

2013 Semiannual Groundwater Monitoring Report

Prepared for
Owens Corning
Anderson, South Carolina
July 31, 2013

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List of Abbreviations

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.
bgs	below ground surface
cis-1,2-DCE	cis-1,2-dichloroethene
COC	constituent of concern
DO	dissolved oxygen
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
NAVD88	North American Vertical Datum of 1988
ORP	oxidation-reduction potential
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 2013 Semiannual Groundwater 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.



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Date



Section 1

Introduction

This 2013 Semiannual Groundwater Monitoring Report was prepared by Brown and Caldwell on behalf of the Owens Corning Anderson (Owens Corning), South Carolina facility for submittal to the United States Environmental Protection Agency (U.S. EPA) in accordance with the October 1989 Consent Order (89-34-R) with the U.S. EPA under Section 3008(h) of the Resource Recovery and Conservation Act (RCRA). This Report summarizes the February and May 2013 quarterly groundwater monitoring events and the May 2013 semiannual residential well monitoring event. The Consent Order requires that Owens Corning perform annual groundwater monitoring, and in 2005, the EPA required that quarterly groundwater monitoring be conducted for select bedrock wells located in the Northeast Area (MW-15, MW-22, and MW-29R). Since that time, additional bedrock monitoring wells (MW-33, MW-35, MW-36, MW-37, MW-38, MW-39, MW-41, MW-42, MW-43 and MW-44) have been installed and were included in the two quarterly monitoring events reported herein. In 2009, EPA required Owens Corning to conduct semiannual monitoring of select residential wells located northeast of the Site.

Section 1 of this Report presents an introduction and Section 2 summarizes the groundwater monitoring activities. Section 3 provides and discusses the analytical results and Section 4 provides conclusions. Appendices to this document contain the groundwater sampling field forms, laboratory analytical reports and historical groundwater data.

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

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

Section 2

Groundwater Assessment

Brown and Caldwell personnel performed the first and second quarter groundwater monitoring events between February 11 and 14, 2013, and May 13 and 16, 2013, respectively. Section 2 provides an overview of these events and includes detailed information on Site hydrogeology and aquifer characteristics, groundwater 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 each of the quarterly monitoring events in February and May as identified in Tables 1 and 2, respectively. Refer to the Site Map as 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 February (Figures 2 through 6) and May (Figures 7 through 11) 2013 monitoring events. Ground surface and top of casing elevations are provided in Table 3 and depth to water and groundwater elevations are provided in Tables 1 and 2.

Based on the monitoring well measurements from February 2013, groundwater levels in the overburden aquifer ranged from 5.76 (MW-11) to 26.02 (TW-46) feet below top of casing (btoc) and from 774.46 to 790.56 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 1.50 feet above the top of the casing (MW-38 Zone 2) to 43.56 feet btoc (MW-42 Zone 1) and from 772.68 to 741.88 feet in elevation (NAVD88). In May 2013, the groundwater levels in the overburden aquifer ranged from 5.16 (MW-11) to 24.84 (TW-46) feet btoc and from 775.06 to 791.74 feet in elevation (NAVD88). Measurements from wells in the bedrock aquifer exhibit hydraulic heads ranging from 0.05 feet above top of casing (MW-38 Zone 2) to 47.69 feet btoc (MW-39 Zone 3) and from 771.13 to 758.51 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 February 2013 data, groundwater onsite in both the overburden and bedrock aquifers flows toward the fracture zones associated with Betsy Creek, giving an east-northeasterly gradient. This is consistent with the historical groundwater flow direction with the exception that groundwater from solid waste management unit (SWMU)-9 was previously shown flowing more to the north than the northeast. Measurements from the bedrock aquifer wells offsite indicate that flow direction continues to align with

Betsy Creek as the stream turns toward the north-northeast in the area of MW-35. The magnitude of the horizontal gradient onsite varies depending on the aquifer and fracture zone. Based on the May data, calculated horizontal gradients are as follows: 0.0148 feet/foot (ft/ft) in the overburden (calculated between MW-21 and MW-23); 0.0146 ft/ft in the bedrock aquifer in the 699-740 foot (ft) (NAVD88) zone (calculated between MW-27 and MW-41 Zone 1); 0.0264 ft/ft in the bedrock aquifer in the 632-699 ft (NAVD88) zone (calculated between MW-15 and MW-22); 0.0119 ft/ft in the bedrock aquifer in the 574-630 ft (NAVD88) zone (calculated between MW-19 and MW-41 Zone 2); and 0.0066 ft/ft in the bedrock aquifer in the 430-530 ft (NAVD88) zone (calculated between MW-37 Zone 3 and MW-41 Zone 3). The following vertical gradients were also observed: a downward gradient of 0.097 ft/ft across the overburden/bedrock aquifer (calculated between MW-12 and MW-19); and an upward gradient of 0.172 ft/ft at the intersection of Keys Street and True Temper Road across the overburden/bedrock aquifer (calculated between MW-21 and MW-38 Zone 2).

The interim corrective measures bedrock hydraulic containment system started up on November 3, 2011. The system currently pumps groundwater from one (EW-1) of two bedrock extraction wells. EW-1 is located approximately 250 ft north of the intersection between Keys Street and True Temper Road (Figure 1) and has total depth of 450 ft below ground surface (bgs). The pump intake is at 425 ft bgs and currently withdraws groundwater at a rate of approximately 31 gallons per minute (gpm). The hydraulic containment system was active during the February and May groundwater sampling events, which affected the February and May 2013 potentiometric surfaces in all bedrock zones (Figures 3 through 6 and 8 through 11). Additional information regarding the interim corrective measures system will be reported in the Quarterly Performance Monitoring Report that will be submitted to the U.S. EPA and SCDHEC in August 2013. At some point the second extraction well, EW-2, may be used depending on the performance of extraction well EW-1.

Based on the May 2013 data, groundwater flow in the overburden aquifer was consistent with previous sampling events flowing towards the fracture zones associated with Betsy Creek, giving an east-northeasterly gradient. The overburden aquifer was unaffected by the active pumping of extraction well EW-1 as a surface casing was installed. Groundwater flow in the bedrock aquifer generally follows the same east-northeasterly gradient along the Betsy Creek fracture zones. However, due to the pumping associated with the hydraulic containment system, varying amounts of drawdown were observed in bedrock wells in the vicinity of EW-1. The amount of drawdown is dependent on the interconnectivity between the fracture system in the bedrock zone in which the wells are screened and the fracture system in the open borehole extraction well, EW-1. The distribution of drawdown within the bedrock system was used to aid in developing the bedrock groundwater potentiometric surfaces presented on Figures 8 through 11.

2.3 Groundwater Monitoring Wells

The original quarterly groundwater monitoring program included seven bedrock monitoring wells (MW-15, MW-22, MW-29R, MW-33, MW-35, MW-36 and MW-37). MW-33 has since been removed from the quarterly and annual groundwater monitoring program because it has become one of the groundwater extraction wells (EW-1) for the interim corrective measures hydraulic containment system. The removal of this well from the monitoring program is of little consequence since there are several wells in the surrounding area that provide both hydraulic potential and concentration data that are used to model plume behavior. The second extraction well, EW-2, was installed in 2011 and as discussed above, is not being used at this time. Monitoring wells MW-38, MW-39, MW-41, MW-42 and MW-43 were installed and added to the quarterly and annual monitoring program in the summer of 2010 and the summer of 2011, respectively. Monitoring well MW-44 was also installed and added to the quarterly and annual monitoring program in the first quarter of 2013.

Therefore, the current quarterly groundwater monitoring program includes the following 12 bedrock monitoring wells:

- Bedrock 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.

The locations of the wells are shown on Figure 1 and well construction details are provided in Table 3. Multiple water-bearing zones were gauged and sampled in bedrock wells MW-29R, MW-36, MW-37, MW-38, MW-39, MW-41, MW-42, MW-43, and MW-44 (Tables 4 and 5).

2.4 Groundwater Sampling Procedures

On February 11 and May 13, 2013, depth to groundwater measurements were collected from the multiple water-bearing zones in the 12 bedrock monitoring wells. Water levels were also measured in monitoring wells: MW-3, MW-4, MW-6, MW-11, MW-12, MW-13, MW-14, MW-16, MW-19, MW-21, MW-23, MW-25, MW-26, MW-27, P1, P2, Alloy, TW-40, TW-41, TW-42, TW-43, TW-44, TW-45 and TW-46. It should be noted that monitoring well TW-45 is damaged and water levels were not measured during the February and May 2013 monitoring events. The water level meter was decontaminated between wells with an Alconox® solution and rinsed with distilled water.

Sampling procedures were performed in the same manner as the previous monitoring events. Prior to collecting groundwater samples from the wells, the wells were purged using a low-flow submersible electric pump and 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 HF® Scientific DRT-15CE turbidity meter. Purging was considered complete when at least three of the field parameters had stabilized. Groundwater samples were collected when pH, temperature and specific conductance had stabilized as defined in U.S. EPA's Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (EISOP/QAM), November 2001 and Science and U.S. EPA's Ecosystem Support Division Groundwater Sampling Procedure (SESDPROC-301-RO), February 2007. Groundwater sampling field data sheets documenting the purging activities are included as Appendix A.

Groundwater samples were collected from the wells using the same low-flow pump that was used for purging. The pump was decontaminated between sample locations using an Alconox® solution and rinsed with distilled water. The groundwater samples were labeled, containerized, documented, placed into a cooler containing ice and chilled to approximately 4 degrees Celsius (temperatures verified by laboratory and are reported in the laboratory analytical report in Appendix B). Clean sample containers were provided by the analytical laboratory. 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.

2.5 Residential Well Sampling Procedures

During the May 2013 quarterly sampling event, 12 residential wells were sampled (Figure 12). The residential wells were sampled in accordance with methods described in U.S. EPA's Field Branches Quality System and Technical Procedures. Two residential wells located at 115 and 335 Elrod Road were not sampled due to inoperable pumps. Wells that pumped into a holding tank were purged of at least one tank volume (generally 15 to 20 gallons) prior to sampling. After purging, the samples were collected at a low flow rate from the spigot connected to the holding tank. Wells that did not utilize a holding tank were also purged of approximately 15-20 gallons and sampled directly from the well head. Water quality parameters such as pH, conductivity, temperature, DO, ORP, and turbidity were measured during purging and recorded on groundwater sampling forms which are included in Appendix A. The groundwater samples were labeled, containerized, documented, placed into a cooler containing ice and chilled to about 4 degrees Celsius (temperatures verified by laboratory and are reported in the laboratory analytical report in Appendix B).

Following laboratory analysis, data validation was performed by BC to ensure that the generated data were of acceptable quality such that appropriate decisions could be made. Data validation included a quality control review of the field and laboratory generated data and intended to answer questions such as:

- Were field procedures, including sample collection, handling and storage properly followed?
- Do the reported data include all requested analytical results for all samples collected?
- Were the correct analytical methods used and reported?
- Are there any anomalous results?
- Were results for QA/QC samples acceptable?

Validation for the groundwater data was performed and included a review of field notes, sample holding times, blank contamination, spike recoveries, and duplicate precision; it also included qualifying the data, if problems were found. According to the data validation process, all groundwater data are usable. Estimated values are identified in data tables by the appropriate qualifiers.

Once the analytical data were validated, a letter documenting the results for each well owner was prepared and mailed to each well owner by Brown and Caldwell.

2.6 Analytical Procedures

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

2.7 Quality Assurance/Quality Control

The groundwater sampling was performed in accordance with U.S. EPA's EISOP/QAM, November 2001 and U.S. EPA's SESDPROC-301-RO, February 2007. To assess the quality of the sampling program, duplicate samples were collected (approximately one sample for every 20 samples) and analyzed for the focused list of VOCs. Two duplicate samples were collected during the February sampling event. One duplicate groundwater sample and one duplicate residential well sample were collected during the May sampling event. An evaluation of the analytical results for the duplicate samples showed that the reported constituents and concentrations were similar. Four equipment blanks (EBs) were collected during the February sampling and five EBs were collected during the May sampling to determine the efficacy of non-dedicated equipment decontamination activities. The EB samples were obtained by collecting distilled water passed through or over decontaminated equipment. Trip blanks, provided by AES, were in all coolers and were submitted for analysis with the groundwater samples. The EB and trip blank samples were analyzed for the same constituents as the groundwater samples. No detections were found in any of the EB or trip blank samples. The analytical reports for these samples are provided in Appendix B.

Validation for the groundwater data was performed and included a review of field notes, sample holding times, blank contamination, spike recoveries, and duplicate precision; it also included qualifying the data, if problems were found. According to the data validation process, all groundwater data are usable. Estimated values are identified in data tables by the appropriate qualifiers.



Section 3

Analytical Results

The following section includes the results for the February and May 2013 quarterly groundwater events and the May 2013 residential well monitoring event. The quarterly events included collecting groundwater samples from nine bedrock wells located on the northeast portion of the Owens Corning property (including MW-15, MW-22, MW-29R, MW-35, MW-36, MW-37, MW-38, MW-39 and MW-44), and three offsite bedrock wells (MW-41, MW-42 and MW-43). During the May 2013 sampling event, groundwater samples were collected from 12 residential wells.

The February and May 2013 groundwater analytical results are summarized in Tables 4 and 5, respectively. The May 2013 residential well analytical results are summarized in Table 6. Historical groundwater analytical data can be found in previous reports submitted to U.S. EPA and summaries of this information can be found in Appendix C of this report. Laboratory analytical reports that include method detection limits and quality assurance/quality control (QA/QC) information are provided in Appendix B.

Based on historical and recent Site monitoring data, 1,1-DCE is the primary constituents detected in groundwater. One analytical parameter, 1,1-DCE, was selected for presentation on isoconcentration contour maps for the February and May events as shown on Figures 13 through 20. This analyte was selected because it is the most prevalent and widespread analyte detected in the bedrock wells.

3.1 Groundwater Analytical Results

To understand the distribution of 1,1-DCE, isoconcentration maps were created for multiple vertical intervals within the fractured bedrock. The projected distribution of 1,1-DCE over the vertical intervals from 699 ft to 740 ft, 632 ft to 699 ft, 574 ft to 630 ft, and 430 ft to 530 ft (NAVD88) for the February and May 2013 events is presented on Figures 13 through 16 and Figures 17 through 20, 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 (Soricelli et al., 2003) 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.

In February and May 2013 the concentration of 1,1-DCE in well MW-15 were relatively similar with detections of 200 micrograms per liter ($\mu\text{g/L}$) and 220 $\mu\text{g/L}$, respectively. In well MW-22, the 1,1-DCE concentration in May (370 $\mu\text{g/L}$) was lower than February (460 $\mu\text{g/L}$) (Tables 4 and 5).

Concentrations of 1,1-DCE in well MW-29R Zone 3 and Zone 4 were relatively similar over the first two quarterly monitoring events conducted in 2013. In Zone 3, the 1,1-DCE concentration was 400 $\mu\text{g/L}$ in February and 330 $\mu\text{g/L}$ in May. In Zone 4, the concentration was 290 $\mu\text{g/L}$ in February and 310 $\mu\text{g/L}$ in May. Farther north of MW-29R, 1,1-DCE has not been detected in groundwater above maximum contaminant levels (MCLs) in any of the three MW-36 zones during the quarterly monitoring events since it was installed in 2008.

During the first two quarterly monitoring events of 2013, the 1,1-DCE concentration in MW-37 Zone 1 was the same at 98 $\mu\text{g/L}$. Concentrations of 1,1-DCE in Zone 2 were lower in May (83 $\mu\text{g/L}$) than in February (130 $\mu\text{g/L}$). The 1,1-DCE concentration in MW-37 Zone 3 was 5.9 $\mu\text{g/L}$ in February and below the laboratory reporting limit (RL) in May. Bedrock well MW-39 was installed during the summer of 2010 southeast of MW-37 to delineate 1,1-DCE. No VOCs, including 1,1-DCE, were detected above laboratory RLs during the

February and May monitoring events in groundwater collected from MW-39 (Tables 4 and 5). Accordingly, delineation of the south edge of the plume is complete; this has been the case since MW-39 was installed in 2010.

MW-35, located northeast of the intersection of True Temper Road and Keys Streets, showed a higher 1,1-DCE concentration in May (100 µg/L) compared to February (31 µg/L). Bedrock wells MW-41 and MW-42 were installed during the summer of 2010 to delineate 1,1-DCE in the Northeast Area and added to the monitoring program. Both wells consist of nested wells, such that three independent zones could be sampled. For MW-41, the 1,1-DCE concentrations from February to May in Zone 1 were similar (250 µg/L and 240 µg/L), Zone 2 concentrations were 220 µg/L and 280 µg/L and Zone 3 concentrations were 76 µg/L and 32 µg/L. Bedrock wells MW-42 and MW-43 are currently the farthest wells from the Site in the northeast direction. MW-42 is located northeast of MW-35 and MW-43 is located due north of MW-35. During the February and May monitoring events, no VOCs were detected above MCLs in groundwater collected from these two wells. Therefore, the plume has been delineated to the northeast; this has been the case since MW-43 was installed in 2011.

The only other constituent of concern (COC) detected above its' MCL (5 µg/L) in the bedrock wells was carbon tetrachloride. This COC has been detected previously and was detected in MW-22 and MW-29R Zones 3 and 4 during the February and May monitoring events. The maximum detected concentration of carbon tetrachloride in bedrock wells was in MW-22 at 31 µg/L in May. No other parameters from the focused list of VOCs were detected above MCLs in the bedrock well samples.

3.1.1 Residential Well Analytical Results

None of the parameters from the focused list of VOCs were detected above RLs in the residential well samples. All residential well analytical results are included in Table 6. Locations of the residential wells are provided on Figure 12, with the corresponding well location map ID's provided in Table 7. Laboratory analytical reports that include method detection limits and QA/QC information are provided in Appendix B.

Section 4

Summary and Conclusions

The first and second quarterly groundwater monitoring events for 2013 were conducted at the Owens Corning Site in February and May 2013, respectively. Samples were collected from 12 bedrock wells during the February and May events and from 12 residential wells during the May event. The samples were analyzed for the focused list of VOCs. Multiple water-bearing zones were sampled in bedrock wells MW-29R, MW-36, MW-37, MW-38, MW-39, MW-41, MW-42, MW-43 and MW-44.

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

- Based on historical and recent Site monitoring data 1,1-DCE and 1,1,1-TCA are the primary constituents in groundwater, though 1,1-DCE is the primary constituent that persists beyond SWMU-9 and the Site property boundary, though beyond the Site property boundary it is only found within the bedrock aquifer and not the overburden aquifer. 1,1,1-TCA was not detected in any of the sampled wells.
- Concentration data obtained from the Northeast Area bedrock wells MW-15, MW-22, MW-29R, MW-37 and MW-41 reveal that the 1,1-DCE plume in this area has been relatively stable since early 2010.
- In bedrock well MW-35, the 1,1-DCE concentration decreased from 580 µg/L in August 2010 to 31 µg/L in February 2013. In May 2013, the 1,1-DCE concentration was 100 µg/L; this increase between February and May was attributed to the groundwater treatment system being down for nearly two weeks in April 2013 and it demonstrates the effectiveness of the bedrock hydraulic containment system at controlling the migration of Site VOCs.
- During the February and May monitoring events, no VOCs were detected above MCLs in groundwater collected from the bedrock wells, MW-36, MW-38, MW-39, MW-42, and MW-43. Monitoring well MW-42 and MW-43 are the farthest monitoring wells located to the north-northeast, and monitoring well MW-39 is the farthest to the southeast. The absence of Site COCs in these wells indicates that delineation remains intact.
- The only other VOC detected in bedrock groundwater samples above its' MCL was carbon tetrachloride. Concentrations have generally been below 25 µg/L since early 2010, with the exception of MW-22 where the concentration was 31 µg/L in February 2013. Carbon tetrachloride is being captured by the bedrock hydraulic containment system and it is effectively removed from the groundwater during treatment and prior to discharge into Betsy Creek.

