

2013 Annual Groundwater and Surface Water Monitoring Report

Prepared for
Owens Corning
4837 Highway 81 South
Anderson, South Carolina
January 31, 2014

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990 Hammond Drive, Suite 400
Atlanta, Georgia 30328

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List of Abbreviations

1,1-DCA	1,1-dichloroethane	TCE	trichloroethene
1,2-DCA	1,2-dichloroethane	trans-1,2-DCE	trans-1,2-dichloroethene
1,1-DCE	1,1-dichloroethene	U. S. EPA	United States Environmental Protection Agency
1,1,1-TCA	1,1,1-trichloroethane	VOC	volatile organic compound
AES	Analytical Environmental Services, Inc.	Waterloo	Solinst Waterloo Multilevel Groundwater Monitoring System
amsl	above mean sea level		
bgs	below ground surface		
btoc	below top of casing		
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		

Professional Geologist Certification

The 2013 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, 2014

Date



Section 1

Introduction

This 2013 Annual Groundwater and Surface Water Monitoring Report (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 2013 quarterly groundwater monitoring and November 2013 annual surface water and groundwater monitoring events and semiannual residential well sampling. The results for the February and May 2013 quarterly groundwater sampling events were reported in the *2013 Semiannual Groundwater Sampling Report* dated July 30, 2013. 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 2013. 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, historical groundwater data and Mann-Kendall test results.

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 Site 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 Site is located approximately 4 miles south of the town of Anderson. Over the years, during the delineation and assessment process on the Site, Owens Corning purchased properties northeast of the Site. These properties are also shown on Figure 1 and include the northwest and southeastern corners of the intersection of Keys Street and True Temper Road, and the former Hall Property north of True Temper Road and along Betsy Creek.

Owens Corning 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 26 and 29, 2013, and the annual groundwater monitoring event between November 4 and 8, 2013. Section 2 provides an overview of these events and includes detailed information on Site hydrogeology and aquifer characteristics, groundwater, surface water and residential 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 35 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 on 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) 2013 monitoring events. Ground surface and top of casing elevations, and depth to water and groundwater elevations are provided in Tables 1 and 2. Well construction details are provided in Table 3.

Based on the monitoring well measurements from August 2013, groundwater levels in the overburden aquifer ranged from 3.53 (MW-11) to 23.22 (TW-46) feet below top of casing (btoc) and from 776.69 to 793.36 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 0.20 feet above the top of the casing (MW-38 Zone 2) to 48.72 feet btoc (MW-39 Zone 3) and from 771.38 to 757.48 feet in elevation (NAVD88). In November 2013, the groundwater levels in the overburden aquifer ranged from 6.27 (MW-11) to 27.75 (MW-10) feet btoc and from 773.95 to 795.90 feet in elevation (NAVD88). Measurements from wells in the bedrock aquifer exhibit hydraulic heads ranging from 0.51 feet above the top of casing (MW-38 Zone 2) to 49.71 feet btoc (MW-37 Zone 3) and from 771.69 to 733.08 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 2013 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: 0.014 feet/foot (ft/ft) in the overburden (calculated between MW-21 and MW-23); 0.013 in the bedrock aquifer in the 699-740 foot (ft) (NAVD88) zone (calculated between MW-27 and MW-41 Zone 1); 0.015 in the bedrock aquifer in the 632-699 ft (NAVD88) zone (calculated between MW-15 and MW-22); 0.012 in the bedrock aquifer in the 574-630 ft (NAVD88) zone (calculated between MW-19 and MW-41 Zone 2); and 0.007 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 0.035 across the overburden/bedrock aquifer (calculated between MW-12 and MW-19); and an upward gradient of 0.020 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 – Figure 1), that has total depth of 450 feet below ground surface (ft bgs). The pump intake is at 425 ft bgs and currently withdraws groundwater at a rate of approximately 31 gallons per minute (gpm). The hydraulic containment system was active during the August and November 2013 groundwater sampling events, which affected the August and November 2013 potentiometric surfaces in all bedrock zones (Figures 3 through 6 and 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 2014. 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 2013 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 extraction well EW-1 as a surface casing was installed. 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 dependent 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 on 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: 0.013 in the overburden (calculated between MW-21 and MW-28); 0.014 in the bedrock aquifer in the 699-740 ft (NAVD88) zone (calculated between MW-27 and MW-41 Zone 1); 0.017 in the bedrock aquifer in the 632-699 ft (NAVD88) zone (calculated between MW-6 and MW-22); 0.014 in the bedrock aquifer in the 574-630 ft (NAVD88) zone (calculated between MW-19 and MW-41 Zone 2); and 0.001 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: an upward gradient of 0.004 in SWMU-9 across the overburden/bedrock aquifer (calculated between MW-6 and MW-28); and an upward gradient of 0.017 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 and MW-42 were installed in 2010, MW-43 in 2011 and MW-44 in 2011. These wells were added to the quarterly and annual monitoring program.

The annual groundwater monitoring program includes the following 47 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, MW-44, TW-40, TW-41 and TW-44.

Monitoring well TW-45 could not be gauged or sampled in November 2013 because the well collapsed. 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, MW-43 and MW-44 (Tables 4 and 5). Wells 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 surface water samples from eleven pre-determined 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. The surface water samples were collected on November 7 and 8, 2013 and their locations are presented on Figure 12.

2.5 Groundwater and Surface Water Sampling Procedures

On August 26 and November 4, 2013, depth to groundwater measurements were collected from 35 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 U.S. EPA's *Science and 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.

Immediately following stabilization and before turning off the low-flow pump, groundwater samples were collected from the wells and tubing. 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 (cooler interior 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 7 and 8, 2013 in accordance with U.S. EPA's *Science and Ecosystem Support Division Surface Water Sampling (SESDPROC-201-R1)*, November 2007 by manually filling the sample containers with surface water using a pre-cleaned, disposable, 500-milliter (ml), polyethylene bottle.

2.6 Residential Well Sampling

During the November 2013 annual sampling event, 11 residential wells were sampled (Figure 13). The wells were sampled in accordance with methods described in U.S. EPA's *Potable Water Supply Sampling (SESDPROC-305-R1)*, November 2007. Three residential wells located at 115 and 335 Elrod Road and 311 Kaye Drive were not sampled because the well pump was inoperable. 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 on the sampling field data sheets included as Appendix A. After purging, the samples were collected at a low flow rate through from the spigot 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 (internal cooler 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 submitted to each well owner by Brown and Caldwell.

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. Two duplicate samples were collected during the August sampling event. Five 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 to the primary samples. Three equipment blanks (EBs) were collected during the August sampling and four 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 2013 quarterly groundwater event and the November 2013 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 six offsite bedrock wells (MW-35, MW-39, MW-41, MW-42, MW-43 and MW-44). For the November event, 60 groundwater samples were collected from 47 overburden, (as stated in Section 2.3, TW-45 could not be sampled in November 2013 due to damage to the well), top of rock, and bedrock well locations (several samples were collected from eight bedrock wells that have screens across multiple water bearing zones), 11 surface water locations, and 11 residential wells.

The August and November 2013 groundwater analytical results are summarized in Tables 4 and 5, respectively. The November 2013 surface water analytical results are summarized in Table 6, and the November 2013 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 2013 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 2013 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 100,000 micrograms per liter ($\mu\text{g/L}$) and 130,000 $\mu\text{g/L}$, respectively. Similarly elevated concentrations of 1,1,1-TCA have been detected in MW-7, where concentrations have fluctuated from 17,000 $\mu\text{g/L}$ (2007) to as high as 53,000 $\mu\text{g/L}$ (2011) and then down to 41,000 $\mu\text{g/L}$ (2013). Methylene chloride was also detected in MW-7 at a concentration of 2,800 $\mu\text{g/L}$ which is above the MCL of 5 $\mu\text{g/L}$. This constituent was previously detected in MW-7 in November 2012 and is considered to be a common laboratory contaminant which is believed to be the source of the methylene chloride. 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, 1,1-DCE and methylene chloride 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 $\mu\text{g/L}$, 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-12 and MW-13, 1,1-DCE was detected at concentrations of 310 µg/L and 300 µg/L, respectively. 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 results, monitoring well MW-30, located northeast of SWMU-9, contained the highest concentrations of 1,2-DCA (27 µg/L) and carbon tetrachloride (300 µg/L). The only detection of TCE was in MW-17 (25 µg/L). The only detections of vinyl chloride were in monitoring wells MW-11 (5.2 µg/L), and MW-12 (6.3 µg/L).

None of the site specific VOCs were detected above RLs in any of the offsite overburden or top of rock wells.

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 August 2013 and November 2013 monitoring events. In Zone 3, the 1,1-DCE concentration was 290 µg/L in August and 260 µg/L in November. In Zone 4, the 1,1-DCE concentration was 270 µg/L in August and 230 µg/L during the November monitoring event. Farther north of MW-29R and hydraulically upgradient, 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 four years. Zones 1, 2 and 3 have remained relatively stable, showing no trend according to the Mann-Kendall Test (Appendix D). The 1,1-DCE concentration in Zone 1 was 70 µg/L in August and 49 µg/L in November. Zone 2 had 1,1-DCE concentrations of 99 µg/L in August and 180 µg/L in November. The 1,1-DCE concentration in MW-37 Zone 3 was below the RL for August and November. Bedrock well MW-39 was installed in 2010 southeast and hydraulically upgradient of MW-37 to delineate 1,1-DCE in this direction. No VOCs, including 1,1-DCE, have been detected above RLs since the installation of this well (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 1,1-DCE concentrations at 110 µg/L in August and 98 µg/L in November. Bedrock wells MW-41 and MW-42 were installed in 2010 and MW-43 in 2011, each as nested wells, such that three zones could be sampled to delineate 1,1-DCE in the Northeast Area. The 1,1-DCE concentration in MW-41 Zone 1 was 150 µg/L in August, which then decreased to 110 µg/L in November. The Zone 2 concentration was at 200 µg/L in August, decreasing to 190 µg/L in November. The 1,1-DCE concentration in Zone 3 was 34 µg/L in August and this decreased to 18 µg/L in November. This reduction in concentrations across the entire vertical column of MW-41 makes it apparent that the leading edge of the plume is receding in the manner of a shrinking plume.

MW-42 and MW-43 are currently the farthest site investigation wells from the SWMU-9 source area. 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 2013 monitoring events, no VOCs were detected above MCLs in groundwater in any of

the three zones 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, which was detected in MW-22 and MW-29R Zones 3 and 4 during August and November and additionally in MW-19, MW-22, MW-27 and MW-37 Zone 2. The maximum concentration of carbon tetrachloride in bedrock wells was detected in MW-22 at 23 µg/L in November. No other constituents from the focused list of VOCs were detected above MCLs in the bedrock well samples in August and November.

Bedrock well MW-44 was installed in 2013 as a deep bedrock compliment to the adjacent and existing well MW-35. The 1,1-DCE concentrations went from 7.8 µg/L in February to less than the RL in May, August and November 2013. This information further supports our conceptual site model (CSM) which shows the plume rising from the deepest points (near EW-1 and MW-38) upward toward Betsy Creek.

The 1,1-DCE concentration trends for 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 2013 for MW-27 resulting in eight data points. For MW-35, MW-37 and MW-41, quarterly groundwater monitoring data from November 2011 through November 2013 (nine data points) were utilized for the test. 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-37 Zone 1, MW-37 Zone 2, MW-37 Zone 3, MW-41 Zone 1 and MW-41 Zone 2 showed no trend over the time periods described above. Over the same time periods, the 1,1-DCE concentration in MW-35 and MW-41 Zone 3 exhibited a decreasing trend, which indicates a shrinking plume. Refer to Appendix D for Mann-Kendall Test results.

3.2 Surface Water Analytical Results

Surface water samples were collected from Betsy Creek at 11 pre-determined locations (Figure 12). All VOC concentrations measured in November 2013 were below the applicable U.S. EPA Region IV Ecological Risk Assessment, Surface Water Screening Values and SCDHEC Water Quality Classifications and Standards. No constituents from the focused list of VOCs were detected above the surface water standards during the November 2013 sampling event. All surface water analytical results are included in Table 6.

3.3 Residential Well Analytical Results

None of the constituents 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 2013, respectively. Samples were collected from 12 bedrock wells during the August quarterly event and from 47 wells and 11 surface water locations during the November annual event. In addition, samples were collected from 11 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, MW-43 and MW-44.

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 Site boundary and within the 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. Methylene chloride was detected in one sample but was attributed to be laboratory contamination.
- The 1,1-DCE plume that originates in the vicinity of SWMU-9 travels downgradient to the northeast and then veers eastward 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 are 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 bedrock wells MW-27, MW-37 Zone 1, MW-37 Zone 2, MW-37 Zone 3, MW-41 Zone 1 and MW-41 Zone 2 and results from the Mann-Kendall test at 90 percent confidence level indicate plume stability over the past four years. Concentrations of 1,1-DCE have shown a decreasing trend in bedrock wells MW-35 and MW-41 Zone 3.
- The only other VOC detected in bedrock wells above an MCL was carbon tetrachloride; concentrations of carbon tetrachloride have remained stable at levels less than 31 µg/L over the past 3 years according to Mann-Kendall analysis results.
- During the August and November monitoring events, no VOCs were detected above MCLs in groundwater collected from the 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. Based on this information and the conceptual site model that shows the nature and direction of groundwater flow, the 1,1-DCE plume appears to be delineated.

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 21, 2013. 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.

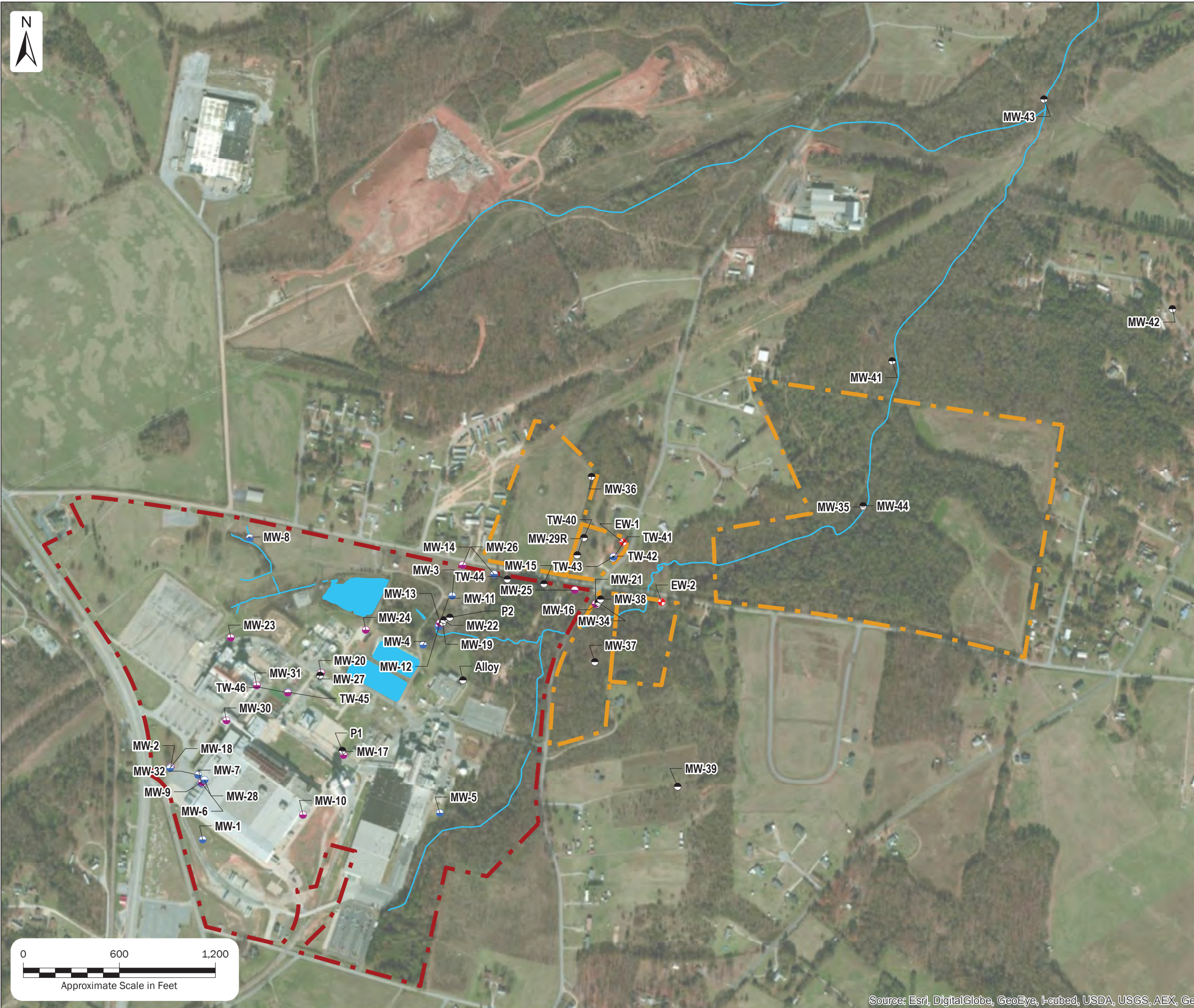
This document sets forth the results of certain services performed by Brown and Caldwell with respect to the property or facilities described therein (the Property). Owens Corning recognizes and acknowledges that these services were designed and performed within various limitations, including budget and time constraints. These services were not designed or intended to determine the existence and nature of all possible environmental risks (which term shall include the presence or suspected or potential presence of any hazardous waste or hazardous substance, as defined under any applicable law or regulation, or any other actual or potential environmental problems or liabilities) affecting the Property. The nature of environmental risks is such that no amount of additional inspection and testing could determine as a matter of certainty that all environmental risks affecting the Property had been identified. Accordingly, THIS DOCUMENT DOES NOT PURPORT TO DESCRIBE ALL ENVIRONMENTAL RISKS AFFECTING THE PROPERTY, NOR WILL ANY ADDITIONAL TESTING OR INSPECTION RECOMMENDED OR OTHERWISE REFERRED TO IN THIS DOCUMENT NECESSARILY IDENTIFY ALL ENVIRONMENTAL RISKS AFFECTING THE PROPERTY.

Further, Brown and Caldwell makes no warranties, express or implied, with respect to this document, except for those, if any, contained in the agreement pursuant to which the document was prepared. All data, drawings, documents, or information contained in this report have been prepared exclusively for the person or entity to whom it was addressed and may not be relied upon by any other person or entity without the prior written consent of Brown and Caldwell unless otherwise provided by the Agreement pursuant to which these services were provided.

Section 6

References

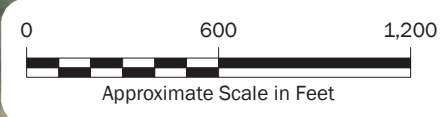
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- United States Environmental Protection Agency. 2001. *Environmental Investigation Standard Operating Procedures and Quality Assurance Manual*.
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- United States Environmental Protection Agency. 2007. *Science and Ecosystem Support Division Surface Water Sampling Procedure*.
- United States Environmental Protection Agency. 2007. *Potable Water Supply Sampling*.



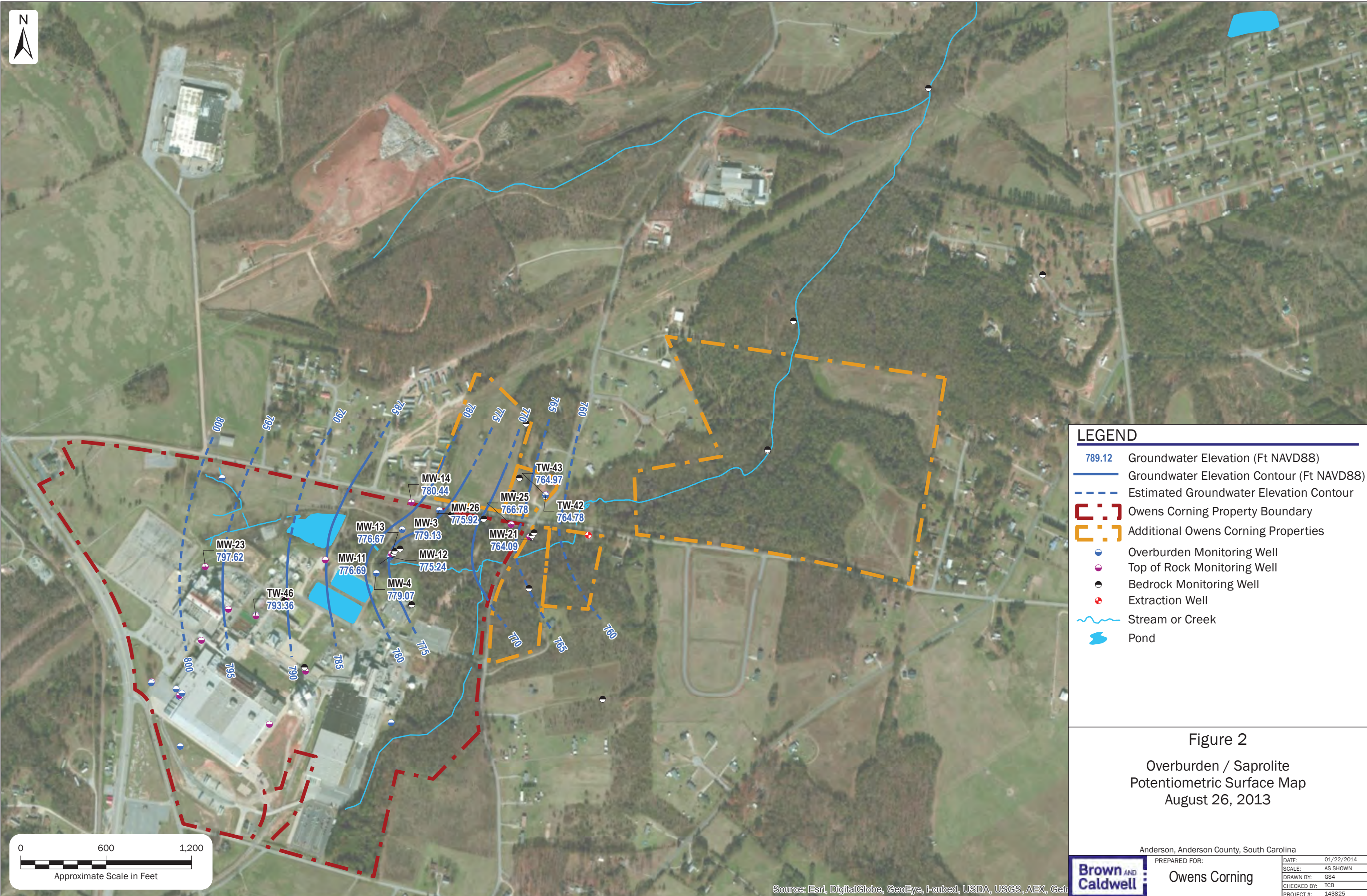
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- Owens Corning Property Boundary
- Additional Owens Corning Property Boundary
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream or Creek
- Pond

Figure 1
Site Map



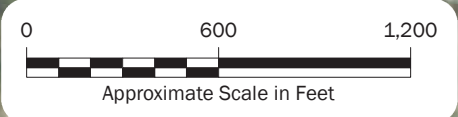
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		CHECKED BY: TCB
		PROJECT #: 145492



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- Groundwater Elevation Contour (Ft NAVD88)
- Estimated Groundwater Elevation Contour
- Owens Corning Property Boundary
- Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream or Creek
- Pond

Figure 2
 Overburden / Saprolite
 Potentiometric Surface Map
 August 26, 2013

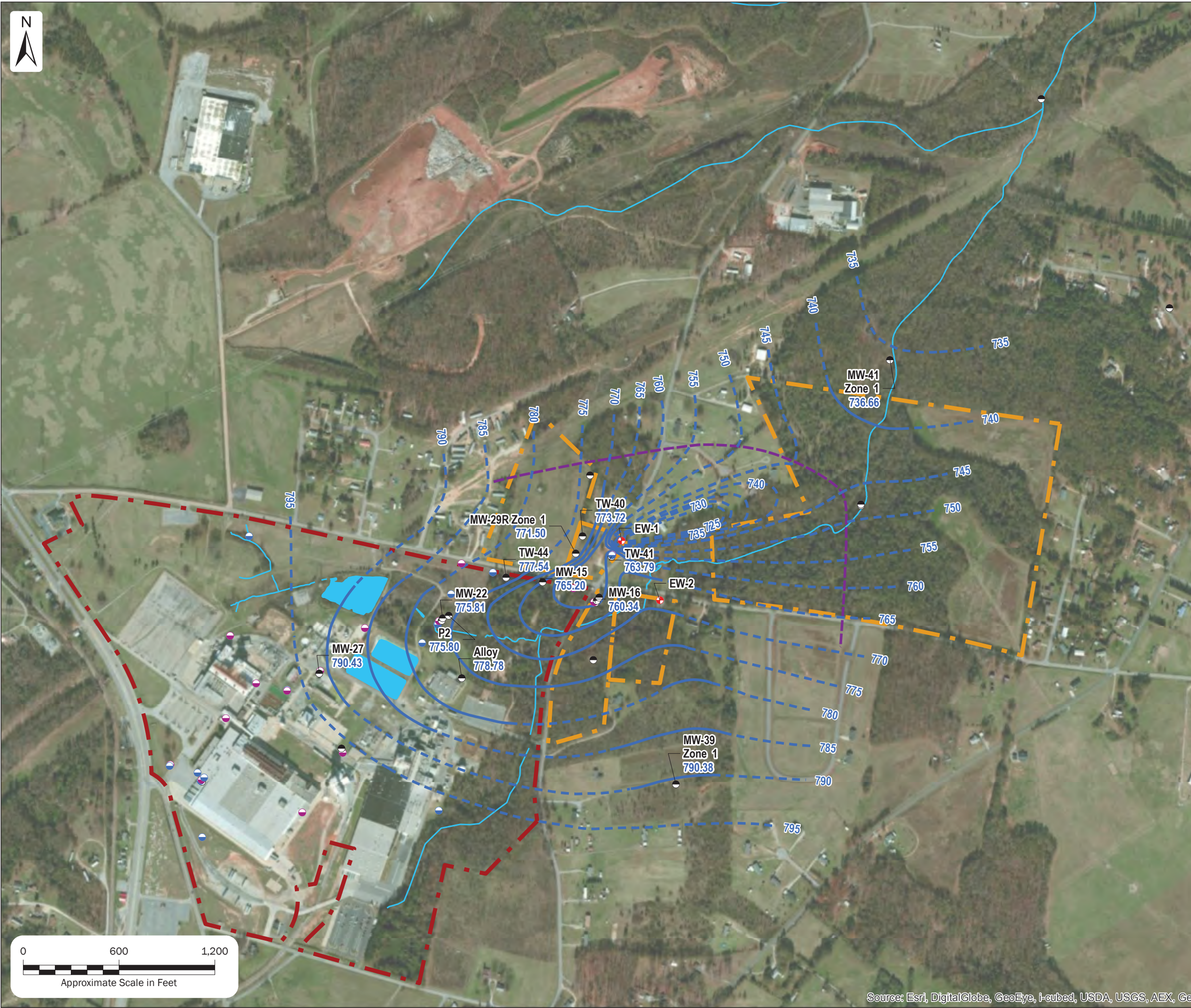


Anderson, Anderson County, South Carolina



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Owens Corning

DATE:	01/22/2014
SCALE:	AS SHOWN
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PROJECT #:	143825



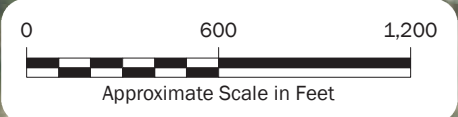
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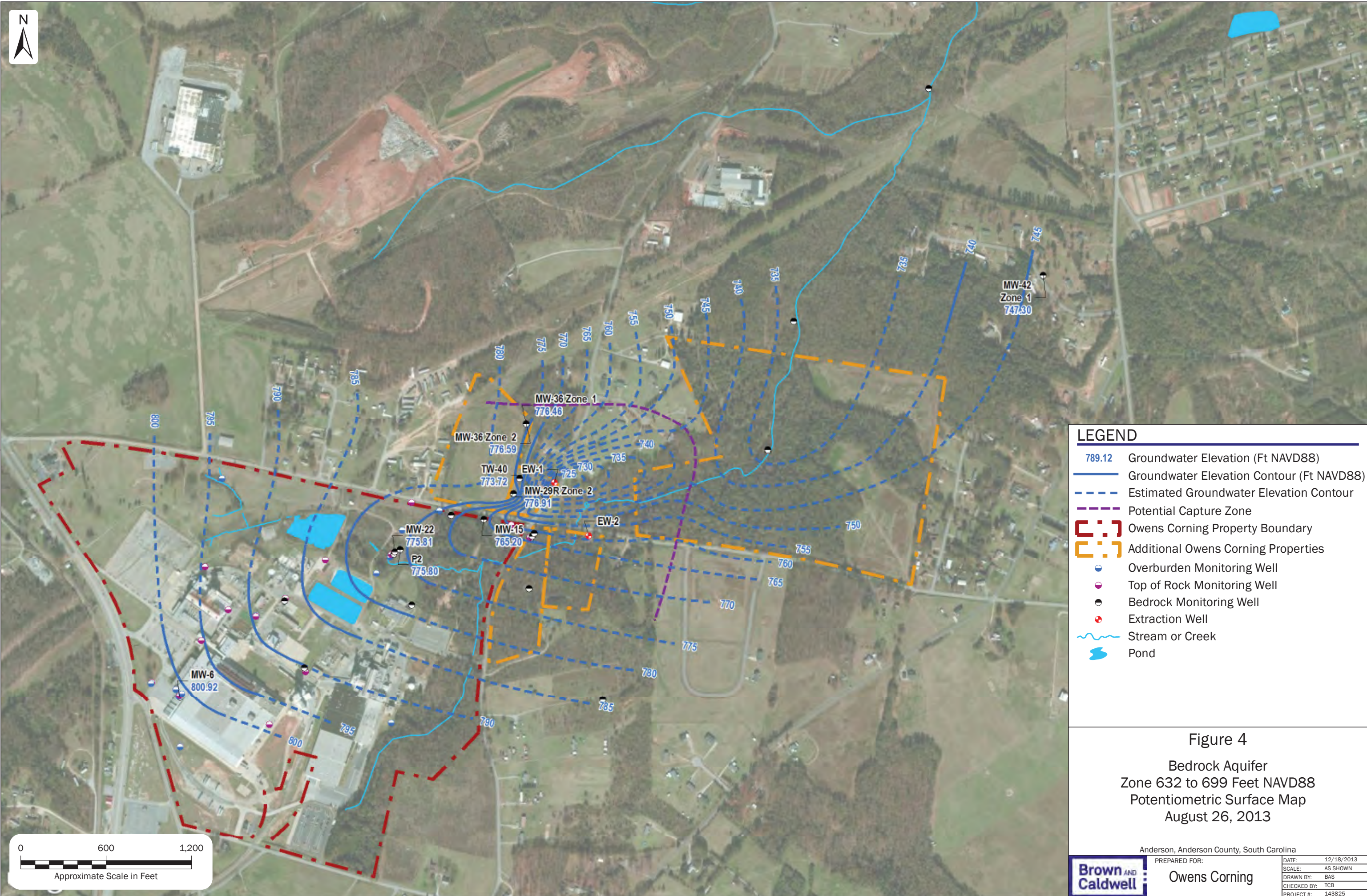
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- Groundwater Elevation Contour (Ft NAVD88)
- Estimated Groundwater Elevation Contour
- Potential Capture Zone
- Owens Corning Property Boundary
- Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream or Creek
- Pond

Figure 3
 Bedrock Aquifer
 Zone 699 to 740 Feet NAVD88
 Potentiometric Surface Map
 August 26, 2013

Anderson, Anderson County, South Carolina

	PREPARED FOR:	Owens Corning
	DATE:	01/21/2014
	SCALE:	AS SHOWN
	DRAWN BY:	GS4
	CHECKED BY:	TCB
	PROJECT #:	143825

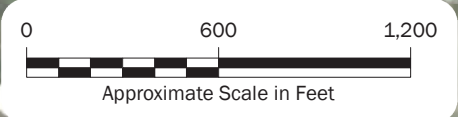




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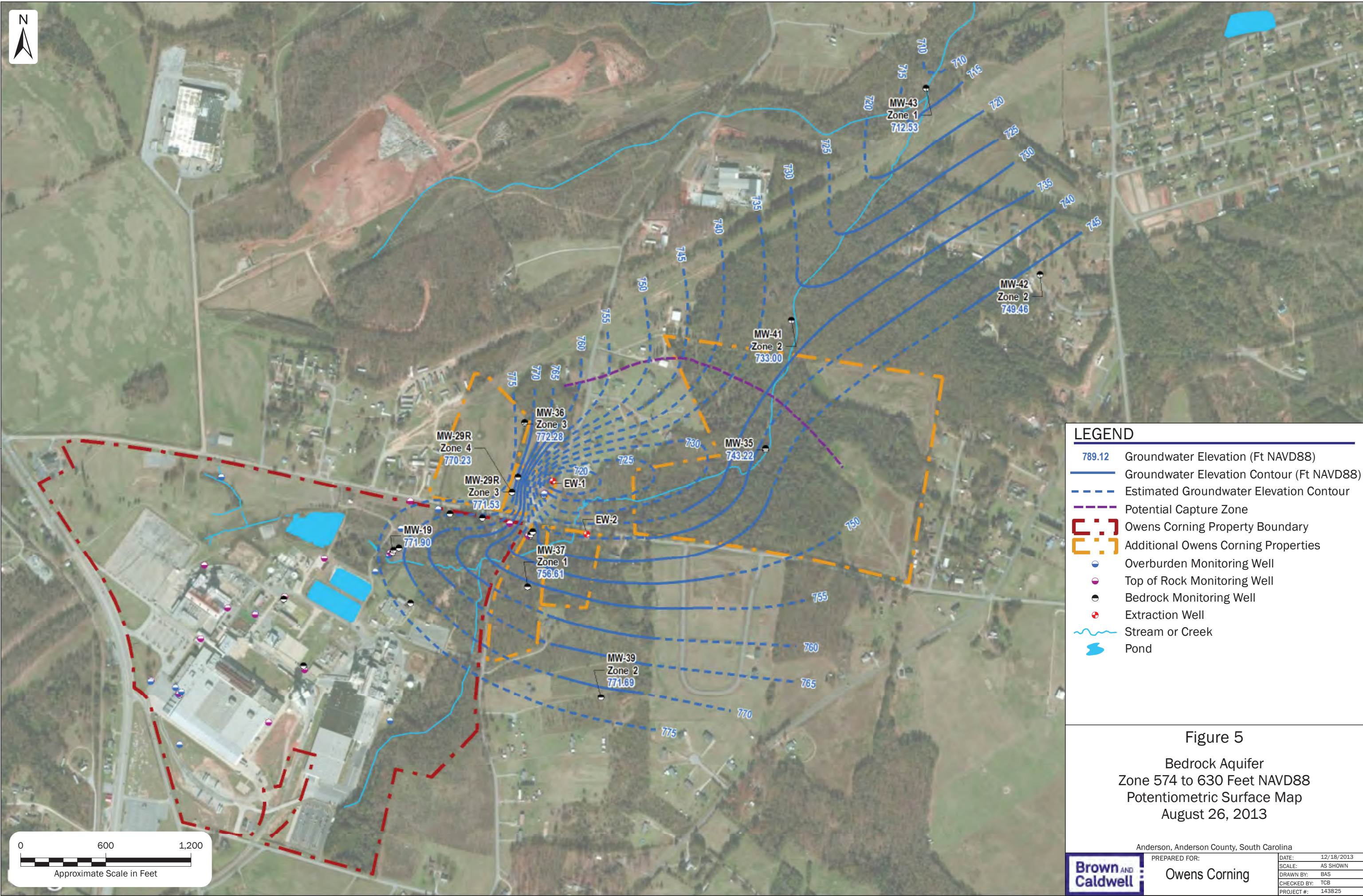
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- Groundwater Elevation Contour (Ft NAVD88)
- Estimated Groundwater Elevation Contour
- Potential Capture Zone
- Owens Corning Property Boundary
- Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream or Creek
- Pond

Figure 4
 Bedrock Aquifer
 Zone 632 to 699 Feet NAVD88
 Potentiometric Surface Map
 August 26, 2013



Anderson, Anderson County, South Carolina

	PREPARED FOR:	Owens Corning	DATE:	12/18/2013
	SCALE:	AS SHOWN	DRAWN BY:	BAS
	CHECKED BY:	TCB	PROJECT #:	143825



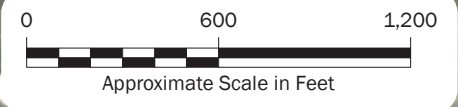
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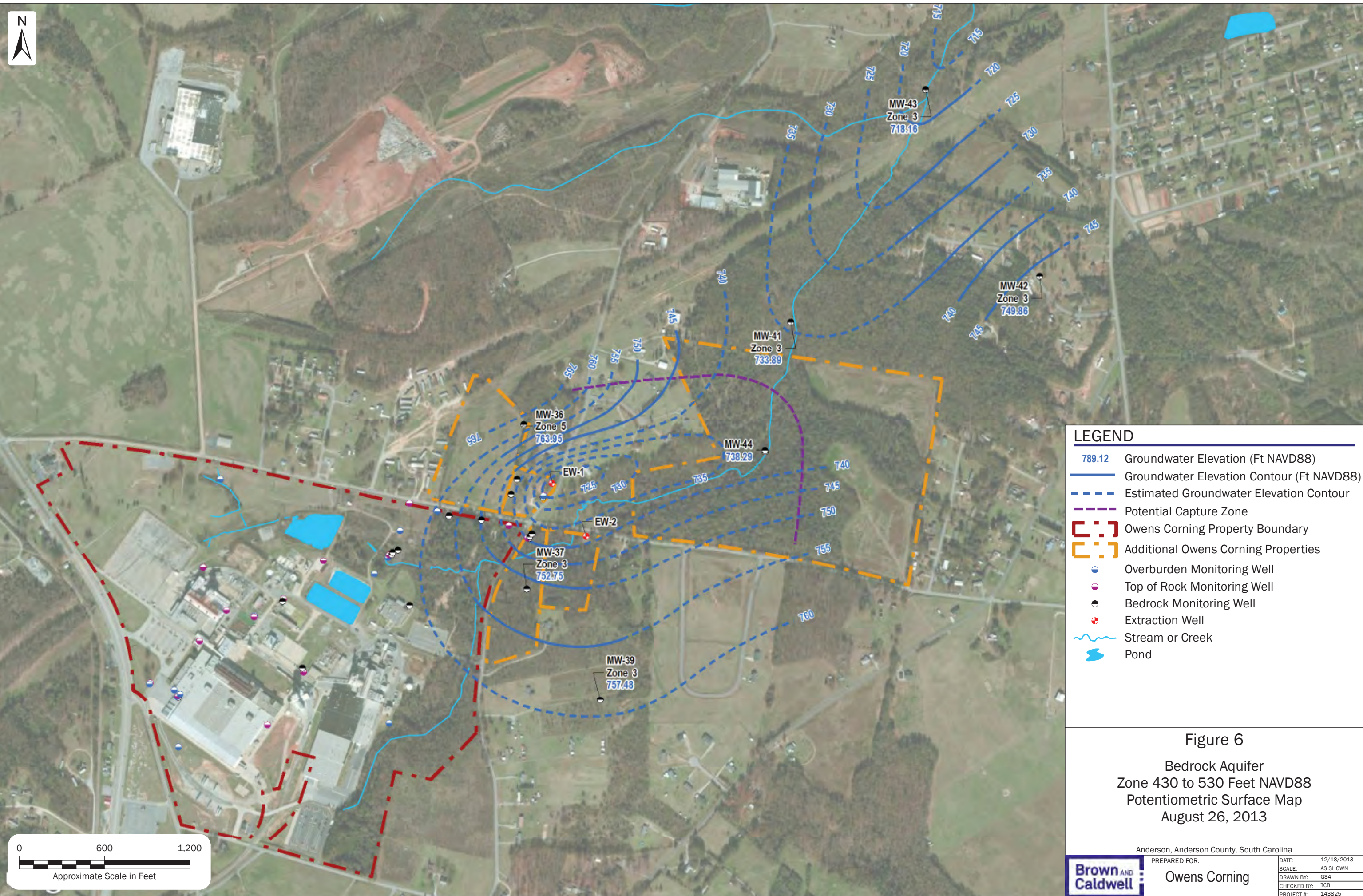
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- Groundwater Elevation Contour (Ft NAVD88)
- - - Estimated Groundwater Elevation Contour
- - - Potential Capture Zone
- - - Owens Corning Property Boundary
- - - Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- ~ Stream or Creek
- Pond

Figure 5
 Bedrock Aquifer
 Zone 574 to 630 Feet NAVD88
 Potentiometric Surface Map
 August 26, 2013

Anderson, Anderson County, South Carolina

Brown AND Caldwell	PREPARED FOR:	Owens Corning	DATE:	12/18/2013
	SCALE:	AS SHOWN	DRAWN BY:	BAS
	CHECKED BY:	TCB	PROJECT #:	143825





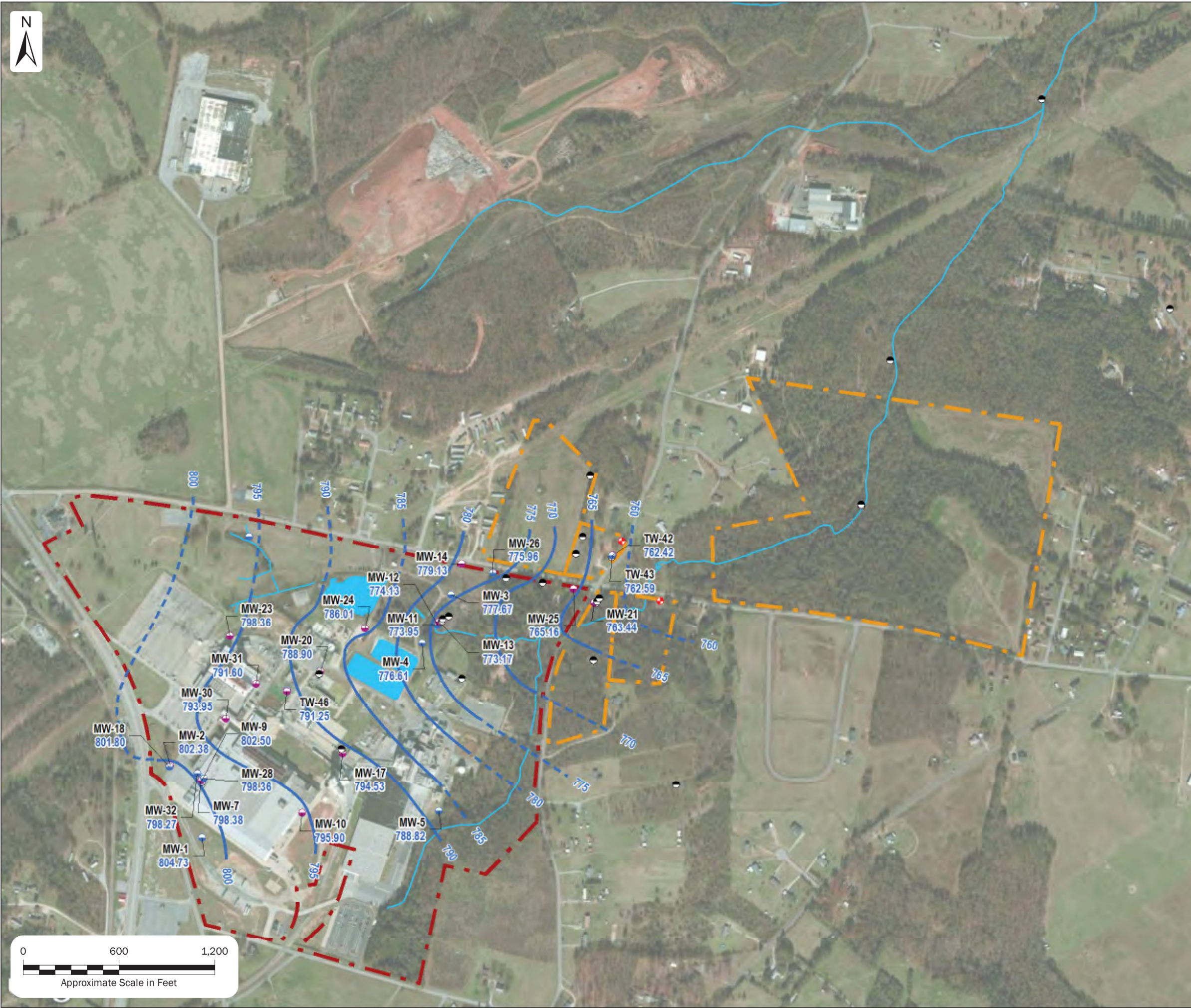
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- Groundwater Elevation Contour (Ft NAVD88)
- - - Estimated Groundwater Elevation Contour
- - - Potential Capture Zone
- - - Owens Corning Property Boundary
- - - Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream or Creek
- Pond

Figure 6
 Bedrock Aquifer
 Zone 430 to 530 Feet NAVD88
 Potentiometric Surface Map
 August 26, 2013

Anderson, Anderson County, South Carolina

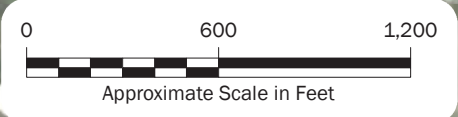
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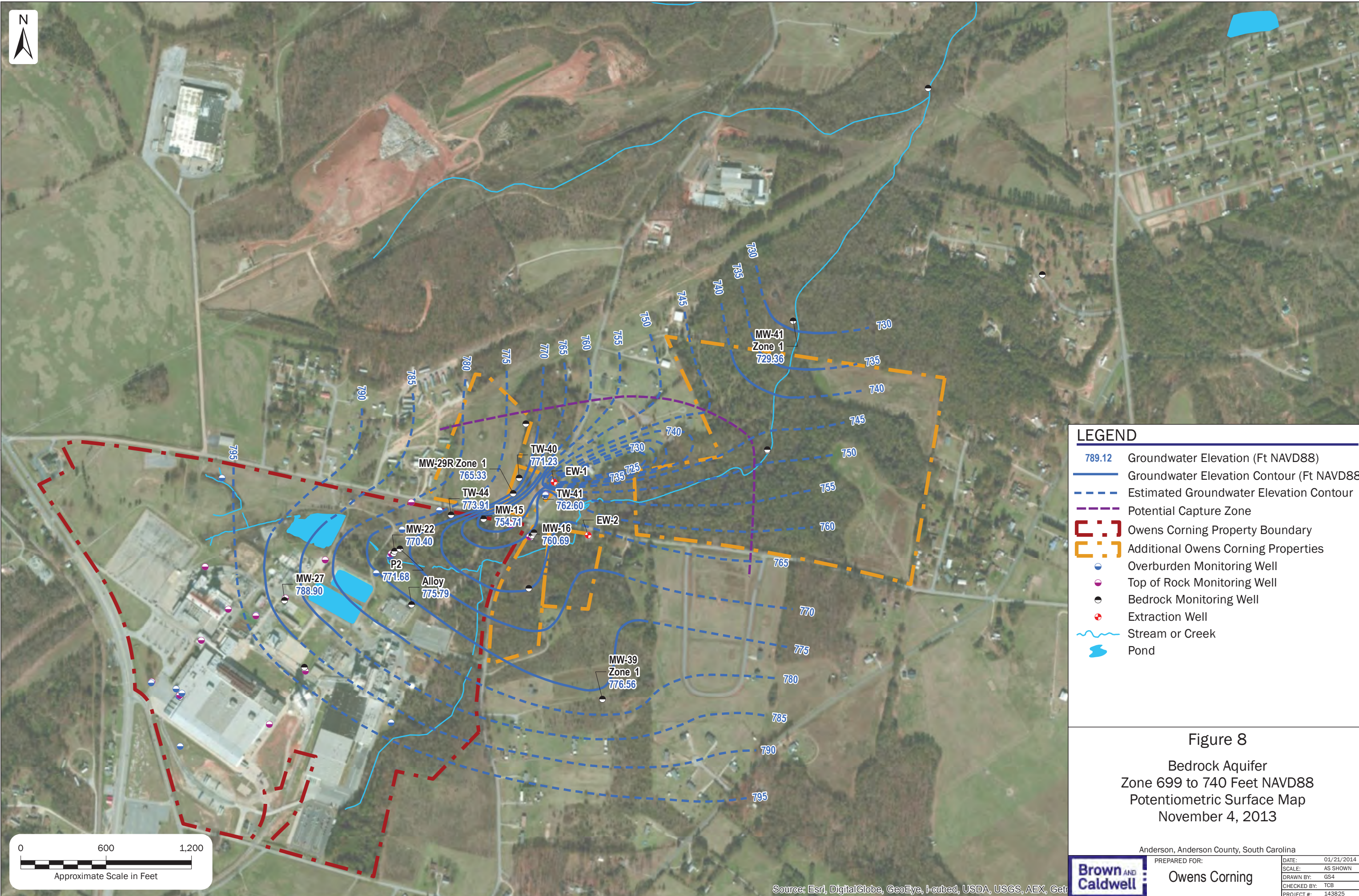
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- Groundwater Elevation Contour (Ft NAVD88)
- - - Estimated Groundwater Elevation Contour
- [Red Dashed Line] Owens Corning Property Boundary
- [Orange Dashed Line] Additional Owens Corning Properties
- [Blue Circle with Dot] Overburden Monitoring Well
- [Pink Circle with Dot] Top of Rock Monitoring Well
- [Black Circle with Dot] Bedrock Monitoring Well
- [Red Circle with Cross] Extraction Well
- [Blue Wavy Line] Stream or Creek
- [Blue Polygon] Pond

Figure 7
 Overburden / Saprolite
 Potentiometric Surface Map
 November 4, 2013



Anderson, Anderson County, South Carolina

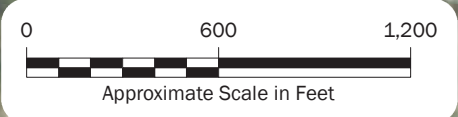
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- 789.12 Groundwater Elevation (Ft NAVD88)
- Groundwater Elevation Contour (Ft NAVD88)
- Estimated Groundwater Elevation Contour
- Potential Capture Zone
- Owens Corning Property Boundary
- Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream or Creek
- Pond

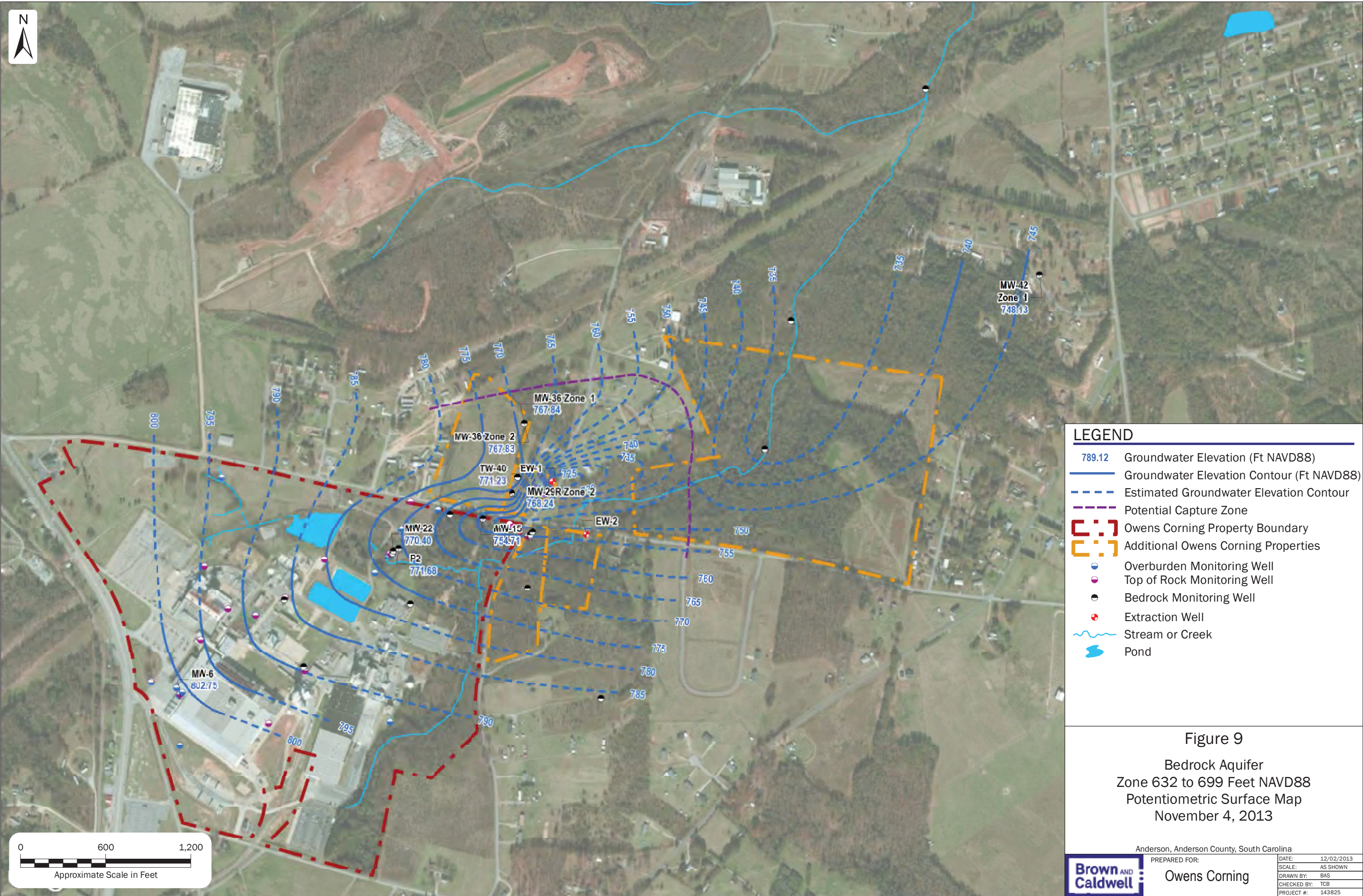
Figure 8
 Bedrock Aquifer
 Zone 699 to 740 Feet NAVD88
 Potentiometric Surface Map
 November 4, 2013



Anderson, Anderson County, South Carolina

PREPARED FOR:	Owens Corning	DATE:	01/21/2014
SCALE:	AS SHOWN	DRAWN BY:	GS4
CHECKED BY:	TCB	PROJECT #:	143825

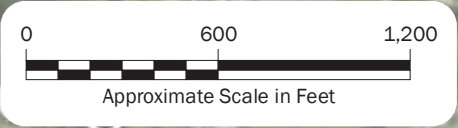


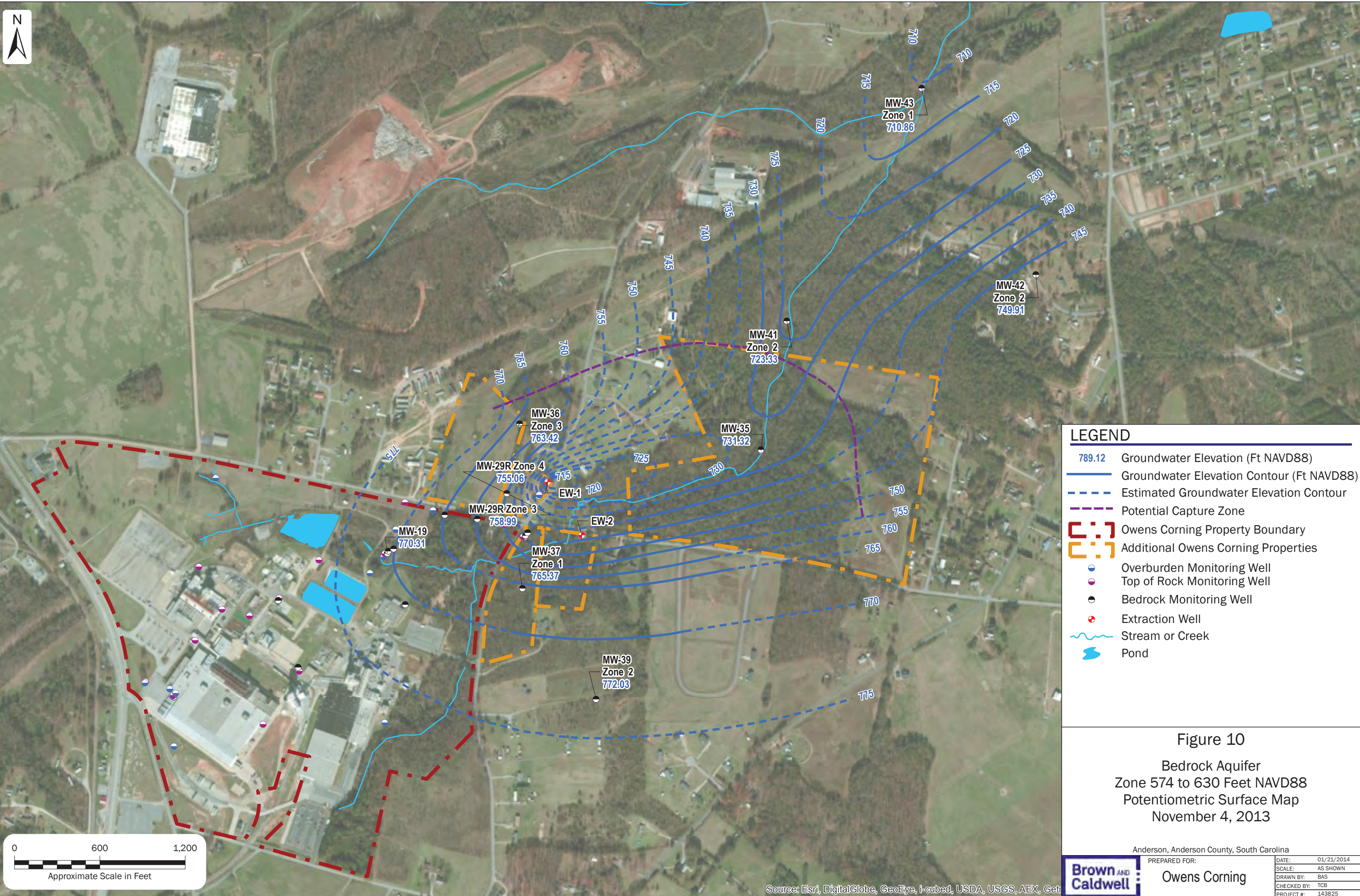


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- 789.12 Groundwater Elevation (Ft NAVD88)
- Groundwater Elevation Contour (Ft NAVD88)
- - - Estimated Groundwater Elevation Contour
- - - Potential Capture Zone
- [Red Dashed Line] Owens Corning Property Boundary
- [Orange Dashed Line] Additional Owens Corning Properties
- [Blue Circle with Dot] Overburden Monitoring Well
- [Pink Circle with Dot] Top of Rock Monitoring Well
- [Black Circle with Dot] Bedrock Monitoring Well
- [Red Circle with Plus] Extraction Well
- [Blue Wavy Line] Stream or Creek
- [Light Blue Area] Pond

Figure 9
 Bedrock Aquifer
 Zone 632 to 699 Feet NAVD88
 Potentiometric Surface Map
 November 4, 2013





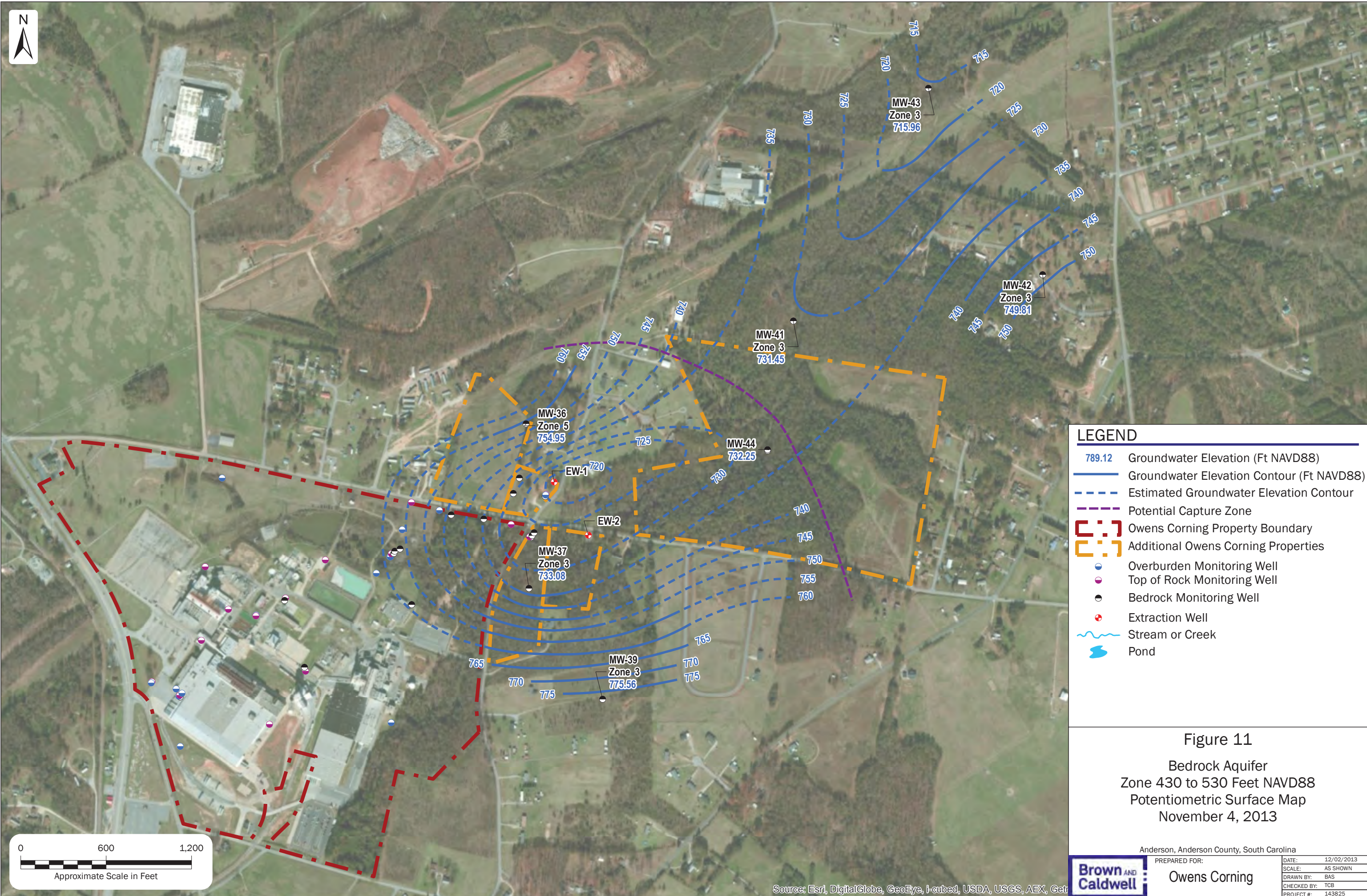
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- Groundwater Elevation Contour (Ft NAVD88)
- - - Estimated Groundwater Elevation Contour
- - - Potential Capture Zone
- - - Owens Corning Property Boundary
- - - Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- ~ Stream or Creek
- Pond

Figure 10
 Bedrock Aquifer
 Zone 574 to 630 Feet NAVD88
 Potentiometric Surface Map
 November 4, 2013

Anderson, Anderson County, South Carolina

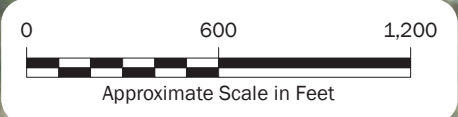
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PROJECT #:		143825



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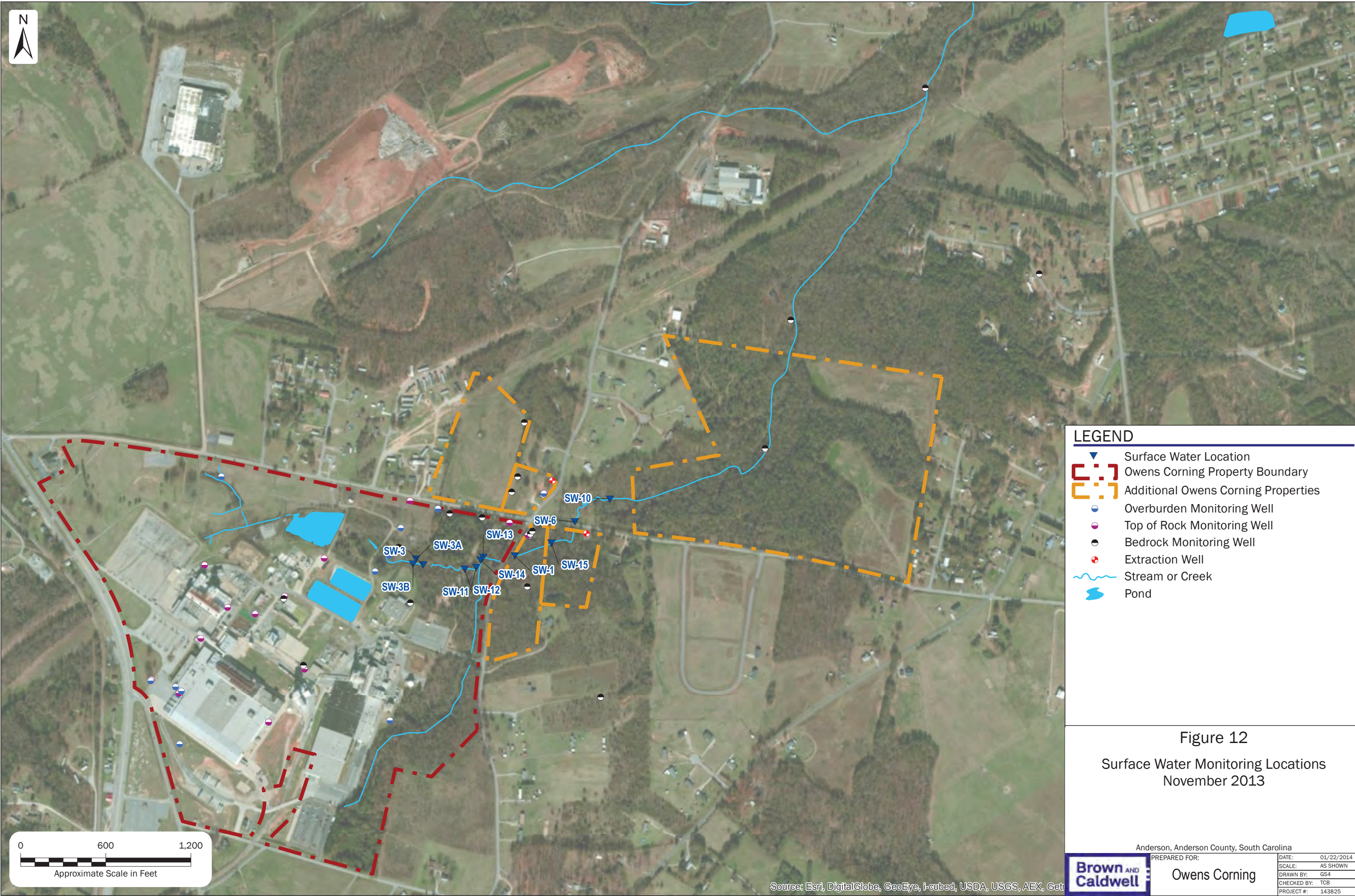
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- - - Estimated Groundwater Elevation Contour
- - - Potential Capture Zone
- - - Owens Corning Property Boundary
- - - Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- ~ Stream or Creek
- Pond

Figure 11
 Bedrock Aquifer
 Zone 430 to 530 Feet NAVD88
 Potentiometric Surface Map
 November 4, 2013



Anderson, Anderson County, South Carolina	
PREPARED FOR:	Owens Corning
DATE:	12/02/2013
SCALE:	AS SHOWN
DRAWN BY:	BAS
CHECKED BY:	TCB
PROJECT #:	143825





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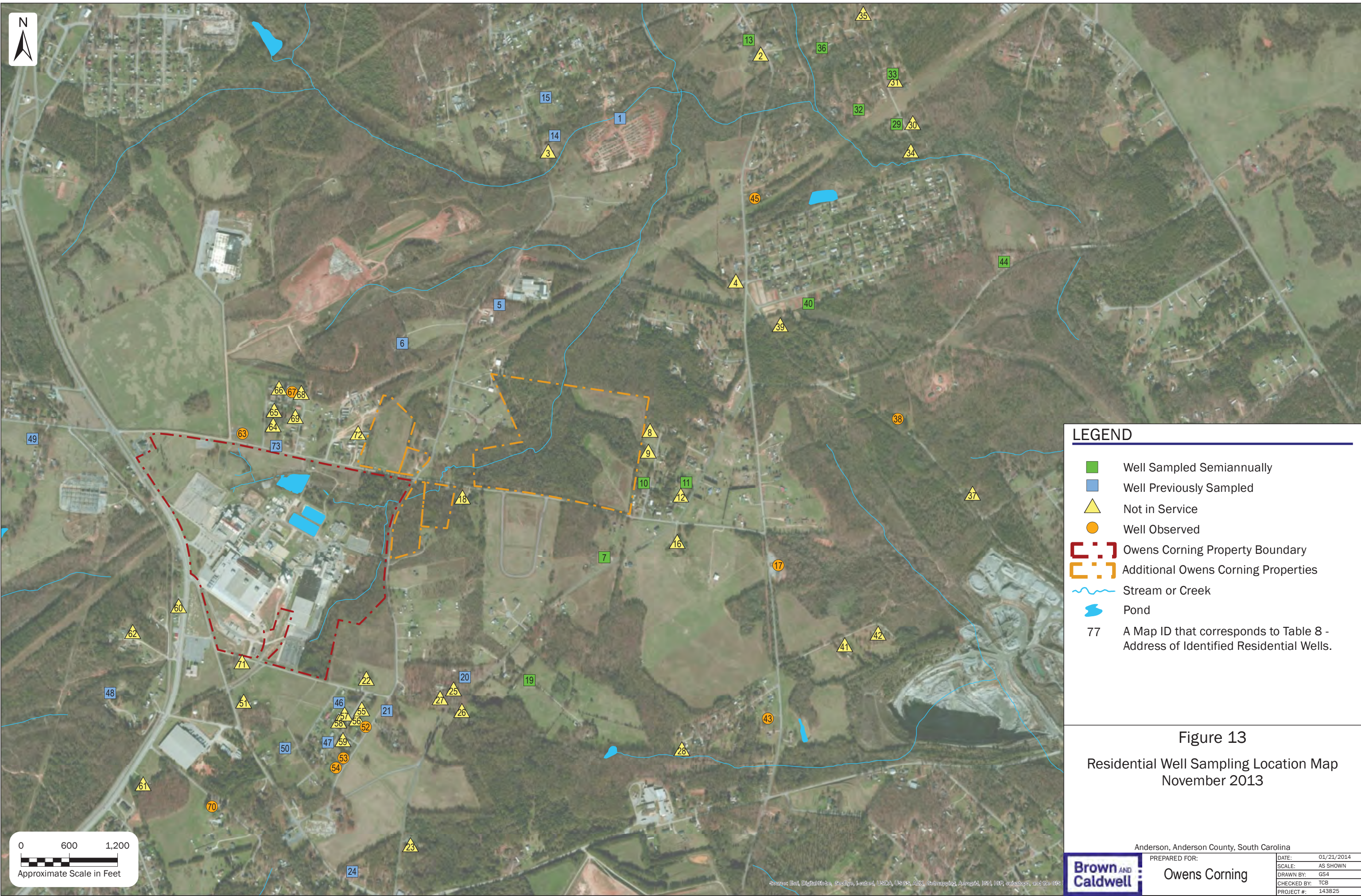
- ▼ Surface Water Location
- Owens Corning Property Boundary
- Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- ~ Stream or Creek
- Pond

Figure 12
Surface Water Monitoring Locations
November 2013

Anderson, Anderson County, South Carolina

	PREPARED FOR:	Owens Corning
	DATE:	01/22/2014
	SCALE:	AS SHOWN
	DRAWN BY:	GS4
	CHECKED BY:	TCB
PROJECT #:		143825

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Get



LEGEND

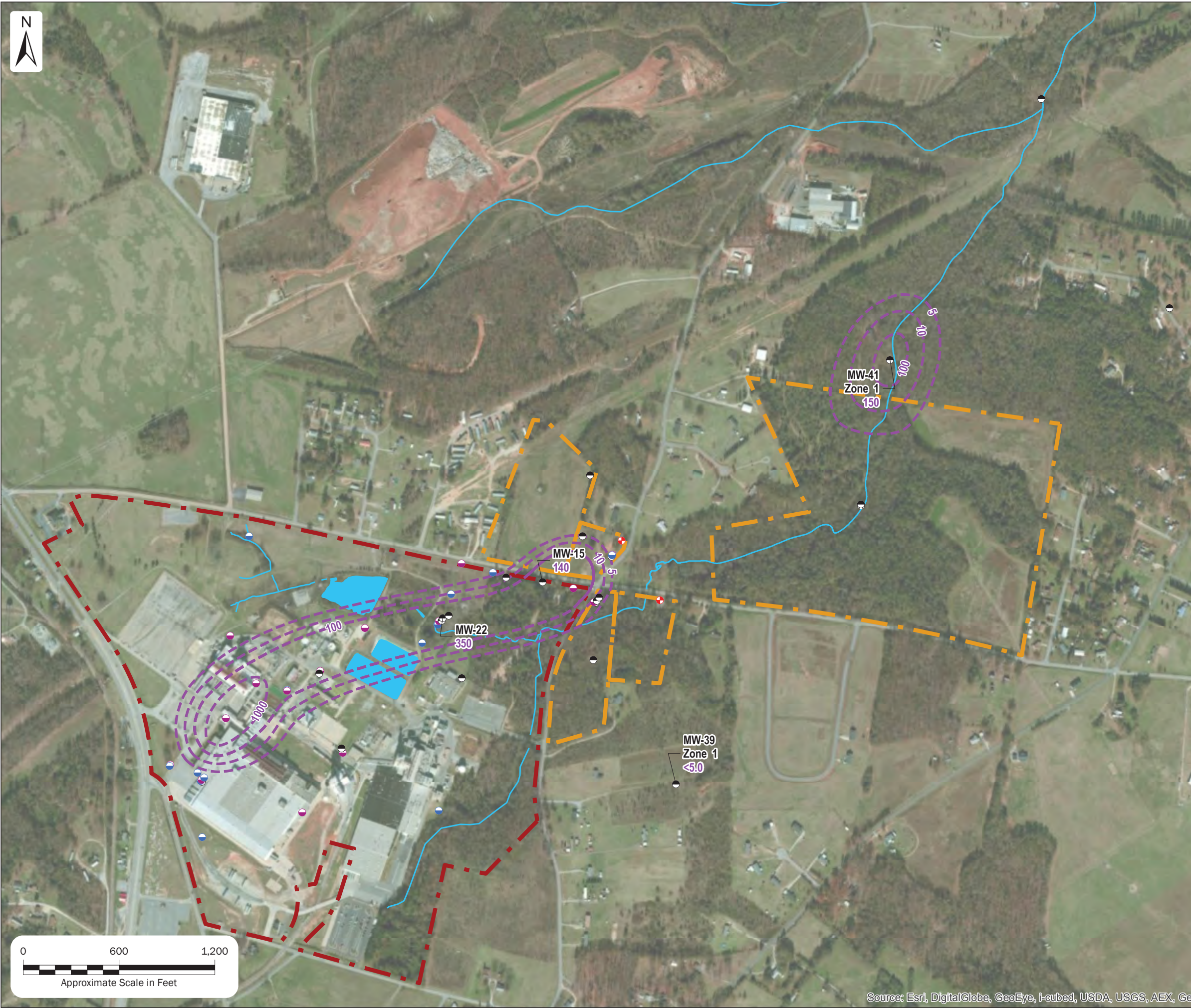
- Well Sampled Semiannually
- Well Previously Sampled
- ▲ Not in Service
- Well Observed
- Owens Corning Property Boundary
- Additional Owens Corning Properties
- ~ Stream or Creek
- Pond
- 77 A Map ID that corresponds to Table 8 - Address of Identified Residential Wells.

