	0	0	0	
Benzene	47.85	5.0	50	0	95.7	61.2	150	0	0	0	
Toluene	48.72	5.0	50	0	97.4	58.7	154	0	0	0	
Trichloroethene	43.24	5.0	50	0	86.5	68.3	149	0	0	0	
Surr: 4-Bromofluorobenzene	50.98	0	50	0	102	67.4	123	0	0	0	
Surr: Dibromofluoromethane	52.13	0	50	0	104	75.5	128	0	0	0	
Surr: Toluene-d8	53.76	0	50	0	108	70	120	0	0	0	

Sample ID: <b>1111G30-001AMSD</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>11/22/2011</b>	Run No: <b>209891</b>							
SampleType: <b>MSD</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>154497</b>	Analysis Date: <b>11/22/2011</b>	Seq No: <b>4388906</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	55.63	5.0	50	0	111	50.1	179	57.35	3.04	23.3	
Benzene	47.00	5.0	50	0	94	61.2	150	47.85	1.79	19	
Toluene	46.94	5.0	50	0	93.9	58.7	154	48.72	3.72	20	
Trichloroethene	43.46	5.0	50	0	86.9	68.3	149	43.24	0.507	17.7	
Surr: 4-Bromofluorobenzene	52.27	0	50	0	105	67.4	123	50.98	0	0	
Surr: Dibromofluoromethane	53.73	0	50	0	107	75.5	128	52.13	0	0	
Surr: Toluene-d8	52.41	0	50	0	105	70	120	53.76	0	0	

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: BROWN AND CALDWELL  
 Project Name: Owens Corning - Annual GW Samples  
 Workorder: 1111G63

**ANALYTICAL QC SUMMARY REPORT**

BatchID: 154510

Sample ID: <b>MB-154510</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>11/22/2011</b>	Run No: <b>209909</b>
SampleType: <b>MBLK</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>154510</b>	Analysis Date: <b>11/22/2011</b>	Seq No: <b>4388542</b>

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
Benzene	BRL	5.0	0	0	0	0	0	0	0	0	
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0	
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0	
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Toluene	BRL	5.0	0	0	0	0	0	0	0	0	
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Vinyl chloride	BRL	2.0	0	0	0	0	0	0	0	0	
Xylenes, Total	BRL	5.0	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	43.90	0	50	0	87.8	67.4	123	0	0	0	
Surr: Dibromofluoromethane	49.60	0	50	0	99.2	75.5	128	0	0	0	
Surr: Toluene-d8	46.44	0	50	0	92.9	70	120	0	0	0	

Sample ID: <b>LCS-154510</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>11/22/2011</b>	Run No: <b>209909</b>
SampleType: <b>LCS</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>154510</b>	Analysis Date: <b>11/22/2011</b>	Seq No: <b>4388920</b>

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	49.55	5.0	50	0	99.1	60	140	0	0	0	
Benzene	48.10	5.0	50	0	96.2	70	130	0	0	0	
Toluene	49.22	5.0	50	0	98.4	70	130	0	0	0	
Trichloroethene	47.61	5.0	50	0	95.2	70	130	0	0	0	

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** BROWN AND CALDWELL  
**Project Name:** Owens Corning - Annual GW Samples  
**Workorder:** 1111G63

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 154510**

Sample ID: <b>LCS-154510</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>11/22/2011</b>	Run No: <b>209909</b>							
SampleType: <b>LCS</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>154510</b>	Analysis Date: <b>11/22/2011</b>	Seq No: <b>4388920</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Surr: 4-Bromofluorobenzene	52.95	0	50	0	106	67.4	123	0	0	0	
Surr: Dibromofluoromethane	49.31	0	50	0	98.6	75.5	128	0	0	0	
Surr: Toluene-d8	50.67	0	50	0	101	70	120	0	0	0	

Sample ID: <b>1111G63-001AMS</b>	Client ID: <b>SW-1</b>	Units: <b>ug/L</b>	Prep Date: <b>11/22/2011</b>	Run No: <b>209909</b>							
SampleType: <b>MS</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>154510</b>	Analysis Date: <b>11/22/2011</b>	Seq No: <b>4388922</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	56.79	5.0	50	4.750	104	50.1	179	0	0	0	
Benzene	51.77	5.0	50	0	104	61.2	150	0	0	0	
Toluene	53.02	5.0	50	0	106	58.7	154	0	0	0	
Trichloroethene	51.01	5.0	50	0	102	68.3	149	0	0	0	
Surr: 4-Bromofluorobenzene	52.94	0	50	0	106	67.4	123	0	0	0	
Surr: Dibromofluoromethane	49.95	0	50	0	99.9	75.5	128	0	0	0	
Surr: Toluene-d8	51.52	0	50	0	103	70	120	0	0	0	

Sample ID: <b>1111G63-001AMSD</b>	Client ID: <b>SW-1</b>	Units: <b>ug/L</b>	Prep Date: <b>11/22/2011</b>	Run No: <b>209909</b>							
SampleType: <b>MSD</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>154510</b>	Analysis Date: <b>11/22/2011</b>	Seq No: <b>4388923</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	55.15	5.0	50	4.750	101	50.1	179	56.79	2.93	23.3	
Benzene	50.50	5.0	50	0	101	61.2	150	51.77	2.48	19	
Toluene	51.59	5.0	50	0	103	58.7	154	53.02	2.73	20	
Trichloroethene	49.41	5.0	50	0	98.8	68.3	149	51.01	3.19	17.7	
Surr: 4-Bromofluorobenzene	52.61	0	50	0	105	67.4	123	52.94	0	0	
Surr: Dibromofluoromethane	48.96	0	50	0	97.9	75.5	128	49.95	0	0	
Surr: Toluene-d8	51.08	0	50	0	102	70	120	51.52	0	0	

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: BROWN AND CALDWELL  
 Project Name: Owens Corning - Annual GW Samples  
 Workorder: 1111G63

**ANALYTICAL QC SUMMARY REPORT**

BatchID: 154545

Sample ID: <b>MB-154545</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>11/23/2011</b>	Run No: <b>209962</b>
SampleType: <b>MBLK</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>154545</b>	Analysis Date: <b>11/23/2011</b>	Seq No: <b>4389947</b>

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
Benzene	BRL	5.0	0	0	0	0	0	0	0	0	
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0	
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0	
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Toluene	BRL	5.0	0	0	0	0	0	0	0	0	
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Vinyl chloride	BRL	2.0	0	0	0	0	0	0	0	0	
Xylenes, Total	BRL	5.0	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	43.61	0	50	0	87.2	67.4	123	0	0	0	
Surr: Dibromofluoromethane	50.82	0	50	0	102	75.5	128	0	0	0	
Surr: Toluene-d8	46.24	0	50	0	92.5	70	120	0	0	0	

Sample ID: <b>LCS-154545</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>11/23/2011</b>	Run No: <b>209962</b>
SampleType: <b>LCS</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>154545</b>	Analysis Date: <b>11/23/2011</b>	Seq No: <b>4389948</b>

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	40.12	5.0	50	0	80.2	60	140	0	0	0	
Benzene	44.59	5.0	50	0	89.2	70	130	0	0	0	
Toluene	44.58	5.0	50	0	89.2	70	130	0	0	0	
Trichloroethene	42.75	5.0	50	0	85.5	70	130	0	0	0	

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

**Client:** BROWN AND CALDWELL  
**Project Name:** Owens Corning - Annual GW Samples  
**Workorder:** 1111G63

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 154545**

Sample ID: <b>LCS-154545</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>11/23/2011</b>	Run No: <b>209962</b>							
SampleType: <b>LCS</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>154545</b>	Analysis Date: <b>11/23/2011</b>	Seq No: <b>4389948</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Surr: 4-Bromofluorobenzene	50.53	0	50	0	101	67.4	123	0	0	0	
Surr: Dibromofluoromethane	52.41	0	50	0	105	75.5	128	0	0	0	
Surr: Toluene-d8	51.74	0	50	0	103	70	120	0	0	0	

Sample ID: <b>1111G63-022AMS</b>	Client ID: <b>MW-7</b>	Units: <b>ug/L</b>	Prep Date: <b>11/23/2011</b>	Run No: <b>209962</b>							
SampleType: <b>MS</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>154545</b>	Analysis Date: <b>11/23/2011</b>	Seq No: <b>4390107</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	74010	2500	25000	54370	78.5	50.1	179	0	0	0	
Benzene	23070	2500	25000	0	92.3	61.2	150	0	0	0	
Toluene	23740	2500	25000	0	94.9	58.7	154	0	0	0	
Trichloroethene	22470	2500	25000	0	89.9	68.3	149	0	0	0	
Surr: 4-Bromofluorobenzene	26270	0	25000	0	105	67.4	123	0	0	0	
Surr: Dibromofluoromethane	25850	0	25000	0	103	75.5	128	0	0	0	
Surr: Toluene-d8	26430	0	25000	0	106	70	120	0	0	0	

Sample ID: <b>1111G63-022AMSD</b>	Client ID: <b>MW-7</b>	Units: <b>ug/L</b>	Prep Date: <b>11/23/2011</b>	Run No: <b>209962</b>							
SampleType: <b>MSD</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>154545</b>	Analysis Date: <b>11/23/2011</b>	Seq No: <b>4390108</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	71470	2500	25000	54370	68.4	50.1	179	74010	3.49	23.3	
Benzene	22050	2500	25000	0	88.2	61.2	150	23070	4.54	19	
Toluene	23100	2500	25000	0	92.4	58.7	154	23740	2.71	20	
Trichloroethene	21880	2500	25000	0	87.5	68.3	149	22470	2.68	17.7	
Surr: 4-Bromofluorobenzene	26130	0	25000	0	104	67.4	123	26270	0	0	
Surr: Dibromofluoromethane	25910	0	25000	0	104	75.5	128	25850	0	0	
Surr: Toluene-d8	25550	0	25000	0	102	70	120	26430	0	0	

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: BROWN AND CALDWELL  
 Project Name: Owens Corning - Annual GW Samples  
 Workorder: 1111G63

**ANALYTICAL QC SUMMARY REPORT**

BatchID: 154557

Sample ID: <b>MB-154557</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>11/23/2011</b>	Run No: <b>209946</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>154557</b>	Analysis Date: <b>11/23/2011</b>	Seq No: <b>4390419</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	0
1,1-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	0
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
1,2-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	0
Benzene	BRL	5.0	0	0	0	0	0	0	0	0	0
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0	0
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0	0
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	0
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	0
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Toluene	BRL	5.0	0	0	0	0	0	0	0	0	0
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Vinyl chloride	BRL	2.0	0	0	0	0	0	0	0	0	0
Xylenes, Total	BRL	5.0	0	0	0	0	0	0	0	0	0
Surr: 4-Bromofluorobenzene	46.81	0	50	0	93.6	67.4	123	0	0	0	0
Surr: Dibromofluoromethane	47.04	0	50	0	94.1	75.5	128	0	0	0	0
Surr: Toluene-d8	43.43	0	50	0	86.9	70	120	0	0	0	0

Sample ID: <b>LCS-154557</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>11/23/2011</b>	Run No: <b>209946</b>							
SampleType: <b>LCS</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>154557</b>	Analysis Date: <b>11/23/2011</b>	Seq No: <b>4390570</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	39.47	5.0	50	0	78.9	60	140	0	0	0	0
Benzene	50.96	5.0	50	0	102	70	130	0	0	0	0
Toluene	50.35	5.0	50	0	101	70	130	0	0	0	0
Trichloroethene	53.94	5.0	50	0	108	70	130	0	0	0	0

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

**Client:** BROWN AND CALDWELL  
**Project Name:** Owens Corning - Annual GW Samples  
**Workorder:** 1111G63

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 154557**

Sample ID: <b>LCS-154557</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>11/23/2011</b>	Run No: <b>209946</b>							
SampleType: <b>LCS</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>154557</b>	Analysis Date: <b>11/23/2011</b>	Seq No: <b>4390570</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Surr: 4-Bromofluorobenzene	55.01	0	50	0	110	67.4	123	0	0	0	
Surr: Dibromofluoromethane	52.06	0	50	0	104	75.5	128	0	0	0	
Surr: Toluene-d8	50.34	0	50	0	101	70	120	0	0	0	

Sample ID: <b>1111G63-041AMS</b>	Client ID: <b>MW-28</b>	Units: <b>ug/L</b>	Prep Date: <b>11/23/2011</b>	Run No: <b>209946</b>							
SampleType: <b>MS</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>154557</b>	Analysis Date: <b>11/23/2011</b>	Seq No: <b>4390364</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	129600	5000	50000	96980	65.1	50.1	179	0	0	0	
Benzene	52990	5000	50000	0	106	61.2	150	0	0	0	
Toluene	52740	5000	50000	0	105	58.7	154	0	0	0	
Trichloroethene	56520	5000	50000	0	113	68.3	149	0	0	0	
Surr: 4-Bromofluorobenzene	57260	0	50000	0	115	67.4	123	0	0	0	
Surr: Dibromofluoromethane	53800	0	50000	0	108	75.5	128	0	0	0	
Surr: Toluene-d8	51000	0	50000	0	102	70	120	0	0	0	

Sample ID: <b>1111G63-041AMSD</b>	Client ID: <b>MW-28</b>	Units: <b>ug/L</b>	Prep Date: <b>11/23/2011</b>	Run No: <b>209946</b>							
SampleType: <b>MSD</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>154557</b>	Analysis Date: <b>11/23/2011</b>	Seq No: <b>4390393</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	127800	5000	50000	96980	61.6	50.1	179	129600	1.37	23.3	
Benzene	49240	5000	50000	0	98.5	61.2	150	52990	7.34	19	
Toluene	49720	5000	50000	0	99.4	58.7	154	52740	5.89	20	
Trichloroethene	51910	5000	50000	0	104	68.3	149	56520	8.5	17.7	
Surr: 4-Bromofluorobenzene	56240	0	50000	0	112	67.4	123	57260	0	0	
Surr: Dibromofluoromethane	51920	0	50000	0	104	75.5	128	53800	0	0	
Surr: Toluene-d8	49110	0	50000	0	98.2	70	120	51000	0	0	

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		



Client: BROWN AND CALDWELL  
 Project Name: Owens Corning - Annual GW Samples  
 Workorder: 1111G63

**ANALYTICAL QC SUMMARY REPORT**

BatchID: 154569

Sample ID: <b>MB-154569</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>11/23/2011</b>	Run No: <b>210040</b>
SampleType: <b>MBLK</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>154569</b>	Analysis Date: <b>11/23/2011</b>	Seq No: <b>4391281</b>

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
Benzene	BRL	5.0	0	0	0	0	0	0	0	0	
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0	
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0	
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Toluene	BRL	5.0	0	0	0	0	0	0	0	0	
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Vinyl chloride	BRL	2.0	0	0	0	0	0	0	0	0	
Xylenes, Total	BRL	5.0	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	44.00	0	50	0	88	67.4	123	0	0	0	
Surr: Dibromofluoromethane	51.96	0	50	0	104	75.5	128	0	0	0	
Surr: Toluene-d8	47.11	0	50	0	94.2	70	120	0	0	0	

Sample ID: <b>LCS-154569</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>11/23/2011</b>	Run No: <b>210040</b>
SampleType: <b>LCS</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>154569</b>	Analysis Date: <b>11/23/2011</b>	Seq No: <b>4391280</b>

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	43.83	5.0	50	0	87.7	60	140	0	0	0	
Benzene	46.09	5.0	50	0	92.2	70	130	0	0	0	
Toluene	47.72	5.0	50	0	95.4	70	130	0	0	0	
Trichloroethene	44.91	5.0	50	0	89.8	70	130	0	0	0	

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

**Client:** BROWN AND CALDWELL  
**Project Name:** Owens Corning - Annual GW Samples  
**Workorder:** 1111G63

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 154569**

Sample ID: <b>LCS-154569</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>11/23/2011</b>	Run No: <b>210040</b>							
SampleType: <b>LCS</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>154569</b>	Analysis Date: <b>11/23/2011</b>	Seq No: <b>4391280</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Surr: 4-Bromofluorobenzene	51.84	0	50	0	104	67.4	123	0	0	0	
Surr: Dibromofluoromethane	50.94	0	50	0	102	75.5	128	0	0	0	
Surr: Toluene-d8	52.40	0	50	0	105	70	120	0	0	0	

Sample ID: <b>1111G63-059AMS</b>	Client ID: <b>MW-41 ZONE 1</b>	Units: <b>ug/L</b>	Prep Date: <b>11/23/2011</b>	Run No: <b>210040</b>							
SampleType: <b>MS</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>154569</b>	Analysis Date: <b>11/23/2011</b>	Seq No: <b>4391704</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	624.7	50	500	234.7	78	50.1	179	0	0	0	
Benzene	451.9	50	500	0	90.4	61.2	150	0	0	0	
Toluene	451.2	50	500	0	90.2	58.7	154	0	0	0	
Trichloroethene	427.5	50	500	0	85.5	68.3	149	0	0	0	
Surr: 4-Bromofluorobenzene	515.4	0	500	0	103	67.4	123	0	0	0	
Surr: Dibromofluoromethane	514.0	0	500	0	103	75.5	128	0	0	0	
Surr: Toluene-d8	513.3	0	500	0	103	70	120	0	0	0	