The next quarterly monitoring event is planned for August 2013, followed by the annual monitoring event in November 2013.

Section 5

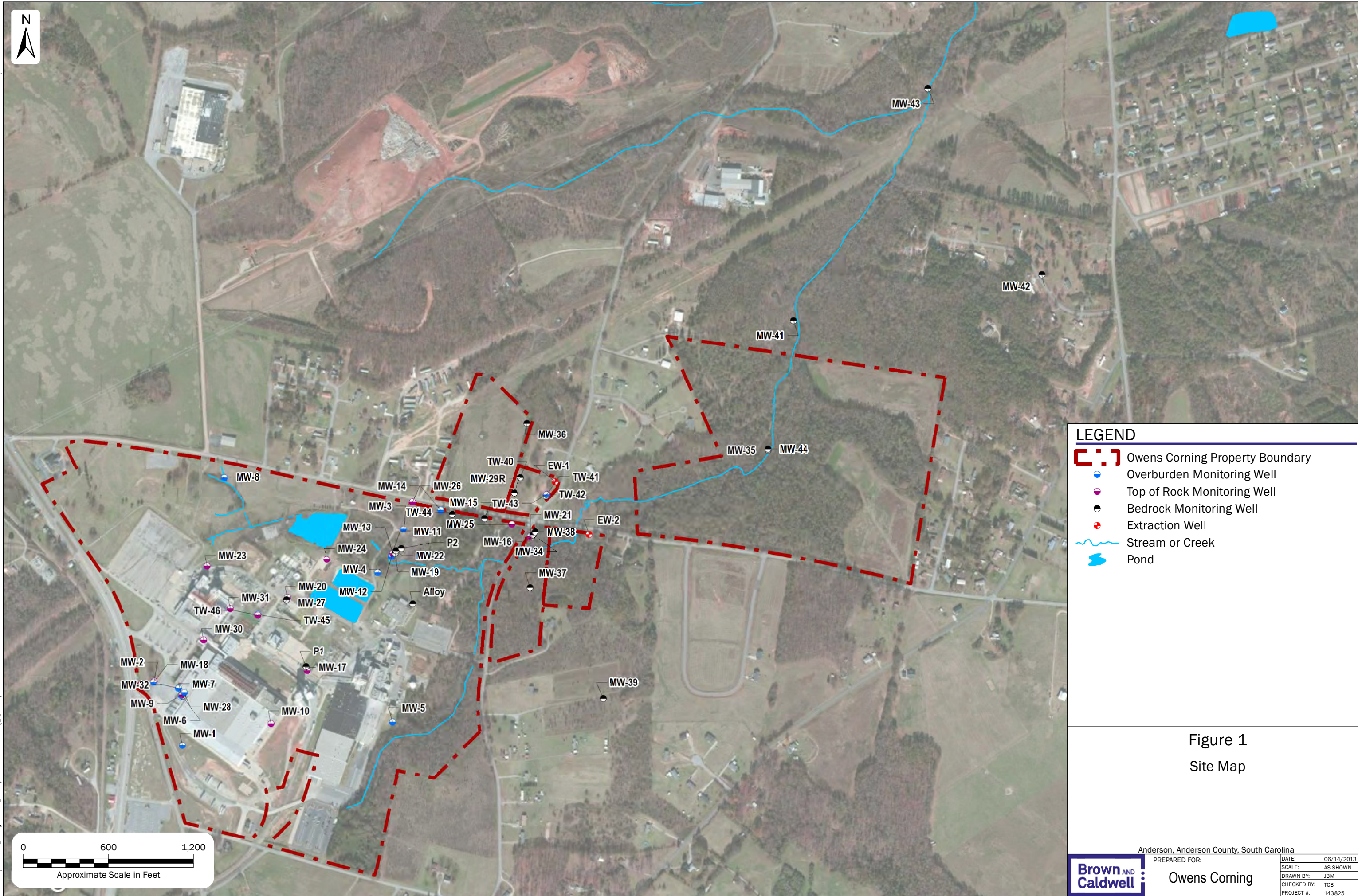
Limitations

This document was prepared solely for Owens Corning in accordance with professional standards at the time the services were performed and in accordance with the contract between Owens Corning and Brown and Caldwell dated January 21, 2013. This document is governed by the specific scope of work authorized by Owens Corning; it is not intended to be relied upon by any other party except for regulatory authorities contemplated by the scope of work. We have relied on information or instructions provided by Owens Corning and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.

Section 6

References

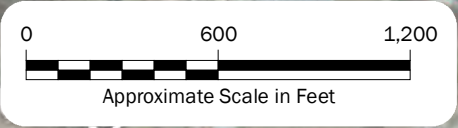
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LEGEND

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

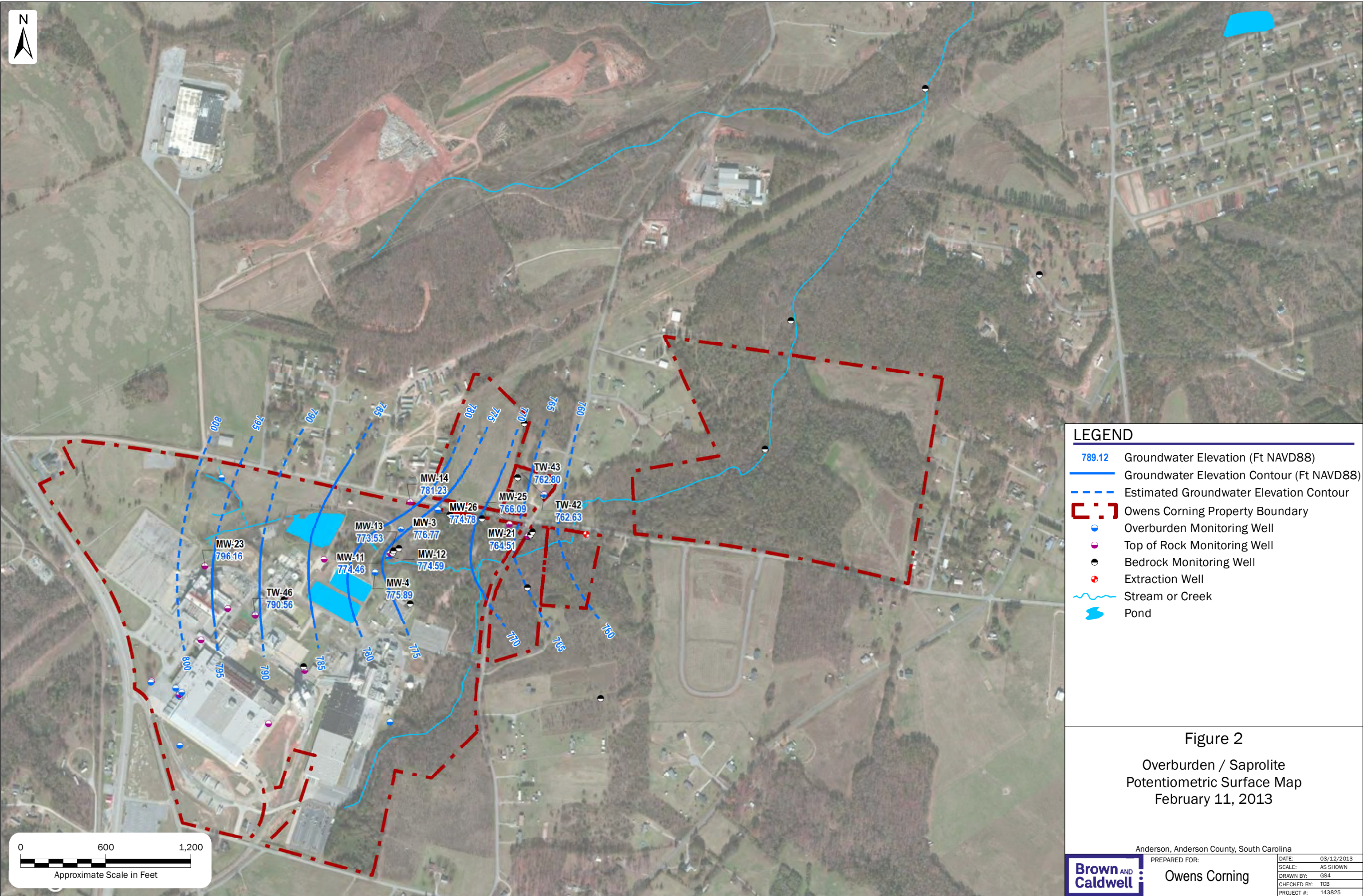
Figure 1
Site Map



Anderson, Anderson County, South Carolina

Brown AND Caldwell PREPARED FOR: **Owens Corning**

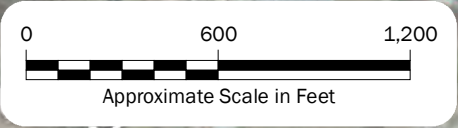
DATE:	06/14/2013
SCALE:	AS SHOWN
DRAWN BY:	JBM
CHECKED BY:	TCB
PROJECT #:	143825



LEGEND

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

Figure 2
 Overburden / Saprolite
 Potentiometric Surface Map
 February 11, 2013

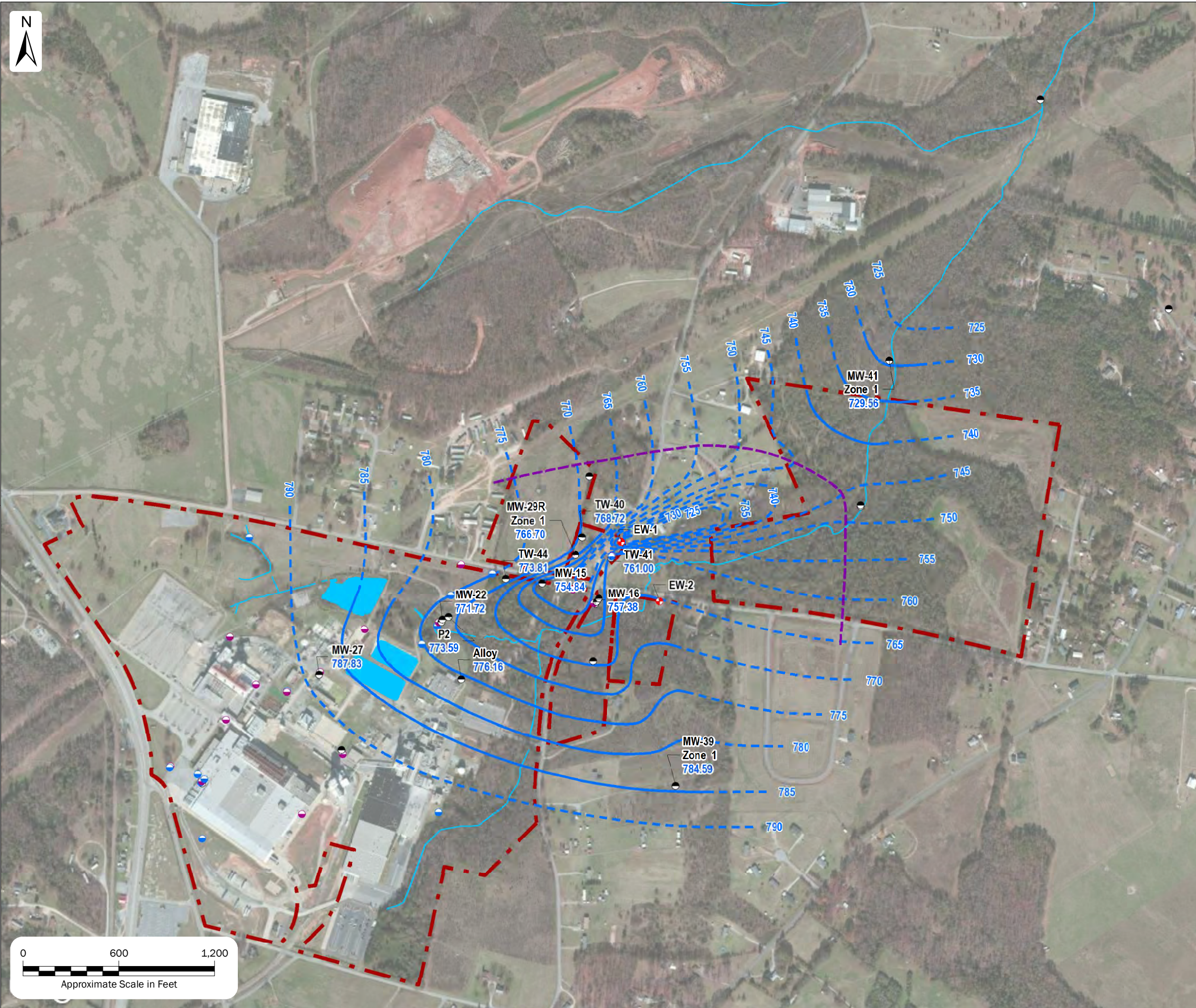


Anderson, Anderson County, South Carolina

PREPARED FOR: **Owens Corning**

Brown AND Caldwell

DATE:	03/12/2013
SCALE:	AS SHOWN
DRAWN BY:	GS4
CHECKED BY:	TCB
PROJECT #:	143825



LEGEND

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

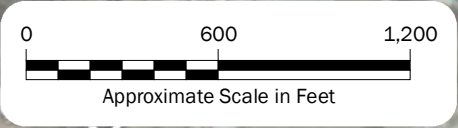
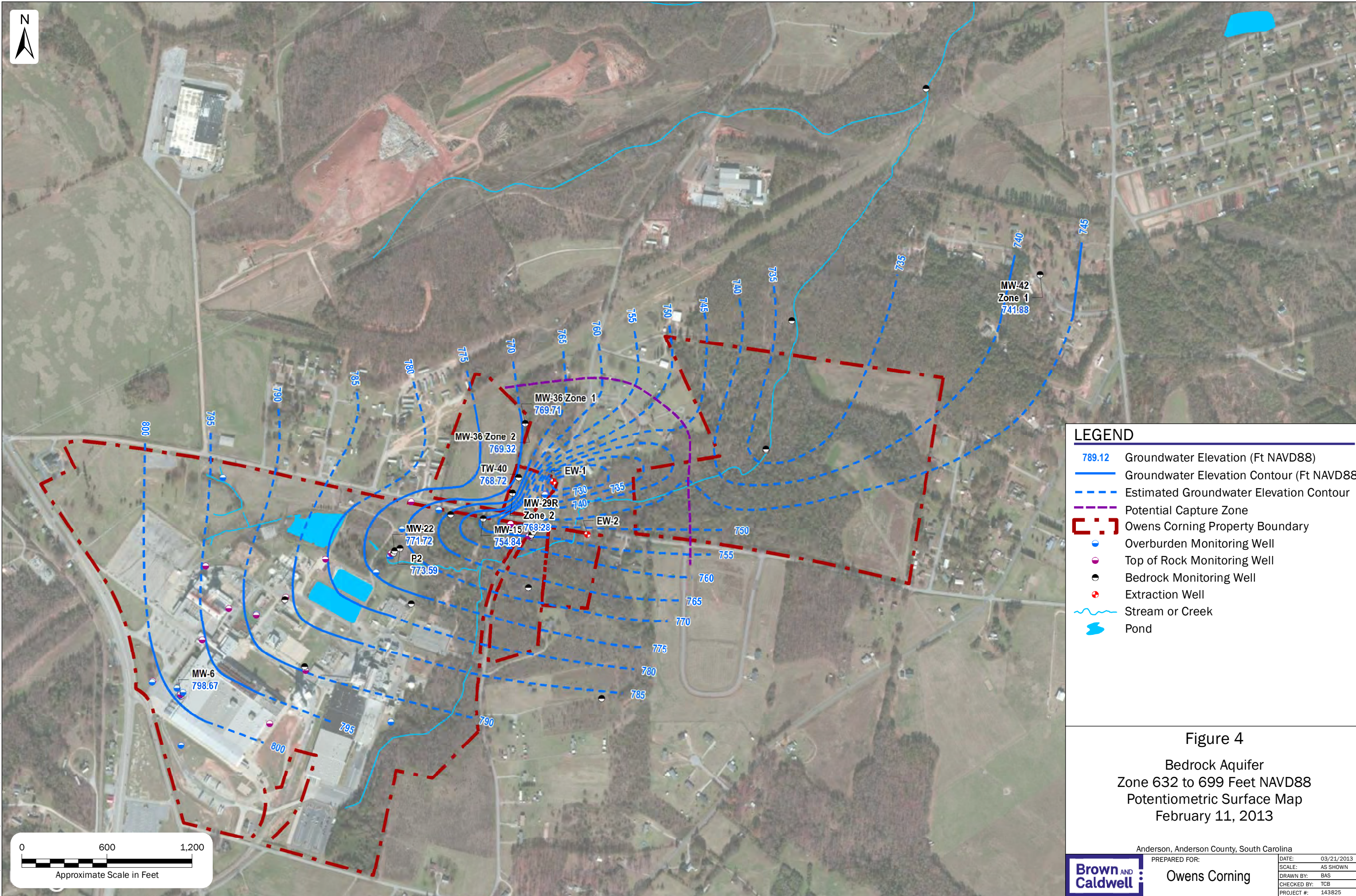


Figure 3
 Bedrock Aquifer
 Zone 699 to 740 Feet NAVD88
 Potentiometric Surface Map
 February 11, 2013

Anderson, Anderson County, South Carolina

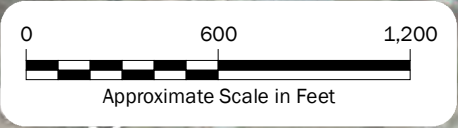
	PREPARED FOR:	Owens Corning
	DATE:	03/21/2013
	SCALE:	AS SHOWN
	DRAWN BY:	BAS
	CHECKED BY:	TCB
		PROJECT #:
		143825