Figure 13
Residential Well Sampling Location Map
November 2013

Anderson, Anderson County, South Carolina

Brown AND Caldwell	PREPARED FOR:	Owens Corning
	DATE:	01/21/2014
	SCALE:	AS SHOWN
	DRAWN BY:	GS4
	CHECKED BY:	TCB
		PROJECT #: 143825

Source: Esri, DigitalGlobe, GeoEye, iSat, USDA, USGS, AER, GeoMapping, AeroGRID, IGN, GEBCO, swisstopo, and the GIS User Community

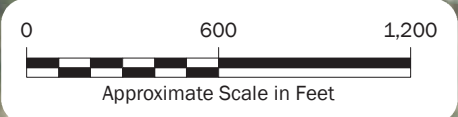


LEGEND

- 21 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)
- Owens Corning Property Boundary
- Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- ~ Stream or Creek
- Pond

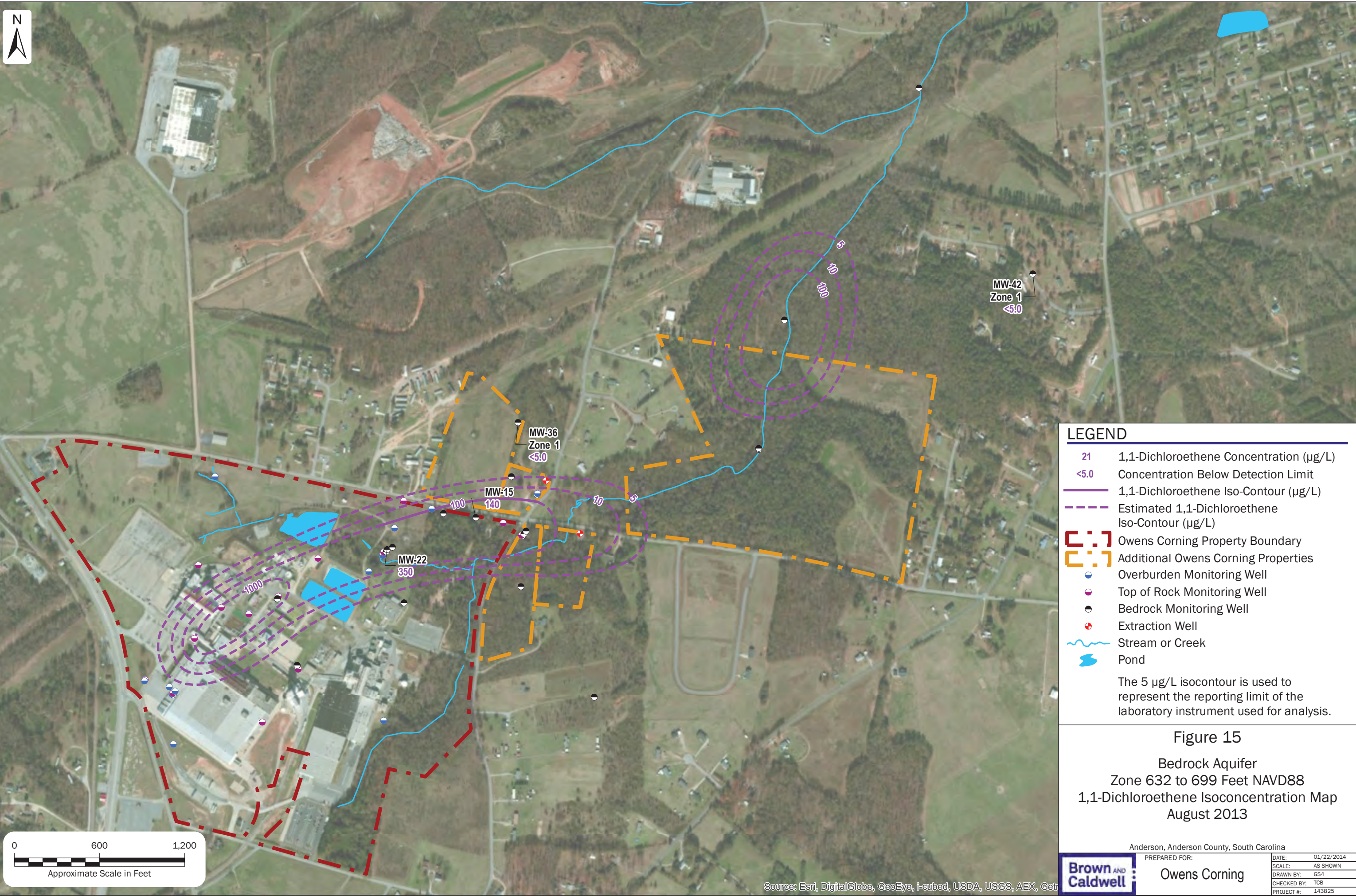
The 5 µg/L isocontour is used to represent the reporting limit of the laboratory instrument used for analysis.

Figure 14
 Bedrock Aquifer
 Zone 699 to 740 Feet NAVD88
 1,1-Dichloroethene Isoconcentration Map
 August 2013



Anderson, Anderson County, South Carolina

	PREPARED FOR:	Owens Corning
	DATE:	01/21/2014
	SCALE:	AS SHOWN
	DRAWN BY:	GS4
	CHECKED BY:	TCB
	PROJECT #:	143825



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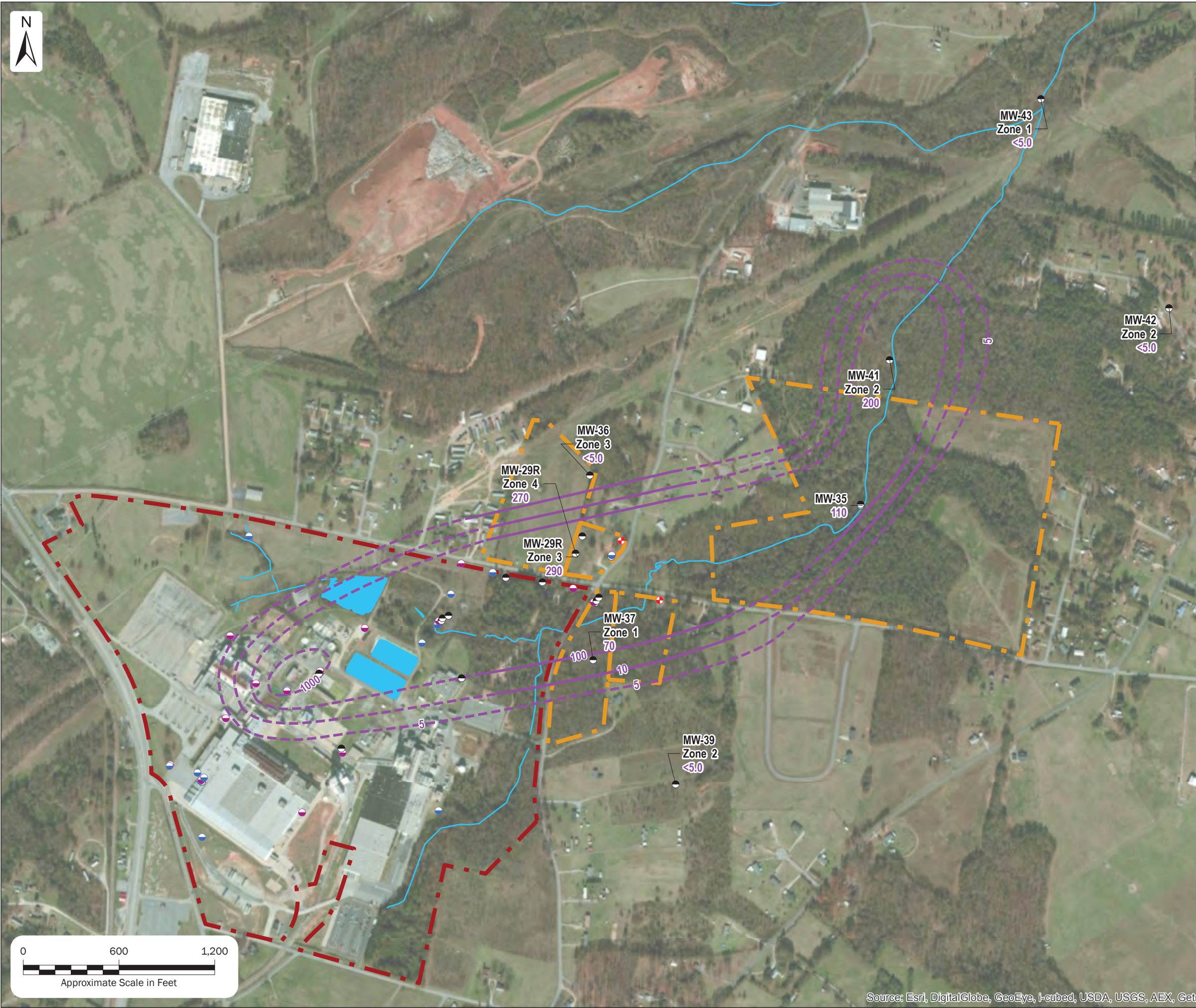
- 21 1,1-Dichloroethene Concentration (µg/L)
- <5.0 Concentration Below Detection Limit
- 1,1-Dichloroethene Iso-Contour (µg/L)
- Estimated 1,1-Dichloroethene Iso-Contour (µg/L)
- Owens Corning Property Boundary
- Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream or Creek
- Pond

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

Figure 15
 Bedrock Aquifer
 Zone 632 to 699 Feet NAVD88
 1,1-Dichloroethene Isoconcentration Map
 August 2013

Anderson, Anderson County, South Carolina

	PREPARED FOR:	Owens Corning
	DATE:	01/22/2014
	SCALE:	AS SHOWN
	DRAWN BY:	GS4
	CHECKED BY:	TCB
	PROJECT #:	143825

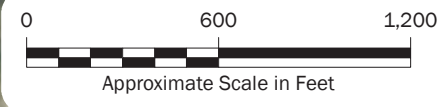


LEGEND

- 21 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)
- [Red dashed line] Owens Corning Property Boundary
- [Orange dashed line] Additional Owens Corning Properties
- [Blue circle with dot] Overburden Monitoring Well
- [Pink circle with dot] Top of Rock Monitoring Well
- [Black circle with dot] Bedrock Monitoring Well
- [Red circle with dot] Extraction Well
- [Blue wavy line] Stream or Creek
- [Blue shape] Pond

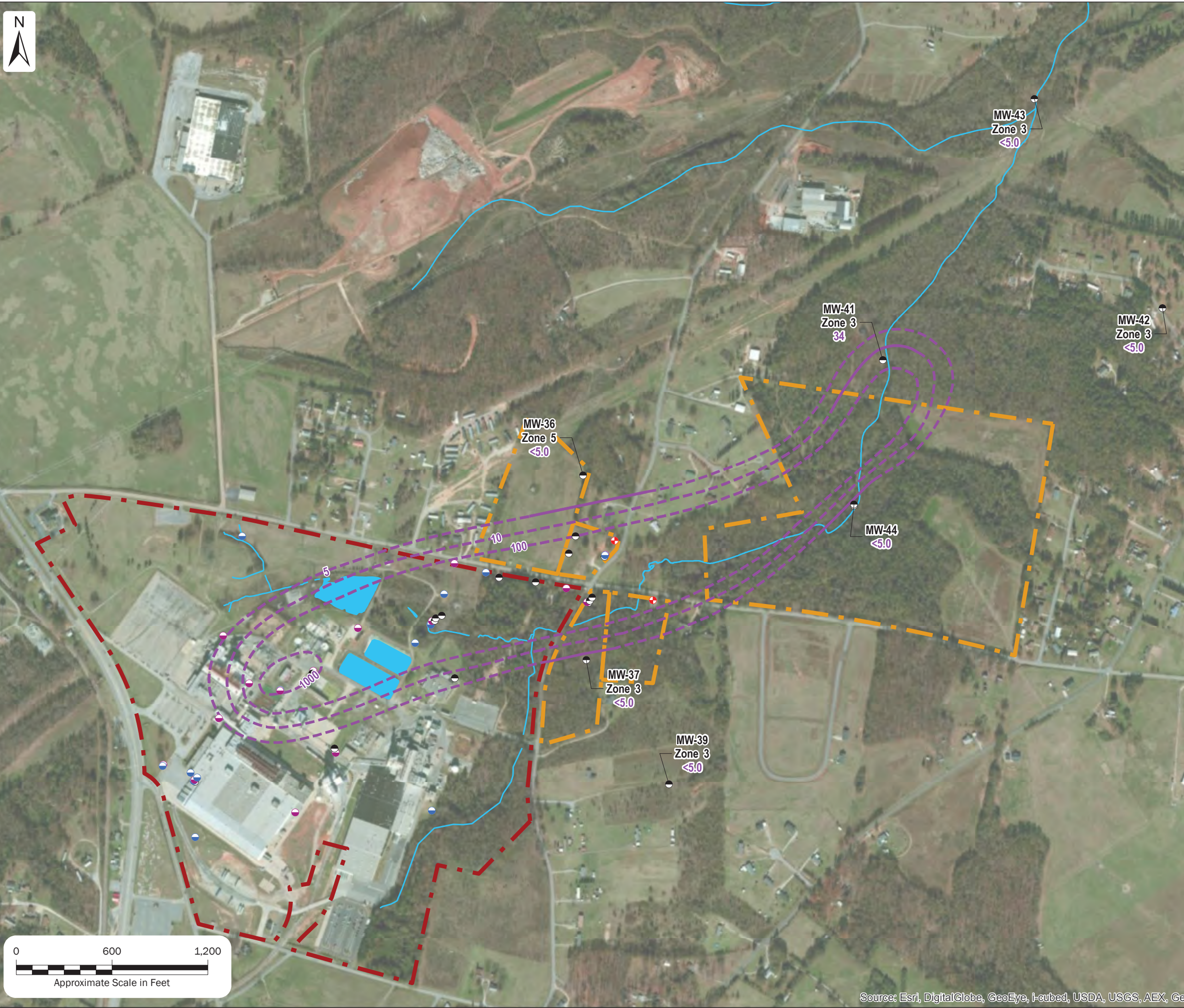
The 5 µg/L isocontour is used to represent the reporting limit of the laboratory instrument used for analysis.

Figure 16
 Bedrock Aquifer
 Zone 574 to 630 Feet NAVD88
 1,1-Dichloroethene Isoconcentration Map
 August 2013



Anderson, Anderson County, South Carolina

Brown AND Caldwell	PREPARED FOR:	Owens Corning	DATE:	01/21/2014
			SCALE:	AS SHOWN
			DRAWN BY:	GS4
			CHECKED BY:	TCB
			PROJECT #:	143825

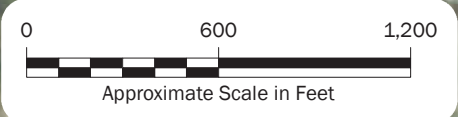


LEGEND

- 21 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 ($\mu\text{g/L}$)
- [Red Dashed Line] Owens Corning Property Boundary
- [Orange Dashed Line] Additional Owens Corning Properties
- [Blue Circle with Dot] Overburden Monitoring Well
- [Pink Circle with Dot] Top of Rock Monitoring Well
- [Black Circle with Dot] Bedrock Monitoring Well
- [Red Circle with Cross] Extraction Well
- [Blue Wavy Line] Stream or Creek
- [Blue Polygon] Pond

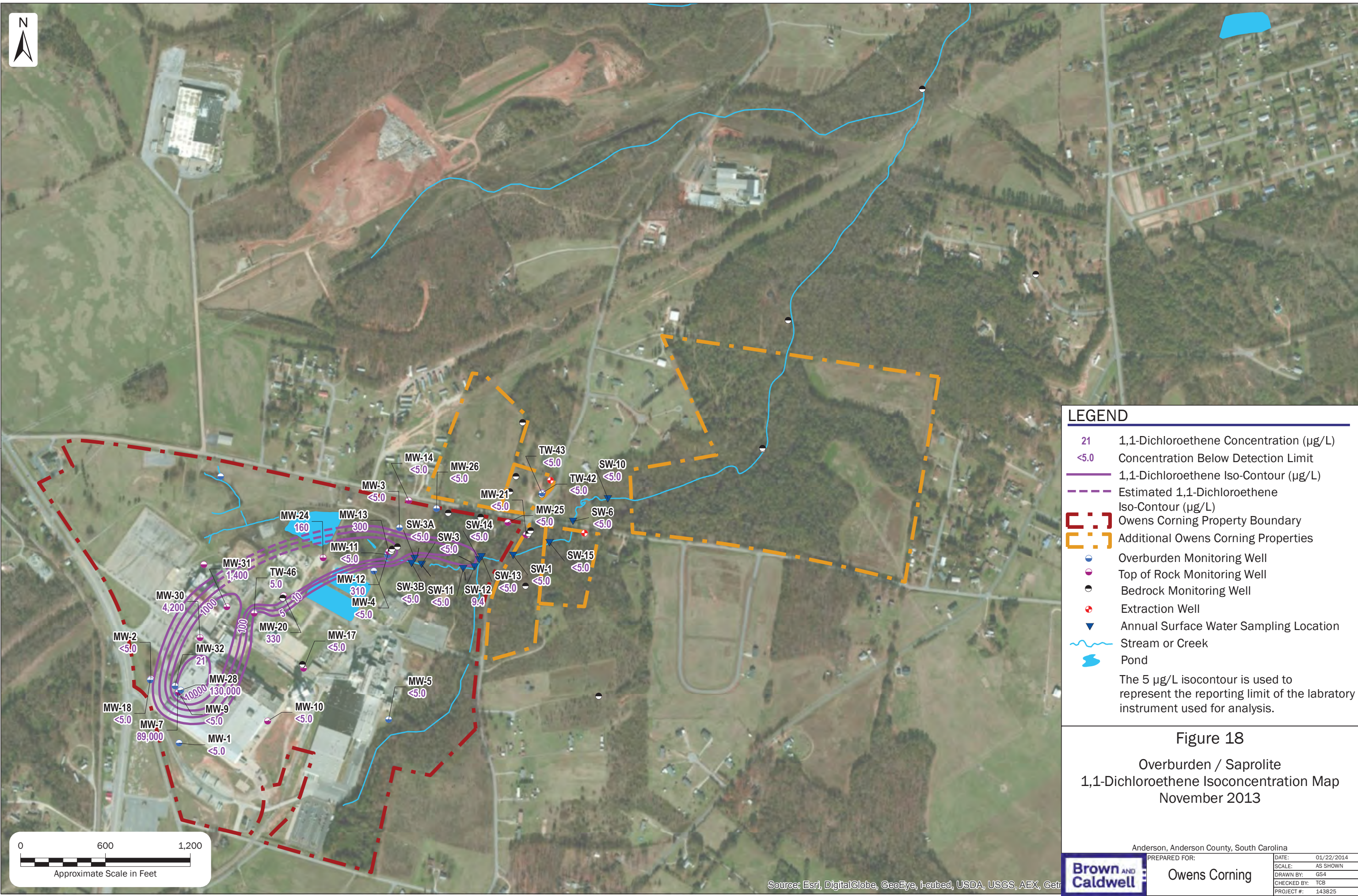
The 5 $\mu\text{g/L}$ isocontour is used to represent the reporting limit of the laboratory instrument used for analysis.

Figure 17
 Bedrock Aquifer
 Zone 430 to 530 Feet NAVD88
 1,1-Dichloroethene Isoconcentration Map
 August 2013



Anderson, Anderson County, South Carolina

Brown AND Caldwell	PREPARED FOR:	Owens Corning
	DATE:	01/22/2014
	SCALE:	AS SHOWN
	DRAWN BY:	GS4
	CHECKED BY:	TCB
	PROJECT #:	143825

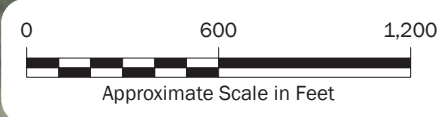


LEGEND

- 21 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)
- Owens Corning Property Boundary
- - - Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- ⊕ Extraction Well
- ▼ Annual Surface Water Sampling Location
- Stream or Creek
- Pond

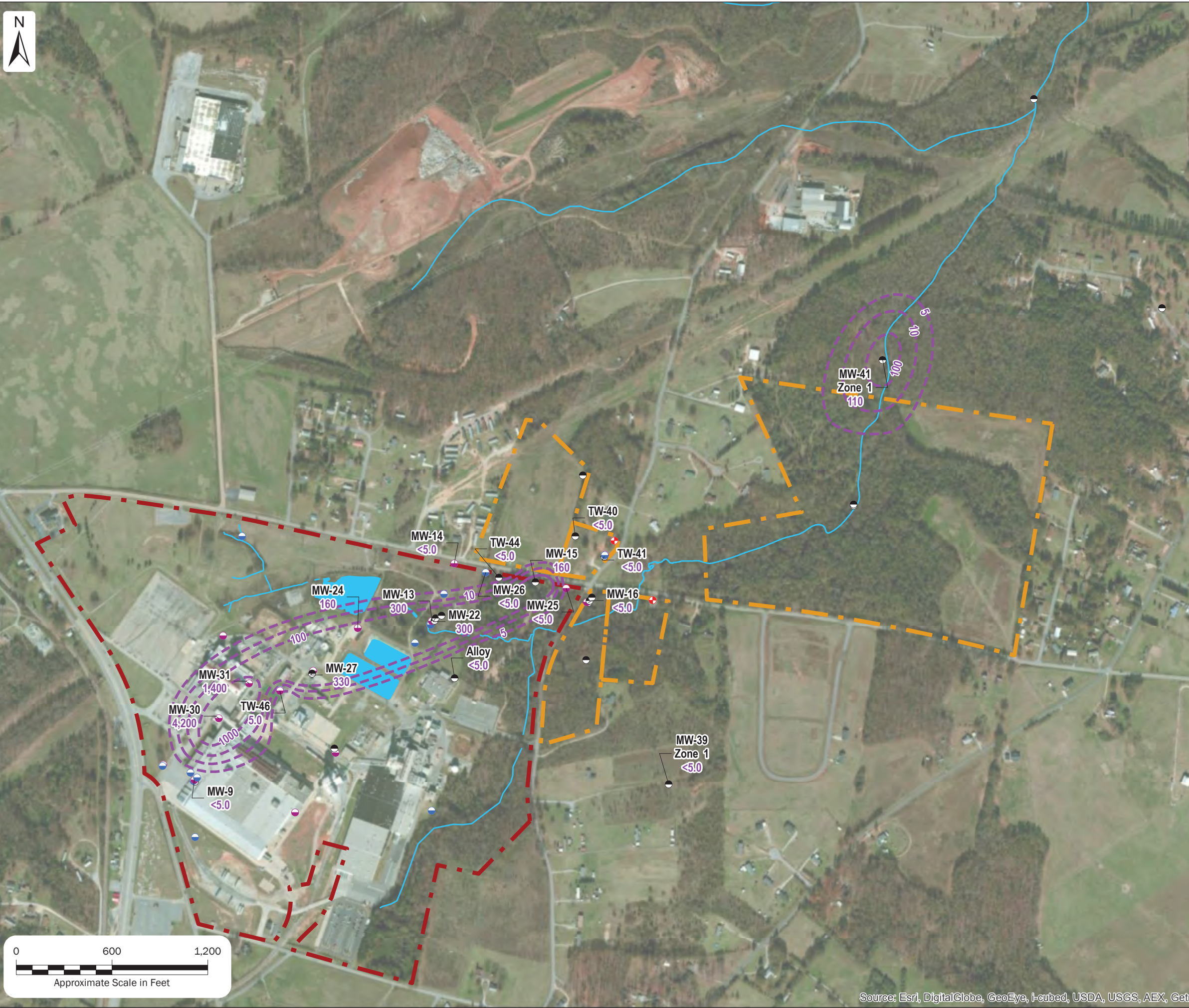
The 5 µg/L isocontour is used to represent the reporting limit of the laboratory instrument used for analysis.

Figure 18
 Overburden / Saprolite
 1,1-Dichloroethene Isoconcentration Map
 November 2013



Anderson, Anderson County, South Carolina

Brown AND Caldwell	PREPARED FOR:	Owens Corning	DATE:	01/22/2014
	SCALE:		DRAWN BY:	GS4
	CHECKED BY:	TCB	PROJECT #:	143825

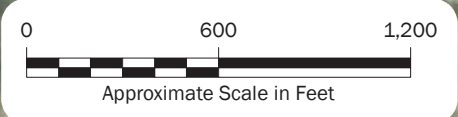


LEGEND

- 21 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)
- Owens Corning Property Boundary
- Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream or Creek
- Pond

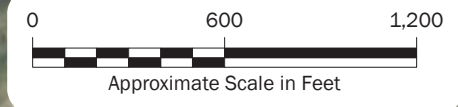
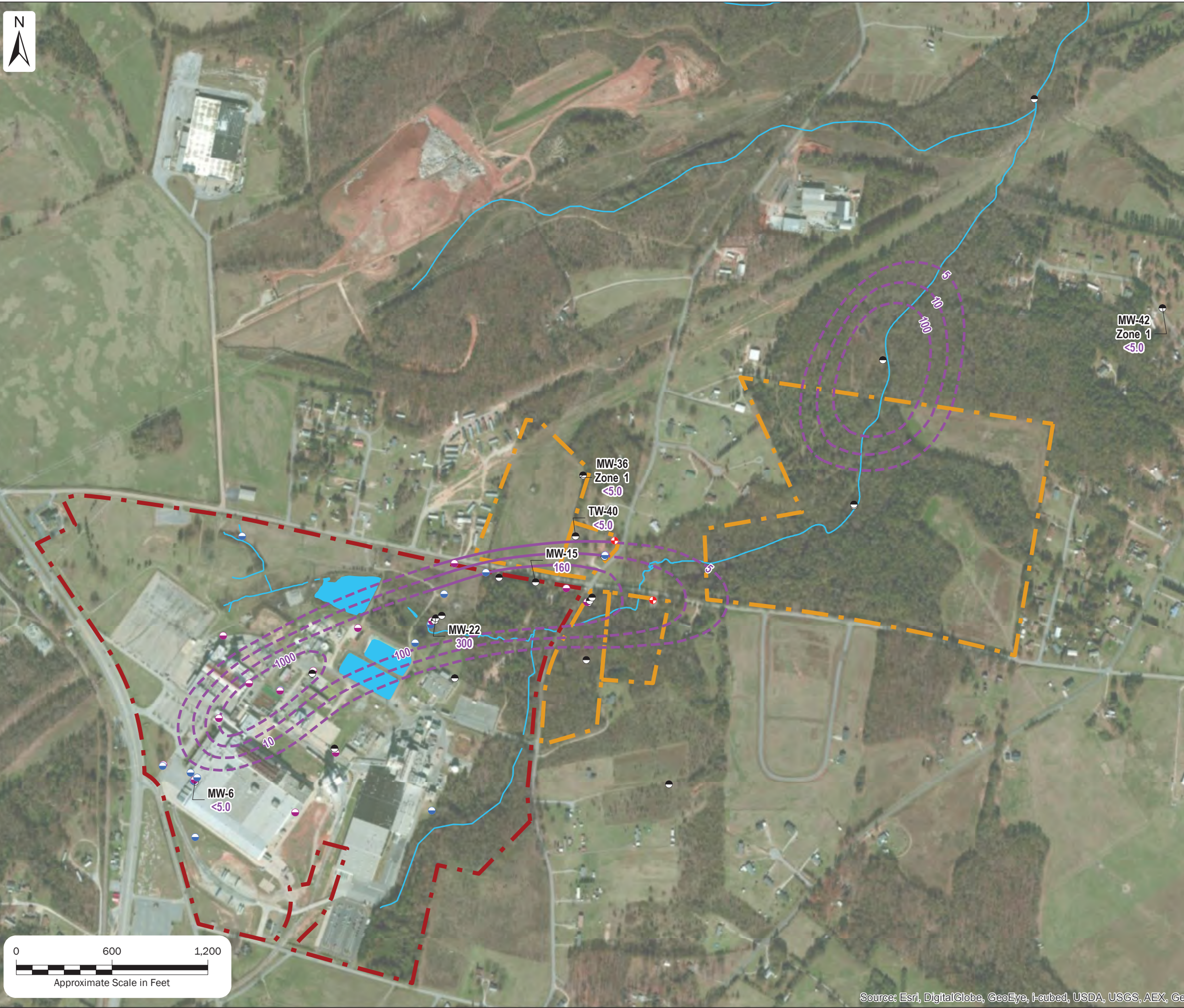
The 5 µg/L isocontour is used to represent the reporting limit of the laboratory instrument used for analysis.

Figure 19
 Bedrock Aquifer
 Zone 699 to 740 Feet NAVD88
 1,1-Dichloroethene Isoconcentration Map
 November 2013



Anderson, Anderson County, South Carolina

PREPARED FOR:	Owens Corning	DATE:	01/21/2014
SCALE:	AS SHOWN	DRAWN BY:	GS4
CHECKED BY:	TCB	PROJECT #:	143825



LEGEND

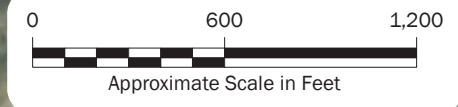
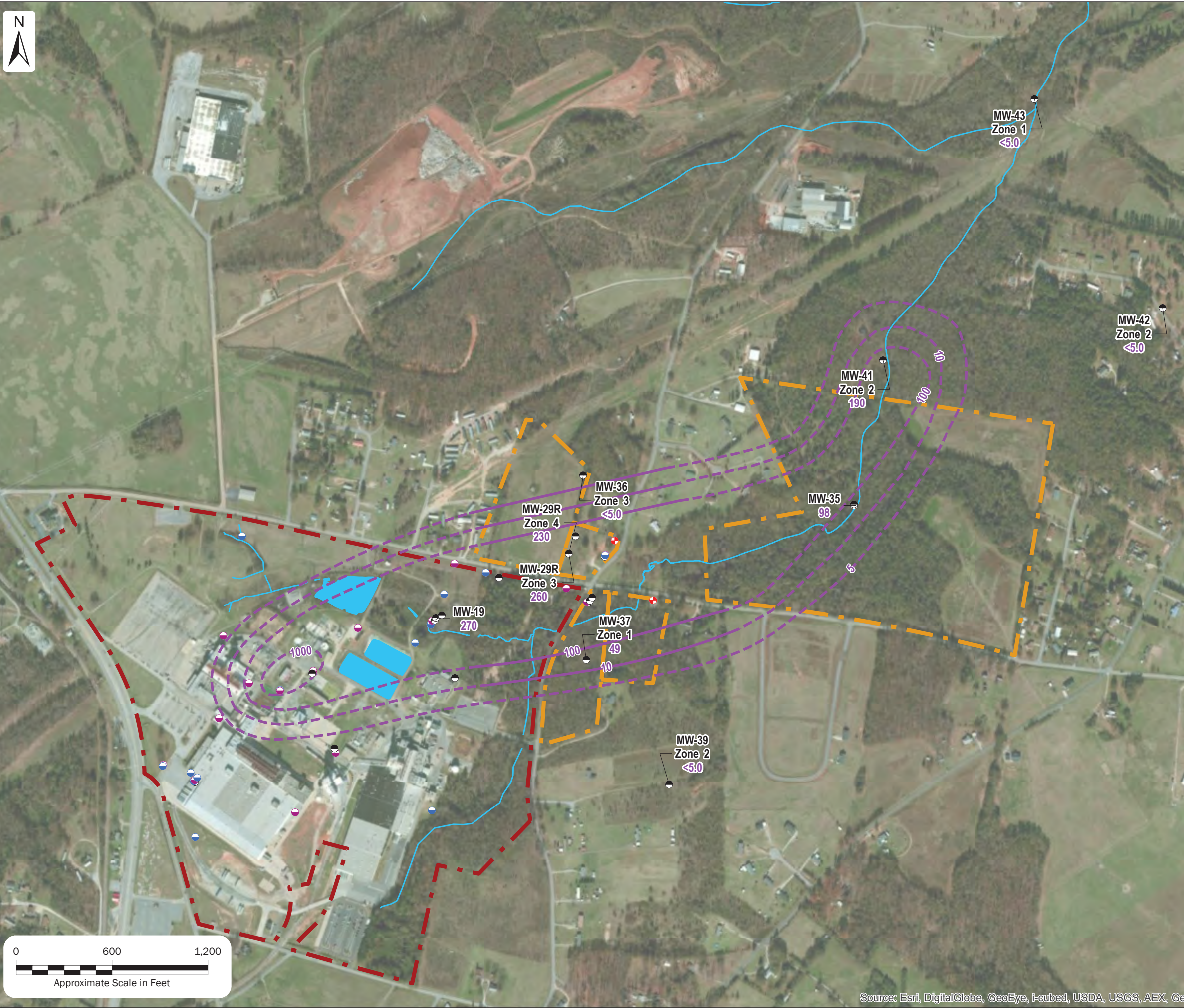
- 21 1,1-Dichloroethene Concentration (µg/L)
- <5.0 Concentration Below Detection Limit
- 1,1-Dichloroethene Iso-Contour (µg/L)
- - - Estimated 1,1-Dichloroethene Iso-Contour (µg/L)
- [Red Dashed Line] Owens Corning Property Boundary
- [Orange Dashed Line] Additional Owens Corning Properties
- [Blue Circle] Overburden Monitoring Well
- [Pink Circle] Top of Rock Monitoring Well
- [Black Circle] Bedrock Monitoring Well
- [Red Circle] Extraction Well
- [Blue Wavy Line] Stream or Creek
- [Blue Polygon] Pond

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

Figure 20
 Bedrock Aquifer
 Zone 632 to 699 Feet NAVD88
 1,1-Dichloroethene Isoconcentration Map
 November 2013

Anderson, Anderson County, South Carolina

Brown AND Caldwell	PREPARED FOR:	Owens Corning
	DATE:	01/21/2014
	SCALE:	AS SHOWN
	DRAWN BY:	GS4
	CHECKED BY:	TCB
PROJECT #:		143825



LEGEND

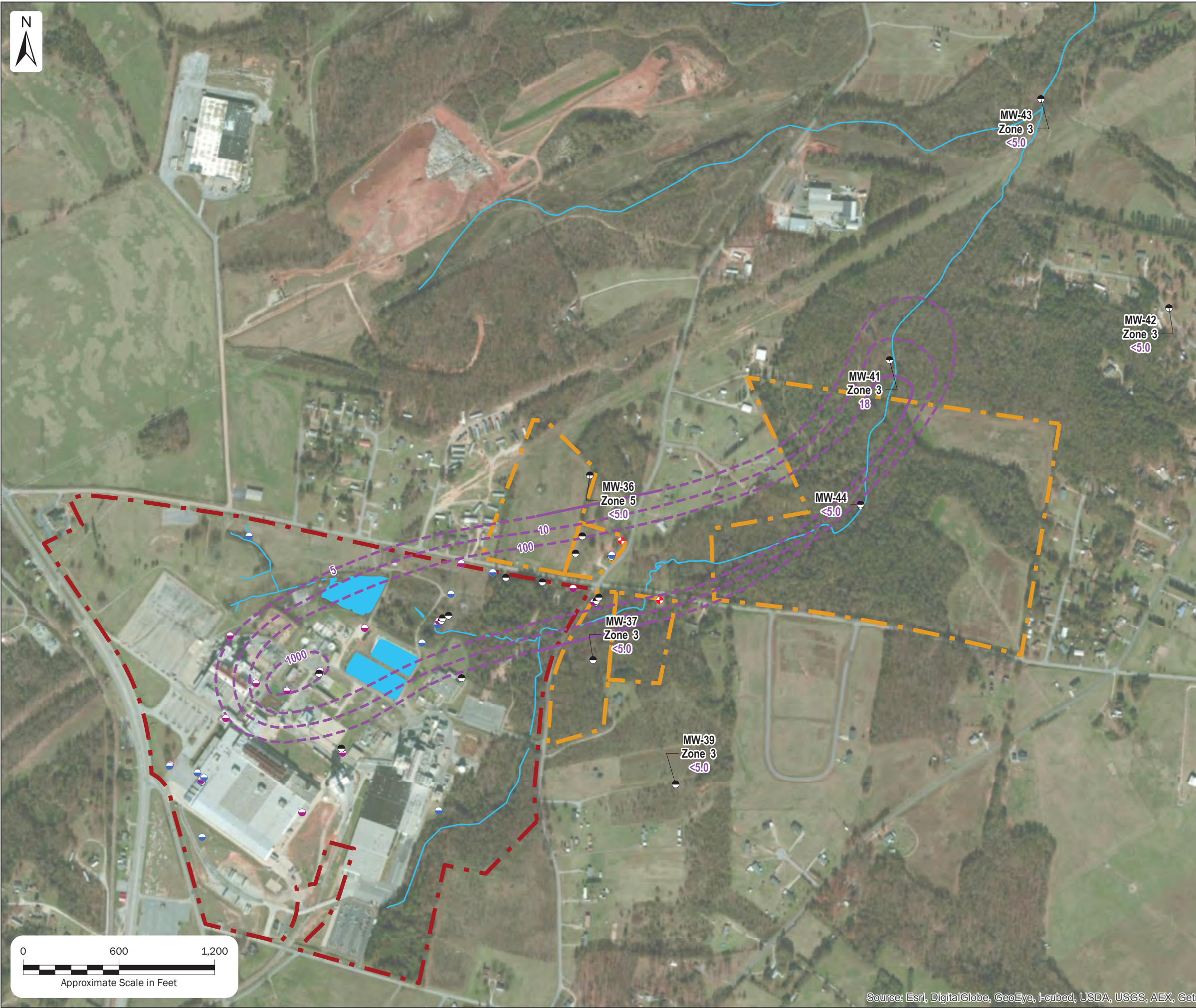
- 21 1,1-Dichloroethene Concentration (µg/L)
- <5.0 Concentration Below Detection Limit
- 1,1-Dichloroethene Iso-Contour (µg/L)
- - - Estimated 1,1-Dichloroethene Iso-Contour (µg/L)
- [Red dashed line] Owens Corning Property Boundary
- [Orange dashed line] Additional Owens Corning Properties
- [Blue circle] Overburden Monitoring Well
- [Pink circle] Top of Rock Monitoring Well
- [Black circle] Bedrock Monitoring Well
- [Red circle with cross] Extraction Well
- [Blue wavy line] Stream or Creek
- [Blue shape] Pond

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

Figure 21
 Bedrock Aquifer
 Zone 574 to 630 Feet NAVD88
 1,1-Dichloroethene Isoconcentration Map
 November 2013

Anderson, Anderson County, South Carolina

Brown and Caldwell	PREPARED FOR:	Owens Corning	DATE:	01/21/2014
	SCALE:	AS SHOWN	DRAWN BY:	GS4
	CHECKED BY:	TCB	PROJECT #:	143825

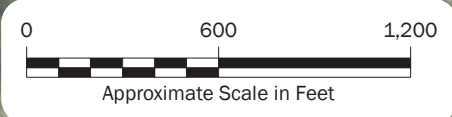


LEGEND

- 21 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)
- [Red Dashed Line] Owens Corning Property Boundary
- [Orange Dashed Line] Additional Owens Corning Properties
- [Blue Circle] Overburden Monitoring Well
- [Pink Circle] Top of Rock Monitoring Well
- [Black Circle] Bedrock Monitoring Well
- [Red Circle] Extraction Well
- [Blue Wavy Line] Stream or Creek
- [Blue Polygon] Pond

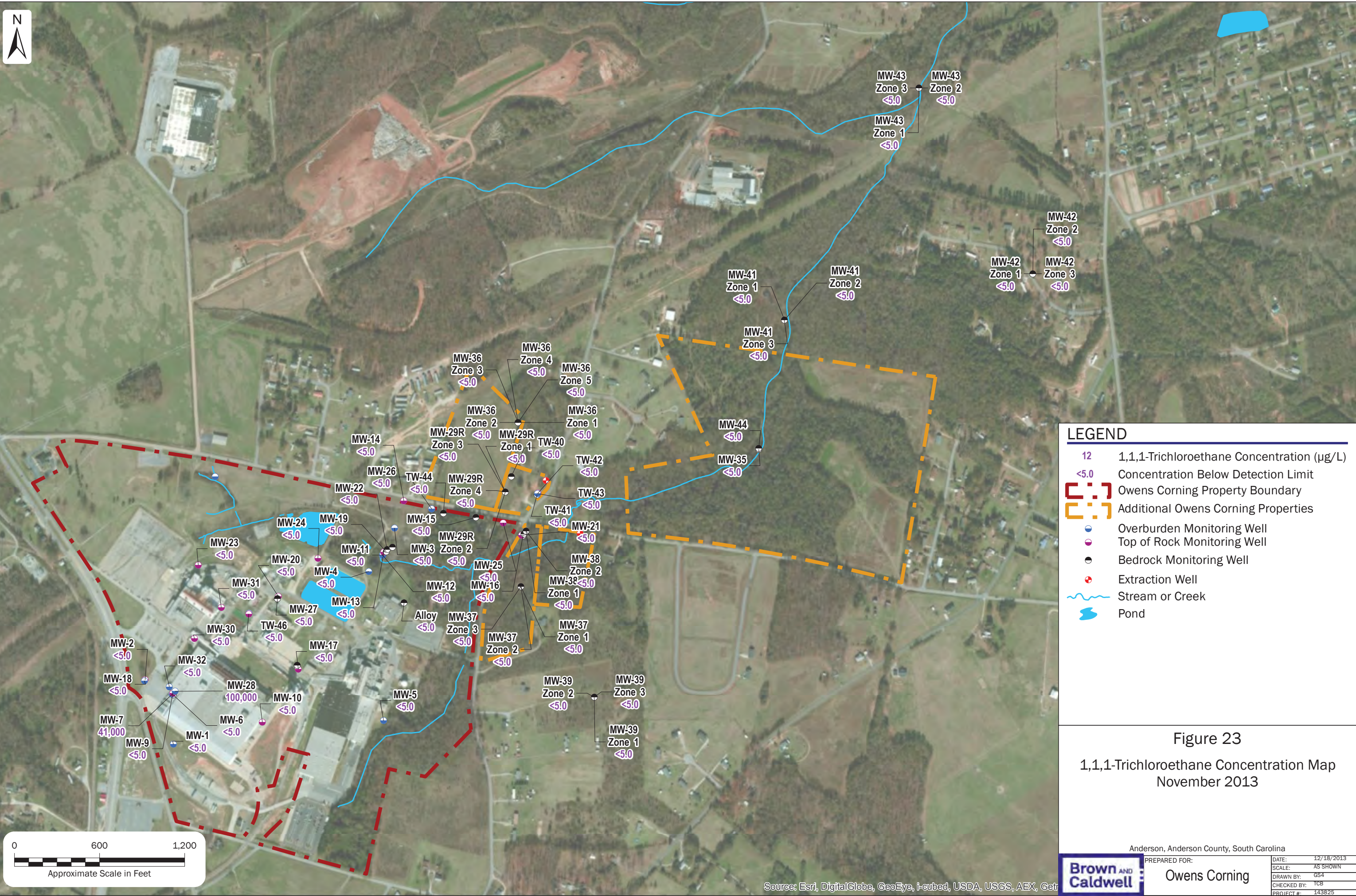
The 5 µg/L isocontour is used to represent the reporting limit of the laboratory instrument used for analysis.

Figure 22
 Bedrock Aquifer
 Zone 430 to 530 Feet NAVD88
 1,1-Dichloroethene Isoconcentration Map
 November 2013



Anderson, Anderson County, South Carolina

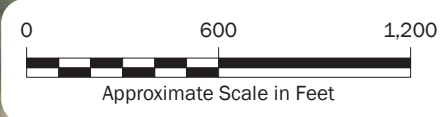
Brown and Caldwell	PREPARED FOR:	Owens Corning
	DATE:	01/21/2014
	SCALE:	AS SHOWN
	DRAWN BY:	GS4
	CHECKED BY:	TCB
PROJECT #:		143825



LEGEND

- 12 1,1,1-Trichloroethane Concentration (µg/L)
- <5.0 Concentration Below Detection Limit
- [Red dashed line] Owens Corning Property Boundary
- [Orange dashed line] Additional Owens Corning Properties
- [Blue circle with dot] Overburden Monitoring Well
- [Purple circle with dot] Top of Rock Monitoring Well
- [Black circle with dot] Bedrock Monitoring Well
- [Red circle with cross] Extraction Well
- [Blue wavy line] Stream or Creek
- [Blue shape] Pond

Figure 23
 1,1,1-Trichloroethane Concentration Map
 November 2013



Anderson, Anderson County, South Carolina

Brown AND Caldwell	PREPARED FOR:	Owens Corning
	DATE:	12/18/2013
	SCALE:	AS SHOWN
	DRAWN BY:	GS4
	CHECKED BY:	TCB
PROJECT #:		143825

Table 1. Quarterly Sampling Groundwater Elevation Data - August 26, 2013
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) 8/26/2013	Static Water Elevation, (ft NAVD88) 8/26/2013
MW-3	13-28	O	795.61	796.76	17.63	779.13
MW-4	14.7-29.7	O	796.72	798.38	19.31	779.07
MW-6	123.6-133.6	BR	819.82	819.69	18.77	800.92
MW-11	6.0-16.0	O	778.32	780.22	3.53	776.69
MW-12	23-33	O	778.42	780.95	5.71	775.24
MW-13	67-72	TOR	779.20	782.22	5.55	776.67
MW-14	69.2-74.2	TOR	796.39	798.45	18.01	780.44
MW-15	69.5-99.5	BR	777.11	779.45	14.25	765.20
MW-16	49-59	BR	768.14	770.37	10.03	760.34
MW-19	154-169	BR	779.69	781.81	9.91	771.90
MW-21	6.5-16.5	TOR	768.63	771.15	7.06	764.09
MW-22	78-116	BR	780.45	782.65	6.84	775.81
MW-23	83-93	TOR	808.97	811.47	13.85	797.62
MW-25	40-50	TOR	774.40	776.71	9.93	766.78
MW-26	56.7-66.7	O	790.40	793.09	17.17	775.92
MW-27	69-99	BR	808.93	811.13	20.70	790.43
MW-29R Zone 1	56.7-69.8	BR	784.90	787.03	15.53	771.50
MW-29R Zone 2	127.3-139.5	BR	784.90	787.03	10.12	776.91
MW-29R Zone 3	154.5-169.6	BR	784.90	787.03	15.50	771.53
MW-29R Zone 4	177.6-202.2	BR	784.90	787.03	16.80	770.23
MW-35	152-162	BR	740.90	743.73	0.51	743.22
MW-36 Zone 1	99.1-116	BR	783.00	785.63	9.17	776.46
MW-36 Zone 2	139.5-150.7	BR	783.00	785.63	9.04	776.59
MW-36 Zone 3	180.2-192.7	BR	783.00	785.63	13.35	772.28
MW-36 Zone 4	225.6-239.2	BR	783.00	785.63	16.94	768.69
MW-36 Zone 5	269.9-275	BR	783.00	785.63	21.68	763.95
MW-37 Zone 1	185-195	BR	780.20	782.92	26.31	756.61
MW-37 Zone 2	222-232	BR	780.20	782.84	19.81	763.03
MW-37 Zone 3	257-272	BR	780.20	782.79	30.04	752.75
MW-38 Zone 1	415-430	BR	768.10	771.23	10.19	761.04
MW-38 Zone 2 ¹	479.6-499.6	BR	768.10	771.18	-0.20	771.38
MW-39 Zone 1	95-105	BR	804.10	806.20	15.82	790.38
MW-39 Zone 2	195-215	BR	804.10	806.20	34.51	771.69
MW-39 Zone 3	280-300	BR	804.10	806.20	48.72	757.48
MW-41 Zone 1	17-32	BR	733.40	736.56	-0.10	736.66
MW-41 Zone 2	109-129	BR	733.40	736.79	3.79	733.00
MW-41 Zone 3	279-299	BR	733.40	736.77	2.88	733.89
MW-42 Zone 1	114-129	BR	785.50	785.44	38.14	747.30
MW-42 Zone 2	202-222	BR	785.50	785.42	35.96	749.46
MW-42 Zone 3	265-285	BR	785.50	785.40	35.54	749.86
MW-43 Zone 1	91.8 - 111.8	BR	716.15	719.19	6.66	712.53
MW-43 Zone 2	149.57 - 179.57	BR	716.15	719.20	3.71	715.49
MW-43 Zone 3	261.8 - 281.8	BR	716.15	719.17	1.01	718.16
MW-44	280-300	BR	741.00	743.95	5.66	738.29
P1	24.5-39.5	BR	813.10	815.42	22.25	793.17
P2	53-115	BR	783.93	785.65	9.85	775.80
Alloy	56-61	BR	789.56	791.69	12.91	778.78
TW-40	84-94	BR	785.81	788.63	14.91	773.72
TW-41	50.3-55.3	BR	775.50	778.84	15.05	763.79
TW-42	21-26	TOR	775.86	778.09	13.31	764.78
TW-43	8.6-18.6	O	775.82	778.15	13.18	764.97
TW-44	64-74	BR	782.68	785.52	7.98	777.54
TW-45 ²	18.8-28.8	O	816.70	816.76	NG	NG
TW-46	83.3-88.3	TOR	816.72	816.58	23.22	793.36

BR - bedrock

NG - not gauged

O - overburden

TOR - top of rock

TOC - top of casing

NAVD88 - North American Vertical Datum of 1988

ft bgs - feet below ground surface

¹ Static depth to water readings at artesian well (MW-38 Zone 2) were measured by using a ruler to measure the height of flow coming from the flow valve.

² Water level was not measured due to collapse of well.

Table 2. Annual Sampling Groundwater Elevation Data - November 4, 2013
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) 11/04/2013	Static Water Elevation, (ft NAVD88) 11/04/2013
MW-1	55-65	O	824.27	826.62	21.89	804.73
MW-2	56.7-66.7	TOR	820.26	822.68	20.30	802.38
MW-3	13-28	O	795.61	796.76	19.09	777.67
MW-4	14.7-29.7	O	796.72	798.38	21.77	776.61
MW-5	12.0-27.0	O	804.74	806.50	17.68	788.82
MW-6	123.6-133.6	BR	819.82	819.69	16.94	802.75
MW-7	15.9-30.9	O	819.70	819.27	20.89	798.38
MW-8	5.5-20.5	O	799.29	801.56	NG	NG
MW-9	94-104	TOR	819.75	819.41	16.91	802.50
MW-10	61.4-71.4	TOR	823.92	823.65	27.75	795.90
MW-11	6.0-16.0	O	778.32	780.22	6.27	773.95
MW-12	23-33	O	778.42	780.95	6.82	774.13
MW-13	67-72	TOR	779.20	782.22	9.05	773.17
MW-14	69.2-74.2	TOR	796.39	798.45	19.32	779.13
MW-15	69.5-99.5	BR	777.11	779.45	24.74	754.71
MW-16	49-59	BR	768.14	770.37	9.68	760.69
MW-17	24.1-39.1	TOR	813.66	816.07	21.54	794.53
MW-18	10.6-25.6	O	820.36	822.71	20.91	801.80
MW-19	154-169	BR	779.69	781.81	11.50	770.31
MW-20	57-67	TOR	808.70	810.95	22.05	788.90
MW-21	6.5-16.5	TOR	768.63	771.15	7.71	763.44
MW-22	78-116	BR	780.45	782.65	12.25	770.40
MW-23	83-93	TOR	808.97	811.47	13.11	798.36
MW-24	61-71	TOR	796.50	796.26	10.25	786.01
MW-25	40-50	TOR	774.40	776.71	11.55	765.16
MW-26	56.7-66.7	O	790.40	793.09	17.13	775.96
MW-27	69-99	BR	808.93	811.13	22.23	788.90
MW-28	21-31	O	819.97	819.77	21.41	798.36
MW-29R Zone 1	56.7-69.8	BR	784.90	787.03	18.16	765.33
MW-29R Zone 2	127.3-139.5	BR	784.90	787.03	13.23	768.24
MW-29R Zone 3	154.5-169.6	BR	784.90	787.03	26.63	758.99
MW-29R Zone 4	177.6-202.2	BR	784.90	787.03	32.00	755.06
MW-30	103-113	TOR	819.50	819.14	25.19	793.95
MW-31	80-90	TOR	818.20	817.96	26.36	791.60
MW-32	25-35	O	819.68	819.40	21.13	798.27
MW-35	152-162	BR	740.90	743.73	12.41	731.32
MW-36 Zone 1	99.1-116	BR	783.00	785.63	12.11	767.84
MW-36 Zone 2	139.5-150.7	BR	783.00	785.63	12.09	767.83
MW-36 Zone 3	180.2-192.7	BR	783.00	785.63	17.24	763.42
MW-36 Zone 4	225.6-239.2	BR	783.00	785.63	19.21	762.13
MW-36 Zone 5	269.9-275	BR	783.00	785.63	23.23	754.95
MW-37 Zone 1	185-195	BR	780.20	782.92	17.55	765.37
MW-37 Zone 2	222-232	BR	780.20	782.84	35.32	747.52
MW-37 Zone 3	257-272	BR	780.20	782.79	49.71	733.08
MW-38 Zone 1	415-430	BR	768.10	771.23	11.61	759.62
MW-38 Zone 2 ^{1,2}	479.6-499.6	BR	768.10	771.18	-0.51	771.69
MW-39 Zone 1	95-105	BR	804.10	806.20	29.64	776.56
MW-39 Zone 2	195-215	BR	804.10	806.20	34.17	772.03
MW-39 Zone 3	280-300	BR	804.10	806.20	30.64	775.56
MW-41 Zone 1	17-32	BR	733.40	736.56	7.20	729.36
MW-41 Zone 2	109-129	BR	733.40	736.79	13.46	723.33
MW-41 Zone 3	279-299	BR	733.40	736.77	5.32	731.45
MW-42 Zone 1	114-129	BR	785.50	785.44	37.31	748.13
MW-42 Zone 2	202-222	BR	785.50	785.42	35.51	749.91
MW-42 Zone 3	265-285	BR	785.50	785.40	35.59	749.81
MW-43 Zone 1	91.8 - 111.8	BR	716.15	719.19	8.33	710.86
MW-43 Zone 2	149.57 - 179.57	BR	716.15	719.20	4.61	714.59
MW-43 Zone 3	261.8 - 281.8	BR	716.15	719.17	3.21	715.96
MW-44	280-300	BR	741.00	743.95	11.70	732.25
EW-1	52 - 445	BR	775.30	778.04	NG	NG
EW-2	9.5 - 295	BR	768.20	769.96	NG ³	NG ³
P1	24.5-39.5	BR	813.10	815.42	21.03	794.39
P2	53-115	BR	783.93	785.65	13.97	771.68
Alloy	56-61	BR	789.56	791.69	15.90	775.79
TW-40	84-94	BR	785.81	788.63	17.40	771.23
TW-41	50.3-55.3	BR	775.50	778.84	16.24	762.60
TW-42	21-26	TOR	775.86	778.09	15.67	762.42
TW-43	8.6-18.6	O	775.82	778.15	15.56	762.59
TW-44	64-74	BR	782.68	785.52	11.61	773.91
TW-45	18.8-28.8	O	816.70	816.76	NG	NG
TW-46	83.3-88.3	TOR	816.72	816.58	25.33	791.25

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

¹-MW-41 Zone 2, MW-38 Zone 2 TOC elevation has been adjusted by adding artesian flow fixtures to be surveyed TOC elevations. Values in this table have been adjusted accordingly.

²-Static depth to water readings at artesian well (MW-38 Zone 2) were measured by using a ruler to measure the height of flow coming from the flow valve.

³-EW-2 was not gauged due to a system readout error.

Table 4. Quarterly Sampling Groundwater Analytical Results - August 2013

Owens Corning - Anderson, SC

Sample ID	MCL (ug/L)	MW-15	MW-22	MW-29R Zone 3	MW-29R Zone 4	13239-Dup ¹	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	13240-Dup ²	MW-42 Zone 1	MW-42 Zone 2	MW-42 Zone 3	MW-43 Zone 1	MW-43 Zone 2	MW-43 Zone 3	MW-44	
Sample Date		8/27/13	8/27/13	8/27/13	8/27/13	8/27/13	8/26/13	8/27/13	8/27/13	8/27/13	8/27/13	8/28/13	8/28/13	8/28/13	8/28/13	8/28/13	8/27/13	8/27/13	8/27/13	8/29/13	8/29/13	8/28/13	8/28/13	8/27/13	8/26/13	8/26/13	8/28/13	8/28/13	8/28/13	8/26/13
Screened Interval (ft)		69.5-99.5	78-116	154.5-169.6	177.6-202.2		152-162	99.1-116	180.2-192.7	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		114-129	202-222	265-285	92.5 - 112.5	150 - 180	262.5 - 282.5	280-300	
Volatile Organic Compounds																														
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	<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	<5.0	<5.0
1,1-Dichloroethene	7	140	350	290	270	270	110	<5.0	<5.0	<5.0	70	99	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	150	200	34	37	<5.0	<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	<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	<5.0	<5.0
Carbon tetrachloride	5	<5.0	17	14	11.0	12.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<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 ³	80	<5.0	9.6	8.8	8.6	9.4	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<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	<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	<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	<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	<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	<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	<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	<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	<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	<5.0	<5.0
Field Parameters																														
pH (s.u.)	-	6.69	5.43	5.68	5.67	NA	11.92	6.08	7.10	7.51	7.27	8.69	7.12	7.51	7.23	6.62	7.15	6.67	7.49	7.65	8.36	NA	9.18	7.56	8.29	6.84	7.95	7.53	9.36	
Temperature (degrees C)	-	17.80	18.70	18.70	18.76	NA	16.08	18.35	15.44	26.71	20.02	20.71	23.54	24.68	17.98	22.38	25.68	24.54	17.75	18.92	23.11	NA	19.94	26.14	26.70	25.13	20.13	24.16	17.06	
Specific Conductance (uS/cm)	-	0.194	0.122	0.153	0.142	NA	1.615	0.107	1.380	3.921	0.738	0.135	0.448	0.342	0.150	0.089	0.571	0.208	0.211	0.211	0.271	NA	0.134	0.704	0.249	0.098	0.204	0.390	0.216	
Eh (mV)	-	167.4	172.2	58.2	63.2	NA	-33.2	41.2	-48.6	-163.5	-180.6	-80.3	-165.8	-237.9	-133.9	-10.6	-117.9	-91.7	57.2	-121.3	-52.2	NA	1.9	-68.9	-120.8	33.4	-94.0	-93.3	26.1	
Dissolved Oxygen (mg/L)	-	0.29	3.47	2.49	2.56	NA	0.07	4.66	5.23	5.12	0.70	0.61	0.46	0.46	0.44	1.46	0.78	1.58	2.60	0.30	8.47	NA	1.04	1.00	0.55	3.73	1.22	0.38	0.16	
Turbidity (NTU)	-	1.01	0.00	2.22	1.94	NA	0.00	3.31	0.13	2.01	1.70	7.70	2.83	3.19	0.34	3.15	5.49	1.85	2.29	0.20	35.3	NA	6.59	2.76	4.80	8.01	0.0	1.9	0.99	

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

¹ 13239-Dup was collected from MW-29R Zone 4.

² 13240-Dup was collected from MW-41 Zone 3.

³ MCL listed for Chloroform is for Total Trihalomethanes.

Bold VOC results indicate concentration above the MCL.

Table 5. Annual Sampling Groundwater Analytical Results - November 2013
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	13311-Dup ¹	MW-10	MW-11	MW-12	MW-13	13310-Dup ²	MW-14	MW-15	MW-16	MW-17	MW-18	MW-19	MW-20	MW-21	MW-22		
Sample Date		11/6/13	11/7/13	11/7/13	11/4/13	11/4/13	11/4/13	11/7/13	11/16/12	11/7/13	11/7/13	11/7/13	11/6/13	11/6/13	11/6/13	11/6/13	11/4/13	11/5/13	11/5/13	11/6/13	11/7/13	11/6/13	11/4/13	11/5/13	11/6/13		
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	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	78-116		
Volatile Organic Compounds																											
1,1,1-Trichloroethane	200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	41,000	<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		
1,1-Dichloroethane	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2,500	<5.0	<5.0	<5.0	<5.0	<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	89,000	<5.0	<5.0	<5.0	<5.0	310	300	260	<5.0	160	<5.0	<5.0	<5.0	<5.0	270	330	<5.0	300	
1,2-Dichloroethane	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2,500	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	7.6	13	<5.0	<5.0	
Benzene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2,500	<5.0	<5.0	<5.0	<5.0	<5.0	<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	<2,500	<5.0	<5.0	<5.0	<5.0	13	24	26	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.3	62	<5.0	23
Chloroform ⁵	80	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2,500	<5.0	<5.0	<5.0	<5.0	11	11	10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.6	24	<5.0	9.1	
cis-1,2-Dichloroethene	70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2,500	<5.0	<5.0	<5.0	<5.0	<5.0	<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	<2,500	<5.0	<5.0	<5.0	<5.0	<5.0	<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	2,800	<5.0	<5.0	<5.0	<5.0	<5.0	<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	<2,500	<5.0	<5.0	<5.0	<5.0	<5.0	<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	<2,500	<5.0	<5.0	<5.0	<5.0	<5.0	<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	<2,500	<5.0	<5.0	<5.0	<5.0	<5.0	<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	<2,500	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	25	<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	<1,000	<2.0	<2.0	<2.0	5.2	6.3	<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	<2,500	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
Field Parameters																											
pH (s.u.)	-	6.47	5.42	5.98	4.27	6.59	4.30	6.32	4.40	6.11	NA	5.28	6.43	5.81	5.36	NA	5.81	6.60	7.16	5.43	4.69	6.90	5.18	5.08	5.60		
Temperature (degrees C)	-	19.47	18.90	19.65	17.79	19.04	18.81	19.89	21.22	19.85	NA	20.04	19.10	18.38	18.76	NA	18.57	17.68	16.07	19.83	20.28	18.37	19.97	19.56	18.51		
Specific Conductance (uS/cm)	-	0.085	0.300	0.059	0.042	0.733	0.083	0.104	1.725	0.076	NA	0.029	0.577	0.178	0.114	NA	0.061	0.188	0.307	0.103	0.039	0.195	0.109	0.053	0.133		
Eh (mV)	-	300.0	335.7	426.5	231.4	-115.8	200.4	130.0	245.1	302.3	NA	427.8	-53.7	335.3	412.4	NA	203.9	26.9	212.1	152.2	374.3	356.4	151.7	214.7	413.7		
Dissolved Oxygen (mg/L)	-	4.79	7.61	6.05	3.45	0.34	2.76	5.54	0.22	7.20	NA	7.39	0.17	1.41	3.88	NA	6.14	0.33	0.40	5.43	1.11	0.13	4.71	4.84	3.00		
Turbidity (NTU)	-	2.01	0.21	0.02	1.33	0.28	0.04	0.11	1.31	1.28	NA	0.00	0.48	2.78	0.01	NA	0.29	0.01	3.63	0.01	0.11	0.01	0.00	8.25	0.23		

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
¹ 13311-Dup collected from MW-9
² 13310-Dup collected from MW-13
³ 13308-Dup collected from MW-24
⁴ 13309-Dup collected from MW-29R Zone 4
⁵ 13312-Dup collected from MW-30
⁶ MCL listed for Chloroform is for Total Trihalomethanes
Bold VOC results indicate concentration above the MCL

Table 5 - Annual Sampling Groundwater Analytical Results - November 2013

Owens Corning - Anderson, SC

Sample ID	MCL (ug/L)	MW-24	13308-Dup ³	MW-25	MW-26	MW-27	MW-28	MW-29R Zone 3	13309-Dup ⁴	MW-29R Zone 4	MW-30	13312-Dup ⁵	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		11/4/13	11/4/13	11/5/13	11/5/13	11/4/13	11/8/13	11/5/13	11/5/13	11/5/13	11/8/13	11/8/13	11/8/13	11/8/13	11/7/13	11/5/13	11/5/13	11/5/13	11/5/13	11/7/13	11/7/13	11/7/13	11/6/13	11/6/13
Screened Interval (ft)		62-72		40-50	56.7-66.7	69-99	21-31	154.5-169.6		177.6-202.2	103-113		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	
Volatile Organic Compounds																								
1,1,1-Trichloroethane	200	<5.0	<5.0	<5.0	<5.0	<5.0	100,000	<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
1,1-Dichloroethane	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5,000	<5.0	<5.0	<5.0	18	18	6.7	6.3	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	7	160	160	<5.0	<5.0	330	130,000	260	250	230	4,200	4,000	1,400	21	98	<5.0	<5.0	<5.0	49	180	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5,000	<5.0	<5.0	<5.0	27	25	7.5	<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	<5,000	<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
Carbon tetrachloride	5	13	13	<5.0	<5.0	10.0	<5,000	14	16	12	300	330	19	12	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.5	<5.0	<5.0	<5.0
Chloroform ⁶	80	14	14	<5.0	<5.0	18.0	<5,000	8.7	8.5	8.5	6.5	6.7	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.4	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	70	<5.0	<5.0	<5.0	<5.0	<5.0	<5,000	<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
Ethylbenzene	700	<5.0	<5.0	<5.0	<5.0	<5.0	<5,000	<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
Methylene chloride	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5,000	<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
Tetrachloroethene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5,000	<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
Toluene	1,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5,000	<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
trans-1,2-Dichloroethene	100	<5.0	<5.0	<5.0	<5.0	<5.0	<5,000	<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
Trichloroethene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5,000	<5.0	<5.0	<5.0	6.0	5.9	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	2	<2.0	<2.0	<2.0	<2.0	<2.0	<2,000	<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	<5,000	<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
Field Parameters																								
pH (s.u.)	-	5.18	NA	4.52	6.05	6.96	4.16	5.56	NA	5.51	6.15	NA	6.04	6.46	10.94	6.03	7.23	7.47	7.91	10.95	7.45	7.34	7.94	
Temperature (degrees C)	-	20.63	NA	17.61	18.82	19.79	22.91	18.20	NA	18.46	19.88	NA	20.29	22.43	16.23	18.04	14.91	17.15	16.76	18.82	24.62	18.06	18.62	
Specific Conductance (uS/cm)	-	0.128	NA	0.051	0.064	0.103	2.703	0.173	NA	0.157	0.099	NA	0.069	0.429	0.354	0.117	1.535	3.989	0.868	0.360	0.506	0.366	0.195	
Eh (mV)	-	176.5	NA	261.8	179.1	-17.8	195.9	-5.3	NA	-30.9	277.2	NA	279.7	-78.8	-124.2	-14.7	-143.3	-279.6	-72.1	-89.5	-2.3	-270.7	-226.1	
Dissolved Oxygen (mg/L)	-	1.90	NA	7.44	5.11	0.24	4.54	2.05	NA	5.46	3.89	NA	2.79	0.07	0.11	3.50	6.43	5.94	8.48	0.70	2.12	2.09	0.33	
Turbidity (NTU)	-	0.83	NA	1.50	20.20	0.01	1.39	0.10	NA	0.33	8.54	NA	0.66	9.43	-	2.11	2.39	5.91	7.01	4.06	5.91	0.93	0.00	

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
¹ 13311-Dup collected from MW-9
² 13310-Dup collected from MW-13
³ 13308-Dup collected from MW-24
⁴ 13309-Dup collected from MW-29R Zone 4
⁵ 13312-Dup collected from MW-30
⁶ MCL listed for Chloroform is for Total Trihalometh;
Bold VOC results indicate concentration above the l

Table 5. Annual Sampling Groundwater Analytical Results - November 2013																					
Owens Corning - Anderson, SC																					
Sample ID	MCL (ug/L)	MW-39 Zone 1	MW-39 Zone 2	MW-39 Zone 3	MW-41 Zone 1	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	MW-44	TW-40	TW-41	TW-42	TW-43	TW-44	TW-46	
Sample Date		11/6/13	11/8/13	11/6/13	11/6/13	11/7/13	11/7/13	11/5/13	11/5/13	11/5/13	11/5/13	11/4/13	11/5/13	11/6/13	11/6/13	11/6/13	11/6/13	11/6/13	11/6/13	11/6/13	11/7/13
Screened Interval (ft)		95-105	195-215	280-300	17-32	109-129	279-299	114-129	202-222	265-285	92.5 - 112.5	150 - 180	262.5 - 282.5	280-300	84-94	50.3-55.3	21-26	8.6-18.6	64-74	83.3-88.3	
Volatile Organic Compounds																					
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	110	190	18	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5	
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 ⁵	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	<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	
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	
Field Parameters																					
pH (s.u.)	-	6.67	7.84	7.15	7.32	7.88	7.23	10.36	7.74	8.44	6.84	7.85	7.52	9.61	12.85	8.03	4.95	5.05	5.79	9.47	
Temperature (degrees C)	-	16.83	17.87	20.81	17.24	16.62	17.26	19.54	21.90	16.77	16.85	16.97	13.38	16.47	20.21	20.72	17.19	18.70	18.00	20.60	
Specific Conductance (uS/cm)	-	0.093	0.633	0.294	0.208	0.262	0.320	0.273	0.728	0.311	0.130	0.221	0.335	0.214	4.365	0.441	0.044	0.024	0.069	0.312	
Eh (mV)	-	-12.5	-179.2	-72.2	-10.1	-196.1	-194.6	-38.4	-114.0	-91.9	141.2	-263.3	-239.1	-124.3	-57.5	67.5	154.6	165.0	168.7	70.7	
Dissolved Oxygen (mg/L)	-	8.68	0.33	1.88	2.89	0.37	1.67	3.22	1.25	0.94	1.94	0.35	0.54	0.09	5.95	4.25	6.25	9.52	6.03	0.35	
Turbidity (NTU)	-	2.73	1.23	1.51	0.44	0.11	0.27	0.16	7.02	2.75	8.17	0.15	0.66	1.49	2.79	0.09	8.79	39.30	43.80	1.96	

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

¹ 13311-Dup collected from MW-9

² 13310-Dup collected from MW-13

³ 13308-Dup collected from MW-24

⁴ 13309-Dup collected from MW-29R Zone 4

⁵ 13312-Dup collected from MW-30

⁶ MCL listed for Chloroform is for Total Trihalometh:

Bold VOC results indicate concentration above the l

Table 6. Annual Surface Water Analytical Results - November 2013
Owens Corning - Anderson, SC

Sample ID	Surface Water Screening Values ¹		SCDHEC Surface Water Standards ²		SW-1	SW-3	SW-3A	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	11/7/13	11/8/13	11/8/13	11/8/13	11/7/13	11/7/13	11/7/13	11/7/13	11/7/13	11/7/13	11/7/13
Volatile Organic Compounds															
1,1,1-Trichloroethane	-	-	-	-	<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
1,1-Dichloroethene	3030	303	330	7,100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	9.4	<5.0	<5.0	<5.0
1,2-Dichloroethane	11800	2000	0.38	37	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Benzene	-	-	2.2	51	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Carbon tetrachloride	3520	352	0.23	1.6	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform	2890	289	5.7	470	<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	-	-	-	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	-	-	530	2,100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methylene chloride	-	-	4.6	590	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	528	84	0.69	3.3	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	-	-	1,300	15,000	<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	-	-	-	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	-	-	2.5	30	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	-	-	0.025	2.4	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Xylenes, total	-	-	-	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Field Parameters															
pH (s.u.)	-	-	-	-	6.89	7.67	7.68	7.79	6.77	7.07	6.84	6.66	7.28	7.84	6.73
Temperature (degrees C)	-	-	-	-	17.02	13.51	13.54	13.52	16.87	17.17	17.29	16.73	16.96	17.00	16.94
Specific Conductance (uS/cm)	-	-	-	-	0.266	0.450	0.450	0.448	0.190	0.255	0.377	0.403	0.292	0.299	0.263
Eh (mV)	-	-	-	-	42.8	73.0	85.4	54.8	42.6	56.6	48.3	56.1	-1.8	46.1	59.3
Dissolved Oxygen (mg/L)	-	-	-	-	7.35	9.95	9.12	9.07	3.97	8.50	7.66	6.51	8.22	7.84	6.62
Turbidity (NTU)	-	-	-	-	19	15	17	39	10.1	14	21	16	23	26	15.00

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

¹ Region IV Ecological Risk Assessment Bulletins - Supplement to RAGS

² SCDHEC Water Quality Classifications and Standards (R.61-68), Human Health, as published in USEPA National Recommended Water Quality Criteria

BOLD - VOC results indicates a concentration above USEPA and/or SCDHEC Surface Water Standard

Table 7. Residential Well Analytical Results - November 2013

Owens Corning - Anderson, SC

Sample ID	MCL (ug/L)	628 Airline Rd	408 Clinkscales Rd	721 Clinkscales Rd	1303 Clinkscales Rd	119 Cloverhill Dr	115 Elrod Rd	335 Elrod Rd	117 Faye Dr	200 Friendship Ln	200 Kaye Dr	303 Kaye Dr	311 Kaye Dr	412 Kaye Dr	
Sample Date		11/8/13	11/5/13	11/5/13	11/5/13	11/5/13	NS	NS	11/5/13	11/5/13	11/5/13	11/5/13	11/5/13	11/5/12	
Volatile Organic Compounds															
1,1,1-Trichloroethane	200	<5.0	<5.0	<5.0	<5.0	<5.0	NS	NS	<5.0	<5.0	<5.0	<5.0	NS	<5.0	
1,1-Dichloroethane	-	<5.0	<5.0	<5.0	<5.0	<5.0	NS	NS	<5.0	<5.0	<5.0	<5.0	NS	<5.0	
1,1-Dichloroethene	7	<5.0	<5.0	<5.0	<5.0	<5.0	NS	NS	<5.0	<5.0	<5.0	<5.0	NS	<5.0	
1,2-Dichloroethane	5	<5.0	<5.0	<5.0	<5.0	<5.0	NS	NS	<5.0	<5.0	<5.0	<5.0	NS	<5.0	
Benzene	5	<5.0	<5.0	<5.0	<5.0	<5.0	NS	NS	<5.0	<5.0	<5.0	<5.0	NS	<5.0	
Carbon tetrachloride	5	<5.0	<5.0	<5.0	<5.0	<5.0	NS	NS	<5.0	<5.0	<5.0	<5.0	NS	<5.0	
Chloroform ¹	80	<5.0	<5.0	<5.0	<5.0	<5.0	NS	NS	<5.0	<5.0	<5.0	<5.0	NS	<5.0	
cis-1,2-Dichloroethene	70	<5.0	<5.0	<5.0	<5.0	<5.0	NS	NS	<5.0	<5.0	<5.0	<5.0	NS	<5.0	
Ethylbenzene	700	<5.0	<5.0	<5.0	<5.0	<5.0	NS	NS	<5.0	<5.0	<5.0	<5.0	NS	<5.0	
Methylene chloride	5	<5.0	<5.0	<5.0	<5.0	<5.0	NS	NS	<5.0	<5.0	<5.0	<5.0	NS	<5.0	
Tetrachloroethene	5	<5.0	<5.0	<5.0	<5.0	<5.0	NS	NS	<5.0	<5.0	<5.0	<5.0	NS	<5.0	
Toluene	1,000	<5.0	<5.0	<5.0	<5.0	<5.0	NS	NS	<5.0	<5.0	<5.0	<5.0	NS	<5.0	
trans-1,2-Dichloroethene	100	<5.0	<5.0	<5.0	<5.0	<5.0	NS	NS	<5.0	<5.0	<5.0	<5.0	NS	<5.0	
Trichloroethene	5	<5.0	<5.0	<5.0	<5.0	<5.0	NS	NS	<5.0	<5.0	<5.0	<5.0	NS	<5.0	
Vinyl chloride	2	<2.0	<2.0	<2.0	<2.0	<2.0	NS	NS	<2.0	<2.0	<2.0	<2.0	NS	<2.0	
Xylenes, total	10,000	<5.0	<5.0	<5.0	<5.0	<5.0	NS	NS	<5.0	<5.0	<5.0	<5.0	NS	<5.0	
Field Parameters															
pH (s.u.)	-	6.36	5.84	6.59	5.22	6.20	4.85	NS	NS	7.26	6.11	6.12	5.07	NS	6.11
Temperature (degrees C)	-	14.68	17.22	15.44	17.37	17.07	16.02	NS	NS	15.74	13.40	16.78	17.48	NS	17.48
Specific Conductance (uS/cm)	-	0.089	0.047	0.192	0.063	0.059	0.041	NS	NS	0.300	0.142	0.091	0.125	NS	0.044
Eh (mV)	-	128.2	79.4	-18.7	188.8	159.2	209.8	NS	NS	111.4	14.6	154.2	164.8	NS	210.7
Dissolved Oxygen (mg/L)	-	4.67	9.35	4.90	9.71	9.62	9.98	NS	NS	8.22	5.58	9.82	9.95	NS	9.41
Turbidity (NTU)	-	5.01	0.03	2.50	0.70	0.02	0.05	NS	NS	0.49	0.08	0.30	0.70	NS	0.33

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

¹ MCL listed for Chloroform is for Total Trihalomethanes

**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 Clinkscales Road	44	1303 Clinkscales 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 Clinkscales Road	48	104 Herbs Lane
12	711 Clinkscales 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 Clinkscales Road	56	5009 Johnson Street
20	401 Clinkscales Road	57	5010 Johnson Street
21	4515 Keys Street	58	5014 Johnson Street
22	305 Harry Drive	59	5101 Johnson Street
23	150 Clinkscales Road	60	4906 Highway 81 South
24	943 Flat Rock Road	61	5305 Highway 81 South
25	325 Clinkscales Road	62	116 Young Road
26	322 Clinkscales Road	63	201 True Temper Road
27	321 Clinkscales 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 2012

Appendix A: Groundwater Sampling Field Data Sheets



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-15

1. PROJECT INFORMATION

Project Number: 143825.100 Task Number: 100 Area of Concern: _____
 Client: OC Personnel: _____
 Project Location: Anderson Weather: 280 Sunny

2. WELL DATA

Date Measured: 8-26-13 Time: 4 AM Temporary Well: Yes No
 Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 299.5 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 14.25 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: 75.7 feet Well Volume: 12 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 8-27 Time: 0955 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): 2 hrs well volumes or stability 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
1000	2.0	7.14	17.63	.219	180.4	.32	3.00	15.01	
1005	5.0	6.76	17.70	.194	174.1	.38	2.17	15.01	
1010	8.0	6.72	17.74	.194	171.7	.36	1.11	15.01	
1015	12.0	6.69	17.81	.194	169.5	.32	1.21	15.01	
1020	15.0	6.69	17.78	.194	167.7	.28	1.13	15.01	
1030	18.0	6.69	17.80	.194	167.4	.29	1.01	15.01	

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: 13239-MW-15 Sample Date: 8-27-13 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

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

WELL ID: MW-22

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: OC property
 Client: Owens Corning Personnel: MM
 Project Location: Anderson, South Carolina Weather: ~70°F sunny

2. WELL DATA

Date Measured: 8-26-13 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: 6.84 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: 109.16 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: 8-27-13 Time: 0850 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): 2 hrs well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI
2. LaMotte
3. Geosab
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>0855</u>	<u>3.0</u>	<u>5.19</u>	<u>18.68</u>	<u>.125</u>	<u>184.1</u>	<u>3.28</u>	<u>.43</u>	<u>6.84</u>	
<u>0900</u>	<u>6.0</u>	<u>5.36</u>	<u>18.69</u>	<u>.122</u>	<u>174.7</u>	<u>3.45</u>	<u>.17</u>	<u>6.84</u>	
<u>0905</u>	<u>9.0</u>	<u>5.40</u>	<u>18.70</u>	<u>.122</u>	<u>172.5</u>	<u>3.50</u>	<u>.00</u>	<u>6.84</u>	
<u>0910</u>	<u>12.0</u>	<u>5.42</u>	<u>18.70</u>	<u>.122</u>	<u>171.9</u>	<u>3.47</u>	<u>.00</u>	<u>6.84</u>	
<u>0915</u>	<u>16.0</u>	<u>5.42</u>	<u>18.71</u>	<u>.122</u>	<u>172.0</u>	<u>3.46</u>	<u>.00</u>	<u>6.84</u>	
<u>0920</u>	<u>20.0</u>	<u>5.43</u>	<u>18.70</u>	<u>.122</u>	<u>172.2</u>	<u>3.47</u>	<u>.00</u>		Purge data continued on next sheet? <input type="checkbox"/>

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: 1734-MW-22 Sample Date: 8-27-13 Sample Time: 0920 # 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

0920 All stable

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: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: M
 Project Location: Anderson, South Carolina Weather: _____

2. WELL DATA

Date Measured: 8-27-13 Time: 8:27-13 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: 675.6 Dg 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)
 Depth to Product: _____ feet
 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: 8-27-13 Time: 1600 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): 2 hrs well volumes or stability 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
1605	.3	6.08	19.05	.151	51.0	3.15	4.25	6761	
1610	.7	5.73	18.91	.158	54.0	2.46	4.11	6761	
1615	1.2	5.69	18.87	.154	55.8	2.45	4.77	6761	
1620	1.8	5.68	18.81	.153	56.8	2.49	4.00	6761	
1625	2.4	5.68	18.71	.153	58.0	2.49	4.29	6761	
1630	2.7	5.68	18.70	.153	58.2	2.49	2.22		

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: 13239-MW-29R-24 Sample Date: 8-27-13 Sample Time: 1630 # 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

1630 Sample

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

[Handwritten Signature]

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-29R Zone 4-Waterloo

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: M
 Project Location: Anderson, South Carolina Weather: ~70° Sunny

2. WELL DATA

Date Measured: AM Time: 8:27:13 Temporary Well: Yes No

Casing Diameter: 2 inches
 Screen Diameter: 6 inches
 Sampling Interval: 177.6-202.2 feet
 Depth to Static Water: 6052 feet
 Depth to Product: _____ feet
 Length of Water Column: _____ feet

Length of water column calculation:
 (8932.8-Current Dg reading)*0.02724*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 intubing(1/4")
 = [36.14 gal - 4.11 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: 8-27-13 Time: 1635

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

Equipment Model(s)
 1. YSI
 2. LaMotte
 3. MP-50
 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>1640</u>	<u>.4</u>	<u>6.18</u>	<u>19.06</u>	<u>.137</u>	<u>61.9</u>	<u>9.17</u>	<u>6.72</u>	<u>6052</u>	<u>4 cpm</u>
<u>1645</u>	<u>1.0</u>	<u>5.72</u>	<u>18.98</u>	<u>.144</u>	<u>62.3</u>	<u>3.33</u>	<u>4.11</u>	<u>6052</u>	
<u>1650</u>	<u>1.3</u>	<u>5.67</u>	<u>18.78</u>	<u>.142</u>	<u>62.9</u>	<u>2.73</u>	<u>4.00</u>	<u>6052</u>	
<u>1655</u>	<u>1.6</u>	<u>5.67</u>	<u>18.75</u>	<u>.142</u>	<u>63.6</u>	<u>2.54</u>	<u>3.11</u>	<u>6052</u>	
<u>1700</u>	<u>2.0</u>	<u>5.67</u>	<u>18.76</u>	<u>.142</u>	<u>63.2</u>	<u>2.56</u>	<u>1.94</u>	<u>6052</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: 13239-MW-29R-24 Sample Date: 8-27-13 Sample Time: 1700 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: 13239-DUP # 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

1700

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

WELL ID: MW-35

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: old Newmarket Land
 Client: Owens Corning Personnel: M
 Project Location: Anderson, South Carolina Weather: 80 sunny

2. WELL DATA

Date Measured: 9-26-13 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: 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: 99.9 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: 8-26-13 Time: 1535

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): 2 hrs well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI
2. LaMotte
3. Geosib
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		
1540	3.0	11.68	16.69	1.618	53.0	.20	1.39	2.41	
1545	7.0	11.60	16.93	1.616	42.4	.11	1.11	3.68	
1550	11.0	11.86	16.99	1.615	32.9	.09	.33	5.61	
1555	14.0	11.92	17.04	1.615	21.0	.09	.00	6.17	increase
1600	18.0	11.92	16.59	1.615	9.6	.08	1.12	7.89	

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: _____ Field Filtered? Yes No
 Sample ID: B385-MW-35 Sample Date: 8-26-13 Sample Time: 1610 # 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

Almost artesian

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



3. PURGE DATA (continued from page)

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		
1605	22.0	1.92	16.09	1.615	-9.7	.07	0.00	6.23	
1610	25.0	1.92	16.08	1.615	-33.2	.07	0.00	9.17	
<p>Sample, PH, DO, Spec Cond</p>									

Purge data continued on next sheet?

