2015 Annual Groundwater and Surface Water Monitoring Report

Prepared for

Owens Corning
4837 Highway 81 South
Anderson, South Carolina

February 1, 2016

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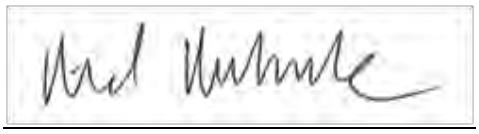

Brown AND Caldwell

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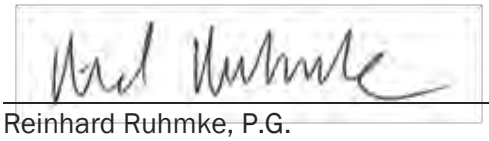
1,1-DCA	1,1-dichloroethane
1,2-DCA	1,2-dichloroethane
1,1-DCE	1,1-dichloroethene
1,1,1-TCA	1,1,1-trichloroethane
AES	Analytical Environmental Services, Inc.
amsl	above mean sea level
bgs	below ground surface
btoc	below top of casing
cis-1,2-DCE	cis-1,2-dichloroethene
DO	dissolved oxygen
DNAPL	dense non-aqueous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

Professional Geologist Certification

The 2015 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.



February 1, 2016
Date

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Section 1

Introduction

This 2015 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 2015 quarterly groundwater monitoring and November 2015 annual surface water and groundwater monitoring events and semiannual residential well sampling event, and the results continue to show that public health and the environment are protected (see Human Health Risk Assessment, Brown and Caldwell, 2014) and the offsite 1,1-dichloroethene (1,1-DCE) concentrations are declining due to the operation of the interim measures bedrock hydraulic containment system. The results for the February and May 2015 quarterly groundwater sampling events and the residential well sampling event were reported in the *2015 Semiannual Groundwater Sampling Report* dated July 30, 2015. 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 satisfies the Consent Order requirements for submitting an Annual RCRA Facility Investigation Groundwater Report for 2015. Section 1 of this report contains this 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 for statistical trend analysis.

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. As shown on Figure 1 the Owens Corning facility is bounded by Highway 81 South to the west, True Temper Road to the north, Keys Street to the east, and Harry Drive to the south. The facility is located approximately 4 miles south of the town of Anderson. Over the years, during the groundwater plume delineation and assessment process, Owens Corning purchased properties in what has become known as the Northeast Area. 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. The "Site" as referenced in this report includes the Owens Corning facility, the Northeast Area and the additional offsite properties that extend to the non-detect monitoring wells.

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 performed the third quarter groundwater monitoring event between August 10 and 14, 2015, and the annual groundwater monitoring event between November 16 and 20, 2015. 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 47 wells during the November annual monitoring event as identified in Tables 1 and 2, respectively. It should be noted that the water level was not measured in the Waterloo wells (MW-29R and MW-36) during the November event due to a malfunction with the readout meter. 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) 2015 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.

The interim corrective measures bedrock hydraulic containment system was commissioned on November 3, 2011. The system currently pumps groundwater from one of two bedrock extraction wells, EW-1 and EW-2. EW-1 is the primary pumping well, is located approximately 250 feet north of the intersection between Keys Street and True Temper Road (Figure 1) and has a total depth of 450 feet below ground surface (ft bgs). EW-2, is a backup well that occasionally is used depending on the operating status of EW-1. The pump intake for EW-1 is at 425 ft bgs and currently withdraws groundwater at a rate of approximately 28 gallons per minute (gpm). The hydraulic containment system was active during the August and November 2015 groundwater sampling events, Due to the hydraulic containment system pumping, drawdown is observed in bedrock wells within the broad EW-1 zone of influence. 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 develop the bedrock groundwater potentiometric surfaces presented on the August and November 2015 potentiometric surfaces in all bedrock zones (Figures 3 through 6 and 8 through 11). The overburden aquifer is unaffected by pumping at EW-1 due to the presence of surface casing in EW-1. Additional information regarding the interim corrective measures system will be reported in the Quarterly Performance Monitoring Report (4th Quarter) that will be submitted to the U.S. EPA and SCDHEC in February 2016.

Based on the monitoring well measurements from August 2015, groundwater levels in the overburden aquifer ranged from 6.90 (MW-11) to 24.72 (TW-46) feet below top of casing (btoc) and from 773.32 to 791.86 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 0.04 foot above the top of the casing (MW-38 Zone 2) to 50.65 feet btoc (MW-39 Zone 3) and from 771.22 to 755.55 feet in elevation (NAVD88). In November 2015, the groundwater levels in the overburden aquifer ranged from 4.54 (MW-11) to 24.86 (MW-10) feet btoc and from 775.68 to 798.79 feet in elevation (NAVD88). Measurements from wells in the bedrock aquifer exhibit hydraulic heads ranging from 2.19 foot above the top of casing (MW-38 Zone 2) to 50.39 feet btoc (MW-39 Zone 3) and from 773.37 to 755.81 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 and November 2015 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 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 bedrock characteristics, the extent of drawdown varies in bedrock wells near EW-1. The drawdown is dependent on the interconnectivity between the fracture system in the bedrock zone in which wells are screened and the fracture system in the open borehole extraction well, EW-1. Measurements from the offsite bedrock aquifer wells indicate a flow direction in this formation that continues to align with Betsy Creek and its' direction to the north-northeast in the area of MW-35. The distribution of drawdown within the bedrock system was used to develop the bedrock groundwater potentiometric surfaces presented on Figures 3 through 6 (August 2015) and 8 through 11 (November 2015).

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. The magnitude of the horizontal gradient onsite varies depending on the aquifer and fracture zone. The calculated horizontal gradient for the November 2015 data in the overburden aquifer was 0.014 (calculated between MW-28 and MW-21) and ranged in the bedrock aquifer from 0.012 (calculated between MW-19 and MW-41 Zone 2) to 0.079 (calculated between MW-37 Zone 3 and MW-41 Zone 3). The following vertical gradients were also calculated from the November 2015 data: upward gradients of 0.0082 (calculated between MW-6 and MW-28) in SWMU-9 and at the intersection of Keys Street and True Temper Road at 0.019 (calculated between MW-21 and MW-38 Zone 2) and a downward gradient across the overburden/bedrock aquifer of 0.033 (calculated between MW-12 and MW-19). The calculated horizontal and vertical gradients for August and November 2015 are provided in Appendix A.

The quarterly groundwater monitoring program includes 12 bedrock monitoring wells (MW-15, MW-22, MW-29R, MW-35, MW-36, MW-37, MW-38, MW-39, MW-41, MW-42, MW-43 and MW-44) that are sufficient to monitor changes in plume dynamics (i.e., flow direction and or concentration). As discussed in previous reports, MW-33 was removed from the quarterly and annual groundwater monitoring program because it was converted to one of the groundwater extraction wells (EW-1) for the ICM hydraulic containment system and therefore, is not part of the quarterly and annual groundwater monitoring program. The annual

groundwater monitoring program includes 47 overburden, top of rock and bedrock monitoring wells. Refer to Table 3 for well construction details and monitoring frequency for each well and Figure 1 for the well locations.

Monitoring well TW-45 could not be gauged or sampled in August and November 2015 because the well collapsed and well MW-8 could not be located during the November event and therefore, was not gauged. As previously discussed, water levels were not measured in the Waterloo wells MW-29R and MW-36 due to a malfunction with the readout meter. The malfunctioning Waterloo readout meter has since been replaced. Multiple water-bearing zones were gauged and sampled in bedrock wells 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.

2.3 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 17 and 18, 2015 and their locations are presented on Figure 12.

2.4 Groundwater and Surface Water Sampling Procedures

On August 10 and November 16, 2015, depth to groundwater measurements were collected from 35 and 47 monitoring well locations, respectively. The water level meter was decontaminated between wells with an Alconox® solution followed by thorough rinsing 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 bladder 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 Lamotte 2020 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 *Science and Ecosystem Support Division Groundwater Sampling Procedure* (SESDPROC-301-R3), March 2013. Groundwater sampling field data sheets documenting the purging activities are included as Appendix B.

Immediately following stabilization and before turning off the low-flow pump, groundwater samples were collected from the wells. 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 C). Monitoring wells were sampled from least contaminated to most contaminated, based on previous groundwater monitoring data, to minimize the potential for carryover and cross-contamination between wells.

Surface water samples were collected on November 17 and 18, 2015 in accordance with U.S. EPA's *Science and Ecosystem Support Division Surface Water Sampling* (SESDPROC-201-R3), February 2013 by manually filling the sample containers with surface water using a pre-cleaned, disposable, 500-milliliter (ml), polyethylene bottle.

2.5 Residential Well Sampling

During the semiannual residential well sampling event in November 2015, nine 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-R3), May 2013. Five residential wells located at 605 and 1303 Clinkscales Road, 311 Kaye Drive, and 115 and 335 Elrod Road were not sampled because the well pump was inoperable. The sample collected from 119 Cloverhill Drive was inadvertently collected from the residence (i.e., City water supply) instead of the well located across the street from the residential property. 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 B. After purging, the samples were collected at a low flow rate from the holding tank spigot. 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 C).

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.

2.6 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-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.

2.7 Quality Assurance/Quality Control

The groundwater sampling was performed in accordance with U.S. EPA's Science and Ecosystem Support Division Groundwater Sampling Procedure (SESDPROC-301-R3), March 2013. 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. Three duplicate groundwater samples were collected during the November sampling event. An evaluation of the analytical results for the duplicate samples showed that the reported constituents and concentrations were similar to the primary samples. Two 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 C.

Section 3

Analytical Results

This section contains the laboratory and field data results for the August 2015 quarterly groundwater monitoring event and the November 2015 annual surface water, groundwater, and semiannual residential well monitoring event. The August event produced samples from seven bedrock wells located on the northeast portion of the Owens Corning property (MW-15, MW-22, MW-29R, MW-35, MW-36, MW-37, MW-38 and MW-44), and four offsite bedrock wells (MW-39, MW-41, MW-42 and MW-43). For the November event, 59 groundwater samples were collected from 46 overburden, top of rock, and bedrock well locations, including multiple samples that were collected from eight bedrock wells that are screened across multiple water bearing zones), 11 surface water locations, and nine residential wells.

The August and November 2015 groundwater analytical results are summarized in Tables 4 and 5, respectively. The November 2015 residential well analytical results are summarized in Table 6, and the November 2015 surface water 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 D. Analytical reports that include method detection limits and quality assurance/quality control (QA/QC) information are provided in Appendix C.

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 2015 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 2015 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 79,000 micrograms per liter (µg/L) and 95,000 µg/L, respectively. Similarly, 1,1,1-TCA has been detected in MW-7, where concentrations have fluctuated from 17,000 µg/L (2007) to 53,000 µg/L (2011) to 14,000 µg/L (2014) and then back up to 44,000 µg/L (2015). With the exception of MW-32 and MW-6, no other samples contained 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 phase hydrolysis which is generally a very fast reaction.

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

Several other overburden and top of rock well samples contained 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 270 µg/L for both wells . In the Northeast Area of the Site, however, concentrations of 1,1-DCE decrease to below the RL of 5 µg/L. The 1,1-DCE concentration trend for top of rock well MW-31, located approximately 850 feet

northeast of SWMU-9 and hydraulically upgradient of extraction well EW-1, was determined using the Mann-Kendall Test (Gilbert, 1987), 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 2007 through 2015 for MW-31 resulting in nine data points. According to the test results at a 90 percent confidence level, the 1,1-DCE concentration in well MW-31 showed a decreasing trend over the time periods described above. The Mann-Kendall test results are included in Appendix E.

Other VOCs that exceeded MCLs in the overburden and top of rock wells were carbon tetrachloride, TCE, and vinyl chloride. Carbon tetrachloride was detected above the MCL in four overburden and top of rock wells with the highest concentration at 29 µg/L in monitoring well MW-20, located northeast of SWMU-9. The only detections of vinyl chloride above the 2 µg/L MCL were in monitoring wells MW-11 (2.8 µg/L), and MW-12 (17 µg/L) and TCE in well MW-17 at 37 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 aquifer. 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-15, MW-29R Zone 3, MW-29R Zone 4 and MW-37 Zone 3, located between 400 and 900 feet hydraulically upgradient of extraction well EW-1, show a decreasing trend over the past 8 years according to the Mann-Kendall Test (Appendix E). The 1,1-DCE concentration in MW-37 Zone 3 has been below the RL for the past 5 years. The 1,1-DCE concentration in MW-37 Zone 2, located approximately 2,500 feet hydraulically upgradient of EW-1, has remained relatively stable over the past 8 years, showing no trend according to the Mann-Kendall Test. The 1,1-DCE concentrations in well MW-27 and MW-37 Zone 1, located approximately 700 feet hydraulically upgradient of EW-1, has shown an increasing trend according to the Mann-Kendall Test. 1,1-DCE has not been detected in groundwater above MCLs in any of the three zones of MW-36, located approximately 500 feet upgradient of EW-1, during the quarterly monitoring events since it was installed in 2008.

The 1,1-DCE concentration in wells MW-35 and the three zones of MW-41, located approximately 1,800 feet downgradient of EW-1, show a decreasing trend over the past 8 years according to the Mann-Kendall Test. This reduction in concentrations in MW-35 and 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.

Bedrock well MW-39 was installed in 2010 and is located southeast and hydraulically downgradient of EW-1 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).

Bedrock wells MW-42 and MW-43 were installed in 2010 and 2011, each as nested wells, such that three zones could be sampled to delineate 1,1-DCE in the Northeast Area. MW-42 and MW- 43 are the farthest site investigation monitoring wells from the SWMU-9 source area. MW-42 is located east of the northeastern portion of the plume and MW-43 is due north of that portion of the plume. No VOCs have been detected in any of the three zones collected from MW-42 and MW-43. Based on this information and the conceptual site model (CSM) that shows the nature and direction of groundwater flow, the 1,1-DCE plume has been delineated and appears to be shrinking.

The only other contaminants detected above an MCL in the bedrock wells were 1,2-DCA and carbon tetrachloride. 1,2-DCA was only detected above the MCL in well MW-27 in November 2015 and carbon tetrachloride was detected in MW-22, MW-29R Zones 3 and 4, and MW-37 Zone 2 during August and November 2015 and additionally in MW-27 during November 2015. The maximum concentration of carbon tetrachloride in bedrock wells was detected in MW-27 at 24 µg/L in November. The carbon tetrachloride concentrations in well MW-22 and MW-29R Zone 3 and Zone 4 have remained relatively stable over the past 8 years, showing no trend according to the Mann-Kendall Test. No other constituents from the focused list of VOCs were detected above MCLs in the bedrock well samples in August and November 2015. Refer to Appendix E for Mann-Kendall Test results.

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 decreased from 7.8 µg/L in February 2013 to less than the RL in May, August and November 2013, and the well continued to be below the RL during the 2014 and 2015 sample events. This information supports the CSM as detailed in the Supplemental RFI Report (Brown and Caldwell, 2009),which shows the plume rising from the deepest points (near EW-1 and MW-38) upward toward Betsy Creek, and demonstrates vertical delineation. In the *RFI Technical Memorandum and RFI Work Plan* submitted to EPA on September 18, 2015, Owens Corning offered to install one additional downgradient delineation well and one side-gradient delineation well to further establish trends in these areas. Owens Corning is awaiting approval from EPA to install these wells.

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 2015 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 U.S. EPA and SCDHEC surface water standards during the November 2015 sampling event. All surface water analytical results are included in Table 7.

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 with the exception of the detection of chloroform in the sample collected at 119 Cloverhill Drive. However, as previously discussed, this sample was inadvertently collected from the City water supply at the residential property instead of the well located across the street. Historic trends at this well consistently showed no detections of any site specific VOCs. All residential well analytical results are included in Table 6. 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 2015, respectively. Samples were collected from 12 bedrock wells during the August quarterly event and from 46 wells and 11 surface water locations during the November annual event. In addition, the semiannual samples were collected from nine residential wells during the November event. The samples were analyzed for the focused list of VOCs. Multiple water-bearing zones were sampled in bedrock wells MW-29R, MW-36, MW-37, MW-38, MW-39, MW-41, MW-42 and MW-43.

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

- Based on historical and recent Site monitoring data 1,1-DCE and 1,1,1-TCA are the primary constituents in groundwater, though 1,1-DCE is the primary constituent that persists beyond SWMU-9 and the facility downgradient property boundary within the bedrock water bearing zones.
- The shallow, overburden aquifer within which all of the residential wells in the Northeast Area are screened, does not appear to be impacted by Site VOCs.
- 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 MCLs in the overburden and top of rock water bearing zones other than 1,1-DCE and 1,1,1-TCA were 1,2-DCA, carbon tetrachloride, TCE, and vinyl chloride.
- The 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 groundwater plume appears to be relatively stable and the downgradient boundary of this plume in the top of rock aquifer is defined by wells MW-21 and MW-25, which were both non-detect, and have been so since 1993.
- The main contaminant in the bedrock aquifer is 1,1-DCE. The 1,1-DCE concentration in MW-37 Zone 2 has remained relatively stable over the past 8 years. Concentration data obtained from bedrock wells MW-15, MW-29R Zone 3, MW-29R Zone 4, MW-35, MW-37 Zone 3, MW-41 Zone 1, MW-41 Zone 2 and MW-41 Zone 3 and results from the Mann-Kendall test at 90 percent confidence level show a decreasing tend. The 1,1-DCE concentration in wells MW-35 and the three zones of MW-41, located approximately 1,800 feet downgradient of EW-1, show a decreasing trend over the past 8 years.
- 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 most downgradient 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 CSM that shows the nature and direction of groundwater flow, the 1,1-DCE plume has been delineated and the results continue to show that public health and the environment are protected and the offsite 1,1-DCE concentrations are declining due to the operation of the interim measures bedrock hydraulic containment system.

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 30, 2015. 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 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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Soricelli, Anthony[1], C.W. Clendenin[2], and J.W. Castle. [1] *Bedrock Geologic Map of the Little Mountain Area, Anderson South Quadrangle, Anderson County, South Carolina.* (1) Geological Sciences, Clemson University, 340 Brackett Hall, Clemson, South Carolina 29634, asorice@clemson.edu. (2) South Carolina Geological Survey, 5 Geology Road, Columbia, South Carolina 29212.

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United States Environmental Protection Agency. 2013. *Science and Ecosystem Support Division Surface Water Sampling Procedure.*

United States Environmental Protection Agency. 2013. *Potable Water Supply Sampling.*

N

MW-43
MW-42
MW-41
MW-36
MW-35
MW-44
MW-29R
TW-41
TW-40
EW-1
TW-43
TW-42
TW-44
MW-14
MW-26
MW-15
MW-3
MW-34
MW-21
EW-2
P2
MW-19
MW-11
MW-25
MW-38
MW-24
MW-22
MW-23
MW-13
MW-16
MW-37
MW-27
MW-12
MW-4
Alloy
MW-31
MW-20
TW-45
MW-30
TW-46
MW-17
MW-2
MW-18
P1
MW-7
MW-9
MW-28
MW-39
MW-32
MW-10
MW-5
MW-6
MW-1
MW-8

0 600 1,200
Approximate Scale in Feet

LEGEND

- Owens Corning Facility Boundary
- Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream or Creek
- Abandoned Sludge Lagoon
- Backwash Storage Ponds

Figure 1

Site Map

Anderson, Anderson County, South Carolina

Brown AND Caldwell

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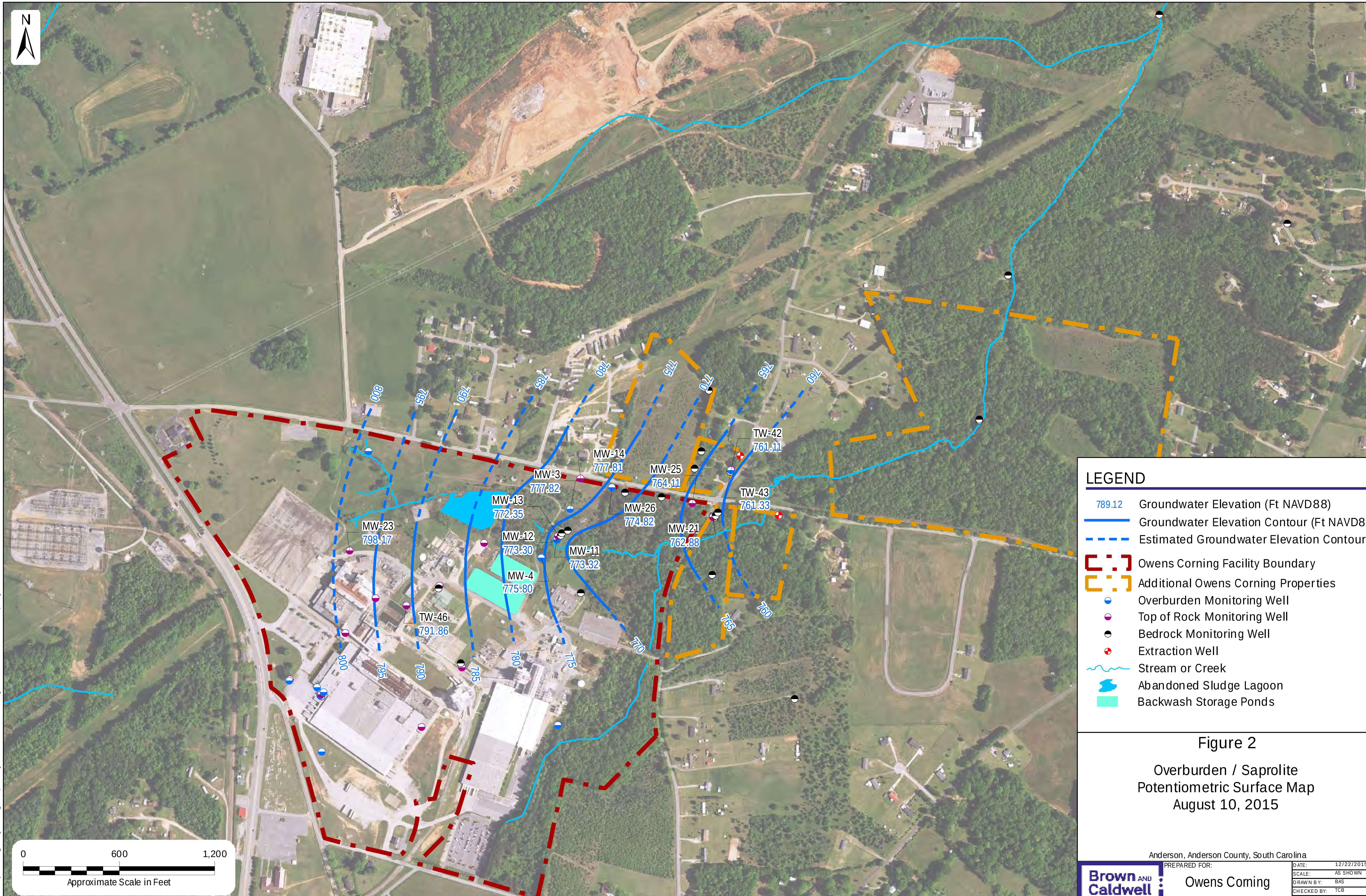
N
800
795
790
785
780
775
770
765
760
MW-14
777.81
MW-3
777.82
MW-25
764.11
TW-42
761.11
TW-43
761.33
MW-13
772.35
MW-26
774.82
MW-21
762.88
MW-23
798.17
MW-12
773.30
MW-11
773.32
MW-4
775.80
TW-46
791.86
0
600
1,200
Approximate Scale in Feet
LEGEND
789.12 Groundwater Elevation (Ft NAVD88)
Groundwater Elevation Contour (Ft NAVD88)
Estimated Groundwater Elevation Contour
Owens Corning Facility Boundary
Additional Owens Corning Properties
Overburden Monitoring Well
Top of Rock Monitoring Well
Bedrock Monitoring Well
Extraction Well
Stream or Creek
Abandoned Sludge Lagoon
Backwash Storage Ponds
Figure 2
Overburden / Saprolite
Potentiometric Surface Map
August 10, 2015
Anderson, Anderson County, South Carolina
Brown AND Caldwell
PREPARED FOR:
Owens Corning
DATE: 12/22/2015
SCALE: AS SHOWN
DRAWN BY: BAS
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PROJECT #: 147297

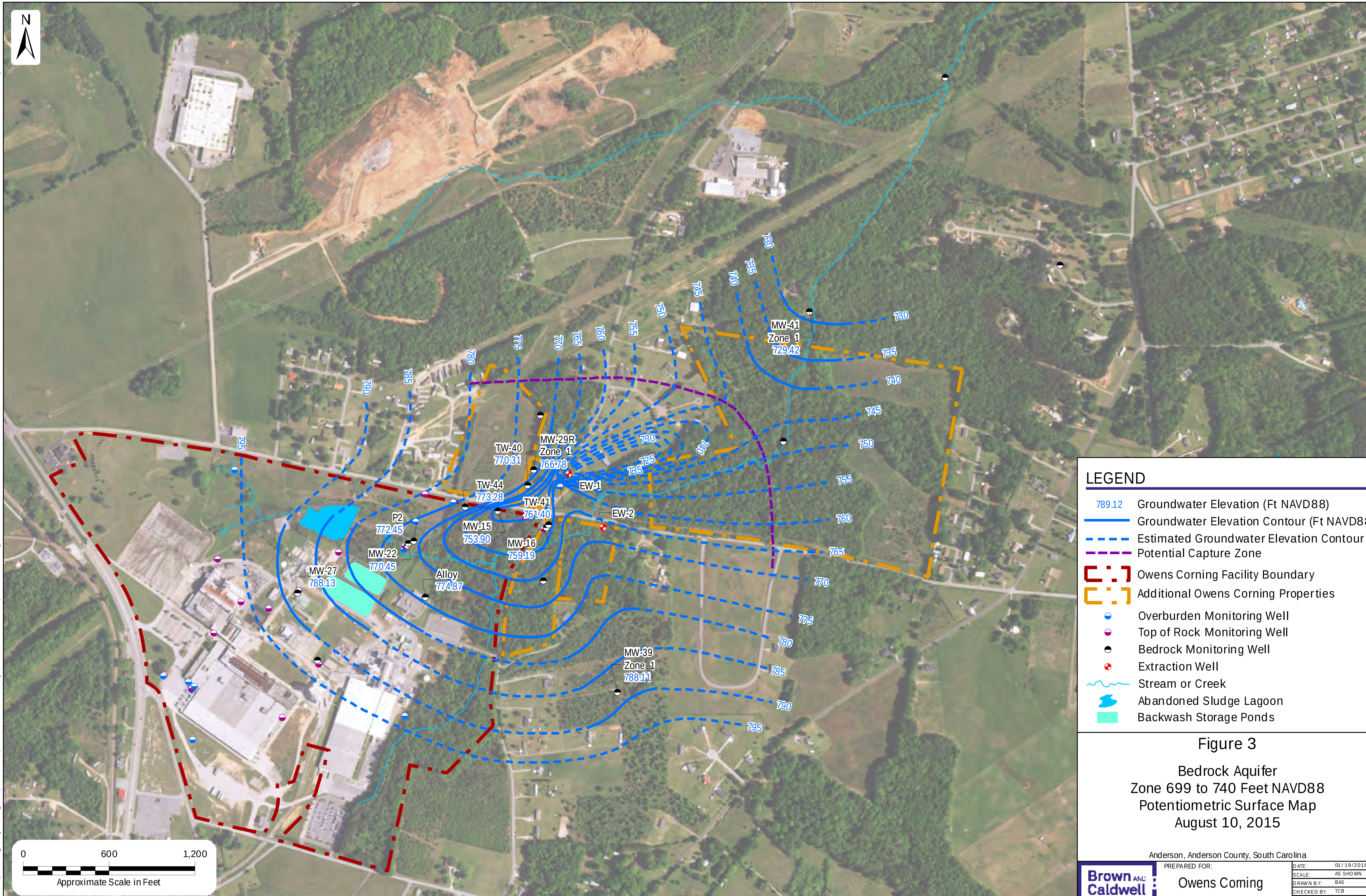
N
MW-41
Zone 1
729.42
MW-29R
Zone 1
766.78
TW-40
770.31
TW-44
773.28
TW-41
761.40
EW-1
EW-2
P2
772.45
MW-15
753.90
MW-16
759.19
MW-22
770.45
MW-27
788.13
Alloy
774.87
MW-39
Zone 1
788.11
730
735
740
745
750
755
760
765
770
775
780
785
790
795
0
600
1,200
Approximate Scale in Feet
LEGEND
789.12 Groundwater Elevation (Ft NAVD88)
Groundwater Elevation Contour (Ft NAVD88)
Estimated Groundwater Elevation Contour
Potential Capture Zone
Owens Corning Facility Boundary
Additional Owens Corning Properties
Overburden Monitoring Well
Top of Rock Monitoring Well
Bedrock Monitoring Well
Extraction Well
Stream or Creek
Abandoned Sludge Lagoon
Backwash Storage Ponds

Figure 3

Bedrock Aquifer
Zone 699 to 740 Feet NAVD88
Potentiometric Surface Map
August 10, 2015

Anderson, Anderson County, South Carolina

Brown AND Caldwell

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Owens Corning

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PROJECT #:	147297

Accessed By: GGAG AtTat 12/2/2015 13:29

Path: R:\Projects\Owens_Corning\Anderson_Site\MapDocs\August 2015\ArcGIS-10.1 versions\Figure 9 - Bedrock Potentiometric Map - Zone 632 to 699 - August2015.mxd

N

MW-36
Zone 2
771.28

MW-36
Zone 1
771.24

TW-40
770.31

EW-1

MW-29R
Zone 2
771.72

EW-2

MW-15
753.9

MW-22
770.45

P2
772.45

MW-6
802.98

MW-42
Zone 1
748.75

0 600 1,200
Approximate Scale in Feet

LEGEND

- 789.12 Groundwater Elevation (Ft NAVD88)
- Groundwater Elevation Contour (Ft NAVD88)
- Estimated Groundwater Elevation Contour
- Potential Capture Zone
- Owens Corning Facility Boundary
- Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream or Creek
- Abandoned Sludge Lagoon
- Backwash Storage Ponds

Figure 4

Bedrock Aquifer
Zone 632 to 699 Feet NAVD88
Potentiometric Surface Map
August 10, 2015

Anderson, Anderson County, South Carolina

Brown AND Caldwell

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Owens Corning

DATE:	11/10/2015
SCALE:	AS SHOWN
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CHECKED BY:	TCB
PROJECT #:	147297

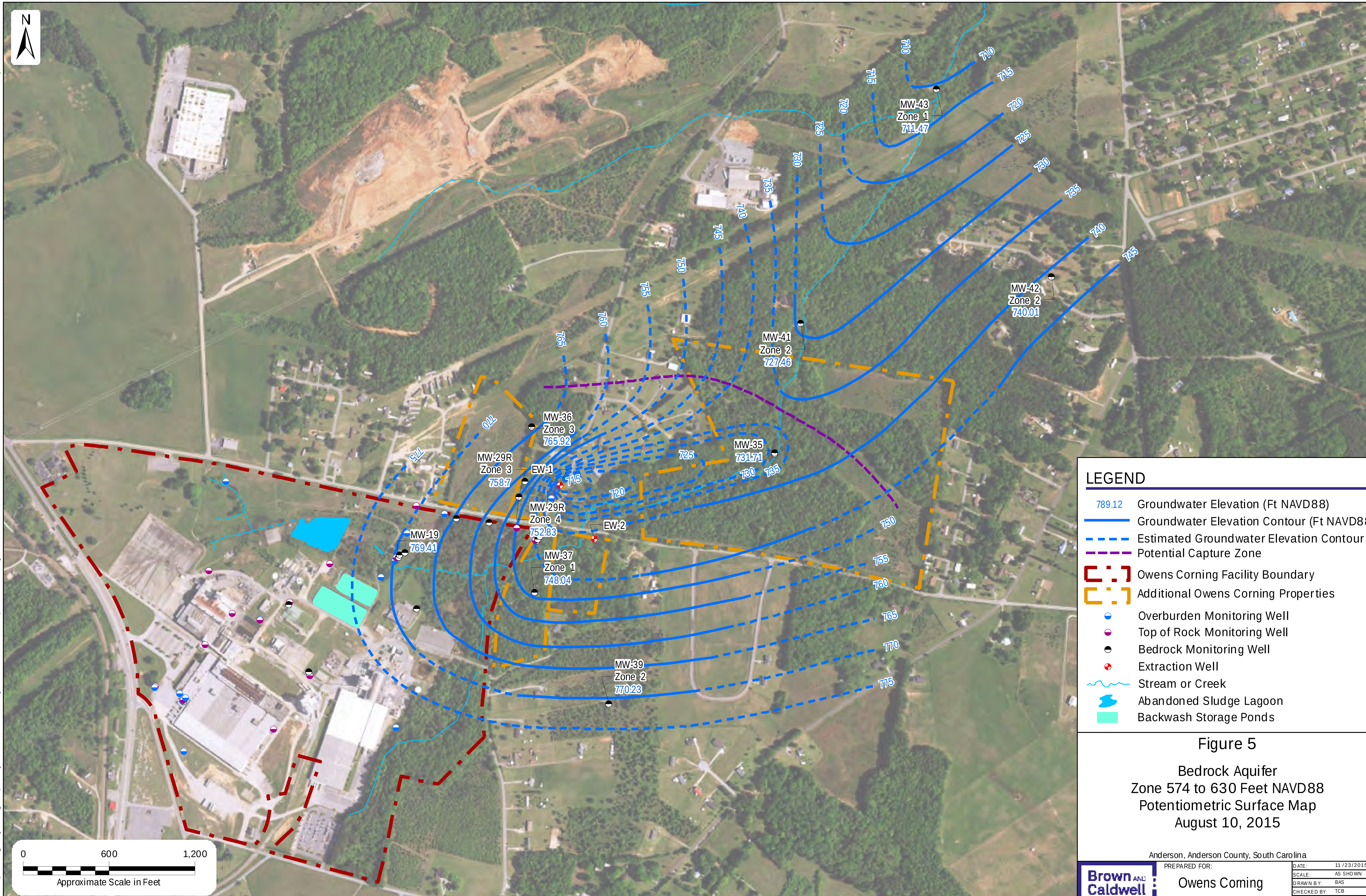
N
MW-43
Zone 1
711.47
MW-42
Zone 2
740.01
MW-41
Zone 2
727.46
MW-36
Zone 3
765.92
MW-35
731.71
MW-29R
Zone 3
758.7
EW-1
MW-29R
Zone 4
752.83
EW-2
MW-19
769.41
MW-37
Zone 1
748.04
MW-39
Zone 2
770.23
710
715
720
725
730
735
740
745
750
755
760
765
770
775
0
600
1,200
Approximate Scale in Feet
LEGEND
789.12 Groundwater Elevation (Ft NAVD88)
Groundwater Elevation Contour (Ft NAVD88)
Estimated Groundwater Elevation Contour
Potential Capture Zone
Owens Corning Facility Boundary
Additional Owens Corning Properties
Overburden Monitoring Well
Top of Rock Monitoring Well
Bedrock Monitoring Well
Extraction Well
Stream or Creek
Abandoned Sludge Lagoon
Backwash Storage Ponds

Figure 5

Bedrock Aquifer
Zone 574 to 630 Feet NAVD88
Potentiometric Surface Map
August 10, 2015

Anderson, Anderson County, South Carolina

Brown AND Caldwell

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Path: R:\Projects\Owens_Corning\Anderson_Site\MapDocs\August 2015\ArcGIS-10.1 versions\Figure11 - Bedrock Potentiometric Map - Zone 430 to 530 - August 2015.mxd

N

MW-43
Zone 3
715.79

MW-42
Zone 3
751.14

MW-41
Zone 3
731.75

MW-36
Zone 5
760.59

MW-44
732.32

EW-1

EW-2

MW-37
Zone 3
747.68

MW-39
Zone 3
755.55

720
725
730
735
740
745
750
755
760

0 600 1,200
Approximate Scale in Feet

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, User Community

LEGEND

- 789.12 Groundwater Elevation (Ft NAVD88)
- Groundwater Elevation Contour (Ft NAVD88)
- Estimated Groundwater Elevation Contour
- Potential Capture Zone
- Owens Corning Facility Boundary
- Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream or Creek
- Abandoned Sludge Lagoon
- Backwash Storage Ponds

Figure 6

Bedrock Aquifer
Zone 430 to 530 Feet NAVD88
Potentiometric Surface Map
August 10, 2015

Anderson, Anderson County, South Carolina

Brown AND Caldwell

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Path: R:\Projects\Owens_Corning\Anderson_Site\Maps\Docs\Annual Report 2015\ArcGIS 10.1 Versions\Figure 7 - November 2015 Overburden Potentiometric Map.mxd

N

MW-23 799.41
MW-31 794.85
MW-30 797.13
MW-2 802.84
MW-7 802.53
MW-9 802.73
MW-32 802.38
MW-28 802.14
MW-1 805.72
TW-46 793.28
MW-24 787.45
MW-20 790.31
MW-3 778.62
MW-13 774.63
MW-12 775.63
MW-4 778.20
MW-14 778.95
MW-11 775.68
MW-26 777.09
MW-25 766.88
TW-42 764.71
TW-43 764.93
MW-21 764.58
MW-17 795.10
MW-10 798.79
MW-5 789.69

LEGEND

- 789.12 Groundwater Elevation (Ft NAVD88)
- 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
- Abandoned Sludge Lagoon
- Backwash Storage Ponds

0 600 1,200
Approximate Scale in Feet

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, User Community

Figure 7

Overburden / Saprolite Potentiometric Surface Map November 16, 2015

Anderson, Anderson County, South Carolina

Brown AND Caldwell

PREPARED FOR: Owens Corning

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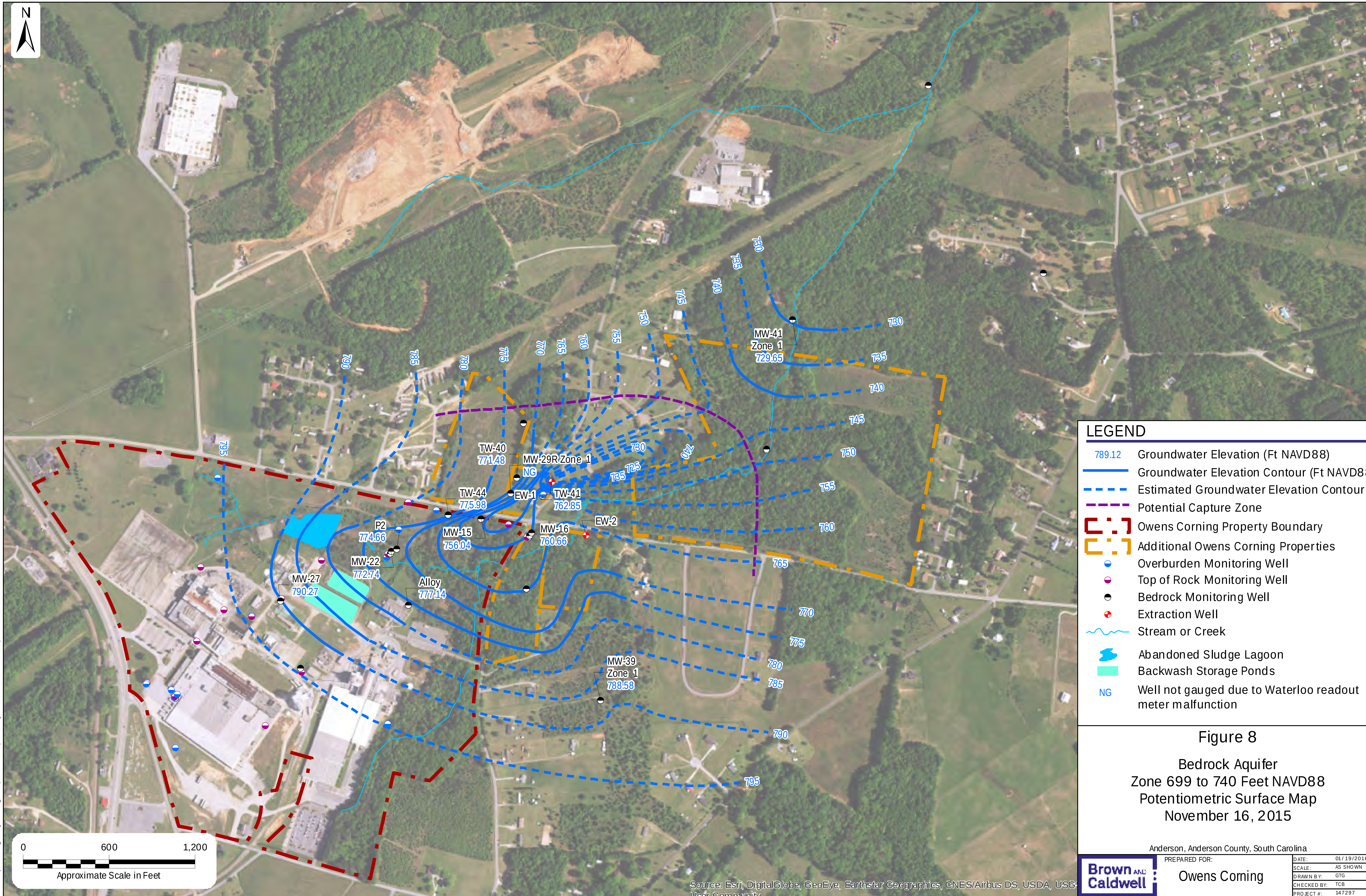

LEGEND

- 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
- Abandoned Sludge Lagoon
- Backwash Storage Ponds
- NG Well not gauged due to Waterloo readout meter malfunction

Figure 8

Bedrock Aquifer
Zone 699 to 740 Feet NAVD88
Potentiometric Surface Map
November 16, 2015

Anderson, Anderson County, South Carolina

Brown AND Caldwell

PREPARED FOR:
Owens Corning

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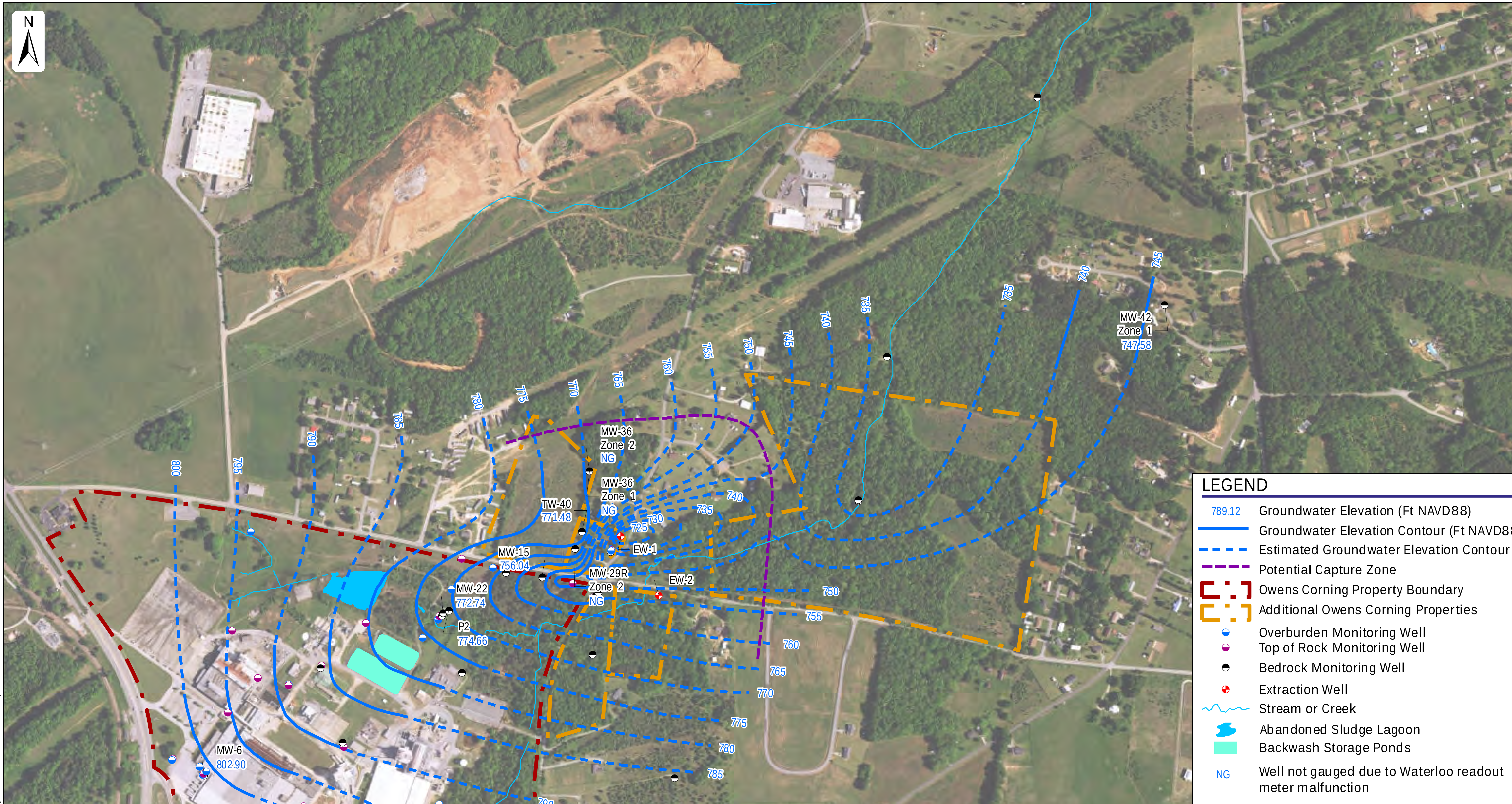
N
0
600
1,200
Approximate Scale in Feet
MW-36
Zone 2
NG
MW-36
Zone 1
NG
TW-40
771.48
MW-15
756.04
MW-22
772.74
P2
774.66
MW-29R
Zone 2
NG
EW-1
EW-2
MW-6
802.90
MW-42
Zone 1
747.58
800
795
790
785
780
775
770
765
760
755
750
745
740
735
730
725
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS
User Community
LEGEND
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
Abandoned Sludge Lagoon
Backwash Storage Ponds
NG Well not gauged due to Waterloo readout meter malfunction

Figure 9

Bedrock Aquifer
Zone 632 to 699 Feet NAVD88
Potentiometric Surface Map
November 16, 2015

Anderson, Anderson County, South Carolina

Brown AND Caldwell

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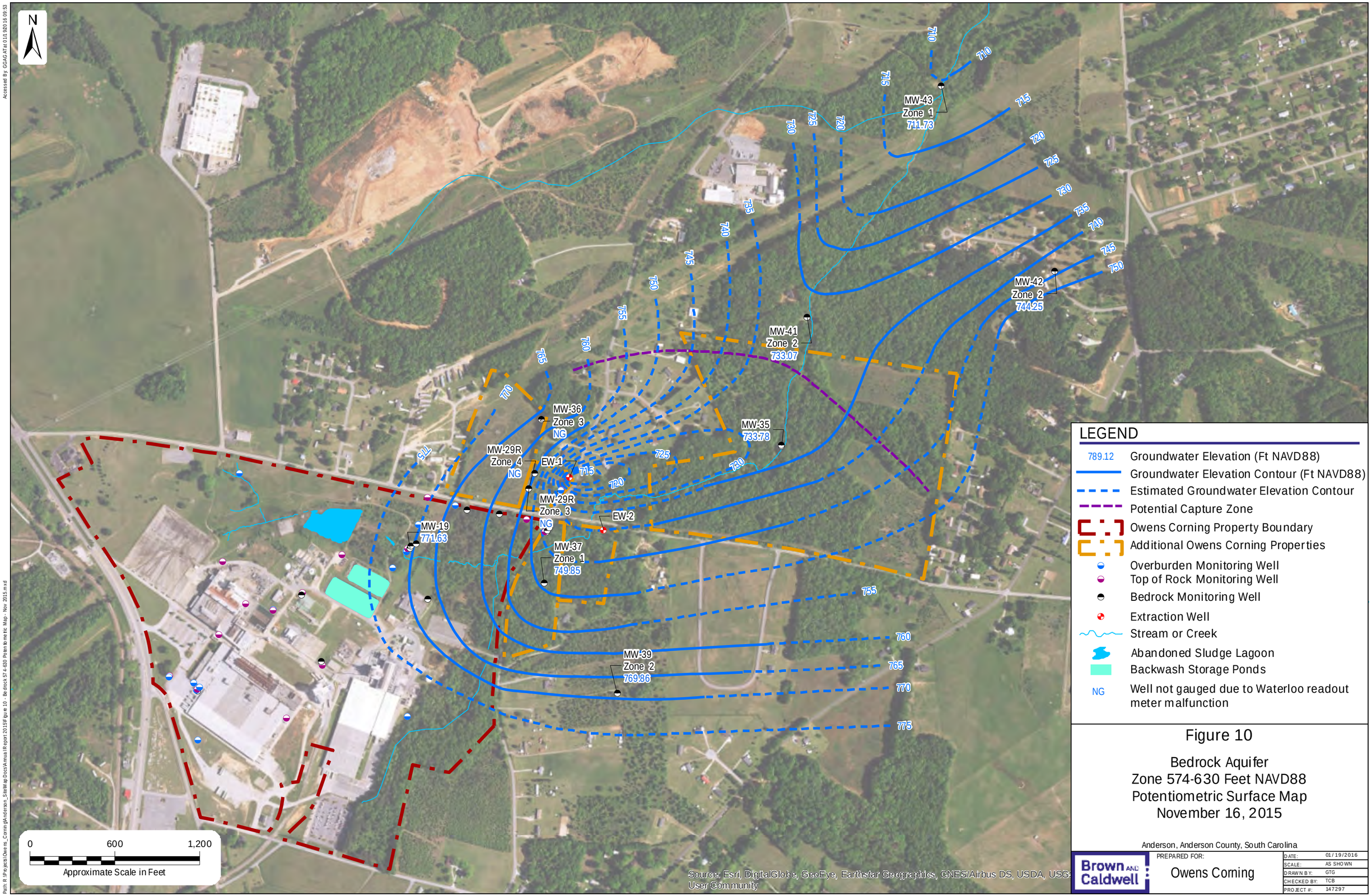

LEGEND

- 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
- Abandoned Sludge Lagoon
- Backwash Storage Ponds
- NG — Well not gauged due to Waterloo readout meter malfunction

Figure 10

Bedrock Aquifer
Zone 574-630 Feet NAVD88
Potentiometric Surface Map
November 16, 2015

Anderson, Anderson County, South Carolina

Brown AND Caldwell

PREPARED FOR: Owens Corning

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Accessed By: GGAG AtTal 01\1 920 16 09:58

Path: R:\Projects\Owens_Corning\Anderson_SiteMap Docs\Annual Report 2015\Figure 11 - Bedrock 430-430 Potentiometric Map - Nov 2015.mxd

N

MW-43
Zone 3
717.41

MW-42
Zone 3
750.17

MW-41
Zone 3
729.89

MW-36
Zone 5
NG

MW-44
734.35

EW-1

EW-2

MW-37
Zone 3
750.86

MW-39
Zone 3
755.81

0 600 1,200
Approximate Scale in Feet

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND

- 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
- Abandoned Sludge Lagoon
- Backwash Storage Ponds
- NG — Well not gauged due to Waterloo readout meter malfunction

Figure 11

Bedrock Aquifer
430 to 530 Feet NAVD88
Potentiometric Surface Map
November 16, 2015

Anderson, Anderson County, South Carolina

Brown AND Caldwell

PREPARED FOR:
Owens Corning

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N

SW-10
SW-6
SW-14
SW-3
SW-3A
SW-15
SW-1
SW-13
SW-3B
SW-11
SW-12

0 600 1,200
Approximate Scale in Feet

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, User Community

LEGEND

- 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
- Abandoned Sludge Lagoon
- Backwash Storage Ponds

Figure 12

Surface Water Monitoring Locations November 2015

Anderson, Anderson County, South Carolina

Brown AND Caldwell

PREPARED FOR: Owens Corning

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Accessed By: GGAG At at 01/19/2016 10:03

Path: R:\Projects\Owens_Corning\Anderson_SiteMap\Docs\Annual Report 2015\Figure 13 - November 2015 Residential Well Locations Map.mxd

N

0 600 1,200

Approximate Scale in Feet

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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 2015

Anderson, Anderson County, South Carolina

Brown AND Caldwell

PREPARED FOR: Owens Corning

DATE:	01/19/2016
SCALE:	AS SHOWN
DRAWN BY:	GTG
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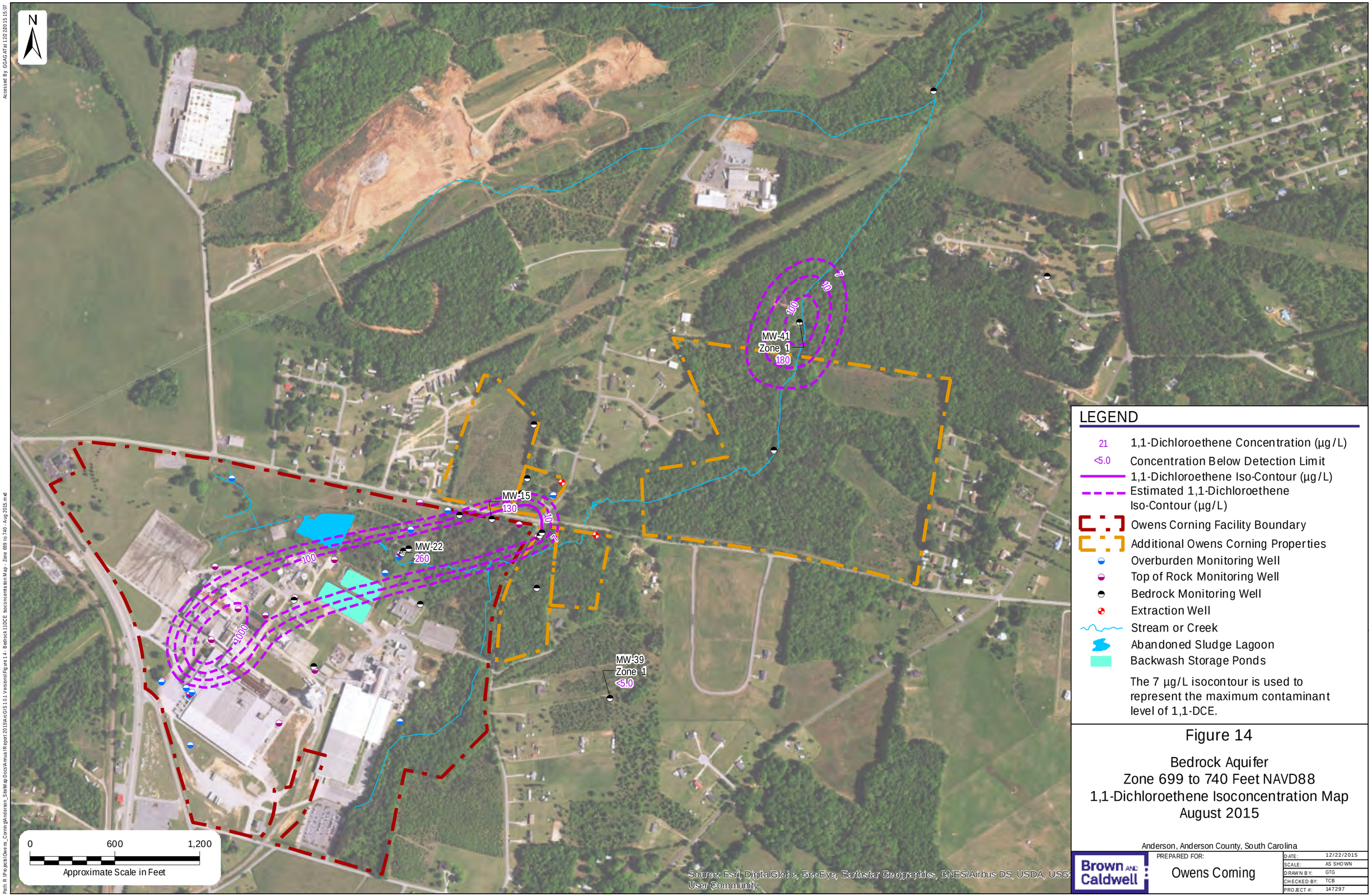
PROJECT #:	147297



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 Facility Boundary
- Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream or Creek
- Abandoned Sludge Lagoon
- Backwash Storage Ponds

The 7 µg/L isocontour is used to represent the maximum contaminant level of 1,1-DCE.

Figure 14

Bedrock Aquifer
Zone 699 to 740 Feet NAVD88
1,1-Dichloroethene Isoconcentration Map
August 2015

Anderson, Anderson County, South Carolina

Brown AND Caldwell

PREPARED FOR: Owens Corning

DATE:	12/22/2015
SCALE:	AS SHOWN
DRAWN BY:	GTG
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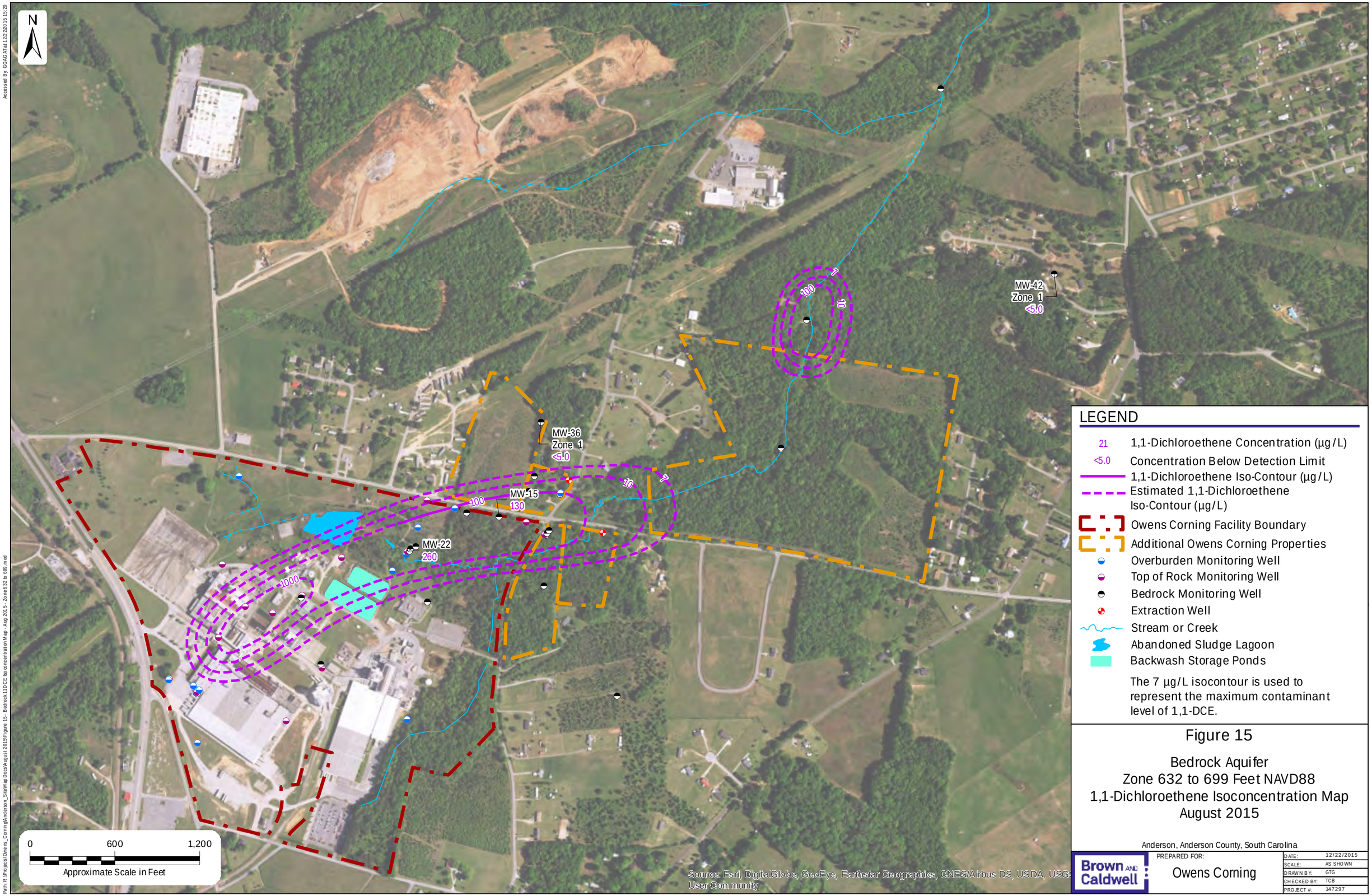
PROJECT #:	147297



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 Facility Boundary
- Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream or Creek
- Abandoned Sludge Lagoon
- Backwash Storage Ponds

The 7 µg/L isocontour is used to represent the maximum contaminant level of 1,1-DCE.

Figure 15

Bedrock Aquifer
Zone 632 to 699 Feet NAVD88
1,1-Dichloroethene Isoconcentration Map
August 2015

Anderson, Anderson County, South Carolina

Brown AND Caldwell

PREPARED FOR: Owens Corning

DATE:	12/22/2015
SCALE:	AS SHOWN
DRAWN BY:	GTG
CHECKED BY:	TCB
PROJECT #:	147297

Accessed By: GGAG At at 12/22/2015 15:59

Path: R:\Projects\Owens_Corning\Anderson_SiteWapDocs\August 2015\Figure 16 - Bedrock 110 CE Isoconcentraton Map - Zone 574 to 630 - Aug 2015.mxd

N

MW-43
Zone 1
<5.0

MW-42
Zone 2
<5.0

MW-41
Zone 2
91

100

MW-36
Zone 3
<5.0

MW-29R
Zone 4
240/220*

MW-29R
Zone 3
210

MW-35
65

MW-37
Zone 1
100

100

10

1

1000

MW-39
Zone 2
<5.0

0 600 1,200
Approximate Scale in Feet

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, 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 Facility Boundary
- Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream or Creek
- Abandoned Sludge Lagoon
- Backwash Storage Ponds
- * Duplicate sample

The 7 µg/L isocontour is used to represent the maximum contaminant level of 1,1-DCE.

Figure 16

Bedrock Aquifer
Zone 574 to 630 Feet NAVD88
1,1-Dichloroethene Isoconcentration Map
August 2015

Anderson, Anderson County, South Carolina

Brown AND Caldwell

PREPARED FOR: Owens Corning

DATE:	12/22/2015
SCALE:	AS SHOWN
DRAWN BY:	GTG
CHECKED BY:	TCB
PROJECT #:	147297

Accessed By: GGAG At at 12/22/2015 16:30

N

MW-43
Zone 3
<5.0

MW-41
Zone 3
19/17*

MW-42
Zone 3
<5.0

MW-44
<5.0

MW-37
Zone 3
<5.0

MW-39
Zone 3
<5.0

10
100
7
1000

0 600 1,200
Approximate Scale in Feet

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USG
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 Facility Boundary
- Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream or Creek
- Abandoned Sludge Lagoon
- Backwash Storage Ponds
- * — Duplicate Sample

The 7 µg/L isocontour is used to represent the maximum contaminant level of 1,1-DCE.

Figure 17

Bedrock Aquifer
Zone 430 to 530 Feet NAVD88
1,1-Dichloroethene Isoconcentration Map
August 2015

Anderson, Anderson County, South Carolina

Brown AND Caldwell

PREPARED FOR:
Owens Corning

DATE:	12/22/2015
SCALE:	AS SHOWN
DRAWN BY:	GTG
CHECKED BY:	TCB
PROJECT #:	147297

Path: R:\Projects\Owens_Corning\Anderson_SiteMapDocs\August2015\Figure 17 - Bedrock 11DCE Isoconcentration Map - Zone 430 to 530 - Aug 2015.mxd

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Path: R:\Projects\Owens_Corning\Anderson_Site\Map Docs\Annual Report 2015\Figure 18 - Overburden 1,1DCE Isoconcentration Map - Nov 2015.mxd

N

MW-24 140
MW-12 270
MW-31 300
MW-30 340
MW-32 38
MW-2 <5.0
MW-9 <5.0
MW-28 95,000
MW-1 <5.0
MW-7 30,000
MW-11 <5.0
MW-20 130
MW-4 <5.0
TW-46 5.8
MW-3 <5.0
MW-14 <5.0
MW-26 <5.0
SW-3A <5.0
SW-13 <5.0
SW-3B <5.0
MW-13 270
SW-3 <5.0
SW-11 <5.0
MW-17 <5.0
MW-10 <5.0
MW-5 <5.0/<5.0
TW-42 <5.0
TW-43 <5.0
MW-25 <5.0
MW-21 <5.0
SW-14 <5.0
SW-12 <5.0
SW-1 <5.0
SW-10 <5.0
SW-6 <5.0
SW-15 <5.0
100
10
1000
1000

0 600 1,200
Approximate Scale in Feet

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, User Community

LEGEND

- 21 — 1,1-Dichloroethene Concentration (µg/L)
- <7.0 — 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
- Abandoned Sludge Lagoon
- Backwash Storage Ponds
- * Duplicate sample
- SW Surface Water Sample Location

The 7 µg/L isocontour is used to represent the reporting limit of the labratory instrument used for analysis.

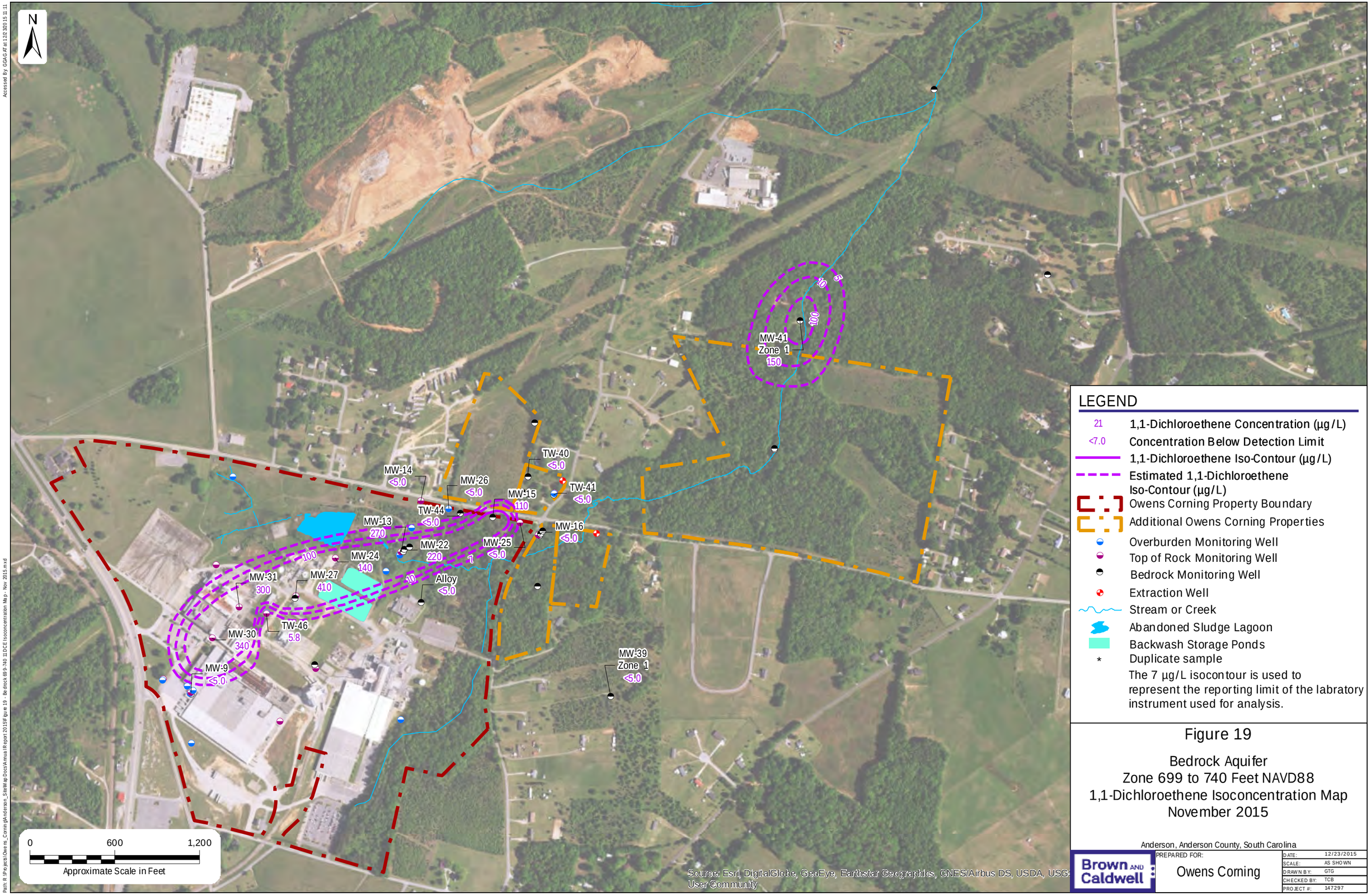
Figure 18
Overburden / Saprolite
1,1-Dichloroethene Isoconcentration Map
November 2015

Anderson, Anderson County, South Carolina

Brown AND Caldwell

PREPARED FOR: Owens Corning

DATE:	01/19/2016
SCALE:	AS SHOWN
DRAWN BY:	GTG
CHECKED BY:	TCB
PROJECT #:	147297



LEGEND

- 21 — 1,1-Dichloroethene Concentration (µg/L)
- <7.0 — 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
- Abandoned Sludge Lagoon
- Backwash Storage Ponds
- * Duplicate sample

The 7 µg/L isocontour is used to represent the reporting limit of the labratory instrument used for analysis.

Figure 19

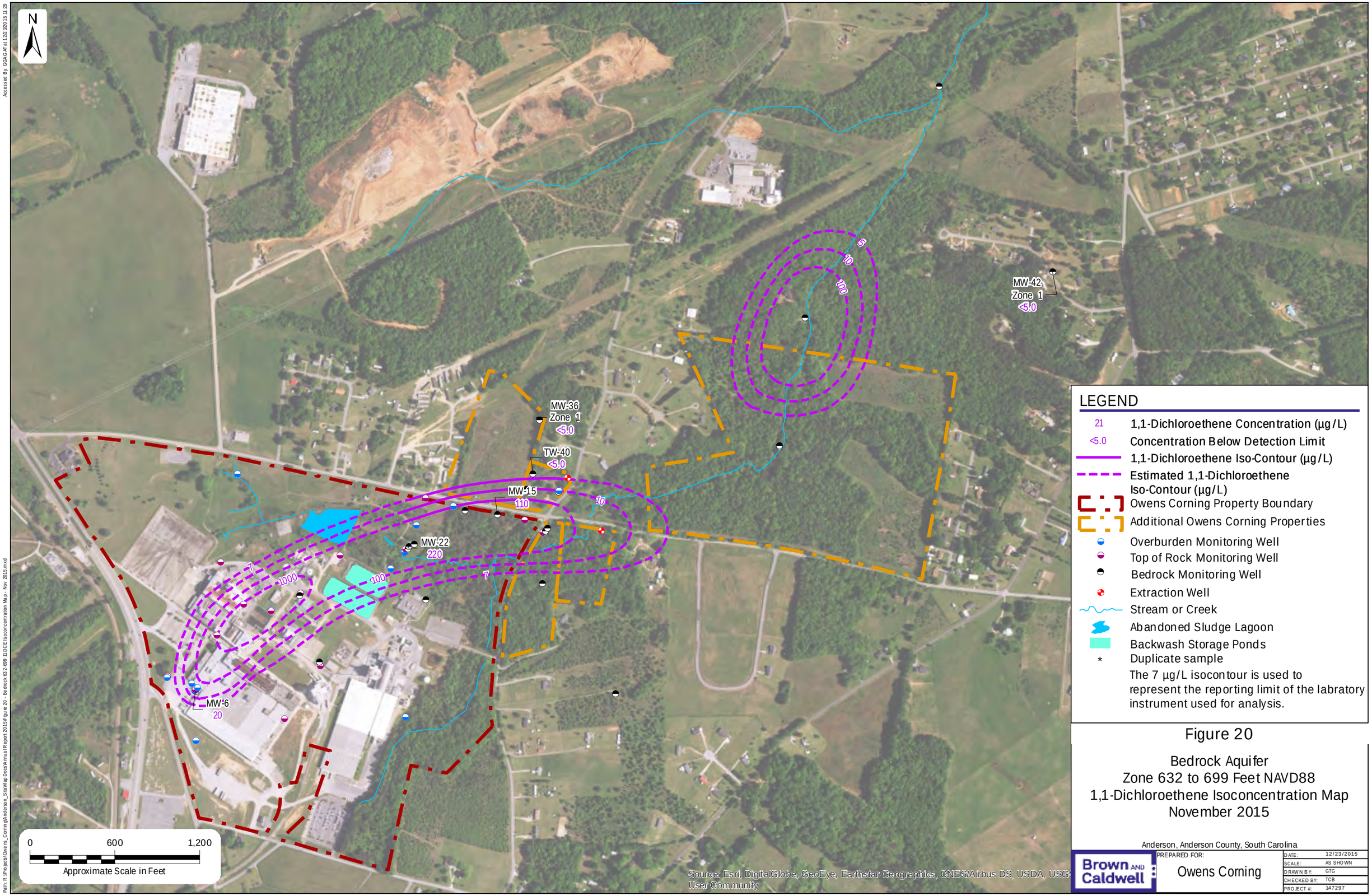
Bedrock Aquifer
Zone 699 to 740 Feet NAVD88
1,1-Dichloroethene Isoconcentration Map
November 2015

Anderson, Anderson County, South Carolina

Brown AND Caldwell

PREPARED FOR: Owens Corning

DATE:	12/23/2015
SCALE:	AS SHOWN
DRAWN BY:	GTG
CHECKED BY:	TCB
PROJECT #:	147297



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
- Abandoned Sludge Lagoon
- Backwash Storage Ponds
- * Duplicate sample

The 7 µg/L isocontour is used to represent the reporting limit of the labratory instrument used for analysis.

Figure 20

Bedrock Aquifer
Zone 632 to 699 Feet NAVD88
1,1-Dichloroethene Isoconcentration Map
November 2015

Anderson, Anderson County, South Carolina

Brown AND Caldwell

PREPARED FOR: Owens Corning

DATE:	12/23/2015
SCALE:	AS SHOWN
DRAWN BY:	GTG
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PROJECT #:	147297

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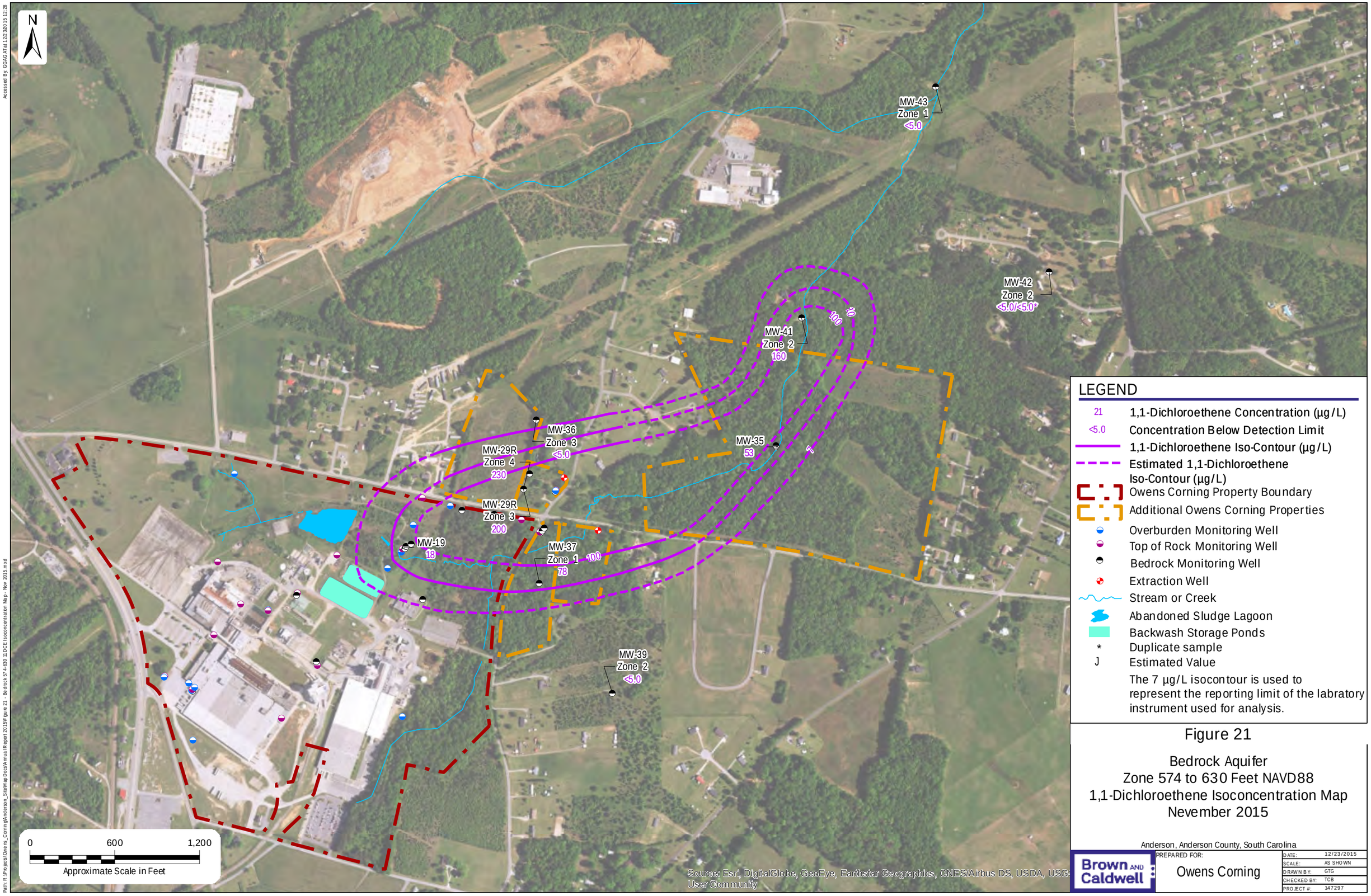


LEGEND

- 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
- Abandoned Sludge Lagoon
- Backwash Storage Ponds
- * Duplicate sample
- J Estimated Value

The 7 µg/L isocontour is used to represent the reporting limit of the labratory instrument used for analysis.