LEGEND

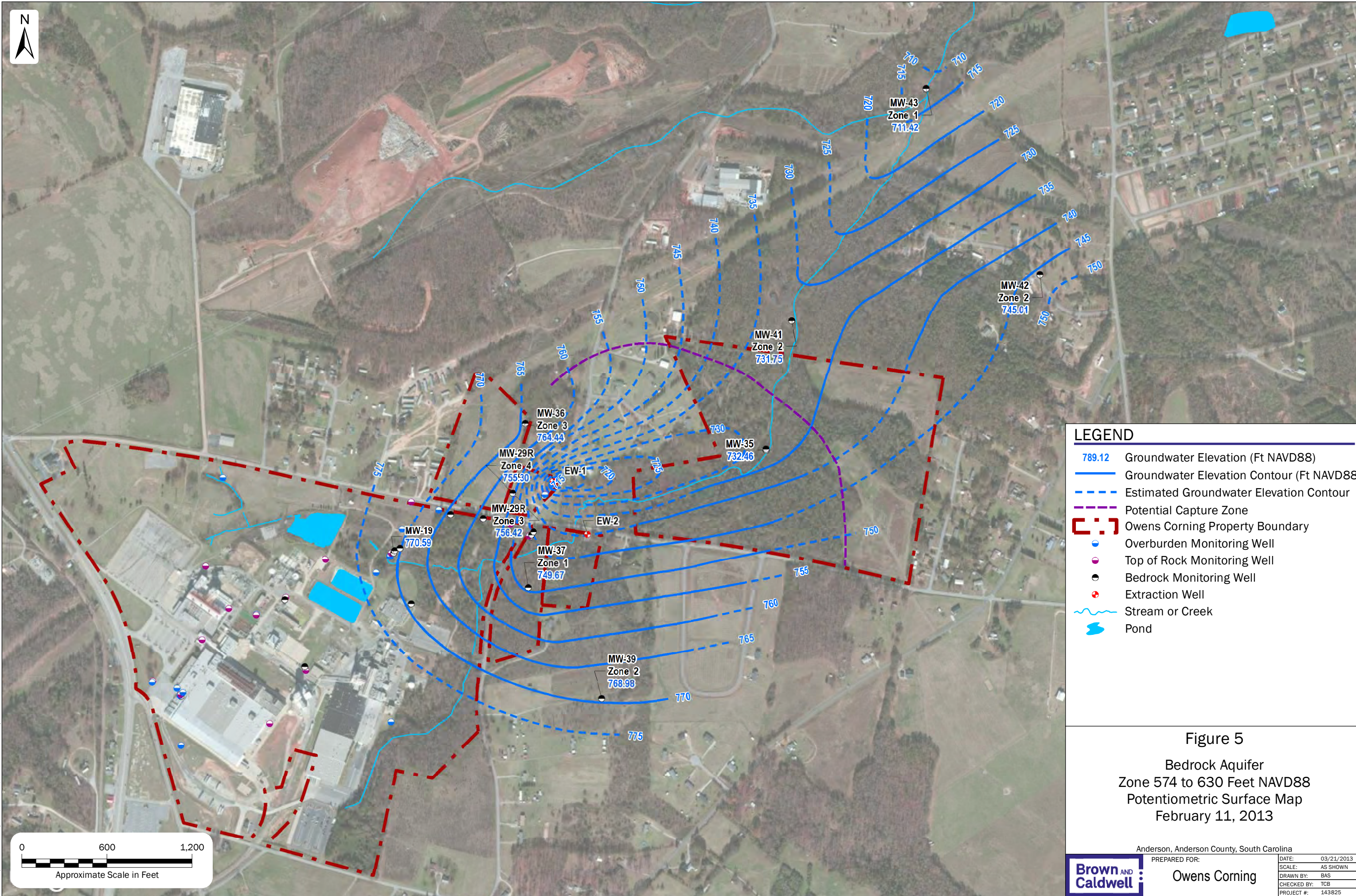
- 789.12 Groundwater Elevation (Ft NAVD88)
- Groundwater Elevation Contour (Ft NAVD88)
- - - Estimated Groundwater Elevation Contour
- - - Potential Capture Zone
- - - Owens Corning Property Boundary
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well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

Figure 4
 Bedrock Aquifer
 Zone 632 to 699 Feet NAVD88
 Potentiometric Surface Map
 February 11, 2013



Anderson, Anderson County, South Carolina

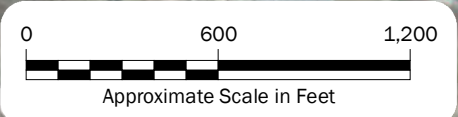
Brown AND Caldwell	PREPARED FOR:	Owens Corning	
	DATE:	03/21/2013	
	SCALE:	AS SHOWN	
	DRAWN BY:	BAS	
	CHECKED BY:	TCB	
		PROJECT #:	143825



LEGEND

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

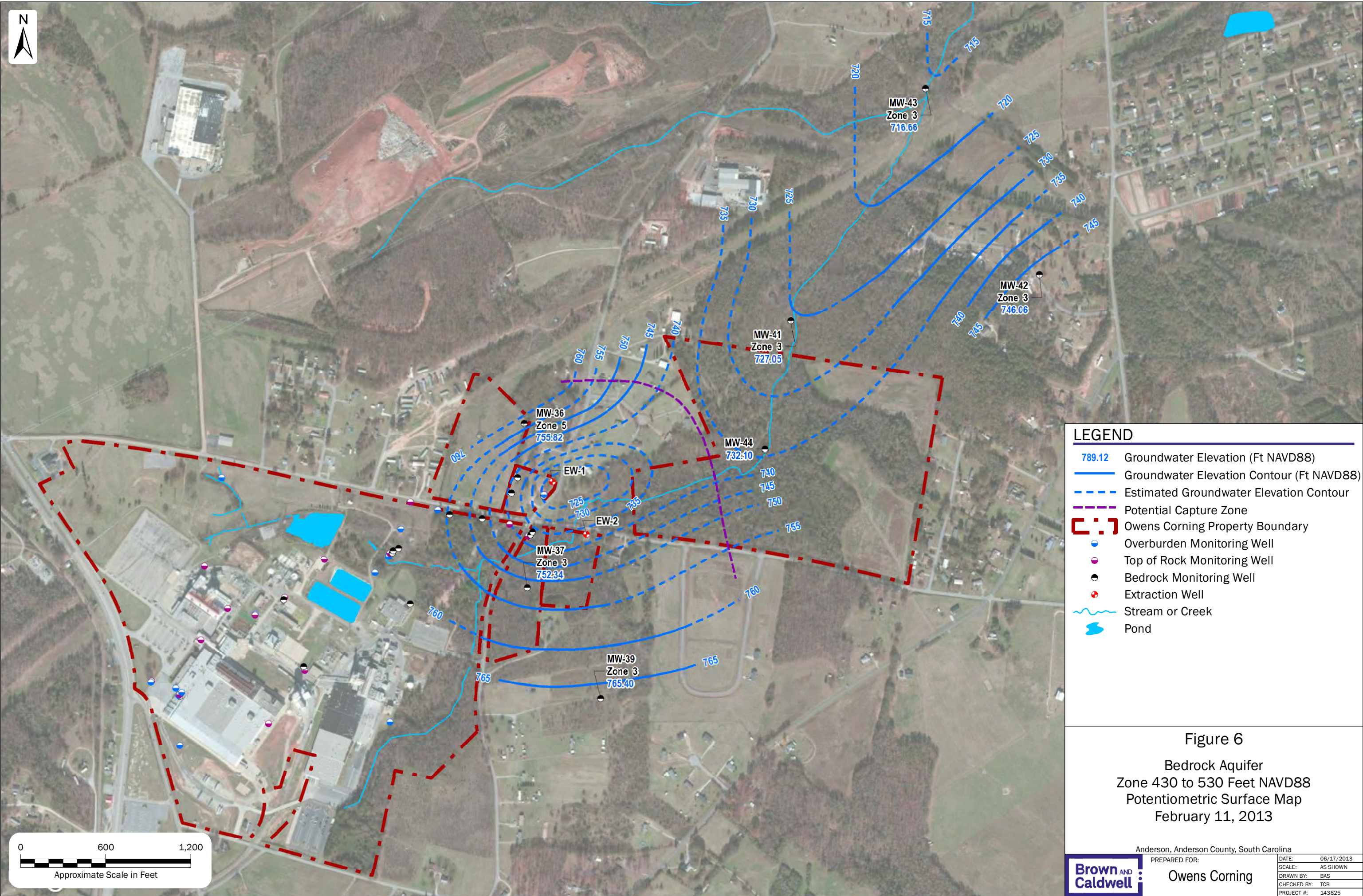
Figure 5
 Bedrock Aquifer
 Zone 574 to 630 Feet NAVD88
 Potentiometric Surface Map
 February 11, 2013



Anderson, Anderson County, South Carolina

PREPARED FOR: **Owens Corning**

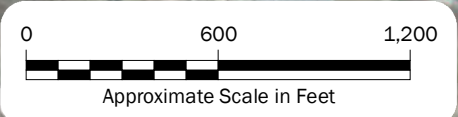
Brown AND Caldwell	DATE: 03/21/2013
	SCALE: AS SHOWN
	DRAWN BY: BAS
	CHECKED BY: TCB
	PROJECT #: 143825



LEGEND

- 789.12 Groundwater Elevation (Ft NAVD88)
- Groundwater Elevation Contour (Ft NAVD88)
- - - Estimated Groundwater Elevation Contour
- - - Potential Capture Zone
- [Red dashed line] Owens Corning Property Boundary
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- ~ Stream or Creek
- Pond

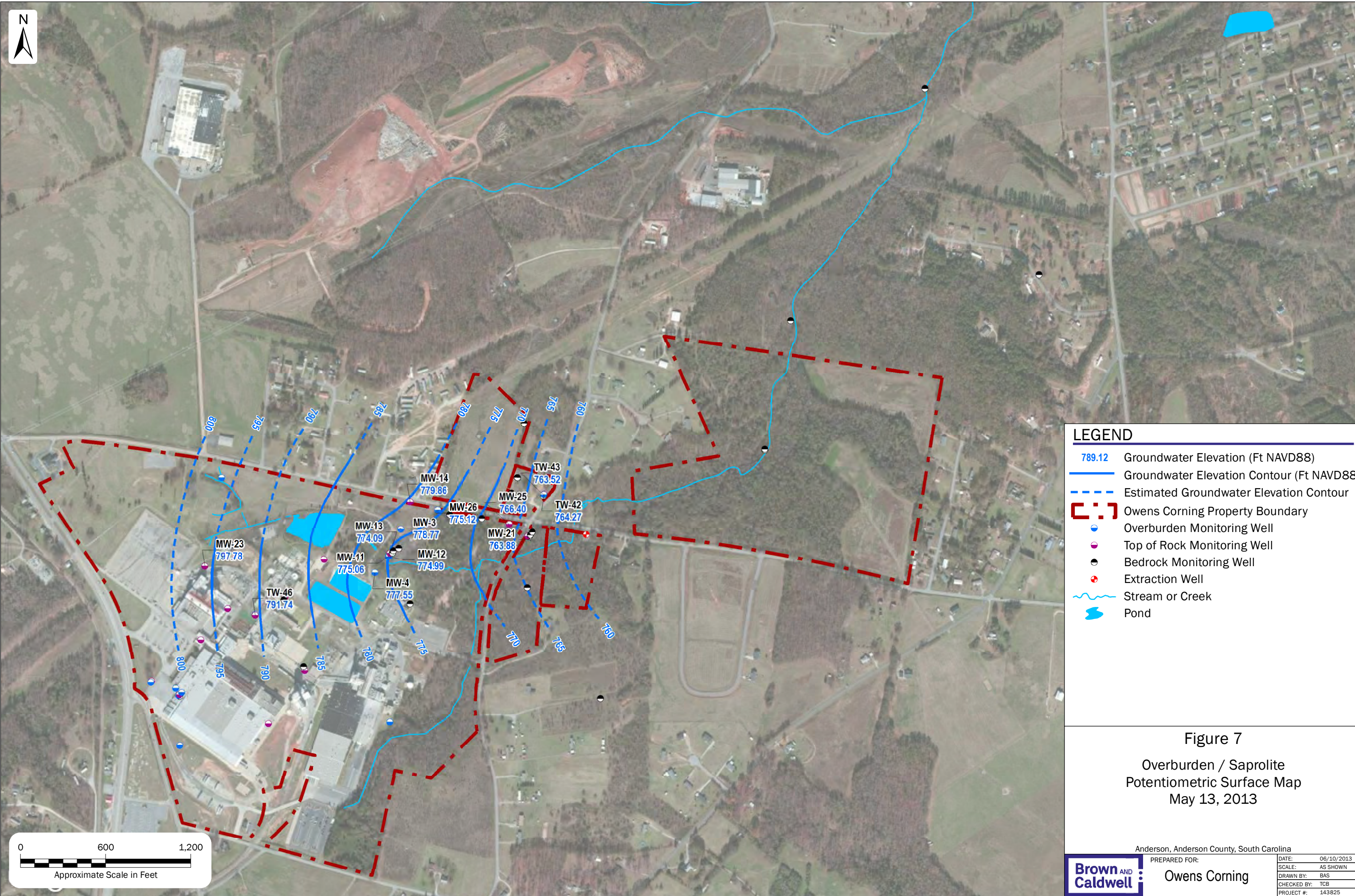
Figure 6
 Bedrock Aquifer
 Zone 430 to 530 Feet NAVD88
 Potentiometric Surface Map
 February 11, 2013



Anderson, Anderson County, South Carolina

PREPARED FOR: **Owens Corning**

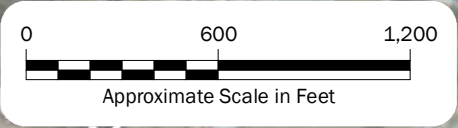
DATE:	06/17/2013
SCALE:	AS SHOWN
DRAWN BY:	BAS
CHECKED BY:	TCB
PROJECT #:	143825



LEGEND

- 789.12 Groundwater Elevation (Ft NAVD88)
- Groundwater Elevation Contour (Ft NAVD88)
- - - Estimated Groundwater Elevation Contour
- [Red Dashed Line] Owens Corning Property Boundary
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- ~ Stream or Creek
- Pond

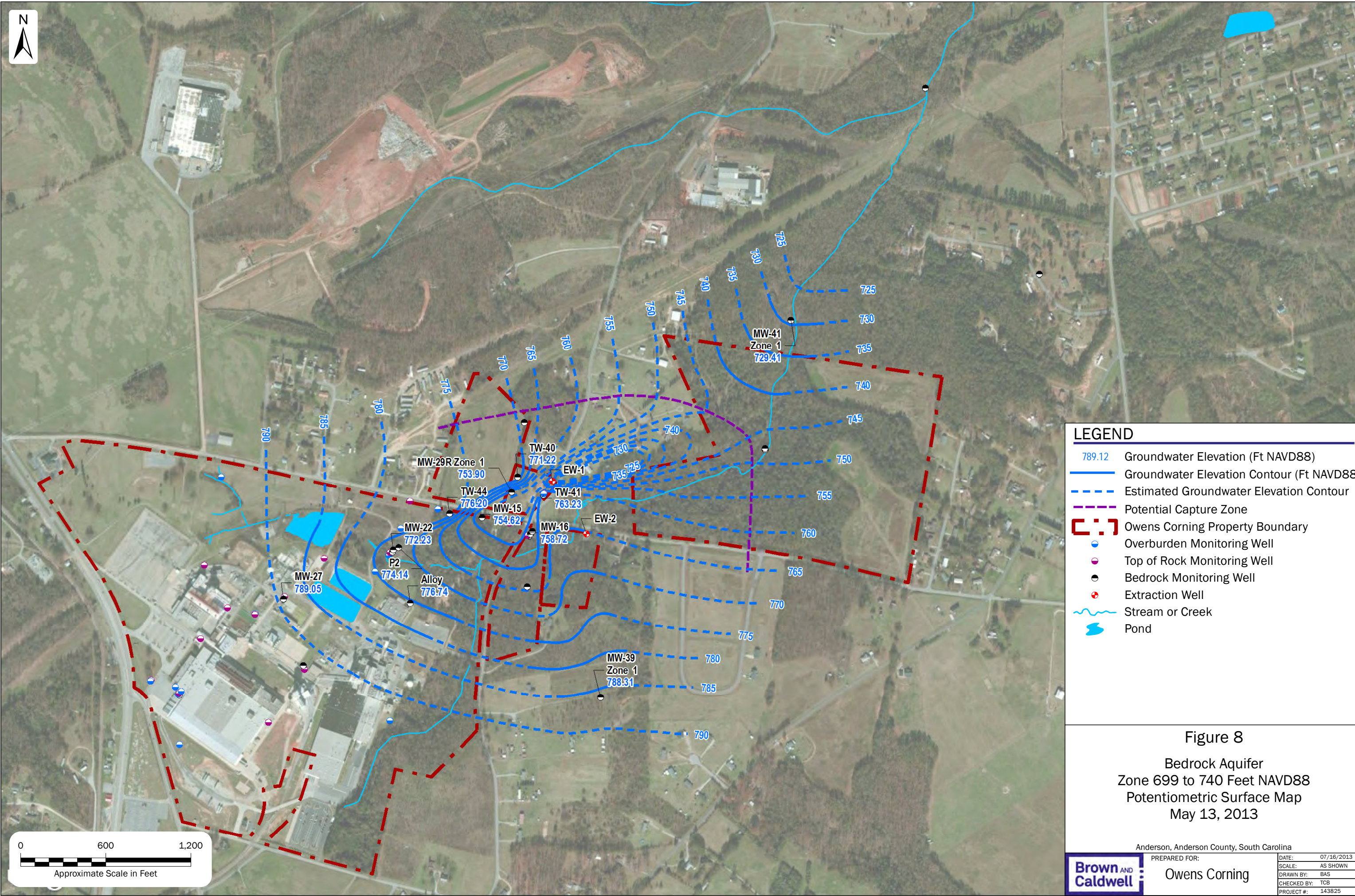
Figure 7
 Overburden / Saprolite
 Potentiometric Surface Map
 May 13, 2013



Anderson, Anderson County, South Carolina

Brown AND Caldwell PREPARED FOR: **Owens Corning**

DATE:	06/10/2013
SCALE:	AS SHOWN
DRAWN BY:	BAS
CHECKED BY:	TCB
PROJECT #:	143825



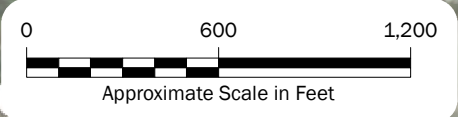
LEGEND

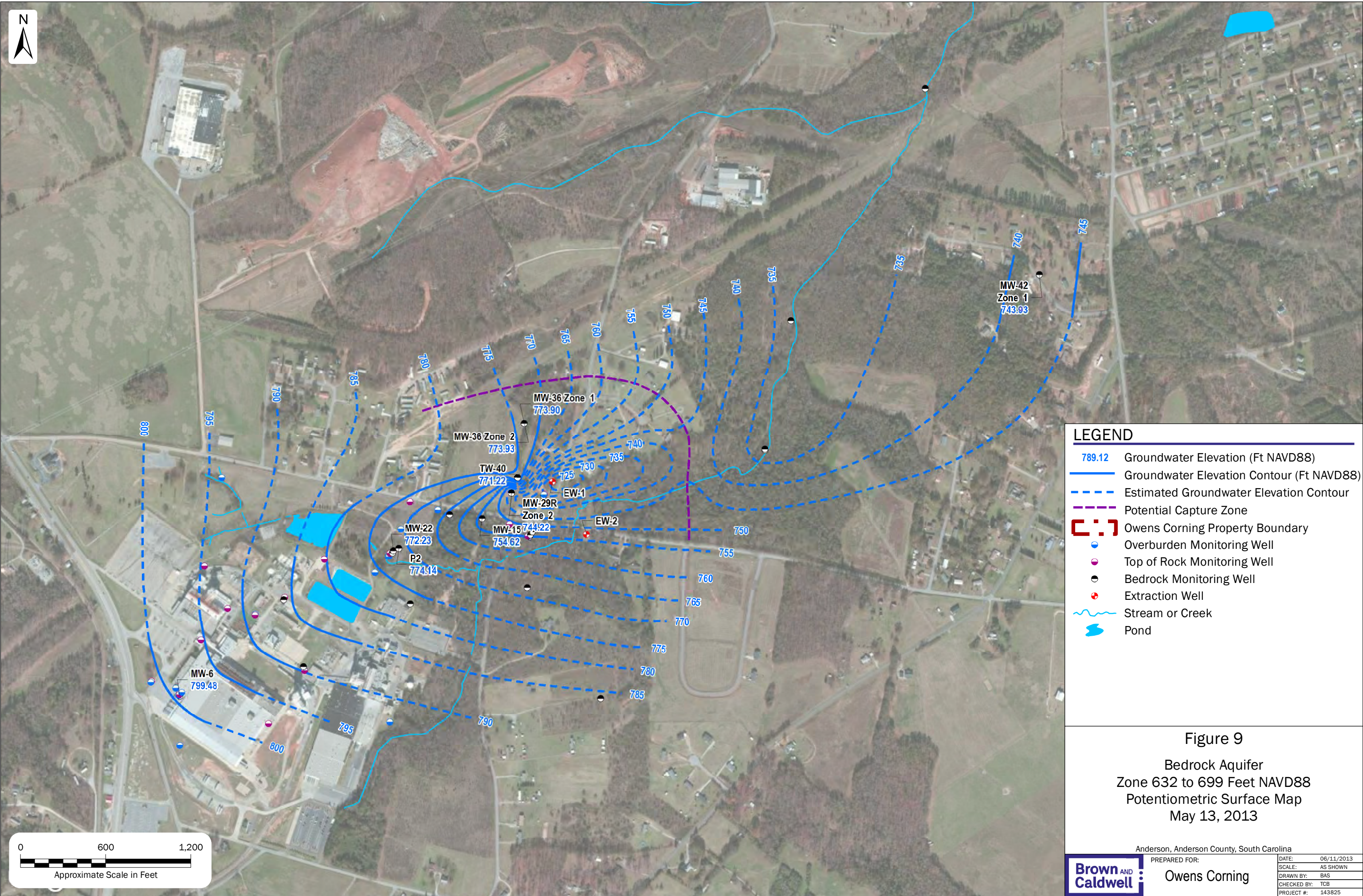
- 789.12 Groundwater Elevation (Ft NAVD88)
- Groundwater Elevation Contour (Ft NAVD88)
- Estimated Groundwater Elevation Contour
- Potential Capture Zone
- Owens Corning Property Boundary
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream or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