[Handwritten Signature]

Signature

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-36 Zone 1-Waterloo

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: MJ
 Project Location: Anderson, South Carolina Weather: ~85° Sunny

2. WELL DATA

Date Measured: Am Time: 8-26-13 Temporary Well: Yes No

Casing Diameter: 2 inches
 Screen Diameter: 6 inches
 Sampling Interval: 99.1-116 feet
 Depth to Static Water: 6173.4 Dg
 Depth to Product: _____ feet
 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

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)

3. PURGE DATA

Date Purged: 8-27-13 Time: 1315 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
2. MP-50
3. La Motte
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		
1320	.1	6.98	18.48	.107	82.1	6.21	7.21	6185	
1330	.2	6.14	18.46	.107	-3.9	4.47	6.80	6185	
1340	.3	6.12	18.46	.107	7.1	4.41	7.07	6185	
1350	.4	6.10	18.48	.107	16.2	4.36	7.11	6185	
1400	.5	6.08	18.40	.107	22.5	4.54	5.23	6185	

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: 13239-MW 36 31 Sample Date: 8-27-13 Sample Time: 1450 # 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 1-Waterloo

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		
1410	.6	6.09	18.44	.107	26.9	4.79	4.69	6185	
1420	.7	6.07	18.43	.107	33.0	4.63	3.33	6185	
1430	.8	6.08	18.38	.107	35.6	4.69	2.17	6185	
1440	.9	6.09	18.32	.107	39.4	4.84	1.11	6185	
1450	1.5	6.08	18.35	.107	41.2	4.66	3.31	6185	

Sample 1450
pH, Spec Cond, DO

Purge data continued on next sheet?

Signature



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-36 Zone 3-Waterloo

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: MA
 Project Location: Anderson, South Carolina Weather: 70° Sunny

2. WELL DATA

Date Measured: 8-26-13 Time: AM Temporary Well: Yes No

Casing Diameter: 2 inches Length of water column calculation:
 Screen Diameter: 6 inches (9093.1-Current Dg reading)*0.02725)*2.3108) = Length of water column (ft)
 Sampling Interval: 180.2-192.7 feet Well Vol. calculation:
 Depth to Static Water: 409.7 feet 1 well vol. = [vol sand interval(6") - vol of waterloo casing (2") + vol of water in tubing(1/4")
 Depth to Product: _____ feet = [18.36 gal - 2.09 gal] + (0.0102 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: 8-27 Time: 1125 Equipment Model(s)

Purge Method: Baller, 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) 2 hrs well volumes or dry gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

Equipment Model(s)
 1. YSI
 2. Lamotte
 3. MP-50
 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
1130	.1	7.10	19.66	1,366	83.0	10.04	2.40	8027	drizzling water
1140	.15	7.14	21.75	1,369	49.0	9.53	1.73	8031	
1150	.17	7.14	23.04	1,383	36.4	8.84	DRY		
DRY, restart and sample later									

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Baller, 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: 13239-MW-36-23 Sample Date: 8-27 Sample Time: 1500 # 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.

MA

WELL ID: MW-36 Zone 5-Waterloo

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: M
 Project Location: Anderson, South Carolina Weather: ~80° Sunny

2. WELL DATA

Date Measured: AM Time: 9:27-13 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: 6071.0 feet 1 well vol. = [vol sand interval(6") - vol of waterloo casing (2") + vol of water in tubing(1/4")
 Depth to Product: _____ feet = [7.49 gal - 0.85 gal] + (0.0102 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: 8-27-13 Time: LESS 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. VST
2. LaMotte
3. MP. 50
4. Air compressor

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>1200</u>	<u>.1</u>	<u>7.50</u>	<u>19.66</u>	<u>3.525</u>	<u>3.1</u>	<u>6.44</u>	<u>2.24</u>	<u>6182</u>	
<u>1210</u>	<u>.15</u>	<u>7.50</u>	<u>22.0</u>	<u>3.759</u>	<u>-18.0</u>	<u>6.74</u>	<u>3.96</u>	<u>7710</u>	
<u>1220</u>	<u>.17</u>	<u>7.49</u>	<u>23.91</u>	<u>3.908</u>	<u>-24.7</u>	<u>6.77</u>	<u>1.51</u>	<u>7710</u>	<u>raised PSI</u>
<u>1230</u>	<u>.20</u>	<u>7.50</u>	<u>24.91</u>	<u>3.911</u>	<u>-23.3</u>	<u>5.91</u>	<u>1.98</u>	<u>7710</u>	
<u>1240</u>	<u>.22</u>	<u>7.52</u>	<u>24.98</u>	<u>3.918</u>	<u>-26.1</u>	<u>5.67</u>	<u>3.11</u>	<u>7710</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: 13239-AV-26-23 Sample Date: 8-27-13 Sample Time: 1505 # 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 5-Waterloo

3. PURGE DATA (continued from page _____)

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		
1250	.23	7.53	25.11	3.924	-66.1	5.23	1.98	7711	Max PSI
1300	.24	7.53	25.68	3.928	-72.1	5.11	2.01	7711	
1310	.25	7.51	26.71	3.921	-103.5	5.12	—	7711	
<p>Dripping very slowly, essentially no water is coming out of discharge line. Will let recharge, then sample</p>									

Purge data continued on next sheet?

Signature *[Handwritten Signature]*

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-37 Zone 1

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: Anderson, SC
 Client: Owens Corning Personnel: Juan Nunez
 Project Location: Anderson, South Carolina Weather: Sunny, 80°

2. WELL DATA

Date Measured: 8/28/13 Time: 0900 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: _____ 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: 26.31 feet Well Volume: 6.9 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: 8/28/13 Time: 0930 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: 3/4" 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): 1 well volumes or 6.9 gallons
 Was well purged dry? Yes No Pumping Rate: 0.02 gal/min Calibrated? Yes No

1. YSI
2. 2020 ve turbidimeter
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
0930	0	7.20	19.28	0.757	-119.8	3.00	0.65	21.62	
0935	0.01	7.22	18.97	0.729	-147.3	1.28	0.79	22.60	
0940	0.02	7.22	19.05	0.729	-152.9	1.16	1.16	23.10	
0945	0.03	7.23	19.27	0.731	-165.0	0.93	0.60	24.0	
0950	0.04	7.23	19.35	0.730	-170.0	0.83	0.60	24.9	

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: 3/4" pump
 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: 26.84 Field Filtered? Yes No
 Sample ID: 13240-MW-37 Zone 1 Sample Date: 8/28/13 Sample Time: 1010 # 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

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		
0955	0.05	7.25✓	19.61✓	0.733✓	-176.1✓	0.77✓	1.32✓	25.78✓	
1000 1000	0.06	7.27✓	20.02✓	0.738✓	-180.6	0.70✓	1.70✓	26.61	

Purge data continued on next sheet?

[Handwritten Signature]

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-37 Zone 2

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: Anderson, SC
 Client: Owens Corning Personnel: Juan Perez
 Project Location: Anderson, South Carolina Weather: Sunny 80

2. WELL DATA

Date Measured: 8/28/13 Time: 1100 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: _____ 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: 19.8 feet Well Volume: 8.7 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: 8/28/13 Time: 1115 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: 3/4" 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): 1 well volumes or 8.7 gallons
 Was well purged dry? Yes No Pumping Rate: 0.05 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
1115	0.0	8.88	17.17	0.129	-55.3	1.47	12.30	22.50	
1120	0.05	8.45	17.45	0.126	-49.0	0.68	11.11	22.50	
1125	0.1	8.42	18.37	0.129	-54.6	0.64	10.23	22.50	
1130	0.12	8.53	19.44	0.132	-67.6	0.62	7.62	22.50	
1135	0.14	8.66	20.30	0.134	-76.9	0.61	6.08	22.50	

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: 3/4" pump
 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: 22.50 Field Filtered? Yes No
 Sample ID: 13240-MW-37 Zone 2 Sample Date: 8/28/13 Sample Time: 1145 # 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 place pump ~ 80' down well, approx. 65' Pump kept getting stuck

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

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		
1140	0.16	8.69	20.71	0.135	-80.3	0.61	7.70	22.50	

Purge data continued on next sheet?

Signature 

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-37 Zone 3

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200.001 Area of Concern: Anderson, SC
 Client: Owens Corning Personnel: Juan Lopez
 Project Location: Anderson, South Carolina Weather: sunny, 85°

2. WELL DATA

Date Measured: 8/28/13 Time: 1215 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: _____ 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: 30.04 feet Well Volume: 9.9 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: 8/28/13 Time: 1225 Equipment Model(s)

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____ 1. YSJ
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: 3/4" pump 2. 2020 w3 turbidimeter
 Dedicated Prepared Off-Site Field-Cleaned Disposable 3. _____
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____ 4. _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 1 well volumes or 9.9 gallons
 Was well purged dry? Yes No Pumping Rate: 0.01 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
1225	0.00	7.21	21.13	0.415	-135.8	2.16	1.45	28.95	
1230	0.02	7.07	20.86	0.421	-154.7	0.99	0.90	30.50	
1235	0.04	7.02	21.55	0.427	-155.3	0.73	0.97	30.92	
1240	0.06	7.02	22.08	0.431	-161.0	0.64	1.74	31.15	
1245	0.08	7.08	23.20	0.443	-167.7	0.59	1.01	31.82	

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: 3/4" pump
 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: 34.05 Field Filtered? Yes No
 Sample ID: 13240-MW-37 2013 Sample Date: 8/28/13 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

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

Juan Lopez
 Signature

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-37 Zone 3

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		
1250	0.1	7.12 ^v	23.54 ^v	0.448 ^v	-165.8 ^v	0.46 ^v	2.83	32.50	

Purge data continued on next sheet?

Signature *[Handwritten Signature]*

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-38 Zone 1

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: Anderson, SC
 Client: Owens Corning Personnel: Juan Maria
 Project Location: Anderson, South Carolina Weather: Sunny 95°

2. WELL DATA

Date Measured: 8/28/13 Time: 1530 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: 10.19 feet Well Volume: 17.2 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: 8/28/13 Time: 1555 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: 3/4" 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): 17.2 well volumes or 17.2 gallons
 Was well purged dry? Yes No Pumping Rate: 0.02 gal/min Calibrated? Yes No

1. 753
2. 2020 WG turbidimeter
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
1555	0.0	7.48	20.95	0.339	-184.3	3.05	1.96	9.45	
1600	0.1	7.27	21.36	0.343	-184.5	1.63	1.23	11.39	
1605	0.2	7.26	22.24	0.341	-199.9	1.11	2.82	12.32	
1610	0.3	7.33	23.15	0.341	-208.9	0.86	3.34	13.15	
1615	0.4	7.45	24.15	0.342	-215.3	0.71	1.42	13.90	

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: 3/4" pump
 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: 16.04 Field Filtered? Yes No
13240 MW-38 Zone 1
 Sample ID: _____ Sample Date: 8/28/13 Sample Time: 1630 # 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.

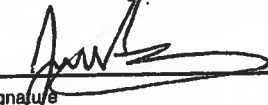
GROUNDWATER SAMPLING FIELD DATA SHEET

BROWN AND CALDWELL

WELL ID: MW-38 Zone 1

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		
1420	0.5	7.48✓	24.63✓	0.342✓	-223.7✓	0.56✓	14.21✓	2.15	
1425	0.6	7.51✓	24.68✓	0.342✓	-237.9	0.46	3.19	15.26	

Purge data continued on next sheet?



 Signature

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-38 Zone 2

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: Anderson, SC
 Client: Owens Corning Personnel: Juan Nunez
 Project Location: Anderson, South Carolina Weather: Sunny, 75°

2. WELL DATA

Date Measured: 8/29/13 Time: 0850 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: _____ 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: N/A feet Well Volume: N/A 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: 8/29/13 Time: 0855 Equipment Model(s): _____

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: Anderson Flow
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: No 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): N/A well volumes or N/A gallons
 Was well purged dry? Yes No Pumping Rate: 0-2 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
0855	0.0	6.72	21.10	0.166	112.0	1.70	1.12	N/A	
0900	1.0	7.09	18.83	0.152	-89.9	0.79	0.37	N/A	
0905	2.0	7.12	17.83	0.149	-112.6	0.60	0.10	N/A	
0910	3.0	7.16	17.83	0.149	-124.4	0.52	0.17	N/A	
0915	4.0	7.23	17.98	0.150	-133.9	0.44	0.34	N/A	

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: Anderson Flow
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: No pump
 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: N/A Field Filtered? Yes No
 Sample ID: 13241 - MW-38 Zone 2 Sample Date: 8/29/13 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

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

WELL ID: MW-39 Zone 1



1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: Anderson, SC
 Client: Owens Corning Personnel: Juan Nunez
 Project Location: Anderson, South Carolina Weather: Sunny 90

2. WELL DATA

Date Measured: 8/27/13 Time: 1230 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: _____ 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: 15.82 feet Well Volume: 3.6 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: 8/27/13 Time: 1235 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: 3/4" 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): 3.6 well volumes or 3.6 gallons
 Was well purged dry? Yes No Pumping Rate: 0.02 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
1235	0	6.42	23.43	0.093	-6.6	1.88	4.48	15.98	
1240	.01	6.46	23.97	0.093	-6.8	1.64	3.41	15.98	
1245	.002	6.51	23.16	0.092	-4.0	1.56	2.45	15.98	
1250	0.03	6.62	22.38	0.089	-10.6	1.46	3.15	15.98	

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: 3/4" pump
 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: 15.98 Field Filtered? Yes No
 Sample ID: 13239-MW39 Zone 1 Sample Date: 8/27/13 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

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: 143825 Task Number: 200-XXX Area of Concern: Anderson, SC
 Client: Owens Corning Personnel: Juan Nunez
 Project Location: Anderson, South Carolina Weather: Sunny 90°

2. WELL DATA

Date Measured: 8/27/13 Time: 1315 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: _____ 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: 34.51 feet Well Volume: 7.4 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: 8/27/13 Time: 1330 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: 3/4" 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): 1 well volumes or 7.4 gallons
 Was well purged dry? Yes No Pumping Rate: 0.02 gal/min Calibrated? Yes No
 1. YSJ
 2. 2020 We turbidimeter
 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
1340	0.0	7.20	23.44	0.554	-81.0	2.31	2.06	33.0	
1345	0.01	6.90	23.46	0.548	-83.2	1.59	4.15	33.0	
1350	0.02	6.95	24.30	0.556	-94.8	1.33	5.44	34.0	
1355	0.03	7.16	25.38	0.570	-121.0	1.07	5.04	35.05	
1400	0.04	7.18	24.75	0.564	-126.7	1.08	5.79	35.96	

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: 3/4" pump
 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: 38.88 Field Filtered? Yes No
 Sample ID: 13259-HW39 2013 2 Sample Date: 8/27/13 Sample Time: 1430 # 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-39 Zone 2

3. PURGE DATA (continued from page <u>2</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		
1405	0.05	7.19 ✓	24.18 ✓	0.558 ✓	-127.0 ✓	1.05 ✓	5.35	35.96	
1410	0.06	7.13 ✓	24.97 ✓	0.564 ✓	-113.9 ✓	0.83 ✓	4.72	37.15	
1415	0.07	7.15 ✓	25.24 ✓	0.567 ✓	-107.9 ✓	0.84 ✓	4.42	37.40	
1420	0.08	7.15 ✓	25.68 ✓	0.571 ✓	-117.9 ✓	0.78 ✓	5.49	37.58	

Purge data continued on next sheet?

[Handwritten Signature]
Signature

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-39 Zone 3

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-XXX Area of Concern: Anderson, SC
 Client: Owens Corning Personnel: Juan Nunez
 Project Location: Anderson, South Carolina Weather: Sunny 95

2. WELL DATA

Date Measured: 8/27/13 Time: 1530 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: _____ 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: 48.72 feet Well Volume: 10.3 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: 8/27/13 Time: 1600 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: 3/4" 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): 1 well volumes or 10.3 gallons
 Was well purged dry? Yes No Pumping Rate: 0.02 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		
1605	0.0	7.01	22.44	0.196	-90.8	3.20	3.15	49.97	
1610	0.01	6.50	21.50	0.197	-73.4	1.72	3.15	51.25	
1615	0.02	6.47	22.06	0.201	-73.1	1.36	1.41	51.25	
1620	0.03	6.72	24.35	0.209	-90.7	1.29	1.45	51.25	
1625	0.04	6.81	25.21	0.213	-96.7	1.34	1.95	52.07	

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: 3/4" pump
 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: 56.0 Field Filtered? Yes No
 Sample ID: 13239-MW-39 Zone 3 Sample Date: 8/27/13 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-39 Zone 3

3. PURGE DATA (continued from page 2)

Time	Cum. Gallons Removed (gal)	pH <small>±0.1 su</small>	Temp <small>±2°C</small>	Spec. Cond. <small>> of ±3% or ±10 µS/cm</small>	ORP <small>> of ±10% or ±20 mV</small>	DO <small>> of ±10% or ±0.2 mg/L</small>	Turbidity <small>≤ 10 NTU</small>	Water Level	Comments
1630	0.05	6.83	22.23	0.203	-96.9	1.51	1.76	53.15	
1635	0.06	6.63	21.84	0.198	-82.0	1.39	1.82	54.20	
1640	0.07	6.59	23.44	0.204	-81.3	1.49	1.54	54.61	
1645	0.08	6.67	24.54	0.208	-91.7	1.58	1.85	55.35	

Purge data continued on next sheet?


 Signature

WELL ID: MW-41 Zone 1

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: Davenport land
 Client: Owens Corning Personnel: MH
 Project Location: Anderson, South Carolina Weather: ~70°F Sunny

2. WELL DATA

Date Measured: 8-29-13 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: 2.86 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: 126.1 feet Well Volume: 5.17 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: 9-29-13 Time: 0850 Equipment Model(s)
 Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump 3/4
 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): 2 hrs well volumes or stability 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
0855	.1	7.25	17.85	.236	74.8	2.44	11.99	3.14	
0905	.15	7.50	17.49	.231	69.4	2.01	7.49	3.14	
0915	.18	7.59	17.51	.229	65.9	2.02	9.27	3.14	
0925	.21	7.61	17.47	.225	63.7	2.34	8.88	3.14	
0935	.25	7.59	17.51	.221	61.9	2.52	7.97	3.14	

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump 3/4
 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: 13241-MW-4121 Sample Date: 9/29/13 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

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 1

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		
0945	.29	7.56	17.56	.217	60.7	2.60	4.95	3.14	
0955	.33	7.54	17.54	.214	60.1	2.80	3.13	3.14	
1005	.37	7.52	17.57	.213	59.7	2.63	2.99	3.14	
1015	.41	7.51	17.66	.211	58.6	2.55	1.71	3.14	
1025	1.0	7.50	17.67	.211	58.2	2.60	2.85	3.14	
1035	1.5	7.49	17.74	.211	57.7	2.53	2.19	3.14	
1045	2.0	7.49	17.73	.211	57.2	2.60	2.29	3.14	
1055	2.5								

Sample 1045

pH, Spec, ORP, DO

Purge data continued on next sheet?

Signature

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 Zone 2

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-XXX Area of Concern: Anderson, SC
 Client: Owens Corning Personnel: Juan Nunez
 Project Location: Anderson, South Carolina Weather: Sunny, 80

2. WELL DATA

Date Measured: 8/29/13 Time: 0945 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: _____ 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: 2.79 feet Well Volume: 5.1 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: 8/29/13 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. YSJ
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable 2. 2020 we turbidimeter
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable 3. _____
 Volume to Purge (minimum): 1 well volumes or 5.1 gallons 4. _____
 Was well purged dry? Yes No Pumping Rate: 0.04 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
1025	0.0	7.68	18.53	0.215	-27.8	2.55	0.12	3.47	
1030	0.2	7.57	18.19	0.209	-23.8	1.64	0.24	3.47	
1035	0.4	7.53	17.93	0.207	-27.6	0.78	0.11	3.47	
1040	0.6	7.51	18.05	0.207	-29.4	0.68	0.06	3.47	
1045	0.8	7.52	17.89	0.208	-35.1	0.61	0.04	3.47	

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: 3/4" pump
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: 3/4" pump
 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: 3.47 Field Filtered? Yes No
13241-HW-41 core 2
 Sample ID: _____ Sample Date: 8/29/13 Sample Time: 1230 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: 13241-GB # of Containers: 2
13241-GB

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.

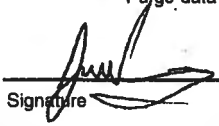
GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 Zone 1

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		
1050	1.0	7.51	18.12	0.207	-35.7	0.57	0.09	3.47	
1055	1.2	7.51	18.08	0.207	-38.5	0.54	0.04	3.47	
1106	1.4	7.51	18.23	0.208	-39.6	0.51	0.05	3.47	
1105	1.6	7.54	18.33	0.208	-44.8	0.48	0.06	3.47	
1110	1.8	7.55	18.35	0.208	-50.5	0.46	0.01	3.47	
1115	2.0	7.54	18.43	0.209	-50.3	0.45	0.04	3.47	
1120	2.2	7.57	18.59	0.210	-57.7	0.43	0.07	3.47	
1125	2.4	7.59	18.71	0.210	-67.0	0.40	0.02	3.47	
1130	2.6	7.60	18.93	0.211	-75.3	0.40	0.03	3.47	
1135	2.8	7.62	18.77	0.209	-81.1	0.39	0.09	3.47	
1140	3.0	7.60	18.87	0.211	-80.1	0.37	0.05	3.47	
1150	3.4	7.63	18.92	0.211	-90.6	0.35	0.20	3.47	
1200	3.8	7.64	18.57	0.210	-100.9	0.34	0.06	3.47	
1210	4.0	7.65	18.73	0.211	-113.0	0.32	0.01	3.47	
1220	4.4	7.66	18.99	0.211	-121.5	0.31	0.13	3.47	
1225	4.8	7.65	18.92	0.211	-121.3	0.30	0.20	3.47	

Purge data continued on next sheet?

Signature 

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 Zone 3

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: MM
 Project Location: Anderson, South Carolina Weather: 85° Sunny

2. WELL DATA

Date Measured: 8-26-13 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: 2.84 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: 1600 Equipment Model(s)
 Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: 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): 2 hrs well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

Equipment Model(s)
 1. VSI
 2. LaMotte
 3. MP-50
 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
1605	.1	8.12	21.43	.271	-25.5	11.02	50.5	4.44	
1615	.20	8.67	21.60	.349	-36.7	10.26	24.38	4.44	
1625	.25	8.66	22.70	.353	-38.9	10.01	52.5	4.44	
1635	.30	8.64	23.26	.353	-39.6	9.73	47.6	4.44	
1645	.35	8.50	19.91	.342	-41.1	11.11	45.9	4.44	
1655	.40	8.48	20.10	.281	-53.0	7.05	49.1		

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: 3/4
 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: 13240-MW-41-23 Sample Date: 8-28-13 Sample Time: 1805 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: 13240-MW-41-23 # 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.

1 of 2

[Handwritten Signature]

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 Zone 3

3. PURGE DATA (continued from page)

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		
1705	.45	8.46	22.06	.272	-52.9	6.76	46.5	4.41	
1715	.50	8.42	22.01	.246	-53.3	8.21	47.1	4.44	
1725	.53	8.40	22.61	.271	-54.1	8.10	44.3	4.44	
1735	.56	8.39	22.83	.270	-53.5	8.96	39.3	4.44	
1745	.59	8.37	23.10	.223	-53.3	8.91	44.1	4.44	
1755	.62	8.37	23.08	.269	-52.0	8.62	41.1	4.44	
1805	.65	8.36	23.11	.271	-52.0	8.47	35.3	4.44	

Sample

DWP

2 of 2

Purge data continued on next sheet?

Signature

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42 Zone 1

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: Anderson, SC
 Client: Owens Corning Personnel: Juan Nunez
 Project Location: Anderson, South Carolina Weather: Sunny, 75°

2. WELL DATA

Date Measured: 8/27/13 Time: 0930 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: _____ 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: 3.72 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: 8/27/13 Time: 0945 Equipment Model(s)

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: 3/4" pump
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: 3/4" 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): 1 well volumes or 3.72 gallons
 Was well purged dry? Yes No Pumping Rate: .2 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
0950	0.0	8.83	20.37	0.174	46.2	2.75	3.21	38.21	
0955	0.01	8.96	20.08	0.152	28.1	2.29	3.45	38.21	
1000	0.02	9.01	20.01	0.146	20.6	1.85	5.03	38.21	
1005	0.03	9.08	19.86	0.137	11.9	1.50	5.16	38.21	
1010	0.04	9.12	19.66	0.134	7.8	1.25	5.23	38.21	

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: 3/4" pump
 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: 38.21 Field Filtered? Yes No
 Sample ID: 13239-MW-42-Zone 1 Sample Date: 8/27/13 Sample Time: 1030 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # 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.

Juan Nunez
Signature

GROUNDWATER SAMPLING FIELD DATA SHEET

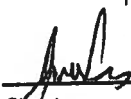
BROWN AND CALDWELL

WELL ID: MW-42 Zone 1

3. PURGE DATA (continued from page 2)

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		
1015	0.05	9.13✓	19.73✓	0.133✓	6.3✓	1.16✓	5.12✓	38.21	
1020	0.06	9.16✓	19.78✓	0.133✓	4.1✓	1.09✓	6.24✓	38.21	
1025	0.07	9.18✓	19.94✓	0.134✓	1.9✓	1.04✓	6.59✓	38.21	

Purge data continued on next sheet?



 Signature



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42 Zone 2

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-XXX Area of Concern: Anderson, SC
 Client: Owens Corning Personnel: Juan Munez
 Project Location: Anderson, South Carolina Weather: sunny, 85°

2. WELL DATA

Date Measured: 8/26/13 Time: 1530 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: _____ 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: 21 feet Well Volume: 8.6 gal Screened Interval (from GS): _____
3596 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: 8/26/13 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: 3/4" pump 1. YSJ
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____ 2. 2020 WE turbidimeter
 Dedicated Prepared Off-Site Field-Cleaned Disposable 3. _____
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____ 4. _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 1 well volumes or 8.6 gallons
 Was well purged dry? Yes No Pumping Rate: 2 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
1540	0.01	7.63	23.78	0.637	-39.3	2.01	4.71	35.60	
1545	0.02	7.41	23.37	0.668	-26.7	1.30	3.44	36.20	
1550	0.03	7.47	24.08	0.673	-44.1	1.16	2.41	36.92	
1555	0.04	7.56	25.63	0.695	-62.9	1.04	2.49	37.64	
1600	0.05	7.56	26.14	0.704	-68.9	1.00	2.76	37.88	

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: 3/4" pump
 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: 13239-MW42-102E Sample Date: 8/26/13 Sample Time: 1605 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: 13238-EB # of Containers: 2

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 3

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: Anderson, SC
 Client: Owens Corning Personnel: Juan Nunez
 Project Location: Anderson, South Carolina Weather: sunny, 80°

2. WELL DATA

Date Measured: 8/26/13 Time: 1100 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: 35.54 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: 35.54 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: _____ Time: _____ Equipment Model(s):
 Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: 3/4" pump 1. VSI
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: 3/4" 2. _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable 3. _____
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____ 4. _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 10.21 well volumes or 10.2 gallons
 Was well purged dry? Yes No Pumping Rate: .2 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
1230	0	9.08	22.0	0.228	19.5	6.86	2.83	36.27	
1235	0.05	8.33	21.64	0.223	-55.5	2.74	4.89	36.52	
1240	0.06	8.18	22.98	0.231	-79.6	1.55	5.40	36.82	
1245	0.07	8.21	22.96	0.230	-92.0	1.23	4.99	38.12	
1250	0.08	8.04	24.98	0.239	-92.7	0.90	6.02	38.12	

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: 3/4" pump
 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: 36.21 Field Filtered? Yes No
13237-MW-42-Zone 3
 Sample ID: _____ Sample Date: 8/26/13 Sample Time: 1310 # 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.

Juan Nunez
 Signature



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 Zone 1

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: MM
 Project Location: Anderson, South Carolina Weather: ~90° Sunny

2. WELL DATA Date Measured: 8-26-13 Time: 4M 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: 115 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 6.66 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: 108.34 feet Well Volume: 4.44 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: 8-28-13 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: 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): 2.65 well volumes or stability 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
1315	.1	6.99	25.57	.109	-10.9	6.03	3.25	7.25	flow cell
1325	.13	6.94	26.23	.103	-3.3	5.82	2.94	7.54	in direct
1335	.16	6.79	26.79	.109	6.4	4.39	4.17	7.93	Sunlight
1345	.19	6.79	26.84	.096	12.6	3.43	3.96	7.95	
1355	.21	6.80	26.89	.094	16.2	3.27	2.22	7.95	

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: 3/4

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: 13240-AW-43-21 Sample Date: 8-28-13 Sample Time: 1515 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: 13240-EB # of Containers: 2

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

5. COMMENTS

13240-EB at 1525

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

1 of 2

MM

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 Zone 1

3. PURGE DATA (continued from page)

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		
1405	.25	6.81	26.76	.096	19.0	3.46	5.17	8.13	
1415	.28	6.76	26.36	.091	19.1	3.86	6.19	9.21	
1425	.32	6.77	26.51	.091	22.7	4.24	4.33	9.71	
1435	.36	6.79	25.47	.093	27.5	4.66	4.93	10.17	
1445	.40	6.81	26.11	.094	28.9	4.22	5.23	11.11	
1455	.43	6.82	26.23	.095	30.1	3.84	6.79	11.79	
1505	.50	6.83	25.46	.097	32.2	3.63	8.01	12.33	
1515	.55	6.84	25.13	.098	33.4	3.73	-	-	
<p>IS IS Sample</p>									

Purge data continued on next sheet?

[Handwritten Signature]

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 Zone 2

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: MA
 Project Location: Anderson, South Carolina Weather: ~80°F Sunny

2. WELL DATA

Date Measured: 8-26-13 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
 Depth to Static Water: 3.71 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: 176.29 feet Well Volume: 7.22 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: 8-29-13 Time: 1045 Equipment Model(s): _____

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: 3/4 pump
 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): 4 hrs well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes

1. YSI
2. LaMotte
3. M250
4. 3/4 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
1050	.2	7.49	20.09	.207	-77.9	.74	1.85	4.44	
1100	.24	7.51	19.55	.206	-91.3	.92	1.76	4.44	
1110	.28	7.50	19.30	.205	-104.3	.96	0.89	4.44	
1120	.31	7.60	19.31	.205	-105.7	.98	0.64	4.44	
1130	.34	7.62	19.54	.205	-106.1	.98	0.17	4.44	

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: 3/4
 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: 13240-MW-43-23 Sample Date: 8-28-13 Sample Time: 1250 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: - # of Containers: 1
 Equipment Blank Collected? Yes No ID: - # of Containers: 1

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.

1 of 2

Signature: MA

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 Zone 2

3. PURGE DATA (continued from page)

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	.37	7.66	19.74	.205	-107.1	.99	0.00	4.44	
1150	.40	7.75	19.75	.205	-105.5	.97	0.00	4.44	
1200	.43	7.78	19.86	.205	-104.3	1.64	0.00	4.44	YSI shut off
1210	.47	7.83	19.93	.204	-101.7	1.37	0.00	4.44	turned back on
1220	.5	7.88	19.99	.204	-99.1	1.32	0.00	4.44	
1230	.53	7.90	20.07	.204	-97.5	1.32	0.00	4.44	
1240	.57	7.93	20.07	.204	-95.9	1.26	0.00	4.44	
1250	.61	7.95	20.15	.204	-94.0	1.27	0.00	4.44	
<p>Sample 1250</p>									

Purge data continued on next sheet?

Signature

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 Zone 3

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: MJ
 Project Location: Anderson, South Carolina Weather: ~70° Cloudy

2. WELL DATA

Date Measured: 8-26-13 Time: 4m 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: 1.01 ³⁰⁰ feet From: Top of Well Casing (TOC) Top of Protective Casing
 Depth to Static Water: 1.01 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: 298.1 feet Well Volume: 12.21 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: 8-28-13 Time: 0910

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 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): 2 hrs well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes

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
0915	.1	7.45	19.78	307	-113.9	.97	2.00	4.01	PSI @ 20
0925	.15	7.50	21.29	308	-131.8	.25	3.11	5.11	
0935	.18	7.51	21.99	309	-134.9	.33	1.89	5.33	
0945	.21	7.52	22.53	310	-130.2	.52	1.71	6.11	
0955	.25	7.52	22.92	310	-122.3	.34	1.23	7.77	

PSI 94 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: 19240-MW-43-25 Sample Date: 8-28-13 Sample Time: 1025 # 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 @ ~80 ft

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-43 Zone 3

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		

1005	.28	7.53	23.26	.310	-99.2	.37	.97	7.81	
1015	.31	7.51	23.78	.310	-101.2	.39	1.74	8.23	
1025	.34	7.53	24.16	.310	-98.3	.38			

Sample 1025
pH, Spec Cond, DO,
ORP.

Purge data continued on next sheet?

2 of 2

Signature MW

WELL ID: MW-44

1. PROJECT INFORMATION

Project Number: 143700 Task Number: 100 Area of Concern: Davenport's
 Client: OC Personnel: M
 Project Location: Anderson SC Weather: ~80°F sunny

2. WELL DATA

Date Measured: 8-26-13 Time: PM Temporary Well: Yes No
 Casing Diameter: 7 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 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: 5.66 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: 295.7 feet Well Volume: 47 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 8-26-13 Time: 1400 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): 2 hrs well volumes or stability 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
1400	1.5	9.02	17.05	.216	154.6	.62	7.31	5.71	
1405	4.0	9.06	17.05	.218	141.8	.51	6.79	5.80	
1410	8.0	9.14	17.06	.218	114.5	.38	2.40	5.82	
1415	12.0	9.23	17.05	.216	88.6	.25	2.00	5.84	
1420	16.0	9.28	17.03	.218	70.8	.21	1.11	5.90	

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: 13238-MW-44 Sample Date: 8-26-13 Sample Time: 1445 # 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-114

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		
1425	20.0	9.32	17.05	.216	58.7	.19	0.17	5.99	
1430	24.0	9.34	17.04	.215	45.2	.16	0.00	6.23	
1435	28.0	9.37	17.04	.216	36.2	.16	1.17	7.14	
1440	32.0	9.37	17.06	.216	28.4	.16	1.01	8.01	
1445	38.0	9.36	17.06	.216	26.1	.16	.99	9.13	

1445 sample
pH, Spec, DO

Purge data continued on next sheet?

Signature

WELL ID: Alloy

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JN
 Project Location: Anderson, SC Weather: Sunny 70

2. WELL DATA

Date Measured: 11/6/13 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: 61 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 15.91 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: 45.09 feet Well Volume: 7.34 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/6/13 Time: PM 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. YSI
2. Geosab
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		
1431	0.0	7.63	20.12	0.087	170.6	1.57	81.8	17.52	
1436	2.5	6.51	19.57	0.087	254.2	4.42	4.82	17.65	1.5 gal
1441	3.0	6.49	19.52	0.085	338.4	4.90	4.48	17.92	
1446	4.5	6.47	19.49	0.085	352.1	4.76	3.15	18.14	
1451	6.0	6.47	19.47	0.085	300.0	4.79	2.01	18.14	

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: 18.07 Field Filtered? Yes No
 Sample ID: 13310-Alloy Sample Date: 11/6/13 Sample Time: 1455 # 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: MW-1

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JN
 Project Location: Anderson, SC Weather: Sunny 65

2. WELL DATA

Date Measured: 11/7/13 Time: PH 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: 21.89 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: 43.11 feet Well Volume: 7.0 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/7/13 Time: 1325 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
2. Geosub
3. Heron
4. DRT-15 CE

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
1325	0.0	6.21	18.61	0.029	271.8	7.31	15.8	24.83	
1335	2.5	5.42	18.60	0.031	339.5	7.83	9.32	24.22	
1345	5.0	5.45	18.60	0.030	358.1	7.73	2.04	24.29	
1355	7.0	5.46	18.92	0.031	369.8	7.64	1.57	24.00	
1405	8.0	5.37	18.89	0.030	344.9	7.58	0.36	24.05	

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: 74.05 Field Filtered? Yes No
 Sample ID: 1331-MW-1 Sample Date: 11/7/13 Sample Time: 1415 # 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-1

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		
1415	9.0	5.42	18.90	0.30	335.7	7.61	0.21	24.05	

Purge data continued on next sheet?

2/2,

Signature

WELL ID: MW-2

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JN
 Project Location: Anderson, SC Weather: Cloudy 60

2. WELL DATA

Date Measured: 11/7/13 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: 667 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 20,30 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: 46.4 feet Well Volume: 7.6 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/7/13 Time: 1135 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. Y5J
2. Geosub
3. Heron
4. 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		
1138	0	6.25	19.57	0.057	310.1	7.57	0.21	23.55	
1148	4.0	6.15	19.61	0.058	364.9	5.86	0.09	26.51	
1158	8.0	5.99	19.55	0.058	395.2	6.15	0.01	25.79	
1208	12.0	5.97	19.60	0.059	425.7	6.08	0.00	25.88	
1218	14.0	5.97	19.63	0.057	421.9	6.04	0.00	25.90	

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: 25.95 Field Filtered? Yes No
 Sample ID: 1331-MW-2 Sample Date: 11/7/13 Sample Time: 1230 # 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.

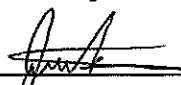


GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-2

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		
1228	16.0	5.98	19.65	0.059	426.5	6.05	0.02	25.2594	

Purge data continued on next sheet?

Signature 

WELL ID: MW-3

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OWENS CORNING Personnel: K. WHEATSTONE
 Project Location: ANDERSON, SC Weather: CLEAR & SUNNY, 60°F

2. WELL DATA

Date Measured: _____ Time: _____ 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: 19.09 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: 8.91 feet Well Volume: 1.45 gal Screened Interval (from GS): 13-28
Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/05/13 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: _____
 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 1.45 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI 556 MPS
2. HF DRT-15CE
3. SOLINST WL METER
4. GEO TECH + GEO SUB

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
1702	0	4.43	16.80	0.047	225.3	4.57	143.3	19.19	CLOUDY
1712	1.0	4.21	18.39	0.042	230.8	3.20	12.71	19.33	CLEAR
1722	2.25	4.24	17.86	0.042	229.9	3.34	1.47	19.35	
1732	3.5	4.27	17.79	0.042	231.4	3.45	1.33	19.36	

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: 13308-MW-3 Sample Date: 11/05/13 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

THORNY TREE GROWING OVER WELL (BASE/TRUNK BESIDE PIPE BOLLARD)
NO LOCK

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

WELL ID: MW-4

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: SW
 Project Location: Anderson, SC Weather: 55° sunny

2. WELL DATA

Date Measured: 11/4/13 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: 21.97 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: 7.73 feet Well Volume: 1.2 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-4-13 Time: 1145 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 3.0 gallons
 Was well purged dry? Yes No Pumping Rate: 0.2 gal/min Calibrated? Yes No

1. XSI
2. Geo sub
3. Hand
4. DRT-15CG

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
1142	0	6.20	18.38	0.763	84.1	0.66	21.3	22.25	
1147	1	6.43	18.75	0.760	20.6	1.78	9.49	22.49	
1151	1.5	6.39	18.87	0.717	-94.8	3.31	1.15	22.73	
1159	2.5	6.47	18.82	0.706	-114.0	1.30	0.29	23.0	
1205	3.0	6.53	18.96	0.717	-119.2	0.76	0.21	23.04	

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: 22.98 Field Filtered? Yes No
13308-MW-4
 Sample ID: _____ Sample Date: 11-4-13 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

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

✓12


Signature


WELL ID: MW-4

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		
1205	3.5	6.55	19.03	0.723	-119.9	0.54	0.20	22.96	
1215	4.0	6.59	19.10	0.734	-117.1	0.42	0.52	22.96	
1220	4.5	6.59	19.04	0.733	-115.8	0.34	0.28	22.98	

Purge data continued on next sheet?

2/2

Signature 

WELL ID: MW-5

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JN
 Project Location: Anderson, SC Weather: Sunny 60°

2. WELL DATA

Date Measured: 11/4/13 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: 27.0 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: 17.68 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 9.32 feet Well Volume: 1.6 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/4/13 Time: 1800 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 ATF gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI
2. Aeron
3. Geosub
4. 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
1645	0	4.27	18.18	0.092	155.6	7.38	5.10	17.98	
1650	1.0	4.42	18.38	0.090	181.2	3.57	18.70	18.06	
1655	1.75	4.41	18.76	0.091	173.6	3.19	1.63	18.21	
1700	2.50	4.37	18.81	0.091	181.6	3.03	0.61	18.34	
1705	3.25	4.38	18.81	0.089	186.0	2.90	0.23	18.38	

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: 18.61 Field Filtered? Yes No
 Sample ID: 13308 + MW-5 Sample Date: 11/4/13 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

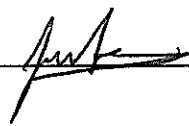
Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

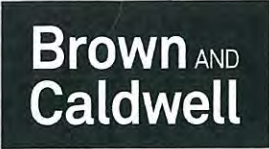
WELL ID: MW-5

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		
1710	4.0	4.36	18.77	0.086	192.2	2.77	0.04	18.28	0.1D = Turb
1715	4.75	4.30	18.81	0.083	200.4	2.76	0.04	18.54	

Purge data continued on next sheet?

Signature 



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MN-6

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OWENS CORNING Personnel: K. WHETSTONE
 Project Location: ANDERSON, SC Weather: 70°F, SUNNY

2. WELL DATA Date Measured: _____ Time: _____ 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: 16.94 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: 116.66 feet Well Volume: 19.0 gal Screened Interval (from GS): 123.6-133.6
Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA Date Purged: 11/07/13 Time: 1405 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: 0.20 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		
1407	0	6.49	20.82	0.111	82.4	4.94	1.83	18.15	CLEAR
1417	2.0	4.93	19.83	0.109	179.2	5.21	0.26	18.87	
1427	4.25	5.56	19.83	0.108	152.6	5.35	-0.14	18.88	
1437	6.0	5.69	19.88	0.106	147.5	5.36	-0.18	18.88	
1447	8.0	6.22	20.01	0.105	124.9	5.45	-0.09	18.88	

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

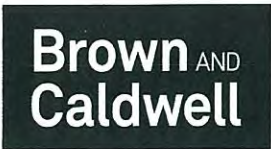
Depth to Water at Time of Sampling: 18.90 Field Filtered? Yes No
 Sample ID: 13311-MN-6 Sample Date: 11/07/13 Sample Time: 1520 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

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: MLN-6

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		
1457	10.0	6.27	20.00	0.105	125.4	5.48	-0.15	18.88	
1507	12.25	6.26	19.90	0.105	129.0	5.53	-0.21	18.89	
1517	14.0	6.32	19.89	0.104	130.0	5.54	-0.11	18.90	

Purge data continued on next sheet?

WELL ID: MW-7

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: DWENS CORNING Personnel: K. WHETSTONE (KMK)
 Project Location: ANDERSON, SC Weather: 50°F, SUNNY & CLEAR

2. WELL DATA

Date Measured: _____ Time: _____ 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: 20.89 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: 10.01 feet Well Volume: 1.63 gal Screened Interval (from GS): 15.9-30.9
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/08/13 Time: 0958 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 1.63 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI 556 MPS
2. HF DRT-15CE
3. SOLINST WL METER
4. GEO TECH + GEO SUB

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		
1000	0.	4.35	19.18	1.693	239.0	0.78	67.7	17.25	HAZY
1010	1.5	4.42	20.81	1.780	247.2	0.37	13.7	17.42	CLEAR
1020	3.0	4.42	21.39	1.727	249.3	0.24	2.67	17.59	
1030	4.5	4.40	21.22	1.725	245.1	0.22	1.31	17.62	

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: 17.62 Field Filtered? Yes No
 Sample ID: 13312-MW-7 Sample Date: 11/08/13 Sample Time: 1035 # 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

PROTECTIVE CASING FLOODED OVER TOP OF WELL CAP, WELL LID IS FLAT STEEL PLATE UNLIKE ALL OTHER WELLS

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: _____ Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JN
 Project Location: Anderson, SC Weather: Sunny 60°

2. WELL DATA

Date Measured: 11/7/13 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: 104 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 1691 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: 871 feet Well Volume: 14.2 gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/7/13 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

1. YSI
2. Geosub
3. Hydro
4. DRT-15CG

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		
1502	0.0	6.19	20.16	0.083	244.8	6.62	22.6	18.89	
1512	2.0	6.21	20.33	0.081	290.7	6.77	28.2	20.65	
1522	4.5	6.18	20.01	0.078	299.5	7.00	16.5	22.69	
1532	6.0	6.12	19.87	0.077	309.6	7.18	13.1	23.47	
15:42	7.0	6.13	19.84	0.076	312.2	7.18	2.94	23.49	

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: 23.50 Field Filtered? Yes No
 Sample ID: 13311-MW-9 Sample Date: 11/7/13 Sample Time: 1605 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: 13311-MW-9 # of Containers: 2
 Equipment Blank Collected? Yes No ID: 13311-DUP # of Containers: -

Geochemical Analyses

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

5. COMMENTS

13311-DUP taken at 1605

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-9

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		
1552	8.0	6.12	19.88	0.075	306.0	7.20	2.92	23.49	
1602	9.0	6.11	19.85	0.076	302.3	7.20	1.28	23.50	

Purge data continued on next sheet?

2/2

Signature

WELL ID: MW-10

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: CC Personnel: JN
 Project Location: Anderson, SC Weather: cloudy, light rain 55°

2. WELL DATA

Date Measured: 11/7/13 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: 27.75 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: 43.6 feet Well Volume: 7.11 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/7/13 Time: 0845 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
0848	0.0	4.65	20.04	0.042	452.3	7.01	47.1	26.40	
0858	2.0	5.16	20.09	0.027	400.4	7.47	8.52	26.00	
0908	4.0	5.26	19.95	0.028	410.2	7.48	0.21	26.88	
0918	6.0	5.29	19.97	0.029	415.7	7.43	0.12	26.76	
0928	8.0	5.30	20.00	0.029	419.9	7.43	0.01	26.66	7.39

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: 26.52 Field Filtered? Yes No
 Sample ID: 13310-MW-10 Sample Date: 11/7/13 Sample Time: 0940 # 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-10

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		
0938	10.0	5.28	20.04	0.029	427.8	7.39	0.00	26.54	

Purge data continued on next sheet?

2/2



 Signature



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-11

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JN
 Project Location: Anderson, SC Weather: Cloudy 55°

2. WELL DATA

Date Measured: 11/6/13 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 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 6.27 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: 9.73 feet Well Volume: 1.6 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/6/13 Time: 0950 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 No

1. YSI
2. Geo sub
3. Hexob
4. 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		
0950	0	6.20	18.16	0.637	253.3	1.46	38.8	6.55	
0955	1.0	6.47	18.60	0.632	1.1	0.24	16.4	6.51	
1000	3.0	6.45	18.91	0.576	-19.1	0.38	3.20	6.59	
1005	3.0	6.45	18.99	0.579	-35.8	0.27	1.58	6.59	
1010	4.0	6.44	19.03	0.579	-44.5	0.22	0.75	6.61	

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: 6.61 Field Filtered? Yes No
 Sample ID: 13310-MW-11 Sample Date: 11/6/13 Sample Time: 1025 # 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-11

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		
1015	5.0	6.43	19.10	0.578	-51.2	0.18	0.50	6.61	
1020	6.0	6.43	19.10	0.577	-53.7	0.17	0.48	6.61	

Purge data continued on next sheet?

[Signature]
Signature

WELL ID: MW-12

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JN
 Project Location: Anderson, SC Weather: Sunny 60°

2. WELL DATA

Date Measured: 11/6/13 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: 33 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 6.82 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: 26.18 feet Well Volume: 4.3 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/6/13 Time: 1035 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. YSJ
2. Geosub
3. Hexon
4. 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		
1038	0.0	6.15	18.04	0.176	111.1	0.22	47.8	9.75	
1044	3.0	5.84	18.16	0.174	124.5	0.34	48.4	12.41	
1050	5.0	5.82	18.23	0.169	176.9	0.47	13.9	13.61	
1056	6.0	5.82	18.35	0.174	255.6	0.59	7.21	14.05	
1901	7.0	5.81	18.25	0.183	248.4	0.63	4.96	16.35	

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: 13310-MW-12 Sample Date: 11/6/13 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.



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-12

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		
1106	8.0	5.80	18.28	0.174	269.1	0.88	3.78	17.31	
1111	8.0	5.81	18.31	0.181	302.6	1.34	3.81	17.88	
1116	10.0	5.82	18.35	0.178	315.6	1.53	2.91	17.99	
1121	11.0	5.82	18.38	0.178	327.0	1.50	3.35	18.02	
1126	12.0	5.81	18.38	0.178	335.3	1.41	2.78	18.03	

Purge data continued on next sheet?

2/2

[Signature]
Signature

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JW
 Project Location: Anderson, SC Weather: cloudy 55°

2. WELL DATA

Date Measured: _____ Time: _____ 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: 9.05 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: 62.95 feet Well Volume: 10.2 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/6/13 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 Calibrated? Yes No
 Was well purged dry? Yes No Pumping Rate: _____ gal/min

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		
0815	0	5.40	18.08	0.117	254.0	4.12	0.06	9.15	
0820	2.5	5.35	18.16	0.115	192.5	3.79	0.01	9.12	
0825	5.0	5.34	18.76	0.114	215.7	3.83	0.02	9.12	
0830	7.5	5.35	18.74	0.114	270.2	3.83	0.01	9.13	0845 = time
0850	10.0	5.35	18.83	0.114	283.9	3.83	0.01	9.13	

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: 9.11 Field Filtered? Yes No
 Sample ID: 13310-MW-13 Sample Date: 11/6/13 Sample Time: 0925 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: 13310-DVP # 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

Generator turned off at 0928 DO, pH, spec, cond. stable.
 Generator back on at 0944 ORP kept increasing.

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-13

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		
0855	12.5	5.35	18.82	0.114	304.9	3.82	0.0	9.13	
0900	15.0	5.34	18.83	0.114	318.7	3.83	0.02	9.14	
0905	17.5	5.37	18.74	0.114	337.9	3.85	0.0	9.11	
0910	20.0	5.37	18.71	0.114	358.4	3.87	0.0	9.11	
0915	22.5	5.37	18.73	0.114	399.1	3.92	0.0	9.11	
0920	25.0	5.36	18.76	0.114	412.4	3.88	0.01	9.11	
0925									

Purge data continued on next sheet?

Signature *[Signature]*

WELL ID: MW-14

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OWENS CORNING Personnel: K. WHETSTONE (KMW)
 Project Location: ANDERSON, SC Weather: CLEAR & SUNNY, 60°F

2. WELL DATA

Date Measured: _____ Time: _____ 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: 19.42 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: 54.78 feet Well Volume: 8.93 gal Screened Interval (from GS): 69.2-74.2
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/05/13 Time: 1505 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): _____ well volumes or 8.93 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI 556 MPS
2. HF DRT-15CE
3. SOLINST WL METER
4. GEO TECH + GEO SUB

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
1506	0	5.71	18.44	0.067	221.5	6.45	5.91	21.28	CLEAR
1516	1.25	5.69	18.59	0.067	203.4	6.41	1.73	21.98	
1527	3.0	5.72	18.58	0.065	204.5	6.32	1.36	23.23	
1536	5.0	5.79	18.61	0.063	200.7	6.28	1.19	24.56	
1546	6.75	5.80	18.60	0.062	202.5	6.23	0.69	24.83	

Purge data continued on next sheet?

4. SAMPLING DATA

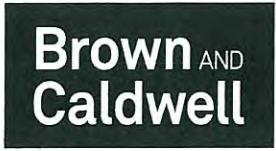
Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13308-MW-14 Sample Date: 11/05/13 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

BROKEN HINGE ON STEEL CASING

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-14

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	$\pm 2^{\circ}\text{C}$	$> \text{ of } \pm 3\% \text{ or } \pm 10 \mu\text{S/cm}$	$> \text{ of } \pm 10\% \text{ or } \pm 20 \text{ mV}$	$> \text{ of } \pm 10\% \text{ or } \pm 0.2 \text{ mg/L}$	$\leq 10 \text{ NTU}$		
1556	8.75	5.84	18.58	0.061	200.6	6.15	0.37	24.83	
1601	9.5	5.81	18.57	0.061	203.9	6.14	0.29	24.83	

Purge data continued on next sheet?

2 of 2

WELL ID: MW-15

1. PROJECT INFORMATION

Project Number: 1913825 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JN
 Project Location: Amerson, SC Weather: Sunny 45°

2. WELL DATA

Date Measured: 11/5/13 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: 24.74 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: 74.76 feet Well Volume: 12.1 gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/5/13 Time: 1125 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 36.5 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI
2. Geosub
3. Heron
4. PRT-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		
1125	0	6.80	17.16	0.188	76.0	2.88	0.33	27.35	
1130	1.0	6.84	17.34	0.189	50.8	2.82	0.12	27.82	
1135	2.0	6.75	17.49	0.191	38.1	1.34	0.08	28.65	
1140	3.0	6.64	17.54	0.188	28.8	0.46	0.18	28.91	
1145	4.0	6.62	17.56	0.188	27.4	0.35	0.03	28.96	

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: 29.26 Field Filtered? Yes No
 Sample ID: 15309-MW-15 Sample Date: 11/5/13 Sample Time: 1125 # 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

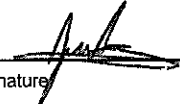
WELL ID: MW-15

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		
1115	5.0	6.61	17.59	0.187	26.6	0.32	0.08	28.87	
1120	6.0	6.60	17.68	0.188	26.9	0.33	0.01	29.25	

Purge data continued on next sheet?

2/2

Signature 

WELL ID: MW-16

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OWENS CORNING Personnel: K. WHETSTONE (KMW)
 Project Location: ANDERSON, SC Weather: CLEAR & SUNNY, 40°F

2. WELL DATA

Date Measured: _____ Time: _____ 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: 9.68 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: 49.32 feet Well Volume: 8.04 gal Screened Interval (from GS): 49-59
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/05/13 Time: 0840 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 8.04 gallons
 Was well purged dry? Yes No Pumping Rate: 0.13 gal/min Calibrated? Yes No

1. YSI 556 MPS
2. HF DRT-15CE
3. SOLINST WL METER
4. GEO TECH + GEO SUB

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		
0840	0	7.01	16.98	0.307	232.4	0.60	6.58	11.62	
0850	1.0	7.26	15.77	0.307	222.3	0.18	6.76	16.36	
0900	2.25	7.18	14.89	0.307	221.1	0.26	5.12	17.83	
0910	3.5	6.96	14.92	0.304	268.8	0.32	4.83	18.66	
0920	4.75	7.14	14.73	0.306	221.9	0.51	4.31	19.57	

Purge data continued on next sheet?

4. SAMPLING DATA

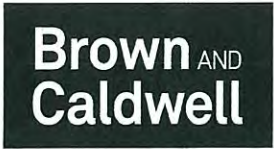
Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13309-MW-16 Sample Date: 11/05/13 Sample Time: 0955 # 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-16

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		
0930	6.0	7.25	15.85	0.307	211.0	0.40	4.28	20.86	
0940	7.25	7.26	16.90	0.307	205.8	0.37	3.54	23.18	
0950	8.5	7.16	16.07	0.307	212.1	0.40	3.63	24.85	

Purge data continued on next sheet?

2.12

Signature _____

WELL ID: MW-17

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JN
 Project Location: Anderson Weather: Sunny 70

2. WELL DATA

Date Measured: 11/6/13 Time: PM 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: 21.54 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: 17.6 feet Well Volume: 11.5 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/6/13 Time: 1545 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 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		
1345	0.0	6.12	19.89	0.114	154.0	5.53	24.2	22.0	
1350	1.0	5.26	19.91	0.113	156.1	5.10	10.4	22.02	
1354	2.0	5.23	19.87	0.113	169.3	5.12	1.49	21.95	
1358	3.0	5.24	19.87	0.112	168.4	5.18	0.78	21.99	
1402	4.0	5.32	19.84	0.109	2538	5.31	0.41	21.99	

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: 22.02 Field Filtered? Yes No
 Sample ID: 13310-MW-17 Sample Date: 11/6/13 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.

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		
1606	5.0	5.38	19.94	0.107	164.2	5.35	0.36	21.99	
1610	8.0	5.40	19.86	0.106	162.1	5.37	0.27	21.99	
1614	11.0	5.39	19.86	0.105	149.1	5.40	0.30	21.99	
1618	8.0	5.40	19.85	0.104	151.3	5.41	0.22	22.00	
1622	9.0	5.41	19.84	0.104	153.3	5.42	0.45	22.01	
1626	10.0	5.42	19.83	0.104	160.4	5.42	0.11	22.01	
1630	11.0	5.42	19.83	0.104	166.6	5.42	0.04	22.04	
1634	12.0	5.43	19.83	0.103	152.2	5.43	0.01	22.02	

Purge data continued on next sheet?

Signature 

WELL ID: MW-18

1. PROJECT INFORMATION

Project Number: 183825 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JN
 Project Location: Anderson, SC Weather: Cloudy 60

2. WELL DATA

Date Measured: 11/7/13 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: 25.6 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 20.91 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: 4.7 feet Well Volume: 0.8 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/7/13 Time: 1050 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		
1043	0	4.84	19.48	0.041	277.3	1.05	7.98	21.44	
1050	1.0	4.72	20.09	0.041	300.9	1.08	0.91	21.39	
1100	3.0	4.69	20.26	0.039	364.2	1.06	0.17	21.40	
1110	4.0	4.69	20.28	0.039	374.3	1.11	0.11	21.46	

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: 21.46 Field Filtered? Yes No
 Sample ID: 13311-MW-18 Sample Date: 11/7/13 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

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

WELL ID: MW-19

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JN
 Project Location: Anderson, SC Weather: Sunny 65°

2. WELL DATA

Date Measured: 11/6/13 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: 169 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 11.5 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: 157.5 feet Well Volume: 25.7 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/6/13 Time: 1200 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. YST
2. Geosub
3. Haxon
4. 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		
1159	0.0	7.23	18.23	0.180	337.0	0.160	0.51	12.61	
1204	2.0	7.08	18.43	0.192	229.5	0.18	0.15	13.0	
1209	4.0	7.08	18.41	0.224	226.9	0.16	0.02	13.26	
1214	6.0	6.99	18.38	0.204	309.8	0.13	0.00	13.29	
1219	8.0	6.95	18.37	0.199	329.9	0.13	0.03	13.36	

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: 13.50 Field Filtered? Yes No
 Sample ID: 13310-MW-19 Sample Date: 11/6/13 Sample Time: 1230 # 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-19

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		
1224	10.0	6.93	18.38	0.195	351.0	0.14	0.02	13.40	
1229	12.0	6.90	18.37	0.195	355.4	0.13	0.01	13.48	

Purge data continued on next sheet?

 Signature



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: NW-20

1. PROJECT INFORMATION

Project Number: 14375 Task Number: _____ Area of Concern: _____
 Client: DC Personnel: JN
 Project Location: Anderson, SC Weather: Sunny 60°

2. WELL DATA Date Measured: 11-4-13 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: 67.0 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 22.05 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: 44.95 feet Well Volume: 7.5 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA Date Purged: 11-4-13 Time: 1:10 Equipment Model(s)

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

Materials: 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 22.5 gallons

Was well purged dry? Yes No Pumping Rate: 5 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
1410	0	6.50	20.04	0.066	52.1	68.6	14.2	22.18	
1416	4.0	5.24	19.99	0.092	118.2	5.03	1.73	22.21	
1422	7.0	5.20	19.98	0.099	128.7	4.88	0.72	22.20	
1428	10.0	5.18	19.98	0.103	137.1	4.79	0.62	22.18	
1434	13.0	5.19	19.96	0.105	141.1	4.77	0.18	22.18	

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: 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: 22.18 Field Filtered? Yes No
13308 MW-20

Sample ID: _____ Sample Date: 11-4-13 Sample Time: 1455 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: 13308-EB # 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.

1/2

Signature:



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-20

3. PURGE DATA (continued from page 1)

Time	Cum. Gallons Removed (gal)	pH <small>±0.1 su</small>	Temp <small>±2°C</small>	Spec. Cond. <small>> of ±3% or ±10 µS/cm</small>	ORP <small>> of ±10% or ±20 mV</small>	DO <small>> of ±10% or ±0.2 mg/L</small>	Turbidity <small>≤ 10 NTU</small>	Water Level	Comments
1440	16.0	5.17	19.98	0.107	146.3	4.74	0.09	22.18	
1446	19.0	5.18	19.97	0.108	148.9	4.73	0.01	22.18	
1453	22.5	5.18	19.97	0.109	151.7	4.71	6.00	22.18	
1503									

Purge data continued on next sheet?

Signature _____

WELL ID: MW-21

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OWENS CORNING Personnel: K. WHETSTONE (KMW)
 Project Location: ANDERSON, SC Weather: CLEAR & SUNNY, 40°F

2. WELL DATA

Date Measured: _____ Time: _____ 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: 7.71 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: 8.79 feet Well Volume: 1.43 gal Screened Interval (from GS): 6.5-16.5
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/05/13 Time: 1025 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 1.43 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI 556 MPS
2. HF DRT-15CE
3. SOLINST WL METER
4. GEO TECH + GEO SUB

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		
1025	0	5.24	18.49	0.054	192.9	4.84	192.3	7.77	VERY CLOUDY
1035	1.0	5.18	18.93	0.053	197.0	4.84	92.7	7.80	
1045	2.0	5.12	19.16	0.053	204.0	4.79	33.2	7.81	
1055	3.25	5.11	19.11	0.053	206.8	4.80	233	7.82	
1105	4.25	5.03	19.17	0.053	215.9	4.78	14.1	7.82	

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: 7.87 Field Filtered? Yes No
 Sample ID: 13309-MW-21 Sample Date: 11/05/13 Sample Time: 1120 # 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-21

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		
1115	5.5	5.08	19.56	0.058	214.7	4.84	8.25	7.87	

Purge data continued on next sheet?

WELL ID: MW-22

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JN
 Project Location: Anderson, SC Weather: Sunny 70

2. WELL DATA

Date Measured: 11/6/13 Time: PM 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: 12.25 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: 103.7 feet Well Volume: 77.0 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/6/13 Time: 1255 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
2. Geosub
3. Aerob
4. 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
1258	0	6.71	18.39	0.132	224.7	2.38	0.38	11.32	
1303	2.0	6.00	18.45	0.134	237.9	2.83	0.24	11.32	
1308	4.0	5.78	18.48	0.134	277.9	2.90	0.25	11.32	
1313	6.0	5.66	18.45	0.135	272.6	2.99	0.13	11.32	
1318	8.0	5.63	18.44	0.133	402.5	3.00	0.00	11.32	

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: 11.32 Field Filtered? Yes No
 Sample ID: 13310-MW-22 Sample Date: 11/6/13 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

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-22

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		
1323	10.0	5.62	18.48	0.133	409.4 3.00	3.00	0.14	11.32	
1328	12.0	5.60	18.51	0.133	413.7	3.00	0.23	11.32	

Purge data continued on next sheet?


Signature

2/2

WELL ID: MW-24

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OWENS CORNING Personnel: K. WHETSTONE (KMW)
 Project Location: ANDERSON, SC Weather: CLEAR SUNNY, 60°F

2. WELL DATA

Date Measured: _____ Time: _____ 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: 10.25 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: 60.75 feet Well Volume: 9.90 gal Screened Interval (from GS): 71-81
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/05/13 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): _____ well volumes or 9.90 gallons
 Was well purged dry? Yes No Pumping Rate: 0.13 - 0.20 gal/min Calibrated? Yes No

1. YSI 556 MPS
2. HF DRT-15CE
3. SOLINST WL METER
4. GEO TECH + GEO SUB

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		
1307	0	5.43	20.24	0.126	164.2	2.39	2.47	13.82	CLEAR
1317	1.5	5.37	20.44	0.126	171.1	2.32	0.43	14.93	
1327	2.75	5.37	20.47	0.126	178.8	1.80	0.47	14.82	
1337	4.0	5.28	20.42	0.127	181.8	1.50	0.44	14.83	
1347	6.0	5.12	20.44	0.127	179.6	1.70	1.18	19.09	

1 D.J. PUMP SPEED →

Purge data continued on next sheet?

4. SAMPLING DATA

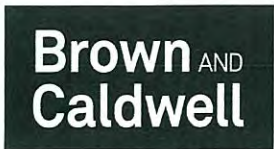
Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13308-MW-24 Sample Date: 11/05/13 Sample Time: 1410 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: 13308-DUP # 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.



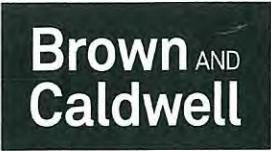
GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-24

3. PURGE DATA (continued from page 1)

Table with columns: Time, Cum. Gallons Removed (gal), pH, Temp, Spec. Cond., ORP, DO, Turbidity, Water Level, Comments. Contains handwritten data for two rows.

Purge data continued on next sheet? []



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MWL-25

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OWENS CORNING Personnel: K. WHETSTONE (KMW)
 Project Location: ANDERSON, SC Weather: CLEAR & SUNNY, 50°F

2. WELL DATA

Date Measured: _____ Time: _____ 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: 11.55 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: 38.45 feet Well Volume: 6.27 gal Screened Interval (from GS): 40-50
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/05/13 Time: 1300 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 6.27 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI 556 MPS
2. HF DRT-15CE
3. SOLINST WL METER
4. GEOTECH + GEO SUB

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		
1304	0	4.17	17.46	0.051	277.7	7.56	16.0	12.36	CLEAR
1314	2.0	4.29	17.56	0.050	268.0	7.55	9.38	12.38	
1324	3.75	4.43	17.60	0.051	263.2	7.52	4.56	12.39	
1334	5.5	4.51	17.60	0.051	261.9	7.47	1.66	12.38	
1344	7.0	4.52	17.61	0.051	261.8	7.44	1.50	12.39	

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: 12.39 Field Filtered? Yes No
 Sample ID: 13309-MW-25 Sample Date: 11/05/13 Sample Time: 1345 # 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

BROKEN HINGE ON STEEL CASING, NO PIPE CAP, SPIDER WEBS INSIDE PVC POST

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

WELL ID: MW-26

1. PROJECT INFORMATION

Project Number: 1438 25 Task Number: _____ Area of Concern: _____
 Client: CC Personnel: JW
 Project Location: Anderson, SC Weather: Sunny 45°

2. WELL DATA

Date Measured: 11/5/13 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: 17.13 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: 49.57 feet Well Volume: 8.1 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/5/13 Time: 0820 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 24.2 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
0830	0.0	6.09	17.90	0.061	134.2	6.09	0.20	21.03	
0835	2.0	6.27	17.94	0.062	126.9	5.81	0.09	23.39	
0843	4.0	6.33	18.10	0.062	138.4	5.62	10.8	26.37	
0853	6.0	6.28	18.23	0.063	149.5	5.50	8.01	33.76	
0903	8.0	6.27	18.32	0.062	156.4	5.27	12.2	36.12	

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: 49.22 Field Filtered? Yes No
 Sample ID: 13209 - MW-26 Sample Date: 11/5/13 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

Purge for 2 hrs, parameters stable, turbidity was not <10

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

WELL ID: MW-26

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		
0908	10.0	6.22	18.42	0.063	158.3	5.19	7.12 37.65	37.2	
0918	12.0	6.22	18.50	0.063	156.7	5.37	4.19 39.81	18.1	
0926	14.0	6.17	18.58	0.063	160.7	5.11	10.4 41.45	16.40	
0936	16.0	6.20	18.59	0.063	164.4	5.37	3.37 43.68	13.4	
0946	18.0	6.14	18.68	0.063	168.4	5.15	18.8	45.07	
0956	20.0	6.12	18.72	0.064	170.2	4.92	14.1	46.16	
1006	22.0	6.13	18.71	0.063	171.1	5.22	13.3	48.88	
1016	24.0	6.10	18.79	0.064	170.9	5.11	19.2	48.91	
1026	26.0	6.05	18.82	0.064	179.1	5.11	20.2	49.08	

Purge data continued on next sheet?