Sample ID: <b>1111G63-059AMSD</b>	Client ID: <b>MW-41 ZONE 1</b>	Units: <b>ug/L</b>	Prep Date: <b>11/23/2011</b>	Run No: <b>210040</b>							
SampleType: <b>MSD</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>154569</b>	Analysis Date: <b>11/23/2011</b>	Seq No: <b>4391707</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	585.5	50	500	234.7	70.2	50.1	179	624.7	6.48	23.3	
Benzene	449.9	50	500	0	90	61.2	150	451.9	0.444	19	
Toluene	455.0	50	500	0	91	58.7	154	451.2	0.839	20	
Trichloroethene	433.3	50	500	0	86.7	68.3	149	427.5	1.35	17.7	
Surr: 4-Bromofluorobenzene	505.7	0	500	0	101	67.4	123	515.4	0	0	
Surr: Dibromofluoromethane	512.5	0	500	0	102	75.5	128	514.0	0	0	
Surr: Toluene-d8	513.1	0	500	0	103	70	120	513.3	0	0	

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

August 11, 2011

Tamara Berryman  
BROWN AND CALDWELL  
990 Hammond Drive  
Atlanta GA 30328

TEL: (770) 394-2997  
FAX: (770) 396-9495

RE: Owens Corning

Dear Tamara Berryman:

Order No: 1108345

Analytical Environmental Services, Inc. received 31 samples on 8/4/2011 1:45:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative. AES' certifications are as follows:

-South Carolina Certification number 98016003 for Clean Water Act and for Solid and Hazardous Waste, effective until 6/30/12.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Sharissa Hall  
Project Manager

COMPANY		ADDRESS		ANALYSIS REQUESTED		REMARKS		No # of Containers	
Brown & Caldwell		990 Hammond Dr Sk 400 Atlanta, GA 30328		VOCs		Visit our website <a href="http://www.aesatlanta.com">www.aesatlanta.com</a> to check on the status of your results, place bottle orders, etc.		2	
PHONE: 770-394-2997		FAX:		PRESERVATION (See codes)		REMARKS			
SAMPLED BY: Dan McCloy, Brian Steele		SIGNATURE: <i>[Signature]</i>							
#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)			
1	MW-22	8/1/11	1555	X		GW	X		
2	MW-15		1835						
3	MW-39 zone 1		1355						
4	MW-39 zone 2		1525						
5	MW-39 zone 3		1820						
6	MW-36 zone 1	8/2/11	0915						
7	MW-36 zone 3		1120						
8	MW-36 zone 5		1420						
9	MW-29R zone 3		1525						
10	MW-29R zone 4		1645						
11	MW-37 zone 1		1040						
12	MW-37 zone 2		1315						
13	MW-37 zone 3		1635						
14	MW-42 zone 1	8/3/11	1035						
RELINQUISHED BY: <i>[Signature]</i>		DATE/TIME: 8/4/11 1345		RECEIVED BY: <i>[Signature]</i>		DATE/TIME: 8/4/11 1:45		PROJECT INFORMATION	
SPECIAL INSTRUCTIONS/COMMENTS: *Project specific list of VOCs								PROJECT NAME: Owens Corning PROJECT #: 140437 SITE ADDRESS: Anderson, SC SEND REPORT TO: <i>[Signature]</i> INVOICE TO: (IF DIFFERENT FROM ABOVE) QUOTE #: PO#:	
SHIPMENT METHOD		OUT / / /		VIA:		SHIPMENT METHOD		Turnaround Time Request	
IN / / /		CLIENT		FedEx		UPS MAIL COURIER		Standard 5 Business Days	
		GREYHOUND		OTHER				2 Business Day Rush	
								Next Business Day Rush	
								Same Day Rush (auth req)	
								Other	
								Total # of Containers: 28	
								STATE PROGRAM (if any): E-mail? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N; Fax? <input type="checkbox"/> Y <input type="checkbox"/> N DATA PACKAGE: I <input type="checkbox"/> II <input checked="" type="checkbox"/> III <input type="checkbox"/> IV	

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.  
 SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water  
 PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None  
 White Copy - Original; Yellow Copy - Client

CHAIN OF CUSTODY

Work Order: 1108315

Date: 8/4/11 Page 2 of 3

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704  
 AFS TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

COMPANY:		ADDRESS:		ANALYSIS REQUESTED		REMARKS	No # of Containers
Brown & Caldwell		990 Hammond Dr SE 400 Atlanta, GA 30328		Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.			
PHONE:		FAX:		PRESERVATION (See codes)		No # of Containers	REMARKS
770-294-2997		Dan Melley/Brian Stede		* VOCs			
SIGNED BY:		SIGNATURE:		PROJECT INFORMATION		Total # of Containers	RECEIPT
Dan Melley/Brian Stede		[Signature]		PROJECT NAME: Owens Corning PROJECT #: 140437 SITE ADDRESS: Anderson, SC SEND REPORT TO: berrym@bunckel.com			
#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)	No # of Containers
1	MW-42 Zone 2	8/3/11	1305	X		GW	2
2	MW-42 Zone 3		1605				
3	MW-43 Zone 1		1850				
4	MW-38 Zone 1		0930				
5	MW-38 Zone 2		1000				
6	MW-41 Zone 1		1245				
7	MW-41 Zone 3		1545				
8	MW-41 Zone 2		1615				
9	MW-35		1640				
10	EB-080111	8/1/11	1530			W	
11	EB-080311	8/3/11	1050				
12	DUP-080311	8/3/11	1200				
13	EB-080211	8/2/11	1635				
14	TB-080411						
SPECIAL INSTRUCTIONS/COMMENTS:		SHIPMENT METHOD		DATE/TIME		PROJECT INFORMATION	
* Project specific list of VOCs		OUT / / VIA: IN [Signature] FedEx UPS MAIL COURIER GREYHOUND OTHER		1: [Signature] 8/4/11 1:45 2: 3:		PROJECT NAME: Owens Corning PROJECT #: 140437 SITE ADDRESS: Anderson, SC SEND REPORT TO: berrym@bunckel.com	
TB-080411 is trip blank		SHIPMENT METHOD		DATE/TIME		PROJECT INFORMATION	
		OUT / / VIA: IN		1: 2: 3:		PROJECT NAME: Owens Corning PROJECT #: 140437 SITE ADDRESS: Anderson, SC SEND REPORT TO: berrym@bunckel.com	

STATE PROGRAM (if any):  
 E-mail?  Y  N Fax?  Y  N  
 DATA PACKAGE: I  II  III IV

Turnaround Time Request  
 Standard 5 Business Days  
 2 Business Day Rush  
 Next Business Day Rush  
 Same Day Rush (auth req.)  
 Other

Turnaround Time Request  
 Standard 5 Business Days  
 2 Business Day Rush  
 Next Business Day Rush  
 Same Day Rush (auth req.)  
 Other

INVOICE TO:  
 (IF DIFFERENT FROM ABOVE)

QUOTE #:

PO#:

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.  
 SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water  
 PRESERVATIVE CODES: H+1 = Hydrochloric acid + ice I = Ice only N = Nitric acid S+1 = Sulfuric acid + ice S/M+1 = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client



**Client:** BROWN AND CALDWELL

**Project:** Owens Corning

**Lab ID:** 1108345

**Case Narrative**

Sample Receiving Nonconformance:

Sample MW-37 ZONE 3 was indicated on the Chain of Custody (COC); however, it was not received. Tamara Berryman was notified on 8/8/11 via email.

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-22
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/1/2011 3:55:00 PM
<b>Lab ID:</b> 1108345-001	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150091	1	08/09/2011 19:45	JT
1,1-Dichloroethene	430	50		ug/L	150091	10	08/10/2011 12:11	NH
Methylene chloride	BRL	5.0		ug/L	150091	1	08/09/2011 19:45	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/09/2011 19:45	JT
1,1-Dichloroethane	BRL	5.0		ug/L	150091	1	08/09/2011 19:45	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/09/2011 19:45	JT
Chloroform	15	5.0		ug/L	150091	1	08/09/2011 19:45	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	150091	1	08/09/2011 19:45	JT
Carbon tetrachloride	25	5.0		ug/L	150091	1	08/09/2011 19:45	JT
Benzene	BRL	5.0		ug/L	150091	1	08/09/2011 19:45	JT
1,2-Dichloroethane	BRL	5.0		ug/L	150091	1	08/09/2011 19:45	JT
Trichloroethene	BRL	5.0		ug/L	150091	1	08/09/2011 19:45	JT
Toluene	BRL	5.0		ug/L	150091	1	08/09/2011 19:45	JT
Tetrachloroethene	BRL	5.0		ug/L	150091	1	08/09/2011 19:45	JT
Ethylbenzene	BRL	5.0		ug/L	150091	1	08/09/2011 19:45	JT
Xylenes, Total	BRL	5.0		ug/L	150091	1	08/09/2011 19:45	JT
Surr: 4-Bromofluorobenzene	80.2	64.7-130		%REC	150091	1	08/09/2011 19:45	JT
Surr: 4-Bromofluorobenzene	95.7	64.7-130		%REC	150091	10	08/10/2011 12:11	NH
Surr: Dibromofluoromethane	97.7	80.7-129		%REC	150091	10	08/10/2011 12:11	NH
Surr: Dibromofluoromethane	116	80.7-129		%REC	150091	1	08/09/2011 19:45	JT
Surr: Toluene-d8	87.8	71.1-120		%REC	150091	1	08/09/2011 19:45	JT
Surr: Toluene-d8	98	71.1-120		%REC	150091	10	08/10/2011 12:11	NH

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-15
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/1/2011 6:35:00 PM
<b>Lab ID:</b> 1108345-002	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150091	1	08/09/2011 20:14	JT
1,1-Dichloroethene	280	50		ug/L	150091	10	08/10/2011 12:39	NH
Methylene chloride	BRL	5.0		ug/L	150091	1	08/09/2011 20:14	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/09/2011 20:14	JT
1,1-Dichloroethane	BRL	5.0		ug/L	150091	1	08/09/2011 20:14	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/09/2011 20:14	JT
Chloroform	BRL	5.0		ug/L	150091	1	08/09/2011 20:14	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	150091	1	08/09/2011 20:14	JT
Carbon tetrachloride	BRL	5.0		ug/L	150091	1	08/09/2011 20:14	JT
Benzene	BRL	5.0		ug/L	150091	1	08/09/2011 20:14	JT
1,2-Dichloroethane	BRL	5.0		ug/L	150091	1	08/09/2011 20:14	JT
Trichloroethene	BRL	5.0		ug/L	150091	1	08/09/2011 20:14	JT
Toluene	BRL	5.0		ug/L	150091	1	08/09/2011 20:14	JT
Tetrachloroethene	BRL	5.0		ug/L	150091	1	08/09/2011 20:14	JT
Ethylbenzene	BRL	5.0		ug/L	150091	1	08/09/2011 20:14	JT
Xylenes, Total	BRL	5.0		ug/L	150091	1	08/09/2011 20:14	JT
Surr: 4-Bromofluorobenzene	78	64.7-130		%REC	150091	1	08/09/2011 20:14	JT
Surr: 4-Bromofluorobenzene	96.6	64.7-130		%REC	150091	10	08/10/2011 12:39	NH
Surr: Dibromofluoromethane	96.7	80.7-129		%REC	150091	10	08/10/2011 12:39	NH
Surr: Dibromofluoromethane	116	80.7-129		%REC	150091	1	08/09/2011 20:14	JT
Surr: Toluene-d8	91.2	71.1-120		%REC	150091	1	08/09/2011 20:14	JT
Surr: Toluene-d8	98.4	71.1-120		%REC	150091	10	08/10/2011 12:39	NH

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-39 ZONE 1
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/1/2011 1:55:00 PM
<b>Lab ID:</b> 1108345-003	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150091	1	08/10/2011 10:35	SB
1,1-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 10:35	SB
Methylene chloride	BRL	5.0		ug/L	150091	1	08/10/2011 10:35	SB
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 10:35	SB
1,1-Dichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 10:35	SB
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 10:35	SB
Chloroform	BRL	5.0		ug/L	150091	1	08/10/2011 10:35	SB
1,1,1-Trichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 10:35	SB
Carbon tetrachloride	BRL	5.0		ug/L	150091	1	08/10/2011 10:35	SB
Benzene	BRL	5.0		ug/L	150091	1	08/10/2011 10:35	SB
1,2-Dichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 10:35	SB
Trichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 10:35	SB
Toluene	BRL	5.0		ug/L	150091	1	08/10/2011 10:35	SB
Tetrachloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 10:35	SB
Ethylbenzene	BRL	5.0		ug/L	150091	1	08/10/2011 10:35	SB
Xylenes, Total	BRL	5.0		ug/L	150091	1	08/10/2011 10:35	SB
Surr: 4-Bromofluorobenzene	78.6	64.7-130		%REC	150091	1	08/10/2011 10:35	SB
Surr: Dibromofluoromethane	98.2	80.7-129		%REC	150091	1	08/10/2011 10:35	SB
Surr: Toluene-d8	91.6	71.1-120		%REC	150091	1	08/10/2011 10:35	SB

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-39 ZONE 2
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/1/2011 3:25:00 PM
<b>Lab ID:</b> 1108345-004	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150091	1	08/10/2011 11:04	SB
1,1-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 11:04	SB
Methylene chloride	BRL	5.0		ug/L	150091	1	08/10/2011 11:04	SB
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 11:04	SB
1,1-Dichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 11:04	SB
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 11:04	SB
Chloroform	BRL	5.0		ug/L	150091	1	08/10/2011 11:04	SB
1,1,1-Trichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 11:04	SB
Carbon tetrachloride	BRL	5.0		ug/L	150091	1	08/10/2011 11:04	SB
Benzene	BRL	5.0		ug/L	150091	1	08/10/2011 11:04	SB
1,2-Dichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 11:04	SB
Trichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 11:04	SB
Toluene	BRL	5.0		ug/L	150091	1	08/10/2011 11:04	SB
Tetrachloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 11:04	SB
Ethylbenzene	BRL	5.0		ug/L	150091	1	08/10/2011 11:04	SB
Xylenes, Total	BRL	5.0		ug/L	150091	1	08/10/2011 11:04	SB
Surr: 4-Bromofluorobenzene	76.8	64.7-130		%REC	150091	1	08/10/2011 11:04	SB
Surr: Dibromofluoromethane	97.2	80.7-129		%REC	150091	1	08/10/2011 11:04	SB
Surr: Toluene-d8	92.3	71.1-120		%REC	150091	1	08/10/2011 11:04	SB

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-39 ZONE 3
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/1/2011 6:20:00 PM
<b>Lab ID:</b> 1108345-005	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150091	1	08/10/2011 13:37	SB
1,1-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 13:37	SB
Methylene chloride	BRL	5.0		ug/L	150091	1	08/10/2011 13:37	SB
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 13:37	SB
1,1-Dichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 13:37	SB
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 13:37	SB
Chloroform	BRL	5.0		ug/L	150091	1	08/10/2011 13:37	SB
1,1,1-Trichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 13:37	SB
Carbon tetrachloride	BRL	5.0		ug/L	150091	1	08/10/2011 13:37	SB
Benzene	BRL	5.0		ug/L	150091	1	08/10/2011 13:37	SB
1,2-Dichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 13:37	SB
Trichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 13:37	SB
Toluene	BRL	5.0		ug/L	150091	1	08/10/2011 13:37	SB
Tetrachloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 13:37	SB
Ethylbenzene	BRL	5.0		ug/L	150091	1	08/10/2011 13:37	SB
Xylenes, Total	BRL	5.0		ug/L	150091	1	08/10/2011 13:37	SB
Surr: 4-Bromofluorobenzene	81.8	64.7-130		%REC	150091	1	08/10/2011 13:37	SB
Surr: Dibromofluoromethane	94.5	80.7-129		%REC	150091	1	08/10/2011 13:37	SB
Surr: Toluene-d8	92.2	71.1-120		%REC	150091	1	08/10/2011 13:37	SB

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-36 ZONE 1
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/2/2011 9:15:00 AM
<b>Lab ID:</b> 1108345-006	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150091	1	08/10/2011 14:08	SB
1,1-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 14:08	SB
Methylene chloride	BRL	5.0		ug/L	150091	1	08/10/2011 14:08	SB
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 14:08	SB
1,1-Dichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 14:08	SB
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 14:08	SB
Chloroform	BRL	5.0		ug/L	150091	1	08/10/2011 14:08	SB
1,1,1-Trichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 14:08	SB
Carbon tetrachloride	BRL	5.0		ug/L	150091	1	08/10/2011 14:08	SB
Benzene	BRL	5.0		ug/L	150091	1	08/10/2011 14:08	SB
1,2-Dichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 14:08	SB
Trichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 14:08	SB
Toluene	BRL	5.0		ug/L	150091	1	08/10/2011 14:08	SB
Tetrachloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 14:08	SB
Ethylbenzene	BRL	5.0		ug/L	150091	1	08/10/2011 14:08	SB
Xylenes, Total	BRL	5.0		ug/L	150091	1	08/10/2011 14:08	SB
Surr: 4-Bromofluorobenzene	83.2	64.7-130		%REC	150091	1	08/10/2011 14:08	SB
Surr: Dibromofluoromethane	93.2	80.7-129		%REC	150091	1	08/10/2011 14:08	SB
Surr: Toluene-d8	92.6	71.1-120		%REC	150091	1	08/10/2011 14:08	SB