Figure 21

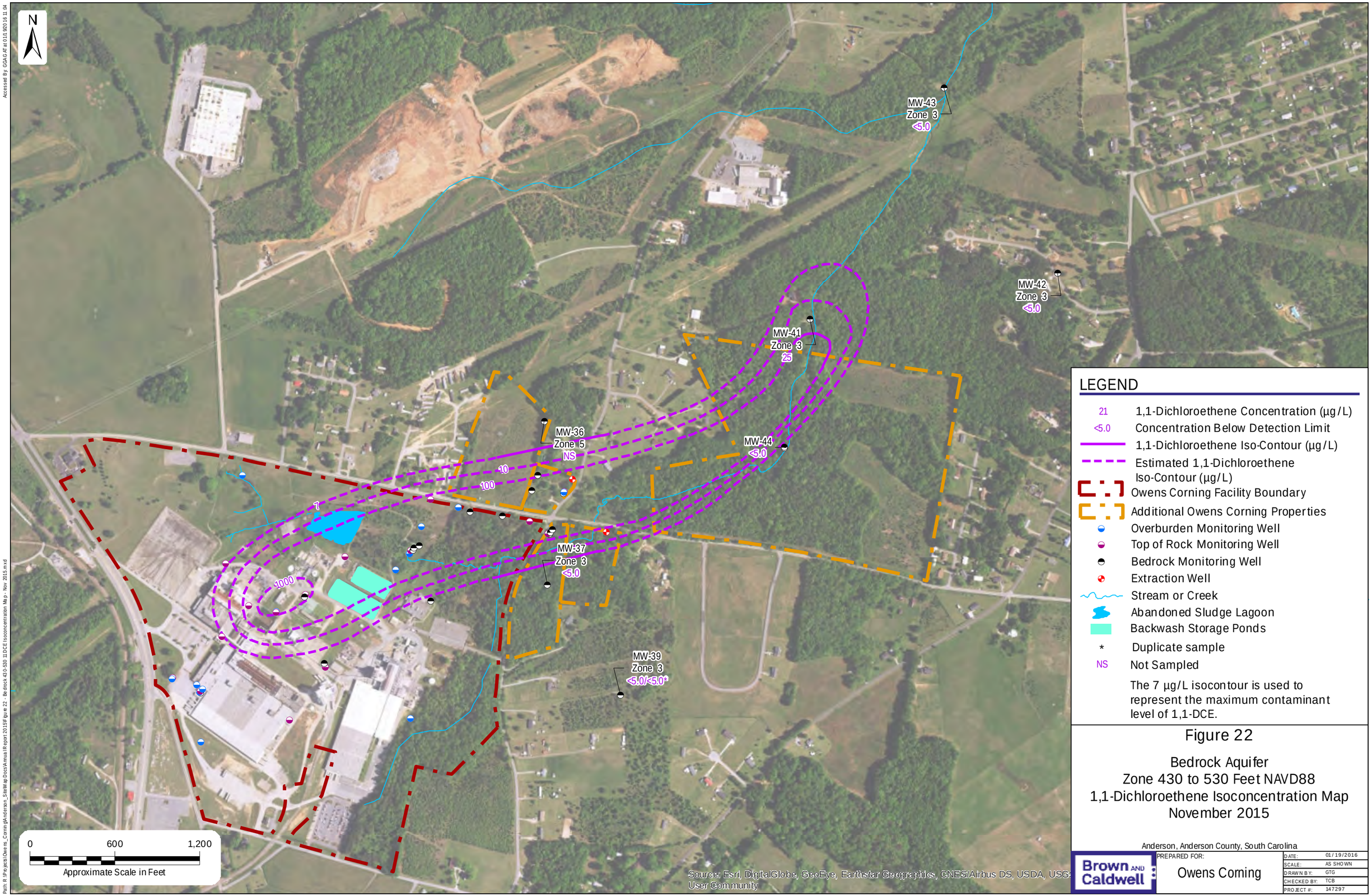
Bedrock Aquifer
Zone 574 to 630 Feet NAVD88
1,1-Dichloroethene Isoconcentration Map
November 2015

Anderson, Anderson County, South Carolina

Brown AND Caldwell

PREPARED FOR: Owens Corning

DATE:	12/23/2015
SCALE:	AS SHOWN
DRAWN BY:	GTG
CHECKED BY:	TCB
PROJECT #:	147297



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 Facility Boundary
- Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream or Creek
- Abandoned Sludge Lagoon
- Backwash Storage Ponds
- * Duplicate sample
- NS Not Sampled

The 7 µg/L isocontour is used to represent the maximum contaminant level of 1,1-DCE.

Figure 22

Bedrock Aquifer
Zone 430 to 530 Feet NAVD88
1,1-Dichloroethene Isoconcentration Map
November 2015

Anderson, Anderson County, South Carolina

Brown AND Caldwell

PREPARED FOR: Owens Corning

DATE:	01/19/2016
SCALE:	AS SHOWN
DRAWN BY:	GTG
CHECKED BY:	TCB
PROJECT #:	147297

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Path: R:\Projects\Owens_Corning\Anderson_SiteMap Docs\Annual Report 2015\Figure 22 - Bedrock 430-530 1,1DCE Isoconcentration Map - Nov 2015.mxd

N

MW-43 Zone 1 <5.0
MW-43 Zone 3 <5.0
MW-43 Zone 2 <5.0
MW-42 Zone 3 <5.0
MW-42 Zone 1 <5.0
MW-42 Zone 2 <5.0/<5.0*
MW-41 Zone 3 <5.0
MW-41 Zone 1 <5.0
MW-41 Zone 2 <5.0
MW-44 <5.0
MW-35 <5.0
MW-36 Zone 1 <5.0
MW-36 Zone 3 <5.0
MW-36 Zone 4 <5.0
MW-36 Zone 2 <5.0
MW-29R Zone 3 <5.0
MW-29R Zone 4 <5.0
MW-29R Zone 1 <5.0
TW-40 <5.0
TW-43 <5.0
TW-44 <5.0
TW-42 <5.0
MW-14 <5.0
MW-26 <5.0
MW-25 <5.0
MW-3 <5.0
MW-21 <5.0
MW-13 <5.0
MW-15 <5.0
MW-29R Zone 2
TW-41 <5.0
MW-24 <5.0
MW-22 <5.0
MW-16 <5.0
MW-38 Zone 1 <5.0
MW-23
MW-11 <5.0
MW-12 <5.0
MW-38 Zone 2 <5.0
MW-31 <5.0
MW-27 <5.0
MW-20 <5.0
MW-4 <5.0
MW-19 <5.0
MW-37 Zone 2 <5.0
MW-37 Zone 1 <5.0
Alloy <5.0
TW-46 <5.0
MW-30 <5.0
MW-37 Zone 3 <5.0
MW-17 <5.0
MW-39 Zone 3 <5.0/<5.0*
MW-39 Zone 2 <5.0
MW-18 <5.0
MW-2 <5.0
MW-32 29
MW-6 100
MW-28 79,000
MW-10 <5.0
MW-5 <5.0/<5.0*
MW-7 44,000
MW-1 <5.0
MW-39 Zone 1 <5.0
MW-9 <5.0

0 600 1,200
Approximate Scale in Feet

LEGEND

- 12 — 1,1,1-Trichloroethane Concentration (µg/L)
- <5.0 — Concentration Below Detection Limit
- Owens Corning Property Boundary
- Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream or Creek
- Abandoned Sludge Lagoon
- Backwash Storage Ponds
- * Duplicate sample

Figure 23

1,1,1 - Trichloroethane Concentration Map November 2015

Anderson, Anderson County, South Carolina

Brown AND Caldwell

PREPARED FOR: Owens Corning

DATE:	12/27/2015
SCALE:	AS SHOWN
DRAWN BY:	GTG
CHECKED BY:	TCB
PROJECT #:	147297

Table 1. Quarterly Sampling Groundwater Elevation Data - August 10, 2015 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) 8/10/2015	Static Water Elevation, (ft NAVD88) 8/10/2015
MW-3	13-28	O	795.61	796.76	18.94	777.82
MW-4	14.7-29.7	O	796.72	798.38	22.58	775.80
MW-6	123.6-133.6	BR	819.82	819.69	16.71	802.98
MW-11	6.0-16.0	O	778.32	780.22	6.90	773.32
MW-12	23-33	O	778.42	780.95	7.65	773.30
MW-13	67-72	TOR	779.20	782.22	9.87	772.35
MW-14	69.2-74.2	TOR	796.39	798.45	20.64	777.81
MW-15	69.5-99.5	BR	777.11	779.45	25.55	753.90
MW-16	49-59	BR	768.14	770.37	11.18	759.19
MW-19	154-169	BR	779.69	781.81	12.40	769.41
MW-21	6.5-16.5	TOR	768.63	771.15	8.27	762.88
MW-22	78-116	BR	780.45	782.65	12.20	770.45
MW-23	83-93	TOR	808.97	811.47	13.30	798.17
MW-25	40-50	TOR	774.40	776.71	12.60	764.11
MW-26	56.7-66.7	O	790.40	793.09	18.27	774.82
MW-27	69-99	BR	808.93	811.13	23.00	788.13
MW-29R Zone 1	56.7-69.8	BR	784.90	787.03	20.25	766.78
MW-29R Zone 2	127.3-139.5	BR	784.90	787.03	15.31	771.72
MW-29R Zone 3	154.5-169.6	BR	784.90	787.03	28.33	758.70
MW-29R Zone 4	177.6-202.2	BR	784.90	787.03	34.20	752.83
MW-35[a]	152-162	BR	740.90	743.73	12.02	731.71
MW-36 Zone 1	99.1-116	BR	783.00	785.63	14.39	771.24
MW-36 Zone 2	139.5-150.7	BR	783.00	785.63	14.35	771.28
MW-36 Zone 3	180.2-192.7	BR	783.00	785.63	19.71	765.92
MW-36 Zone 4	225.6-239.2	BR	783.00	785.63	21.36	764.27
MW-36 Zone 5	269.9-275	BR	783.00	785.63	25.04	760.59
MW-37 Zone 1	185-195	BR	780.20	782.92	34.88	748.04
MW-37 Zone 2	222-232	BR	780.20	782.84	30.51	752.33
MW-37 Zone 3	257-272	BR	780.20	782.79	35.11	747.68
MW-38 Zone 1	415-430	BR	768.10	771.23	14.92	756.31
MW-38 Zone 2[a,b]	479.6-499.6	BR	768.10	771.18	-0.04	771.22
MW-39 Zone 1	95-105	BR	804.10	806.20	18.09	788.11
MW-39 Zone 2	195-215	BR	804.10	806.20	35.97	770.23
MW-39 Zone 3	280-300	BR	804.10	806.20	50.65	755.55
MW-41 Zone 1	17-32	BR	733.40	736.56	7.14	729.42
MW-41 Zone 2[a]	109-129	BR	733.40	736.79	9.33	727.46
MW-41 Zone 3	279-299	BR	733.40	736.77	5.02	731.75
MW-42 Zone 1	114-129	BR	785.50	785.44	36.69	748.75
MW-42 Zone 2	202-222	BR	785.50	785.42	45.41	740.01
MW-42 Zone 3	265-285	BR	785.50	785.40	34.26	751.14
MW-43 Zone 1	91.8 - 111.8	BR	716.15	719.19	7.72	711.47
MW-43 Zone 2	149.57 - 179.57	BR	716.15	719.20	5.75	713.45
MW-43 Zone 3	261.8 - 281.8	BR	716.15	719.17	3.38	715.79
MW-44	280-300	BR	741.00	743.95	11.63	732.32
P1	24.5-39.5	BR	813.10	815.42	21.35	794.07
P2	53-115	BR	783.93	785.65	13.20	772.45
Alloy	56-61	BR	789.56	791.69	16.82	774.87
TW-40	84-94	BR	785.81	788.63	18.32	770.31
TW-41	50.3-55.3	BR	775.50	778.84	17.44	761.40
TW-42	21-26	TOR	775.86	778.09	16.98	761.11
TW-43	8.6-18.6	O	775.82	778.15	16.82	761.33
TW-44	64-74	BR	782.68	785.52	12.24	773.28
TW-45[c]	18.8-28.8	O	816.70	816.76	NG	NG
TW-46	83.3-88.3	TOR	816.72	816.58	24.72	791.86

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
NG - not gauged

[a] MW-35, MW-38 Zone 2, MW-41 Zone 2 TOC elevation has been adjusted by adding couplings and ball valve to surveyed elevation at top of casing.

[b] 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.

[c] Water level was not measured due to collapse of well.

Table 2. Annual Sampling Groundwater Elevation Data - November 16, 2015 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) 11/16/2015	Static Water Elevation, (ft NAVD88) 11/16/2015
MW-1	55-65	O	824.27	826.62	20.90	805.72
MW-2	56.7-66.7	TOR	820.26	822.68	19.84	802.84
MW-3	13-28	O	795.61	796.76	18.14	778.62
MW-4	14.7-29.7	O	796.72	798.38	20.18	778.20
MW-5	12.0-27.0	O	804.74	806.50	16.81	789.69
MW-6	123.6-133.6	BR	819.82	819.69	16.79	802.90
MW-7	15.9-30.9	O	819.70	819.27	16.74	802.53
MW-8	5.5-20.5	O	799.29	801.56	NG	NG
MW-9	94-104	TOR	819.75	819.41	16.68	802.73
MW-10	61.4-71.4	TOR	823.92	823.65	24.86	798.79
MW-11	6.0-16.0	O	778.32	780.22	4.54	775.68
MW-12	23-33	O	778.42	780.95	5.32	775.63
MW-13	67-72	TOR	779.20	782.22	7.59	774.63
MW-14	69.2-74.2	TOR	796.39	798.45	19.50	778.95
MW-15	69.5-99.5	BR	777.11	779.45	23.41	756.04
MW-16	49-59	BR	768.14	770.37	9.71	760.66
MW-17	24.1-39.1	TOR	813.66	816.07	20.97	795.10
MW-18	10.6-25.6	O	820.36	822.71	19.84	802.87
MW-19	154-169	BR	779.69	781.81	10.18	771.63
MW-20	57-67	TOR	808.70	810.95	20.64	790.31
MW-21	6.5-16.5	TOR	768.63	771.15	6.57	764.58
MW-22	78-116	BR	780.45	782.65	9.91	772.74
MW-23	83-93	TOR	808.97	811.47	12.06	799.41
MW-24	61-71	TOR	796.50	796.26	8.81	787.45
MW-25	40-50	TOR	774.40	776.71	9.83	766.88
MW-26	56.7-66.7	O	790.40	793.09	16.00	777.09
MW-27	69-99	BR	808.93	811.13	20.86	790.27
MW-28	21-31	O	819.97	819.77	17.63	802.14
MW-29R Zone 1[a]	56.7-69.8	BR	784.90	787.03	NG	NG
MW-29R Zone 2[a]	127.3-139.5	BR	784.90	787.03	NG	NG
MW-29R Zone 3[a]	154.5-169.6	BR	784.90	787.03	NG	NG
MW-29R Zone 4[a]	177.6-202.2	BR	784.90	787.03	NG	NG
MW-30	103-113	TOR	819.50	819.14	22.01	797.13
MW-31	80-90	TOR	818.20	817.96	23.11	794.85
MW-32	25-35	O	819.68	819.40	17.02	802.38
MW-35[b]	152-162	BR	740.90	743.73	9.95	733.78
MW-36 Zone 1[a]	99.1-116	BR	783.00	785.63	NG	NG
MW-36 Zone 2[a]	139.5-150.7	BR	783.00	785.63	NG	NG
MW-36 Zone 3[a]	180.2-192.7	BR	783.00	785.63	NG	NG
MW-36 Zone 4[a]	225.6-239.2	BR	783.00	785.63	NG	NG
MW-36 Zone 5[a]	269.9-275	BR	783.00	785.63	NG	NG
MW-37 Zone 1	185-195	BR	780.20	782.92	33.07	749.85
MW-37 Zone 2	222-232	BR	780.20	782.84	28.89	753.95
MW-37 Zone 3	257-272	BR	780.20	782.79	31.93	750.86
MW-38 Zone 1	415-430	BR	768.10	771.23	14.82	756.41
MW-38 Zone 2[b,c]	479.6-499.6	BR	768.10	771.18	-2.19	773.37
MW-39 Zone 1	95-105	BR	804.10	806.20	17.62	788.58
MW-39 Zone 2	195-215	BR	804.10	806.20	36.34	769.86
MW-39 Zone 3	280-300	BR	804.10	806.20	50.39	755.81
MW-41 Zone 1	17-32	BR	733.40	736.56	6.91	729.65
MW-41 Zone 2[b]	109-129	BR	733.40	736.79	3.72	733.07
MW-41 Zone 3	279-299	BR	733.40	736.77	6.88	729.89
MW-42 Zone 1	114-129	BR	785.50	785.44	37.86	747.58
MW-42 Zone 2	202-222	BR	785.50	785.42	41.17	744.25
MW-42 Zone 3	265-285	BR	785.50	785.40	35.23	750.17
MW-43 Zone 1	91.8 - 111.8	BR	716.15	719.19	7.46	711.73
MW-43 Zone 2	149.57 - 179.57	BR	716.15	719.20	3.72	715.48
MW-43 Zone 3	261.8 - 281.8	BR	716.15	719.17	1.76	717.41
MW-44	280-300	BR	741.00	743.95	9.60	734.35
P1	24.5-39.5	BR	813.10	815.42	20.39	795.03
P2	53-115	BR	783.93	785.65	10.99	774.66
Alloy	56-61	BR	789.56	791.69	14.55	777.14
TW-40	84-94	BR	785.81	788.63	17.15	771.48
TW-41	50.3-55.3	BR	775.50	778.84	15.99	762.85
TW-42	21-26	TOR	775.86	778.09	13.38	764.71
TW-43	8.6-18.6	O	775.82	778.15	13.22	764.93
TW-44	64-74	BR	782.68	785.52	9.54	775.98
TW-45[d]	18.8-28.8	O	816.70	816.76	NG	NG
TW-46	83.3-88.3	TOR	816.72	816.58	23.30	793.28

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
NG - not gauged

[a] Well not gauged due to malfunction with Waterloo readout meter.

[b] MW-35, MW-38 Zone 2, MW-41 Zone 2 TOC elevation has been adjusted by adding couplings and ball valve to surveyed elevation at top of casing.

[c] 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.

[d] Water level was not measured due to collapse of well.

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

Monitoring Well	Well Type	Monitoring Frequency	Date Installed	Screen Interval* (ft bgs)	Top of Screen Interval (ft NAVD88)	Bottom of Screen Interval (ft NAVD88)	Screened Interval Location	Depth to Rock (ft bgs)	Northing (ft - South Carolina State Plane NAD83)	Easting (ft - South Carolina State Plane NAD83)	Surface Elevation (ft NAVD88)	TOC Elevation (ft NAVD88)
MW-1	2" AG	Annually	02/22/93	55 - 65	769.27	759.27	O	>65	950361.45	1499402.43	824.27	826.62
MW-2	2" AG	Annually	02/24/93	56.7 - 66.7	763.56	753.56	TOR	66	950815.49	1499202.99	820.26	822.68
MW-3	2" AG	Annually	10/15/90	13 - 28	782.61	767.61	O	>31.5	951884.52	1500961.49	795.61	796.76
MW-4	2" AG	Annually	10/16/90	14.7 - 29.7	782.02	767.02	O	>33	951578.17	1500780.04	796.72	798.38
MW-5	2" AG	Annually	10/18/90	12.0 - 27.0	792.74	777.74	O	>30	950527.98	1500884.25	804.74	806.50
MW-6	2" F	Annually	03/16/93	123.6 - 133.6	696.22	686.22	BR	105	950709.08	1499400.62	819.82	819.69
MW-7	2" F	Annually	10/19/90	15.9 - 30.9	803.80	788.80	O	>36.5	950714.02	1499393.19	819.70	819.27
MW-8	2"AG	NM	10/16/90	5.5 - 20.5	793.79	778.79	O	>36.5	952247.16	1499696.61	799.29	801.56
MW-9	2" F	Annually	03/17/93	94 - 104	725.75	715.75	TOR	105	950720.70	1499398.33	819.75	819.41
MW-10	2" F	Annually	02/18/93	61.4 - 71.4	762.52	752.52	TOR	72	950516.57	1500028.94	823.92	823.65
MW-11	2" AG	Annually	09/11/85	6.0 - 16.0	772.32	762.32	O	>16	951694.26	1500875.42	778.32	780.22
MW-12	2" AG	Annually	09/11/85	23 - 33	755.42	745.42	O	>33	951692.46	1500878.27	778.42	780.95
MW-13	2" AG	Annually	03/10/93	67 - 72	712.20	707.20	TOR	61	951715.51	1500885.54	779.20	782.22
MW-14	2" AG	Annually	02/10/93	69.2 - 74.2	727.19	722.19	TOR	73	952076.49	1501026.29	796.39	798.45
MW-15	2" AG	Quarterly	08/08/93	69.5 - 99.5	707.61	677.61	BR	12	951960.13	1501534.65	777.11	779.45
MW-16	2" AG	Annually	08/05/93	49 - 59	719.14	709.14	BR	15	951830.99	1501866.46	768.14	770.37
MW-17	4" AG	Annually	02/18/93	24.1 - 39.1	789.56	774.56	TOR	39	950890.06	1500282.57	813.66	816.07
MW-18	2" AG	Annually	02/15/93	10.6 - 25.6	809.76	794.76	O	>30	950807.43	1499198.46	820.36	822.71
MW-19	2" AG	Annually	08/05/93	154 - 169	625.69	610.69	BR	72	951718.14	1500902.65	779.69	781.81
MW-20	2" AG	Annually	04/21/93	57 - 67	751.70	741.70	TOR	64	951403.36	1500142.14	808.70	810.95
MW-21	2" AG	Annually	04/23/93	6.5 - 16.5	762.13	752.13	TOR	16	951834.28	1501856.83	768.63	771.15
MW-22	8" AG	Quarterly	08/17/93	78 - 116	702.45	664.45	BR	51	951733.53	1500909.06	780.45	782.65
MW-23	2" AG	NM	06/04/93	83 - 93	725.97	715.97	TOR	93	951623.62	1499577.68	808.97	811.47
MW-24	2" F	Annually	06/04/93	62 - 72	734.50	724.50	TOR	75	951671.65	1500421.59	796.50	796.27
MW-25	2" AG	Annually	06/09/93	40 - 50	734.40	724.40	TOR	50	951920.70	1501727.14	774.40	776.71
MW-26	2" AG	Annually	06/10/93	56.7 - 66.7	733.70	723.70	O	>67.5	952020.02	1501223.27	790.40	793.09
MW-27	8" AG	Annually	08/11/93	69 - 99	739.93	709.93	BR	68.5	951386.97	1500135.48	808.93	811.13
MW-28	2" F	Annually	04/20/04	21 - 31	798.97	788.97	O	>31	950735.05	1499414.47	819.97	819.77
MW-29R Zone 1	Waterloo - T	Quarterly	11/06/08	56.7 - 69.8	728.20	715.10	BR	53	952139.28	1501742.31	784.90	787.03
MW-29R Zone 2	Waterloo - T	Quarterly	11/06/08	127.3 - 139.5	657.60	645.40	BR	53	952139.28	1501742.31	784.90	787.03
MW-29R Zone 3	Waterloo - P & T	Quarterly	11/06/08	154.5 - 169.6	630.40	615.30	BR	53	952139.28	1501742.31	784.90	787.03
MW-29R Zone 4	Waterloo - P & T	Quarterly	11/06/08	177.6 - 202.2	607.30	582.70	BR	53	952139.28	1501742.31	784.90	787.03
MW-30	2" F	Annually	04/13/06	103 - 113	716.50	706.50	TOR	113	951106.58	1499550.99	819.50	819.14
MW-31	2" F	Annually	04/12/06	80 - 90	738.20	728.20	TOR	90	951325.04	1499740.38	818.20	817.96
MW-32	2" F	Annually	04/18/06	25 - 35	794.68	784.68	O	>35	950765.22	1499373.24	819.68	819.40
MW-34 Zone 1	Waterloo - P & T	Not Usable	11/06/08	59.9-60.4	710.16	709.66	BR	12	951843.19	1501873.86	768.10	770.06
MW-34 Zone 2	Waterloo - T	Not Usable	11/06/08	114.4-114.9	655.66	655.16	BR	12	951843.19	1501873.86	768.10	770.06
MW-34 Zone 3	Waterloo - P & T	Not Usable	11/06/08	149.9-150.4	620.16	619.66	BR	12	951843.19	1501873.86	768.10	770.06
MW-34 Zone 4	Waterloo - T	Not Usable	11/06/08	174.4-174.9	595.66	595.16	BR	12	951843.19	1501873.86	768.10	770.06
MW-34 Zone 5	Waterloo - P & T	Not Usable	11/06/08	239.9-240.4	530.16	529.66	BR	12	951843.19	1501873.86	768.10	770.06
MW-35	2" AG	Quarterly	10/02/08	152 - 162	588.90	578.90	BR	23	952440.05	1503528.88	740.90	743.73
MW-36 Zone 1	Waterloo - P & T	Quarterly	11/06/08	99.1 - 116	683.90	667.00	BR	84	952629.06	1501831.75	783.00	785.63
MW-36 Zone 2	Waterloo - T	Quarterly	11/06/08	139.5 - 150.7	643.50	632.30	BR	84	952629.06	1501831.75	783.00	785.63
MW-36 Zone 3	Waterloo - P & T	Quarterly	11/06/08	180.2 - 192.7	602.80	590.30	BR	84	952629.06	1501831.75	783.00	785.63
MW-36 Zone 4	Waterloo - T	Quarterly	11/06/08	225.6 - 239.2	557.40	543.80	BR	84	952629.06	1501831.75	783.00	785.63
MW-36 Zone 5	Waterloo - P & T	Quarterly	11/06/08	269.9 - 275	513.10	508.00	BR	84	952629.06	1501831.75	783.00	785.63
MW-37 Zone 1	1" AG	Quarterly	09/30/08	185 - 195	595.20	585.20	BR	87	951472.16	1501852.30	780.20	782.92
MW-37 Zone 2	1" AG	Quarterly	09/30/08	222 - 232	558.20	548.20	BR	87	951472.48	1501852.13	780.20	782.84
MW-37 Zone 3	1" AG	Quarterly	09/30/08	257 - 272	523.20	508.20	BR	87	951472.27	1501852.21	780.20	782.79
MW-38 Zone 1	1" AG	Quarterly	07/21/10	415 - 430	353.10	338.10	BR	8	951863.56	1501888.44	768.10	771.23
MW-38 Zone 2	1" AG	Quarterly	07/21/10	479.6 - 499.6	288.50	268.50	BR	8	951863.46	1501888.63	768.10	771.18
MW-39 Zone 1	1" AG	Quarterly	07/19/10	95 - 105	709.10	699.10	BR	80	950693.36	1502369.57	804.10	806.02
MW-39 Zone 2	1" AG	Quarterly	07/20/10	195 - 215	609.10	589.10	BR	80	950693.25	1502369.71	804.10	806.02
MW-39 Zone 3	1" AG	Quarterly	07/20/10	280 - 300	524.10	504.10	BR	80	950693.48	1502369.76	804.10	806.02
MW-41 Zone 1	1" AG	Quarterly	08/04/10	17 - 32	716.40	701.40	BR	8	953351.51	1503709.74	733.40	736.56
MW-41 Zone 2	1" AG	Quarterly	08/04/10	109 - 129	624.40	604.40	BR	8	953351.31	1503709.69	733.40	736.79
MW-41 Zone 3	1" AG	Quarterly	08/05/10	279 - 299	454.40	434.40	BR	8	953351.59	1503709.42	733.40	736.77
MW-42 Zone 1	1" F	Quarterly	07/23/11	114 - 129	671.50	656.50	BR	108	953676.64	1505460.98	785.50	785.44
MW-42 Zone 2	1" F	Quarterly	07/22/10	202 - 222	583.50	563.50	BR	108	953676.59	1505460.79	785.50	785.42
MW-42 Zone 3	1" F	Quarterly	07/22/10	265 - 285	520.50	500.50	BR	108	953676.51	1505460.71	785.50	785.40
MW-43 Zone 1	1" AG	Quarterly	06/07/11	92.5 - 112.5	623.65	603.65	BR	71	954986.94	1504658.26	716.15	719.19
MW-43 Zone 2	1" AG	Quarterly	06/07/11	150 - 180	566.15	536.15	BR	71	954987.00	1504658.04	716.15	719.20
MW-43 Zone 3	1" AG	Quarterly	06/06/11	262.5 - 282.5	453.65	433.65	BR	71	954987.15	1504658.24	716.15	719.17
MW-44	2" AG	Quarterly	01/04/13	280-300	461.00	441.00	BR	24	952447.10	1503528.34	741.00	743.95
EW-1	6" AG	NM	06/03/11	Open Hole (52 -445)	723.30	330.30	BR	52	952219.34	1502029.46	775.30	778.04
EW-2	6"	NM	06/06/11	Open Hole (9.5 - 295)	758.70	473.20	BR	8	951846.22	1502269.50	768.20	769.96
P1	2" AG	NM	02/22/93	24.5 - 39.5	788.60	773.60	BR	39	950917.56	1500275.17	813.10	815.42
P2	6" AG	NM	06/22/93	53 - 115	730.93	668.93	BR	45	951750.01	1500946.57	783.93	785.65
Alloy	2" AG	Annually	08/09/93	56 - 61	733.56	728.56	BR	56	951358.03	1501028.29	789.56	791.69
TW-40	2" AG	Annually	08/30/01	84 - 94	701.81	691.81	BR	30	952247.76	1501784.65	785.81	788.63
TW-41	2" AG	Annually	08/27/01	50.3 - 55.3	725.20	720.20	BR	25.5	952119.32	1501966.54	775.50	778.84
TW-42	1" AG	Annually	08/20/01	21 - 26	754.86	749.86	TOR	26	952131.39	1501972.00	775.86	778.09
TW-43	1" AG	Annually	08/21/01	8.6 - 18.6	767.22	757.22	O	>19	952127.92	1501969.26	775.82	778.15
TW-44	2" AG	Annually	08/31/01	64 - 74	718.68	708.68	BR	46	951988.65	1501305.71	782.68	785.52
TW-45	1" F	Not Usable	08/21/01	18.8 - 28.8	797.90	787.90	O	>29	951284.02	1499935.21	816.70	816.76
TW-46	2" F	Annually	09/05/01	83.3 - 88.3	733.42	728.42	TOR	88	951278.63	1499934.00	816.72	816.58

BR - bedrock
O - overburden
TOR - top of rock
ft bgs - feet below ground surface
TOC - top of casing
NM - not monitored
NAD83 - North American Datum of 1983
NAVD88 - North American Vertical Datum of 1988
T - transducer
P & T - pump and transducer
AG - above ground
F - flush mount
MW-35, MW-38 Zone 2, MW-41 Zone 2, TOC elevation has been adjusted by adding couplings and ball valve to surveyed elevation at top of casing.
*For Waterloo type wells the listed screen interval corresponds to each zone's sand pack.

Table 4. Quarterly Sampling Groundwater Analytical Results - August 2015
Owens Corning - Anderson, SC

Sample ID	MCL	MW-15	MW-22	MW-29R Zone 3	15223-Dup[1]	MW-29R Zone 4	MW-35	MW-36 Zone 1	MW-36 Zone 3	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	15224-Dup[2]	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
Sample Date		8/11/15	8/13/15	8/11/15	8/11/15	8/11/15	8/12/15	8/11/15	8/11/15	8/11/15	8/11/15	8/11/15	8/11/15	8/11/15	8/11/15	8/11/15	8/11/15	8/12/15	8/12/15	8/12/15	8/12/15	8/10/15	8/13/15	8/10/15	8/12/15	8/12/15	8/12/15	8/12/15
Screened Interval (ft)	(ug/L)	69.5-99.5	78-116	154.5-169.6	-	177.6-202.2	152-162	99.1-116	180.2-192.7	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
1,1-Dichloroethane	-	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethene	7	**130**	**260**	**210**	**220**	**240**	**65**	< 5.0	< 5.0	**100**	**150**	<5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**180**	**17**	**91**	**19**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dichloroethane	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Carbon tetrachloride	5	< 5.0	**24**	**14**	**16**	**17.0**	< 5.0	< 5.0	< 5.0	< 5.0	**5.0**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 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	6.7	6.2	6.8	6.7	< 5.0	< 5.0	< 5.0	< 5.0	5.4	< 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
cis-1,2-Dichloroethene	70	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	700	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Methylene chloride	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Tetrachloroethene	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	1,000	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
trans-1,2-Dichloroethene	100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Trichloroethene	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl chloride	2	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Xylenes, total	10,000	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Field Parameters																												
pH (s.u.)	-	6.03	4.97	4.87	NA	4.86	9.03	5.15	5.19	7.76	9.05	7.53	7.95	7.92	6.69	7.58	7.54	7.93	NA	7.66	8.37	10.72	7.80	7.78	5.82	7.26	6.88	9.40
Temperature (degrees C)	-	17.50	17.38	17.98	NA	18.11	16.77	19.31	19.32	22.66	20.34	22.33	24.55	24.60	19.63	20.56	22.29	21.27	NA	20.26	22.88	26.79	22.70	21.51	17.77	18.34	18.65	17.00
Specific Conductance (uS/cm)	-	0.19	0.14	0.18	NA	0.16	0.19	0.11	0.11	0.59	0.14	0.41	0.86	0.17	0.08	0.45	0.28	0.20	NA	0.21	0.34	0.21	0.65	0.20	0.10	0.21	0.32	0.19
Eh (mV)	-	148.70	153.50	148.40	NA	165.00	9.70	132.60	85.50	-120.80	-49.10	-100.60	-169.90	-130.30	13.80	-95.30	-105.90	-14.40	NA	13.20	-13.80	-86.50	-47.80	-100.70	115.10	30.20	55.20	-75.10
Dissolved Oxygen (mg/L)	-	8.87	4.15	3.40	NA	2.27	0.29	5.56	14.60	0.70	0.76	1.44	0.39	1.09	5.64	0.66	0.57	1.14	NA	1.41	1.18	2.56	1.45	1.62	5.58	3.12	1.63	0.15
Turbidity (NTU)	-	1.40	1.00	1.40	NA	1.30	1.17	0.90	0.90	0.38	0.17	0.71	0.57	0.17	0.24	0.74	2.41	0.32	NA	0.43	0.34	0.51	0.25	3.09	1.20	1.70	1.50	0.22

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] 15223-Dup was collected from MW-29R Zone 4.
[2] 15224-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 2015
Owens Corning - Anderson, SC

Sample ID	MCL (ug/L)	ALLOY	MW-1	MW-2	MW-3	MW-4	MW-5	15321-Dup-2[1]	MW-6	MW-7	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17	MW-18	MW-19	MW-20	MW-21
Sample Date		11/17/15	11/17/15	11/17/15	11/17/15	11/17/15	11/17/15	11/17/15	11/17/15	11/20/15	11/18/15	11/17/15	11/18/15	11/19/15	11/19/15	11/17/15	11/18/15	11/19/15	11/17/15	11/17/15	11/18/15	11/19/15	11/19/15
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
Volatile Organic Compounds																							
1,1,1-Trichloroethane	200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	100	**44,000**	<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
1,1-Dichloroethane	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<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
1,1-Dichloroethene	7	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	**20**	**30,000**	<5.0	<5.0	<5.0	**270**	**270**	<5.0	**110**	<5.0	<5.0	<5.0	**18**	**130**	<5.0
1,2-Dichloroethane	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<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
Benzene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<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
Carbon tetrachloride	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<5.0	<5.0	<5.0	**8.3**	**25**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	**29**	<5.0
Chloroform[5]	80	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<5.0	<5.0	<5.0	8.3	11	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	35	<5.0
cis-1,2-Dichloroethene	70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<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
Ethylbenzene	700	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<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
Methylene chloride	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<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
Tetrachloroethene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<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
Toluene	1,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<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
trans-1,2-Dichloroethene	100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<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
Trichloroethene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<500	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	**37**	<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	<200	<2.0	<2.0	**2.8**	**17**	<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	<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
Field Parameters																							
pH (s.u.)	-	5.76	5.08	5.43	4.38	6.44	4.29	NA	6.42	4.56	6.05	4.72	5.96	5.28	4.66	5.99	6.51	7.12	4.58	4.39	6.63	5.03	4.83
Temperature (degrees C)	-	19.58	18.44	19.41	18.04	18.73	19.34	NA	20.35	21.09	20.57	20.40	18.62	17.79	18.69	19.18	17.38	18.79	19.53	20.40	18.12	20.72	18.83
Specific Conductance (uS/cm)	-	0.083	0.030	0.059	0.046	0.720	0.102	NA	0.112	1.498	0.060	0.027	0.535	0.240	0.124	0.068	0.204	0.295	0.156	0.046	0.191	0.080	0.050
Eh (mV)	-	195.5	225.3	209.4	214.1	-7.6	183.3	NA	173.5	137.8	236.1	104.4	46.1	183.2	139.0	118.4	136.3	81.5	198.8	208.6	12.8	95.3	170.5
Dissolved Oxygen (mg/L)	-	4.72	7.36	5.66	3.51	0.72	2.55	NA	2.35	0.12	3.80	2.79	0.52	0.40	2.64	2.62	4.17	1.80	1.91	2.94	2.00	1.82	3.90
Turbidity (NTU)	-	8.53	8.45	6.02	2.95	6.07	0.43	NA	0.07	1.04	1.70	0.16	7.15	>10	0.02	0.14	0.18	1.42	1.33	3.21	0.37	0.81	2.98

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
J- Estimated Value
[1] 15321-Dup-2 was collected from MW-5
[2] 15321-DUP was collected from MW-42-Zone 2
[3]15322-DUP was collected from MW-39-Zone 3
[5]MCL listed for Chloroform is for Total Trihalomethanes.
NS - Not Sampled
Bold VOC results indicate concentration above the MCL.

Table 5 - Annual Sampling Groundwater Analytical Results - November 2015 Owens Corning - Anderson, SC																						
Sample ID	MCL (ug/L)	MW-22	MW-24	MW-25	MW-26	MW-27	MW-28	MW-29R Zone 3	MW-29R Zone 4	MW-30	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	MW-39 Zone 1	MW-39 Zone 2
Sample Date		11/19/15	11/18/15	11/18/15	11/18/15	11/19/15	11/20/15	11/18/15	11/18/15	11/19/15	11/19/15	11/18/15	11/19/15	11/18/15	11/18/15	-	11/19/15	11/19/15	11/18/15	11/18/15	11/19/15	11/17/15	11/18/15
Screened Interval (ft)		78-116	62-72	40-50	56.7-66.7	69-99	21-31	154.5-169.6	177.6-202.2	103-113	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	95-105	195-215
Volatile Organic Compounds																							
1,1,1-Trichloroethane	200	<5.0	<5.0	<5.0	<5.0	<5.0	**79,000**	<5.0	<5.0	<5.0	<5.0	29	<5.0	<5.0	<5.0	NS	<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	<5.0	7.4	<5.0	<5.0	<5.0	NS	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	7	**220**	**140**	<5.0	<5.0	**410**	**95,000**	**200**	**230**	**340**	**300**	**36**	**53**	<5.0	<5.0	NS	**78**	**230**	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane	5	<5.0	<5.0	<5.0	<5.0	**5.7**	<5,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NS	<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	NS	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Carbon tetrachloride	5	**17**	**18**	<5.0	<5.0	**24**	<5,000	**18**	**6.1**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NS	<5.0	**6.0**	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform[5]	80	7.6	12	<5.0	<5.0	19	<5,000	7.5	7.1	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NS	<5.0	6.0	<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	<5,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NS	<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	NS	<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	NS	<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	NS	<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	NS	<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	NS	<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	<5.0	<5.0	<5.0	<5.0	<5.0	NS	<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	NS	<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	NS	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Field Parameters																							
pH (s.u.)	-	4.72	4.89	4.68	6.35	6.02	3.99	5.42	5.34	6.25	5.69	5.93	8.99	5.59	7.00	NS	7.50	10.90	7.28	7.38	7.37	6.31	7.03
Temperature (degrees C)	-	18.17	20.44	17.18	18.83	20.47	20.98	17.37	17.45	20.77	20.22	21.41	16.40	17.71	19.08	NS	16.63	16.38	15.59	17.24	17.32	16.13	19.46
Specific Conductance (uS/cm)	-	0.137	0.134	0.052	0.064	0.125	2.120	0.179	0.015	0.080	0.075	0.322	0.203	0.100	1.398	NS	0.635	0.677	0.851	1.598	0.196	0.121	0.900
Eh (mV)	-	193.5	102.1	118.0	28.0	183.0	184.7	5.9	10.5	7601.0	176.3	13.2	145.4	42.9	-15.9	NS	-1.7	-15.1	15.0	-30.8	-9.6	86.6	76.8
Dissolved Oxygen (mg/L)	-	2.88	0.81	6.77	2.50	2.59	0.39	3.05	2.15	1.53	0.32	0.24	0.77	4.91	4.63	NS	0.79	0.60	0.81	0.74	0.14	4.77	1.37
Turbidity (NTU)	-	0.20	0.61	1.01	4.68	0.29	2.57	0.98	0.70	1.45	2.04	8.74	0.32	0.51	1.63	NS	4.94	2.00	3.77	2.74	0.32	2.44	5.84

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
J- Estimated Value
[1] 15321-Dup-2 was collected from MW-5
[2] 15321-DUP was collected from MW-42-Zone 2
[3]15322-DUP was collected from MW-39-Zone 3
[5]MCL listed for Chloroform is for Total Trihalomethanes.
NS - Not Sampled
Bold VOC results indicate concentration above the MCL.

Table 5. Annual Sampling Groundwater Analytical Results - November 2015 Owens Corning - Anderson, SC																			
Sample ID	MCL (ug/L)	MW-39 Zone 3	15322-DUP[3]	MW-41 Zone 1	MW-41 Zone 2	MW-41 Zone 3	MW-42 Zone 1	MW-42 Zone 2	15321-DUP[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		11/18/15	11/18/15	11/19/15	11/19/15	11/19/15	11/17/15	11/17/15	11/17/15	11/17/15	11/16/15	11/16/15	11/16/15	11/19/15	11/19/15	11/19/15	11/20/15	11/20/15	11/18/15	11/18/15
Screened Interval (ft)		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	**150**	**160**	**25**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.8
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	5.6
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.)	-	7.20	NA	7.20	7.57	8.04	9.24	7.05	NA	7.09	7.06	7.06	7.07	8.57	11.62	7.83	4.85	4.80	6.17	10.33
Temperature (degrees C)	-	15.80	NA	17.19	18.75	17.68	17.12	18.03	NA	17.80	17.01	16.89	16.54	16.54	17.03	17.48	16.92	17.43	17.71	20.57
Specific Conductance (uS/cm)	-	0.326	NA	0.209	0.218	0.356	0.250	0.733	NA	0.235	0.165	0.245	0.361	0.192	0.043	0.464	0.043	0.073	0.071	0.635
Eh (mV)	-	32.1	NA	-84.7	-111.2	-69.3	79.1	39.5	NA	-7.2	95.0	23.8	27.8	96.0	-42.1	52.3	7.0	175.1	35.5	75.8
Dissolved Oxygen (mg/L)	-	1.60	NA	0.71	0.43	0.59	3.62	1.75	NA	1.52	3.46	1.79	10.06	0.43	10.34	5.71	6.11	9.03	2.60	0.56
Turbidity (NTU)	-	9.94	NA	0.71	1.39	44.30	1.40	6.12	NA	6.57	5.55	3.66	12.00	0.96	2.78	0.92	0.76	3.82	0.55	9.65

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
J- Estimated Value
[1] 15321-Dup-2 was collected from MW-5
[2] 15321-DUP was collected from MW-42-Zone 2
[3]15322-DUP was collected from MW-39-Zone 3
[5]MCL listed for Chloroform is for Total Trihalomethanes.
NS - Not Sampled
Bold VOC results indicate concentration above the MCL.

Table 6. Residential Well Analytical Results - November 2015 Owens Corning - Anderson, SC										
Sample ID	MCL (ug/L)	628 Airline Road	412 Kaye Drive	119 Cloverhill Drive	117 Faye Drive	303 Kaye Drive	200 Kaye Drive	721 Clinkscales Road	200 Friendship Lane	408 Clinkscales Road
Sample Date		11/24/15	11/24/15	11/24/15	11/24/15	11/24/15	11/24/15	11/24/15	11/24/15	11/24/15
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
1,1-Dichloroethane	-	<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	<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
Benzene	5	<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
Chloroform[2]	80	<5.0	<5.0	14.0	<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
Ethylbenzene	700	<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
Tetrachloroethene	5	<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
trans-1,2-Dichloroethene	100	<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
Vinyl chloride	2	<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
Field Parameters										
pH (s.u.)	-	5.93	6.22	6.05	6.03	6.19	5.86	6.03	5.71	6.34
Temperature (degrees C)	-	15.19	15.47	15.30	14.14	13.31	15.55	16.57	15.51	15.24
Specific Conductance (uS/cm)	-	0.073	0.049	0.081	0.211	0.186	0.069	0.049	0.100	0.043
Eh (mV)	-	348.0	634.0	689.0	364.0	364.0	367.0	227.0	253.0	180.0
Dissolved Oxygen (mg/L)	-	6.25	12.23	13.73	9.07	12.31	7.29	24.49	23.30	41.46
Turbidity (NTU)	-	3.26	9.00	2.93	13.77	2.85	0.00	2.38	15.50	4.37

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] MCL listed for Chloroform is for Total Trihalomethanes.

Bold VOC results indicate concentration above the MCL.

Table 7. Annual Surface Water Analytical Results - November 2015
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
Sample Date	Acute (ug/L)	Chronic (ug/L)	For Consumption of Water and Organism	For Consumption of Organism Only	11/17/15	11/18/15	11/18/15	11/17/15	11/17/15	11/18/15	11/18/15	11/18/15	11/17/15	11/18/15	11/17/15
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	<5.0	<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.)	-	-	-	-	6.52	6.48	5.89	6.45	6.37	6.42	6.25	6.43	6.90	6.67	6.01
Temperature (degrees C)	-	-	-	-	15.24	13.65	13.00	13.52	15.55	14.43	14.29	14.06	15.17	14.53	15.07
Specific Conductance (uS/cm)	-	-	-	-	0.198	0.257	0.240	0.264	0.181	0.170	0.251	0.071	0.216	0.186	0.190
Eh (mV)	-	-	-	-	-24.7	143.5	268.0	47.1	-19.8	62.9	53.0	17.4	-43.2	29.3	8.7
Dissolved Oxygen (mg/L)	-	-	-	-	10.70	12.49	4.29	10.28	10.07	11.92	9.17	16.40	15.21	6.59	9,83
Turbidity (NTU)	-	-	-	-	3.91	4.32	8.83	5.17	4.37	4.49	6.97	4.21	4.38	4.1	5,76

ug/L - micrograms per liter
mg/L - milligrams per liter
uS/cm - microsiemens per centimeter
mV - millivolts
NTU - nephelometric turbidity units
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 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 12 - Residential Well Sampling Location Map - November 2015

Appendix A: Hydraulic Gradient Calculations

Appendix A. Horizontal Hydraulic Gradient Calculations and Results						
Upgradient Well	Downgradient Well	Date	Upgradient Groundwater Elevation (ft)	Downgradient Groundwater Elevation (ft)	Horizontal Distance between Wells (ft)	Calculated Hydraulic Gradient (ft/ft)
MW-23	MW-21	08/10/2015	798.17	762.88	2285.00	1.54E-02
MW-27	MW-41 Zone 1	08/10/2015	788.13	729.42	4080.00	1.44E-02
MW-22	MW-15	08/10/2015	770.45	753.90	670.00	2.47E-02
MW-19	MW-41 Zone 2	08/10/2015	769.41	727.46	3250.00	1.29E-02
MW-37 Zone 3	MW-41 Zone 3	08/10/2015	747.68	731.75	2640.00	6.03E-03
MW-28	MW-21	11/16/2015	802.14	764.58	2670.00	1.41E-02
MW-27	MW-41 Zone 1	11/16/2015	790.27	729.65	4080.00	1.49E-02
MW-6	MW-22	11/16/2015	802.90	772.74	1820.00	1.66E-02
MW-19	MW-41 Zone 2	11/16/2015	771.63	733.07	3250.00	1.19E-02
MW-37 Zone 3	MW-41 Zone 3	11/16/2015	750.86	729.89	2640.00	7.94E-03

ΔH / ΔX (MW-23 to MW-21 Aug-2015) Calculations

H (MW-23 Aug-2015) = 798.17

H (MW-21 Aug-2015) = 762.88

ΔX (MW-23 to MW-21) = 2285.00

$$\Delta H / \Delta X \text{ (MW-23 to MW-21 Aug-2015)} = \frac{H \text{ (MW-23 Aug-2015)} - H \text{ (MW-21 Aug-2015)}}{\Delta X \text{ (MW-23 to MW-21)}}$$

ΔH / ΔX (MW-23 to MW-21 Aug-2015) = 1.54E-02

ΔH / ΔX (MW-27 to MW-41 Zone 1 Aug-2015) Calculations

H (MW-27 Aug-2015) = 788.13

H (MW-41 Zone 1 Aug-2015) = 729.42

ΔX (MW-27 to MW-41 Zone 1) = 4080.00

$$\Delta H / \Delta X \text{ (MW-27 to MW-41 Zone 1 Aug-2015)} = \frac{H \text{ (MW-27 Aug-2015)} - H \text{ (MW-41 Zone 1 Aug-2015)}}{\Delta X \text{ (MW-27 to MW-41 Zone 1)}}$$

ΔH / ΔX (MW-27 to MW-41 Zone 1 Aug-2015) = 1.44E-02

ΔH / ΔX (MW-22 to MW-15 Aug-2015) Calculations

H (MW-22 Aug-2015) = 770.45

H (MW-15 Aug-2015) = 753.90

ΔX (MW-22 to MW-15) = 670.00

$$\Delta H / \Delta X \text{ (MW-22 to MW-15 Aug-2015)} = \frac{H \text{ (MW-22 Aug-2015)} - H \text{ (MW-15 Aug-2015)}}{\Delta X \text{ (MW-22 to MW-15)}}$$

ΔH / ΔX (MW-22 to MW-15 Aug-2015) = 2.47E-02

ΔH / ΔX (MW-19 to MW-41 Zone 2 Aug-2015) Calculations

H (MW-19 Aug-2015) = 769.41

H (MW-41 Zone 2 Aug-2015) = 727.46

ΔX (MW-19 to MW-41 Zone 2) = 3250.00

$$\Delta H / \Delta X \text{ (MW-19 to MW-41 Zone 2 Aug-2015)} = \frac{H \text{ (MW-19 Aug-2015)} - H \text{ (MW-41 Zone 2 Aug-2015)}}{\Delta X \text{ (MW-19 to MW-41 Zone 2)}}$$

ΔH / ΔX (MW-19 to MW-41 Zone 2 Aug-2015) = 1.29E-02

Appendix A. Vertical Hydraulic Gradient Calculations and Results						
Upgradient Well	Downgradient Well	Date	Upgradient Groundwater Elevation (ft)	Downgradient Groundwater Elevation (ft)	Vertical Distance between Wells (ft)	Calculated Hydraulic Gradient (ft/ft)
MW-12	MW-19	08/10/2015	773.30	769.41	119.73	3.25E-02
MW-21	MW-38 Zone 2	08/10/2015	762.88	771.22	463.63	1.80E-02
MW-12	MW-19	11/16/2015	775.63	771.63	119.73	3.34E-02
MW-21	MW-38 Zone 2	11/16/2015	764.58	773.37	463.63	1.90E-02
MW-28	MW-6	11/16/2015	802.14	802.90	92.75	8.19E-03

ΔH / ΔX (ΔH / ΔX (MW-19 to MW-41 Zone 2 Aug-2015) = to Jan-1900) Calculations

H (ΔH / ΔX (MW-19 to MW-41 Zone 2 Aug-2015) = Jan-1900) = 0.01
H (Jan-1900) = 0.00
ΔX (ΔH / ΔX (MW-19 to MW-41 Zone 2 Aug-2015) = to) = 0.00

ΔH / ΔX (MW-19 to MW-41 Zone 2 Aug-2015) = to Jan-1900) = $\frac{\text{H (ΔH / ΔX (MW-19 to MW-41 Zone 2 Aug-2015) = Jan-1900) - H (Jan-1900)}}{\text{ΔX (ΔH / ΔX (MW-19 to MW-41 Zone 2 Aug-2015) = to)}}$

ΔH / ΔX (MW-19 to MW-41 Zone 2 Aug-2015) = to Jan-1900) = 0.00E+00

ΔH / ΔX (to Jan-1900) Calculations

H (Jan-1900) = 0.00
H (Jan-1900) = 0.00
ΔX (to) = 0.00

ΔH / ΔX (to Jan-1900) = $\frac{\text{H (Jan-1900) - H (Jan-1900)}}{\text{ΔX (to)}}$

ΔH / ΔX (to Jan-1900) = 0.00E+00

ΔH / ΔX (to Jan-1900) Calculations

H (Jan-1900) = 0.00
H (Jan-1900) = 0.00
ΔX (to) = 0.00

ΔH / ΔX (to Jan-1900) = $\frac{\text{H (Jan-1900) - H (Jan-1900)}}{\text{ΔX (to)}}$

ΔH / ΔX (to Jan-1900) = 0.00E+00

ΔH / ΔX (to Jan-1900) Calculations

H (Jan-1900) = 0.00
H (Jan-1900) = 0.00
ΔX (to) = 0.00

ΔH / ΔX (to Jan-1900) = $\frac{\text{H (Jan-1900) - H (Jan-1900)}}{\text{ΔX (to)}}$

ΔH / ΔX (to Jan-1900) = 0.00E+00

Appendix B: Groundwater Sampling Field Data Sheets

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-15

1. PROJECT INFORMATION

Project Number: 147297 Task Number: 100-xxx Area of Concern:

Client: Owens Corning Personnel: K. WHEMORE

Project Location: Anderson, South Carolina Weather: 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: 99.5 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:

Depth to Static Water: 25.5 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: 74.0 feet Well Volume: 12.4 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: Time:

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

Equipment Model(s)

1. QED MICROPURGE MP50
2. YSI 556 MPS
3. LAMOTTE 2020 WE
4. SOLINST 102

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
1045	0	5.27	19.27	0.260	181.3	6.66	2.5		
1050	0.4	5.95	17.97	0.202	165.3	5.31	1.3	26.31	
1055	0.7	6.13	17.30	0.199	161.6	7.43	1.3		
1100	1.0	6.09	17.09	0.204	156.2	3.49	1.3	27.51	
1105	1.3	6.04	17.04	0.202	154.7	6.94	1.4		

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: N/A

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: 30.34 Field Filtered? ☐ Yes ☑ No

Sample ID: 15223-MW-15 Sample Date: 8/11/15 Sample Time: 1245 # of Containers: 2

Duplicate Sample Collected? ☐ Yes ☑ No ID: — # of Containers: —

Equipment Blank Collected? ☐ Yes ☑ No ID: — # of Containers: —

Geochemical Analyses

Ferrous Iron: mg/L

DO: mg/L

Nitrate: mg/L

Sulfate: mg/L

Alkalinity: mg/L

5. COMMENTS

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

Signature

FORM GW-2 (Rev 25.Sept.08 - sej)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-15

3. PURGE DATA (continued from page ____)

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
1110	2.25	6.03	17.12	0.201	153.7	3.58		28.10	
1125	3.5	6.04	17.12	0.198	151.5	4.19		28.64	
1140	5.25	6.05	17.11	0.199	149.2	6.48		28.97	
1155	7.25	6.08	17.30	0.198	151.5	7.84		29.29	
1210	9.0	6.05	17.26	0.196	149.2	7.86		29.62	
1230	11.0	6.06	17.37	0.196	147.8	5.67		30.01	
1245	12.75	6.08	17.50	0.194	148.7	8.07		30.28	

Purge data continued on next sheet? ☐

FORM GW-2 (Rev 25 Sept.08 - sej)

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-22

1. PROJECT INFORMATION

Project Number: 147297 Task Number: 100-xxx Area of Concern:

Client: Owens Corning Personnel: K. WHETSTONE

Project Location: Anderson, South Carolina Weather: OVERCAST

2. WELL DATA

Date Measured: 8/10/15 Time: 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: 12.2 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: 103.8 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: 8/13/15 Time: 0920

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

Equipment Model(s)

1. SS GEOSUB PUMP & CONTROLLER
2. SOLINST MODEL 102
3. YSI 556 MPS
4. LAMOTTE 2020we

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
0923	0	5.13	17.38	0.142	124.3	4.24	1.0	12.18	
0927	3.0	4.87	17.45	0.141	142.7	3.88	1.0	12.18	
0931	6.0	4.91	17.48	0.141	146.5	3.96	1.4	12.18	
0935	8.5	4.94	17.46	0.142	148.3	3.96	1.4	12.18	
0939	11.0	4.97	17.49	0.141	153.5	4.15	1.0	12.18	

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: 12.18 Field Filtered? ☐ Yes ☑ No

Sample ID: 15225-MW-22 Sample Date: 8/13/15 Sample Time: 0945 # 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

FORM GW-2 (Rev 25 Sept 08 - sej)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-29R Zone 3-Waterloo

1. PROJECT INFORMATION

Project Number: 147297 Task Number: 100-xxx Area of Concern:

Client: Owens Corning Personnel: K. WHETSTONE

Project Location: Anderson, South Carolina Weather: SUNNY

2. WELL DATA

Date Measured: 8/10/15 Time: Temporary Well: ☐Yes ☐No

Casing Diameter: 2 inches

Screen Diameter: 6 inches

Sampling Inteval: 154.5-169.6 feet

Depth to Static Water: 6960.5 Dg

Depth to Product: feet

Length of Water Column: feet

Length of water column calculation:
(9094-Current Dg reading)*0.02775)*2.3108) = Length of water column (ft)

Well Vol. calculation:
1 well vol. = [vol sand interval(6") - vol of waterloo casing (2")] + vol of water in tubing(1/4")
= [22.18 gal - 2.52 gal] + (0.0102 gal/ft x length of water column
19.66 gal 136.81

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: 8/11/15 Time: 1440

Equipment Model(s)
1. QED MICROPURGE MP50
2. YSI 556 MPS
3. LAMOTTE 2020 we
4. SOLINST 102

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 ☐

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
1442	0	4.70	21.66	0.179	141.4	10.2	2.3	6960.3	
1447	0.25	4.97	18.37	0.168	114.6	1.64	1.8	6958.5	
1452	0.5	4.84	18.14	0.181	138.3	2.51	1.7	6960.3	
1457	0.75	4.86	18 03	0.180	145.3	3.87	1.3	6960.6	
1502	1.0	4.87	17.98	0.178	148.4	3.40	1.4	6960.5	

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: 6960.5 Field Filtered? ☐ Yes ☑ No

Sample ID: 15223-MW-29R-Z3 Sample Date: 8/11/15 Sample Time: 1510 # 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

FORM GW-2 (Rev 25.Sept.08 - sej)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-29R Zone 4-Waterloo

1. PROJECT INFORMATION

Project Number: 147297 Task Number: 100-xxx Area of Concern:

Client: Owens Corning Personnel: K WHETSTONE

Project Location: Anderson, South Carolina Weather: SUNNY

2. WELL DATA

Date Measured: 8/10/15 Time: Temporary Well: ☐Yes ☐No

Casing Diameter: 2 inches

Screen Diameter: 6 inches

Sampling Interval: 177.6-202.2 feet

Depth to Static Water: 6329.8 feet

Depth to Product: — feet

Length of Water Column: 163.85 feet

Length of water column calculation:
(8932.8-Current Dg reading)*0.02724)*2.3108) = Length of water column (ft)

Well Vol. calculation: 6329.8

1 well vol. = [vol sand interval(6") - vol of waterloo casing (2")] + vol of waterloo intubing(1/4")
= [36.14 gal - 4.11 gal] + (0.0102 gal/ft x length of water column)
32.03

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: 8/11/15 Time: 1525

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

Equipment Model(s)
1. QED MICROPURGE M150
2. YSI 556 MPS
3. LAMOTTE 2020WE
4. SOLINST 102

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
1527	0	4.76	19.26	0.159	159.8	5.04	1.7	6431.0	
1532	0.2	4.87	18.12	0.156	164.1	1.83	1.7	6328.4	
1537	0.4	4.86	18.00	0.156	165.1	2.14	1.6	6318.7	
1542	0.6	4.86	18.11	0.156	165.0	2.27	1.3	6335.3	

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: 6335.3 Field Filtered? ☐ Yes ☑ No

Sample ID: 15223-MW-29R-Z4 Sample Date: 8/11/15 Sample Time: 1550 # of Containers: 2

Duplicate Sample Collected? ☑ Yes ☐ No ID: 15223-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.

Signature

FORM GW-2 (Rev 25.Sept.08 - sej)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-35

1. PROJECT INFORMATION

Project Number: 147297 Task Number: 100-xxx Area of Concern:

Client: Owens Corning Personnel: E. Greenwood

Project Location: Anderson, South Carolina Weather: Partly cloudy, 71°F

2. WELL DATA

Date Measured: 5/12/15 Time: 1145 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~~ 11.96 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: ~~150.04~~ 150.04 feet Well Volume: 24.40 gal Screened Interval (from GS):

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

3. PURGE DATA

Date Purged: 5/12/15 Time: 1152

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

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

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

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

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

Equipment Model(s)
1. GeoSub pump
2. Lakotte 20C
3. YSI 556
4.

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
1153	0.1	9.72	17.32	218	-31.3	3.13	*4.49	13.14	clear
1158	2.0	9.68	16.65	218	-19.7	1.55	0.51	14.04	clear
1206	4.0	9.70	16.74	215	14.7	1.44	0.47	14.04	clear
1212	6.0	9.71	16.66	216	20.5	1.43	0.39	13.82	clear
1218	8.0	9.71	16.73	216	24.6	1.42	0.28	13.82	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: 15124-MW-35 Sample Date: 5/12/15 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

* vial had condensation so value is suspect. likely lower NTU

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

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-35

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
1225	10.0	9.70	16.70	217	26.3	1.41	0.25	14.28	clear
1231	12	9.68	16.65	217	28.0	1.40	0.27	15.57	clear
1238	14	9.64	16.76	220	25.3	1.09	0.26	15.54	clear
1246	16	9.26	16.78	205	20.6	0.43	0.31	15.61	clear
1250	18	9.17	16.77	197	15.7	0.34	0.41	15.62	clear
1256	20	9.07	16.78	189	13.6	0.32	0.27	15.62	clear
1302	22	9.06	16.80	186	9.6	0.31	0.19	15.62	clear
1308	24	9.04	16.78	185	9.7	0.30	0.21	15.61	clear
1310	25	9.03	16.77	185	9.7	0.29	1.17	15.61	clear
1315		collect sample 15224-MW-35							

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 25 Sept.08 - sej)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-36 Zone 1-Waterloo

1. PROJECT INFORMATION

Project Number: 147297 Task Number: 100-xxx Area of Concern:

Client: Owens Corning Personnel: K. WHETSTONE

Project Location: Anderson, South Carolina Weather: SUNNY

2. WELL DATA

Date Measured: 8/10/15 Time: Temporary Well: ☐Yes ☐No

Casing Diameter: 2 inches

Screen Diameter: 6 inches

Sampling Interval: 99.1-116 feet

Depth to Static Water: 6300.6 Dg

Depth to Product: — feet

Length of Water Column: 93.77 feet

Length of water column calculation:
(8558.7-Current Dg reading)*0.01797)*2.3108) = Length of water column (ft)
Well Vol. calculation: 6300.6
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: 22.97 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: 8/11/15 Time: 1657

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

Equipment Model(s)
1. QED MicroPurge MP50
2. YSI 556 MPS
3. LaMotte 2020we
4. Solinst 102

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
1700	0	5.07	21.97	0.118	146.6	15.99	0.8	6302.4	
1705	0.2	4.91	20.36	0.113	140.0	14.39	0.8	6306.1	
1710	0.4	5.12	19.67	0.113	134.3	5.79	0.8	6302.6	
1715	0.6	5.15	19.69	0.112	133.3	5.78	0.9	6306.4	
1720	0.8	5.15	19.81	0.112	132.6	5.56	0.9	6305.2	

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: 15223-MW-36-Z1 Sample Date: 8/11/15 Sample Time: 1730 # 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

FORM GW-2 (Rev 25 Sept 08 - sej)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-36 Zone 5-Waterloo

1. PROJECT INFORMATION

Project Number: 147297 Task Number: 100-xxx Area of Concern:

Client: Owens Corning Personnel: K. WHETSTONE

Project Location: Anderson, South Carolina Weather: SUNNY

2. WELL DATA

Date Measured: 8/10/15 Time: Temporary Well: ☐Yes ☐No

Casing Diameter: 2 inches

Screen Diameter: 6 inches

Sampling Intervall: 269.9-275 feet

Depth to Static Water: 6108.5 feet

Depth to Product: — feet

Length of Water Column: 246.29 feet

Length of water column calculation:
(8843.2-Current Dg reading)*0.03897)*2.3108) = Length of water column (ft)
(8843.2 - 6108.5) * 0.03897 * 2.3108 = 246.29

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: 9.15 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: 8/11/15 Time: 1738

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

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

Equipment Model(s)
1. QED MICROPURGE MPS0
2. YSI 556 MPS
3. LAMOTTE 2020WE
4. SOLINST 102

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
1740		6.41	23.91	2.664	55.2	12.23	OVERRANGE	6426.3	
1750		6.60	25.31	2.638	36.2	11.10	"	6360.5	
1800		6.75	28.50	2.636	23.0	8.67	"	6271.4	
1810		6.79	30.98	2.650	36.3	7.60	"	6217.5	

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: 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

STOPPED PUMPING @ 1820, WASN'T MOVING WATER AT ALL, WILL RETURN TO SAMPLE TOMORROW AM. NO FLOW WHEN RETURNED LATER

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

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-36 Zone 3-Waterloo

1. PROJECT INFORMATION

Project Number: 147297 Task Number: 100-xxx Area of Concern:

Client: Owens Corning Personnel: K. WHETSTONE

Project Location: Anderson, South Carolina Weather: SUNNY

2. WELL DATA

Date Measured: 8/10/15 Time: _____ Temporary Well: ☐Yes ☐No

Casing Diameter: 2 inches

Screen Diameter: 6 inches

Sampling Interval: 180.2-192.7 feet

Depth to Static Water: 6505.3 ~~feet~~

Depth to Product: _____ feet

Length of Water Column: 162.95 feet

Length of water column calculation:
(9093.1-Current Dg reading)*0.02725)*2.3108) = Length of water column (ft)

Well Vol. calculation: 6505.3
1 well vol. = [vol sand interval(6") - vol of waterloo casing (2")] + vol of water in tubing(1/4")
= [18.36 gal - 2.09 gal] + (0.0102 x length of water column)

Well Volume: 17.93 gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 8/11/15 Time: 1834

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

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

Equipment Model(s)
1. QED MICROPURGE MP50
2. YSI 556 MPS
3. LAMOTTE 2020 WE
4. SOLINST 102

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
1836	0	5.34	23.78	0.283	42.8	15.41	9.1	6505.4	
1840	0.25	5.06	19.48	0.114	67.1	16.87	1.1	6505.2	
1844	0.5	5.14	19.44	0.113	76.7	16.09	1.1	6505.1	
1848	0.75	5.18	19.50	0.113	81.6	15.15	1.0	6505.2	
1852	1.0	5.19	19.32	0.112	85.5	14.60	0.9	6505.3	

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: 15223-MW-36-73 Sample Date: 8/11/15 Sample Time: 1900 # 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

FORM GW-2 (Rev 25.Sept.08 - sel)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-37 Zone 1

1. PROJECT INFORMATION

Project Number: 147297 Task Number: 100-xxx Area of Concern:

Client: Owens Corning Personnel: E Garrenwood

Project Location: Anderson, South Carolina Weather: mstly cloudy, humid, 86°F

2. WELL DATA

Date Measured: 5/11/15 Time: 1815 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: 34.65 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:

Depth to Product: feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:

Length of Water Column: 160.35 feet Well Volume: 16.57 gal Screened Interval (from GS):

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

3. PURGE DATA

Date Purged: 5/11/15 Time: ~~1825~~ 1820

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 parameters stabilize

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

Equipment Model(s)
1. YSI 556
2. LaMotte 2020
3. MP-50
4. Solinst 408

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
1825	0.25	8.08	22.93	584	-99.1	1.45	0.44	34.09	Clear
1829	0.5	7.85	21.96	593	-115.4	0.66	0.37	36.62	clear
1833	0.75	7.79	21.99	593	-117.6	0.57	0.57	39.37	clear
1838	1.0	7.76	22.53	593	-119.8	0.79	0.41		clear
1842	1.25	7.76	22.66	593	-120.8	0.70	0.38		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: 15223-MW-37-Zone1 Sample Date: 5/11/15 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.

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-37 Zone 1

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
1845		Collect sample			15223-MW-37-Zone 1				

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 25.Sept.08 - sej)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-37 Zone 2

1. PROJECT INFORMATION

Project Number: 147297 Task Number: 100-xxx Area of Concern:

Client: Owens Corning Personnel: C. Greenwood

Project Location: Anderson, South Carolina Weather: Partly Cloudy, Humid, 86°F

2. WELL DATA

Date Measured: 5/11/15 Time: Temporary Well: ☐Yes ☒No

Casing Diameter: 1 inches Type: ☒PVC ☐Stainless ☐Galv. Steel ☐Teflon® ☐Other:

Screen Diameter: 1 inches Type: ☒PVC ☐Stainless ☐Galv. Steel ☐Teflon® ☐Other:

Total Depth of Well: 232 feet From: ☒Top of Well Casing (TOC) ☐Top of Protective Casing ☐Other:

Depth to Static Water: 30.41 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: 201.59 feet Well Volume: 8.67 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: 5/11/15 Time: ~~1735~~ 1730

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 parameters stabilize

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

Equipment Model(s)
1. YSI 556
2. LaMotte 2020
3. MP-50
4. Solinst 408

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
1730 ~~1735~~	0.1	7.98	23.71	159	-34.6	5.24	1.57	30.68	clear
1735	0.25	7.91	21.13	144	-28.8	3.93	0.88	–	clear
1740	0.5	8.04	20.39	139	-27.3	1.92	0.29	30.74	clear
1745	0.75	8.28	20.43	141	-32.6	1.20	0.20	30.76	clear
1750	1.0	8.47	20.31	140	-35.5	0.91	0.17	30.79	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: 15223-MW-37-Zone 2 Sample Date: 5/11/15 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.

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-37 Zone 2

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
1755	1.25	8.70	20.34	139	-40.1	0.81		30.56	clear
1800	1.50	8.90	20.41	140	-45.5	0.74			clear
1805	1.75	9.05	20.57	139	-49.1	0.76			clear
1810	collect	sample	15273	MW-37-	Zone	2			

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 25 Sept 08 - sej)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-37 Zone 3

1. PROJECT INFORMATION

Project Number: 147297 Task Number: 100-xxx Area of Concern:

Client: Owens Corning Personnel: [illegible]

Project Location: Anderson, South Carolina Weather: [illegible]

2. WELL DATA

Date Measured: 8/11/15 Time: 1625 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: 53.42 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: 218.58 feet Well Volume: 9.76 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: 8/11/15 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

Volume to Purge (minimum): well volumes or gallons Pumping Rate: gal/min

Was well purged dry? ☐ Yes ☐ No

Equipment Model(s)
1. YSI 556
2. LaMotte 2020
3. MP-50
4. Solinst 410

Transfers stabilize

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
1641	0.1	8.15	24.55	401	-44.1	5.29	1.24	35.21	Clear
1648	0.25	7.61	22.37	410	-99.4	2.05	0.95	37.98	clear
1655	0.5	7.58	22.55	411	-102.8	1.68	0.73	40.81	clear
1702	0.75	7.53	22.33	410	-100.6	1.44	0.71	43.74	Clear
1705	Collect Sample			15223 - MW-37 - Zone 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: 15223-MW-37 Zone 3 Sample Date: 8/11/15 Sample Time: 1715 # of Containers: 2

Duplicate Sample Collected? ☐ Yes ☐ No ID: # of Containers:

Equipment Blank Collected? ☒ Yes ☐ No ID: 15223-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.

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-38 Zone 1

1. PROJECT INFORMATION

Project Number: 147297 Task Number: 100-xxx Area of Concern:

Client: Owens Corning Personnel: E. Greenwood

Project Location: Anderson, South Carolina Weather: partly cloudy, 82 °F

2. WELL DATA

Date Measured: 8/11/15 Time: 1340 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: 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: 410.58 feet — Well Volume: 16.83 gal — Screened Interval (from GS):

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

3. PURGE DATA

Date Purged: 8/11/15 Time: 1401

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

Equipment Model(s)
1. YSI 556
2. LaMotte 2020
3. MP-50
4. Solinst 4108

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
1405	0.1	7.45	26.73	553	-0.3	6.17	0.30	11.09	clear
1410	0.25	7.71	24.13	820	-127.8	1.69	0.57	13.92	clear
1417	0.5	7.90	25.66	864	-146.0	1.24	-	16.93	clear
1424	0.75	7.92	25.39	850	-154.8	0.87	-	19.62	clear
1435	1.0	7.93	24.82	864	-161.9	0.52	-	-	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: 15223-MW-38-Zone 1 Sample Date: 8/11/15 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.

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-38 Zone 1

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
1442	1.25	7.94	24.39	865	-165.2	0.47	–	–	clear
1453	1.50	7.94	24.39	863	-168.0	0 1/4	-	-	clear
1459	1.75	7.95	24.42	862	-169.9	0.41	–	–	clear
1506	2.0	7.95	24.55	860	-169.9	0.39	–	32.54	clear
1510		Collect	sample	15223	MW-38	Zone 1			

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 25 Sept.08 - sej)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-38 Zone 2

1. PROJECT INFORMATION

Project Number: 147297 Task Number: 100-xxx Area of Concern:

Client: Owens Corning Personnel: F. Greenwood

Project Location: Anderson, South Carolina Weather: partly cloudy, humid, just rained, 86°F

2. WELL DATA

Date Measured: 8/11/15 Time: 1525 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: TOC +11 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 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: 1530

Purge Method: ☐ Bailer, Size: ☐ Bladder Pump ☐ 2" Sub. Pump ☐ 4" Sub. Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☒ Other: Hoze on well

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 parameters stabilize, well is artesian Calibrated? ☒ Yes ☐

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

Equipment Model(s)
1. YSI 556
2. LaMotte 2020
3.
4.