Signature 



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-27

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JV
 Project Location: Anderson, SC Weather: Sunny, 65°

2. WELL DATA

Date Measured: 11/4/13 Time: PV 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: 22.23 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: 76.77 feet Well Volume: 507 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft 1.666

3. PURGE DATA

Date Purged: 11/4/13 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): 3 well volumes or 157 gallons Calibrated? Yes No
 Was well purged dry? Yes No Pumping Rate: _____ gal/min

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
1525	0	7.00	19.81	0.164	6.4	0.124	0.44	22.32	
1533	5	7.36	19.79	0.125	-32.4	0.15	0.24	22.35	
1541	10.0	7.20	19.78	0.112	-29.7	0.13	0.46	22.36	
1549	15.0	7.01	19.79	0.105	-22.4	0.15	0.05	22.35	
1557	20.0	6.97	19.79	0.104	-19.1	0.23	0.03	22.36	

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: 22.35 Field Filtered? Yes No
 Sample ID: 13308-MW-27 Sample Date: 11/4/13 Sample Time: 1610 # 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

Micro purge.

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

1/2



GROUNDWATER SAMPLING FIELD DATA SHEET

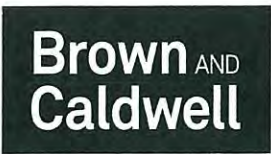
WELL ID: MW-27

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		
1605	25.0	6.96	19.79	9103	-77.8	0.24	0.01	22.35	
1613	30.0								

Purge data continued on next sheet?

Signature



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-28

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OWENS CORNING Personnel: K. WHETSTONE (KMW)
 Project Location: ANDERSON, SC Weather: 50°F, SUNNY

2. WELL DATA

Date Measured: 11/08/13 Time: 1118 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: 21.41 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: 9.59 feet Well Volume: 1.56 gal Screened Interval (from GS): 21-31
Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/08/13 Time: 1118 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 1.56 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. Y91 556 MPS
2. HF DRT-15CE
3. HERON DIPPER-T
4. GEO TECH + GEO SUB

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	4.79	21.01	1.399	207.5	0.82	32.8	19.08	
1130		4.14	22.46	1.535	216.1	0.41	8.28	19.49	
1140		4.24	22.93	1.826	204.7	0.31	2.55	19.50	
1150		4.22	22.87	1.979	200.9	0.22	1.51	19.49	
1200		4.22	23.10	2.077	196.4	0.21	2.70	19.50	

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: 13312-MN-28 Sample Date: 11/08/13 Sample Time: 1320 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: 13312-EB # of Containers: 2

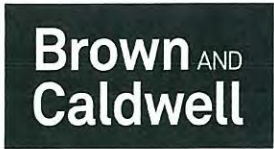
Geochemical Analyses

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

5. COMMENTS

NO BOLTS, CAP BROKEN AND UNFUNCTIONABLE

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-28

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		
1210		4.23	23.02	2.195	195.4	0.21	3.53	19.52	
1220		4.22	23.26	2.313	192.5	0.20	0.57	19.49	
1230		4.23	23.47	2.388	191.6	0.21	1.62	19.49	
1240		4.21	23.33	2.481	188.4	0.71	1.23	19.48	
1250		4.22	23.40	2.550	185.2	2.73	0.81	19.47	
1300		4.19	22.65	2.407	174.5	3.60	1.22	19.49	
1310		4.16	22.72	2.609	194.9	4.30	1.73	19.52	
1320		4.16	22.91	2.703	195.9	4.54	1.39	19.54	

Purge data continued on next sheet?

2 of 2

Signature



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-29R Zone 3-Waterloo

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: M
 Project Location: Anderson, South Carolina Weather: ~70° Sunny

2. WELL DATA

Date Measured: 11-13-13 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: 6934 Dg
 Depth to Product: _____ feet
 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

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)

3. PURGE DATA

Date Purged: 11-5-13 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): 2 hrs well volumes or Stability gallons

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

1. VSI
2. ORT
3. MP50
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
1325	.1	6.09	18.36	.159	-86.3	2.39	.97	6941	
1330	.2	5.65	18.27	.174	-71.2	2.09	.63	6941	
1335	.3	5.57	18.18	.174	-24.0	2.07	.41	6941	
1340	.4	5.57	18.14	.173	-8.9	2.06	.69	6941	
1345	.5	5.56	18.20	.173	-5.3	2.05	.10	6941	

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: 13309 MW 142 23 Sample Date: 11-5-13 Sample Time: 1345 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: 13309-Dup # 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

Dup A 1335 1350

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-29R Zone 4-Waterloo

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: M
 Project Location: Anderson, South Carolina Weather: ~70° Sunny

2. WELL DATA

Date Measured: 11-4-13 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: 629.4 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: 11-5-13 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. YSI
 2. ORT
 3. MP-50
 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
1350	.1	5.90	18.61	.151	5.3	5.49	1.97	6298	
1355	.2	5.97	18.47	.151	-95.4	5.34	0.99	6295	
1400	.3	5.49	18.45	.157	-36.1	5.46	.78	6298	
1405	.4	5.50	18.44	.157	-27.1	5.48	.54	6298	
1410	.5	5.51	18.18	.157	-30.9	5.46	.33	6298	

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: 13309 - MW-29R-21 Sample Date: 11-5-13 Sample Time: 1410 # 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: MW-30

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: CC Personnel: JN
 Project Location: Anderson, SC Weather: Sunny 55°

2. WELL DATA

Date Measured: 11/8/13 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: 113 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 25.19 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: 87.8 feet Well Volume: 14.3 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/8/13 Time: 0805 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
2. Geosub
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		
0805	0	4.53	17.96	0.077	355.1	4.86	25.4	24.21	
0815	1.5	6.11	19.37	0.092	283.4	3.61	13.1	25.18	
0825	4.0	6.15	19.67	0.098	274.1	3.86	6.55	26.10	
0835	5.0	6.15	19.77	0.099	270.8	3.92	7.52	26.10	
0845	6.0	6.15	19.88	0.099	277.2	3.89	8.54	25.92	

Purge data continued on next sheet?

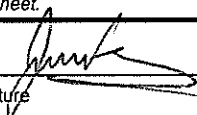
4. SAMPLING DATA

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: 25.92 Field Filtered? Yes No
 Sample ID: 13312-MW-30 Sample Date: 11/8/13 Sample Time: 0850 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: 13312-DUP # 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.



WELL ID: MW-31

1. PROJECT INFORMATION

Project Number: 1813825 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JN
 Project Location: Anderson, SC Weather: Sunny 40°

2. WELL DATA

Date Measured: 11/8/13 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: 26.36 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: 63.6 feet Well Volume: 10.4 gal ^{ci} Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/8/13 Time: 1040 0940 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
2. Geosub
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>0940</u> 1040	<u>0</u>	<u>7.06</u>	<u>19.06</u>	<u>0.070</u>	<u>315.1</u>	<u>5.13</u>	<u>139</u>	<u>25.49</u>	
<u>0950</u>	<u>1.75</u>	<u>6.14</u>	<u>20.20</u>	<u>0.067</u>	<u>261.9</u>	<u>2.63</u>	<u>37.5</u>	<u>26.08</u>	
<u>1000</u>	<u>4.00</u>	<u>6.07</u>	<u>20.30</u>	<u>0.068</u>	<u>262.1</u>	<u>2.24</u>	<u>7.83</u>	<u>26.11</u>	
<u>1010</u>	<u>6.00</u>	<u>6.06</u>	<u>20.34</u>	<u>0.068</u>	<u>272.4</u>	<u>2.45</u>	<u>7.56</u>	<u>26.15</u>	
<u>1020</u>	<u>8.00</u>	<u>6.05</u>	<u>20.35</u>	<u>0.069</u>	<u>275.0</u>	<u>2.63</u>	<u>1.51</u>	<u>26.24</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: 26.19 Field Filtered? Yes No
 Sample ID: 13312-MW-31 Sample Date: 11/8/13 Sample Time: 1055 # 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-31

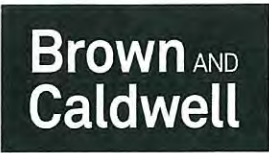
3. PURGE DATA (continued from page 1)

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		
1030	10.0	6.04	20.39	0.069	275.5	2.72	6.28	26.75	
1040	12.0	6.04	20.37	0.069	277.0	2.80	0.39	26.11	
1050	13.0	6.04	20.29	0.069	279.7	2.79	0.66	26.20	

Purge data continued on next sheet?

2/2

Signature 



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-32

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OWENS CORNING Personnel: K. WHETSTONE (KMW)
 Project Location: ANDERSON, SC Weather: 60°F, SUNNY

2. WELL DATA

Date Measured: _____ Time: _____ 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: 21.13 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: 13.87 feet Well Volume: 2.26 gal Screened Interval (from GS): 25-35
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/07/13 Time: 1132 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 Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or 2.26 gallons
 Was well purged dry? Yes No Pumping Rate: 0.25 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
1135	0	6.79	21.45	0.366	-53.6	0.60	183.6	17.45	CLOUDY
1145	2.5	6.53	21.91	0.448	-83.7	0.05	95.2	17.88	"
1155	4.5	6.52	22.34	0.432	-67.0	0.23	58.6	17.48	"
1205	6.5	6.51	22.32	0.439	-86.5	0.12	26.3	17.49	HAZY
1215	8.75	6.49	22.37	0.437	-83.9	0.10	14.58	17.48	CLEAR

PUMP SPEED →

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: 17.48 Field Filtered? Yes No
 Sample ID: 13311-MW-32 Sample Date: 11/07/13 Sample Time: 1240 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

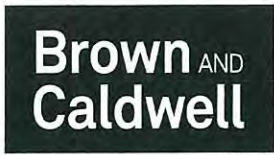
Geochemical Analyses

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

5. COMMENTS

NO BOLTS

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: K. WHETSTONE (KMW)
 Project Location: ANDERSON, SC Weather: CLEAR & SUNNY, 50°F

2. WELL DATA

Date Measured: _____ Time: _____ 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: 12.41 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: 149.59 feet Well Volume: 24.38 gal Screened Interval (from GS): 152-162
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/05/13 Time: 1550 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. HF DRT-15CE
3. SOLINST NH METER
4. GEO TECH + GEO SUB

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	0	10.56	16.12	0.478	287.2	1.18	9.38	13.23	CLEAR
1600	2.25	10.86	16.10	0.790	230.8	0.29	4.83	15.22	
1610	4.25	11.13	16.03	0.830	152.4	0.40	5.41	15.30	
1620	6.5	11.39	16.18	0.856	-30.1	0.23	9.80	17.24	
1630	8.5	11.40	16.32	0.701	-51.7	0.17	4.58	20.15	

↓ SPEED OF PUMP →

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: 20.14 Field Filtered? Yes No
 Sample ID: 13309-MW-35 Sample Date: 11/05/13 Sample Time: 1735 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

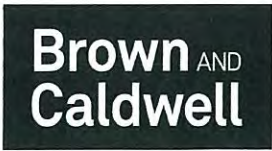
Geochemical Analyses
 Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

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

1 of 2

Signature



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-35

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		
1640	10.5	11.31	16.26	0.600	-81.8	0.15		20.49	
1650	12.5	11.23	16.25	0.493	-97.9	0.14		20.43	
1700	14.5	11.12	16.27	0.429	-105.5	0.13		20.43	
1710	16.75	11.03	16.27	0.390	-114.1	0.13		20.32	
1720	18.75	10.96	16.24	0.367	-119.8	0.12		20.20	
1730	21.0	10.94	16.23	0.354	-124.2	0.11		20.14	

Purge data continued on next sheet?



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-36 Zone 1-Waterloo

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: M
 Project Location: Anderson, South Carolina Weather: ~60°-70 sunny

2. WELL DATA

Date Measured: 11-9-13 Time: PM Temporary Well: Yes No

Casing Diameter: 2 inches
 Screen Diameter: 6 inches
 Sampling Interval: 99.1-116 feet
 Depth to Static Water: 6249 Dg
 Depth to Product: _____ feet
 Length of Water Column: _____ feet

Length of water column calculation:
 $(8558.7 - \text{Current Dg reading}) * 0.01797 * 2.3108 = \text{Length of water column (ft)}$
 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)

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: 11-9-13 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): 7 hrs well volumes or Stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. VSI
 2. DET
 3. MP-50
 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>1215</u>	<u>.1</u>	<u>6.13</u>	<u>17.93</u>	<u>.117</u>	<u>-131.3</u>	<u>2.24</u>	<u>7.68</u>	<u>6249</u>	
<u>1225</u>	<u>.2</u>	<u>6.05</u>	<u>17.99</u>	<u>.117</u>	<u>-71.4</u>	<u>3.50</u>	<u>4.11</u>	<u>6249</u>	
<u>1235</u>	<u>.3</u>	<u>6.03</u>	<u>17.95</u>	<u>.117</u>	<u>-35.1</u>	<u>3.57</u>	<u>3.09</u>	<u>6249</u>	
<u>1245</u>	<u>.4</u>	<u>6.03</u>	<u>18.00</u>	<u>.117</u>	<u>-16.4</u>	<u>3.50</u>	<u>1.89</u>	<u>6249</u>	
<u>1255</u>	<u>.5</u>	<u>6.03</u>	<u>18.04</u>	<u>.117</u>	<u>-14.7</u>	<u>3.50</u>	<u>2.11</u>	<u>6249</u>	

Sample PH, Spec DO

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: 13209-MW-36 Z1 Sample Date: 11-9-13 Sample Time: 1255 # 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 3-Waterloo

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: MA
 Project Location: Anderson, South Carolina Weather: 24° Sunny

2. WELL DATA

Date Measured: 11-4-13 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: 6465.9 feet
 Depth to Product: _____ feet
 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

Length of water column calculation:
 $(9093.1 - \text{Current Dg reading}) * 0.02725 * 2.3108 = \text{Length of water column (ft)}$
 Well Vol. calculation:
 1 well vol. = [vol sand interval(6") - vol of waterloo casing (2")] + vol of water in tubing(1/4")
 = [18.36 gal - 2.09 gal] + (0.0102 x length of water column)

3. PURGE DATA

Date Purged: _____ 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: _____
 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

Equipment Model(s)
 1. YSI
 2. DRT
 3. MP-50
 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>1050</u>	<u>1</u>	<u>7.41</u>	<u>16.07</u>	<u>1.523</u>	<u>-35.5</u>	<u>7.81</u>	<u>2.39</u>	<u>7065</u>	
<u>1100</u>	<u>2</u>	<u>7.21</u>	<u>15.44</u>	<u>1.534</u>	<u>-159.6</u>	<u>5.66</u>	<u>1.90</u>	<u>7895</u>	
<u>1110</u>	<u>3</u>	<u>7.23</u>	<u>14.41</u>	<u>1.535</u>	<u>-143.3</u>	<u>6.43</u>	<u>2.39</u>	<u>9093.1</u>	
			<u>DRY</u>	<u>at</u>	<u>1115!</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: 13301-MW-36B3 Sample Date: 11-5-13 Sample Time: 1450 # 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 5-Waterloo

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: M
 Project Location: Anderson, South Carolina Weather: ~60° Sunny

2. WELL DATA

Date Measured: 11-4-13 Time: AM Temporary Well: Yes No

Casing Diameter: 2 inches
 Screen Diameter: 6 inches
 Sampling Interval: 269.9-275 feet
 Depth to Static Water: 6088.3 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: 11-5-13 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: _____

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

Volume to Purge (minimum): 2 hrs well volumes or stability gallons

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

1. VSI
2. DRF
3. MP-50
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
1115	.1	7.63	16.53	3.554	-199.0	6.40	6.19	8193	
1125	.2	7.55	16.53	3.631	-44.3	5.72	5.21	8219	
1135	.3	7.48	16.53	4.010	-224.1	5.70	3.32	8219	connected compressor
1145	.35	7.49	16.16	4.075	-212.8	6.19	5.41	8219	
1155	.40	7.50	16.07	3.994	-272.5	6.72	4.31	8219	water dripping out

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: 13309-MW Sample Date: 11-5-13 Sample Time: 1145 # 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.

MJE

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-36 Zone 5-Waterloo

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
1205	.43	7.47	17.15	3.989	-279.6	5.94	5.91	9245	
1210									Water barely coming out, about two drops per discharge. Will let recharge then sample.

Purge data continued on next sheet?

WELL ID: MW37-Z1

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200 Area of Concern: _____
 Client: Owens Corning Personnel: VC
 Project Location: Anderson, SC Weather: Overcast

2. WELL DATA

Date Measured: 11-4-13 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: 19.5 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: 17.45 feet Well Volume: 7.28 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-7-13 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): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI
 2. PRT
 3. Mp 50
 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
0755	0.01	7.39	15.97	0.477	-110.8	2.62	0.98	36.30	
0805	0.02	7.58	16.16	0.883	-131.4	1.65	0.54	37.04	
0815	0.03	7.57	15.85	0.878	-121.5	1.47	1.12	40.24	
0825	0.04	7.57	16.68	0.876	-114.3	1.50	1.38	46.30	
0835	0.05	7.58	15.77	0.874	-115.4	1.68	0.93	48.51	

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: 53.69 Field Filtered? Yes No
 Sample ID: 13311-MW37-Z1 Sample Date: 11-7-13 Sample Time: 0955 # 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: MW37-21

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		
0845	0.06	7.58	15.81	0.873	-109.7	1.80	0.98	49.64	
0855	0.07	7.58	15.88	0.872	-103.5	2.01	0.87	51.29	
0905	0.08	7.58	15.93	0.872	-103.5	2.32	1.03	52.20	
0915	0.09	7.62	16.05	0.871	-90.7	2.04	1.86	52.60	
0925	0.10	7.61	16.31	0.868	-95.9	2.21	0.74	53.36	
0935	0.15	7.62	16.39	0.869	-93.0	2.27	4.17	53.60	
0945	0.17	7.81	16.55	0.871	-76.8	4.85	6.53	53.43	
0955	0.18	7.91	16.76	0.868	-72.1	8.48	7.01	53.69	
2 hrs Samples taken									

Purge data continued on next sheet?

Signature _____

WELL ID: MW37-72

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200 Area of Concern: _____
 Client: Owens Corning Personnel: VC
 Project Location: Anderson, SC Weather: Overcast

2. WELL DATA

Date Measured: 11-4-13 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: 232 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 35.32 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: 196.68 feet Well Volume: 8.06 gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-7-13 Time: 1035 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
1035	0.01	8.88	16.97	0.244	-69.3	1.95	0.24	29.60	
1045	0.02	9.19	17.19	0.174	-86.1	1.07	4.65	29.94	
1055	0.03	9.20	17.22	0.173	-79.2	0.93	5.01	29.98	
1105	0.035	9.36	17.39	0.171	-74.3	0.91	3.27	29.87	
1115	0.04	9.54	17.57	0.172	-70.2	0.91	4.41	29.85	

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: 13311-MW37-72 Sample Date: 11-7-13 Sample Time: 1235 # 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: MW37-72

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		
1125	0.05	9.69	17.88	0.174	-66.6	0.92	6.65	29.62	
1135	0.1	9.91	17.53	0.180	-67.1	0.99	7.43	29.78	
1145	0.15	10.11	17.42	0.188	-68.6	1.03	5.76	29.81	
1155	0.2	10.44	17.83	0.204	-77.4	0.93	4.18	29.84	
1205	0.25	10.63	18.56	0.220	-85.0	0.74	5.21	29.79	
1215	0.3	10.79	19.27	0.298	-91.2	0.68	6.77	29.77	
1225	0.35	10.87	19.10	0.326	-90.3	0.71	4.06	29.65	
1235	0.4	10.95	18.82	0.360	-89.5	0.70		29.67	
2 hrs Samples taken									

Purge data continued on next sheet?

Signature _____



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW37-73

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200 Area of Concern: _____
 Client: Owens Corning Personnel: VC
 Project Location: Anderson, SC Weather: Sunny

2. WELL DATA Date Measured: 11-4-13 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: 272 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 49.71 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: 222.29 feet Well Volume: 9.11 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA Date Purged: 11-7-13 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): _____ 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		
1305	0.05	8.89	20.66	0.479	-93.1	2.96	7.22	30.5	
1315	0.1	7.52	20.52	0.496	-83.2	1.35	8.12	32.85	
1325	0.15	7.46	20.89	0.498	-87.1	1.18	8.56	34.48	
1335	0.2	7.49	21.78	0.489	-88.9	0.99	7.54	35.51	
1345	0.25	7.46	22.16	0.487	-76.4	1.22	6.37	36.47	

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: 38.95 Field Filtered? Yes No
 Sample ID: 13311-MW37-73 Sample Date: 11-7-13 Sample Time: 1505 # 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: MW37-23

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		
1355	0.3	7.44	22.48	0.485	-65.6	1.23	3.07	36.85	
1405	0.35	7.51	23.33	0.483	-49.5	1.31	4.72	37.25	
1415	0.4	7.51	23.88	0.489	-44.2	1.57	3.38	37.57	
1425	0.45	7.56	24.62	0.480	-28.8	1.82	3.22	37.63	
1435	0.5	7.48	24.73	0.481	-21.2	1.40	2.17	37.90	
1445	0.55	7.48	24.71	0.481	-6.4	1.35	5.45	38.11	
1455	0.6	7.46	24.68	0.500	-2.3	1.87	6.09	38.72	
1505	0.65	7.45	24.62	0.506	-2.3	2.12	5.91	38.95	
2 hrs Samples Taken									

Purge data continued on next sheet?

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-38 Zone 1

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: MJ
 Project Location: Anderson, South Carolina Weather: ~60° Sunny

2. WELL DATA

Date Measured: 11-11-13 Time: 4M 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: 11.61 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: 11-6-13 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): 2 hrs well volumes or Stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

Equipment Model(s)
 1. YSI
 2. DRT
 3. MP.50
 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>1045</u>	<u>.1</u>	<u>7.35</u>	<u>18.14</u>	<u>.373</u>	<u>-275.1</u>	<u>1.67</u>	<u>7.91</u>	<u>13.84</u>	
<u>1055</u>	<u>.2</u>	<u>7.34</u>	<u>18.00</u>	<u>.367</u>	<u>-274.0</u>	<u>.68</u>	<u>5.18</u>	<u>14.11</u>	
<u>1105</u>	<u>.3</u>	<u>7.35</u>	<u>17.96</u>	<u>.366</u>	<u>-277.2</u>	<u>.87</u>	<u>2.29</u>	<u>14.61</u>	
<u>1115</u>	<u>.4</u>	<u>7.34</u>	<u>17.95</u>	<u>.366</u>	<u>-275.7</u>	<u>1.49</u>	<u>1.08</u>	<u>14.79</u>	
<u>1125</u>	<u>.5</u>	<u>7.34</u>	<u>18.06</u>	<u>.366</u>	<u>-270.7</u>	<u>2.09</u>	<u>.93</u>	<u>15.61</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: 13310-MW-38-21 Sample Date: 11-6-13 Sample Time: 1125 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: 13310-EB # of Containers: 2

Geochemical Analyses

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

5. COMMENTS

EB at 1330

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

MJ

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-38 Zone 2

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: M
 Project Location: Anderson, South Carolina Weather: ~60° Sunny

2. WELL DATA

Date Measured: 11-4-13 Time: 4m 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: 7.5 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: 500.1 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: 11-6-13 Time: 1146 Equipment Model(s): _____

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: Artesian
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: artesian
 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): 2 hrs well volumes or Stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI
2. DRT
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>1145</u>	<u>.7</u>	<u>7.75</u>	<u>17.93</u>	<u>.193</u>	<u>-239.9</u>	<u>.27</u>	<u>6.97</u>	<u>artesian</u>	
<u>1155</u>	<u>1.4</u>	<u>7.79</u>	<u>17.72</u>	<u>.195</u>	<u>-224.9</u>	<u>.35</u>	<u>4.43</u>	<u>artesian</u>	
<u>1205</u>	<u>2.1</u>	<u>7.87</u>	<u>17.87</u>	<u>.195</u>	<u>-228.1</u>	<u>.39</u>	<u>2.18</u>	<u>artesian</u>	
<u>1215</u>	<u>2.8</u>	<u>7.90</u>	<u>17.99</u>	<u>.195</u>	<u>-225.2</u>	<u>.33</u>	<u>.18</u>	<u>artesian</u>	
<u>1225</u>	<u>3.5</u>	<u>7.93</u>	<u>18.14</u>	<u>.195</u>	<u>-227.3</u>	<u>.34</u>	<u>.23</u>	<u>artesian</u>	
<u>1235</u>	<u>4.2</u>	<u>7.94</u>	<u>18.22</u>	<u>.195</u>	<u>-226.1</u>	<u>.33</u>	<u>.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: artesian
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: artesian
 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: 13310-MW-38-2 Sample Date: 11-6-13 Sample Time: 1235 # 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

Artesian

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

Signature MJ

WELL ID: MW39-71

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200 Area of Concern: _____
 Client: Owens Corning Personnel: VS
 Project Location: Anderson, SC Weather: Sunny

2. WELL DATA

Date Measured: 11-4-13 Time: M 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: 29.64 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: 75.36 feet Well Volume: 3.09 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-6-13 Time: 0745 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 No

1. YSI
2. DRT
3. MP50
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		
0745	0.01	6.61	16.43	0.039	72.6	3.84	1.95	18.15	
0755	0.1	6.79	16.57	0.036	71.6	4.88	0.21	18.09	
0805	0.2	6.81	16.65	0.032	75.7	5.04	0.39	18.11	
0815	0.3	6.80	16.64	0.030	79.1	5.15	0.13	18.37	
0825	0.4	6.79	16.60	0.028	82.5	5.21	0.84	18.21	

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: 3.22 Field Filtered? Yes No
 Sample ID: 13310-MW39-71 Sample Date: 11-6-13 Sample Time: 0945 # 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: MW39-Z1

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		
0835	0.5	6.74	16.76	0.109	80.7	5.28	0.29	18.08	
0845	0.6	6.84	16.84	0.097	70.6	5.47	0.17	18.12	
0855	0.7	6.84	17.04	0.070	72.0	5.44	0.22	18.05	
0905	0.8	6.82	16.97	0.019	75.0	5.42	0.50	18.10	
0915	0.9	6.82	16.97	0.019	79.2	5.38	0.98	18.25	
0925	1.0	6.83	16.99	0.019	79.7	5.29	0.15	18.05	
0935	1.1	6.85	17.40	0.019	79.8	4.61	1.33	17.82	
0945	1.2	6.67	16.83	0.093	-12.5	8.68	2.73	3.22	Well are flowing occasionally
2 hrs samples taken									

Purge data continued on next sheet?

Signature _____



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW39-72

1. PROJECT INFORMATION
 Project Number: 143825 Task Number: 200 Area of Concern: _____
 Client: Owens Corning Personnel: VC
 Project Location: Anderson, SC Weather: Sunny

2. WELL DATA Date Measured: 11-4-13 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: 215 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: ~~17.16~~ 24.17 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: 180.33 feet Well Volume: 7.41 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA Date Purged: 11-6-13 Time: 1025 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		
1025	0.01	7.80	17.92	0.553	-96.9	6.53	3.85	34.62	
1035	0.1	7.92	18.14	0.391	53.4	9.93	7.5	20.16	
1045	0.25	8.10	17.34	0.609	-66.2	13.89	4.13	33.91	
1055	0.3	8.14	17.36	0.608	-85.2	11.21	5.73	47.35	
1105	0.4	8.33	17.94	0.612	-73.8	9.38	6.36	47.12	

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: 13310 MW39-72 Sample Date: 11-8-13 Sample Time: 1105 # 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: MGN39-72

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		
1115	0.45	8.30	17.95	0.613	-61.2	9.57	2.38	76.91	
1125	0.50	8.33	17.90	0.614	-51.7	9.57	1.55	76.40	
1135	0.51	8.31	17.92	0.603	-52.8	9.21	1.70	78.02	
1145	0.52	8.40	18.43	0.599	-51.2	8.28	1.37	79.98	
1155	0.53	8.39	19.02	0.601	-50.8	7.86	1.23	98.32	Pause wait until water level rises
1205									
1215									
1225									
11-8-13 cont.)									
1045		7.57	17.77	0.631	-62.6	2.59		73.74	Turbidity meter battery dead
1055		7.70	17.77	0.626	-153.9	0.45		76.09	
1105		7.84	17.87	0.633	-179.2	0.33		77.80	

Purge data continued on next sheet?



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW39-23

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 2000 Area of Concern: _____
 Client: Owens Corning Personnel: VC
 Project Location: Anderson, SC Weather: Sunny

2. WELL DATA

Date Measured: 11-4-13 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: 300 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 30.64 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: 269.36 feet Well Volume: 11.04 gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-6-13 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. V51
2. DRT
3. Mp50
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		
1335	0.01	7.09	21.70	0.351	-57.3	6.44	1.28	48.91	
1345	0.05	7.64	19.89	0.302	-97.3	7.89	1.93	52.93	
1355	0.1	7.17	19.28	0.267	-97.4	3.17	1.86	55.91	
1405	0.12	7.21	20.28	0.273	-94.6	2.02	2.39	58.15	
1415	0.13	7.15	19.95	0.281	-94.9	1.52	2.01	61.10	

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: 68.61 Field Filtered? Yes No
 Sample ID: 13310-MW39-23 Sample Date: 11-6-13 Sample Time: 1535 # 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: MW39-23

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		
1425	0.15	7.26	20.43	0.282	-99.6	1.42	1.35	63.73	
1435	0.16	7.27	21.09	0.266	-97.3	1.41	2.51	63.93	
1445	0.17	7.24	21.18	0.265	-92.3	1.44	1.47	64.85	
1455	0.18	7.15	20.80	0.284	-85.0	1.53	2.13	66.14	
1505	0.19	7.15	20.91	0.284	-81.4	1.44	2.09	66.89	
1515	0.20	7.21	20.99	0.295	-79.5	1.76	1.37	67.55	
1525	0.30	7.20	21.0	0.294	-74.5	1.86	1.18	68.34	
1535	0.40	7.15	20.81	0.294	-77.2	1.88	1.51	68.61	
2 hrs samples taken									

Purge data continued on next sheet?

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 Zone 1

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: MJ
 Project Location: Anderson, South Carolina Weather: 60°

2. WELL DATA

Date Measured: 11-4-13 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: 129.92 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: 11-6-13 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): 2 hrs well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

Equipment Model(s)
 1. Y51
 2. DET
 3. MP-50
 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>1405</u>	<u>.1</u>	<u>7.52</u>	<u>17.97</u>	<u>.308</u>	<u>-129.3</u>	<u>2.30</u>	<u>98</u>	<u>7.28</u>	<u>water is black</u>
<u>1415</u>	<u>.2</u>	<u>7.50</u>	<u>17.50</u>	<u>.234</u>	<u>-82.3</u>	<u>1.39</u>	<u>25</u>	<u>7.38</u>	
<u>1425</u>	<u>.3</u>	<u>7.59</u>	<u>17.42</u>	<u>.233</u>	<u>-68.8</u>	<u>1.38</u>	<u>13</u>	<u>7.91</u>	
<u>1435</u>	<u>.11</u>	<u>7.59</u>	<u>17.44</u>	<u>.227</u>	<u>-60.2</u>	<u>1.61</u>	<u>11</u>	<u>8.03</u>	
<u>1445</u>	<u>.5</u>	<u>7.55</u>	<u>17.44</u>	<u>.223</u>	<u>-51.5</u>	<u>1.88</u>	<u>7.69</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: 13310-MW-41-31 Sample Date: 11-6-13 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

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

1 of 2

[Handwritten Signature]

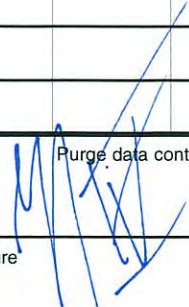
GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 Zone 1

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		
1455	.6	7.52	17.45	.218	-43.0	2.08	5.01	8.03	
1505	.7	7.47	17.38	.219	-42.7	2.26	7.19	8.07	
1515	.8	7.45	17.41	.213	-31.8	2.38	5.41	8.14	
1525	.9	7.47	17.40	.209	-27.0	2.55	3.33	8.23	
1535	1.0	7.38	17.30	2.07	-22.2	2.68	2.79	8.31	
1545	1.1	7.36	17.29	2.03	-18.1	2.71	.99	8.31	
1555	1.3	7.34	17.25	.205	-15.7	2.80	.61	8.31	
1605		7.32	17.24	.208	-10.1	2.89	.44	8.31	
<p style="font-size: 2em; font-family: cursive;">Sample 1605</p>									

Purge data continued on next sheet?

Signature



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 Zone 2

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: MJ
 Project Location: Anderson, South Carolina Weather: ~500 overcast

2. WELL DATA

Date Measured: 11-4-13 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: 35.46 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: _____ 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: 11-7-13 Time: 0745 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): 2 hrs well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

Equipment Model(s)
 1. 1/2" DRT
 2. MP-50
 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>0750</u>	<u>.1</u>	<u>7.52</u>	<u>16.69</u>	<u>.262</u>	<u>-146.3</u>	<u>.72</u>	<u>7.07</u>	<u>35.72</u>	
<u>0800</u>	<u>.2</u>	<u>7.82</u>	<u>16.61</u>	<u>.261</u>	<u>-189.7</u>	<u>.93</u>	<u>4.31</u>	<u>38.69</u>	
<u>0810</u>	<u>.3</u>	<u>7.85</u>	<u>16.52</u>	<u>.261</u>	<u>-199.3</u>	<u>.43</u>	<u>1.00</u>	<u>39.12</u>	
<u>0820</u>	<u>.4</u>	<u>7.87</u>	<u>16.49</u>	<u>.262</u>	<u>-198.2</u>	<u>.41</u>	<u>.88</u>	<u>40.13</u>	
<u>0830</u>	<u>.5</u>	<u>7.89</u>	<u>16.59</u>	<u>.262</u>	<u>-195.3</u>	<u>.37</u>	<u>.11</u>	<u>42.19</u>	
<u>0840</u>	<u>.6</u>	<u>7.88</u>	<u>16.62</u>	<u>.262</u>	<u>-196.1</u>	<u>.37</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: 13311-MW-41-23 Sample Date: 11-7-13 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.



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 Zone 3

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: MJ
 Project Location: Anderson, South Carolina Weather: _____

2. WELL DATA

Date Measured: 11-4-13 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: 299 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 5.32 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: 11-7-13 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: _____
 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): 2 hrs well volumes or Stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI
2. DRT
3. MP-50
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>0905</u>	<u>.1</u>	<u>7.94</u>	<u>16.76</u>	<u>.382</u>	<u>-242.6</u>	<u>2.71</u>	<u>2.44</u>	<u>7.11</u>	
<u>0915</u>	<u>.2</u>	<u>7.37</u>	<u>16.81</u>	<u>.334</u>	<u>-241.1</u>	<u>.65</u>	<u>1.08</u>	<u>7.13</u>	
<u>0925</u>	<u>.3</u>	<u>7.32</u>	<u>16.75</u>	<u>.323</u>	<u>-232.9</u>	<u>.75</u>	<u>.69</u>	<u>7.15</u>	
<u>0935</u>	<u>.4</u>	<u>7.21</u>	<u>16.73</u>	<u>.319</u>	<u>-230.0</u>	<u>.75</u>	<u>.13</u>	<u>7.79</u>	
<u>0945</u>	<u>.5</u>	<u>7.30</u>	<u>16.88</u>	<u>.314</u>	<u>-224.1</u>	<u>.81</u>	<u>.16</u>	<u>8.01</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: _____ Field Filtered? Yes No
 Sample ID: 13311-MW-41-23 Sample Date: 11-7-13 Sample Time: _____ # 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

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		
0955	.6	7.29	16.92	.312	-220.9	1.21	.60	8.23	
1005	.7	7.28	16.86	.311	-216.9	1.30	.39	8.41	
1015	.8	7.27	16.71	.310	-213.0	1.30	.24	8.59	
1025	.9	7.28	16.66	.310	-207.5	1.40	.13	8.71	
1035	1.1	7.28	16.75	.309	-205.0	1.85	.22	8.71	
1045	1.2	7.23	16.94	.324	-201.9	2.15	.18	8.72	
1055	1.3	7.23	17.12	.321	-196.4	1.50	.29	8.70	
1105	1.4	7.23	17.26	.320	-194.6	1.67	.27	8.71	
<p>Sample 1105</p>									

Purge data continued on next sheet?

[Handwritten Signature]



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW42-21

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200 Area of Concern: _____
 Client: Owens Corning Personnel: VC
 Project Location: Anderson, SC Weather: Sunny

2. WELL DATA

Date Measured: 11/4/13 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: 37.31 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: 91.69 feet Well Volume: 3.76 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-5-13 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
2. DRT
3. MP50
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>1145</u>	<u>0.01</u>	<u>9.58</u>	<u>18.99</u>	<u>0.243</u>	<u>7.0</u>	<u>1.26</u>	<u>3.14</u>	<u>37.28</u>	
<u>1155</u>	<u>0.1</u>	<u>10.54</u>	<u>18.87</u>	<u>0.312</u>	<u>-46.3</u>	<u>0.89</u>	<u>1.23</u>		
<u>1205</u>	<u>0.15</u>	<u>11.04</u>	<u>19.22</u>	<u>6.413</u>	<u>-71.2</u>	<u>1.46</u>	<u>0.88</u>		
<u>1215</u>	<u>0.20</u>	<u>11.17</u>	<u>19.23</u>	<u>0.490</u>	<u>-73.6</u>	<u>1.88</u>	<u>1.98</u>		
<u>1225</u>	<u>0.30</u>	<u>11.21</u>	<u>19.30</u>	<u>0.524</u>	<u>-85.4</u>	<u>2.20</u>	<u>1.27</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: 13309-MW42-21 Sample Date: 11-5-13 Sample Time: 1345 # 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: ~~MW42-71~~
MW42-71

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		
1235	0.40	11.13	19.04	0.493	-79.7	2.67	1.06		
1245	0.50	11.07	19.27	0.450	-69.0	2.83	0.77		
1255	0.6	10.90	19.28	0.342	-60.3	2.97	0.48		
1305	0.7	10.74	19.43	0.336	-53.6	3.07	0.46		
1315	0.75	10.54	19.43	0.305	-45.5	3.1	0.13		
1325	0.8	10.44	19.39	0.288	-42.1	3.14	0.37		
1335	0.9	10.32	19.45	0.273	-38.3	3.18	0.10		
1345	1.0	10.34	19.54	0.273	-38.4	3.22	0.16	36.67	
2 hrs. Sample taken									

Purge data continued on next sheet?

Signature _____



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42-22

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200 Area of Concern: _____
 Client: Owens Corning Personnel: VC
 Project Location: Anderson, SC Weather: Sunny

2. WELL DATA

Date Measured: 11-4-13 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: 222 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 35.51 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: 186.49 feet Well Volume: 7.65 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-5-13 Time: 1415 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
2. DRT
3. Mp 50
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>1420</u>	<u>0.01</u>	<u>7.87</u>	<u>20.10</u>	<u>0.695</u>	<u>-77.6</u>	<u>0.87</u>	<u>1.64</u>	<u>39.72</u>	
<u>1430</u>	<u>0.1</u>	<u>7.66</u>	<u>19.81</u>	<u>0.726</u>	<u>-95.6</u>	<u>0.62</u>	<u>2.02</u>		
<u>1440</u>	<u>0.15</u>	<u>7.64</u>	<u>19.95</u>	<u>0.724</u>	<u>-104.4</u>	<u>0.75</u>	<u>2.05</u>		
<u>1450</u>	<u>0.2</u>	<u>7.64</u>	<u>19.91</u>	<u>0.721</u>	<u>-106.0</u>	<u>0.73</u>	<u>7.13</u>		
<u>1500</u>	<u>0.25</u>	<u>7.66</u>	<u>20.46</u>	<u>0.717</u>	<u>-110.8</u>	<u>0.70</u>	<u>6.67</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: 68.92 Field Filtered? Yes No
 Sample ID: 13304-MW42-22 Sample Date: 11-5-13 Sample Time: 1245 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.



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW42-72

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			
1510		7.64	20.55	0.711	-110.3	0.73	9.10			
1520		7.68	20.81	0.730	-114.4	1.22	6.34			
1530		7.75	21.69	0.728	-114.2	1.14	5.16			
1540		7.74	21.90	0.728	-114.0	1.25	7.02	68.92		
		Sample pH, spec Cond, ORP								

Purge data continued on next sheet?



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW42-23

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200 Area of Concern: _____
 Client: Owens Corning Personnel: VC
 Project Location: Anderson, SC Weather: Sunny

2. WELL DATA

Date Measured: 11-4-13 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: 285 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 35.59 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: 249.41 feet Well Volume: 10.22 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-5-13 Time: 1600 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. VSI
2. DRT
3. MPSO
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>1800</u>	<u>0.01</u>	<u>9.27</u>	<u>18.69</u>	<u>0.320</u>	<u>-116.6</u>	<u>2.00</u>	<u>7.33</u>	<u>38.12</u>	
<u>1810</u>	<u>0.1</u>	<u>8.81</u>	<u>18.09</u>	<u>0.316</u>	<u>-116.4</u>	<u>0.61</u>	<u>7.10</u>		
<u>1820</u>	<u>0.2</u>	<u>8.88</u>	<u>17.97</u>	<u>0.316</u>	<u>-114.0</u>	<u>0.65</u>	<u>5.22</u>		
<u>1830</u>	<u>0.3</u>	<u>8.94</u>	<u>17.89</u>	<u>0.315</u>	<u>-110.1</u>	<u>0.70</u>	<u>6.51</u>		
<u>1840</u>	<u>0.4</u>	<u>8.97</u>	<u>17.76</u>	<u>0.313</u>	<u>-105.7</u>	<u>0.74</u>	<u>7.45</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: 1309-MW42-23 Sample Date: 11-5-13 Sample Time: 1800 # 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: MW4L-23

3. PURGE DATA (continued from page ())

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		
1650		8.97	17.70	0.311	-103.2	0.83	5.70		
1700		8.95	17.68	0.310	-99.4	0.92	6.42		
1710		8.90	17.48	0.310	-94.7	0.95	7.31		
1720		8.77	17.45	0.308	-93.5	0.99	9.80		
1730		8.70	17.38	0.311	-94.4	1.25	7.22		
1740		8.60	16.99	0.311	-89.2	1.14	6.53		
1750		8.47	16.75	0.311	-86.7	1.05	4.48		
1800		8.44	16.77	0.311	-91.9	0.94	2.75		
		2 hrs Samples taken							

Purge data continued on next sheet?

Signature _____



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW43 Z1

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200 Area of Concern: _____
 Client: Owens Corning Personnel: VC
 Project Location: Anderson, SC Weather: Sunny

2. WELL DATA

Date Measured: 11-4-13 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: 8.33 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: 104.17 feet Well Volume: 4.27 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-5-13 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. VSI
2. DRT
3. MP 50
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>0845</u>	<u>0.01</u>	<u>6.40</u>	<u>15.89</u>	<u>0.100</u>	<u>142.1</u>	<u>3.35</u>	<u>7.20</u>	<u>7.31</u>	
<u>0855</u>	<u>0.1</u>	<u>6.54</u>	<u>16.31</u>	<u>0.094</u>	<u>130.1</u>	<u>2.75</u>	<u>4.93</u>	<u>7.46</u>	
<u>0905</u>	<u>0.2</u>	<u>6.55</u>	<u>16.31</u>	<u>0.097</u>	<u>133.4</u>	<u>2.94</u>	<u>3.36</u>	<u>7.29</u>	
<u>0915</u>	<u>0.3</u>	<u>6.64</u>	<u>16.46</u>	<u>0.104</u>	<u>137.3</u>	<u>2.92</u>	<u>2.95</u>	<u>7.38</u>	
<u>0925</u>	<u>0.5</u>	<u>6.64</u>	<u>16.12</u>	<u>0.105</u>	<u>156.9</u>	<u>2.78</u>	<u>3.24</u>	<u>7.30</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: 13309-MW43-Z1 Sample Date: 11-5-13 Sample Time: 1015 # 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 43-Z1

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
0935	0.6	6.67	16.62	0.111	136.6	2.66	5.92	7.49	
0945	0.7	6.74	16.80	0.117	138.1	2.38	7.99	7.29	
0955	0.9	6.79	16.87	0.124	139.5	2.15	8.95	7.45	
1005	1.0	6.80	16.80	0.128	142.6	2.01	8.53	7.39	
1015	1.1	6.84	16.85	0.130	141.2	1.94	8.17	7.48	
SAMPLE, pH, Spec Cond, ORP									

Purge data continued on next sheet?

Signature _____



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 Zone 2

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: MJ
 Project Location: Anderson, South Carolina Weather: 260° Sunny

2. WELL DATA Date Measured: 11-4-13 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: 180 feet From: Top of Well Casing (TOC) Top of Protective Casing
 Depth to Static Water: 4.61 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: 190 feet Well Volume: 175.39 gal Screened Interval (from GS): _____
135.39 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: 11-4 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): 2 hrs well volumes or Stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes

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	0.01	6.72	17.29	0.231	-247.0	3.55	0.53	5.41	
1545	0.10	7.46	17.27	0.223	-284.5	0.68	0.21	5.80	
1555	0.20	7.63	17.19	0.223	-289.5	0.54	0.13	6.18	
1605	0.3	7.67	17.12	0.222	-280.4	0.46	0.16	6.18	
1615	0.4	7.71	17.07	0.222	-279.6	0.53	0.21	6.19	

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: 13308-MW-43-23 Sample Date: 11-4-13 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.

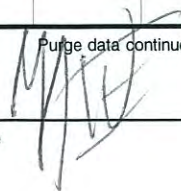
Signature

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 Zone 2

3. PURGE DATA (continued from page <u>1</u>)									
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
1625	0.5	7.76	17.03	0.221	-269.9	0.41	0.15	6.44	
1635	0.6	7.80	17.00	0.221	-266.9	0.37	0.11	6.43	
1645	0.7	7.83	16.97	0.221	-263.3	0.35	0.15	6.47	
Sample 1645. pH, DO, Spec. Cond., ORP									

Purge data continued on next sheet?





GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 Zone 3

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: M
 Project Location: Anderson, South Carolina Weather: Windy Sunny

2. WELL DATA

Date Measured: 11-4-13 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: 302 282 feet From: Top of Well Casing (TOC) Top of Protective Casing
 Depth to Static Water: 3.71 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: 278.3 feet Well Volume: 114 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: 11-5-13 Time: 0825 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): 2 hrs well volumes or Stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes

1. YSC
 2. DRT
 3. MP-50
 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>0830</u>	<u>.1</u>	<u>7.47</u>	<u>15.51</u>	<u>.338</u>	<u>-39.8</u>	<u>.61</u>	<u>.45</u>	<u>5.11</u>	
<u>0840</u>	<u>.2</u>	<u>7.65</u>	<u>14.61</u>	<u>.337</u>	<u>-49.5</u>	<u>.49</u>	<u>.33</u>	<u>5.11</u>	
<u>0850</u>	<u>.3</u>	<u>7.61</u>	<u>14.06</u>	<u>.336</u>	<u>-29.4</u>	<u>.52</u>	<u>.17</u>	<u>5.11</u>	
<u>0900</u>	<u>.4</u>	<u>7.57</u>	<u>13.60</u>	<u>.336</u>	<u>-28.4</u>	<u>.53</u>	<u>1.20</u>	<u>5.23</u>	<u>flms in water</u>
<u>0910</u>	<u>.5</u>	<u>7.51</u>	<u>13.49</u>	<u>.335</u>	<u>-28.5</u>	<u>.61</u>	<u>.90</u>	<u>5.34</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: _____ Field Filtered? Yes No
 Sample ID: 13309-MW-4323 Sample Date: 11-5-13 Sample Time: 0950 # 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.

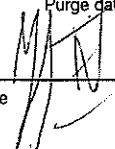


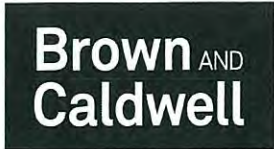
GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 Zone 3

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		
0920	.6	7.50	13.61	.335	-240.3	.58	1.1	5.37	
0930	.7	7.47	13.32	.335	-238.6	.55	.87	5.41	
0940	.8	7.50	13.37	.335	-239.5	.52	.79	5.44	
0950	.9	7.52	13.38	.335	-239.1	.54	.66	5.60	
<p>Sample 0950</p> <p>pH, Spec Cond,</p> <p>DO, ORP</p>									

Purge data continued on next sheet?

Signature 



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-44

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OWENS CORNING Personnel: K. WHETSTONE (KMK)
 Project Location: ANDERSON, SC Weather: 50°F, OVERCAST

2. WELL DATA

Date Measured: _____ Time: _____ 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: 300 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 11.70 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: 288.30 feet Well Volume: 47.0 gal Screened Interval (from GS): 280-300
Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/06/13 Time: 0808 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. HF DRT-15CE
3. SOLINST WL METER
4. GEO TECH + GEO SUB

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		
0810	0	9.07	15.97	0.216	83.1	1.30	3.87	12.02	CLEAR
0820	2.5	9.53	16.28	0.216	-5.8	0.22	2.91	12.31	
0830	5.0	9.56	16.36	0.216	-34.4	0.16	2.24	12.52	
0840	7.5	9.56	16.39	0.216	-49.8	0.14	2.01	12.65	
0850	10.0	9.55	16.42	0.216	-61.8	0.13	1.88	12.77	

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: 13310-MW-44 Sample Date: 11/06/13 Sample Time: 0955 # 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

HAD TO PURGE AND SAMPLE FROM DEPTH OF 245' DUE TO LIMITED PUMP LEAD LENGTH.

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

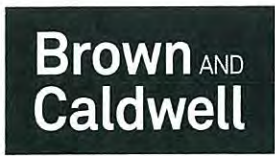


GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-44

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		
0900	12.5	9.54	16.42	0.216	-69.9	0.12	1.80	12.88	
0910	15.0	9.60	16.45	0.220	-95.9	0.11	1.64	13.01	
0920	17.5	9.64	16.51	0.220	-112.2	0.09	1.57	13.11	
0930	20.0	9.63	16.50	0.217	-120.4	0.10	1.59	13.16	
0940	22.5	9.62	16.46	0.216	-122.0	0.10	1.55	13.17	
0950	25.0	9.61	16.47	0.214	-124.3	0.09	1.49	13.19	

Purge data continued on next sheet?



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: TW-40

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OWENS CORNING Personnel: K. KHETSTONE (KMN)
 Project Location: ANDERSON, SC Weather: 60°F, OVERCAST CLEAR & SUNNY

2. WELL DATA

Date Measured: _____ Time: _____ 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: 17.40 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: 56.6 feet Well Volume: 9.23 gal Screened Interval (from GS): 64-74
Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/06/13 Time: 1250 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 9.23 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		
1251		12.77	18.28	4.396	-48.3	6.54	3.42	18.81	CLEAR
1301		12.82	18.67	4.334	-68.6	5.41	3.64	20.03	
1311		12.67	19.10	4.380	-53.3	6.11	3.51	23.20	
1321		12.81	19.00	4.377	-62.4	6.28	2.73	26.41	
1331		12.84	20.35	4.359	-61.6	5.83	2.82	26.69	

Purge data continued on next sheet?

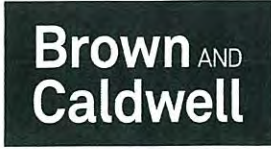
4. SAMPLING DATA

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: 13310-TW-40 Sample Date: 11/06/13 Sample Time: 1345 # 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 CANNOT GET LOCK TO CLOSE

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



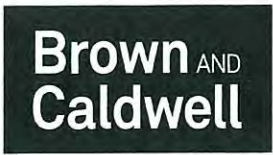
GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: TW-40

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		
1341		12.85	20.21	4.365	-57.5	5.95	2.79	26.70	

Purge data continued on next sheet?

2.02



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: TW-41

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OWENS CORNING Personnel: K. KHETSTONE (KMW)
 Project Location: ANDERSON, SC Weather: 50°F, OVERCAST

2. WELL DATA

Date Measured: _____ Time: _____ 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: 16.24 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: 39.06 feet Well Volume: 6.37 gal Screened Interval (from GS): 50.3-55.3
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/06/13 Time: 1120 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 6.37 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI 556 MFS
2. HF DRT-15 CE
3. SOLINST WL METER
4. GEO TECH + GEO SUB

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
1121	0	8.17	19.27	0.438	25.9	5.47	0.12	16.02	CLEAR
1131	1.0	7.88	19.43	0.440	48.0	4.70	0.17	21.39	
1141	2.0	8.03	20.27	0.440	45.4	4.16	0.15	24.69	
1151	3.0	8.04	20.38	0.442	50.8	4.90	0.11	25.27	
1201	4.0	7.96	20.59	0.440	62.3	3.96	0.12	28.31	

Purge data continued on next sheet?

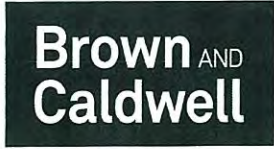
4. SAMPLING DATA

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: 13310-TW-41 Sample Date: 11/06/13 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

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: TK-41

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		
1211	5.25	7.98	20.66	0.441	69.0	4.30	0.14	31.22	
1221	6.25	8.03	20.72	0.441	67.5	4.25	0.09	32.25	

Purge data continued on next sheet?



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: ~~MW-15~~ TW-42

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: MM
 Project Location: Anderson, South Carolina Weather: ~600 Sunny

2. WELL DATA

Date Measured: 11-4-13 Time: Am Temporary Well: Yes No

Casing Diameter: 2' inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 1/2 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: 15.67 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: 10.33 feet Well Volume: 42 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: 11-6-13 Time: 0700 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): 2 hrs well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

Equipment Model(s)
 1. YSI
 2. DRT
 3. MP-50
 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>0745</u>	<u>.1</u>	<u>4.96</u>	<u>16.89</u>	<u>0.050</u>	<u>150.7</u>	<u>7.42</u>	<u>135</u>	<u>18.41</u>	
<u>0755</u>	<u>.15</u>	<u>4.95</u>	<u>17.25</u>	<u>.045</u>	<u>151.6</u>	<u>6.45</u>	<u>126</u>	<u>18.41</u>	
<u>0805</u>	<u>.2</u>	<u>4.96</u>	<u>17.19</u>	<u>.044</u>	<u>154.4</u>	<u>6.34</u>	<u>139</u>	<u>18.41</u>	
<u>0815</u>	<u>.25</u>	<u>4.95</u>	<u>17.24</u>	<u>.044</u>	<u>157.6</u>	<u>6.23</u>	<u>78.6</u>	<u>18.78</u>	
<u>0825</u>	<u>.3</u>	<u>4.95</u>	<u>17.16</u>	<u>.044</u>	<u>159.9</u>	<u>6.24</u>	<u>32.3</u>	<u>18.81</u>	
<u>0835</u>	<u>.35</u>	<u>4.95</u>	<u>17.19</u>	<u>.044</u>	<u>154.6</u>	<u>6.25</u>	<u>8.79</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: 13310-TW-42 Sample Date: 11-6-13 Sample Time: 0835 # 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-22 TW-43

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: MJ
 Project Location: Anderson, South Carolina Weather: 6:00 Sunny

2. WELL DATA

Date Measured: 11-6-13 Time: Am Temporary Well: Yes No

Casing Diameter: 8 1/2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 8 1/2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 116.18.6 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 15.56 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: _____ 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: 11-6-13 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): 2 hrs well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

Equipment Model(s)
 1. YSI
 2. DRT
 3. MP-50
 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>0855</u>	<u>.05</u>	<u>5.22</u>	<u>18.74</u>	<u>.008</u>	<u>158.0</u>	<u>9.36</u>	<u>76.3</u>	<u>17.61</u>	
<u>0905</u>	<u>.10</u>	<u>5.13</u>	<u>19.06</u>	<u>.029</u>	<u>154.8</u>	<u>9.51</u>	<u>54.2</u>	<u>17.83</u>	
<u>0915</u>	<u>.13</u>	<u>5.04</u>	<u>18.62</u>	<u>.024</u>	<u>160.7</u>	<u>9.61</u>	<u>32.1</u>	<u>17.91</u>	
<u>0925</u>	<u>.16</u>	<u>5.05</u>	<u>18.60</u>	<u>.024</u>	<u>162.1</u>	<u>9.56</u>	<u>31.9</u>	<u>17.91</u>	
<u>0935</u>	<u>.19</u>	<u>5.05</u>	<u>18.70</u>	<u>.024</u>	<u>165.0</u>	<u>9.52</u>	<u>39.3</u>	<u>17.91</u>	

Purge data continued on next sheet?

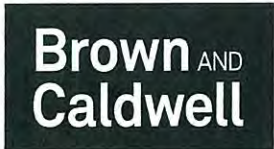
4. SAMPLING DATA

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: 13310-TW-43 Sample Date: 11-6-13 Sample Time: 0935 # 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: TW-44

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OWENS CORNING Personnel: K. KHETSTONE (KNW)
 Project Location: ANDERSON, SC Weather: 70°F, SUNNY & CLEAR

2. WELL DATA

Date Measured: _____ Time: _____ 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: 11.61 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: 62.39 feet Well Volume: 10.17 gal Screened Interval (from GS): 64-74
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/06/13 Time: 1508 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 10.17 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

- YSI 556 MPS
- HF DRT-15CE
- SOLINST W/L METER
- GEO TECH + GEO SUB

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
1509	0	8.68	18.09	0.069	84.8	6.42	7.68	14.47	CLEAR
1519	2.5	5.70	18.12	0.068	170.5	6.08	50.2	15.71	CLOUDY
1529	5.25	5.64	18.05	0.068	162.5	6.02	45.5	15.70	"
1539	8.00	5.67	18.09	0.069	157.6	6.07	34.3	15.68	"
1549	10.5	5.66	18.03	0.068	164.1	6.06	33.7	15.70	"

Purge data continued on next sheet?

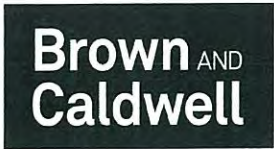
4. SAMPLING DATA

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: _____ Field Filtered? Yes No
 Sample ID: 13310-TW-44 Sample Date: 11/06/13 Sample Time: 1630 # 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.



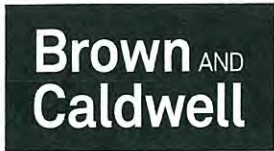
GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: TW-44

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		
1559	12.5	5.74	18.00	0.069	163.0	6.02	53.6	15.69	CLOUDY
1609	14.5	5.77	18.01	0.069	164.6	6.04	62.7	15.69	"
1619	16.75	5.74	18.01	0.069	167.3	6.02	48.6	15.70	"
1629	19.25	5.79	18.00	0.069	168.7	6.03	43.8	15.70	

Purge data continued on next sheet?



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: TW-46

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OWENS CORNING Personnel: K. KHETSTONE (KMW)
 Project Location: ANDERSON, SC Weather: 50°F, RAIN

2. WELL DATA

Date Measured: _____ Time: _____ 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: 25.33 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: 62.97 feet Well Volume: 10.26 gal Screened Interval (from GS): 83.3 - 88.3
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/07/13 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 10.26 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI 556 MPS
2. HF DRT-15CE
3. SOLINST WLL METER
4. GEO TECH + GEO SUB

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		
0817	0	9.70	18.85	0.404	188.3	1.26	6.07	24.28	CLEAR
0827	1.0	10.65	18.09	0.398	151.5	0.94	3.50	24.82	"
0837	2.0	9.84	19.69	0.344	60.6	0.44	73.5	26.23	CLOUDY
0847	3.0	10.29	19.84	0.346	27.3	0.34	26.2	29.03	MOSTLY CLEAR
0857	4.0	10.42	19.75	0.348	18.8	0.39	13.36	29.21	CLEAR

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: 13311-TW-46 Sample Date: 11/07/13 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.

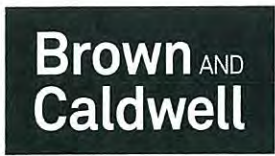
WELL ID: TW-46

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		
0907	5.0	10.39	19.79	0.348	24.2	0.53	9.87	29.39	
0917	6.5	10.26	20.33	0.325	19.2	0.40	6.94	31.82	
0927	7.75	10.17	20.56	0.323	40.8	0.34	3.61	32.08	
0937	9.0	10.02	20.24	0.320	52.8	0.38	2.60	33.27	
0947	10.5	9.93	20.44	0.316	53.2	0.39	2.21	33.46	
0957	11.75	9.83	20.17	0.313	59.0	0.44	3.43	34.12	
1007	13.25	9.64	20.36	0.307	67.0	0.36	1.94	36.24	
1017	14.75	9.47	20.60	0.312	70.7	0.35	1.96	38.75	

A PUMP →
SPEED

Purge data continued on next sheet?



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: TW-40

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OWENS CORNING Personnel: K. KHETSTONE (KMN)
 Project Location: ANDERSON, SC Weather: 60°F, OVERCAST CLEAR & SUNNY

2. WELL DATA

Date Measured: _____ Time: _____ 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: 17.40 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: 56.6 feet Well Volume: 9.23 gal Screened Interval (from GS): 64-74

Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/06/13 Time: 1250 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 9.23 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI 556 MPS
2. HF DRT-15CE
3. SOLINST WL METER
4. GEO TECH + GEO SUB

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>1251</u>		<u>12.77</u>	<u>18.28</u>	<u>4.396</u>	<u>-48.3</u>	<u>6.54</u>	<u>3.42</u>	<u>18.81</u>	<u>CLEAR</u>
<u>1301</u>		<u>12.82</u>	<u>18.67</u>	<u>4.334</u>	<u>-68.6</u>	<u>5.41</u>	<u>3.64</u>	<u>20.03</u>	
<u>1311</u>		<u>12.67</u>	<u>19.10</u>	<u>4.380</u>	<u>-53.3</u>	<u>6.11</u>	<u>3.51</u>	<u>23.20</u>	
<u>1321</u>		<u>12.81</u>	<u>19.00</u>	<u>4.377</u>	<u>-62.4</u>	<u>6.28</u>	<u>2.73</u>	<u>26.41</u>	
<u>1331</u>		<u>12.84</u>	<u>20.35</u>	<u>4.359</u>	<u>-61.6</u>	<u>5.83</u>	<u>2.82</u>	<u>26.69</u>	

Purge data continued on next sheet?

4. SAMPLING DATA

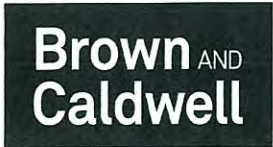
Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13310-TW-40 Sample Date: 11/06/13 Sample Time: 1345 # 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

CANNOT GET LOCK TO CLOSE

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

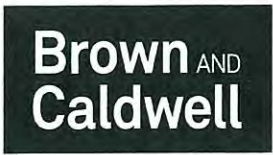
WELL ID: TW-40

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		
1341		12.85	20.21	4.365	-57.5	5.95	2.79	26.70	

Purge data continued on next sheet?

2.82

Signature



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: TW-41

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OWENS CORNING Personnel: K. KHETSTONE (KMW)
 Project Location: ANDERSON, SC Weather: 50°F, OVERCAST

2. WELL DATA

Date Measured: _____ Time: _____ 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: 16.24 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: 39.06 feet Well Volume: 6.37 gal Screened Interval (from GS): 50.3-55.3
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/06/13 Time: 1120 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 6.37 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI 556 MFS
2. HF DRT-15 CE
3. SOLINST WL METER
4. GEO TECH + GEO SUB

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
1121	0	8.17	19.27	0.438	25.9	5.47	0.12	16.02	CLEAR
1131	1.0	7.88	19.43	0.440	48.0	4.70	0.17	21.39	
1141	2.0	8.03	20.27	0.440	45.4	4.16	0.15	24.69	
1151	3.0	8.04	20.38	0.442	50.8	4.90	0.11	25.27	
1201	4.0	7.96	20.59	0.440	62.3	3.96	0.12	28.31	

Purge data continued on next sheet?

4. SAMPLING DATA

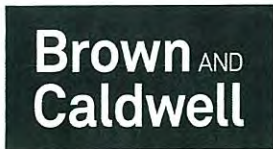
Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13310-TW-41 Sample Date: 11/06/13 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

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: TK-41

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		
1211	5.25	7.98	20.66	0.441	69.0	4.30	0.14	31.22	
1221	6.25	8.03	20.72	0.441	67.5	4.25	0.09	32.25	

Purge data continued on next sheet?

2 of 2



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: ~~MW-15~~ TW-42

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: MM
 Project Location: Anderson, South Carolina Weather: ~600 Sunny

2. WELL DATA

Date Measured: 11-4-13 Time: Am Temporary Well: Yes No

Casing Diameter: 2' inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 1/2 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: 15.67 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: 10.33 feet Well Volume: 42 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: 11-6-13 Time: 070 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): 2 hrs well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

Equipment Model(s)
 1. YSI
 2. DRT
 3. MP-50
 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		
0745	.1	4.96	16.89	0.050	150.7	7.42	135	18.41	
0755	.15	4.95	17.25	.045	151.6	6.45	126	18.41	
0805	.2	4.96	17.19	.044	154.4	6.34	139	18.41	
0815	.25	4.95	17.24	.044	157.6	6.23	78.6	18.78	
0825	.3	4.95	17.16	.044	159.9	6.24	32.3	18.81	
0835	.35	4.95	17.19	.044	154.6	6.25	8.79		

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: _____ Field Filtered? Yes No
 Sample ID: 13310-TW-42 Sample Date: 11-6-13 Sample Time: 0835 # 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 MAH

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-22 TW-43

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: MJ
 Project Location: Anderson, South Carolina Weather: 6:00 Sunny

2. WELL DATA

Date Measured: 11-6-13 Time: Am Temporary Well: Yes No

Casing Diameter: 8 1/2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 8 1/2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 116.18.6 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 15.56 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: _____ 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: 11-6-13 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): 2 hrs well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

Equipment Model(s)
 1. YSI
 2. DRT
 3. MP-50
 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>0855</u>	<u>.05</u>	<u>5.22</u>	<u>18.74</u>	<u>.008</u>	<u>158.0</u>	<u>9.36</u>	<u>76.3</u>	<u>17.61</u>	
<u>0905</u>	<u>.10</u>	<u>5.13</u>	<u>19.06</u>	<u>.029</u>	<u>154.8</u>	<u>9.51</u>	<u>54.2</u>	<u>17.83</u>	
<u>0915</u>	<u>.13</u>	<u>5.04</u>	<u>18.62</u>	<u>.024</u>	<u>160.7</u>	<u>9.61</u>	<u>32.1</u>	<u>17.91</u>	
<u>0925</u>	<u>.16</u>	<u>5.05</u>	<u>18.60</u>	<u>.024</u>	<u>162.1</u>	<u>9.56</u>	<u>31.9</u>	<u>17.91</u>	
<u>0935</u>	<u>.19</u>	<u>5.05</u>	<u>18.70</u>	<u>.024</u>	<u>165.0</u>	<u>9.52</u>	<u>39.3</u>	<u>17.91</u>	

Purge data continued on next sheet?

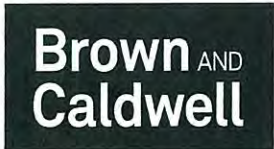
4. SAMPLING DATA

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: 13310-TW-43 Sample Date: 11-6-13 Sample Time: 0935 # 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: TW-44

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OWENS CORNING Personnel: K. KHETSTONE (KNW)
 Project Location: ANDERSON, SC Weather: 70°F, SUNNY & CLEAR

2. WELL DATA

Date Measured: _____ Time: _____ 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: 11.61 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: 62.39 feet Well Volume: 10.17 gal Screened Interval (from GS): 64-74
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/06/13 Time: 1508 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 10.17 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI 556 MPS
2. HF DRT-15CE
3. SOLINST W/L METER
4. GEO TECH + GEO SUB

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		
1509	0	8.68	18.09	0.069	84.8	6.42	7.68	14.47	CLEAR
1519	2.5	5.70	18.12	0.068	170.5	6.08	50.2	15.71	CLOUDY
1529	5.25	5.64	18.05	0.068	162.5	6.02	45.5	15.70	"
1539	8.00	5.67	18.09	0.069	157.6	6.07	34.3	15.68	"
1549	10.5	5.66	18.03	0.068	164.1	6.06	33.7	15.70	"

Purge data continued on next sheet?

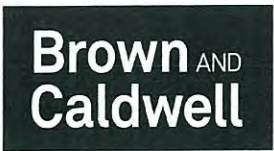
4. SAMPLING DATA

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: _____ Field Filtered? Yes No
 Sample ID: 13310-TW-44 Sample Date: 11/06/13 Sample Time: 1630 # 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.



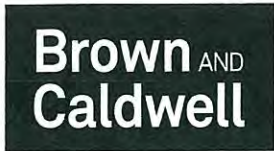
GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: TW-44

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		
1559	12.5	5.74	18.00	0.069	163.0	6.02	53.6	15.69	CLOUDY
1609	14.5	5.77	18.01	0.069	164.6	6.04	62.7	15.69	"
1619	16.75	5.74	18.01	0.069	167.3	6.02	48.6	15.70	"
1629	19.25	5.79	18.00	0.069	168.7	6.03	43.8	15.70	

Purge data continued on next sheet?



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: TW-46

1. PROJECT INFORMATION

Project Number: 143825 Task Number: _____ Area of Concern: _____
 Client: OWENS CORNING Personnel: K. KHETSTONE (KMW)
 Project Location: ANDERSON, SC Weather: 50°F, RAIN

2. WELL DATA

Date Measured: _____ Time: _____ 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: 25.33 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: 62.97 feet Well Volume: 10.26 gal Screened Interval (from GS): 83.3 - 88.3
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/07/13 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 10.26 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI 556 MPS
2. HF DRT-15CE
3. SOLINST WLL METER
4. GEO TECH + GEO SUB

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
0817	0	9.70	18.85	0.404	188.3	1.26	6.07	24.28	CLEAR
0827	1.0	10.65	18.09	0.398	151.5	0.94	3.50	24.82	"
0837	2.0	9.84	19.69	0.344	60.6	0.44	73.5	26.23	CLOUDY
0847	3.0	10.29	19.84	0.346	27.3	0.34	26.2	29.03	MOSTLY CLEAR
0857	4.0	10.42	19.75	0.348	18.8	0.39	13.36	29.21	CLEAR

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: 13311-TW-46 Sample Date: 11/07/13 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.



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: TW-46

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		
0907	5.0	10.39	19.79	0.348	24.2	0.53	9.87	29.39	
0917	6.5	10.26	20.33	0.325	19.2	0.40	6.94	31.82	
0927	7.75	10.17	20.56	0.323	40.8	0.34	3.61	32.08	
0937	9.0	10.02	20.24	0.320	52.8	0.38	2.60	33.27	
0947	10.5	9.93	20.44	0.316	53.2	0.39	2.21	33.46	
0957	11.75	9.83	20.17	0.313	59.0	0.44	3.43	34.12	
1007	13.25	9.64	20.36	0.307	67.0	0.36	1.94	36.24	
1017	14.75	9.47	20.60	0.312	70.7	0.35	1.96	38.75	

A PUMP SPEED →

Purge data continued on next sheet?

2 of 2



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 408 Clinkeholes RJ

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: _____ Personnel: JN, GS
 Project Location: _____ 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 = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/5/13 Time: 1555 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
1555	5	5.84	17.22	0.047	79.4	9.35	0.03	—	

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: 1309-408-Clinkeholes-RJ Sample Date: 11/5/13 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

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

WELL ID: 115 Elrod rd

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: _____ Personnel: SN, GS
 Project Location: _____ Weather: SUNNY

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 = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/5/13 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>5</u>								
<u>Out of Service</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: _____ 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

Out of Service

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: ~~134 Friendship Ln~~
605 Clinkscals RD

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
Client: OC Personnel: JN, GS
Project Location: Amherst, SC Weather: Sunny 60°

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 = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/5/13 Time: 1544 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>1544</u>	<u>5</u>	<u>6.59</u>	<u>13.44</u>	<u>0.192</u>	<u>-18.7</u>	<u>4.90</u>	<u>2.5</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: 13309-605 Clinkscals RD Sample Date: 11/5/13 Sample Time: 1544 # 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 Friendship In.

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: OC Personnel: J.N. GS
 Project Location: Anderson, SC Weather: Sunny, 60°

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 = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/5/13 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: _____ 1. YSI
 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	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>1530</u>	<u>5</u>	<u>6.11</u>	<u>13.40</u>	<u>0.142</u>	<u>14.6</u>	<u>5.58</u>	<u>0.08</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
13309-200 Friendship In.
 Sample ID: _____ Sample Date: 11/5/13 Sample Time: 1530 # 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: 721 Clinkscales Rd

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: _____ Personnel: SN, OS
 Project Location: _____ Weather: Sunny 60

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 = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/5/13 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

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		
1605	5	5.22	17.37	0.063	188.8	9.71	0.7	8.5	

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: 13309-721 Clinkscales Rd Sample Date: 11/5/13 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

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
MW-35

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx 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: 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: 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: _____ 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
2. DEF
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>0800</u>	<u>5</u>	<u>6.36</u>	<u>14.65</u>	<u>.089</u>	<u>128.2</u>	<u>4.67</u>	<u>5.01</u>	<u>-</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: 13312-628-Airline Sample Date: 11-8-11 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: 412 Kaye Drive

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JN, GS
 Project Location: Andersch Weather: 60°

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 = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/5/13 Time: 1725 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	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>1725</u>	<u>5</u>	<u>6.11</u>	<u>17.48</u>	<u>0.044</u>	<u>210.7</u>	<u>0.141</u>	<u>0.33</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: 13301-412 Kaye Drive Sample Date: 11/5/13 Sample Time: 1725 # 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: 335 Elros Rd

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: OC Personnel: GS, JN
 Project Location: Anderson, SC Weather: Sunny 60

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 = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/5/13 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	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>5</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: 1309-335 Elros Rd Sample Date: 11/5/13 Sample Time: _____ # 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: 117 Faye Drive

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: DC Personnel: JN, GS
 Project Location: Anderson 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 = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/5/13 Time: 1715 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	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		
1715	5	7.26	15.74	0300	111.4	8.22	0.49	0.49	

Purge data continued on next sheet?