Figure 8
 Bedrock Aquifer
 Zone 699 to 740 Feet NAVD88
 Potentiometric Surface Map
 May 13, 2013

Anderson, Anderson County, South Carolina

	PREPARED FOR:	Owens Corning	DATE:	07/16/2013
	SCALE:	AS SHOWN	DRAWN BY:	BAS
	CHECKED BY:	TCB	PROJECT #:	143825





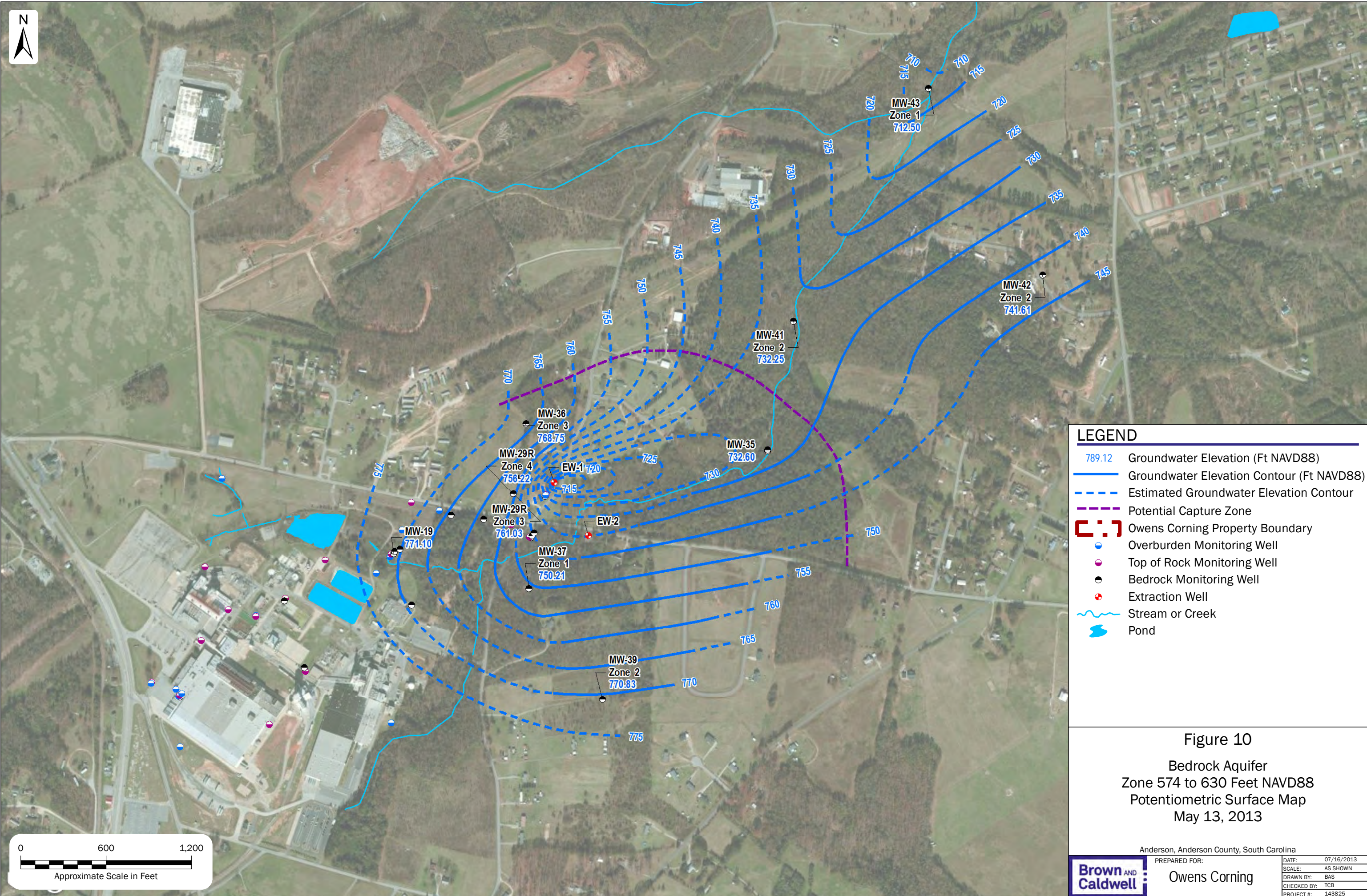
LEGEND

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

Figure 9
 Bedrock Aquifer
 Zone 632 to 699 Feet NAVD88
 Potentiometric Surface Map
 May 13, 2013

Anderson, Anderson County, South Carolina

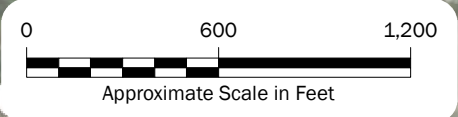
Brown AND Caldwell	PREPARED FOR:	Owens Corning
	DATE:	06/11/2013
	SCALE:	AS SHOWN
	DRAWN BY:	BAS
	CHECKED BY:	TCB
PROJECT #:		143825



LEGEND

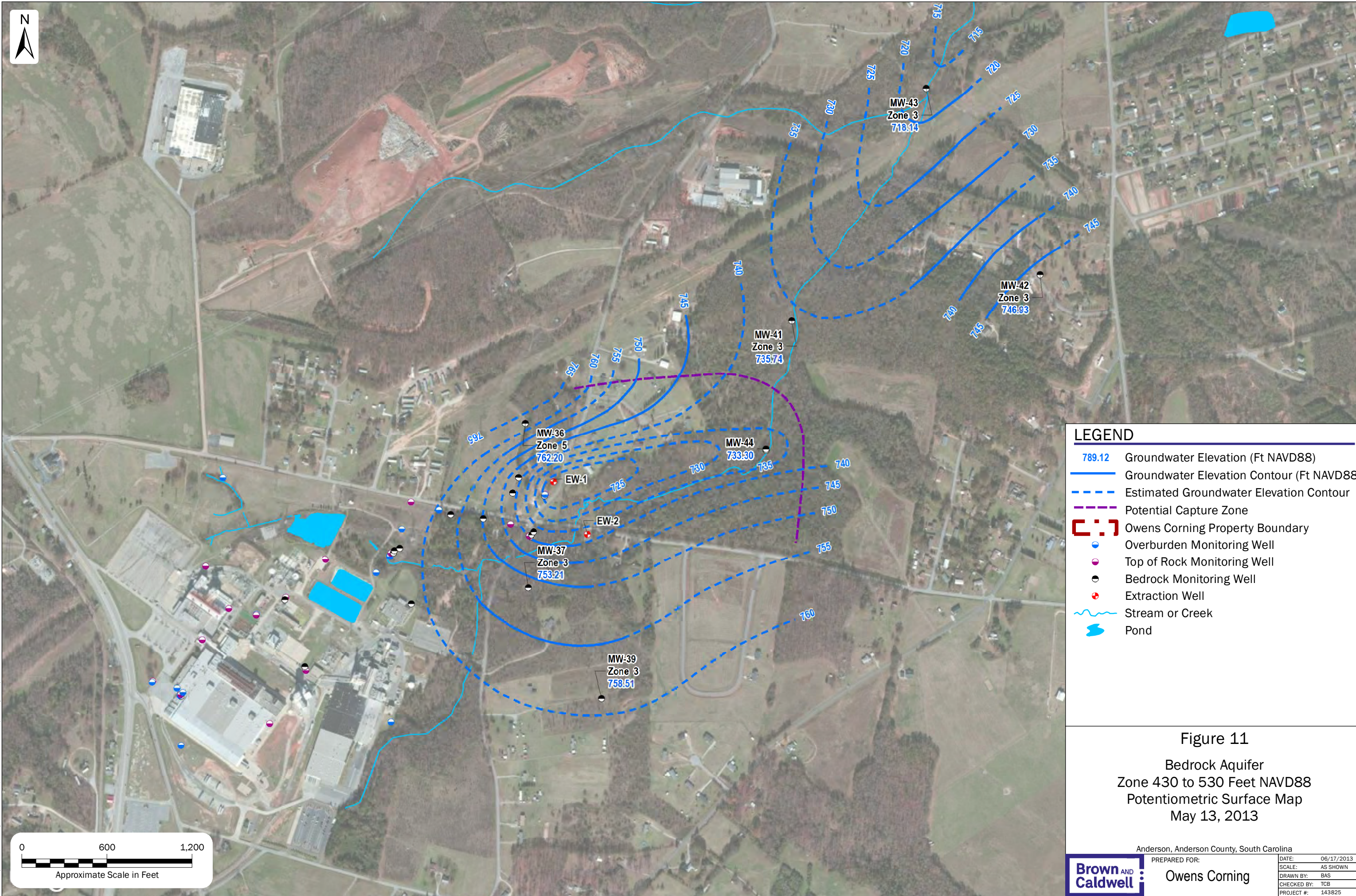
- 789.12 Groundwater Elevation (Ft NAVD88)
- Groundwater Elevation Contour (Ft NAVD88)
- - - Estimated Groundwater Elevation Contour
- - - Potential Capture Zone
- - - Owens Corning Property Boundary
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well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

Figure 10
 Bedrock Aquifer
 Zone 574 to 630 Feet NAVD88
 Potentiometric Surface Map
 May 13, 2013



Anderson, Anderson County, South Carolina

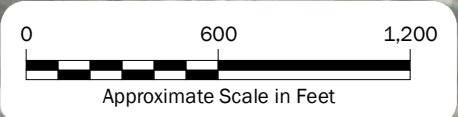
Brown AND Caldwell	PREPARED FOR:	OWENS CORNING
	DATE:	07/16/2013
	SCALE:	AS SHOWN
	DRAWN BY:	BAS
	CHECKED BY:	TCB
PROJECT #:		143825



LEGEND

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


Figure 11
 Bedrock Aquifer
 Zone 430 to 530 Feet NAVD88
 Potentiometric Surface Map
 May 13, 2013