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1533	0.1	8.13	29.13	192	-84.5	3.68		-	clear, some plastic particles
1541	0.25	7.95	23.74	168	-113.3	7.05	2.16	-	clear
1546	0.3	7.86	23.84	170	-112.1	2.14	0.13	-	clear
1550	0.4	7.84	23.20	168	-115.1	2.01	0.10	-	clear
1554	0.5	7.79	23 17	167	-115.8	1.79	0.48	-	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: Hoze on well

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: TOC Field Filtered? ☐ Yes ☒ No

Sample ID: 15223 MW-38-Zone 2 Sample Date: 8/11/15 Sample Time: 1615 # of Containers: 2

Duplicate Sample Collected? ☐ Yes ☒ No ID: # of Containers:

Equipment Blank Collected? ☐ Yes ☒ No ID: # of Containers:

Geochemical Analyses

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

5. COMMENTS

well is artesian, purge until parameters stabilize

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

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-38 Zone 2

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
1558	0.6	7.89	23.54	170	-125.0	1.56	0.36	-	Clear
1602	0.75	7.92	23.56	168	-129.2	1.40	0.23	-	Clear
1606	0.8	7.90	23.92	169	-128.4	1.16	0.31	-	Clear
1610	0.9	7.92	24.16	168	-130.3	1.09	0.17	-	Clear
1615	Collect sample			15273 - MW-38 - Zone 2					

Purge data continued on next sheet? ☐

FORM GW-2 (Rev 25.Sept.08 - sej)

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-39 Zone 1

1. PROJECT INFORMATION

Project Number: 147297 Task Number: 100-xxx Area of Concern:

Client: Owens Corning Personnel: E. Greenwood

Project Location: Anderson, South Carolina Weather: partly cloudy, humid, 70°F

2. WELL DATA

Date Measured: 8/11/15 Time: 1108 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: 18.09 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: 84.91 feet Well Volume: 3.5 gal Screened Interval (from GS):

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

3. PURGE DATA

Date Purged: 8/11/15 Time: 1117

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

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

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

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

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

Equipment Model(s)
1. YSI 556
2. LaMotte 2020
3. MP-50
4. Solinst 409

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
1120	0.1	7.80	24.96	114	-71.8	7.48	0.56	18.27	clear
1133	~~0.5~~ 0.5	6.77	19.66	80	-19.7	3.44	0.73	18.64	clear
1143	1.0	6.71	19.32	77	-4.9	4.35	0.67	18.62	clear
1149	1.25	6.65	19.13	79	+4.9	5.14	0.45	18.71	clear
1154	1.75	6.66	19.26	79	7.8	5.29	0.26	18.716	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: 15223-MW-39-Zone 1 Sample Date: 8/11/15 Sample Time: 1220 # of Containers: 2

Duplicate Sample Collected? ☐ Yes ☒ No ID: # of Containers:

Equipment Blank Collected? ☐ Yes ☒ No ID: # of Containers:

Geochemical Analyses

Ferrous Iron: mg/L

DO: mg/L

Nitrate: mg/L

Sulfate: mg/L

Alkalinity: mg/L

5. COMMENTS

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

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-39 Zone 1

3. PURGE DATA (continued from page ____)

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
1202	2.0	6.68	19.38	80	11.4	5.43	0.37	18.74	clear
1209	2.25	6.68	19.45	80	13.0	5.49	0.28	18.73	clear
1216	2.5	6.69	19.63	80	13.8	5.64	0.24	18.69	clear
1220		Collect sample			15723-1116U-39-Zone 1				

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 25 Sept.08 - sej)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-39 Zone 2

1. PROJECT INFORMATION

Project Number: 147297 Task Number: 100-xxx Area of Concern: _____

Client: Owens Corning Personnel: E. Greenwood

Project Location: Anderson, South Carolina Weather: Cloudy, humid, 77°F

2. WELL DATA

Date Measured: 5/11/15 Time: 1000 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: 35.91 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: 179.09 feet — Well Volume: 7.34 gal — Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 5/11/15 Time: 1015

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

Materials: Pump/Bailer ☐ Polyethylene ☒ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____ ☐ Dedicated ☐ Prepared Off-Site ☒ Field-Cleaned ☐ Disposable

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

Volume to Purge (minimum): 1 well volumes or _____ gallons — Parameters stabilize

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

Equipment Model(s): 1. YSI 556 2. LaMotte 2020 3. MP-50 4. Solinst 408

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
1021	0.1	7.73	20.75	248	-75.4	9.67	4.17	35.46	clear
1026	0.25	7.09	19.91	446	-61.6	0.92	3.65	38.64	clear
1035	0.5	7.49	19.79	448	-90.4	0.56	2.39	44.61	clear
1041	0.75	7.50	19.87	448	-91.9	0.58	1.88	48.02	clear
1049	1.0	7.55	20.11	449	-94.7	0.65	1.03	52.69	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: 15223-MW-39-Zone 2 Sample Date: 5/11/15 Sample Time: 1100 # 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

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-39 Zone 2

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
1055	1.25	7.58	20.56	449	-95.3	0.66	0.74		Clear
1110		collect	sample	15223	MW-39	Zone 2			

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 25 Sept.08 - sej)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-39 Zone 3

1. PROJECT INFORMATION

Project Number: 147297 Task Number: 100-xxx Area of Concern:

Client: Owens Corning Personnel: E Greenwood

Project Location: Anderson, South Carolina Weather: cloudy, humid, 72 °F

2. WELL DATA

Date Measured: 8/11/15 Time: 0835 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: 50.58 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: 249.42 feet Well Volume: 10.23 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: 8/11/15 Time: 0850

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

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

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

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

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

Equipment Model(s)
1. YSI 556
2. LaMotte 2020
3. MP 50
4. Solinst 408

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	0.1	8.33	21.96	301	-38.9	5.24	1.19	49.22	clear
0907	0.25	6.66	20.46	276	-48.9	0.93	1.31	53.02	clear
0919	0.5	7.33	20.62	275	-95.9	0.71	1.98	57.63	clear
0933	0.75	7.50	21.08	274	-106.4	0.65	1.73	61.52	Clear
0940	1.0	7.51	21.53	276	-108.1	0.61	2.96	63.51	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: 15223-MW-39 Zone3 Sample Date: 8/11/15 Sample Time: 1000 # of Containers: 2

Duplicate Sample Collected? ☐ Yes ☐ No ID: # of Containers:

Equipment Blank Collected? ☐ Yes ☐ No ID: # of Containers:

Geochemical Analyses

Ferrous Iron: mg/L

DO: mg/L

Nitrate: mg/L

Sulfate: mg/L

Alkalinity: mg/L

5. COMMENTS

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

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-39 Zone 3

3. PURGE DATA (continued from page 1)

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
0947	1.25	7.54	21.92	277	-108.2	0.53	2.41	104.64	clear
0954	1.52	7.54	22.29	277	-105.9	0.57			clear
1000		collect	sample	15223 - MW-39 - Zone 3					

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 25 Sept 08 - sej)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 Zone 1

1. PROJECT INFORMATION

Project Number: 145492 Task Number: 200-xxx Area of Concern:

Client: Owens Corning Personnel: E. Applewood

Project Location: Anderson, South Carolina Weather: partly cloudy, 75°F

2. WELL DATA

Date Measured: 5/12/15 Time: Temporary Well: ☐Yes ☒No

Casing Diameter: 1 inches Type: ☒PVC ☐Stainless ☐Galv. Steel ☐Teflon® ☐Other:

Screen Diameter: 1 inches Type: ☒PVC ☐Stainless ☐Galv. Steel ☐Teflon® ☐Other:

Total Depth of Well: 129 feet From: ☒Top of Well Casing (TOC) ☐Top of Protective Casing ☐Other:

Depth to Static Water: 7.14 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: 121.86 feet Well Volume: 5.0 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: 5/12/15 Time: 1412

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 parameters stabilize

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

Equipment Model(s)
1. YSI 556
2. LaMotte 2020
3. NLP-50
4. Solinst 408

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
1415	0.1	8.52	23.49	206	60.3	7.13	—	7.27	clear
1418	0.25	8.20	21.19	199	39.0	1.21	0.61	7.27	clear
1423	0.5	8.03	21.23	200	25.1	0.76	0.69	7.27	clear
1428	0.75	7.99	21.66	201	11.8	0.81	0.54	7.27	clear
1432	1.0	7.97	21.39	200	2.9	1.45	~~5.4~~ 0.59	7.27	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: 15224-MW-41-Zone 1 Sample Date: 5/12/15 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.

Signature

FORM GW-2 (Rev 25.Sept.08 - so)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 Zone 1

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
1437	1.25	7.94	21.42	198	-5.9	1.14	0.41	7.27	clear
1441	1.5	7.93	21.27	198	-14.4	1.14	0.32	7.27	clear
1445		collect sample	15224-MW-41-Zone 1						

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 25 Sept.08 - sej)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 Zone 2

1. PROJECT INFORMATION

Project Number: 147297 Task Number: 100-xxx Area of Concern:

Client: Owens Corning Personnel:

Project Location: Anderson, South Carolina Weather:

2. WELL DATA

Date Measured: 8/12/15 Time: 1450 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:

pst. ~195'

Depth to Static Water: 5.01 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: 123.99 feet Well Volume: 7.79 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: 8/12/15 Time: 1458

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 Parameters stabilize

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

Equipment Model(s)
1. YSI 556
2. LaMotte 2020
3. MP-50
4. Solinst 408

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
1500	0.1	8.00	26.98	217	38.1	5.80	1.21	5.23	clear
1504	0.25	7.80	21.87	211	19.0	2.58	0.91	5.06	clear
1509	0.5	7.70	20.91	210	15.5	1.96	0.74	5.03	clear
1513	0.75	7.68	20.54	210	14.1	1.68	0.52	5.03	clear
1517	1.0	7.66	20.26	209	13.2	1.41	0.43	5.03	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: 15224-MW-41-Zone 2 Sample Date: 8/12/15 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.

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 Zone 1

3. PURGE DATA (continued from page ____)

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
1520		Grab p	t sample		15224-MW-41-Zone 2				

Purge data continued on next sheet? ☐

FORM GW-2 (Rev 25.Sept.08 - sej)

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 Zone 3

1. PROJECT INFORMATION

Project Number: 147297 Task Number: 100-xxx Area of Concern:

Client: Owens Corning Personnel: E. Greenwood

Project Location: Anderson, South Carolina Weather: partly cloudy, 82°F

2. WELL DATA

Date Measured: 5/12/15 Time: 1525 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: 9.11 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: 289.89 feet Well Volume: 11.88 gal Screened Interval (from GS):

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

3. PURGE DATA

Date Purged: 5/12/15 Time: 1530

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 Parameters stabilize

Was well purged dry? ☐ Yes ☐ No Pumping Rate: ____ gal/min

Equipment Model(s)
1. YSI 556
2. Lamotte 2020
3. MP-50
4. Solinst 408

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
1533	0.1	8.28	23.42	335	34.9	4.74	2.30	9.59	clear
1538	0.25	8.53	21.42	336	15.0	1.23	1.46	11.88	clear
1543	0.5	8.48	21.49	336	3.8	0.84	0.88	14.01	clear
1547	0.75	8.43	21.81	336	-3.9	1.00	0.72	15.26	clear
1551	1.0	8.40	22.42	336	-10.4	1.18	0.50		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: 15224-MW-41-Zone 3 Sample Date: 5/12/15 Sample Time: # of Containers: 2

Duplicate Sample Collected? ☒ Yes ☐ No ID: 15224-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 given time of "1200"

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

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 Zone 3

3. PURGE DATA (continued from page 1)

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1555	1.25	8.37	22.88	335	-13.8	1.18	0.34		Clear
1600		Collect	sample	15224	MW-41	Zone 3			

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 25 Sept.08 - sej)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42 Zone 1

1. PROJECT INFORMATION

Project Number: 147297 Task Number: 100-xxx Area of Concern:

Client: Owens Corning Personnel: E Greenwood

Project Location: Anderson, South Carolina Weather: partly cloudy, 85°F

2. WELL DATA

Date Measured: 8/10/15 Time: 1505 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: 36.69 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: 92.31 feet Well Volume: 3.78 gal Screened Interval (from GS):

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

3. PURGE DATA

Date Purged: 8/10/15 Time: 1515

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

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

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

Volume to Purge (minimum): 1 well volumes or gallons until parameters stabilize

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

Equipment Model(s)
1. YSI 556
2. LaMotte 2020
3. MP-50
4. Solinst 408

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
1520	0.1	9.46	29.71	406	-45.9	5.62	—	37.61	clear
1526	0.5	10.48	26.52	182	-61.7	3.38	1.74	37.04	clear
1534	1.0	10.64	26.70	186	-68.9	2.75	2.11	36.91	clear
1541	1.5	10.69	27.32	173	-74.0	2.61	0.62	36.92	clear
1546	2.0	10.72	27.25	197	-78.6	2.54	0.57	36.92	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: 15227-MW-42-Zone 1 Sample Date: 8/10/15 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.

Signature

FORM GW-2 (Rev 25 Sept.08 - sej)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42 Zone 1

3. PURGE DATA (continued from page \ )

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
1551	2.5	10.72	26.79	206	-86.5	2.56	0.51	~~30.97~~ (avg)	clear
	3.0								
	3.5								
	4.0								
1555		Collect	sample	1522 - MW-42 - Zone 1					

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 25 Sept 08 - sej)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-12 (re-do)

1. PROJECT INFORMATION

Project Number: 147297 Task Number: 100-xxx Area of Concern: ____

Client: Owens Corning Personnel: E. Greenwood

Project Location: Anderson, South Carolina Weather: partly cloudy, 77°F

2. WELL DATA

Date Measured: 8/13/15 Time: 0855 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: 72.51 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: 149.49 feet Well Volume: 6.13 gal Screened Interval (from GS): ____

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

3. PURGE DATA

Date Purged: 8/13/15 Time: 0907

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 parameters stabilize

Was well purged dry? ☐ Yes ☐ No Pumping Rate: ____ gal/min

Equipment Model(s)

1. YSI 556
2. LaMotte 2020
3. MP-50
4. Solinst 408

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
0916	0.1	8.22	22.31	650	69.2	4.75	0.79	72.31	clear
0921	0.25	7.93	21.84	657	6.9	2.18	0.56	73.49	clear
0926	0.5	7.84	21.97	656	-21.1	1.73	0.49	74.33	clear
0932	0.75	7.81	22.23	655	-35.6	1.51	0.36	75.56	clear
0936	1.0	7.80	22.46	654	-41.4	1.49	0.31	76.07	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: 15275 MW-12-R2 Sample Date: 8/13/15 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

8/11/15 Repurged due to inability to sample

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

Signature [signature]

FORM GW-2 (Rev 25.Sept 08 - soj)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42-Zone 2

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
0941	1.25	7.80	23.70	1.53	-47.8	1.45	0.25	76.61	Clear
0945		Collect	Sample	15775-	MW-42	- Zone 2			

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 25 Sept.08 - sej)

GROUNDWATER SAMPLING FIELD DATA SHEET

BROWN AND CALDWELL

WELL ID: MW-42 Zone 2

1. PROJECT INFORMATION

Project Number: 147297 Task Number: 100-xxx Area of Concern:

Client: Owens Corning Personnel: E. Greenwood

Project Location: Anderson, South Carolina Weather: partly cloudy, 88°F

2. WELL DATA

Date Measured: 8/10/15 Time: 1330 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: 45.41 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: 176.59 feet Well Volume: 7.24 gal Screened Interval (from GS):

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

3. PURGE DATA

Date Purged: 8/10/15 Time: 1340

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

Materials: Pump/Bailer ☐ Polyethylene ☒ ~~Stainless~~ ☒ PVC ☐ Teflon® ☐ Other: ☐ Dedicated ☐ Prepared Off-Site ☒ Field-Cleaned ☐ Disposable

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

Volume to Purge (minimum): 1 well volumes or gallons — purge at least 1 vol ~~or~~ until parameters stable

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

Equipment Model(s):
1. YSI 556
2. LaMotte 2020
3. MP-50
4. Solinst 108

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
1343	0.1	7.75	20.64	682	-79.7	1.45	1.49	50.49	clear
1354	0.5	7.53	19.62	687	-103.6	1.12	2.34	66.98	clear
1359	1.0	7.56	20.15	689	-95.3	2.08	2.10	71.71	clear
1410	1.5	~~8.03~~	~~20.26~~ erg					85.91	clear
1614	~~2.0~~ erg 1.5	8.79	29.31	650	-45.8	6.03	2.67		clear

(left margin: pause, lay clay depth of pump. Allow to recover)

(right margin: resume but at clay depth 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: Field Filtered? ☐ Yes ☒ No

Sample ID: 15222-MW-42-Zone 2 Sample Date: 8/10/15 Sample Time: # of Containers: 3

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

sulfur odor. 1455 stop purge + pull pump. will resume purge once well re levels.

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

Signature

FORM GW-2 (Rev 25 Sept 08 - sej)

1 2

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42 Zone 2

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

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 25.Sept.08 - sej)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42 Zone 3

1. PROJECT INFORMATION

Project Number: 147297 Task Number: 100-xxx Area of Concern:

Client: Owens Corning Personnel: E. McCullough

Project Location: Anderson, South Carolina Weather: partly cloudy, 82°F

2. WELL DATA

Date Measured: 5/10/15 Time: 1015 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: 229.09 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:

Depth to Product: NA feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:

Length of Water Column: 285.91 feet Well Volume: 10.61 gal Screened Interval (from GS):

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

3. PURGE DATA

Date Purged: 5/10/15 Time: 1025

Equipment Model(s)

1. YSI 556
2. LaMotte 2020
3. MP-50
4. Solinst 410B pump

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

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

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

Volume to Purge (minimum): 1 well volumes or gallons 3 readings of stable parameters

Was well purged dry? ☐ Yes ☐ No Pumping Rate: 0.1 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
1028	0.1	5.48	21.54	237	-32.9	3.18	3.85	33.09	clear
1038	0.15	7.21	22.32	207	-117.7	0.46	4.07	34.59	clear
1045	0.25	6.79	19.67	202	-78.3	2.20	4.13	40.62	clear
1052	0.5	6.95	19.41	203	-85.5	1.49	1.92	47.96	clear
1100	0.75	7.31	19.33	204	-102.6	1.13	1.77	53.74	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: 15222-MW-42 Zone 3 Sample Date: 5/10/15 Sample Time: # of Containers: 3

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

* discoloration on outside of turbidity sample vial likely causing higher turbidity readings than actual value. Water very clear

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

Signature

FORM GW-2 (Rev 25 Sept.08 - sej)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42 Zone 3

3. PURGE DATA (continued from page 1)

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1104	1.0	7.52	19.30	205	-115.7	0.79	2.17	101.38	clear
1115	1.5	7.56	19.33	205	-113.6	0.96	1.58	64.56	clear
1120	2.0	7.64	19.48	204	-113.6	0.96	2.46	68.12	clear
1125	2.5	7.73	19.73	203	-113.9	1.04	3.47	71.61	clear
1130	3.0	7.72	19.73	201	-110.8	0.98	4.58	75.34	clear
1137	3.5	7.75	20.06	200	-109.3	1.11	3.37	77.43	clear
1142	4.0	7.73	20.14	199	~~-110.2~~	1.18	3.71	79.49	clear
1149	4.5	7.75	20.53	199	-104.3	1.31	2.54	81.23	clear
1201	5.0	7.76	21.04	199	-103.3	1.48	3.19	84.14	clear
214	5.5	7.76	21.14	199	-100.7	1.60	2.17	85.56	clear
1221	6.0	7.78	21.51	200	-100.7	1.62	3.09	86.96	clear
	6.5								
	7.0								
	7								
	8.0								
	8.5								
	9.0								
	9.5								
	10.0								
	10.5								
1226		collect sample	15222 - MW-42 - Zone 3						

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 25 Sept.08 - sej)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 Zone 1

1. PROJECT INFORMATION

Project Number: 147297 Task Number: 100-xxx Area of Concern:
Client: Owens Corning Personnel: K. Whetstone
Project Location: Anderson, South Carolina Weather: Sunny

2. WELL DATA

Date Measured: 8/12/15 Time: 1455 Temporary Well: ☐Yes ☐No

Casing Diameter: 1 inches Type: ☑PVC ☐Stainless ☐Galv. Steel ☐Teflon® ☐Other:
Screen Diameter: 1 inches Type: ☐PVC ☐Stainless ☐Galv. Steel ☐Teflon® ☐Other:
Total Depth of Well: feet From: ☐Top of Well Casing (TOC) ☐Top of Protective Casing ☐Other:
Depth to Static Water: 8.11 feet From: ☑Top of Well Casing (TOC) ☐Top of Protective Casing ☐Other:
Depth to Product: — feet From: ☐Top of Well Casing (TOC) ☐Top of Protective Casing ☐Other:
Length of Water Column: feet Well Volume: gal Screened Interval (from GS):

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

3. PURGE DATA

Date Purged: 8/12/15 Time: 1455

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

Equipment Model(s)
1. QED MicroPurge MP50
2. YSI 556 MPS
3. LaMotte 2020we
4. Solinst 102

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
1457	0	5.65	19.69	0.110	113.7	7.96	1.9	8.11	
1502	0.25	5.80	18.30	0.101	117.3	6.29	1.2	8.18	
1507	0.5	5.83	17.98	0.098	116.9	5.80	1.2	8.18	
1512	0.75	5.83	17.85	0.097	115.8	5.66	1.2	8.19	
1517	1.0	5.82	17.77	0.096	115.1	5.58	1.2	8.19	

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: 8.19 Field Filtered? ☐Yes ☑No

Sample ID: 1522A-MW-43-Z1 Sample Date: 8/12/15 Sample Time: 1525 # of Containers: 2

Duplicate Sample Collected? ☐Yes ☑No ID: — # of Containers: —

Equipment Blank Collected? ☐Yes ☑No ID: — # of Containers: —

Geochemical Analyses

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

5. COMMENTS

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

Signature

FORM GW-2 (Rev 25 Sept 09 - sol)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 Zone 2

1. PROJECT INFORMATION

Project Number: 147297 Task Number: 100-xxx Area of Concern:

Client: Owens Corning Personnel: K. Whetstone

Project Location: Anderson, South Carolina Weather: Sunny

2. WELL DATA

Date Measured: 8/12/15 Time: 1533 Temporary Well: ☐Yes ☐No

Casing Diameter: 1 inches Type: ☑PVC ☐Stainless ☐Galv. Steel ☐Teflon® ☐Other:

Screen Diameter: 1 inches Type: ☑PVC ☐Stainless ☐Galv. Steel ☐Teflon® ☐Other:

Total Depth of Well: feet From: ☐Top of Well Casing (TOC) ☐Top of Protective Casing ☐

Depth to Static Water: 6.18 feet From: ☑Top of Well Casing (TOC) ☐Top of Protective Casing ☐

Depth to Product: — feet From: ☐Top of Well Casing (TOC) ☐Top of Protective Casing ☐

Length of Water Column: feet Well Volume: gal Screened Interval (from GS):

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

3. PURGE DATA

Date Purged: 8/12/15 Time: 1533

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

Equipment Model(s)

1. QED MicroPurge MP50
2. YSI 556 MPS
3. LaMotte 2020we
4. Solinst 102

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	6.71	23.40	0.214	110.4	9.26	5.2	6.18	
1540	0.25	7.09	19.38	0.210	92.2	5.89	2.9	7.58	
1545	0.5	7.26	18.99	0.209	81.0	4.87	1.4	8.34	
1550	0.75	7.27	18.78	0.207	69.5	3.98	1.3	8.73	
1555	1.0	7.26	18.34	0.206	30.2	3.12	1.7	9.09	

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: 9.98 Field Filtered? ☐Yes ☑No

Sample ID: 15224-MW-43-Z2 Sample Date: 8/12/15 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.

Signature

FORM GW-2 (Rev 25.Sept.08 - sdj)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 Zone 3

1. PROJECT INFORMATION

Project Number: 147297 Task Number: 100-xxx Area of Concern:

Client: Owens Corning Personnel: K. Whetstone

Project Location: Anderson, South Carolina Weather: Sunny

2. WELL DATA

Date Measured: _____ Time: _____ Temporary Well: ☐Yes ☐No

Casing Diameter: 1 inches Type: ☑PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other:

Screen Diameter: 1 inches Type: ☐ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other:

Total Depth of Well: _____ feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐

Depth to Static Water: 0.75 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐

Depth to Product: — feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐

Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 8/12/15 Time: 1618

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

Equipment Model(s)

1. QED MicroPurge MP50
2. YSI 556 MPS
3. LaMotte 2020we
4. Solinst 102

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
1620	0	6.56	20.64	0.317	71.6	5.12	1.5	0.75	
1625	0.25	6.82	20.03	0.317	58.7	1.46	1.5	8.43	
1630	0.5	6.84	19.22	0.317	55.5	1.36	1.5	17.10	
1635	0.75	6.88	19.26	0.318	53.7	1.68	1.5	25.57	
1640	1.0	6.88	18.65	0.318	55.2	1.63	1.5	34.32	

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: _____ Field Filtered? ☐ Yes ☑ No

Sample ID: 15224-MW-43-33 Sample Date: 8/12/15 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

FORM GW-2 (Rev 25.Sept.08 sol)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-44

1. PROJECT INFORMATION

Project Number: 147297 Task Number: 100-xxx Area of Concern:

Client: Owens Corning Personnel: E. Greenwood

Project Location: Anderson, South Carolina Weather: partly cloudy, 71°F

2. WELL DATA

Date Measured: 5/12/15 Time: 0945 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: 11.46 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: 288.54 feet Well Volume: 47.03 gal Screened Interval (from GS):

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

3. PURGE DATA

Date Purged: 5/12/15 Time: 0954

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

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

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

Volume to Purge (minimum): 1 well volumes or 47 gallons

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

Equipment Model(s)
1. Grundfos pump
2. 451 556
3. Grundfos Controller
4. LaMotte 2020

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
0955	1.0	8.24	16.39	191	52.3	4.50	0.40	12.93	clear, some orange particles
0958	2.5	8.70	16.44	192	44.9	1.30	0.41	13.02	clear
1000	3.5	8.89	16.45	193	37.3	1.01	0.40	13.17	clear
1003	4.5	9.03	16.50	191	24.4	0.88	0.39	13.34	clear
1006	7.0	9.14	16.57	192	5.2	0.76	0.37		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: 15224-MW-44 Sample Date: 5/12/15 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.

Signature

FORM GW-2 (Rev 25 Sept 08 - sej)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-~~22~~ 44

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
1011	10.0	9.22	16.61	193	-18.1	0.50	~~13.82~~	13.82	clear
1016	12.0	9.25	16.64	193	-26.8	0.39	~~14.09~~	14.09	clear
1020	14.0	9.27	16.68	193	-29.8	0.34	0.55	14.19	clear
1024	16.0	9.27	16.74	193	-32.4	0.29	0.49	14.31	clear
1028	18.0	9.29	16.77	193	-29.3	0.26	0.51	14.44	clear
1032	20.0	9.29	16.79	193	-29.8	0.24	0.37	14.59	clear
1036	22	9.29	16.82	193	-31.2	0.23	0.41	14.73	clear
1041	24	9.33	16.84	195	-35.3	0.22	0.35	14.81	clear
1045	26	9.35	16.86	196	-40.7	0.20	0.36	14.93	clear
1049	28	9.36	16.89	195	-46.0	0.18	0.41	15.06	clear
1054	30	9.35	16.90	194	-49.4	0.19	0.34	15.19	clear
1058	32	9.35	16.91	192	-52.3	0.17	0.37	15.26	clear
1103	34	9.37	16.94	190	-56.6	0.16	0.29	15.37	clear
1108	36	9.37	16.92	190	-60.3	0.16	0.31	15.49	clear
1112	38	9.38	16.94	190	-62.9	0.14	0.32	15.53	clear
1116	40	9.36	16.96	189	-65.1	0.16	0.28	15.69	clear
1121	42	9.38	16.95	189	-67.4	0.15	0.25	15.74	clear
1126	44	9.38	16.97	189	-69.8	0.15	0.22	15.79	clear
1131	46	9.41	16.97	189	-74.5	0.15		15.92	clear
1136	47	9.40	17.00	189	-75.1	0.15		16.01	clear
1140		Collect sample [15274-MW-44]							

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 25 Sept 08 - sej)

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-1

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____

Client: OWENS CORNING Personnel: GAGAT

Project Location: ANDERSON, SOUTH CAROLINA Weather: OVERCAST, 60°F

2. WELL DATA

Date Measured: 11/17/15 Time: 1030 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: 20.66 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: 44.3 feet Well Volume: 7.23 gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11/18/15 Time: 1035

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 STABILITY gallons

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

Equipment Model(s)
1. YSI
2. LAMOTTE TURBIDIMETER
3. HERON DIPPER
4. GEOSUB

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	0.2	4.37	18.12	0.022	246.8	6.39	56.6	22.73	
1040	1.2	4.92	18.29	0.029	283.3	7.17	36.2	22.82	
1045	1.9	5.01	18.36	0.030	229.8	7.35	15.3	22.91	
1050	2.6	5.05	18.41	0.030	227.7	7.32	19.5	22.96	
1055	3.4	5.07	18.43	0.031	226.7	7.39	11.7	22.96	

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: 23.01 Field Filtered? ☐ Yes ☒ No

Sample ID: 15321-MW-1 Sample Date: 11/18/15 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.

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW1

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
1100	4.25	5.07	18.44	0.030	226.4	7.35	9.83	22.96	
1105	5.0	4.97	18.31	0.028	227.2	7.50	15.4	22.98	
1110	5.75	5.07	18.37	0.030	227.9	7.45	13.2	23.04	
1115	6.5	5.05	18.48	0.030	227.7	7.33	9.93	23.04	
1120	7.25	5.06	18.62	0.030	226.2	7.30	8.49	23.01	
1125	8.0	5.08	18.67	0.030	225.3	7.36	8.45	28.01	
			SAMPLED	@	1125				

Purge data continued on next sheet? ☐

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-2

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____

Client: OWENS CORNING Personnel: GAGIAT

Project Location: ANDERSON, SC Weather: OVERCAST, 65° F

2. WELL DATA

Date Measured: 11.17.15 Time: 1440 Temporary Well: ☐Yes ☐No

Casing Diameter: 2 inches Type: ☒PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Screen Diameter: 2 inches Type: ☒PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Total Depth of Well: 66.7 feet From: ☒Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 19.45 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: 47.25 feet Well Volume: 7.70 gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11.17.15 Time: 1441

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: _____ ☐ Dedicated ☐ Prepared Off-Site ☒ Field-Cleaned ☐ Disposable

2. LAMOTTE

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

3. HELLON DIPPER

4. GROSUB

Volume to Purge (minimum): _____ 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
1445	0.5	5.38	19.33	0.060	211.8	5.46	128	21.76	
1450	1.75	5.32	19.49	0.060	213.7	5.58	37	22.03	
1455	2.25	5.34	19.45	0.059	212.2	5.53	30.1	22.01	
1500	3.0	5.37	19.48	0.058	211.5	5.48	22.6	22.79	
1505	3.8	5.38	19.43	0.059	210.4	5.64	20.1	23.18	

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: 23.81 Field Filtered? ☐ Yes ☒ No

Sample ID: 15321-MW-2 Sample Date: 11.17.15 Sample Time: 1530 # of Containers: 2

Duplicate Sample Collected? ☐ Yes ☒ No ID: — # of Containers: _____

Equipment Blank Collected? ☒ Yes ☐ No ID: 15321-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.

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-2

3. PURGE DATA (continued from page ____)

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
1510	4.5	5.39	19.43	0.059	210.1	5.69	18.7	23.21	
1515	5.25	5.41	19.44	0.059	209.4	5.66	8.77	22.92	
1520	6.0	5.43	19.38	0.058	209.7	5.63	6.08	23.09	
1525	6.75	5.43	19.41	0.059	209.4	5.66	6.02	23.81	
			SAMPLED @			1530			

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 11.March.10 - sej)

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-3

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____

Client: OWENS CORNING Personnel: GAGAT

Project Location: ANDERSON, SC Weather: OVERCAST

2. WELL DATA

Date Measured: 11/17/15 Time: 0805 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: 18.12 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: 9.88 feet Well Volume: 1.61 gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11/17/15 Time: 0810

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 STABILITY gallons

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

Equipment Model(s)

1. GROSUB
2. YSI
3. HELON DIPPER
4. LAMOTTE TURBIDIMETER

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
0815	0.5	4.39	17.03	0.051	176.2	4.70	>1000	18.32	MURKY, BROWN
0820	1.0	4.37	17.33	0.051	177.8	4.35	26.0	18.32	
0825	1.4	4.47	17.50	0.050	181.9	3.83	44.6	18.32	
0830	1.6	4.46	17.48	0.050	186.2	3.70	31.4	18.32	
0835	2.0	4.36	17.80	0.048	195.8	3.71	25.7	18.36	

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: 18.34 Field Filtered? ☐ Yes ☒ No

Sample ID: 15211-MW-3 Sample Date: 11/17/15 Sample Time: 0910 # of Containers: 8 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 _____

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-3

3. PURGE DATA (continued from page ____)

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
0840	2.5	4.42	17.62	0.047	200.8	3.54	22.2	18.36	
0845	2.8	4.42	17.46	0.046	204.0	3.59	21.8	18.36	
0850	3.25	4.41	17.59	0.046	205.8	3.55	7.05	18.34	
0855	3.50	4.40	17.74	0.046	208.9	3.48	3.98	18.34	
0900	4.00	4.37	17.78	0.045	212.6	3.57	8.19	16.34	
0905	4.55	4.38	18.04	0.046	214.1	3.51	2.95	18.34	
			SAMPLED @ 0910						

Purge data continued on next sheet? ☐

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-4

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: Woods

Client: Owens Corning Personnel: JPL

Project Location: Anderson, SC Weather: 50s - Sunny

2. WELL DATA

Date Measured: 10/17/15 Time: 0751 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: 31.25 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 20.18 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: — feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: 11.07 feet Well Volume: 1.85 gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 10/17/15 Time: 0803

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

Materials: Pump/Bailer ☐ Polyethylene ☐ Stainless ☐ PVC ☒ Teflon® ☐ Other: _____ ☒ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☐ Disposable

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

Volume to Purge (minimum): 1 LF well volumes or 3 gallons

Was well purged dry? ☐ Yes ☒ No Pumping Rate: <.25 gal/min

Equipment Model(s): 1. YSI 2. LaMotte 3. Geosub 4. _____

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
0806	0.5	5.67	17.89	.438	174.1	2.79	100.2	20.2	
0808	1.0	5.95	18.10	.432	120.2	2.67	39.7	20.2	
0810	1.25	5.99	18.06	.448	90.1	2.60	42.8	20.3	
0814	1.75	6.08	18.04	.442	62.2	2.46	59.2	20.3	
0818	2.50	6.09	18.53	.791	39.1	2.22	20.5	20.8	

Purge data continued on next sheet? ☐

4. SAMPLING DATA

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

Materials: Pump/Bailer ☐ Polyethylene ☐ Stainless ☐ PVC ☒ Teflon® ☐ Other: _____ ☒ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☐ Disposable

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

Depth to Water at Time of Sampling: 21.4 Field Filtered? ☐ Yes ☒ No

Sample ID: MW-4 Sample Date: 10/17/15 Sample Time: 0909 # 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

Generator stopped at 0827

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

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-4

3. PURGE DATA (continued from page 1)

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
0820	3.0	6.09	18.44	0.796	33.7	2.17	12.09	20.8	
0824	3.5	6.14	18.53	0.782	20.1	1.98	22.9	21.6	
0827	4.0	6.19	18.49	0.763	12.2	1.87	19.6	21.6	Generator stopped
0835	4.5	6.23	18.48	0.792	8.5	1.52	11.8	21.9	
0839	5.5	6.20	18.48	0.803	-1.3	1.33	9.92	22.4	
0844	6.5	6.24	18.10	0.770	-8.0	1.13	18.3	21.9	
0852	7.5	6.41	18.64	0.738	-11.7	0.81	12.12	21.8	
0855	7.75	6.41	18.61	0.739	-12.6	0.77	8.00	21.7	
0859	8.0	6.42	18.65	0.737	-14.3	0.74	8.09	21.6	
0904	8.25	6.43	18.10	0.733	-12.3	0.733	7.21	21.5	
0907	8.5	6.44	18.73	0.720	-7.6	0.720	6.07	21.4	Sample

11/17/15

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 11.March.10 - sej)

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-5

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: behind building

Client: owens corning Personnel: JPL

Project Location: owens corning Anderson, SC Weather: overcast 60s

2. WELL DATA

Date Measured: 11/17/15 Time: 1317 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: 29.35 feet — From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 16.81 feet — From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: — feet — From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: 12.54 feet — Well Volume: 2.09 gal — Screened Interval (from GS): —

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

3. PURGE DATA

Date Purged: 11/17/15 Time: 1320

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): LF well volumes or 3 gallons

Was well purged dry? ☐ Yes ☒ No Pumping Rate: 2.25 gal/min

Equipment Model(s)
1. YSI
2. LaMotte
3. GeoSub
4. _____

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
1328	0.75	4.18	19.39	.101	157.8	4.83	12.41	17.4	Slowed pump
1330	1.0	4.15	19.39	.101	162.4	4.42	9.14	17.4	
1332	1.5	4.15	19.37	.101	168.6	4.44	6.37	17.4	
1334	2.0	4.16	19.38	.101	170.3	4.26	8.77	17.4	
1336	2.5	4.17	19.38	.102	171.2	4.12	7.64	17.4	

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: 17.4 Field Filtered? ☐ Yes ☒ No

Sample ID: MW-5 Sample Date: 11/17/15 Sample Time: 1350 # of Containers: 2

Duplicate Sample Collected? ☒ Yes ☐ No ID: 15321-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

15321-Dup taken at this well

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

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-5

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
1338	3.0	4.17	19.39	0.102	172.3	3.92	3.19	17.4	
1340	3.5	4.22	19.42	0.102	174.7	3.46	0.48	17.4	
1342	4.0	4.27	19.40	0.102	179.0	2.73	0.46	17.4	
1344	4.5	4.27	19.40	0.102	180.1	2.62	0.46	17.4	
1346	5.0	4.28	19.37	0.102	181.9	2.57	0.67	17.4	
1348	5.5	4.29	19.34	0.102	183.3	2.55	0.43	17.4	Sample

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 11.March.10 - sej)

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-6

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: Loading dock

Client: Owens Corning Personnel: JPL

Project Location: Anderson, SC Weather: overcast 60s

2. WELL DATA

Date Measured: 11/17/15 Time: 1439 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: 134.8 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 16.79 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: 118 feet Well Volume: 19.7 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: 11/17/15 Time: 1425

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): LF well volumes or 3 gallons

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

Equipment Model(s)
1. YSI
2. LaMotte
3. Geo Sub
4. _____

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
1447	0.5	6.19	20.77	0.113	178.8	4.56	0.25	19.2	
1453	1.5	6.34	20.52	0.112	179.3	5.10	0.16	19.2	
1455	2.0	6.33	20.43	0.111	180.1	4.80	0.17	19.2	
1459	3.0	6.33	20.38	0.111	180.3	4.0	0.15	19.2	
1501	3.5	6.34	20.38	0.112	179.9	3.39	0.15	19.2	slowed 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: 19.2 Field Filtered? ☐ Yes ☒ No

Sample ID: MW-6 Sample Date: 11/17/15 Sample Time: 1515 # of Containers: 2

Duplicate Sample Collected? ☐ Yes ☒ No ID: — # of Containers: —

Equipment Blank Collected? ☐ Yes ☒ No ID: — # of Containers: —

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

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

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-6

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
1503	3.75	6.37	20.36	0.112	178.6	3.09	0.25	19.2	
1505	4.00	6.39	20.34	0.112	177.3	2.83	0.21	19.2	
1507	4.25	6.42	20.27	0.112	175.0	2.59	0.13	19.2	
1509	4.50	6.42	20.25	0.111	174.2	2.44	0.73	19.2	
1511	4.75	6.42	20.24	0.111	173.8	2.40	0.03	19.2	
1512	5.0	6.42	20.35	0.112	173.5	2.35	0.07	19.2	Sample

1175

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 11.March.10 - sej)

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-7

1. PROJECT INFORMATION

Project Number: 147207 Task Number: _____ Area of Concern: Loading Dock Onsite

Client: Owens Corning Personnel: JPL+GG

Project Location: Anderson, SC Weather: Sunny 50s

2. WELL DATA

Date Measured: 11/20/15 Time: 0928 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: 30.41 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 16.74 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: 13.67 feet Well Volume: 2.28 gal Screened Interval (from GS): —

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

3. PURGE DATA

Date Purged: 11/20/15 Time: 0936

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 6.7 gallons

Was well purged dry? ☐ Yes ☒ No Pumping Rate: .25 gal/min

Equipment Model(s)
1. YSI
2. LaMotte
3. GeoSub
4. _____

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
0941	1.0	4.56	20.40	1.561	158.9	0.17	40.4	17.24	
0946	2.0	4.63	21.13	1.502	152.2	0.14	6.48	17.82	
0951	3.0	4.59	21.17	1.500	142.5	0.13	1.81	17.82	
0956	4.25	4.56	21.12	1.500	139.4	0.12	1.35	17.80	
1000	5.6	4.56	21.09	1.498	137.8	0.12	1.04	17.80	Sample

Purge data continued on next sheet? ☐

4. SAMPLING DATA

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

Materials: Pump/Bailer ☒ Polyethylene ☐ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____ ☒ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☐ Disposable

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

Depth to Water at Time of Sampling: 17.8 Field Filtered? ☐ Yes ☒ No

Sample ID: MW-7 Sample Date: 11/20/15 Sample Time: 1005 # of Containers: 2

Duplicate Sample Collected? ☐ Yes ☒ No ID: — # of Containers: —

Equipment Blank Collected? ☐ Yes ☒ No ID: — # of Containers: —

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

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

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-9

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: Loading Dock

Client: Owens Corning Personnel: JPL

Project Location: Anderson, SC Weather: Rainy 50s

2. WELL DATA

Date Measured: 11/18/15 Time: 0741 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: 106.2 feet — From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 116.60 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: 89.5 feet — Well Volume: 14.95 gal — Screened Interval (from GS): —

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

3. PURGE DATA

Date Purged: 11/18/15 Time: 0754

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): LF well volumes or 3 gallons

Was well purged dry? ☐ Yes ☒ No Pumping Rate: ~.25 gal/min

Equipment Model(s)
1. YSI
2. LaMotte
3. GeoSub
4. _____

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
0758	1.0	6.16	20.61	0.063	234.7	7.10	5.2	21.0	draw down
0803	2.0	6.20	20.58	0.058	233.9	6.84	2.12	21.7	
0808	3.0	6.11	20.60	0.059	237.4	5.33	2.10	21.7	
0813	4.0	6.04	20.61	0.059	238.1	4.00	2.33	21.7	
0818	5.0	6.05	20.60	0.059	237.1	3.85	1.51	21.7	

Purge data continued on next sheet? ☐

4. SAMPLING DATA

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

Materials: Pump/Bailer ☐ Polyethylene ☐ Stainless ☐ PVC ☒ Teflon® ☐ Other: _____ ☒ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☐ Disposable

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

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

Sample ID: MW-9 Sample Date: 11/19/15 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

Water drew down ~5' but stabilized

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

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-9

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
0823	6.0	6.05	20.57	0.060	236.1	3.80	1.7	21.7	Sample

11/8/15

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 11.March.10 - sej)

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-10

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: Next to building

Client: Owens Corning Personnel: JPC

Project Location: Anderson, SC Weather: overcast 70

2. WELL DATA

Date Measured: 11/17/15 Time: 1014 Temporary Well: ☐Yes ☒No

Casing Diameter: 2.0 inches Type: ☒PVC ☐Stainless ☐Galv. Steel ☐Teflon® ☐Other: _____

Screen Diameter: 2.0 inches Type: ☒PVC ☐Stainless ☐Galv. Steel ☐Teflon® ☐Other: _____

Total Depth of Well: 72.03 feet From: ☒Top of Well Casing (TOC) ☐Top of Protective Casing ☐Other: _____

Depth to Static Water: 24.86 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: 47.17 feet Well Volume: 7.88 gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11/17/15 Time: 1026

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

Materials: Pump/Bailer ☒Dedicated ☐ Polyethylene ☐ Stainless ☐ PVC ☒ Teflon® ☐ Other: _____ ☐ Prepared Off-Site ☐ Field-Cleaned ☐ Disposable

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

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

Was well purged dry? ☐ Yes ☒ No Pumping Rate: .25 gal/min

Equipment Model(s)
1. YSI
2. LaMotte
3. GeoSub
4. _____

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
1030	1.0	5.22	20.47	.028	49.3	2.70	0.56	25.5	
1032	1.5	5.21	20.63	.028	51.4	2.69	0.78	25.5	slowed pump
1034	2.0	5.18	20.65	0.028	54.4	2.69	0.78	25.5	
1038	3.5	4.86	21.06	0.027	83.3	2.76	0.28	26.0	
1042	3.0	4.87	20.48	0.027	86.7	2.76	0.27	25.7	

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 ☒Dedicated ☐ Polyethylene ☐ Stainless ☐ PVC ☒ Teflon® ☐ Other: _____ ☐ Prepared Off-Site ☐ Field-Cleaned ☐ Disposable

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

Depth to Water at Time of Sampling: 26.0 Field Filtered? ☐ Yes ☒ No

Sample ID: MW-10 Sample Date: 11/17/15 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

Water very clean from start, little to no draw down

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

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-10

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
1046	4.0	4.81	20.40	0.027	93.8	2.78	0.27	26.0	
1048	4.5	4.73	20.42	0.026	102.5	2.78	0.14	26.0	slowed pump
1050	4.75	4.72	20.40	0.027	104.4	2.79	0.16	26.0	Sample

10/7/15

Purge data continued on next sheet? ☐

FORM GW-2 (Rev 11.March.10 - sej)

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-11

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: Woods

Client: Owens corning Personnel: JPL

Project Location: Anderson, SC Weather: Rainy 50s

2. WELL DATA

Date Measured: 11/18/15 Time: 0902 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: 18.8 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 4.54 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: 14.26 feet Well Volume: 2.38 gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11/18/15 Time: 0908

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 LF gallons

Was well purged dry? ☐ Yes ☒ No Pumping Rate: .25 gal/min

Equipment Model(s)
1. YSI
2. LaMotte
3. GeoSub
4. _____

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
0910	.5	5.56	18.29	0.570	181.8	3.86	27.2	5.1	
0913	1.0	5.70	18.45	0.554	140.5	3.16	22.9	6.8	
0915	1.5	5.79	18.48	0.549	118.8	2.55	18.3	6.8	
0918	2.0	5.84	18.53	0.542	100.4	2.02	17.0	6.8	
0921	2.75	5.86	18.56	0.540	90.2	1.68	15.7	6.8	

Purge data continued on next sheet? ☒

4. SAMPLING DATA

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

Materials: Pump/Bailer ☐ Polyethylene ☐ Stainless ☐ PVC ☒ Teflon® ☐ Other: _____ ☒ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☐ Disposable

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

Depth to Water at Time of Sampling: _____ Field Filtered? ☐ Yes ☒ No

Sample ID: MW-11 Sample Date: 11/18/15 Sample Time: 0930 # of Containers: 2

Duplicate Sample Collected? ☐ Yes ☒ No ID: — # of Containers: —

Equipment Blank Collected? ☐ Yes ☒ No ID: — # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

well lock box is broken

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

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-11

3. PURGE DATA (continued from page ( ))

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
0923	3.25	5.89	18.57	0.538	79.5	1.31	9.23	6.8	
0926	3.75	5.91	18.60	0.536	68.3	.98	9.34	6.8	
0931	4.75	5.94	18.62	0.535	59.4	.64	6.7	6.8	
0935	5.75	5.95	18.63	0.535	51.1	.59	7.18	6.8	
0937	6.25	5.96	18.62	0.535	46.1	.52	7.15	6.8	Sample

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 11.March.10 - sej)

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-12

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: Woods onsite

Client: Owens Corning Personnel: JPL + GG

Project Location: Anderson, SC Weather: Sunny 70s

2. WELL DATA

Date Measured: 11/19/15 Time: 1610 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: 35.38 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: 30.06 feet Well Volume: 5.02 gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11/19/15 Time: 1620

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 LF gallons

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

Equipment Model(s)
1. YSI
2. LaMotte
3. Geo Sub
4. _____

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	1.0	5.17	17.61	0.131	207.1	0.22	59.2	8.69	
1630	2.0	5.18	17.83	0.129	205.4	0.30	23.0	10.90	
1635	3.0	5.45	17.98	0.202	198.6	0.47	15.2	15.76	
1640	3.75	5.32	17.88	0.230	184	0.31	17.4	14.7	
1645	5.0	5.11	17.91	0.168	181	0.79	>10	19.6	

Purge data continued on next sheet? ☒

4. SAMPLING DATA

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

Materials: Pump/Bailer ☒ Polyethylene ☐ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____ ☒ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☐ Disposable

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

Depth to Water at Time of Sampling: 19.6 Field Filtered? ☐ Yes ☒ No

Sample ID: MW-12 Sample Date: 11/19/15 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.

Signature _____

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-12

3. PURGE DATA (continued from page ____)

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
1650	7.0	5.34	17.77	0.242	185.3	0.38	>10	19.6	
1655	7.5	5.33	17.74	0.240	184.8	0.87	>10	19.6	
1700	8.75	5.28	17.79	0.240	183.2	0.40	>10	19.6	
		PARAMETERS		STABLE,	TURBIDITY				
		NOT		STABLE	OR	UNDER		10 NTU.	
		WENT	AHEAD	AND	SAMPLED	DUE	TO	LACK	
		OF	SUNLIGHT.						

Purge data continued on next sheet? ☐

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-13

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: Woods onsite

Client: Owens Corning Personnel: JPL

Project Location: Anderson SC Weather: Sunny 70s

2. WELL DATA

Date Measured: 11/19/15 Time: 1533 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: 76 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 7.59 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: 68.41 feet Well Volume: 11.42 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: 11/19/15 Time: 1539

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 LF gallons

Was well purged dry? ☐ Yes ☒ No Pumping Rate: .25 gal/min

Equipment Model(s): 1. YSI 2. LaMotte 3. GeoSub 4. _____

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
1543	1.0	4.60	17.88	0.124	137.4	3.51	0.06	7.2	
1547	2.0	4.56	17.86	0.124	141.3	2.76	0.04	7.2	
1551	3.0	4.56	18.10	0.124	141.1	2.50	0.02	7.2	
1555	4.0	4.50	18.21	0.124	140.1	2.46	0.02	7.2	
1559	5.0	4.66	18.69	0.124	139.0	2.64	0.02	7.2	Sample

Purge data continued on next sheet? ☐

4. SAMPLING DATA

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

Materials: Pump/Bailer ☒ Polyethylene ☐ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____ ☒ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☐ Disposable

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

Depth to Water at Time of Sampling: 7.2 Field Filtered? ☐ Yes ☒ No

Sample ID: MW-13 Sample Date: 11/19/15 Sample Time: 1600 # 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.

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-14

1. PROJECT INFORMATION

Project Number: 147299 Task Number: _____ Area of Concern: Fenceline

Client: Owens Corning Personnel: JPL

Project Location: Anderson, SC Weather: Sunny 60s

2. WELL DATA

Date Measured: 11/17/15 Time: 1117 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: 77 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 19.5 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: ~~SHEEN~~ feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: ~~57.5~~ 57.5 feet Well Volume: 9.6 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: 11/17/15 Time: 1126

Equipment Model(s)

1. YSI
2. LaMotte
3. Geo Sub
4. _____

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): LF well volumes or 3 gallons

Was well purged dry? ☐ Yes ☒ No Pumping Rate: .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
1128	0.5	5.86	19.13	0.069	127.7	2.99	0.69	24.0	Slowed pump
1130	1.0	6.08	19.22	0.069	121.4	2.97	0.61	24.0	
1135	2.0	6.17	19.26	0.069	118.4	2.95	0.87	24.0	
1139	3.0	6.09	19.20	0.069	120.4	2.79	0.31	24.2	
1144	4.0	5.99	19.20	0.068	120.2	2.67	0.14	24.2	

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: 24.2 Field Filtered? ☐ Yes ☒ No

Sample ID: MW-14 Sample Date: 11/17/15 Sample Time: 1150 # of Containers: 2

Duplicate Sample Collected? ☐ Yes ☒ No ID: — # of Containers: —

Equipment Blank Collected? ☐ Yes ☒ No ID: — # of Containers: —

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

Water drew down but leveled out at 24'

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

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW14

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
1146	4.5	5.98	19.19	0.069	118.9	2.63	0.16	24.2	
1148	5.0	5.99	19.18	0.068	118.4	2.62	0.14	24.2	Sample

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 11.March.10 - sej)

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-15

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____

Client: OWENS CORNING Personnel: GAGAT

Project Location: ANDERSON, SC Weather: RAINY / OVERCAST, 60°F

2. WELL DATA

Date Measured: 11-18-15 Time: 1115 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: 23.43 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: 76.07 feet Well Volume: 12.39 gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11-18-15 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: _____

1. YSI

Materials: (Pump)/Bailer ☐ Polyethylene ☒ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____ ☐ Dedicated ☐ Prepared Off-Site ☒ Field-Cleaned ☐ Disposable

2. LAMOTTE

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

3. HERON DIPPER

4. GEOSUB

Volume to Purge (minimum): _____ 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
1125	0.5	6.14	17.01	0.204	150.2	4.26	0.39	24.62	
1130	1.0	6.43	17.29	0.205	140.8	4.23	0.38	25.06	
1135	1.25	6.47	17.34	0.205	138.8	4.22	0.38	25.11	
1140	1.5	6.51	17.38	0.204	136.3	4.17	0.18	25.11	
			SAMPLED	@	1145				

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: 25.11 Field Filtered? ☐ Yes ☒ No

Sample ID: 15822-MW-15 Sample Date: 11-18-15 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.

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-16

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: Keyst Fine Temper

Client: Owens Corning Personnel: JPL

Project Location: Anderson, SC Weather: Sunny 60s

2. WELL DATA

Date Measured: 11/19/15 Time: 1036 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: 9.6 feet From: ☒Top of Well Casing (TOC) ☐Top of Protective Casing ☐Other: _____

Depth to Product: — feet From: ☐Top of Well Casing (TOC) ☐Top of Protective Casing ☐Other: _____

Length of Water Column: 49.4 feet Well Volume: 8.25 gal Screened Interval (from GS): —

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

3. PURGE DATA

Date Purged: 11/19/15 Time: 1044

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 LF gallons

Was well purged dry? ☐ Yes ☒ No Pumping Rate: .25 gal/min

Equipment Model(s)
1. YSI
2. LaMotte
3. GeoSub
4. _____

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
1050	1.0	7.03	18.99	0.295	87.1	3.10	2.12	12.0	
1054	2.0	6.99	18.66	0.295	84.0	1.70	0.87	16.0	
1058	3.0	7.02	18.73	0.295	85.3	1.90	0.94	17.0	
1102	4.0	7.08	18.79	0.295	95.3	1.83	0.65	18.8	Slowed pump
1108	5.0	7.12	18.79	0.295	81.5	1.80	1.42	21.8	Sample

Purge data continued on next sheet? ☐

4. SAMPLING DATA

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

Materials: Pump/Bailer ☐ Polyethylene ☐ Stainless ☐ PVC ☒ Teflon® ☐ Other: _____ ☒Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☐ Disposable

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

Depth to Water at Time of Sampling: 21.5 Field Filtered? ☐ Yes ☒ No

Sample ID: MW16 Sample Date: 11/19/15 Sample Time: 1109 # 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

Water drew down but stayed between 21-22

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

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-17

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: Onsite

Client: Owens Corning Personnel: JPL

Project Location: Anderson, SC Weather: Overcast 60s

2. WELL DATA

Date Measured: 11/17/15 Time: 1600 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: 41.81 feet From: ☒Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 20.97 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: 20.84 feet Well Volume: 13.9 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: 11/17/15 Time: 1608

Equipment Model(s)

1. YSI
2. Lamotte
3. GeoSub
4. _____

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): LF well volumes or 3 gallons

Was well purged dry? ☐ Yes ☒ No Pumping Rate: .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
1610	0.5	4.71	19.4	0.160	187.9	1.80	1.60	21.6	
1612	1.0	4.70	19.41	0.160	187.5	1.80	1.44	21.6	
1614	1.5	4.64	19.56	0.160	189.8	1.83	2.68	21.6	
1616	2.0	4.63	19.53	0.160	190.1	1.83	2.30	21.6	
1620	3.0	4.59	19.52	0.159	194.5	1.86	2.64	21.7	

Purge data continued on next sheet? ☒

4. SAMPLING DATA

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

Materials: Pump/Bailer ☐ Polyethylene ☐ Stainless ☐ PVC ☒ Teflon® ☐ Other: _____ ☒Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☐ Disposable

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

Depth to Water at Time of Sampling: _____ Field Filtered? ☐ Yes ☒ No

Sample ID: MW-17 Sample Date: 11/17/15 Sample Time: 1620 # of Containers: 2

Duplicate Sample Collected? ☐ Yes ☒ No ID: — # of Containers: —

Equipment Blank Collected? ☐ Yes ☒ No ID: — # of Containers: —

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

[redacted] generator was surging so stream was pumping slightly inconsistant for 1st gallon, Fixed after 1 gallon

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

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-17

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
1622	3.5	4.57	19.53	0.157	197.8	1.90	2.83	21.7	
1624	4.0	4.58	19.53	0.156	198.8	1.91	1.33	21.7	Sample

11/19/15

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 11.March.10 - sej)

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-18

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____

Client: OWENS CORNING Personnel: GAGAT

Project Location: ANDERSON, SC Weather: OVERCAST, 58°F

2. WELL DATA

Date Measured: 11/17/15 Time: 1605 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: 20.04 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: 5.56 feet Well Volume: 0.906 gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11/17/15 Time: 1606

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: _____ ☐ Dedicated ☐ Prepared Off-Site ☒ Field-Cleaned ☐ Disposable

2. LAMOTTE

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

3. HERON DIPPER

4. GROSUB

Volume to Purge (minimum): _____ 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
1610	0.5	4.19	19.86	0.051	204.5	3.75	43.8	20.42	
1615	1.25	4.32	20.28	0.049	201.4	3.72	13.1	20.48	
1620	1.6	4.38	20.34	0.047	202.6	3.09	9.58	20.48	
1625	2.1	4.39	20.42	0.047	206.7	2.95	4.06	20.48	
1630	2.5	4.39	20.40	0.046	208.6	2.94	3.21	20.48	

SAMPLED @ 1630

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: 20.48 Field Filtered? ☐ Yes ☒ No

Sample ID: 15321-MW-18 Sample Date: 11-17-15 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.

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-19

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____

Client: OWENS CORNING Personnel: GAGAT

Project Location: ANDERSON, SC Weather: RAINING

2. WELL DATA

Date Measured: 11.18.15 Time: 0910 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: 10.67 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: 158.3 feet — Well Volume: 25.8 gal — Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11/18/15 Time: 0915

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 STABILITY gallons

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

Equipment Model(s)
1. YSI
2. LAMOTTE
3. HERON DIPPER
4. GEOSUB

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
0920	0.5	6.09	17.60	0.191	42.6	2.02	1.49	10.71	
0925	1.0	6.47	17.88	0.191	21.7	2.05	1.45	10.75	
0930	1.4	6.57	17.99	0.191	16.2	2.05	0.63	10.75	
0935	1.9	6.62	18.09	0.191	13.1	2.01	0.57	10.75	
0940	2.4	6.63	18.12	0.191	12.6	2.00	0.37	10.75	

SAMPLED @ 0945

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: 10.75 Field Filtered? ☐ Yes ☒ No

Sample ID: 15322-MW-19 Sample Date: 11.18.15 Sample Time: 0945 # 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

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-20

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: by the WWTP

Client: Owens Corning Personnel: JPL

Project Location: Anderson, SC Weather: Sunny 70s

2. WELL DATA

Date Measured: 11/19/15 Time: 1412 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: 69.1 feet From: ☒Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 20.64 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: 48.46 feet Well Volume: 8.09 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: 11/19/15 Time: ~~1410~~ 1420

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 LF gallons

Was well purged dry? ☐ Yes ☒ No Pumping Rate: .25 gal/min

Equipment Model(s)
1. YSI
2. LaMotte
3. GeoSub
4. _____

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
~~1424~~	1.0	6.30	20.54	0.069	85.9	6.08	0.51	20.7	
1428	2.0	6.00	20.62	0.065	91.1	4.87	0.44	20.7	
1432	3.0	5.48	20.60	0.068	87.3	3.57	0.43	20.7	
1436	4.0	5.15	20.52	0.070	87.5	2.63	0.34	20.7	
1440	5.0	5.08	20.44	0.070	88.2	2.45	1.23	20.7	

Purge data continued on next sheet? ☒

4. SAMPLING DATA

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

Materials: Pump/Bailer ☒Polyethylene ☐ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____ ☒Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☐ Disposable

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

Depth to Water at Time of Sampling: _____ Field Filtered? ☐ Yes ☒ No

Sample ID: MW-20 Sample Date: 11/19/15 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.

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-20

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
1444	6.0	4.93	20.47	0.080	94.4	2.06	1.53	20.7	
1448	7.0	4.97	20.65	0.080	95.3	1.96	1.62	20.7	
1452	8.0	5.03	20.72	0.080	95.3	1.82	0.81	20.7	Sample

11/19/15

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 11.March.10 - sej)

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-21

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____

Client: OWENS CORNING Personnel: GARRET

Project Location: ANDERSON, SC Weather: PARTLY CLOUDY, 68°F

2. WELL DATA

Date Measured: 11.19.15 Time: 1040 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: 5.71 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: 10.79 feet Well Volume: 1.76 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: 11.19.15 Time: 1045

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 STABILITY gallons OR 5.28 GAL

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

Equipment Model(s)

1. YSI
2. LAMOTTE
3. GROSUB
4. HERON DIPPER

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
1050	1.5	5.44	18.78	0.051	127.4	3.96	26.9	5.94	
1053	2.5	5.09	18.80	0.051	145.9	3.93	13.6	5.94	
1058	3.75	4.92	18.82	0.051	156.8	3.92	5.65	5.94	
1058	5.0	4.85	18.83	0.050	166.8	3.90	4.21	5.94	
1100	6.25	4.83	18.83	0.050	170.5	3.90	2.98	5.94	

SAMPLED @ 1105

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: 5.94 Field Filtered? ☐ Yes ☒ No

Sample ID: 15828-MW-21 Sample Date: 11.19.15 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.

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-22

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____

Client: OWENS CORNING Personnel: GAGNE

Project Location: ANDERSON, SC Weather: SUNNY, 75°F

2. WELL DATA

Date Measured: 11/19/15 Time: 1520 Temporary Well: ☐Yes ☐No

Casing Diameter: 8 inches Type: ☒PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Screen Diameter: _____ 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: 9.37 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: _____ feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: 106.6 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: 11/19/15 Time: 1535

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 STABILITY gallons

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

Equipment Model(s)

1. YSI
2. LAMOTTE
3. GEOSUB
4. HERON DIPPER

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	1.0	4.65	18.37	0.125	192.0	2.88	0.12	9.39	
1545	2.0	4.67	18.38	0.128	191.8	2.86	0.17	9.40	
1550	2.75	4.69	18.16	0.132	193.2	2.87	0.15	9.40	
1555	3.5	4.72	18.17	0.137	193.5	2.88	0.20	9.40	
			SAMPLED	@	1600				

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: 9.40 Field Filtered? ☐ Yes ☒ No

Sample ID: 15323-MW-22 Sample Date: 11-19-15 Sample Time: 1600 # 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

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-24

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: behind WWTP

Client: Owens Corning Personnel: JPL

Project Location: Anderson, SC Weather: Rainy

2. WELL DATA

Date Measured: 11/18/15 Time: 1535 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: 68.10 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 8.81 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: — feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: 59.29 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: 11/18/15 Time: 1542

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 LF gallons

Was well purged dry? ☐ Yes ☒ No Pumping Rate: <.25 gal/min

Equipment Model(s): 1. YSI 2. LaMotte 3. GeoSub 4. _____

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
1547	1.0	5.44	21.86	0.135	57.2	2.82	1.41	13.1	
1552	2.0	5.19	21.46	0.134	70.0	1.19	1.42	14.1	
1557	3.0	4.96	21.02	0.135	88.5	0.94	0.69	13.9	
1602	4.0	4.90	20.86	0.133	97.1	0.84	0.48	13.8	
1607	5.0	4.89	20.44	0.134	102.1	0.81	0.61	13.8	Sample

Purge data continued on next sheet? ☐

4. SAMPLING DATA

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

Materials: Pump/Bailer ☐ Polyethylene ☐ Stainless ☐ PVC ☒ Teflon® ☐ Other: _____ ☒ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☐ Disposable

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

Depth to Water at Time of Sampling: 13.8 Field Filtered? ☐ Yes ☒ No

Sample ID: MW-24 Sample Date: 11/18/15 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

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

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-25

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____

Client: OWENS CORNING Personnel: GAGAFT

Project Location: ANDERSON, SC Weather: RAINING

2. WELL DATA

Date Measured: 11.18.15 Time: 1020 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: 9.84 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: 40.2 feet Well Volume: 6.54 gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11.18.15 Time: 1025

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 STABILITY gallons

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

Equipment Model(s)

1. YSI
2. LAMOTTE
3. GEOSUB
4. HERON DIPPER

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
1030	0.75	4.76	17.01	0.053	64.7	6.73	0.64	10.56	
1035	1.4	4.73	17.14	0.053	77.6	6.77	0.52	10.56	
1040	2.0	4.72	17.17	0.053	91.9	6.77	1.09	10.56	
1045	2.5	4.70	17.18	0.052	104.6	6.75	1.08	10.56	
1050	3.0	4.68	17.18	0.052	118.0	6.77	1.01	10.51	

SAMPLED @ 1055

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: 15322-MW-25 Sample Date: 11.18.15 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.

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-26

1. PROJECT INFORMATION

Project Number: 47297 Task Number: _____ Area of Concern: Side of fence

Client: Owens Corning Personnel: JPL

Project Location: Anderson, SC Weather: Rainy 50s

2. WELL DATA

Date Measured: 11/18/15 Time: 1017 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: 69.18 feet From: ☒Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 16.0 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: 53.18 feet Well Volume: 8.88 gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11/19/15 Time: 1022

Equipment Model(s)

1. YSI
2. LaMotte
3. GeoSub
4. _____

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 LF gallons

Was well purged dry? ☐ Yes ☒ No Pumping Rate: .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
1026	1.0	6.88	18.75	0.066	20.7	2.60	11.72	21.2	
1030	2.0	6.66	18.52	0.064	23.1	2.54	4.06	21.6	
1034	3.0	6.40	18.67	0.064	29.6	2.49	3.10	21.6	
1038	4.0	6.34	18.84	0.064	29.8	2.50	3.32	22.0	
1042	5.0	6.35	18.83	0.064	28.0	2.50	4.68	22.0	Sample

Purge data continued on next sheet? ☐

4. SAMPLING DATA

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

Materials: Pump/Bailer ☐ Polyethylene ☐ Stainless ☐ PVC ☒ Teflon® ☐ Other: _____ ☒Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☐ Disposable

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

Depth to Water at Time of Sampling: 22.0 Field Filtered? ☐ Yes ☒ No

Sample ID: MW-26 Sample Date: 11/19/15 Sample Time: 1044 # 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

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-27

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____

Client: OWENS CORNING Personnel: GAGAT

Project Location: ANDERSON, SC Weather: SUNNY, 75°F

2. WELL DATA

Date Measured: 11/19/15 Time: 1410 Temporary Well: ☐Yes ☐No

Casing Diameter: 8 inches Type: ☒ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Screen Diameter: _____ 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: 20.66 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: 78.34 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: 11/19/15 Time: 1420

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 STABILITY gallons

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

Equipment Model(s)
1. YSI
2. LAMOTTE
3. HERON DIPPER
4. GEOSUB

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
1425	1.0	5.91	20.38	0.126	194.2	2.69	0.22	20.77	
1430	1.5	5.95	20.40	0.124	189.5	2.68	0.46	20.77	
1435	2.0	5.99	20.45	0.126	185.6	2.58	0.39	20.77	
1440	2.5	6.02	20.47	0.125	183.0	2.59	0.29	20.77	
				SAMPLED @ 1445					

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: 20.77 Field Filtered? ☐ Yes ☒ No

Sample ID: 15328-MW-27 Sample Date: 11-19-15 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.

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-28

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: Loading Dock

Client: Owens Corning Personnel: JPL + GG

Project Location: Anderson, SC Weather: Sunny 50s

2. WELL DATA

Date Measured: 11/20/15 Time: 0826 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: 31.29 feet From: ☒Top of Well Casing (TOC) ☐Top of Protective Casing ☐Other: _____

Depth to Static Water: 17.63 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: 13.66 feet Well Volume: 2.28 gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11/20/15 Time: 0839

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 LF gallons

Was well purged dry? ☐Yes ☒No Pumping Rate: 0.1-.25 gal/min

Equipment Model(s)
1. YSI
2. LaMotte
3. GeoSub
4. _____

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
0844	1.0	4.66	20.33	1.130	121.0	4.48	60.0	20.19	
0849	1.5	4.52	20.90	1.495	133.8	2.95	28.6	21.0	
0854	2.0	4.47	20.89	1.623	142.9	1.97	11.4	21.5	
0859	2.75	4.30	20.86	2.206	156.7	1.30	13.15	21.89	
0904	3.5	3.9	21.13	1.965	190.9	0.90	9.21	22.82	

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: 22.6 Field Filtered? ☐Yes ☒No

Sample ID: MW-28 Sample Date: 11/20/15 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

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

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-28

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
0909	4.5	3.87	21.03	2.114	199.0	0.48	6.47	22.6	Slowed pump
0914	5.0	3.92	21.00	2.103	192.9	0.42	4.41	22.6	
0919	5.75	3.99	20.98	2.120	184.7	0.39	2.57	22.6	Sample

11/24/15

Purge data continued on next sheet? ☐

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-29R Zone 3-Waterloo

1. PROJECT INFORMATION

Project Number: Task Number: Area of Concern:

Client: Owens Corning Personnel: BS

Project Location: Anderson, South Carolina Weather: Cloudy

2. WELL DATA

Date Measured: — Time: — Temporary Well: ☐Yes ☐No

Casing Diameter: 2 inches

Screen Diameter: 6 inches

Sampling Inteval: 154.5-169.6 feet

Depth to Static Water: Dg

Depth to Product: feet

Length of Water Column: feet

Length of water column calculation:
(9094-Current Dg reading)*0.02775)*2.3108) = Length of water column (ft)

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

Well Volume: gal Screened Interval (from GS):

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

3. PURGE DATA

Date Purged: 11.18.15 Time: 1220

Equipment Model(s)

1. MP-50
2. YSI-556
3. Lamotte 2020
4.

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

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

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

Volume to Purge (minimum): well volumes or gallons

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

Calibrated? ☑ Yes ☐

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
1223	0.15	5.86	17.31	0.164	17.9	2.53	1.33	—	
1226	0.30	5.48	17.32	0.186	16.6	1.99	1.16	—	
1229	0.45	5.41	17.33	0.184	13.3	2.68	1.12	—	
1232	0.60	5.42	17.35	0.181	8.7	3.09	1.07	—	
1235	0.90	5.42	17.37	0.179	5.9	3.05	0.98	—	

1240 sample

Purge data continued on next sheet? ☐

4. SAMPLING DATA

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

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: 15322-MW-29R-Zone3 Sample Date: 11.18.15 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

Leakon instrument not working.

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

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-29R Zone 4-Waterloo

1. PROJECT INFORMATION

Project Number: __ Task Number: Area of Concern: _____

Client: Owens Corning Personnel: BS

Project Location: Anderson, South Carolina Weather: Cloudy

2. WELL DATA

Date Measured: — Time: — Temporary Well: ☐Yes ☐No

Casing Diameter: 2 inches

Screen Diameter: 6 inches

Sampling Interval: 177.6-202.2 feet

Depth to Static Water: _____ 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: 11.18.15 Time: 1243

Equipment Model(s)
1. YSI-556
2. Lamotte 2020
3. _____
4. _____

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

Materials: Pump/Bailer ☐ Polyethylene ☐ Stainless ☐ PVC ☐ Teflon® ☑ Other: _____ ☐ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☐ Disposable

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

Volume to Purge (minimum): _____ well volumes or _____ gallons

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

Calibrated? ☑ Yes ☐

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
1246	0.10	5.90	17.43	0.146	33.6	5.44	0.63	—	
1249	0.20	5.70	17.43	0.144	30.0	1.57	0.59	—	
1252	0.30	5.54	17.43	0.149	23.6	1.24	0.53	—	
1255	0.40	5.33	17.43	0.153	18.5	1.74	0.63	—	
1258	0.50	5.33	17.43	0.152	14.6	2.00	0.65	—	
1301	0.60	5.34	17.45	0.152	10.5	2.15	0.70	—	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: Waterloo

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: 15722-MW-29R-Zone 4 Sample Date: 11.18.15 Sample Time: 1305 # of Containers: 2

Duplicate Sample Collected? ☐ Yes ☑ No ID: _____ # of Containers: _____

Equipment Blank Collected? ☐ Yes ☐ No ID: _____ # of Containers: _____

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

5. COMMENTS

broken unit not working

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

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-30

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: Onsite by gate 4

Client: Owens Corning Personnel: JPL

Project Location: Anderson Weather: Sunny 60s

2. WELL DATA

Date Measured: 11/19/15 Time: 1135 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: 115 feet From: ☒Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 22.01 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: 93 feet Well Volume: 15.5 gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11/19/15 Time: 1150

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 LF gallons

Was well purged dry? ☐ Yes ☒ No Pumping Rate: .25 gal/min

Equipment Model(s)
1. YSI
2. LaMotte
3. GeoSub
4. _____

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
1154	1.0	6.38	20.63	0.067	96.8	2.23	11.4	25.8	
1158	2.0	6.24	20.69	0.073	88.6	1.98	4.69	26.3	
1202	3.0	6.20	20.74	0.077	86.9	1.78	3.88	26.3	
1206	4.0	6.25	20.80	0.080	78.0	1.56	0.35	26.3	
1210	5.0	6.25	20.79	0.080	77.0	1.54	2.36	26.3	

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: 26.3 Field Filtered? ☐ Yes ☒ No

Sample ID: MW-30 Sample Date: 11/19/15 Sample Time: 1215 # of Containers: 2

Duplicate Sample Collected? ☐ Yes ☒ No ID: — # of Containers: —

Equipment Blank Collected? ☐ Yes ☒ No ID: — # of Containers: —

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

Well had standing water around casing and had to be scooped out!

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

Jaclyn Jones
Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-30

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
1214	6.0	6.25	20.77	0.080	76.1	1.53	1.45	26.3	Sample

11/19/15

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 11.March.10 - sej)

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-31

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____

Client: CORNING Personnel: GAGAT

Project Location: ANDERSON, SC Weather: SUNNY, 75°F

2. WELL DATA

Date Measured: 11.19.15 Time: 1145 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: 23.61 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: 66.39 feet Well Volume: 10.82 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: 11.19.15 Time: 1150

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 STABILITY gallons

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

Equipment Model(s)
1. YSI
2. LAMOTTE
3. HERON DIPPER
4. GEOSUB

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
1150	0.5	5.69	19.90	0.075	193.3	0.40	4.66	24.19	
1200	1.0	5.60	20.03	0.076	192.9	0.36	3.98	24.19	
1205	1.5	5.65	20.20	0.076	183.5	0.36	1.17	24.19	
1210	2.0	5.69	20.22	0.075	176.3	0.32	2.04	24.19	
		SAMPLED @			1215				

Purge data continued on next sheet? ☐

4. SAMPLING DATA

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

Materials: (Pump)/Bailer ☐ Polyethylene ☒ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____ ☐ Dedicated ☐ Prepared Off-Site ☒ Field-Cleaned ☐ Disposable

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

Depth to Water at Time of Sampling: 24.19 Field Filtered? ☐ Yes ☒ No

Sample ID: 15228-MW-31 Sample Date: 11.19.15 Sample Time: 1215 # of Containers: 2

Duplicate Sample Collected? ☐ Yes ☒ No ID: — # of Containers: _____

Equipment Blank Collected? ☐ Yes ☒ No ID: — # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

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

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-32

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____

Client: OWENS CORNING Personnel: GAGAT

Project Location: ANDERSON, SC Weather: RAINING, 55°F

2. WELL DATA

Date Measured: 11-18-15 Time: 0750 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: 16.54 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: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11-18-15 Time: 0755

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 STABILITY gallons

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

Equipment Model(s)

1. YSI
2. LAMOTTE
3. HERON DIPPER
4. GROSUB

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
0800	1.0	5.46	21.25	0.127	75.6	0.57	40.5	17.61	
0805	2.25	5.68	21.34	0.207	74.3	0.50	30.6	17.64	
0810	2.8	5.74	18.99	0.218	67.1	0.54	22.6	17.10	
0815	3.5	5.74	21.56	0.240	60.2	0.39	22.9	17.64	
0820	4.6	5.82	21.44	0.266	51.4	0.33	12.9	17.64	

Purge data continued on next sheet? ☒

4. SAMPLING DATA

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

Materials: (Pump)/Bailer ☐ Polyethylene ☒ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____ ☐ Dedicated ☐ Prepared Off-Site ☒ Field-Cleaned ☐ Disposable

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

Depth to Water at Time of Sampling: 17.51 Field Filtered? ☐ Yes ☒ No

Sample ID: 15322-MW-32 Sample Date: 11-18-15 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.