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-36 ZONE 3
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/2/2011 11:30:00 AM
<b>Lab ID:</b> 1108345-007	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150091	1	08/10/2011 02:27	JT
1,1-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 02:27	JT
Methylene chloride	BRL	5.0		ug/L	150091	1	08/10/2011 02:27	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 02:27	JT
1,1-Dichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 02:27	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 02:27	JT
Chloroform	BRL	5.0		ug/L	150091	1	08/10/2011 02:27	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 02:27	JT
Carbon tetrachloride	BRL	5.0		ug/L	150091	1	08/10/2011 02:27	JT
Benzene	BRL	5.0		ug/L	150091	1	08/10/2011 02:27	JT
1,2-Dichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 02:27	JT
Trichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 02:27	JT
Toluene	BRL	5.0		ug/L	150091	1	08/10/2011 02:27	JT
Tetrachloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 02:27	JT
Ethylbenzene	BRL	5.0		ug/L	150091	1	08/10/2011 02:27	JT
Xylenes, Total	BRL	5.0		ug/L	150091	1	08/10/2011 02:27	JT
Surr: 4-Bromofluorobenzene	81	64.7-130		%REC	150091	1	08/10/2011 02:27	JT
Surr: Dibromofluoromethane	117	80.7-129		%REC	150091	1	08/10/2011 02:27	JT
Surr: Toluene-d8	88.9	71.1-120		%REC	150091	1	08/10/2011 02:27	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-36 ZONE 5
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/2/2011 2:20:00 PM
<b>Lab ID:</b> 1108345-008	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150091	1	08/10/2011 02:55	JT
1,1-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 02:55	JT
Methylene chloride	BRL	5.0		ug/L	150091	1	08/10/2011 02:55	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 02:55	JT
1,1-Dichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 02:55	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 02:55	JT
Chloroform	BRL	5.0		ug/L	150091	1	08/10/2011 02:55	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 02:55	JT
Carbon tetrachloride	BRL	5.0		ug/L	150091	1	08/10/2011 02:55	JT
Benzene	BRL	5.0		ug/L	150091	1	08/10/2011 02:55	JT
1,2-Dichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 02:55	JT
Trichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 02:55	JT
Toluene	BRL	5.0		ug/L	150091	1	08/10/2011 02:55	JT
Tetrachloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 02:55	JT
Ethylbenzene	BRL	5.0		ug/L	150091	1	08/10/2011 02:55	JT
Xylenes, Total	BRL	5.0		ug/L	150091	1	08/10/2011 02:55	JT
Surr: 4-Bromofluorobenzene	80.1	64.7-130		%REC	150091	1	08/10/2011 02:55	JT
Surr: Dibromofluoromethane	118	80.7-129		%REC	150091	1	08/10/2011 02:55	JT
Surr: Toluene-d8	88.4	71.1-120		%REC	150091	1	08/10/2011 02:55	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-29R ZONE 3
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/2/2011 3:25:00 PM
<b>Lab ID:</b> 1108345-009	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150091	1	08/09/2011 20:42	JT
1,1-Dichloroethene	420	50		ug/L	150091	10	08/10/2011 13:06	NH
Methylene chloride	BRL	5.0		ug/L	150091	1	08/09/2011 20:42	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/09/2011 20:42	JT
1,1-Dichloroethane	BRL	5.0		ug/L	150091	1	08/09/2011 20:42	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/09/2011 20:42	JT
Chloroform	15	5.0		ug/L	150091	1	08/09/2011 20:42	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	150091	1	08/09/2011 20:42	JT
Carbon tetrachloride	19	5.0		ug/L	150091	1	08/09/2011 20:42	JT
Benzene	BRL	5.0		ug/L	150091	1	08/09/2011 20:42	JT
1,2-Dichloroethane	BRL	5.0		ug/L	150091	1	08/09/2011 20:42	JT
Trichloroethene	BRL	5.0		ug/L	150091	1	08/09/2011 20:42	JT
Toluene	BRL	5.0		ug/L	150091	1	08/09/2011 20:42	JT
Tetrachloroethene	BRL	5.0		ug/L	150091	1	08/09/2011 20:42	JT
Ethylbenzene	BRL	5.0		ug/L	150091	1	08/09/2011 20:42	JT
Xylenes, Total	BRL	5.0		ug/L	150091	1	08/09/2011 20:42	JT
Surr: 4-Bromofluorobenzene	81.1	64.7-130		%REC	150091	1	08/09/2011 20:42	JT
Surr: 4-Bromofluorobenzene	95.5	64.7-130		%REC	150091	10	08/10/2011 13:06	NH
Surr: Dibromofluoromethane	96.9	80.7-129		%REC	150091	10	08/10/2011 13:06	NH
Surr: Dibromofluoromethane	113	80.7-129		%REC	150091	1	08/09/2011 20:42	JT
Surr: Toluene-d8	88.9	71.1-120		%REC	150091	1	08/09/2011 20:42	JT
Surr: Toluene-d8	96.9	71.1-120		%REC	150091	10	08/10/2011 13:06	NH

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-29R ZONE 4
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/2/2011 4:45:00 PM
<b>Lab ID:</b> 1108345-010	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150091	1	08/09/2011 21:11	JT
1,1-Dichloroethene	390	50		ug/L	150091	10	08/10/2011 13:34	NH
Methylene chloride	BRL	5.0		ug/L	150091	1	08/09/2011 21:11	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/09/2011 21:11	JT
1,1-Dichloroethane	BRL	5.0		ug/L	150091	1	08/09/2011 21:11	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/09/2011 21:11	JT
Chloroform	14	5.0		ug/L	150091	1	08/09/2011 21:11	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	150091	1	08/09/2011 21:11	JT
Carbon tetrachloride	20	5.0		ug/L	150091	1	08/09/2011 21:11	JT
Benzene	BRL	5.0		ug/L	150091	1	08/09/2011 21:11	JT
1,2-Dichloroethane	BRL	5.0		ug/L	150091	1	08/09/2011 21:11	JT
Trichloroethene	BRL	5.0		ug/L	150091	1	08/09/2011 21:11	JT
Toluene	BRL	5.0		ug/L	150091	1	08/09/2011 21:11	JT
Tetrachloroethene	BRL	5.0		ug/L	150091	1	08/09/2011 21:11	JT
Ethylbenzene	BRL	5.0		ug/L	150091	1	08/09/2011 21:11	JT
Xylenes, Total	BRL	5.0		ug/L	150091	1	08/09/2011 21:11	JT
Surr: 4-Bromofluorobenzene	81.4	64.7-130		%REC	150091	1	08/09/2011 21:11	JT
Surr: 4-Bromofluorobenzene	95.3	64.7-130		%REC	150091	10	08/10/2011 13:34	NH
Surr: Dibromofluoromethane	97.3	80.7-129		%REC	150091	10	08/10/2011 13:34	NH
Surr: Dibromofluoromethane	115	80.7-129		%REC	150091	1	08/09/2011 21:11	JT
Surr: Toluene-d8	90.6	71.1-120		%REC	150091	1	08/09/2011 21:11	JT
Surr: Toluene-d8	97.9	71.1-120		%REC	150091	10	08/10/2011 13:34	NH

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-37 ZONE 1
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/2/2011 10:40:00 AM
<b>Lab ID:</b> 1108345-011	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150091	1	08/10/2011 03:24	JT
1,1-Dichloroethene	140	5.0		ug/L	150091	1	08/10/2011 03:24	JT
Methylene chloride	BRL	5.0		ug/L	150091	1	08/10/2011 03:24	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 03:24	JT
1,1-Dichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 03:24	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 03:24	JT
Chloroform	BRL	5.0		ug/L	150091	1	08/10/2011 03:24	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 03:24	JT
Carbon tetrachloride	BRL	5.0		ug/L	150091	1	08/10/2011 03:24	JT
Benzene	BRL	5.0		ug/L	150091	1	08/10/2011 03:24	JT
1,2-Dichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 03:24	JT
Trichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 03:24	JT
Toluene	BRL	5.0		ug/L	150091	1	08/10/2011 03:24	JT
Tetrachloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 03:24	JT
Ethylbenzene	BRL	5.0		ug/L	150091	1	08/10/2011 03:24	JT
Xylenes, Total	BRL	5.0		ug/L	150091	1	08/10/2011 03:24	JT
Surr: 4-Bromofluorobenzene	83.2	64.7-130		%REC	150091	1	08/10/2011 03:24	JT
Surr: Dibromofluoromethane	120	80.7-129		%REC	150091	1	08/10/2011 03:24	JT
Surr: Toluene-d8	89.7	71.1-120		%REC	150091	1	08/10/2011 03:24	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-37 ZONE 2
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/2/2011 1:15:00 PM
<b>Lab ID:</b> 1108345-012	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150091	1	08/10/2011 15:56	JT
1,1-Dichloroethene	160	5.0		ug/L	150091	1	08/10/2011 15:56	JT
Methylene chloride	BRL	5.0		ug/L	150091	1	08/10/2011 15:56	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 15:56	JT
1,1-Dichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 15:56	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 15:56	JT
Chloroform	7.9	5.0		ug/L	150091	1	08/10/2011 15:56	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 15:56	JT
Carbon tetrachloride	BRL	5.0		ug/L	150091	1	08/10/2011 15:56	JT
Benzene	BRL	5.0		ug/L	150091	1	08/10/2011 15:56	JT
1,2-Dichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 15:56	JT
Trichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 15:56	JT
Toluene	BRL	5.0		ug/L	150091	1	08/10/2011 15:56	JT
Tetrachloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 15:56	JT
Ethylbenzene	BRL	5.0		ug/L	150091	1	08/10/2011 15:56	JT
Xylenes, Total	BRL	5.0		ug/L	150091	1	08/10/2011 15:56	JT
Surr: 4-Bromofluorobenzene	81.3	64.7-130		%REC	150091	1	08/10/2011 15:56	JT
Surr: Dibromofluoromethane	118	80.7-129		%REC	150091	1	08/10/2011 15:56	JT
Surr: Toluene-d8	92.5	71.1-120		%REC	150091	1	08/10/2011 15:56	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-42 ZONE 1
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/3/2011 10:35:00 AM
<b>Lab ID:</b> 1108345-014	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150091	1	08/10/2011 03:53	JT
1,1-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 03:53	JT
Methylene chloride	BRL	5.0		ug/L	150091	1	08/10/2011 03:53	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 03:53	JT
1,1-Dichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 03:53	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 03:53	JT
Chloroform	BRL	5.0		ug/L	150091	1	08/10/2011 03:53	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 03:53	JT
Carbon tetrachloride	BRL	5.0		ug/L	150091	1	08/10/2011 03:53	JT
Benzene	BRL	5.0		ug/L	150091	1	08/10/2011 03:53	JT
1,2-Dichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 03:53	JT
Trichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 03:53	JT
Toluene	BRL	5.0		ug/L	150091	1	08/10/2011 03:53	JT
Tetrachloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 03:53	JT
Ethylbenzene	BRL	5.0		ug/L	150091	1	08/10/2011 03:53	JT
Xylenes, Total	BRL	5.0		ug/L	150091	1	08/10/2011 03:53	JT
Surr: 4-Bromofluorobenzene	81.8	64.7-130		%REC	150091	1	08/10/2011 03:53	JT
Surr: Dibromofluoromethane	115	80.7-129		%REC	150091	1	08/10/2011 03:53	JT
Surr: Toluene-d8	89.6	71.1-120		%REC	150091	1	08/10/2011 03:53	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-42 ZONE 2
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/3/2011 1:05:00 PM
<b>Lab ID:</b> 1108345-015	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150091	1	08/10/2011 04:22	JT
1,1-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 04:22	JT
Methylene chloride	BRL	5.0		ug/L	150091	1	08/10/2011 04:22	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 04:22	JT
1,1-Dichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 04:22	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 04:22	JT
Chloroform	BRL	5.0		ug/L	150091	1	08/10/2011 04:22	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 04:22	JT
Carbon tetrachloride	BRL	5.0		ug/L	150091	1	08/10/2011 04:22	JT
Benzene	BRL	5.0		ug/L	150091	1	08/10/2011 04:22	JT
1,2-Dichloroethane	BRL	5.0		ug/L	150091	1	08/10/2011 04:22	JT
Trichloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 04:22	JT
Toluene	BRL	5.0		ug/L	150091	1	08/10/2011 04:22	JT
Tetrachloroethene	BRL	5.0		ug/L	150091	1	08/10/2011 04:22	JT
Ethylbenzene	BRL	5.0		ug/L	150091	1	08/10/2011 04:22	JT
Xylenes, Total	BRL	5.0		ug/L	150091	1	08/10/2011 04:22	JT
Surr: 4-Bromofluorobenzene	85.7	64.7-130		%REC	150091	1	08/10/2011 04:22	JT
Surr: Dibromofluoromethane	119	80.7-129		%REC	150091	1	08/10/2011 04:22	JT
Surr: Toluene-d8	89	71.1-120		%REC	150091	1	08/10/2011 04:22	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-42 ZONE 3
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/3/2011 4:05:00 PM
<b>Lab ID:</b> 1108345-016	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150144	1	08/10/2011 04:51	JT
1,1-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 04:51	JT
Methylene chloride	BRL	5.0		ug/L	150144	1	08/10/2011 04:51	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 04:51	JT
1,1-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 04:51	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 04:51	JT
Chloroform	BRL	5.0		ug/L	150144	1	08/10/2011 04:51	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 04:51	JT
Carbon tetrachloride	BRL	5.0		ug/L	150144	1	08/10/2011 04:51	JT
Benzene	BRL	5.0		ug/L	150144	1	08/10/2011 04:51	JT
1,2-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 04:51	JT
Trichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 04:51	JT
Toluene	BRL	5.0		ug/L	150144	1	08/10/2011 04:51	JT
Tetrachloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 04:51	JT
Ethylbenzene	BRL	5.0		ug/L	150144	1	08/10/2011 04:51	JT
Xylenes, Total	BRL	5.0		ug/L	150144	1	08/10/2011 04:51	JT
Surr: 4-Bromofluorobenzene	81.7	64.7-130		%REC	150144	1	08/10/2011 04:51	JT
Surr: Dibromofluoromethane	123	80.7-129		%REC	150144	1	08/10/2011 04:51	JT
Surr: Toluene-d8	89.2	71.1-120		%REC	150144	1	08/10/2011 04:51	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-43 ZONE 1
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/3/2011 6:50:00 PM
<b>Lab ID:</b> 1108345-017	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150144	1	08/10/2011 15:28	JT
1,1-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 15:28	JT
Methylene chloride	BRL	5.0		ug/L	150144	1	08/10/2011 15:28	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 15:28	JT
1,1-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 15:28	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 15:28	JT
Chloroform	BRL	5.0		ug/L	150144	1	08/10/2011 15:28	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 15:28	JT
Carbon tetrachloride	BRL	5.0		ug/L	150144	1	08/10/2011 15:28	JT
Benzene	BRL	5.0		ug/L	150144	1	08/10/2011 15:28	JT
1,2-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 15:28	JT
Trichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 15:28	JT
Toluene	BRL	5.0		ug/L	150144	1	08/10/2011 15:28	JT
Tetrachloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 15:28	JT
Ethylbenzene	BRL	5.0		ug/L	150144	1	08/10/2011 15:28	JT
Xylenes, Total	BRL	5.0		ug/L	150144	1	08/10/2011 15:28	JT
Surr: 4-Bromofluorobenzene	78	64.7-130		%REC	150144	1	08/10/2011 15:28	JT
Surr: Dibromofluoromethane	119	80.7-129		%REC	150144	1	08/10/2011 15:28	JT
Surr: Toluene-d8	89.2	71.1-120		%REC	150144	1	08/10/2011 15:28	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-38 ZONE 1
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/3/2011 9:30:00 AM
<b>Lab ID:</b> 1108345-018	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150144	1	08/10/2011 05:19	JT
1,1-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 05:19	JT
Methylene chloride	BRL	5.0		ug/L	150144	1	08/10/2011 05:19	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 05:19	JT
1,1-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 05:19	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 05:19	JT
Chloroform	BRL	5.0		ug/L	150144	1	08/10/2011 05:19	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 05:19	JT
Carbon tetrachloride	BRL	5.0		ug/L	150144	1	08/10/2011 05:19	JT
Benzene	BRL	5.0		ug/L	150144	1	08/10/2011 05:19	JT
1,2-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 05:19	JT
Trichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 05:19	JT
Toluene	BRL	5.0		ug/L	150144	1	08/10/2011 05:19	JT
Tetrachloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 05:19	JT
Ethylbenzene	BRL	5.0		ug/L	150144	1	08/10/2011 05:19	JT
Xylenes, Total	BRL	5.0		ug/L	150144	1	08/10/2011 05:19	JT
Surr: 4-Bromofluorobenzene	82.5	64.7-130		%REC	150144	1	08/10/2011 05:19	JT
Surr: Dibromofluoromethane	121	80.7-129		%REC	150144	1	08/10/2011 05:19	JT
Surr: Toluene-d8	90.4	71.1-120		%REC	150144	1	08/10/2011 05:19	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-38 ZONE 2
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/3/2011 10:00:00 AM
<b>Lab ID:</b> 1108345-019	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150144	1	08/10/2011 05:48	JT
1,1-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 05:48	JT
Methylene chloride	BRL	5.0		ug/L	150144	1	08/10/2011 05:48	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 05:48	JT
1,1-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 05:48	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 05:48	JT
Chloroform	BRL	5.0		ug/L	150144	1	08/10/2011 05:48	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 05:48	JT
Carbon tetrachloride	BRL	5.0		ug/L	150144	1	08/10/2011 05:48	JT
Benzene	BRL	5.0		ug/L	150144	1	08/10/2011 05:48	JT
1,2-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 05:48	JT
Trichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 05:48	JT
Toluene	BRL	5.0		ug/L	150144	1	08/10/2011 05:48	JT
Tetrachloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 05:48	JT
Ethylbenzene	BRL	5.0		ug/L	150144	1	08/10/2011 05:48	JT
Xylenes, Total	BRL	5.0		ug/L	150144	1	08/10/2011 05:48	JT
Surr: 4-Bromofluorobenzene	81.7	64.7-130		%REC	150144	1	08/10/2011 05:48	JT
Surr: Dibromofluoromethane	120	80.7-129		%REC	150144	1	08/10/2011 05:48	JT
Surr: Toluene-d8	90.2	71.1-120		%REC	150144	1	08/10/2011 05:48	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-41 ZONE 1
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/3/2011 12:45:00 PM
<b>Lab ID:</b> 1108345-020	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150144	1	08/10/2011 09:00	JT
1,1-Dichloroethene	400	50		ug/L	150144	10	08/10/2011 14:01	NH
Methylene chloride	BRL	5.0		ug/L	150144	1	08/10/2011 09:00	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 09:00	JT
1,1-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 09:00	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 09:00	JT
Chloroform	BRL	5.0		ug/L	150144	1	08/10/2011 09:00	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 09:00	JT
Carbon tetrachloride	BRL	5.0		ug/L	150144	1	08/10/2011 09:00	JT
Benzene	BRL	5.0		ug/L	150144	1	08/10/2011 09:00	JT
1,2-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 09:00	JT
Trichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 09:00	JT
Toluene	BRL	5.0		ug/L	150144	1	08/10/2011 09:00	JT
Tetrachloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 09:00	JT
Ethylbenzene	BRL	5.0		ug/L	150144	1	08/10/2011 09:00	JT
Xylenes, Total	BRL	5.0		ug/L	150144	1	08/10/2011 09:00	JT
Surr: 4-Bromofluorobenzene	84.2	64.7-130		%REC	150144	1	08/10/2011 09:00	JT
Surr: 4-Bromofluorobenzene	94.3	64.7-130		%REC	150144	10	08/10/2011 14:01	NH
Surr: Dibromofluoromethane	96.5	80.7-129		%REC	150144	10	08/10/2011 14:01	NH
Surr: Dibromofluoromethane	122	80.7-129		%REC	150144	1	08/10/2011 09:00	JT
Surr: Toluene-d8	92.2	71.1-120		%REC	150144	1	08/10/2011 09:00	JT
Surr: Toluene-d8	99.1	71.1-120		%REC	150144	10	08/10/2011 14:01	NH