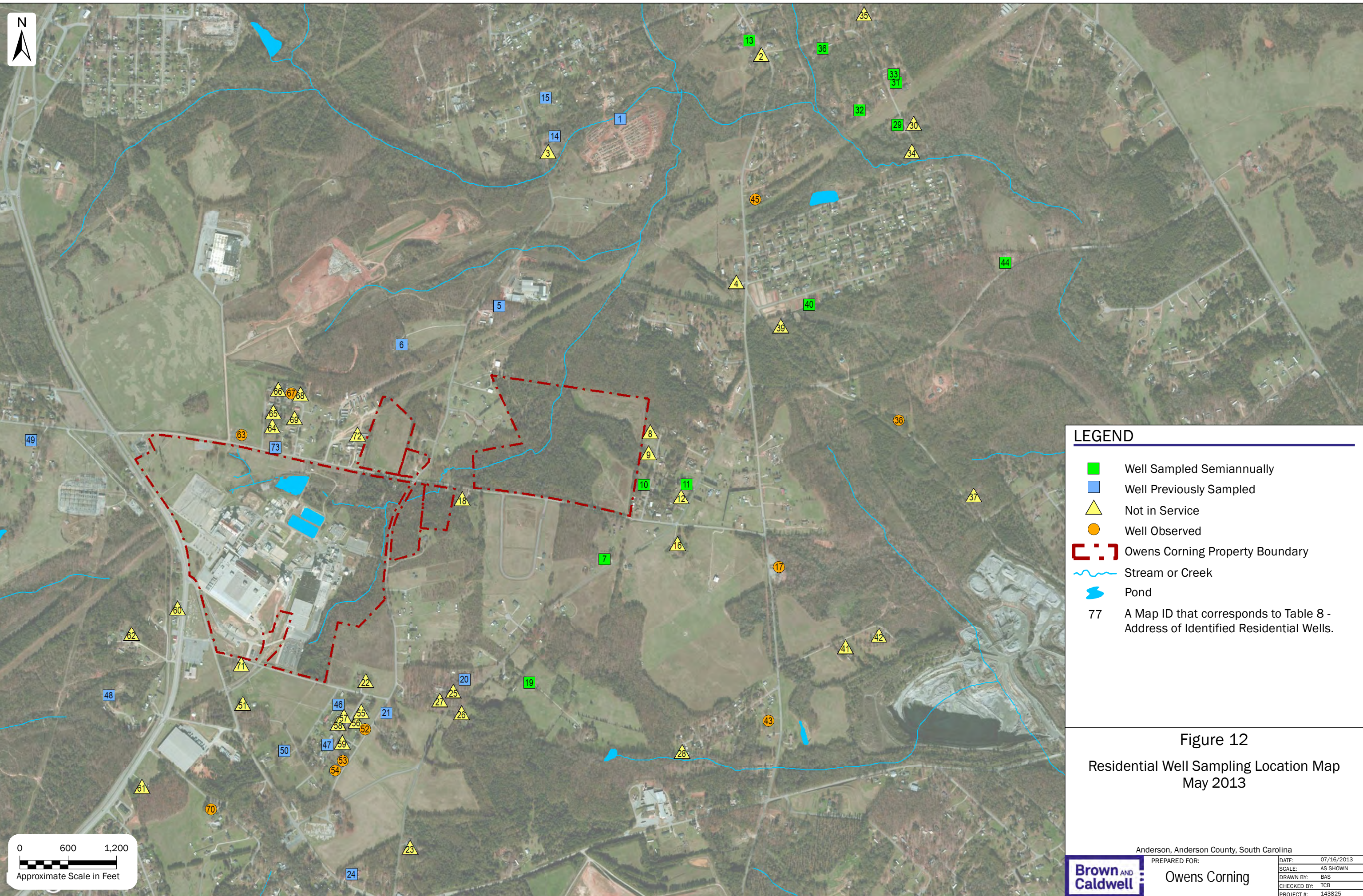


Anderson, Anderson County, South Carolina

PREPARED FOR: **Owens Corning**

DATE:	06/17/2013
SCALE:	AS SHOWN
DRAWN BY:	BAS
CHECKED BY:	TCB
PROJECT #:	143825



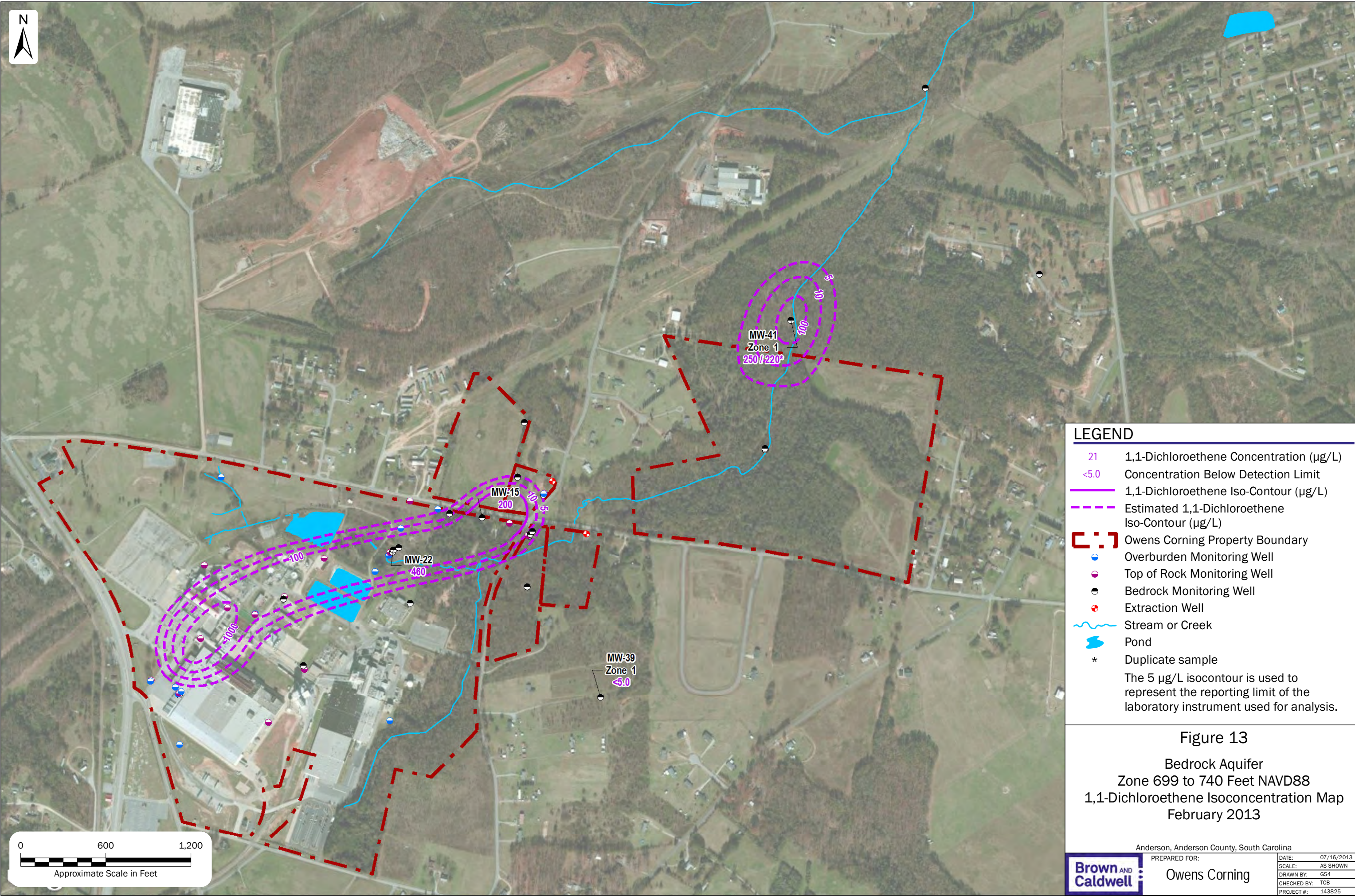


LEGEND

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

Figure 12
Residential Well Sampling Location Map
May 2013

Anderson, Anderson County, South Carolina

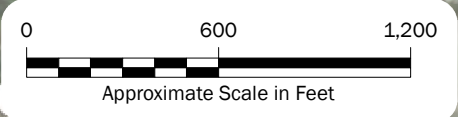


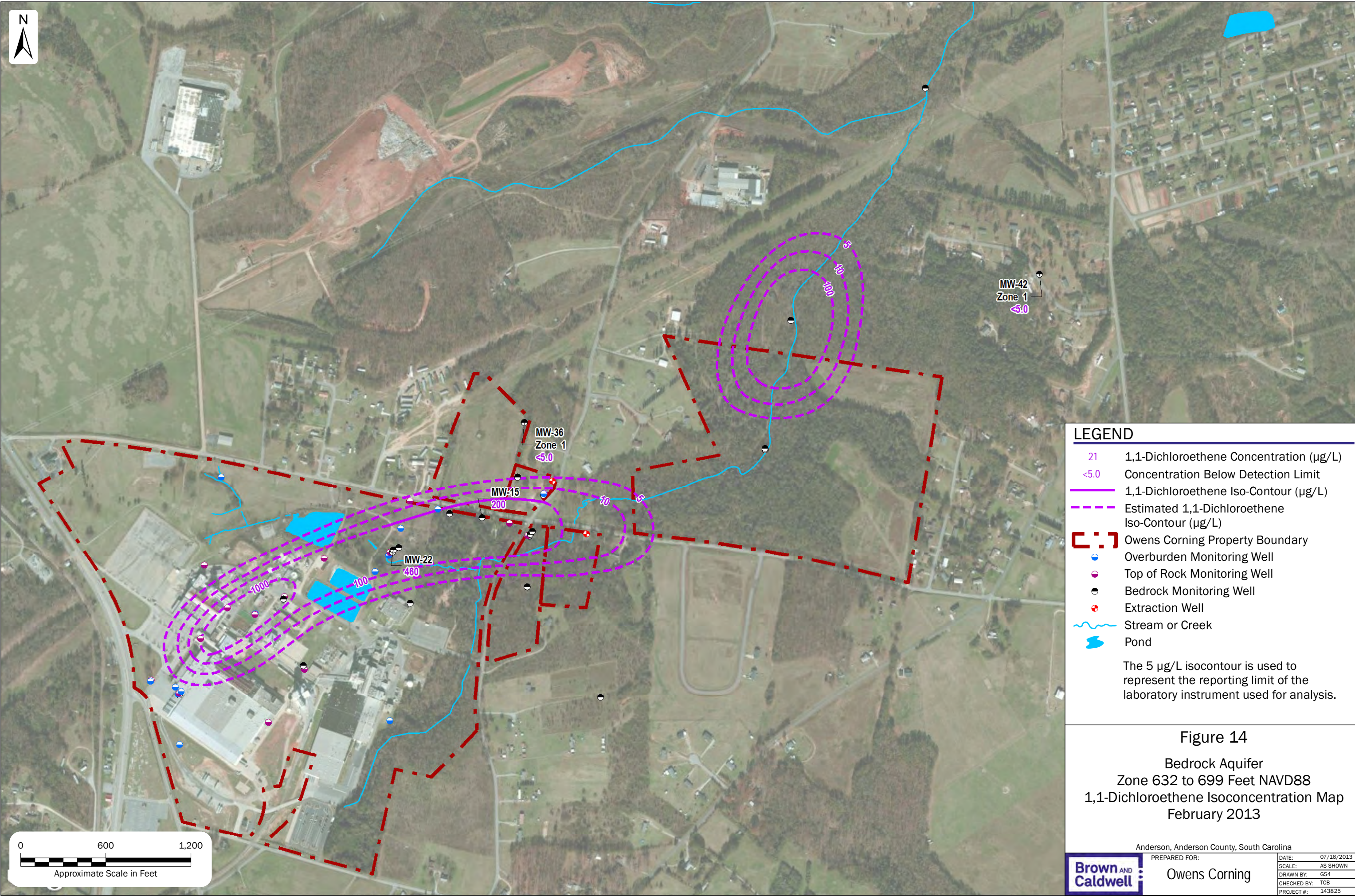
LEGEND

- 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
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- ~ Stream or Creek
- Pond
- * Duplicate sample

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

Figure 13
 Bedrock Aquifer
 Zone 699 to 740 Feet NAVD88
 1,1-Dichloroethene Isoconcentration Map
 February 2013



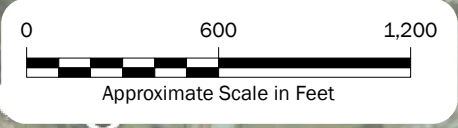


LEGEND

- 21 1,1-Dichloroethene Concentration ($\mu\text{g/L}$)
- <math><5.0</math> Concentration Below Detection Limit
- 1,1-Dichloroethene Iso-Contour ($\mu\text{g/L}$)
- - - Estimated 1,1-Dichloroethene Iso-Contour ($\mu\text{g/L}$)
- - - Owens Corning Property Boundary
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- ~ Stream or Creek
- Pond

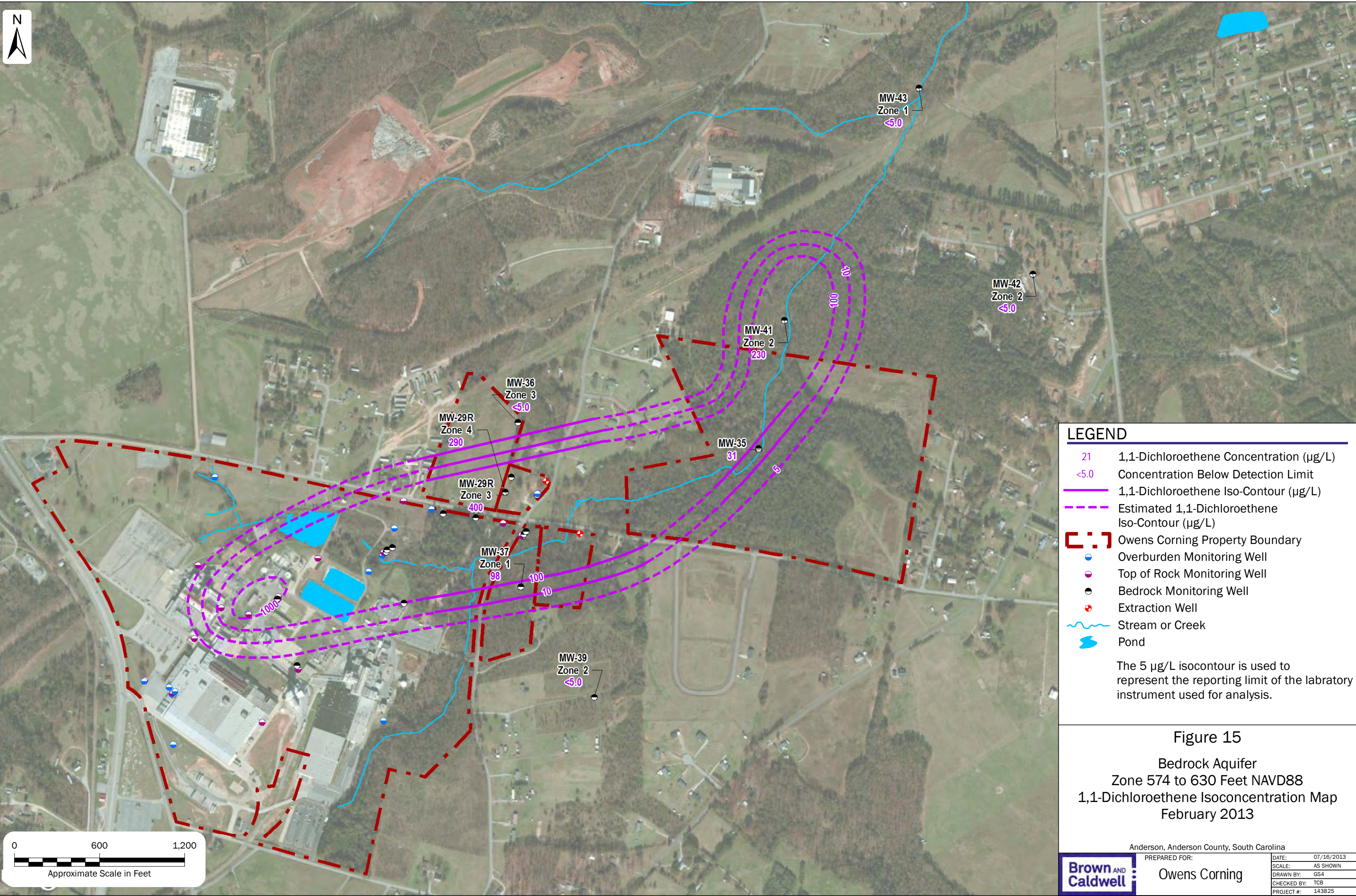
The 5 $\mu\text{g/L}$ isocontour is used to represent the reporting limit of the laboratory instrument used for analysis.

Figure 14
 Bedrock Aquifer
 Zone 632 to 699 Feet NAVD88
 1,1-Dichloroethene Isoconcentration Map
 February 2013



Anderson, Anderson County, South Carolina

Brown AND Caldwell	PREPARED FOR:	Owens Corning	DATE:	07/16/2013
	SCALE:		DRAWN BY:	GS4
	CHECKED BY:	TCB	PROJECT #:	143825

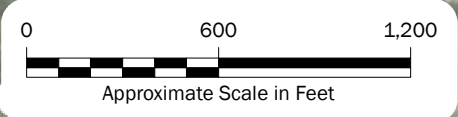


LEGEND

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

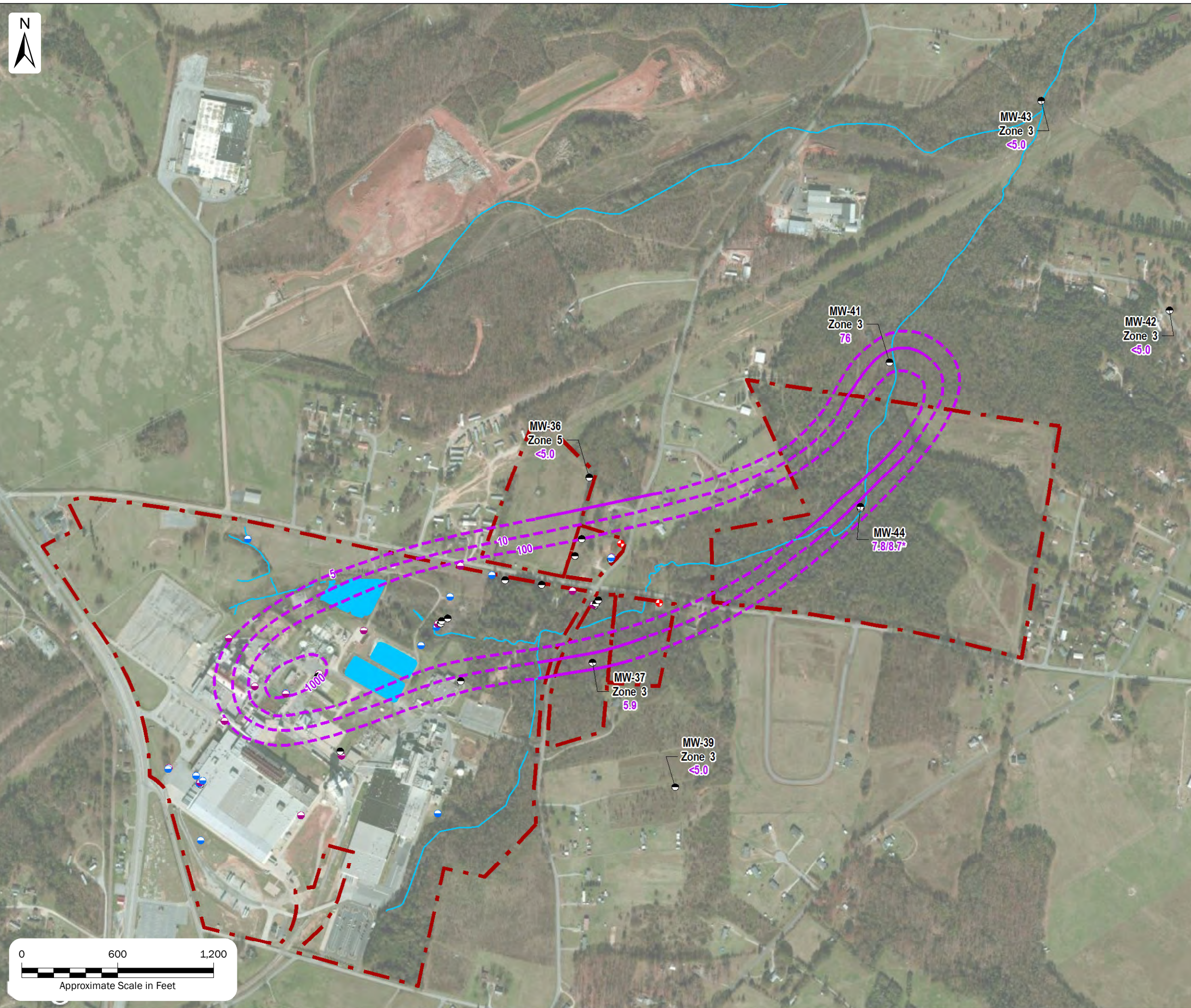
The 5 µg/L isocontour is used to represent the reporting limit of the laboratory instrument used for analysis.

Figure 15
 Bedrock Aquifer
 Zone 574 to 630 Feet NAVD88
 1,1-Dichloroethene Isoconcentration Map
 February 2013



Anderson, Anderson County, South Carolina

	PREPARED FOR:	Owens Corning	DATE:	07/16/2013
	SCALE:		DRAWN BY:	GS4
	CHECKED BY:	TCB	PROJECT #:	143825



LEGEND

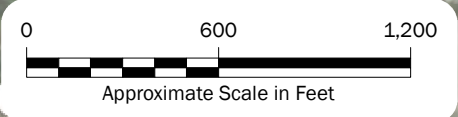
- 21 1,1-Dichloroethene Concentration ($\mu\text{g/L}$)
- <5.0 Concentration Below Detection Limit
- 1,1-Dichloroethene Iso-Contour ($\mu\text{g/L}$)
- - - Estimated 1,1-Dichloroethene Iso-Contour ($\mu\text{g/L}$)
- - - Owens Corning Property Boundary
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- ~ Stream or Creek
- Pond
- * Duplicate sample

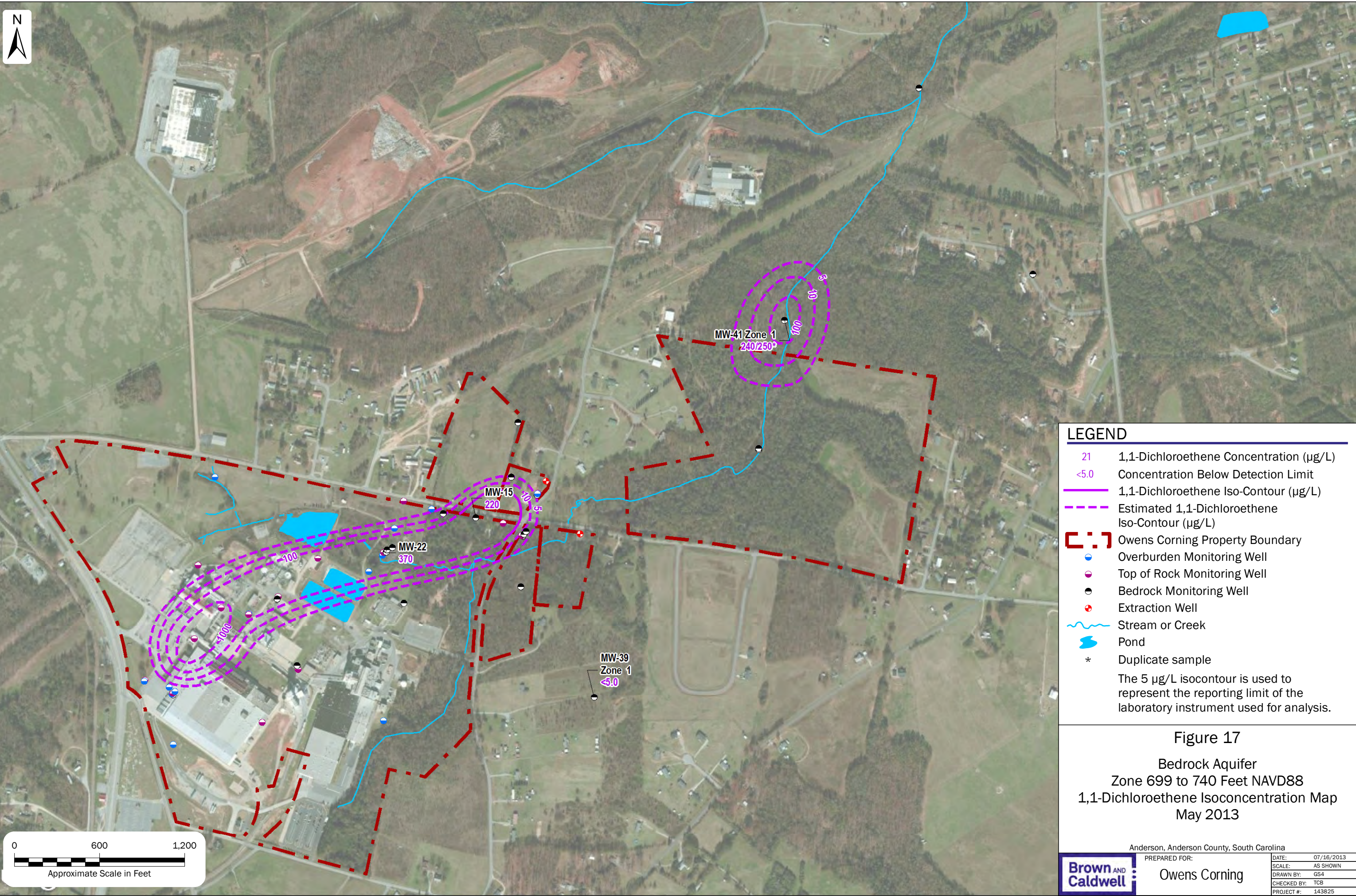
The 5 $\mu\text{g/L}$ isocontour is used to represent the reporting limit of the laboratory instrument used for analysis.