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-32

3. PURGE DATA (continued from page ____)

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
0825	5.5	5.86	21.41	0.301	44.4	0.30	9.93	17.68	
0830	7.0	5.89	21.32	0.315	28.5	0.27	9.52	17.54	
0835	7.5	5.92	21.40	0.318	16.6	0.26	8.97	17.51	
0840	8.25	5.93	21.41	0.322	13.2	0.24	8.74	17.51	
			SAMPLED @ 0840						

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 11.March.10 - sej)

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-35

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____

Client: OWENS CORNING Personnel: GRANT

Project Location: ANDERSON, SC Weather: OVERCAST

2. WELL DATA

Date Measured: 11.19.15 Time: 0925 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: 8.62 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: 153.2 feet Well Volume: 24.97 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: 11.19.15 Time: 0935

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 STABILITY gallons

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

Equipment Model(s)
1. YSI
2. LAMOTTE
3. HERON DIPPER
4. GEOSUB

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
0940	1.0	8.90	16.39	0.201	154.2	0.91	0.98	9.76	
0945	1.5	8.95	16.39	0.202	150.4	0.81	0.49	9.81	
0950	2.25	8.97	16.41	0.202	148.1	0.79	0.36	9.81	
0955	3.0	8.99	16.40	0.203	145.4	0.77	0.32	9.81	
			SAMPLED	@	1000				

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: 9.81 Field Filtered? ☐ Yes ☒ No

Sample ID: 15323-MW-35 Sample Date: 11.19.15 Sample Time: 1000 # of Containers: 2

Duplicate Sample Collected? ☐ Yes ☒ No ID: — # of Containers: _____

Equipment Blank Collected? ☐ Yes ☒ No ID: — # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

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

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-36 Zone 1-Waterloo

1. PROJECT INFORMATION

Project Number: Task Number: Area of Concern:

Client: Owens Corning Personnel: BS

Project Location: Anderson, South Carolina Weather: Cloudy 70°F

2. WELL DATA

Date Measured: — Time: — Temporary Well: ☐Yes ☐No

Casing Diameter: 2 inches

Screen Diameter: 6 inches

Sampling Interval: 99.1-116 feet

Depth to Static Water: ____ Dg

Depth to Product: ____ feet

Length of Water Column: ____ feet

Length of water column calculation:
(8558.7-Current Dg reading)*0.01797)*2.3108) = Length of water column (ft)

Well Vol. calculation:
1 well vol. = [vol sand interval(6") - vol of waterloo casing (2")] + vol of tubing(1/4")
= [24.83 gal - 2.82 gal] + (0.0102 gal/ft x length of water column)

Well Volume: ____ gal Screened Interval (from GS): ____

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

3. PURGE DATA

Date Purged: 11.18.15 Time: 1316

Equipment Model(s)
1. YSI-556
2. Lamotte 2020
3. ____
4. ____

Purge Method: ☐ Bailer, Size: ____ ☐ Bladder Pump ☐ 2" Sub. Pump ☐ 4" Sub. Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☑ Other: Waterloo

Materials: Pump/Bailer ☐ Polyethylene ☐ Stainless ☐ PVC ☐ Teflon® ☑ Other: Waterloo ☐ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☐ Disposable

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

Volume to Purge (minimum): ____ well volumes or ____ gallons

Was well purged dry? ☐ Yes ☐ No Pumping Rate: ____ gal/min

Calibrated? ☑ Yes ☐

Time	Cum. Gallons Removed (gal)	pH ±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
1319	0.10	5.69	17.71	0.100	86.7	4.32	0.59	-	
1322	0.20	5.53	17.59	0.100	84.7	4.83	0.56	—	
1325	0.30	5.45	17.86	0.100	79.8	4.87	0.73	—	
~~1328~~ 1328	0.50	5.47	17.69	0.100	68.8	4.93	0.79	—	
1331	0.70	5.53	17.70	0.100	56.9	4.91	0.76	—	

Purge data continued on next sheet? ☐

4. SAMPLING DATA

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

Materials: Pump/Bailer ☐ Polyethylene ☐ Stainless ☐ PVC ☐ Teflon® ☐ Other: Waterloo ☐ 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: 15322-MW-36Zone 1 Sample Date: 11-18-15 Sample Time: 1340 # 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

Geokar not working.

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

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-36 Zone 1-Waterloo

3. PURGE DATA (continued from page ____)

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
1334	0.90	5.56	17.69	0.100	50.2	4.98	0.41	—	
1337	1.15	5.59	17.71	0.100	42.9	4.91	0.51	—	
1340	collect		sample						

Purge data continued on next sheet? ☐

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-36 Zone 3-Waterloo

1. PROJECT INFORMATION

Project Number: __ Task Number: Area of Concern:

Client: Owens Corning Personnel: BS

Project Location: Anderson, South Carolina Weather: cloudy 70°F

2. WELL DATA

Date Measured: — Time: — Temporary Well: ☐Yes ☐No

Casing Diameter: 2 inches

Screen Diameter: 6 inches

Sampling Interval: 180.2-192.7 feet

Depth to Static Water: feet

Depth to Product: feet

Length of Water Column: feet

Length of water column calculation:
(9093.1-Current Dg reading)*0.02725)*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")
= [18.36 gal - 2.09 gal] + (0.0102 x length of water column)

Well Volume: gal Screened Interval (from GS):

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

3. PURGE DATA

Date Purged: 11.18.15 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: Waterloo

1. YSI-556

Materials: Pump/Bailer ☐ Polyethylene ☐ Stainless ☐ PVC ☐ Teflon® ☑ Other:

2. Lamotte 2020

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

3.

4.

Volume to Purge (minimum): well volumes or gallons

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

Time	Cum. Gallons Removed (gal)	pH ±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
1355	0.05	7.00	19.08	1.398	-15.9	4.63	1.63	—	
1400	well	went	dry.	will	let	it	recharge		
	try	to	sample						
1500	collect	sample,	went	dry	after	sampling		✓	

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: Waterloo

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: 15522-dup-36-Zone3 Sample Date: 11.18.15 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

Geotek not working

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

Signature

FORM GW-2 (Rev 25.Sept.08 - sej)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-36 Zone 5-Waterloo

1. PROJECT INFORMATION

Project Number: Task Number: 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

Screen Diameter: 6 inches

Sampling Intervall: 269.9-275 feet

Depth to Static Water: _____ 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: 11-18-15 Time: 1505

Equipment Model(s)
1. YSI-556
2. Lamotte 2020
3. _____
4. _____

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: Waterloo

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

Volume to Purge (minimum): _____ well volumes or _____ gallons

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

Calibrated? ☐ Yes ☐

Time	Cum. Gallons Removed (gal)	pH ±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
1508	0.02	7.05	17.65	2.907	-0.1	3.14	2543	—	very turbid at start
1518	0.07	7.12	18.13	2.922	-21.6	0.93	2497	—	
1520	Water not flowing. Well dry. Water was very turbid & gray, almost grout color. Will let it recharge & try to sample.								

Purge data continued on next sheet? ☐

4. SAMPLING DATA

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

Materials: Pump/Bailer ☐ Polyethylene ☐ Stainless ☐ PVC ☐ Teflon® ☐ Other: Waterloo ☑ 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: NO SAMPLE Sample Date: _____ 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

Beaker not working. Very slow purge, just trickles of water.
Well went dry & didnt recover after 1 hour

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

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: ~~MW-36-21~~ MW-37-21

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: _____

Client: OC Personnel: RH

Project Location: Anderson, SC Weather: Overcast / 64

2. WELL DATA

Date Measured: 11-16-15 Time: day Temporary Well: ☐Yes ☑No

Casing Diameter: 4" inches Type: ☑ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Screen Diameter: 1" inches Type: ☑ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Total Depth of Well: 224 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 28.89 feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: 190 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: 195.11 feet Well Volume: 7.99 gal Screened Interval (from GS): 185-195

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: 11-19-15 Time: 1040

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

Equipment Model(s): 1. YSI 2. WLM 3. Tub Met 4. 804 solin

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
1040	0	7.05	16.91	.637	29.0	2.71	2.27	23.88	
1050	0.25	7.42	16.32	.632	11.8	0.73	21.28	29.0	
1100	0.50	7.45	16.28	.633	6.2	0.74	12.0	34.65	
1110	0.75	7.48	16.41	.633	0.1	0.84	5.47	34.67	
1120	1.00	7.50	16.63	.635	-1.7	0.79	4.94	34.68	

Purge data continued on next sheet? ☐

4. SAMPLING DATA

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

Materials: Pump/Bailer ☐ Polyethylene ☑ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____ ☐ Dedicated ☐ Prepared Off-Site ☑ Field-Cleaned ☐ Disposable

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

Depth to Water at Time of Sampling: 34.80 Field Filtered? ☐ Yes ☑ No

Sample ID: 15923-MW-37-21 Sample Date: 11-19-15 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.

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-37-22

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: _____

Client: OC Personnel: RH

Project Location: Anderson, SC Weather: Overcast / 64

2. WELL DATA

Date Measured: 11-16-15 Time: day 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: 276.5 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 31.98 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: 227 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: 244.5 feet Well Volume: _____ gal Screened Interval (from GS): 227-232

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

3. PURGE DATA

Date Purged: 11-14-15 Time: 1140

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

Equipment Model(s)
1. YSI
2. WLM
3. Turb Met
4. 804 Solin

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
1140	0	10.23	16.31	.427	-10.2	1.75	7.19	28.8	
1150	0.5	10.41	16.11	.490	14.4	0.49	4.48	28.8	
1200	1	10.58	16.16	.598	10.3	0.50	3.96	28.8	
1210	1.5	10.74	16.24	.671	1.9	0.53	2.53	28.8	
1220	2.0	10.62	16.30	.681	-4.1	0.58	0.95	28.8	

Purge data continued on next sheet? ☐

4. SAMPLING DATA

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

Materials: Pump/Bailer ☐ Polyethylene ☑ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____ ☐ Dedicated ☐ Prepared Off-Site ☑ Field-Cleaned ☐ Disposable

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

Depth to Water at Time of Sampling: 28.8 Field Filtered? ☐ Yes ☑ No

Sample ID: 15923-MW-37-22 Sample Date: 11-19-15 Sample Time: 1255 # 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.

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: mw-37-22

3. PURGE DATA (continued from page ____)

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	2.5	10.85	16.30	.684	-8.2	0.57	2.08	28.8	
1240	3.0	10.91	16.37	.683	-11.8	0.54	2.01	28.8	
1250	3.5	10.90	16.38	.677	-15.1	0.60	2.00	28.8	

Purge data continued on next sheet? ☐

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-37-23

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: _____

Client: OC Personnel: BH

Project Location: Henderson, SC Weather: overcast / 54

2. WELL DATA

Date Measured: 11-18-15 Time: _____ Temporary Well: ☐Yes ☐No

Casing Diameter: 1" inches Type: ☑ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Screen Diameter: 1" inches Type: ☑ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Total Depth of Well: 276.5 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 31.93 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: 264.5 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: 245.6 feet Well Volume: 10.06 gal Screened Interval (from GS): 257-272

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

3. PURGE DATA

Date Purged: 11-18-15 Time: 1130

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

Equipment Model(s)
1. YSI
2. WLM
3. Tum6 Meter
4. _____

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
1130	0	6.90	16.05	.460	47.7	1.84	4.58	22.53	
1140	0.25	7.20	15.63	.452	24.6	1.09	3.43	30.9	
1150	0.50	7.26	15.61	.452	19.4	0.89	3.45	30.9	
1200	0.75	7.28	15.59	.451	15.0	0.81	3.77	30.95	
1210									

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: 30.95 Field Filtered? ☐ Yes ☑ No

Sample ID: 15322-MW-37-23 Sample Date: 11-18-15 Sample Time: 1205 # of Containers: 2

Duplicate Sample Collected? ☐ Yes ☑ No ID: — # of Containers: —

Equipment Blank Collected? ☐ Yes ☑ No ID: — # of Containers: —

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

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

Signature _____

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-38-21

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: _____

Client: OC Personnel: RH

Project Location: Anderson, SC Weather: Overcast 55

2. WELL DATA

Date Measured: 11-18-15 Time: day 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: 14.82 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: 422.5 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): 415-430

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

3. PURGE DATA

Date Purged: 11-18-15 Time: 1510

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

Equipment Model(s)
1. YSI
2. Tom's Meter
3. WLM
4. _____

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
1510	0	7.23	17.65	1.315	-24.5	3.28	3.95	7.50	
1520	0.25	7.30	17.35	1.605	-19.2	1.28	3.82	10.30	
1530	0.50	7.36	17.37	1.601	-25.1	0.79	2.92	10.40	
1540	0.75	7.38	17.24	1.598	-30.8	0.74	2.74	10.40	
1550									

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: 10.40 Field Filtered? ☐ Yes ☑ No

Sample ID: 15322-MW-38-21 Sample Date: 11-18-15 Sample Time: 1540 # of Containers: 2

Duplicate Sample Collected? ☐ Yes ☑ No ID: _____ # of Containers: _____

Equipment Blank Collected? ☐ Yes ☑ No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

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

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-38-22

1. PROJECT INFORMATION

Project Number: VE7-297 Task Number: _____ Area of Concern: _____

Client: OC Personnel: RH

Project Location: Hadersonj SC Weather: 64 / overcast

2. WELL DATA

Date Measured: 11-16-15 Time: day Temporary Well: ☐ Yes ☑ No

Casing Diameter: 4" inches Type: ☑ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Screen Diameter: 10' 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: datum 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: 11-19-15 Time: 0910

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

Equipment Model(s)
1. YSI
2. Turbidimeter
3. _____
4. _____

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
0910	0	7.01	16.72	.196	60.5	0.16	2.11	+.1	
0920	0.5	7.13	17.05	.196	35.8	0.13	0.52		
0930	1.0	7.25	17.12	.195	12.2	0.16	0.23		
0940	1.25	7.31	17.18	.196	-0.1	0.15	0.45		
0950	1.50	7.37	17.32	.196	-9.6	0.14	0.32	↓	

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: +.1 Field Filtered? ☐ Yes ☑ No

Sample ID: 15323-MW-37-22 Sample Date: 11-19-15 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.

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-99-21

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: _____

Client: OC Personnel: RH

Project Location: Anderson, SC Weather: clear ~65

2. WELL DATA

Date Measured: 11-16-15 Time: ~ Temporary Well: ☐ Yes ☒ No

Casing Diameter: 1" inches Type: ☐ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Screen Diameter: 1" inches Type: ☑ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Total Depth of Well: 108 feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 17.62 feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: 100 feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: 90.46 feet Well Volume: 3.70 gal Screened Interval (from GS): 95-105

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

3. PURGE DATA

Date Purged: 11-17-15 Time: 1545

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

Equipment Model(s)
1. WLM
2. YSI
3. Turb meter
4. _____

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
1545	0	6.23	16.61	0.117	64.5	5.85	5.25	18.1	
1555	0.5	6.72	16.26	.147	72.6	3.22	8.54	18.1	
1605	1.0	6.30	16.19	.123	78.9	4.29	10.94	18.1	
1615	1.5	6.31	16.17	.122	82.7	4.60	4.99	18.1	
1625	2.0	6.31	16.15	.121	85.4	4.73	2.86	18.1	

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: _____

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: 18.1 Field Filtered? ☐ Yes ☑ No

Sample ID: 15321-MW-99-21 Sample Date: 11-17-15 Sample Time: 1640 # of Containers: 2

Duplicate Sample Collected? ☐ Yes ☑ No ID: ~ # of Containers: ~

Equipment Blank Collected? ☐ Yes ☑ No ID: ~ # of Containers: ~

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

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

Signature _____

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-39-21

3. PURGE DATA (continued from page ____)

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
1635	2.25	6.31	16.13	.121	86.6	4.77	2.44	18.1	

Purge data continued on next sheet? ☐

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: mw-39-22

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: _____

Client: OC Personnel: RH

Project Location: Anderson, SC Weather: 54 / Rain.

2. WELL DATA

Date Measured: 11-16-15 Time: _____ Temporary Well: ☐Yes ☑No

Casing Diameter: 1" inches Type: ☑PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Screen Diameter: 1" inches Type: ☑PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Total Depth of Well: 218.8 feet From: ☑Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 36.34 feet From: ☑Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: 205 feet From: ☑Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: 182.5 feet Well Volume: 7.48 gal Screened Interval (from GS): 195-215

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

3. PURGE DATA

Date Purged: 11-18-15 Time: 0820

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

Equipment Model(s)
1. YSI
2. WLM
3. Turb Meter
4. _____

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
0820	0	6.87	15.59	0.511	96.1	3.08	4.86	92.4	
0830	0.25	6.96	15.54	0.500	82.0	1.62	4.64	34.1	
0840	0.50	7.01	15.60	.499	78.0	1.56	4.96	34.12	
0850	0.75	7.03	15.46	.500	76.8	1.37	5.84	34.12	

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: 0855 34.12 Field Filtered? ☐ Yes ☑ No

Sample ID: 15322-MW-39-22 Sample Date: 11-18-15 Sample Time: 0855 # 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

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-39-23

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: _____

Client: OC Personnel: RH

Project Location: Anderson, SC Weather: Rain / 54

2. WELL DATA

Date Measured: 11-16-15 Time: _____ Temporary Well: ☐Yes ☐No

Casing Diameter: 1" inches Type: ☑PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Screen Diameter: 1" inches Type: ☑PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Total Depth of Well: 300 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 50.39 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: 290 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: 239.6 feet Well Volume: 9.82 gal Screened Interval (from GS): 280-300

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

3. PURGE DATA

Date Purged: 11-18-15 Time: 0920

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

Equipment Model(s)

1. YSI
2. WLM
3. Turb Met
4. _____

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
0920	0	6.84	15.60	.324	58.9	3.45	5.28	43 50.61	
0930	0.5	7.16	15.72	.326	40.5	1.93	0.97	50.61	
0940	1.0	7.18	15.66	.326	35.2	1.65	9.61	50.62	
0950	1.25	7.20	15.80	.326	32.1	1.60	9.94	50.64	

Purge data continued on next sheet? ☐

4. SAMPLING DATA

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

Materials: Pump/Bailer ☐ Polyethylene ☑ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____ ☐ Dedicated ☐ Prepared Off-Site ☑ Field-Cleaned ☐ Disposable

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

Depth to Water at Time of Sampling: 50.64 Field Filtered? ☐ Yes ☑ No

Sample ID: 15322-MW-39-23 Sample Date: 11-18-15 Sample Time: 0955 # of Containers: 2

Duplicate Sample Collected? ☑ Yes ☐ No ID: 15322-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.

Signature _____

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41-Zone 1

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____

Client: DC Personnel: Brian Steck

Project Location: Anderson SC Weather: Cloudy 70°F

2. WELL DATA

Date Measured: 11.16.15 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: 35.10 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 6.91 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: 28.19 feet Well Volume: ~~4.30~~ 1.15 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: 11.19.15 Time: 0928

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 3.46 gallons

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

Equipment Model(s)
1. Solinst 408
2. YSI-556
3. Geotech 2020
4. _____

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
0938	0.50	6.57	16.89	0.206	-14.9	0.98	3.32	6.36	
0948	1.0	6.92	17.09	0.209	-49.9	0.86	0.87	6.36	
0958	1.50	7.04	17.11	0.209	-64.7	0.80	0.76	6.36	
1008	1.75	7.12	17.16	0.210	-73.3	0.80	0.71	6.36	
1018	2.25	7.17	17.25	0.209	-81.6	0.77	0.75	6.36	

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: 15323-MW-41-Zone 1 Sample Date: 11.19.15 Sample Time: 1040 # of Containers: 2

Duplicate Sample Collected? ☐ Yes ☑ No ID: _____ # of Containers: _____

Equipment Blank Collected? ☐ Yes ☑ No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

Intake at 32 ft

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

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41-20R1

3. PURGE DATA (continued from page ____)

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
1028	3.25	7.23	17.36	0.209	-88.4	0.73	0.72	6.36	
1038	3.75	7.20	17.19	0.209	-89.7	0.71	0.71	6.36	
1040	Collected sample								

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 11.March.10 - sej)

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41. Zone 2

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____

Client: OC Personnel: Brian Steele

Project Location: Anderson SC Weather: Sunny 70°F

2. WELL DATA

Date Measured: 11.16.15 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: 3.72 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: 125.28 feet Well Volume: 5.13 gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11.19.15 Time: 1104

Equipment Model(s)

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

1. Solinst 408

Materials: Pump/Bailer ☐ Polyethylene ☑ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____ ☐ Dedicated ☐ Prepared Off-Site ☑ Field-Cleaned ☐ Disposable

2. MP-50

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

3. YSI-556

4. Lamotte 2020

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
1114	0.20	7.21	17.51	0.221	-55.0	0.62	9.73	2.80	
1124	0.50	7.34	17.57	0.221	-92.5	0.50	4.58	2.80	
1134	0.75	7.58	18.45	0.220	-126.5	0.43	3.40	2.80	
1144	1.25	7.58	18.50	0.220	-112.7	0.43	1.56	2.80	
1154	1.50	7.57	18.75	0.218	-111.2	0.43	1.39	2.80	

1200 collect sample

Purge data continued on next sheet? ☐

4. SAMPLING DATA

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

Materials: Pump/Bailer ☐ Polyethylene ☑ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____ ☐ Dedicated ☐ Prepared Off-Site ☑ Field-Cleaned ☐ Disposable

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

Depth to Water at Time of Sampling: _____ Field Filtered? ☐ Yes ☑ No

Sample ID: B323-MW-41-Zone 2 Sample Date: 11.19.15 Sample Time: 1200 # of Containers: 2

Duplicate Sample Collected? ☐ Yes ☑ No ID: _____ # of Containers: _____

Equipment Blank Collected? ☐ Yes ☑ No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

Intake at 125 ft

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

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW41-Zone 3

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____

Client: Anderson SC, OC Personnel: Brian Steele

Project Location: OC, Anderson SC Weather: Cloudy 75°F

2. WELL DATA

Date Measured: 11.16.15 Time: Am Temporary Well: ☐Yes ☒No

Casing Diameter: 1 inches Type: ☒PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Screen Diameter: 1 inches Type: ☒PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Total Depth of Well: 300 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 6.88 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: — feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: 293.12 feet Well Volume: 12.01 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: 11.19.15 Time: 1343

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

Equipment Model(s)
1. QED-50
2. Solinst 408
3. YSI-556
4. Lamotte 2020

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
1353	0.20	7.99	19.12	0.356	-76.0	1.61	45.4	10.80	
1403	0.30	8.01	19.04	0.355	-93.5	1.03	66.6	17.43	
1413	0.40	8.01	18.92	0.356	-90.1	0.94	61.9	21.0	
1423	0.50	8.02	18.45	0.357	-96.0	0.88	53.7	26.75	
1433	0.60	8.02	15.98	0.358	-102.6	0.86	47.7	31.90	

Purge data continued on next sheet? ☐

4. SAMPLING DATA

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

Materials: Pump/Bailer ☐ Polyethylene ☒ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____ ☐ Dedicated ☐ Prepared Off-Site ☒ Field-Cleaned ☐ Disposable

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

Depth to Water at Time of Sampling: _____ Field Filtered? ☐ Yes ☒ No

Sample ID: 5323-MW-41-Zone3 Sample Date: 11.19.15 Sample Time: 1541 1545 # of Containers: 2

Duplicate Sample Collected? ☐ Yes ☒ No ID: _____ # of Containers: _____

Equipment Blank Collected? ☒ Yes ☐ No ID: 5323-EB G 1635 # of Containers: 2

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

Intake at 292 ft

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

Signature

FORM GW-2 (Rev 11.March.10 - sej)

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 - Zone 3

3. PURGE DATA (continued from page 1)

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1443	0.70	8.02	18.63	0.357	-88.3	0.75	50.8	37.07	
1453	0.80	8.03	18.27	0.557	-83.9	0.71	46.0	41.30	
1503	0.90	8.03	18.38	0.357	-90.8	0.66	43.4	46.80	
1513	1.00	8.04	18.18	0.359	-84.7	0.62	44.7	52.0	
1523	1.25	8.04	17.91	0.357	-79.5	0.60	43.7	58.20	
1533	1.75	8.04	17.86	0.357	-75.3	0.58	44.8	62.50	
1543	2.00	8.04	17.68	0.356	-69.3	0.59	44.3	67.90	
1545	Purged for 2 hours, 43 NTU color sample				turbidity stable around				

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 11.March.10 - sej)

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42-21

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: _____

Client: OC Personnel: BH

Project Location: Anderson, SC Weather: clear - 54

2. WELL DATA

Date Measured: 11-16-15 Time: _____ Temporary Well: ☐Yes ☑No

Casing Diameter: 1" inches Type: ☑PVC ☐Stainless ☐Galv. Steel ☐Teflon® ☐Other: _____

Screen Diameter: 1" inches Type: ☑PVC ☐Stainless ☐Galv. Steel ☐Teflon® ☐Other: _____

Total Depth of Well: 129.5 feet From: ☐Top of Well Casing (TOC) ☐Top of Protective Casing ☐Other: _____

Depth to Static Water: 37.86 feet From: ☐Top of Well Casing (TOC) ☐Top of Protective Casing ☐Other: _____

Depth to Product: 121.75 feet From: ☐Top of Well Casing (TOC) ☐Top of Protective Casing ☐Other: _____

Length of Water Column: 91.64 feet Well Volume: 3.76 gal Screened Interval (from GS): 114-129

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

3. PURGE DATA

Date Purged: 11-17-15 Time: 0910

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

Equipment Model(s)
1. YSI
2. WLM
3. 408 pump
4. Tubing

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
0910	0 0.5	8.57	17.47	.193	152.1	3.70	3.34	38.91	
0920	~~0.25~~	8.95	17.10	0.210	133.4	3.07	4.20	38.91	
0930	1.0	9.05	17.08	0.224	113.3	3.02	2.85	39.01	
0940	1.5	9.19	17.12	0.251	112.7	3.08	2.92	39.02	
0950	2.0	9.46	17.05	0.390	101.0	3.42	2.48	39.02	

Purge data continued on next sheet? ☐

4. SAMPLING DATA

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

Materials: Pump/Bailer ☐Polyethylene ☑Stainless ☐PVC ☐Teflon® ☐Other: _____ ☐Dedicated ☐Prepared Off-Site ☑Field-Cleaned ☐Disposable

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

Depth to Water at Time of Sampling: 39.02 Field Filtered? ☐Yes ☑No

Sample ID: 15321-MW42-21 Sample Date: 11-17-15 Sample Time: 1100 # of Containers: 2

Duplicate Sample Collected? ☐Yes ☑No ID: ~~15321-EBA~~ # of Containers: _____

Equipment Blank Collected? ☑Yes ☐No ID: 15321-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.

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42-21

3. PURGE DATA (continued from page ____)

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	2.5	9.48	17.01	0.367	90.6	3.53	3.18	39.01	
1010	3.0	9.46	17.03	0.328	84.3	3.57	1.96	39.02	
1020	3.5	9.34	17.04	0.292	80.0	3.58	1.73	39.02	
1030	4.0	9.36	17.01	0.276	77.8	3.60	1.95	39.02	
1040	4.5	9.29	17.05	0.260	76.4	3.61	2.90	39.02	
1050	5.0	9.26	17.12	0.254	75.5	3.62	1.38	39.02	
1100	~~5.5~~ 5.5	9.24	17.12	0.250	75.1	3.62	1.40	39.02	

Purge data continued on next sheet? ☐

FORM GW-2 (Rev 11.March.10 - sej)

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42-22

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: _____

Client: OC Personnel: AH

Project Location: Anderson, SC Weather: clear 54

2. WELL DATA

Date Measured: 11-16-15 Time: _____ Temporary Well: ☐ Yes ☑ No

Casing Diameter: 1 inches Type: ☑ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Screen Diameter: 1 inches Type: ☑ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Total Depth of Well: 223.4 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 41.17 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: 210 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: 182.2 feet Well Volume: 7.47 gal Screened Interval (from GS): 202-222

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

3. PURGE DATA

Date Purged: 11-17-15 Time: 1120

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

Equipment Model(s)
1. YSI
2. WLM
3. Turb M
4. 408 pump

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
1120	0	7.19	17.81	.730	76.3	4.06	5.25	40.82	
1130	0.5	7.07	17.87	.730	43.9	1.95	5.63	40.91	
1140	1.0	7.06	17.92	.731	37.5	1.76	6.06	40.92	
1150	1.25	7.05	18.03	.733	35.5	1.75	6.12	40.92	

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: 40.92 Field Filtered? ☐ Yes ☑ No

Sample ID: 15321-MW-42-22 Sample Date: 11-17-15 Sample Time: 1155 # of Containers: 2

Duplicate Sample Collected? ☑ Yes ☐ No ID: 15321-Dup # of Containers: 2

Equipment Blank Collected? ☐ Yes ☑ No ID: ~~15321-EB-111~~ # 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 _____

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42-23

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: _____

Client: OC Personnel: BH

Project Location: Anderson, SC Weather: clear / 53

2. WELL DATA

Date Measured: 11-16-15 Time: _____ Temporary Well: ☐ Yes ☑ No

Casing Diameter: 1 inches Type: ☑ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Screen Diameter: 1 inches Type: ☑ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Total Depth of Well: 287.0 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 35.23 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: 275 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: 251.77 feet Well Volume: 10.92 gal Screened Interval (from GS): 265-285

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

3. PURGE DATA

Date Purged: 11-17-15 Time: 1330

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

Equipment Model(s)
1. YSI
2. WLM
3. Tubing
4. _____

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
1330	0	6.81	18.52	.240	-1.6	4.43	3.54	33.52	
1340	0.25	7.00	18.31	.234	2.7	2.57	7.59	33.60	
1350	0.50	7.09	18.61	.235	-3.2	1.68	9.40	33.60	
1400	0.75	7.04	17.85	.235	-4.8	1.56	8.18	33.61	
1410	1.00	7.09	17.80	.235	-7.2	1.52	6.57	33.61	

Purge data continued on next sheet? ☐

4. SAMPLING DATA

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

Materials: Pump/Bailer ☐ Polyethylene ☑ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____ ☐ Dedicated ☐ Prepared Off-Site ☑ Field-Cleaned ☐ Disposable

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

Depth to Water at Time of Sampling: 33.61 Field Filtered? ☐ Yes ☑ No

Sample ID: 15321-MW-42-23 Sample Date: 11-17-15 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.

FORM GW-2 (Rev 11.March.10 - sej)

Signature _____

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: Mw-43 - Zone I - Z2

1. PROJECT INFORMATION

Project Number: 140297 Task Number: _____ Area of Concern: _____

Client: GC Personnel: RH

Project Location: Anderson SC Weather: Sunny 43

2. WELL DATA

Date Measured: 11-16-15 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: 114.92 feet — From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 7.46 feet — From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: 102.5 feet — From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: 95.04 feet — Well Volume: 3.89 gal — Screened Interval (from GS): 92.5 - 112.5

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

3. PURGE DATA

Date Purged: 11-16-15 Time: 1250

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 _____ gallons

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

Equipment Model(s)
1. YSI
2. Turbidity Met
3. WLM
4. _____

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
1250	0	5.71	19.30	.172	119.5	8.22	1.2	7.67	6.67
1300	0.5	6.62	16.76	.163	107.0	3.63	18.8	6.67	6.67
1310	1.0	6.88	16.76	.163	102.9	2.56	12.4	6.69	
1320	1.5	7.00	16.94	.162	98.9	3.90	11.93	6.67	
1330	2.0	7.05	16.94	.164	96.0	3.45	8.68	6.67	

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: 6.67 Field Filtered? ☐ Yes ☑ No

Sample ID: 15320-Mw-43-Z1 Sample Date: 11-16-15 Sample Time: 1355 # 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

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43-Zone 1

3. PURGE DATA (continued from page ____)

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	2.5	7.07	16.74	.169	95.2	3.28	6.17	6.67	
1350	3.0	7.06	17.01	.165	95.0	3.46	5.55	6.67	

Purge data continued on next sheet? ☐

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43-22

1. PROJECT INFORMATION

Project Number: 142287 Task Number: _____ Area of Concern: _____

Client: OC Personnel: BH

Project Location: Anderson, SC Weather: Sunny 43

2. WELL DATA

Date Measured: 11-16-15 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: 182.7 feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 9.72 feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: 165 feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: 178.98 feet Well Volume: 7.34 gal Screened Interval (from GS): 150-180

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

3. PURGE DATA

Date Purged: 11-16-15 Time: 1440

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

Equipment Model(s)

1. YSI
2. WLM
3. 408 pump
4. Tubmaster

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
1450	0	6.38	17.42	0.248	17.1	4.59	10.12	4.79	
1500	0.5	6.86	17.28	0.245	30.0	3.29	18.2	5.10	
1510	1.0	6.96	17.15	0.247	21.2	3.19	10.18	5.10	
1520	1.5	7.01	17.01	0.241	20.3	3.02	5.05	5.61	
1530	2.0	7.04	16.92	0.241	23.1	1.78	3.58	5.62	

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: 5.62 Field Filtered? ☐ Yes ☑ No

Sample ID: 1520-MW-43-22 Sample Date: 11-16-15 Sample Time: 1545 # 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

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43, 22

3. PURGE DATA (continued from page ____)

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	2.5	7.06	16.89	0.245	29.8	1.79	3.66	5.62	

Purge data continued on next sheet? ☐

Signature

GROUNDWATER SAMPLING FIELD DATA SHEET

Brown AND Caldwell

WELL ID: MW-43-23

272.5

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: _____

Client: OC Personnel: RKT

Project Location: Anderson, SC Weather: clear 43

2. WELL DATA

Date Measured: 11-16-15 Time: _____ Temporary Well: ☐Yes ☐No

Casing Diameter: 1" inches Type: ☑PVC ☐Stainless ☐Galv. Steel ☐Teflon® ☐Other: _____

Screen Diameter: 1" inches Type: ☑PVC ☐Stainless ☐Galv. Steel ☐Teflon® ☐Other: _____

Total Depth of Well: 285.56 feet From: ☐Top of Well Casing (TOC) ☐Top of Protective Casing ☐Other: _____

Depth to Static Water: 1.76 feet From: ☐Top of Well Casing (TOC) ☐Top of Protective Casing ☐Other: _____

Depth to Product: 272.5 feet From: ☐Top of Well Casing (TOC) ☐Top of Protective Casing ☐Other: _____

Length of Water Column: 282.80 feet Well Volume: 11.63 gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11-16-15 Time: 1650

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

Equipment Model(s)

1. YSI
2. WLM
3. Teflon 6M
4. 408 sub

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
1650	0	6.18	17.37	0.366	34.0	11.53	3.05	6.94	
1700	0.5	6.80	16.66	0.359	18.5	10.60	8.48	12.15	
1710	1.0	6.98	16.78	0.361	26.2	9.96	8.28	14.83	
1720	1.25	7.03	17.14	0.361	27.2	9.63	11.92	17.65	
1730	1.5	7.02	16.67	0.362	26.5	10.22	11.20	20.40	

Purge data continued on next sheet? ☐

4. SAMPLING DATA

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

Materials: Pump/Bailer ☐Polyethylene ☑Stainless ☐PVC ☐Teflon® ☐Other: _____ ☐Dedicated ☐Prepared Off-Site ☑Field-Cleaned ☐Disposable

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

Depth to Water at Time of Sampling: 20.50 Field Filtered? ☐Yes ☑No

Sample ID: 15920-MW-4323 Sample Date: 11-16-15 Sample Time: 1745 # 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

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: mw-43-23

3. PURGE DATA (continued from page ____)

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
1740	1.60	7.07	16.54	.361	278	10.06	12.0	20.90	
1750									

Purge data continued on next sheet? ☐

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-44

1. PROJECT INFORMATION

Project Number: 149297 Task Number: _____ Area of Concern: Woods offsite

Client: Owens Corning Personnel: JPL

Project Location: Anderson, SC Weather: overcast 60s

2. WELL DATA

Date Measured: 11/19/15 Time: 0910 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: 10.7 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: 289.3 feet Well Volume: 48.31 gal Screened Interval (from GS): —

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

3. PURGE DATA

Date Purged: 11/19/15 Time: 0926

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 LF gallons

Was well purged dry? ☐ Yes ☒ No Pumping Rate: .25 gal/min

Equipment Model(s): 1. YSI 2. LaMotte 3. Geosub 4. _____

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
0931	1.0	3.61	16.43	0.192	381.6	1.48	0.95	10.4	
0935	2.0	0.61	16.42	0.192	561.5	1.15	0.81	10.5	
0939	3.0	4.93	16.42	0.192	849.4	.93	0.81	10.5	Fixed pH
0943	4.0	8.29	16.55	0.197	104.6	0.78	0.86	10.5	
0947	5.0	8.45	16.50	0.193	102.4	0.58	0.70	10.5	

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: 10.5 Field Filtered? ☐ Yes ☒ No

Sample ID: MW-44 Sample Date: 11/19/15 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

pH had to be recalibrated at 0940

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

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-44

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
0952	6.0	8.55	16.56	0.193	98.1	0.50	0.64	10.7	
0956	7.0	8.57	16.54	0.192	96.0	0.43	0.96	10.5	Sample

11/9/15

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 11.March.10 - sej)

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: Alloy

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____

Client: OWENS CORNING Personnel: GAGAT

Project Location: ANDERSON, SC Weather: SUNNY, 62°F

2. WELL DATA

Date Measured: 11/17/15 Time: 1320 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: 14.56 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: 46.44 feet Well Volume: 7.57 gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11/17/15 Time: 1325

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 STABILITY gallons

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

Equipment Model(s)

1. YSI
2. LAMOTTE TURBIDIMETER
3. HERON DIPPER
4. GROUND

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
1330	0.4	5.69	19.57	0.084	212.7	4.55	36.1	16.59	
1335	1.5	5.76	19.58	0.083	203.1	4.95	17.7	16.59	
1340	2.5	5.76	19.60	0.083	199.6	4.82	9.24	16.72	
1345	3.25	5.77	19.59	0.083	197.3	4.75	8.68	16.74	
1350	4.0	5.76	19.58	0.083	195.5	4.72	6.53	16.76	

SAMPLED @ 1350

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: 16.76 Field Filtered? ☐ Yes ☒ No

Sample ID: 15821-Alloy Sample Date: 11-17-15 Sample Time: 1350 # 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

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: TW-40

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: _____

Client: OC Personnel: RH

Project Location: Anderson, SC Weather: 75/Sunny

2. WELL DATA

Date Measured: 11-16-15 Time: day 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: 94ft feet From: ☑Top of Well Casing (TOC) ☐Top of Protective Casing ☐Other: _____

Depth to Static Water: 17.15 feet From: ☑Top of Well Casing (TOC) ☐Top of Protective Casing ☐Other: _____

Depth to Product: 75 feet From: ☑Top of Well Casing (TOC) ☐Top of Protective Casing ☐Other: _____

Length of Water Column: 57.85 feet Well Volume: 9.66 gal Screened Interval (from GS): 55-95

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

3. PURGE DATA

Date Purged: 11-17-15 Time: 1540 1540

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

Equipment Model(s)
1. YSI
2. WLM
3. TurbMat
4. 80# Solin

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	10.40	17.46	4.321	-2.2	11.68	7.61	17.30	
1550	0.5	11.03	17.13	4.345	-13.3	11.44	2.09	19.35	
1600	1.0	11.39	16.93	4.347	-28.2	10.50	2.96	19.40	
1610	1.5	11.52	17.17	4.345	-35.0	10.30	3.01	20.10	
1620	2.0	11.62	17.20	4.346	-42.0	10.26	3.07	20.[illegible]	

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: 20.11 Field Filtered? ☐ Yes ☑ No

Sample ID: 15923-TW-40 Sample Date: 11-17-15 Sample Time: 1695 # 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

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: TW-40

3. PURGE DATA (continued from page ____)

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
1630	2.5	11.62	17.03	4,348	-42.1	10.34	2.78	20.11	

Purge data continued on next sheet? ☐

FORM GW-2 (Rev 11.March.10 - sej)

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: TW-41

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: _____

Client: OC Personnel: RH

Project Location: Anderson SC Weather: Sunny / 75

2. WELL DATA

Date Measured: 11-18-15 Time: day Temporary Well: ☐Yes ☑No

Casing Diameter: 2 4 inches — Type: ☑PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Screen Diameter: 2 " inches — Type: ☑PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Total Depth of Well: 56.00 feet — From: ☑Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 15.99 feet — From: ☑Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: 54.5 feet — From: ☑Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: 38.5 feet — Well Volume: 6.43 gal — Screened Interval (from GS): 53.5 to 55.5

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

3. PURGE DATA

Date Purged: 11-19-15 Time: 1440

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

Equipment Model(s)

1. YSI
2. WLM
3. Turb MA
4. 408 solins

Calibrated? ☑ Yes ☐ No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1440	0	7.04	17.73	.469	46.6	6.55	3.04	16.65	
1450	1.0	~~7.46~~	17.56	.464	50.5	5.73	1.83	17.80	
1500	1.5	7.40 7.43	17.63	.464	51.6	5.71	0.95	17.90	
1510	2.0	7.43	17.48	.464	52.3	5.71	0.92	18.1	

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: _____

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: 18.10 Field Filtered? ☐ Yes ☑ No

Sample ID: 15729-TW-41 Sample Date: 11-19-15 Sample Time: 1515 # of Containers: 2

Duplicate Sample Collected? ☐ Yes ☐ No ID: _____ # of Containers: _____

Equipment Blank Collected? ☐ Yes ☐ No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

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

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: TW-42

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____

Client: OC Personnel: Brian Steck

Project Location: Anderson SC Weather: Sunny 65 °F

2. WELL DATA

Date Measured: 11.20.15 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: 27.39 feet From: ☑Top of Well Casing (TOC) ☐Top of Protective Casing ☐Other: _____

Depth to Static Water: 13.38 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: 11.20.15 Time: 0854

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

Equipment Model(s)
1. Solinst 408
2. MP-50
3. YSI-556
4. Lamotte 2020

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
0904	0.20	4.95	16.57	0.044	6.7	6.14	5.64	13.01	
0914	0.50	4.89	16.66	0.043	8.9	6.15	2.11	13.01	
0924	0.75	4.86	16.71	0.043	11.6	6.15	1.81	13.01	
0934	1.00	4.87	16.82	0.044	7.0	6.15	1.24	13.01	
0934	1.25	4.85	16.92	0.043	7.0	6.11	0.76	13.01	

0935 collect sample

Purge data continued on next sheet? ☐

4. SAMPLING DATA

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

Materials: Pump/Bailer ☐ Polyethylene ☑ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____ ☐ Dedicated ☐ Prepared Off-Site ☑ Field-Cleaned ☐ Disposable

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

Depth to Water at Time of Sampling: _____ Field Filtered? ☐ Yes ☑ No

Sample ID: 15324-TW-42 Sample Date: 11.20.15 Sample Time: 0935 # of Containers: 2

Duplicate Sample Collected? ☐ Yes ☑ No ID: _____ # of Containers: _____

Equipment Blank Collected? ☑ Yes ☐ No ID: 15324-FB 01025 # of Containers: 2

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

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

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: TW-43

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: _____

Client: OC Personnel: RH

Project Location: Anderson, SC Weather: 46 / clear

2. WELL DATA

Date Measured: 11-16-15 Time: _____ 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: 18.6 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 13.22 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: 16.00 feet From: ☑ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: 5.38 feet Well Volume: .22 gal Screened Interval (from GS): 8.6-18.6

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: 11-20-15 Time: _____ Equipment Model(s)

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

1. _____

Materials: Pump/Bailer ☐ Polyethylene ☑ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____ ☐ Dedicated ☐ Prepared Off-Site ☑ Field-Cleaned ☐ Disposable

2. _____

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

3. _____

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
0900	0	4.79	16.61	.076	124.6	7.37	55.7	16.7	
0910	0.2	4.63	16.75	.075	106.0	6.74	56.3	17.0	
0920	0.3	4.64	17.42	.073	132.1	5.40	22.8	18.0	
0930	0.4	4.74	17.03	.074	141.2	5.02	13.06	18.0	
0940	0.5	4.76	17.15	.073	158.0	5.04	7.18	18.0	

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- Field Filtered? ☐ Yes ☑ No

Sample ID: 15324-TW-43 Sample Date: 11-20-15 Sample Time: 1005 # 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.

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: TW-43

3. PURGE DATA (continued from page ____)

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	0.6	4.77	17.22	.073	167.1	5.11	4.55	18.0	
1000	0.7	4.80	17.43	.073	175.1	5.03	3.82	18.0	

Purge data continued on next sheet? ☐

FORM GW-2 (Rev 11.March.10 - sej)

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: TW-44

1. PROJECT INFORMATION

Project Number: 147297 Task Number: _____ Area of Concern: Woods

Client: Owens Corning Personnel: JPL

Project Location: Anderson, SC Weather: Rainy/overcast 50s

2. WELL DATA

Date Measured: 11/18/15 Time: 1058 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: 76.68 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: 9.54 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: — feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: 67.14 feet Well Volume: 11.2 gal Screened Interval (from GS): —

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

3. PURGE DATA

Date Purged: 11/18/15 Time: 1112

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 LF gallons

Was well purged dry? ☐ Yes ☒ No Pumping Rate: .25 gal/min

Calibrated? ☒ Yes ☐ No

Equipment Model(s)
1. YSI
2. LaMotte
3. GeoSub
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
1116	1.0	6.27	17.83	0.073	40.0	6.73	0.65	14.2	
1120	2.0	6.33	17.73	0.071	33.2	5.51	0.61	14.3	Slowed pump
1125	3.0	6.30	17.60	0.071	32.7	3.83	0.54	14.4	
1130	4.0	6.22	17.70	0.071	34.4	2.75	0.57	14.2	
1135	5.0	6.17	17.71	0.071	35.5	2.60	0.55	14.2	Sample

Purge data continued on next sheet? ☐

4. SAMPLING DATA

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

Materials: Pump/Bailer ☐ Polyethylene ☐ Stainless ☐ PVC ☒ Teflon® ☐ Other: _____ ☒ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☐ Disposable

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

Depth to Water at Time of Sampling: 14.2 Field Filtered? ☐ Yes ☒ No

Sample ID: TW-44 Sample Date: 11/18/15 Sample Time: 1137 # of Containers: 2

Duplicate Sample Collected? ☐ Yes ☒ No ID: — # of Containers: —

Equipment Blank Collected? ☒ Yes ☐ No ID: 15322-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.

Signature

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: [illegible] TW-46

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____

Client: OWENS CORNING Personnel: GAGAT

Project Location: ANDERSON, SC Weather: RAINY

2. WELL DATA

Date Measured: 11.18.15 Time: 1515 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: 23.19 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: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11.18.15 Time: 1520

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

Equipment Model(s)
1. YSI
2. LAMOTTE
3. GROSUB
4. HERON DIPPER

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
1525	0.6	10.58	19.50	0.933	113.0	1.26	13.8	27.52	
1530	1.2	10.66	19.69	0.938	102.3	1.07	15.9	28.76	
1535	1.5	10.68	19.90	0.934	97.5	0.99	15.0	30.5	
1540	1.7	10.73	19.54	0.920	91.4	0.89	19.4	30.5	
1545	2.0	10.72	20.03	0.900	87.9	0.95	20.7	31.9	

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: 41.2 Field Filtered? ☐ Yes ☒ No

Sample ID: 15322-TW-46 Sample Date: 11.18.15 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

Brown AND Caldwell

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: TW-46

3. PURGE DATA (continued from page ____)

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	2.25	10.74	19.63	0.872	83.8	0.73	21.8	32.91	
1555	2.75	10.69	20.67	0.804	79.3	0.70	20.1	35.08	
1600	3.00	10.71	19.61	0.757	75.9	0.69	16.0	35.5	
1605	3.25	10.62	19.97	0.711	77.9	0.88	20.8	36.4	
1610	4.0	10.69	20.71	0.790	75.2	0.58	31.0	40.35	
1615	4.5	10.51	20.13	0.585	71.7	0.87	31.4	41.21	
1620	4.6	10.48	19.50	0.582	73.7	0.91	11.6	40.2	
1	GENERATOR			STOPPED					
1630	5.0	10.32	20.13	0.628	80.1	0.53	9.76	40.7	
1635	5.5	10.38	20.01	0.632	77.7	0.57	9.72	41.1	
1640	5.9	10.33	20.57	0.635	75.8	0.56	9.65	41.2	
				SAMPLED @ 1645					

Purge data continued on next sheet? ☐

Signature

FORM GW-2 (Rev 11.March.10 - sej)

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 605 Clinkscales Road

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: Resident

Client: Owens Corning Personnel: JPL TGG

Project Location: Anderson, South Carolina Weather: Sunny 70s

2. WELL DATA

Date Measured: 11/24/15 Time: 1000 Temporary Well: ☐Yes ☐No

Casing Diameter:_____inches Type: ☐ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other:_____

Screen Diameter:_____inches Type: ☐ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other:_____

Total Depth of Well:_____feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:_____

Depth to Static Water:_____feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:_____

Depth to Product:_____feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:_____

Length of Water Column:_____feet Well Volume:_____ gal Screened Interval (from GS):_____

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

3. PURGE DATA

Date Purged: 11/24/15 Time: 1600

Equipment Model(s)

1. Horiba
2. _____
3. _____
4. _____

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 ☐

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
Well is off (No body home)									

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.

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 412 Kaye Drive

1. PROJECT INFORMATION

Project Number: 142376____ Task Number: 200.xxx Area of Concern: Resident

Client: Owens Corning Personnel: JPL + GG

Project Location: Anderson, South Carolina Weather: Sunny + 70s

2. WELL DATA

Date Measured: 11/24/15 Time: _____ Temporary Well: ☐Yes ☒No

Casing Diameter:_____inches Type: ☐ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other:_____

Screen Diameter:_____inches Type: ☐ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other:_____

Total Depth of Well:_____feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:_____

Depth to Static Water:_____feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:_____

Depth to Product:_____feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:_____

Length of Water Column:_____feet Well Volume:_____ gal Screened Interval (from GS):_____

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

3. PURGE DATA

Date Purged: 11/24/15 Time: 1610

Equipment Model(s)

1. Horiba
2. _____
3. _____
4. _____

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 ☐

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
1610	10.0	6.22	15.47	.049	634	12.23	9.0		

Purge data continued on next sheet? ☐

4. SAMPLING DATA

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

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

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

Depth to Water at Time of Sampling: — Field Filtered? ☐ Yes ☒ No

Sample ID: 412 Kaye Drive Sample Date: 11/24/15 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

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

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 408 Clinkscales Road

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: Resident

Client: Owens Corning Personnel: GG & JL

Project Location: Anderson, South Carolina Weather: Sunny, 65°F

2. WELL DATA

Date Measured: _____ Time: _____ Temporary Well: ☐Yes ☐No

Casing Diameter: _____ inches Type: ☐ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Screen Diameter: _____ inches Type: ☐ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Total Depth of Well: _____ feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: _____ feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: _____ feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11/24/15 Time: 1620

Equipment Model(s)

1. HORIBA U53
2. _____
3. _____
4. _____

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 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
1625	10.0	6.34	15.24	.043	180	41.46	4.37		

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: 408 Clinkscales Rd Sample Date: 11/24/15 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.

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 200 Friendship Lane

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: Resident

Client: Owens Corning Personnel: JPL + GG

Project Location: Anderson, South Carolina Weather: Sunny 70s

2. WELL DATA

Date Measured: _____ Time: _____ Temporary Well: ☐Yes ☐No

Casing Diameter: _____ inches — Type: ☐ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Screen Diameter: _____ inches — Type: ☐ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Total Depth of Well: _____ feet — From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: _____ feet — From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: _____ feet — From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: _____ feet — Well Volume: _____ gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11/24/15 Time: 1635

Equipment Model(s)

1. HORIBA U53
2. _____
3. _____
4. _____

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 ☐

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
1635	10.0	5.71	15.51	0.100	253	23.30	15.5	—	

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: 200 Friendship Lane Sample Date: 11/24/15 Sample Time: 1635 # 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

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 721 Clinkscales Road

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: Resident

Client: Owens Corning Personnel: JPL+GG

Project Location: Anderson, South Carolina Weather: Sunny +70s

2. WELL DATA

Date Measured: _____ Time: _____ Temporary Well: ☐Yes ☒No

Casing Diameter: _____ inches — Type: ☐ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Screen Diameter: _____ inches — Type: ☐ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Total Depth of Well: _____ feet — From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: _____ feet — From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: _____ feet — From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: _____ feet — Well Volume: _____ gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11/24/15 Time: 1640

Equipment Model(s)

1. HORIBA U53
2. _____
3. _____
4. _____

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 ☐

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
1640	10.0	6.03	16.57	0.049	227	24.49	2.38		

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: _____ Field Filtered? ☐ Yes ☒ No

Sample ID: 721 Clinkscales Rd Sample Date: 11/24/15 Sample Time: 1640 # of Containers: 2

Duplicate Sample Collected? ☐ Yes ☒ No ID: — # of Containers: _____

Equipment Blank Collected? ☐ Yes ☒ No ID: — # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

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

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 1303 Clinkscales Road

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: Resident

Client: Owens Corning Personnel: JPL + GG

Project Location: Anderson, South Carolina Weather: Sunny 70s

2. WELL DATA

Date Measured: 11/24 Time: 1651 Temporary Well: ☐Yes ☒No

Casing Diameter:_____inches Type: ☐ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other:_____

Screen Diameter:_____inches Type: ☐ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other:_____

Total Depth of Well:_____feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:_____

Depth to Static Water:_____feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:_____

Depth to Product:_____feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:_____

Length of Water Column:_____feet Well Volume:_____ gal Screened Interval (from GS):_____

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

3. PURGE DATA

Date Purged: _____ Time: _____

Equipment Model(s)

1. _____
2. _____
3. _____
4. _____

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 ☐

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments

No power in house so no well sampling

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.

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 119 Cloverhill Drive

1. PROJECT INFORMATION

Project Number: 142376____ Task Number: 200.xxx Area of Concern: Resident

Client: Owens Corning Personnel: JPL + GG

Project Location: Anderson, South Carolina Weather: Sunny 70s

2. WELL DATA

Date Measured: 11/24/15 Time: _____ Temporary Well: ☒ Yes ☐ No

Casing Diameter:_____inches Type: ☐ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other:_____

Screen Diameter:_____inches Type: ☐ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other:_____

Total Depth of Well:_____feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:_____

Depth to Static Water:_____feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:_____

Depth to Product:_____feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other:_____

Length of Water Column:_____feet Well Volume:_____ gal Screened Interval (from GS):_____

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

3. PURGE DATA

Date Purged: 11/24/15 Time: 1700

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

Equipment Model(s)
1. Horiba
2. _____
3. _____
4. _____

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
1700	10.0	6.05	15.30	0.091	109	13.73	2.93		

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: 119 Cloverhill Drive Sample Date: 11/24/15 Sample Time: 1700 # 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

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 311 Kaye Drive

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: Resident

Client: Owens Corning Personnel: JPL TGG

Project Location: Anderson, South Carolina Weather: Sunny 70s

2. WELL DATA

Date Measured: _____ Time: _____ Temporary Well: ❑Yes ❑No

Casing Diameter: _____ inches — Type: ❑ PVC ❑ Stainless ❑ Galv. Steel ❑ Teflon® ❑ Other: _____

Screen Diameter: _____ inches — Type: ❑ PVC ❑ Stainless ❑ Galv. Steel ❑ Teflon® ❑ Other: _____

Total Depth of Well: _____ feet — From: ❑ Top of Well Casing (TOC) ❑ Top of Protective Casing ❑ Other: _____

Depth to Static Water: _____ feet — From: ❑ Top of Well Casing (TOC) ❑ Top of Protective Casing ❑ Other: _____

Depth to Product: _____ feet — From: ❑ Top of Well Casing (TOC) ❑ Top of Protective Casing ❑ Other: _____

Length of Water Column: _____ feet — Well Volume: _____ gal — Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11/24/15 Time: 1710

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: _____ ❑ Dedicated ❑ Prepared Off-Site ❑ Field-Cleaned ❑ Disposable

2. _____

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

3. _____

4. _____

Volume to Purge (minimum): _____ well volumes or _____ gallons

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

Calibrated? ❑ Yes ❑

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments

NO power to pump, House running off generator

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.

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 117 Faye Drive

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: Resident

Client: Owens Corning Personnel: JPL + GG

Project Location: Anderson, South Carolina Weather: Sunny + 70s

2. WELL DATA

Date Measured: _____ Time: [illegible] Temporary Well: ☐Yes ☐No

Casing Diameter: _____ inches Type: ☐ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Screen Diameter: _____ inches Type: ☐ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Total Depth of Well: _____ feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: _____ feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: _____ feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11/24/15 Time: 1717

Equipment Model(s)

1. Horiba
2. _____
3. _____
4. _____

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 ☐

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
1720	10	6.03	14.14	0.211	364	9.07	13.77	—	

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: 117 Faye Drive Sample Date: 11/24/15 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.

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 303 Kaye Drive

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: ~~Sunny~~ 70s Resident

Client: Owens Corning Personnel: JPL + GH

Project Location: Anderson, South Carolina Weather: Sunny 70s

2. WELL DATA

Date Measured: _____ Time: _____ Temporary Well: ☐Yes ☐No

Casing Diameter: _____ inches Type: ☐ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Screen Diameter: _____ inches Type: ☐ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Total Depth of Well: _____ feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: _____ feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: _____ feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: _____ Time: ~~0900~~ 1727

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 gallons

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

Equipment Model(s)
1. Horiba
2. _____
3. _____
4. _____

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
1729	10	6.19	13.31	0.186	364	12.31	2.95	–	

Purge data continued on next sheet? ☐

4. SAMPLING DATA

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

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

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

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

Sample ID: 303 Kaye dr. Sample Date: 11/2/15 Sample Time: 1729 # 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

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 200 Kaye Drive

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: Yard

Client: Owens Corning Personnel: JPL + GG

Project Location: Anderson, South Carolina Weather: dusk 60s

2. WELL DATA

Date Measured: _____ Time: _____ Temporary Well: ☐Yes ☐No

Casing Diameter: _____ inches — Type: ☐ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Screen Diameter: _____ inches — Type: ☐ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Total Depth of Well: _____ feet — From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: _____ feet — From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: _____ feet — From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: _____ feet — Well Volume: _____ gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11/24/15 Time: 1730

Equipment Model(s)

1. Horiba
2. _____
3. _____
4. _____

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 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
1738	10	5.86	15.55	0.069	367	7.29	0.0	—	

Purge data continued on next sheet? ☐

4. SAMPLING DATA

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

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

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

Depth to Water at Time of Sampling: — Field Filtered? ☐ Yes ☒ No

Sample ID: 200 Kaye Dr. Sample Date: 11/24/15 Sample Time: 1738 # 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.

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 628 Airline Road

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: Backyard

Client: Owens Corning Personnel: JPL + GLG

Project Location: Anderson, South Carolina Weather: dusk 60s

2. WELL DATA

Date Measured: _____ Time: _____ Temporary Well: ☐ Yes ☒ No

Casing Diameter: _____ inches — Type: ☐ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Screen Diameter: _____ inches — Type: ☐ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____

Total Depth of Well: _____ feet — From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Static Water: _____ feet — From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Depth to Product: _____ feet — From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____

Length of Water Column: _____ feet — Well Volume: _____ gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11/24/15 Time: 1745

Equipment Model(s)

1. Horiba
2. _____
3. _____
4. _____

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 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
1750	10	5.93	15.19	0.073	348	6.25	3.26	—	

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: 628Airline Rd Sample Date: 11/24/15 Sample Time: 1750 # of Containers: 2

Duplicate Sample Collected? ☐ Yes ☒ No ID: _____ # of Containers: _____

Equipment Blank Collected? ☐ Yes ☒ No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

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

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 115 Elrod Road

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: Resident

Client: Owens Corning Personnel: JPL + GG

Project Location: Anderson, South Carolina Weather: Sunny + 70s

2. WELL DATA

Date Measured: _____ Time: _____ Temporary Well: ❑Yes ❑No

Casing Diameter: _____ inches Type: ❑ PVC ❑ Stainless ❑ Galv. Steel ❑ Teflon® ❑ Other: _____

Screen Diameter: _____ inches Type: ❑ PVC ❑ Stainless ❑ Galv. Steel ❑ Teflon® ❑ Other: _____

Total Depth of Well: _____ feet From: ❑ Top of Well Casing (TOC) ❑ Top of Protective Casing ❑ Other: _____

Depth to Static Water: _____ feet From: ❑ Top of Well Casing (TOC) ❑ Top of Protective Casing ❑ Other: _____

Depth to Product: _____ feet From: ❑ Top of Well Casing (TOC) ❑ Top of Protective Casing ❑ Other: _____

Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11/24/15 Time: 1755 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: _____ ❑ Dedicated ❑ Prepared Off-Site ❑ Field-Cleaned ❑ Disposable

2. _____

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

3. _____

4. _____

Volume to Purge (minimum): _____ well volumes or _____ gallons

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

Time	Cum. Gallons Removed (gal)	pH ±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
Not able to access well									

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.

Signature

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 335 Elrod Road

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: Residential

Client: Owens Corning Personnel: JPL HGG

Project Location: Anderson, South Carolina Weather: Sunny + 70s

2. WELL DATA

Date Measured: 11/24/16 Time: _____ Temporary Well: ❑Yes ❑No

Casing Diameter: _____ inches Type: ❑ PVC ❑ Stainless ❑ Galv. Steel ❑ Teflon® ❑ Other: _____

Screen Diameter: _____ inches Type: ❑ PVC ❑ Stainless ❑ Galv. Steel ❑ Teflon® ❑ Other: _____

Total Depth of Well: _____ feet From: ❑ Top of Well Casing (TOC) ❑ Top of Protective Casing ❑ Other: _____

Depth to Static Water: _____ feet From: ❑ Top of Well Casing (TOC) ❑ Top of Protective Casing ❑ Other: _____

Depth to Product: _____ feet From: ❑ Top of Well Casing (TOC) ❑ Top of Protective Casing ❑ Other: _____

Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 11/24/15 Time: 1757 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: _____ ❑ Dedicated ❑ Prepared Off-Site ❑ Field-Cleaned ❑ Disposable

2. _____

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

3. _____

4. _____

Volume to Purge (minimum): _____ well volumes or _____ gallons

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

Time	Cum. Gallons Removed (gal)	pH ±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
Well not working									

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.

Signature

Appendix C: Laboratory Analytical Reports

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

August 20, 2015

Tamara Berryman
BROWN AND CALDWELL
990 Hammond Drive
Atlanta GA 30328

TEL: (770) 673-3678
FAX: (770) 396-9495

RE: Owens Corning

Dear Tamara Berryman: Order No: 1508A92

Analytical Environmental Services, Inc. received 29 samples on 8/13/2015 2:30:00 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 07/01/15-06/30/16.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, 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.

Ioana Pacurar

Ioana Pacurar
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3080 Presidential Drive, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1508A92

Date: 8/13/15 Page 1 of 2

COMPANY:	ADDRESS:
Brown + Caldwell	990 Hammond Dr Ste. 400 Atlanta, GA 30328
PHONE: 770-673-3678	FAX:
SAMPLED BY: E. Greenwood, K. Winkelstone	SIGNATURE:

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOCs	PRESERVATION (See codes) H+I	REMARKS	No # of Containers
1	15222-MW-42-Zone3	8/10/15	1220	X		GW	X	X		2
2	15222-MW-42-Zone 2	8/10/15	1555	X		GW	X	X		
3	15223-MW-39-Zone 3	8/11/15	1000	X		GW	X	X		
4	15223-MW-39-Zone 2	8/11/15	1100	X		GW	X	X		
5	15223-MW-39-Zone 1	8/11/15	1220	X		GW	X	X		
6	15223-MW-38-Zone 1	8/11/15	1510	X		GW	X	X		
7	15223-MW-38-Zone 2	8/11/15	1615	X		GW	X	X		
8	15223-MW-37-Zone3	8/11/15	1715	X		GW	X	X		
9	EB-15223	8/11/15	1720	X		GW	X	X	vials labeled "1715"	
10	15223-MW-37-Zone2	8/11/15	1810	X		GW	X	X		
11	15223-MW-37-Zone1	8/11/15	1845	X		GW	X	X		
12	15224-MW-44	8/12/15	1140	X		GW	X	X		
13	15224-MW-35	8/12/15	1315	X		GW	X	X		
14	15224-MW-41-Zone 1	8/12/15	1445	X		GW	X	X		

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:	8/13/15 1820	Tamara Berryman	8/13/15 1830
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT / / VIA:
IN (CLIENT) / VIA:
FedEx UPS MAIL COURIER
GREYHOUND OTHER_____

PROJECT INFORMATION
PROJECT NAME: Owens Corning
PROJECT #: 147297
SITE ADDRESS: Anderson, SC
SEND REPORT TO: Tamara Berryman
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #:_____ PO#:_____

RECEIPT
Total # of Containers: 28

Turnaround Time Request
- (X) 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

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

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1508A92

Date: 8/13/15 Page 2 of 2

COMPANY: Brown + Caldwell

ADDRESS: 990 Hammond Dr. ste 1100 Atlanta, GA 30328

PHONE: 770-673-3678

FAX:

SAMPLED BY: E. Greenwood / K. Whatstone

SIGNATURE:

ANALYSIS REQUESTED

VOCs

PRESERVATION (See codes)

H+I

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	REMARKS	No # of Containers
1	15224- MW-41- Zone 2	8/12/15	1520	X		GW		2
2	15224- MW-41- Zone 3	8/12/15	1600	X		GW		
3	15224- DUP	8/12/15	1200	X		GW		
4	15225- MW-42- Zone 2	8/13/15	0945	X		GW		
5	15223- MW-15	8/11/15	1245	X		GW		
6	15223- MW-29R- Zone 3	8/11/15	1510	X		GW		
7	15223- MW-29R- Zone 4	8/11/15	1550	X		GW		
8	15223- MW-36- Zone 2	8/11/15	1730	X		GW		
9	15223- MW-36- Zone 3	8/11/15	1900	X		GW		
10	15224- MW-43- Zone 2	8/12/15	1525	X		GW		
11	15224- MW-43- Zone 2	8/12/15	1605	X		GW		
12	15224- MW-43- Zone 3	8/12/15	1645	X		GW		
13	15225- MW-22	8/13/15	0945	X		GW		
14	TRIP BLANK					W		

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:	8/13/15 1430	1: Tamara Berryman	8/18/15 1430
2:		2:	
3:		3:	

PROJECT INFORMATION

PROJECT NAME: Owens Corning

PROJECT #: 147297

SITE ADDRESS: Anderson, SC

SEND REPORT TO: Tamara Berryman

INVOICE TO: (IF DIFFERENT FROM ABOVE)

QUOTE #: PO#:

RECEIPT

Total # of Containers: 28

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

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD

OUT / / VIA:

IN / / VIA:

(CLIENT) FedEx UPS MAIL COURIER

GREYHOUND 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: 1508A92

Case Narrative

Sample Receiving Nonconformance:

Samples 15223-DUP and 15224-EB were received, but not listed on the Chain of Custody. Per Tamara Berryman over phone on 8/14/15 proceed with Volatile Organic Compounds by GC/MS analysis for the extra samples received.

Furthermore, a TRIP BLANK was listed on the Chain of Custody, but was not received.