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-41 ZONE 3
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/3/2011 3:45:00 PM
<b>Lab ID:</b> 1108345-021	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150144	1	08/10/2011 06:16	JT
1,1-Dichloroethene	110	5.0		ug/L	150144	1	08/10/2011 06:16	JT
Methylene chloride	BRL	5.0		ug/L	150144	1	08/10/2011 06:16	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 06:16	JT
1,1-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 06:16	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 06:16	JT
Chloroform	BRL	5.0		ug/L	150144	1	08/10/2011 06:16	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 06:16	JT
Carbon tetrachloride	BRL	5.0		ug/L	150144	1	08/10/2011 06:16	JT
Benzene	BRL	5.0		ug/L	150144	1	08/10/2011 06:16	JT
1,2-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 06:16	JT
Trichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 06:16	JT
Toluene	BRL	5.0		ug/L	150144	1	08/10/2011 06:16	JT
Tetrachloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 06:16	JT
Ethylbenzene	BRL	5.0		ug/L	150144	1	08/10/2011 06:16	JT
Xylenes, Total	BRL	5.0		ug/L	150144	1	08/10/2011 06:16	JT
Surr: 4-Bromofluorobenzene	83	64.7-130		%REC	150144	1	08/10/2011 06:16	JT
Surr: Dibromofluoromethane	121	80.7-129		%REC	150144	1	08/10/2011 06:16	JT
Surr: Toluene-d8	91.5	71.1-120		%REC	150144	1	08/10/2011 06:16	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-41 ZONE 2
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/3/2011 4:15:00 PM
<b>Lab ID:</b> 1108345-022	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150144	1	08/10/2011 09:28	JT
1,1-Dichloroethene	350	50		ug/L	150144	10	08/10/2011 14:29	NH
Methylene chloride	BRL	5.0		ug/L	150144	1	08/10/2011 09:28	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 09:28	JT
1,1-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 09:28	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 09:28	JT
Chloroform	BRL	5.0		ug/L	150144	1	08/10/2011 09:28	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 09:28	JT
Carbon tetrachloride	BRL	5.0		ug/L	150144	1	08/10/2011 09:28	JT
Benzene	BRL	5.0		ug/L	150144	1	08/10/2011 09:28	JT
1,2-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 09:28	JT
Trichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 09:28	JT
Toluene	BRL	5.0		ug/L	150144	1	08/10/2011 09:28	JT
Tetrachloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 09:28	JT
Ethylbenzene	BRL	5.0		ug/L	150144	1	08/10/2011 09:28	JT
Xylenes, Total	BRL	5.0		ug/L	150144	1	08/10/2011 09:28	JT
Surr: 4-Bromofluorobenzene	83	64.7-130		%REC	150144	1	08/10/2011 09:28	JT
Surr: 4-Bromofluorobenzene	95.2	64.7-130		%REC	150144	10	08/10/2011 14:29	NH
Surr: Dibromofluoromethane	96.9	80.7-129		%REC	150144	10	08/10/2011 14:29	NH
Surr: Dibromofluoromethane	122	80.7-129		%REC	150144	1	08/10/2011 09:28	JT
Surr: Toluene-d8	90.7	71.1-120		%REC	150144	1	08/10/2011 09:28	JT
Surr: Toluene-d8	98	71.1-120		%REC	150144	10	08/10/2011 14:29	NH

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-35
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/3/2011 4:40:00 PM
<b>Lab ID:</b> 1108345-023	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150144	1	08/10/2011 09:57	JT
1,1-Dichloroethene	430	50		ug/L	150144	10	08/10/2011 14:57	NH
Methylene chloride	BRL	5.0		ug/L	150144	1	08/10/2011 09:57	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 09:57	JT
1,1-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 09:57	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 09:57	JT
Chloroform	BRL	5.0		ug/L	150144	1	08/10/2011 09:57	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 09:57	JT
Carbon tetrachloride	BRL	5.0		ug/L	150144	1	08/10/2011 09:57	JT
Benzene	BRL	5.0		ug/L	150144	1	08/10/2011 09:57	JT
1,2-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 09:57	JT
Trichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 09:57	JT
Toluene	BRL	5.0		ug/L	150144	1	08/10/2011 09:57	JT
Tetrachloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 09:57	JT
Ethylbenzene	BRL	5.0		ug/L	150144	1	08/10/2011 09:57	JT
Xylenes, Total	BRL	5.0		ug/L	150144	1	08/10/2011 09:57	JT
Surr: 4-Bromofluorobenzene	78.8	64.7-130		%REC	150144	1	08/10/2011 09:57	JT
Surr: 4-Bromofluorobenzene	96.7	64.7-130		%REC	150144	10	08/10/2011 14:57	NH
Surr: Dibromofluoromethane	98.5	80.7-129		%REC	150144	10	08/10/2011 14:57	NH
Surr: Dibromofluoromethane	117	80.7-129		%REC	150144	1	08/10/2011 09:57	JT
Surr: Toluene-d8	90.7	71.1-120		%REC	150144	1	08/10/2011 09:57	JT
Surr: Toluene-d8	99	71.1-120		%REC	150144	10	08/10/2011 14:57	NH

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> EB-080111
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/1/2011 3:30:00 PM
<b>Lab ID:</b> 1108345-024	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150144	1	08/10/2011 15:24	NH
1,1-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 15:24	NH
Methylene chloride	BRL	5.0		ug/L	150144	1	08/10/2011 15:24	NH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 15:24	NH
1,1-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 15:24	NH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 15:24	NH
Chloroform	BRL	5.0		ug/L	150144	1	08/10/2011 15:24	NH
1,1,1-Trichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 15:24	NH
Carbon tetrachloride	BRL	5.0		ug/L	150144	1	08/10/2011 15:24	NH
Benzene	BRL	5.0		ug/L	150144	1	08/10/2011 15:24	NH
1,2-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 15:24	NH
Trichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 15:24	NH
Toluene	BRL	5.0		ug/L	150144	1	08/10/2011 15:24	NH
Tetrachloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 15:24	NH
Ethylbenzene	BRL	5.0		ug/L	150144	1	08/10/2011 15:24	NH
Xylenes, Total	BRL	5.0		ug/L	150144	1	08/10/2011 15:24	NH
Surr: 4-Bromofluorobenzene	95.4	64.7-130		%REC	150144	1	08/10/2011 15:24	NH
Surr: Dibromofluoromethane	99.2	80.7-129		%REC	150144	1	08/10/2011 15:24	NH
Surr: Toluene-d8	99	71.1-120		%REC	150144	1	08/10/2011 15:24	NH

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> EB-080311
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/3/2011 10:50:00 AM
<b>Lab ID:</b> 1108345-025	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150144	1	08/10/2011 15:52	NH
1,1-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 15:52	NH
Methylene chloride	BRL	5.0		ug/L	150144	1	08/10/2011 15:52	NH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 15:52	NH
1,1-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 15:52	NH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 15:52	NH
Chloroform	BRL	5.0		ug/L	150144	1	08/10/2011 15:52	NH
1,1,1-Trichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 15:52	NH
Carbon tetrachloride	BRL	5.0		ug/L	150144	1	08/10/2011 15:52	NH
Benzene	BRL	5.0		ug/L	150144	1	08/10/2011 15:52	NH
1,2-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 15:52	NH
Trichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 15:52	NH
Toluene	BRL	5.0		ug/L	150144	1	08/10/2011 15:52	NH
Tetrachloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 15:52	NH
Ethylbenzene	BRL	5.0		ug/L	150144	1	08/10/2011 15:52	NH
Xylenes, Total	BRL	5.0		ug/L	150144	1	08/10/2011 15:52	NH
Surr: 4-Bromofluorobenzene	96	64.7-130		%REC	150144	1	08/10/2011 15:52	NH
Surr: Dibromofluoromethane	99.1	80.7-129		%REC	150144	1	08/10/2011 15:52	NH
Surr: Toluene-d8	99.3	71.1-120		%REC	150144	1	08/10/2011 15:52	NH

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> DUP-080311
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/3/2011 12:00:00 PM
<b>Lab ID:</b> 1108345-026	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150144	1	08/10/2011 16:20	NH
1,1-Dichloroethene	93	5.0		ug/L	150144	1	08/10/2011 16:20	NH
Methylene chloride	BRL	5.0		ug/L	150144	1	08/10/2011 16:20	NH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 16:20	NH
1,1-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 16:20	NH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 16:20	NH
Chloroform	BRL	5.0		ug/L	150144	1	08/10/2011 16:20	NH
1,1,1-Trichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 16:20	NH
Carbon tetrachloride	BRL	5.0		ug/L	150144	1	08/10/2011 16:20	NH
Benzene	BRL	5.0		ug/L	150144	1	08/10/2011 16:20	NH
1,2-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 16:20	NH
Trichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 16:20	NH
Toluene	BRL	5.0		ug/L	150144	1	08/10/2011 16:20	NH
Tetrachloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 16:20	NH
Ethylbenzene	BRL	5.0		ug/L	150144	1	08/10/2011 16:20	NH
Xylenes, Total	BRL	5.0		ug/L	150144	1	08/10/2011 16:20	NH
Surr: 4-Bromofluorobenzene	95.8	64.7-130		%REC	150144	1	08/10/2011 16:20	NH
Surr: Dibromofluoromethane	98.6	80.7-129		%REC	150144	1	08/10/2011 16:20	NH
Surr: Toluene-d8	98	71.1-120		%REC	150144	1	08/10/2011 16:20	NH