4. SAMPLING DATA

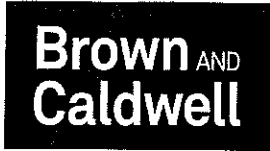
Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13301-117 Faye Drive Sample Date: 11/5/13 Sample Time: 1715 # 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: 311 Kaye Drive

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: _____ Personnel: JN
 Project Location: _____ 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 = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA Date Purged: _____ Time: _____ Equipment Model(s): _____

Purge Method: Bailor, 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: _____
 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	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		

Inaccessible

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/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

Inaccessible

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

WELL ID: 303 Kaye Drive

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: _____ Personnel: JW, CS
 Project Location: _____ Weather: Sunny

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 = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/5/13 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	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>1705</u>	<u>5</u>	<u>5.67</u>	<u>17.48</u>	<u>0.125</u>	<u>164.8</u>	<u>9.95</u>	<u>0.7</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: 13309-303 Kaye Drive Sample Date: 11/5/13 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: _____ 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 Kaye Drive

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JW CS
 Project Location: Anderson, SC Weather: Sunny

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 = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/5/13 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: _____
 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
1655	5	6.12	16.78	0.091	154.2	9.82	0.3		

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: 13309 - 200 Kaye Drive Sample Date: 11/5/13 Sample Time: 1655 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # 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.

WELL ID: 1303 Clinkscale rd

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: _____ Personnel: JV, GS
 Project Location: _____ Weather: Sunny

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 = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/5/13 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	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>1640</u>	<u>5</u>	<u>6.20</u>	<u>17.07</u>	<u>0.059</u>	<u>159.2</u>	<u>9.62</u>	<u>0.02</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
13309-1303 Clinkscale rd
 Sample ID: _____ Sample Date: 11/5/13 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.

WELL ID: 119 cloverhill Dr

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: DC Personnel: JN, GS
 Project Location: Anderson, SC 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 = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/5/13 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
1625	5	4.85	16.02	2041	209.8	9.98	0.05	-	

Purge data continued on next sheet?

4. SAMPLING DATA

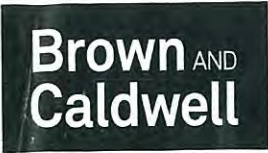
Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13309-119 cloverhill Dr Sample Date: 11/5/13 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

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: _____

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: _____ Personnel: _____
 Project Location: _____ 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 = 0.163 gal/ft 4-in well = 0.653 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: _____
 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		
SW-13		7.28	16.96	.292	-1.8	8.22	23		1310 sample
SW-14		7.84	17.00	.299	46.1	7.84	26		1315 sample
SW-11		6.84	17.29	.377	48.3	7.66	52.21		1320 "
SW-12		6.66	16.73	.403	56.1	6.51	16		1345 "
SW-1		6.89	17.02	.268	42.8	7.35	19		1410
SW-15		6.73	16.94	.283	59.3	5.62	15		1420

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

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 SW

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		
Sw-6		6.77	16.87	190	42.6	3.97	10.1		1420
SW-10		7.07	17.17	255	56.6	8.50	14		1435
SW-3A		7.68	13.54	450	85.1	9.12	17		0900
SW-3		7.67	13.51	450	73.0	9.95	15		0910
SW-3B		7.71	13.52	448	54.8	9.07	39		0920

Purge data continued on next sheet?

Signature _____

Appendix B: Laboratory Analytical Reports





September 19, 2013

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: 1308P53

Analytical Environmental Services, Inc. received 34 samples on 8/29/2013 2:35:00 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:

- NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/13-06/30/14.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/15.

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.

Tara Esbeck
Project Manager



ANALYTICAL ENVIRONMENTAL SERVICES, INC
 3785 Presidential Parkway, Atlanta GA 30340-3704
 TEL: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: **130853**

Date: **8-24-13** Page **1** of **3**

#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)	ANALYSIS REQUESTED		REMARKS	No # of Containers
							PRECIPITATION (See codes)	RESIDUALS (See codes)		
1	13239-MW-15	8-27-13	1030	X		GW				
2	13239-MW-22	8-27-13	0920							
3	13239-MW-29B-Z3	8-27-13	1630							
4	13239-MW-29B-Z4	8-27-13	1700							
5	13239-Dup	8-27-13	1200							
6	13238-MW-35	8-28-13	1610							
7	13239-MW-36 Z1	8-27-13	1450							
8	13239-MW-36 Z3	8-27-13	1500							
9	13239-MW-36 Z5	8-27-13	1505							
10	13240-MW-37-Zone 1	8-28-13	1010							
11	13240-MW-37 Zone 2	8-28-13	1145							
12	13240-MW-37 Zone 3	8-28-13	1300							
13	13240-MW-38 Zone 1	8-28-13	1630							
14	13241-MW-38 Zone 2	8-29-13	0125							

ADDRESS: **990 Hammond Dr.
 Ste. 400
 Atlanta, GA 30328**

COMPANY: **Brown & Caldwell**

PHONE: **404-525-4000**

SIGNATURE: *[Signature]*

SAMPLED BY: **George Scola & Juan Nunez**

RECEIVED BY: *[Signature]* DATE/TIME: **8/29/13 2:35**

REQUISITION BY: *[Signature]* DATE/TIME: **8-24-13 1435**

PROJECT NAME: **Owens-Corning**

SPECIAL INSTRUCTIONS/COMMENTS:
See Owens-Corning furnished list of VOCs

PROJECT ADDRESS: **Bensman@brownca.com**

SHIPMENT METHOD:
 OUT: **UPS MAIL COURIER**
 IN: **UPS MAIL COURIER**

STATE PROGRAM (if any):
 E-mail? Y N; Fax? Y N
 DATA PACKAGE: I II III IV

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+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: 1308053

Date: 8-29-13 Page 2 of 3

#	SAMPLE ID	DATE	TIME	SAMPLING			DATE/TIME RECEIVED BY	DATE/TIME	ANALYSIS REQUESTED	PRESERVATION (See codes)	REMARKS	No # of Containers		
				DATE	TIME	Grab							Composite	Matrix
1	13239-MW-39 Zone 1	8-27-13	1300	X			AW	8/29/13 2:35	Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.					
2	13239-MW-39 Zone 2	8-27-13	1430											
3	13239-MW-39 Zone 3	8-27-13	1650											
4	13241-MW-41 Zone 1	8-29-13	1045											
5	13241-MW-41 Zone 2	8-29-13	1230											
6	13240-MW-41 Z 3	8-28-13	1805											
7	13240-Due	8-28-13	1200											
8	13239-MW-42-Zone 1	8-27-13	1030											
9	13239-FB	8-27-13	1100											
10	13238-MW-42-Zone 2	8-26-13	1605											
11	13238-FB	8-26-13	1645											
12	13238-MW-42-Zone 3	8-26-13	1310											
13	13240-MW-43 Z1	8-28-13	1515											
14	13240-FB	8-28-13	1525											
RELINQUISHED BY: AW		DATE/TIME: 8-29-13 1435		RECEIVED BY: AW		DATE/TIME: 8/29/13 2:35		PROJECT NAME: Owens-Corning					RECEIPT	
SPECIAL INSTRUCTIONS/COMMENTS: See Owens-Corning Focus list		SHIPMENT METHOD: OUT / / VIA: IN <input checked="" type="checkbox"/> CLIENT FedEx UPS MAIL COURIER GREYHOUND OTHER		PROJECT #:		SITE ADDRESS:		SEND REPORT TO: Berryman@brwncl.com					INVOICE TO: (IF DIFFERENT FROM ABOVE)	
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 type="checkbox"/> III <input type="checkbox"/> IV		Total # of Containers					Turnaround Time Request: Standard 5 Business Days 2 Business Day Rush Next Business Day Rush Same Day Rush (auth req) Other	
QUOTE #:		PO#:		PROJECT INFORMATION					Turnaround Time Request: Standard 5 Business Days 2 Business Day Rush Next Business Day Rush Same Day Rush (auth req) Other					

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+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/N+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

CHAIN OF CUSTODY

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
 3785 Presidential Parkway, Atlanta GA 30340-3704
 TEL: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

#	SAMPLE ID	SIGNED BY: George Akala & Juan Nunez	ADDRESS: 990 Hammond Dr, Ste 400 Atlanta, GA 30388	PHONE: FAX:	DATE	TIME	PRESERVATION (See codes)			REMARKS	No # of Containers
							Grab	Composite	Matrix (See codes)		
1	13240-MW-43-22				8-28-13	1250	X		GW		
2	13240-MW-43-23				8-28-13	1025	X		GW		
3	13238-MW-44				8-26-13	1445	X		GW		
4	Trip Blank				-	-	X		W		
5	Trip Blank				-	-	X		W		
6	13241-EB				8-29-13	0950	X		W		
7											
8											
9											
10											
11											
12											
13											
14											

RELINQUISHED BY: <i>[Signature]</i>	DATE/TIME: 8-29-13 1435
RECEIVED BY: <i>[Signature]</i>	DATE/TIME: 8/29/13 2:35

PROJECT NAME: Owens-Corning	PROJECT #:	SITE ADDRESS:
SEND REPORT TO: TERRY MANN @ BSWINGAIC.COM	INVOICE TO: (IF DIFFERENT FROM ABOVE)	PO#:

STATE PROGRAM (if any):	E-mail? <input checked="" type="checkbox"/> / N	Fax? Y / N
DATA PACKAGE: I <input checked="" type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/>		

Turnaround Time Request	<input checked="" type="checkbox"/>
Standard 5 Business Days	<input type="checkbox"/>
2 Business Day Rush	<input type="checkbox"/>
Next Business Day Rush	<input type="checkbox"/>
Same Day Rush (auth req.)	<input type="checkbox"/>
Other	<input type="checkbox"/>

RECEIPT	Total # of Containers
---------	-----------------------

Client: BROWN AND CALDWELL
Project: Owens Corning
Lab ID: 1308P53

Case Narrative

Volatile Organic Compounds Analysis by Method 8260B:

Methylene chloride & Naphthalene were detected in Method Blank 180664 at 7.41ug/mL & 5.36ug/mL respectively which were above reporting limit of 5.0ug/mL resulting in "B" qualified data for all samples with final Reporting Limits less than the value detected in the Method Blank. Associated sample values were less than reporting limit and data is reportable with high bias.

[

Client: BROWN AND CALDWELL	Client Sample ID: 13239-MW-15
Project Name: Owens Corning	Collection Date: 8/27/2013 10:30:00 AM
Lab ID: 1308P53-001	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180613	1	09/03/2013 15:50	GK
1,1-Dichloroethene	140	5.0		ug/L	180613	1	09/03/2013 15:50	GK
Methylene chloride	BRL	5.0		ug/L	180613	1	09/03/2013 15:50	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 15:50	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180613	1	09/03/2013 15:50	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 15:50	GK
Chloroform	BRL	5.0		ug/L	180613	1	09/03/2013 15:50	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180613	1	09/03/2013 15:50	GK
Carbon tetrachloride	BRL	5.0		ug/L	180613	1	09/03/2013 15:50	GK
Benzene	BRL	5.0		ug/L	180613	1	09/03/2013 15:50	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180613	1	09/03/2013 15:50	GK
Trichloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 15:50	GK
Toluene	BRL	5.0		ug/L	180613	1	09/03/2013 15:50	GK
Tetrachloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 15:50	GK
Ethylbenzene	BRL	5.0		ug/L	180613	1	09/03/2013 15:50	GK
Xylenes, Total	BRL	5.0		ug/L	180613	1	09/03/2013 15:50	GK
Surr: 4-Bromofluorobenzene	99.1	64.6-123		%REC	180613	1	09/03/2013 15:50	GK
Surr: Dibromofluoromethane	95	76.6-133		%REC	180613	1	09/03/2013 15:50	GK
Surr: Toluene-d8	99.8	77.8-120		%REC	180613	1	09/03/2013 15:50	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13239-MW-22
Project Name: Owens Corning	Collection Date: 8/27/2013 9:20:00 AM
Lab ID: 1308P53-002	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180613	1	09/03/2013 19:29	GK
1,1-Dichloroethene	350	50		ug/L	180613	10	09/04/2013 15:26	GK
Methylene chloride	BRL	5.0		ug/L	180613	1	09/03/2013 19:29	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 19:29	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180613	1	09/03/2013 19:29	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 19:29	GK
Chloroform	9.6	5.0		ug/L	180613	1	09/03/2013 19:29	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180613	1	09/03/2013 19:29	GK
Carbon tetrachloride	17	5.0		ug/L	180613	1	09/03/2013 19:29	GK
Benzene	BRL	5.0		ug/L	180613	1	09/03/2013 19:29	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180613	1	09/03/2013 19:29	GK
Trichloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 19:29	GK
Toluene	BRL	5.0		ug/L	180613	1	09/03/2013 19:29	GK
Tetrachloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 19:29	GK
Ethylbenzene	BRL	5.0		ug/L	180613	1	09/03/2013 19:29	GK
Xylenes, Total	BRL	5.0		ug/L	180613	1	09/03/2013 19:29	GK
Surr: 4-Bromofluorobenzene	98.7	64.6-123		%REC	180613	1	09/03/2013 19:29	GK
Surr: 4-Bromofluorobenzene	98.8	64.6-123		%REC	180613	10	09/04/2013 15:26	GK
Surr: Dibromofluoromethane	95.9	76.6-133		%REC	180613	10	09/04/2013 15:26	GK
Surr: Dibromofluoromethane	97.8	76.6-133		%REC	180613	1	09/03/2013 19:29	GK
Surr: Toluene-d8	98.3	77.8-120		%REC	180613	1	09/03/2013 19:29	GK
Surr: Toluene-d8	98.3	77.8-120		%REC	180613	10	09/04/2013 15:26	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13239-MW-29R-Z3
Project Name: Owens Corning	Collection Date: 8/27/2013 4:30:00 PM
Lab ID: 1308P53-003	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180613	1	09/03/2013 19:56	GK
1,1-Dichloroethene	290	50		ug/L	180613	10	09/04/2013 15:55	GK
Methylene chloride	BRL	5.0		ug/L	180613	1	09/03/2013 19:56	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 19:56	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180613	1	09/03/2013 19:56	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 19:56	GK
Chloroform	8.8	5.0		ug/L	180613	1	09/03/2013 19:56	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180613	1	09/03/2013 19:56	GK
Carbon tetrachloride	14	5.0		ug/L	180613	1	09/03/2013 19:56	GK
Benzene	BRL	5.0		ug/L	180613	1	09/03/2013 19:56	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180613	1	09/03/2013 19:56	GK
Trichloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 19:56	GK
Toluene	BRL	5.0		ug/L	180613	1	09/03/2013 19:56	GK
Tetrachloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 19:56	GK
Ethylbenzene	BRL	5.0		ug/L	180613	1	09/03/2013 19:56	GK
Xylenes, Total	BRL	5.0		ug/L	180613	1	09/03/2013 19:56	GK
Surr: 4-Bromofluorobenzene	98.3	64.6-123		%REC	180613	10	09/04/2013 15:55	GK
Surr: 4-Bromofluorobenzene	102	64.6-123		%REC	180613	1	09/03/2013 19:56	GK
Surr: Dibromofluoromethane	94.5	76.6-133		%REC	180613	1	09/03/2013 19:56	GK
Surr: Dibromofluoromethane	94.7	76.6-133		%REC	180613	10	09/04/2013 15:55	GK
Surr: Toluene-d8	97.2	77.8-120		%REC	180613	1	09/03/2013 19:56	GK
Surr: Toluene-d8	98.8	77.8-120		%REC	180613	10	09/04/2013 15:55	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13239-MW-29R-Z4
Project Name: Owens Corning	Collection Date: 8/27/2013 5:00:00 PM
Lab ID: 1308P53-004	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180613	1	09/03/2013 20:24	GK
1,1-Dichloroethene	270	50		ug/L	180613	10	09/04/2013 16:25	GK
Methylene chloride	BRL	5.0		ug/L	180613	1	09/03/2013 20:24	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 20:24	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180613	1	09/03/2013 20:24	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 20:24	GK
Chloroform	8.6	5.0		ug/L	180613	1	09/03/2013 20:24	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180613	1	09/03/2013 20:24	GK
Carbon tetrachloride	11	5.0		ug/L	180613	1	09/03/2013 20:24	GK
Benzene	BRL	5.0		ug/L	180613	1	09/03/2013 20:24	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180613	1	09/03/2013 20:24	GK
Trichloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 20:24	GK
Toluene	BRL	5.0		ug/L	180613	1	09/03/2013 20:24	GK
Tetrachloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 20:24	GK
Ethylbenzene	BRL	5.0		ug/L	180613	1	09/03/2013 20:24	GK
Xylenes, Total	BRL	5.0		ug/L	180613	1	09/03/2013 20:24	GK
Surr: 4-Bromofluorobenzene	97.5	64.6-123		%REC	180613	1	09/03/2013 20:24	GK
Surr: 4-Bromofluorobenzene	99	64.6-123		%REC	180613	10	09/04/2013 16:25	GK
Surr: Dibromofluoromethane	95.1	76.6-133		%REC	180613	10	09/04/2013 16:25	GK
Surr: Dibromofluoromethane	102	76.6-133		%REC	180613	1	09/03/2013 20:24	GK
Surr: Toluene-d8	98.8	77.8-120		%REC	180613	10	09/04/2013 16:25	GK
Surr: Toluene-d8	104	77.8-120		%REC	180613	1	09/03/2013 20:24	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13239-DUP
Project Name: Owens Corning	Collection Date: 8/27/2013 12:00:00 PM
Lab ID: 1308P53-005	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180613	1	09/03/2013 21:19	GK
1,1-Dichloroethene	270	50		ug/L	180613	10	09/04/2013 16:54	GK
Methylene chloride	BRL	5.0		ug/L	180613	1	09/03/2013 21:19	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 21:19	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180613	1	09/03/2013 21:19	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 21:19	GK
Chloroform	9.4	5.0		ug/L	180613	1	09/03/2013 21:19	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180613	1	09/03/2013 21:19	GK
Carbon tetrachloride	12	5.0		ug/L	180613	1	09/03/2013 21:19	GK
Benzene	BRL	5.0		ug/L	180613	1	09/03/2013 21:19	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180613	1	09/03/2013 21:19	GK
Trichloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 21:19	GK
Toluene	BRL	5.0		ug/L	180613	1	09/03/2013 21:19	GK
Tetrachloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 21:19	GK
Ethylbenzene	BRL	5.0		ug/L	180613	1	09/03/2013 21:19	GK
Xylenes, Total	BRL	5.0		ug/L	180613	1	09/03/2013 21:19	GK
Surr: 4-Bromofluorobenzene	96.8	64.6-123		%REC	180613	1	09/03/2013 21:19	GK
Surr: 4-Bromofluorobenzene	99.9	64.6-123		%REC	180613	10	09/04/2013 16:54	GK
Surr: Dibromofluoromethane	95.4	76.6-133		%REC	180613	10	09/04/2013 16:54	GK
Surr: Dibromofluoromethane	96.7	76.6-133		%REC	180613	1	09/03/2013 21:19	GK
Surr: Toluene-d8	98.8	77.8-120		%REC	180613	1	09/03/2013 21:19	GK
Surr: Toluene-d8	98.2	77.8-120		%REC	180613	10	09/04/2013 16:54	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13238-MW-35
Project Name: Owens Corning	Collection Date: 8/26/2013 4:10:00 PM
Lab ID: 1308P53-006	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180613	1	09/03/2013 21:47	GK
1,1-Dichloroethene	110	5.0		ug/L	180613	1	09/03/2013 21:47	GK
Methylene chloride	BRL	5.0		ug/L	180613	1	09/03/2013 21:47	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 21:47	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180613	1	09/03/2013 21:47	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 21:47	GK
Chloroform	BRL	5.0		ug/L	180613	1	09/03/2013 21:47	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180613	1	09/03/2013 21:47	GK
Carbon tetrachloride	BRL	5.0		ug/L	180613	1	09/03/2013 21:47	GK
Benzene	BRL	5.0		ug/L	180613	1	09/03/2013 21:47	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180613	1	09/03/2013 21:47	GK
Trichloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 21:47	GK
Toluene	BRL	5.0		ug/L	180613	1	09/03/2013 21:47	GK
Tetrachloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 21:47	GK
Ethylbenzene	BRL	5.0		ug/L	180613	1	09/03/2013 21:47	GK
Xylenes, Total	BRL	5.0		ug/L	180613	1	09/03/2013 21:47	GK
Surr: 4-Bromofluorobenzene	97	64.6-123		%REC	180613	1	09/03/2013 21:47	GK
Surr: Dibromofluoromethane	98.6	76.6-133		%REC	180613	1	09/03/2013 21:47	GK
Surr: Toluene-d8	101	77.8-120		%REC	180613	1	09/03/2013 21:47	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13239-MW-36 Z1
Project Name: Owens Corning	Collection Date: 8/27/2013 2:50:00 PM
Lab ID: 1308P53-007	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180613	1	09/04/2013 09:26	GK
1,1-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 09:26	GK
Methylene chloride	BRL	5.0		ug/L	180613	1	09/04/2013 09:26	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 09:26	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 09:26	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 09:26	GK
Chloroform	BRL	5.0		ug/L	180613	1	09/04/2013 09:26	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 09:26	GK
Carbon tetrachloride	BRL	5.0		ug/L	180613	1	09/04/2013 09:26	GK
Benzene	BRL	5.0		ug/L	180613	1	09/04/2013 09:26	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 09:26	GK
Trichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 09:26	GK
Toluene	BRL	5.0		ug/L	180613	1	09/04/2013 09:26	GK
Tetrachloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 09:26	GK
Ethylbenzene	BRL	5.0		ug/L	180613	1	09/04/2013 09:26	GK
Xylenes, Total	BRL	5.0		ug/L	180613	1	09/04/2013 09:26	GK
Surr: 4-Bromofluorobenzene	93.6	64.6-123		%REC	180613	1	09/04/2013 09:26	GK
Surr: Dibromofluoromethane	98.6	76.6-133		%REC	180613	1	09/04/2013 09:26	GK
Surr: Toluene-d8	99.9	77.8-120		%REC	180613	1	09/04/2013 09:26	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

Client: BROWN AND CALDWELL	Client Sample ID: 13239-MW-36 Z3
Project Name: Owens Corning	Collection Date: 8/27/2013 3:00:00 PM
Lab ID: 1308P53-008	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180613	1	09/04/2013 09:54	GK
1,1-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 09:54	GK
Methylene chloride	BRL	5.0		ug/L	180613	1	09/04/2013 09:54	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 09:54	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 09:54	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 09:54	GK
Chloroform	BRL	5.0		ug/L	180613	1	09/04/2013 09:54	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 09:54	GK
Carbon tetrachloride	BRL	5.0		ug/L	180613	1	09/04/2013 09:54	GK
Benzene	BRL	5.0		ug/L	180613	1	09/04/2013 09:54	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 09:54	GK
Trichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 09:54	GK
Toluene	BRL	5.0		ug/L	180613	1	09/04/2013 09:54	GK
Tetrachloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 09:54	GK
Ethylbenzene	BRL	5.0		ug/L	180613	1	09/04/2013 09:54	GK
Xylenes, Total	BRL	5.0		ug/L	180613	1	09/04/2013 09:54	GK
Surr: 4-Bromofluorobenzene	96.7	64.6-123		%REC	180613	1	09/04/2013 09:54	GK
Surr: Dibromofluoromethane	98.5	76.6-133		%REC	180613	1	09/04/2013 09:54	GK
Surr: Toluene-d8	102	77.8-120		%REC	180613	1	09/04/2013 09:54	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13239-MW-36 Z5
Project Name: Owens Corning	Collection Date: 8/27/2013 3:05:00 PM
Lab ID: 1308P53-009	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180613	1	09/04/2013 10:21	GK
1,1-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 10:21	GK
Methylene chloride	BRL	5.0		ug/L	180613	1	09/04/2013 10:21	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 10:21	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 10:21	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 10:21	GK
Chloroform	BRL	5.0		ug/L	180613	1	09/04/2013 10:21	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 10:21	GK
Carbon tetrachloride	BRL	5.0		ug/L	180613	1	09/04/2013 10:21	GK
Benzene	BRL	5.0		ug/L	180613	1	09/04/2013 10:21	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 10:21	GK
Trichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 10:21	GK
Toluene	BRL	5.0		ug/L	180613	1	09/04/2013 10:21	GK
Tetrachloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 10:21	GK
Ethylbenzene	BRL	5.0		ug/L	180613	1	09/04/2013 10:21	GK
Xylenes, Total	BRL	5.0		ug/L	180613	1	09/04/2013 10:21	GK
Surr: 4-Bromofluorobenzene	94.9	64.6-123		%REC	180613	1	09/04/2013 10:21	GK
Surr: Dibromofluoromethane	98	76.6-133		%REC	180613	1	09/04/2013 10:21	GK
Surr: Toluene-d8	101	77.8-120		%REC	180613	1	09/04/2013 10:21	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13240-MW-37-ZONE 1
Project Name: Owens Corning	Collection Date: 8/28/2013 10:10:00 AM
Lab ID: 1308P53-010	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180613	1	09/04/2013 10:49	GK
1,1-Dichloroethene	70	5.0		ug/L	180613	1	09/04/2013 10:49	GK
Methylene chloride	BRL	5.0		ug/L	180613	1	09/04/2013 10:49	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 10:49	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 10:49	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 10:49	GK
Chloroform	BRL	5.0		ug/L	180613	1	09/04/2013 10:49	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 10:49	GK
Carbon tetrachloride	BRL	5.0		ug/L	180613	1	09/04/2013 10:49	GK
Benzene	BRL	5.0		ug/L	180613	1	09/04/2013 10:49	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 10:49	GK
Trichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 10:49	GK
Toluene	BRL	5.0		ug/L	180613	1	09/04/2013 10:49	GK
Tetrachloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 10:49	GK
Ethylbenzene	BRL	5.0		ug/L	180613	1	09/04/2013 10:49	GK
Xylenes, Total	BRL	5.0		ug/L	180613	1	09/04/2013 10:49	GK
Surr: 4-Bromofluorobenzene	94.3	64.6-123		%REC	180613	1	09/04/2013 10:49	GK
Surr: Dibromofluoromethane	98.2	76.6-133		%REC	180613	1	09/04/2013 10:49	GK
Surr: Toluene-d8	101	77.8-120		%REC	180613	1	09/04/2013 10:49	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13240-MW-37-ZONE 2
Project Name: Owens Corning	Collection Date: 8/28/2013 11:45:00 AM
Lab ID: 1308P53-011	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180613	1	09/04/2013 03:56	GK
1,1-Dichloroethene	99	5.0		ug/L	180613	1	09/04/2013 03:56	GK
Methylene chloride	BRL	5.0		ug/L	180613	1	09/04/2013 03:56	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 03:56	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 03:56	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 03:56	GK
Chloroform	BRL	5.0		ug/L	180613	1	09/04/2013 03:56	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 03:56	GK
Carbon tetrachloride	BRL	5.0		ug/L	180613	1	09/04/2013 03:56	GK
Benzene	BRL	5.0		ug/L	180613	1	09/04/2013 03:56	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 03:56	GK
Trichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 03:56	GK
Toluene	BRL	5.0		ug/L	180613	1	09/04/2013 03:56	GK
Tetrachloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 03:56	GK
Ethylbenzene	BRL	5.0		ug/L	180613	1	09/04/2013 03:56	GK
Xylenes, Total	BRL	5.0		ug/L	180613	1	09/04/2013 03:56	GK
Surr: 4-Bromofluorobenzene	95.7	64.6-123		%REC	180613	1	09/04/2013 03:56	GK
Surr: Dibromofluoromethane	98.1	76.6-133		%REC	180613	1	09/04/2013 03:56	GK
Surr: Toluene-d8	99.3	77.8-120		%REC	180613	1	09/04/2013 03:56	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

Client: BROWN AND CALDWELL	Client Sample ID: 13240-MW-37-ZONE 3
Project Name: Owens Corning	Collection Date: 8/28/2013 1:00:00 PM
Lab ID: 1308P53-012	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180613	1	09/04/2013 04:24	GK
1,1-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 04:24	GK
Methylene chloride	BRL	5.0		ug/L	180613	1	09/04/2013 04:24	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 04:24	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 04:24	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 04:24	GK
Chloroform	BRL	5.0		ug/L	180613	1	09/04/2013 04:24	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 04:24	GK
Carbon tetrachloride	BRL	5.0		ug/L	180613	1	09/04/2013 04:24	GK
Benzene	BRL	5.0		ug/L	180613	1	09/04/2013 04:24	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 04:24	GK
Trichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 04:24	GK
Toluene	BRL	5.0		ug/L	180613	1	09/04/2013 04:24	GK
Tetrachloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 04:24	GK
Ethylbenzene	BRL	5.0		ug/L	180613	1	09/04/2013 04:24	GK
Xylenes, Total	BRL	5.0		ug/L	180613	1	09/04/2013 04:24	GK
Surr: 4-Bromofluorobenzene	96.6	64.6-123		%REC	180613	1	09/04/2013 04:24	GK
Surr: Dibromofluoromethane	102	76.6-133		%REC	180613	1	09/04/2013 04:24	GK
Surr: Toluene-d8	99.1	77.8-120		%REC	180613	1	09/04/2013 04:24	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13240-MW-38-ZONE 1
Project Name: Owens Corning	Collection Date: 8/28/2013 4:30:00 PM
Lab ID: 1308P53-013	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180613	1	09/04/2013 04:51	GK
1,1-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 04:51	GK
Methylene chloride	BRL	5.0		ug/L	180613	1	09/04/2013 04:51	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 04:51	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 04:51	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 04:51	GK
Chloroform	BRL	5.0		ug/L	180613	1	09/04/2013 04:51	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 04:51	GK
Carbon tetrachloride	BRL	5.0		ug/L	180613	1	09/04/2013 04:51	GK
Benzene	BRL	5.0		ug/L	180613	1	09/04/2013 04:51	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 04:51	GK
Trichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 04:51	GK
Toluene	BRL	5.0		ug/L	180613	1	09/04/2013 04:51	GK
Tetrachloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 04:51	GK
Ethylbenzene	BRL	5.0		ug/L	180613	1	09/04/2013 04:51	GK
Xylenes, Total	BRL	5.0		ug/L	180613	1	09/04/2013 04:51	GK
Surr: 4-Bromofluorobenzene	96.5	64.6-123		%REC	180613	1	09/04/2013 04:51	GK
Surr: Dibromofluoromethane	102	76.6-133		%REC	180613	1	09/04/2013 04:51	GK
Surr: Toluene-d8	98.7	77.8-120		%REC	180613	1	09/04/2013 04:51	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13241-MW-38 ZONE 2
Project Name: Owens Corning	Collection Date: 8/29/2013 9:25:00 AM
Lab ID: 1308P53-014	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180613	1	09/04/2013 05:19	GK
1,1-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 05:19	GK
Methylene chloride	BRL	5.0		ug/L	180613	1	09/04/2013 05:19	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 05:19	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 05:19	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 05:19	GK
Chloroform	BRL	5.0		ug/L	180613	1	09/04/2013 05:19	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 05:19	GK
Carbon tetrachloride	BRL	5.0		ug/L	180613	1	09/04/2013 05:19	GK
Benzene	BRL	5.0		ug/L	180613	1	09/04/2013 05:19	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 05:19	GK
Trichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 05:19	GK
Toluene	BRL	5.0		ug/L	180613	1	09/04/2013 05:19	GK
Tetrachloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 05:19	GK
Ethylbenzene	BRL	5.0		ug/L	180613	1	09/04/2013 05:19	GK
Xylenes, Total	BRL	5.0		ug/L	180613	1	09/04/2013 05:19	GK
Surr: 4-Bromofluorobenzene	94.5	64.6-123		%REC	180613	1	09/04/2013 05:19	GK
Surr: Dibromofluoromethane	103	76.6-133		%REC	180613	1	09/04/2013 05:19	GK
Surr: Toluene-d8	101	77.8-120		%REC	180613	1	09/04/2013 05:19	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13239-MW-39 ZONE 1
Project Name: Owens Corning	Collection Date: 8/27/2013 1:00:00 PM
Lab ID: 1308P53-015	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180613	1	09/04/2013 05:46	GK
1,1-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 05:46	GK
Methylene chloride	BRL	5.0		ug/L	180613	1	09/04/2013 05:46	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 05:46	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 05:46	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 05:46	GK
Chloroform	BRL	5.0		ug/L	180613	1	09/04/2013 05:46	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 05:46	GK
Carbon tetrachloride	BRL	5.0		ug/L	180613	1	09/04/2013 05:46	GK
Benzene	BRL	5.0		ug/L	180613	1	09/04/2013 05:46	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 05:46	GK
Trichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 05:46	GK
Toluene	BRL	5.0		ug/L	180613	1	09/04/2013 05:46	GK
Tetrachloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 05:46	GK
Ethylbenzene	BRL	5.0		ug/L	180613	1	09/04/2013 05:46	GK
Xylenes, Total	BRL	5.0		ug/L	180613	1	09/04/2013 05:46	GK
Surr: 4-Bromofluorobenzene	96.5	64.6-123		%REC	180613	1	09/04/2013 05:46	GK
Surr: Dibromofluoromethane	97.7	76.6-133		%REC	180613	1	09/04/2013 05:46	GK
Surr: Toluene-d8	98.7	77.8-120		%REC	180613	1	09/04/2013 05:46	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13239-MW-39 ZONE 2
Project Name: Owens Corning	Collection Date: 8/27/2013 2:30:00 PM
Lab ID: 1308P53-016	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180613	1	09/04/2013 06:14	GK
1,1-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 06:14	GK
Methylene chloride	BRL	5.0		ug/L	180613	1	09/04/2013 06:14	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 06:14	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 06:14	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 06:14	GK
Chloroform	BRL	5.0		ug/L	180613	1	09/04/2013 06:14	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 06:14	GK
Carbon tetrachloride	BRL	5.0		ug/L	180613	1	09/04/2013 06:14	GK
Benzene	BRL	5.0		ug/L	180613	1	09/04/2013 06:14	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 06:14	GK
Trichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 06:14	GK
Toluene	BRL	5.0		ug/L	180613	1	09/04/2013 06:14	GK
Tetrachloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 06:14	GK
Ethylbenzene	BRL	5.0		ug/L	180613	1	09/04/2013 06:14	GK
Xylenes, Total	BRL	5.0		ug/L	180613	1	09/04/2013 06:14	GK
Surr: 4-Bromofluorobenzene	91.9	64.6-123		%REC	180613	1	09/04/2013 06:14	GK
Surr: Dibromofluoromethane	101	76.6-133		%REC	180613	1	09/04/2013 06:14	GK
Surr: Toluene-d8	99.4	77.8-120		%REC	180613	1	09/04/2013 06:14	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

Client: BROWN AND CALDWELL	Client Sample ID: 13239-MW-39 ZONE 3
Project Name: Owens Corning	Collection Date: 8/27/2013 4:50:00 PM
Lab ID: 1308P53-017	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180613	1	09/04/2013 06:41	GK
1,1-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 06:41	GK
Methylene chloride	BRL	5.0		ug/L	180613	1	09/04/2013 06:41	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 06:41	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 06:41	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 06:41	GK
Chloroform	BRL	5.0		ug/L	180613	1	09/04/2013 06:41	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 06:41	GK
Carbon tetrachloride	BRL	5.0		ug/L	180613	1	09/04/2013 06:41	GK
Benzene	BRL	5.0		ug/L	180613	1	09/04/2013 06:41	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 06:41	GK
Trichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 06:41	GK
Toluene	BRL	5.0		ug/L	180613	1	09/04/2013 06:41	GK
Tetrachloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 06:41	GK
Ethylbenzene	BRL	5.0		ug/L	180613	1	09/04/2013 06:41	GK
Xylenes, Total	BRL	5.0		ug/L	180613	1	09/04/2013 06:41	GK
Surr: 4-Bromofluorobenzene	94.4	64.6-123		%REC	180613	1	09/04/2013 06:41	GK
Surr: Dibromofluoromethane	102	76.6-133		%REC	180613	1	09/04/2013 06:41	GK
Surr: Toluene-d8	102	77.8-120		%REC	180613	1	09/04/2013 06:41	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

Client: BROWN AND CALDWELL	Client Sample ID: 13241-MW-41 ZONE 1
Project Name: Owens Corning	Collection Date: 8/29/2013 10:45:00 AM
Lab ID: 1308P53-018	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180613	1	09/03/2013 20:52	GK
1,1-Dichloroethene	150	5.0		ug/L	180613	1	09/03/2013 20:52	GK
Methylene chloride	BRL	5.0		ug/L	180613	1	09/03/2013 20:52	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 20:52	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180613	1	09/03/2013 20:52	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 20:52	GK
Chloroform	BRL	5.0		ug/L	180613	1	09/03/2013 20:52	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180613	1	09/03/2013 20:52	GK
Carbon tetrachloride	BRL	5.0		ug/L	180613	1	09/03/2013 20:52	GK
Benzene	BRL	5.0		ug/L	180613	1	09/03/2013 20:52	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180613	1	09/03/2013 20:52	GK
Trichloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 20:52	GK
Toluene	BRL	5.0		ug/L	180613	1	09/03/2013 20:52	GK
Tetrachloroethene	BRL	5.0		ug/L	180613	1	09/03/2013 20:52	GK
Ethylbenzene	BRL	5.0		ug/L	180613	1	09/03/2013 20:52	GK
Xylenes, Total	BRL	5.0		ug/L	180613	1	09/03/2013 20:52	GK
Surr: 4-Bromofluorobenzene	98.1	64.6-123		%REC	180613	1	09/03/2013 20:52	GK
Surr: Dibromofluoromethane	96.6	76.6-133		%REC	180613	1	09/03/2013 20:52	GK
Surr: Toluene-d8	101	77.8-120		%REC	180613	1	09/03/2013 20:52	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13241-MW-41 ZONE 2
Project Name: Owens Corning	Collection Date: 8/29/2013 12:30:00 PM
Lab ID: 1308P53-019	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180664	1	09/04/2013 00:43	GK
1,1-Dichloroethene	200	5.0		ug/L	180664	1	09/04/2013 00:43	GK
Methylene chloride	BRL	5.0		ug/L	180664	1	09/04/2013 00:43	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 00:43	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 00:43	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 00:43	GK
Chloroform	BRL	5.0		ug/L	180664	1	09/04/2013 00:43	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 00:43	GK
Carbon tetrachloride	BRL	5.0		ug/L	180664	1	09/04/2013 00:43	GK
Benzene	BRL	5.0		ug/L	180664	1	09/04/2013 00:43	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 00:43	GK
Trichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 00:43	GK
Toluene	BRL	5.0		ug/L	180664	1	09/04/2013 00:43	GK
Tetrachloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 00:43	GK
Ethylbenzene	BRL	5.0		ug/L	180664	1	09/04/2013 00:43	GK
Xylenes, Total	BRL	5.0		ug/L	180664	1	09/04/2013 00:43	GK
Surr: 4-Bromofluorobenzene	97.6	64.6-123		%REC	180664	1	09/04/2013 00:43	GK
Surr: Dibromofluoromethane	99.4	76.6-133		%REC	180664	1	09/04/2013 00:43	GK
Surr: Toluene-d8	97.9	77.8-120		%REC	180664	1	09/04/2013 00:43	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13240-MW-41 Z3
Project Name: Owens Corning	Collection Date: 8/28/2013 6:05:00 PM
Lab ID: 1308P53-020	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180613	1	09/04/2013 07:09	GK
1,1-Dichloroethene	34	5.0		ug/L	180613	1	09/04/2013 07:09	GK
Methylene chloride	BRL	5.0		ug/L	180613	1	09/04/2013 07:09	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 07:09	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 07:09	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 07:09	GK
Chloroform	BRL	5.0		ug/L	180613	1	09/04/2013 07:09	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 07:09	GK
Carbon tetrachloride	BRL	5.0		ug/L	180613	1	09/04/2013 07:09	GK
Benzene	BRL	5.0		ug/L	180613	1	09/04/2013 07:09	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180613	1	09/04/2013 07:09	GK
Trichloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 07:09	GK
Toluene	BRL	5.0		ug/L	180613	1	09/04/2013 07:09	GK
Tetrachloroethene	BRL	5.0		ug/L	180613	1	09/04/2013 07:09	GK
Ethylbenzene	BRL	5.0		ug/L	180613	1	09/04/2013 07:09	GK
Xylenes, Total	BRL	5.0		ug/L	180613	1	09/04/2013 07:09	GK
Surr: 4-Bromofluorobenzene	93.1	64.6-123		%REC	180613	1	09/04/2013 07:09	GK
Surr: Dibromofluoromethane	96.6	76.6-133		%REC	180613	1	09/04/2013 07:09	GK
Surr: Toluene-d8	100	77.8-120		%REC	180613	1	09/04/2013 07:09	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13240-DUP
Project Name: Owens Corning	Collection Date: 8/28/2013 12:00:00 PM
Lab ID: 1308P53-021	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180664	1	09/04/2013 07:36	GK
1,1-Dichloroethene	37	5.0		ug/L	180664	1	09/04/2013 07:36	GK
Methylene chloride	BRL	5.0		ug/L	180664	1	09/04/2013 07:36	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 07:36	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 07:36	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 07:36	GK
Chloroform	BRL	5.0		ug/L	180664	1	09/04/2013 07:36	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 07:36	GK
Carbon tetrachloride	BRL	5.0		ug/L	180664	1	09/04/2013 07:36	GK
Benzene	BRL	5.0		ug/L	180664	1	09/04/2013 07:36	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 07:36	GK
Trichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 07:36	GK
Toluene	BRL	5.0		ug/L	180664	1	09/04/2013 07:36	GK
Tetrachloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 07:36	GK
Ethylbenzene	BRL	5.0		ug/L	180664	1	09/04/2013 07:36	GK
Xylenes, Total	BRL	5.0		ug/L	180664	1	09/04/2013 07:36	GK
Surr: 4-Bromofluorobenzene	97	64.6-123		%REC	180664	1	09/04/2013 07:36	GK
Surr: Dibromofluoromethane	101	76.6-133		%REC	180664	1	09/04/2013 07:36	GK
Surr: Toluene-d8	99.4	77.8-120		%REC	180664	1	09/04/2013 07:36	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

Client: BROWN AND CALDWELL	Client Sample ID: 13239-MW-42-ZONE 1
Project Name: Owens Corning	Collection Date: 8/27/2013 10:30:00 AM
Lab ID: 1308P53-022	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180664	1	09/04/2013 08:04	GK
1,1-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 08:04	GK
Methylene chloride	BRL	5.0		ug/L	180664	1	09/04/2013 08:04	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 08:04	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 08:04	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 08:04	GK
Chloroform	BRL	5.0		ug/L	180664	1	09/04/2013 08:04	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 08:04	GK
Carbon tetrachloride	BRL	5.0		ug/L	180664	1	09/04/2013 08:04	GK
Benzene	BRL	5.0		ug/L	180664	1	09/04/2013 08:04	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 08:04	GK
Trichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 08:04	GK
Toluene	BRL	5.0		ug/L	180664	1	09/04/2013 08:04	GK
Tetrachloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 08:04	GK
Ethylbenzene	BRL	5.0		ug/L	180664	1	09/04/2013 08:04	GK
Xylenes, Total	BRL	5.0		ug/L	180664	1	09/04/2013 08:04	GK
Surr: 4-Bromofluorobenzene	92.9	64.6-123		%REC	180664	1	09/04/2013 08:04	GK
Surr: Dibromofluoromethane	94.6	76.6-133		%REC	180664	1	09/04/2013 08:04	GK
Surr: Toluene-d8	101	77.8-120		%REC	180664	1	09/04/2013 08:04	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

Client: BROWN AND CALDWELL	Client Sample ID: 13239-EB
Project Name: Owens Corning	Collection Date: 8/27/2013 11:00:00 AM
Lab ID: 1308P53-023	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180664	1	09/04/2013 08:31	GK
1,1-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 08:31	GK
Methylene chloride	BRL	5.0		ug/L	180664	1	09/04/2013 08:31	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 08:31	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 08:31	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 08:31	GK
Chloroform	BRL	5.0		ug/L	180664	1	09/04/2013 08:31	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 08:31	GK
Carbon tetrachloride	BRL	5.0		ug/L	180664	1	09/04/2013 08:31	GK
Benzene	BRL	5.0		ug/L	180664	1	09/04/2013 08:31	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 08:31	GK
Trichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 08:31	GK
Toluene	BRL	5.0		ug/L	180664	1	09/04/2013 08:31	GK
Tetrachloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 08:31	GK
Ethylbenzene	BRL	5.0		ug/L	180664	1	09/04/2013 08:31	GK
Xylenes, Total	BRL	5.0		ug/L	180664	1	09/04/2013 08:31	GK
Surr: 4-Bromofluorobenzene	94.3	64.6-123		%REC	180664	1	09/04/2013 08:31	GK
Surr: Dibromofluoromethane	99.3	76.6-133		%REC	180664	1	09/04/2013 08:31	GK
Surr: Toluene-d8	98.7	77.8-120		%REC	180664	1	09/04/2013 08:31	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13238-MW-42-ZONE 2
Project Name: Owens Corning	Collection Date: 8/26/2013 4:05:00 PM
Lab ID: 1308P53-024	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180664	1	09/04/2013 08:59	GK
1,1-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 08:59	GK
Methylene chloride	BRL	5.0		ug/L	180664	1	09/04/2013 08:59	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 08:59	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 08:59	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 08:59	GK
Chloroform	BRL	5.0		ug/L	180664	1	09/04/2013 08:59	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 08:59	GK
Carbon tetrachloride	BRL	5.0		ug/L	180664	1	09/04/2013 08:59	GK
Benzene	BRL	5.0		ug/L	180664	1	09/04/2013 08:59	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 08:59	GK
Trichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 08:59	GK
Toluene	BRL	5.0		ug/L	180664	1	09/04/2013 08:59	GK
Tetrachloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 08:59	GK
Ethylbenzene	BRL	5.0		ug/L	180664	1	09/04/2013 08:59	GK
Xylenes, Total	BRL	5.0		ug/L	180664	1	09/04/2013 08:59	GK
Surr: 4-Bromofluorobenzene	94.5	64.6-123		%REC	180664	1	09/04/2013 08:59	GK
Surr: Dibromofluoromethane	96.5	76.6-133		%REC	180664	1	09/04/2013 08:59	GK
Surr: Toluene-d8	98.4	77.8-120		%REC	180664	1	09/04/2013 08:59	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

Client: BROWN AND CALDWELL	Client Sample ID: 13238-EB
Project Name: Owens Corning	Collection Date: 8/26/2013 4:45:00 PM
Lab ID: 1308P53-025	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180664	1	09/04/2013 17:23	GK
1,1-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 17:23	GK
Methylene chloride	BRL	5.0		ug/L	180664	1	09/04/2013 17:23	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 17:23	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 17:23	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 17:23	GK
Chloroform	BRL	5.0		ug/L	180664	1	09/04/2013 17:23	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 17:23	GK
Carbon tetrachloride	BRL	5.0		ug/L	180664	1	09/04/2013 17:23	GK
Benzene	BRL	5.0		ug/L	180664	1	09/04/2013 17:23	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 17:23	GK
Trichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 17:23	GK
Toluene	BRL	5.0		ug/L	180664	1	09/04/2013 17:23	GK
Tetrachloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 17:23	GK
Ethylbenzene	BRL	5.0		ug/L	180664	1	09/04/2013 17:23	GK
Xylenes, Total	BRL	5.0		ug/L	180664	1	09/04/2013 17:23	GK
Surr: 4-Bromofluorobenzene	99.1	64.6-123		%REC	180664	1	09/04/2013 17:23	GK
Surr: Dibromofluoromethane	95.9	76.6-133		%REC	180664	1	09/04/2013 17:23	GK
Surr: Toluene-d8	99.7	77.8-120		%REC	180664	1	09/04/2013 17:23	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13238-MW-42-ZONE 3
Project Name: Owens Corning	Collection Date: 8/26/2013 1:10:00 PM
Lab ID: 1308P53-026	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180664	1	09/04/2013 17:52	GK
1,1-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 17:52	GK
Methylene chloride	BRL	5.0		ug/L	180664	1	09/04/2013 17:52	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 17:52	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 17:52	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 17:52	GK
Chloroform	BRL	5.0		ug/L	180664	1	09/04/2013 17:52	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 17:52	GK
Carbon tetrachloride	BRL	5.0		ug/L	180664	1	09/04/2013 17:52	GK
Benzene	BRL	5.0		ug/L	180664	1	09/04/2013 17:52	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 17:52	GK
Trichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 17:52	GK
Toluene	BRL	5.0		ug/L	180664	1	09/04/2013 17:52	GK
Tetrachloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 17:52	GK
Ethylbenzene	BRL	5.0		ug/L	180664	1	09/04/2013 17:52	GK
Xylenes, Total	BRL	5.0		ug/L	180664	1	09/04/2013 17:52	GK
Surr: 4-Bromofluorobenzene	98.1	64.6-123		%REC	180664	1	09/04/2013 17:52	GK
Surr: Dibromofluoromethane	98.2	76.6-133		%REC	180664	1	09/04/2013 17:52	GK
Surr: Toluene-d8	99	77.8-120		%REC	180664	1	09/04/2013 17:52	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

Client: BROWN AND CALDWELL	Client Sample ID: 13240-MW-43-Z1
Project Name: Owens Corning	Collection Date: 8/28/2013 3:15:00 PM
Lab ID: 1308P53-027	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180664	1	09/04/2013 18:21	GK
1,1-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 18:21	GK
Methylene chloride	BRL	5.0		ug/L	180664	1	09/04/2013 18:21	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 18:21	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 18:21	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 18:21	GK
Chloroform	BRL	5.0		ug/L	180664	1	09/04/2013 18:21	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 18:21	GK
Carbon tetrachloride	BRL	5.0		ug/L	180664	1	09/04/2013 18:21	GK
Benzene	BRL	5.0		ug/L	180664	1	09/04/2013 18:21	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 18:21	GK
Trichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 18:21	GK
Toluene	BRL	5.0		ug/L	180664	1	09/04/2013 18:21	GK
Tetrachloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 18:21	GK
Ethylbenzene	BRL	5.0		ug/L	180664	1	09/04/2013 18:21	GK
Xylenes, Total	BRL	5.0		ug/L	180664	1	09/04/2013 18:21	GK
Surr: 4-Bromofluorobenzene	101	64.6-123		%REC	180664	1	09/04/2013 18:21	GK
Surr: Dibromofluoromethane	98.1	76.6-133		%REC	180664	1	09/04/2013 18:21	GK
Surr: Toluene-d8	99.2	77.8-120		%REC	180664	1	09/04/2013 18:21	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

Client: BROWN AND CALDWELL	Client Sample ID: 13240-EB
Project Name: Owens Corning	Collection Date: 8/28/2013 3:25:00 PM
Lab ID: 1308P53-028	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180664	1	09/04/2013 18:50	GK
1,1-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 18:50	GK
Methylene chloride	BRL	5.0		ug/L	180664	1	09/04/2013 18:50	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 18:50	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 18:50	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 18:50	GK
Chloroform	BRL	5.0		ug/L	180664	1	09/04/2013 18:50	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 18:50	GK
Carbon tetrachloride	BRL	5.0		ug/L	180664	1	09/04/2013 18:50	GK
Benzene	BRL	5.0		ug/L	180664	1	09/04/2013 18:50	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 18:50	GK
Trichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 18:50	GK
Toluene	BRL	5.0		ug/L	180664	1	09/04/2013 18:50	GK
Tetrachloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 18:50	GK
Ethylbenzene	BRL	5.0		ug/L	180664	1	09/04/2013 18:50	GK
Xylenes, Total	BRL	5.0		ug/L	180664	1	09/04/2013 18:50	GK
Surr: 4-Bromofluorobenzene	99.9	64.6-123		%REC	180664	1	09/04/2013 18:50	GK
Surr: Dibromofluoromethane	96.8	76.6-133		%REC	180664	1	09/04/2013 18:50	GK
Surr: Toluene-d8	98.2	77.8-120		%REC	180664	1	09/04/2013 18:50	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13240-MW-43-Z2
Project Name: Owens Corning	Collection Date: 8/28/2013 12:50:00 PM
Lab ID: 1308P53-029	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180664	1	09/04/2013 19:19	GK
1,1-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 19:19	GK
Methylene chloride	BRL	5.0		ug/L	180664	1	09/04/2013 19:19	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 19:19	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 19:19	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 19:19	GK
Chloroform	BRL	5.0		ug/L	180664	1	09/04/2013 19:19	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 19:19	GK
Carbon tetrachloride	BRL	5.0		ug/L	180664	1	09/04/2013 19:19	GK
Benzene	BRL	5.0		ug/L	180664	1	09/04/2013 19:19	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 19:19	GK
Trichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 19:19	GK
Toluene	BRL	5.0		ug/L	180664	1	09/04/2013 19:19	GK
Tetrachloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 19:19	GK
Ethylbenzene	BRL	5.0		ug/L	180664	1	09/04/2013 19:19	GK
Xylenes, Total	BRL	5.0		ug/L	180664	1	09/04/2013 19:19	GK
Surr: 4-Bromofluorobenzene	98.7	64.6-123		%REC	180664	1	09/04/2013 19:19	GK
Surr: Dibromofluoromethane	98.3	76.6-133		%REC	180664	1	09/04/2013 19:19	GK
Surr: Toluene-d8	98.2	77.8-120		%REC	180664	1	09/04/2013 19:19	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

Client: BROWN AND CALDWELL	Client Sample ID: 13240-MW-43-Z3
Project Name: Owens Corning	Collection Date: 8/28/2013 10:25:00 AM
Lab ID: 1308P53-030	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180664	1	09/04/2013 19:48	GK
1,1-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 19:48	GK
Methylene chloride	BRL	5.0		ug/L	180664	1	09/04/2013 19:48	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 19:48	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 19:48	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 19:48	GK
Chloroform	BRL	5.0		ug/L	180664	1	09/04/2013 19:48	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 19:48	GK
Carbon tetrachloride	BRL	5.0		ug/L	180664	1	09/04/2013 19:48	GK
Benzene	BRL	5.0		ug/L	180664	1	09/04/2013 19:48	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 19:48	GK
Trichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 19:48	GK
Toluene	BRL	5.0		ug/L	180664	1	09/04/2013 19:48	GK
Tetrachloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 19:48	GK
Ethylbenzene	BRL	5.0		ug/L	180664	1	09/04/2013 19:48	GK
Xylenes, Total	BRL	5.0		ug/L	180664	1	09/04/2013 19:48	GK
Surr: 4-Bromofluorobenzene	99.1	64.6-123		%REC	180664	1	09/04/2013 19:48	GK
Surr: Dibromofluoromethane	100	76.6-133		%REC	180664	1	09/04/2013 19:48	GK
Surr: Toluene-d8	98.6	77.8-120		%REC	180664	1	09/04/2013 19:48	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

Client: BROWN AND CALDWELL	Client Sample ID: 13238-MW-44
Project Name: Owens Corning	Collection Date: 8/26/2013 2:45:00 PM
Lab ID: 1308P53-031	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180664	1	09/04/2013 20:17	GK
1,1-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 20:17	GK
Methylene chloride	BRL	5.0		ug/L	180664	1	09/04/2013 20:17	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 20:17	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 20:17	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 20:17	GK
Chloroform	BRL	5.0		ug/L	180664	1	09/04/2013 20:17	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 20:17	GK
Carbon tetrachloride	BRL	5.0		ug/L	180664	1	09/04/2013 20:17	GK
Benzene	BRL	5.0		ug/L	180664	1	09/04/2013 20:17	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 20:17	GK
Trichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 20:17	GK
Toluene	BRL	5.0		ug/L	180664	1	09/04/2013 20:17	GK
Tetrachloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 20:17	GK
Ethylbenzene	BRL	5.0		ug/L	180664	1	09/04/2013 20:17	GK
Xylenes, Total	BRL	5.0		ug/L	180664	1	09/04/2013 20:17	GK
Surr: 4-Bromofluorobenzene	101	64.6-123		%REC	180664	1	09/04/2013 20:17	GK
Surr: Dibromofluoromethane	101	76.6-133		%REC	180664	1	09/04/2013 20:17	GK
Surr: Toluene-d8	97.7	77.8-120		%REC	180664	1	09/04/2013 20:17	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: TRIP BLANK
Project Name: Owens Corning	Collection Date: 8/29/2013
Lab ID: 1308P53-032	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180664	1	09/04/2013 02:34	GK
1,1-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 02:34	GK
Methylene chloride	BRL	5.0		ug/L	180664	1	09/04/2013 02:34	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 02:34	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 02:34	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 02:34	GK
Chloroform	BRL	5.0		ug/L	180664	1	09/04/2013 02:34	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 02:34	GK
Carbon tetrachloride	BRL	5.0		ug/L	180664	1	09/04/2013 02:34	GK
Benzene	BRL	5.0		ug/L	180664	1	09/04/2013 02:34	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 02:34	GK
Trichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 02:34	GK
Toluene	BRL	5.0		ug/L	180664	1	09/04/2013 02:34	GK
Tetrachloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 02:34	GK
Ethylbenzene	BRL	5.0		ug/L	180664	1	09/04/2013 02:34	GK
Xylenes, Total	BRL	5.0		ug/L	180664	1	09/04/2013 02:34	GK
Surr: 4-Bromofluorobenzene	96.7	64.6-123		%REC	180664	1	09/04/2013 02:34	GK
Surr: Dibromofluoromethane	95.9	76.6-133		%REC	180664	1	09/04/2013 02:34	GK
Surr: Toluene-d8	99.5	77.8-120		%REC	180664	1	09/04/2013 02:34	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

Client: BROWN AND CALDWELL	Client Sample ID: TRIP BLANK
Project Name: Owens Corning	Collection Date: 8/29/2013
Lab ID: 1308P53-033	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180664	1	09/04/2013 03:01	GK
1,1-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 03:01	GK
Methylene chloride	BRL	5.0		ug/L	180664	1	09/04/2013 03:01	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 03:01	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 03:01	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 03:01	GK
Chloroform	BRL	5.0		ug/L	180664	1	09/04/2013 03:01	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 03:01	GK
Carbon tetrachloride	BRL	5.0		ug/L	180664	1	09/04/2013 03:01	GK
Benzene	BRL	5.0		ug/L	180664	1	09/04/2013 03:01	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 03:01	GK
Trichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 03:01	GK
Toluene	BRL	5.0		ug/L	180664	1	09/04/2013 03:01	GK
Tetrachloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 03:01	GK
Ethylbenzene	BRL	5.0		ug/L	180664	1	09/04/2013 03:01	GK
Xylenes, Total	BRL	5.0		ug/L	180664	1	09/04/2013 03:01	GK
Surr: 4-Bromofluorobenzene	96.6	64.6-123		%REC	180664	1	09/04/2013 03:01	GK
Surr: Dibromofluoromethane	99.1	76.6-133		%REC	180664	1	09/04/2013 03:01	GK
Surr: Toluene-d8	101	77.8-120		%REC	180664	1	09/04/2013 03:01	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

Client: BROWN AND CALDWELL	Client Sample ID: 13241-EB
Project Name: Owens Corning	Collection Date: 8/29/2013 9:50:00 AM
Lab ID: 1308P53-034	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	180664	1	09/04/2013 03:28	GK
1,1-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 03:28	GK
Methylene chloride	BRL	5.0		ug/L	180664	1	09/04/2013 03:28	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 03:28	GK
1,1-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 03:28	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 03:28	GK
Chloroform	BRL	5.0		ug/L	180664	1	09/04/2013 03:28	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 03:28	GK
Carbon tetrachloride	BRL	5.0		ug/L	180664	1	09/04/2013 03:28	GK
Benzene	BRL	5.0		ug/L	180664	1	09/04/2013 03:28	GK
1,2-Dichloroethane	BRL	5.0		ug/L	180664	1	09/04/2013 03:28	GK
Trichloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 03:28	GK
Toluene	BRL	5.0		ug/L	180664	1	09/04/2013 03:28	GK
Tetrachloroethene	BRL	5.0		ug/L	180664	1	09/04/2013 03:28	GK
Ethylbenzene	BRL	5.0		ug/L	180664	1	09/04/2013 03:28	GK
Xylenes, Total	BRL	5.0		ug/L	180664	1	09/04/2013 03:28	GK
Surr: 4-Bromofluorobenzene	97.7	64.6-123		%REC	180664	1	09/04/2013 03:28	GK
Surr: Dibromofluoromethane	98.5	76.6-133		%REC	180664	1	09/04/2013 03:28	GK
Surr: Toluene-d8	100	77.8-120		%REC	180664	1	09/04/2013 03:28	GK

Qualifiers:	* 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 1301P53

Checklist completed by [Signature] Date 8/29/13

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 Ans 8/29/13
Container/Temp Blank temperature in compliance? (4°C±2)* Yes No

Cooler #1 3.10 Cooler #2 3.2 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 Name: Owens Corning
Workorder: 1308P53

ANALYTICAL QC SUMMARY REPORT

BatchID: 180613

Sample ID: MB-180613	Client ID:	Units: ug/L	Prep Date: 09/03/2013	Run No: 251174							
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 180613	Analysis Date: 09/03/2013	Seq No: 5268559							
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									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
Benzene	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chloroform	BRL	5.0									
cis-1,2-Dichloroethene	BRL	5.0									
Ethylbenzene	BRL	5.0									
Methylene chloride	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
Trichloroethene	BRL	5.0									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	49.46	0	50.00		98.9	64.6	123				
Surr: Dibromofluoromethane	47.32	0	50.00		94.6	76.6	133				
Surr: Toluene-d8	50.37	0	50.00		101	77.8	120				

Sample ID: LCS-180613	Client ID:	Units: ug/L	Prep Date: 09/03/2013	Run No: 251174							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 180613	Analysis Date: 09/03/2013	Seq No: 5268557							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	49.74	5.0	50.00		99.5	61.1	142				
Benzene	56.07	5.0	50.00		112	73.5	130				
Toluene	55.03	5.0	50.00		110	73.6	130				

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: 1308P53

ANALYTICAL QC SUMMARY REPORT

BatchID: 180613

Sample ID: LCS-180613	Client ID:	Units: ug/L	Prep Date: 09/03/2013	Run No: 251174							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 180613	Analysis Date: 09/03/2013	Seq No: 5268557							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Trichloroethene	58.26	5.0	50.00		117	70	135				
Surr: 4-Bromofluorobenzene	52.40	0	50.00		105	64.6	123				
Surr: Dibromofluoromethane	49.14	0	50.00		98.3	76.6	133				
Surr: Toluene-d8	50.11	0	50.00		100	77.8	120				

Sample ID: 1308P53-001AMS	Client ID: 13239-MW-15	Units: ug/L	Prep Date: 09/03/2013	Run No: 251174							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 180613	Analysis Date: 09/03/2013	Seq No: 5269524							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	613.4	50	500.0	139.2	94.8	60	168				
Benzene	536.2	50	500.0		107	66.6	148				
Toluene	538.3	50	500.0		108	68	149				
Trichloroethene	567.0	50	500.0		113	71.1	154				
Surr: 4-Bromofluorobenzene	521.1	0	500.0		104	64.6	123				
Surr: Dibromofluoromethane	479.7	0	500.0		95.9	76.6	133				
Surr: Toluene-d8	504.3	0	500.0		101	77.8	120				

Sample ID: 1308P53-001AMSD	Client ID: 13239-MW-15	Units: ug/L	Prep Date: 09/03/2013	Run No: 251174							
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 180613	Analysis Date: 09/03/2013	Seq No: 5269527							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	568.9	50	500.0	139.2	85.9	60	168	613.4	7.53	18.6	
Benzene	524.9	50	500.0		105	66.6	148	536.2	2.13	20	
Toluene	514.4	50	500.0		103	68	149	538.3	4.54	20	
Trichloroethene	539.9	50	500.0		108	71.1	154	567.0	4.90	20	
Surr: 4-Bromofluorobenzene	523.4	0	500.0		105	64.6	123	521.1	0	0	
Surr: Dibromofluoromethane	482.1	0	500.0		96.4	76.6	133	479.7	0	0	
Surr: Toluene-d8	507.7	0	500.0		102	77.8	120	504.3	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		

Client: BROWN AND CALDWELL
Project Name: Owens Corning
Workorder: 1308P53

ANALYTICAL QC SUMMARY REPORT

BatchID: 180664

Sample ID: MB-180664	Client ID:	Units: ug/L	Prep Date: 09/03/2013	Run No: 251247							
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 180664	Analysis Date: 09/04/2013	Seq No: 5270485							
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									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
Benzene	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chloroform	BRL	5.0									
cis-1,2-Dichloroethene	BRL	5.0									
Ethylbenzene	BRL	5.0									
Methylene chloride	7.410	5.0									B
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
Trichloroethene	BRL	5.0									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	48.00	0	50.00		96.0	64.6	123				
Surr: Dibromofluoromethane	48.87	0	50.00		97.7	76.6	133				
Surr: Toluene-d8	49.87	0	50.00		99.7	77.8	120				

Sample ID: LCS-180664	Client ID:	Units: ug/L	Prep Date: 09/03/2013	Run No: 251247							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 180664	Analysis Date: 09/03/2013	Seq No: 5270484							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	38.60	5.0	50.00		77.2	61.1	142				
Benzene	54.56	5.0	50.00		109	73.5	130				
Toluene	54.11	5.0	50.00		108	73.6	130				
Trichloroethene	53.20	5.0	50.00		106	70	135				

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: 1308P53

ANALYTICAL QC SUMMARY REPORT

BatchID: 180664

Sample ID: LCS-180664	Client ID:	Units: ug/L	Prep Date: 09/03/2013	Run No: 251247							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 180664	Analysis Date: 09/03/2013	Seq No: 5270484							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Surr: 4-Bromofluorobenzene	51.05	0	50.00		102	64.6	123				
Surr: Dibromofluoromethane	49.66	0	50.00		99.3	76.6	133				
Surr: Toluene-d8	52.19	0	50.00		104	77.8	120				

Sample ID: 1308P53-019AMS	Client ID: 13241-MW-41 ZONE 2	Units: ug/L	Prep Date: 09/03/2013	Run No: 251247							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 180664	Analysis Date: 09/04/2013	Seq No: 5270487							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	761.8	50	500.0	235.6	105	60	168				
Benzene	541.1	50	500.0		108	66.6	148				
Toluene	533.9	50	500.0		107	68	149				
Trichloroethene	541.0	50	500.0		108	71.1	154				
Surr: 4-Bromofluorobenzene	528.6	0	500.0		106	64.6	123				
Surr: Dibromofluoromethane	494.3	0	500.0		98.9	76.6	133				
Surr: Toluene-d8	507.9	0	500.0		102	77.8	120				

Sample ID: 1308P53-019AMSD	Client ID: 13241-MW-41 ZONE 2	Units: ug/L	Prep Date: 09/03/2013	Run No: 251247							
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 180664	Analysis Date: 09/04/2013	Seq No: 5270488							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	733.8	50	500.0	235.6	99.6	60	168	761.8	3.74	18.6	
Benzene	544.0	50	500.0		109	66.6	148	541.1	0.535	20	
Toluene	534.8	50	500.0		107	68	149	533.9	0.168	20	
Trichloroethene	547.9	50	500.0		110	71.1	154	541.0	1.27	20	
Surr: 4-Bromofluorobenzene	519.8	0	500.0		104	64.6	123	528.6	0	0	
Surr: Dibromofluoromethane	498.5	0	500.0		99.7	76.6	133	494.3	0	0	
Surr: Toluene-d8	511.0	0	500.0		102	77.8	120	507.9	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		



November 15, 2013

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: 1311753

Analytical Environmental Services, Inc. received 44 samples on 11/8/2013 4:00:00 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:

- NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/13-06/30/14.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/15.

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.

Tara Esbeck
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: 1311703

Date: 11/4/13 Page 1 of 4

COMPANY: Brown and Caldwell
 ADDRESS: 990 Hammond Dr, Suite 4000 Atlanta, GA 30328
 PHONE: _____
 FAX: _____
 SAMPLED BY: Juan Nunez, Kenneth Whatstone
 SIGNATURE: *[Signature]*

#	SAMPLE ID	SAMPLED		Grab	Composite	Matrix (See codes)	ANALYSIS REQUESTED	REMARKS	No # of Containers
		DATE	TIME						
1	13308-NW-4	11/4/13	1225	X		GW	VOCs	Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.	2
2	13308-MW-24	11/4/13	1410	X		GW		done on label is incorrect. use date 11/4/13	2
3	13308-MW-20	11/4/13	1455	X		GW		done on label is incorrect. use date 11/4/13	2
4	13308-DWP	11/4/13	9999	X		GW		done on label is incorrect. use date 11/4/13	2
5	13308-EB	11/4/13	1510	X		GW			2
6	13308-MW-27	11/4/13	1610	X		GW			2
7	13308-MW-14	11/4/13	1605	X		GW		done on label is incorrect. use date 11/4/13	2
8	13308-MW-5	11/4/13	1720	X		GW			2
9	13308-MW-3	11/4/13	1335	X		GW		done on label is incorrect. use date 11/4/13	2
10	13309-MW-26	11/5/13	1030	X		GW			2
11	13309-MW-16	11/5/13	6955	X		GW			2
12	13309-MW-15	11/5/13	1125	X		GW			2
13	13309-MW-21	11/5/13	1120	X		GW			2
14	13309-EB	11/5/13	1210	X		GW			2

RELINQUISHED BY: *[Signature]* DATE/TIME: 11-8-13 1600
 RECEIVED BY: *[Signature]* DATE/TIME: 11-8-13 4:00 p

PROJECT NAME: Owens Corning
 PROJECT #: 143825
 SITE ADDRESS: Anderson, SC
 SEND REPORT TO: Tamara Berryman
 INVOICE TO: Tberryman@brwncl.com
 (IF DIFFERENT FROM ABOVE)
 QUOTE #: _____ PO#: _____

SHIPMENT METHOD: _____ VIA: _____
 CLIENT: FedEx UPS MAIL COURIER
 BRYHOUND OTHER: _____

SPECIAL INSTRUCTIONS/COMMENTS:
 Owens Corning site specific
 VOC's only

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

Total # of Containers: _____

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+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice SM+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None



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: 1311753

Date: 11/5/13 Page 2 of 4

COMPANY:		ADDRESS:		ANALYSIS REQUESTED		REMARKS		No # of Containers	
Brown and Caldwell		990 Hammond Dr., Suite 406 Atlanta, GA 30328		NOCS		Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.			
SAMPLED BY:		SIGNATURE:		PRESERVATION (See codes)		REMARKS			
Juan Perez, Kenneth Wieststone									
#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)			
1	13309-MNW-25	11/5/13	1345	X		GW			2
2	13309-MNW-35	11/5/13	1735	X		GW			2
3	13310-MNW-13	11/6/13	0925	X		GW			2
4	13310-DUP	11/6/13	1200	X		GW			2
5	13310-MNW-11	11/6/13	1025	X		GW			2
6	13310-MNW-44	11/6/13	0935	X		GW			7
7	13310-MNW-12	11/6/13	1130	X		GW			2
8	13310-MNW-19	11/6/13	1230	X		GW			2
9	13310-MNW-22	11/6/13	1330	X		GW			2
10	13310-TN-41	11/6/13	1725	X		GW			2
11	13310-TN-40	11/6/13	1345	X		GW			2
12	13310-AIR	11/6/13	1455	X		GW			2
13	13310-TW-44	11/6/13	1630	X		GW			2
14	13310-MNW-12	11/6/13	1640	X		GW			2
RELINQUISHED BY:		DATE/TIME RECEIVED BY:		DATE/TIME		PROJECT INFORMATION		RECEIPT	
11/5/13 1600		11/5/13 1600		11/5/13 1600		PROJECT NAME: Owens Corning		Total # of Containers	
						PROJECT #: 143875		Turnaround Time Request	
						SITE ADDRESS: Anderson, SC		Standard 5 Business Days	
						SEND REPORT TO: Tamara Berryman		2 Business Day Rush	
						INVOICE TO: Tberryman@berrymand.com		Next Business Day Rush	
						(IF DIFFERENT FROM ABOVE)		Same Day Rush (auth req.)	
						QUOTE #:		Other	
						SHIPMENT METHOD		STATE PROGRAM (if any):	
						OUT / / VIA:		E-mail <input type="radio"/> / N: Fax <input type="radio"/> Y / N	
						IN <input checked="" type="radio"/> FedEx <input type="radio"/> UPS <input type="radio"/> MAIL <input type="radio"/> COURIER		DATA PACKAGE: I <input type="radio"/> II <input type="radio"/> III <input type="radio"/> IV	
						GREYHOUND <input type="radio"/> OTHER <input type="radio"/>			
SPECIAL INSTRUCTIONS/COMMENTS: Owens Corning site specific VOCs only									

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+1 = 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

TEL: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 131753

Date: 11/7/13 Page 3 of 4

#	SAMPLE ID	DATE	TIME	SAMPLED		Grab	Composite	Matrix (See codes)	REMARKS	No # of Containers
				DATE	TIME					
1	13311-MN-10	11/7/13	0940			X		GW		2
2	13311-MN-18		1115			X		GW		2
3	13311-MN-7		1230			X		GW		2
4	13311-TN-46		1020			X		GW		2
5	13311-MN-32		1240			X		GW		2
6	13311-MN-1		1415			X		GW		2
7	13311-MN-6		1520			X		GW		2
8	13311-MN-9		1605			X		GW		2
9	13311-DUP		1700			X		GW		2
10	13312-MN-30	11/8/13	0850			X		GW		2
11	13312-DUP	11/8/13	1700			X		GW		2
12	13312-MN-31	11/8/13	1055			X		GW		2
13	13312-MN-7	11/8/13	1035			X		GW		2
14	13312-EB	11/8/13	1100			X		GW		2

COMPANY:	Brown and Caldwell
ADDRESS:	990 Hammond Dr, Suit 400 Atlanta, GA 30328
PHONE:	
FAX:	
SAMPLED BY:	Tom Nunez, Kenneth Winstone
SIGNATURE:	<i>[Signature]</i>
ANALYSIS REQUESTED:	VOC's
RESERVATION (See codes):	
PROJECT INFORMATION:	PROJECT NAME: Owens Corning PROJECT #: 143825 SITE ADDRESS: Anderson, SC SEND REPORT TO: Tamara Berryman INVOICE TO: Tberryman@browncaid.com (IF DIFFERENT FROM ABOVE)
DATE/TIME RECEIVED BY:	1: <i>[Signature]</i> 11-5-13 4:00 p
DATE/TIME RECEIVED BY:	2: <i>[Signature]</i> 11-5-13 600
DATE/TIME RECEIVED BY:	3: <i>[Signature]</i> 11-5-13 600
SPECIAL INSTRUCTIONS/COMMENTS:	Owens Corning site specific VOC's only
SHIPMENT METHOD:	OUT / IN / CLIENT / FedEx / UPS / MAIL / COURIER / GREYHOUND / OTHER
STATE PROGRAM (if any):	E-mail? <input checked="" type="checkbox"/> / N: Fax? Y / N
DATA PACKAGE:	I <input checked="" type="checkbox"/> III IV
RECEIPT:	Total # of Containers
TURNAROUND TIME REQUEST:	Turnaround Time Request: <input checked="" type="radio"/> Standard 5 Business Days <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
QUOTE #:	

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+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice SIM+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

TEL: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1311753

Date: 11/8/13 Page 21 of 24

COMPANY: Brown and Caldwell		ADDRESS: 990 Hammond Dr, suite 400 Atlanta: GA 30328		FAX:		
SAMPLED BY: Juan Perez, Kenneth Winterschick		SIGNATURE: <i>[Signature]</i>		DATE/TIME RECEIVED BY: 1: [Signature] 11-8-13 1600 2: [Signature] 11-8-13 4:00 3:		
#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)
1	13312 - MW - 2X	11/8/13	1320	X		GW
2	Trip Blank					
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						

RELINQUISHED BY: [Signature] 11-8-13 1600		DATE/TIME	
RECEIVED BY: [Signature] 11-8-13 4:00		DATE/TIME	

SPECIAL INSTRUCTIONS/COMMENTS: Owens Coming Site Specific VOC'S only.		SHIPMENT METHOD: OUT: / / VIA: IN: <input checked="" type="checkbox"/> FedEx UPS MAIL COURIER GREYHOUND OTHER: _____	
---	--	---	--

ANALYSIS REQUESTED		PROJECT INFORMATION	
Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		PROJECT NAME: Owens - Corning PROJECT #: 143875 SITE ADDRESS: Anderson, SC SEND REPORT TO: Tamara Benymar INVOICE TO: Tamara Benymar (IF DIFFERENT FROM ABOVE)	
PRESERVATION (See codes)		QUOTE #:	
No # of Containers 2 2		STATE PROGRAM (if any): E-mail? <input type="checkbox"/> N; Fax? Y/N DATA PACKAGE: <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV	
REMARKS		RECEIPT	
		Total # of Containers 88 <input checked="" type="checkbox"/> Turnaround Time Request <input type="checkbox"/> Standard 5 Business Days <input type="checkbox"/> 2 Business Day Rush <input type="checkbox"/> Next Business Day Rush <input type="checkbox"/> Same Day Rush (auth req.) <input type="checkbox"/> Other	

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+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

Client: BROWN AND CALDWELL

Project: Owens Corning

Lab ID: 1311753

Case Narrative

Volatiles Organic Compounds Analysis by Method 8260B :

Due to sample matrix, samples 1311753-041A & 043A required dilution during preparation and/or analysis resulting in elevated reporting limits.