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15222-MW-42-ZONE 3
Project Name:	Owens Corning	**Collection Date:**	8/10/2015 12:20:00 PM
Lab ID:	1508A92-001	**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	211539	1	08/14/2015 13:07	NP
1,1-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 13:07	NP
Methylene chloride	BRL	5.0		ug/L	211539	1	08/14/2015 13:07	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 13:07	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 13:07	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 13:07	NP
Chloroform	BRL	5.0		ug/L	211539	1	08/14/2015 13:07	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 13:07	NP
Carbon tetrachloride	BRL	5.0		ug/L	211539	1	08/14/2015 13:07	NP
Benzene	BRL	5.0		ug/L	211539	1	08/14/2015 13:07	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 13:07	NP
Trichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 13:07	NP
Toluene	BRL	5.0		ug/L	211539	1	08/14/2015 13:07	NP
Tetrachloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 13:07	NP
Ethylbenzene	BRL	5.0		ug/L	211539	1	08/14/2015 13:07	NP
Xylenes, Total	BRL	5.0		ug/L	211539	1	08/14/2015 13:07	NP
Surr: 4-Bromofluorobenzene	77.9	70.6-123		%REC	211539	1	08/14/2015 13:07	NP
Surr: Dibromofluoromethane	103	78.7-124		%REC	211539	1	08/14/2015 13:07	NP
Surr: Toluene-d8	99.6	81.3-120		%REC	211539	1	08/14/2015 13:07	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15222-MW-42-ZONE 1
Project Name:	Owens Corning	**Collection Date:**	8/10/2015 3:55:00 PM
Lab ID:	1508A92-002	**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	211539	1	08/14/2015 13:30	NP
1,1-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 13:30	NP
Methylene chloride	BRL	5.0		ug/L	211539	1	08/14/2015 13:30	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 13:30	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 13:30	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 13:30	NP
Chloroform	BRL	5.0		ug/L	211539	1	08/14/2015 13:30	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 13:30	NP
Carbon tetrachloride	BRL	5.0		ug/L	211539	1	08/14/2015 13:30	NP
Benzene	BRL	5.0		ug/L	211539	1	08/14/2015 13:30	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 13:30	NP
Trichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 13:30	NP
Toluene	BRL	5.0		ug/L	211539	1	08/14/2015 13:30	NP
Tetrachloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 13:30	NP
Ethylbenzene	BRL	5.0		ug/L	211539	1	08/14/2015 13:30	NP
Xylenes, Total	BRL	5.0		ug/L	211539	1	08/14/2015 13:30	NP
Surr: 4-Bromofluorobenzene	77.9	70.6-123		%REC	211539	1	08/14/2015 13:30	NP
Surr: Dibromofluoromethane	106	78.7-124		%REC	211539	1	08/14/2015 13:30	NP
Surr: Toluene-d8	101	81.3-120		%REC	211539	1	08/14/2015 13:30	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15223-MW-39-ZONE 3
Project Name:	Owens Corning	**Collection Date:**	8/11/2015 10:00:00 AM
Lab ID:	1508A92-003	**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	211539	1	08/14/2015 13:53	NP
1,1-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 13:53	NP
Methylene chloride	BRL	5.0		ug/L	211539	1	08/14/2015 13:53	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 13:53	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 13:53	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 13:53	NP
Chloroform	BRL	5.0		ug/L	211539	1	08/14/2015 13:53	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 13:53	NP
Carbon tetrachloride	BRL	5.0		ug/L	211539	1	08/14/2015 13:53	NP
Benzene	BRL	5.0		ug/L	211539	1	08/14/2015 13:53	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 13:53	NP
Trichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 13:53	NP
Toluene	BRL	5.0		ug/L	211539	1	08/14/2015 13:53	NP
Tetrachloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 13:53	NP
Ethylbenzene	BRL	5.0		ug/L	211539	1	08/14/2015 13:53	NP
Xylenes, Total	BRL	5.0		ug/L	211539	1	08/14/2015 13:53	NP
Surr: 4-Bromofluorobenzene	77.3	70.6-123		%REC	211539	1	08/14/2015 13:53	NP
Surr: Dibromofluoromethane	103	78.7-124		%REC	211539	1	08/14/2015 13:53	NP
Surr: Toluene-d8	98.8	81.3-120		%REC	211539	1	08/14/2015 13:53	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15223-MW-39-ZONE 2
Project Name:	Owens Corning	**Collection Date:**	8/11/2015 11:00:00 AM
Lab ID:	1508A92-004	**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	211539	1	08/14/2015 14:16	NP
1,1-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 14:16	NP
Methylene chloride	BRL	5.0		ug/L	211539	1	08/14/2015 14:16	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 14:16	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 14:16	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 14:16	NP
Chloroform	BRL	5.0		ug/L	211539	1	08/14/2015 14:16	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 14:16	NP
Carbon tetrachloride	BRL	5.0		ug/L	211539	1	08/14/2015 14:16	NP
Benzene	BRL	5.0		ug/L	211539	1	08/14/2015 14:16	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 14:16	NP
Trichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 14:16	NP
Toluene	BRL	5.0		ug/L	211539	1	08/14/2015 14:16	NP
Tetrachloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 14:16	NP
Ethylbenzene	BRL	5.0		ug/L	211539	1	08/14/2015 14:16	NP
Xylenes, Total	BRL	5.0		ug/L	211539	1	08/14/2015 14:16	NP
Surr: 4-Bromofluorobenzene	78	70.6-123		%REC	211539	1	08/14/2015 14:16	NP
Surr: Dibromofluoromethane	105	78.7-124		%REC	211539	1	08/14/2015 14:16	NP
Surr: Toluene-d8	101	81.3-120		%REC	211539	1	08/14/2015 14:16	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15223-MW-39-ZONE 1
Project Name:	Owens Corning	**Collection Date:**	8/11/2015 12:20:00 PM
Lab ID:	1508A92-005	**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	211539	1	08/14/2015 14:39	NP
1,1-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 14:39	NP
Methylene chloride	BRL	5.0		ug/L	211539	1	08/14/2015 14:39	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 14:39	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 14:39	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 14:39	NP
Chloroform	BRL	5.0		ug/L	211539	1	08/14/2015 14:39	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 14:39	NP
Carbon tetrachloride	BRL	5.0		ug/L	211539	1	08/14/2015 14:39	NP
Benzene	BRL	5.0		ug/L	211539	1	08/14/2015 14:39	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 14:39	NP
Trichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 14:39	NP
Toluene	BRL	5.0		ug/L	211539	1	08/14/2015 14:39	NP
Tetrachloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 14:39	NP
Ethylbenzene	BRL	5.0		ug/L	211539	1	08/14/2015 14:39	NP
Xylenes, Total	BRL	5.0		ug/L	211539	1	08/14/2015 14:39	NP
Surr: 4-Bromofluorobenzene	75.8	70.6-123		%REC	211539	1	08/14/2015 14:39	NP
Surr: Dibromofluoromethane	103	78.7-124		%REC	211539	1	08/14/2015 14:39	NP
Surr: Toluene-d8	98.1	81.3-120		%REC	211539	1	08/14/2015 14:39	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15223-MW-38-ZONE 1
Project Name:	Owens Corning	**Collection Date:**	8/11/2015 3:10:00 PM
Lab ID:	1508A92-006	**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	211539	1	08/14/2015 15:02	NP
1,1-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 15:02	NP
Methylene chloride	BRL	5.0		ug/L	211539	1	08/14/2015 15:02	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 15:02	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 15:02	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 15:02	NP
Chloroform	BRL	5.0		ug/L	211539	1	08/14/2015 15:02	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 15:02	NP
Carbon tetrachloride	BRL	5.0		ug/L	211539	1	08/14/2015 15:02	NP
Benzene	BRL	5.0		ug/L	211539	1	08/14/2015 15:02	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 15:02	NP
Trichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 15:02	NP
Toluene	BRL	5.0		ug/L	211539	1	08/14/2015 15:02	NP
Tetrachloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 15:02	NP
Ethylbenzene	BRL	5.0		ug/L	211539	1	08/14/2015 15:02	NP
Xylenes, Total	BRL	5.0		ug/L	211539	1	08/14/2015 15:02	NP
Surr: 4-Bromofluorobenzene	79.5	70.6-123		%REC	211539	1	08/14/2015 15:02	NP
Surr: Dibromofluoromethane	101	78.7-124		%REC	211539	1	08/14/2015 15:02	NP
Surr: Toluene-d8	99.4	81.3-120		%REC	211539	1	08/14/2015 15:02	NP

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 **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15223-MW-38-ZONE 2
Project Name:	Owens Corning	**Collection Date:**	8/11/2015 4:15:00 PM
Lab ID:	1508A92-007	**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	211539	1	08/14/2015 15:25	NP
1,1-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 15:25	NP
Methylene chloride	BRL	5.0		ug/L	211539	1	08/14/2015 15:25	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 15:25	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 15:25	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 15:25	NP
Chloroform	BRL	5.0		ug/L	211539	1	08/14/2015 15:25	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 15:25	NP
Carbon tetrachloride	BRL	5.0		ug/L	211539	1	08/14/2015 15:25	NP
Benzene	BRL	5.0		ug/L	211539	1	08/14/2015 15:25	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 15:25	NP
Trichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 15:25	NP
Toluene	BRL	5.0		ug/L	211539	1	08/14/2015 15:25	NP
Tetrachloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 15:25	NP
Ethylbenzene	BRL	5.0		ug/L	211539	1	08/14/2015 15:25	NP
Xylenes, Total	BRL	5.0		ug/L	211539	1	08/14/2015 15:25	NP
Surr: 4-Bromofluorobenzene	78.5	70.6-123		%REC	211539	1	08/14/2015 15:25	NP
Surr: Dibromofluoromethane	105	78.7-124		%REC	211539	1	08/14/2015 15:25	NP
Surr: Toluene-d8	99.6	81.3-120		%REC	211539	1	08/14/2015 15:25	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15223-MW-37-ZONE 3
Project Name:	Owens Corning	**Collection Date:**	8/11/2015 5:15:00 PM
Lab ID:	1508A92-008	**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	211539	1	08/14/2015 15:47	NP
1,1-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 15:47	NP
Methylene chloride	BRL	5.0		ug/L	211539	1	08/14/2015 15:47	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 15:47	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 15:47	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 15:47	NP
Chloroform	BRL	5.0		ug/L	211539	1	08/14/2015 15:47	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 15:47	NP
Carbon tetrachloride	BRL	5.0		ug/L	211539	1	08/14/2015 15:47	NP
Benzene	BRL	5.0		ug/L	211539	1	08/14/2015 15:47	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 15:47	NP
Trichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 15:47	NP
Toluene	BRL	5.0		ug/L	211539	1	08/14/2015 15:47	NP
Tetrachloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 15:47	NP
Ethylbenzene	BRL	5.0		ug/L	211539	1	08/14/2015 15:47	NP
Xylenes, Total	BRL	5.0		ug/L	211539	1	08/14/2015 15:47	NP
Surr: 4-Bromofluorobenzene	78.4	70.6-123		%REC	211539	1	08/14/2015 15:47	NP
Surr: Dibromofluoromethane	103	78.7-124		%REC	211539	1	08/14/2015 15:47	NP
Surr: Toluene-d8	100	81.3-120		%REC	211539	1	08/14/2015 15:47	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	EB-15223
Project Name:	Owens Corning	**Collection Date:**	8/11/2015 5:20:00 PM
Lab ID:	1508A92-009	**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	211539	1	08/14/2015 12:44	NP
1,1-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 12:44	NP
Methylene chloride	BRL	5.0		ug/L	211539	1	08/14/2015 12:44	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 12:44	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 12:44	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 12:44	NP
Chloroform	BRL	5.0		ug/L	211539	1	08/14/2015 12:44	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 12:44	NP
Carbon tetrachloride	BRL	5.0		ug/L	211539	1	08/14/2015 12:44	NP
Benzene	BRL	5.0		ug/L	211539	1	08/14/2015 12:44	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 12:44	NP
Trichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 12:44	NP
Toluene	BRL	5.0		ug/L	211539	1	08/14/2015 12:44	NP
Tetrachloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 12:44	NP
Ethylbenzene	BRL	5.0		ug/L	211539	1	08/14/2015 12:44	NP
Xylenes, Total	BRL	5.0		ug/L	211539	1	08/14/2015 12:44	NP
Surr: 4-Bromofluorobenzene	78	70.6-123		%REC	211539	1	08/14/2015 12:44	NP
Surr: Dibromofluoromethane	103	78.7-124		%REC	211539	1	08/14/2015 12:44	NP
Surr: Toluene-d8	97.7	81.3-120		%REC	211539	1	08/14/2015 12:44	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15223-MW-37-ZONE 2
Project Name:	Owens Corning	**Collection Date:**	8/11/2015 6:10:00 PM
Lab ID:	1508A92-010	**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	211539	1	08/14/2015 16:10	NP
1,1-Dichloroethene	150	5.0		ug/L	211539	1	08/14/2015 16:10	NP
Methylene chloride	BRL	5.0		ug/L	211539	1	08/14/2015 16:10	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 16:10	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 16:10	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 16:10	NP
Chloroform	5.4	5.0		ug/L	211539	1	08/14/2015 16:10	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 16:10	NP
Carbon tetrachloride	5.0	5.0		ug/L	211539	1	08/14/2015 16:10	NP
Benzene	BRL	5.0		ug/L	211539	1	08/14/2015 16:10	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 16:10	NP
Trichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 16:10	NP
Toluene	BRL	5.0		ug/L	211539	1	08/14/2015 16:10	NP
Tetrachloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 16:10	NP
Ethylbenzene	BRL	5.0		ug/L	211539	1	08/14/2015 16:10	NP
Xylenes, Total	BRL	5.0		ug/L	211539	1	08/14/2015 16:10	NP
Surr: 4-Bromofluorobenzene	79.6	70.6-123		%REC	211539	1	08/14/2015 16:10	NP
Surr: Dibromofluoromethane	104	78.7-124		%REC	211539	1	08/14/2015 16:10	NP
Surr: Toluene-d8	101	81.3-120		%REC	211539	1	08/14/2015 16:10	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15223-MW-37-ZONE 1
Project Name:	Owens Corning	**Collection Date:**	8/11/2015 6:45:00 PM
Lab ID:	1508A92-011	**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	211539	1	08/14/2015 16:33	NP
1,1-Dichloroethene	100	5.0		ug/L	211539	1	08/14/2015 16:33	NP
Methylene chloride	BRL	5.0		ug/L	211539	1	08/14/2015 16:33	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 16:33	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 16:33	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 16:33	NP
Chloroform	BRL	5.0		ug/L	211539	1	08/14/2015 16:33	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 16:33	NP
Carbon tetrachloride	BRL	5.0		ug/L	211539	1	08/14/2015 16:33	NP
Benzene	BRL	5.0		ug/L	211539	1	08/14/2015 16:33	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 16:33	NP
Trichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 16:33	NP
Toluene	BRL	5.0		ug/L	211539	1	08/14/2015 16:33	NP
Tetrachloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 16:33	NP
Ethylbenzene	BRL	5.0		ug/L	211539	1	08/14/2015 16:33	NP
Xylenes, Total	BRL	5.0		ug/L	211539	1	08/14/2015 16:33	NP
Surr: 4-Bromofluorobenzene	80.6	70.6-123		%REC	211539	1	08/14/2015 16:33	NP
Surr: Dibromofluoromethane	106	78.7-124		%REC	211539	1	08/14/2015 16:33	NP
Surr: Toluene-d8	102	81.3-120		%REC	211539	1	08/14/2015 16:33	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15224-MW-44
Project Name:	Owens Corning	**Collection Date:**	8/12/2015 11:40:00 AM
Lab ID:	1508A92-012	**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	211539	1	08/14/2015 16:56	NP
1,1-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 16:56	NP
Methylene chloride	BRL	5.0		ug/L	211539	1	08/14/2015 16:56	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 16:56	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 16:56	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 16:56	NP
Chloroform	BRL	5.0		ug/L	211539	1	08/14/2015 16:56	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 16:56	NP
Carbon tetrachloride	BRL	5.0		ug/L	211539	1	08/14/2015 16:56	NP
Benzene	BRL	5.0		ug/L	211539	1	08/14/2015 16:56	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 16:56	NP
Trichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 16:56	NP
Toluene	BRL	5.0		ug/L	211539	1	08/14/2015 16:56	NP
Tetrachloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 16:56	NP
Ethylbenzene	BRL	5.0		ug/L	211539	1	08/14/2015 16:56	NP
Xylenes, Total	BRL	5.0		ug/L	211539	1	08/14/2015 16:56	NP
Surr: 4-Bromofluorobenzene	78.5	70.6-123		%REC	211539	1	08/14/2015 16:56	NP
Surr: Dibromofluoromethane	104	78.7-124		%REC	211539	1	08/14/2015 16:56	NP
Surr: Toluene-d8	97.3	81.3-120		%REC	211539	1	08/14/2015 16:56	NP

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 **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15224-MW-35
Project Name:	Owens Corning	**Collection Date:**	8/12/2015 1:15:00 PM
Lab ID:	1508A92-013	**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	211539	1	08/14/2015 17:19	NP
1,1-Dichloroethene	65	5.0		ug/L	211539	1	08/14/2015 17:19	NP
Methylene chloride	BRL	5.0		ug/L	211539	1	08/14/2015 17:19	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 17:19	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 17:19	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 17:19	NP
Chloroform	BRL	5.0		ug/L	211539	1	08/14/2015 17:19	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 17:19	NP
Carbon tetrachloride	BRL	5.0		ug/L	211539	1	08/14/2015 17:19	NP
Benzene	BRL	5.0		ug/L	211539	1	08/14/2015 17:19	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 17:19	NP
Trichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 17:19	NP
Toluene	BRL	5.0		ug/L	211539	1	08/14/2015 17:19	NP
Tetrachloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 17:19	NP
Ethylbenzene	BRL	5.0		ug/L	211539	1	08/14/2015 17:19	NP
Xylenes, Total	BRL	5.0		ug/L	211539	1	08/14/2015 17:19	NP
Surr: 4-Bromofluorobenzene	79.2	70.6-123		%REC	211539	1	08/14/2015 17:19	NP
Surr: Dibromofluoromethane	104	78.7-124		%REC	211539	1	08/14/2015 17:19	NP
Surr: Toluene-d8	98.6	81.3-120		%REC	211539	1	08/14/2015 17:19	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15224-MW-41-ZONE 1
Project Name:	Owens Corning	**Collection Date:**	8/12/2015 2:45:00 PM
Lab ID:	1508A92-014	**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	211539	1	08/14/2015 17:42	NP
1,1-Dichloroethene	180	5.0		ug/L	211539	1	08/14/2015 17:42	NP
Methylene chloride	BRL	5.0		ug/L	211539	1	08/14/2015 17:42	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 17:42	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 17:42	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 17:42	NP
Chloroform	BRL	5.0		ug/L	211539	1	08/14/2015 17:42	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 17:42	NP
Carbon tetrachloride	BRL	5.0		ug/L	211539	1	08/14/2015 17:42	NP
Benzene	BRL	5.0		ug/L	211539	1	08/14/2015 17:42	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 17:42	NP
Trichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 17:42	NP
Toluene	BRL	5.0		ug/L	211539	1	08/14/2015 17:42	NP
Tetrachloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 17:42	NP
Ethylbenzene	BRL	5.0		ug/L	211539	1	08/14/2015 17:42	NP
Xylenes, Total	BRL	5.0		ug/L	211539	1	08/14/2015 17:42	NP
Surr: 4-Bromofluorobenzene	78.6	70.6-123		%REC	211539	1	08/14/2015 17:42	NP
Surr: Dibromofluoromethane	104	78.7-124		%REC	211539	1	08/14/2015 17:42	NP
Surr: Toluene-d8	99.4	81.3-120		%REC	211539	1	08/14/2015 17:42	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15224-MW-41-ZONE 2
Project Name:	Owens Corning	**Collection Date:**	8/12/2015 3:20:00 PM
Lab ID:	1508A92-015	**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	211539	1	08/14/2015 18:05	NP
1,1-Dichloroethene	91	5.0		ug/L	211539	1	08/14/2015 18:05	NP
Methylene chloride	BRL	5.0		ug/L	211539	1	08/14/2015 18:05	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 18:05	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 18:05	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 18:05	NP
Chloroform	BRL	5.0		ug/L	211539	1	08/14/2015 18:05	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 18:05	NP
Carbon tetrachloride	BRL	5.0		ug/L	211539	1	08/14/2015 18:05	NP
Benzene	BRL	5.0		ug/L	211539	1	08/14/2015 18:05	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 18:05	NP
Trichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 18:05	NP
Toluene	BRL	5.0		ug/L	211539	1	08/14/2015 18:05	NP
Tetrachloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 18:05	NP
Ethylbenzene	BRL	5.0		ug/L	211539	1	08/14/2015 18:05	NP
Xylenes, Total	BRL	5.0		ug/L	211539	1	08/14/2015 18:05	NP
Surr: 4-Bromofluorobenzene	76.9	70.6-123		%REC	211539	1	08/14/2015 18:05	NP
Surr: Dibromofluoromethane	103	78.7-124		%REC	211539	1	08/14/2015 18:05	NP
Surr: Toluene-d8	98.2	81.3-120		%REC	211539	1	08/14/2015 18:05	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15224-MW-41-ZONE 3
Project Name:	Owens Corning	**Collection Date:**	8/12/2015 4:00:00 PM
Lab ID:	1508A92-016	**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	211539	1	08/14/2015 18:28	NP
1,1-Dichloroethene	19	5.0		ug/L	211539	1	08/14/2015 18:28	NP
Methylene chloride	BRL	5.0		ug/L	211539	1	08/14/2015 18:28	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 18:28	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 18:28	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 18:28	NP
Chloroform	BRL	5.0		ug/L	211539	1	08/14/2015 18:28	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 18:28	NP
Carbon tetrachloride	BRL	5.0		ug/L	211539	1	08/14/2015 18:28	NP
Benzene	BRL	5.0		ug/L	211539	1	08/14/2015 18:28	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 18:28	NP
Trichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 18:28	NP
Toluene	BRL	5.0		ug/L	211539	1	08/14/2015 18:28	NP
Tetrachloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 18:28	NP
Ethylbenzene	BRL	5.0		ug/L	211539	1	08/14/2015 18:28	NP
Xylenes, Total	BRL	5.0		ug/L	211539	1	08/14/2015 18:28	NP
Surr: 4-Bromofluorobenzene	77.7	70.6-123		%REC	211539	1	08/14/2015 18:28	NP
Surr: Dibromofluoromethane	107	78.7-124		%REC	211539	1	08/14/2015 18:28	NP
Surr: Toluene-d8	101	81.3-120		%REC	211539	1	08/14/2015 18:28	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15224-DUP
Project Name:	Owens Corning	**Collection Date:**	8/12/2015 12:00:00 PM
Lab ID:	1508A92-017	**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	211539	1	08/14/2015 18:51	NP
1,1-Dichloroethene	17	5.0		ug/L	211539	1	08/14/2015 18:51	NP
Methylene chloride	BRL	5.0		ug/L	211539	1	08/14/2015 18:51	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 18:51	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 18:51	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 18:51	NP
Chloroform	BRL	5.0		ug/L	211539	1	08/14/2015 18:51	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 18:51	NP
Carbon tetrachloride	BRL	5.0		ug/L	211539	1	08/14/2015 18:51	NP
Benzene	BRL	5.0		ug/L	211539	1	08/14/2015 18:51	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 18:51	NP
Trichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 18:51	NP
Toluene	BRL	5.0		ug/L	211539	1	08/14/2015 18:51	NP
Tetrachloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 18:51	NP
Ethylbenzene	BRL	5.0		ug/L	211539	1	08/14/2015 18:51	NP
Xylenes, Total	BRL	5.0		ug/L	211539	1	08/14/2015 18:51	NP
Surr: 4-Bromofluorobenzene	78.6	70.6-123		%REC	211539	1	08/14/2015 18:51	NP
Surr: Dibromofluoromethane	104	78.7-124		%REC	211539	1	08/14/2015 18:51	NP
Surr: Toluene-d8	98.7	81.3-120		%REC	211539	1	08/14/2015 18:51	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15225-MW-42-ZONE 2
Project Name:	Owens Corning	**Collection Date:**	8/13/2015 9:45:00 AM
Lab ID:	1508A92-018	**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	211539	1	08/14/2015 19:14	NP
1,1-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 19:14	NP
Methylene chloride	BRL	5.0		ug/L	211539	1	08/14/2015 19:14	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 19:14	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 19:14	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 19:14	NP
Chloroform	BRL	5.0		ug/L	211539	1	08/14/2015 19:14	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 19:14	NP
Carbon tetrachloride	BRL	5.0		ug/L	211539	1	08/14/2015 19:14	NP
Benzene	BRL	5.0		ug/L	211539	1	08/14/2015 19:14	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211539	1	08/14/2015 19:14	NP
Trichloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 19:14	NP
Toluene	BRL	5.0		ug/L	211539	1	08/14/2015 19:14	NP
Tetrachloroethene	BRL	5.0		ug/L	211539	1	08/14/2015 19:14	NP
Ethylbenzene	BRL	5.0		ug/L	211539	1	08/14/2015 19:14	NP
Xylenes, Total	BRL	5.0		ug/L	211539	1	08/14/2015 19:14	NP
Surr: 4-Bromofluorobenzene	78	70.6-123		%REC	211539	1	08/14/2015 19:14	NP
Surr: Dibromofluoromethane	105	78.7-124		%REC	211539	1	08/14/2015 19:14	NP
Surr: Toluene-d8	100	81.3-120		%REC	211539	1	08/14/2015 19:14	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15223-MW-15
Project Name:	Owens Corning	**Collection Date:**	8/11/2015 12:45:00 PM
Lab ID:	1508A92-019	**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	211539	1	08/17/2015 13:50	NP
1,1-Dichloroethene	130	5.0		ug/L	211539	1	08/17/2015 13:50	NP
Methylene chloride	BRL	5.0		ug/L	211539	1	08/17/2015 13:50	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/17/2015 13:50	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211539	1	08/17/2015 13:50	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/17/2015 13:50	NP
Chloroform	BRL	5.0		ug/L	211539	1	08/17/2015 13:50	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211539	1	08/17/2015 13:50	NP
Carbon tetrachloride	BRL	5.0		ug/L	211539	1	08/17/2015 13:50	NP
Benzene	BRL	5.0		ug/L	211539	1	08/17/2015 13:50	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211539	1	08/17/2015 13:50	NP
Trichloroethene	BRL	5.0		ug/L	211539	1	08/17/2015 13:50	NP
Toluene	BRL	5.0		ug/L	211539	1	08/17/2015 13:50	NP
Tetrachloroethene	BRL	5.0		ug/L	211539	1	08/17/2015 13:50	NP
Ethylbenzene	BRL	5.0		ug/L	211539	1	08/17/2015 13:50	NP
Xylenes, Total	BRL	5.0		ug/L	211539	1	08/17/2015 13:50	NP
Surr: 4-Bromofluorobenzene	75.7	70.6-123		%REC	211539	1	08/17/2015 13:50	NP
Surr: Dibromofluoromethane	104	78.7-124		%REC	211539	1	08/17/2015 13:50	NP
Surr: Toluene-d8	96	81.3-120		%REC	211539	1	08/17/2015 13:50	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15223-MW-29R-ZONE 3
Project Name:	Owens Corning	**Collection Date:**	8/11/2015 3:10:00 PM
Lab ID:	1508A92-020	**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	211539	1	08/17/2015 14:13	NP
1,1-Dichloroethene	210	50		ug/L	211539	10	08/17/2015 20:21	NP
Methylene chloride	BRL	5.0		ug/L	211539	1	08/17/2015 14:13	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/17/2015 14:13	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211539	1	08/17/2015 14:13	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211539	1	08/17/2015 14:13	NP
Chloroform	6.2	5.0		ug/L	211539	1	08/17/2015 14:13	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211539	1	08/17/2015 14:13	NP
Carbon tetrachloride	14	5.0		ug/L	211539	1	08/17/2015 14:13	NP
Benzene	BRL	5.0		ug/L	211539	1	08/17/2015 14:13	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211539	1	08/17/2015 14:13	NP
Trichloroethene	BRL	5.0		ug/L	211539	1	08/17/2015 14:13	NP
Toluene	BRL	5.0		ug/L	211539	1	08/17/2015 14:13	NP
Tetrachloroethene	BRL	5.0		ug/L	211539	1	08/17/2015 14:13	NP
Ethylbenzene	BRL	5.0		ug/L	211539	1	08/17/2015 14:13	NP
Xylenes, Total	BRL	5.0		ug/L	211539	1	08/17/2015 14:13	NP
Surr: 4-Bromofluorobenzene	74.8	70.6-123		%REC	211539	10	08/17/2015 20:21	NP
Surr: 4-Bromofluorobenzene	76.6	70.6-123		%REC	211539	1	08/17/2015 14:13	NP
Surr: Dibromofluoromethane	103	78.7-124		%REC	211539	10	08/17/2015 20:21	NP
Surr: Dibromofluoromethane	106	78.7-124		%REC	211539	1	08/17/2015 14:13	NP
Surr: Toluene-d8	94.9	81.3-120		%REC	211539	10	08/17/2015 20:21	NP
Surr: Toluene-d8	98.5	81.3-120		%REC	211539	1	08/17/2015 14:13	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15223-MW-29R-ZONE 4
Project Name:	Owens Corning	**Collection Date:**	8/11/2015 3:50:00 PM
Lab ID:	1508A92-021	**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	211544	1	08/17/2015 14:36	NP
1,1-Dichloroethene	240	50		ug/L	211544	10	08/17/2015 20:44	NP
Methylene chloride	BRL	5.0		ug/L	211544	1	08/17/2015 14:36	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211544	1	08/17/2015 14:36	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211544	1	08/17/2015 14:36	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211544	1	08/17/2015 14:36	NP
Chloroform	6.7	5.0		ug/L	211544	1	08/17/2015 14:36	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211544	1	08/17/2015 14:36	NP
Carbon tetrachloride	17	5.0		ug/L	211544	1	08/17/2015 14:36	NP
Benzene	BRL	5.0		ug/L	211544	1	08/17/2015 14:36	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211544	1	08/17/2015 14:36	NP
Trichloroethene	BRL	5.0		ug/L	211544	1	08/17/2015 14:36	NP
Toluene	BRL	5.0		ug/L	211544	1	08/17/2015 14:36	NP
Tetrachloroethene	BRL	5.0		ug/L	211544	1	08/17/2015 14:36	NP
Ethylbenzene	BRL	5.0		ug/L	211544	1	08/17/2015 14:36	NP
Xylenes, Total	BRL	5.0		ug/L	211544	1	08/17/2015 14:36	NP
Surr: 4-Bromofluorobenzene	73.8	70.6-123		%REC	211544	1	08/17/2015 14:36	NP
Surr: 4-Bromofluorobenzene	75	70.6-123		%REC	211544	10	08/17/2015 20:44	NP
Surr: Dibromofluoromethane	106	78.7-124		%REC	211544	1	08/17/2015 14:36	NP
Surr: Dibromofluoromethane	107	78.7-124		%REC	211544	10	08/17/2015 20:44	NP
Surr: Toluene-d8	97	81.3-120		%REC	211544	1	08/17/2015 14:36	NP
Surr: Toluene-d8	96.8	81.3-120		%REC	211544	10	08/17/2015 20:44	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15223-MW-36-ZONE 1
Project Name:	Owens Corning	**Collection Date:**	8/11/2015 5:30:00 PM
Lab ID:	1508A92-022	**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	211544	1	08/17/2015 14:59	NP
1,1-Dichloroethene	BRL	5.0		ug/L	211544	1	08/17/2015 14:59	NP
Methylene chloride	BRL	5.0		ug/L	211544	1	08/17/2015 14:59	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211544	1	08/17/2015 14:59	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211544	1	08/17/2015 14:59	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211544	1	08/17/2015 14:59	NP
Chloroform	BRL	5.0		ug/L	211544	1	08/17/2015 14:59	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211544	1	08/17/2015 14:59	NP
Carbon tetrachloride	BRL	5.0		ug/L	211544	1	08/17/2015 14:59	NP
Benzene	BRL	5.0		ug/L	211544	1	08/17/2015 14:59	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211544	1	08/17/2015 14:59	NP
Trichloroethene	BRL	5.0		ug/L	211544	1	08/17/2015 14:59	NP
Toluene	BRL	5.0		ug/L	211544	1	08/17/2015 14:59	NP
Tetrachloroethene	BRL	5.0		ug/L	211544	1	08/17/2015 14:59	NP
Ethylbenzene	BRL	5.0		ug/L	211544	1	08/17/2015 14:59	NP
Xylenes, Total	BRL	5.0		ug/L	211544	1	08/17/2015 14:59	NP
Surr: 4-Bromofluorobenzene	75.4	70.6-123		%REC	211544	1	08/17/2015 14:59	NP
Surr: Dibromofluoromethane	105	78.7-124		%REC	211544	1	08/17/2015 14:59	NP
Surr: Toluene-d8	95.3	81.3-120		%REC	211544	1	08/17/2015 14:59	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15223-MW-36-ZONE 3
Project Name:	Owens Corning	**Collection Date:**	8/11/2015 7:00:00 PM
Lab ID:	1508A92-023	**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	211544	1	08/17/2015 23:46	NP
1,1-Dichloroethene	BRL	5.0		ug/L	211544	1	08/17/2015 23:46	NP
Methylene chloride	BRL	5.0		ug/L	211544	1	08/17/2015 23:46	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211544	1	08/17/2015 23:46	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211544	1	08/17/2015 23:46	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211544	1	08/17/2015 23:46	NP
Chloroform	BRL	5.0		ug/L	211544	1	08/17/2015 23:46	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211544	1	08/17/2015 23:46	NP
Carbon tetrachloride	BRL	5.0		ug/L	211544	1	08/17/2015 23:46	NP
Benzene	BRL	5.0		ug/L	211544	1	08/17/2015 23:46	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211544	1	08/17/2015 23:46	NP
Trichloroethene	BRL	5.0		ug/L	211544	1	08/17/2015 23:46	NP
Toluene	BRL	5.0		ug/L	211544	1	08/17/2015 23:46	NP
Tetrachloroethene	BRL	5.0		ug/L	211544	1	08/17/2015 23:46	NP
Ethylbenzene	BRL	5.0		ug/L	211544	1	08/17/2015 23:46	NP
Xylenes, Total	BRL	5.0		ug/L	211544	1	08/17/2015 23:46	NP
Surr: 4-Bromofluorobenzene	74.1	70.6-123		%REC	211544	1	08/17/2015 23:46	NP
Surr: Dibromofluoromethane	108	78.7-124		%REC	211544	1	08/17/2015 23:46	NP
Surr: Toluene-d8	99	81.3-120		%REC	211544	1	08/17/2015 23:46	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15224-MW-43-ZONE 1
Project Name:	Owens Corning	**Collection Date:**	8/12/2015 3:25:00 PM
Lab ID:	1508A92-024	**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	211544	1	08/18/2015 00:08	NP
1,1-Dichloroethene	BRL	5.0		ug/L	211544	1	08/18/2015 00:08	NP
Methylene chloride	BRL	5.0		ug/L	211544	1	08/18/2015 00:08	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211544	1	08/18/2015 00:08	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211544	1	08/18/2015 00:08	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211544	1	08/18/2015 00:08	NP
Chloroform	BRL	5.0		ug/L	211544	1	08/18/2015 00:08	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211544	1	08/18/2015 00:08	NP
Carbon tetrachloride	BRL	5.0		ug/L	211544	1	08/18/2015 00:08	NP
Benzene	BRL	5.0		ug/L	211544	1	08/18/2015 00:08	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211544	1	08/18/2015 00:08	NP
Trichloroethene	BRL	5.0		ug/L	211544	1	08/18/2015 00:08	NP
Toluene	BRL	5.0		ug/L	211544	1	08/18/2015 00:08	NP
Tetrachloroethene	BRL	5.0		ug/L	211544	1	08/18/2015 00:08	NP
Ethylbenzene	BRL	5.0		ug/L	211544	1	08/18/2015 00:08	NP
Xylenes, Total	BRL	5.0		ug/L	211544	1	08/18/2015 00:08	NP
Surr: 4-Bromofluorobenzene	77.2	70.6-123		%REC	211544	1	08/18/2015 00:08	NP
Surr: Dibromofluoromethane	105	78.7-124		%REC	211544	1	08/18/2015 00:08	NP
Surr: Toluene-d8	99.2	81.3-120		%REC	211544	1	08/18/2015 00:08	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15224-MW-43-ZONE 2
Project Name:	Owens Corning	**Collection Date:**	8/12/2015 4:05:00 PM
Lab ID:	1508A92-025	**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	211544	1	08/18/2015 00:31	NP
1,1-Dichloroethene	BRL	5.0		ug/L	211544	1	08/18/2015 00:31	NP
Methylene chloride	BRL	5.0		ug/L	211544	1	08/18/2015 00:31	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211544	1	08/18/2015 00:31	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211544	1	08/18/2015 00:31	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211544	1	08/18/2015 00:31	NP
Chloroform	BRL	5.0		ug/L	211544	1	08/18/2015 00:31	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211544	1	08/18/2015 00:31	NP
Carbon tetrachloride	BRL	5.0		ug/L	211544	1	08/18/2015 00:31	NP
Benzene	BRL	5.0		ug/L	211544	1	08/18/2015 00:31	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211544	1	08/18/2015 00:31	NP
Trichloroethene	BRL	5.0		ug/L	211544	1	08/18/2015 00:31	NP
Toluene	BRL	5.0		ug/L	211544	1	08/18/2015 00:31	NP
Tetrachloroethene	BRL	5.0		ug/L	211544	1	08/18/2015 00:31	NP
Ethylbenzene	BRL	5.0		ug/L	211544	1	08/18/2015 00:31	NP
Xylenes, Total	BRL	5.0		ug/L	211544	1	08/18/2015 00:31	NP
Surr: 4-Bromofluorobenzene	74.2	70.6-123		%REC	211544	1	08/18/2015 00:31	NP
Surr: Dibromofluoromethane	105	78.7-124		%REC	211544	1	08/18/2015 00:31	NP
Surr: Toluene-d8	97.3	81.3-120		%REC	211544	1	08/18/2015 00:31	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15224-MW-43-ZONE 3
Project Name:	Owens Corning	**Collection Date:**	8/12/2015 4:45:00 PM
Lab ID:	1508A92-026	**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	211544	1	08/18/2015 00:54	NP
1,1-Dichloroethene	BRL	5.0		ug/L	211544	1	08/18/2015 00:54	NP
Methylene chloride	BRL	5.0		ug/L	211544	1	08/18/2015 00:54	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211544	1	08/18/2015 00:54	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211544	1	08/18/2015 00:54	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211544	1	08/18/2015 00:54	NP
Chloroform	BRL	5.0		ug/L	211544	1	08/18/2015 00:54	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211544	1	08/18/2015 00:54	NP
Carbon tetrachloride	BRL	5.0		ug/L	211544	1	08/18/2015 00:54	NP
Benzene	BRL	5.0		ug/L	211544	1	08/18/2015 00:54	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211544	1	08/18/2015 00:54	NP
Trichloroethene	BRL	5.0		ug/L	211544	1	08/18/2015 00:54	NP
Toluene	BRL	5.0		ug/L	211544	1	08/18/2015 00:54	NP
Tetrachloroethene	BRL	5.0		ug/L	211544	1	08/18/2015 00:54	NP
Ethylbenzene	BRL	5.0		ug/L	211544	1	08/18/2015 00:54	NP
Xylenes, Total	BRL	5.0		ug/L	211544	1	08/18/2015 00:54	NP
Surr: 4-Bromofluorobenzene	76.3	70.6-123		%REC	211544	1	08/18/2015 00:54	NP
Surr: Dibromofluoromethane	103	78.7-124		%REC	211544	1	08/18/2015 00:54	NP
Surr: Toluene-d8	96.2	81.3-120		%REC	211544	1	08/18/2015 00:54	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15225-MW-22
Project Name:	Owens Corning	**Collection Date:**	8/13/2015 9:45:00 AM
Lab ID:	1508A92-027	**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	211544	1	08/18/2015 01:17	NP
1,1-Dichloroethene	260	50		ug/L	211544	10	08/18/2015 18:07	NP
Methylene chloride	BRL	5.0		ug/L	211544	1	08/18/2015 01:17	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211544	1	08/18/2015 01:17	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211544	1	08/18/2015 01:17	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211544	1	08/18/2015 01:17	NP
Chloroform	6.7	5.0		ug/L	211544	1	08/18/2015 01:17	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211544	1	08/18/2015 01:17	NP
Carbon tetrachloride	24	5.0		ug/L	211544	1	08/18/2015 01:17	NP
Benzene	BRL	5.0		ug/L	211544	1	08/18/2015 01:17	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211544	1	08/18/2015 01:17	NP
Trichloroethene	BRL	5.0		ug/L	211544	1	08/18/2015 01:17	NP
Toluene	BRL	5.0		ug/L	211544	1	08/18/2015 01:17	NP
Tetrachloroethene	BRL	5.0		ug/L	211544	1	08/18/2015 01:17	NP
Ethylbenzene	BRL	5.0		ug/L	211544	1	08/18/2015 01:17	NP
Xylenes, Total	BRL	5.0		ug/L	211544	1	08/18/2015 01:17	NP
Surr: 4-Bromofluorobenzene	75.7	70.6-123		%REC	211544	1	08/18/2015 01:17	NP
Surr: 4-Bromofluorobenzene	75	70.6-123		%REC	211544	10	08/18/2015 18:07	NP
Surr: Dibromofluoromethane	104	78.7-124		%REC	211544	10	08/18/2015 18:07	NP
Surr: Dibromofluoromethane	106	78.7-124		%REC	211544	1	08/18/2015 01:17	NP
Surr: Toluene-d8	97.3	81.3-120		%REC	211544	10	08/18/2015 18:07	NP
Surr: Toluene-d8	98	81.3-120		%REC	211544	1	08/18/2015 01:17	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15223-DUP
Project Name:	Owens Corning	**Collection Date:**	8/11/2015 12:00:00 PM
Lab ID:	1508A92-029	**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	211544	1	08/18/2015 01:39	NP
1,1-Dichloroethene	220	50		ug/L	211544	10	08/18/2015 18:30	NP
Methylene chloride	BRL	5.0		ug/L	211544	1	08/18/2015 01:39	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211544	1	08/18/2015 01:39	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211544	1	08/18/2015 01:39	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211544	1	08/18/2015 01:39	NP
Chloroform	6.8	5.0		ug/L	211544	1	08/18/2015 01:39	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211544	1	08/18/2015 01:39	NP
Carbon tetrachloride	16	5.0		ug/L	211544	1	08/18/2015 01:39	NP
Benzene	BRL	5.0		ug/L	211544	1	08/18/2015 01:39	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211544	1	08/18/2015 01:39	NP
Trichloroethene	BRL	5.0		ug/L	211544	1	08/18/2015 01:39	NP
Toluene	BRL	5.0		ug/L	211544	1	08/18/2015 01:39	NP
Tetrachloroethene	BRL	5.0		ug/L	211544	1	08/18/2015 01:39	NP
Ethylbenzene	BRL	5.0		ug/L	211544	1	08/18/2015 01:39	NP
Xylenes, Total	BRL	5.0		ug/L	211544	1	08/18/2015 01:39	NP
Surr: 4-Bromofluorobenzene	75.9	70.6-123		%REC	211544	10	08/18/2015 18:30	NP
Surr: 4-Bromofluorobenzene	79.5	70.6-123		%REC	211544	1	08/18/2015 01:39	NP
Surr: Dibromofluoromethane	101	78.7-124		%REC	211544	1	08/18/2015 01:39	NP
Surr: Dibromofluoromethane	103	78.7-124		%REC	211544	10	08/18/2015 18:30	NP
Surr: Toluene-d8	96.9	81.3-120		%REC	211544	1	08/18/2015 01:39	NP
Surr: Toluene-d8	97.4	81.3-120		%REC	211544	10	08/18/2015 18:30	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 20-Aug-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15224-EB
Project Name:	Owens Corning	**Collection Date:**	8/12/2015 5:30:00 PM
Lab ID:	1508A92-030	**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	211544	1	08/17/2015 19:13	NP
1,1-Dichloroethene	BRL	5.0		ug/L	211544	1	08/17/2015 19:13	NP
Methylene chloride	BRL	5.0		ug/L	211544	1	08/17/2015 19:13	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	211544	1	08/17/2015 19:13	NP
1,1-Dichloroethane	BRL	5.0		ug/L	211544	1	08/17/2015 19:13	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	211544	1	08/17/2015 19:13	NP
Chloroform	BRL	5.0		ug/L	211544	1	08/17/2015 19:13	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	211544	1	08/17/2015 19:13	NP
Carbon tetrachloride	BRL	5.0		ug/L	211544	1	08/17/2015 19:13	NP
Benzene	BRL	5.0		ug/L	211544	1	08/17/2015 19:13	NP
1,2-Dichloroethane	BRL	5.0		ug/L	211544	1	08/17/2015 19:13	NP
Trichloroethene	BRL	5.0		ug/L	211544	1	08/17/2015 19:13	NP
Toluene	BRL	5.0		ug/L	211544	1	08/17/2015 19:13	NP
Tetrachloroethene	BRL	5.0		ug/L	211544	1	08/17/2015 19:13	NP
Ethylbenzene	BRL	5.0		ug/L	211544	1	08/17/2015 19:13	NP
Xylenes, Total	BRL	5.0		ug/L	211544	1	08/17/2015 19:13	NP
Surr: 4-Bromofluorobenzene	76.5	70.6-123		%REC	211544	1	08/17/2015 19:13	NP
Surr: Dibromofluoromethane	107	78.7-124		%REC	211544	1	08/17/2015 19:13	NP
Surr: Toluene-d8	97	81.3-120		%REC	211544	1	08/17/2015 19:13	NP

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 1508A92

Checklist completed by MSC 8-13-15
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? (0°≤6°C)* Yes ✓ No __

Cooler #1 4.3 Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ MTC 8-13-15 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.

\\Aes_server\I\Sample Receipt\My Documents\COCs and pH Adjustment Sheet\Sample_Cooler_Recipt_Checklist_Rev1.rtf

Client: BROWN AND CALDWELL
Project Name: Owens Corning
Workorder: 1508A92

ANALYTICAL QC SUMMARY REPORT

BatchID: 211539

Sample ID: **MB-211539** Client ID: Units: **ug/L** Prep Date: **08/14/2015** Run No: **297969**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **211539** Analysis Date: **08/14/2015** Seq No: **6361336**

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	38.56	0	50.00		77.1	70.6	123				
Surr: Dibromofluoromethane	49.80	0	50.00		99.6	78.7	124				
Surr: Toluene-d8	50.05	0	50.00		100	81.3	120				

Sample ID: **LCS-211539** Client ID: Units: **ug/L** Prep Date: **08/14/2015** Run No: **297969**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **211539** Analysis Date: **08/14/2015** Seq No: **6361335**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	40.93	5.0	50.00		81.9	64.2	137				
Benzene	41.16	5.0	50.00		82.3	72.8	128				
Toluene	44.25	5.0	50.00		88.5	74.9	127				

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: 1508A92

ANALYTICAL QC SUMMARY REPORT

BatchID: 211539

Sample ID: **LCS-211539**	Client ID:		Units: **ug/L**	Prep Date: **08/14/2015**	Run No: **297969**
SampleType: **LCS**	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**		BatchID: **211539**	Analysis Date: **08/14/2015**	Seq No: **6361335**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Trichloroethene	43.81	5.0	50.00		87.6	70.5	134				
Surr: 4-Bromofluorobenzene	39.49	0	50.00		79.0	70.6	123				
Surr: Dibromofluoromethane	49.92	0	50.00		99.8	78.7	124				
Surr: Toluene-d8	49.92	0	50.00		99.8	81.3	120				

Sample ID: **1508A92-001AMS**	Client ID: **15222-MW-42-ZONE 3**		Units: **ug/L**	Prep Date: **08/14/2015**	Run No: **297969**
SampleType: **MS**	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**		BatchID: **211539**	Analysis Date: **08/14/2015**	Seq No: **6361357**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	58.30	5.0	50.00		117	60.5	156				
Benzene	54.11	5.0	50.00		108	70	135				
Toluene	58.50	5.0	50.00		117	70.5	137				
Trichloroethene	57.30	5.0	50.00		115	71.8	139				
Surr: 4-Bromofluorobenzene	39.94	0	50.00		79.9	70.6	123				
Surr: Dibromofluoromethane	51.06	0	50.00		102	78.7	124				
Surr: Toluene-d8	48.98	0	50.00		98.0	81.3	120				

Sample ID: **1508A92-001AMSD**	Client ID: **15222-MW-42-ZONE 3**		Units: **ug/L**	Prep Date: **08/14/2015**	Run No: **297969**
SampleType: **MSD**	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**		BatchID: **211539**	Analysis Date: **08/14/2015**	Seq No: **6361358**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	53.75	5.0	50.00		108	60.5	156	58.30	8.12	20	
Benzene	50.01	5.0	50.00		100	70	135	54.11	7.88	20	
Toluene	54.96	5.0	50.00		110	70.5	137	58.50	6.24	20	
Trichloroethene	52.75	5.0	50.00		106	71.8	139	57.30	8.27	20	
Surr: 4-Bromofluorobenzene	39.44	0	50.00		78.9	70.6	123	39.94	0	0	
Surr: Dibromofluoromethane	51.14	0	50.00		102	78.7	124	51.06	0	0	
Surr: Toluene-d8	49.17	0	50.00		98.3	81.3	120	48.98	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: 1508A92

ANALYTICAL QC SUMMARY REPORT

BatchID: 211544

Sample ID: **MB-211544** Client ID: Units: **ug/L** Prep Date: **08/17/2015** Run No: **298003**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **211544** Analysis Date: **08/17/2015** Seq No: **6361492**

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	39.37	0	50.00		78.7	70.6	123				
Surr: Dibromofluoromethane	51.64	0	50.00		103	78.7	124				
Surr: Toluene-d8	48.58	0	50.00		97.2	81.3	120				

Sample ID: **LCS-211544** Client ID: Units: **ug/L** Prep Date: **08/17/2015** Run No: **298003**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **211544** Analysis Date: **08/17/2015** Seq No: **6361491**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	44.81	5.0	50.00		89.6	64.2	137				
Benzene	45.70	5.0	50.00		91.4	72.8	128				
Toluene	50.07	5.0	50.00		100	74.9	127				
Trichloroethene	49.78	5.0	50.00		99.6	70.5	134				

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: 1508A92

ANALYTICAL QC SUMMARY REPORT

BatchID: 211544

Sample ID: **LCS-211544** Client ID: Units: **ug/L** Prep Date: **08/17/2015** Run No: **298003**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **211544** Analysis Date: **08/17/2015** Seq No: **6361491**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	37.86	0	50.00		75.7	70.6	123				
Surr: Dibromofluoromethane	49.82	0	50.00		99.6	78.7	124				
Surr: Toluene-d8	48.02	0	50.00		96.0	81.3	120				

Sample ID: **1508C52-001AMS** Client ID: Units: **ug/L** Prep Date: **08/17/2015** Run No: **298088**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **211544** Analysis Date: **08/17/2015** Seq No: **6362947**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	469300	50000	500000		93.9	60.5	156				
Benzene	462200	50000	500000		92.4	70	135				
Toluene	513400	50000	500000	7000	101	70.5	137				
Trichloroethene	478000	50000	500000		95.6	71.8	139				
Surr: 4-Bromofluorobenzene	363000	0	500000		72.6	70.6	123				
Surr: Dibromofluoromethane	519900	0	500000		104	78.7	124				
Surr: Toluene-d8	479900	0	500000		96.0	81.3	120				

Sample ID: **1508C52-001AMSD** Client ID: Units: **ug/L** Prep Date: **08/17/2015** Run No: **298088**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **211544** Analysis Date: **08/17/2015** Seq No: **6362948**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	429600	50000	500000		85.9	60.5	156	469300	8.83	20	
Benzene	450100	50000	500000		90.0	70	135	462200	2.65	20	
Toluene	505900	50000	500000	7000	99.8	70.5	137	513400	1.47	20	
Trichloroethene	469500	50000	500000		93.9	71.8	139	478000	1.79	20	
Surr: 4-Bromofluorobenzene	376600	0	500000		75.3	70.6	123	363000	0	0	
Surr: Dibromofluoromethane	518900	0	500000		104	78.7	124	519900	0	0	
Surr: Toluene-d8	481400	0	500000		96.3	81.3	120	479900	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		

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

December 03, 2015

Tamara Berryman
BROWN AND CALDWELL
990 Hammond Drive
Atlanta GA 30328

TEL: (770) 673-3678
FAX: (770) 396-9495

RE: Owens Corning

Dear Tamara Berryman: Order No: 1511K38

Analytical Environmental Services, Inc. received 82 samples on 11/20/2015 2:13:00 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 07/01/15-06/30/16.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

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.

Ioana Pacurar

Ioana Pacurar
Project Manager

Revision 12/3/2015

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 151K438

Date: 11-20-15 Page 1 of 6

COMPANY:	ADDRESS:
Brown + Caldwell Tamara Berryman	990 Hammond DR St. 400 Atlanta, GA
PHONE: 770-673-3678	FAX:
SAMPLED BY: JPL, GG, RH, TB, BS	SIGNATURE:

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	ANALYSIS REQUESTED: VOCs *	PRESERVATION (See codes): H+I	REMARKS	No # of Containers
1	15321-MW-4	11/18/15	0909	X		GW		X		2
2	15321-MW-10	11/17/15	1052	X		GW				2
3	15321-MW-14	11/17/15	1150	X		GW				2
4	15321-MW-5	11/17/15	1350	X		GW				2
5	15321-MW-6	11/17/15	1515	X		GW				2
6	15321-MW-17	11/17/15	1628	X		GW				2
7	15322-MW-9	11/18/15	0825	X		GW				2
8	15322-MW-11	11/18/15	0938	X		GW				2
9	15322-MW-26	11/18/15	1044	X		GW				2
10	15322-MW-24	11/18/15	1610	X		GW				2
11	15322-TW-44	11/18/15	1137	X		GW				2
12	15322-EB	11/18/15	1200	X		GW				2
13	15323-MW-44	11/19/15	0958	X		GW				2
14	15321-DUP-2	11/17/15	1200	X		GW		↓		2

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:	11/20/15/1413	1: Nadia Ogle MAES	2:13PM
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS:
* See focus List

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
(CLIENT) FedEx UPS MAIL COURIER
GREYHOUND OTHER_____

PROJECT INFORMATION
PROJECT NAME: Owens Corning
PROJECT #: 147297
SITE ADDRESS: 4837 HWY 81 South Starr, SC 29684
SEND REPORT TO: Tamara Berryman
INVOICE TO: (IF DIFFERENT FROM ABOVE)
TBerryman@BRWNCALD.COM
QUOTE #: PO#:

RECEIPT
Total # of Containers: 28

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

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

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3080 Presidential Drive, Atlanta GA 30340-3704
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CHAIN OF CUSTODY

Work Order: 1511438

Date: 11-20-15 Page 2 of 6

COMPANY: BROWN AND CALDWELL

ADDRESS: 990 HAMMOND DR ATLANTA, GA

PHONE:

FAX:

SAMPLED BY: GG, JL, BS, TB, RH

SIGNATURE:

ANALYSIS REQUESTED

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOC's *	PRESERVATION (See codes) H+I	REMARKS	No # of Containers
1	15321 - MW - 3	11-17-15	0910	X		GW	X	X		2
2	15321 - MW - 1	11-17-15	1125	X		GW	X	X		2
3	15321 - ALLOY	11-17-15	1350	X		GW	X	X		2
4	15321 - EB - 2	11-17-15	1405	X		W	X	X		2
5	15321 - MW - 2	11-17-15	1530	X		GW	X	X		2
6	15321 - MW - 18	11-17-15	1630	X		GW	X	X		2
7	15322 - MW - 32	11-18-15	0840	X		GW	X	X		2
8	15322 - MW - 19	11-18-15	0945	X		GW	X	X		2
9	15322 - MW - 25	11-18-15	1055	X		GW	X	X		2
10	15322 - MW - 15	11-18-15	1145	X		GW	X	X		2
11	15322 - TW - 46	11-18-15	1645	X		GW	X	X		2
12	15323 - MW - 35	11-19-15	1000	X		GW	X	X		2
13	15323 - MW - 21	11-19-15	1105	X		GW	X	X		2
14	15323 - MW - 31	11-19-15	1215	X		GW	X	X		2

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY: 1: 11/20/15 1413

RECEIVED BY: 1: Nadia Cole 11/20/15 2:13 PM

2:

3:

DATE/TIME

PROJECT INFORMATION

PROJECT NAME: OWENS CORNING

PROJECT #: 147297

SITE ADDRESS:

SEND REPORT TO: TBERRYMAN@BROWNCALD.COM

INVOICE TO: (IF DIFFERENT FROM ABOVE)

QUOTE #: PO#:

RECEIPT

Total # of Containers: 28

Turnaround Time Request
- (X) 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

SPECIAL INSTRUCTIONS/COMMENTS:
* SEE FOCUSED LIST

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
(CLIENT) FedEx UPS MAIL COURIER
GREYHOUND OTHER

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CHAIN OF CUSTODY

Work Order: 1511K38

Date: 11-20-15 Page 3 of 6

COMPANY: Brown and Caldwell

ADDRESS: 990 Hammond Dr. Ste 4a Atlanta GA 30328

PHONE:

FAX:

SAMPLED BY: Brian Steele

SIGNATURE:

ANALYSIS REQUESTED

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOC	PRESERVATION (See codes) H+I	REMARKS	No # of Containers
1	15321-SW-3B	11-17-15	1120	X		SW	X	X		2
2	15321-SW-6		1415							
3	15321-SW-1		1445							
4	15321-SW-15		1505							
5	15321-SW-13		1640							
6	15322-SW-3A	11-18-15	0900							
7	15322-SW-3		0920							
8	15322-SW-10		0950							
9	15322-SW-14		1020							
10	15322-SW-12		1040							
11	15322-SW-11		1100							
12	15322-MW29R-Zone 3		1240			GW				
13	15322-MW29R-Zone 4		1305							
14	15322-MW-36-Zone 1		1340							

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:	11/20/15 1413	1: Noelle Cyl	11/20/15 2:13 PM
2:		2:	
3:		3:	

PROJECT INFORMATION

PROJECT NAME: Owens Corning

PROJECT #:

SITE ADDRESS: Anderson SC

SEND REPORT TO: TBerryman@brwncald.com

INVOICE TO: (IF DIFFERENT FROM ABOVE)

QUOTE #: PO#:

RECEIPT

Total # of Containers: 28

Turnaround Time Request
- (X) 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

SPECIAL INSTRUCTIONS/COMMENTS: See focused list

SHIPMENT METHOD

OUT / / VIA:

IN / VIA:

(CLIENT) FedEx UPS MAIL COURIER

GREYHOUND OTHER

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ANALYTICAL ENVIRONMENTAL SERVICES, INC

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CHAIN OF CUSTODY

Work Order: 1511K38

Date: 11-20-15 Page 4 of 6

COMPANY: | ADDRESS: | PHONE: | FAX: | SAMPLED BY: Brian Steele | SIGNATURE:

ANALYSIS REQUESTED: VOCs

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	PRESERVATION (See codes)	REMARKS	No # of Containers
1	15320-MW-43-Z1	11-16-15	1355	X		GW	X		2
2	15320-MW-43-Z2	11-16-15	1545						
3	15320-MW-43-Z3	11-16-15	1745						
4	15321-Dup	11-17-15	1200						
5	15321-EB	11-17-15	1115			DW			
6	15321-MW-42-Z2	11-17-15	1155			GW			
7	15321-MW-39-Z1	11-17-15	1640						
8	15321-MW-42-Z1	11-17-15	1100						
9	15321-MW-42-Z3	11-17-15	1415						
10	15322-MW-39-Z3	11-18-15	0955						
11	15322-Dup	11-16-15	0956						
12	15322-MW-39-Z2	11-18-15	0855						
13	15322-MW-37-Z3	11-18-15	1205						
14	15322-MW-38-Z1	11-18-15	1540						

RELINQUISHED BY / DATE/TIME
1: 11/20/15/1413
2:
3:

RECEIVED BY / DATE/TIME
1: Noelia Cole 11/20/15 2:13 PM
2:
3:

SPECIAL INSTRUCTIONS/COMMENTS: See Focused List

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
(CLIENT) FedEx UPS MAIL COURIER
GREYHOUND OTHER_____

PROJECT INFORMATION
PROJECT NAME: Owens Corning
PROJECT #:
SITE ADDRESS: Anderson SC
SEND REPORT TO: TBerryman@brwncald.com
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #:_____ PO#:_____

RECEIPT
Total # of Containers: 28

Turnaround Time Request
- (O) 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

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CHAIN OF CUSTODY

Work Order: 1511K38

Date: 11-20-15 Page 5 of 6

COMPANY: Brown + Caldwell
ADDRESS: 990 Hammond Dr St. 400 Atlanta, GA
PHONE: 770-673-3678
FAX:
SAMPLED BY: Brian Steele
SIGNATURE:

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOCs *	PRESERVATION (See codes) H+I	REMARKS	No # of Containers
1	15323-MW-16	11/19/15	1109	X		GW	X	X		2
2	15323-MW-30	11/19/15	1215	X		GW	X	X		2
3	15323-MW-20	11/19/15	1455	X		GW	X	X		2
4	15323-MW-13	11/19/15	1600	X		GW	X	X		2
5	15324-MW-28	11/20/15	0920	X		GW	X	X		2
6	15324-MW-7	11/20/15	1005	X		GW	X	X		2
7	15323-MW-27	11-19-15	1445	X		GW	X	X		2
8	15323-MW-22	11-19-15	1600	X		GW	X	X		2
9	15323-MW-12	11-19-15	1705	X		GW	X	X		2
10										
11										
12										
13										
14										

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RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:	11/20/15/1413	1: Nedra Cole	11/20/15 2:13PM
2:		2:	
3:		3:	

PROJECT INFORMATION
PROJECT NAME: OWENS CORNING
PROJECT #: 147293
SITE ADDRESS:
SEND REPORT TO: TBERRYMAN@BROWNCALD.COM
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #: PO#:

RECEIPT
Total # of Containers: 18

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

SPECIAL INSTRUCTIONS/COMMENTS:
*: See Focus List

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
(CLIENT) FedEx UPS MAIL COURIER GREYHOUND OTHER

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White Copy - Original; Yellow Copy - Client

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3080 Presidential Drive, Atlanta GA 30340-3704
TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

AES

CHAIN OF CUSTODY

Work Order: 151438

Date: 11-20-15 Page 6 of 6

COMPANY: Brown and Caldwell

ADDRESS: 990 Hammond Dr Ste 406 Atlanta, GA 30328

PHONE:

FAX:

SAMPLED BY: Brian Steele

SIGNATURE:

ANALYSIS REQUESTED

VOC

PRESERVATION (See codes)

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	PRESERVATION	REMARKS	No # of Containers
1	15323-MW-41-Zone 1	11-19-15	1040	X		GW	X		2
2	15323-MW-41-Zone 2		1200						
3	15323-MW-41-Zone 3		1545						
4	15323-EB		1635						
5	15324-TW-2	11-20-15	0935	X		GW	X		
6	15324-EB	11-20-15	1025						
7	15323-MW-37-Z1	11-19-15	1125						
8	15324-TW-43	11-20-15	~~#2~~ 1005						
9	15323-MW-38-~~Z~~2	11-19-15	0955						
10	15323-TW-40	11-19-15	1635						
11	15323-~~TW~~-41	11-19-15	~~1515~~ 1515						
12	15323-MW-37-2	11-19-15	1255						
13	Trip Blank	—	—	X		DW	X		6
14									

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:	11/20/15/1413	1: Noelia Cycle	11/20/15 2:13
2:		2:	
3:		3:	

PROJECT INFORMATION

PROJECT NAME: Owens Corning

PROJECT #:

SITE ADDRESS: Anderson SC

SEND REPORT TO: TBerryman@brwncald.com

INVOICE TO: (IF DIFFERENT FROM ABOVE)

QUOTE #: PO#:

RECEIPT

Total # of Containers: 32

Turnaround Time Request
- (X) 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

SPECIAL INSTRUCTIONS/COMMENTS:

See Forgot list

SHIPMENT METHOD

OUT / / VIA:

IN / / VIA:

(CLIENT) FedEx UPS MAIL COURIER

GREYHOUND OTHER

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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: 1511K38

Case Narrative

Sample Receiving Nonconformance:

For samples 1511K38-051A (1 vial) and 1511K38-049A (1 vial), two VOAHCL were received broken.

Sample information on the Chain of Custody did not match that on the sample bottle labels for sample 1511K38-070A. Sample 1511K38-070A has a sample ID on the COC of "15324-TW-2", however on the sample container it was written as "153245-TW-42". Sample was logged in using the information on the label per Jaclyn Lauer.

Sample 1511K38-082A was not included on the COC and is an extra sample for WO 1511K38. Laboratory proceeded with VOCs analysis on the extra sample per Tamara Berryman via e-mail 11/23/15 at 9:10am.

Sample 1511K38-077A did not match COC in terms of ID, on the label the ID was 15323-MW-37-Z2, while on the COC it was 15323-MW-37-2. Samples were logged in according to the information the label per Jaclyn Lauer.

Volatiles Organic Compounds Analysis by Method 8260B:

Due to sample matrix, samples 1511K38-061A, & -062A required dilution during preparation and/or analysis resulting in elevated reporting limits.

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15321-MW-4
Project Name:	Owens Corning	**Collection Date:**	11/17/2015 9:09:00 AM
Lab ID:	1511K38-001	**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	216424	1	11/24/2015 18:23	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 18:23	JE
Methylene chloride	BRL	5.0		ug/L	216424	1	11/24/2015 18:23	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 18:23	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216424	1	11/24/2015 18:23	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 18:23	JE
Chloroform	BRL	5.0		ug/L	216424	1	11/24/2015 18:23	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216424	1	11/24/2015 18:23	JE
Carbon tetrachloride	BRL	5.0		ug/L	216424	1	11/24/2015 18:23	JE
Benzene	BRL	5.0		ug/L	216424	1	11/24/2015 18:23	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216424	1	11/24/2015 18:23	JE
Trichloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 18:23	JE
Toluene	BRL	5.0		ug/L	216424	1	11/24/2015 18:23	JE
Tetrachloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 18:23	JE
Ethylbenzene	BRL	5.0		ug/L	216424	1	11/24/2015 18:23	JE
Xylenes, Total	BRL	5.0		ug/L	216424	1	11/24/2015 18:23	JE
Surr: 4-Bromofluorobenzene	94.9	70.7-125		%REC	216424	1	11/24/2015 18:23	JE
Surr: Dibromofluoromethane	114	82.2-120		%REC	216424	1	11/24/2015 18:23	JE
Surr: Toluene-d8	94.2	81.8-120		%REC	216424	1	11/24/2015 18:23	JE

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 **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15321-MW-10
Project Name:	Owens Corning	**Collection Date:**	11/17/2015 10:52:00 AM
Lab ID:	1511K38-002	**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	216424	1	11/25/2015 15:09	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 15:09	JE
Methylene chloride	BRL	5.0		ug/L	216424	1	11/25/2015 15:09	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 15:09	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216424	1	11/25/2015 15:09	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 15:09	JE
Chloroform	BRL	5.0		ug/L	216424	1	11/25/2015 15:09	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216424	1	11/25/2015 15:09	JE
Carbon tetrachloride	BRL	5.0		ug/L	216424	1	11/25/2015 15:09	JE
Benzene	BRL	5.0		ug/L	216424	1	11/25/2015 15:09	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216424	1	11/25/2015 15:09	JE
Trichloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 15:09	JE
Toluene	BRL	5.0		ug/L	216424	1	11/25/2015 15:09	JE
Tetrachloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 15:09	JE
Ethylbenzene	BRL	5.0		ug/L	216424	1	11/25/2015 15:09	JE
Xylenes, Total	BRL	5.0		ug/L	216424	1	11/25/2015 15:09	JE
Surr: 4-Bromofluorobenzene	99.4	70.7-125		%REC	216424	1	11/25/2015 15:09	JE
Surr: Dibromofluoromethane	111	82.2-120		%REC	216424	1	11/25/2015 15:09	JE
Surr: Toluene-d8	93.9	81.8-120		%REC	216424	1	11/25/2015 15:09	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15321-MW-14
Project Name:	Owens Corning	**Collection Date:**	11/17/2015 11:50:00 AM
Lab ID:	1511K38-003	**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	216424	1	11/24/2015 19:13	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 19:13	JE
Methylene chloride	BRL	5.0		ug/L	216424	1	11/24/2015 19:13	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 19:13	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216424	1	11/24/2015 19:13	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 19:13	JE
Chloroform	BRL	5.0		ug/L	216424	1	11/24/2015 19:13	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216424	1	11/24/2015 19:13	JE
Carbon tetrachloride	BRL	5.0		ug/L	216424	1	11/24/2015 19:13	JE
Benzene	BRL	5.0		ug/L	216424	1	11/24/2015 19:13	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216424	1	11/24/2015 19:13	JE
Trichloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 19:13	JE
Toluene	BRL	5.0		ug/L	216424	1	11/24/2015 19:13	JE
Tetrachloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 19:13	JE
Ethylbenzene	BRL	5.0		ug/L	216424	1	11/24/2015 19:13	JE
Xylenes, Total	BRL	5.0		ug/L	216424	1	11/24/2015 19:13	JE
Surr: 4-Bromofluorobenzene	93.7	70.7-125		%REC	216424	1	11/24/2015 19:13	JE
Surr: Dibromofluoromethane	107	82.2-120		%REC	216424	1	11/24/2015 19:13	JE
Surr: Toluene-d8	90.1	81.8-120		%REC	216424	1	11/24/2015 19:13	JE

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 **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15321-MW-5
Project Name:	Owens Corning	**Collection Date:**	11/17/2015 1:50:00 PM
Lab ID:	1511K38-004	**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	216424	1	11/24/2015 19:37	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 19:37	JE
Methylene chloride	BRL	5.0		ug/L	216424	1	11/24/2015 19:37	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 19:37	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216424	1	11/24/2015 19:37	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 19:37	JE
Chloroform	BRL	5.0		ug/L	216424	1	11/24/2015 19:37	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216424	1	11/24/2015 19:37	JE
Carbon tetrachloride	BRL	5.0		ug/L	216424	1	11/24/2015 19:37	JE
Benzene	BRL	5.0		ug/L	216424	1	11/24/2015 19:37	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216424	1	11/24/2015 19:37	JE
Trichloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 19:37	JE
Toluene	BRL	5.0		ug/L	216424	1	11/24/2015 19:37	JE
Tetrachloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 19:37	JE
Ethylbenzene	BRL	5.0		ug/L	216424	1	11/24/2015 19:37	JE
Xylenes, Total	BRL	5.0		ug/L	216424	1	11/24/2015 19:37	JE
Surr: 4-Bromofluorobenzene	94.8	70.7-125		%REC	216424	1	11/24/2015 19:37	JE
Surr: Dibromofluoromethane	116	82.2-120		%REC	216424	1	11/24/2015 19:37	JE
Surr: Toluene-d8	89.7	81.8-120		%REC	216424	1	11/24/2015 19:37	JE

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 **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15321-MW-6
Project Name:	Owens Corning	**Collection Date:**	11/17/2015 3:15:00 PM
Lab ID:	1511K38-005	**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	216424	1	11/25/2015 15:32	JE
1,1-Dichloroethene	20	5.0		ug/L	216424	1	11/25/2015 15:32	JE
Methylene chloride	BRL	5.0		ug/L	216424	1	11/25/2015 15:32	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 15:32	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216424	1	11/25/2015 15:32	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 15:32	JE
Chloroform	BRL	5.0		ug/L	216424	1	11/25/2015 15:32	JE
1,1,1-Trichloroethane	100	5.0		ug/L	216424	1	11/25/2015 15:32	JE
Carbon tetrachloride	BRL	5.0		ug/L	216424	1	11/25/2015 15:32	JE
Benzene	BRL	5.0		ug/L	216424	1	11/25/2015 15:32	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216424	1	11/25/2015 15:32	JE
Trichloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 15:32	JE
Toluene	BRL	5.0		ug/L	216424	1	11/25/2015 15:32	JE
Tetrachloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 15:32	JE
Ethylbenzene	BRL	5.0		ug/L	216424	1	11/25/2015 15:32	JE
Xylenes, Total	BRL	5.0		ug/L	216424	1	11/25/2015 15:32	JE
Surr: 4-Bromofluorobenzene	99.2	70.7-125		%REC	216424	1	11/25/2015 15:32	JE
Surr: Dibromofluoromethane	113	82.2-120		%REC	216424	1	11/25/2015 15:32	JE
Surr: Toluene-d8	94.6	81.8-120		%REC	216424	1	11/25/2015 15:32	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15321-MW-17
Project Name:	Owens Corning	**Collection Date:**	11/17/2015 4:28:00 PM
Lab ID:	1511K38-006	**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	216424	1	11/24/2015 20:25	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 20:25	JE
Methylene chloride	BRL	5.0		ug/L	216424	1	11/24/2015 20:25	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 20:25	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216424	1	11/24/2015 20:25	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 20:25	JE
Chloroform	BRL	5.0		ug/L	216424	1	11/24/2015 20:25	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216424	1	11/24/2015 20:25	JE
Carbon tetrachloride	BRL	5.0		ug/L	216424	1	11/24/2015 20:25	JE
Benzene	BRL	5.0		ug/L	216424	1	11/24/2015 20:25	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216424	1	11/24/2015 20:25	JE
Trichloroethene	37	5.0		ug/L	216424	1	11/24/2015 20:25	JE
Toluene	BRL	5.0		ug/L	216424	1	11/24/2015 20:25	JE
Tetrachloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 20:25	JE
Ethylbenzene	BRL	5.0		ug/L	216424	1	11/24/2015 20:25	JE
Xylenes, Total	BRL	5.0		ug/L	216424	1	11/24/2015 20:25	JE
Surr: 4-Bromofluorobenzene	107	70.7-125		%REC	216424	1	11/24/2015 20:25	JE
Surr: Dibromofluoromethane	114	82.2-120		%REC	216424	1	11/24/2015 20:25	JE
Surr: Toluene-d8	91	81.8-120		%REC	216424	1	11/24/2015 20:25	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15322-MW-9
Project Name:	Owens Corning	**Collection Date:**	11/18/2015 8:25:00 AM
Lab ID:	1511K38-007	**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	216424	1	11/25/2015 16:26	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 16:26	JE
Methylene chloride	BRL	5.0		ug/L	216424	1	11/25/2015 16:26	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 16:26	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216424	1	11/25/2015 16:26	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 16:26	JE
Chloroform	BRL	5.0		ug/L	216424	1	11/25/2015 16:26	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216424	1	11/25/2015 16:26	JE
Carbon tetrachloride	BRL	5.0		ug/L	216424	1	11/25/2015 16:26	JE
Benzene	BRL	5.0		ug/L	216424	1	11/25/2015 16:26	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216424	1	11/25/2015 16:26	JE
Trichloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 16:26	JE
Toluene	BRL	5.0		ug/L	216424	1	11/25/2015 16:26	JE
Tetrachloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 16:26	JE
Ethylbenzene	BRL	5.0		ug/L	216424	1	11/25/2015 16:26	JE
Xylenes, Total	BRL	5.0		ug/L	216424	1	11/25/2015 16:26	JE
Surr: 4-Bromofluorobenzene	101	70.7-125		%REC	216424	1	11/25/2015 16:26	JE
Surr: Dibromofluoromethane	111	82.2-120		%REC	216424	1	11/25/2015 16:26	JE
Surr: Toluene-d8	93.9	81.8-120		%REC	216424	1	11/25/2015 16:26	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15322-MW-11
Project Name:	Owens Corning	**Collection Date:**	11/18/2015 9:38:00 AM
Lab ID:	1511K38-008	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	2.8	2.0		ug/L	216424	1	11/24/2015 21:11	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 21:11	JE
Methylene chloride	BRL	5.0		ug/L	216424	1	11/24/2015 21:11	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 21:11	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216424	1	11/24/2015 21:11	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 21:11	JE
Chloroform	BRL	5.0		ug/L	216424	1	11/24/2015 21:11	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216424	1	11/24/2015 21:11	JE
Carbon tetrachloride	BRL	5.0		ug/L	216424	1	11/24/2015 21:11	JE
Benzene	BRL	5.0		ug/L	216424	1	11/24/2015 21:11	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216424	1	11/24/2015 21:11	JE
Trichloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 21:11	JE
Toluene	BRL	5.0		ug/L	216424	1	11/24/2015 21:11	JE
Tetrachloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 21:11	JE
Ethylbenzene	BRL	5.0		ug/L	216424	1	11/24/2015 21:11	JE
Xylenes, Total	BRL	5.0		ug/L	216424	1	11/24/2015 21:11	JE
Surr: 4-Bromofluorobenzene	99.4	70.7-125		%REC	216424	1	11/24/2015 21:11	JE
Surr: Dibromofluoromethane	109	82.2-120		%REC	216424	1	11/24/2015 21:11	JE
Surr: Toluene-d8	95.5	81.8-120		%REC	216424	1	11/24/2015 21:11	JE

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 **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15322-MW-26
Project Name:	Owens Corning	**Collection Date:**	11/18/2015 10:44:00 AM
Lab ID:	1511K38-009	**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	216424	1	11/24/2015 21:35	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 21:35	JE
Methylene chloride	BRL	5.0		ug/L	216424	1	11/24/2015 21:35	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 21:35	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216424	1	11/24/2015 21:35	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 21:35	JE
Chloroform	BRL	5.0		ug/L	216424	1	11/24/2015 21:35	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216424	1	11/24/2015 21:35	JE
Carbon tetrachloride	BRL	5.0		ug/L	216424	1	11/24/2015 21:35	JE
Benzene	BRL	5.0		ug/L	216424	1	11/24/2015 21:35	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216424	1	11/24/2015 21:35	JE
Trichloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 21:35	JE
Toluene	BRL	5.0		ug/L	216424	1	11/24/2015 21:35	JE
Tetrachloroethene	BRL	5.0		ug/L	216424	1	11/24/2015 21:35	JE
Ethylbenzene	BRL	5.0		ug/L	216424	1	11/24/2015 21:35	JE
Xylenes, Total	BRL	5.0		ug/L	216424	1	11/24/2015 21:35	JE
Surr: 4-Bromofluorobenzene	103	70.7-125		%REC	216424	1	11/24/2015 21:35	JE
Surr: Dibromofluoromethane	111	82.2-120		%REC	216424	1	11/24/2015 21:35	JE
Surr: Toluene-d8	95.1	81.8-120		%REC	216424	1	11/24/2015 21:35	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15322-MW-24
Project Name:	Owens Corning	**Collection Date:**	11/18/2015 4:10:00 PM
Lab ID:	1511K38-010	**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	216424	1	11/25/2015 16:53	JE
1,1-Dichloroethene	140	5.0		ug/L	216424	1	11/25/2015 16:53	JE
Methylene chloride	BRL	5.0		ug/L	216424	1	11/25/2015 16:53	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 16:53	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216424	1	11/25/2015 16:53	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 16:53	JE
Chloroform	12	5.0		ug/L	216424	1	11/25/2015 16:53	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216424	1	11/25/2015 16:53	JE
Carbon tetrachloride	18	5.0		ug/L	216424	1	11/25/2015 16:53	JE
Benzene	BRL	5.0		ug/L	216424	1	11/25/2015 16:53	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216424	1	11/25/2015 16:53	JE
Trichloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 16:53	JE
Toluene	BRL	5.0		ug/L	216424	1	11/25/2015 16:53	JE
Tetrachloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 16:53	JE
Ethylbenzene	BRL	5.0		ug/L	216424	1	11/25/2015 16:53	JE
Xylenes, Total	BRL	5.0		ug/L	216424	1	11/25/2015 16:53	JE
Surr: 4-Bromofluorobenzene	101	70.7-125		%REC	216424	1	11/25/2015 16:53	JE
Surr: Dibromofluoromethane	107	82.2-120		%REC	216424	1	11/25/2015 16:53	JE
Surr: Toluene-d8	93	81.8-120		%REC	216424	1	11/25/2015 16:53	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15322-TW-44
Project Name:	Owens Corning	**Collection Date:**	11/18/2015 11:37:00 AM
Lab ID:	1511K38-011	**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	216424	1	11/25/2015 17:16	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 17:16	JE
Methylene chloride	BRL	5.0		ug/L	216424	1	11/25/2015 17:16	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 17:16	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216424	1	11/25/2015 17:16	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 17:16	JE
Chloroform	BRL	5.0		ug/L	216424	1	11/25/2015 17:16	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216424	1	11/25/2015 17:16	JE
Carbon tetrachloride	BRL	5.0		ug/L	216424	1	11/25/2015 17:16	JE
Benzene	BRL	5.0		ug/L	216424	1	11/25/2015 17:16	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216424	1	11/25/2015 17:16	JE
Trichloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 17:16	JE
Toluene	BRL	5.0		ug/L	216424	1	11/25/2015 17:16	JE
Tetrachloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 17:16	JE
Ethylbenzene	BRL	5.0		ug/L	216424	1	11/25/2015 17:16	JE
Xylenes, Total	BRL	5.0		ug/L	216424	1	11/25/2015 17:16	JE
Surr: 4-Bromofluorobenzene	99.7	70.7-125		%REC	216424	1	11/25/2015 17:16	JE
Surr: Dibromofluoromethane	110	82.2-120		%REC	216424	1	11/25/2015 17:16	JE
Surr: Toluene-d8	95.2	81.8-120		%REC	216424	1	11/25/2015 17:16	JE

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 **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15322-EB
Project Name:	Owens Corning	**Collection Date:**	11/18/2015 12:00:00 PM
Lab ID:	1511K38-012	**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	216424	1	11/25/2015 17:40	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 17:40	JE
Methylene chloride	BRL	5.0		ug/L	216424	1	11/25/2015 17:40	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 17:40	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216424	1	11/25/2015 17:40	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 17:40	JE
Chloroform	BRL	5.0		ug/L	216424	1	11/25/2015 17:40	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216424	1	11/25/2015 17:40	JE
Carbon tetrachloride	BRL	5.0		ug/L	216424	1	11/25/2015 17:40	JE
Benzene	BRL	5.0		ug/L	216424	1	11/25/2015 17:40	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216424	1	11/25/2015 17:40	JE
Trichloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 17:40	JE
Toluene	BRL	5.0		ug/L	216424	1	11/25/2015 17:40	JE
Tetrachloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 17:40	JE
Ethylbenzene	BRL	5.0		ug/L	216424	1	11/25/2015 17:40	JE
Xylenes, Total	BRL	5.0		ug/L	216424	1	11/25/2015 17:40	JE
Surr: 4-Bromofluorobenzene	100	70.7-125		%REC	216424	1	11/25/2015 17:40	JE
Surr: Dibromofluoromethane	114	82.2-120		%REC	216424	1	11/25/2015 17:40	JE
Surr: Toluene-d8	95.7	81.8-120		%REC	216424	1	11/25/2015 17:40	JE

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 **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15323-MW-44
Project Name:	Owens Corning	**Collection Date:**	11/19/2015 9:58:00 AM
Lab ID:	1511K38-013	**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	216424	1	11/25/2015 18:13	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 18:13	JE
Methylene chloride	BRL	5.0		ug/L	216424	1	11/25/2015 18:13	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 18:13	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216424	1	11/25/2015 18:13	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 18:13	JE
Chloroform	BRL	5.0		ug/L	216424	1	11/25/2015 18:13	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216424	1	11/25/2015 18:13	JE
Carbon tetrachloride	BRL	5.0		ug/L	216424	1	11/25/2015 18:13	JE
Benzene	BRL	5.0		ug/L	216424	1	11/25/2015 18:13	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216424	1	11/25/2015 18:13	JE
Trichloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 18:13	JE
Toluene	BRL	5.0		ug/L	216424	1	11/25/2015 18:13	JE
Tetrachloroethene	BRL	5.0		ug/L	216424	1	11/25/2015 18:13	JE
Ethylbenzene	BRL	5.0		ug/L	216424	1	11/25/2015 18:13	JE
Xylenes, Total	BRL	5.0		ug/L	216424	1	11/25/2015 18:13	JE
Surr: 4-Bromofluorobenzene	104	70.7-125		%REC	216424	1	11/25/2015 18:13	JE
Surr: Dibromofluoromethane	111	82.2-120		%REC	216424	1	11/25/2015 18:13	JE
Surr: Toluene-d8	96.2	81.8-120		%REC	216424	1	11/25/2015 18:13	JE