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> EB-080211
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/2/2011 4:35:00 PM
<b>Lab ID:</b> 1108345-027	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150144	1	08/10/2011 07:14	JT
1,1-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 07:14	JT
Methylene chloride	BRL	5.0		ug/L	150144	1	08/10/2011 07:14	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 07:14	JT
1,1-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 07:14	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 07:14	JT
Chloroform	BRL	5.0		ug/L	150144	1	08/10/2011 07:14	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 07:14	JT
Carbon tetrachloride	BRL	5.0		ug/L	150144	1	08/10/2011 07:14	JT
Benzene	BRL	5.0		ug/L	150144	1	08/10/2011 07:14	JT
1,2-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 07:14	JT
Trichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 07:14	JT
Toluene	BRL	5.0		ug/L	150144	1	08/10/2011 07:14	JT
Tetrachloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 07:14	JT
Ethylbenzene	BRL	5.0		ug/L	150144	1	08/10/2011 07:14	JT
Xylenes, Total	BRL	5.0		ug/L	150144	1	08/10/2011 07:14	JT
Surr: 4-Bromofluorobenzene	81.1	64.7-130		%REC	150144	1	08/10/2011 07:14	JT
Surr: Dibromofluoromethane	119	80.7-129		%REC	150144	1	08/10/2011 07:14	JT
Surr: Toluene-d8	91.6	71.1-120		%REC	150144	1	08/10/2011 07:14	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> TB-080411
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/4/2011
<b>Lab ID:</b> 1108345-028	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150144	1	08/10/2011 06:45	JT
1,1-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 06:45	JT
Methylene chloride	BRL	5.0		ug/L	150144	1	08/10/2011 06:45	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 06:45	JT
1,1-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 06:45	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 06:45	JT
Chloroform	BRL	5.0		ug/L	150144	1	08/10/2011 06:45	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 06:45	JT
Carbon tetrachloride	BRL	5.0		ug/L	150144	1	08/10/2011 06:45	JT
Benzene	BRL	5.0		ug/L	150144	1	08/10/2011 06:45	JT
1,2-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 06:45	JT
Trichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 06:45	JT
Toluene	BRL	5.0		ug/L	150144	1	08/10/2011 06:45	JT
Tetrachloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 06:45	JT
Ethylbenzene	BRL	5.0		ug/L	150144	1	08/10/2011 06:45	JT
Xylenes, Total	BRL	5.0		ug/L	150144	1	08/10/2011 06:45	JT
Surr: 4-Bromofluorobenzene	82.2	64.7-130		%REC	150144	1	08/10/2011 06:45	JT
Surr: Dibromofluoromethane	119	80.7-129		%REC	150144	1	08/10/2011 06:45	JT
Surr: Toluene-d8	90	71.1-120		%REC	150144	1	08/10/2011 06:45	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-37 ZONE 3
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/2/2011 4:25:00 PM
<b>Lab ID:</b> 1108345-029	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150144	1	08/10/2011 14:02	JT
1,1-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 14:02	JT
Methylene chloride	BRL	5.0		ug/L	150144	1	08/10/2011 14:02	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 14:02	JT
1,1-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 14:02	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 14:02	JT
Chloroform	BRL	5.0		ug/L	150144	1	08/10/2011 14:02	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 14:02	JT
Carbon tetrachloride	BRL	5.0		ug/L	150144	1	08/10/2011 14:02	JT
Benzene	BRL	5.0		ug/L	150144	1	08/10/2011 14:02	JT
1,2-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 14:02	JT
Trichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 14:02	JT
Toluene	BRL	5.0		ug/L	150144	1	08/10/2011 14:02	JT
Tetrachloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 14:02	JT
Ethylbenzene	BRL	5.0		ug/L	150144	1	08/10/2011 14:02	JT
Xylenes, Total	BRL	5.0		ug/L	150144	1	08/10/2011 14:02	JT
Surr: 4-Bromofluorobenzene	82.8	64.7-130		%REC	150144	1	08/10/2011 14:02	JT
Surr: Dibromofluoromethane	120	80.7-129		%REC	150144	1	08/10/2011 14:02	JT
Surr: Toluene-d8	88.5	71.1-120		%REC	150144	1	08/10/2011 14:02	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-43 ZONE2
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/4/2011 10:05:00 AM
<b>Lab ID:</b> 1108345-030	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150144	1	08/10/2011 14:31	JT
1,1-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 14:31	JT
Methylene chloride	BRL	5.0		ug/L	150144	1	08/10/2011 14:31	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 14:31	JT
1,1-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 14:31	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 14:31	JT
Chloroform	BRL	5.0		ug/L	150144	1	08/10/2011 14:31	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 14:31	JT
Carbon tetrachloride	BRL	5.0		ug/L	150144	1	08/10/2011 14:31	JT
Benzene	BRL	5.0		ug/L	150144	1	08/10/2011 14:31	JT
1,2-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 14:31	JT
Trichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 14:31	JT
Toluene	BRL	5.0		ug/L	150144	1	08/10/2011 14:31	JT
Tetrachloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 14:31	JT
Ethylbenzene	BRL	5.0		ug/L	150144	1	08/10/2011 14:31	JT
Xylenes, Total	BRL	5.0		ug/L	150144	1	08/10/2011 14:31	JT
Surr: 4-Bromofluorobenzene	80.6	64.7-130		%REC	150144	1	08/10/2011 14:31	JT
Surr: Dibromofluoromethane	120	80.7-129		%REC	150144	1	08/10/2011 14:31	JT
Surr: Toluene-d8	89.9	71.1-120		%REC	150144	1	08/10/2011 14:31	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> MW-43 ZONE 3
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/4/2011 10:20:00 AM
<b>Lab ID:</b> 1108345-031	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150144	1	08/10/2011 14:59	JT
1,1-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 14:59	JT
Methylene chloride	BRL	5.0		ug/L	150144	1	08/10/2011 14:59	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 14:59	JT
1,1-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 14:59	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 14:59	JT
Chloroform	BRL	5.0		ug/L	150144	1	08/10/2011 14:59	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 14:59	JT
Carbon tetrachloride	BRL	5.0		ug/L	150144	1	08/10/2011 14:59	JT
Benzene	BRL	5.0		ug/L	150144	1	08/10/2011 14:59	JT
1,2-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 14:59	JT
Trichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 14:59	JT
Toluene	BRL	5.0		ug/L	150144	1	08/10/2011 14:59	JT
Tetrachloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 14:59	JT
Ethylbenzene	BRL	5.0		ug/L	150144	1	08/10/2011 14:59	JT
Xylenes, Total	BRL	5.0		ug/L	150144	1	08/10/2011 14:59	JT
Surr: 4-Bromofluorobenzene	83.6	64.7-130		%REC	150144	1	08/10/2011 14:59	JT
Surr: Dibromofluoromethane	123	80.7-129		%REC	150144	1	08/10/2011 14:59	JT
Surr: Toluene-d8	90.8	71.1-120		%REC	150144	1	08/10/2011 14:59	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> BROWN AND CALDWELL	<b>Client Sample ID:</b> EB-080411
<b>Project Name:</b> Owens Corning	<b>Collection Date:</b> 8/4/2011 7:55:00 AM
<b>Lab ID:</b> 1108345-032	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Volatile Organic Compounds by GC/MS SW8260B (SW5030B)</b>								
Vinyl chloride	BRL	2.0		ug/L	150144	1	08/10/2011 08:31	JT
1,1-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 08:31	JT
Methylene chloride	BRL	5.0		ug/L	150144	1	08/10/2011 08:31	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 08:31	JT
1,1-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 08:31	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 08:31	JT
Chloroform	BRL	5.0		ug/L	150144	1	08/10/2011 08:31	JT
1,1,1-Trichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 08:31	JT
Carbon tetrachloride	BRL	5.0		ug/L	150144	1	08/10/2011 08:31	JT
Benzene	BRL	5.0		ug/L	150144	1	08/10/2011 08:31	JT
1,2-Dichloroethane	BRL	5.0		ug/L	150144	1	08/10/2011 08:31	JT
Trichloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 08:31	JT
Toluene	BRL	5.0		ug/L	150144	1	08/10/2011 08:31	JT
Tetrachloroethene	BRL	5.0		ug/L	150144	1	08/10/2011 08:31	JT
Ethylbenzene	BRL	5.0		ug/L	150144	1	08/10/2011 08:31	JT
Xylenes, Total	BRL	5.0		ug/L	150144	1	08/10/2011 08:31	JT
Surr: 4-Bromofluorobenzene	82.8	64.7-130		%REC	150144	1	08/10/2011 08:31	JT
Surr: Dibromofluoromethane	115	80.7-129		%REC	150144	1	08/10/2011 08:31	JT
Surr: Toluene-d8	88.1	71.1-120		%REC	150144	1	08/10/2011 08:31	JT

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Analytical Environmental Services, Inc.**

**Sample/Cooler Receipt Checklist**

Client Brown & Caldwell

Work Order Number 1108345

Checklist completed by Mark Signature Date 8/4/11

Carrier name: FedEx  UPS  Courier  Client  US Mail  Other

Shipping container/cooler in good condition? Yes  No  Not Present

Custody seals intact on shipping container/cooler? Yes  No  Not Present

Custody seals intact on sample bottles? Yes  No  Not Present

Container/Temp Blank temperature in compliance? (4°C±2)\* Yes  No

Cooler #1 3.8 Cooler #2 \_\_\_\_\_ Cooler #3 \_\_\_\_\_ Cooler #4 \_\_\_\_\_ Cooler#5 \_\_\_\_\_ Cooler #6 \_\_\_\_\_

Chain of custody present? Yes  No

Chain of custody signed when relinquished and received? Yes  No

Chain of custody agrees with sample labels? Yes  No

Samples in proper container/bottle? Yes  No

Sample containers intact? Yes  No

Sufficient sample volume for indicated test? Yes  No

All samples received within holding time? Yes  No

Was TAT marked on the COC? Yes  No

Proceed with Standard TAT as per project history? Yes  No  Not Applicable

Water - VOA vials have zero headspace? No VOA vials submitted  Yes  No

Water - pH acceptable upon receipt? Yes  No  Not Applicable

Adjusted? \_\_\_\_\_ Checked by \_\_\_\_\_

Sample Condition: Good  Other(Explain) \_\_\_\_\_

(For diffusive samples or AIHA lead) Is a known blank included? Yes  No

**See Case Narrative for resolution of the Non-Conformance.**

\* Samples do not have to comply with the given range for certain parameters.

Client: BROWN AND CALDWELL  
 Project: Owens Corning  
 Lab Order: 1108345

### Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1108345-001A	MW-22	8/1/2011 3:55:00PM	Groundwater	Volatile Organic Compounds by GC/MS		08/09/2011	08/09/2011
1108345-001A	MW-22	8/1/2011 3:55:00PM	Groundwater	Volatile Organic Compounds by GC/MS		08/09/2011	08/10/2011
1108345-002A	MW-15	8/1/2011 6:35:00PM	Groundwater	Volatile Organic Compounds by GC/MS		08/09/2011	08/09/2011
1108345-002A	MW-15	8/1/2011 6:35:00PM	Groundwater	Volatile Organic Compounds by GC/MS		08/09/2011	08/10/2011
1108345-003A	MW-39 ZONE 1	8/1/2011 1:55:00PM	Groundwater	Volatile Organic Compounds by GC/MS		08/09/2011	08/10/2011
1108345-004A	MW-39 ZONE 2	8/1/2011 3:25:00PM	Groundwater	Volatile Organic Compounds by GC/MS		08/09/2011	08/10/2011
1108345-005A	MW-39 ZONE 3	8/1/2011 6:20:00PM	Groundwater	Volatile Organic Compounds by GC/MS		08/09/2011	08/10/2011
1108345-006A	MW-36 ZONE 1	8/2/2011 9:15:00AM	Groundwater	Volatile Organic Compounds by GC/MS		08/09/2011	08/10/2011
1108345-007A	MW-36 ZONE 3	8/2/2011 11:30:00AM	Groundwater	Volatile Organic Compounds by GC/MS		08/09/2011	08/10/2011
1108345-008A	MW-36 ZONE 5	8/2/2011 2:20:00PM	Groundwater	Volatile Organic Compounds by GC/MS		08/09/2011	08/10/2011
1108345-009A	MW-29R ZONE 3	8/2/2011 3:25:00PM	Groundwater	Volatile Organic Compounds by GC/MS		08/09/2011	08/09/2011
1108345-009A	MW-29R ZONE 3	8/2/2011 3:25:00PM	Groundwater	Volatile Organic Compounds by GC/MS		08/09/2011	08/10/2011
1108345-010A	MW-29R ZONE 4	8/2/2011 4:45:00PM	Groundwater	Volatile Organic Compounds by GC/MS		08/09/2011	08/09/2011
1108345-010A	MW-29R ZONE 4	8/2/2011 4:45:00PM	Groundwater	Volatile Organic Compounds by GC/MS		08/09/2011	08/10/2011
1108345-011A	MW-37 ZONE 1	8/2/2011 10:40:00AM	Groundwater	Volatile Organic Compounds by GC/MS		08/09/2011	08/10/2011
1108345-012A	MW-37 ZONE 2	8/2/2011 1:15:00PM	Groundwater	Volatile Organic Compounds by GC/MS		08/09/2011	08/10/2011
1108345-014A	MW-42 ZONE 1	8/3/2011 10:35:00AM	Groundwater	Volatile Organic Compounds by GC/MS		08/09/2011	08/10/2011
1108345-015A	MW-42 ZONE 2	8/3/2011 1:05:00PM	Groundwater	Volatile Organic Compounds by GC/MS		08/09/2011	08/10/2011
1108345-016A	MW-42 ZONE 3	8/3/2011 4:05:00PM	Groundwater	Volatile Organic Compounds by GC/MS		08/10/2011	08/10/2011
1108345-017A	MW-43 ZONE 1	8/3/2011 6:50:00PM	Groundwater	Volatile Organic Compounds by GC/MS		08/10/2011	08/10/2011
1108345-018A	MW-38 ZONE 1	8/3/2011 9:30:00AM	Groundwater	Volatile Organic Compounds by GC/MS		08/10/2011	08/10/2011
1108345-019A	MW-38 ZONE 2	8/3/2011 10:00:00AM	Groundwater	Volatile Organic Compounds by GC/MS		08/10/2011	08/10/2011
1108345-020A	MW-41 ZONE 1	8/3/2011 12:45:00PM	Groundwater	Volatile Organic Compounds by GC/MS		08/10/2011	08/10/2011
1108345-021A	MW-41 ZONE 3	8/3/2011 3:45:00PM	Groundwater	Volatile Organic Compounds by GC/MS		08/10/2011	08/10/2011
1108345-022A	MW-41 ZONE 2	8/3/2011 4:15:00PM	Groundwater	Volatile Organic Compounds by GC/MS		08/10/2011	08/10/2011
1108345-023A	MW-35	8/3/2011 4:40:00PM	Groundwater	Volatile Organic Compounds by GC/MS		08/10/2011	08/10/2011
1108345-024A	EB-080111	8/1/2011 3:30:00PM	Aqueous	Volatile Organic Compounds by GC/MS		08/10/2011	08/10/2011
1108345-025A	EB-080311	8/3/2011 10:50:00AM	Aqueous	Volatile Organic Compounds by GC/MS		08/10/2011	08/10/2011
1108345-026A	DUP-080311	8/3/2011 12:00:00PM	Aqueous	Volatile Organic Compounds by GC/MS		08/10/2011	08/10/2011



**Client:** BROWN AND CALDWELL  
**Project:** Owens Corning  
**Lab Order:** 1108345

**Dates Report**

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Collection Date</b>	<b>Matrix</b>	<b>Test Name</b>	<b>TCLP Date</b>	<b>Prep Date</b>	<b>Analysis Date</b>
1108345-027A	EB-080211	8/2/2011 4:35:00PM	Aqueous	Volatile Organic Compounds by GC/MS		08/10/2011	08/10/2011
1108345-028A	TB-080411	8/4/2011 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		08/10/2011	08/10/2011
1108345-029A	MW-37 ZONE 3	8/2/2011 4:25:00PM	Groundwater	Volatile Organic Compounds by GC/MS		08/10/2011	08/10/2011
1108345-030A	MW-43 ZONE2	8/4/2011 10:05:00AM	Groundwater	Volatile Organic Compounds by GC/MS		08/10/2011	08/10/2011
1108345-031A	MW-43 ZONE 3	8/4/2011 10:20:00AM	Groundwater	Volatile Organic Compounds by GC/MS		08/10/2011	08/10/2011
1108345-032A	EB-080411	8/4/2011 7:55:00AM	Groundwater	Volatile Organic Compounds by GC/MS		08/10/2011	08/10/2011

**Client:** BROWN AND CALDWELL  
**Project Name:** Owens Corning  
**Workorder:** 1108345

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 150091**

Sample ID: <b>MB-150091</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>08/09/2011</b>	Run No: <b>202794</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>150091</b>	Analysis Date: <b>08/09/2011</b>	Seq No: <b>4237938</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	0
1,1-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	0
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
1,2-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	0
Benzene	BRL	5.0	0	0	0	0	0	0	0	0	0
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0	0
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0	0
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	0
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	0
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Toluene	BRL	5.0	0	0	0	0	0	0	0	0	0
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Vinyl chloride	BRL	2.0	0	0	0	0	0	0	0	0	0
Xylenes, Total	BRL	5.0	0	0	0	0	0	0	0	0	0
Surr: 4-Bromofluorobenzene	42.68	0	50	0	85.4	64.7	130	0	0	0	0
Surr: Dibromofluoromethane	57.06	0	50	0	114	80.7	129	0	0	0	0
Surr: Toluene-d8	43.56	0	50	0	87.1	71.1	120	0	0	0	0

Sample ID: <b>LCS-150091</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>08/09/2011</b>	Run No: <b>202794</b>							
SampleType: <b>LCS</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>150091</b>	Analysis Date: <b>08/09/2011</b>	Seq No: <b>4237936</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	44.45	5.0	50	0	88.9	60	140	0	0	0	0
Benzene	55.86	5.0	50	0	112	70	130	0	0	0	0
Toluene	56.28	5.0	50	0	113	70	130	0	0	0	0

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** BROWN AND CALDWELL  
**Project Name:** Owens Corning  
**Workorder:** 1108345

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 150091**

Sample ID: <b>LCS-150091</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>08/09/2011</b>	Run No: <b>202794</b>							
SampleType: <b>LCS</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>150091</b>	Analysis Date: <b>08/09/2011</b>	Seq No: <b>4237936</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Trichloroethene	57.11	5.0	50	0	114	70	130	0	0	0	
Surr: 4-Bromofluorobenzene	51.77	0	50	0	104	64.7	130	0	0	0	
Surr: Dibromofluoromethane	52.31	0	50	0	105	80.7	129	0	0	0	
Surr: Toluene-d8	52.39	0	50	0	105	71.1	120	0	0	0	

Sample ID: <b>1108271-001AMS</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>08/09/2011</b>	Run No: <b>202794</b>							
SampleType: <b>MS</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>150091</b>	Analysis Date: <b>08/09/2011</b>	Seq No: <b>4238939</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	502300	50000	500000	0	100	46.2	183	0	0	0	
Benzene	589700	50000	500000	0	118	62.2	143	0	0	0	
Toluene	601100	50000	500000	0	120	57.8	149	0	0	0	
Trichloroethene	587900	50000	500000	0	118	70.5	149	0	0	0	
Surr: 4-Bromofluorobenzene	524100	0	500000	0	105	64.7	130	0	0	0	
Surr: Dibromofluoromethane	546500	0	500000	0	109	80.7	129	0	0	0	
Surr: Toluene-d8	561700	0	500000	0	112	71.1	120	0	0	0	

Sample ID: <b>1108271-001AMSD</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>08/09/2011</b>	Run No: <b>202794</b>							
SampleType: <b>MSD</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>150091</b>	Analysis Date: <b>08/10/2011</b>	Seq No: <b>4238940</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	509400	50000	500000	0	102	46.2	183	502300	1.4	20	
Benzene	571700	50000	500000	0	114	62.2	143	589700	3.1	20	
Toluene	580200	50000	500000	0	116	57.8	149	601100	3.54	20	
Trichloroethene	563200	50000	500000	0	113	70.5	149	587900	4.29	20	
Surr: 4-Bromofluorobenzene	525200	0	500000	0	105	64.7	130	524100	0	0	
Surr: Dibromofluoromethane	542900	0	500000	0	109	80.7	129	546500	0	0	
Surr: Toluene-d8	544400	0	500000	0	109	71.1	120	561700	0	0	

**Qualifiers:** > Greater than Result value      < Less than Result value      B Analyte detected in the associated method blank  
 BRL Below reporting limit      E Estimated (value above quantitation range)      H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit      N Analyte not NELAC certified      R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit      S Spike Recovery outside limits due to matrix

Client: BROWN AND CALDWELL  
 Project Name: Owens Corning  
 Workorder: 1108345

**ANALYTICAL QC SUMMARY REPORT**

BatchID: 150144

Sample ID: <b>MB-150144</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>08/10/2011</b>	Run No: <b>202842</b>
SampleType: <b>MBLK</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>150144</b>	Analysis Date: <b>08/10/2011</b>	Seq No: <b>4239020</b>