Figure 16
 Bedrock Aquifer
 Zone 430 to 530 Feet NAVD88
 1,1-Dichloroethene Isoconcentration Map
 February 2013

Anderson, Anderson County, South Carolina

Brown AND Caldwell	PREPARED FOR:	Owens Corning	DATE:	07/16/2013
	SCALE:	AS SHOWN	DRAWN BY:	GS4
	CHECKED BY:	TCB	PROJECT #:	143825



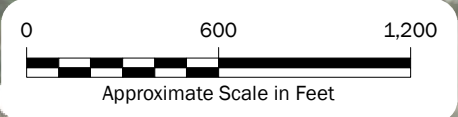


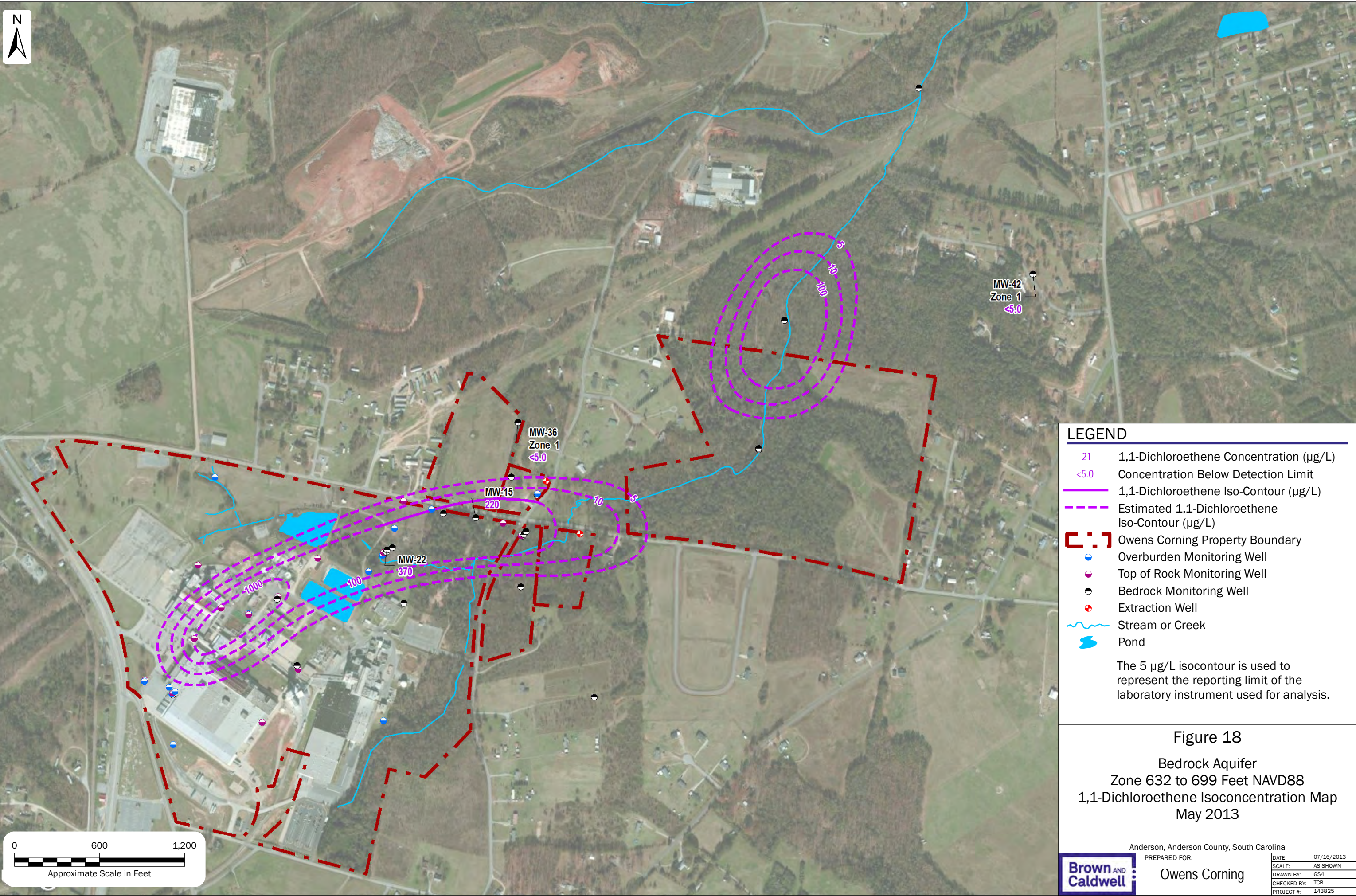
LEGEND

- 21 1,1-Dichloroethene Concentration ($\mu\text{g/L}$)
- <math><5.0</math> Concentration Below Detection Limit
- 1,1-Dichloroethene Iso-Contour ($\mu\text{g/L}$)
- - - Estimated 1,1-Dichloroethene Iso-Contour ($\mu\text{g/L}$)
- - - Owens Corning Property Boundary
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- ~ Stream or Creek
- Pond
- * Duplicate sample

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

Figure 17
 Bedrock Aquifer
 Zone 699 to 740 Feet NAVD88
 1,1-Dichloroethene Isoconcentration Map
 May 2013





LEGEND

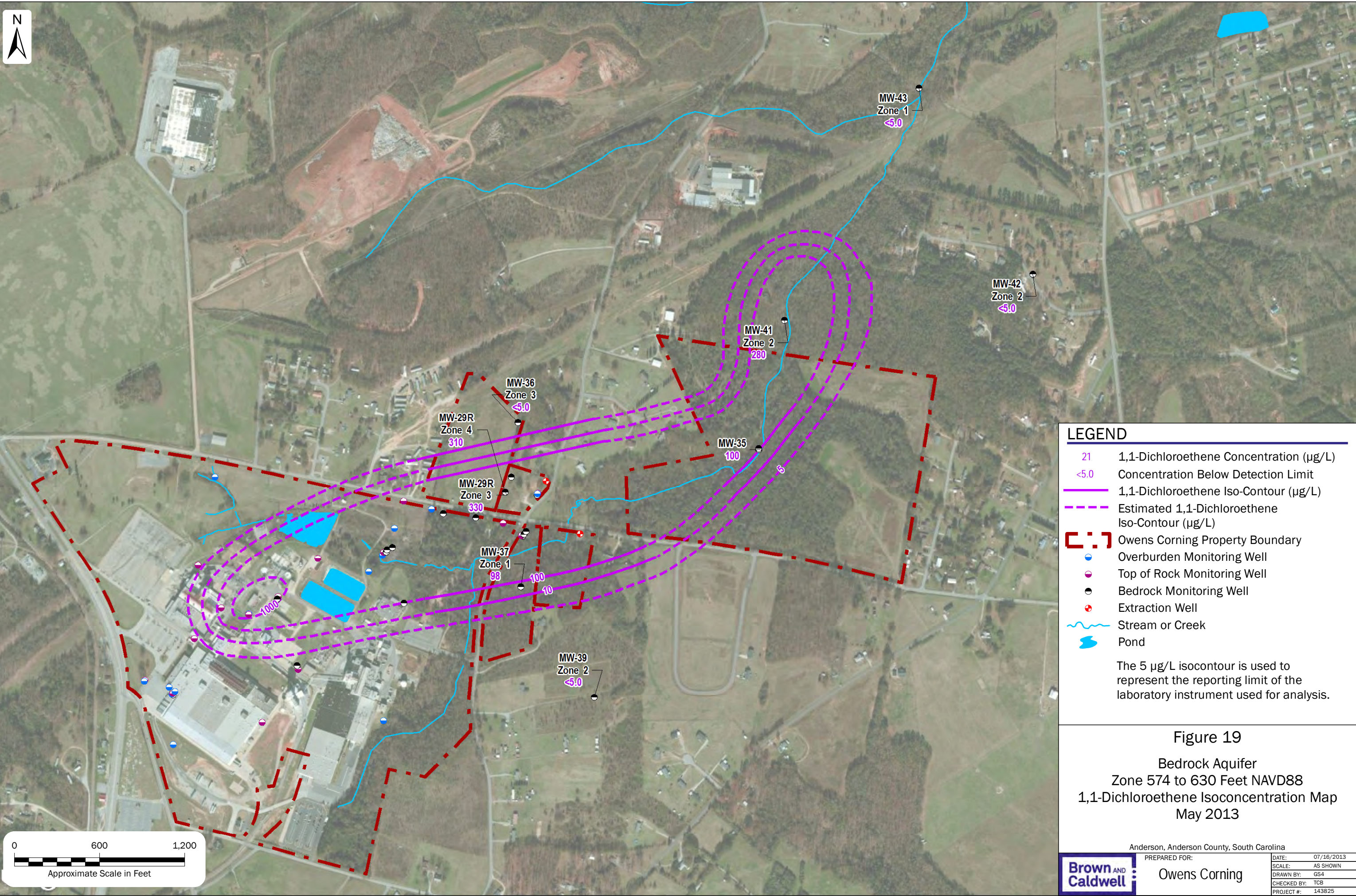
- 21 1,1-Dichloroethene Concentration (µg/L)
- <5.0 Concentration Below Detection Limit
- 1,1-Dichloroethene Iso-Contour (µg/L)
- Estimated 1,1-Dichloroethene Iso-Contour (µg/L)
- Owens Corning Property Boundary
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction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

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

Figure 18
 Bedrock Aquifer
 Zone 632 to 699 Feet NAVD88
 1,1-Dichloroethene Isoconcentration Map
 May 2013

Anderson, Anderson County, South Carolina

	PREPARED FOR:	Owens Corning	DATE:	07/16/2013
	SCALE:		DRAWN BY:	GS4
	CHECKED BY:	TCB	PROJECT #:	143825

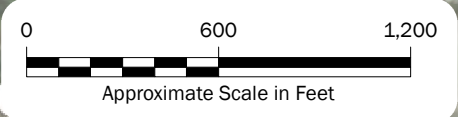


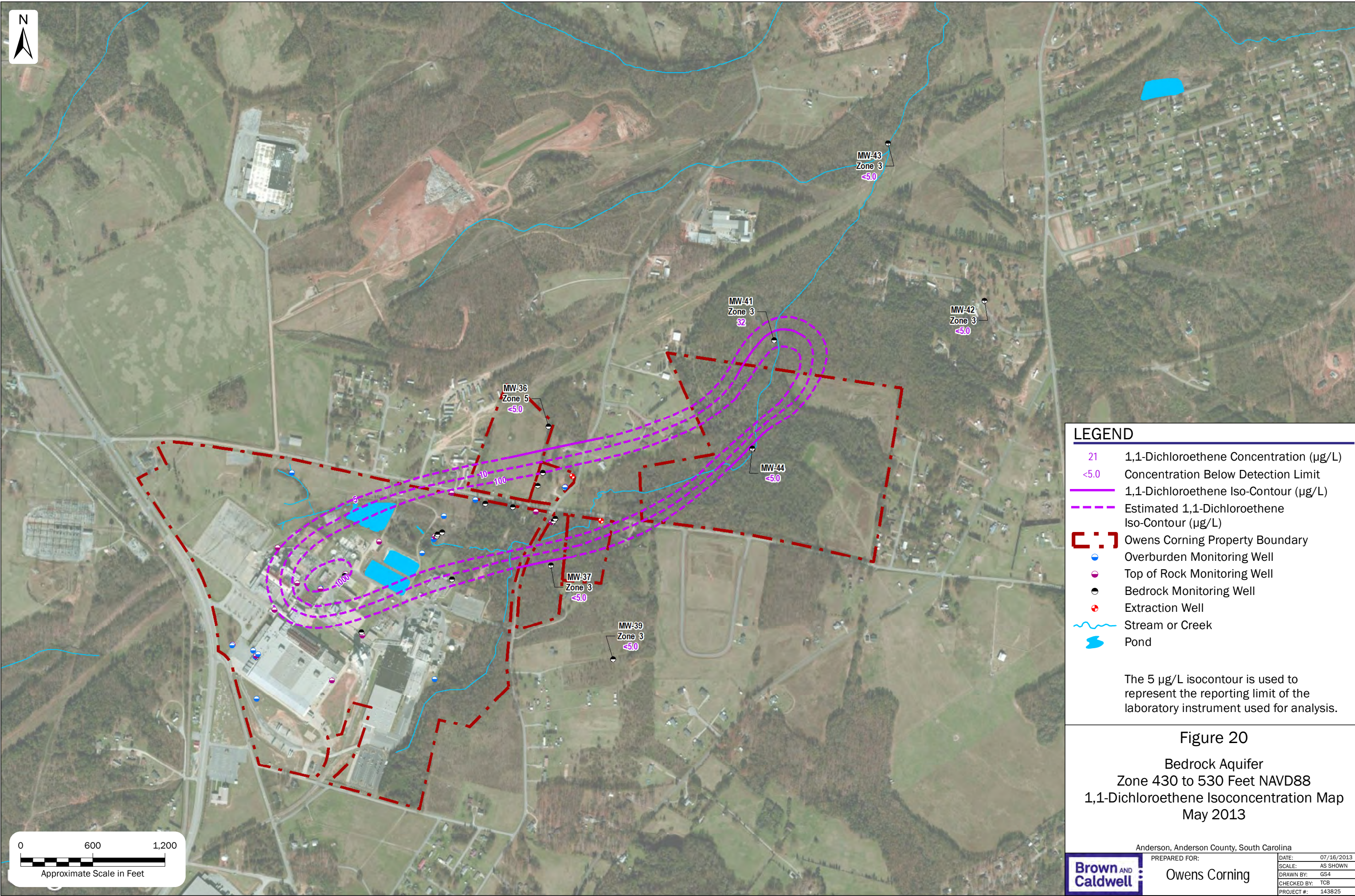
LEGEND

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

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

Figure 19
 Bedrock Aquifer
 Zone 574 to 630 Feet NAVD88
 1,1-Dichloroethene Isoconcentration Map
 May 2013





LEGEND

- 21 1,1-Dichloroethene Concentration (µg/L)
- ≤ 5.0 Concentration Below Detection Limit
- 1,1-Dichloroethene Iso-Contour (µg/L)
- - - Estimated 1,1-Dichloroethene Iso-Contour (µg/L)
- [Red Dashed Box] Owens Corning Property Boundary
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- ⊕ Extraction Well
- ~ Stream or Creek
- Pond

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

Figure 20
 Bedrock Aquifer
 Zone 430 to 530 Feet NAVD88
 1,1-Dichloroethene Isoconcentration Map
 May 2013

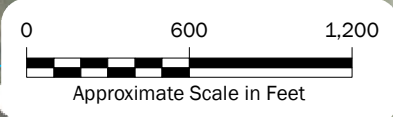


Table 1. Well Construction Details

Owens Corning - Anderson, SC

Monitoring Well	Well Type	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	02/22/93	55 - 65	769.27	759.27	0	>65	950361.45	1499402.43	824.27	826.62
MW-2	2" AG	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	10/15/90	13 - 28	782.61	767.61	0	>31.5	951884.52	1500961.49	795.61	796.76
MW-4	2" AG	10/16/90	14.7 - 29.7	782.02	767.02	0	>33	951578.17	1500780.04	796.72	798.38
MW-5	2" AG	10/18/90	12.0 - 27.0	792.74	777.74	0	>30	950527.98	1500884.25	804.74	806.50
MW-6	2" F	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	10/19/90	15.9 - 30.9	803.80	788.80	0	>36.5	950714.02	1499393.19	819.70	819.27
MW-8	2" AG	10/16/90	5.5 - 20.5	793.79	778.79	0	>36.5	952247.16	1499696.61	799.29	801.56
MW-9	2" F	03/17/93	94 - 104	725.75	715.75	TOR	105	950720.70	1499398.33	819.75	819.41
MW-10	2" F	02/18/93	61.4 - 71.4	762.52	752.52	TOR	72	950516.57	1500028.94	823.92	823.65
MW-11	2" AG	09/11/85	6.0 - 16.0	772.32	762.32	0	>16	951694.26	1500875.42	778.32	780.22
MW-12	2" AG	09/11/85	23 - 33	755.42	745.42	0	>33	951692.46	1500878.27	778.42	780.95
MW-13	2" AG	03/10/93	67 - 72	712.20	707.20	TOR	61	951715.51	1500885.54	779.20	782.22
MW-14	2" AG	02/10/93	69.2 - 74.2	727.19	722.19	TOR	73	952076.49	1501026.29	796.39	798.45
MW-15	2" AG	08/08/93	69.5 - 99.5	707.61	677.61	BR	12	951960.13	1501534.65	777.11	779.45
MW-16	2" AG	08/05/93	49 - 59	719.14	709.14	BR	15	951830.99	1501866.46	768.14	770.37
MW-17	4" AG	02/18/93	24.1 - 39.1	789.56	774.56	TOR	39	950890.06	1500282.57	813.66	816.07
MW-18	2" AG	02/15/93	10.6 - 25.6	809.76	794.76	0	>30	950807.43	1499198.46	820.36	822.71
MW-19	2" AG	08/05/93	154 - 169	625.69	610.69	BR	72	951718.14	1500902.65	779.69	781.81
MW-20	2" AG	04/21/93	57 - 67	751.70	741.70	TOR	64	951403.36	1500142.14	808.70	810.95
MW-21	2" AG	04/23/93	6.5 - 16.5	762.13	752.13	TOR	16	951834.28	1501856.83	768.63	771.15
MW-22	8" AG	08/17/93	78 - 116	702.45	664.45	BR	51	951733.53	1500909.06	780.45	782.65
MW-23	2" AG	06/04/93	83 - 93	725.97	715.97	TOR	93	951623.62	1499577.68	808.97	811.47
MW-24	2" F	06/04/93	62 - 72	734.50	724.50	TOR	75	951671.65	1500421.59	796.50	796.27
MW-25	2" AG	06/09/93	40 - 50	734.40	724.40	TOR	50	951920.70	1501727.14	774.40	776.71
MW-26	2" AG	06/10/93	56.7 - 66.7	733.70	723.70	0	>67.5	952020.02	1501223.27	790.40	793.09
MW-27	8" AG	08/11/93	69 - 99	739.93	709.93	BR	68.5	951386.97	1500135.48	808.93	811.13
MW-28	2" F	04/20/04	21 - 31	798.97	788.97	0	>31	950735.05	1499414.47	819.97	819.77
MW-29R Zone 1	Waterloo - T	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	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	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	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	04/13/06	103 - 113	716.50	706.50	TOR	113	951106.58	1499550.99	819.50	819.14
MW-31	2" F	04/12/06	80 - 90	738.20	728.20	TOR	90	951325.04	1499740.38	818.20	817.96
MW-32	2" F	04/18/06	25 - 35	794.68	784.68	0	>35	950765.22	1499373.24	819.68	819.40
MW-35	2" AG	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	01/04/13	280-300	461.00	441.00	BR	24	952447.10	1503528.34	741.00	743.95
EW-1	6" AG	06/03/11	Open Hole (52 - 445)	723.30	330.30	BR	52	952219.34	1502029.46	775.30	778.04
EW-2	6"	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	02/22/93	24.5 - 39.5	788.60	773.60	BR	39	950917.56	1500275.17	813.10	815.42
P2	6" AG	06/22/93	53 - 115	730.93	668.93	BR	45	951750.01	1500946.57	783.93	785.65
Alloy	2" AG	08/09/93	56 - 61	733.56	728.56	BR	56	951358.03	1501028.29	789.56	791.69
TW-40	2" AG	08/30/01	84 - 94	701.81	691.81	BR	30	952247.76	1501784.65	785.81	788.63
TW-41	2" AG	08/27/01	50.3 - 55.3	725.20	720.20	BR	25.5	952119.32	1501966.54	775.50	778.84
TW-42	1" AG	08/20/01	21 - 26	754.86	749.86	TOR	26	952131.39	1501972.00	775.86	778.09
TW-43	1" AG	08/21/01	8.6 - 18.6	767.22	757.22	0	>19	952127.92	1501969.26	775.82	778.15
TW-44	2" AG	08/31/01	64 - 74	718.68	708.68	BR	46	951988.65	1501305.71	782.68	785.52
TW-45	1" F	08/21/01	18.8 - 28.8	797.90	787.90	0	>29	951284.02	1499935.21	816.70	816.76
TW-46	2" F	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

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 2. Quarterly Sampling Groundwater Elevation Data - February 11, 2013
Owens Corning - Anderson, SC**