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 **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15321-DUP-2
Project Name:	Owens Corning	**Collection Date:**	11/17/2015 12:00:00 PM
Lab ID:	1511K38-014	**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	216424	1	11/27/2015 13:35	NP
1,1-Dichloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 13:35	NP
Methylene chloride	BRL	5.0		ug/L	216424	1	11/27/2015 13:35	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 13:35	NP
1,1-Dichloroethane	BRL	5.0		ug/L	216424	1	11/27/2015 13:35	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 13:35	NP
Chloroform	BRL	5.0		ug/L	216424	1	11/27/2015 13:35	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	216424	1	11/27/2015 13:35	NP
Carbon tetrachloride	BRL	5.0		ug/L	216424	1	11/27/2015 13:35	NP
Benzene	BRL	5.0		ug/L	216424	1	11/27/2015 13:35	NP
1,2-Dichloroethane	BRL	5.0		ug/L	216424	1	11/27/2015 13:35	NP
Trichloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 13:35	NP
Toluene	BRL	5.0		ug/L	216424	1	11/27/2015 13:35	NP
Tetrachloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 13:35	NP
Ethylbenzene	BRL	5.0		ug/L	216424	1	11/27/2015 13:35	NP
Xylenes, Total	BRL	5.0		ug/L	216424	1	11/27/2015 13:35	NP
Surr: 4-Bromofluorobenzene	104	70.7-125		%REC	216424	1	11/27/2015 13:35	NP
Surr: Dibromofluoromethane	109	82.2-120		%REC	216424	1	11/27/2015 13:35	NP
Surr: Toluene-d8	87.5	81.8-120		%REC	216424	1	11/27/2015 13:35	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15321-MW-3
Project Name:	Owens Corning	**Collection Date:**	11/17/2015 9:10:00 AM
Lab ID:	1511K38-015	**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	216424	1	11/27/2015 13:58	NP
1,1-Dichloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 13:58	NP
Methylene chloride	BRL	5.0		ug/L	216424	1	11/27/2015 13:58	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 13:58	NP
1,1-Dichloroethane	BRL	5.0		ug/L	216424	1	11/27/2015 13:58	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 13:58	NP
Chloroform	BRL	5.0		ug/L	216424	1	11/27/2015 13:58	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	216424	1	11/27/2015 13:58	NP
Carbon tetrachloride	BRL	5.0		ug/L	216424	1	11/27/2015 13:58	NP
Benzene	BRL	5.0		ug/L	216424	1	11/27/2015 13:58	NP
1,2-Dichloroethane	BRL	5.0		ug/L	216424	1	11/27/2015 13:58	NP
Trichloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 13:58	NP
Toluene	BRL	5.0		ug/L	216424	1	11/27/2015 13:58	NP
Tetrachloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 13:58	NP
Ethylbenzene	BRL	5.0		ug/L	216424	1	11/27/2015 13:58	NP
Xylenes, Total	BRL	5.0		ug/L	216424	1	11/27/2015 13:58	NP
Surr: 4-Bromofluorobenzene	97.3	70.7-125		%REC	216424	1	11/27/2015 13:58	NP
Surr: Dibromofluoromethane	115	82.2-120		%REC	216424	1	11/27/2015 13:58	NP
Surr: Toluene-d8	100	81.8-120		%REC	216424	1	11/27/2015 13:58	NP

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 **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15321-MW-1
Project Name:	Owens Corning	**Collection Date:**	11/17/2015 11:25:00 AM
Lab ID:	1511K38-016	**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	216424	1	11/27/2015 14:22	NP
1,1-Dichloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 14:22	NP
Methylene chloride	BRL	5.0		ug/L	216424	1	11/27/2015 14:22	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 14:22	NP
1,1-Dichloroethane	BRL	5.0		ug/L	216424	1	11/27/2015 14:22	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 14:22	NP
Chloroform	BRL	5.0		ug/L	216424	1	11/27/2015 14:22	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	216424	1	11/27/2015 14:22	NP
Carbon tetrachloride	BRL	5.0		ug/L	216424	1	11/27/2015 14:22	NP
Benzene	BRL	5.0		ug/L	216424	1	11/27/2015 14:22	NP
1,2-Dichloroethane	BRL	5.0		ug/L	216424	1	11/27/2015 14:22	NP
Trichloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 14:22	NP
Toluene	BRL	5.0		ug/L	216424	1	11/27/2015 14:22	NP
Tetrachloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 14:22	NP
Ethylbenzene	BRL	5.0		ug/L	216424	1	11/27/2015 14:22	NP
Xylenes, Total	BRL	5.0		ug/L	216424	1	11/27/2015 14:22	NP
Surr: 4-Bromofluorobenzene	92.8	70.7-125		%REC	216424	1	11/27/2015 14:22	NP
Surr: Dibromofluoromethane	106	82.2-120		%REC	216424	1	11/27/2015 14:22	NP
Surr: Toluene-d8	94.7	81.8-120		%REC	216424	1	11/27/2015 14:22	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15321-ALLOY
Project Name:	Owens Corning	**Collection Date:**	11/17/2015 1:50:00 PM
Lab ID:	1511K38-017	**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	216424	1	11/27/2015 14:46	NP
1,1-Dichloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 14:46	NP
Methylene chloride	BRL	5.0		ug/L	216424	1	11/27/2015 14:46	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 14:46	NP
1,1-Dichloroethane	BRL	5.0		ug/L	216424	1	11/27/2015 14:46	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 14:46	NP
Chloroform	BRL	5.0		ug/L	216424	1	11/27/2015 14:46	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	216424	1	11/27/2015 14:46	NP
Carbon tetrachloride	BRL	5.0		ug/L	216424	1	11/27/2015 14:46	NP
Benzene	BRL	5.0		ug/L	216424	1	11/27/2015 14:46	NP
1,2-Dichloroethane	BRL	5.0		ug/L	216424	1	11/27/2015 14:46	NP
Trichloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 14:46	NP
Toluene	BRL	5.0		ug/L	216424	1	11/27/2015 14:46	NP
Tetrachloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 14:46	NP
Ethylbenzene	BRL	5.0		ug/L	216424	1	11/27/2015 14:46	NP
Xylenes, Total	BRL	5.0		ug/L	216424	1	11/27/2015 14:46	NP
Surr: 4-Bromofluorobenzene	75.5	70.7-125		%REC	216424	1	11/27/2015 14:46	NP
Surr: Dibromofluoromethane	111	82.2-120		%REC	216424	1	11/27/2015 14:46	NP
Surr: Toluene-d8	93.9	81.8-120		%REC	216424	1	11/27/2015 14:46	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15321-EB-2
Project Name:	Owens Corning	**Collection Date:**	11/17/2015 2:05:00 PM
Lab ID:	1511K38-018	**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	216424	1	11/27/2015 15:30	NP
1,1-Dichloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 15:30	NP
Methylene chloride	BRL	5.0		ug/L	216424	1	11/27/2015 15:30	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 15:30	NP
1,1-Dichloroethane	BRL	5.0		ug/L	216424	1	11/27/2015 15:30	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 15:30	NP
Chloroform	BRL	5.0		ug/L	216424	1	11/27/2015 15:30	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	216424	1	11/27/2015 15:30	NP
Carbon tetrachloride	BRL	5.0		ug/L	216424	1	11/27/2015 15:30	NP
Benzene	BRL	5.0		ug/L	216424	1	11/27/2015 15:30	NP
1,2-Dichloroethane	BRL	5.0		ug/L	216424	1	11/27/2015 15:30	NP
Trichloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 15:30	NP
Toluene	BRL	5.0		ug/L	216424	1	11/27/2015 15:30	NP
Tetrachloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 15:30	NP
Ethylbenzene	BRL	5.0		ug/L	216424	1	11/27/2015 15:30	NP
Xylenes, Total	BRL	5.0		ug/L	216424	1	11/27/2015 15:30	NP
Surr: 4-Bromofluorobenzene	101	70.7-125		%REC	216424	1	11/27/2015 15:30	NP
Surr: Dibromofluoromethane	109	82.2-120		%REC	216424	1	11/27/2015 15:30	NP
Surr: Toluene-d8	90.8	81.8-120		%REC	216424	1	11/27/2015 15:30	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15321-MW-2
Project Name:	Owens Corning	**Collection Date:**	11/17/2015 3:30:00 PM
Lab ID:	1511K38-019	**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	216424	1	11/30/2015 13:05	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216424	1	11/30/2015 13:05	JE
Methylene chloride	BRL	5.0		ug/L	216424	1	11/30/2015 13:05	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/30/2015 13:05	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216424	1	11/30/2015 13:05	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/30/2015 13:05	JE
Chloroform	BRL	5.0		ug/L	216424	1	11/30/2015 13:05	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216424	1	11/30/2015 13:05	JE
Carbon tetrachloride	BRL	5.0		ug/L	216424	1	11/30/2015 13:05	JE
Benzene	BRL	5.0		ug/L	216424	1	11/30/2015 13:05	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216424	1	11/30/2015 13:05	JE
Trichloroethene	BRL	5.0		ug/L	216424	1	11/30/2015 13:05	JE
Toluene	BRL	5.0		ug/L	216424	1	11/30/2015 13:05	JE
Tetrachloroethene	BRL	5.0		ug/L	216424	1	11/30/2015 13:05	JE
Ethylbenzene	BRL	5.0		ug/L	216424	1	11/30/2015 13:05	JE
Xylenes, Total	BRL	5.0		ug/L	216424	1	11/30/2015 13:05	JE
Surr: 4-Bromofluorobenzene	91.5	70.7-125		%REC	216424	1	11/30/2015 13:05	JE
Surr: Dibromofluoromethane	98.8	82.2-120		%REC	216424	1	11/30/2015 13:05	JE
Surr: Toluene-d8	98.6	81.8-120		%REC	216424	1	11/30/2015 13:05	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15321-MW-18
Project Name:	Owens Corning	**Collection Date:**	11/17/2015 4:30:00 PM
Lab ID:	1511K38-020	**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	216424	1	11/27/2015 16:17	NP
1,1-Dichloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 16:17	NP
Methylene chloride	BRL	5.0		ug/L	216424	1	11/27/2015 16:17	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 16:17	NP
1,1-Dichloroethane	BRL	5.0		ug/L	216424	1	11/27/2015 16:17	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 16:17	NP
Chloroform	BRL	5.0		ug/L	216424	1	11/27/2015 16:17	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	216424	1	11/27/2015 16:17	NP
Carbon tetrachloride	BRL	5.0		ug/L	216424	1	11/27/2015 16:17	NP
Benzene	BRL	5.0		ug/L	216424	1	11/27/2015 16:17	NP
1,2-Dichloroethane	BRL	5.0		ug/L	216424	1	11/27/2015 16:17	NP
Trichloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 16:17	NP
Toluene	BRL	5.0		ug/L	216424	1	11/27/2015 16:17	NP
Tetrachloroethene	BRL	5.0		ug/L	216424	1	11/27/2015 16:17	NP
Ethylbenzene	BRL	5.0		ug/L	216424	1	11/27/2015 16:17	NP
Xylenes, Total	BRL	5.0		ug/L	216424	1	11/27/2015 16:17	NP
Surr: 4-Bromofluorobenzene	119	70.7-125		%REC	216424	1	11/27/2015 16:17	NP
Surr: Dibromofluoromethane	108	82.2-120		%REC	216424	1	11/27/2015 16:17	NP
Surr: Toluene-d8	102	81.8-120		%REC	216424	1	11/27/2015 16:17	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15322-MW-32
Project Name:	Owens Corning	**Collection Date:**	11/18/2015 8:40:00 AM
Lab ID:	1511K38-021	**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	216431	1	11/24/2015 23:02	JE
1,1-Dichloroethene	36	5.0		ug/L	216431	1	11/24/2015 23:02	JE
Methylene chloride	BRL	5.0		ug/L	216431	1	11/24/2015 23:02	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/24/2015 23:02	JE
1,1-Dichloroethane	7.4	5.0		ug/L	216431	1	11/24/2015 23:02	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/24/2015 23:02	JE
Chloroform	BRL	5.0		ug/L	216431	1	11/24/2015 23:02	JE
1,1,1-Trichloroethane	29	5.0		ug/L	216431	1	11/24/2015 23:02	JE
Carbon tetrachloride	BRL	5.0		ug/L	216431	1	11/24/2015 23:02	JE
Benzene	BRL	5.0		ug/L	216431	1	11/24/2015 23:02	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216431	1	11/24/2015 23:02	JE
Trichloroethene	BRL	5.0		ug/L	216431	1	11/24/2015 23:02	JE
Toluene	BRL	5.0		ug/L	216431	1	11/24/2015 23:02	JE
Tetrachloroethene	BRL	5.0		ug/L	216431	1	11/24/2015 23:02	JE
Ethylbenzene	BRL	5.0		ug/L	216431	1	11/24/2015 23:02	JE
Xylenes, Total	BRL	5.0		ug/L	216431	1	11/24/2015 23:02	JE
Surr: 4-Bromofluorobenzene	92.3	70.7-125		%REC	216431	1	11/24/2015 23:02	JE
Surr: Dibromofluoromethane	97.2	82.2-120		%REC	216431	1	11/24/2015 23:02	JE
Surr: Toluene-d8	97.7	81.8-120		%REC	216431	1	11/24/2015 23:02	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15322-MW-19
Project Name:	Owens Corning	**Collection Date:**	11/18/2015 9:45:00 AM
Lab ID:	1511K38-022	**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	216431	1	11/24/2015 23:26	JE
1,1-Dichloroethene	18	5.0		ug/L	216431	1	11/24/2015 23:26	JE
Methylene chloride	BRL	5.0		ug/L	216431	1	11/24/2015 23:26	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/24/2015 23:26	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216431	1	11/24/2015 23:26	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/24/2015 23:26	JE
Chloroform	BRL	5.0		ug/L	216431	1	11/24/2015 23:26	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216431	1	11/24/2015 23:26	JE
Carbon tetrachloride	BRL	5.0		ug/L	216431	1	11/24/2015 23:26	JE
Benzene	BRL	5.0		ug/L	216431	1	11/24/2015 23:26	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216431	1	11/24/2015 23:26	JE
Trichloroethene	BRL	5.0		ug/L	216431	1	11/24/2015 23:26	JE
Toluene	BRL	5.0		ug/L	216431	1	11/24/2015 23:26	JE
Tetrachloroethene	BRL	5.0		ug/L	216431	1	11/24/2015 23:26	JE
Ethylbenzene	BRL	5.0		ug/L	216431	1	11/24/2015 23:26	JE
Xylenes, Total	BRL	5.0		ug/L	216431	1	11/24/2015 23:26	JE
Surr: 4-Bromofluorobenzene	91	70.7-125		%REC	216431	1	11/24/2015 23:26	JE
Surr: Dibromofluoromethane	94.6	82.2-120		%REC	216431	1	11/24/2015 23:26	JE
Surr: Toluene-d8	98.4	81.8-120		%REC	216431	1	11/24/2015 23:26	JE

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 **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15322-MW-25
Project Name:	Owens Corning	**Collection Date:**	11/18/2015 10:55:00 AM
Lab ID:	1511K38-023	**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	216431	1	11/24/2015 23:49	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216431	1	11/24/2015 23:49	JE
Methylene chloride	BRL	5.0		ug/L	216431	1	11/24/2015 23:49	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/24/2015 23:49	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216431	1	11/24/2015 23:49	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/24/2015 23:49	JE
Chloroform	BRL	5.0		ug/L	216431	1	11/24/2015 23:49	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216431	1	11/24/2015 23:49	JE
Carbon tetrachloride	BRL	5.0		ug/L	216431	1	11/24/2015 23:49	JE
Benzene	BRL	5.0		ug/L	216431	1	11/24/2015 23:49	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216431	1	11/24/2015 23:49	JE
Trichloroethene	BRL	5.0		ug/L	216431	1	11/24/2015 23:49	JE
Toluene	BRL	5.0		ug/L	216431	1	11/24/2015 23:49	JE
Tetrachloroethene	BRL	5.0		ug/L	216431	1	11/24/2015 23:49	JE
Ethylbenzene	BRL	5.0		ug/L	216431	1	11/24/2015 23:49	JE
Xylenes, Total	BRL	5.0		ug/L	216431	1	11/24/2015 23:49	JE
Surr: 4-Bromofluorobenzene	91.3	70.7-125		%REC	216431	1	11/24/2015 23:49	JE
Surr: Dibromofluoromethane	93.3	82.2-120		%REC	216431	1	11/24/2015 23:49	JE
Surr: Toluene-d8	96.9	81.8-120		%REC	216431	1	11/24/2015 23:49	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15322-MW-15
Project Name:	Owens Corning	**Collection Date:**	11/18/2015 11:45:00 AM
Lab ID:	1511K38-024	**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	216431	1	11/25/2015 00:13	JE
1,1-Dichloroethene	110	5.0		ug/L	216431	1	11/25/2015 00:13	JE
Methylene chloride	BRL	5.0		ug/L	216431	1	11/25/2015 00:13	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 00:13	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 00:13	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 00:13	JE
Chloroform	BRL	5.0		ug/L	216431	1	11/25/2015 00:13	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 00:13	JE
Carbon tetrachloride	BRL	5.0		ug/L	216431	1	11/25/2015 00:13	JE
Benzene	BRL	5.0		ug/L	216431	1	11/25/2015 00:13	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 00:13	JE
Trichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 00:13	JE
Toluene	BRL	5.0		ug/L	216431	1	11/25/2015 00:13	JE
Tetrachloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 00:13	JE
Ethylbenzene	BRL	5.0		ug/L	216431	1	11/25/2015 00:13	JE
Xylenes, Total	BRL	5.0		ug/L	216431	1	11/25/2015 00:13	JE
Surr: 4-Bromofluorobenzene	90.6	70.7-125		%REC	216431	1	11/25/2015 00:13	JE
Surr: Dibromofluoromethane	96	82.2-120		%REC	216431	1	11/25/2015 00:13	JE
Surr: Toluene-d8	97.9	81.8-120		%REC	216431	1	11/25/2015 00:13	JE

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 **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15322-TW-46
Project Name:	Owens Corning	**Collection Date:**	11/18/2015 4:45:00 PM
Lab ID:	1511K38-025	**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	216431	1	11/25/2015 00:36	JE
1,1-Dichloroethene	5.8	5.0		ug/L	216431	1	11/25/2015 00:36	JE
Methylene chloride	BRL	5.0		ug/L	216431	1	11/25/2015 00:36	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 00:36	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 00:36	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 00:36	JE
Chloroform	5.6	5.0		ug/L	216431	1	11/25/2015 00:36	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 00:36	JE
Carbon tetrachloride	BRL	5.0		ug/L	216431	1	11/25/2015 00:36	JE
Benzene	BRL	5.0		ug/L	216431	1	11/25/2015 00:36	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 00:36	JE
Trichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 00:36	JE
Toluene	BRL	5.0		ug/L	216431	1	11/25/2015 00:36	JE
Tetrachloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 00:36	JE
Ethylbenzene	BRL	5.0		ug/L	216431	1	11/25/2015 00:36	JE
Xylenes, Total	BRL	5.0		ug/L	216431	1	11/25/2015 00:36	JE
Surr: 4-Bromofluorobenzene	92.4	70.7-125		%REC	216431	1	11/25/2015 00:36	JE
Surr: Dibromofluoromethane	94.9	82.2-120		%REC	216431	1	11/25/2015 00:36	JE
Surr: Toluene-d8	98.7	81.8-120		%REC	216431	1	11/25/2015 00:36	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15323-MW-35
Project Name:	Owens Corning	**Collection Date:**	11/19/2015 10:00:00 AM
Lab ID:	1511K38-026	**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	216431	1	11/25/2015 01:00	JE
1,1-Dichloroethene	53	5.0		ug/L	216431	1	11/25/2015 01:00	JE
Methylene chloride	BRL	5.0		ug/L	216431	1	11/25/2015 01:00	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 01:00	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 01:00	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 01:00	JE
Chloroform	BRL	5.0		ug/L	216431	1	11/25/2015 01:00	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 01:00	JE
Carbon tetrachloride	BRL	5.0		ug/L	216431	1	11/25/2015 01:00	JE
Benzene	BRL	5.0		ug/L	216431	1	11/25/2015 01:00	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 01:00	JE
Trichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 01:00	JE
Toluene	BRL	5.0		ug/L	216431	1	11/25/2015 01:00	JE
Tetrachloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 01:00	JE
Ethylbenzene	BRL	5.0		ug/L	216431	1	11/25/2015 01:00	JE
Xylenes, Total	BRL	5.0		ug/L	216431	1	11/25/2015 01:00	JE
Surr: 4-Bromofluorobenzene	91.6	70.7-125		%REC	216431	1	11/25/2015 01:00	JE
Surr: Dibromofluoromethane	95.5	82.2-120		%REC	216431	1	11/25/2015 01:00	JE
Surr: Toluene-d8	98.8	81.8-120		%REC	216431	1	11/25/2015 01:00	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15323-MW-21
Project Name:	Owens Corning	**Collection Date:**	11/19/2015 11:05:00 AM
Lab ID:	1511K38-027	**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	216431	1	11/25/2015 01:23	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 01:23	JE
Methylene chloride	BRL	5.0		ug/L	216431	1	11/25/2015 01:23	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 01:23	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 01:23	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 01:23	JE
Chloroform	BRL	5.0		ug/L	216431	1	11/25/2015 01:23	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 01:23	JE
Carbon tetrachloride	BRL	5.0		ug/L	216431	1	11/25/2015 01:23	JE
Benzene	BRL	5.0		ug/L	216431	1	11/25/2015 01:23	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 01:23	JE
Trichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 01:23	JE
Toluene	BRL	5.0		ug/L	216431	1	11/25/2015 01:23	JE
Tetrachloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 01:23	JE
Ethylbenzene	BRL	5.0		ug/L	216431	1	11/25/2015 01:23	JE
Xylenes, Total	BRL	5.0		ug/L	216431	1	11/25/2015 01:23	JE
Surr: 4-Bromofluorobenzene	89.8	70.7-125		%REC	216431	1	11/25/2015 01:23	JE
Surr: Dibromofluoromethane	96.3	82.2-120		%REC	216431	1	11/25/2015 01:23	JE
Surr: Toluene-d8	99.2	81.8-120		%REC	216431	1	11/25/2015 01:23	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15323-MW-31
Project Name:	Owens Corning	**Collection Date:**	11/19/2015 12:15:00 PM
Lab ID:	1511K38-028	**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	216431	1	11/25/2015 01:47	JE
1,1-Dichloroethene	300	50		ug/L	216431	10	11/27/2015 19:03	NP
Methylene chloride	BRL	5.0		ug/L	216431	1	11/25/2015 01:47	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 01:47	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 01:47	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 01:47	JE
Chloroform	BRL	5.0		ug/L	216431	1	11/25/2015 01:47	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 01:47	JE
Carbon tetrachloride	BRL	5.0		ug/L	216431	1	11/25/2015 01:47	JE
Benzene	BRL	5.0		ug/L	216431	1	11/25/2015 01:47	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 01:47	JE
Trichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 01:47	JE
Toluene	BRL	5.0		ug/L	216431	1	11/25/2015 01:47	JE
Tetrachloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 01:47	JE
Ethylbenzene	BRL	5.0		ug/L	216431	1	11/25/2015 01:47	JE
Xylenes, Total	BRL	5.0		ug/L	216431	1	11/25/2015 01:47	JE
Surr: 4-Bromofluorobenzene	91.5	70.7-125		%REC	216431	1	11/25/2015 01:47	JE
Surr: 4-Bromofluorobenzene	96.9	70.7-125		%REC	216431	10	11/27/2015 19:03	NP
Surr: Dibromofluoromethane	96	82.2-120		%REC	216431	1	11/25/2015 01:47	JE
Surr: Dibromofluoromethane	107	82.2-120		%REC	216431	10	11/27/2015 19:03	NP
Surr: Toluene-d8	88.5	81.8-120		%REC	216431	10	11/27/2015 19:03	NP
Surr: Toluene-d8	98.2	81.8-120		%REC	216431	1	11/25/2015 01:47	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15321-SW-3B
Project Name:	Owens Corning	**Collection Date:**	11/17/2015 11:20:00 AM
Lab ID:	1511K38-029	**Matrix:**	Surface Water

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	216431	1	11/25/2015 02:10	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 02:10	JE
Methylene chloride	BRL	5.0		ug/L	216431	1	11/25/2015 02:10	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 02:10	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 02:10	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 02:10	JE
Chloroform	BRL	5.0		ug/L	216431	1	11/25/2015 02:10	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 02:10	JE
Carbon tetrachloride	BRL	5.0		ug/L	216431	1	11/25/2015 02:10	JE
Benzene	BRL	5.0		ug/L	216431	1	11/25/2015 02:10	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 02:10	JE
Trichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 02:10	JE
Toluene	BRL	5.0		ug/L	216431	1	11/25/2015 02:10	JE
Tetrachloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 02:10	JE
Ethylbenzene	BRL	5.0		ug/L	216431	1	11/25/2015 02:10	JE
Xylenes, Total	BRL	5.0		ug/L	216431	1	11/25/2015 02:10	JE
Surr: 4-Bromofluorobenzene	93.4	70.7-125		%REC	216431	1	11/25/2015 02:10	JE
Surr: Dibromofluoromethane	95.7	82.2-120		%REC	216431	1	11/25/2015 02:10	JE
Surr: Toluene-d8	96.4	81.8-120		%REC	216431	1	11/25/2015 02:10	JE

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 **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15321-SW-6
Project Name:	Owens Corning	**Collection Date:**	11/17/2015 2:15:00 PM
Lab ID:	1511K38-030	**Matrix:**	Surface Water

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	216431	1	11/25/2015 02:33	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 02:33	JE
Methylene chloride	BRL	5.0		ug/L	216431	1	11/25/2015 02:33	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 02:33	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 02:33	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 02:33	JE
Chloroform	BRL	5.0		ug/L	216431	1	11/25/2015 02:33	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 02:33	JE
Carbon tetrachloride	BRL	5.0		ug/L	216431	1	11/25/2015 02:33	JE
Benzene	BRL	5.0		ug/L	216431	1	11/25/2015 02:33	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 02:33	JE
Trichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 02:33	JE
Toluene	BRL	5.0		ug/L	216431	1	11/25/2015 02:33	JE
Tetrachloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 02:33	JE
Ethylbenzene	BRL	5.0		ug/L	216431	1	11/25/2015 02:33	JE
Xylenes, Total	BRL	5.0		ug/L	216431	1	11/25/2015 02:33	JE
Surr: 4-Bromofluorobenzene	90.1	70.7-125		%REC	216431	1	11/25/2015 02:33	JE
Surr: Dibromofluoromethane	95.3	82.2-120		%REC	216431	1	11/25/2015 02:33	JE
Surr: Toluene-d8	97.9	81.8-120		%REC	216431	1	11/25/2015 02:33	JE

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 **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15321-SW-1
Project Name:	Owens Corning	**Collection Date:**	11/17/2015 2:45:00 PM
Lab ID:	1511K38-031	**Matrix:**	Surface Water

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	216431	1	11/25/2015 02:57	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 02:57	JE
Methylene chloride	BRL	5.0		ug/L	216431	1	11/25/2015 02:57	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 02:57	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 02:57	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 02:57	JE
Chloroform	BRL	5.0		ug/L	216431	1	11/25/2015 02:57	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 02:57	JE
Carbon tetrachloride	BRL	5.0		ug/L	216431	1	11/25/2015 02:57	JE
Benzene	BRL	5.0		ug/L	216431	1	11/25/2015 02:57	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 02:57	JE
Trichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 02:57	JE
Toluene	BRL	5.0		ug/L	216431	1	11/25/2015 02:57	JE
Tetrachloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 02:57	JE
Ethylbenzene	BRL	5.0		ug/L	216431	1	11/25/2015 02:57	JE
Xylenes, Total	BRL	5.0		ug/L	216431	1	11/25/2015 02:57	JE
Surr: 4-Bromofluorobenzene	91.3	70.7-125		%REC	216431	1	11/25/2015 02:57	JE
Surr: Dibromofluoromethane	95.7	82.2-120		%REC	216431	1	11/25/2015 02:57	JE
Surr: Toluene-d8	97.5	81.8-120		%REC	216431	1	11/25/2015 02:57	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15321-SW-15
Project Name:	Owens Corning	**Collection Date:**	11/17/2015 3:05:00 PM
Lab ID:	1511K38-032	**Matrix:**	Surface Water

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	216431	1	11/25/2015 03:21	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 03:21	JE
Methylene chloride	BRL	5.0		ug/L	216431	1	11/25/2015 03:21	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 03:21	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 03:21	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 03:21	JE
Chloroform	BRL	5.0		ug/L	216431	1	11/25/2015 03:21	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 03:21	JE
Carbon tetrachloride	BRL	5.0		ug/L	216431	1	11/25/2015 03:21	JE
Benzene	BRL	5.0		ug/L	216431	1	11/25/2015 03:21	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 03:21	JE
Trichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 03:21	JE
Toluene	BRL	5.0		ug/L	216431	1	11/25/2015 03:21	JE
Tetrachloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 03:21	JE
Ethylbenzene	BRL	5.0		ug/L	216431	1	11/25/2015 03:21	JE
Xylenes, Total	BRL	5.0		ug/L	216431	1	11/25/2015 03:21	JE
Surr: 4-Bromofluorobenzene	90.4	70.7-125		%REC	216431	1	11/25/2015 03:21	JE
Surr: Dibromofluoromethane	94.4	82.2-120		%REC	216431	1	11/25/2015 03:21	JE
Surr: Toluene-d8	98.2	81.8-120		%REC	216431	1	11/25/2015 03:21	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15321-SW-13
Project Name:	Owens Corning	**Collection Date:**	11/17/2015 4:40:00 PM
Lab ID:	1511K38-033	**Matrix:**	Surface Water

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	216431	1	11/25/2015 03:45	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 03:45	JE
Methylene chloride	BRL	5.0		ug/L	216431	1	11/25/2015 03:45	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 03:45	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 03:45	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 03:45	JE
Chloroform	BRL	5.0		ug/L	216431	1	11/25/2015 03:45	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 03:45	JE
Carbon tetrachloride	BRL	5.0		ug/L	216431	1	11/25/2015 03:45	JE
Benzene	BRL	5.0		ug/L	216431	1	11/25/2015 03:45	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 03:45	JE
Trichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 03:45	JE
Toluene	BRL	5.0		ug/L	216431	1	11/25/2015 03:45	JE
Tetrachloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 03:45	JE
Ethylbenzene	BRL	5.0		ug/L	216431	1	11/25/2015 03:45	JE
Xylenes, Total	BRL	5.0		ug/L	216431	1	11/25/2015 03:45	JE
Surr: 4-Bromofluorobenzene	92.5	70.7-125		%REC	216431	1	11/25/2015 03:45	JE
Surr: Dibromofluoromethane	95.7	82.2-120		%REC	216431	1	11/25/2015 03:45	JE
Surr: Toluene-d8	99	81.8-120		%REC	216431	1	11/25/2015 03:45	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15322-SW-3A
Project Name:	Owens Corning	**Collection Date:**	11/18/2015 9:00:00 AM
Lab ID:	1511K38-034	**Matrix:**	Surface Water

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	216431	1	11/25/2015 04:08	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 04:08	JE
Methylene chloride	BRL	5.0		ug/L	216431	1	11/25/2015 04:08	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 04:08	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 04:08	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 04:08	JE
Chloroform	BRL	5.0		ug/L	216431	1	11/25/2015 04:08	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 04:08	JE
Carbon tetrachloride	BRL	5.0		ug/L	216431	1	11/25/2015 04:08	JE
Benzene	BRL	5.0		ug/L	216431	1	11/25/2015 04:08	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 04:08	JE
Trichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 04:08	JE
Toluene	BRL	5.0		ug/L	216431	1	11/25/2015 04:08	JE
Tetrachloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 04:08	JE
Ethylbenzene	BRL	5.0		ug/L	216431	1	11/25/2015 04:08	JE
Xylenes, Total	BRL	5.0		ug/L	216431	1	11/25/2015 04:08	JE
Surr: 4-Bromofluorobenzene	91.5	70.7-125		%REC	216431	1	11/25/2015 04:08	JE
Surr: Dibromofluoromethane	96.4	82.2-120		%REC	216431	1	11/25/2015 04:08	JE
Surr: Toluene-d8	97.4	81.8-120		%REC	216431	1	11/25/2015 04:08	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15322-SW-3
Project Name:	Owens Corning	**Collection Date:**	11/18/2015 9:20:00 AM
Lab ID:	1511K38-035	**Matrix:**	Surface Water

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	216431	1	11/25/2015 04:32	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 04:32	JE
Methylene chloride	BRL	5.0		ug/L	216431	1	11/25/2015 04:32	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 04:32	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 04:32	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 04:32	JE
Chloroform	BRL	5.0		ug/L	216431	1	11/25/2015 04:32	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 04:32	JE
Carbon tetrachloride	BRL	5.0		ug/L	216431	1	11/25/2015 04:32	JE
Benzene	BRL	5.0		ug/L	216431	1	11/25/2015 04:32	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 04:32	JE
Trichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 04:32	JE
Toluene	BRL	5.0		ug/L	216431	1	11/25/2015 04:32	JE
Tetrachloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 04:32	JE
Ethylbenzene	BRL	5.0		ug/L	216431	1	11/25/2015 04:32	JE
Xylenes, Total	BRL	5.0		ug/L	216431	1	11/25/2015 04:32	JE
Surr: 4-Bromofluorobenzene	91.3	70.7-125		%REC	216431	1	11/25/2015 04:32	JE
Surr: Dibromofluoromethane	95.1	82.2-120		%REC	216431	1	11/25/2015 04:32	JE
Surr: Toluene-d8	98.7	81.8-120		%REC	216431	1	11/25/2015 04:32	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15322-SW-10
Project Name:	Owens Corning	**Collection Date:**	11/18/2015 9:50:00 AM
Lab ID:	1511K38-036	**Matrix:**	Surface Water

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	216431	1	11/25/2015 19:24	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 19:24	JE
Methylene chloride	BRL	5.0		ug/L	216431	1	11/25/2015 19:24	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 19:24	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 19:24	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 19:24	JE
Chloroform	BRL	5.0		ug/L	216431	1	11/25/2015 19:24	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 19:24	JE
Carbon tetrachloride	BRL	5.0		ug/L	216431	1	11/25/2015 19:24	JE
Benzene	BRL	5.0		ug/L	216431	1	11/25/2015 19:24	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 19:24	JE
Trichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 19:24	JE
Toluene	BRL	5.0		ug/L	216431	1	11/25/2015 19:24	JE
Tetrachloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 19:24	JE
Ethylbenzene	BRL	5.0		ug/L	216431	1	11/25/2015 19:24	JE
Xylenes, Total	BRL	5.0		ug/L	216431	1	11/25/2015 19:24	JE
Surr: 4-Bromofluorobenzene	100	70.7-125		%REC	216431	1	11/25/2015 19:24	JE
Surr: Dibromofluoromethane	115	82.2-120		%REC	216431	1	11/25/2015 19:24	JE
Surr: Toluene-d8	97.6	81.8-120		%REC	216431	1	11/25/2015 19:24	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15322-SW-14
Project Name:	Owens Corning	**Collection Date:**	11/18/2015 10:20:00 AM
Lab ID:	1511K38-037	**Matrix:**	Surface Water

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	216431	1	11/25/2015 19:48	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 19:48	JE
Methylene chloride	BRL	5.0		ug/L	216431	1	11/25/2015 19:48	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 19:48	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 19:48	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 19:48	JE
Chloroform	BRL	5.0		ug/L	216431	1	11/25/2015 19:48	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 19:48	JE
Carbon tetrachloride	BRL	5.0		ug/L	216431	1	11/25/2015 19:48	JE
Benzene	BRL	5.0		ug/L	216431	1	11/25/2015 19:48	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 19:48	JE
Trichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 19:48	JE
Toluene	BRL	5.0		ug/L	216431	1	11/25/2015 19:48	JE
Tetrachloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 19:48	JE
Ethylbenzene	BRL	5.0		ug/L	216431	1	11/25/2015 19:48	JE
Xylenes, Total	BRL	5.0		ug/L	216431	1	11/25/2015 19:48	JE
Surr: 4-Bromofluorobenzene	101	70.7-125		%REC	216431	1	11/25/2015 19:48	JE
Surr: Dibromofluoromethane	110	82.2-120		%REC	216431	1	11/25/2015 19:48	JE
Surr: Toluene-d8	93.3	81.8-120		%REC	216431	1	11/25/2015 19:48	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15322-SW-12
Project Name:	Owens Corning	**Collection Date:**	11/18/2015 10:40:00 AM
Lab ID:	1511K38-038	**Matrix:**	Surface Water

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	216431	1	11/25/2015 20:11	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 20:11	JE
Methylene chloride	BRL	5.0		ug/L	216431	1	11/25/2015 20:11	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 20:11	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 20:11	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 20:11	JE
Chloroform	BRL	5.0		ug/L	216431	1	11/25/2015 20:11	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 20:11	JE
Carbon tetrachloride	BRL	5.0		ug/L	216431	1	11/25/2015 20:11	JE
Benzene	BRL	5.0		ug/L	216431	1	11/25/2015 20:11	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 20:11	JE
Trichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 20:11	JE
Toluene	BRL	5.0		ug/L	216431	1	11/25/2015 20:11	JE
Tetrachloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 20:11	JE
Ethylbenzene	BRL	5.0		ug/L	216431	1	11/25/2015 20:11	JE
Xylenes, Total	BRL	5.0		ug/L	216431	1	11/25/2015 20:11	JE
Surr: 4-Bromofluorobenzene	101	70.7-125		%REC	216431	1	11/25/2015 20:11	JE
Surr: Dibromofluoromethane	110	82.2-120		%REC	216431	1	11/25/2015 20:11	JE
Surr: Toluene-d8	94.2	81.8-120		%REC	216431	1	11/25/2015 20:11	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15322-SW-11
Project Name:	Owens Corning	**Collection Date:**	11/18/2015 11:00:00 AM
Lab ID:	1511K38-039	**Matrix:**	Surface Water

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	216431	1	11/25/2015 20:35	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 20:35	JE
Methylene chloride	BRL	5.0		ug/L	216431	1	11/25/2015 20:35	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 20:35	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 20:35	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 20:35	JE
Chloroform	BRL	5.0		ug/L	216431	1	11/25/2015 20:35	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 20:35	JE
Carbon tetrachloride	BRL	5.0		ug/L	216431	1	11/25/2015 20:35	JE
Benzene	BRL	5.0		ug/L	216431	1	11/25/2015 20:35	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 20:35	JE
Trichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 20:35	JE
Toluene	BRL	5.0		ug/L	216431	1	11/25/2015 20:35	JE
Tetrachloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 20:35	JE
Ethylbenzene	BRL	5.0		ug/L	216431	1	11/25/2015 20:35	JE
Xylenes, Total	BRL	5.0		ug/L	216431	1	11/25/2015 20:35	JE
Surr: 4-Bromofluorobenzene	98.7	70.7-125		%REC	216431	1	11/25/2015 20:35	JE
Surr: Dibromofluoromethane	109	82.2-120		%REC	216431	1	11/25/2015 20:35	JE
Surr: Toluene-d8	94.5	81.8-120		%REC	216431	1	11/25/2015 20:35	JE

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 **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15322-MW-29R-ZONE 3
Project Name:	Owens Corning	**Collection Date:**	11/18/2015 12:40:00 PM
Lab ID:	1511K38-040	**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	216431	1	11/25/2015 20:59	JE
1,1-Dichloroethene	200	50		ug/L	216431	10	11/27/2015 19:27	NP
Methylene chloride	BRL	5.0		ug/L	216431	1	11/25/2015 20:59	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 20:59	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 20:59	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 20:59	JE
Chloroform	7.5	5.0		ug/L	216431	1	11/25/2015 20:59	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 20:59	JE
Carbon tetrachloride	18	5.0		ug/L	216431	1	11/25/2015 20:59	JE
Benzene	BRL	5.0		ug/L	216431	1	11/25/2015 20:59	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216431	1	11/25/2015 20:59	JE
Trichloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 20:59	JE
Toluene	BRL	5.0		ug/L	216431	1	11/25/2015 20:59	JE
Tetrachloroethene	BRL	5.0		ug/L	216431	1	11/25/2015 20:59	JE
Ethylbenzene	BRL	5.0		ug/L	216431	1	11/25/2015 20:59	JE
Xylenes, Total	BRL	5.0		ug/L	216431	1	11/25/2015 20:59	JE
Surr: 4-Bromofluorobenzene	93.4	70.7-125		%REC	216431	10	11/27/2015 19:27	NP
Surr: 4-Bromofluorobenzene	99.5	70.7-125		%REC	216431	1	11/25/2015 20:59	JE
Surr: Dibromofluoromethane	91.5	82.2-120		%REC	216431	10	11/27/2015 19:27	NP
Surr: Dibromofluoromethane	111	82.2-120		%REC	216431	1	11/25/2015 20:59	JE
Surr: Toluene-d8	95.2	81.8-120		%REC	216431	1	11/25/2015 20:59	JE
Surr: Toluene-d8	110	81.8-120		%REC	216431	10	11/27/2015 19:27	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15322-MW-29R-ZONE 4
Project Name:	Owens Corning	**Collection Date:**	11/18/2015 1:05:00 PM
Lab ID:	1511K38-041	**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	2.0		ug/L	216470	1	11/25/2015 17:12	NH
1,1-Dichloroethene	230	50		ug/L	216470	10	11/27/2015 13:21	NH
Methylene chloride	BRL	5.0		ug/L	216470	1	11/25/2015 17:12	NH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 17:12	NH
1,1-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 17:12	NH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 17:12	NH
Chloroform	7.1	5.0		ug/L	216470	1	11/25/2015 17:12	NH
1,1,1-Trichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 17:12	NH
Carbon tetrachloride	6.1	5.0		ug/L	216470	1	11/25/2015 17:12	NH
Benzene	BRL	5.0		ug/L	216470	1	11/25/2015 17:12	NH
1,2-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 17:12	NH
Trichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 17:12	NH
Toluene	BRL	5.0		ug/L	216470	1	11/25/2015 17:12	NH
Tetrachloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 17:12	NH
Ethylbenzene	BRL	5.0		ug/L	216470	1	11/25/2015 17:12	NH
Xylenes, Total	BRL	5.0		ug/L	216470	1	11/25/2015 17:12	NH
Surr: 4-Bromofluorobenzene	84.2	70.7-125		%REC	216470	1	11/25/2015 17:12	NH
Surr: 4-Bromofluorobenzene	85.2	70.7-125		%REC	216470	10	11/27/2015 13:21	NH
Surr: Dibromofluoromethane	99.2	82.2-120		%REC	216470	10	11/27/2015 13:21	NH
Surr: Dibromofluoromethane	103	82.2-120		%REC	216470	1	11/25/2015 17:12	NH
Surr: Toluene-d8	96.9	81.8-120		%REC	216470	10	11/27/2015 13:21	NH
Surr: Toluene-d8	99.5	81.8-120		%REC	216470	1	11/25/2015 17:12	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15322-MW-36-ZONE 1
Project Name:	Owens Corning	**Collection Date:**	11/18/2015 1:40:00 PM
Lab ID:	1511K38-042	**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	216470	1	11/25/2015 18:29	NH
1,1-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 18:29	NH
Methylene chloride	BRL	5.0		ug/L	216470	1	11/25/2015 18:29	NH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 18:29	NH
1,1-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 18:29	NH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 18:29	NH
Chloroform	BRL	5.0		ug/L	216470	1	11/25/2015 18:29	NH
1,1,1-Trichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 18:29	NH
Carbon tetrachloride	BRL	5.0		ug/L	216470	1	11/25/2015 18:29	NH
Benzene	BRL	5.0		ug/L	216470	1	11/25/2015 18:29	NH
1,2-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 18:29	NH
Trichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 18:29	NH
Toluene	BRL	5.0		ug/L	216470	1	11/25/2015 18:29	NH
Tetrachloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 18:29	NH
Ethylbenzene	BRL	5.0		ug/L	216470	1	11/25/2015 18:29	NH
Xylenes, Total	BRL	5.0		ug/L	216470	1	11/25/2015 18:29	NH
Surr: 4-Bromofluorobenzene	84.5	70.7-125		%REC	216470	1	11/25/2015 18:29	NH
Surr: Dibromofluoromethane	102	82.2-120		%REC	216470	1	11/25/2015 18:29	NH
Surr: Toluene-d8	101	81.8-120		%REC	216470	1	11/25/2015 18:29	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15320-MW-43-Z1
Project Name:	Owens Corning	**Collection Date:**	11/16/2015 1:55:00 PM
Lab ID:	1511K38-043	**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	2.0		ug/L	216470	1	11/25/2015 18:55	NH
1,1-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 18:55	NH
Methylene chloride	BRL	5.0		ug/L	216470	1	11/25/2015 18:55	NH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 18:55	NH
1,1-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 18:55	NH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 18:55	NH
Chloroform	BRL	5.0		ug/L	216470	1	11/25/2015 18:55	NH
1,1,1-Trichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 18:55	NH
Carbon tetrachloride	BRL	5.0		ug/L	216470	1	11/25/2015 18:55	NH
Benzene	BRL	5.0		ug/L	216470	1	11/25/2015 18:55	NH
1,2-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 18:55	NH
Trichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 18:55	NH
Toluene	BRL	5.0		ug/L	216470	1	11/25/2015 18:55	NH
Tetrachloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 18:55	NH
Ethylbenzene	BRL	5.0		ug/L	216470	1	11/25/2015 18:55	NH
Xylenes, Total	BRL	5.0		ug/L	216470	1	11/25/2015 18:55	NH
Surr: 4-Bromofluorobenzene	85.1	70.7-125		%REC	216470	1	11/25/2015 18:55	NH
Surr: Dibromofluoromethane	102	82.2-120		%REC	216470	1	11/25/2015 18:55	NH
Surr: Toluene-d8	102	81.8-120		%REC	216470	1	11/25/2015 18:55	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15320-MW-43-Z2
Project Name:	Owens Corning	**Collection Date:**	11/16/2015 3:45:00 PM
Lab ID:	1511K38-044	**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	216470	1	11/25/2015 19:21	NH
1,1-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 19:21	NH
Methylene chloride	BRL	5.0		ug/L	216470	1	11/25/2015 19:21	NH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 19:21	NH
1,1-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 19:21	NH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 19:21	NH
Chloroform	BRL	5.0		ug/L	216470	1	11/25/2015 19:21	NH
1,1,1-Trichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 19:21	NH
Carbon tetrachloride	BRL	5.0		ug/L	216470	1	11/25/2015 19:21	NH
Benzene	BRL	5.0		ug/L	216470	1	11/25/2015 19:21	NH
1,2-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 19:21	NH
Trichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 19:21	NH
Toluene	BRL	5.0		ug/L	216470	1	11/25/2015 19:21	NH
Tetrachloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 19:21	NH
Ethylbenzene	BRL	5.0		ug/L	216470	1	11/25/2015 19:21	NH
Xylenes, Total	BRL	5.0		ug/L	216470	1	11/25/2015 19:21	NH
Surr: 4-Bromofluorobenzene	80.4	70.7-125		%REC	216470	1	11/25/2015 19:21	NH
Surr: Dibromofluoromethane	99.7	82.2-120		%REC	216470	1	11/25/2015 19:21	NH
Surr: Toluene-d8	99.1	81.8-120		%REC	216470	1	11/25/2015 19:21	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15320-MW-43-Z3
Project Name:	Owens Corning	**Collection Date:**	11/16/2015 5:45:00 PM
Lab ID:	1511K38-045	**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	216470	1	11/25/2015 19:46	NH
1,1-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 19:46	NH
Methylene chloride	BRL	5.0		ug/L	216470	1	11/25/2015 19:46	NH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 19:46	NH
1,1-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 19:46	NH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 19:46	NH
Chloroform	BRL	5.0		ug/L	216470	1	11/25/2015 19:46	NH
1,1,1-Trichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 19:46	NH
Carbon tetrachloride	BRL	5.0		ug/L	216470	1	11/25/2015 19:46	NH
Benzene	BRL	5.0		ug/L	216470	1	11/25/2015 19:46	NH
1,2-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 19:46	NH
Trichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 19:46	NH
Toluene	BRL	5.0		ug/L	216470	1	11/25/2015 19:46	NH
Tetrachloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 19:46	NH
Ethylbenzene	BRL	5.0		ug/L	216470	1	11/25/2015 19:46	NH
Xylenes, Total	BRL	5.0		ug/L	216470	1	11/25/2015 19:46	NH
Surr: 4-Bromofluorobenzene	84.9	70.7-125		%REC	216470	1	11/25/2015 19:46	NH
Surr: Dibromofluoromethane	98.3	82.2-120		%REC	216470	1	11/25/2015 19:46	NH
Surr: Toluene-d8	98.7	81.8-120		%REC	216470	1	11/25/2015 19:46	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15321-DUP
Project Name:	Owens Corning	**Collection Date:**	11/17/2015 12:00:00 PM
Lab ID:	1511K38-046	**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	216470	1	11/25/2015 20:12	NH
1,1-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 20:12	NH
Methylene chloride	BRL	5.0		ug/L	216470	1	11/25/2015 20:12	NH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 20:12	NH
1,1-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 20:12	NH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 20:12	NH
Chloroform	BRL	5.0		ug/L	216470	1	11/25/2015 20:12	NH
1,1,1-Trichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 20:12	NH
Carbon tetrachloride	BRL	5.0		ug/L	216470	1	11/25/2015 20:12	NH
Benzene	BRL	5.0		ug/L	216470	1	11/25/2015 20:12	NH
1,2-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 20:12	NH
Trichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 20:12	NH
Toluene	BRL	5.0		ug/L	216470	1	11/25/2015 20:12	NH
Tetrachloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 20:12	NH
Ethylbenzene	BRL	5.0		ug/L	216470	1	11/25/2015 20:12	NH
Xylenes, Total	BRL	5.0		ug/L	216470	1	11/25/2015 20:12	NH
Surr: 4-Bromofluorobenzene	83.2	70.7-125		%REC	216470	1	11/25/2015 20:12	NH
Surr: Dibromofluoromethane	101	82.2-120		%REC	216470	1	11/25/2015 20:12	NH
Surr: Toluene-d8	98.3	81.8-120		%REC	216470	1	11/25/2015 20:12	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15321-EB
Project Name:	Owens Corning	**Collection Date:**	11/17/2015 11:15:00 AM
Lab ID:	1511K38-047	**Matrix:**	Drinking Water

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	216470	1	11/25/2015 20:38	NH
1,1-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 20:38	NH
Methylene chloride	BRL	5.0		ug/L	216470	1	11/25/2015 20:38	NH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 20:38	NH
1,1-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 20:38	NH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 20:38	NH
Chloroform	BRL	5.0		ug/L	216470	1	11/25/2015 20:38	NH
1,1,1-Trichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 20:38	NH
Carbon tetrachloride	BRL	5.0		ug/L	216470	1	11/25/2015 20:38	NH
Benzene	BRL	5.0		ug/L	216470	1	11/25/2015 20:38	NH
1,2-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 20:38	NH
Trichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 20:38	NH
Toluene	BRL	5.0		ug/L	216470	1	11/25/2015 20:38	NH
Tetrachloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 20:38	NH
Ethylbenzene	BRL	5.0		ug/L	216470	1	11/25/2015 20:38	NH
Xylenes, Total	BRL	5.0		ug/L	216470	1	11/25/2015 20:38	NH
Surr: 4-Bromofluorobenzene	85.7	70.7-125		%REC	216470	1	11/25/2015 20:38	NH
Surr: Dibromofluoromethane	102	82.2-120		%REC	216470	1	11/25/2015 20:38	NH
Surr: Toluene-d8	100	81.8-120		%REC	216470	1	11/25/2015 20:38	NH

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 **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15321-MW-42-Z2
Project Name:	Owens Corning	**Collection Date:**	11/17/2015 11:55:00 AM
Lab ID:	1511K38-048	**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	216470	1	11/25/2015 21:04	NH
1,1-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 21:04	NH
Methylene chloride	BRL	5.0		ug/L	216470	1	11/25/2015 21:04	NH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 21:04	NH
1,1-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 21:04	NH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 21:04	NH
Chloroform	BRL	5.0		ug/L	216470	1	11/25/2015 21:04	NH
1,1,1-Trichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 21:04	NH
Carbon tetrachloride	BRL	5.0		ug/L	216470	1	11/25/2015 21:04	NH
Benzene	BRL	5.0		ug/L	216470	1	11/25/2015 21:04	NH
1,2-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 21:04	NH
Trichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 21:04	NH
Toluene	BRL	5.0		ug/L	216470	1	11/25/2015 21:04	NH
Tetrachloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 21:04	NH
Ethylbenzene	BRL	5.0		ug/L	216470	1	11/25/2015 21:04	NH
Xylenes, Total	BRL	5.0		ug/L	216470	1	11/25/2015 21:04	NH
Surr: 4-Bromofluorobenzene	85.7	70.7-125		%REC	216470	1	11/25/2015 21:04	NH
Surr: Dibromofluoromethane	100	82.2-120		%REC	216470	1	11/25/2015 21:04	NH
Surr: Toluene-d8	97.1	81.8-120		%REC	216470	1	11/25/2015 21:04	NH

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 **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15321-MW-39-Z1
Project Name:	Owens Corning	**Collection Date:**	11/17/2015 4:40:00 PM
Lab ID:	1511K38-049	**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	216470	1	11/25/2015 16:20	NH
1,1-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 16:20	NH
Methylene chloride	BRL	5.0		ug/L	216470	1	11/25/2015 16:20	NH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 16:20	NH
1,1-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 16:20	NH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 16:20	NH
Chloroform	BRL	5.0		ug/L	216470	1	11/25/2015 16:20	NH
1,1,1-Trichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 16:20	NH
Carbon tetrachloride	BRL	5.0		ug/L	216470	1	11/25/2015 16:20	NH
Benzene	BRL	5.0		ug/L	216470	1	11/25/2015 16:20	NH
1,2-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 16:20	NH
Trichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 16:20	NH
Toluene	BRL	5.0		ug/L	216470	1	11/25/2015 16:20	NH
Tetrachloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 16:20	NH
Ethylbenzene	BRL	5.0		ug/L	216470	1	11/25/2015 16:20	NH
Xylenes, Total	BRL	5.0		ug/L	216470	1	11/25/2015 16:20	NH
Surr: 4-Bromofluorobenzene	83.3	70.7-125		%REC	216470	1	11/25/2015 16:20	NH
Surr: Dibromofluoromethane	102	82.2-120		%REC	216470	1	11/25/2015 16:20	NH
Surr: Toluene-d8	97.8	81.8-120		%REC	216470	1	11/25/2015 16:20	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15321-MW-42-Z1
Project Name:	Owens Corning	**Collection Date:**	11/17/2015 11:00:00 AM
Lab ID:	1511K38-050	**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	216470	1	11/25/2015 21:30	NH
1,1-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 21:30	NH
Methylene chloride	BRL	5.0		ug/L	216470	1	11/25/2015 21:30	NH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 21:30	NH
1,1-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 21:30	NH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 21:30	NH
Chloroform	BRL	5.0		ug/L	216470	1	11/25/2015 21:30	NH
1,1,1-Trichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 21:30	NH
Carbon tetrachloride	BRL	5.0		ug/L	216470	1	11/25/2015 21:30	NH
Benzene	BRL	5.0		ug/L	216470	1	11/25/2015 21:30	NH
1,2-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 21:30	NH
Trichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 21:30	NH
Toluene	BRL	5.0		ug/L	216470	1	11/25/2015 21:30	NH
Tetrachloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 21:30	NH
Ethylbenzene	BRL	5.0		ug/L	216470	1	11/25/2015 21:30	NH
Xylenes, Total	BRL	5.0		ug/L	216470	1	11/25/2015 21:30	NH
Surr: 4-Bromofluorobenzene	83.2	70.7-125		%REC	216470	1	11/25/2015 21:30	NH
Surr: Dibromofluoromethane	102	82.2-120		%REC	216470	1	11/25/2015 21:30	NH
Surr: Toluene-d8	98.7	81.8-120		%REC	216470	1	11/25/2015 21:30	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15321-MW-42-Z3
Project Name:	Owens Corning	**Collection Date:**	11/17/2015 2:15:00 PM
Lab ID:	1511K38-051	**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	216470	1	11/25/2015 16:46	NH
1,1-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 16:46	NH
Methylene chloride	BRL	5.0		ug/L	216470	1	11/25/2015 16:46	NH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 16:46	NH
1,1-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 16:46	NH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 16:46	NH
Chloroform	BRL	5.0		ug/L	216470	1	11/25/2015 16:46	NH
1,1,1-Trichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 16:46	NH
Carbon tetrachloride	BRL	5.0		ug/L	216470	1	11/25/2015 16:46	NH
Benzene	BRL	5.0		ug/L	216470	1	11/25/2015 16:46	NH
1,2-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 16:46	NH
Trichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 16:46	NH
Toluene	BRL	5.0		ug/L	216470	1	11/25/2015 16:46	NH
Tetrachloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 16:46	NH
Ethylbenzene	BRL	5.0		ug/L	216470	1	11/25/2015 16:46	NH
Xylenes, Total	BRL	5.0		ug/L	216470	1	11/25/2015 16:46	NH
Surr: 4-Bromofluorobenzene	83.8	70.7-125		%REC	216470	1	11/25/2015 16:46	NH
Surr: Dibromofluoromethane	100	82.2-120		%REC	216470	1	11/25/2015 16:46	NH
Surr: Toluene-d8	99.3	81.8-120		%REC	216470	1	11/25/2015 16:46	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15322-MW-39-Z3
Project Name:	Owens Corning	**Collection Date:**	11/18/2015 9:55:00 AM
Lab ID:	1511K38-052	**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	216470	1	11/25/2015 21:55	NH
1,1-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 21:55	NH
Methylene chloride	BRL	5.0		ug/L	216470	1	11/25/2015 21:55	NH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 21:55	NH
1,1-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 21:55	NH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 21:55	NH
Chloroform	BRL	5.0		ug/L	216470	1	11/25/2015 21:55	NH
1,1,1-Trichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 21:55	NH
Carbon tetrachloride	BRL	5.0		ug/L	216470	1	11/25/2015 21:55	NH
Benzene	BRL	5.0		ug/L	216470	1	11/25/2015 21:55	NH
1,2-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 21:55	NH
Trichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 21:55	NH
Toluene	BRL	5.0		ug/L	216470	1	11/25/2015 21:55	NH
Tetrachloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 21:55	NH
Ethylbenzene	BRL	5.0		ug/L	216470	1	11/25/2015 21:55	NH
Xylenes, Total	BRL	5.0		ug/L	216470	1	11/25/2015 21:55	NH
Surr: 4-Bromofluorobenzene	85.2	70.7-125		%REC	216470	1	11/25/2015 21:55	NH
Surr: Dibromofluoromethane	99.5	82.2-120		%REC	216470	1	11/25/2015 21:55	NH
Surr: Toluene-d8	102	81.8-120		%REC	216470	1	11/25/2015 21:55	NH

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 **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15322-DUP
Project Name:	Owens Corning	**Collection Date:**	11/18/2015 9:56:00 AM
Lab ID:	1511K38-053	**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	216470	1	11/25/2015 22:21	NH
1,1-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 22:21	NH
Methylene chloride	BRL	5.0		ug/L	216470	1	11/25/2015 22:21	NH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 22:21	NH
1,1-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 22:21	NH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 22:21	NH
Chloroform	BRL	5.0		ug/L	216470	1	11/25/2015 22:21	NH
1,1,1-Trichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 22:21	NH
Carbon tetrachloride	BRL	5.0		ug/L	216470	1	11/25/2015 22:21	NH
Benzene	BRL	5.0		ug/L	216470	1	11/25/2015 22:21	NH
1,2-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 22:21	NH
Trichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 22:21	NH
Toluene	BRL	5.0		ug/L	216470	1	11/25/2015 22:21	NH
Tetrachloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 22:21	NH
Ethylbenzene	BRL	5.0		ug/L	216470	1	11/25/2015 22:21	NH
Xylenes, Total	BRL	5.0		ug/L	216470	1	11/25/2015 22:21	NH
Surr: 4-Bromofluorobenzene	85.9	70.7-125		%REC	216470	1	11/25/2015 22:21	NH
Surr: Dibromofluoromethane	99.2	82.2-120		%REC	216470	1	11/25/2015 22:21	NH
Surr: Toluene-d8	95.8	81.8-120		%REC	216470	1	11/25/2015 22:21	NH

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 **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15322-MW-39-Z2
Project Name:	Owens Corning	**Collection Date:**	11/18/2015 8:55:00 AM
Lab ID:	1511K38-054	**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	216470	1	11/25/2015 22:47	NH
1,1-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 22:47	NH
Methylene chloride	BRL	5.0		ug/L	216470	1	11/25/2015 22:47	NH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 22:47	NH
1,1-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 22:47	NH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 22:47	NH
Chloroform	BRL	5.0		ug/L	216470	1	11/25/2015 22:47	NH
1,1,1-Trichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 22:47	NH
Carbon tetrachloride	BRL	5.0		ug/L	216470	1	11/25/2015 22:47	NH
Benzene	BRL	5.0		ug/L	216470	1	11/25/2015 22:47	NH
1,2-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 22:47	NH
Trichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 22:47	NH
Toluene	BRL	5.0		ug/L	216470	1	11/25/2015 22:47	NH
Tetrachloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 22:47	NH
Ethylbenzene	BRL	5.0		ug/L	216470	1	11/25/2015 22:47	NH
Xylenes, Total	BRL	5.0		ug/L	216470	1	11/25/2015 22:47	NH
Surr: 4-Bromofluorobenzene	85	70.7-125		%REC	216470	1	11/25/2015 22:47	NH
Surr: Dibromofluoromethane	102	82.2-120		%REC	216470	1	11/25/2015 22:47	NH
Surr: Toluene-d8	101	81.8-120		%REC	216470	1	11/25/2015 22:47	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15322-MW-37-Z3
Project Name:	Owens Corning	**Collection Date:**	11/18/2015 12:05:00 PM
Lab ID:	1511K38-055	**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	216470	1	11/25/2015 23:13	NH
1,1-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 23:13	NH
Methylene chloride	BRL	5.0		ug/L	216470	1	11/25/2015 23:13	NH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 23:13	NH
1,1-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 23:13	NH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 23:13	NH
Chloroform	BRL	5.0		ug/L	216470	1	11/25/2015 23:13	NH
1,1,1-Trichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 23:13	NH
Carbon tetrachloride	BRL	5.0		ug/L	216470	1	11/25/2015 23:13	NH
Benzene	BRL	5.0		ug/L	216470	1	11/25/2015 23:13	NH
1,2-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 23:13	NH
Trichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 23:13	NH
Toluene	BRL	5.0		ug/L	216470	1	11/25/2015 23:13	NH
Tetrachloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 23:13	NH
Ethylbenzene	BRL	5.0		ug/L	216470	1	11/25/2015 23:13	NH
Xylenes, Total	BRL	5.0		ug/L	216470	1	11/25/2015 23:13	NH
Surr: 4-Bromofluorobenzene	85.4	70.7-125		%REC	216470	1	11/25/2015 23:13	NH
Surr: Dibromofluoromethane	98.8	82.2-120		%REC	216470	1	11/25/2015 23:13	NH
Surr: Toluene-d8	100	81.8-120		%REC	216470	1	11/25/2015 23:13	NH

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 **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15322-MW-38-Z1
Project Name:	Owens Corning	**Collection Date:**	11/18/2015 3:40:00 PM
Lab ID:	1511K38-056	**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	216470	1	11/25/2015 23:39	NH
1,1-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 23:39	NH
Methylene chloride	BRL	5.0		ug/L	216470	1	11/25/2015 23:39	NH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 23:39	NH
1,1-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 23:39	NH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 23:39	NH
Chloroform	BRL	5.0		ug/L	216470	1	11/25/2015 23:39	NH
1,1,1-Trichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 23:39	NH
Carbon tetrachloride	BRL	5.0		ug/L	216470	1	11/25/2015 23:39	NH
Benzene	BRL	5.0		ug/L	216470	1	11/25/2015 23:39	NH
1,2-Dichloroethane	BRL	5.0		ug/L	216470	1	11/25/2015 23:39	NH
Trichloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 23:39	NH
Toluene	BRL	5.0		ug/L	216470	1	11/25/2015 23:39	NH
Tetrachloroethene	BRL	5.0		ug/L	216470	1	11/25/2015 23:39	NH
Ethylbenzene	BRL	5.0		ug/L	216470	1	11/25/2015 23:39	NH
Xylenes, Total	BRL	5.0		ug/L	216470	1	11/25/2015 23:39	NH
Surr: 4-Bromofluorobenzene	84.2	70.7-125		%REC	216470	1	11/25/2015 23:39	NH
Surr: Dibromofluoromethane	105	82.2-120		%REC	216470	1	11/25/2015 23:39	NH
Surr: Toluene-d8	99.9	81.8-120		%REC	216470	1	11/25/2015 23:39	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15323-MW-16
Project Name:	Owens Corning	**Collection Date:**	11/19/2015 11:09:00 AM
Lab ID:	1511K38-057	**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	216470	1	11/26/2015 00:05	NH
1,1-Dichloroethene	BRL	5.0		ug/L	216470	1	11/26/2015 00:05	NH
Methylene chloride	BRL	5.0		ug/L	216470	1	11/26/2015 00:05	NH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/26/2015 00:05	NH
1,1-Dichloroethane	BRL	5.0		ug/L	216470	1	11/26/2015 00:05	NH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/26/2015 00:05	NH
Chloroform	BRL	5.0		ug/L	216470	1	11/26/2015 00:05	NH
1,1,1-Trichloroethane	BRL	5.0		ug/L	216470	1	11/26/2015 00:05	NH
Carbon tetrachloride	BRL	5.0		ug/L	216470	1	11/26/2015 00:05	NH
Benzene	BRL	5.0		ug/L	216470	1	11/26/2015 00:05	NH
1,2-Dichloroethane	BRL	5.0		ug/L	216470	1	11/26/2015 00:05	NH
Trichloroethene	BRL	5.0		ug/L	216470	1	11/26/2015 00:05	NH
Toluene	BRL	5.0		ug/L	216470	1	11/26/2015 00:05	NH
Tetrachloroethene	BRL	5.0		ug/L	216470	1	11/26/2015 00:05	NH
Ethylbenzene	BRL	5.0		ug/L	216470	1	11/26/2015 00:05	NH
Xylenes, Total	BRL	5.0		ug/L	216470	1	11/26/2015 00:05	NH
Surr: 4-Bromofluorobenzene	84.2	70.7-125		%REC	216470	1	11/26/2015 00:05	NH
Surr: Dibromofluoromethane	105	82.2-120		%REC	216470	1	11/26/2015 00:05	NH
Surr: Toluene-d8	102	81.8-120		%REC	216470	1	11/26/2015 00:05	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15323-MW-30
Project Name:	Owens Corning	**Collection Date:**	11/19/2015 12:15:00 PM
Lab ID:	1511K38-058	**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	216470	1	11/26/2015 00:30	NH
1,1-Dichloroethene	340	50		ug/L	216470	10	11/27/2015 13:47	NH
Methylene chloride	BRL	5.0		ug/L	216470	1	11/26/2015 00:30	NH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/26/2015 00:30	NH
1,1-Dichloroethane	BRL	5.0		ug/L	216470	1	11/26/2015 00:30	NH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/26/2015 00:30	NH
Chloroform	BRL	5.0		ug/L	216470	1	11/26/2015 00:30	NH
1,1,1-Trichloroethane	BRL	5.0		ug/L	216470	1	11/26/2015 00:30	NH
Carbon tetrachloride	BRL	5.0		ug/L	216470	1	11/26/2015 00:30	NH
Benzene	BRL	5.0		ug/L	216470	1	11/26/2015 00:30	NH
1,2-Dichloroethane	BRL	5.0		ug/L	216470	1	11/26/2015 00:30	NH
Trichloroethene	BRL	5.0		ug/L	216470	1	11/26/2015 00:30	NH
Toluene	BRL	5.0		ug/L	216470	1	11/26/2015 00:30	NH
Tetrachloroethene	BRL	5.0		ug/L	216470	1	11/26/2015 00:30	NH
Ethylbenzene	BRL	5.0		ug/L	216470	1	11/26/2015 00:30	NH
Xylenes, Total	BRL	5.0		ug/L	216470	1	11/26/2015 00:30	NH
Surr: 4-Bromofluorobenzene	82.5	70.7-125		%REC	216470	10	11/27/2015 13:47	NH
Surr: 4-Bromofluorobenzene	85.1	70.7-125		%REC	216470	1	11/26/2015 00:30	NH
Surr: Dibromofluoromethane	101	82.2-120		%REC	216470	1	11/26/2015 00:30	NH
Surr: Dibromofluoromethane	101	82.2-120		%REC	216470	10	11/27/2015 13:47	NH
Surr: Toluene-d8	97.9	81.8-120		%REC	216470	10	11/27/2015 13:47	NH
Surr: Toluene-d8	99.9	81.8-120		%REC	216470	1	11/26/2015 00:30	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15323-MW-20
Project Name:	Owens Corning	**Collection Date:**	11/19/2015 2:55:00 PM
Lab ID:	1511K38-059	**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	216470	1	11/30/2015 13:29	JE
1,1-Dichloroethene	130	5.0		ug/L	216470	1	11/30/2015 13:29	JE
Methylene chloride	BRL	5.0		ug/L	216470	1	11/30/2015 13:29	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/30/2015 13:29	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216470	1	11/30/2015 13:29	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/30/2015 13:29	JE
Chloroform	35	5.0		ug/L	216470	1	11/30/2015 13:29	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216470	1	11/30/2015 13:29	JE
Carbon tetrachloride	29	5.0		ug/L	216470	1	11/30/2015 13:29	JE
Benzene	BRL	5.0		ug/L	216470	1	11/30/2015 13:29	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216470	1	11/30/2015 13:29	JE
Trichloroethene	BRL	5.0		ug/L	216470	1	11/30/2015 13:29	JE
Toluene	BRL	5.0		ug/L	216470	1	11/30/2015 13:29	JE
Tetrachloroethene	BRL	5.0		ug/L	216470	1	11/30/2015 13:29	JE
Ethylbenzene	BRL	5.0		ug/L	216470	1	11/30/2015 13:29	JE
Xylenes, Total	BRL	5.0		ug/L	216470	1	11/30/2015 13:29	JE
Surr: 4-Bromofluorobenzene	89.9	70.7-125		%REC	216470	1	11/30/2015 13:29	JE
Surr: Dibromofluoromethane	102	82.2-120		%REC	216470	1	11/30/2015 13:29	JE
Surr: Toluene-d8	97.9	81.8-120		%REC	216470	1	11/30/2015 13:29	JE