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
Benzene	BRL	5.0	0	0	0	0	0	0	0	0	
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0	
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0	
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Toluene	BRL	5.0	0	0	0	0	0	0	0	0	
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Vinyl chloride	BRL	2.0	0	0	0	0	0	0	0	0	
Xylenes, Total	BRL	5.0	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	39.92	0	50	0	79.8	64.7	130	0	0	0	
Surr: Dibromofluoromethane	59.80	0	50	0	120	80.7	129	0	0	0	
Surr: Toluene-d8	44.40	0	50	0	88.8	71.1	120	0	0	0	

Sample ID: <b>LCS-150144</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>08/10/2011</b>	Run No: <b>202842</b>
SampleType: <b>LCS</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>150144</b>	Analysis Date: <b>08/10/2011</b>	Seq No: <b>4239019</b>

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	65.90	5.0	50	0	132	60	140	0	0	0	
Benzene	53.14	5.0	50	0	106	70	130	0	0	0	
Toluene	53.25	5.0	50	0	106	70	130	0	0	0	
Trichloroethene	54.53	5.0	50	0	109	70	130	0	0	0	

**Qualifiers:** > Greater than Result value      < Less than Result value      B Analyte detected in the associated method blank  
 BRL Below reporting limit      E Estimated (value above quantitation range)      H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit      N Analyte not NELAC certified      R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit      S Spike Recovery outside limits due to matrix

**Client:** BROWN AND CALDWELL  
**Project Name:** Owens Corning  
**Workorder:** 1108345

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 150144**

Sample ID: <b>LCS-150144</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>08/10/2011</b>	Run No: <b>202842</b>							
SampleType: <b>LCS</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>150144</b>	Analysis Date: <b>08/10/2011</b>	Seq No: <b>4239019</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Surr: 4-Bromofluorobenzene	42.15	0	50	0	84.3	64.7	130	0	0	0	
Surr: Dibromofluoromethane	55.01	0	50	0	110	80.7	129	0	0	0	
Surr: Toluene-d8	43.60	0	50	0	87.2	71.1	120	0	0	0	

Sample ID: <b>1108345-016AMS</b>	Client ID: <b>MW-42 ZONE 3</b>	Units: <b>ug/L</b>	Prep Date: <b>08/10/2011</b>	Run No: <b>202842</b>							
SampleType: <b>MS</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>150144</b>	Analysis Date: <b>08/10/2011</b>	Seq No: <b>4239202</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	48.26	5.0	50	0	96.5	46.2	183	0	0	0	
Benzene	58.73	5.0	50	0	117	62.2	143	0	0	0	
Toluene	59.28	5.0	50	0	119	57.8	149	0	0	0	
Trichloroethene	57.02	5.0	50	0	114	70.5	149	0	0	0	
Surr: 4-Bromofluorobenzene	52.58	0	50	0	105	64.7	130	0	0	0	
Surr: Dibromofluoromethane	56.16	0	50	0	112	80.7	129	0	0	0	
Surr: Toluene-d8	54.40	0	50	0	109	71.1	120	0	0	0	

Sample ID: <b>1108345-016AMSD</b>	Client ID: <b>MW-42 ZONE 3</b>	Units: <b>ug/L</b>	Prep Date: <b>08/10/2011</b>	Run No: <b>202842</b>							
SampleType: <b>MSD</b>	TestCode: <b>Volatile Organic Compounds by GC/MS SW8260B</b>	BatchID: <b>150144</b>	Analysis Date: <b>08/10/2011</b>	Seq No: <b>4239205</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	47.55	5.0	50	0	95.1	46.2	183	48.26	1.48	20	
Benzene	55.75	5.0	50	0	112	62.2	143	58.73	5.21	20	
Toluene	58.12	5.0	50	0	116	57.8	149	59.28	1.98	20	
Trichloroethene	54.84	5.0	50	0	110	70.5	149	57.02	3.9	20	
Surr: 4-Bromofluorobenzene	53.15	0	50	0	106	64.7	130	52.58	0	0	
Surr: Dibromofluoromethane	55.15	0	50	0	110	80.7	129	56.16	0	0	
Surr: Toluene-d8	55.02	0	50	0	110	71.1	120	54.40	0	0	

**Qualifiers:** > Greater than Result value      < Less than Result value      B Analyte detected in the associated method blank  
 BRL Below reporting limit      E Estimated (value above quantitation range)      H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit      N Analyte not NELAC certified      R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit      S Spike Recovery outside limits due to matrix

## Appendix C: Historical Groundwater Data

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(Excerpted from the 2005 Annual Groundwater and Surface Water Monitoring Report, ARCADIS G&M, Inc., 2006)



Table E-1 Summary of Selected Groundwater Analytical Results for Overburden Wells, Owens Corning, Anderson, South Carolina.

Sample dates	Units	MW-5											
<b>Halogenated Alkenes</b>													
Tetrachloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perchloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ug/l	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Halogenated Methanes</b>													
Carbon Tetrachloride	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Halogenated Ethenes</b>													
1,1,1-Trichloroethane	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Aromatic Hydrocarbons</b>													
Benzene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Metals</b>													
Arsenic	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/l	390	240	174	160	100	100	100	140	140	140	NA	NA
Beryllium	ug/l	NA	1	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA
Cadmium	ug/l	ND	16	10	13	27	ND	4	ND	ND	ND	NA	NA
Lead	ug/l	ND	ND	NA	5	3.2	ND	8	ND	ND	ND	NA	NA
Selenium	ug/l	ND	7.1	ND	37	ND	1	3	ND	ND	ND	NA	NA
Fluoride	mg/l	NA	ND	NA	ND	31.4	100	ND	176	ND	NA	NA	NA

ND: Not Detected  
 NA: Not Analyzed  
 Conf: Data is Confirmed



Table E-1. Summary of Selected Groundwater Analytical Results for Overburden Wells, Owens Corning, Anderson, South Carolina.

Sample dates	Units	November-90	August-91	September-93	December-95	December-96	November-97	December-98	December-99	December-00	November-01	December-02	June-03	December-03	April-04	July-04	December-04	November-05	
<b>MW-7</b>																			
<b>Alkylated Alkenes</b>																			
1,1-Dichloroethene	ug/L	NA	NA	NA	ND	ND	ND	ND	23	ND	ND	ND	ND	ND	ND	ND	ND	4.51	ND
1,2-Dichloroethene	ug/L	NA	NA	NA	ND	ND	ND	ND	26.6	ND	ND	ND	ND	ND	ND	ND	ND	3.21	ND
1,1,1-Trichloroethene	ug/L	NA	NA	NA	ND	ND	ND	ND	14000	27600	30100	45000	1600	4400	6200	3200	1000	17000	ND
1,1,2-Trichloroethene	ug/L	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Alkylated Methanes</b>																			
1,1,1-Trichloroethane	ug/L	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ug/L	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ug/L	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Alkylated Ethanes</b>																			
1,1,1-Trichloroethane	ug/L	NA	NA	NA	55000	53000	28000	8200	24600	36500	36000	76000	18000	9100	13000	8300	3600	55000	ND
1,1,2-Trichloroethane	ug/L	NA	NA	NA	ND	ND	ND	ND	17.1	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
<b>Aromatic Hydrocarbons</b>																			
Benzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
Toluene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
Xylenes	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,4,5-Tetrachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,3,4-Tetrachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,3,6-Tetrachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,3,5-Tetrachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,3,4,5-Pentachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,3,4,6-Pentachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,3,4,5,6-Hexachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
<b>Summary</b>																			
1,1,1-Trichloroethene	ug/L	NA	NA	NA	55000	53000	28000	8200	24600	36500	36000	76000	18000	9100	13000	8300	3600	55000	ND
1,1,2-Trichloroethene	ug/L	NA	NA	NA	ND	ND	ND	ND	17.1	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ug/L	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ug/L	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
Toluene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
Xylenes	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,4,5-Tetrachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,3,4-Tetrachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,3,6-Tetrachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,3,5-Tetrachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,3,4,5-Pentachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,3,4,6-Pentachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,3,4,5,6-Hexachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND

NA = Not Analyzed  
 ND = Not Detected  
 Values are in ug/L













**ARCADIS**

Table E-2. Summary of Selected Groundwater Results for the Top of Rock Wells, Owens Corning, Anderson, South Carolina.

Sample dates	Units	MW-21										MW-24														
		August-93	December-95	December-96	November-97	December-98	December-99	December-00	November-01	December-02	December-03	December-04	November-05	September-93	December-95	December-96	November-97	December-98	December-99	December-00	November-01	December-02	December-03	December-04		
<b>Halogenated Alkenes</b>																										
Tetra Chloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ug/l	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Halogenated Methanes</b>																										
Carbon Tetrachloride	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Halogenated Ethanes</b>																										
1,1,1-Trichloroethane	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Aromatic Hydrocarbons</b>																										
Benzene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Metals</b>																										
Arsenic	ug/l	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Barium	ug/l	1200	601	200	100	100	130	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/l	3.3	2.2	1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	ug/l	9.5	4	2.8	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	ug/l	7.5	31.7	6.7	ND	ND	ND	5.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	ug/l	ND	5.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Fluoride</b>																										
Fluoride	ug/l	NA	ND	44.9	100	ND	ND	180	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

ND = Not Detected

NA = Not Analyzed

Quantities are ug/L unless noted





Table E-2. Summary of Selected Groundwater Results for the Top of Rock Wells, Owens Corning, Anderson, South Carolina.

Sample dates	Units	TW-42				TW-46								
		December-02	December-03	December-04	November-05	October-01	November-01	December-02	December-03	December-04	November-05			
<b>Halogenated Alkenes</b>														
Tetrachloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Halogenated Methanes</b>														
Carbon Tetrachloride	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Halogenated Ethanes</b>														
1,1,1-Trichloroethane	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Aromatic Hydrocarbons</b>														
Benzene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Metals</b>														
Aluminum	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Fluoride</b>														
	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

ND = Not Detected  
 NA = Not Analyzed  
 Squares are Not Lined





Table E-3. Summary of Selected Groundwater Results for Bedrock Wells, Owens Corning, Anderson, South Carolina.

Parameter	Units	MW-22						MW-27						
		August-93	December-95	December-96	December-98	December-99	December-00	Nov-01	December-02	December-03	December-04	November-05		
<b>Halogenated Alkenes</b>														
Tetra chloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	ug/l	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ug/l	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Halogenated Methanes</b>														
Carbon Tetrachloride	ug/l	18	26	47	21	24	24	21	19	12	14	19	34	43
Chloroform	ug/l	ND	ND	11	12	11	12	12	11	10	11	11	23	26
Methylene Chloride	ug/l	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	15
<b>Halogenated Ethanes</b>														
1,1,1-Trichloroethane	ug/l	ND	ND	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	ND	ND	5	ND	5	5	5	5	5	5	5	6	8
<b>Aromatic Hydrocarbons</b>														
Benzene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Metals</b>														
Asbestos	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Boron	ug/l	78	5	9	80	92	100	96	57	82	55	6	5	7
Chromium	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Fluoride</b>														
Fluoride	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND = Not Detected  
NA = Not Analyzed

Table E-3. Summary of Selected Groundwater Results for Barrock Wells, Owens Corning, Anderson, South Carolina.

Parameter	Units	MW-29R		Alloy							Gladden									
		December-04	November-05	September-93	December-95	December-96	November-97	December-98	December-99	December-00	Nov-01	December-02	December-03	December-04	November-05	September-93	December-96	November-97	December-98	
<b>Halogenated Alkenes</b>																				
Tetrachloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Trichloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	2.0	95	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Vinyl Chloride	ug/l	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Halogenated Methanes</b>																				
Carbon Tetrachloride	ug/l	12	3.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ug/l	11	3.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.7
<b>Halogenated Ethanes</b>																				
1,1,1-Trichloroethane	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Aromatic Hydrocarbons</b>																				
Benzene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Metals</b>																				
Arsenic	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/l	NA	NA	1100	216	160	50	40	88	65	77	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/l	NA	NA	3.1	1.1	1.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	ug/l	NA	NA	22	4	3.6	3	2	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/l	NA	NA	190	34	25.9	6	6	7.8	5.5	5.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/l	NA	NA	28	5.6	ND	3	3	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoride	ug/l	NA	NA	370	ND	88.3	100	100	100	100	230	ND	NA	NA	NA	NA	45.3	250	ND	ND

NA = Not Analyzed  
ND = Not Detected

Table E.3 Summary of Selected Groundwater Results for Bedrock Wells, Owens Corning, Anderson, South Carolina.

Parameter	Units	TW-40				TW-41				TW-44					
		October-01	November-01	December-02	December-03	December-04	November-01	December-02	December-03	December-04	November-01	December-02	December-03	December-04	November-05
<b>Halogenated Alkenes</b>															
Tetrachloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Halogenated Methanes</b>															
Carbon tetrachloride	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Halogenated Ethanes</b>															
1,1,1-Trichloroethane	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Aromatic Hydrocarbons</b>															
benzene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Metals</b>															
Arsenic	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
barium	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
beryllium	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cadmium	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chromium	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
lead	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
nickel	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Fluoride</b>															
	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND = Not Detected  
 NA = Not Analyzed

## Appendix D: Mann-Kendall Test Results

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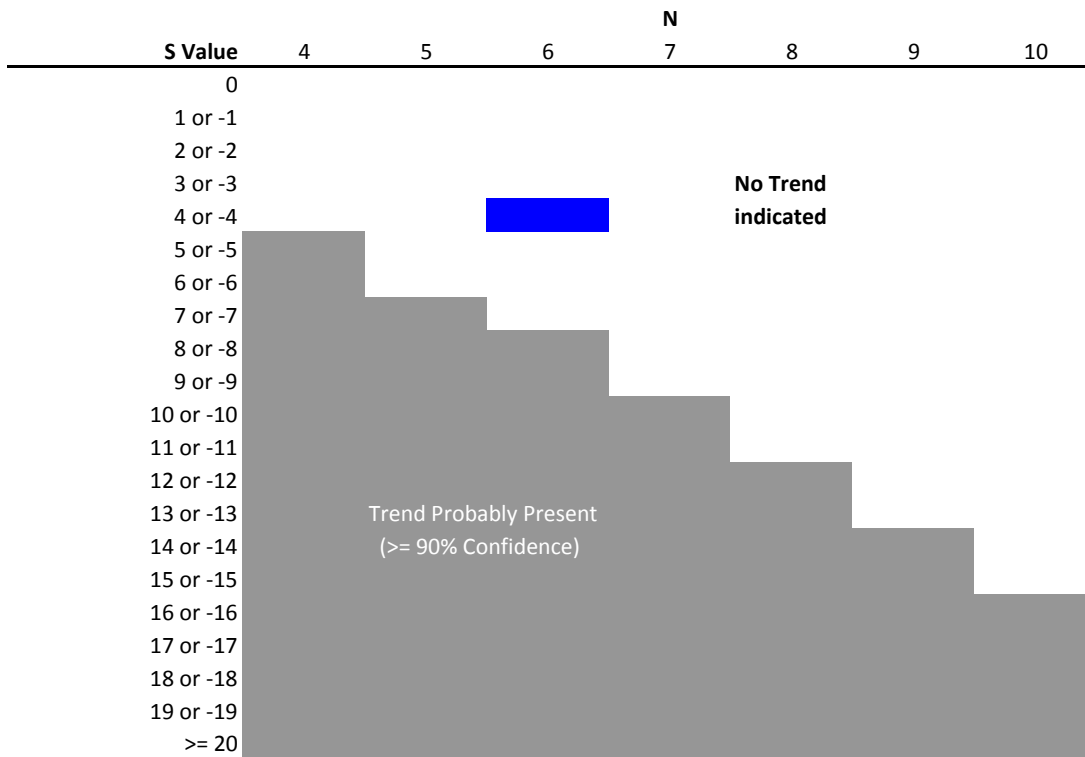


**Mann-Kendall Test - 1,1-DCE in MW-27  
Owens Corning - Anderson, SC**

Date		Nov-06	Nov-07	Nov-08	Nov-09	Nov-10	Nov-11	
Concentration (ug/L)		180	200	120	120	160	140	
Row 1: Compare to	Nov-06		1	-1	-1	-1	-1	-3
Row 2: Compare to	Nov-07			-1	-1	-1	-1	-4
Row 3: Compare to	Nov-08				0	1	1	2
Row 4: Compare to	Nov-09					1	1	2
Row 5: Compare to	Nov-10						-1	-1
Mann-Kendall Statistic (S) =								-4
N =								6

**Conclusion: No Trend (Stable)**

**Confidence Level Chart**



<b>Stability Evaluation Results</b>	
Trend present (>= 90% Confidence)	
S < 0	Concentration decreasing
S > 0	Concentration Increasing