Client: BROWN AND CALDWELL	Client Sample ID: 13308-MW-4
Project Name: Owens Corning	Collection Date: 11/4/2013 12:25:00 PM
Lab ID: 1311753-001	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183566	1	11/13/2013 01:05	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 01:05	GK
Methylene chloride	BRL	5.0		ug/L	183566	1	11/13/2013 01:05	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 01:05	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 01:05	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 01:05	GK
Chloroform	BRL	5.0		ug/L	183566	1	11/13/2013 01:05	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 01:05	GK
Carbon tetrachloride	BRL	5.0		ug/L	183566	1	11/13/2013 01:05	GK
Benzene	BRL	5.0		ug/L	183566	1	11/13/2013 01:05	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 01:05	GK
Trichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 01:05	GK
Toluene	BRL	5.0		ug/L	183566	1	11/13/2013 01:05	GK
Tetrachloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 01:05	GK
Ethylbenzene	BRL	5.0		ug/L	183566	1	11/13/2013 01:05	GK
Xylenes, Total	BRL	5.0		ug/L	183566	1	11/13/2013 01:05	GK
Surr: 4-Bromofluorobenzene	92.7	66.2-120		%REC	183566	1	11/13/2013 01:05	GK
Surr: Dibromofluoromethane	93.1	79.5-121		%REC	183566	1	11/13/2013 01:05	GK
Surr: Toluene-d8	96.6	77-117		%REC	183566	1	11/13/2013 01:05	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13308-MW-24
Project Name: Owens Corning	Collection Date: 11/4/2013 2:10:00 PM
Lab ID: 1311753-002	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183566	1	11/13/2013 01:34	GK
1,1-Dichloroethene	160	5.0		ug/L	183566	1	11/13/2013 01:34	GK
Methylene chloride	BRL	5.0		ug/L	183566	1	11/13/2013 01:34	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 01:34	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 01:34	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 01:34	GK
Chloroform	14	5.0		ug/L	183566	1	11/13/2013 01:34	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 01:34	GK
Carbon tetrachloride	13	5.0		ug/L	183566	1	11/13/2013 01:34	GK
Benzene	BRL	5.0		ug/L	183566	1	11/13/2013 01:34	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 01:34	GK
Trichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 01:34	GK
Toluene	BRL	5.0		ug/L	183566	1	11/13/2013 01:34	GK
Tetrachloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 01:34	GK
Ethylbenzene	BRL	5.0		ug/L	183566	1	11/13/2013 01:34	GK
Xylenes, Total	BRL	5.0		ug/L	183566	1	11/13/2013 01:34	GK
Surr: 4-Bromofluorobenzene	94.5	66.2-120		%REC	183566	1	11/13/2013 01:34	GK
Surr: Dibromofluoromethane	95.3	79.5-121		%REC	183566	1	11/13/2013 01:34	GK
Surr: Toluene-d8	97.4	77-117		%REC	183566	1	11/13/2013 01:34	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13308-MW-20
Project Name: Owens Corning	Collection Date: 11/4/2013 2:55:00 PM
Lab ID: 1311753-003	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183566	1	11/12/2013 22:13	GK
1,1-Dichloroethene	330	50		ug/L	183566	10	11/12/2013 23:39	GK
Methylene chloride	BRL	5.0		ug/L	183566	1	11/12/2013 22:13	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/12/2013 22:13	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183566	1	11/12/2013 22:13	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/12/2013 22:13	GK
Chloroform	24	5.0		ug/L	183566	1	11/12/2013 22:13	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183566	1	11/12/2013 22:13	GK
Carbon tetrachloride	62	5.0		ug/L	183566	1	11/12/2013 22:13	GK
Benzene	BRL	5.0		ug/L	183566	1	11/12/2013 22:13	GK
1,2-Dichloroethane	13	5.0		ug/L	183566	1	11/12/2013 22:13	GK
Trichloroethene	BRL	5.0		ug/L	183566	1	11/12/2013 22:13	GK
Toluene	BRL	5.0		ug/L	183566	1	11/12/2013 22:13	GK
Tetrachloroethene	BRL	5.0		ug/L	183566	1	11/12/2013 22:13	GK
Ethylbenzene	BRL	5.0		ug/L	183566	1	11/12/2013 22:13	GK
Xylenes, Total	BRL	5.0		ug/L	183566	1	11/12/2013 22:13	GK
Surr: 4-Bromofluorobenzene	90.8	66.2-120		%REC	183566	1	11/12/2013 22:13	GK
Surr: 4-Bromofluorobenzene	91.6	66.2-120		%REC	183566	10	11/12/2013 23:39	GK
Surr: Dibromofluoromethane	91.9	79.5-121		%REC	183566	10	11/12/2013 23:39	GK
Surr: Dibromofluoromethane	95.5	79.5-121		%REC	183566	1	11/12/2013 22:13	GK
Surr: Toluene-d8	96.9	77-117		%REC	183566	1	11/12/2013 22:13	GK
Surr: Toluene-d8	98.2	77-117		%REC	183566	10	11/12/2013 23:39	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13308-DUP
Project Name: Owens Corning	Collection Date: 11/4/2013
Lab ID: 1311753-004	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183566	1	11/13/2013 02:03	GK
1,1-Dichloroethene	160	5.0		ug/L	183566	1	11/13/2013 02:03	GK
Methylene chloride	BRL	5.0		ug/L	183566	1	11/13/2013 02:03	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 02:03	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 02:03	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 02:03	GK
Chloroform	14	5.0		ug/L	183566	1	11/13/2013 02:03	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 02:03	GK
Carbon tetrachloride	13	5.0		ug/L	183566	1	11/13/2013 02:03	GK
Benzene	BRL	5.0		ug/L	183566	1	11/13/2013 02:03	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 02:03	GK
Trichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 02:03	GK
Toluene	BRL	5.0		ug/L	183566	1	11/13/2013 02:03	GK
Tetrachloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 02:03	GK
Ethylbenzene	BRL	5.0		ug/L	183566	1	11/13/2013 02:03	GK
Xylenes, Total	BRL	5.0		ug/L	183566	1	11/13/2013 02:03	GK
Surr: 4-Bromofluorobenzene	94.8	66.2-120		%REC	183566	1	11/13/2013 02:03	GK
Surr: Dibromofluoromethane	95.8	79.5-121		%REC	183566	1	11/13/2013 02:03	GK
Surr: Toluene-d8	97.6	77-117		%REC	183566	1	11/13/2013 02:03	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13308-EB
Project Name: Owens Corning	Collection Date: 11/4/2013 3:10:00 PM
Lab ID: 1311753-005	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183566	1	11/13/2013 02:31	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 02:31	GK
Methylene chloride	BRL	5.0		ug/L	183566	1	11/13/2013 02:31	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 02:31	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 02:31	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 02:31	GK
Chloroform	BRL	5.0		ug/L	183566	1	11/13/2013 02:31	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 02:31	GK
Carbon tetrachloride	BRL	5.0		ug/L	183566	1	11/13/2013 02:31	GK
Benzene	BRL	5.0		ug/L	183566	1	11/13/2013 02:31	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 02:31	GK
Trichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 02:31	GK
Toluene	BRL	5.0		ug/L	183566	1	11/13/2013 02:31	GK
Tetrachloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 02:31	GK
Ethylbenzene	BRL	5.0		ug/L	183566	1	11/13/2013 02:31	GK
Xylenes, Total	BRL	5.0		ug/L	183566	1	11/13/2013 02:31	GK
Surr: 4-Bromofluorobenzene	95.2	66.2-120		%REC	183566	1	11/13/2013 02:31	GK
Surr: Dibromofluoromethane	95.2	79.5-121		%REC	183566	1	11/13/2013 02:31	GK
Surr: Toluene-d8	99.5	77-117		%REC	183566	1	11/13/2013 02:31	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

Client: BROWN AND CALDWELL	Client Sample ID: 13308-MW-27
Project Name: Owens Corning	Collection Date: 11/4/2013 4:10:00 PM
Lab ID: 1311753-006	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183566	1	11/13/2013 03:00	GK
1,1-Dichloroethene	330	50		ug/L	183566	10	11/13/2013 20:15	GK
Methylene chloride	BRL	5.0		ug/L	183566	1	11/13/2013 03:00	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 03:00	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 03:00	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 03:00	GK
Chloroform	18	5.0		ug/L	183566	1	11/13/2013 03:00	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 03:00	GK
Carbon tetrachloride	10	5.0		ug/L	183566	1	11/13/2013 03:00	GK
Benzene	BRL	5.0		ug/L	183566	1	11/13/2013 03:00	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 03:00	GK
Trichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 03:00	GK
Toluene	BRL	5.0		ug/L	183566	1	11/13/2013 03:00	GK
Tetrachloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 03:00	GK
Ethylbenzene	BRL	5.0		ug/L	183566	1	11/13/2013 03:00	GK
Xylenes, Total	BRL	5.0		ug/L	183566	1	11/13/2013 03:00	GK
Surr: 4-Bromofluorobenzene	93.7	66.2-120		%REC	183566	1	11/13/2013 03:00	GK
Surr: 4-Bromofluorobenzene	96.2	66.2-120		%REC	183566	10	11/13/2013 20:15	GK
Surr: Dibromofluoromethane	94.6	79.5-121		%REC	183566	1	11/13/2013 03:00	GK
Surr: Dibromofluoromethane	98.1	79.5-121		%REC	183566	10	11/13/2013 20:15	GK
Surr: Toluene-d8	97.2	77-117		%REC	183566	1	11/13/2013 03:00	GK
Surr: Toluene-d8	98.1	77-117		%REC	183566	10	11/13/2013 20:15	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13308-MW-14
Project Name: Owens Corning	Collection Date: 11/4/2013 4:05:00 PM
Lab ID: 1311753-007	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183566	1	11/13/2013 03:29	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 03:29	GK
Methylene chloride	BRL	5.0		ug/L	183566	1	11/13/2013 03:29	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 03:29	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 03:29	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 03:29	GK
Chloroform	BRL	5.0		ug/L	183566	1	11/13/2013 03:29	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 03:29	GK
Carbon tetrachloride	BRL	5.0		ug/L	183566	1	11/13/2013 03:29	GK
Benzene	BRL	5.0		ug/L	183566	1	11/13/2013 03:29	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 03:29	GK
Trichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 03:29	GK
Toluene	BRL	5.0		ug/L	183566	1	11/13/2013 03:29	GK
Tetrachloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 03:29	GK
Ethylbenzene	BRL	5.0		ug/L	183566	1	11/13/2013 03:29	GK
Xylenes, Total	BRL	5.0		ug/L	183566	1	11/13/2013 03:29	GK
Surr: 4-Bromofluorobenzene	96.8	66.2-120		%REC	183566	1	11/13/2013 03:29	GK
Surr: Dibromofluoromethane	93.9	79.5-121		%REC	183566	1	11/13/2013 03:29	GK
Surr: Toluene-d8	96.3	77-117		%REC	183566	1	11/13/2013 03:29	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

Client: BROWN AND CALDWELL	Client Sample ID: 13308-MW-5
Project Name: Owens Corning	Collection Date: 11/4/2013 5:20:00 PM
Lab ID: 1311753-008	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183566	1	11/13/2013 03:57	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 03:57	GK
Methylene chloride	BRL	5.0		ug/L	183566	1	11/13/2013 03:57	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 03:57	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 03:57	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 03:57	GK
Chloroform	BRL	5.0		ug/L	183566	1	11/13/2013 03:57	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 03:57	GK
Carbon tetrachloride	BRL	5.0		ug/L	183566	1	11/13/2013 03:57	GK
Benzene	BRL	5.0		ug/L	183566	1	11/13/2013 03:57	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 03:57	GK
Trichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 03:57	GK
Toluene	BRL	5.0		ug/L	183566	1	11/13/2013 03:57	GK
Tetrachloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 03:57	GK
Ethylbenzene	BRL	5.0		ug/L	183566	1	11/13/2013 03:57	GK
Xylenes, Total	BRL	5.0		ug/L	183566	1	11/13/2013 03:57	GK
Surr: 4-Bromofluorobenzene	94.4	66.2-120		%REC	183566	1	11/13/2013 03:57	GK
Surr: Dibromofluoromethane	93.6	79.5-121		%REC	183566	1	11/13/2013 03:57	GK
Surr: Toluene-d8	97.8	77-117		%REC	183566	1	11/13/2013 03:57	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13308-MW-3
Project Name: Owens Corning	Collection Date: 11/4/2013 1:35:00 PM
Lab ID: 1311753-009	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183566	1	11/13/2013 04:26	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 04:26	GK
Methylene chloride	BRL	5.0		ug/L	183566	1	11/13/2013 04:26	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 04:26	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 04:26	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 04:26	GK
Chloroform	BRL	5.0		ug/L	183566	1	11/13/2013 04:26	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 04:26	GK
Carbon tetrachloride	BRL	5.0		ug/L	183566	1	11/13/2013 04:26	GK
Benzene	BRL	5.0		ug/L	183566	1	11/13/2013 04:26	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 04:26	GK
Trichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 04:26	GK
Toluene	BRL	5.0		ug/L	183566	1	11/13/2013 04:26	GK
Tetrachloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 04:26	GK
Ethylbenzene	BRL	5.0		ug/L	183566	1	11/13/2013 04:26	GK
Xylenes, Total	BRL	5.0		ug/L	183566	1	11/13/2013 04:26	GK
Surr: 4-Bromofluorobenzene	97.1	66.2-120		%REC	183566	1	11/13/2013 04:26	GK
Surr: Dibromofluoromethane	96.3	79.5-121		%REC	183566	1	11/13/2013 04:26	GK
Surr: Toluene-d8	96.9	77-117		%REC	183566	1	11/13/2013 04:26	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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-MW-26
Project Name: Owens Corning	Collection Date: 11/5/2013 10:30:00 AM
Lab ID: 1311753-010	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183566	1	11/13/2013 04:55	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 04:55	GK
Methylene chloride	BRL	5.0		ug/L	183566	1	11/13/2013 04:55	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 04:55	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 04:55	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 04:55	GK
Chloroform	BRL	5.0		ug/L	183566	1	11/13/2013 04:55	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 04:55	GK
Carbon tetrachloride	BRL	5.0		ug/L	183566	1	11/13/2013 04:55	GK
Benzene	BRL	5.0		ug/L	183566	1	11/13/2013 04:55	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 04:55	GK
Trichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 04:55	GK
Toluene	BRL	5.0		ug/L	183566	1	11/13/2013 04:55	GK
Tetrachloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 04:55	GK
Ethylbenzene	BRL	5.0		ug/L	183566	1	11/13/2013 04:55	GK
Xylenes, Total	BRL	5.0		ug/L	183566	1	11/13/2013 04:55	GK
Surr: 4-Bromofluorobenzene	96	66.2-120		%REC	183566	1	11/13/2013 04:55	GK
Surr: Dibromofluoromethane	97.1	79.5-121		%REC	183566	1	11/13/2013 04:55	GK
Surr: Toluene-d8	98.9	77-117		%REC	183566	1	11/13/2013 04:55	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-MW-16
Project Name: Owens Corning	Collection Date: 11/5/2013 9:55:00 AM
Lab ID: 1311753-011	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183566	1	11/13/2013 05:23	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 05:23	GK
Methylene chloride	BRL	5.0		ug/L	183566	1	11/13/2013 05:23	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 05:23	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 05:23	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 05:23	GK
Chloroform	BRL	5.0		ug/L	183566	1	11/13/2013 05:23	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 05:23	GK
Carbon tetrachloride	BRL	5.0		ug/L	183566	1	11/13/2013 05:23	GK
Benzene	BRL	5.0		ug/L	183566	1	11/13/2013 05:23	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 05:23	GK
Trichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 05:23	GK
Toluene	BRL	5.0		ug/L	183566	1	11/13/2013 05:23	GK
Tetrachloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 05:23	GK
Ethylbenzene	BRL	5.0		ug/L	183566	1	11/13/2013 05:23	GK
Xylenes, Total	BRL	5.0		ug/L	183566	1	11/13/2013 05:23	GK
Surr: 4-Bromofluorobenzene	95.4	66.2-120		%REC	183566	1	11/13/2013 05:23	GK
Surr: Dibromofluoromethane	96.2	79.5-121		%REC	183566	1	11/13/2013 05:23	GK
Surr: Toluene-d8	97.6	77-117		%REC	183566	1	11/13/2013 05:23	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-MW-15
Project Name: Owens Corning	Collection Date: 11/5/2013 11:25:00 AM
Lab ID: 1311753-012	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183566	1	11/13/2013 14:27	GK
1,1-Dichloroethene	160	5.0		ug/L	183566	1	11/13/2013 14:27	GK
Methylene chloride	BRL	5.0		ug/L	183566	1	11/13/2013 14:27	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 14:27	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 14:27	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 14:27	GK
Chloroform	BRL	5.0		ug/L	183566	1	11/13/2013 14:27	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 14:27	GK
Carbon tetrachloride	BRL	5.0		ug/L	183566	1	11/13/2013 14:27	GK
Benzene	BRL	5.0		ug/L	183566	1	11/13/2013 14:27	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 14:27	GK
Trichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 14:27	GK
Toluene	BRL	5.0		ug/L	183566	1	11/13/2013 14:27	GK
Tetrachloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 14:27	GK
Ethylbenzene	BRL	5.0		ug/L	183566	1	11/13/2013 14:27	GK
Xylenes, Total	BRL	5.0		ug/L	183566	1	11/13/2013 14:27	GK
Surr: 4-Bromofluorobenzene	96.8	66.2-120		%REC	183566	1	11/13/2013 14:27	GK
Surr: Dibromofluoromethane	101	79.5-121		%REC	183566	1	11/13/2013 14:27	GK
Surr: Toluene-d8	98	77-117		%REC	183566	1	11/13/2013 14:27	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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-MW-21
Project Name: Owens Corning	Collection Date: 11/5/2013 11:20:00 AM
Lab ID: 1311753-013	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183566	1	11/13/2013 05:52	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 05:52	GK
Methylene chloride	BRL	5.0		ug/L	183566	1	11/13/2013 05:52	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 05:52	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 05:52	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 05:52	GK
Chloroform	BRL	5.0		ug/L	183566	1	11/13/2013 05:52	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 05:52	GK
Carbon tetrachloride	BRL	5.0		ug/L	183566	1	11/13/2013 05:52	GK
Benzene	BRL	5.0		ug/L	183566	1	11/13/2013 05:52	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 05:52	GK
Trichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 05:52	GK
Toluene	BRL	5.0		ug/L	183566	1	11/13/2013 05:52	GK
Tetrachloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 05:52	GK
Ethylbenzene	BRL	5.0		ug/L	183566	1	11/13/2013 05:52	GK
Xylenes, Total	BRL	5.0		ug/L	183566	1	11/13/2013 05:52	GK
Surr: 4-Bromofluorobenzene	95.3	66.2-120		%REC	183566	1	11/13/2013 05:52	GK
Surr: Dibromofluoromethane	95.5	79.5-121		%REC	183566	1	11/13/2013 05:52	GK
Surr: Toluene-d8	98.9	77-117		%REC	183566	1	11/13/2013 05:52	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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-EB
Project Name: Owens Corning	Collection Date: 11/5/2013 12:10:00 PM
Lab ID: 1311753-014	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183566	1	11/13/2013 06:20	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 06:20	GK
Methylene chloride	BRL	5.0		ug/L	183566	1	11/13/2013 06:20	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 06:20	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 06:20	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 06:20	GK
Chloroform	BRL	5.0		ug/L	183566	1	11/13/2013 06:20	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 06:20	GK
Carbon tetrachloride	BRL	5.0		ug/L	183566	1	11/13/2013 06:20	GK
Benzene	BRL	5.0		ug/L	183566	1	11/13/2013 06:20	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 06:20	GK
Trichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 06:20	GK
Toluene	BRL	5.0		ug/L	183566	1	11/13/2013 06:20	GK
Tetrachloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 06:20	GK
Ethylbenzene	BRL	5.0		ug/L	183566	1	11/13/2013 06:20	GK
Xylenes, Total	BRL	5.0		ug/L	183566	1	11/13/2013 06:20	GK
Surr: 4-Bromofluorobenzene	95.9	66.2-120		%REC	183566	1	11/13/2013 06:20	GK
Surr: Dibromofluoromethane	97.6	79.5-121		%REC	183566	1	11/13/2013 06:20	GK
Surr: Toluene-d8	96.4	77-117		%REC	183566	1	11/13/2013 06:20	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-MW-25
Project Name: Owens Corning	Collection Date: 11/5/2013 1:45:00 PM
Lab ID: 1311753-015	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183566	1	11/13/2013 12:03	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 12:03	GK
Methylene chloride	BRL	5.0		ug/L	183566	1	11/13/2013 12:03	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 12:03	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 12:03	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 12:03	GK
Chloroform	BRL	5.0		ug/L	183566	1	11/13/2013 12:03	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 12:03	GK
Carbon tetrachloride	BRL	5.0		ug/L	183566	1	11/13/2013 12:03	GK
Benzene	BRL	5.0		ug/L	183566	1	11/13/2013 12:03	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 12:03	GK
Trichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 12:03	GK
Toluene	BRL	5.0		ug/L	183566	1	11/13/2013 12:03	GK
Tetrachloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 12:03	GK
Ethylbenzene	BRL	5.0		ug/L	183566	1	11/13/2013 12:03	GK
Xylenes, Total	BRL	5.0		ug/L	183566	1	11/13/2013 12:03	GK
Surr: 4-Bromofluorobenzene	97.1	66.2-120		%REC	183566	1	11/13/2013 12:03	GK
Surr: Dibromofluoromethane	97.2	79.5-121		%REC	183566	1	11/13/2013 12:03	GK
Surr: Toluene-d8	97.1	77-117		%REC	183566	1	11/13/2013 12:03	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-MW-35
Project Name: Owens Corning	Collection Date: 11/5/2013 5:35:00 PM
Lab ID: 1311753-016	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183566	1	11/13/2013 12:32	GK
1,1-Dichloroethene	98	5.0		ug/L	183566	1	11/13/2013 12:32	GK
Methylene chloride	BRL	5.0		ug/L	183566	1	11/13/2013 12:32	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 12:32	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 12:32	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 12:32	GK
Chloroform	BRL	5.0		ug/L	183566	1	11/13/2013 12:32	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 12:32	GK
Carbon tetrachloride	BRL	5.0		ug/L	183566	1	11/13/2013 12:32	GK
Benzene	BRL	5.0		ug/L	183566	1	11/13/2013 12:32	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 12:32	GK
Trichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 12:32	GK
Toluene	BRL	5.0		ug/L	183566	1	11/13/2013 12:32	GK
Tetrachloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 12:32	GK
Ethylbenzene	BRL	5.0		ug/L	183566	1	11/13/2013 12:32	GK
Xylenes, Total	BRL	5.0		ug/L	183566	1	11/13/2013 12:32	GK
Surr: 4-Bromofluorobenzene	96	66.2-120		%REC	183566	1	11/13/2013 12:32	GK
Surr: Dibromofluoromethane	97.8	79.5-121		%REC	183566	1	11/13/2013 12:32	GK
Surr: Toluene-d8	97.8	77-117		%REC	183566	1	11/13/2013 12:32	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

Client: BROWN AND CALDWELL	Client Sample ID: 13310-MW-13
Project Name: Owens Corning	Collection Date: 11/6/2013 9:25:00 AM
Lab ID: 1311753-017	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183566	1	11/13/2013 14:56	GK
1,1-Dichloroethene	300	50		ug/L	183566	10	11/13/2013 00:37	GK
Methylene chloride	BRL	5.0		ug/L	183566	1	11/13/2013 14:56	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 14:56	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 14:56	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 14:56	GK
Chloroform	11	5.0		ug/L	183566	1	11/13/2013 14:56	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 14:56	GK
Carbon tetrachloride	24	5.0		ug/L	183566	1	11/13/2013 14:56	GK
Benzene	BRL	5.0		ug/L	183566	1	11/13/2013 14:56	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 14:56	GK
Trichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 14:56	GK
Toluene	BRL	5.0		ug/L	183566	1	11/13/2013 14:56	GK
Tetrachloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 14:56	GK
Ethylbenzene	BRL	5.0		ug/L	183566	1	11/13/2013 14:56	GK
Xylenes, Total	BRL	5.0		ug/L	183566	1	11/13/2013 14:56	GK
Surr: 4-Bromofluorobenzene	93.1	66.2-120		%REC	183566	10	11/13/2013 00:37	GK
Surr: 4-Bromofluorobenzene	96.6	66.2-120		%REC	183566	1	11/13/2013 14:56	GK
Surr: Dibromofluoromethane	92.6	79.5-121		%REC	183566	10	11/13/2013 00:37	GK
Surr: Dibromofluoromethane	103	79.5-121		%REC	183566	1	11/13/2013 14:56	GK
Surr: Toluene-d8	97.1	77-117		%REC	183566	10	11/13/2013 00:37	GK
Surr: Toluene-d8	100	77-117		%REC	183566	1	11/13/2013 14:56	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13310-DUP
Project Name: Owens Corning	Collection Date: 11/6/2013 12:00:00 PM
Lab ID: 1311753-018	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183566	1	11/13/2013 13:01	GK
1,1-Dichloroethene	260	50		ug/L	183566	10	11/13/2013 20:44	GK
Methylene chloride	BRL	5.0		ug/L	183566	1	11/13/2013 13:01	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 13:01	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 13:01	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 13:01	GK
Chloroform	10	5.0		ug/L	183566	1	11/13/2013 13:01	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 13:01	GK
Carbon tetrachloride	26	5.0		ug/L	183566	1	11/13/2013 13:01	GK
Benzene	BRL	5.0		ug/L	183566	1	11/13/2013 13:01	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 13:01	GK
Trichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 13:01	GK
Toluene	BRL	5.0		ug/L	183566	1	11/13/2013 13:01	GK
Tetrachloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 13:01	GK
Ethylbenzene	BRL	5.0		ug/L	183566	1	11/13/2013 13:01	GK
Xylenes, Total	BRL	5.0		ug/L	183566	1	11/13/2013 13:01	GK
Surr: 4-Bromofluorobenzene	97.8	66.2-120		%REC	183566	1	11/13/2013 13:01	GK
Surr: 4-Bromofluorobenzene	96.2	66.2-120		%REC	183566	10	11/13/2013 20:44	GK
Surr: Dibromofluoromethane	98	79.5-121		%REC	183566	10	11/13/2013 20:44	GK
Surr: Dibromofluoromethane	101	79.5-121		%REC	183566	1	11/13/2013 13:01	GK
Surr: Toluene-d8	98	77-117		%REC	183566	10	11/13/2013 20:44	GK
Surr: Toluene-d8	98.5	77-117		%REC	183566	1	11/13/2013 13:01	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

Client: BROWN AND CALDWELL	Client Sample ID: 13310-MW-11
Project Name: Owens Corning	Collection Date: 11/6/2013 10:25:00 AM
Lab ID: 1311753-019	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	5.2	2.0		ug/L	183566	1	11/13/2013 13:30	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 13:30	GK
Methylene chloride	BRL	5.0		ug/L	183566	1	11/13/2013 13:30	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 13:30	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 13:30	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 13:30	GK
Chloroform	BRL	5.0		ug/L	183566	1	11/13/2013 13:30	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 13:30	GK
Carbon tetrachloride	BRL	5.0		ug/L	183566	1	11/13/2013 13:30	GK
Benzene	BRL	5.0		ug/L	183566	1	11/13/2013 13:30	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 13:30	GK
Trichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 13:30	GK
Toluene	BRL	5.0		ug/L	183566	1	11/13/2013 13:30	GK
Tetrachloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 13:30	GK
Ethylbenzene	BRL	5.0		ug/L	183566	1	11/13/2013 13:30	GK
Xylenes, Total	BRL	5.0		ug/L	183566	1	11/13/2013 13:30	GK
Surr: 4-Bromofluorobenzene	97.8	66.2-120		%REC	183566	1	11/13/2013 13:30	GK
Surr: Dibromofluoromethane	99.3	79.5-121		%REC	183566	1	11/13/2013 13:30	GK
Surr: Toluene-d8	96.8	77-117		%REC	183566	1	11/13/2013 13:30	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13310-MW-44
Project Name: Owens Corning	Collection Date: 11/6/2013 9:55:00 AM
Lab ID: 1311753-020	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183566	1	11/13/2013 13:58	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 13:58	GK
Methylene chloride	BRL	5.0		ug/L	183566	1	11/13/2013 13:58	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 13:58	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 13:58	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 13:58	GK
Chloroform	BRL	5.0		ug/L	183566	1	11/13/2013 13:58	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 13:58	GK
Carbon tetrachloride	BRL	5.0		ug/L	183566	1	11/13/2013 13:58	GK
Benzene	BRL	5.0		ug/L	183566	1	11/13/2013 13:58	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183566	1	11/13/2013 13:58	GK
Trichloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 13:58	GK
Toluene	BRL	5.0		ug/L	183566	1	11/13/2013 13:58	GK
Tetrachloroethene	BRL	5.0		ug/L	183566	1	11/13/2013 13:58	GK
Ethylbenzene	BRL	5.0		ug/L	183566	1	11/13/2013 13:58	GK
Xylenes, Total	BRL	5.0		ug/L	183566	1	11/13/2013 13:58	GK
Surr: 4-Bromofluorobenzene	96.5	66.2-120		%REC	183566	1	11/13/2013 13:58	GK
Surr: Dibromofluoromethane	98.3	79.5-121		%REC	183566	1	11/13/2013 13:58	GK
Surr: Toluene-d8	98.5	77-117		%REC	183566	1	11/13/2013 13:58	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13310-MW-12
Project Name: Owens Corning	Collection Date: 11/6/2013 11:30:00 AM
Lab ID: 1311753-021	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	6.3	2.0		ug/L	183597	1	11/14/2013 05:22	GK
1,1-Dichloroethene	310	50		ug/L	183597	10	11/13/2013 17:20	GK
Methylene chloride	BRL	5.0		ug/L	183597	1	11/14/2013 05:22	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 05:22	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 05:22	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 05:22	GK
Chloroform	11	5.0		ug/L	183597	1	11/14/2013 05:22	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 05:22	GK
Carbon tetrachloride	13	5.0		ug/L	183597	1	11/14/2013 05:22	GK
Benzene	BRL	5.0		ug/L	183597	1	11/14/2013 05:22	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 05:22	GK
Trichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 05:22	GK
Toluene	BRL	5.0		ug/L	183597	1	11/14/2013 05:22	GK
Tetrachloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 05:22	GK
Ethylbenzene	BRL	5.0		ug/L	183597	1	11/14/2013 05:22	GK
Xylenes, Total	BRL	5.0		ug/L	183597	1	11/14/2013 05:22	GK
Surr: 4-Bromofluorobenzene	95.4	66.2-120		%REC	183597	10	11/13/2013 17:20	GK
Surr: 4-Bromofluorobenzene	101	66.2-120		%REC	183597	1	11/14/2013 05:22	GK
Surr: Dibromofluoromethane	97.3	79.5-121		%REC	183597	10	11/13/2013 17:20	GK
Surr: Dibromofluoromethane	106	79.5-121		%REC	183597	1	11/14/2013 05:22	GK
Surr: Toluene-d8	99.4	77-117		%REC	183597	10	11/13/2013 17:20	GK
Surr: Toluene-d8	100	77-117		%REC	183597	1	11/14/2013 05:22	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13310-MW-19
Project Name: Owens Corning	Collection Date: 11/6/2013 12:30:00 PM
Lab ID: 1311753-022	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183597	1	11/14/2013 04:53	GK
1,1-Dichloroethene	270	50		ug/L	183597	10	11/13/2013 17:49	GK
Methylene chloride	BRL	5.0		ug/L	183597	1	11/14/2013 04:53	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 04:53	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 04:53	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 04:53	GK
Chloroform	5.6	5.0		ug/L	183597	1	11/14/2013 04:53	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 04:53	GK
Carbon tetrachloride	5.3	5.0		ug/L	183597	1	11/14/2013 04:53	GK
Benzene	BRL	5.0		ug/L	183597	1	11/14/2013 04:53	GK
1,2-Dichloroethane	7.6	5.0		ug/L	183597	1	11/14/2013 04:53	GK
Trichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 04:53	GK
Toluene	BRL	5.0		ug/L	183597	1	11/14/2013 04:53	GK
Tetrachloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 04:53	GK
Ethylbenzene	BRL	5.0		ug/L	183597	1	11/14/2013 04:53	GK
Xylenes, Total	BRL	5.0		ug/L	183597	1	11/14/2013 04:53	GK
Surr: 4-Bromofluorobenzene	97.4	66.2-120		%REC	183597	10	11/13/2013 17:49	GK
Surr: 4-Bromofluorobenzene	100	66.2-120		%REC	183597	1	11/14/2013 04:53	GK
Surr: Dibromofluoromethane	97.1	79.5-121		%REC	183597	10	11/13/2013 17:49	GK
Surr: Dibromofluoromethane	105	79.5-121		%REC	183597	1	11/14/2013 04:53	GK
Surr: Toluene-d8	96.7	77-117		%REC	183597	10	11/13/2013 17:49	GK
Surr: Toluene-d8	100	77-117		%REC	183597	1	11/14/2013 04:53	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13310-MW-22
Project Name: Owens Corning	Collection Date: 11/6/2013 1:30:00 PM
Lab ID: 1311753-023	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183597	1	11/14/2013 04:24	GK
1,1-Dichloroethene	300	50		ug/L	183597	10	11/13/2013 18:17	GK
Methylene chloride	BRL	5.0		ug/L	183597	1	11/14/2013 04:24	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 04:24	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 04:24	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 04:24	GK
Chloroform	9.1	5.0		ug/L	183597	1	11/14/2013 04:24	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 04:24	GK
Carbon tetrachloride	23	5.0		ug/L	183597	1	11/14/2013 04:24	GK
Benzene	BRL	5.0		ug/L	183597	1	11/14/2013 04:24	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 04:24	GK
Trichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 04:24	GK
Toluene	BRL	5.0		ug/L	183597	1	11/14/2013 04:24	GK
Tetrachloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 04:24	GK
Ethylbenzene	BRL	5.0		ug/L	183597	1	11/14/2013 04:24	GK
Xylenes, Total	BRL	5.0		ug/L	183597	1	11/14/2013 04:24	GK
Surr: 4-Bromofluorobenzene	96.4	66.2-120		%REC	183597	10	11/13/2013 18:17	GK
Surr: 4-Bromofluorobenzene	102	66.2-120		%REC	183597	1	11/14/2013 04:24	GK
Surr: Dibromofluoromethane	97.4	79.5-121		%REC	183597	10	11/13/2013 18:17	GK
Surr: Dibromofluoromethane	105	79.5-121		%REC	183597	1	11/14/2013 04:24	GK
Surr: Toluene-d8	98.6	77-117		%REC	183597	10	11/13/2013 18:17	GK
Surr: Toluene-d8	100	77-117		%REC	183597	1	11/14/2013 04:24	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13310-TW-41
Project Name: Owens Corning	Collection Date: 11/6/2013 12:25:00 PM
Lab ID: 1311753-024	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183597	1	11/13/2013 21:12	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 21:12	GK
Methylene chloride	BRL	5.0		ug/L	183597	1	11/13/2013 21:12	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 21:12	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183597	1	11/13/2013 21:12	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 21:12	GK
Chloroform	BRL	5.0		ug/L	183597	1	11/13/2013 21:12	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183597	1	11/13/2013 21:12	GK
Carbon tetrachloride	BRL	5.0		ug/L	183597	1	11/13/2013 21:12	GK
Benzene	BRL	5.0		ug/L	183597	1	11/13/2013 21:12	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183597	1	11/13/2013 21:12	GK
Trichloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 21:12	GK
Toluene	BRL	5.0		ug/L	183597	1	11/13/2013 21:12	GK
Tetrachloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 21:12	GK
Ethylbenzene	BRL	5.0		ug/L	183597	1	11/13/2013 21:12	GK
Xylenes, Total	BRL	5.0		ug/L	183597	1	11/13/2013 21:12	GK
Surr: 4-Bromofluorobenzene	96.3	66.2-120		%REC	183597	1	11/13/2013 21:12	GK
Surr: Dibromofluoromethane	99.6	79.5-121		%REC	183597	1	11/13/2013 21:12	GK
Surr: Toluene-d8	98.9	77-117		%REC	183597	1	11/13/2013 21:12	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

Client: BROWN AND CALDWELL	Client Sample ID: 13310-TW-40
Project Name: Owens Corning	Collection Date: 11/6/2013 1:45:00 PM
Lab ID: 1311753-025	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183597	1	11/13/2013 21:41	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 21:41	GK
Methylene chloride	BRL	5.0		ug/L	183597	1	11/13/2013 21:41	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 21:41	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183597	1	11/13/2013 21:41	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 21:41	GK
Chloroform	BRL	5.0		ug/L	183597	1	11/13/2013 21:41	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183597	1	11/13/2013 21:41	GK
Carbon tetrachloride	BRL	5.0		ug/L	183597	1	11/13/2013 21:41	GK
Benzene	BRL	5.0		ug/L	183597	1	11/13/2013 21:41	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183597	1	11/13/2013 21:41	GK
Trichloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 21:41	GK
Toluene	BRL	5.0		ug/L	183597	1	11/13/2013 21:41	GK
Tetrachloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 21:41	GK
Ethylbenzene	BRL	5.0		ug/L	183597	1	11/13/2013 21:41	GK
Xylenes, Total	BRL	5.0		ug/L	183597	1	11/13/2013 21:41	GK
Surr: 4-Bromofluorobenzene	96	66.2-120		%REC	183597	1	11/13/2013 21:41	GK
Surr: Dibromofluoromethane	98.5	79.5-121		%REC	183597	1	11/13/2013 21:41	GK
Surr: Toluene-d8	97.5	77-117		%REC	183597	1	11/13/2013 21:41	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

Client: BROWN AND CALDWELL	Client Sample ID: 13310-ALLOY
Project Name: Owens Corning	Collection Date: 11/6/2013 2:55:00 PM
Lab ID: 1311753-026	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183597	1	11/13/2013 22:10	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 22:10	GK
Methylene chloride	BRL	5.0		ug/L	183597	1	11/13/2013 22:10	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 22:10	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183597	1	11/13/2013 22:10	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 22:10	GK
Chloroform	BRL	5.0		ug/L	183597	1	11/13/2013 22:10	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183597	1	11/13/2013 22:10	GK
Carbon tetrachloride	BRL	5.0		ug/L	183597	1	11/13/2013 22:10	GK
Benzene	BRL	5.0		ug/L	183597	1	11/13/2013 22:10	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183597	1	11/13/2013 22:10	GK
Trichloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 22:10	GK
Toluene	BRL	5.0		ug/L	183597	1	11/13/2013 22:10	GK
Tetrachloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 22:10	GK
Ethylbenzene	BRL	5.0		ug/L	183597	1	11/13/2013 22:10	GK
Xylenes, Total	BRL	5.0		ug/L	183597	1	11/13/2013 22:10	GK
Surr: 4-Bromofluorobenzene	98.5	66.2-120		%REC	183597	1	11/13/2013 22:10	GK
Surr: Dibromofluoromethane	98.3	79.5-121		%REC	183597	1	11/13/2013 22:10	GK
Surr: Toluene-d8	99.9	77-117		%REC	183597	1	11/13/2013 22:10	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13310-TW-44
Project Name: Owens Corning	Collection Date: 11/6/2013 4:30:00 PM
Lab ID: 1311753-027	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183597	1	11/13/2013 22:38	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 22:38	GK
Methylene chloride	BRL	5.0		ug/L	183597	1	11/13/2013 22:38	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 22:38	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183597	1	11/13/2013 22:38	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 22:38	GK
Chloroform	BRL	5.0		ug/L	183597	1	11/13/2013 22:38	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183597	1	11/13/2013 22:38	GK
Carbon tetrachloride	BRL	5.0		ug/L	183597	1	11/13/2013 22:38	GK
Benzene	BRL	5.0		ug/L	183597	1	11/13/2013 22:38	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183597	1	11/13/2013 22:38	GK
Trichloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 22:38	GK
Toluene	BRL	5.0		ug/L	183597	1	11/13/2013 22:38	GK
Tetrachloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 22:38	GK
Ethylbenzene	BRL	5.0		ug/L	183597	1	11/13/2013 22:38	GK
Xylenes, Total	BRL	5.0		ug/L	183597	1	11/13/2013 22:38	GK
Surr: 4-Bromofluorobenzene	95.7	66.2-120		%REC	183597	1	11/13/2013 22:38	GK
Surr: Dibromofluoromethane	101	79.5-121		%REC	183597	1	11/13/2013 22:38	GK
Surr: Toluene-d8	98.4	77-117		%REC	183597	1	11/13/2013 22:38	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

Client: BROWN AND CALDWELL	Client Sample ID: 13310-MW-17
Project Name: Owens Corning	Collection Date: 11/6/2013 4:40:00 PM
Lab ID: 1311753-028	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183597	1	11/13/2013 23:07	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 23:07	GK
Methylene chloride	BRL	5.0		ug/L	183597	1	11/13/2013 23:07	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 23:07	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183597	1	11/13/2013 23:07	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 23:07	GK
Chloroform	BRL	5.0		ug/L	183597	1	11/13/2013 23:07	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183597	1	11/13/2013 23:07	GK
Carbon tetrachloride	BRL	5.0		ug/L	183597	1	11/13/2013 23:07	GK
Benzene	BRL	5.0		ug/L	183597	1	11/13/2013 23:07	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183597	1	11/13/2013 23:07	GK
Trichloroethene	25	5.0		ug/L	183597	1	11/13/2013 23:07	GK
Toluene	BRL	5.0		ug/L	183597	1	11/13/2013 23:07	GK
Tetrachloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 23:07	GK
Ethylbenzene	BRL	5.0		ug/L	183597	1	11/13/2013 23:07	GK
Xylenes, Total	BRL	5.0		ug/L	183597	1	11/13/2013 23:07	GK
Surr: 4-Bromofluorobenzene	96.7	66.2-120		%REC	183597	1	11/13/2013 23:07	GK
Surr: Dibromofluoromethane	99.3	79.5-121		%REC	183597	1	11/13/2013 23:07	GK
Surr: Toluene-d8	98.2	77-117		%REC	183597	1	11/13/2013 23:07	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

Client: BROWN AND CALDWELL	Client Sample ID: 13311-MW-10
Project Name: Owens Corning	Collection Date: 11/7/2013 9:40:00 AM
Lab ID: 1311753-029	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183597	1	11/13/2013 23:36	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 23:36	GK
Methylene chloride	BRL	5.0		ug/L	183597	1	11/13/2013 23:36	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 23:36	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183597	1	11/13/2013 23:36	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 23:36	GK
Chloroform	BRL	5.0		ug/L	183597	1	11/13/2013 23:36	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183597	1	11/13/2013 23:36	GK
Carbon tetrachloride	BRL	5.0		ug/L	183597	1	11/13/2013 23:36	GK
Benzene	BRL	5.0		ug/L	183597	1	11/13/2013 23:36	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183597	1	11/13/2013 23:36	GK
Trichloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 23:36	GK
Toluene	BRL	5.0		ug/L	183597	1	11/13/2013 23:36	GK
Tetrachloroethene	BRL	5.0		ug/L	183597	1	11/13/2013 23:36	GK
Ethylbenzene	BRL	5.0		ug/L	183597	1	11/13/2013 23:36	GK
Xylenes, Total	BRL	5.0		ug/L	183597	1	11/13/2013 23:36	GK
Surr: 4-Bromofluorobenzene	96.6	66.2-120		%REC	183597	1	11/13/2013 23:36	GK
Surr: Dibromofluoromethane	100	79.5-121		%REC	183597	1	11/13/2013 23:36	GK
Surr: Toluene-d8	97.9	77-117		%REC	183597	1	11/13/2013 23:36	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13311-MW-18
Project Name: Owens Corning	Collection Date: 11/7/2013 11:15:00 AM
Lab ID: 1311753-030	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183597	1	11/14/2013 00:04	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 00:04	GK
Methylene chloride	BRL	5.0		ug/L	183597	1	11/14/2013 00:04	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 00:04	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 00:04	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 00:04	GK
Chloroform	BRL	5.0		ug/L	183597	1	11/14/2013 00:04	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 00:04	GK
Carbon tetrachloride	BRL	5.0		ug/L	183597	1	11/14/2013 00:04	GK
Benzene	BRL	5.0		ug/L	183597	1	11/14/2013 00:04	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 00:04	GK
Trichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 00:04	GK
Toluene	BRL	5.0		ug/L	183597	1	11/14/2013 00:04	GK
Tetrachloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 00:04	GK
Ethylbenzene	BRL	5.0		ug/L	183597	1	11/14/2013 00:04	GK
Xylenes, Total	BRL	5.0		ug/L	183597	1	11/14/2013 00:04	GK
Surr: 4-Bromofluorobenzene	96.3	66.2-120		%REC	183597	1	11/14/2013 00:04	GK
Surr: Dibromofluoromethane	100	79.5-121		%REC	183597	1	11/14/2013 00:04	GK
Surr: Toluene-d8	101	77-117		%REC	183597	1	11/14/2013 00:04	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13311-MW-2
Project Name: Owens Corning	Collection Date: 11/7/2013 12:30:00 PM
Lab ID: 1311753-031	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183597	1	11/14/2013 00:33	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 00:33	GK
Methylene chloride	BRL	5.0		ug/L	183597	1	11/14/2013 00:33	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 00:33	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 00:33	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 00:33	GK
Chloroform	BRL	5.0		ug/L	183597	1	11/14/2013 00:33	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 00:33	GK
Carbon tetrachloride	BRL	5.0		ug/L	183597	1	11/14/2013 00:33	GK
Benzene	BRL	5.0		ug/L	183597	1	11/14/2013 00:33	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 00:33	GK
Trichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 00:33	GK
Toluene	BRL	5.0		ug/L	183597	1	11/14/2013 00:33	GK
Tetrachloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 00:33	GK
Ethylbenzene	BRL	5.0		ug/L	183597	1	11/14/2013 00:33	GK
Xylenes, Total	BRL	5.0		ug/L	183597	1	11/14/2013 00:33	GK
Surr: 4-Bromofluorobenzene	97.7	66.2-120		%REC	183597	1	11/14/2013 00:33	GK
Surr: Dibromofluoromethane	102	79.5-121		%REC	183597	1	11/14/2013 00:33	GK
Surr: Toluene-d8	99.9	77-117		%REC	183597	1	11/14/2013 00:33	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13311-TW-46
Project Name: Owens Corning	Collection Date: 11/7/2013 10:20:00 AM
Lab ID: 1311753-032	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183597	1	11/14/2013 01:02	GK
1,1-Dichloroethene	5.4	5.0		ug/L	183597	1	11/14/2013 01:02	GK
Methylene chloride	BRL	5.0		ug/L	183597	1	11/14/2013 01:02	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 01:02	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 01:02	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 01:02	GK
Chloroform	BRL	5.0		ug/L	183597	1	11/14/2013 01:02	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 01:02	GK
Carbon tetrachloride	BRL	5.0		ug/L	183597	1	11/14/2013 01:02	GK
Benzene	BRL	5.0		ug/L	183597	1	11/14/2013 01:02	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 01:02	GK
Trichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 01:02	GK
Toluene	BRL	5.0		ug/L	183597	1	11/14/2013 01:02	GK
Tetrachloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 01:02	GK
Ethylbenzene	BRL	5.0		ug/L	183597	1	11/14/2013 01:02	GK
Xylenes, Total	BRL	5.0		ug/L	183597	1	11/14/2013 01:02	GK
Surr: 4-Bromofluorobenzene	98	66.2-120		%REC	183597	1	11/14/2013 01:02	GK
Surr: Dibromofluoromethane	102	79.5-121		%REC	183597	1	11/14/2013 01:02	GK
Surr: Toluene-d8	100	77-117		%REC	183597	1	11/14/2013 01:02	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

Client: BROWN AND CALDWELL	Client Sample ID: 13311-MW-32
Project Name: Owens Corning	Collection Date: 11/7/2013 12:40:00 PM
Lab ID: 1311753-033	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183597	1	11/14/2013 01:31	GK
1,1-Dichloroethene	21	5.0		ug/L	183597	1	11/14/2013 01:31	GK
Methylene chloride	BRL	5.0		ug/L	183597	1	11/14/2013 01:31	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 01:31	GK
1,1-Dichloroethane	6.3	5.0		ug/L	183597	1	11/14/2013 01:31	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 01:31	GK
Chloroform	BRL	5.0		ug/L	183597	1	11/14/2013 01:31	GK
1,1,1-Trichloroethane	12	5.0		ug/L	183597	1	11/14/2013 01:31	GK
Carbon tetrachloride	BRL	5.0		ug/L	183597	1	11/14/2013 01:31	GK
Benzene	BRL	5.0		ug/L	183597	1	11/14/2013 01:31	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 01:31	GK
Trichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 01:31	GK
Toluene	BRL	5.0		ug/L	183597	1	11/14/2013 01:31	GK
Tetrachloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 01:31	GK
Ethylbenzene	BRL	5.0		ug/L	183597	1	11/14/2013 01:31	GK
Xylenes, Total	BRL	5.0		ug/L	183597	1	11/14/2013 01:31	GK
Surr: 4-Bromofluorobenzene	99.4	66.2-120		%REC	183597	1	11/14/2013 01:31	GK
Surr: Dibromofluoromethane	104	79.5-121		%REC	183597	1	11/14/2013 01:31	GK
Surr: Toluene-d8	98.9	77-117		%REC	183597	1	11/14/2013 01:31	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13311-MW-1
Project Name: Owens Corning	Collection Date: 11/7/2013 2:15:00 PM
Lab ID: 1311753-034	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183597	1	11/14/2013 02:00	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 02:00	GK
Methylene chloride	BRL	5.0		ug/L	183597	1	11/14/2013 02:00	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 02:00	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 02:00	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 02:00	GK
Chloroform	BRL	5.0		ug/L	183597	1	11/14/2013 02:00	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 02:00	GK
Carbon tetrachloride	BRL	5.0		ug/L	183597	1	11/14/2013 02:00	GK
Benzene	BRL	5.0		ug/L	183597	1	11/14/2013 02:00	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 02:00	GK
Trichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 02:00	GK
Toluene	BRL	5.0		ug/L	183597	1	11/14/2013 02:00	GK
Tetrachloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 02:00	GK
Ethylbenzene	BRL	5.0		ug/L	183597	1	11/14/2013 02:00	GK
Xylenes, Total	BRL	5.0		ug/L	183597	1	11/14/2013 02:00	GK
Surr: 4-Bromofluorobenzene	98.5	66.2-120		%REC	183597	1	11/14/2013 02:00	GK
Surr: Dibromofluoromethane	104	79.5-121		%REC	183597	1	11/14/2013 02:00	GK
Surr: Toluene-d8	99.9	77-117		%REC	183597	1	11/14/2013 02:00	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13311-MW-6
Project Name: Owens Corning	Collection Date: 11/7/2013 3:20:00 PM
Lab ID: 1311753-035	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183597	1	11/14/2013 02:29	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 02:29	GK
Methylene chloride	BRL	5.0		ug/L	183597	1	11/14/2013 02:29	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 02:29	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 02:29	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 02:29	GK
Chloroform	BRL	5.0		ug/L	183597	1	11/14/2013 02:29	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 02:29	GK
Carbon tetrachloride	BRL	5.0		ug/L	183597	1	11/14/2013 02:29	GK
Benzene	BRL	5.0		ug/L	183597	1	11/14/2013 02:29	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 02:29	GK
Trichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 02:29	GK
Toluene	BRL	5.0		ug/L	183597	1	11/14/2013 02:29	GK
Tetrachloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 02:29	GK
Ethylbenzene	BRL	5.0		ug/L	183597	1	11/14/2013 02:29	GK
Xylenes, Total	BRL	5.0		ug/L	183597	1	11/14/2013 02:29	GK
Surr: 4-Bromofluorobenzene	98.6	66.2-120		%REC	183597	1	11/14/2013 02:29	GK
Surr: Dibromofluoromethane	105	79.5-121		%REC	183597	1	11/14/2013 02:29	GK
Surr: Toluene-d8	99.9	77-117		%REC	183597	1	11/14/2013 02:29	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13311-MW-9
Project Name: Owens Corning	Collection Date: 11/7/2013 4:05:00 PM
Lab ID: 1311753-036	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183597	1	11/14/2013 02:58	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 02:58	GK
Methylene chloride	BRL	5.0		ug/L	183597	1	11/14/2013 02:58	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 02:58	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 02:58	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 02:58	GK
Chloroform	BRL	5.0		ug/L	183597	1	11/14/2013 02:58	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 02:58	GK
Carbon tetrachloride	BRL	5.0		ug/L	183597	1	11/14/2013 02:58	GK
Benzene	BRL	5.0		ug/L	183597	1	11/14/2013 02:58	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 02:58	GK
Trichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 02:58	GK
Toluene	BRL	5.0		ug/L	183597	1	11/14/2013 02:58	GK
Tetrachloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 02:58	GK
Ethylbenzene	BRL	5.0		ug/L	183597	1	11/14/2013 02:58	GK
Xylenes, Total	BRL	5.0		ug/L	183597	1	11/14/2013 02:58	GK
Surr: 4-Bromofluorobenzene	99	66.2-120		%REC	183597	1	11/14/2013 02:58	GK
Surr: Dibromofluoromethane	104	79.5-121		%REC	183597	1	11/14/2013 02:58	GK
Surr: Toluene-d8	99.2	77-117		%REC	183597	1	11/14/2013 02:58	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

Client: BROWN AND CALDWELL	Client Sample ID: 13311-DUP
Project Name: Owens Corning	Collection Date: 11/7/2013 5:00:00 PM
Lab ID: 1311753-037	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183597	1	11/14/2013 03:27	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 03:27	GK
Methylene chloride	BRL	5.0		ug/L	183597	1	11/14/2013 03:27	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 03:27	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 03:27	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 03:27	GK
Chloroform	BRL	5.0		ug/L	183597	1	11/14/2013 03:27	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 03:27	GK
Carbon tetrachloride	BRL	5.0		ug/L	183597	1	11/14/2013 03:27	GK
Benzene	BRL	5.0		ug/L	183597	1	11/14/2013 03:27	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 03:27	GK
Trichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 03:27	GK
Toluene	BRL	5.0		ug/L	183597	1	11/14/2013 03:27	GK
Tetrachloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 03:27	GK
Ethylbenzene	BRL	5.0		ug/L	183597	1	11/14/2013 03:27	GK
Xylenes, Total	BRL	5.0		ug/L	183597	1	11/14/2013 03:27	GK
Surr: 4-Bromofluorobenzene	100	66.2-120		%REC	183597	1	11/14/2013 03:27	GK
Surr: Dibromofluoromethane	107	79.5-121		%REC	183597	1	11/14/2013 03:27	GK
Surr: Toluene-d8	99.9	77-117		%REC	183597	1	11/14/2013 03:27	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13312-MW-30
Project Name: Owens Corning	Collection Date: 11/8/2013 8:50:00 AM
Lab ID: 1311753-038	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183597	1	11/14/2013 06:19	GK
1,1-Dichloroethene	4200	250		ug/L	183597	50	11/13/2013 16:23	GK
Methylene chloride	BRL	5.0		ug/L	183597	1	11/14/2013 06:19	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 06:19	GK
1,1-Dichloroethane	18	5.0		ug/L	183597	1	11/14/2013 06:19	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 06:19	GK
Chloroform	6.5	5.0		ug/L	183597	1	11/14/2013 06:19	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 06:19	GK
Carbon tetrachloride	300	250		ug/L	183597	50	11/13/2013 16:23	GK
Benzene	BRL	5.0		ug/L	183597	1	11/14/2013 06:19	GK
1,2-Dichloroethane	27	5.0		ug/L	183597	1	11/14/2013 06:19	GK
Trichloroethene	6.0	5.0		ug/L	183597	1	11/14/2013 06:19	GK
Toluene	BRL	5.0		ug/L	183597	1	11/14/2013 06:19	GK
Tetrachloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 06:19	GK
Ethylbenzene	BRL	5.0		ug/L	183597	1	11/14/2013 06:19	GK
Xylenes, Total	BRL	5.0		ug/L	183597	1	11/14/2013 06:19	GK
Surr: 4-Bromofluorobenzene	97.1	66.2-120		%REC	183597	50	11/13/2013 16:23	GK
Surr: 4-Bromofluorobenzene	99.1	66.2-120		%REC	183597	1	11/14/2013 06:19	GK
Surr: Dibromofluoromethane	102	79.5-121		%REC	183597	50	11/13/2013 16:23	GK
Surr: Dibromofluoromethane	109	79.5-121		%REC	183597	1	11/14/2013 06:19	GK
Surr: Toluene-d8	100	77-117		%REC	183597	50	11/13/2013 16:23	GK
Surr: Toluene-d8	101	77-117		%REC	183597	1	11/14/2013 06:19	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

Client: BROWN AND CALDWELL	Client Sample ID: 13312-DUP
Project Name: Owens Corning	Collection Date: 11/8/2013 12:00:00 PM
Lab ID: 1311753-039	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183597	1	11/14/2013 03:56	GK
1,1-Dichloroethene	4000	250		ug/L	183597	50	11/14/2013 17:56	GK
Methylene chloride	BRL	5.0		ug/L	183597	1	11/14/2013 03:56	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 03:56	GK
1,1-Dichloroethane	18	5.0		ug/L	183597	1	11/14/2013 03:56	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 03:56	GK
Chloroform	6.7	5.0		ug/L	183597	1	11/14/2013 03:56	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 03:56	GK
Carbon tetrachloride	330	250		ug/L	183597	50	11/14/2013 17:56	GK
Benzene	BRL	5.0		ug/L	183597	1	11/14/2013 03:56	GK
1,2-Dichloroethane	25	5.0		ug/L	183597	1	11/14/2013 03:56	GK
Trichloroethene	5.9	5.0		ug/L	183597	1	11/14/2013 03:56	GK
Toluene	BRL	5.0		ug/L	183597	1	11/14/2013 03:56	GK
Tetrachloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 03:56	GK
Ethylbenzene	BRL	5.0		ug/L	183597	1	11/14/2013 03:56	GK
Xylenes, Total	BRL	5.0		ug/L	183597	1	11/14/2013 03:56	GK
Surr: 4-Bromofluorobenzene	102	66.2-120		%REC	183597	50	11/14/2013 17:56	GK
Surr: 4-Bromofluorobenzene	102	66.2-120		%REC	183597	1	11/14/2013 03:56	GK
Surr: Dibromofluoromethane	110	79.5-121		%REC	183597	50	11/14/2013 17:56	GK
Surr: Dibromofluoromethane	107	79.5-121		%REC	183597	1	11/14/2013 03:56	GK
Surr: Toluene-d8	104	77-117		%REC	183597	50	11/14/2013 17:56	GK
Surr: Toluene-d8	101	77-117		%REC	183597	1	11/14/2013 03:56	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

Client: BROWN AND CALDWELL	Client Sample ID: 13312-MW-31
Project Name: Owens Corning	Collection Date: 11/8/2013 10:55:00 AM
Lab ID: 1311753-040	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183597	1	11/14/2013 05:50	GK
1,1-Dichloroethene	1400	100		ug/L	183597	20	11/13/2013 16:51	GK
Methylene chloride	BRL	5.0		ug/L	183597	1	11/14/2013 05:50	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 05:50	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 05:50	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 05:50	GK
Chloroform	BRL	5.0		ug/L	183597	1	11/14/2013 05:50	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183597	1	11/14/2013 05:50	GK
Carbon tetrachloride	19	5.0		ug/L	183597	1	11/14/2013 05:50	GK
Benzene	BRL	5.0		ug/L	183597	1	11/14/2013 05:50	GK
1,2-Dichloroethane	7.5	5.0		ug/L	183597	1	11/14/2013 05:50	GK
Trichloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 05:50	GK
Toluene	BRL	5.0		ug/L	183597	1	11/14/2013 05:50	GK
Tetrachloroethene	BRL	5.0		ug/L	183597	1	11/14/2013 05:50	GK
Ethylbenzene	BRL	5.0		ug/L	183597	1	11/14/2013 05:50	GK
Xylenes, Total	BRL	5.0		ug/L	183597	1	11/14/2013 05:50	GK
Surr: 4-Bromofluorobenzene	98.8	66.2-120		%REC	183597	1	11/14/2013 05:50	GK
Surr: 4-Bromofluorobenzene	94	66.2-120		%REC	183597	20	11/13/2013 16:51	GK
Surr: Dibromofluoromethane	109	79.5-121		%REC	183597	1	11/14/2013 05:50	GK
Surr: Dibromofluoromethane	98.5	79.5-121		%REC	183597	20	11/13/2013 16:51	GK
Surr: Toluene-d8	101	77-117		%REC	183597	1	11/14/2013 05:50	GK
Surr: Toluene-d8	98.7	77-117		%REC	183597	20	11/13/2013 16:51	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13312-MW-7
Project Name: Owens Corning	Collection Date: 11/8/2013 10:35:00 AM
Lab ID: 1311753-041	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	1000		ug/L	183506	500	11/11/2013 21:48	GK
1,1-Dichloroethene	89000	2500		ug/L	183506	500	11/11/2013 21:48	GK
Methylene chloride	BRL	2500		ug/L	183506	500	11/11/2013 21:48	GK
trans-1,2-Dichloroethene	BRL	2500		ug/L	183506	500	11/11/2013 21:48	GK
1,1-Dichloroethane	BRL	2500		ug/L	183506	500	11/11/2013 21:48	GK
cis-1,2-Dichloroethene	BRL	2500		ug/L	183506	500	11/11/2013 21:48	GK
Chloroform	BRL	2500		ug/L	183506	500	11/11/2013 21:48	GK
1,1,1-Trichloroethane	41000	2500		ug/L	183506	500	11/11/2013 21:48	GK
Carbon tetrachloride	BRL	2500		ug/L	183506	500	11/11/2013 21:48	GK
Benzene	BRL	2500		ug/L	183506	500	11/11/2013 21:48	GK
1,2-Dichloroethane	BRL	2500		ug/L	183506	500	11/11/2013 21:48	GK
Trichloroethene	BRL	2500		ug/L	183506	500	11/11/2013 21:48	GK
Toluene	BRL	2500		ug/L	183506	500	11/11/2013 21:48	GK
Tetrachloroethene	BRL	2500		ug/L	183506	500	11/11/2013 21:48	GK
Ethylbenzene	BRL	2500		ug/L	183506	500	11/11/2013 21:48	GK
Xylenes, Total	BRL	2500		ug/L	183506	500	11/11/2013 21:48	GK
Surr: 4-Bromofluorobenzene	89.3	66.2-120		%REC	183506	500	11/11/2013 21:48	GK
Surr: Dibromofluoromethane	91.6	79.5-121		%REC	183506	500	11/11/2013 21:48	GK
Surr: Toluene-d8	96.7	77-117		%REC	183506	500	11/11/2013 21:48	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13312-EB
Project Name: Owens Corning	Collection Date: 11/8/2013 11:00:00 AM
Lab ID: 1311753-042	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183506	1	11/11/2013 22:46	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183506	1	11/11/2013 22:46	GK
Methylene chloride	BRL	5.0		ug/L	183506	1	11/11/2013 22:46	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183506	1	11/11/2013 22:46	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183506	1	11/11/2013 22:46	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183506	1	11/11/2013 22:46	GK
Chloroform	BRL	5.0		ug/L	183506	1	11/11/2013 22:46	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183506	1	11/11/2013 22:46	GK
Carbon tetrachloride	BRL	5.0		ug/L	183506	1	11/11/2013 22:46	GK
Benzene	BRL	5.0		ug/L	183506	1	11/11/2013 22:46	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183506	1	11/11/2013 22:46	GK
Trichloroethene	BRL	5.0		ug/L	183506	1	11/11/2013 22:46	GK
Toluene	BRL	5.0		ug/L	183506	1	11/11/2013 22:46	GK
Tetrachloroethene	BRL	5.0		ug/L	183506	1	11/11/2013 22:46	GK
Ethylbenzene	BRL	5.0		ug/L	183506	1	11/11/2013 22:46	GK
Xylenes, Total	BRL	5.0		ug/L	183506	1	11/11/2013 22:46	GK
Surr: 4-Bromofluorobenzene	89	66.2-120		%REC	183506	1	11/11/2013 22:46	GK
Surr: Dibromofluoromethane	91.3	79.5-121		%REC	183506	1	11/11/2013 22:46	GK
Surr: Toluene-d8	98.5	77-117		%REC	183506	1	11/11/2013 22:46	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13312-MW-28
Project Name: Owens Corning	Collection Date: 11/8/2013 1:20:00 PM
Lab ID: 1311753-043	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2000		ug/L	183506	1000	11/11/2013 21:20	GK
1,1-Dichloroethene	130000	5000		ug/L	183506	1000	11/11/2013 21:20	GK
Methylene chloride	BRL	5000		ug/L	183506	1000	11/11/2013 21:20	GK
trans-1,2-Dichloroethene	BRL	5000		ug/L	183506	1000	11/11/2013 21:20	GK
1,1-Dichloroethane	BRL	5000		ug/L	183506	1000	11/11/2013 21:20	GK
cis-1,2-Dichloroethene	BRL	5000		ug/L	183506	1000	11/11/2013 21:20	GK
Chloroform	BRL	5000		ug/L	183506	1000	11/11/2013 21:20	GK
1,1,1-Trichloroethane	100000	5000		ug/L	183506	1000	11/11/2013 21:20	GK
Carbon tetrachloride	BRL	5000		ug/L	183506	1000	11/11/2013 21:20	GK
Benzene	BRL	5000		ug/L	183506	1000	11/11/2013 21:20	GK
1,2-Dichloroethane	BRL	5000		ug/L	183506	1000	11/11/2013 21:20	GK
Trichloroethene	BRL	5000		ug/L	183506	1000	11/11/2013 21:20	GK
Toluene	BRL	5000		ug/L	183506	1000	11/11/2013 21:20	GK
Tetrachloroethene	BRL	5000		ug/L	183506	1000	11/11/2013 21:20	GK
Ethylbenzene	BRL	5000		ug/L	183506	1000	11/11/2013 21:20	GK
Xylenes, Total	BRL	5000		ug/L	183506	1000	11/11/2013 21:20	GK
Surr: 4-Bromofluorobenzene	90.3	66.2-120		%REC	183506	1000	11/11/2013 21:20	GK
Surr: Dibromofluoromethane	90.8	79.5-121		%REC	183506	1000	11/11/2013 21:20	GK
Surr: Toluene-d8	96.2	77-117		%REC	183506	1000	11/11/2013 21:20	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: TRIP BLANK
Project Name: Owens Corning	Collection Date: 11/8/2013
Lab ID: 1311753-044	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183506	1	11/11/2013 22:17	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183506	1	11/11/2013 22:17	GK
Methylene chloride	BRL	5.0		ug/L	183506	1	11/11/2013 22:17	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183506	1	11/11/2013 22:17	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183506	1	11/11/2013 22:17	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183506	1	11/11/2013 22:17	GK
Chloroform	BRL	5.0		ug/L	183506	1	11/11/2013 22:17	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183506	1	11/11/2013 22:17	GK
Carbon tetrachloride	BRL	5.0		ug/L	183506	1	11/11/2013 22:17	GK
Benzene	BRL	5.0		ug/L	183506	1	11/11/2013 22:17	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183506	1	11/11/2013 22:17	GK
Trichloroethene	BRL	5.0		ug/L	183506	1	11/11/2013 22:17	GK
Toluene	BRL	5.0		ug/L	183506	1	11/11/2013 22:17	GK
Tetrachloroethene	BRL	5.0		ug/L	183506	1	11/11/2013 22:17	GK
Ethylbenzene	BRL	5.0		ug/L	183506	1	11/11/2013 22:17	GK
Xylenes, Total	BRL	5.0		ug/L	183506	1	11/11/2013 22:17	GK
Surr: 4-Bromofluorobenzene	88.5	66.2-120		%REC	183506	1	11/11/2013 22:17	GK
Surr: Dibromofluoromethane	90.8	79.5-121		%REC	183506	1	11/11/2013 22:17	GK
Surr: Toluene-d8	97.8	77-117		%REC	183506	1	11/11/2013 22:17	GK

Qualifiers:	* 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 1311753

Checklist completed by [Signature] 11/9/13
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 3.3 Cooler #2 3.1 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 Name: Owens Corning
Workorder: 1311753

ANALYTICAL QC SUMMARY REPORT

BatchID: 183506

Sample ID: MB-183506	Client ID:	Units: ug/L	Prep Date: 11/11/2013	Run No: 255552							
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183506	Analysis Date: 11/11/2013	Seq No: 5367320							
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									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
Benzene	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chloroform	BRL	5.0									
cis-1,2-Dichloroethene	BRL	5.0									
Ethylbenzene	BRL	5.0									
Methylene chloride	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
Trichloroethene	BRL	5.0									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	45.00	0	50.00		90.0	66.2	120				
Surr: Dibromofluoromethane	44.66	0	50.00		89.3	79.5	121				
Surr: Toluene-d8	48.02	0	50.00		96.0	77	117				

Sample ID: LCS-183506	Client ID:	Units: ug/L	Prep Date: 11/11/2013	Run No: 255552							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183506	Analysis Date: 11/11/2013	Seq No: 5367319							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	53.84	5.0	50.00		108	63.1	140				
Benzene	53.29	5.0	50.00		107	74.2	129				
Toluene	55.59	5.0	50.00		111	74.2	129				

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: 1311753

ANALYTICAL QC SUMMARY REPORT

BatchID: 183506

Sample ID: LCS-183506	Client ID:	Units: ug/L	Prep Date: 11/11/2013	Run No: 255552							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183506	Analysis Date: 11/11/2013	Seq No: 5367319							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Trichloroethene	59.85	5.0	50.00		120	71.2	135				
Surr: 4-Bromofluorobenzene	46.71	0	50.00		93.4	66.2	120				
Surr: Dibromofluoromethane	45.29	0	50.00		90.6	79.5	121				
Surr: Toluene-d8	49.11	0	50.00		98.2	77	117				

Sample ID: 1311502-014AMS	Client ID:	Units: ug/L	Prep Date: 11/11/2013	Run No: 255552							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183506	Analysis Date: 11/11/2013	Seq No: 5367322							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	967.2	100	1000		96.7	60.2	159				
Benzene	965.6	100	1000		96.6	70.2	138				
Toluene	1004	100	1000		100	70	139				
Trichloroethene	1074	100	1000		107	70.1	144				
Surr: 4-Bromofluorobenzene	905.2	0	1000		90.5	66.2	120				
Surr: Dibromofluoromethane	916.2	0	1000		91.6	79.5	121				
Surr: Toluene-d8	966.8	0	1000		96.7	77	117				

Sample ID: 1311502-014AMSD	Client ID:	Units: ug/L	Prep Date: 11/11/2013	Run No: 255552							
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183506	Analysis Date: 11/11/2013	Seq No: 5367323							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	956.2	100	1000		95.6	60.2	159	967.2	1.14	19.2	
Benzene	971.6	100	1000		97.2	70.2	138	965.6	0.619	20	
Toluene	999.6	100	1000		100.0	70	139	1004	0.479	20	
Trichloroethene	1079	100	1000		108	70.1	144	1074	0.520	20	
Surr: 4-Bromofluorobenzene	926.8	0	1000		92.7	66.2	120	905.2	0	0	
Surr: Dibromofluoromethane	919.8	0	1000		92.0	79.5	121	916.2	0	0	
Surr: Toluene-d8	973.2	0	1000		97.3	77	117	966.8	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: 1311753

ANALYTICAL QC SUMMARY REPORT

BatchID: 183566

Sample ID: MB-183566	Client ID:	Units: ug/L	Prep Date: 11/12/2013	Run No: 255654							
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183566	Analysis Date: 11/12/2013	Seq No: 5368825							
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									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
Benzene	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chloroform	BRL	5.0									
cis-1,2-Dichloroethene	BRL	5.0									
Ethylbenzene	BRL	5.0									
Methylene chloride	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
Trichloroethene	BRL	5.0									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	46.74	0	50.00		93.5	66.2	120				
Surr: Dibromofluoromethane	45.60	0	50.00		91.2	79.5	121				
Surr: Toluene-d8	48.95	0	50.00		97.9	77	117				

Sample ID: LCS-183566	Client ID:	Units: ug/L	Prep Date: 11/12/2013	Run No: 255654							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183566	Analysis Date: 11/12/2013	Seq No: 5368404							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	50.01	5.0	50.00		100	63.1	140				
Benzene	51.88	5.0	50.00		104	74.2	129				
Toluene	53.88	5.0	50.00		108	74.2	129				
Trichloroethene	59.33	5.0	50.00		119	71.2	135				

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: 1311753

ANALYTICAL QC SUMMARY REPORT

BatchID: 183566

Sample ID: LCS-183566	Client ID:	Units: ug/L	Prep Date: 11/12/2013	Run No: 255654							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183566	Analysis Date: 11/12/2013	Seq No: 5368404							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Surr: 4-Bromofluorobenzene	48.03	0	50.00		96.1	66.2	120				
Surr: Dibromofluoromethane	47.99	0	50.00		96.0	79.5	121				
Surr: Toluene-d8	48.97	0	50.00		97.9	77	117				

Sample ID: 1311753-003AMS	Client ID: 13308-MW-20	Units: ug/L	Prep Date: 11/12/2013	Run No: 255654							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183566	Analysis Date: 11/12/2013	Seq No: 5368836							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	867.6	50	500.0	156.9	142	60.2	159				
Benzene	518.1	50	500.0		104	70.2	138				
Toluene	539.2	50	500.0		108	70	139				
Trichloroethene	583.4	50	500.0		117	70.1	144				
Surr: 4-Bromofluorobenzene	477.5	0	500.0		95.5	66.2	120				
Surr: Dibromofluoromethane	472.0	0	500.0		94.4	79.5	121				
Surr: Toluene-d8	485.6	0	500.0		97.1	77	117				

Sample ID: 1311753-003AMSD	Client ID: 13308-MW-20	Units: ug/L	Prep Date: 11/12/2013	Run No: 255654							
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183566	Analysis Date: 11/12/2013	Seq No: 5368838							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	843.5	50	500.0	156.9	137	60.2	159	867.6	2.82	19.2	
Benzene	524.0	50	500.0		105	70.2	138	518.1	1.13	20	
Toluene	546.3	50	500.0		109	70	139	539.2	1.31	20	
Trichloroethene	592.8	50	500.0		119	70.1	144	583.4	1.60	20	
Surr: 4-Bromofluorobenzene	481.6	0	500.0		96.3	66.2	120	477.5	0	0	
Surr: Dibromofluoromethane	487.0	0	500.0		97.4	79.5	121	472.0	0	0	
Surr: Toluene-d8	503.9	0	500.0		101	77	117	485.6	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: 1311753

ANALYTICAL QC SUMMARY REPORT

BatchID: 183597

Sample ID: MB-183597	Client ID:	Units: ug/L	Prep Date: 11/13/2013	Run No: 255686							
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183597	Analysis Date: 11/13/2013	Seq No: 5368955							
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									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
Benzene	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chloroform	BRL	5.0									
cis-1,2-Dichloroethene	BRL	5.0									
Ethylbenzene	BRL	5.0									
Methylene chloride	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
Trichloroethene	BRL	5.0									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	48.60	0	50.00		97.2	66.2	120				
Surr: Dibromofluoromethane	48.91	0	50.00		97.8	79.5	121				
Surr: Toluene-d8	49.20	0	50.00		98.4	77	117				

Sample ID: LCS-183597	Client ID:	Units: ug/L	Prep Date: 11/13/2013	Run No: 255686							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183597	Analysis Date: 11/13/2013	Seq No: 5368950							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	36.44	5.0	50.00		72.9	63.1	140				
Benzene	39.66	5.0	50.00		79.3	74.2	129				
Toluene	40.99	5.0	50.00		82.0	74.2	129				
Trichloroethene	44.44	5.0	50.00		88.9	71.2	135				

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: 1311753

ANALYTICAL QC SUMMARY REPORT

BatchID: 183597

Sample ID: LCS-183597	Client ID:	Units: ug/L	Prep Date: 11/13/2013	Run No: 255686							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183597	Analysis Date: 11/13/2013	Seq No: 5368950							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Surr: 4-Bromofluorobenzene	50.55	0	50.00		101	66.2	120				
Surr: Dibromofluoromethane	49.66	0	50.00		99.3	79.5	121				
Surr: Toluene-d8	48.65	0	50.00		97.3	77	117				

Sample ID: 1311753-038AMS	Client ID: 13312-MW-30	Units: ug/L	Prep Date: 11/13/2013	Run No: 255686							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183597	Analysis Date: 11/13/2013	Seq No: 5369799							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	6796	250	2500	4184	104	60.2	159				
Benzene	2596	250	2500		104	70.2	138				
Toluene	2679	250	2500		107	70	139				
Trichloroethene	2958	250	2500		118	70.1	144				
Surr: 4-Bromofluorobenzene	2574	0	2500		103	66.2	120				
Surr: Dibromofluoromethane	2558	0	2500		102	79.5	121				
Surr: Toluene-d8	2478	0	2500		99.1	77	117				

Sample ID: 1311753-038AMSD	Client ID: 13312-MW-30	Units: ug/L	Prep Date: 11/13/2013	Run No: 255686							
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183597	Analysis Date: 11/13/2013	Seq No: 5369997							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	6733	250	2500	4184	102	60.2	159	6796	0.939	19.2	
Benzene	2564	250	2500		103	70.2	138	2596	1.26	20	
Toluene	2696	250	2500		108	70	139	2679	0.651	20	
Trichloroethene	2858	250	2500		114	70.1	144	2958	3.44	20	
Surr: 4-Bromofluorobenzene	2560	0	2500		102	66.2	120	2574	0	0	
Surr: Dibromofluoromethane	2550	0	2500		102	79.5	121	2558	0	0	
Surr: Toluene-d8	2480	0	2500		99.2	77	117	2478	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



November 15, 2013

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: 1311754

Analytical Environmental Services, Inc. received 14 samples on 11/8/2013 4:00:00 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:

- NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/13-06/30/14.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/15.