Monitoring Well	Screen Interval (ft bgs)	Screened Interval Location	Surface Elevation (ft NAVD88)	TOC Elevation (ft NAVD88)	Static Depth to Water (ft Below TOC) 2/11/2013	Static Water Elevation, (ft NAVD88) 2/11/2013
MW-3	13-28	O	795.61	796.76	19.99	776.77
MW-4	14.7-29.7	O	796.72	798.38	22.49	775.89
MW-6	123.6-133.6	BR	819.82	819.69	21.02	798.67
MW-11	6.0-16.0	O	778.32	780.22	5.76	774.46
MW-12	23-33	O	778.42	780.95	6.36	774.59
MW-13	67-72	TOR	779.20	782.22	8.69	773.53
MW-14	69.2-74.2	TOR	796.39	798.45	17.22	781.23
MW-15	69.5-99.5	BR	777.11	779.45	24.61	754.84
MW-16	49-59	BR	768.14	770.37	12.99	757.38
MW-19	154-169	BR	779.69	781.81	11.22	770.59
MW-21	6.5-16.5	TOR	768.63	771.15	6.64	764.51
MW-22	78-116	BR	780.45	782.65	10.93	771.72
MW-23	83-93	TOR	808.97	811.47	15.31	796.16
MW-25	40-50	TOR	774.40	776.71	10.62	766.09
MW-26	56.7-66.7	O	790.40	793.09	18.31	774.78
MW-27	69-99	BR	808.93	811.13	23.30	787.83
MW-29R Zone 1	56.7-69.8	BR	784.90	787.03	20.33	766.70
MW-29R Zone 2	127.3-139.5	BR	784.90	787.03	18.75	768.28
MW-29R Zone 3	154.5-169.6	BR	784.90	787.03	30.61	756.42
MW-29R Zone 4	177.6-202.2	BR	784.90	787.03	31.73	755.30
MW-35	152-162	BR	740.90	743.73	11.27	732.46
MW-36 Zone 1	99.1-116	BR	783.00	785.63	15.92	769.71
MW-36 Zone 2	139.5-150.7	BR	783.00	785.63	16.31	769.32
MW-36 Zone 3	180.2-192.7	BR	783.00	785.63	21.19	764.44
MW-36 Zone 4	225.6-239.2	BR	783.00	785.63	22.53	763.10
MW-36 Zone 5	269.9-275	BR	783.00	785.63	29.81	755.82
MW-37 Zone 1	185-195	BR	780.20	782.92	33.25	749.67
MW-37 Zone 2	222-232	BR	780.20	782.84	28.54	754.30
MW-37 Zone 3	257-272	BR	780.20	782.79	30.45	752.34
MW-38 Zone 1	415-430	BR	768.10	771.23	8.72	762.51
MW-38 Zone 2 ^a	479.6-499.6	BR	768.10	771.18	-1.50	772.68
MW-39 Zone 1	95-105	BR	804.10	806.20	21.61	784.59
MW-39 Zone 2	195-215	BR	804.10	806.20	37.22	768.98
MW-39 Zone 3	280-300	BR	804.10	806.20	40.80	765.40
MW-41 Zone 1	17-32	BR	733.40	736.56	7.00	729.56
MW-41 Zone 2	109-129	BR	733.40	736.79	5.04	731.75
MW-41 Zone 3	279-299	BR	733.40	736.77	9.72	727.05
MW-42 Zone 1	114-129	BR	785.50	785.44	43.56	741.88
MW-42 Zone 2	202-222	BR	785.50	785.42	40.41	745.01
MW-42 Zone 3	265-285	BR	785.50	785.40	39.34	746.06
MW-43 Zone 1	91.8 - 111.8	BR	716.15	719.19	7.77	711.42
MW-43 Zone 2	149.57 - 179.57	BR	716.15	719.20	4.14	715.06
MW-43 Zone 3	261.8 - 281.8	BR	716.15	719.17	2.51	716.66
MW-44	280-300	BR	741.00	743.95	11.85	732.10
P1	24.5-39.5	BR	813.10	815.42	23.12	792.30
P2	53-115	BR	783.93	785.65	12.06	773.59
Alloy	56-61	BR	789.56	791.69	15.53	776.16
TW-40	84-94	BR	785.81	788.63	19.91	768.72
TW-41	50.3-55.3	BR	775.50	778.84	17.84	761.00
TW-42	21-26	TOR	775.86	778.09	15.46	762.63
TW-43	8.6-18.6	O	775.82	778.15	15.35	762.80
TW-44	64-74	BR	782.68	785.52	11.71	773.81
TW-45 ^b	18.8-28.8	O	816.70	816.76	NG	NG
TW-46	83.3-88.3	TOR	816.72	816.58	26.02	790.56

bgs - below ground surface

BR - bedrock

NG - not gauged

O - overburden

TOR - top of rock

TOC - top of casing

NAVD88 - North American Vertical Datum of 1988

ft bgs - feet below ground surface

^a 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.

^b Water level was not measured due to collapse of well.

Table 3. Quarterly Sampling Groundwater Elevation Data - May 13, 2013
Owens Corning - Anderson, SC

Monitoring Well	Screen Interval (ft bgs)	Screened Interval Location	Surface Elevation (ft NAVD88)	TOC Elevation (ft NAVD88)	Static Depth to Water (ft Below TOC) 5/13/2013	Static Water Elevation, (ft NAVD88) 5/13/2013
MW-3	13-28	O	795.61	796.76	17.99	778.77
MW-4	14.7-29.7	O	796.72	798.38	20.83	777.55
MW-6	123.6-133.6	BR	819.82	819.69	20.21	799.48
MW-11	6.0-16.0	O	778.32	780.22	5.16	775.06
MW-12	23-33	O	778.42	780.95	5.96	774.99
MW-13	67-72	TOR	779.20	782.22	8.13	774.09
MW-14	69.2-74.2	TOR	796.39	798.45	18.59	779.86
MW-15	69.5-99.5	BR	777.11	779.45	24.83	754.62
MW-16	49-59	BR	768.14	770.37	11.65	758.72
MW-19	154-169	BR	779.69	781.81	10.71	771.10
MW-21	6.5-16.5	TOR	768.63	771.15	7.27	763.88
MW-22	78-116	BR	780.45	782.65	10.42	772.23
MW-23	83-93	TOR	808.97	811.47	13.69	797.78
MW-25	40-50	TOR	774.40	776.71	10.31	766.40
MW-26	56.7-66.7	O	790.40	793.09	17.97	775.12
MW-27	69-99	BR	808.93	811.13	22.08	789.05
MW-29R Zone 1	56.7-69.8	BR	784.90	787.03	33.13	753.90
MW-29R Zone 2	127.3-139.5	BR	784.90	787.03	12.81	774.22
MW-29R Zone 3	154.5-169.6	BR	784.90	787.03	26.00	761.03
MW-29R Zone 4	177.6-202.2	BR	784.90	787.03	30.81	756.22
MW-35 ^a	152-162	BR	740.90	743.73	11.13	732.60
MW-36 Zone 1	99.1-116	BR	783.00	785.63	11.73	773.90
MW-36 Zone 2	139.5-150.7	BR	783.00	785.63	11.70	773.93
MW-36 Zone 3	180.2-192.7	BR	783.00	785.63	16.88	768.75
MW-36 Zone 4	225.6-239.2	BR	783.00	785.63	18.47	767.16
MW-36 Zone 5	269.9-275	BR	783.00	785.63	23.43	762.20
MW-37 Zone 1	185-195	BR	780.20	782.92	32.71	750.21
MW-37 Zone 2	222-232	BR	780.20	782.84	28.13	754.71
MW-37 Zone 3	257-272	BR	780.20	782.79	29.58	753.21
MW-38 Zone 1	415-430	BR	768.10	771.23	6.93	764.30
MW-38 Zone 2 ^{a,b}	479.6-499.6	BR	768.10	771.18	0.05	771.13
MW-39 Zone 1	95-105	BR	804.10	806.20	17.89	788.31
MW-39 Zone 2	195-215	BR	804.10	806.20	35.37	770.83
MW-39 Zone 3	280-300	BR	804.10	806.20	47.69	758.51
MW-41 Zone 1	17-32	BR	733.40	736.56	7.15	729.41
MW-41 Zone 2 ^a	109-129	BR	733.40	736.79	4.54	732.25
MW-41 Zone 3	279-299	BR	733.40	736.77	1.03	735.74
MW-42 Zone 1	114-129	BR	785.50	785.44	41.51	743.93
MW-42 Zone 2	202-222	BR	785.50	785.42	43.81	741.61
MW-42 Zone 3	265-285	BR	785.50	785.40	38.47	746.93
MW-43 Zone 1	91.8 - 111.8	BR	716.15	719.19	6.69	712.50
MW-43 Zone 2	149.57 - 179.57	BR	716.15	719.20	3.91	715.29
MW-43 Zone 3	261.8 - 281.8	BR	716.15	719.17	1.03	718.14
MW-44	280-300	BR	741.00	743.95	10.65	733.30
P1	24.5-39.5	BR	813.10	815.42	23.00	792.42
P2	53-115	BR	783.93	785.65	11.51	774.14
Alloy	56-61	BR	789.56	791.69	14.95	776.74
TW-40	84-94	BR	785.81	788.63	17.41	771.22
TW-41	50.3-55.3	BR	775.50	778.84	15.61	763.23
TW-42	21-26	TOR	775.86	778.09	13.82	764.27
TW-43	8.6-18.6	O	775.82	778.15	14.63	763.52
TW-44	64-74	BR	782.68	785.52	9.32	776.20
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	24.84	791.74

bgs - below ground surface

BR - bedrock

NG - not gauged

O - overburden

TOR - top of rock

TOC - top of casing

NAVD88 - North American Vertical Datum of 1988

ft bgs - feet below ground surface

^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 well damaged.

Table 4. Quarterly Sampling Groundwater Analytical Results - February 2013
Owens Corning - Anderson, SC

Sample ID	MCL (ug/L)	MW-15	MW-22	MW-29R Zone 3	MW-29R Zone 4	MW-35	MW-36 Zone 1	MW-36 Zone 3	MW-36 Zone 5	MW-37 Zone 1	MW-37 Zone 2	MW-37 Zone 3	MW-38 Zone 1	MW-38 Zone 2	MW-39 Zone 1	MW-39 Zone 2	MW-39 Zone 3	MW-41 Zone 1	13044-Dup ¹	MW-41 Zone 2	MW-41 Zone 3	MW-42 Zone 1	MW-42 Zone 2	MW-42 Zone 3	MW-43 Zone 1	MW-43 Zone 2	MW-43 Zone 3	MW-44	13043-Dup ²	
Sample Date		2/11/13	2/12/13	2/12/13	2/12/13	2/11/13	2/12/13	2/12/13	2/12/13	2/13/13	2/13/13	2/13/13	2/12/13	2/12/13	2/11/13	2/11/13	2/11/13	2/13/13	2/13/13	2/14/13	2/13/13	2/12/13	2/12/13	2/12/13	2/13/13	2/13/13	2/13/13	2/12/13	2/12/13	
Screened Interval (ft)		69.5-99.5	78-116	154.5-169.6	177.6-202.2	152-162	99.1-116	180.2-192.7	269.9-275	185-195	222-232	257-272	415-430	479.6-499.6	95-105	195-215	280-300	17-32	222-232	109-129	279-299	114-129	202-222	265-285	92.5 - 112.5	150 - 180	262.5 - 282.5	280-300	280-300	
Volatile Organic Compounds																														
1,1,1-Trichloroethane	200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	7	200	460	400	290	31	<5.0	<5.0	<5.0	98	130	5.9	<5.0	<5.0	<5.0	<5.0	<5.0	250	220	230	76	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	7.8	8.7	
1,2-Dichloroethane	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
Benzene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Carbon tetrachloride	5	<5.0	31	15	8.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<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	10	7.9	7.3	<5.0	<5.0	<5.0	<5.0	<5.0	5.8	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	700	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methylene chloride	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	1,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Xylenes, total	10,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Field Parameters																														
pH (s.u.)	-	6.70	5.48	5.71	5.70	6.97	6.15	7.10	7.13	7.41	7.75	7.33	7.20	7.50	6.43	7.20	6.72	7.59	NA	7.20	7.91	9.44	7.39	7.48	6.69	7.32	7.67	10.47	NA	
Temperature (degrees C)	-	17.48	18.47	16.72	16.31	16.36	16.90	15.44	14.48	9.14	11.28	11.23	11.51	14.22	14.21	14.11	13.11	12.92	NA	9.08	13.07	17.72	16.91	16.61	13.12	12.22	10.80	16.79	NA	
Specific Conductance (uS/cm)	-	0.197	0.134	0.164	0.140	0.168	0.106	1.380	4.049	0.901	0.163	0.481	0.334	0.178	0.086	0.607	0.173	0.254	NA	0.268	0.385	0.158	0.558	0.264	0.084	0.224	0.281	0.241	NA	
Eh (mV)	-	79.2	125.0	29.9	42.3	108.9	-70.0	-48.6	-235.6	-172.0	-160.0	-161.0	-218.0	-153.0	-69.6	-158.0	-58.0	-65.1	NA	-135.0	-119.0	-53.0	-210.0	-197.0	-192.1	-262.4	-76.4	-59.4	NA	
Dissolved Oxygen (mg/L)	-	0.70	2.41	1.79	1.13	4.82	6.40	5.23	5.42	0.76	0.64	0.66	0.75	2.55	0.56	0.75	2.01	2.56	NA	0.85	0.67	1.14	0.58	0.77	5.01	5.06	6.75	0.34	NA	
Turbidity (NTU)	-	0.00	0.00	0.14	0.23	0.00	0.17	0.13	0.00	0.00	12.20	6.50	6.49	0.59	5.35	5.42	9.70	6.16	NA	1.15	50.10	0.86	6.05	2.98	1.79	1.1	0.3	0.7	NA	

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 13044-Dup was collected from MW-41 Zone 1.
² 13043-Dup was collected from MW-44.
³ MCL listed for Chloroform is for Total Trihalomethanes.
Bold VOC results indicate concentration above the MCL.

Table 5. Quarterly Sampling Groundwater Analytical Results - May 2013

Owens Corning - Anderson, SC

Sample ID	MCL (ug/L)	MW-15	MW-22	MW-29R Zone 3	MW-29R Zone 4	MW-35	MW-36 Zone 1	MW-36 Zone 3	MW-36 Zone 5	MW-37 Zone 1	MW-37 Zone 2	MW-37 Zone 3	MW-38 Zone 1	MW-38 Zone 2	MW-39 Zone 1	MW-39 Zone 2	MW-39 Zone 3	MW-41 Zone 1	13136-Dup ¹	MW-41 Zone 2	MW-41 Zone 3	MW-42 Zone 1	MW-42 Zone 2	MW-42 Zone 3	MW-43 Zone 1	MW-43 Zone 2	MW-43 Zone 3	MW-44	
Sample Date		5/14/13	5/14/13	5/14/13	5/14/13	5/13/13	5/14/13	5/14/13	5/14/13	5/16/13	5/16/13	5/16/13	5/16/13	5/15/13	5/16/13	5/14/13	5/14/13	5/15/13	5/16/13	5/16/13	5/16/13	5/13/13	5/13/13	5/14/13	5/15/13	5/15/13	5/15/13	5/15/13	
Screened Interval (ft)		69.5-99.5	78-116	154.5-169.6	177.6-202.2	152-162	99.1-116	180.2-192.7	269.9-275	185-195	222-232	257-272	415-430	479.6-499.6	95-105	195-215	280-300	17-32	222-232	109-129	279-299	114-129	202-222	265-285	92.5 - 112.5	150 - 180	262.5 - 282.5	280-300	
Volatile Organic Compounds																													
1,1,1-Trichloroethane	200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	7	220	370	330	310	100	<5.0	<5.0	<5.0	98	83	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	240	250	280	32	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Benzene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Carbon tetrachloride	5	<5.0	14	12.0	9.2	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<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 ²	80	<5.0	8.4	8.5	8.2	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	700	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methylene chloride	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	1,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Xylenes, total	10,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Field Parameters																													
pH (s.u.)	-	6.67	5.51	5.63	5.62	11.95	6.12	7.08	7.24	7.56	9.06	7.45	6.93	7.67	8.23	7.06	6.83	7.50	NA	7.67	6.98	10.94	7.48	8.80	7.07	8.05	7.93	9.49	
Temperature (degrees C)	-	17.56	18.25	18.05	18.43	16.67	17.82	16.75	20.28	18.45	20.54	19.84	22.67	17.06	19.39	23.41	28.07	18.89	NA	18.82	19.46	21.69	21.45	16.68	18.57	22.57	28.61	17.09	
Specific Conductance (uS/cm)	-	0.193	0.132	0.159	0.141	1.721	0.106	1.375	4.191	0.870	0.151	0.473	0.327	0.176	0.112	0.595	0.173	0.236	NA	0.249	0.304	0.412	0.646	0.255	0.119	0.206	0.231	2.050	
Eh (mV)	-	91.1	277.4	47.3	63.5	-174.1	53.9	-62.8	-291.1	-262.0	-173.1	-256.3	-199.6	-128.7	-100.8	-200.1	-81.8	-129.4	NA	-153.6	-148.5	79.6	-199.7	-208.1	46.2	-239.1	-52.1	-185.4	
Dissolved Oxygen (mg/L)	-	0.18	3.31	2.19	1.47	0.17	11.48	9.10	10.50	0.43	7.91	0.27	0.19	0.22	2.75	0.14	0.69	0.28	NA	0.20	0.29	2.65	0.10	0.22	5.83	0.59	9.98	0.08	
Turbidity (NTU)	-	0.00	0.00	0.00	0.00	1.11	0.00	1.11	0.00	0.79	4.00	1.11	3.15	0.13	1.93	3.57	7.49	0.00	NA	0.00	11.50	1.40	3.17	2.40	60.30	1.01	8.26	0.00	

ft - feet
MCL - Maximum Contaminant Level
ug/L - micrograms per liter
mg/L - milligrams per liter
uS/cm - microsiemens per centimeter
mV - millivolts
NTU - nephelometric turbidity units
NA - not applicable
s.u. - standard units
¹ 13136-Dup was collected from MW-41 Zone 1.
² MCL listed for Chloroform is for Total Trihalomethanes.
Bold VOC results indicate concentration above the MCL.

Table 6. Residential Well Analytical Results - May 2013

Owens Corning - Anderson, SC

Sample ID	MCL	628 Airline Road	412 Kaye Drive	605 Clinkscales Rd	117 Faye Dr.	311 Kaye Drive	303 Kaye Drive	200 Kaye Drive	1303 Clinkscales Rd	119 Cloverhill Dr	13135-Dup ¹	721 Clinkscales Rd.	200 Friendship Ln	408 Clinkscales Rd
Sample Date	(ug/L)	5/13/13	5/15/13	5/14/13	5/15/13	5/15/13	5/15/13	5/15/13	5/15/13	5/15/13	5/15/13	5/14/13	5/14/13	5/14/13
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
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
1,1-Dichloroethene	7	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-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
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
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
Chloroform ²	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
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
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
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
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
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
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
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
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
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
Field Parameters														
pH (s.u.)	-	7.15	5.80	6.95	6.32	7.20	5.64	6.12	6.74	5.11	NA	5.60	5.99	6.53
Temperature (degrees C)	-	16.93	20.12	17.08	19.13	18.90	18.91	18.02	19.33	18.84	NA	20.32	16.44	17.69
Specific Conductance (uS/cm)	-	0.050	0.043	0.106	0.194	0.200	0.107	0.094	0.055	0.042	NA	0.054	0.141	0.038
Eh (mV)	-	178.6	-63.1	-74.6	-82.3	-87.7	-73.3	-45.9	-99.4	-31.4	NA	-6.7	-19.1	-14.2
Dissolved Oxygen (mg/L)	-	8.42	7.23	6.37	6.06	6.56	7.27	7.22	7.63	7.81	NA	6.55	6.63	7.32
Turbidity (NTU)	-	<1.0	9.70	1.48	0.49	0.25	0.98	0.09	0.80	0.11	NA	0.14	8.89	1.05

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 13135-Dup collected from 119 Cloverhill Drive.

² MCL listed for Chloroform is for Total Trihalomethanes.