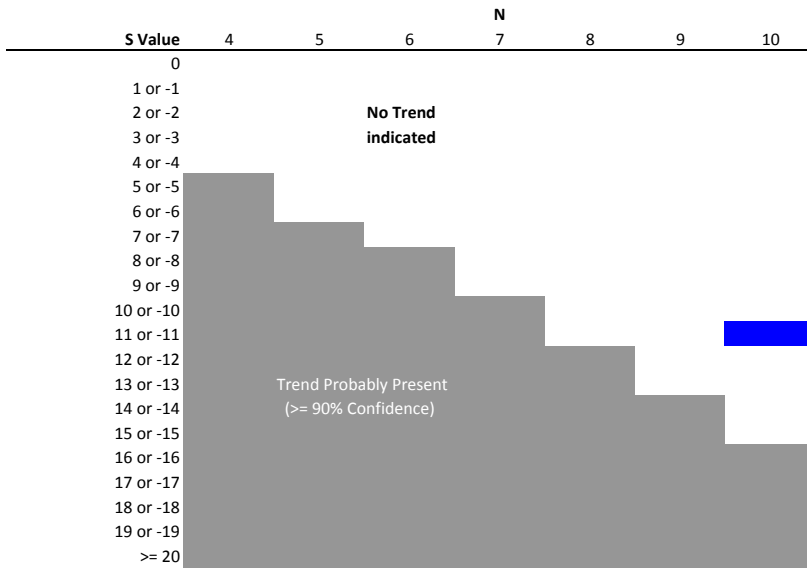
**Mann-Kendall Test - 1,1-DCE in MW-35  
Owens Corning - Anderson, SC**

Date	Feb-09	Aug-09	Nov-09	Feb-10	Aug-10	Nov-10	Feb-11	May-11	Aug-11	Nov-11	
Concentration (ug/L)	550	470	340	350	580	490	290	530	430	330	
Row 1: Compare to Feb-09		-1	-1	-1	1	-1	-1	-1	-1	-1	-7
Row 2: Compare to Aug-09			-1	-1	1	1	-1	1	-1	-1	-2
Row 3: Compare to Nov-09				1	1	1	-1	1	1	-1	3
Row 4: Compare to Feb-10					1	1	-1	1	1	-1	2
Row 5: Compare to Aug-10						-1	-1	-1	-1	-1	-5
Row 6: Compare to Nov-10							-1	1	-1	-1	-2
Row 7: Compare to Feb-11								1	1	1	3
Row 8: Compare to May-11									-1	-1	-2
Row 9: Compare to Aug-11										-1	-1

Mann-Kendall Statistic (S) = -11  
N = 10

**Conclusion: No Trend (Stable)**

**Confidence Level Chart**



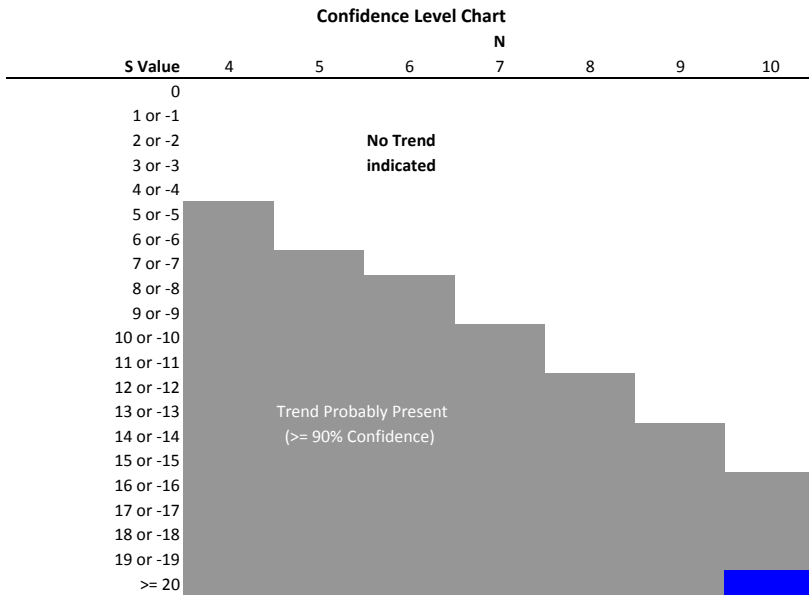
Stability Evaluation Results	
Trend present (>= 90% Confidence)	
S < 0	Concentration decreasing
S > 0	Concentration Increasing

**Mann-Kendall Test - 1,1-DCE in MW-37 Zone 1  
Owens Corning - Anderson, SC**

Date	Feb-09	Aug-09	Nov-09	Feb-10	Aug-10	Nov-10	Feb-11	May-11	Aug-11	Nov-11	
<b>Concentration (ug/L)</b>	<b>8.3</b>	<b>5.5</b>	<b>20</b>	<b>2.5</b>	<b>66</b>	<b>74</b>	<b>40</b>	<b>9.7</b>	<b>140</b>	<b>78</b>	
Row 1: Compare to Feb-09		-1	1	-1	1	1	1	1	1	1	5
Row 2: Compare to Aug-09			1	-1	1	1	1	1	1	1	6
Row 3: Compare to Nov-09				-1	1	1	1	-1	1	1	3
Row 4: Compare to Feb-10					1	1	1	1	1	1	6
Row 5: Compare to Aug-10						1	-1	-1	1	1	1
Row 6: Compare to Nov-10							-1	-1	1	1	0
Row 7: Compare to Feb-11								-1	1	1	1
Row 8: Compare to May-11									1	1	2
Row 9: Compare to Aug-11										-1	-1

Mann-Kendall Statistic (S) = 23  
N = 10

**Conclusion: Increasing Trend**



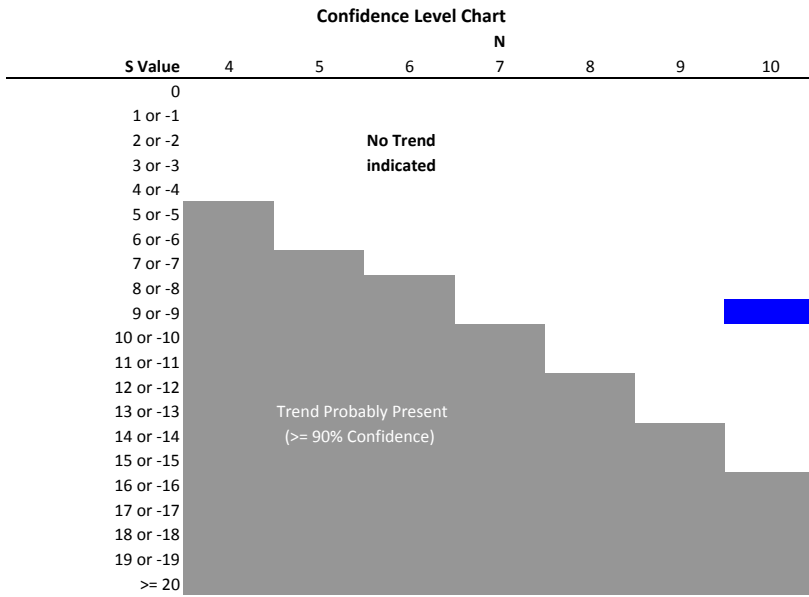
<b>Stability Evaluation Results</b>	
Trend present (>= 90% Confidence)	
S < 0	Concentration decreasing
S > 0	Concentration Increasing

**Mann-Kendall Test - 1,1-DCE in MW-37 Zone 2  
Owens Corning - Anderson, SC**

Date	Feb-09	Aug-09	Nov-09	Feb-10	Aug-10	Nov-10	Feb-11	May-11	Aug-11	Nov-11	
Concentration (ug/L)	370	200	180	280	320	340	97	190	160	310	
Row 1: Compare to Feb-09		-1	-1	-1	-1	-1	-1	-1	-1	-1	-9
Row 2: Compare to Aug-09			-1	1	1	1	-1	-1	-1	1	0
Row 3: Compare to Nov-09				1	1	1	-1	1	-1	1	3
Row 4: Compare to Feb-10					1	1	-1	-1	-1	1	0
Row 5: Compare to Aug-10						1	-1	-1	-1	-1	-3
Row 6: Compare to Nov-10							-1	-1	-1	-1	-4
Row 7: Compare to Feb-11								1	1	1	3
Row 8: Compare to Aug-11									-1	1	0
Row 9: Compare to Nov-11										1	1

Mann-Kendall Statistic (S) = -9  
N = 10

**Conclusion: No Trend (Stable)**



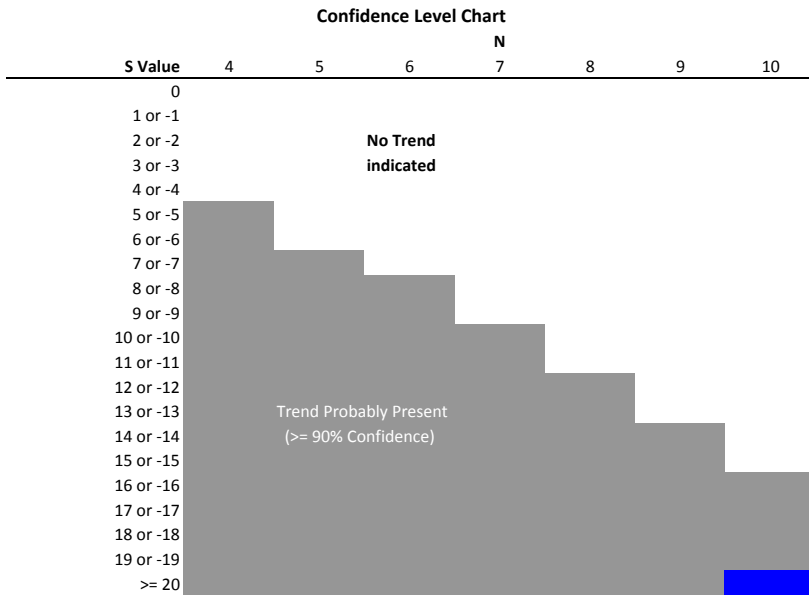
Stability Evaluation Results	
Trend present (>= 90% Confidence)	
S < 0	Concentration decreasing
S > 0	Concentration Increasing

**Mann-Kendall Test - 1,1-DCE in MW-37 Zone 3  
Owens Corning - Anderson, SC**

Date	Feb-09	Aug-09	Nov-09	Feb-10	Aug-10	Nov-10	Feb-11	May-11	Aug-11	Nov-11	
Concentration (ug/L)	11	6.8	4.8	6.3	2.5	6.7	2.5	2.5	2.5	2.5	
Row 1: Compare to	Feb-09	-1	-1	-1	-1	-1	-1	-1	-1	-1	-9
Row 2: Compare to	Aug-09		-1	-1	-1	-1	-1	-1	-1	-1	-8
Row 3: Compare to	Nov-09			1	-1	1	-1	-1	-1	-1	-3
Row 4: Compare to	Feb-10				-1	1	-1	-1	-1	-1	-4
Row 5: Compare to	Aug-10					1	0	0	0	0	1
Row 6: Compare to	Nov-10						-1	-1	-1	-1	-4
Row 7: Compare to	Feb-11							0	0	0	0
Row 8: Compare to	May-11								0	0	0
Row 9: Compare to	Aug-11									0	0

Mann-Kendall Statistic (S) = -27  
N = 10

**Conclusion: Decreasing Trend**

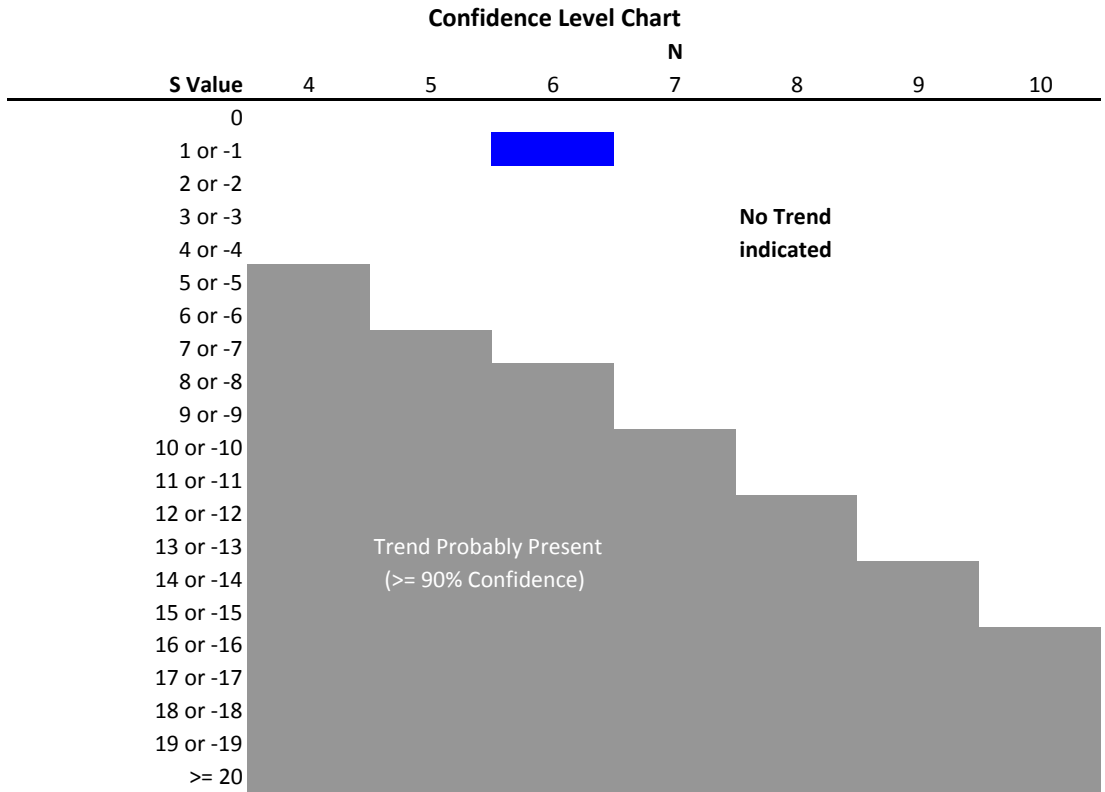


Stability Evaluation Results	
Trend present (>= 90% Confidence)	
S < 0	Concentration decreasing
S > 0	Concentration Increasing

**Mann-Kendall Test - 1,1-DCE in MW-41 Zone 1  
Owens Corning - Anderson, SC**

Date		Aug-10	Nov-10	Feb-11	May-11	Aug-11	Nov-11	
Concentration (ug/L)		340	300	380	450	400	190	
Row 1: Compare to	Aug-10		-1	1	1	1	-1	1
Row 2: Compare to	Nov-10			1	1	1	-1	2
Row 3: Compare to	Feb-11				1	1	-1	1
Row 4: Compare to	May-11					-1	-1	-2
Row 5: Compare to	Aug-11						-1	-1
Mann-Kendall Statistic (S) =								1
N =								6

**Conclusion: No Trend (Stable)**

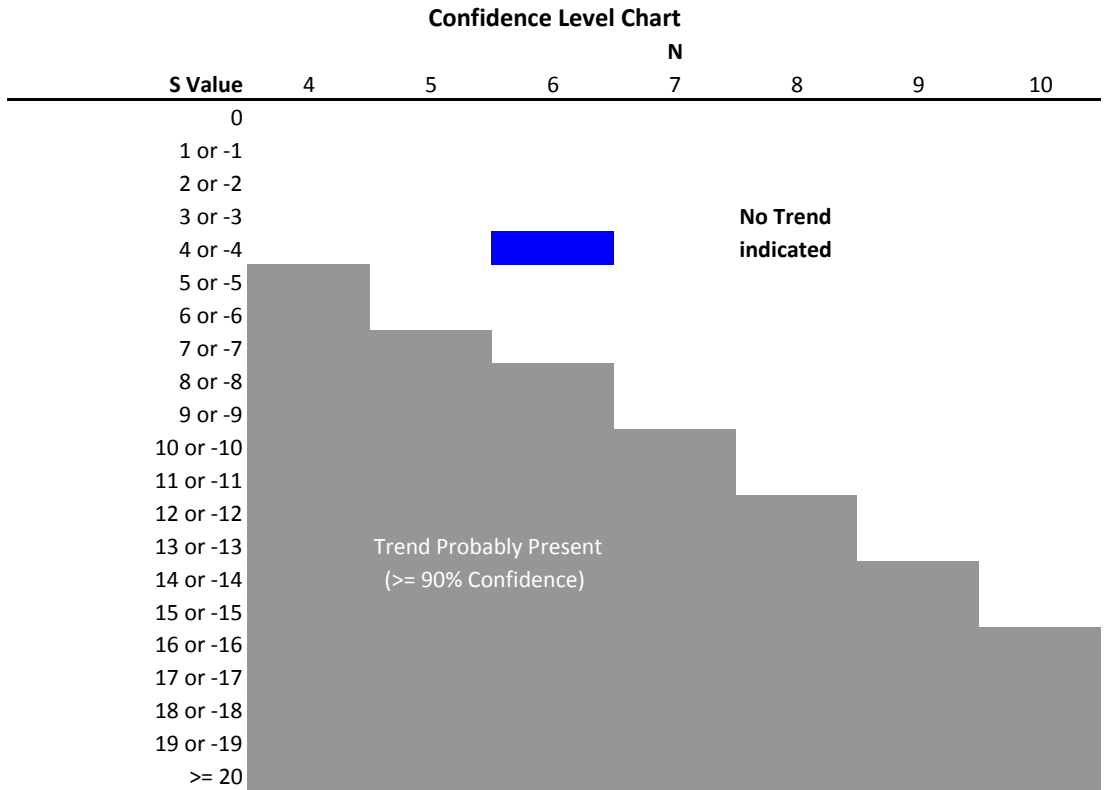


<b>Stability Evaluation Results</b>	
Trend present (>= 90% Confidence)	
S < 0	Concentration decreasing
S > 0	Concentration Increasing