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.

Tara Esbeck
Project Manager

CHAIN OF CUSTODY

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

Date: 11/5/13 Page 1 of 1

COMPANY:		ADDRESS:		ANALYSIS REQUESTED		REMARKS	No # of Containers
Brown and Caldwell		990 Hammond Dr, Suite 400 Atlanta, GA, 30308		Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.			
PHONE:		FAX:		PRESERVATION (See codes)		REMARKS	No # of Containers
SAMPLED BY:		SIGNATURE:		DATE		DATE/TIME	DATE/TIME
George Skala, Juan Nunez							
#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)	
1	13309-412 Kaye Drive	11/5/13	1715	X		GW	2
2	13309-112 Sage Drive		1715	X			2
3	13309-200 Kaye Drive		1655	X			2
4	13309-1303 Clinkscales Rd		1640	X			2
5	13309-303 Kaye Drive		1705	X			2
6	13309-119 Cloverhill Dr		1625	X			2
7	13309-721 Clinkscales Rd		1605	X			2
8	13309-408 Clinkscales Rd		1555	X			2
9	13309-605 Clinkscales Rd		1544	X			2
10	13309-200 Friendship Ln.		1530	X			2
11	13310-5A	11-6-13	1330	X		GW	
12	13310-MW-91 Z1	11-6-13	1605				
13	13310-MW-39 Z1		0945				
14	13310-MW-39 Z3		7675-1558				
RELINQUISHED BY:		RECEIVED BY:		DATE/TIME		DATE/TIME	
				11-8-13 1600		11-8-13 4:00p	
PROJECT NAME: Owens Corning		PROJECT #: 143875		SITE ADDRESS: Anderson, SC		PROJECT INFORMATION	
SEND REPORT TO: TERRY MARI-CHEMICAL.COM		INVOICE TO: TERRY MARI-CHEMICAL.COM		TURNAROUND TIME REQUEST: Standard 5 Business Days		Total # of Containers	
				2 Business Day Rush			
				Next Business Day Rush			
				Same Day Rush (auth req.)			
				Other			
STATE PROGRAM (if any):		E-mail? <input checked="" type="checkbox"/> / N;		Fax? <input type="checkbox"/> / N		Turnaround Time Request	
DATA PACKAGE: I <input checked="" type="checkbox"/> III IV						Standard 5 Business Days	
						2 Business Day Rush	
						Next Business Day Rush	
						Same Day Rush (auth req.)	
						Other	
SPECIAL INSTRUCTIONS/COMMENTS: Owens Corning site specific NOCs only		SHIPMENT METHOD: CLIENT		VIA: FedEx		COURIER	
		GREYHOUND		OTHER			
		OUT		VIA:			
		IN		VIA:			
		MAIL		UPS		MAIL	
		OTHER		OTHER		COURIER	

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 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: 1311754

Case Narrative

Sample [1311754-013] only labeled one of the two vials. Vials were matched since they were wrapped together.

Client: BROWN AND CALDWELL	Client Sample ID: 13309-412 KAYE DRIVE
Project Name: Owens Corning	Collection Date: 11/5/2013 5:25:00 PM
Lab ID: 1311754-001	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183539	1	11/12/2013 08:18	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 08:18	GK
Methylene chloride	BRL	5.0		ug/L	183539	1	11/12/2013 08:18	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 08:18	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183539	1	11/12/2013 08:18	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 08:18	GK
Chloroform	BRL	5.0		ug/L	183539	1	11/12/2013 08:18	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183539	1	11/12/2013 08:18	GK
Carbon tetrachloride	BRL	5.0		ug/L	183539	1	11/12/2013 08:18	GK
Benzene	BRL	5.0		ug/L	183539	1	11/12/2013 08:18	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183539	1	11/12/2013 08:18	GK
Trichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 08:18	GK
Toluene	BRL	5.0		ug/L	183539	1	11/12/2013 08:18	GK
Tetrachloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 08:18	GK
Ethylbenzene	BRL	5.0		ug/L	183539	1	11/12/2013 08:18	GK
Xylenes, Total	BRL	5.0		ug/L	183539	1	11/12/2013 08:18	GK
Surr: 4-Bromofluorobenzene	89	66.2-120		%REC	183539	1	11/12/2013 08:18	GK
Surr: Dibromofluoromethane	92.6	79.5-121		%REC	183539	1	11/12/2013 08:18	GK
Surr: Toluene-d8	97.1	77-117		%REC	183539	1	11/12/2013 08:18	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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-117 FAYE DRIVE
Project Name: Owens Corning	Collection Date: 11/5/2013 5:15:00 PM
Lab ID: 1311754-002	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183539	1	11/12/2013 09:45	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 09:45	GK
Methylene chloride	BRL	5.0		ug/L	183539	1	11/12/2013 09:45	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 09:45	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183539	1	11/12/2013 09:45	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 09:45	GK
Chloroform	BRL	5.0		ug/L	183539	1	11/12/2013 09:45	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183539	1	11/12/2013 09:45	GK
Carbon tetrachloride	BRL	5.0		ug/L	183539	1	11/12/2013 09:45	GK
Benzene	BRL	5.0		ug/L	183539	1	11/12/2013 09:45	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183539	1	11/12/2013 09:45	GK
Trichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 09:45	GK
Toluene	BRL	5.0		ug/L	183539	1	11/12/2013 09:45	GK
Tetrachloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 09:45	GK
Ethylbenzene	BRL	5.0		ug/L	183539	1	11/12/2013 09:45	GK
Xylenes, Total	BRL	5.0		ug/L	183539	1	11/12/2013 09:45	GK
Surr: 4-Bromofluorobenzene	91.2	66.2-120		%REC	183539	1	11/12/2013 09:45	GK
Surr: Dibromofluoromethane	90.1	79.5-121		%REC	183539	1	11/12/2013 09:45	GK
Surr: Toluene-d8	96.4	77-117		%REC	183539	1	11/12/2013 09:45	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-200 KAYE DRIVE
Project Name: Owens Corning	Collection Date: 11/5/2013 4:55:00 PM
Lab ID: 1311754-003	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183539	1	11/12/2013 10:14	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 10:14	GK
Methylene chloride	BRL	5.0		ug/L	183539	1	11/12/2013 10:14	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 10:14	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183539	1	11/12/2013 10:14	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 10:14	GK
Chloroform	BRL	5.0		ug/L	183539	1	11/12/2013 10:14	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183539	1	11/12/2013 10:14	GK
Carbon tetrachloride	BRL	5.0		ug/L	183539	1	11/12/2013 10:14	GK
Benzene	BRL	5.0		ug/L	183539	1	11/12/2013 10:14	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183539	1	11/12/2013 10:14	GK
Trichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 10:14	GK
Toluene	BRL	5.0		ug/L	183539	1	11/12/2013 10:14	GK
Tetrachloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 10:14	GK
Ethylbenzene	BRL	5.0		ug/L	183539	1	11/12/2013 10:14	GK
Xylenes, Total	BRL	5.0		ug/L	183539	1	11/12/2013 10:14	GK
Surr: 4-Bromofluorobenzene	88.9	66.2-120		%REC	183539	1	11/12/2013 10:14	GK
Surr: Dibromofluoromethane	90	79.5-121		%REC	183539	1	11/12/2013 10:14	GK
Surr: Toluene-d8	96.6	77-117		%REC	183539	1	11/12/2013 10:14	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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-1303 CLINKSCALES RD
Project Name: Owens Corning	Collection Date: 11/5/2013 4:40:00 PM
Lab ID: 1311754-004	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183539	1	11/12/2013 17:26	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 17:26	GK
Methylene chloride	BRL	5.0		ug/L	183539	1	11/12/2013 17:26	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 17:26	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183539	1	11/12/2013 17:26	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 17:26	GK
Chloroform	BRL	5.0		ug/L	183539	1	11/12/2013 17:26	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183539	1	11/12/2013 17:26	GK
Carbon tetrachloride	BRL	5.0		ug/L	183539	1	11/12/2013 17:26	GK
Benzene	BRL	5.0		ug/L	183539	1	11/12/2013 17:26	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183539	1	11/12/2013 17:26	GK
Trichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 17:26	GK
Toluene	BRL	5.0		ug/L	183539	1	11/12/2013 17:26	GK
Tetrachloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 17:26	GK
Ethylbenzene	BRL	5.0		ug/L	183539	1	11/12/2013 17:26	GK
Xylenes, Total	BRL	5.0		ug/L	183539	1	11/12/2013 17:26	GK
Surr: 4-Bromofluorobenzene	89.7	66.2-120		%REC	183539	1	11/12/2013 17:26	GK
Surr: Dibromofluoromethane	94.8	79.5-121		%REC	183539	1	11/12/2013 17:26	GK
Surr: Toluene-d8	97.4	77-117		%REC	183539	1	11/12/2013 17:26	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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-303 KAYE DRIVE
Project Name: Owens Corning	Collection Date: 11/5/2013 5:05:00 PM
Lab ID: 1311754-005	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183539	1	11/12/2013 17:55	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 17:55	GK
Methylene chloride	BRL	5.0		ug/L	183539	1	11/12/2013 17:55	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 17:55	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183539	1	11/12/2013 17:55	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 17:55	GK
Chloroform	BRL	5.0		ug/L	183539	1	11/12/2013 17:55	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183539	1	11/12/2013 17:55	GK
Carbon tetrachloride	BRL	5.0		ug/L	183539	1	11/12/2013 17:55	GK
Benzene	BRL	5.0		ug/L	183539	1	11/12/2013 17:55	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183539	1	11/12/2013 17:55	GK
Trichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 17:55	GK
Toluene	BRL	5.0		ug/L	183539	1	11/12/2013 17:55	GK
Tetrachloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 17:55	GK
Ethylbenzene	BRL	5.0		ug/L	183539	1	11/12/2013 17:55	GK
Xylenes, Total	BRL	5.0		ug/L	183539	1	11/12/2013 17:55	GK
Surr: 4-Bromofluorobenzene	91.2	66.2-120		%REC	183539	1	11/12/2013 17:55	GK
Surr: Dibromofluoromethane	93.9	79.5-121		%REC	183539	1	11/12/2013 17:55	GK
Surr: Toluene-d8	97.5	77-117		%REC	183539	1	11/12/2013 17:55	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-119 CLOVERHILL DR
Project Name: Owens Corning	Collection Date: 11/5/2013 4:25:00 PM
Lab ID: 1311754-006	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183539	1	11/12/2013 20:47	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 20:47	GK
Methylene chloride	BRL	5.0		ug/L	183539	1	11/12/2013 20:47	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 20:47	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183539	1	11/12/2013 20:47	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 20:47	GK
Chloroform	BRL	5.0		ug/L	183539	1	11/12/2013 20:47	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183539	1	11/12/2013 20:47	GK
Carbon tetrachloride	BRL	5.0		ug/L	183539	1	11/12/2013 20:47	GK
Benzene	BRL	5.0		ug/L	183539	1	11/12/2013 20:47	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183539	1	11/12/2013 20:47	GK
Trichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 20:47	GK
Toluene	BRL	5.0		ug/L	183539	1	11/12/2013 20:47	GK
Tetrachloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 20:47	GK
Ethylbenzene	BRL	5.0		ug/L	183539	1	11/12/2013 20:47	GK
Xylenes, Total	BRL	5.0		ug/L	183539	1	11/12/2013 20:47	GK
Surr: 4-Bromofluorobenzene	91.2	66.2-120		%REC	183539	1	11/12/2013 20:47	GK
Surr: Dibromofluoromethane	93	79.5-121		%REC	183539	1	11/12/2013 20:47	GK
Surr: Toluene-d8	101	77-117		%REC	183539	1	11/12/2013 20:47	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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-721 CLINKSCALES RD
Project Name: Owens Corning	Collection Date: 11/5/2013 4:05:00 PM
Lab ID: 1311754-007	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183539	1	11/12/2013 21:16	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 21:16	GK
Methylene chloride	BRL	5.0		ug/L	183539	1	11/12/2013 21:16	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 21:16	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183539	1	11/12/2013 21:16	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 21:16	GK
Chloroform	BRL	5.0		ug/L	183539	1	11/12/2013 21:16	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183539	1	11/12/2013 21:16	GK
Carbon tetrachloride	BRL	5.0		ug/L	183539	1	11/12/2013 21:16	GK
Benzene	BRL	5.0		ug/L	183539	1	11/12/2013 21:16	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183539	1	11/12/2013 21:16	GK
Trichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 21:16	GK
Toluene	BRL	5.0		ug/L	183539	1	11/12/2013 21:16	GK
Tetrachloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 21:16	GK
Ethylbenzene	BRL	5.0		ug/L	183539	1	11/12/2013 21:16	GK
Xylenes, Total	BRL	5.0		ug/L	183539	1	11/12/2013 21:16	GK
Surr: 4-Bromofluorobenzene	94	66.2-120		%REC	183539	1	11/12/2013 21:16	GK
Surr: Dibromofluoromethane	90	79.5-121		%REC	183539	1	11/12/2013 21:16	GK
Surr: Toluene-d8	97.9	77-117		%REC	183539	1	11/12/2013 21:16	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-408 CLINKSCALES RD
Project Name: Owens Corning	Collection Date: 11/5/2013 3:55:00 PM
Lab ID: 1311754-008	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183539	1	11/12/2013 21:44	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 21:44	GK
Methylene chloride	BRL	5.0		ug/L	183539	1	11/12/2013 21:44	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 21:44	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183539	1	11/12/2013 21:44	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 21:44	GK
Chloroform	BRL	5.0		ug/L	183539	1	11/12/2013 21:44	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183539	1	11/12/2013 21:44	GK
Carbon tetrachloride	BRL	5.0		ug/L	183539	1	11/12/2013 21:44	GK
Benzene	BRL	5.0		ug/L	183539	1	11/12/2013 21:44	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183539	1	11/12/2013 21:44	GK
Trichloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 21:44	GK
Toluene	BRL	5.0		ug/L	183539	1	11/12/2013 21:44	GK
Tetrachloroethene	BRL	5.0		ug/L	183539	1	11/12/2013 21:44	GK
Ethylbenzene	BRL	5.0		ug/L	183539	1	11/12/2013 21:44	GK
Xylenes, Total	BRL	5.0		ug/L	183539	1	11/12/2013 21:44	GK
Surr: 4-Bromofluorobenzene	92.8	66.2-120		%REC	183539	1	11/12/2013 21:44	GK
Surr: Dibromofluoromethane	91.9	79.5-121		%REC	183539	1	11/12/2013 21:44	GK
Surr: Toluene-d8	95.7	77-117		%REC	183539	1	11/12/2013 21:44	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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-605 CLINKSCALES RD
Project Name: Owens Corning	Collection Date: 11/5/2013 3:44:00 PM
Lab ID: 1311754-009	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183717	1	11/14/2013 22:15	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183717	1	11/14/2013 22:15	GK
Methylene chloride	BRL	5.0		ug/L	183717	1	11/14/2013 22:15	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183717	1	11/14/2013 22:15	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183717	1	11/14/2013 22:15	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183717	1	11/14/2013 22:15	GK
Chloroform	BRL	5.0		ug/L	183717	1	11/14/2013 22:15	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183717	1	11/14/2013 22:15	GK
Carbon tetrachloride	BRL	5.0		ug/L	183717	1	11/14/2013 22:15	GK
Benzene	BRL	5.0		ug/L	183717	1	11/14/2013 22:15	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183717	1	11/14/2013 22:15	GK
Trichloroethene	BRL	5.0		ug/L	183717	1	11/14/2013 22:15	GK
Toluene	BRL	5.0		ug/L	183717	1	11/14/2013 22:15	GK
Tetrachloroethene	BRL	5.0		ug/L	183717	1	11/14/2013 22:15	GK
Ethylbenzene	BRL	5.0		ug/L	183717	1	11/14/2013 22:15	GK
Xylenes, Total	BRL	5.0		ug/L	183717	1	11/14/2013 22:15	GK
Surr: 4-Bromofluorobenzene	101	66.2-120		%REC	183717	1	11/14/2013 22:15	GK
Surr: Dibromofluoromethane	108	79.5-121		%REC	183717	1	11/14/2013 22:15	GK
Surr: Toluene-d8	103	77-117		%REC	183717	1	11/14/2013 22:15	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-200 FRIENDSHIP LN
Project Name: Owens Corning	Collection Date: 11/5/2013 3:30:00 PM
Lab ID: 1311754-010	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183717	1	11/14/2013 22:44	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183717	1	11/14/2013 22:44	GK
Methylene chloride	BRL	5.0		ug/L	183717	1	11/14/2013 22:44	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183717	1	11/14/2013 22:44	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183717	1	11/14/2013 22:44	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183717	1	11/14/2013 22:44	GK
Chloroform	BRL	5.0		ug/L	183717	1	11/14/2013 22:44	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183717	1	11/14/2013 22:44	GK
Carbon tetrachloride	BRL	5.0		ug/L	183717	1	11/14/2013 22:44	GK
Benzene	BRL	5.0		ug/L	183717	1	11/14/2013 22:44	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183717	1	11/14/2013 22:44	GK
Trichloroethene	BRL	5.0		ug/L	183717	1	11/14/2013 22:44	GK
Toluene	BRL	5.0		ug/L	183717	1	11/14/2013 22:44	GK
Tetrachloroethene	BRL	5.0		ug/L	183717	1	11/14/2013 22:44	GK
Ethylbenzene	BRL	5.0		ug/L	183717	1	11/14/2013 22:44	GK
Xylenes, Total	BRL	5.0		ug/L	183717	1	11/14/2013 22:44	GK
Surr: 4-Bromofluorobenzene	98.5	66.2-120		%REC	183717	1	11/14/2013 22:44	GK
Surr: Dibromofluoromethane	107	79.5-121		%REC	183717	1	11/14/2013 22:44	GK
Surr: Toluene-d8	103	77-117		%REC	183717	1	11/14/2013 22:44	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13310-EB
Project Name: Owens Corning	Collection Date: 11/6/2013 1:30:00 PM
Lab ID: 1311754-011	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183717	1	11/14/2013 23:12	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183717	1	11/14/2013 23:12	GK
Methylene chloride	BRL	5.0		ug/L	183717	1	11/14/2013 23:12	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183717	1	11/14/2013 23:12	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183717	1	11/14/2013 23:12	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183717	1	11/14/2013 23:12	GK
Chloroform	BRL	5.0		ug/L	183717	1	11/14/2013 23:12	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183717	1	11/14/2013 23:12	GK
Carbon tetrachloride	BRL	5.0		ug/L	183717	1	11/14/2013 23:12	GK
Benzene	BRL	5.0		ug/L	183717	1	11/14/2013 23:12	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183717	1	11/14/2013 23:12	GK
Trichloroethene	BRL	5.0		ug/L	183717	1	11/14/2013 23:12	GK
Toluene	BRL	5.0		ug/L	183717	1	11/14/2013 23:12	GK
Tetrachloroethene	BRL	5.0		ug/L	183717	1	11/14/2013 23:12	GK
Ethylbenzene	BRL	5.0		ug/L	183717	1	11/14/2013 23:12	GK
Xylenes, Total	BRL	5.0		ug/L	183717	1	11/14/2013 23:12	GK
Surr: 4-Bromofluorobenzene	98.6	66.2-120		%REC	183717	1	11/14/2013 23:12	GK
Surr: Dibromofluoromethane	108	79.5-121		%REC	183717	1	11/14/2013 23:12	GK
Surr: Toluene-d8	103	77-117		%REC	183717	1	11/14/2013 23:12	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13310-MW-41Z1
Project Name: Owens Corning	Collection Date: 11/6/2013 4:05:00 PM
Lab ID: 1311754-012	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183717	1	11/14/2013 23:41	GK
1,1-Dichloroethene	110	5.0		ug/L	183717	1	11/14/2013 23:41	GK
Methylene chloride	BRL	5.0		ug/L	183717	1	11/14/2013 23:41	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183717	1	11/14/2013 23:41	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183717	1	11/14/2013 23:41	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183717	1	11/14/2013 23:41	GK
Chloroform	BRL	5.0		ug/L	183717	1	11/14/2013 23:41	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183717	1	11/14/2013 23:41	GK
Carbon tetrachloride	BRL	5.0		ug/L	183717	1	11/14/2013 23:41	GK
Benzene	BRL	5.0		ug/L	183717	1	11/14/2013 23:41	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183717	1	11/14/2013 23:41	GK
Trichloroethene	BRL	5.0		ug/L	183717	1	11/14/2013 23:41	GK
Toluene	BRL	5.0		ug/L	183717	1	11/14/2013 23:41	GK
Tetrachloroethene	BRL	5.0		ug/L	183717	1	11/14/2013 23:41	GK
Ethylbenzene	BRL	5.0		ug/L	183717	1	11/14/2013 23:41	GK
Xylenes, Total	BRL	5.0		ug/L	183717	1	11/14/2013 23:41	GK
Surr: 4-Bromofluorobenzene	101	66.2-120		%REC	183717	1	11/14/2013 23:41	GK
Surr: Dibromofluoromethane	108	79.5-121		%REC	183717	1	11/14/2013 23:41	GK
Surr: Toluene-d8	101	77-117		%REC	183717	1	11/14/2013 23:41	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

Client: BROWN AND CALDWELL	Client Sample ID: 13310-MW-39Z1
Project Name: Owens Corning	Collection Date: 11/6/2013 9:45:00 AM
Lab ID: 1311754-013	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183717	1	11/15/2013 00:10	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183717	1	11/15/2013 00:10	GK
Methylene chloride	BRL	5.0		ug/L	183717	1	11/15/2013 00:10	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183717	1	11/15/2013 00:10	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183717	1	11/15/2013 00:10	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183717	1	11/15/2013 00:10	GK
Chloroform	BRL	5.0		ug/L	183717	1	11/15/2013 00:10	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183717	1	11/15/2013 00:10	GK
Carbon tetrachloride	BRL	5.0		ug/L	183717	1	11/15/2013 00:10	GK
Benzene	BRL	5.0		ug/L	183717	1	11/15/2013 00:10	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183717	1	11/15/2013 00:10	GK
Trichloroethene	BRL	5.0		ug/L	183717	1	11/15/2013 00:10	GK
Toluene	BRL	5.0		ug/L	183717	1	11/15/2013 00:10	GK
Tetrachloroethene	BRL	5.0		ug/L	183717	1	11/15/2013 00:10	GK
Ethylbenzene	BRL	5.0		ug/L	183717	1	11/15/2013 00:10	GK
Xylenes, Total	BRL	5.0		ug/L	183717	1	11/15/2013 00:10	GK
Surr: 4-Bromofluorobenzene	102	66.2-120		%REC	183717	1	11/15/2013 00:10	GK
Surr: Dibromofluoromethane	111	79.5-121		%REC	183717	1	11/15/2013 00:10	GK
Surr: Toluene-d8	102	77-117		%REC	183717	1	11/15/2013 00:10	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

Client: BROWN AND CALDWELL	Client Sample ID: 13310-MW-39Z3
Project Name: Owens Corning	Collection Date: 11/6/2013 3:35:00 PM
Lab ID: 1311754-014	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183717	1	11/15/2013 00:39	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183717	1	11/15/2013 00:39	GK
Methylene chloride	BRL	5.0		ug/L	183717	1	11/15/2013 00:39	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183717	1	11/15/2013 00:39	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183717	1	11/15/2013 00:39	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183717	1	11/15/2013 00:39	GK
Chloroform	BRL	5.0		ug/L	183717	1	11/15/2013 00:39	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183717	1	11/15/2013 00:39	GK
Carbon tetrachloride	BRL	5.0		ug/L	183717	1	11/15/2013 00:39	GK
Benzene	BRL	5.0		ug/L	183717	1	11/15/2013 00:39	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183717	1	11/15/2013 00:39	GK
Trichloroethene	BRL	5.0		ug/L	183717	1	11/15/2013 00:39	GK
Toluene	BRL	5.0		ug/L	183717	1	11/15/2013 00:39	GK
Tetrachloroethene	BRL	5.0		ug/L	183717	1	11/15/2013 00:39	GK
Ethylbenzene	BRL	5.0		ug/L	183717	1	11/15/2013 00:39	GK
Xylenes, Total	BRL	5.0		ug/L	183717	1	11/15/2013 00:39	GK
Surr: 4-Bromofluorobenzene	102	66.2-120		%REC	183717	1	11/15/2013 00:39	GK
Surr: Dibromofluoromethane	110	79.5-121		%REC	183717	1	11/15/2013 00:39	GK
Surr: Toluene-d8	101	77-117		%REC	183717	1	11/15/2013 00:39	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.

Sample/Cooler Receipt Checklist

Client Brown + Caldwell

Work Order Number 1311754

Checklist completed by [Signature] 11/9/13
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 3.3 Cooler #2 3.1 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

Sample Condition: Good Adjusted? _____ Other(Explain) _____
Checked by _____

(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 Name: Owens Corning
 Workorder: 1311754

ANALYTICAL QC SUMMARY REPORT

BatchID: 183539

Sample ID: MB-183539	Client ID:	Units: ug/L	Prep Date: 11/12/2013	Run No: 255600							
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183539	Analysis Date: 11/12/2013	Seq No: 5367445							
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									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
Benzene	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chloroform	BRL	5.0									
cis-1,2-Dichloroethene	BRL	5.0									
Ethylbenzene	BRL	5.0									
Methylene chloride	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
Trichloroethene	BRL	5.0									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	46.01	0	50.00		92.0	66.2	120				
Surr: Dibromofluoromethane	45.73	0	50.00		91.5	79.5	121				
Surr: Toluene-d8	48.86	0	50.00		97.7	77	117				

Sample ID: LCS-183539	Client ID:	Units: ug/L	Prep Date: 11/12/2013	Run No: 255600							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183539	Analysis Date: 11/12/2013	Seq No: 5367443							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	50.15	5.0	50.00		100	63.1	140				
Benzene	50.23	5.0	50.00		100	74.2	129				
Toluene	51.91	5.0	50.00		104	74.2	129				

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: 1311754

ANALYTICAL QC SUMMARY REPORT

BatchID: 183539

Sample ID: LCS-183539	Client ID:	Units: ug/L	Prep Date: 11/12/2013	Run No: 255600							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183539	Analysis Date: 11/12/2013	Seq No: 5367443							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Trichloroethene	59.69	5.0	50.00		119	71.2	135				
Surr: 4-Bromofluorobenzene	46.76	0	50.00		93.5	66.2	120				
Surr: Dibromofluoromethane	47.37	0	50.00		94.7	79.5	121				
Surr: Toluene-d8	49.04	0	50.00		98.1	77	117				

Sample ID: 1311754-001AMS	Client ID: 13309-412 KAYE DRIVE	Units: ug/L	Prep Date: 11/12/2013	Run No: 255600							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183539	Analysis Date: 11/12/2013	Seq No: 5367450							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	52.46	5.0	50.00		105	60.2	159				
Benzene	53.20	5.0	50.00		106	70.2	138				
Toluene	55.44	5.0	50.00		111	70	139				
Trichloroethene	59.73	5.0	50.00		119	70.1	144				
Surr: 4-Bromofluorobenzene	47.01	0	50.00		94.0	66.2	120				
Surr: Dibromofluoromethane	47.25	0	50.00		94.5	79.5	121				
Surr: Toluene-d8	49.12	0	50.00		98.2	77	117				

Sample ID: 1311754-001AMSD	Client ID: 13309-412 KAYE DRIVE	Units: ug/L	Prep Date: 11/12/2013	Run No: 255600							
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183539	Analysis Date: 11/12/2013	Seq No: 5367451							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	50.41	5.0	50.00		101	60.2	159	52.46	3.99	19.2	
Benzene	51.03	5.0	50.00		102	70.2	138	53.20	4.16	20	
Toluene	53.79	5.0	50.00		108	70	139	55.44	3.02	20	
Trichloroethene	56.61	5.0	50.00		113	70.1	144	59.73	5.36	20	
Surr: 4-Bromofluorobenzene	47.55	0	50.00		95.1	66.2	120	47.01	0	0	
Surr: Dibromofluoromethane	47.47	0	50.00		94.9	79.5	121	47.25	0	0	
Surr: Toluene-d8	49.48	0	50.00		99.0	77	117	49.12	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: 1311754

ANALYTICAL QC SUMMARY REPORT

BatchID: 183717

Sample ID: MB-183717	Client ID:	Units: ug/L	Prep Date: 11/14/2013	Run No: 255850							
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183717	Analysis Date: 11/14/2013	Seq No: 5373328							
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									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
Benzene	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chloroform	BRL	5.0									
cis-1,2-Dichloroethene	BRL	5.0									
Ethylbenzene	BRL	5.0									
Methylene chloride	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
Trichloroethene	BRL	5.0									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	50.18	0	50.00		100	66.2	120				
Surr: Dibromofluoromethane	53.42	0	50.00		107	79.5	121				
Surr: Toluene-d8	50.23	0	50.00		100	77	117				

Sample ID: LCS-183717	Client ID:	Units: ug/L	Prep Date: 11/14/2013	Run No: 255850							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183717	Analysis Date: 11/14/2013	Seq No: 5373022							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	42.59	5.0	50.00		85.2	63.1	140				
Benzene	47.57	5.0	50.00		95.1	74.2	129				
Toluene	48.59	5.0	50.00		97.2	74.2	129				
Trichloroethene	53.12	5.0	50.00		106	71.2	135				

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: 1311754

ANALYTICAL QC SUMMARY REPORT

BatchID: 183717

Sample ID: LCS-183717	Client ID:	Units: ug/L	Prep Date: 11/14/2013	Run No: 255850							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183717	Analysis Date: 11/14/2013	Seq No: 5373022							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Surr: 4-Bromofluorobenzene	53.03	0	50.00		106	66.2	120				
Surr: Dibromofluoromethane	53.74	0	50.00		107	79.5	121				
Surr: Toluene-d8	51.14	0	50.00		102	77	117				

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		



November 18, 2013

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: 1311755

Analytical Environmental Services, Inc. received 37 samples on 11/8/2013 4:00:00 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:

- NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/13-06/30/14.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/15.

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.

Tara Esbeck
Project Manager



ANALYTICAL ENVIRONMENTAL SERVICES, INC
 3785 Presidential Parkway, Atlanta GA 30340-3704
 TEL: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 131138

Date: 11-4-13 Page 1 of 1

COMPANY: Brown & Caldwell

ADDRESS: 990 Hammond Dr Ste 1100
Atlanta, GA 30328

PHONE: _____ FAX: _____

SAMPLED BY: Pump Moka and Vronce Carter

SIGNATURE: Makita

#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)	RECEIVED BY	
							DATE/TIME	DATE/TIME
1	13309-MW-43-Z2	11-4-13	1645			GW	11-8-13	1000
2	13309-MW-43-Z3	11-5-13	0950	X		GW	11-8-13	1000
3	13309-MW-36-Z1	11-5-13	1255					
4	13309-MW-29R-Z3	11-5-13	1345					
5	13309-MW-29R-Z1	11-5-13	1410					
6	13309-Dip	11-5-13	1200					
7	13309-MW-43-Z1		1345					
8	13309-MW-43-Z2		1540					
9	13309-MW-43-Z3		1800					
10	13309-MW-43-Z1		1015					
11	13310-TW-43	11-6-13	0835					
12	13310-TW-43	11-6-13	0935					
13	13310-MW-38-Z1	11-6-13	1225					
14	13310-MW-38-Z2	11-6-13	1235					

RELINQUISHED BY: Makita DATE/TIME: 11-8-13 RECEIVED BY: Makita DATE/TIME: 11-8-13

SPECIAL INSTRUCTIONS/COMMENTS: Owens-Corning site specific VOCs

ANALYSIS REQUESTED	PRESERVATION (See codes)	REMARKS	No # of Containers
VOCs			2

PROJECT NAME:	PROJECT INFORMATION	RECEIPT
Owens-Corning		Total # of Containers
SITE ADDRESS:		Turnaround Time Request
SEND REPORT TO: <u>Bergman@brwncl.com</u>		Standard 5 Business Days
INVOICE TO: (IF DIFFERENT FROM ABOVE)		2 Business Day Rush
QUOTE #:		Next Business Day Rush
PO#:		Same Day Rush (auth req)
		Other

STATE PROGRAM (if any): _____
 E-mail: Y/N Fax: Y/N
 DATA PACKAGE: I II III IV

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+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice SA+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

CHAIN OF CUSTODY

Work Order: 131135
 Date: _____ Page _____ of _____

COMPANY: Bram & Caldwell
 ADDRESS: 990 Hammond Dr, Ste 400
Atlanta, GA 30325
 PHONE: _____ FAX: _____

SAMPLED BY: George Adams, Veronica Carls
 SIGNATURE: [Signature]

#	SAMPLE ID	SAMPLED		Grab	Composite	Matrix (See codes)
		DATE	TIME			
1	13311-MW-41-22	11-7-13	0910	X		GW
2	13311-MW-41-23	11-7-13	1105			
3	13311-SW-13		1310			
4	13311-SW-14		1315			
5	13311-SW-11		1320			
6	13311-SW-12		1345			
7	13311-SW-1		1410			
8	13311-SW-15		1415			
9	13311-SW-6		1420			
10	13311-SW-10		1435			
11	13311-EB		1500			
12	13311-MW-37-21		0955			
13	13311-MW-37-22		1235			
14	13311-MW-37-23		1505			

RELINQUISHED BY: [Signature] DATE/TIME: 11-8-13 1600
 RECEIVED BY: [Signature] DATE/TIME: 11-8-13 4:00

SPECIAL INSTRUCTIONS/COMMENTS:
Owens-Corning Site Specific
VOCs ONLY

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AMS 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+ = Hydrochloric acid + Ice I = Ice only N = Nitric acid S+ = Sulfuric acid + Ice SM+ = Sodium Bisulfate/Methanol + Ice O = Other (Specify) NA = None

ANALYSIS REQUESTED	REMARKS	No # of Containers
VOCs		2

PROJECT NAME	PROJECT #	SITE ADDRESS	SEND REPORT TO	INVOICE TO	QUOTE #	PO#
Owens-Corning			Teri.yoon@brownsbl.com			

SHIPMENT METHOD:
 OUT: _____ VIA: _____
 IN: _____ VIA: _____
 GREYHOUND: _____ UPS MAIL: _____ COURIER: _____ OTHER: _____

RECEIPT:
 Total # of Containers: _____
 Turnaround Time Request: _____
 Standard 5 Business Days
 3 Business Day Rush
 Next Business Day Rush
 Same Day Rush (with req.)
 Other: _____
 STATE PROGRAM (if any): _____
 E-mail: / N: _____ Fax: Y / N: _____
 DATA PACKAGE: I III IV



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: 1311755

Date: _____ Page _____ of _____

COMPANY: Brown + Caldwell

ADDRESS: 960 Hammond Dr, Ste 400
Atlanta, GA 30326

PHONE: _____

FAX: _____

SAMPLED BY: George Ayala, Veronica Carls

SIGNATURE: [Signature]

SAMPLED

DATE

TIME

Grab

Composite

Matrix (See codes)

HT

Vol

PRESERVATION (See codes)

REMARKS

No # of Containers

Visit our website
www.aesatlanta.com
to check on the status of
your results, place bottle
orders, etc.

#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)
1	13312-628-Airline R2	11-8-13	0805	X		GW
2	13312-SW-3A	11-8-13	0900			
3	13312-SW-3	11-8-13	0910			
4	13312-SW-3B	11-8-13	0920			
5	13312-NW-39 Z2	11-8-13	1105			
6	Trip Blanks					
7	Trip Blanks					
8						
9						
10						
11						
12						
13						
14						

RELINQUISHED BY: _____ DATE/TIME: _____ RECEIVED BY: _____ DATE/TIME: _____

1: MAA 11-9-13 WCC 11-8-13 4:00

2: MAA _____

3: _____

SPECIAL INSTRUCTIONS/COMMENTS:
Site Specific Vols

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
GREN Fedex UPS MAIL COURIER
GREYHOUND OTHER _____

ANALYSIS REQUESTED

PROJECT NAME: Owens-Corning

SITE ADDRESS: Berryman Drive, Calhoun, Ga

SEND REPORT TO: _____

INVOICE TO: _____

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 ()

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

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURAROUND 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.

White Copy - Original; Yellow Copy - Client

Client: BROWN AND CALDWELL**Project:** Owens Corning**Lab ID:** 1311755**Case Narrative**

Sample [1311755-024] had a different sample id on the COC than that on the sample container. Sample was matched based on the time and date on the COC and sample container.

Sample [1311755-027] didn't have sample ids on the containers. Samples were labeled according to the date and time on the sample container and the COC.

Samples [1311755-036; 1311755-037] were extra samples sent by the client. Sample ids are 13309-MW-36-Z3 [11/5 14.50] and 13309-MW-36-Z5 [11/5 14.25]. Samples were reported according to the labels and analyzed per Tamara Berryman.

Client: BROWN AND CALDWELL	Client Sample ID: 13308-MW-43-Z2
Project Name: Owens Corning	Collection Date: 11/4/2013 4:45:00 PM
Lab ID: 1311755-001	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B				(SW5030B)				
Vinyl chloride	BRL	2.0		ug/L	183689	1	11/14/2013 11:06	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 11:06	GK
Methylene chloride	BRL	5.0		ug/L	183689	1	11/14/2013 11:06	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 11:06	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 11:06	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 11:06	GK
Chloroform	BRL	5.0		ug/L	183689	1	11/14/2013 11:06	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 11:06	GK
Carbon tetrachloride	BRL	5.0		ug/L	183689	1	11/14/2013 11:06	GK
Benzene	BRL	5.0		ug/L	183689	1	11/14/2013 11:06	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 11:06	GK
Trichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 11:06	GK
Toluene	BRL	5.0		ug/L	183689	1	11/14/2013 11:06	GK
Tetrachloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 11:06	GK
Ethylbenzene	BRL	5.0		ug/L	183689	1	11/14/2013 11:06	GK
Xylenes, Total	BRL	5.0		ug/L	183689	1	11/14/2013 11:06	GK
Surr: 4-Bromofluorobenzene	104	66.2-120		%REC	183689	1	11/14/2013 11:06	GK
Surr: Dibromofluoromethane	102	79.5-121		%REC	183689	1	11/14/2013 11:06	GK
Surr: Toluene-d8	101	77-117		%REC	183689	1	11/14/2013 11:06	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-MW-43 Z3
Project Name: Owens Corning	Collection Date: 11/5/2013 9:50:00 AM
Lab ID: 1311755-002	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183689	1	11/14/2013 11:35	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 11:35	GK
Methylene chloride	BRL	5.0		ug/L	183689	1	11/14/2013 11:35	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 11:35	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 11:35	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 11:35	GK
Chloroform	BRL	5.0		ug/L	183689	1	11/14/2013 11:35	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 11:35	GK
Carbon tetrachloride	BRL	5.0		ug/L	183689	1	11/14/2013 11:35	GK
Benzene	BRL	5.0		ug/L	183689	1	11/14/2013 11:35	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 11:35	GK
Trichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 11:35	GK
Toluene	BRL	5.0		ug/L	183689	1	11/14/2013 11:35	GK
Tetrachloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 11:35	GK
Ethylbenzene	BRL	5.0		ug/L	183689	1	11/14/2013 11:35	GK
Xylenes, Total	BRL	5.0		ug/L	183689	1	11/14/2013 11:35	GK
Surr: 4-Bromofluorobenzene	97.5	66.2-120		%REC	183689	1	11/14/2013 11:35	GK
Surr: Dibromofluoromethane	108	79.5-121		%REC	183689	1	11/14/2013 11:35	GK
Surr: Toluene-d8	103	77-117		%REC	183689	1	11/14/2013 11:35	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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-MW-36 Z1
Project Name: Owens Corning	Collection Date: 11/5/2013 12:55:00 PM
Lab ID: 1311755-003	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183689	1	11/14/2013 12:04	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 12:04	GK
Methylene chloride	BRL	5.0		ug/L	183689	1	11/14/2013 12:04	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 12:04	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 12:04	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 12:04	GK
Chloroform	BRL	5.0		ug/L	183689	1	11/14/2013 12:04	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 12:04	GK
Carbon tetrachloride	BRL	5.0		ug/L	183689	1	11/14/2013 12:04	GK
Benzene	BRL	5.0		ug/L	183689	1	11/14/2013 12:04	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 12:04	GK
Trichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 12:04	GK
Toluene	BRL	5.0		ug/L	183689	1	11/14/2013 12:04	GK
Tetrachloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 12:04	GK
Ethylbenzene	BRL	5.0		ug/L	183689	1	11/14/2013 12:04	GK
Xylenes, Total	BRL	5.0		ug/L	183689	1	11/14/2013 12:04	GK
Surr: 4-Bromofluorobenzene	101	66.2-120		%REC	183689	1	11/14/2013 12:04	GK
Surr: Dibromofluoromethane	99.5	79.5-121		%REC	183689	1	11/14/2013 12:04	GK
Surr: Toluene-d8	98.3	77-117		%REC	183689	1	11/14/2013 12:04	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-MW-29R Z3
Project Name: Owens Corning	Collection Date: 11/5/2013 1:45:00 PM
Lab ID: 1311755-004	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183689	1	11/14/2013 16:52	GK
1,1-Dichloroethene	260	50		ug/L	183689	10	11/14/2013 09:11	GK
Methylene chloride	BRL	5.0		ug/L	183689	1	11/14/2013 16:52	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 16:52	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 16:52	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 16:52	GK
Chloroform	8.7	5.0		ug/L	183689	1	11/14/2013 16:52	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 16:52	GK
Carbon tetrachloride	14	5.0		ug/L	183689	1	11/14/2013 16:52	GK
Benzene	BRL	5.0		ug/L	183689	1	11/14/2013 16:52	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 16:52	GK
Trichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 16:52	GK
Toluene	BRL	5.0		ug/L	183689	1	11/14/2013 16:52	GK
Tetrachloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 16:52	GK
Ethylbenzene	BRL	5.0		ug/L	183689	1	11/14/2013 16:52	GK
Xylenes, Total	BRL	5.0		ug/L	183689	1	11/14/2013 16:52	GK
Surr: 4-Bromofluorobenzene	101	66.2-120		%REC	183689	1	11/14/2013 16:52	GK
Surr: 4-Bromofluorobenzene	101	66.2-120		%REC	183689	10	11/14/2013 09:11	GK
Surr: Dibromofluoromethane	109	79.5-121		%REC	183689	1	11/14/2013 16:52	GK
Surr: Dibromofluoromethane	105	79.5-121		%REC	183689	10	11/14/2013 09:11	GK
Surr: Toluene-d8	103	77-117		%REC	183689	10	11/14/2013 09:11	GK
Surr: Toluene-d8	104	77-117		%REC	183689	1	11/14/2013 16:52	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-MW-29R-Z4
Project Name: Owens Corning	Collection Date: 11/5/2013 2:10:00 PM
Lab ID: 1311755-005	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183689	1	11/14/2013 17:27	GK
1,1-Dichloroethene	230	50		ug/L	183689	10	11/14/2013 10:37	GK
Methylene chloride	BRL	5.0		ug/L	183689	1	11/14/2013 17:27	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 17:27	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 17:27	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 17:27	GK
Chloroform	8.5	5.0		ug/L	183689	1	11/14/2013 17:27	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 17:27	GK
Carbon tetrachloride	12	5.0		ug/L	183689	1	11/14/2013 17:27	GK
Benzene	BRL	5.0		ug/L	183689	1	11/14/2013 17:27	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 17:27	GK
Trichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 17:27	GK
Toluene	BRL	5.0		ug/L	183689	1	11/14/2013 17:27	GK
Tetrachloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 17:27	GK
Ethylbenzene	BRL	5.0		ug/L	183689	1	11/14/2013 17:27	GK
Xylenes, Total	BRL	5.0		ug/L	183689	1	11/14/2013 17:27	GK
Surr: 4-Bromofluorobenzene	99.4	66.2-120		%REC	183689	1	11/14/2013 17:27	GK
Surr: 4-Bromofluorobenzene	100	66.2-120		%REC	183689	10	11/14/2013 10:37	GK
Surr: Dibromofluoromethane	103	79.5-121		%REC	183689	10	11/14/2013 10:37	GK
Surr: Dibromofluoromethane	112	79.5-121		%REC	183689	1	11/14/2013 17:27	GK
Surr: Toluene-d8	99.6	77-117		%REC	183689	10	11/14/2013 10:37	GK
Surr: Toluene-d8	103	77-117		%REC	183689	1	11/14/2013 17:27	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-DUP
Project Name: Owens Corning	Collection Date: 11/5/2013 12:00:00 PM
Lab ID: 1311755-006	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183689	1	11/14/2013 12:33	GK
1,1-Dichloroethene	250	50		ug/L	183689	10	11/14/2013 18:25	GK
Methylene chloride	BRL	5.0		ug/L	183689	1	11/14/2013 12:33	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 12:33	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 12:33	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 12:33	GK
Chloroform	8.5	5.0		ug/L	183689	1	11/14/2013 12:33	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 12:33	GK
Carbon tetrachloride	16	5.0		ug/L	183689	1	11/14/2013 12:33	GK
Benzene	BRL	5.0		ug/L	183689	1	11/14/2013 12:33	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 12:33	GK
Trichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 12:33	GK
Toluene	BRL	5.0		ug/L	183689	1	11/14/2013 12:33	GK
Tetrachloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 12:33	GK
Ethylbenzene	BRL	5.0		ug/L	183689	1	11/14/2013 12:33	GK
Xylenes, Total	BRL	5.0		ug/L	183689	1	11/14/2013 12:33	GK
Surr: 4-Bromofluorobenzene	102	66.2-120		%REC	183689	1	11/14/2013 12:33	GK
Surr: 4-Bromofluorobenzene	104	66.2-120		%REC	183689	10	11/14/2013 18:25	GK
Surr: Dibromofluoromethane	106	79.5-121		%REC	183689	1	11/14/2013 12:33	GK
Surr: Dibromofluoromethane	110	79.5-121		%REC	183689	10	11/14/2013 18:25	GK
Surr: Toluene-d8	101	77-117		%REC	183689	1	11/14/2013 12:33	GK
Surr: Toluene-d8	104	77-117		%REC	183689	10	11/14/2013 18:25	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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-MW-42-Z1
Project Name: Owens Corning	Collection Date: 11/5/2013 1:45:00 PM
Lab ID: 1311755-007	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183689	1	11/14/2013 13:01	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 13:01	GK
Methylene chloride	BRL	5.0		ug/L	183689	1	11/14/2013 13:01	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 13:01	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 13:01	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 13:01	GK
Chloroform	BRL	5.0		ug/L	183689	1	11/14/2013 13:01	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 13:01	GK
Carbon tetrachloride	BRL	5.0		ug/L	183689	1	11/14/2013 13:01	GK
Benzene	BRL	5.0		ug/L	183689	1	11/14/2013 13:01	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 13:01	GK
Trichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 13:01	GK
Toluene	BRL	5.0		ug/L	183689	1	11/14/2013 13:01	GK
Tetrachloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 13:01	GK
Ethylbenzene	BRL	5.0		ug/L	183689	1	11/14/2013 13:01	GK
Xylenes, Total	BRL	5.0		ug/L	183689	1	11/14/2013 13:01	GK
Surr: 4-Bromofluorobenzene	102	66.2-120		%REC	183689	1	11/14/2013 13:01	GK
Surr: Dibromofluoromethane	102	79.5-121		%REC	183689	1	11/14/2013 13:01	GK
Surr: Toluene-d8	99.7	77-117		%REC	183689	1	11/14/2013 13:01	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-MW-42-Z2
Project Name: Owens Corning	Collection Date: 11/5/2013 3:40:00 PM
Lab ID: 1311755-008	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183689	1	11/14/2013 13:30	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 13:30	GK
Methylene chloride	BRL	5.0		ug/L	183689	1	11/14/2013 13:30	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 13:30	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 13:30	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 13:30	GK
Chloroform	BRL	5.0		ug/L	183689	1	11/14/2013 13:30	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 13:30	GK
Carbon tetrachloride	BRL	5.0		ug/L	183689	1	11/14/2013 13:30	GK
Benzene	BRL	5.0		ug/L	183689	1	11/14/2013 13:30	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 13:30	GK
Trichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 13:30	GK
Toluene	BRL	5.0		ug/L	183689	1	11/14/2013 13:30	GK
Tetrachloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 13:30	GK
Ethylbenzene	BRL	5.0		ug/L	183689	1	11/14/2013 13:30	GK
Xylenes, Total	BRL	5.0		ug/L	183689	1	11/14/2013 13:30	GK
Surr: 4-Bromofluorobenzene	103	66.2-120		%REC	183689	1	11/14/2013 13:30	GK
Surr: Dibromofluoromethane	107	79.5-121		%REC	183689	1	11/14/2013 13:30	GK
Surr: Toluene-d8	103	77-117		%REC	183689	1	11/14/2013 13:30	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-MW-42-Z3
Project Name: Owens Corning	Collection Date: 11/5/2013 6:00:00 PM
Lab ID: 1311755-009	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183689	1	11/14/2013 13:58	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 13:58	GK
Methylene chloride	BRL	5.0		ug/L	183689	1	11/14/2013 13:58	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 13:58	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 13:58	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 13:58	GK
Chloroform	BRL	5.0		ug/L	183689	1	11/14/2013 13:58	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 13:58	GK
Carbon tetrachloride	BRL	5.0		ug/L	183689	1	11/14/2013 13:58	GK
Benzene	BRL	5.0		ug/L	183689	1	11/14/2013 13:58	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 13:58	GK
Trichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 13:58	GK
Toluene	BRL	5.0		ug/L	183689	1	11/14/2013 13:58	GK
Tetrachloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 13:58	GK
Ethylbenzene	BRL	5.0		ug/L	183689	1	11/14/2013 13:58	GK
Xylenes, Total	BRL	5.0		ug/L	183689	1	11/14/2013 13:58	GK
Surr: 4-Bromofluorobenzene	101	66.2-120		%REC	183689	1	11/14/2013 13:58	GK
Surr: Dibromofluoromethane	109	79.5-121		%REC	183689	1	11/14/2013 13:58	GK
Surr: Toluene-d8	101	77-117		%REC	183689	1	11/14/2013 13:58	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-MW-43-Z1
Project Name: Owens Corning	Collection Date: 11/5/2013 10:15:00 AM
Lab ID: 1311755-010	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183689	1	11/14/2013 14:27	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 14:27	GK
Methylene chloride	BRL	5.0		ug/L	183689	1	11/14/2013 14:27	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 14:27	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 14:27	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 14:27	GK
Chloroform	BRL	5.0		ug/L	183689	1	11/14/2013 14:27	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 14:27	GK
Carbon tetrachloride	BRL	5.0		ug/L	183689	1	11/14/2013 14:27	GK
Benzene	BRL	5.0		ug/L	183689	1	11/14/2013 14:27	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 14:27	GK
Trichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 14:27	GK
Toluene	BRL	5.0		ug/L	183689	1	11/14/2013 14:27	GK
Tetrachloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 14:27	GK
Ethylbenzene	BRL	5.0		ug/L	183689	1	11/14/2013 14:27	GK
Xylenes, Total	BRL	5.0		ug/L	183689	1	11/14/2013 14:27	GK
Surr: 4-Bromofluorobenzene	103	66.2-120		%REC	183689	1	11/14/2013 14:27	GK
Surr: Dibromofluoromethane	106	79.5-121		%REC	183689	1	11/14/2013 14:27	GK
Surr: Toluene-d8	100	77-117		%REC	183689	1	11/14/2013 14:27	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13310-TW-42
Project Name: Owens Corning	Collection Date: 11/6/2013 8:35:00 AM
Lab ID: 1311755-011	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183689	1	11/14/2013 14:56	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 14:56	GK
Methylene chloride	BRL	5.0		ug/L	183689	1	11/14/2013 14:56	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 14:56	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 14:56	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 14:56	GK
Chloroform	BRL	5.0		ug/L	183689	1	11/14/2013 14:56	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 14:56	GK
Carbon tetrachloride	BRL	5.0		ug/L	183689	1	11/14/2013 14:56	GK
Benzene	BRL	5.0		ug/L	183689	1	11/14/2013 14:56	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 14:56	GK
Trichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 14:56	GK
Toluene	BRL	5.0		ug/L	183689	1	11/14/2013 14:56	GK
Tetrachloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 14:56	GK
Ethylbenzene	BRL	5.0		ug/L	183689	1	11/14/2013 14:56	GK
Xylenes, Total	BRL	5.0		ug/L	183689	1	11/14/2013 14:56	GK
Surr: 4-Bromofluorobenzene	101	66.2-120		%REC	183689	1	11/14/2013 14:56	GK
Surr: Dibromofluoromethane	109	79.5-121		%REC	183689	1	11/14/2013 14:56	GK
Surr: Toluene-d8	99.9	77-117		%REC	183689	1	11/14/2013 14:56	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

Client: BROWN AND CALDWELL	Client Sample ID: 13310-TW-43
Project Name: Owens Corning	Collection Date: 11/6/2013 9:35:00 AM
Lab ID: 1311755-012	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183689	1	11/14/2013 15:25	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 15:25	GK
Methylene chloride	BRL	5.0		ug/L	183689	1	11/14/2013 15:25	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 15:25	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 15:25	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 15:25	GK
Chloroform	BRL	5.0		ug/L	183689	1	11/14/2013 15:25	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 15:25	GK
Carbon tetrachloride	BRL	5.0		ug/L	183689	1	11/14/2013 15:25	GK
Benzene	BRL	5.0		ug/L	183689	1	11/14/2013 15:25	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 15:25	GK
Trichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 15:25	GK
Toluene	BRL	5.0		ug/L	183689	1	11/14/2013 15:25	GK
Tetrachloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 15:25	GK
Ethylbenzene	BRL	5.0		ug/L	183689	1	11/14/2013 15:25	GK
Xylenes, Total	BRL	5.0		ug/L	183689	1	11/14/2013 15:25	GK
Surr: 4-Bromofluorobenzene	104	66.2-120		%REC	183689	1	11/14/2013 15:25	GK
Surr: Dibromofluoromethane	106	79.5-121		%REC	183689	1	11/14/2013 15:25	GK
Surr: Toluene-d8	99.2	77-117		%REC	183689	1	11/14/2013 15:25	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13310-MW-38 Z1
Project Name: Owens Corning	Collection Date: 11/6/2013 11:25:00 AM
Lab ID: 1311755-013	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183689	1	11/14/2013 15:54	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 15:54	GK
Methylene chloride	BRL	5.0		ug/L	183689	1	11/14/2013 15:54	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 15:54	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 15:54	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 15:54	GK
Chloroform	BRL	5.0		ug/L	183689	1	11/14/2013 15:54	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 15:54	GK
Carbon tetrachloride	BRL	5.0		ug/L	183689	1	11/14/2013 15:54	GK
Benzene	BRL	5.0		ug/L	183689	1	11/14/2013 15:54	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183689	1	11/14/2013 15:54	GK
Trichloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 15:54	GK
Toluene	BRL	5.0		ug/L	183689	1	11/14/2013 15:54	GK
Tetrachloroethene	BRL	5.0		ug/L	183689	1	11/14/2013 15:54	GK
Ethylbenzene	BRL	5.0		ug/L	183689	1	11/14/2013 15:54	GK
Xylenes, Total	BRL	5.0		ug/L	183689	1	11/14/2013 15:54	GK
Surr: 4-Bromofluorobenzene	103	66.2-120		%REC	183689	1	11/14/2013 15:54	GK
Surr: Dibromofluoromethane	107	79.5-121		%REC	183689	1	11/14/2013 15:54	GK
Surr: Toluene-d8	98.2	77-117		%REC	183689	1	11/14/2013 15:54	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

Client: BROWN AND CALDWELL	Client Sample ID: 13310-MW-38 Z2
Project Name: Owens Corning	Collection Date: 11/6/2013 12:35:00 PM
Lab ID: 1311755-014	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183689	1	11/15/2013 04:00	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183689	1	11/15/2013 04:00	GK
Methylene chloride	BRL	5.0		ug/L	183689	1	11/15/2013 04:00	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/15/2013 04:00	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183689	1	11/15/2013 04:00	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/15/2013 04:00	GK
Chloroform	BRL	5.0		ug/L	183689	1	11/15/2013 04:00	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183689	1	11/15/2013 04:00	GK
Carbon tetrachloride	BRL	5.0		ug/L	183689	1	11/15/2013 04:00	GK
Benzene	BRL	5.0		ug/L	183689	1	11/15/2013 04:00	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183689	1	11/15/2013 04:00	GK
Trichloroethene	BRL	5.0		ug/L	183689	1	11/15/2013 04:00	GK
Toluene	BRL	5.0		ug/L	183689	1	11/15/2013 04:00	GK
Tetrachloroethene	BRL	5.0		ug/L	183689	1	11/15/2013 04:00	GK
Ethylbenzene	BRL	5.0		ug/L	183689	1	11/15/2013 04:00	GK
Xylenes, Total	BRL	5.0		ug/L	183689	1	11/15/2013 04:00	GK
Surr: 4-Bromofluorobenzene	102	66.2-120		%REC	183689	1	11/15/2013 04:00	GK
Surr: Dibromofluoromethane	112	79.5-121		%REC	183689	1	11/15/2013 04:00	GK
Surr: Toluene-d8	103	77-117		%REC	183689	1	11/15/2013 04:00	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13311-MW-41-Z2
Project Name: Owens Corning	Collection Date: 11/7/2013 8:40:00 AM
Lab ID: 1311755-015	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183689	1	11/15/2013 04:28	GK
1,1-Dichloroethene	190	50		ug/L	183689	10	11/16/2013 02:41	GK
Methylene chloride	BRL	5.0		ug/L	183689	1	11/15/2013 04:28	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/15/2013 04:28	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183689	1	11/15/2013 04:28	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/15/2013 04:28	GK
Chloroform	BRL	5.0		ug/L	183689	1	11/15/2013 04:28	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183689	1	11/15/2013 04:28	GK
Carbon tetrachloride	BRL	5.0		ug/L	183689	1	11/15/2013 04:28	GK
Benzene	BRL	5.0		ug/L	183689	1	11/15/2013 04:28	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183689	1	11/15/2013 04:28	GK
Trichloroethene	BRL	5.0		ug/L	183689	1	11/15/2013 04:28	GK
Toluene	BRL	5.0		ug/L	183689	1	11/15/2013 04:28	GK
Tetrachloroethene	BRL	5.0		ug/L	183689	1	11/15/2013 04:28	GK
Ethylbenzene	BRL	5.0		ug/L	183689	1	11/15/2013 04:28	GK
Xylenes, Total	BRL	5.0		ug/L	183689	1	11/15/2013 04:28	GK
Surr: 4-Bromofluorobenzene	91.6	66.2-120		%REC	183689	10	11/16/2013 02:41	GK
Surr: 4-Bromofluorobenzene	105	66.2-120		%REC	183689	1	11/15/2013 04:28	GK
Surr: Dibromofluoromethane	89.9	79.5-121		%REC	183689	10	11/16/2013 02:41	GK
Surr: Dibromofluoromethane	110	79.5-121		%REC	183689	1	11/15/2013 04:28	GK
Surr: Toluene-d8	98.2	77-117		%REC	183689	10	11/16/2013 02:41	GK
Surr: Toluene-d8	104	77-117		%REC	183689	1	11/15/2013 04:28	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13311-MW-41-Z3
Project Name: Owens Corning	Collection Date: 11/7/2013 11:05:00 AM
Lab ID: 1311755-016	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183689	1	11/15/2013 04:57	GK
1,1-Dichloroethene	18	5.0		ug/L	183689	1	11/15/2013 04:57	GK
Methylene chloride	BRL	5.0		ug/L	183689	1	11/15/2013 04:57	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/15/2013 04:57	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183689	1	11/15/2013 04:57	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/15/2013 04:57	GK
Chloroform	BRL	5.0		ug/L	183689	1	11/15/2013 04:57	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183689	1	11/15/2013 04:57	GK
Carbon tetrachloride	BRL	5.0		ug/L	183689	1	11/15/2013 04:57	GK
Benzene	BRL	5.0		ug/L	183689	1	11/15/2013 04:57	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183689	1	11/15/2013 04:57	GK
Trichloroethene	BRL	5.0		ug/L	183689	1	11/15/2013 04:57	GK
Toluene	BRL	5.0		ug/L	183689	1	11/15/2013 04:57	GK
Tetrachloroethene	BRL	5.0		ug/L	183689	1	11/15/2013 04:57	GK
Ethylbenzene	BRL	5.0		ug/L	183689	1	11/15/2013 04:57	GK
Xylenes, Total	BRL	5.0		ug/L	183689	1	11/15/2013 04:57	GK
Surr: 4-Bromofluorobenzene	102	66.2-120		%REC	183689	1	11/15/2013 04:57	GK
Surr: Dibromofluoromethane	107	79.5-121		%REC	183689	1	11/15/2013 04:57	GK
Surr: Toluene-d8	101	77-117		%REC	183689	1	11/15/2013 04:57	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

Client: BROWN AND CALDWELL	Client Sample ID: 13311-SW-13
Project Name: Owens Corning	Collection Date: 11/7/2013 1:10:00 PM
Lab ID: 1311755-017	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183689	1	11/16/2013 03:10	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183689	1	11/16/2013 03:10	GK
Methylene chloride	BRL	5.0		ug/L	183689	1	11/16/2013 03:10	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/16/2013 03:10	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183689	1	11/16/2013 03:10	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/16/2013 03:10	GK
Chloroform	BRL	5.0		ug/L	183689	1	11/16/2013 03:10	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183689	1	11/16/2013 03:10	GK
Carbon tetrachloride	BRL	5.0		ug/L	183689	1	11/16/2013 03:10	GK
Benzene	BRL	5.0		ug/L	183689	1	11/16/2013 03:10	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183689	1	11/16/2013 03:10	GK
Trichloroethene	BRL	5.0		ug/L	183689	1	11/16/2013 03:10	GK
Toluene	BRL	5.0		ug/L	183689	1	11/16/2013 03:10	GK
Tetrachloroethene	BRL	5.0		ug/L	183689	1	11/16/2013 03:10	GK
Ethylbenzene	BRL	5.0		ug/L	183689	1	11/16/2013 03:10	GK
Xylenes, Total	BRL	5.0		ug/L	183689	1	11/16/2013 03:10	GK
Surr: 4-Bromofluorobenzene	89.4	66.2-120		%REC	183689	1	11/16/2013 03:10	GK
Surr: Dibromofluoromethane	90.9	79.5-121		%REC	183689	1	11/16/2013 03:10	GK
Surr: Toluene-d8	97.3	77-117		%REC	183689	1	11/16/2013 03:10	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

Client: BROWN AND CALDWELL	Client Sample ID: 13311-SW-14
Project Name: Owens Corning	Collection Date: 11/7/2013 1:15:00 PM
Lab ID: 1311755-018	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183689	1	11/16/2013 03:38	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183689	1	11/16/2013 03:38	GK
Methylene chloride	BRL	5.0		ug/L	183689	1	11/16/2013 03:38	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/16/2013 03:38	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183689	1	11/16/2013 03:38	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/16/2013 03:38	GK
Chloroform	BRL	5.0		ug/L	183689	1	11/16/2013 03:38	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183689	1	11/16/2013 03:38	GK
Carbon tetrachloride	BRL	5.0		ug/L	183689	1	11/16/2013 03:38	GK
Benzene	BRL	5.0		ug/L	183689	1	11/16/2013 03:38	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183689	1	11/16/2013 03:38	GK
Trichloroethene	BRL	5.0		ug/L	183689	1	11/16/2013 03:38	GK
Toluene	BRL	5.0		ug/L	183689	1	11/16/2013 03:38	GK
Tetrachloroethene	BRL	5.0		ug/L	183689	1	11/16/2013 03:38	GK
Ethylbenzene	BRL	5.0		ug/L	183689	1	11/16/2013 03:38	GK
Xylenes, Total	BRL	5.0		ug/L	183689	1	11/16/2013 03:38	GK
Surr: 4-Bromofluorobenzene	90.8	66.2-120		%REC	183689	1	11/16/2013 03:38	GK
Surr: Dibromofluoromethane	90.6	79.5-121		%REC	183689	1	11/16/2013 03:38	GK
Surr: Toluene-d8	96.5	77-117		%REC	183689	1	11/16/2013 03:38	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

Client: BROWN AND CALDWELL	Client Sample ID: 13311-SW-11
Project Name: Owens Corning	Collection Date: 11/7/2013 1:20:00 PM
Lab ID: 1311755-019	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183689	1	11/16/2013 04:07	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183689	1	11/16/2013 04:07	GK
Methylene chloride	BRL	5.0		ug/L	183689	1	11/16/2013 04:07	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/16/2013 04:07	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183689	1	11/16/2013 04:07	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/16/2013 04:07	GK
Chloroform	BRL	5.0		ug/L	183689	1	11/16/2013 04:07	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183689	1	11/16/2013 04:07	GK
Carbon tetrachloride	BRL	5.0		ug/L	183689	1	11/16/2013 04:07	GK
Benzene	BRL	5.0		ug/L	183689	1	11/16/2013 04:07	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183689	1	11/16/2013 04:07	GK
Trichloroethene	BRL	5.0		ug/L	183689	1	11/16/2013 04:07	GK
Toluene	BRL	5.0		ug/L	183689	1	11/16/2013 04:07	GK
Tetrachloroethene	BRL	5.0		ug/L	183689	1	11/16/2013 04:07	GK
Ethylbenzene	BRL	5.0		ug/L	183689	1	11/16/2013 04:07	GK
Xylenes, Total	BRL	5.0		ug/L	183689	1	11/16/2013 04:07	GK
Surr: 4-Bromofluorobenzene	90.4	66.2-120		%REC	183689	1	11/16/2013 04:07	GK
Surr: Dibromofluoromethane	90.9	79.5-121		%REC	183689	1	11/16/2013 04:07	GK
Surr: Toluene-d8	98.1	77-117		%REC	183689	1	11/16/2013 04:07	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

Client: BROWN AND CALDWELL	Client Sample ID: 13311-SW-12
Project Name: Owens Corning	Collection Date: 11/7/2013 1:45:00 PM
Lab ID: 1311755-020	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183689	1	11/16/2013 04:36	GK
1,1-Dichloroethene	9.4	5.0		ug/L	183689	1	11/16/2013 04:36	GK
Methylene chloride	BRL	5.0		ug/L	183689	1	11/16/2013 04:36	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/16/2013 04:36	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183689	1	11/16/2013 04:36	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183689	1	11/16/2013 04:36	GK
Chloroform	BRL	5.0		ug/L	183689	1	11/16/2013 04:36	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183689	1	11/16/2013 04:36	GK
Carbon tetrachloride	BRL	5.0		ug/L	183689	1	11/16/2013 04:36	GK
Benzene	BRL	5.0		ug/L	183689	1	11/16/2013 04:36	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183689	1	11/16/2013 04:36	GK
Trichloroethene	BRL	5.0		ug/L	183689	1	11/16/2013 04:36	GK
Toluene	BRL	5.0		ug/L	183689	1	11/16/2013 04:36	GK
Tetrachloroethene	BRL	5.0		ug/L	183689	1	11/16/2013 04:36	GK
Ethylbenzene	BRL	5.0		ug/L	183689	1	11/16/2013 04:36	GK
Xylenes, Total	BRL	5.0		ug/L	183689	1	11/16/2013 04:36	GK
Surr: 4-Bromofluorobenzene	91	66.2-120		%REC	183689	1	11/16/2013 04:36	GK
Surr: Dibromofluoromethane	93.1	79.5-121		%REC	183689	1	11/16/2013 04:36	GK
Surr: Toluene-d8	98.6	77-117		%REC	183689	1	11/16/2013 04:36	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13311-SW-1
Project Name: Owens Corning	Collection Date: 11/7/2013 2:10:00 PM
Lab ID: 1311755-021	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183717	1	11/16/2013 05:04	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183717	1	11/16/2013 05:04	GK
Methylene chloride	BRL	5.0		ug/L	183717	1	11/16/2013 05:04	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183717	1	11/16/2013 05:04	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183717	1	11/16/2013 05:04	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183717	1	11/16/2013 05:04	GK
Chloroform	BRL	5.0		ug/L	183717	1	11/16/2013 05:04	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183717	1	11/16/2013 05:04	GK
Carbon tetrachloride	BRL	5.0		ug/L	183717	1	11/16/2013 05:04	GK
Benzene	BRL	5.0		ug/L	183717	1	11/16/2013 05:04	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183717	1	11/16/2013 05:04	GK
Trichloroethene	BRL	5.0		ug/L	183717	1	11/16/2013 05:04	GK
Toluene	BRL	5.0		ug/L	183717	1	11/16/2013 05:04	GK
Tetrachloroethene	BRL	5.0		ug/L	183717	1	11/16/2013 05:04	GK
Ethylbenzene	BRL	5.0		ug/L	183717	1	11/16/2013 05:04	GK
Xylenes, Total	BRL	5.0		ug/L	183717	1	11/16/2013 05:04	GK
Surr: 4-Bromofluorobenzene	88.8	66.2-120		%REC	183717	1	11/16/2013 05:04	GK
Surr: Dibromofluoromethane	93.5	79.5-121		%REC	183717	1	11/16/2013 05:04	GK
Surr: Toluene-d8	98.9	77-117		%REC	183717	1	11/16/2013 05:04	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

Client: BROWN AND CALDWELL	Client Sample ID: 13311-SW-15
Project Name: Owens Corning	Collection Date: 11/7/2013 2:15:00 PM
Lab ID: 1311755-022	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183717	1	11/16/2013 05:33	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183717	1	11/16/2013 05:33	GK
Methylene chloride	BRL	5.0		ug/L	183717	1	11/16/2013 05:33	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183717	1	11/16/2013 05:33	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183717	1	11/16/2013 05:33	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183717	1	11/16/2013 05:33	GK
Chloroform	BRL	5.0		ug/L	183717	1	11/16/2013 05:33	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183717	1	11/16/2013 05:33	GK
Carbon tetrachloride	BRL	5.0		ug/L	183717	1	11/16/2013 05:33	GK
Benzene	BRL	5.0		ug/L	183717	1	11/16/2013 05:33	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183717	1	11/16/2013 05:33	GK
Trichloroethene	BRL	5.0		ug/L	183717	1	11/16/2013 05:33	GK
Toluene	BRL	5.0		ug/L	183717	1	11/16/2013 05:33	GK
Tetrachloroethene	BRL	5.0		ug/L	183717	1	11/16/2013 05:33	GK
Ethylbenzene	BRL	5.0		ug/L	183717	1	11/16/2013 05:33	GK
Xylenes, Total	BRL	5.0		ug/L	183717	1	11/16/2013 05:33	GK
Surr: 4-Bromofluorobenzene	90.3	66.2-120		%REC	183717	1	11/16/2013 05:33	GK
Surr: Dibromofluoromethane	94.4	79.5-121		%REC	183717	1	11/16/2013 05:33	GK
Surr: Toluene-d8	100	77-117		%REC	183717	1	11/16/2013 05:33	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