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 **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15323-MW-13
Project Name:	Owens Corning	**Collection Date:**	11/19/2015 4:00:00 PM
Lab ID:	1511K38-060	**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	216470	1	11/27/2015 17:52	NP
1,1-Dichloroethene	270	50		ug/L	216470	10	11/30/2015 11:54	NP
Methylene chloride	BRL	5.0		ug/L	216470	1	11/27/2015 17:52	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/27/2015 17:52	NP
1,1-Dichloroethane	BRL	5.0		ug/L	216470	1	11/27/2015 17:52	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216470	1	11/27/2015 17:52	NP
Chloroform	11	5.0		ug/L	216470	1	11/27/2015 17:52	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	216470	1	11/27/2015 17:52	NP
Carbon tetrachloride	25	5.0		ug/L	216470	1	11/27/2015 17:52	NP
Benzene	BRL	5.0		ug/L	216470	1	11/27/2015 17:52	NP
1,2-Dichloroethane	BRL	5.0		ug/L	216470	1	11/27/2015 17:52	NP
Trichloroethene	BRL	5.0		ug/L	216470	1	11/27/2015 17:52	NP
Toluene	BRL	5.0		ug/L	216470	1	11/27/2015 17:52	NP
Tetrachloroethene	BRL	5.0		ug/L	216470	1	11/27/2015 17:52	NP
Ethylbenzene	BRL	5.0		ug/L	216470	1	11/27/2015 17:52	NP
Xylenes, Total	BRL	5.0		ug/L	216470	1	11/27/2015 17:52	NP
Surr: 4-Bromofluorobenzene	110	70.7-125		%REC	216470	10	11/30/2015 11:54	NP
Surr: 4-Bromofluorobenzene	110	70.7-125		%REC	216470	1	11/27/2015 17:52	NP
Surr: Dibromofluoromethane	107	82.2-120		%REC	216470	1	11/27/2015 17:52	NP
Surr: Dibromofluoromethane	108	82.2-120		%REC	216470	10	11/30/2015 11:54	NP
Surr: Toluene-d8	96	81.8-120		%REC	216470	1	11/27/2015 17:52	NP
Surr: Toluene-d8	98.4	81.8-120		%REC	216470	10	11/30/2015 11:54	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15324-MW-28
Project Name:	Owens Corning	**Collection Date:**	11/20/2015 9:20:00 AM
Lab ID:	1511K38-061	**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	216474	1000	11/25/2015 21:59	JE
1,1-Dichloroethene	95000	5000		ug/L	216474	1000	11/25/2015 21:59	JE
Methylene chloride	BRL	5000		ug/L	216474	1000	11/25/2015 21:59	JE
trans-1,2-Dichloroethene	BRL	5000		ug/L	216474	1000	11/25/2015 21:59	JE
1,1-Dichloroethane	BRL	5000		ug/L	216474	1000	11/25/2015 21:59	JE
cis-1,2-Dichloroethene	BRL	5000		ug/L	216474	1000	11/25/2015 21:59	JE
Chloroform	BRL	5000		ug/L	216474	1000	11/25/2015 21:59	JE
1,1,1-Trichloroethane	79000	5000		ug/L	216474	1000	11/25/2015 21:59	JE
Carbon tetrachloride	BRL	5000		ug/L	216474	1000	11/25/2015 21:59	JE
Benzene	BRL	5000		ug/L	216474	1000	11/25/2015 21:59	JE
1,2-Dichloroethane	BRL	5000		ug/L	216474	1000	11/25/2015 21:59	JE
Trichloroethene	BRL	5000		ug/L	216474	1000	11/25/2015 21:59	JE
Toluene	BRL	5000		ug/L	216474	1000	11/25/2015 21:59	JE
Tetrachloroethene	BRL	5000		ug/L	216474	1000	11/25/2015 21:59	JE
Ethylbenzene	BRL	5000		ug/L	216474	1000	11/25/2015 21:59	JE
Xylenes, Total	BRL	5000		ug/L	216474	1000	11/25/2015 21:59	JE
Surr: 4-Bromofluorobenzene	92.4	70.7-125		%REC	216474	1000	11/25/2015 21:59	JE
Surr: Dibromofluoromethane	98.4	82.2-120		%REC	216474	1000	11/25/2015 21:59	JE
Surr: Toluene-d8	97.7	81.8-120		%REC	216474	1000	11/25/2015 21:59	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15324-MW-7
Project Name:	Owens Corning	**Collection Date:**	11/20/2015 10:05:00 AM
Lab ID:	1511K38-062	**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	200		ug/L	216474	100	11/25/2015 23:09	JE
1,1-Dichloroethene	30000	5000		ug/L	216474	1000	11/27/2015 18:40	NP
Methylene chloride	BRL	500		ug/L	216474	100	11/25/2015 23:09	JE
trans-1,2-Dichloroethene	BRL	500		ug/L	216474	100	11/25/2015 23:09	JE
1,1-Dichloroethane	BRL	500		ug/L	216474	100	11/25/2015 23:09	JE
cis-1,2-Dichloroethene	BRL	500		ug/L	216474	100	11/25/2015 23:09	JE
Chloroform	BRL	500		ug/L	216474	100	11/25/2015 23:09	JE
1,1,1-Trichloroethane	44000	5000		ug/L	216474	1000	11/27/2015 18:40	NP
Carbon tetrachloride	BRL	500		ug/L	216474	100	11/25/2015 23:09	JE
Benzene	BRL	500		ug/L	216474	100	11/25/2015 23:09	JE
1,2-Dichloroethane	BRL	500		ug/L	216474	100	11/25/2015 23:09	JE
Trichloroethene	BRL	500		ug/L	216474	100	11/25/2015 23:09	JE
Toluene	BRL	500		ug/L	216474	100	11/25/2015 23:09	JE
Tetrachloroethene	BRL	500		ug/L	216474	100	11/25/2015 23:09	JE
Ethylbenzene	BRL	500		ug/L	216474	100	11/25/2015 23:09	JE
Xylenes, Total	BRL	500		ug/L	216474	100	11/25/2015 23:09	JE
Surr: 4-Bromofluorobenzene	91.8	70.7-125		%REC	216474	100	11/25/2015 23:09	JE
Surr: 4-Bromofluorobenzene	96.9	70.7-125		%REC	216474	1000	11/27/2015 18:40	NP
Surr: Dibromofluoromethane	102	82.2-120		%REC	216474	100	11/25/2015 23:09	JE
Surr: Dibromofluoromethane	113	82.2-120		%REC	216474	1000	11/27/2015 18:40	NP
Surr: Toluene-d8	92.4	81.8-120		%REC	216474	1000	11/27/2015 18:40	NP
Surr: Toluene-d8	98.1	81.8-120		%REC	216474	100	11/25/2015 23:09	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15323-MW-27
Project Name:	Owens Corning	**Collection Date:**	11/19/2015 2:45:00 PM
Lab ID:	1511K38-063	**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	216474	1	11/25/2015 23:33	JE
1,1-Dichloroethene	410	50		ug/L	216474	10	11/30/2015 10:20	NP
Methylene chloride	BRL	5.0		ug/L	216474	1	11/25/2015 23:33	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/25/2015 23:33	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216474	1	11/25/2015 23:33	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/25/2015 23:33	JE
Chloroform	19	5.0		ug/L	216474	1	11/25/2015 23:33	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216474	1	11/25/2015 23:33	JE
Carbon tetrachloride	24	5.0		ug/L	216474	1	11/25/2015 23:33	JE
Benzene	BRL	5.0		ug/L	216474	1	11/25/2015 23:33	JE
1,2-Dichloroethane	5.7	5.0		ug/L	216474	1	11/25/2015 23:33	JE
Trichloroethene	BRL	5.0		ug/L	216474	1	11/25/2015 23:33	JE
Toluene	BRL	5.0		ug/L	216474	1	11/25/2015 23:33	JE
Tetrachloroethene	BRL	5.0		ug/L	216474	1	11/25/2015 23:33	JE
Ethylbenzene	BRL	5.0		ug/L	216474	1	11/25/2015 23:33	JE
Xylenes, Total	BRL	5.0		ug/L	216474	1	11/25/2015 23:33	JE
Surr: 4-Bromofluorobenzene	93.4	70.7-125		%REC	216474	1	11/25/2015 23:33	JE
Surr: 4-Bromofluorobenzene	101	70.7-125		%REC	216474	10	11/30/2015 10:20	NP
Surr: Dibromofluoromethane	99.4	82.2-120		%REC	216474	1	11/25/2015 23:33	JE
Surr: Dibromofluoromethane	110	82.2-120		%REC	216474	10	11/30/2015 10:20	NP
Surr: Toluene-d8	94.9	81.8-120		%REC	216474	10	11/30/2015 10:20	NP
Surr: Toluene-d8	99.5	81.8-120		%REC	216474	1	11/25/2015 23:33	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15323-MW-22
Project Name:	Owens Corning	**Collection Date:**	11/19/2015 4:00:00 PM
Lab ID:	1511K38-064	**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	216474	1	11/25/2015 23:57	JE
1,1-Dichloroethene	220	50		ug/L	216474	10	11/30/2015 10:43	NP
Methylene chloride	BRL	5.0		ug/L	216474	1	11/25/2015 23:57	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/25/2015 23:57	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216474	1	11/25/2015 23:57	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/25/2015 23:57	JE
Chloroform	7.6	5.0		ug/L	216474	1	11/25/2015 23:57	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216474	1	11/25/2015 23:57	JE
Carbon tetrachloride	17	5.0		ug/L	216474	1	11/25/2015 23:57	JE
Benzene	BRL	5.0		ug/L	216474	1	11/25/2015 23:57	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216474	1	11/25/2015 23:57	JE
Trichloroethene	BRL	5.0		ug/L	216474	1	11/25/2015 23:57	JE
Toluene	BRL	5.0		ug/L	216474	1	11/25/2015 23:57	JE
Tetrachloroethene	BRL	5.0		ug/L	216474	1	11/25/2015 23:57	JE
Ethylbenzene	BRL	5.0		ug/L	216474	1	11/25/2015 23:57	JE
Xylenes, Total	BRL	5.0		ug/L	216474	1	11/25/2015 23:57	JE
Surr: 4-Bromofluorobenzene	90.9	70.7-125		%REC	216474	1	11/25/2015 23:57	JE
Surr: 4-Bromofluorobenzene	96.2	70.7-125		%REC	216474	10	11/30/2015 10:43	NP
Surr: Dibromofluoromethane	97.3	82.2-120		%REC	216474	1	11/25/2015 23:57	JE
Surr: Dibromofluoromethane	105	82.2-120		%REC	216474	10	11/30/2015 10:43	NP
Surr: Toluene-d8	97.6	81.8-120		%REC	216474	1	11/25/2015 23:57	JE
Surr: Toluene-d8	101	81.8-120		%REC	216474	10	11/30/2015 10:43	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15323-MW-12
Project Name:	Owens Corning	**Collection Date:**	11/19/2015 5:05:00 PM
Lab ID:	1511K38-065	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	17	2.0		ug/L	216474	1	11/26/2015 00:21	JE
1,1-Dichloroethene	270	50		ug/L	216474	10	11/30/2015 11:07	NP
Methylene chloride	BRL	5.0		ug/L	216474	1	11/26/2015 00:21	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 00:21	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 00:21	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 00:21	JE
Chloroform	8.3	5.0		ug/L	216474	1	11/26/2015 00:21	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 00:21	JE
Carbon tetrachloride	8.3	5.0		ug/L	216474	1	11/26/2015 00:21	JE
Benzene	BRL	5.0		ug/L	216474	1	11/26/2015 00:21	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 00:21	JE
Trichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 00:21	JE
Toluene	BRL	5.0		ug/L	216474	1	11/26/2015 00:21	JE
Tetrachloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 00:21	JE
Ethylbenzene	BRL	5.0		ug/L	216474	1	11/26/2015 00:21	JE
Xylenes, Total	BRL	5.0		ug/L	216474	1	11/26/2015 00:21	JE
Surr: 4-Bromofluorobenzene	89.8	70.7-125		%REC	216474	10	11/30/2015 11:07	NP
Surr: 4-Bromofluorobenzene	93.3	70.7-125		%REC	216474	1	11/26/2015 00:21	JE
Surr: Dibromofluoromethane	96.9	82.2-120		%REC	216474	1	11/26/2015 00:21	JE
Surr: Dibromofluoromethane	104	82.2-120		%REC	216474	10	11/30/2015 11:07	NP
Surr: Toluene-d8	97.1	81.8-120		%REC	216474	1	11/26/2015 00:21	JE
Surr: Toluene-d8	96.2	81.8-120		%REC	216474	10	11/30/2015 11:07	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15323-MW-41-ZONE 1
Project Name:	Owens Corning	**Collection Date:**	11/19/2015 10:40:00 AM
Lab ID:	1511K38-066	**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	216474	1	11/26/2015 00:44	JE
1,1-Dichloroethene	150	5.0		ug/L	216474	1	11/26/2015 00:44	JE
Methylene chloride	BRL	5.0		ug/L	216474	1	11/26/2015 00:44	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 00:44	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 00:44	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 00:44	JE
Chloroform	BRL	5.0		ug/L	216474	1	11/26/2015 00:44	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 00:44	JE
Carbon tetrachloride	BRL	5.0		ug/L	216474	1	11/26/2015 00:44	JE
Benzene	BRL	5.0		ug/L	216474	1	11/26/2015 00:44	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 00:44	JE
Trichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 00:44	JE
Toluene	BRL	5.0		ug/L	216474	1	11/26/2015 00:44	JE
Tetrachloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 00:44	JE
Ethylbenzene	BRL	5.0		ug/L	216474	1	11/26/2015 00:44	JE
Xylenes, Total	BRL	5.0		ug/L	216474	1	11/26/2015 00:44	JE
Surr: 4-Bromofluorobenzene	90.5	70.7-125		%REC	216474	1	11/26/2015 00:44	JE
Surr: Dibromofluoromethane	99.1	82.2-120		%REC	216474	1	11/26/2015 00:44	JE
Surr: Toluene-d8	97.9	81.8-120		%REC	216474	1	11/26/2015 00:44	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15323-MW-41-ZONE 2
Project Name:	Owens Corning	**Collection Date:**	11/19/2015 12:00:00 PM
Lab ID:	1511K38-067	**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	216474	1	11/26/2015 01:08	JE
1,1-Dichloroethene	160	5.0		ug/L	216474	1	11/26/2015 01:08	JE
Methylene chloride	BRL	5.0		ug/L	216474	1	11/26/2015 01:08	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 01:08	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 01:08	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 01:08	JE
Chloroform	BRL	5.0		ug/L	216474	1	11/26/2015 01:08	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 01:08	JE
Carbon tetrachloride	BRL	5.0		ug/L	216474	1	11/26/2015 01:08	JE
Benzene	BRL	5.0		ug/L	216474	1	11/26/2015 01:08	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 01:08	JE
Trichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 01:08	JE
Toluene	BRL	5.0		ug/L	216474	1	11/26/2015 01:08	JE
Tetrachloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 01:08	JE
Ethylbenzene	BRL	5.0		ug/L	216474	1	11/26/2015 01:08	JE
Xylenes, Total	BRL	5.0		ug/L	216474	1	11/26/2015 01:08	JE
Surr: 4-Bromofluorobenzene	91.6	70.7-125		%REC	216474	1	11/26/2015 01:08	JE
Surr: Dibromofluoromethane	97.4	82.2-120		%REC	216474	1	11/26/2015 01:08	JE
Surr: Toluene-d8	98.3	81.8-120		%REC	216474	1	11/26/2015 01:08	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15323-MW-41-ZONE 3
Project Name:	Owens Corning	**Collection Date:**	11/19/2015 3:45:00 PM
Lab ID:	1511K38-068	**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	216474	1	11/26/2015 01:31	JE
1,1-Dichloroethene	25	5.0		ug/L	216474	1	11/26/2015 01:31	JE
Methylene chloride	BRL	5.0		ug/L	216474	1	11/26/2015 01:31	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 01:31	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 01:31	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 01:31	JE
Chloroform	BRL	5.0		ug/L	216474	1	11/26/2015 01:31	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 01:31	JE
Carbon tetrachloride	BRL	5.0		ug/L	216474	1	11/26/2015 01:31	JE
Benzene	BRL	5.0		ug/L	216474	1	11/26/2015 01:31	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 01:31	JE
Trichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 01:31	JE
Toluene	BRL	5.0		ug/L	216474	1	11/26/2015 01:31	JE
Tetrachloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 01:31	JE
Ethylbenzene	BRL	5.0		ug/L	216474	1	11/26/2015 01:31	JE
Xylenes, Total	BRL	5.0		ug/L	216474	1	11/26/2015 01:31	JE
Surr: 4-Bromofluorobenzene	90.4	70.7-125		%REC	216474	1	11/26/2015 01:31	JE
Surr: Dibromofluoromethane	99.2	82.2-120		%REC	216474	1	11/26/2015 01:31	JE
Surr: Toluene-d8	98.1	81.8-120		%REC	216474	1	11/26/2015 01:31	JE

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 **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15323-EB
Project Name:	Owens Corning	**Collection Date:**	11/19/2015 4:35:00 PM
Lab ID:	1511K38-069	**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	216474	1	11/26/2015 01:55	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 01:55	JE
Methylene chloride	BRL	5.0		ug/L	216474	1	11/26/2015 01:55	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 01:55	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 01:55	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 01:55	JE
Chloroform	BRL	5.0		ug/L	216474	1	11/26/2015 01:55	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 01:55	JE
Carbon tetrachloride	BRL	5.0		ug/L	216474	1	11/26/2015 01:55	JE
Benzene	BRL	5.0		ug/L	216474	1	11/26/2015 01:55	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 01:55	JE
Trichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 01:55	JE
Toluene	BRL	5.0		ug/L	216474	1	11/26/2015 01:55	JE
Tetrachloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 01:55	JE
Ethylbenzene	BRL	5.0		ug/L	216474	1	11/26/2015 01:55	JE
Xylenes, Total	BRL	5.0		ug/L	216474	1	11/26/2015 01:55	JE
Surr: 4-Bromofluorobenzene	91.8	70.7-125		%REC	216474	1	11/26/2015 01:55	JE
Surr: Dibromofluoromethane	96.3	82.2-120		%REC	216474	1	11/26/2015 01:55	JE
Surr: Toluene-d8	97	81.8-120		%REC	216474	1	11/26/2015 01:55	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15324-TW-42
Project Name:	Owens Corning	**Collection Date:**	11/20/2015 9:35:00 AM
Lab ID:	1511K38-070	**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	216474	1	11/26/2015 02:19	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 02:19	JE
Methylene chloride	BRL	5.0		ug/L	216474	1	11/26/2015 02:19	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 02:19	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 02:19	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 02:19	JE
Chloroform	BRL	5.0		ug/L	216474	1	11/26/2015 02:19	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 02:19	JE
Carbon tetrachloride	BRL	5.0		ug/L	216474	1	11/26/2015 02:19	JE
Benzene	BRL	5.0		ug/L	216474	1	11/26/2015 02:19	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 02:19	JE
Trichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 02:19	JE
Toluene	BRL	5.0		ug/L	216474	1	11/26/2015 02:19	JE
Tetrachloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 02:19	JE
Ethylbenzene	BRL	5.0		ug/L	216474	1	11/26/2015 02:19	JE
Xylenes, Total	BRL	5.0		ug/L	216474	1	11/26/2015 02:19	JE
Surr: 4-Bromofluorobenzene	91.2	70.7-125		%REC	216474	1	11/26/2015 02:19	JE
Surr: Dibromofluoromethane	97.6	82.2-120		%REC	216474	1	11/26/2015 02:19	JE
Surr: Toluene-d8	98.3	81.8-120		%REC	216474	1	11/26/2015 02:19	JE

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 **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15324-EB
Project Name:	Owens Corning	**Collection Date:**	11/20/2015 10:25:00 AM
Lab ID:	1511K38-071	**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	216474	1	11/26/2015 02:42	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 02:42	JE
Methylene chloride	BRL	5.0		ug/L	216474	1	11/26/2015 02:42	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 02:42	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 02:42	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 02:42	JE
Chloroform	BRL	5.0		ug/L	216474	1	11/26/2015 02:42	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 02:42	JE
Carbon tetrachloride	BRL	5.0		ug/L	216474	1	11/26/2015 02:42	JE
Benzene	BRL	5.0		ug/L	216474	1	11/26/2015 02:42	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 02:42	JE
Trichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 02:42	JE
Toluene	BRL	5.0		ug/L	216474	1	11/26/2015 02:42	JE
Tetrachloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 02:42	JE
Ethylbenzene	BRL	5.0		ug/L	216474	1	11/26/2015 02:42	JE
Xylenes, Total	BRL	5.0		ug/L	216474	1	11/26/2015 02:42	JE
Surr: 4-Bromofluorobenzene	90.9	70.7-125		%REC	216474	1	11/26/2015 02:42	JE
Surr: Dibromofluoromethane	98.9	82.2-120		%REC	216474	1	11/26/2015 02:42	JE
Surr: Toluene-d8	97.9	81.8-120		%REC	216474	1	11/26/2015 02:42	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15323-MW-37-Z1
Project Name:	Owens Corning	**Collection Date:**	11/19/2015 11:25:00 AM
Lab ID:	1511K38-072	**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	216474	1	11/26/2015 03:05	JE
1,1-Dichloroethene	78	5.0		ug/L	216474	1	11/26/2015 03:05	JE
Methylene chloride	BRL	5.0		ug/L	216474	1	11/26/2015 03:05	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 03:05	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 03:05	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 03:05	JE
Chloroform	BRL	5.0		ug/L	216474	1	11/26/2015 03:05	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 03:05	JE
Carbon tetrachloride	BRL	5.0		ug/L	216474	1	11/26/2015 03:05	JE
Benzene	BRL	5.0		ug/L	216474	1	11/26/2015 03:05	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 03:05	JE
Trichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 03:05	JE
Toluene	BRL	5.0		ug/L	216474	1	11/26/2015 03:05	JE
Tetrachloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 03:05	JE
Ethylbenzene	BRL	5.0		ug/L	216474	1	11/26/2015 03:05	JE
Xylenes, Total	BRL	5.0		ug/L	216474	1	11/26/2015 03:05	JE
Surr: 4-Bromofluorobenzene	92.2	70.7-125		%REC	216474	1	11/26/2015 03:05	JE
Surr: Dibromofluoromethane	96	82.2-120		%REC	216474	1	11/26/2015 03:05	JE
Surr: Toluene-d8	97.8	81.8-120		%REC	216474	1	11/26/2015 03:05	JE

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 **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15324-TW-43
Project Name:	Owens Corning	**Collection Date:**	11/20/2015 10:05:00 AM
Lab ID:	1511K38-073	**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	216474	1	11/26/2015 03:29	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 03:29	JE
Methylene chloride	BRL	5.0		ug/L	216474	1	11/26/2015 03:29	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 03:29	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 03:29	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 03:29	JE
Chloroform	BRL	5.0		ug/L	216474	1	11/26/2015 03:29	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 03:29	JE
Carbon tetrachloride	BRL	5.0		ug/L	216474	1	11/26/2015 03:29	JE
Benzene	BRL	5.0		ug/L	216474	1	11/26/2015 03:29	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 03:29	JE
Trichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 03:29	JE
Toluene	BRL	5.0		ug/L	216474	1	11/26/2015 03:29	JE
Tetrachloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 03:29	JE
Ethylbenzene	BRL	5.0		ug/L	216474	1	11/26/2015 03:29	JE
Xylenes, Total	BRL	5.0		ug/L	216474	1	11/26/2015 03:29	JE
Surr: 4-Bromofluorobenzene	92.4	70.7-125		%REC	216474	1	11/26/2015 03:29	JE
Surr: Dibromofluoromethane	97.6	82.2-120		%REC	216474	1	11/26/2015 03:29	JE
Surr: Toluene-d8	90.9	81.8-120		%REC	216474	1	11/26/2015 03:29	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15323-MW-38-Z2
Project Name:	Owens Corning	**Collection Date:**	11/19/2015 9:55:00 AM
Lab ID:	1511K38-074	**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	216474	1	11/26/2015 03:52	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 03:52	JE
Methylene chloride	BRL	5.0		ug/L	216474	1	11/26/2015 03:52	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 03:52	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 03:52	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 03:52	JE
Chloroform	BRL	5.0		ug/L	216474	1	11/26/2015 03:52	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 03:52	JE
Carbon tetrachloride	BRL	5.0		ug/L	216474	1	11/26/2015 03:52	JE
Benzene	BRL	5.0		ug/L	216474	1	11/26/2015 03:52	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 03:52	JE
Trichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 03:52	JE
Toluene	BRL	5.0		ug/L	216474	1	11/26/2015 03:52	JE
Tetrachloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 03:52	JE
Ethylbenzene	BRL	5.0		ug/L	216474	1	11/26/2015 03:52	JE
Xylenes, Total	BRL	5.0		ug/L	216474	1	11/26/2015 03:52	JE
Surr: 4-Bromofluorobenzene	92	70.7-125		%REC	216474	1	11/26/2015 03:52	JE
Surr: Dibromofluoromethane	99.5	82.2-120		%REC	216474	1	11/26/2015 03:52	JE
Surr: Toluene-d8	97.7	81.8-120		%REC	216474	1	11/26/2015 03:52	JE

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 **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15323-TW-40
Project Name:	Owens Corning	**Collection Date:**	11/19/2015 4:35:00 PM
Lab ID:	1511K38-075	**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	216474	1	11/26/2015 04:16	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 04:16	JE
Methylene chloride	BRL	5.0		ug/L	216474	1	11/26/2015 04:16	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 04:16	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 04:16	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 04:16	JE
Chloroform	BRL	5.0		ug/L	216474	1	11/26/2015 04:16	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 04:16	JE
Carbon tetrachloride	BRL	5.0		ug/L	216474	1	11/26/2015 04:16	JE
Benzene	BRL	5.0		ug/L	216474	1	11/26/2015 04:16	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 04:16	JE
Trichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 04:16	JE
Toluene	BRL	5.0		ug/L	216474	1	11/26/2015 04:16	JE
Tetrachloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 04:16	JE
Ethylbenzene	BRL	5.0		ug/L	216474	1	11/26/2015 04:16	JE
Xylenes, Total	BRL	5.0		ug/L	216474	1	11/26/2015 04:16	JE
Surr: 4-Bromofluorobenzene	90.1	70.7-125		%REC	216474	1	11/26/2015 04:16	JE
Surr: Dibromofluoromethane	95.9	82.2-120		%REC	216474	1	11/26/2015 04:16	JE
Surr: Toluene-d8	96.9	81.8-120		%REC	216474	1	11/26/2015 04:16	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15323-TW-41
Project Name:	Owens Corning	**Collection Date:**	11/19/2015 3:15:00 PM
Lab ID:	1511K38-076	**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	216474	1	11/26/2015 04:39	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 04:39	JE
Methylene chloride	BRL	5.0		ug/L	216474	1	11/26/2015 04:39	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 04:39	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 04:39	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 04:39	JE
Chloroform	BRL	5.0		ug/L	216474	1	11/26/2015 04:39	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 04:39	JE
Carbon tetrachloride	BRL	5.0		ug/L	216474	1	11/26/2015 04:39	JE
Benzene	BRL	5.0		ug/L	216474	1	11/26/2015 04:39	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 04:39	JE
Trichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 04:39	JE
Toluene	BRL	5.0		ug/L	216474	1	11/26/2015 04:39	JE
Tetrachloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 04:39	JE
Ethylbenzene	BRL	5.0		ug/L	216474	1	11/26/2015 04:39	JE
Xylenes, Total	BRL	5.0		ug/L	216474	1	11/26/2015 04:39	JE
Surr: 4-Bromofluorobenzene	90.8	70.7-125		%REC	216474	1	11/26/2015 04:39	JE
Surr: Dibromofluoromethane	99.1	82.2-120		%REC	216474	1	11/26/2015 04:39	JE
Surr: Toluene-d8	98.9	81.8-120		%REC	216474	1	11/26/2015 04:39	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15323-MW-37-Z2
Project Name:	Owens Corning	**Collection Date:**	11/19/2015 12:55:00 PM
Lab ID:	1511K38-077	**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	216474	1	11/26/2015 05:03	JE
1,1-Dichloroethene	230	50		ug/L	216474	10	11/30/2015 11:30	NP
Methylene chloride	BRL	5.0		ug/L	216474	1	11/26/2015 05:03	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 05:03	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 05:03	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 05:03	JE
Chloroform	6.0	5.0		ug/L	216474	1	11/26/2015 05:03	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 05:03	JE
Carbon tetrachloride	6.0	5.0		ug/L	216474	1	11/26/2015 05:03	JE
Benzene	BRL	5.0		ug/L	216474	1	11/26/2015 05:03	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 05:03	JE
Trichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 05:03	JE
Toluene	BRL	5.0		ug/L	216474	1	11/26/2015 05:03	JE
Tetrachloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 05:03	JE
Ethylbenzene	BRL	5.0		ug/L	216474	1	11/26/2015 05:03	JE
Xylenes, Total	BRL	5.0		ug/L	216474	1	11/26/2015 05:03	JE
Surr: 4-Bromofluorobenzene	91	70.7-125		%REC	216474	1	11/26/2015 05:03	JE
Surr: 4-Bromofluorobenzene	96.8	70.7-125		%REC	216474	10	11/30/2015 11:30	NP
Surr: Dibromofluoromethane	96.8	82.2-120		%REC	216474	1	11/26/2015 05:03	JE
Surr: Dibromofluoromethane	104	82.2-120		%REC	216474	10	11/30/2015 11:30	NP
Surr: Toluene-d8	97.7	81.8-120		%REC	216474	1	11/26/2015 05:03	JE
Surr: Toluene-d8	99.8	81.8-120		%REC	216474	10	11/30/2015 11:30	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	TRIP BLANK
Project Name:	Owens Corning	**Collection Date:**	11/20/2015
Lab ID:	1511K38-078	**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	216474	1	11/26/2015 05:27	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 05:27	JE
Methylene chloride	BRL	5.0		ug/L	216474	1	11/26/2015 05:27	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 05:27	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 05:27	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 05:27	JE
Chloroform	BRL	5.0		ug/L	216474	1	11/26/2015 05:27	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 05:27	JE
Carbon tetrachloride	BRL	5.0		ug/L	216474	1	11/26/2015 05:27	JE
Benzene	BRL	5.0		ug/L	216474	1	11/26/2015 05:27	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 05:27	JE
Trichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 05:27	JE
Toluene	BRL	5.0		ug/L	216474	1	11/26/2015 05:27	JE
Tetrachloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 05:27	JE
Ethylbenzene	BRL	5.0		ug/L	216474	1	11/26/2015 05:27	JE
Xylenes, Total	BRL	5.0		ug/L	216474	1	11/26/2015 05:27	JE
Surr: 4-Bromofluorobenzene	91.5	70.7-125		%REC	216474	1	11/26/2015 05:27	JE
Surr: Dibromofluoromethane	97.3	82.2-120		%REC	216474	1	11/26/2015 05:27	JE
Surr: Toluene-d8	99.4	81.8-120		%REC	216474	1	11/26/2015 05:27	JE

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 **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	TRIP BLANK 2
Project Name:	Owens Corning	**Collection Date:**	11/20/2015
Lab ID:	1511K38-079	**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	216474	1	11/26/2015 05:50	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 05:50	JE
Methylene chloride	BRL	5.0		ug/L	216474	1	11/26/2015 05:50	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 05:50	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 05:50	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 05:50	JE
Chloroform	BRL	5.0		ug/L	216474	1	11/26/2015 05:50	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 05:50	JE
Carbon tetrachloride	BRL	5.0		ug/L	216474	1	11/26/2015 05:50	JE
Benzene	BRL	5.0		ug/L	216474	1	11/26/2015 05:50	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 05:50	JE
Trichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 05:50	JE
Toluene	BRL	5.0		ug/L	216474	1	11/26/2015 05:50	JE
Tetrachloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 05:50	JE
Ethylbenzene	BRL	5.0		ug/L	216474	1	11/26/2015 05:50	JE
Xylenes, Total	BRL	5.0		ug/L	216474	1	11/26/2015 05:50	JE
Surr: 4-Bromofluorobenzene	91.2	70.7-125		%REC	216474	1	11/26/2015 05:50	JE
Surr: Dibromofluoromethane	98.4	82.2-120		%REC	216474	1	11/26/2015 05:50	JE
Surr: Toluene-d8	98.6	81.8-120		%REC	216474	1	11/26/2015 05:50	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	TRIP BLANK 3
Project Name:	Owens Corning	**Collection Date:**	11/20/2015
Lab ID:	1511K38-080	**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	216474	1	11/26/2015 06:14	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 06:14	JE
Methylene chloride	BRL	5.0		ug/L	216474	1	11/26/2015 06:14	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 06:14	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 06:14	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 06:14	JE
Chloroform	BRL	5.0		ug/L	216474	1	11/26/2015 06:14	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 06:14	JE
Carbon tetrachloride	BRL	5.0		ug/L	216474	1	11/26/2015 06:14	JE
Benzene	BRL	5.0		ug/L	216474	1	11/26/2015 06:14	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216474	1	11/26/2015 06:14	JE
Trichloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 06:14	JE
Toluene	BRL	5.0		ug/L	216474	1	11/26/2015 06:14	JE
Tetrachloroethene	BRL	5.0		ug/L	216474	1	11/26/2015 06:14	JE
Ethylbenzene	BRL	5.0		ug/L	216474	1	11/26/2015 06:14	JE
Xylenes, Total	BRL	5.0		ug/L	216474	1	11/26/2015 06:14	JE
Surr: 4-Bromofluorobenzene	92.1	70.7-125		%REC	216474	1	11/26/2015 06:14	JE
Surr: Dibromofluoromethane	98.3	82.2-120		%REC	216474	1	11/26/2015 06:14	JE
Surr: Toluene-d8	98.5	81.8-120		%REC	216474	1	11/26/2015 06:14	JE

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 **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	TRIP BLANK 4
Project Name:	Owens Corning	**Collection Date:**	11/20/2015
Lab ID:	1511K38-081	**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	216358	1	11/30/2015 12:42	JE
1,1-Dichloroethene	BRL	5.0		ug/L	216358	1	11/30/2015 12:42	JE
Methylene chloride	BRL	5.0		ug/L	216358	1	11/30/2015 12:42	JE
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216358	1	11/30/2015 12:42	JE
1,1-Dichloroethane	BRL	5.0		ug/L	216358	1	11/30/2015 12:42	JE
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216358	1	11/30/2015 12:42	JE
Chloroform	BRL	5.0		ug/L	216358	1	11/30/2015 12:42	JE
1,1,1-Trichloroethane	BRL	5.0		ug/L	216358	1	11/30/2015 12:42	JE
Carbon tetrachloride	BRL	5.0		ug/L	216358	1	11/30/2015 12:42	JE
Benzene	BRL	5.0		ug/L	216358	1	11/30/2015 12:42	JE
1,2-Dichloroethane	BRL	5.0		ug/L	216358	1	11/30/2015 12:42	JE
Trichloroethene	BRL	5.0		ug/L	216358	1	11/30/2015 12:42	JE
Toluene	BRL	5.0		ug/L	216358	1	11/30/2015 12:42	JE
Tetrachloroethene	BRL	5.0		ug/L	216358	1	11/30/2015 12:42	JE
Ethylbenzene	BRL	5.0		ug/L	216358	1	11/30/2015 12:42	JE
Xylenes, Total	BRL	5.0		ug/L	216358	1	11/30/2015 12:42	JE
Surr: 4-Bromofluorobenzene	91.9	70.7-125		%REC	216358	1	11/30/2015 12:42	JE
Surr: Dibromofluoromethane	100	82.2-120		%REC	216358	1	11/30/2015 12:42	JE
Surr: Toluene-d8	99.7	81.8-120		%REC	216358	1	11/30/2015 12:42	JE

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 **Date:** 3-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15322-MW-36-ZONE 3
Project Name:	Owens Corning	**Collection Date:**	11/18/2015 3:00:00 PM
Lab ID:	1511K38-082	**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	216358	1	11/27/2015 17:05	NP
1,1-Dichloroethene	BRL	5.0		ug/L	216358	1	11/27/2015 17:05	NP
Methylene chloride	BRL	5.0		ug/L	216358	1	11/27/2015 17:05	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216358	1	11/27/2015 17:05	NP
1,1-Dichloroethane	BRL	5.0		ug/L	216358	1	11/27/2015 17:05	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216358	1	11/27/2015 17:05	NP
Chloroform	BRL	5.0		ug/L	216358	1	11/27/2015 17:05	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	216358	1	11/27/2015 17:05	NP
Carbon tetrachloride	BRL	5.0		ug/L	216358	1	11/27/2015 17:05	NP
Benzene	BRL	5.0		ug/L	216358	1	11/27/2015 17:05	NP
1,2-Dichloroethane	BRL	5.0		ug/L	216358	1	11/27/2015 17:05	NP
Trichloroethene	BRL	5.0		ug/L	216358	1	11/27/2015 17:05	NP
Toluene	BRL	5.0		ug/L	216358	1	11/27/2015 17:05	NP
Tetrachloroethene	BRL	5.0		ug/L	216358	1	11/27/2015 17:05	NP
Ethylbenzene	BRL	5.0		ug/L	216358	1	11/27/2015 17:05	NP
Xylenes, Total	BRL	5.0		ug/L	216358	1	11/27/2015 17:05	NP
Surr: 4-Bromofluorobenzene	103	70.7-125		%REC	216358	1	11/27/2015 17:05	NP
Surr: Dibromofluoromethane	119	82.2-120		%REC	216358	1	11/27/2015 17:05	NP
Surr: Toluene-d8	105	81.8-120		%REC	216358	1	11/27/2015 17:05	NP

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 1511K38

Checklist completed by Signature 11/20/15 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? (0°≤6°C)* Yes ✓ No __

Cooler #1 3.8 Cooler #2 3.6 Cooler #3 3.3 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) Recieved Broken vials (2)

(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.

\\Aes_server\I\Sample Receipt\My Documents\COCs and pH Adjustment Sheet\Sample_Cooler_Recipt_Checklist_Rev1.rtf

Client: BROWN AND CALDWELL
Project Name: Owens Corning
Workorder: 1511K38

ANALYTICAL QC SUMMARY REPORT

BatchID: 216358

Sample ID: **MB-216358** Client ID: Units: **ug/L** Prep Date: **11/24/2015** Run No: **305075**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **216358** Analysis Date: **11/24/2015** Seq No: **6535604**

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	46.42	0	50.00		92.8	70.7	125				
Surr: Dibromofluoromethane	48.00	0	50.00		96.0	82.2	120				
Surr: Toluene-d8	48.64	0	50.00		97.3	81.8	120				

Sample ID: **LCS-216358** Client ID: Units: **ug/L** Prep Date: **11/24/2015** Run No: **305075**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **216358** Analysis Date: **11/24/2015** Seq No: **6535603**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	44.00	5.0	50.00		88.0	64.2	137				
Benzene	42.17	5.0	50.00		84.3	72.8	128				
Toluene	41.63	5.0	50.00		83.3	74.9	127				

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: 1511K38

ANALYTICAL QC SUMMARY REPORT

BatchID: 216358

Sample ID: **LCS-216358**	Client ID:		Units: **ug/L**	Prep Date: **11/24/2015**	Run No: **305075**
SampleType: **LCS**	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**		BatchID: **216358**	Analysis Date: **11/24/2015**	Seq No: **6535603**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Trichloroethene	42.19	5.0	50.00		84.4	70.5	134				
Surr: 4-Bromofluorobenzene	46.45	0	50.00		92.9	70.7	125				
Surr: Dibromofluoromethane	48.15	0	50.00		96.3	82.2	120				
Surr: Toluene-d8	48.42	0	50.00		96.8	81.8	120				

Sample ID: **1511H08-001AMS**	Client ID:		Units: **ug/L**	Prep Date: **11/24/2015**	Run No: **305075**
SampleType: **MS**	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**		BatchID: **216358**	Analysis Date: **11/24/2015**	Seq No: **6535678**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	57.38	5.0	50.00		115	60.5	156				
Benzene	55.98	5.0	50.00		112	70	135				
Toluene	55.52	5.0	50.00		111	70.5	137				
Trichloroethene	55.43	5.0	50.00		111	71.8	139				
Surr: 4-Bromofluorobenzene	46.58	0	50.00		93.2	70.7	125				
Surr: Dibromofluoromethane	47.66	0	50.00		95.3	82.2	120				
Surr: Toluene-d8	48.64	0	50.00		97.3	81.8	120				

Sample ID: **1511H08-001AMSD**	Client ID:		Units: **ug/L**	Prep Date: **11/24/2015**	Run No: **305075**
SampleType: **MSD**	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**		BatchID: **216358**	Analysis Date: **11/24/2015**	Seq No: **6535679**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	57.76	5.0	50.00		116	60.5	156	57.38	0.660	20	
Benzene	55.47	5.0	50.00		111	70	135	55.98	0.915	20	
Toluene	54.73	5.0	50.00		109	70.5	137	55.52	1.43	20	
Trichloroethene	54.81	5.0	50.00		110	71.8	139	55.43	1.12	20	
Surr: 4-Bromofluorobenzene	46.88	0	50.00		93.8	70.7	125	46.58	0	0	
Surr: Dibromofluoromethane	47.47	0	50.00		94.9	82.2	120	47.66	0	0	
Surr: Toluene-d8	48.73	0	50.00		97.5	81.8	120	48.64	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: 1511K38

ANALYTICAL QC SUMMARY REPORT

BatchID: 216424

Sample ID: **MB-216424** Client ID: Units: **ug/L** Prep Date: **11/24/2015** Run No: **305106**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **216424** Analysis Date: **11/24/2015** Seq No: **6537674**

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	49.27	0	50.00		98.5	70.7	125				
Surr: Dibromofluoromethane	52.96	0	50.00		106	82.2	120				
Surr: Toluene-d8	49.02	0	50.00		98.0	81.8	120				

Sample ID: **LCS-216424** Client ID: Units: **ug/L** Prep Date: **11/24/2015** Run No: **305226**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **216424** Analysis Date: **11/25/2015** Seq No: **6538536**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	45.12	5.0	50.00		90.2	64.2	137				
Benzene	46.68	5.0	50.00		93.4	72.8	128				
Toluene	54.82	5.0	50.00		110	74.9	127				
Trichloroethene	59.99	5.0	50.00		120	70.5	134				

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: 1511K38

ANALYTICAL QC SUMMARY REPORT

BatchID: 216424

Sample ID: **LCS-216424** Client ID: Units: **ug/L** Prep Date: **11/24/2015** Run No: **305226**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **216424** Analysis Date: **11/25/2015** Seq No: **6538536**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	48.98	0	50.00		98.0	70.7	125				
Surr: Dibromofluoromethane	54.01	0	50.00		108	82.2	120				
Surr: Toluene-d8	47.42	0	50.00		94.8	81.8	120				

Sample ID: **1511K38-008AMS** Client ID: **15322-MW-11** Units: **ug/L** Prep Date: **11/24/2015** Run No: **305394**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **216424** Analysis Date: **11/30/2015** Seq No: **6542998**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	61.40	5.0	50.00		123	60.5	156				
Benzene	57.29	5.0	50.00		115	70	135				
Toluene	56.67	5.0	50.00		113	70.5	137				
Trichloroethene	56.02	5.0	50.00		112	71.8	139				
Surr: 4-Bromofluorobenzene	46.29	0	50.00		92.6	70.7	125				
Surr: Dibromofluoromethane	49.59	0	50.00		99.2	82.2	120				
Surr: Toluene-d8	48.93	0	50.00		97.9	81.8	120				

Sample ID: **1511K38-008AMSD** Client ID: **15322-MW-11** Units: **ug/L** Prep Date: **11/24/2015** Run No: **305394**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **216424** Analysis Date: **11/30/2015** Seq No: **6542999**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	60.62	5.0	50.00		121	60.5	156	61.40	1.28	20	
Benzene	57.13	5.0	50.00		114	70	135	57.29	0.280	20	
Toluene	56.27	5.0	50.00		113	70.5	137	56.67	0.708	20	
Trichloroethene	55.24	5.0	50.00		110	71.8	139	56.02	1.40	20	
Surr: 4-Bromofluorobenzene	46.22	0	50.00		92.4	70.7	125	46.29	0	0	
Surr: Dibromofluoromethane	48.48	0	50.00		97.0	82.2	120	49.59	0	0	
Surr: Toluene-d8	49.16	0	50.00		98.3	81.8	120	48.93	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: 1511K38

ANALYTICAL QC SUMMARY REPORT

BatchID: 216431

Sample ID: **MB-216431** Client ID: Units: **ug/L** Prep Date: **11/24/2015** Run No: **305213**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **216431** Analysis Date: **11/24/2015** Seq No: **6538288**

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	45.62	0	50.00		91.2	70.7	125				
Surr: Dibromofluoromethane	47.43	0	50.00		94.9	82.2	120				
Surr: Toluene-d8	48.48	0	50.00		97.0	81.8	120				

Sample ID: **LCS-216431** Client ID: Units: **ug/L** Prep Date: **11/24/2015** Run No: **305213**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **216431** Analysis Date: **11/24/2015** Seq No: **6538283**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	53.50	5.0	50.00		107	64.2	137				
Benzene	54.65	5.0	50.00		109	72.8	128				
Toluene	54.69	5.0	50.00		109	74.9	127				
Trichloroethene	55.50	5.0	50.00		111	70.5	134				

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: 1511K38

ANALYTICAL QC SUMMARY REPORT

BatchID: 216431

Sample ID: **LCS-216431** Client ID: Units: **ug/L** Prep Date: **11/24/2015** Run No: **305213**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **216431** Analysis Date: **11/24/2015** Seq No: **6538283**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	46.33	0	50.00		92.7	70.7	125				
Surr: Dibromofluoromethane	47.84	0	50.00		95.7	82.2	120				
Surr: Toluene-d8	48.09	0	50.00		96.2	81.8	120				

Sample ID: **1511K38-035AMS** Client ID: **15322-SW-3** Units: **ug/L** Prep Date: **11/24/2015** Run No: **305283**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **216431** Analysis Date: **11/26/2015** Seq No: **6540402**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	566.0	50	500.0		113	60.5	156				
Benzene	571.2	50	500.0		114	70	135				
Toluene	562.4	50	500.0		112	70.5	137				
Trichloroethene	549.0	50	500.0		110	71.8	139				
Surr: 4-Bromofluorobenzene	460.7	0	500.0		92.1	70.7	125				
Surr: Dibromofluoromethane	485.8	0	500.0		97.2	82.2	120				
Surr: Toluene-d8	486.3	0	500.0		97.3	81.8	120				

Sample ID: **1511K38-035AMSD** Client ID: **15322-SW-3** Units: **ug/L** Prep Date: **11/24/2015** Run No: **305283**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **216431** Analysis Date: **11/26/2015** Seq No: **6540403**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	553.0	50	500.0		111	60.5	156	566.0	2.32	20	
Benzene	562.7	50	500.0		113	70	135	571.2	1.50	20	
Toluene	561.2	50	500.0		112	70.5	137	562.4	0.214	20	
Trichloroethene	542.1	50	500.0		108	71.8	139	549.0	1.26	20	
Surr: 4-Bromofluorobenzene	453.5	0	500.0		90.7	70.7	125	460.7	0	0	
Surr: Dibromofluoromethane	483.3	0	500.0		96.7	82.2	120	485.8	0	0	
Surr: Toluene-d8	485.4	0	500.0		97.1	81.8	120	486.3	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: 1511K38

ANALYTICAL QC SUMMARY REPORT

BatchID: 216470

Sample ID: **MB-216470** Client ID: Units: **ug/L** Prep Date: **11/25/2015** Run No: **305225**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **216470** Analysis Date: **11/25/2015** Seq No: **6540159**

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	43.60	0	50.00		87.2	70.7	125				
Surr: Dibromofluoromethane	48.35	0	50.00		96.7	82.2	120				
Surr: Toluene-d8	49.20	0	50.00		98.4	81.8	120				

Sample ID: **LCS-216470** Client ID: Units: **ug/L** Prep Date: **11/25/2015** Run No: **305225**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **216470** Analysis Date: **11/25/2015** Seq No: **6540162**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	64.32	5.0	50.00		129	64.2	137				
Benzene	51.40	5.0	50.00		103	72.8	128				
Toluene	51.40	5.0	50.00		103	74.9	127				
Trichloroethene	51.76	5.0	50.00		104	70.5	134				

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: 1511K38

ANALYTICAL QC SUMMARY REPORT

BatchID: 216470

Sample ID: **LCS-216470** Client ID: Units: **ug/L** Prep Date: **11/25/2015** Run No: **305225**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **216470** Analysis Date: **11/25/2015** Seq No: **6540162**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	43.23	0	50.00		86.5	70.7	125				
Surr: Dibromofluoromethane	48.59	0	50.00		97.2	82.2	120				
Surr: Toluene-d8	49.15	0	50.00		98.3	81.8	120				

Sample ID: **1511K38-042AMS** Client ID: **15322-MW-36-ZONE 1** Units: **ug/L** Prep Date: **11/25/2015** Run No: **305225**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **216470** Analysis Date: **11/25/2015** Seq No: **6540171**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	61.22	5.0	50.00		122	60.5	156				
Benzene	50.94	5.0	50.00		102	70	135				
Toluene	51.30	5.0	50.00		103	70.5	137				
Trichloroethene	50.99	5.0	50.00		102	71.8	139				
Surr: 4-Bromofluorobenzene	42.85	0	50.00		85.7	70.7	125				
Surr: Dibromofluoromethane	48.15	0	50.00		96.3	82.2	120				
Surr: Toluene-d8	49.74	0	50.00		99.5	81.8	120				

Sample ID: **1511K38-042AMSD** Client ID: **15322-MW-36-ZONE 1** Units: **ug/L** Prep Date: **11/25/2015** Run No: **305225**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **216470** Analysis Date: **11/25/2015** Seq No: **6540174**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	57.80	5.0	50.00		116	60.5	156	61.22	5.75	20	
Benzene	48.53	5.0	50.00		97.1	70	135	50.94	4.85	20	
Toluene	47.52	5.0	50.00		95.0	70.5	137	51.30	7.65	20	
Trichloroethene	49.41	5.0	50.00		98.8	71.8	139	50.99	3.15	20	
Surr: 4-Bromofluorobenzene	41.34	0	50.00		82.7	70.7	125	42.85	0	0	
Surr: Dibromofluoromethane	49.55	0	50.00		99.1	82.2	120	48.15	0	0	
Surr: Toluene-d8	49.98	0	50.00		100.0	81.8	120	49.74	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: 1511K38

ANALYTICAL QC SUMMARY REPORT

BatchID: 216474

Sample ID: **MB-216474** Client ID: Units: **ug/L** Prep Date: **11/25/2015** Run No: **305283**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **216474** Analysis Date: **11/25/2015** Seq No: **6540277**

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	46.10	0	50.00		92.2	70.7	125				
Surr: Dibromofluoromethane	48.92	0	50.00		97.8	82.2	120				
Surr: Toluene-d8	48.60	0	50.00		97.2	81.8	120				

Sample ID: **LCS-216474** Client ID: Units: **ug/L** Prep Date: **11/25/2015** Run No: **305283**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **216474** Analysis Date: **11/25/2015** Seq No: **6540279**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	58.76	5.0	50.00		118	64.2	137				
Benzene	55.63	5.0	50.00		111	72.8	128				
Toluene	53.76	5.0	50.00		108	74.9	127				
Trichloroethene	54.01	5.0	50.00		108	70.5	134				

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: 1511K38

ANALYTICAL QC SUMMARY REPORT

BatchID: 216474

Sample ID: **LCS-216474** Client ID: Units: **ug/L** Prep Date: **11/25/2015** Run No: **305283**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **216474** Analysis Date: **11/25/2015** Seq No: **6540279**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	47.03	0	50.00		94.1	70.7	125				
Surr: Dibromofluoromethane	49.03	0	50.00		98.1	82.2	120				
Surr: Toluene-d8	48.68	0	50.00		97.4	81.8	120				

Sample ID: **1511K38-061AMS** Client ID: **15324-MW-28** Units: **ug/L** Prep Date: **11/25/2015** Run No: **305283**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **216474** Analysis Date: **11/25/2015** Seq No: **6540288**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	162700	5000	50000	95390	135	60.5	156				
Benzene	57230	5000	50000		114	70	135				
Toluene	56430	5000	50000		113	70.5	137				
Trichloroethene	55120	5000	50000		110	71.8	139				
Surr: 4-Bromofluorobenzene	46010	0	50000		92.0	70.7	125				
Surr: Dibromofluoromethane	49410	0	50000		98.8	82.2	120				
Surr: Toluene-d8	49050	0	50000		98.1	81.8	120				

Sample ID: **1511K38-061AMSD** Client ID: **15324-MW-28** Units: **ug/L** Prep Date: **11/25/2015** Run No: **305283**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **216474** Analysis Date: **11/25/2015** Seq No: **6540291**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	158600	5000	50000	95390	126	60.5	156	162700	2.55	20	
Benzene	56450	5000	50000		113	70	135	57230	1.37	20	
Toluene	55400	5000	50000		111	70.5	137	56430	1.84	20	
Trichloroethene	55090	5000	50000		110	71.8	139	55120	0.054	20	
Surr: 4-Bromofluorobenzene	46700	0	50000		93.4	70.7	125	46010	0	0	
Surr: Dibromofluoromethane	48760	0	50000		97.5	82.2	120	49410	0	0	
Surr: Toluene-d8	49070	0	50000		98.1	81.8	120	49050	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		

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

December 01, 2015

Tamara Berryman
BROWN AND CALDWELL
990 Hammond Drive
Atlanta GA 30328

TEL: (770) 673-3678
FAX: (770) 396-9495

RE: Owens Corning

Dear Tamara Berryman: Order No: 1511N86

Analytical Environmental Services, Inc. received 9 samples on 11/25/2015 9:55:00 AM 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 07/01/15-06/30/16.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

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.

Ioana Pacurar

Ioana Pacurar
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: 157186

Date: 11/24/15 Page 1 of 1

COMPANY:	ADDRESS:
Brown + Caldwell	990 Hammond Dr St. 400 Atlanta, GA
PHONE: 770-673-3678	FAX:
SAMPLED BY: JPL + GG	SIGNATURE:

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOCs *	PRESERVATION (See codes) H+I	REMARKS	No # of Containers
1	15326 - 626 AIRLINE ROAD	11-24-15	1750	X		GW	X	X		2
2	15328 - 200 KAYE DRIVE	11-24-15	1736	X		GW	X	X		2
3	15328 - 303 KAYE DRIVE	11-24-15	1729	X		GW	X	X		2
4	15328 - 412 KAYE DRIVE	11-24-15	1610	X		GW	X	X		2
5	15328 - 721 CLINKSCALES ROAD	11-24-15	1640	X		GW	X	X		2
6	15328 - 119 CLOVERHILL DRIVE	11-24-15	1700	X		GW	X	X		2
7	15328 - 408 CLINKSCALES ROAD	11-24-15	1630	X		GW	X	X		2
8	15328 - 200 FRIENDSHIP LANE	11-24-15	1635	X		GW	X	X		2
9	15328 - 117 FAYE DRIVE	11-24-15	1717	X		GW	X	X		2
10										
11										
12										
13										
14										

ANALYSIS REQUESTED

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:	11/25/15 0955	1: Nadia G	11/25/15 0955AM
2:		2:	
3:		3:	

PROJECT INFORMATION

PROJECT NAME: OWEN'S CORNING
PROJECT #: 147297
SITE ADDRESS: 4837 Highway 81 South Starr, SC 29684
SEND REPORT TO: Tamara Berryman
INVOICE TO: (IF DIFFERENT FROM ABOVE)
TBerryman@broncald.com
QUOTE #: PO#:

RECEIPT

Total # of Containers: 18

Turnaround Time Request
- [X] 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

SPECIAL INSTRUCTIONS/COMMENTS:
* SEE FOCUSED LIST
3.5°C

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
(CLIENT) FedEx UPS MAIL COURIER
GREYHOUND 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. 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

Analytical Environmental Services, Inc **Date:** 1-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15328-628 AIRLINE ROAD
Project Name:	Owens Corning	**Collection Date:**	11/24/2015 5:50:00 PM
Lab ID:	1511N86-001	**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	216550	1	11/30/2015 15:29	NP
1,1-Dichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 15:29	NP
Methylene chloride	BRL	5.0		ug/L	216550	1	11/30/2015 15:29	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 15:29	NP
1,1-Dichloroethane	BRL	5.0		ug/L	216550	1	11/30/2015 15:29	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 15:29	NP
Chloroform	BRL	5.0		ug/L	216550	1	11/30/2015 15:29	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	216550	1	11/30/2015 15:29	NP
Carbon tetrachloride	BRL	5.0		ug/L	216550	1	11/30/2015 15:29	NP
Benzene	BRL	5.0		ug/L	216550	1	11/30/2015 15:29	NP
1,2-Dichloroethane	BRL	5.0		ug/L	216550	1	11/30/2015 15:29	NP
Trichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 15:29	NP
Toluene	BRL	5.0		ug/L	216550	1	11/30/2015 15:29	NP
Tetrachloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 15:29	NP
Ethylbenzene	BRL	5.0		ug/L	216550	1	11/30/2015 15:29	NP
Xylenes, Total	BRL	5.0		ug/L	216550	1	11/30/2015 15:29	NP
Surr: 4-Bromofluorobenzene	101	70.7-125		%REC	216550	1	11/30/2015 15:29	NP
Surr: Dibromofluoromethane	101	82.2-120		%REC	216550	1	11/30/2015 15:29	NP
Surr: Toluene-d8	97.1	81.8-120		%REC	216550	1	11/30/2015 15:29	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 1-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15328-200 KAYE DRIVE
Project Name:	Owens Corning	**Collection Date:**	11/24/2015 5:38:00 PM
Lab ID:	1511N86-002	**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	216550	1	11/30/2015 15:53	NP
1,1-Dichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 15:53	NP
Methylene chloride	BRL	5.0		ug/L	216550	1	11/30/2015 15:53	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 15:53	NP
1,1-Dichloroethane	BRL	5.0		ug/L	216550	1	11/30/2015 15:53	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 15:53	NP
Chloroform	BRL	5.0		ug/L	216550	1	11/30/2015 15:53	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	216550	1	11/30/2015 15:53	NP
Carbon tetrachloride	BRL	5.0		ug/L	216550	1	11/30/2015 15:53	NP
Benzene	BRL	5.0		ug/L	216550	1	11/30/2015 15:53	NP
1,2-Dichloroethane	BRL	5.0		ug/L	216550	1	11/30/2015 15:53	NP
Trichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 15:53	NP
Toluene	BRL	5.0		ug/L	216550	1	11/30/2015 15:53	NP
Tetrachloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 15:53	NP
Ethylbenzene	BRL	5.0		ug/L	216550	1	11/30/2015 15:53	NP
Xylenes, Total	BRL	5.0		ug/L	216550	1	11/30/2015 15:53	NP
Surr: 4-Bromofluorobenzene	82.4	70.7-125		%REC	216550	1	11/30/2015 15:53	NP
Surr: Dibromofluoromethane	111	82.2-120		%REC	216550	1	11/30/2015 15:53	NP
Surr: Toluene-d8	94.2	81.8-120		%REC	216550	1	11/30/2015 15:53	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 1-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15328-303 KAYE DRIVE
Project Name:	Owens Corning	**Collection Date:**	11/24/2015 5:29:00 PM
Lab ID:	1511N86-003	**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	216550	1	11/30/2015 16:17	NP
1,1-Dichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 16:17	NP
Methylene chloride	BRL	5.0		ug/L	216550	1	11/30/2015 16:17	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 16:17	NP
1,1-Dichloroethane	BRL	5.0		ug/L	216550	1	11/30/2015 16:17	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 16:17	NP
Chloroform	BRL	5.0		ug/L	216550	1	11/30/2015 16:17	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	216550	1	11/30/2015 16:17	NP
Carbon tetrachloride	BRL	5.0		ug/L	216550	1	11/30/2015 16:17	NP
Benzene	BRL	5.0		ug/L	216550	1	11/30/2015 16:17	NP
1,2-Dichloroethane	BRL	5.0		ug/L	216550	1	11/30/2015 16:17	NP
Trichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 16:17	NP
Toluene	BRL	5.0		ug/L	216550	1	11/30/2015 16:17	NP
Tetrachloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 16:17	NP
Ethylbenzene	BRL	5.0		ug/L	216550	1	11/30/2015 16:17	NP
Xylenes, Total	BRL	5.0		ug/L	216550	1	11/30/2015 16:17	NP
Surr: 4-Bromofluorobenzene	81.2	70.7-125		%REC	216550	1	11/30/2015 16:17	NP
Surr: Dibromofluoromethane	97.6	82.2-120		%REC	216550	1	11/30/2015 16:17	NP
Surr: Toluene-d8	82	81.8-120		%REC	216550	1	11/30/2015 16:17	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 1-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15328-412 KAYE DRIVE
Project Name:	Owens Corning	**Collection Date:**	11/24/2015 4:10:00 PM
Lab ID:	1511N86-004	**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	216550	1	11/30/2015 16:40	NP
1,1-Dichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 16:40	NP
Methylene chloride	BRL	5.0		ug/L	216550	1	11/30/2015 16:40	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 16:40	NP
1,1-Dichloroethane	BRL	5.0		ug/L	216550	1	11/30/2015 16:40	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 16:40	NP
Chloroform	BRL	5.0		ug/L	216550	1	11/30/2015 16:40	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	216550	1	11/30/2015 16:40	NP
Carbon tetrachloride	BRL	5.0		ug/L	216550	1	11/30/2015 16:40	NP
Benzene	BRL	5.0		ug/L	216550	1	11/30/2015 16:40	NP
1,2-Dichloroethane	BRL	5.0		ug/L	216550	1	11/30/2015 16:40	NP
Trichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 16:40	NP
Toluene	BRL	5.0		ug/L	216550	1	11/30/2015 16:40	NP
Tetrachloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 16:40	NP
Ethylbenzene	BRL	5.0		ug/L	216550	1	11/30/2015 16:40	NP
Xylenes, Total	BRL	5.0		ug/L	216550	1	11/30/2015 16:40	NP
Surr: 4-Bromofluorobenzene	82.6	70.7-125		%REC	216550	1	11/30/2015 16:40	NP
Surr: Dibromofluoromethane	108	82.2-120		%REC	216550	1	11/30/2015 16:40	NP
Surr: Toluene-d8	82.1	81.8-120		%REC	216550	1	11/30/2015 16:40	NP

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 **Date:** 1-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15328-721 CLINKSCALES ROA
Project Name:	Owens Corning	**Collection Date:**	11/24/2015 4:40:00 PM
Lab ID:	1511N86-005	**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	216550	1	11/30/2015 17:03	NP
1,1-Dichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 17:03	NP
Methylene chloride	BRL	5.0		ug/L	216550	1	11/30/2015 17:03	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 17:03	NP
1,1-Dichloroethane	BRL	5.0		ug/L	216550	1	11/30/2015 17:03	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 17:03	NP
Chloroform	BRL	5.0		ug/L	216550	1	11/30/2015 17:03	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	216550	1	11/30/2015 17:03	NP
Carbon tetrachloride	BRL	5.0		ug/L	216550	1	11/30/2015 17:03	NP
Benzene	BRL	5.0		ug/L	216550	1	11/30/2015 17:03	NP
1,2-Dichloroethane	BRL	5.0		ug/L	216550	1	11/30/2015 17:03	NP
Trichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 17:03	NP
Toluene	BRL	5.0		ug/L	216550	1	11/30/2015 17:03	NP
Tetrachloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 17:03	NP
Ethylbenzene	BRL	5.0		ug/L	216550	1	11/30/2015 17:03	NP
Xylenes, Total	BRL	5.0		ug/L	216550	1	11/30/2015 17:03	NP
Surr: 4-Bromofluorobenzene	118	70.7-125		%REC	216550	1	11/30/2015 17:03	NP
Surr: Dibromofluoromethane	84.9	82.2-120		%REC	216550	1	11/30/2015 17:03	NP
Surr: Toluene-d8	101	81.8-120		%REC	216550	1	11/30/2015 17:03	NP

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 **Date:** 1-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15328-119 CLOVERHILL DRIV
Project Name:	Owens Corning	**Collection Date:**	11/24/2015 5:00:00 PM
Lab ID:	1511N86-006	**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	216550	1	11/30/2015 17:27	NP
1,1-Dichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 17:27	NP
Methylene chloride	BRL	5.0		ug/L	216550	1	11/30/2015 17:27	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 17:27	NP
1,1-Dichloroethane	BRL	5.0		ug/L	216550	1	11/30/2015 17:27	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 17:27	NP
Chloroform	14	5.0		ug/L	216550	1	11/30/2015 17:27	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	216550	1	11/30/2015 17:27	NP
Carbon tetrachloride	BRL	5.0		ug/L	216550	1	11/30/2015 17:27	NP
Benzene	BRL	5.0		ug/L	216550	1	11/30/2015 17:27	NP
1,2-Dichloroethane	BRL	5.0		ug/L	216550	1	11/30/2015 17:27	NP
Trichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 17:27	NP
Toluene	BRL	5.0		ug/L	216550	1	11/30/2015 17:27	NP
Tetrachloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 17:27	NP
Ethylbenzene	BRL	5.0		ug/L	216550	1	11/30/2015 17:27	NP
Xylenes, Total	BRL	5.0		ug/L	216550	1	11/30/2015 17:27	NP
Surr: 4-Bromofluorobenzene	96.5	70.7-125		%REC	216550	1	11/30/2015 17:27	NP
Surr: Dibromofluoromethane	94.9	82.2-120		%REC	216550	1	11/30/2015 17:27	NP
Surr: Toluene-d8	120	81.8-120		%REC	216550	1	11/30/2015 17:27	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 1-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15328-408 CLINKSCALES ROA
Project Name:	Owens Corning	**Collection Date:**	11/24/2015 4:30:00 PM
Lab ID:	1511N86-007	**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	216550	1	11/30/2015 17:51	NP
1,1-Dichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 17:51	NP
Methylene chloride	BRL	5.0		ug/L	216550	1	11/30/2015 17:51	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 17:51	NP
1,1-Dichloroethane	BRL	5.0		ug/L	216550	1	11/30/2015 17:51	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 17:51	NP
Chloroform	BRL	5.0		ug/L	216550	1	11/30/2015 17:51	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	216550	1	11/30/2015 17:51	NP
Carbon tetrachloride	BRL	5.0		ug/L	216550	1	11/30/2015 17:51	NP
Benzene	BRL	5.0		ug/L	216550	1	11/30/2015 17:51	NP
1,2-Dichloroethane	BRL	5.0		ug/L	216550	1	11/30/2015 17:51	NP
Trichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 17:51	NP
Toluene	BRL	5.0		ug/L	216550	1	11/30/2015 17:51	NP
Tetrachloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 17:51	NP
Ethylbenzene	BRL	5.0		ug/L	216550	1	11/30/2015 17:51	NP
Xylenes, Total	BRL	5.0		ug/L	216550	1	11/30/2015 17:51	NP
Surr: 4-Bromofluorobenzene	121	70.7-125		%REC	216550	1	11/30/2015 17:51	NP
Surr: Dibromofluoromethane	120	82.2-120		%REC	216550	1	11/30/2015 17:51	NP
Surr: Toluene-d8	81.8	81.8-120		%REC	216550	1	11/30/2015 17:51	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 1-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15328-200 FRIENDSHIP LANE
Project Name:	Owens Corning	**Collection Date:**	11/24/2015 4:35:00 PM
Lab ID:	1511N86-008	**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	216550	1	11/30/2015 18:14	NP
1,1-Dichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 18:14	NP
Methylene chloride	BRL	5.0		ug/L	216550	1	11/30/2015 18:14	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 18:14	NP
1,1-Dichloroethane	BRL	5.0		ug/L	216550	1	11/30/2015 18:14	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 18:14	NP
Chloroform	BRL	5.0		ug/L	216550	1	11/30/2015 18:14	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	216550	1	11/30/2015 18:14	NP
Carbon tetrachloride	BRL	5.0		ug/L	216550	1	11/30/2015 18:14	NP
Benzene	BRL	5.0		ug/L	216550	1	11/30/2015 18:14	NP
1,2-Dichloroethane	BRL	5.0		ug/L	216550	1	11/30/2015 18:14	NP
Trichloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 18:14	NP
Toluene	BRL	5.0		ug/L	216550	1	11/30/2015 18:14	NP
Tetrachloroethene	BRL	5.0		ug/L	216550	1	11/30/2015 18:14	NP
Ethylbenzene	BRL	5.0		ug/L	216550	1	11/30/2015 18:14	NP
Xylenes, Total	BRL	5.0		ug/L	216550	1	11/30/2015 18:14	NP
Surr: 4-Bromofluorobenzene	93.7	70.7-125		%REC	216550	1	11/30/2015 18:14	NP
Surr: Dibromofluoromethane	106	82.2-120		%REC	216550	1	11/30/2015 18:14	NP
Surr: Toluene-d8	102	81.8-120		%REC	216550	1	11/30/2015 18:14	NP

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 **Date:** 1-Dec-15

Client:	BROWN AND CALDWELL	**Client Sample ID:**	15328-117 FAYE DRIVE
Project Name:	Owens Corning	**Collection Date:**	11/24/2015 5:17:00 PM
Lab ID:	1511N86-009	**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	216550	1	12/01/2015 11:42	NP
1,1-Dichloroethene	BRL	5.0		ug/L	216550	1	12/01/2015 11:42	NP
Methylene chloride	BRL	5.0		ug/L	216550	1	12/01/2015 11:42	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	216550	1	12/01/2015 11:42	NP
1,1-Dichloroethane	BRL	5.0		ug/L	216550	1	12/01/2015 11:42	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	216550	1	12/01/2015 11:42	NP
Chloroform	BRL	5.0		ug/L	216550	1	12/01/2015 11:42	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	216550	1	12/01/2015 11:42	NP
Carbon tetrachloride	BRL	5.0		ug/L	216550	1	12/01/2015 11:42	NP
Benzene	BRL	5.0		ug/L	216550	1	12/01/2015 11:42	NP
1,2-Dichloroethane	BRL	5.0		ug/L	216550	1	12/01/2015 11:42	NP
Trichloroethene	BRL	5.0		ug/L	216550	1	12/01/2015 11:42	NP
Toluene	BRL	5.0		ug/L	216550	1	12/01/2015 11:42	NP
Tetrachloroethene	BRL	5.0		ug/L	216550	1	12/01/2015 11:42	NP
Ethylbenzene	BRL	5.0		ug/L	216550	1	12/01/2015 11:42	NP
Xylenes, Total	BRL	5.0		ug/L	216550	1	12/01/2015 11:42	NP
Surr: 4-Bromofluorobenzene	92.8	70.7-125		%REC	216550	1	12/01/2015 11:42	NP
Surr: Dibromofluoromethane	99	82.2-120		%REC	216550	1	12/01/2015 11:42	NP
Surr: Toluene-d8	99.7	81.8-120		%REC	216550	1	12/01/2015 11:42	NP

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 15N1586

Checklist completed by [signature] 11/25/2015
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 3.5°C Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ No __

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted __ Yes ✓ No __

Water - pH acceptable upon receipt? Yes ✓ No __ Not Applicable __

Adjusted? _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

Client: BROWN AND CALDWELL
Project Name: Owens Corning
Workorder: 1511N86

ANALYTICAL QC SUMMARY REPORT

BatchID: 216550

Sample ID: **MB-216550**	Client ID:		Units: **ug/L**	Prep Date: **11/30/2015**	Run No: **305354**
SampleType: **MBLK**	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**		BatchID: **216550**	Analysis Date: **11/30/2015**	Seq No: **6542149**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	59.33	0	50.00		119	70.7	125				
Surr: Dibromofluoromethane	52.83	0	50.00		106	82.2	120				
Surr: Toluene-d8	53.62	0	50.00		107	81.8	120				

Sample ID: **MB-216550**	Client ID:		Units: **ug/L**	Prep Date: **11/30/2015**	Run No: **305354**
SampleType: **MBLK**	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**		BatchID: **216550**	Analysis Date: **11/30/2015**	Seq No: **6542165**

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	59.07	0	50.00		118	70.7	125				
Surr: Dibromofluoromethane	51.46	0	50.00		103	82.2	120				
Surr: Toluene-d8	51.52	0	50.00		103	81.8	120				

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: 1511N86

ANALYTICAL QC SUMMARY REPORT

BatchID: 216550

Sample ID: **LCS-216550** Client ID: Units: **ug/L** Prep Date: **11/30/2015** Run No: **305354**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **216550** Analysis Date: **11/30/2015** Seq No: **6542148**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	68.10	5.0	50.00		136	64.2	137				
Benzene	53.95	5.0	50.00		108	72.8	128				
Toluene	54.96	5.0	50.00		110	74.9	127				
Trichloroethene	42.25	5.0	50.00		84.5	70.5	134				
Surr: 4-Bromofluorobenzene	55.83	0	50.00		112	70.7	125				
Surr: Dibromofluoromethane	49.01	0	50.00		98.0	82.2	120				
Surr: Toluene-d8	45.49	0	50.00		91.0	81.8	120				

Sample ID: **1511M03-001BMS** Client ID: Units: **ug/L** Prep Date: **11/30/2015** Run No: **305354**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **216550** Analysis Date: **11/30/2015** Seq No: **6542573**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	482500	50000	500000		96.5	60.5	156				
Benzene	453100	50000	500000		90.6	70	135				
Toluene	583500	50000	500000		117	70.5	137				
Trichloroethene	589500	50000	500000		118	71.8	139				
Surr: 4-Bromofluorobenzene	510800	0	500000		102	70.7	125				
Surr: Dibromofluoromethane	436200	0	500000		87.2	82.2	120				
Surr: Toluene-d8	490200	0	500000		98.0	81.8	120				

Sample ID: **1511M03-001BMSD** Client ID: Units: **ug/L** Prep Date: **11/30/2015** Run No: **305354**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **216550** Analysis Date: **11/30/2015** Seq No: **6542805**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	400900	50000	500000		80.2	60.5	156	482500	18.5	20	
Benzene	503500	50000	500000		101	70	135	453100	10.5	20	
Toluene	569800	50000	500000		114	70.5	137	583500	2.38	20	
Trichloroethene	551900	50000	500000		110	71.8	139	589500	6.59	20	

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: 1511N86

ANALYTICAL QC SUMMARY REPORT

BatchID: 216550

Sample ID: **1511M03-001BMSD** Client ID:
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B**
Units: **ug/L** Prep Date: **11/30/2015** Run No: **305354**
BatchID: **216550** Analysis Date: **11/30/2015** Seq No: **6542805**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	509000	0	500000		102	70.7	125	510800	0	0	
Surr: Dibromofluoromethane	467700	0	500000		93.5	82.2	120	436200	0	0	
Surr: Toluene-d8	490400	0	500000		98.1	81.8	120	490200	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 D: Historical Groundwater Data