**Mann-Kendall Test - 1,1-DCE in MW-41 Zone 2  
Owens Corning - Anderson, SC**

Date		Aug-10	Nov-10	Feb-11	May-11	Aug-11	Nov-11	
Concentration (ug/L)		370	530	350	250	350	280	
Row 1: Compare to	Aug-10		1	-1	-1	-1	-1	-1
Row 2: Compare to	Nov-10			-1	-1	-1	-1	-2
Row 3: Compare to	Feb-11				-1	0	-1	-1
Row 4: Compare to	May-11					1	-1	0
Row 5: Compare to	Aug-11						1	0
							Mann-Kendall Statistic (S) =	-4
							N =	6

**Conclusion: No Trend (Stable)**



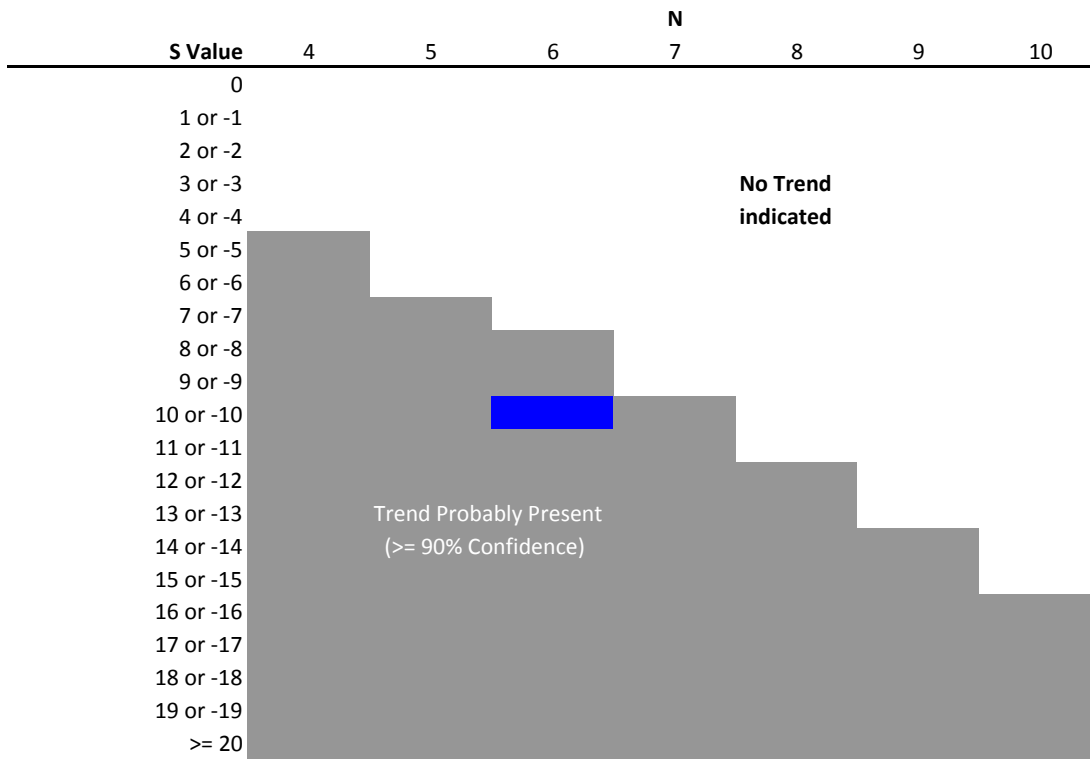
<b>Stability Evaluation Results</b>	
Trend present (>= 90% Confidence)	
S < 0	Concentration decreasing
S > 0	Concentration Increasing

**Mann-Kendall Test - 1,1-DCE in MW-41 Zone 3  
Owens Corning - Anderson, SC**

Date		Aug-10	Nov-10	Feb-11	May-11	Aug-11	Nov-11	
Concentration (ug/L)		260	180	150	98	110	98	
Row 1: Compare to	Aug-10		-1	-1	-1	-1	-1	-5
Row 2: Compare to	Nov-10			-1	-1	-1	-1	-4
Row 3: Compare to	Feb-11				-1	-1	-1	-1
Row 4: Compare to	May-11					1	0	1
Row 5: Compare to	Aug-11						-1	-1
Mann-Kendall Statistic (S) =								-10
N =								6

**Conclusion: No Trend (Stable)**

**Confidence Level Chart**



**Stability Evaluation Results**

Trend present (>= 90% Confidence)

S < 0      Concentration decreasing

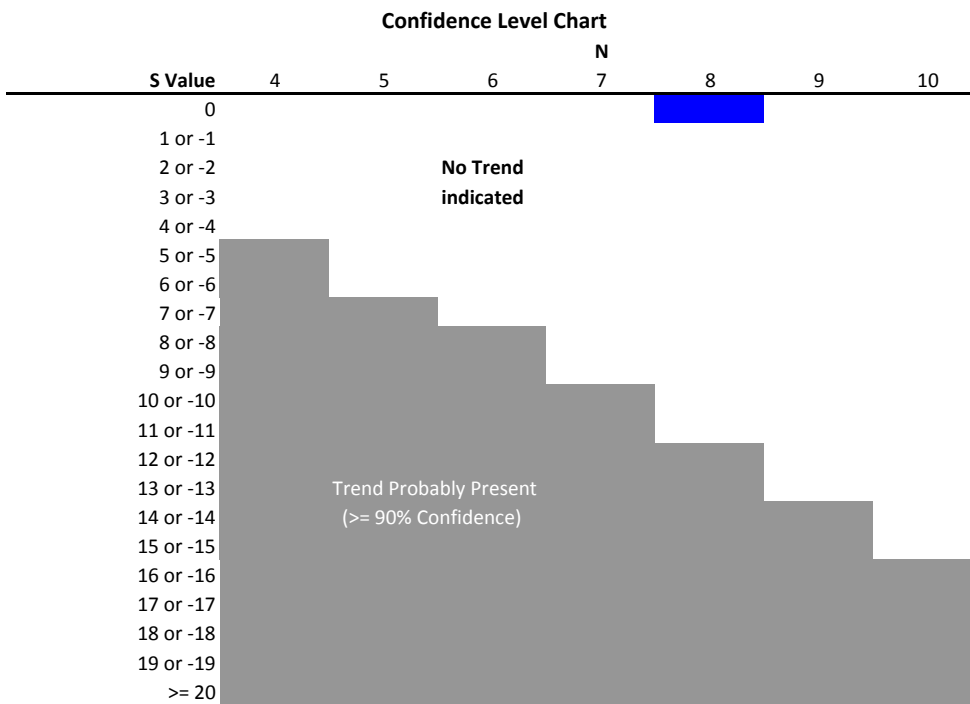
S > 0      Concentration Increasing



**Mann-Kendall Test - 1,1-DCE at SW-3A  
Owens Corning - Anderson, SC**

Date		Nov-04	Nov-05	Nov-06	Nov-07	Nov-08	Nov-09	Nov-10	Nov-11	
<b>Concentration (ug/L)</b>		<b>180</b>	<b>2.4</b>	<b>2.3</b>	<b>390</b>	<b>84</b>	<b>290</b>	<b>120</b>	<b>2.5</b>	
Row 1: Compare to	Nov-04		-1	-1	1	-1	1	-1	-1	-3
Row 2: Compare to	Nov-05			-1	1	1	1	1	1	4
Row 3: Compare to	Nov-06				1	1	1	1	1	5
Row 4: Compare to	Nov-07					-1	-1	-1	-1	-4
Row 5: Compare to	Nov-08						1	1	-1	1
Row 6: Compare to	Nov-09							-1	-1	-2
Row 7: Compare to	Nov-11								-1	-1
Mann-Kendall Statistic (S) =										0
N =										8

**Conclusion: No Trend (Stable)**



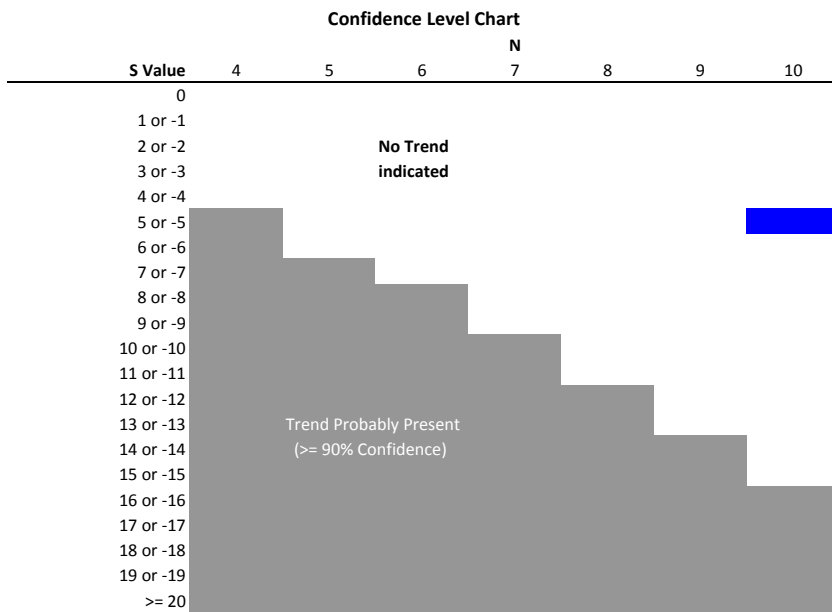
<b>Stability Evaluation Results</b>	
Trend present (>= 90% Confidence)	
S < 0	Concentration decreasing
S > 0	Concentration Increasing

**Mann-Kendall Test - Carbon Tetrachloride in MW-22  
Owens Corning - Anderson, SC**

Date		Feb-09	Aug-09	Nov-09	Feb-10	Aug-10	Nov-10	Feb-11	May-11	Aug-11	Nov-11	
Concentration (ug/L)		24	30	24	25	17	25	19	23	25	24	
Row 1: Compare to	Feb-09		1	0	1	-1	1	-1	-1	1	0	1
Row 2: Compare to	Aug-09			-1	-1	-1	-1	-1	-1	-1	-1	-8
Row 3: Compare to	Nov-09				1	-1	1	-1	-1	1	0	0
Row 4: Compare to	Feb-10					-1	0	-1	-1	0	-1	-4
Row 5: Compare to	Aug-10						1	1	1	1	1	5
Row 6: Compare to	Nov-10							-1	-1	0	-1	-3
Row 7: Compare to	Feb-11								1	1	1	3
Row 8: Compare to	May-11									1	1	2
Row 9: Compare to	Aug-11										-1	-1

Mann-Kendall Statistic (S) = -5  
N = 10

**Conclusion: No Trend (Stable)**



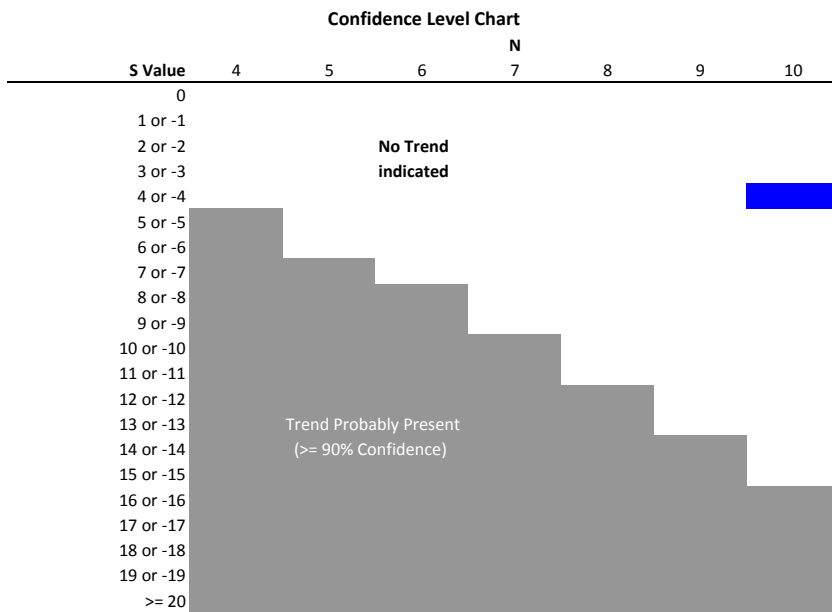
<b>Stability Evaluation Results</b>	
Trend present (>= 90% Confidence)	
S < 0	Concentration decreasing
S > 0	Concentration Increasing

**Mann-Kendall Test - Carbon Tetrachloride in MW-29R Zone 3  
Owens Corning - Anderson, SC**

Date		Feb-09	Aug-09	Nov-09	Feb-10	Aug-10	Nov-10	Feb-11	May-11	Aug-11	Nov-11	
Concentration (ug/L)		19	25	9.8	23	17	15	16	23	19	17	
Row 1: Compare to	Feb-09		1	-1	1	-1	-1	-1	1	0	-1	-2
Row 2: Compare to	Aug-09			-1	-1	-1	-1	-1	-1	-1	-1	-8
Row 3: Compare to	Nov-09				1	1	1	1	1	1	1	7
Row 4: Compare to	Feb-10					-1	-1	-1	0	-1	-1	-5
Row 5: Compare to	Aug-10						1	1	1	1	1	5
Row 6: Compare to	Nov-10							-1	0	-1	-1	-3
Row 7: Compare to	Feb-11								1	1	0	2
Row 8: Compare to	May-11									1	1	2
Row 9: Compare to	Aug-11										-1	-1

Mann-Kendall Statistic (S) = -3  
N = 10

**Conclusion: No Trend (Stable)**



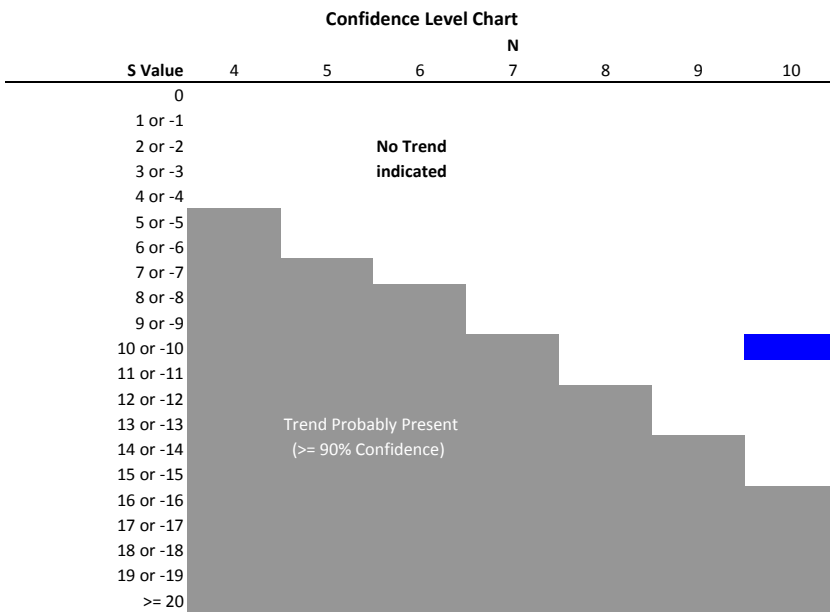
<b>Stability Evaluation Results</b>	
Trend present (>= 90% Confidence)	
S < 0	Concentration decreasing
S > 0	Concentration Increasing

**Mann-Kendall Test - Carbon Tetrachloride in MW-29R Zone 4  
Owens Corning - Anderson, SC**

Date	Feb-09	Aug-09	Nov-09	Feb-10	Aug-10	Nov-10	Feb-11	May-11	Aug-11	Nov-11	
Concentration (ug/L)	17	22	4.6	15	15	12	16	23	20	21	
Row 1: Compare to Feb-09		1	-1	-1	-1	-1	-1	1	1	1	-1
Row 2: Compare to Aug-09			-1	-1	-1	-1	-1	1	-1	-1	-6
Row 3: Compare to Nov-09				1	1	1	1	1	1	1	7
Row 4: Compare to Feb-10					0	-1	1	1	1	1	1
Row 5: Compare to Aug-10						-1	1	1	1	1	3
Row 6: Compare to Nov-10							1	1	1	1	4
Row 7: Compare to Feb-11								1	1	1	3
Row 8: Compare to May-11									-1	-1	-2
Row 9: Compare to Aug-11										1	1

Mann-Kendall Statistic (S) = 10  
N = 10

**Conclusion: No Trend (Stable)**



Stability Evaluation Results	
Trend present (>= 90% Confidence)	
S < 0	Concentration decreasing
S > 0	Concentration Increasing