Client: BROWN AND CALDWELL	Client Sample ID: 13311-SW-6
Project Name: Owens Corning	Collection Date: 11/7/2013 2:20:00 PM
Lab ID: 1311755-023	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183717	1	11/18/2013 13:13	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183717	1	11/18/2013 13:13	GK
Methylene chloride	BRL	5.0		ug/L	183717	1	11/18/2013 13:13	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183717	1	11/18/2013 13:13	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183717	1	11/18/2013 13:13	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183717	1	11/18/2013 13:13	GK
Chloroform	BRL	5.0		ug/L	183717	1	11/18/2013 13:13	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183717	1	11/18/2013 13:13	GK
Carbon tetrachloride	BRL	5.0		ug/L	183717	1	11/18/2013 13:13	GK
Benzene	BRL	5.0		ug/L	183717	1	11/18/2013 13:13	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183717	1	11/18/2013 13:13	GK
Trichloroethene	BRL	5.0		ug/L	183717	1	11/18/2013 13:13	GK
Toluene	BRL	5.0		ug/L	183717	1	11/18/2013 13:13	GK
Tetrachloroethene	BRL	5.0		ug/L	183717	1	11/18/2013 13:13	GK
Ethylbenzene	BRL	5.0		ug/L	183717	1	11/18/2013 13:13	GK
Xylenes, Total	BRL	5.0		ug/L	183717	1	11/18/2013 13:13	GK
Surr: 4-Bromofluorobenzene	94.3	66.2-120		%REC	183717	1	11/18/2013 13:13	GK
Surr: Dibromofluoromethane	97.1	79.5-121		%REC	183717	1	11/18/2013 13:13	GK
Surr: Toluene-d8	99.3	77-117		%REC	183717	1	11/18/2013 13:13	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13311-SW-10
Project Name: Owens Corning	Collection Date: 11/7/2013 2:35:00 PM
Lab ID: 1311755-024	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183717	1	11/16/2013 11:42	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183717	1	11/16/2013 11:42	GK
Methylene chloride	BRL	5.0		ug/L	183717	1	11/16/2013 11:42	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183717	1	11/16/2013 11:42	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183717	1	11/16/2013 11:42	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183717	1	11/16/2013 11:42	GK
Chloroform	BRL	5.0		ug/L	183717	1	11/16/2013 11:42	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183717	1	11/16/2013 11:42	GK
Carbon tetrachloride	BRL	5.0		ug/L	183717	1	11/16/2013 11:42	GK
Benzene	BRL	5.0		ug/L	183717	1	11/16/2013 11:42	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183717	1	11/16/2013 11:42	GK
Trichloroethene	BRL	5.0		ug/L	183717	1	11/16/2013 11:42	GK
Toluene	BRL	5.0		ug/L	183717	1	11/16/2013 11:42	GK
Tetrachloroethene	BRL	5.0		ug/L	183717	1	11/16/2013 11:42	GK
Ethylbenzene	BRL	5.0		ug/L	183717	1	11/16/2013 11:42	GK
Xylenes, Total	BRL	5.0		ug/L	183717	1	11/16/2013 11:42	GK
Surr: 4-Bromofluorobenzene	91.1	66.2-120		%REC	183717	1	11/16/2013 11:42	GK
Surr: Dibromofluoromethane	94.8	79.5-121		%REC	183717	1	11/16/2013 11:42	GK
Surr: Toluene-d8	99.1	77-117		%REC	183717	1	11/16/2013 11:42	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

Client: BROWN AND CALDWELL	Client Sample ID: 13311-EB
Project Name: Owens Corning	Collection Date: 11/7/2013 4:00:00 PM
Lab ID: 1311755-025	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183717	1	11/16/2013 12:10	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183717	1	11/16/2013 12:10	GK
Methylene chloride	BRL	5.0		ug/L	183717	1	11/16/2013 12:10	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183717	1	11/16/2013 12:10	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183717	1	11/16/2013 12:10	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183717	1	11/16/2013 12:10	GK
Chloroform	BRL	5.0		ug/L	183717	1	11/16/2013 12:10	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183717	1	11/16/2013 12:10	GK
Carbon tetrachloride	BRL	5.0		ug/L	183717	1	11/16/2013 12:10	GK
Benzene	BRL	5.0		ug/L	183717	1	11/16/2013 12:10	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183717	1	11/16/2013 12:10	GK
Trichloroethene	BRL	5.0		ug/L	183717	1	11/16/2013 12:10	GK
Toluene	BRL	5.0		ug/L	183717	1	11/16/2013 12:10	GK
Tetrachloroethene	BRL	5.0		ug/L	183717	1	11/16/2013 12:10	GK
Ethylbenzene	BRL	5.0		ug/L	183717	1	11/16/2013 12:10	GK
Xylenes, Total	BRL	5.0		ug/L	183717	1	11/16/2013 12:10	GK
Surr: 4-Bromofluorobenzene	92.3	66.2-120		%REC	183717	1	11/16/2013 12:10	GK
Surr: Dibromofluoromethane	92.7	79.5-121		%REC	183717	1	11/16/2013 12:10	GK
Surr: Toluene-d8	98.1	77-117		%REC	183717	1	11/16/2013 12:10	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

Client: BROWN AND CALDWELL	Client Sample ID: 13311-MW-37-Z1
Project Name: Owens Corning	Collection Date: 11/7/2013 9:55:00 AM
Lab ID: 1311755-026	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183817	1	11/16/2013 12:39	GK
1,1-Dichloroethene	49	5.0		ug/L	183817	1	11/16/2013 12:39	GK
Methylene chloride	BRL	5.0		ug/L	183817	1	11/16/2013 12:39	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 12:39	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 12:39	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 12:39	GK
Chloroform	BRL	5.0		ug/L	183817	1	11/16/2013 12:39	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 12:39	GK
Carbon tetrachloride	BRL	5.0		ug/L	183817	1	11/16/2013 12:39	GK
Benzene	BRL	5.0		ug/L	183817	1	11/16/2013 12:39	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 12:39	GK
Trichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 12:39	GK
Toluene	BRL	5.0		ug/L	183817	1	11/16/2013 12:39	GK
Tetrachloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 12:39	GK
Ethylbenzene	BRL	5.0		ug/L	183817	1	11/16/2013 12:39	GK
Xylenes, Total	BRL	5.0		ug/L	183817	1	11/16/2013 12:39	GK
Surr: 4-Bromofluorobenzene	92.8	66.2-120		%REC	183817	1	11/16/2013 12:39	GK
Surr: Dibromofluoromethane	95.3	79.5-121		%REC	183817	1	11/16/2013 12:39	GK
Surr: Toluene-d8	100	77-117		%REC	183817	1	11/16/2013 12:39	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

Client: BROWN AND CALDWELL	Client Sample ID: 13311-MW-37-Z2
Project Name: Owens Corning	Collection Date: 11/7/2013 12:35:00 PM
Lab ID: 1311755-027	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183817	1	11/16/2013 14:06	GK
1,1-Dichloroethene	180	5.0		ug/L	183817	1	11/16/2013 14:06	GK
Methylene chloride	BRL	5.0		ug/L	183817	1	11/16/2013 14:06	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 14:06	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 14:06	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 14:06	GK
Chloroform	5.4	5.0		ug/L	183817	1	11/16/2013 14:06	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 14:06	GK
Carbon tetrachloride	5.5	5.0		ug/L	183817	1	11/16/2013 14:06	GK
Benzene	BRL	5.0		ug/L	183817	1	11/16/2013 14:06	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 14:06	GK
Trichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 14:06	GK
Toluene	BRL	5.0		ug/L	183817	1	11/16/2013 14:06	GK
Tetrachloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 14:06	GK
Ethylbenzene	BRL	5.0		ug/L	183817	1	11/16/2013 14:06	GK
Xylenes, Total	BRL	5.0		ug/L	183817	1	11/16/2013 14:06	GK
Surr: 4-Bromofluorobenzene	91	66.2-120		%REC	183817	1	11/16/2013 14:06	GK
Surr: Dibromofluoromethane	95.8	79.5-121		%REC	183817	1	11/16/2013 14:06	GK
Surr: Toluene-d8	99.5	77-117		%REC	183817	1	11/16/2013 14:06	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13311-MW-37-Z3
Project Name: Owens Corning	Collection Date: 11/7/2013 3:05:00 PM
Lab ID: 1311755-028	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183817	1	11/16/2013 14:34	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 14:34	GK
Methylene chloride	BRL	5.0		ug/L	183817	1	11/16/2013 14:34	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 14:34	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 14:34	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 14:34	GK
Chloroform	BRL	5.0		ug/L	183817	1	11/16/2013 14:34	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 14:34	GK
Carbon tetrachloride	BRL	5.0		ug/L	183817	1	11/16/2013 14:34	GK
Benzene	BRL	5.0		ug/L	183817	1	11/16/2013 14:34	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 14:34	GK
Trichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 14:34	GK
Toluene	BRL	5.0		ug/L	183817	1	11/16/2013 14:34	GK
Tetrachloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 14:34	GK
Ethylbenzene	BRL	5.0		ug/L	183817	1	11/16/2013 14:34	GK
Xylenes, Total	BRL	5.0		ug/L	183817	1	11/16/2013 14:34	GK
Surr: 4-Bromofluorobenzene	92.6	66.2-120		%REC	183817	1	11/16/2013 14:34	GK
Surr: Dibromofluoromethane	94.4	79.5-121		%REC	183817	1	11/16/2013 14:34	GK
Surr: Toluene-d8	98.9	77-117		%REC	183817	1	11/16/2013 14:34	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

Client: BROWN AND CALDWELL	Client Sample ID: 13312-628-AIRLINE RD
Project Name: Owens Corning	Collection Date: 11/8/2013 8:05:00 AM
Lab ID: 1311755-029	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183817	1	11/16/2013 15:03	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 15:03	GK
Methylene chloride	BRL	5.0		ug/L	183817	1	11/16/2013 15:03	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 15:03	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 15:03	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 15:03	GK
Chloroform	BRL	5.0		ug/L	183817	1	11/16/2013 15:03	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 15:03	GK
Carbon tetrachloride	BRL	5.0		ug/L	183817	1	11/16/2013 15:03	GK
Benzene	BRL	5.0		ug/L	183817	1	11/16/2013 15:03	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 15:03	GK
Trichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 15:03	GK
Toluene	BRL	5.0		ug/L	183817	1	11/16/2013 15:03	GK
Tetrachloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 15:03	GK
Ethylbenzene	BRL	5.0		ug/L	183817	1	11/16/2013 15:03	GK
Xylenes, Total	BRL	5.0		ug/L	183817	1	11/16/2013 15:03	GK
Surr: 4-Bromofluorobenzene	93.8	66.2-120		%REC	183817	1	11/16/2013 15:03	GK
Surr: Dibromofluoromethane	97	79.5-121		%REC	183817	1	11/16/2013 15:03	GK
Surr: Toluene-d8	98.6	77-117		%REC	183817	1	11/16/2013 15:03	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13312-SW-3A
Project Name: Owens Corning	Collection Date: 11/8/2013 9:00:00 AM
Lab ID: 1311755-030	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183817	1	11/16/2013 15:32	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 15:32	GK
Methylene chloride	BRL	5.0		ug/L	183817	1	11/16/2013 15:32	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 15:32	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 15:32	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 15:32	GK
Chloroform	BRL	5.0		ug/L	183817	1	11/16/2013 15:32	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 15:32	GK
Carbon tetrachloride	BRL	5.0		ug/L	183817	1	11/16/2013 15:32	GK
Benzene	BRL	5.0		ug/L	183817	1	11/16/2013 15:32	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 15:32	GK
Trichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 15:32	GK
Toluene	BRL	5.0		ug/L	183817	1	11/16/2013 15:32	GK
Tetrachloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 15:32	GK
Ethylbenzene	BRL	5.0		ug/L	183817	1	11/16/2013 15:32	GK
Xylenes, Total	BRL	5.0		ug/L	183817	1	11/16/2013 15:32	GK
Surr: 4-Bromofluorobenzene	91.7	66.2-120		%REC	183817	1	11/16/2013 15:32	GK
Surr: Dibromofluoromethane	94.5	79.5-121		%REC	183817	1	11/16/2013 15:32	GK
Surr: Toluene-d8	98.8	77-117		%REC	183817	1	11/16/2013 15:32	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13312-SW-3
Project Name: Owens Corning	Collection Date: 11/8/2013 9:10:00 AM
Lab ID: 1311755-031	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183817	1	11/16/2013 16:00	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 16:00	GK
Methylene chloride	BRL	5.0		ug/L	183817	1	11/16/2013 16:00	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 16:00	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 16:00	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 16:00	GK
Chloroform	BRL	5.0		ug/L	183817	1	11/16/2013 16:00	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 16:00	GK
Carbon tetrachloride	BRL	5.0		ug/L	183817	1	11/16/2013 16:00	GK
Benzene	BRL	5.0		ug/L	183817	1	11/16/2013 16:00	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 16:00	GK
Trichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 16:00	GK
Toluene	BRL	5.0		ug/L	183817	1	11/16/2013 16:00	GK
Tetrachloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 16:00	GK
Ethylbenzene	BRL	5.0		ug/L	183817	1	11/16/2013 16:00	GK
Xylenes, Total	BRL	5.0		ug/L	183817	1	11/16/2013 16:00	GK
Surr: 4-Bromofluorobenzene	92.1	66.2-120		%REC	183817	1	11/16/2013 16:00	GK
Surr: Dibromofluoromethane	97.6	79.5-121		%REC	183817	1	11/16/2013 16:00	GK
Surr: Toluene-d8	101	77-117		%REC	183817	1	11/16/2013 16:00	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

Client: BROWN AND CALDWELL	Client Sample ID: 13312-SW-3B
Project Name: Owens Corning	Collection Date: 11/8/2013 9:20:00 AM
Lab ID: 1311755-032	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183817	1	11/16/2013 16:29	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 16:29	GK
Methylene chloride	BRL	5.0		ug/L	183817	1	11/16/2013 16:29	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 16:29	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 16:29	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 16:29	GK
Chloroform	BRL	5.0		ug/L	183817	1	11/16/2013 16:29	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 16:29	GK
Carbon tetrachloride	BRL	5.0		ug/L	183817	1	11/16/2013 16:29	GK
Benzene	BRL	5.0		ug/L	183817	1	11/16/2013 16:29	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 16:29	GK
Trichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 16:29	GK
Toluene	BRL	5.0		ug/L	183817	1	11/16/2013 16:29	GK
Tetrachloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 16:29	GK
Ethylbenzene	BRL	5.0		ug/L	183817	1	11/16/2013 16:29	GK
Xylenes, Total	BRL	5.0		ug/L	183817	1	11/16/2013 16:29	GK
Surr: 4-Bromofluorobenzene	93.4	66.2-120		%REC	183817	1	11/16/2013 16:29	GK
Surr: Dibromofluoromethane	94.1	79.5-121		%REC	183817	1	11/16/2013 16:29	GK
Surr: Toluene-d8	99.6	77-117		%REC	183817	1	11/16/2013 16:29	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13312-MW-39-Z2
Project Name: Owens Corning	Collection Date: 11/8/2013 11:05:00 AM
Lab ID: 1311755-033	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183817	1	11/16/2013 16:57	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 16:57	GK
Methylene chloride	BRL	5.0		ug/L	183817	1	11/16/2013 16:57	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 16:57	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 16:57	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 16:57	GK
Chloroform	BRL	5.0		ug/L	183817	1	11/16/2013 16:57	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 16:57	GK
Carbon tetrachloride	BRL	5.0		ug/L	183817	1	11/16/2013 16:57	GK
Benzene	BRL	5.0		ug/L	183817	1	11/16/2013 16:57	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 16:57	GK
Trichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 16:57	GK
Toluene	BRL	5.0		ug/L	183817	1	11/16/2013 16:57	GK
Tetrachloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 16:57	GK
Ethylbenzene	BRL	5.0		ug/L	183817	1	11/16/2013 16:57	GK
Xylenes, Total	BRL	5.0		ug/L	183817	1	11/16/2013 16:57	GK
Surr: 4-Bromofluorobenzene	92.8	66.2-120		%REC	183817	1	11/16/2013 16:57	GK
Surr: Dibromofluoromethane	96.5	79.5-121		%REC	183817	1	11/16/2013 16:57	GK
Surr: Toluene-d8	99.9	77-117		%REC	183817	1	11/16/2013 16:57	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

Client: BROWN AND CALDWELL	Client Sample ID: TRIP BLANK 1
Project Name: Owens Corning	Collection Date: 11/8/2013
Lab ID: 1311755-034	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183817	1	11/16/2013 17:26	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 17:26	GK
Methylene chloride	BRL	5.0		ug/L	183817	1	11/16/2013 17:26	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 17:26	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 17:26	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 17:26	GK
Chloroform	BRL	5.0		ug/L	183817	1	11/16/2013 17:26	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 17:26	GK
Carbon tetrachloride	BRL	5.0		ug/L	183817	1	11/16/2013 17:26	GK
Benzene	BRL	5.0		ug/L	183817	1	11/16/2013 17:26	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 17:26	GK
Trichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 17:26	GK
Toluene	BRL	5.0		ug/L	183817	1	11/16/2013 17:26	GK
Tetrachloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 17:26	GK
Ethylbenzene	BRL	5.0		ug/L	183817	1	11/16/2013 17:26	GK
Xylenes, Total	BRL	5.0		ug/L	183817	1	11/16/2013 17:26	GK
Surr: 4-Bromofluorobenzene	91.2	66.2-120		%REC	183817	1	11/16/2013 17:26	GK
Surr: Dibromofluoromethane	96.3	79.5-121		%REC	183817	1	11/16/2013 17:26	GK
Surr: Toluene-d8	99	77-117		%REC	183817	1	11/16/2013 17:26	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

Client: BROWN AND CALDWELL	Client Sample ID: TRIP BLANK 2
Project Name: Owens Corning	Collection Date: 11/8/2013
Lab ID: 1311755-035	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183817	1	11/16/2013 17:55	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 17:55	GK
Methylene chloride	BRL	5.0		ug/L	183817	1	11/16/2013 17:55	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 17:55	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 17:55	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 17:55	GK
Chloroform	BRL	5.0		ug/L	183817	1	11/16/2013 17:55	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 17:55	GK
Carbon tetrachloride	BRL	5.0		ug/L	183817	1	11/16/2013 17:55	GK
Benzene	BRL	5.0		ug/L	183817	1	11/16/2013 17:55	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 17:55	GK
Trichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 17:55	GK
Toluene	BRL	5.0		ug/L	183817	1	11/16/2013 17:55	GK
Tetrachloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 17:55	GK
Ethylbenzene	BRL	5.0		ug/L	183817	1	11/16/2013 17:55	GK
Xylenes, Total	BRL	5.0		ug/L	183817	1	11/16/2013 17:55	GK
Surr: 4-Bromofluorobenzene	92.3	66.2-120		%REC	183817	1	11/16/2013 17:55	GK
Surr: Dibromofluoromethane	94.3	79.5-121		%REC	183817	1	11/16/2013 17:55	GK
Surr: Toluene-d8	99.5	77-117		%REC	183817	1	11/16/2013 17:55	GK

Qualifiers:	* 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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-MW-36-Z3
Project Name: Owens Corning	Collection Date: 11/15/2013 2:50:00 PM
Lab ID: 1311755-036	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183817	1	11/16/2013 18:24	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 18:24	GK
Methylene chloride	BRL	5.0		ug/L	183817	1	11/16/2013 18:24	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 18:24	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 18:24	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 18:24	GK
Chloroform	BRL	5.0		ug/L	183817	1	11/16/2013 18:24	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 18:24	GK
Carbon tetrachloride	BRL	5.0		ug/L	183817	1	11/16/2013 18:24	GK
Benzene	BRL	5.0		ug/L	183817	1	11/16/2013 18:24	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 18:24	GK
Trichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 18:24	GK
Toluene	BRL	5.0		ug/L	183817	1	11/16/2013 18:24	GK
Tetrachloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 18:24	GK
Ethylbenzene	BRL	5.0		ug/L	183817	1	11/16/2013 18:24	GK
Xylenes, Total	BRL	5.0		ug/L	183817	1	11/16/2013 18:24	GK
Surr: 4-Bromofluorobenzene	93.2	66.2-120		%REC	183817	1	11/16/2013 18:24	GK
Surr: Dibromofluoromethane	98.4	79.5-121		%REC	183817	1	11/16/2013 18:24	GK
Surr: Toluene-d8	99.9	77-117		%REC	183817	1	11/16/2013 18:24	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

Client: BROWN AND CALDWELL	Client Sample ID: 13309-MW-36-Z5
Project Name: Owens Corning	Collection Date: 11/5/2013 2:25:00 PM
Lab ID: 1311755-037	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	183817	1	11/16/2013 18:52	GK
1,1-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 18:52	GK
Methylene chloride	BRL	5.0		ug/L	183817	1	11/16/2013 18:52	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 18:52	GK
1,1-Dichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 18:52	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 18:52	GK
Chloroform	BRL	5.0		ug/L	183817	1	11/16/2013 18:52	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 18:52	GK
Carbon tetrachloride	BRL	5.0		ug/L	183817	1	11/16/2013 18:52	GK
Benzene	BRL	5.0		ug/L	183817	1	11/16/2013 18:52	GK
1,2-Dichloroethane	BRL	5.0		ug/L	183817	1	11/16/2013 18:52	GK
Trichloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 18:52	GK
Toluene	BRL	5.0		ug/L	183817	1	11/16/2013 18:52	GK
Tetrachloroethene	BRL	5.0		ug/L	183817	1	11/16/2013 18:52	GK
Ethylbenzene	BRL	5.0		ug/L	183817	1	11/16/2013 18:52	GK
Xylenes, Total	BRL	5.0		ug/L	183817	1	11/16/2013 18:52	GK
Surr: 4-Bromofluorobenzene	92.4	66.2-120		%REC	183817	1	11/16/2013 18:52	GK
Surr: Dibromofluoromethane	97.8	79.5-121		%REC	183817	1	11/16/2013 18:52	GK
Surr: Toluene-d8	99.8	77-117		%REC	183817	1	11/16/2013 18:52	GK

Qualifiers:	* 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 1311755

Checklist completed by [Signature] 11/9/13
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 3.3 Cooler #2 3.1 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: 1311755

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1311755-001A	13308-MW-43-Z2	11/4/2013 4:45:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/14/2013	11/14/2013
1311755-002A	13309-MW-43 Z3	11/5/2013 9:50:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/14/2013	11/14/2013
1311755-003A	13309-MW-36 Z1	11/5/2013 12:55:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/14/2013	11/14/2013
1311755-004A	13309-MW-29R Z3	11/5/2013 1:45:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/14/2013	11/14/2013
1311755-005A	13309-MW-29R-Z4	11/5/2013 2:10:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/14/2013	11/14/2013
1311755-006A	13309-DUP	11/5/2013 12:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/14/2013	11/14/2013
1311755-007A	13309-MW-42-Z1	11/5/2013 1:45:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/14/2013	11/14/2013
1311755-008A	13309-MW-42-Z2	11/5/2013 3:40:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/14/2013	11/14/2013
1311755-009A	13309-MW-42-Z3	11/5/2013 6:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/14/2013	11/14/2013
1311755-010A	13309-MW-43-Z1	11/5/2013 10:15:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/14/2013	11/14/2013
1311755-011A	13310-TW-42	11/6/2013 8:35:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/14/2013	11/14/2013
1311755-012A	13310-TW-43	11/6/2013 9:35:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/14/2013	11/14/2013
1311755-013A	13310-MW-38 Z1	11/6/2013 11:25:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/14/2013	11/14/2013
1311755-014A	13310-MW-38 Z2	11/6/2013 12:35:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/14/2013	11/15/2013
1311755-015A	13311-MW-41-Z2	11/7/2013 8:40:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/14/2013	11/15/2013
1311755-015A	13311-MW-41-Z2	11/7/2013 8:40:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/14/2013	11/16/2013
1311755-016A	13311-MW-41-Z3	11/7/2013 11:05:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/14/2013	11/15/2013
1311755-017A	13311-SW-13	11/7/2013 1:10:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/14/2013	11/16/2013
1311755-018A	13311-SW-14	11/7/2013 1:15:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/14/2013	11/16/2013
1311755-019A	13311-SW-11	11/7/2013 1:20:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/14/2013	11/16/2013
1311755-020A	13311-SW-12	11/7/2013 1:45:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/14/2013	11/16/2013
1311755-021A	13311-SW-1	11/7/2013 2:10:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/14/2013	11/16/2013
1311755-022A	13311-SW-15	11/7/2013 2:15:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/14/2013	11/16/2013
1311755-023A	13311-SW-6	11/7/2013 2:20:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/14/2013	11/18/2013
1311755-024A	13311-SW-10	11/7/2013 2:35:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/14/2013	11/16/2013
1311755-025A	13311-EB	11/7/2013 4:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/14/2013	11/16/2013
1311755-026A	13311-MW-37-Z1	11/7/2013 9:55:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/16/2013	11/16/2013
1311755-027A	13311-MW-37-Z2	11/7/2013 12:35:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/16/2013	11/16/2013
1311755-028A	13311-MW-37-Z3	11/7/2013 3:05:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/16/2013	11/16/2013

Client: BROWN AND CALDWELL
Project: Owens Corning
Lab Order: 1311755

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1311755-029A	13312-628-AIRLINE RD	11/8/2013 8:05:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/16/2013	11/16/2013
1311755-030A	13312-SW-3A	11/8/2013 9:00:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/16/2013	11/16/2013
1311755-031A	13312-SW-3	11/8/2013 9:10:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/16/2013	11/16/2013
1311755-032A	13312-SW-3B	11/8/2013 9:20:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/16/2013	11/16/2013
1311755-033A	13312-MW-39-Z2	11/8/2013 11:05:00AM	Groundwater	Volatile Organic Compounds by GC/MS		11/16/2013	11/16/2013
1311755-034A	TRIP BLANK 1	11/8/2013 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		11/16/2013	11/16/2013
1311755-035A	TRIP BLANK 2	11/8/2013 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		11/16/2013	11/16/2013
1311755-036A	13309-MW-36-Z3	11/15/2013 2:50:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/16/2013	11/16/2013
1311755-037A	13309-MW-36-Z5	11/5/2013 2:25:00PM	Groundwater	Volatile Organic Compounds by GC/MS		11/16/2013	11/16/2013

Client: BROWN AND CALDWELL
Project Name: Owens Corning
Workorder: 1311755

ANALYTICAL QC SUMMARY REPORT

BatchID: 183689

Sample ID: MB-183689	Client ID:	Units: ug/L	Prep Date: 11/14/2013	Run No: 255799							
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183689	Analysis Date: 11/14/2013	Seq No: 5372031							
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									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
Benzene	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chloroform	BRL	5.0									
cis-1,2-Dichloroethene	BRL	5.0									
Ethylbenzene	BRL	5.0									
Methylene chloride	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
Trichloroethene	BRL	5.0									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	51.40	0	50.00		103	66.2	120				
Surr: Dibromofluoromethane	51.87	0	50.00		104	79.5	121				
Surr: Toluene-d8	51.07	0	50.00		102	77	117				

Sample ID: LCS-183689	Client ID:	Units: ug/L	Prep Date: 11/14/2013	Run No: 255799							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183689	Analysis Date: 11/14/2013	Seq No: 5372029							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	45.65	5.0	50.00		91.3	63.1	140				
Benzene	50.66	5.0	50.00		101	74.2	129				
Toluene	51.24	5.0	50.00		102	74.2	129				

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: 1311755

ANALYTICAL QC SUMMARY REPORT

BatchID: 183689

Sample ID: LCS-183689	Client ID:	Units: ug/L	Prep Date: 11/14/2013	Run No: 255799							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183689	Analysis Date: 11/14/2013	Seq No: 5372029							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Trichloroethene	60.65	5.0	50.00		121	71.2	135				
Surr: 4-Bromofluorobenzene	52.33	0	50.00		105	66.2	120				
Surr: Dibromofluoromethane	53.50	0	50.00		107	79.5	121				
Surr: Toluene-d8	50.66	0	50.00		101	77	117				

Sample ID: 1311755-004AMS	Client ID: 13309-MW-29R Z3	Units: ug/L	Prep Date: 11/14/2013	Run No: 255799							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183689	Analysis Date: 11/14/2013	Seq No: 5372034							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	759.5	50	500.0	259.5	100	60.2	159				
Benzene	506.4	50	500.0		101	70.2	138				
Toluene	529.8	50	500.0		106	70	139				
Trichloroethene	561.4	50	500.0		112	70.1	144				
Surr: 4-Bromofluorobenzene	533.8	0	500.0		107	66.2	120				
Surr: Dibromofluoromethane	530.0	0	500.0		106	79.5	121				
Surr: Toluene-d8	499.4	0	500.0		99.9	77	117				

Sample ID: 1311755-004AMSD	Client ID: 13309-MW-29R Z3	Units: ug/L	Prep Date: 11/14/2013	Run No: 255799							
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183689	Analysis Date: 11/14/2013	Seq No: 5372036							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	740.9	50	500.0	259.5	96.3	60.2	159	759.5	2.48	19.2	
Benzene	513.4	50	500.0		103	70.2	138	506.4	1.37	20	
Toluene	528.6	50	500.0		106	70	139	529.8	0.227	20	
Trichloroethene	570.6	50	500.0		114	70.1	144	561.4	1.63	20	
Surr: 4-Bromofluorobenzene	530.3	0	500.0		106	66.2	120	533.8	0	0	
Surr: Dibromofluoromethane	524.4	0	500.0		105	79.5	121	530.0	0	0	
Surr: Toluene-d8	513.5	0	500.0		103	77	117	499.4	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: 1311755

ANALYTICAL QC SUMMARY REPORT

BatchID: 183717

Sample ID: MB-183717	Client ID:	Units: ug/L	Prep Date: 11/14/2013	Run No: 255850							
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183717	Analysis Date: 11/14/2013	Seq No: 5373328							
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									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
Benzene	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chloroform	BRL	5.0									
cis-1,2-Dichloroethene	BRL	5.0									
Ethylbenzene	BRL	5.0									
Methylene chloride	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
Trichloroethene	BRL	5.0									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	50.18	0	50.00		100	66.2	120				
Surr: Dibromofluoromethane	53.42	0	50.00		107	79.5	121				
Surr: Toluene-d8	50.23	0	50.00		100	77	117				

Sample ID: LCS-183717	Client ID:	Units: ug/L	Prep Date: 11/14/2013	Run No: 255850							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183717	Analysis Date: 11/14/2013	Seq No: 5373022							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	42.59	5.0	50.00		85.2	63.1	140				
Benzene	47.57	5.0	50.00		95.1	74.2	129				
Toluene	48.59	5.0	50.00		97.2	74.2	129				
Trichloroethene	53.12	5.0	50.00		106	71.2	135				

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: 1311755

ANALYTICAL QC SUMMARY REPORT

BatchID: 183717

Sample ID: LCS-183717	Client ID:	Units: ug/L	Prep Date: 11/14/2013	Run No: 255850							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183717	Analysis Date: 11/14/2013	Seq No: 5373022							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Surr: 4-Bromofluorobenzene	53.03	0	50.00		106	66.2	120				
Surr: Dibromofluoromethane	53.74	0	50.00		107	79.5	121				
Surr: Toluene-d8	51.14	0	50.00		102	77	117				

Sample ID: 1311850-006AMS	Client ID:	Units: ug/L	Prep Date: 11/14/2013	Run No: 255869							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183717	Analysis Date: 11/15/2013	Seq No: 5374302							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	939.4	100	1000		93.9	60.2	159				
Benzene	975.4	100	1000		97.5	70.2	138				
Toluene	1009	100	1000		101	70	139				
Trichloroethene	1095	100	1000		109	70.1	144				
Surr: 4-Bromofluorobenzene	1008	0	1000		101	66.2	120				
Surr: Dibromofluoromethane	1006	0	1000		101	79.5	121				
Surr: Toluene-d8	997.2	0	1000		99.7	77	117				

Sample ID: 1311850-006AMSD	Client ID:	Units: ug/L	Prep Date: 11/14/2013	Run No: 255869							
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183717	Analysis Date: 11/15/2013	Seq No: 5374336							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	926.2	100	1000		92.6	60.2	159	939.4	1.42	19.2	
Benzene	966.8	100	1000		96.7	70.2	138	975.4	0.886	20	
Toluene	1008	100	1000		101	70	139	1009	0.099	20	
Trichloroethene	1063	100	1000		106	70.1	144	1095	2.95	20	
Surr: 4-Bromofluorobenzene	1003	0	1000		100	66.2	120	1008	0	0	
Surr: Dibromofluoromethane	995.2	0	1000		99.5	79.5	121	1006	0	0	
Surr: Toluene-d8	992.8	0	1000		99.3	77	117	997.2	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: 1311755

ANALYTICAL QC SUMMARY REPORT

BatchID: 183817

Sample ID: MB-183817	Client ID:	Units: ug/L	Prep Date: 11/16/2013	Run No: 255993							
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183817	Analysis Date: 11/16/2013	Seq No: 5376816							
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									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
Benzene	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chloroform	BRL	5.0									
cis-1,2-Dichloroethene	BRL	5.0									
Ethylbenzene	BRL	5.0									
Methylene chloride	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
Trichloroethene	BRL	5.0									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	5.0									
Surr: 4-Bromofluorobenzene	46.34	0	50.00		92.7	66.2	120				
Surr: Dibromofluoromethane	47.11	0	50.00		94.2	79.5	121				
Surr: Toluene-d8	49.39	0	50.00		98.8	77	117				

Sample ID: LCS-183817	Client ID:	Units: ug/L	Prep Date: 11/16/2013	Run No: 255993							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183817	Analysis Date: 11/16/2013	Seq No: 5376815							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	44.94	5.0	50.00		89.9	63.1	140				
Benzene	47.07	5.0	50.00		94.1	74.2	129				
Toluene	47.29	5.0	50.00		94.6	74.2	129				
Trichloroethene	53.80	5.0	50.00		108	71.2	135				

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: 1311755

ANALYTICAL QC SUMMARY REPORT

BatchID: 183817

Sample ID: LCS-183817	Client ID:	Units: ug/L	Prep Date: 11/16/2013	Run No: 255993							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183817	Analysis Date: 11/16/2013	Seq No: 5376815							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Surr: 4-Bromofluorobenzene	48.26	0	50.00		96.5	66.2	120				
Surr: Dibromofluoromethane	48.70	0	50.00		97.4	79.5	121				
Surr: Toluene-d8	49.39	0	50.00		98.8	77	117				

Sample ID: 1311755-026AMS	Client ID: 13311-MW-37-Z1	Units: ug/L	Prep Date: 11/16/2013	Run No: 255993							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183817	Analysis Date: 11/16/2013	Seq No: 5376822							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	105.8	5.0	50.00	49.45	113	60.2	159				
Benzene	52.82	5.0	50.00		106	70.2	138				
Toluene	54.92	5.0	50.00		110	70	139				
Trichloroethene	57.62	5.0	50.00		115	70.1	144				
Surr: 4-Bromofluorobenzene	47.49	0	50.00		95.0	66.2	120				
Surr: Dibromofluoromethane	48.95	0	50.00		97.9	79.5	121				
Surr: Toluene-d8	49.63	0	50.00		99.3	77	117				

Sample ID: 1311755-026AMSD	Client ID: 13311-MW-37-Z1	Units: ug/L	Prep Date: 11/16/2013	Run No: 255993							
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 183817	Analysis Date: 11/16/2013	Seq No: 5376823							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	105.7	5.0	50.00	49.45	113	60.2	159	105.8	0.104	19.2	
Benzene	51.12	5.0	50.00		102	70.2	138	52.82	3.27	20	
Toluene	52.34	5.0	50.00		105	70	139	54.92	4.81	20	
Trichloroethene	57.58	5.0	50.00		115	70.1	144	57.62	0.069	20	
Surr: 4-Bromofluorobenzene	47.41	0	50.00		94.8	66.2	120	47.49	0	0	
Surr: Dibromofluoromethane	48.67	0	50.00		97.3	79.5	121	48.95	0	0	
Surr: Toluene-d8	49.71	0	50.00		99.4	77	117	49.63	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



Table E-1 Summary of Selected Groundwater Analytical Results for Overburden Wells, Owens Corning, Anderson, South Carolina.

Sample dates	Units	MW-5											
Halogenated Alkenes													
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
Halogenated Methanes													
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
Halogenated Ethenes													
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
Aromatic Hydrocarbons													
Benzene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals													
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	140	NA
Beryllium	ug/l	NA	1	NA	NA	ND	ND	ND	ND	ND	ND	ND	NA
Cadmium	ug/l	ND	16	10	13	27	ND	4	ND	ND	ND	ND	NA
Chromium	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Copper	ug/l	ND	71	ND	37	ND	1	ND	ND	ND	ND	ND	NA
Fluoride	mg/l	NA	ND	NA	ND	31.4	100	ND	ND	176	ND	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	
MW-7																			
Alkylated Alkanes																			
1,2-Dichloroethane	ug/L	NA	NA	NA	ND	ND	ND	ND	23	ND	ND	ND	ND	ND	ND	ND	ND	4.51	ND
1,1-Dichloroethane	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-Trichloroethane	ug/L	NA	NA	NA	ND	ND	ND	ND	14000	27600	30100	45000	1600	4400	6200	3200	1000	17000	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
Alkylated Methanes																			
1,1-Dichloroethane	ug/L	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ug/L	NA	NA	NA	ND	ND	ND	ND	11.3	ND	ND	ND	ND	ND	ND	ND	ND	3.31	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
Alkylated Ethanes																			
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
Aromatic Hydrocarbons																			
Benzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
Toluene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
Xylenes	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
1,2,4,5-Tetrachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
1,2,3,4-Tetrachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
1,2,3,5-Tetrachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
1,2,3,6-Tetrachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	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	ND	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	ND	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	ND	NA	ND	ND	ND	ND	ND
Summary																			
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
Benzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
Toluene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
Xylenes	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
1,2,4,5-Tetrachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
1,2,3,4-Tetrachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
1,2,3,5-Tetrachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
1,2,3,6-Tetrachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	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	ND	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	ND	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	ND	NA	ND	ND	ND	ND	ND

NA = Not Analyzed
 ND = Not Detected
 ug/L = micrograms per liter

Table E 1 Summary of Selected Groundwater Analytical Results for Overburden Wells, Owens Corning, Anderson, South Carolina.

Sample dates	Units	MW-11										MW-12																				
		November-90	August 91	September 93	December 95	December 95	November-97	December-98	December-99	December-00	November-01	November-02	December-03	December-04	November-05	November-90	August-91	September-93	December-95	December-96	November-97	December-98	December-99	December-00	November-01	December-02	December-03	December-04	November-05			
Halogenated Alkenes	1,1-Dichloroethene	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	ND	ND	ND	ND	ND	
	1,2-Dichloroethene	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	ND	ND	ND	ND	ND	
	1,1,1-Trichloroethene	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	ND	ND	ND	ND	ND	
	1,1,2-Trichloroethene	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	ND	ND	ND	ND	ND	
Halogenated Methanes	Carbon tetrachloride	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	ND	ND	ND	ND	ND	
	Chloroform	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	ND	ND	ND	ND	ND	
	Dibromochloromethane	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	ND	ND	ND	ND	ND	
Halogenated Ethanes	1,1,1-Trichloroethane	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	ND	ND	ND	ND	ND	
	1,1,2-Trichloroethane	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	ND	ND	ND	ND	ND	
	1,1-Dichloroethane	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	ND	ND	ND	ND	ND	
Aromatic hydrocarbons	Benzene	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	ND	ND	ND	ND	ND	
	Toluene	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	ND	ND	ND	ND	ND	
Metals	Asbestos	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	ND	ND	ND	ND	ND	
	Cadmium	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	ND	ND	ND	ND	ND	
	Chromium	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	ND	ND	ND	ND	ND	ND
	Copper	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	ND	ND	ND	ND	ND	ND
	Lead	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	ND	ND	ND	ND	ND	ND
	Nickel	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	ND	ND	ND	ND	ND	ND
Fluoride	Fluoride	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	ND	ND	ND	ND	ND	
	Total Dissolved Solids	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	ND	ND	ND	ND	ND	

ARCADIS

Table E-2. Summary of Selected Groundwater Results for the Top of Rock Wells, Owens Corning, Andrcson, South Carolina.

Sample dates	Units	MW-9												MW-10												
		September-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	December-97	November-98	December-99	December-00	November-01	December-02	December-03	December-04		
Halogenated Alkenes																										
Tetrachloroethylene	ug/l	NA	ND	ND	ND	ND	ND	ND	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	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethylene	ug/l	74	41	1	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	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Halogenated Methanes																										
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
Halogenated Ethanes																										
1,1,1-Trichloroethane	ug/l	ND	70	1	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
Aromatic Hydrocarbons																										
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
Metals																										
Arsenic	ug/l	ND	NA	NA	6.5J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Barium	ug/l	96J	959	74.5	50	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Beryllium	ug/l	0.55	4.6	1.4	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	61	66.1	4.4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4	1	4
Lead	ug/l	20	19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	ug/l	49	84.9	7.3	3	5	24	61	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoride	ug/l	23000	20000	1800	6000	800	500	45000	2750	NA	115	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND = Not Detected
 NA = Not Analyzed
 J = Values are Not To Be Used

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		
Halogenated Alkenes																										
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
Halogenated Methanes																										
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
Halogenated Ethanes																										
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
Aromatic Hydrocarbons																										
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
Metals																										
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
Fluoride																										
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		
Halogenated Alkenes													
Tetrachloroethylene	ug/l	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
1,1,1-Trichloroethane	ug/l	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
Halogenated Methanes													
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
Halogenated Ethanes													
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
Aromatic Hydrocarbons													
Benzene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals													
Aluminum	ug/l	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
Beryllium	ug/l	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
Copper	ug/l	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
Nickel	ug/l	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
Fluoride													
	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

ND = Not Detected
 NA = Not Analyzed
 Squares are Not Listed

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
Halogenated Alkenes																			
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
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
Vinyl Chloride	ug/l	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
Halogenated Methanes																			
Carbon Tetrachloride	ug/l	12	3.4	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
Methylene Chloride	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.7
Halogenated Ethanes																			
1,1,1-Trichloroethane	ug/l	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
Aromatic Hydrocarbons																			
Benzene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals																			
Arsenic	ug/l	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	41	43.4	200
Beryllium	ug/l	NA	NA	3.1	1.1	1.7	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	ND	ND	ND
Chromium	ug/l	NA	NA	22	4	3.6	3	2	ND	ND	ND	NA	NA	NA	NA	NA	ND	ND	2
Cadmium	ug/l	NA	NA	190	34	25.9	6	6	7.8	5.5	5.2	NA	NA	NA	NA	NA	1.6	6.6	ND
Nickel	ug/l	NA	NA	28	5.6	ND	3	3	ND	ND	ND	NA	NA	NA	NA	NA	ND	ND	1
Fluoride	ug/l	NA	NA	370	ND	88.3	100	100	100	100	230	ND	NA	NA	NA	NA	ND	45.3	250

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
Halogenated Alkenes															
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
Halogenated Methanes															
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
Halogenated Ethanes															
1,1,1-Trichloroethane	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aromatic Hydrocarbons															
benzene	ug/l	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals															
Arsenic	ug/l	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
barium	ug/l	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beryllium	ug/l	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cadmium	ug/l	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
chromium	ug/l	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
lead	ug/l	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
nickel	ug/l	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoride															
	ug/l	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

ND = Not Detected
 NA = Not Analyzed

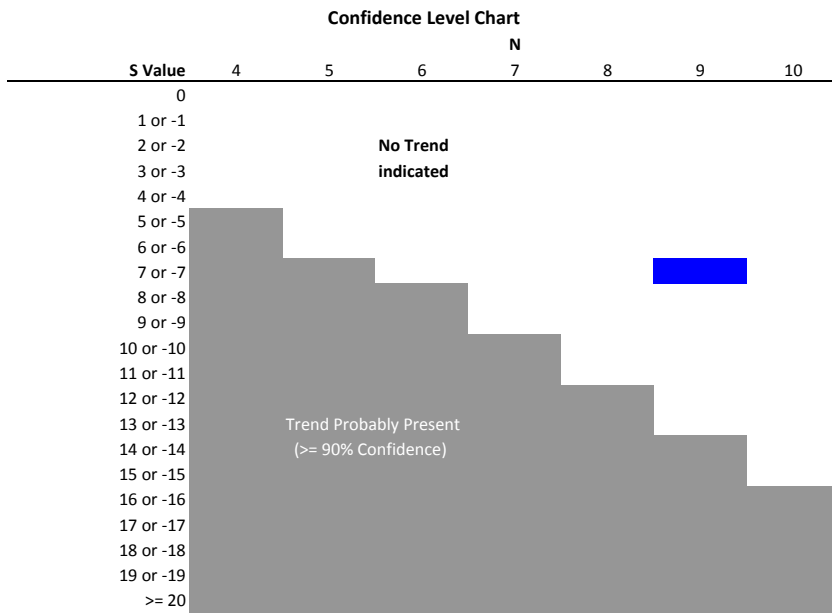
Appendix D: Mann-Kendall Test Results



**Mann-Kendall Test - Carbon Tetrachloride in MW-22
Owens Corning - Anderson, SC**

Date	Aug-11	Nov-11	Feb-12	May-12	Aug-12	Nov-12	Feb-13	May-13	Aug-13	Nov-13	Sum of Rows
Concentration (ug/L)		24	31	16	21	19	31	14	17	23	
Row 2: Compare to Nov-11			1	-1	-1	-1	1	-1	-1	-1	-4
Row 3: Compare to Feb-12				-1	-1	-1	0	-1	-1	-1	-6
Row 4: Compare to May-12					1	1	1	-1	1	1	4
Row 5: Compare to Aug-12						-1	1	-1	-1	1	-1
Row 6: Compare to Nov-12							1	-1	-1	1	0
Row 7: Compare to Feb-13								-1	-1	-1	-3
Row 8: Compare to May-13									1	1	2
Row 9: Compare to Aug-13										1	1
Mann-Kendall Statistic (S) =											-7
N =											9

Conclusion: No Trend (Stable)



Stability Evaluation Results	
Trend present (>= 90% Confidence)	
S < 0	Concentration decreasing
S > 0	Concentration Increasing

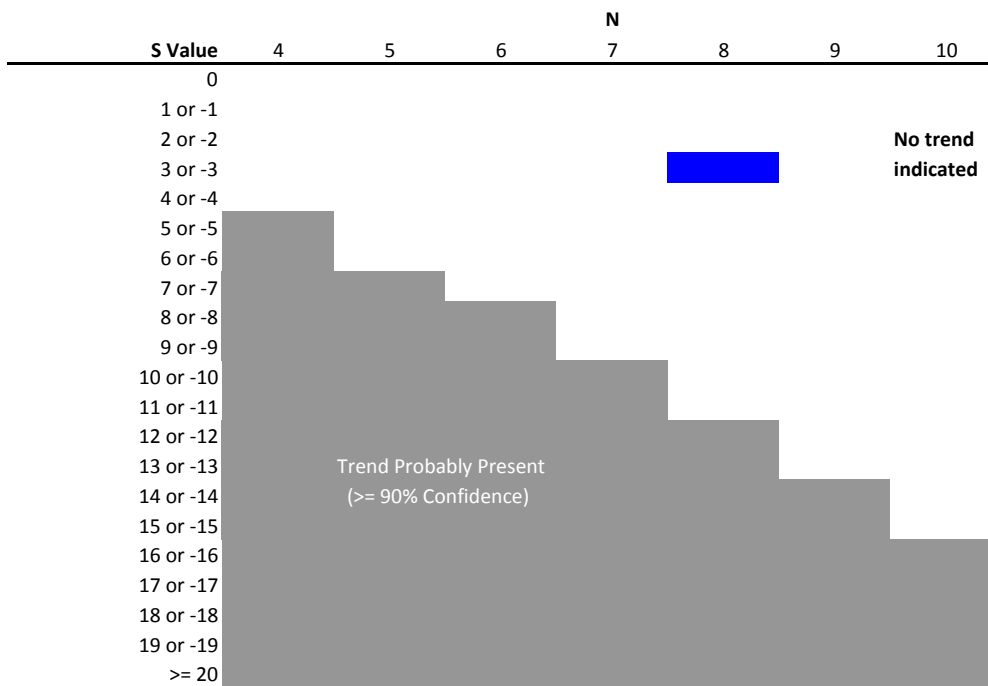
**Mann-Kendall Test - 1,1-DCE in MW-27
Owens Corning - Anderson, SC**

Date	Nov-06	Nov-07	Nov-08	Nov-09	Nov-10	Nov-11	Nov-12	Nov-13	Sum of
Concentration (ug/L)	180	200	120	120	160	140	67	330	Rows
Row 1: Compare to Nov-06		1	-1	-1	-1	-1	-1	1	-3
Row 2: Compare to Nov-07			-1	-1	-1	-1	-1	1	-4
Row 3: Compare to Nov-08				0	1	1	-1	1	2
Row 4: Compare to Nov-09					1	1	-1	1	2
Row 5: Compare to Nov-10						-1	-1	1	-1
Row 6: Compare to Nov-11							-1	1	0
Row 7: Compare to Nov-12								1	1

Mann-Kendall Statistic (S) = -3
N = 8

Conclusion: No trend (stable)

Confidence Level Chart



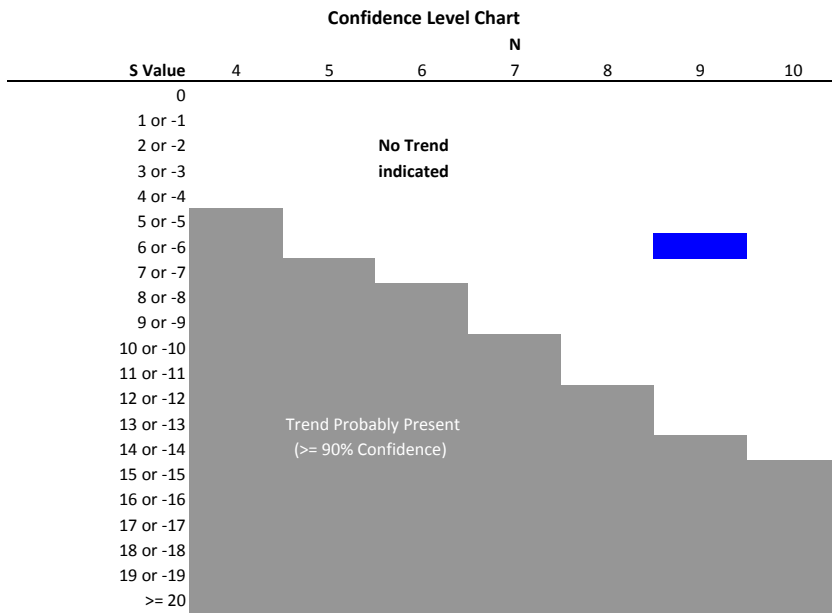
Stability Evaluation Results

Trend present (>= 90% Confidence)
 S < 0 Concentration decreasing
 S > 0 Concentration Increasing

**Mann-Kendall Test - Carbon Tetrachloride in MW-29R Zone 3
Owens Corning - Anderson, SC**

Date	Aug-11	Nov-11	Feb-12	May-12	Aug-12	Nov-12	Feb-13	May-13	Aug-13	Nov-13	Sum of Rows
Concentration (ug/L)		17	10	9.4	17	16	15	12	14	14	
Row 2: Compare to	Nov-11		-1	-1	0	-1	-1	-1	-1	-1	-7
Row 3: Compare to	Feb-12			-1	1	1	1	1	1	1	5
Row 4: Compare to	May-12				1	1	1	1	1	1	6
Row 5: Compare to	Aug-12					-1	-1	-1	-1	-1	-5
Row 6: Compare to	Nov-12						-1	-1	-1	-1	-4
Row 7: Compare to	Feb-13							-1	-1	-1	-3
Row 8: Compare to	May-13								1	1	2
Row 9: Compare to	Aug-13									0	0
Mann-Kendall Statistic (S) =											-6
N =											9

Conclusion: No Trend (Stable)

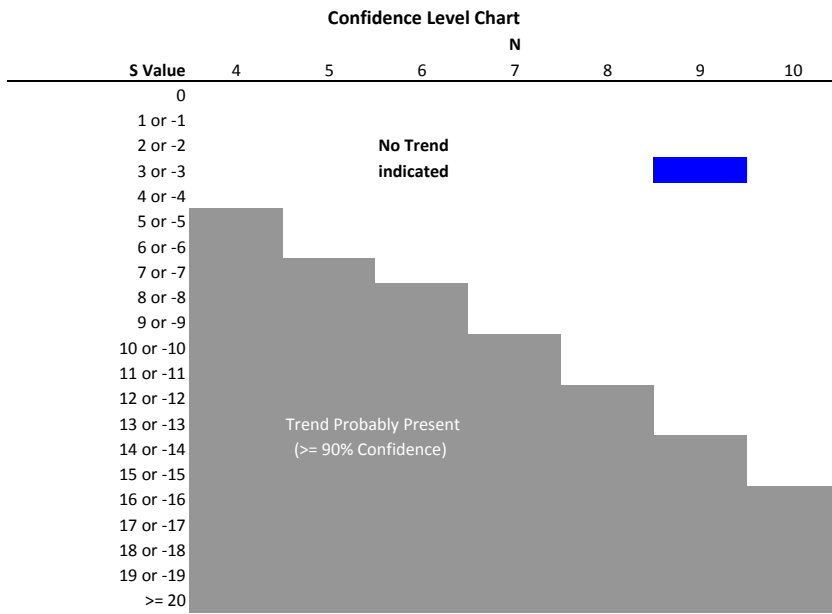


Stability Evaluation Results	
Trend present (>= 90% Confidence)	
S < 0	Concentration decreasing
S > 0	Concentration Increasing

**Mann-Kendall Test - Carbon Tetrachloride in MW-29R Zone 4
Owens Corning - Anderson, SC**

Date	Aug-11	Nov-11	Feb-12	May-12	Aug-12	Nov-12	Feb-13	May-13	Aug-13	Nov-13	Sum of Rows
Concentration (ug/L)		21	2.5	13	16	16	8	9.2	11	12	
Row 2: Compare to Nov-11			-1	-1	-1	-1	-1	-1	-1	-1	-8
Row 3: Compare to Feb-12				1	1	1	1	1	1	1	7
Row 4: Compare to May-12					1	1	-1	-1	-1	-1	0
Row 5: Compare to Aug-12						0	-1	-1	-1	-1	-4
Row 6: Compare to Nov-12							-1	-1	-1	-1	-4
Row 7: Compare to Feb-13								1	1	1	3
Row 8: Compare to May-13									1	1	2
Row 9: Compare to Aug-13										1	1
Mann-Kendall Statistic (S) =											-3
N =											9

Conclusion: No Trend (Stable)

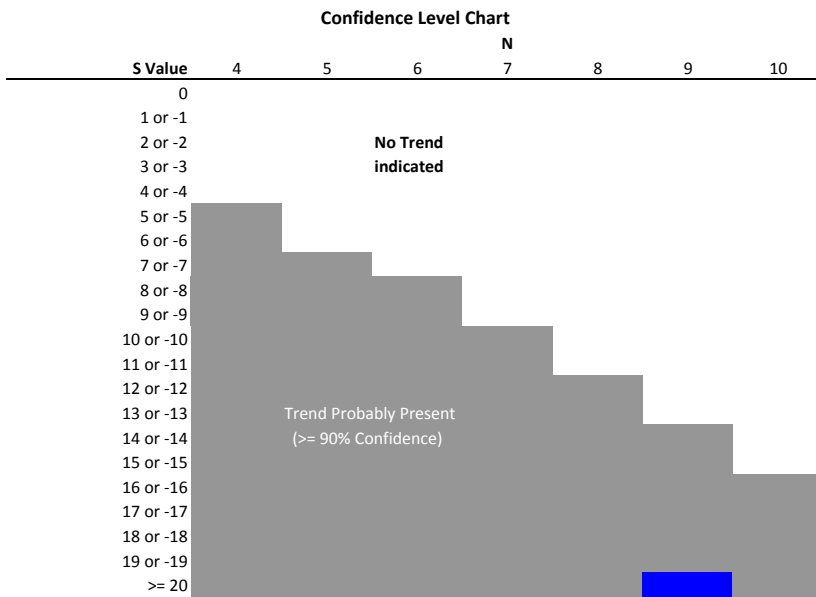


Stability Evaluation Results	
Trend present (>= 90% Confidence)	
S < 0	Concentration decreasing
S > 0	Concentration Increasing

**Mann-Kendall Test - 1,1-DCE in MW-35
Owens Corning - Anderson, SC**

Date		Nov-11	Feb-12	May-12	Aug-12	Nov-12	Feb-13	May-13	Aug-13	Nov-13	Sum of Rows
Concentration (ug/L)		330	310	300	280	170	31	100	110	98	
Row 1: Compare to	Nov-11		-1	-1	-1	-1	-1	-1	-1	-1	-8
Row 2: Compare to	Feb-12			-1	-1	-1	-1	-1	-1	-1	-7
Row 3: Compare to	May-12				-1	-1	-1	-1	-1	-1	-6
Row 4: Compare to	Aug-12					-1	-1	-1	-1	-1	-5
Row 5: Compare to	Nov-12						-1	-1	-1	-1	-4
Row 6: Compare to	Feb-13							1	1	1	3
Row 7: Compare to	May-13								1	-1	0
Row 8: Compare to	Aug-13									-1	-1
Mann-Kendall Statistic (S) =											-28
N =											9

Conclusion: Decreasing Trend

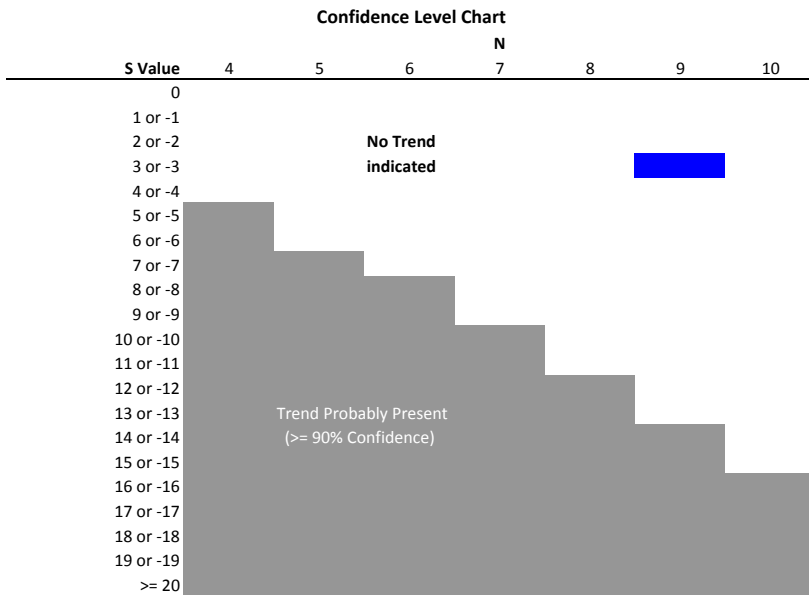


Stability Evaluation Results	
Trend present (>= 90% Confidence)	
S < 0	Concentration decreasing
S > 0	Concentration Increasing

**Mann-Kendall Test - 1,1-DCE in MW-37 Zone 1
Owens Corning - Anderson, SC**

Date		Nov-11	Feb-12	May-12	Aug-12	Nov-12	Feb-13	May-13	Aug-13	Nov-13	Sum of Rows
Concentration (ug/L)		78	68	88	12	91	98	98	70	49	
Row 1: Compare to	Nov-11		-1	1	-1	1	1	1	-1	-1	0
Row 2: Compare to	Feb-12			1	-1	1	1	1	1	-1	3
Row 3: Compare to	May-12				-1	1	1	1	-1	-1	0
Row 4: Compare to	Aug-12					1	1	1	1	1	5
Row 5: Compare to	Nov-12						1	1	-1	-1	0
Row 6: Compare to	Feb-13							0	-1	-1	-2
Row 7: Compare to	May-13								-1	-1	-2
Row 8: Compare to	Aug-13									-1	-1
Mann-Kendall Statistic (S) =											3
N =											9

Conclusion: No Trend (stable)



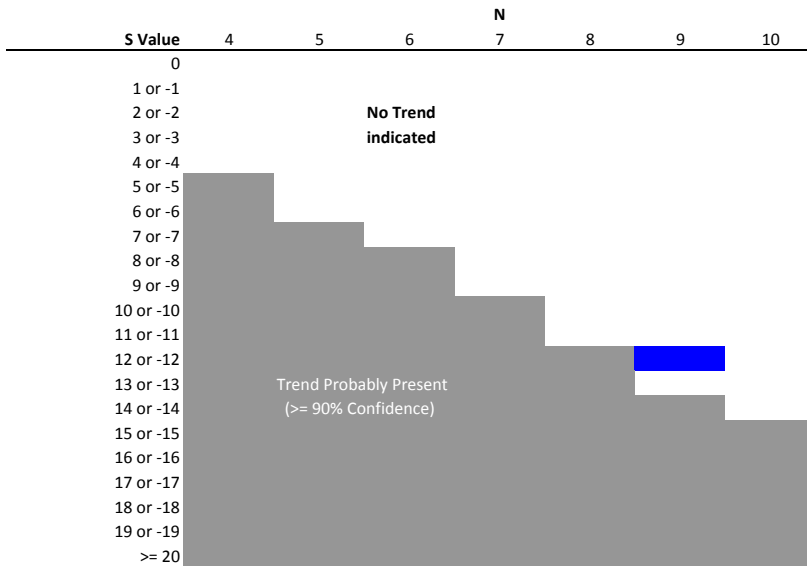
Stability Evaluation Results	
Trend present (>= 90% Confidence)	
S < 0	Concentration decreasing
S > 0	Concentration Increasing

**Mann-Kendall Test - 1,1-DCE in MW-37 Zone 2
Owens Corning - Anderson, SC**

Date		Nov-11	Feb-12	May-12	Aug-12	Nov-12	Feb-13	May-13	Aug-13	Nov-13	Sum of Rows
Concentration (ug/L)		310	150	260	35	140	130	83	99	180	
Row 1: Compare to	Nov-11		-1	-1	-1	-1	-1	-1	-1	-1	-8
Row 2: Compare to	Feb-12			1	-1	-1	-1	-1	-1	1	-3
Row 3: Compare to	May-12				-1	-1	-1	-1	-1	-1	-6
Row 4: Compare to	Aug-12					1	1	1	1	1	5
Row 5: Compare to	Nov-12						-1	-1	-1	1	-2
Row 6: Compare to	Feb-13							-1	-1	1	-1
Row 7: Compare to	Aug-13								1	1	2
Row 8: Compare to	Nov-13									1	1
Mann-Kendall Statistic (S) =											-12
N =											9

Conclusion: No trend (stable)

Confidence Level Chart

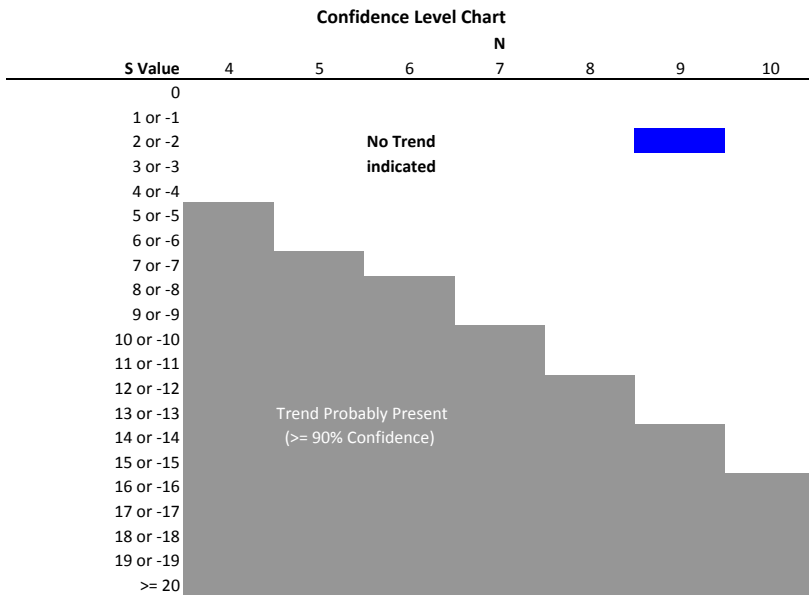


Stability Evaluation Results	
Trend present (>= 90% Confidence)	
S < 0	Concentration decreasing
S > 0	Concentration Increasing

**Mann-Kendall Test - 1,1-DCE in MW-37 Zone 3
Owens Corning - Anderson, SC**

Date		Nov-11	Feb-12	May-12	Aug-12	Nov-12	Feb-13	May-13	Aug-13	Nov-13	Sum of Rows
Concentration (ug/L)		2.5	2.5	2.5	2.5	2.5	5.9	2.5	2.5	2.5	
Row 1: Compare to	Nov-11		0	0	0	0	1	0	0	0	1
Row 2: Compare to	Feb-12			0	0	0	1	0	0	0	1
Row 3: Compare to	May-12				0	0	1	0	0	0	1
Row 4: Compare to	Aug-12					0	1	0	0	0	1
Row 5: Compare to	Nov-12						1	0	0	0	1
Row 6: Compare to	Feb-13							-1	-1	-1	-3
Row 7: Compare to	May-13								0	0	0
Row 8: Compare to	Aug-13									0	0
Mann-Kendall Statistic (S) =										2	
N =										9	

Conclusion: No Trend (stable)



Stability Evaluation Results	
Trend present (>= 90% Confidence)	
S < 0	Concentration decreasing
S > 0	Concentration Increasing

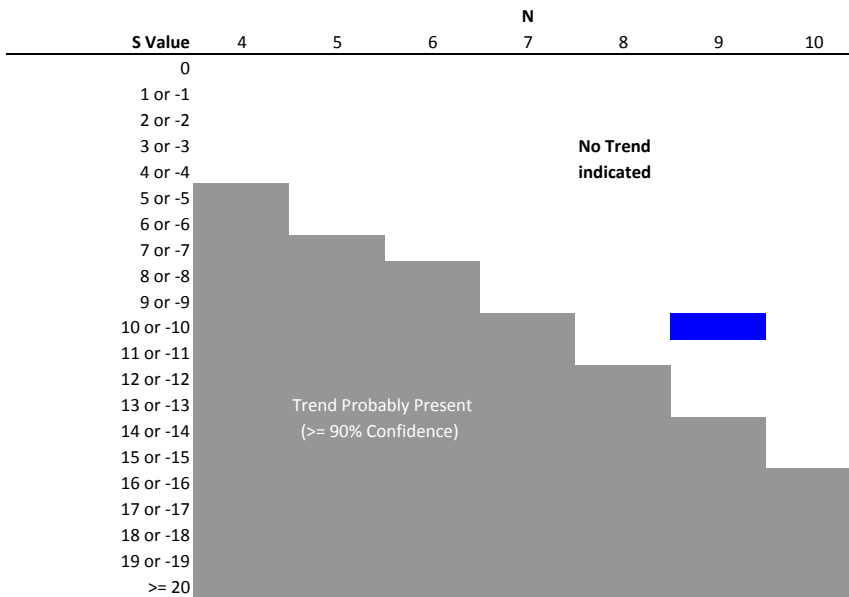
**Mann-Kendall Test - 1,1-DCE in MW-41 Zone 1
Owens Corning - Anderson, SC**

Date		Nov-11	Feb-12	May-12	Aug-12	Nov-12	Feb-13	May-13	Aug-13	Nov-13	Sum of Rows
Concentration (ug/L)		190	240	220	200	190	250	240	150	110	
Row 1: Compare to	Nov-11		1	1	1	0	1	1	-1	-1	3
Row 2: Compare to	Feb-12			-1	-1	-1	1	0	-1	-1	-4
Row 3: Compare to	May-12				-1	-1	1	1	-1	-1	-2
Row 4: Compare to	Aug-12					-1	1	1	-1	-1	-1
Row 5: Compare to	Nov-12						1	1	-1	-1	0
Row 6: Compare to	Feb-13							-1	-1	-1	-3
Row 7: Compare to	May-13								-1	-1	-2
Row 8: Compare to	Aug-13									-1	-1

Mann-Kendall Statistic (S) = -10
N = 9

Conclusion: Decreasing Trend

Confidence Level Chart



Stability Evaluation Results	
Trend present (>= 90% Confidence)	
S < 0	Concentration decreasing
S > 0	Concentration Increasing

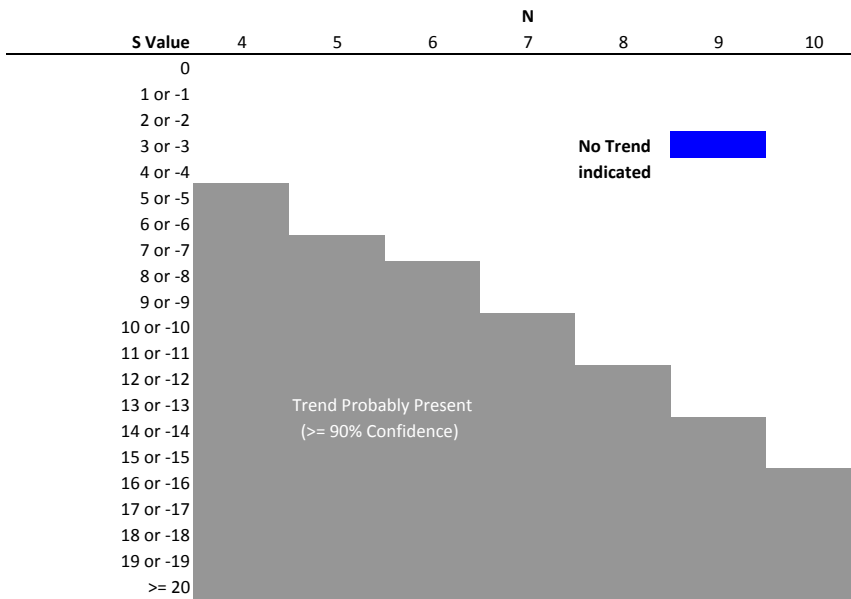
**Mann-Kendall Test - 1,1-DCE in MW-41 Zone 2
Owens Corning - Anderson, SC**

Date		Nov-11	Feb-12	May-12	Aug-12	Nov-12	Feb-13	May-13	Aug-13	Nov-13	Sum of Rows
Concentration (ug/L)		190	240	250	360	78	230	280	200	190	
Row 1: Compare to	Nov-11		1	1	1	-1	1	1	1	0	5
Row 2: Compare to	Feb-12			1	1	-1	-1	1	-1	-1	-1
Row 3: Compare to	May-12				1	-1	-1	1	-1	-1	-2
Row 4: Compare to	Aug-12					-1	-1	-1	-1	-1	-5
Row 5: Compare to	Nov-12						1	1	1	1	4
Row 6: Compare to	Feb-13							1	-1	-1	-1
Row 7: Compare to	May-13								-1	-1	-2
Row 8: Compare to	Aug-13									-1	-1

Mann-Kendall Statistic (S) = -3
N = 9

Conclusion: No Trend (Stable)

Confidence Level Chart



Stability Evaluation Results

Trend present (>= 90% Confidence)
 S < 0 Concentration decreasing
 S > 0 Concentration Increasing

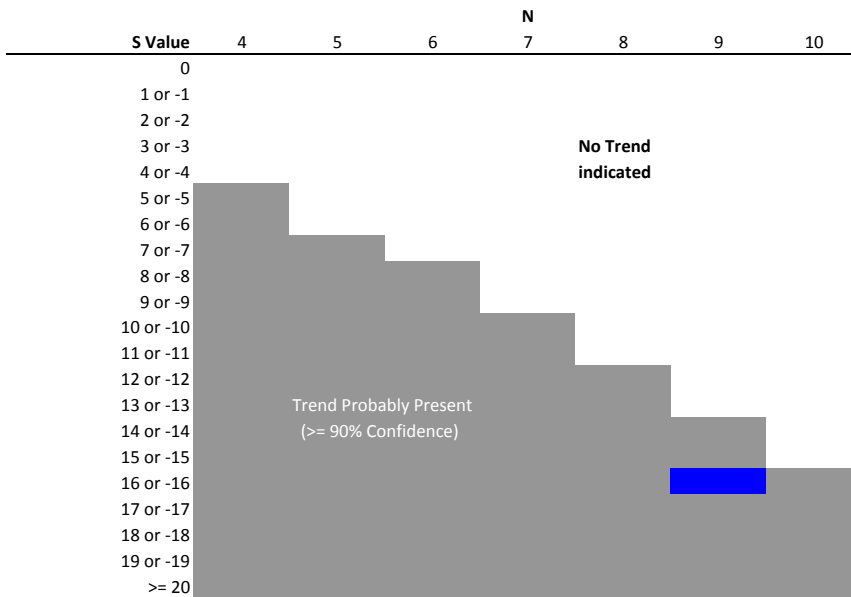
**Mann-Kendall Test - 1,1-DCE in MW-41 Zone 3
Owens Corning - Anderson, SC**

Date	Aug-11	Nov-11	Feb-12	May-12	Aug-12	Nov-12	Feb-13	May-13	Aug-13	Nov-13	Sum of Rows
Concentration (ug/L)	98		55	54	8.9	78	76	32	34	18	
Row 2: Compare to Nov-11			-1	-1	-1	-1	-1	-1	-1	-1	-8
Row 3: Compare to Feb-12				-1	-1	1	1	-1	-1	-1	-3
Row 4: Compare to May-12					-1	1	1	-1	-1	-1	-2
Row 5: Compare to Aug-12						1	1	1	1	1	5
Row 6: Compare to Nov-12							-1	-1	-1	-1	-4
Row 7: Compare to Feb-13								-1	-1	-1	-3
Row 8: Compare to May-13									1	-1	0
Row 9: Compare to Aug-13										-1	-1

Mann-Kendall Statistic (S) = -16
N = 9

Conclusion: Decreasing Trend

Confidence Level Chart

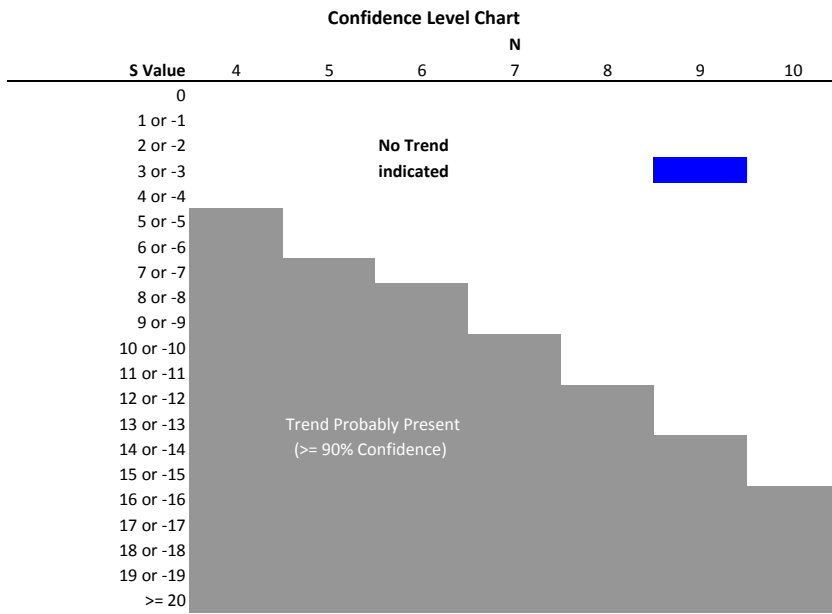


Stability Evaluation Results	
Trend present (>= 90% Confidence)	
S < 0	Concentration decreasing
S > 0	Concentration Increasing

**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	Nov-12	Nov-13	Sum of Rows
Concentration (ug/L)	180	2.4	2.3	390	84	290	120	2.5	2.5	2.5	
Row 1: Compare to Nov-04		-1	-1	1	-1	1	-1	-1	-1	-1	-4
Row 2: Compare to Nov-05			-1	1	1	1	1	1	1	1	5
Row 3: Compare to Nov-06				1	1	1	1	1	1	1	6
Row 4: Compare to Nov-07					-1	-1	-1	-1	-1	-1	-5
Row 5: Compare to Nov-08						1	1	-1	-1	-1	0
Row 6: Compare to Nov-09							-1	-1	-1	-1	-3
Row 7: Compare to Nov-10								-1	-1	-1	-2
Row 8: Compare to Nov-11									0	0	0
Mann-Kendall Statistic (S) =											-3
N =											10

Conclusion: No Trend (Stable)



Stability Evaluation Results	
Trend present (>= 90% Confidence)	
S < 0	Concentration decreasing
S > 0	Concentration Increasing