Historical Groundwater Analytical Results Owens Corning - Anderson, SC										
Sample ID	MW-1									
Sample Date	Aug-93	Dec-95	Dec-96	Nov-97	Dec-98	Dec-99	Dec-00	Nov-01	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)										
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	21	ND
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (ug/L)										
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	190	51.8	160	60	50	49	39	39	NA	NA
Beryllium	0.46	ND	ND	ND	ND	ND	ND	ND	NA	NA
Chromium	ND	ND	3.1	2	2	ND	ND	ND	NA	NA
Lead	ND	ND	2.1	ND	ND	ND	ND	ND	NA	NA
Nickel	ND	ND	ND	1	7	ND	ND	ND	NA	NA
Fluoride	ND	ND	46.9	500	ND	ND	250	ND	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical results are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC										
Sample ID	MW-2									
Sample Date	Aug-93	Dec-95	Dec-96	Nov-97	Dec-98	Dec-99	Dec-00	Nov-01	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)										
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (ug/L)										
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	330	64.8	130	40	40	41	90	52	NA	NA
Beryllium	1.1	ND	ND	ND	ND	ND	ND	ND	NA	NA
Chromium	11	ND	3.4	1	1	ND	35	ND	NA	NA
Lead	ND	2.2	ND	ND	ND	ND	5.5	ND	NA	NA
Nickel	ND	ND	ND	1.0	ND	ND	27	ND	NA	NA
Fluoride	ND	ND	78.5	600	ND	ND	240	ND	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC														
Sample ID	MW-3													
Sample Date	Nov-90	Aug-91	Aug-93	Dec-95	Dec-96	Nov-97	Dec-98	Dec-99	Dec-00	Nov-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)														
Tetrachloroethene	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	NA	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	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
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND
Metals (ug/L)														
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Barium	ND	130	310	172	160	100	160	110	210	69	NA	NA	NA	NA
Beryllium	ND	2.7	1.4	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Chromium	ND	28	16	3.3	5.1	ND	5	ND	ND	ND	NA	NA	NA	NA
Lead	ND	26	77	10.2	5.4	ND	9	5.2	13	ND	NA	ND	NA	NA
Nickel	ND	13	ND	28	ND	ND	10	ND	ND	ND	NA	NA	NA	NA
Fluoride	NA	ND	NA	ND	38.9	200	ND	ND	ND	ND	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC														
Sample ID	MW-4													
Sample Date	Nov-90	Aug-91	Aug-93	Dec-95	Dec-96	Nov-97	Dec-98	Dec-99	Dec-00	Nov-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)														
Tetrachloroethene	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	4	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.4	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	170	ND	ND
Vinyl Chloride	NA	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.9	ND	ND
Chloroform	ND	ND	ND	ND	1	ND	ND	ND	ND	ND	ND	14	ND	ND
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Metals (ug/L)														
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Barium	200	570	790	475	300	100	200	260	130	140	NA	NA	NA	NA
Beryllium	ND	3.9	4.4	2.5	1.7	ND	1	ND	ND	ND	NA	NA	NA	NA
Chromium	ND	22	40	14.8	8.3	1	7	ND	ND	ND	NA	NA	NA	NA
Lead	ND	ND	38	12.1	3.3	ND	4	ND	ND	ND	NA	ND	NA	NA
Nickel	ND	13	18	11.8	7.7	4	8	ND	ND	ND	NA	NA	NA	NA
Fluoride	NA	ND	NA	170	230	200	300	200	300	260	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC														
Sample ID	MW-5													
Sample Date	Nov-90	Aug-91	Aug-93	Dec-95	Dec-96	Nov-97	Dec-98	Dec-99	Dec-00	Nov-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)														
Tetrachloroethene	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	NA	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	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
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Metals (ug/L)														
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Barium	390	220	240	174	160	100	130	89	140	140	NA	NA	NA	NA
Beryllium	ND	1.0	1.0	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Chromium	ND	16	10	4.3	2.3	ND	4	ND	ND	ND	NA	NA	NA	NA
Lead	ND	ND	30	8.5	3.2	ND	8	ND	ND	ND	NA	NA	NA	NA
Nickel	ND	7.1	ND	3.7	ND	1	3	ND	ND	ND	NA	NA	NA	NA
Fluoride	NA	ND	NA	ND	31.4	200	ND	ND	170	ND	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC												
Sample ID	MW-6											
Sample Date	Sep-93	Dec-95	Dec-96	Nov-97	Dec-98	Dec-99	Dec-00	Nov-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)												
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	25	ND	ND	ND	ND	ND	ND	ND	ND	1.8	1.4
Vinyl Chloride	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	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
Methylene chloride	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	46	ND	ND	ND	ND	ND	ND	ND	ND	2.6	2.8
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Metals (ug/L)												
Arsenic	ND	NA	NA	ND	ND	NA	NA	ND	NA	ND	NA	NA
Barium	46	40.1	38.7	40	40	42	40	37	NA	NA	NA	NA
Beryllium	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Chromium	ND	5.6	4	2	1	ND	11	ND	NA	NA	NA	NA
Lead	1.2	4.1	2.6	ND	ND	ND	ND	ND	NA	ND	NA	NA
Nickel	ND	2.7	ND	2.0	2.0	ND	ND	ND	NA	NA	NA	NA
Fluoride	ND	ND	120	200	100	ND	270	ND	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC																	
Sample ID	MW-7																
Sample Date	Nov-90	Aug-91	Sep-93	Dec-95	Dec-96	Nov-97	Dec-98	Dec-99	Dec-00	Nov-01	Dec-02	Jun-03	Dec-03	Apr-04	Jul-04	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)																	
Tetrachloroethene	NA	ND	NA	ND	40	ND	ND	23	ND	ND	ND	ND	ND	ND	ND	ND	4.5
Trichloroethene	NA	ND	ND	ND	62	ND	ND	26.6	ND	ND	ND	ND	ND	ND	ND	ND	3.2
1,1-Dichloroethene	NA	13,000	3,600	31,000	24,000	14,000	2,900	14,000	27,600	30,100	45,000	1,600	4,400	6,200	3,200	1,000	1,700
Vinyl Chloride	NA	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	NA	ND	ND	ND	22	ND	ND	11.8	ND	ND	ND	ND	ND	ND	ND	ND	3.3J
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	NA	35,000	9,000	55,000	58,000	28,000	8,200	24,600	36,500	36,000	76,000	18,000	9,100	13,000	8,300	3,800	5,500
1,2-Dichloroethane	NA	ND	ND	ND	32	ND	ND	17.1	ND	ND	ND	ND	NA	ND	ND	ND	ND
Benzene	NA	ND	ND	ND	1	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND
Metals (ug/L)																	
Arsenic	400	NA	2.50	16.6	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
Barium	470	170	530	327	620	100	70	220	190	170	NA	NA	NA	NA	NA	NA	NA
Beryllium	70	41	6.5	20.5	25	20	3	24	27	25	NA	NA	NA	NA	NA	NA	NA
Chromium	27	19	25	11.3	23.2	10	6	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA
Lead	65	ND	43	17.4	27.1	ND	ND	ND	ND	ND	NA	NA	ND	NA	NA	NA	NA
Nickel	290	320	59	166	174	90	10	120	160	170	NA	NA	NA	NA	NA	NA	NA
Fluoride	6400	21,800	100,000	44,900	1,000,000	300,000	45,000	1,700,000	722,000	1,780,000	NA	1,500	NA	280	570	NA	NA

ug/L -Micrograms per liter
NA -Not Analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC												
Sample ID	MW-9											
Sample Date	Sep-93	Dec-95	Dec-96	Nov-97	Dec-98	Dec-99	Dec-00	Nov-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)												
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	74	41	1	ND	ND	ND	ND	ND	ND	ND	5.7	2.2
Vinyl Chloride	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	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
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	70	1	ND	ND	ND	ND	ND	ND	ND	4.7	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (ug/L)												
Arsenic	ND	NA	NA	6.5	ND	NA	NA	ND	NA	ND	NA	NA
Barium	960	959	74.5	50	70	70	110	68	NA	NA	NA	NA
Beryllium	0.55	4.8	1.4	ND	ND	ND	ND	ND	NA	NA	NA	NA
Chromium	61	86.1	4.4	1	4	ND	91	ND	NA	NA	NA	NA
Lead	20	19	ND	ND	ND	ND	ND	ND	NA	ND	NA	NA
Nickel	49	84.9	7.3	3	5	24	81	ND	NA	NA	NA	NA
Fluoride	21,000	2,060	1,640	600	800	500	42,600	2,700	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not Analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC											
Sample ID	MW-10										
Sample Date	Sep-93	Dec-95	Dec-96	Nov-97	Dec-98	Dec-99	Dec-00	Nov-01	Dec-02	Dec-03	Dec-04
Volatile Organic Compounds (ug/L)											
Tetrachloroethene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	0.94	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Metals (ug/L)											
Arsenic	ND	NA	NA	ND	ND	NA	NA	ND	NA	ND	NA
Barium	4,800	36.4	38	40	30	56	61	36	NA	NA	NA
Beryllium	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
Chromium	ND	1.6	ND	1	1	ND	44	ND	NA	NA	NA
Lead	ND	ND	ND	ND	ND	ND	11	ND	NA	ND	NA
Nickel	ND	ND	ND	ND	2	ND	39	ND	NA	NA	NA
Fluoride	ND	ND	61.3	200	ND	ND	220	ND	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC														
Sample ID	MW-11													
Sample Date	Nov-90	Aug-91	Sep-93	Dec-95	Dec-96	Nov-97	Dec-98	Dec-99	Dec-00	Nov-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)														
Tetrachloroethene	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.3
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.4	NA	ND	ND	1.2
1,1-Dichloroethene	43	62	94	19	45	230	600	190	204	335	630	ND	360	280
Vinyl Chloride	NA	ND	NA	NA	6	ND	ND	ND	10.7	21.6	ND	ND	17	33
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	31	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	ND	ND	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	27.3	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.5	ND	NA	ND	4
Benzene	ND	7	6	ND	2	ND	ND	ND	ND	0.82	ND	NA	ND	ND
Metals (ug/L)														
Arsenic	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	NA
Barium	1,100	930	1,800	438	840	400	260	250	210	150	NA	NA	NA	NA
Beryllium	ND	6	12	ND	1.5	ND	ND	ND	NA	NA	NA	NA	NA	NA
Chromium	25	31	8	10	12.2	8	10	ND	NA	NA	NA	NA	NA	NA
Lead	ND	ND	41	3.9	3.5	2	3	ND	NA	NA	NA	ND	NA	NA
Nickel	ND	44	60	37.4	41.2	40	20	29	26	NA	NA	NA	NA	NA
Fluoride	NA	ND	NA	120	180	500	200	130	170	250	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC														
Sample ID	MW-12													
Sample Date	Nov-90	Aug-91	Sep-93	Dec-95	Dec-96	Nov-97	Dec-98	Dec-99	Dec-00	Nov-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)														
Tetrachloroethene	NA	ND	NA	ND	2	7	ND	ND	ND	1.9	ND	ND	ND	1.9
Trichloroethene	ND	ND	ND	ND	1	ND	ND	ND	ND	ND	ND	ND	ND	1.2
1,1-Dichloroethene	680	460	310	250	260	180	120	284	338	383	350	ND	160	180
Vinyl Chloride	NA	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	28	26	23	16	19	13	7.2	17.7	14.8	13.5	13	ND	8	15
Chloroform	ND	ND	ND	ND	10	ND	5	11.4	12.3	12	14	ND	10	14
Methylene chloride	ND	ND	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	25	ND	11	ND	3	ND	ND	ND	9.2	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	4	6.5	ND	ND	ND	ND	ND	NA	2.4	2.9
Benzene	ND	ND	10	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Metals (ug/L)														
Arsenic	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
Barium	ND	140	170	150	600	100	130	220	170	190	NA	NA	NA	NA
Beryllium	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Chromium	38	560	160	67.8	77.1	20	100	120	46	790	NA	NA	NA	NA
Lead	ND	ND	1.9	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA
Nickel	110	1,600	71	52.8	29.7	10	90	34	54	450	NA	NA	NA	NA
Fluoride	NA	ND	NA	ND	48.5	400	ND	ND	3,400	ND	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC												
Sample ID	MW-13											
Sample Date	Sep-93	Dec-95	Dec-96	Nov-97	Dec-98	Dec-99	Dec-00	Nov-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)												
Tetrachloroethene	NA	ND	4	8.4	ND	ND	ND	ND	ND	ND	ND	2.1
Trichloroethene	NA	ND	2	ND	ND	ND	ND	ND	ND	ND	ND	1.3
1,1-Dichloroethene	430	310	410	280	170	324	455	475	410	220	200	180
Vinyl Chloride	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	29	28	37	28	9.1	23.3	23	20	ND	14	14	17
Chloroform	ND	ND	13	16	6.8	13.2	15	13.9	ND	12	11	14
Methylene chloride	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	15	ND	4	ND	9.3	ND	ND	ND	ND	ND	ND	3.9
1,2-Dichloroethane	ND	ND	6	9.3	ND	5.5	5.7	ND	ND	NA	ND	3
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Metals (ug/L)												
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Barium	140	93.1	100	100	100	110	110	110	NA	NA	NA	NA
Beryllium	0.37	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Chromium	8.6	ND	ND	2	2	MD	ND	ND	NA	NA	NA	NA
Lead	2.6	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	NA
Nickel	ND	ND	ND	2	2	60	ND	ND	NA	NA	NA	NA
Fluoride	ND	ND	41.9	300	300	ND	440	ND	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC												
Sample ID	MW-14											
Sample Date	Sep-93	Dec-95	Dec-96	Nov-97	Dec-98	Dec-99	Dec-00	Nov-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)												
Tetrachloroethene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	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
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Metals (ug/L)												
Arsenic	ND	NA	NA	ND	ND	NA	NA	ND	NA	ND	NA	NA
Barium	110	34.6	36.6	50	40	67	49	44	NA	NA	NA	NA
Beryllium	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Chromium	ND	ND	ND	1	1	MD	ND	ND	NA	NA	NA	NA
Lead	12	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	NA
Nickel	ND	ND	ND	1	1	ND	ND	ND	NA	NA	NA	NA
Fluoride	NA	100	180	200	200	ND	380	170	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC												
Sample ID	MW-15											
Sample Date	Aug-93	Dec-95	Dec-96	Nov-97	Dec-98	Dec-99	Dec-00	Nov-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)												
Tetrachloroethene	ND	ND	2	7.3	ND	ND	ND	ND	ND	ND	1.6	ND
Trichloroethene	NA	ND	1	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	2.5	320	230	99	83	230	354	322	360	140	290	44
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	1.9	ND	8	5.3	ND	8.1	8	6.9	ND	ND	ND	ND
Methylene chloride	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	4	5.5	ND	ND	ND	ND	ND	NA	2.5	1.1
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Metals (ug/L)												
Arsenic	2	3.3	NA	ND	3	NA	NA	ND	NA	ND	NA	NA
Barium	100	ND	75.7	70	70	72	78	78	NA	NA	NA	NA
Beryllium	1	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Chromium	ND	1.2	ND	2	2	ND	ND	ND	NA	NA	NA	NA
Lead	15	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	NA
Nickel	ND	1.9	ND	1	1	22	ND	ND	NA	NA	NA	NA
Fluoride	NA	130	140	300	300	ND	300	110	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC												
Sample ID	MW-16											
Sample Date	Aug-93	Dec-95	Dec-96	Nov-97	Dec-98	Dec-99	Dec-00	Nov-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)												
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	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
Methylene chloride	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Metals (ug/L)												
Arsenic	17.4	3.6	ND	ND	ND	NA	NA	ND	NA	ND	NA	NA
Barium	1,300	163	180	80	50	78	54	65	NA	NA	NA	NA
Beryllium	2.5	ND	1.4	ND	ND	ND	ND	ND	NA	NA	NA	NA
Chromium	21	6.4	5.5	3	3	MD	20	ND	NA	NA	NA	NA
Lead	79	8.6	11.6	1	1	ND	ND	ND	NA	ND	NA	NA
Nickel	ND	3.1	ND	2	2	ND	20	ND	NA	NA	NA	NA
Fluoride	NA	ND	130	200	200	170	210	210	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC												
Sample ID	MW-17											
Sample Date	Sep-93	Dec-95	Dec-96	Nov-97	Dec-98	Dec-99	Dec-00	Nov-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)												
Tetrachloroethene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.4	ND
Vinyl Chloride	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	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
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.9	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Metals (ug/L)												
Arsenic	ND	NA	NA	ND	ND	NA	NA	ND	NA	ND	NA	NA
Barium	130	200	700	100	90	260	150	170	NA	NA	NA	NA
Beryllium	ND	ND	1.5	ND	ND	ND	ND	ND	NA	NA	NA	NA
Chromium	7.1	3.9	3.6	1	ND	ND	ND	ND	NA	NA	NA	NA
Lead	1.9	4.9	ND	ND	ND	7	ND	ND	NA	ND	NA	NA
Nickel	ND	3.9	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Fluoride	ND	ND	36	200	ND	ND	180	ND	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC											
Sample ID	MW-18										
Sample Date	Aug-93	Dec-96	Nov-97	Dec-98	Dec-99	Dec-00	Nov-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)											
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Metals (ug/L)											
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Barium	370	170	200	90	120	100	91	NA	NA	NA	NA
Beryllium	1	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Chromium	11	3.1	6	ND	ND	ND	ND	NA	NA	NA	NA
Lead	ND	3.3	6	ND	ND	ND	ND	NA	ND	NA	NA
Nickel	ND	ND	5	1	ND	ND	ND	NA	NA	NA	NA
Fluoride	ND	32.5	200	ND	ND	210	ND	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC												
Sample ID	MW-19											
Sample Date	Sep-93	Dec-95	Dec-96	Nov-97	Dec-98	Dec-99	Dec-00	Nov-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)												
Tetrachloroethene	ND	ND	3	ND	ND	ND	ND	4.6	ND	ND	2.5	1.5
Trichloroethene	NA	ND	2	ND	ND	ND	ND	2.3	ND	ND	ND	ND
1,1-Dichloroethene	160	240	270	190	81	279	257	256	240	160	160	86
Vinyl Chloride	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	7	5.2	ND	5.9	7.1	6.2	ND	ND	4.4	2.9
Methylene chloride	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	6	6.1	ND	5.1	6.8	5.7	ND	NA	4.4	2.9
Benzene	ND	ND	ND	13	21	ND	ND	ND	ND	NA	ND	ND
Metals (ug/L)												
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Barium	3,200	40.4	20.5	30	30	ND	ND	ND	NA	NA	NA	NA
Beryllium	3.6	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Chromium	7.8	1.3	ND	2	2	ND	ND	ND	NA	NA	NA	NA
Lead	119	2.5	ND	ND	3	ND	ND	ND	NA	ND	NA	NA
Nickel	ND	ND	ND	2	2	ND	ND	ND	NA	NA	NA	NA
Fluoride	450	170	180	300	200	110	300	140	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC												
Sample ID	MW-20											
Sample Date	Sep-93	Dec-95	Dec-96	Nov-97	Dec-98	Dec-99	Dec-00	Nov-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)												
Tetrachloroethene	NA	3	ND	ND	ND	ND	5.3	5	ND	ND	ND	1.8
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	2.5	ND	ND	ND	ND
1,1-Dichloroethene	9.6	7	10	ND	ND	74.4	113	126	22	ND	25	44
Vinyl Chloride	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1.6	ND	3	ND	ND	22.6	35.7	37.7	7.3	ND	5.9	16
Chloroform	17	ND	9	11	6.3	26.9	29.3	26.7	36	ND	20	43
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	6	ND	ND	ND	5.3	8.1	7.6	ND	NA	1.3	3
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Metals (ug/L)												
Arsenic	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Barium	98	51.7	420	50	40	120	69	76	NA	NA	NA	NA
Beryllium	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Chromium	ND	3.5	5.9	3	4	ND	ND	ND	NA	NA	NA	NA
Lead	1.5	ND	2.3	ND	ND	ND	ND	ND	NA	ND	NA	NA
Nickel	15	3.8	5.6	2	2	ND	ND	ND	NA	NA	NA	NA
Fluoride	ND	ND	63.9	100	ND	1,600	110	ND	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC												
Sample ID	MW-21											
Sample Date	Aug-93	Dec-95	Dec-96	Nov-97	Dec-98	Dec-99	Dec-00	Nov-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)												
Tetrachloroethene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	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
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	12	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Metals (ug/L)												
Arsenic	ND	NA	NA	ND	ND	NA	NA	ND	NA	ND	NA	NA
Barium	1,200	661	280	100	100	130	250	82	NA	NA	NA	NA
Beryllium	3.3	2.2	1.8	ND	ND	ND	ND	ND	NA	NA	NA	NA
Chromium	9.5	4	2.8	1	1	ND	ND	ND	NA	NA	NA	NA
Lead	75	31.7	6.7	ND	ND	ND	5.8	ND	NA	ND	NA	NA
Nickel	ND	5.4	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Fluoride	NA	ND	44.9	100	ND	ND	180	ND	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC											
Sample ID	MW-22										
Sample Date	Aug-93	Dec-95	Dec-96	Dec-98	Dec-99	Dec-00	Nov-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)											
Tetrachloroethene	ND	ND	3	ND	ND	ND	ND	ND	ND	ND	1.5
Trichloroethene	NA	ND	2	ND	ND	ND	ND	ND	ND	ND	1
1,1-Dichloroethene	300	400	520	630	545	586	566	480	300	310	300
Vinyl Chloride	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	18	30	40	21	24.2	24.8	21.9	ND	12	14	19
Chloroform	ND	ND	11	12	11.4	12.9	12.7	ND	10	11	13
Methylene chloride	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	5	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	5	ND	5	5.7	4.7	ND	NA	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Metals (ug/L)											
Arsenic	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Barium	89	78.6	81.9	80	92	100	96	NA	NA	NA	NA
Beryllium	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Chromium	ND	1.3	ND	ND	ND	ND	ND	NA	NA	NA	NA
Lead	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	NA
Nickel	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Fluoride	ND	ND	38.3	ND	ND	ND	ND	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC											
Sample ID	MW-24										
Sample Date	Sep-93	Dec-95	Dec-96	Nov-97	Dec-98	Dec-99	Dec-00	Nov-01	Dec-02	Dec-03	Dec-04
Volatile Organic Compounds (ug/L)											
Tetrachloroethene	NA	ND	1	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	23	32	24	34	37	20.3	47.5	67.4	69	ND	1
Vinyl Chloride	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	4.6	6	5	6.2	8.7	ND	6.6	6.6	8.1	ND	ND
Chloroform	12	12	14	15	21	17.9	20.1	21.1	26	ND	ND
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.6
1,2-Dichloroethane	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Metals (ug/L)											
Arsenic	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
Barium	190	162	570	100	140	160	160	140	NA	NA	NA
Beryllium	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
Chromium	9	ND	1.3	1	1	ND	ND	ND	NA	NA	NA
Lead	16	ND	2.6	ND	ND	ND	ND	ND	NA	ND	NA
Nickel	ND	3.2	ND	2	2	ND	ND	ND	NA	NA	NA
Fluoride	ND	ND	43.5	200	ND	ND	ND	ND	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC												
Sample ID	MW-25											
Sample Date	Aug-93	Dec-95	Dec-96	Dec-97	Dec-98	Dec-99	Dec-00	Nov-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)												
Tetrachloroethene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.8
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	NA	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	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
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	1.4	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Metals (ug/L)												
Arsenic	ND	NA	NA	ND	NA	NA	NA	ND	NA	ND	NA	NA
Barium	580	115	100	80	80	97	110	110	NA	NA	NA	NA
Beryllium	1.4	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Chromium	8.2	ND	ND	2	1	ND	ND	ND	NA	NA	NA	NA
Lead	27	ND	ND	ND	ND	ND	ND	ND	NA	11	NA	NA
Nickel	ND	1.3	35.1	2	2	ND	ND	ND	NA	NA	NA	NA
Fluoride	NA	ND	ND	100	ND	ND	ND	ND	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC												
Sample ID	MW-26											
Sample Date	Aug-93	Dec-95	Dec-96	Nov-97	Dec-98	Dec-99	Dec-00	Nov-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)												
Tetrachloroethene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	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
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Metals (ug/L)												
Arsenic	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA
Barium	1,100	780	1,000	900	640	680	1,200	830	NA	NA	NA	NA
Beryllium	2.9	2.7	2.3	3.0	3	ND	ND	ND	NA	NA	NA	NA
Chromium	61	33.2	24.7	90	40	38	140	50	NA	NA	NA	NA
Lead	43	17.3	8.8	20	10	16	26	14	ND	NA	NA	NA
Nickel	47	67.2	51	100	50	98	180	99	NA	NA	NA	NA
Fluoride	NA	150	140	100	100	ND	ND	100	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC											
Sample ID	MW-27										
Sample Date	Sep-93	Dec-95	Dec-96	Dec-98	Dec-99	Dec-00	Nov-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)											
Tetrachloroethene	11	ND	8	ND	5.3	5.8	5.7	ND	4.9	2.5	3.1
Trichloroethene	NA	ND	4	ND	ND	ND	2.9	ND	23	1.3	2
1,1-Dichloroethene	350	130	210	46	101	126	150	120	180	74	130
Vinyl Chloride	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	77	6	55	12	34.6	41.2	43	34	2.2	15	19
Chloroform	17	10	25	23	22.4	25.7	26.8	29	15	26	13
Methylene chloride	NA	ND	ND	ND	ND	ND	1.5	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.3	ND
1,2-Dichloroethane	13	ND	9	ND	7.4	9.8	8.8	6.9	ND	3.5	4.4
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Metals (ug/L)											
Arsenic	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA
Barium	57	82.9	55.6	50	66	79	78	NA	NA	NA	NA
Beryllium	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Chromium	ND	2.6	1.3	1	ND	ND	ND	NA	NA	NA	NA
Lead	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	NA
Nickel	ND	1.8	53.9	2	ND	ND	ND	NA	NA	NA	NA
Fluoride	ND	100	ND	ND	ND	140	ND	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC					
Sample ID	MW-28				
Sample Date	Apr-04	May-04	Jul-04	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)					
Tetrachloroethene	ND	ND	ND	ND	38
Trichloroethene	ND	ND	ND	ND	53
1,1-Dichloroethene	160,000	25,000	39,000	24,000	35,000
Vinyl Chloride	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND
Methylene chloride	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	96,000	31,000	49,000	61,000	91,000
1,2-Dichloroethane	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND
Metals (ug/L)					
Arsenic	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA
Fluoride	3,800	1,800	330	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results		
Sample ID	MW-29R	
Sample Date	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)		
Tetrachloroethene	ND	ND
Trichloroethene	ND	ND
1,1-Dichloroethene	290	95
Vinyl Chloride	ND	ND
Carbon tetrachloride	12	3.4
Chloroform	11	3.3
Methylene chloride	ND	ND
1,1,1-Trichloroethane	ND	ND
1,2-Dichloroethane	ND	ND
Benzene	ND	ND
Metals (ug/L)		
Arsenic	NA	NA
Barium	NA	NA
Beryllium	NA	NA
Chromium	NA	NA
Lead	NA	NA
Nickel	NA	NA
Fluoride	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC						
Sample ID	TW-40					
Sample Date	Oct-01	Nov-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)						
Tetrachloroethene	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1.6	4.6	ND	ND	ND	2.7
Vinyl Chloride	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND	ND	ND
Chloroform	11.3	2.6	ND	ND	ND	ND
Methylene chloride	1.1	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	NA	ND	ND
Benzene	ND	ND	ND	NA	ND	ND
Metals (ug/L)						
Arsenic	NA	ND	NA	ND	NA	NA
Barium	130	NA	NA	NA	NA	NA
Beryllium	ND	NA	NA	NA	NA	NA
Chromium	11	NA	NA	NA	NA	NA
Lead	6.4	NA	NA	11	NA	NA
Nickel	NA	NA	NA	NA	NA	ND
Fluoride	120	NA	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC						
Sample ID	TW-41					
Sample Date	Oct-01	Nov-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)						
Tetrachloroethene	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND
Methylene chloride	2.1	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	NA	ND	ND
Benzene	ND	ND	ND	NA	ND	ND
Metals (ug/L)						
Arsenic	NA	ND	NA	ND	NA	NA
Barium	680	NA	NA	NA	NA	NA
Beryllium	ND	NA	NA	NA	NA	NA
Chromium	45	NA	NA	NA	NA	NA
Lead	16	NA	NA	ND	NA	NA
Nickel	37	NA	NA	ND	NA	NA
Fluoride	500	NA	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC				
Sample ID	TW-42			
Sample Date	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)				
Tetrachloroethene	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND
1,1-Dichloroethene	ND	1.9	ND	ND
Vinyl Chloride	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND
Chloroform	ND	36	ND	ND
Methylene chloride	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND
Benzene	ND	ND	ND	ND
Metals (ug/L)				
Arsenic	NA	ND	NA	NA
Barium	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA
Chromium	NA	NA	NA	NA
Lead	NA	ND	NA	NA
Nickel	NA	NA	NA	NA
Fluoride	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC						
Sample ID	TW-43					
Sample Date	Nov-01	Oct-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)						
Tetrachloroethene	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND
Methylene chloride	ND	1.6	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	NA	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND
Metals (ug/L)						
Arsenic	NA	NA	NA	ND	NA	NA
Barium	NA	1,800	NA	NA	NA	NA
Beryllium	NA	4.1	NA	NA	NA	NA
Chromium	NA	23	NA	NA	NA	NA
Lead	NA	80	NA	NA	NA	NA
Nickel	NA	ND	NA	NA	NA	NA
Fluoride	NA	ND	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC						
Sample ID	TW-44					
Sample Date	Oct-01	Nov-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)						
Tetrachloroethene	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND
Methylene chloride	1.8	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	NA	ND	ND
Benzene	ND	ND	ND	NA	ND	ND
Metals (ug/L)						
Arsenic	NA	ND	NA	ND	NA	NA
Barium	120	NA	NA	NA	NA	NA
Beryllium	ND	NA	NA	NA	NA	NA
Chromium	ND	NA	NA	NA	NA	NA
Lead	21	NA	NA	10	NA	NA
Nickel	NA	NA	NA	NA	NA	NA
Fluoride	ND	NA	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC						
Sample ID	TW-45					
Sample Date	Oct-01	Nov-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)						
Tetrachloroethene	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	9.1	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND	2.8	ND
Chloroform	9.3	5.6	9.4	ND	33	ND
Methylene chloride	ND	2.8	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	NA	ND	NA
Benzene	ND	ND	ND	NA	ND	NA
Metals (ug/L)						
Arsenic	NA	NA	NA	ND	NA	ND
Barium	NA	220	NA	NA	NA	NA
Beryllium	NA	ND	NA	NA	NA	NA
Chromium	NA	ND	NA	NA	NA	NA
Lead	NA	21	NA	NA	NA	NA
Nickel	NA	60	NA	ND	NA	ND
Fluoride	NA	ND	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC						
Sample ID	TW-46					
Sample Date	Oct-01	Nov-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)						
Tetrachloroethene	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	4.6	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	2.1	1.6	ND	ND	ND	ND
Chloroform	40.6	51	100	85	56	34
Methylene chloride	2.3	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	NA	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND
Metals (ug/L)						
Arsenic	NA	ND	NA	ND	NA	NA
Barium	77	NA	NA	NA	NA	NA
Beryllium	ND	NA	NA	NA	NA	NA
Chromium	ND	NA	NA	NA	NA	NA
Lead	ND	NA	NA	ND	NA	NA
Nickel	ND	NA	NA	NA	NA	ND
Fluoride	ND	NA	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC												
Sample ID	ALLOY											
Sample Date	Aug-93	Dec-95	Dec-96	Nov-97	Dec-98	Dec-99	Dec-00	Nov-01	Dec-02	Dec-03	Dec-04	Nov-05
Volatile Organic Compounds (ug/L)												
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1.2	ND	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	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
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	1.5	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Metals (ug/L)												
Arsenic	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA
Barium	1,100	216	160	50	40	88	65	77	NA	NA	NA	NA
Beryllium	3.1	1.1	1.7	ND	ND	ND	ND	ND	NA	NA	NA	NA
Chromium	22	4	3.6	3	2	ND	ND	ND	NA	NA	NA	NA
Lead	190	34	25.9	6	6	7.8	5.5	5.2	ND	NA	NA	NA
Nickel	28	5.6	ND	3	3	ND	ND	ND	NA	NA	NA	NA
Fluoride	370	ND	88.8	100	100	ND	230	ND	NA	NA	NA	NA

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Historical Groundwater Analytical Results Owens Corning - Anderson, SC				
Sample ID	GLADDEN			
Sample Date	Sep-93	Dec-96	Nov-97	Dec-98
Volatile Organic Compounds (ug/L)				
Tetrachloroethene	ND	ND	ND	ND
Trichloroethene	NA	ND	ND	ND
1,1-Dichloroethene	3.2	2	ND	ND
Vinyl Chloride	NA	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND
Methylene chloride	NA	ND	ND	9.7
1,1,1-Trichloroethane	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND
Benzene	ND	ND	ND	ND
Metals (ug/L)				
Arsenic	NA	NA	NA	NA
Barium	41.0	43.4	200	40
Beryllium	ND	ND	ND	ND
Chromium	ND	ND	2	1
Lead	1.6	6.8	ND	ND
Nickel	ND	ND	1	1
Fluoride	ND	49.3	200	ND

ug/L - Micrograms per liter
NA - Not analyzed
ND - Non-detect, reporting limits were not given in report.
Analytical data are from Arcadis reports.

Appendix E: Mann-Kendall Test Results

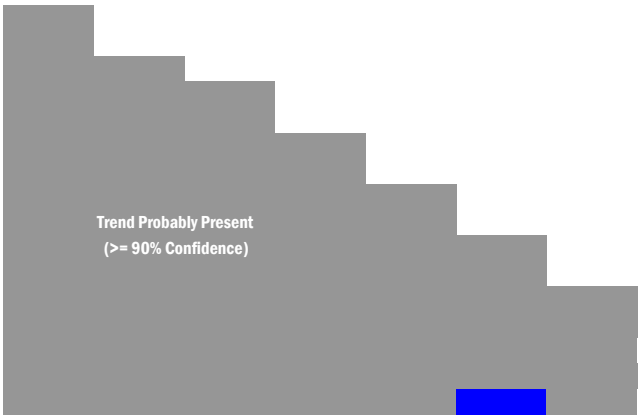
Mann-Kendall Test - 1,1-DCE in MW-15
Owens Corning - Anderson, SC

Date		Nov-07	Nov-08	Nov-09	Nov-10	Nov-11	Nov-12	Nov-13	Nov-14	Nov-15	Sum of Rows
Concentration (ug/L)		530	300	320	260	270	190	160	120	110	
Row 1: Compare to	Nov-07		-1	-1	-1	-1	-1	-1	-1	-1	-8
Row 2: Compare to	Nov-08			1	-1	-1	-1	-1	-1	-1	-5
Row 3: Compare to	Nov-09				-1	-1	-1	-1	-1	-1	-6
Row 4: Compare to	Nov-10					1	-1	-1	-1	-1	-3
Row 5: Compare to	Nov-11						-1	-1	-1	-1	-4
Row 6: Compare to	Nov-12							-1	-1	-1	-3
Row 7: Compare to	Nov-13								-1	-1	-2
Row 8: Compare to	Nov-14									-1	-1
						Mann-Kendall Statistic (S) =					-32
						N =					9

Conclusion: Decreasing Trend

Confidence Level Chart

S Value	4	5	6	N 7	8	9	10
0							
1 or -1							
2 or -2			No Trend				
3 or -3			indicated				
4 or -4							
5 or -5							
6 or -6							
7 or -7							
8 or -8							
9 or -9							
10 or -10							
11 or -11							
12 or -12							
13 or -13		Trend Probably Present					
14 or -14		(>= 90% Confidence)					
15 or -15							
16 or -16							
17 or -17							
18 or -18							
19 or -19							
>= 20							



Stability Evaluation Results		
Trend present (>= 90% Confidence)		
	S < 0	Concentration decreasing
	S > 0	Concentration Increasing

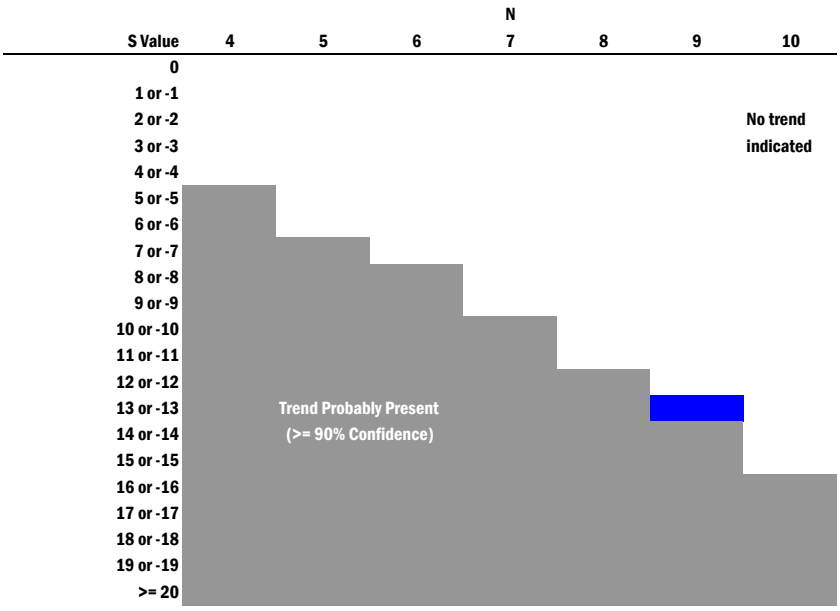
Mann-Kendall Test - 1,1-DCE in MW-27
Owens Corning - Anderson, SC

Date		Nov-07	Nov-08	Nov-09	Nov-10	Nov-11	Nov-12	Nov-13	Nov-14	Nov-15	Sum of Rows
Concentration (ug/L)		200	120	120	160	140	67	330	470	410	
Row 1: Compare to	Nov-07		-1	-1	-1	-1	-1	1	1	1	-2
Row 2: Compare to	Nov-08			0	1	1	-1	1	1	1	4
Row 3: Compare to	Nov-09				1	1	-1	1	1	1	4
Row 4: Compare to	Nov-10					-1	-1	1	1	1	1
Row 5: Compare to	Nov-11						-1	1	1	1	2
Row 6: Compare to	Nov-12							1	1	1	3
Row 7: Compare to	Nov-13								1	1	2
Row 8: Compare to	Nov-14									-1	-1

Mann-Kendall Statistic (S) =	13
N =	9

Conclusion: No trend (stable)

Confidence Level Chart

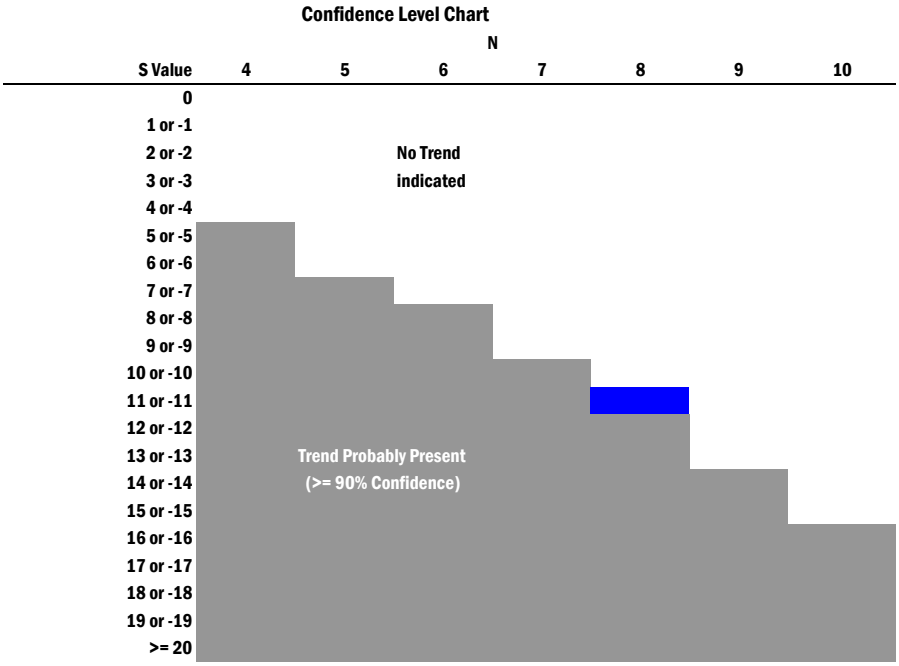


Stability Evaluation Results		
Trend present (>= 90% Confidence)		
	S < 0	Concentration decreasing
	S > 0	Concentration Increasing

Mann-Kendall Test - 1,1-DCE in MW-29R Zone 3
Owens Corning - Anderson, SC

Date		Nov-08	Nov-09	Nov-10	Nov-11	Nov-12	Nov-13	Nov-14	Nov-15	Sum of Rows
Concentration (ug/L)		340	230	370	300	290	260	300	200	
Row 1: Compare to	Nov-08		-1	1	-1	-1	-1	-1	-1	-5
Row 2: Compare to	Nov-09			1	1	1	1	1	-1	4
Row 3: Compare to	Nov-10				-1	-1	-1	-1	-1	-5
Row 4: Compare to	Nov-11					-1	-1	0	-1	-3
Row 5: Compare to	Nov-12						-1	1	-1	-1
Row 6: Compare to	Nov-13							1	-1	0
Row 7: Compare to	Nov-14								-1	-1
							Mann-Kendall Statistic (S) =			-11
								N =		8

Conclusion: No Trend (stable)



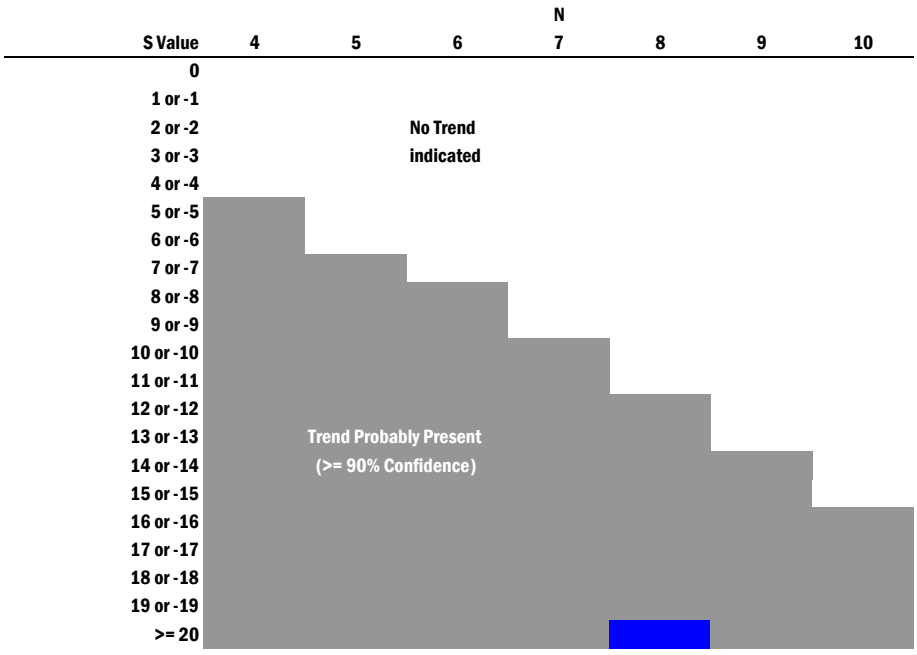
Stability Evaluation Results		
Trend present (>= 90% Confidence)		
	S < 0	Concentration decreasing
	S > 0	Concentration Increasing

Mann-Kendall Test - 1,1-DCE in MW-29R Zone 4
Owens Corning - Anderson, SC

Date		Nov-08	Nov-09	Nov-10	Nov-11	Nov-12	Nov-13	Nov-14	Nov-15	Sum of Rows
Concentration (ug/L)		340	320	360	300	290	230	290	230	
Row 1: Compare to	Nov-08		-1	1	-1	-1	-1	-1	-1	-5
Row 2: Compare to	Nov-09			1	-1	-1	-1	-1	-1	-4
Row 3: Compare to	Nov-10				-1	-1	-1	-1	-1	-5
Row 4: Compare to	Nov-11					-1	-1	-1	-1	-4
Row 5: Compare to	Nov-12						-1	0	-1	-2
Row 6: Compare to	Nov-13							1	0	1
Row 7: Compare to	Nov-14								-1	-1
							Mann-Kendall Statistic (S) =			-20
								N =		8

Conclusion: Decreasing Trend

Confidence Level Chart

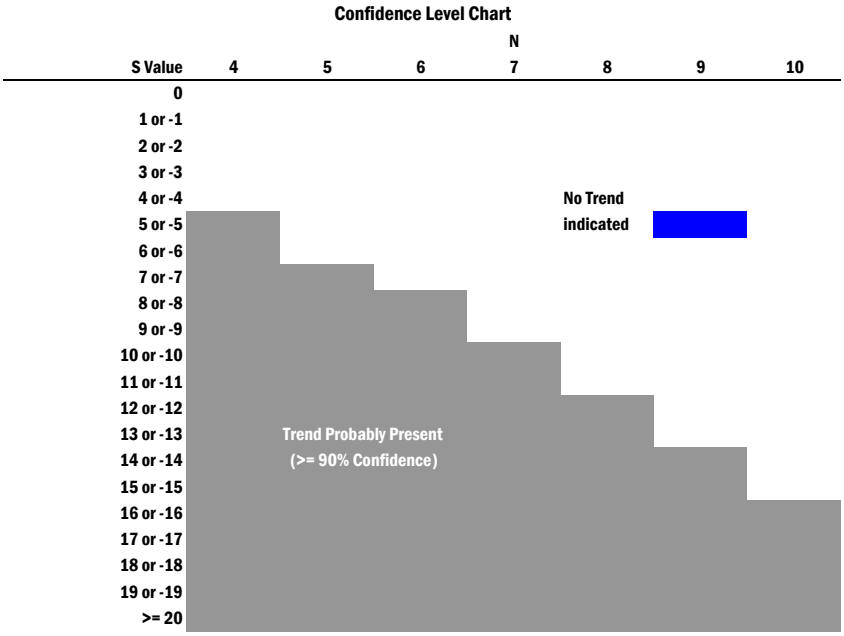


Stability Evaluation Results		
Trend present (>= 90% Confidence)		
	S < 0	Concentration decreasing
	S > 0	Concentration Increasing

Mann-Kendall Test - 1,1-DCE in MW-30
Owens Corning - Anderson, SC

Date		Nov-07	Nov-08	Nov-09	Nov-10	Nov-11	Nov-12	Nov-13	Nov-14	Nov-15	Sum of Rows
Concentration (ug/L)		4700	3600	4200	5200	3900	4000	4200	4600	340	
Row 1: Compare to	Nov-07		-1	-1	1	-1	-1	-1	-1	-1	-6
Row 2: Compare to	Nov-08			1	1	1	1	1	1	-1	5
Row 3: Compare to	Nov-09				1	-1	-1	0	1	-1	-1
Row 4: Compare to	Nov-10					-1	-1	-1	-1	-1	-5
Row 5: Compare to	Nov-11						1	1	1	-1	2
Row 6: Compare to	Nov-12							1	1	-1	1
Row 7: Compare to	Nov-13								1	-1	0
Row 8: Compare to	Nov-14									-1	-1
						Mann-Kendall Statistic (S) =					-5
							N =				9

Conclusion: No Trend (stable)

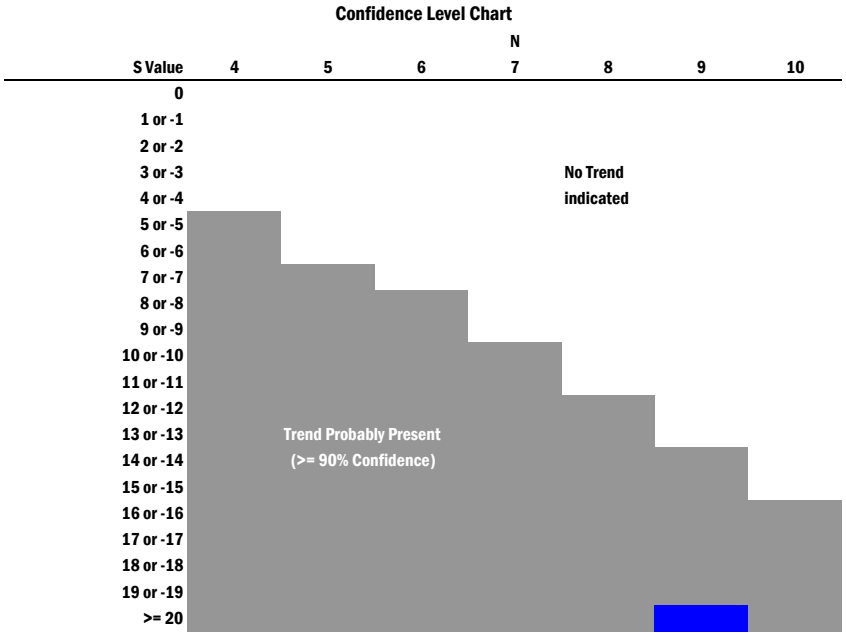


Stability Evaluation Results		
Trend present (>= 90% Confidence)		
	S < 0	Concentration decreasing
	S > 0	Concentration Increasing

Mann-Kendall Test - 1,1-DCE in MW-31
Owens Corning - Anderson, SC

Date		Nov-07	Nov-08	Nov-09	Nov-10	Nov-11	Nov-12	Nov-13	Nov-14	Nov-15	Sum of Rows
Concentration (ug/L)		5300	4800	4900	4300	2700	1800	1400	1100	300	
Row 1: Compare to	Nov-07		-1	-1	-1	-1	-1	-1	-1	-1	-8
Row 2: Compare to	Nov-08			1	-1	-1	-1	-1	-1	-1	-5
Row 3: Compare to	Nov-09				-1	-1	-1	-1	-1	-1	-6
Row 4: Compare to	Nov-10					-1	-1	-1	-1	-1	-5
Row 5: Compare to	Nov-11						-1	-1	-1	-1	-4
Row 6: Compare to	Nov-12							-1	-1	-1	-3
Row 7: Compare to	Nov-13								-1	-1	-2
Row 8: Compare to	Nov-14									-1	-1
						Mann-Kendall Statistic (S) =					-34
						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-35
Owens Corning - Anderson, SC

Date		Nov-08	Nov-09	Nov-10	Nov-11	Nov-12	Nov-13	Nov-14	Nov-15	Sum of Rows
Concentration (ug/L)		330	340	490	330	170	98	50	53	
Row 1: Compare to	Nov-08		1	1	0	-1	-1	-1	-1	-2
Row 2: Compare to	Nov-09			1	-1	-1	-1	-1	-1	-4
Row 3: Compare to	Nov-10				-1	-1	-1	-1	-1	-5
Row 4: Compare to	Nov-11					-1	-1	-1	-1	-4
Row 5: Compare to	Nov-12						-1	-1	-1	-3
Row 6: Compare to	Nov-13							-1	-1	-2
Row 7: Compare to	Nov-14								1	1
								Mann-Kendall Statistic (S) =		-19
								N =		8

Conclusion: Decreasing Trend

Confidence Level Chart

S Value	N = 4	6	7	8	9	10
0						
1 or -1						
2 or -2		No Trend				
3 or -3		indicated				
4 or -4						
5 or -5						
6 or -6						
7 or -7						
8 or -8						
9 or -9						
10 or -10						
11 or -11						
12 or -12						
13 or -13						
14 or -14						
15 or -15						
16 or -16		Trend Probably Present				
17 or -17		(>= 90% Confidence)				
18 or -18						
19 or -19						
>= 20						

Stability Evaluation Results

Trend present (>= 90% Confidence)

Concentration decreasing

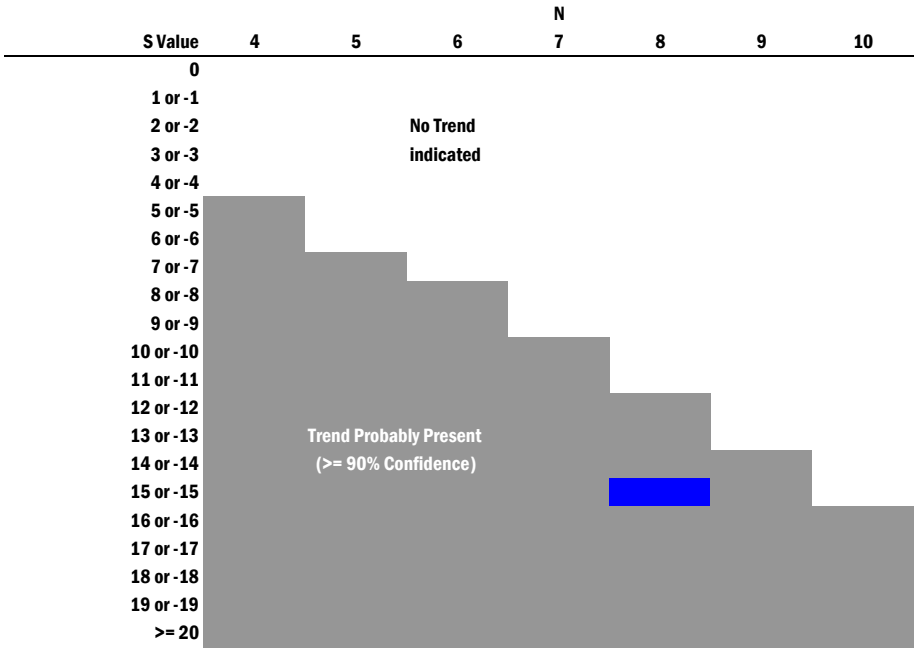
Concentration Increasing

Mann-Kendall Test - 1,1-DCE in MW-37 Zone 1
Owens Corning - Anderson, SC

Date		Nov-08	Nov-09	Nov-10	Nov-11	Nov-12	Nov-13	Nov-14	Nov-15	Sum of Rows
Concentration (ug/L)		7.6	20	74	78	91	49	90	78	
Row 1: Compare to	Nov-08		1	1	1	1	1	1	1	7
Row 2: Compare to	Nov-09			1	1	1	1	1	1	6
Row 3: Compare to	Nov-10				1	1	-1	1	1	3
Row 4: Compare to	Nov-11					1	-1	1	0	1
Row 5: Compare to	Nov-12						-1	-1	-1	-3
Row 6: Compare to	Nov-13							1	1	2
Row 7:Compare to	Nov-14								-1	-1
							Mann-Kendall Statistic (S) =			15
								N =		8

Conclusion: Increasing Trend

Confidence Level Chart



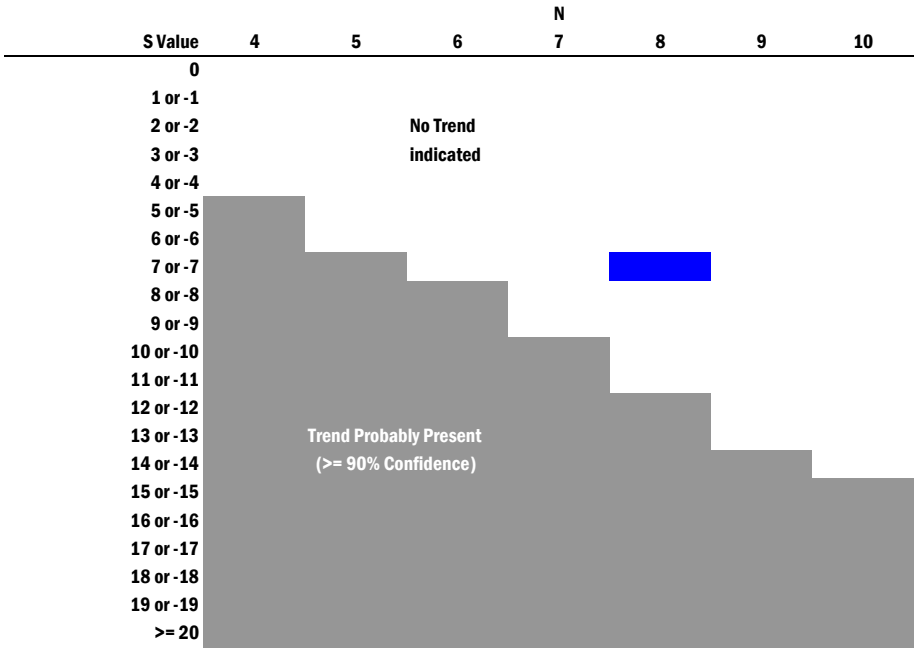
Stability Evaluation Results		
Trend present (>= 90% Confidence)		
	S < 0	Concentration decreasing
	S > 0	Concentration Increasing

Mann-Kendall Test - 1,1-DCE in MW-37 Zone 2
Owens Corning - Anderson, SC

Date		Nov-08	Nov-09	Nov-10	Nov-11	Nov-12	Nov-13	Nov-14	Nov-15	Sum of Rows
Concentration (ug/L)		320	180	340	310	140	180	180	230	
Row 1: Compare to	Nov-08		-1	1	-1	-1	-1	-1	-1	-5
Row 2: Compare to	Nov-09			1	1	-1	0	0	1	2
Row 3: Compare to	Nov-10				-1	-1	-1	-1	-1	-5
Row 4: Compare to	Nov-11					-1	-1	-1	-1	-4
Row 5: Compare to	Nov-12						1	1	1	3
Row 6: Compare to	Nov-13							0	1	1
Row 7: Compare to	Nov-14								1	1
								Mann-Kendall Statistic (S) =		-7
								N =		8

Conclusion: No Trend (stable)

Confidence Level Chart



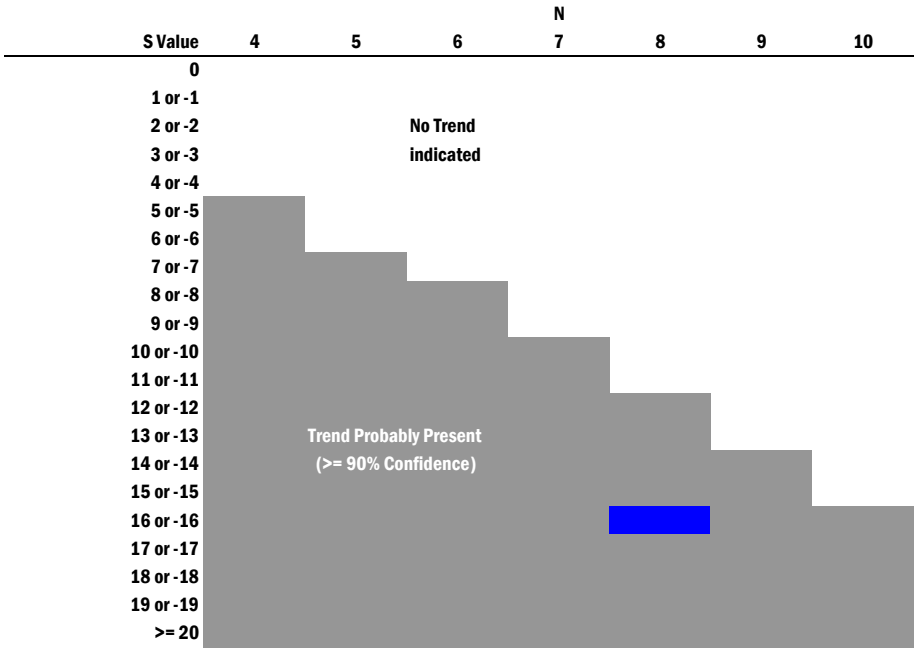
Stability Evaluation Results		
Trend present (>= 90% Confidence)		
	S < 0	Concentration decreasing
	S > 0	Concentration Increasing

Mann-Kendall Test - 1,1-DCE in MW-37 Zone 3
Owens Corning - Anderson, SC

Date		Nov-08	Nov-09	Nov-10	Nov-11	Nov-12	Nov-13	Nov-14	Nov-15	Sum of Rows
Concentration (ug/L)		23	4.8	6.7	2.5	2.5	2.5	2.5	2.5	
Row 1: Compare to	Nov-08		-1	-1	-1	-1	-1	-1	-1	-7
Row 2: Compare to	Nov-09			1	-1	-1	-1	-1	-1	-4
Row 3: Compare to	Nov-10				-1	-1	-1	-1	-1	-5
Row 4: Compare to	Nov-11					0	0	0	0	0
Row 5: Compare to	Nov-12						0	0	0	0
Row 6: Compare to	Nov-13							0	0	0
Row 7: Compare to	Nov-14								0	0
							Mann-Kendall Statistic (S) =			-16
								N =		8

Conclusion: Decreasing Trend

Confidence Level Chart

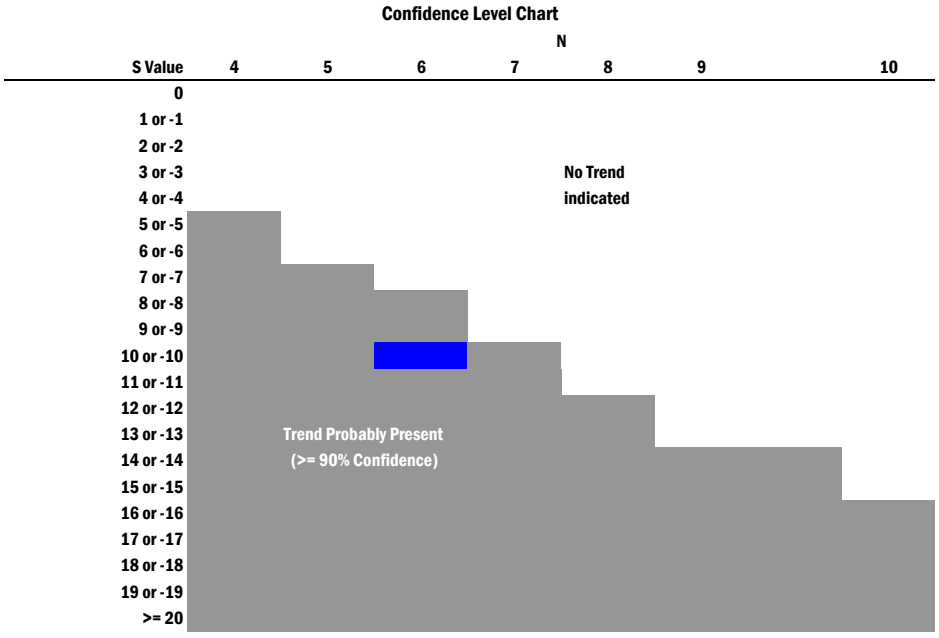


Stability Evaluation Results		
Trend present (>= 90% Confidence)		
	S < 0	Concentration decreasing
	S > 0	Concentration Increasing

Mann-Kendall Test - 1,1-DCE in MW-41 Zone 1
Owens Corning - Anderson, SC

Date		Nov-10	Nov-11	Nov-12	Nov-13	Nov-14	Nov-15	Sum of
Concentration (ug/L)		300	190	190	110	160	150	Rows
Row 1: Compare to	Nov-10		-1	-1	-1	-1	-1	-5
Row 2: Compare to	Nov-11			0	-1	-1	-1	-3
Row 3: Compare to	Nov-12				-1	-1	-1	-3
Row 4: Compare to	Nov-13					1	1	2
Row 5: Compare to	Nov-14						-1	-1
						Mann-Kendall Statistic (S) =		-10
						N =		6

Conclusion: Decreasing Trend



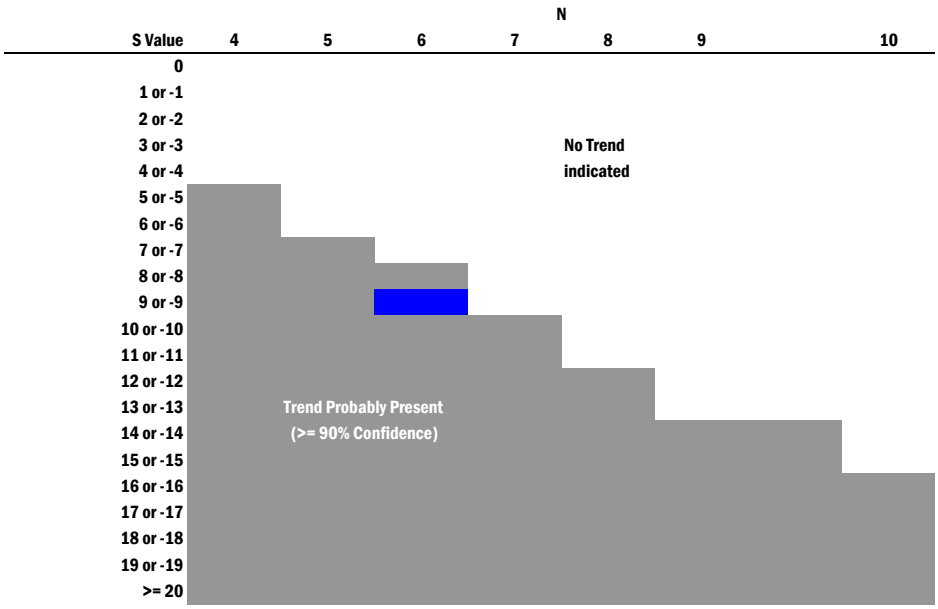
Stability Evaluation Results		
Trend present (>= 90% Confidence)		
	S < 0	Concentration decreasing
	S > 0	Concentration Increasing

Mann-Kendall Test - 1,1-DCE in MW-41 Zone 2
Owens Corning - Anderson, SC

Date		Nov-10	Nov-11	Nov-12	Nov-13	Nov-14	Nov-15	Sum of
Concentration (ug/L)		530	280	78	190	180	160	Rows
Row 1: Compare to	Nov-10		-1	-1	-1	-1	-1	-5
Row 2: Compare to	Nov-11			-1	-1	-1	-1	-4
Row 3: Compare to	Nov-12				1	1	1	3
Row 4: Compare to	Nov-13					-1	-1	-2
Row 5: Compare to	Nov-14						-1	-1
						Mann-Kendall Statistic (S) =		-9
						N =		6

Conclusion: Decreasing Trend

Confidence Level Chart



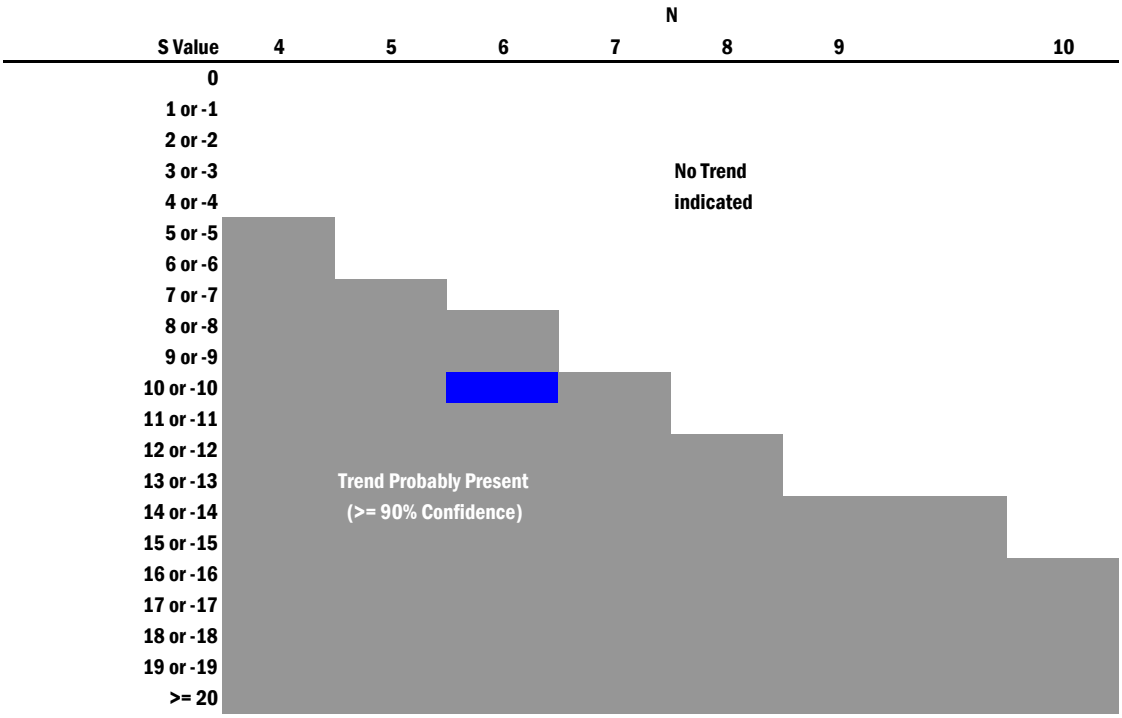
Stability Evaluation Results		
Trend present (>= 90% Confidence)		
	S < 0	Concentration decreasing
	S > 0	Concentration Increasing

Mann-Kendall Test - 1,1-DCE in MW-41 Zone 3
Owens Corning - Anderson, SC

Date		Nov-10	Nov-11	Nov-12	Nov-13	Nov-14	Nov-15	Sum of Rows
Concentration (ug/L)		180	98	78	18	18	25	
Row 1: Compare to	Nov-10		-1	-1	-1	-1	-1	-5
Row 2: Compare to	Nov-11			-1	-1	-1	-1	-4
Row 3: Compare to	Nov-12				-1	-1	-1	-3
Row 4: Compare to	Nov-13					0	1	1
Row 5: Compare to	Nov-14						1	1
					Mann-Kendall Statistic (S) =			-10
						N =		6

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-05	Nov-06	Nov-07	Nov-08	Nov-09	Nov-10	Nov-11	Nov-12	Nov-13	Nov-14	Nov-15	Sum of Rows
Concentration (ug/L)		2.4	2.3	390	84	290	120	2.5	*2.5*	*2.5*	*2.5*	*2.5*	
Row 1: Compare to	Nov-05		-1	1	1	1	1	1	1	1	1	1	8
Row 2: Compare to	Nov-06			1	1	1	1	1	1	1	1	1	9
Row 3: Compare to	Nov-07				-1	-1	-1	-1	-1	-1	-1	-1	-8
Row 4: Compare to	Nov-08					1	1	-1	-1	-1	-1	-1	-3
Row 5: Compare to	Nov-09						-1	-1	-1	-1	-1	-1	-6
Row 6: Compare to	Nov-10							-1	-1	-1	-1	-1	-5
Row 7: Compare to	Nov-11								0	0	0	0	0
Row 8: Compare to	Nov-12									0	0	0	0
Row 9: Compare to	Nov-13										0	0	0
Row 10: Compare to	Nov-14											0	0
										Mann-Kendall Statistic (S) =			-5
											N =		11

Conclusion: No Trend (Stable)

Confidence Level Chart

S Value	4	5	6	N 7	8	9	10	11
0								
1 or -1								
2 or -2			No Trend					
3 or -3			indicated					
4 or -4								
5 or -5								
6 or -6								
7 or -7								
8 or -8								
9 or -9								
10 or -10								
11 or -11								
12 or -12								
13 or -13		Trend Probably Present						
14 or -14		(>= 90% Confidence)						
15 or -15								
16 or -16								
17 or -17								
18 or -18								
19 or -19								
>= 20								

Stability Evaluation Results

Trend present (>= 90% Confidence)

S < 0 Concentration decreasing

S > 0 Concentration Increasing

Mann-Kendall Test - Carbon Tetrachloride in MW-22
Owens Corning - Anderson, SC

Date		Nov-06	Nov-07	Nov-08	Nov-09	Nov-10	Nov-11	Nov-12	Nov-13	Nov-14	Nov-15	Sum of Rows
Concentration (ug/L)		2.5	23	21	24	25	24	*19*	*23*	*22*	*17*	
Row 2: Compare to	Nov-06		1	1	1	1	1	1	1	1	1	9
Row 3: Compare to	Nov-07			-1	1	1	1	-1	0	-1	-1	-1
Row 4: Compare to	Nov-08				1	1	1	-1	1	1	-1	3
Row 5: Compare to	Nov-09					1	0	-1	-1	-1	-1	-3
Row 6: Compare to	Nov-10						-1	-1	-1	-1	-1	-5
Row 7: Compare to	Nov-11							-1	-1	-1	-1	-4
Row 8: Compare to	Nov-12								1	1	-1	1
Row 9: Compare to	Nov-13									-1	-1	-2
Row 10: Compare to	Nov-14										-1	-1
										Mann-Kendall Statistic (S) =		-3
										N =		10

Conclusion: No Trend (Stable)

Confidence Level Chart

S Value	4	5	6	N 7	8	9	10
0							
1 or -1							
2 or -2			No Trend				
3 or -3			indicated				
4 or -4							
5 or -5							
6 or -6							
7 or -7							
8 or -8							
9 or -9							
10 or -10							
11 or -11							
12 or -12							
13 or -13		Trend Probably Present					
14 or -14		(>= 90% Confidence)					
15 or -15							
16 or -16							
17 or -17							
18 or -18							
19 or -19							
>= 20							

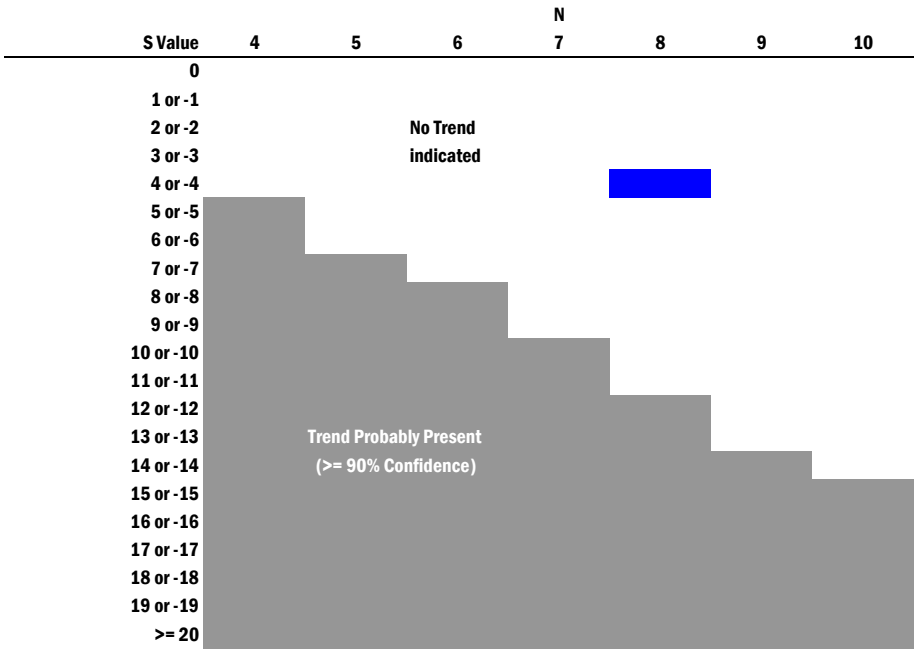
Stability Evaluation Results		
Trend present (>= 90% Confidence)		
	S < 0	Concentration decreasing
	S > 0	Concentration Increasing

Mann-Kendall Test - Carbon Tetrachloride in MW-29R Zone 3
Owens Corning - Anderson, SC

Date		Nov-08	Nov-09	Nov-10	Nov-11	Nov-12	Nov-13	Nov-14	Nov-15	Sum of Rows
Concentration (ug/L)		18	9.8	15	17	16	14	16	18	
Row 1: Compare to	Nov-08		-1	-1	-1	-1	-1	-1	0	-6
Row 2: Compare to	Nov-09			1	1	1	1	1	1	6
Row 3: Compare to	Nov-10				1	1	-1	1	1	3
Row 4: Compare to	Nov-11					-1	-1	-1	1	-2
Row 5: Compare to	Nov-12						-1	0	1	0
Row 6: Compare to	Nov-13							1	1	2
Row 7: Compare to	Nov-14								1	1
							Mann-Kendall Statistic (S) =			4
								N =		8

Conclusion: No Trend (Stable)

Confidence Level Chart



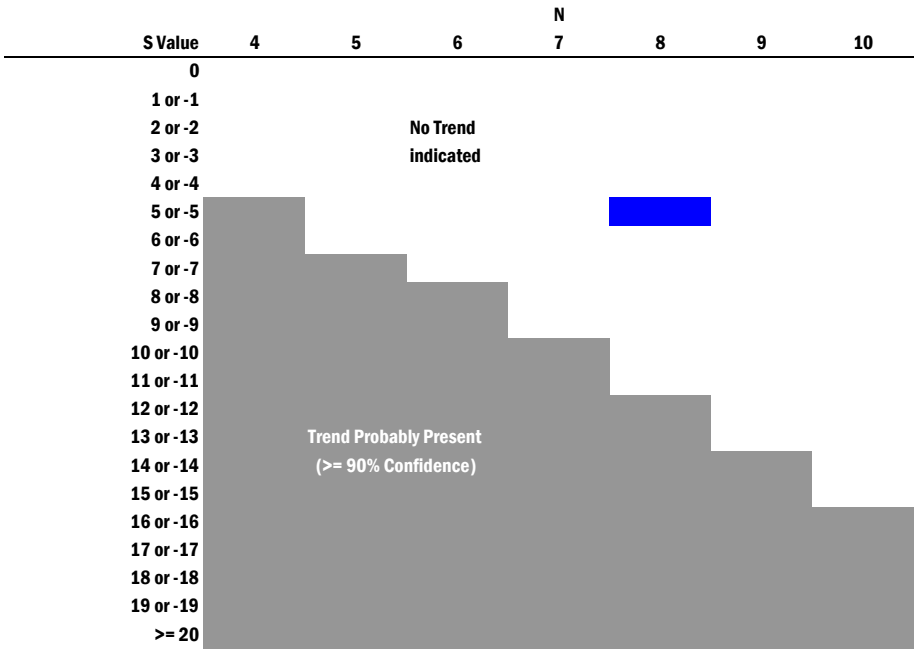
Stability Evaluation Results		
	Trend present (>= 90% Confidence)	
	S < 0	Concentration decreasing
	S > 0	Concentration Increasing

Mann-Kendall Test - Carbon Tetrachloride in MW-29R Zone 4
Owens Corning - Anderson, SC

Date		Nov-08	Nov-09	Nov-10	Nov-11	Nov-12	Nov-13	Nov-14	Nov-15	Sum of Rows
Concentration (ug/L)		18	4.6	12	21	16	16	14	6.1	
Row 1: Compare to	Nov-08		-1	-1	1	-1	-1	-1	-1	-5
Row 2: Compare to	Nov-09			1	1	1	1	1	1	6
Row 3: Compare to	Nov-10				1	1	1	1	-1	3
Row 4: Compare to	Nov-11					-1	-1	-1	-1	-4
Row 5: Compare to	Nov-12						0	-1	-1	-2
Row 6: Compare to	Nov-13							-1	-1	-2
Row 7: Compare to	Nov-14								-1	-1
							Mann-Kendall Statistic (S) =			-5
								N =		8

Conclusion: No Trend (Stable)

Confidence Level Chart



Stability Evaluation Results		
Trend present (>= 90% Confidence)		
	S < 0	Concentration decreasing
	S > 0	Concentration Increasing

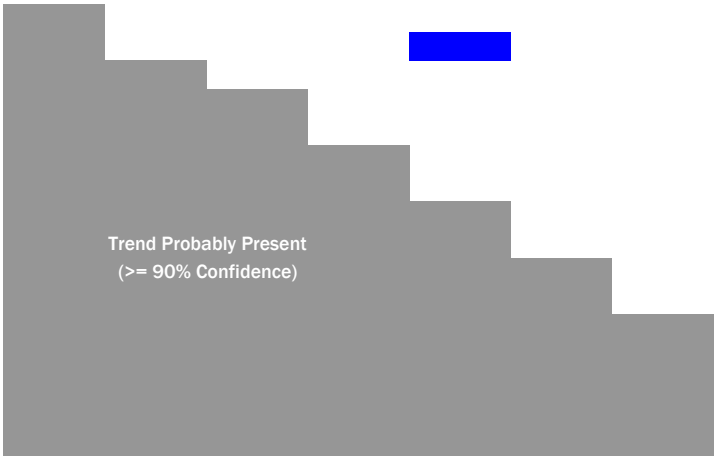
Mann-Kendall Test - 1,1-DCE in MW-29R Zone 3
Owens Corning - Anderson, SC

Date		Nov-12	Feb-13	May-13	Aug-13	Nov-13	Feb-14	May-14	Aug-14	Nov-14
Concentration (mg/L)		290	400	330	290	260	240	280	270	300
Row 1: Compare to	Nov-12		1	1	0	-1	-1	-1	-1	-4
Row 2: Compare to	Feb-13			-1	-1	-1	-1	-1	-1	-4
Row 3: Compare to	May-13				-1	-1	-1	-1	-1	-4
Row 4: Compare to	Aug-13					-1	-1	-1	-1	-4
Row 5: Compare to	Feb-10						-1	1	1	1
Row 6: Compare to	May-10							1	1	2
Row 7: Compare to	Aug-10								-1	-1
								Mann-Kendall Statistic (S) =		-14
								N =		9

Conclusion: No Trend (Stable)

Confidence Level Chart

S Value	4	5	6	N 7	8	9	10
0							
1 or -1							
2 or -2			No Trend				
3 or -3			indicated				
4 or -4							
5 or -5							
6 or -6							
7 or -7							
8 or -8							
9 or -9							
10 or -10							
11 or -11							
12 or -12							
13 or -13							
14 or -14							
15 or -15							
16 or -16							
17 or -17							
18 or -18							
19 or -19							
>= 20							



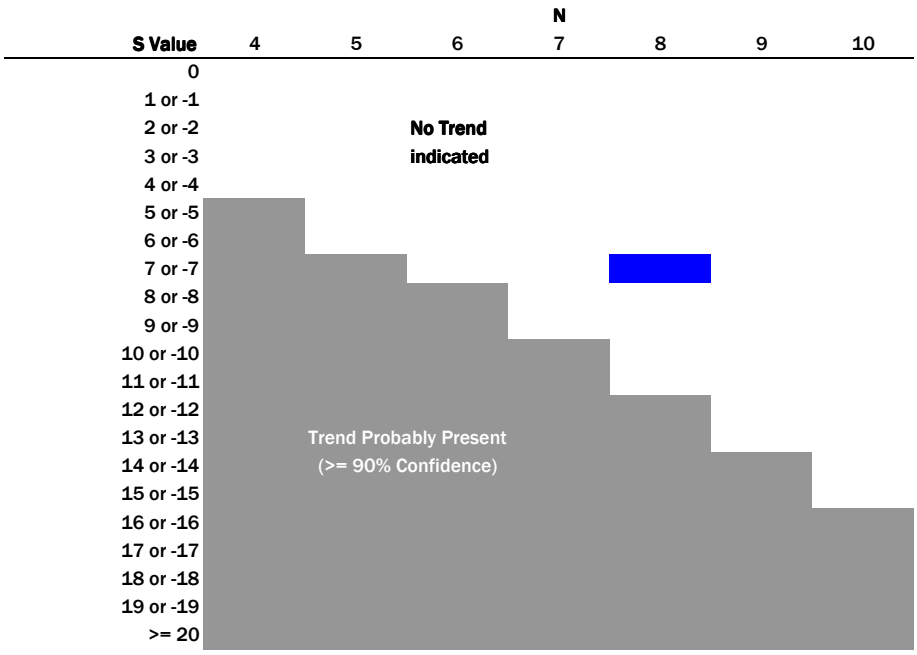
Stability Evaluation Results		
Trend present (>= 90% Confidence)		
	S < 0	Concentration decreasing
	S > 0	Concentration Increasing

Mann-Kendall Test - 1,1-DCE in MW-29R Zone 4
Owens Corning - Anderson, SC

Date		Nov-12	Feb-13	May-13	Aug-13	Nov-13	Feb-14	May-14	Aug-14	Nov-14
Concentration (mg/L)		470	520	630	320	380	520	440	360	
Row 1: Compare to	Feb-09		1	1	-1	-1	1	-1	-1	-2
Row 2: Compare to	May-09			1	-1	-1	0	-1	-1	-3
Row 3: Compare to	Aug-09				-1	-1	-1	-1	-1	-4
Row 4: Compare to	Nov-09					1	1	1	1	4
Row 5: Compare to	Feb-10						1	1	-1	1
Row 6: Compare to	May-10							-1	-1	-2
Row 7: Compare to	Aug-10								-1	-1
								Mann-Kendall Statistic (S) =		-7
								N =		8

Conclusion: No Trend (Stable)

Confidence Level Chart



Stability Evaluation Results		
Trend present (>= 90% Confidence)		
	S < 0	Concentration decreasing
	S > 0	Concentration Increasing