Bold VOC results indicate concentration above the MCL.

**Table 7. 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 - May 2013

Appendix A: Groundwater Sampling Field Data Sheets



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-15

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: HJ
 Project Location: Anderson, South Carolina Weather: ~Slight rain ~57°F

2. WELL DATA

Date Measured: 2-11-13 Time: AM Temporary Well: Yes No
 Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 99.5 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 24.61 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 2-11-13 Time: 1545 Equipment Model(s)
 Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): MicroPurge well volumes or 2 hours gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

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
1555	0.05	6.36	16.92	0.194	177.0	4.91	2.72	26.70	
1600	1	6.91	17.58	0.198	132.0	1.32	2.75	27.41	
1605	1.5	6.90	17.53	0.199	121.7	1.15	2.51	27.74	
1610	2	6.80	17.53	0.200	113.6	0.85	1.82	28.12	
1615	2.5	6.73	17.53	0.198	101.8	0.77	0.11	28.34	
1620	3.0	6.71	17.55	0.197	93.2	0.75	0.00		

Purge data continued on next 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: 13042-MW15 Sample Date: 2-11-13 Sample Time: 1620 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

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

5. COMMENTS

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


GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 Zone 3 MW-15

3. PURGE DATA (continued from page 1)

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1625	3.5	6.72	17.56	.197	86.4	.70	0.00		
1630	4.0	6.70	17.56	.197	82.6	.71	0.00		
1635	5.0	6.70	17.48	.197	79.2	.70	0.00		
		Sample		1630	1635				

Purge data continued on next sheet?

Signature 

WELL ID: MW-22

1. PROJECT INFORMATION

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

2. WELL DATA

Date Measured: 2-11-13 Time: PM Temporary Well: Yes No

Casing Diameter: 8 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 8 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 116 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 10.93 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: 105 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: 2-12-13 Time: 1100 Equipment Model(s)

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

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
1105	0.5	5.70	18.25	136	114.5	3.74	.53	10.93	
1110	4.5	5.55	18.47	134	133.8	2.97	.43	10.93	
1115	6.0	5.50	18.48	134	125.3	2.51	.17	10.93	
1120	8.5	5.48	18.48	134	124.3	2.42	.20	10.93	
1125	10.5	5.48	18.46	134	123.7	2.42	.17	10.93	
1130	15.0	5.48	18.47	134	125.0	2.41	.00		

Purge data continued on next 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: 0.93 Field Filtered? Yes No
 Sample ID: 13043-MW-22 Sample Date: 2-12-13 Sample Time: 1130 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: 13043-EB-021213 # of Containers: 2

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

5. COMMENTS

EB at 1150

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-29R Zone 3-Waterloo

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: M
 Project Location: Anderson, South Carolina Weather: Slight rain, 54°

2. WELL DATA

Date Measured: 2-11-13 Time: PM Temporary Well: Yes No

Casing Diameter: 2 inches
 Screen Diameter: 6 inches
 Sampling Interval: 154.5-169.6 feet
 Depth to Static Water: 6283 Dg
 Depth to Product: _____ feet
 Length of Water Column: _____ feet
 Well Volume: _____ gal
 Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

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

3. PURGE DATA

Date Purged: 2-12-13 Time: 1715 Equipment Model(s)

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

- Equipment Model(s)
- VSI
 - GeoKon
 - MP-50
 - LalMott

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1715</u> 1720	<u>0.1</u>	<u>6.12</u>	<u>16.14</u>	<u>150</u>	<u>30.3</u>	<u>5.08</u>	<u>0.63</u>	<u>6283</u>	
<u>1720</u>	<u>0.2</u>	<u>5.94</u>	<u>16.65</u>	<u>164</u>	<u>27.4</u>	<u>1.81</u>	<u>0.54</u>	<u>6283</u>	
<u>1725</u>	<u>1.3</u>	<u>5.75</u>	<u>16.65</u>	<u>164</u>	<u>33.6</u>	<u>1.79</u>	<u>0.23</u>	<u>6283</u>	
<u>1730</u>	<u>0.4</u>	<u>5.71</u>	<u>16.72</u>	<u>164</u>	<u>31.8</u>	<u>1.79</u>	<u>0.41</u>	<u>6283</u>	
<u>1735</u>	<u>1.5</u>	<u>5.71</u>	<u>16.72</u>	<u>164</u>	<u>30.8</u>	<u>1.79</u>	<u>0.32</u>	<u>6283</u>	
<u>1740</u>	<u>1.6</u>	<u>5.71</u>	<u>16.72</u>	<u>164</u>	<u>29.9</u>	<u>1.79</u>	<u>0.14</u>		

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 6283 Field Filtered? Yes No
 Sample ID: 13043-MW-29R Sample Date: 2-12-13 Sample Time: 1740 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

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

5. COMMENTS

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-29R Zone 4-Waterloo

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: MA
 Project Location: Anderson, South Carolina Weather: 54° overcast

2. WELL DATA

Date Measured: 2-11-13 Time: PM Temporary Well: Yes No
 Casing Diameter: 2 inches Length of water column calculation:
 Screen Diameter: 6 inches (8932.8-Current Dg reading)*0.02724)*2.3108) = Length of water column (ft)
 Sampling Interval: 177.6-202.2 feet Well Vol. calculation:
 Depth to Static Water: 6284 feet 1 well vol. = [vol sand interval(6") - vol of waterloo casing (2")] + vol of water intubing(1/4")
 Depth to Product: _____ feet = [36.14 gal - 4.11 gal] + (0.0102 gal/ft x length of water column)
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 2-12-13 Time: 1745 Equipment Model(s)
 Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% 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	.1	5.92	15.77	.143	53.8	5.70	1.73	6284	
1755	.2	6.14	16.14	.140	47.4	2.48	1.00	6284	
1800	1.3	6.17	16.26	.140	35.1	1.3	.74	6284	
1805	1.4	5.85	16.20	.140	40.7	1.13	.54	6284	Rainy now
1810	1.5	5.70	16.32	.140	44.1	1.13	.23	6284	
1815	1.6	5.70	16.31	.140	42.3	1.13	-	6284	

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 6284 Field Filtered? Yes No
 Sample ID: 13013-MW-29R-24 Sample Date: 2-12-13 Sample Time: 1815 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

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

5. COMMENTS

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-35

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: MJ
 Project Location: Anderson, South Carolina Weather: overcast ~ 56°F

2. WELL DATA

Date Measured: 2-11-13 Time: 4:00 AM Temporary Well: Yes No
 Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 162 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: artesian feet 11.27 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: 2-11-13 Time: 1725 Equipment Model(s):
 Purge Method: Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____ 1. YSI
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____ 2. LaMotte
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____ 3. GeoSub
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): Microprobe Well volumes or Stability gallons 4. _____
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1725	0.3	6.97	16.04	.169	94.6	5.54	2.51	11.27	
1730	2.0	6.99	16.11	.169	101.6	5.24	1.74	11.41	
1735	4.5	6.97	16.17	.168	105.0	5.12	1.46	20.76	
1740	6.5	6.97	16.25	.168	106.5	5.08	.72	22.53	
1745	8.5	6.97	16.32	.168	108.5	4.89	.51	24.57	
1750	10.5	6.97	16.36	.168	108.9	4.82	.00		

4. SAMPLING DATA

Method(s): Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 1304-MW-15 Sample Date: 2-11-13 Sample Time: 1755 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

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

5. COMMENTS

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

GROUNDWATER SAMPLING FIELD DATA SHEET



WELL ID: MW-35

3. PURGE DATA (continued from page)

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1	±0.2°C	> of ±3% or ±10 μS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1755	13	6.97	16.34	.168	109.0	4.83	0.0		
		Sample							
		1755							

Purge data continued on next sheet?

Signature _____

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-36 Zone 1-Waterloo

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: MA
 Project Location: Anderson, South Carolina Weather: 58°F, overcast

2. WELL DATA

Date Measured: 2-11-13 Time: P.M. Temporary Well: Yes No

Casing Diameter: 2 inches
 Screen Diameter: 6 inches
 Sampling Interval: 99.1-116 feet
 Depth to Static Water: 6330.9 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: 2-12-13 Time: 1545

Equipment Model(s)

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

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

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

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

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

Calibrated? Yes No

1. YSI
2. LaMotte
3. Geolcon
4. MP-50

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% 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	—	6.23	16.79	109	-142.0	6.62	.45	6335	
1555	.1	6.16	16.86	107	-116.0	6.65	.32	6335	
1600	.7	6.15	16.91	106	-102.2	6.49	.17	6335	
1605	2.3	6.15	16.91	106	-89.7	6.40	.23	6335	
1610	.4	6.15	16.91	106	-81.0	6.40	.31	6335	
1615	.5	6.15	16.90	106	-70.0	6.40	.17	6335	

Purge data continued on next 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 Field Filtered? Yes No

Sample ID: 13083-MW-36-21 Sample Date: 2-12-13 Sample Time: 1620 # of Containers: 2

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

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

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-36 Zone 3-Waterloo

1. PROJECT INFORMATION

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

2. WELL DATA

Date Measured: 2-11-13 Time: PM Temporary Well: Yes No

Casing Diameter: 2 inches

Screen Diameter: 6 inches

Sampling Interval: 180.2-192.7 feet

Depth to Static Water: 656 feet

Depth to Product: _____ feet

Length of Water Column: _____ feet

Length of water column calculation:

$(9093.1 - \text{Current Dg reading}) * 0.02725 * 2.3108 = \text{Length of water column (ft)}$

Well Vol. calculation:

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

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: 2-12-13 Time: 1245

Equipment Model(s)

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

Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____

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

Volume to Purge (minimum): micro purge well volumes or stabilize gallons

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

Calibrated? Yes No

1. VSI
2. Geokon 404
3. LaMotte
4. MP-50

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1250</u>	<u>.05</u>	<u>7.12</u>	<u>16.75</u>	<u>1.346</u>	<u>-70</u>	<u>4.72</u>	<u>1.32</u>	<u>6832</u>	<u>no fluctuates</u>
<u>1300</u>	<u>.2</u>	<u>7.18</u>	<u>16.76</u>	<u>1.369</u>	<u>-80</u>	<u>3.96</u>	<u>.94</u>	<u>8200</u>	<u>between cycles</u>
<u>1310</u>	<u>.3</u>	<u>7.13</u>	<u>16.60</u>	<u>1.370</u>	<u>-66.2</u>	<u>5.35</u>	<u>.52</u>	<u>8218</u>	
<u>1320</u>	<u>.4</u>	<u>7.08</u>	<u>5.41</u>	<u>1.388</u>	<u>-59.1</u>	<u>5.59</u>	<u>.33</u>	<u>8488</u>	<u>colder outside</u>
<u>1325</u>									<u>well dry, will sample later raised PSI, still returning water</u>

Purge data continued on next sheet?

4. SAMPLING DATA

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

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

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

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

Sample ID: 13043-MW-36 Z1 Sample Date: 2-12-13 Sample Time: 1625 # of Containers: 2

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

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

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

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

GROUNDWATER SAMPLING FIELD DATA SHEET

BROWN AND CALDWELL

WELL ID: MW-36 Zone 3-Waterloo

3. PURGE DATA (continued from page)

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1330	.45	7.10	15.44	1.380	-48.6	5.23	.13	8505	
1340									

DRY

Sample
1025

Purge data continued on next sheet?

Signature _____

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-36 Zone 5-Waterloo

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: MA
 Project Location: Anderson, South Carolina Weather: ~58° overcast

2. WELL DATA

Date Measured: 2-11-13 Time: PM Temporary Well: Yes No
 Casing Diameter: 2 inches Length of water column calculation:
 Screen Diameter: 6 inches (8843.2-Current Dg reading)*0.03897*2.3108 = Length of water column (ft)
 Sampling Interval: 269.9-275 feet Well Vol. calculation:
 Depth to Static Water: 6148.4 feet 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)
 Depth to Product: _____ feet
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 2-12-13 Time: 1340 Equipment Model(s)
 Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): Stability well volumes or 2 hours gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. Hookon
2. Lamarco
3. YSI
4. Air Compressor/MPGO

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1345	—	7.59	15.96	4.407	-100.0	5.51	1.67	8415	
1355	.05	7.55	15.30	4.334	-143.5	5.38	1.12	8374	
1405	.10	7.54	15.63	4.432	-142.6	4.84	.97	8305	
1415	.12	7.53	16.01	4.632	-128.6	4.92	.97	8237	Pumped up PSI
1425	.15	7.51	16.25	4.617	-124.5	6.33	.51	8196	
1435	.20	7.52	15.08	4.467	-236.0	6.75	.00	8195	

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13043-MW 36 25 Sample Date: 2-12-13 Sample Time: _____ # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

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

5. COMMENTS

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

GROUNDWATER SAMPLING FIELD DATA SHEET

BROWN AND CALDWELL

WELL ID: MW-36 Zone 5-Waterloo

3. PURGE DATA (continued from page 1)

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments	
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU			
1445	.22	7.43	15.05	4.335	-233.2	6.26	0.00	8101		
1455	.25	7.29	15.17	4.293	-235.2	5.99	0.00	8037	Drops coming out	
1505	.28	7.28	14.92	4.283	-235.8	5.84	0.00	8007		
1515	.28	7.15	14.65	4.157	-243	5.49	0.00	7958		
1525	.28	7.15	14.80	4.090	-235	5.52	0.00	7912		
1535	.29	7.12	14.54	4.035	-237.6	5.60	0.00	7891		
1545	.29	7.13	14.48	4.049	-235.6	5.42	0.00	7849		
		1545		Sample						

Purge data continued on next sheet?

Signature

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-37 Zone 1

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: M. Aufman
 Project Location: Anderson, South Carolina Weather: Misty, 50°F

2. WELL DATA

Date Measured: 2/13/13 Time: 8:53 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: 33.14 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: 161.86 feet Well Volume: 6.6 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: 2/13/13 Time: 9:15 Equipment Model(s)

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum) stability well volumes or 2.615 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min
 Calibrated? Yes No

1. QED bladder
2. YSI 556
3. La Motte 2020
4. _____

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
9:25	0.0	6.50	10.93	947	-85	2.80	2.13	33.32	flow cell full
9:40	0.1	7.24	10.52	902	-155	1.33	3.38	35.16	
9:55	0.15	7.36	9.78	900	-173	1.00	1.03	36.31	
10:10	0.2	7.37	9.44	901	-180	1.04	0.0	37.21	
10:25	0.3	7.42	9.43	900	-185	0.79	0.97	38.35	

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 39.21 Field Filtered? Yes No
 Sample ID: 13044-MW-37 Zone 1 Sample Date: 2/13/13 Sample Time: 10:50 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: 13044-EB # of Containers: 2

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

5. COMMENTS

EB @ 8:58
pump intake @ 80', 3cpm 1/9; 2cpm 1/13
sample ID 13044-MW-37 zone 1

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

Signature [Signature]

WELL ID: MW-37 Zone 1

3. PURGE DATA (continued from page 1.)									
Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
10:35	0.35	7.42	9.36	900	-169	0.70	1.05	38.75	
10:45	0.45	7.41	9.14	901	-172	0.76	0.0	39.21	
10:50	sample <hr/>								

Purge data continued on next sheet?

Matt

Signature

GROUNDWATER SAMPLING FIELD DATA SHEET

BROWN AND CALDWELL

WELL ID: MW-37 Zone 2

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: M. Aufman
 Project Location: Anderson, South Carolina Weather: Misty, 50°F

2. WELL DATA

Date Measured: 2/13/13 Time: 11:05 Temporary Well: Yes No
 Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 232 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 28.45 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: 203.5 feet Well Volume: 8.34 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: 2/13/13 Time: 11:20 Equipment Model(s)
 Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): stability volumes or 2 hrs gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

- Equipment Model(s)
 1. GED bladder
 2. YSI 556
 3. Lamotte 2020
 4. _____

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
11:29	0.0	7.45	10.80	849	-123	5.80	372	28.55	flow cell full
11:40	0.1	7.48	11.11	381	-134	2.21	3.55	28.51	
11:50	0.2	7.50	12.56	174	-148	0.89	4.49	28.52	
12:00	0.3	7.60	12.29	155	-153	0.58	7.59	28.50	
12:10	0.4	7.66	11.58	155	-150	0.55	8.67	28.55	

Purge data continued on next 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: 28.52 Field Filtered? Yes No
 Sample ID: 13044-MW-37 Sample Date: 2/13/13 Sample Time: 12:35 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

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

5. COMMENTS

pump intake @ 85' bgs
sample ID: 13044-MW-37 zone 2
3 cpm 11/9, 2 cpm 16/14

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-37 Zone 2

3. PURGE DATA (continued from page)

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
12:20	0.45	7.70	10.98	164	-149	0.61	13.8	28.50	
12:30	0.55	7.75	11.28	163	-160	0.64	12.2	28.52	
12:35	sample								

Purge data continued on next sheet?

MWA
Signature

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-37 Zone 3

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200.001 Area of Concern: _____
 Client: Owens Corning Personnel: M. Aufman
 Project Location: Anderson, South Carolina Weather: Misty, 50°F

2. WELL DATA

Date Measured: 2/13/13 Time: 12:48 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: 30.35 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: 2/13/13 Time: 13:08 Equipment Model(s):
 Purge Method: Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): stability well volumes or 2 hrs gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. QED bladder
2. YSL 556
3. Lanotte 2020
4. _____

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>13:18</u>	<u>0.0</u>	<u>7.36</u>	<u>11.34</u>	<u>467</u>	<u>-130</u>	<u>2.90</u>	<u>4.44</u>	<u>30.0</u>	<u>flow cell full</u>
<u>13:30</u>	<u>0.1</u>	<u>7.33</u>	<u>11.57</u>	<u>481</u>	<u>-152</u>	<u>1.47</u>	<u>5.97</u>	<u>31.67</u>	
<u>13:42</u>	<u>0.2</u>	<u>7.35</u>	<u>11.13</u>	<u>481</u>	<u>-159</u>	<u>0.92</u>	<u>7.62</u>	<u>33.17</u>	
<u>13:54</u>	<u>0.3</u>	<u>7.32</u>	<u>11.14</u>	<u>480</u>	<u>-157</u>	<u>0.72</u>	<u>7.16</u>	<u>34.51</u>	
<u>14:04</u>	<u>0.4</u>	<u>7.33</u>	<u>11.23</u>	<u>481</u>	<u>-161</u>	<u>0.66</u>	<u>6.50</u>	<u>35.55</u>	
<u>14:08</u>	<u>sample</u>								

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 35.55 Field Filtered? Yes No
 Sample ID: 13044-MW-37 zone 3 Sample Date: 2/13/13 Sample Time: 14:08 # 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

sample ID: 13044-MW-37 zone 3
pump intake @ 85' bgs
2 cpm 10/14

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

[Handwritten Signature]

GROUNDWATER SAMPLING FIELD DATA SHEET

BROWN AND CALDWELL

WELL ID: MW-38 Zone 1

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: M. Aufman
 Project Location: Anderson, South Carolina Weather: overcast/sprinkle, 64°F

2. WELL DATA

Date Measured: 2/12/13 Time: 16:00 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: 8.66 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: 421.3 feet Well Volume: 17.3 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 2/12/12 Time: 16:35 Equipment Model(s)
 Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): stability full volumes of 2 hrs gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/mln Calibrated? Yes No

1. RED bladder
2. YSI 556
3. Lamotte 2020
4. _____

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
16:42	0.05	7.26	12.99	330	-178	3.90	3.80	6.29	
16:57	0.15	7.35	12.46	335	-200	2.12	4.11	8.11	
17:07	0.25	7.42	12.72	336	-214	1.56	3.69	9.04	
17:21	0.35	7.19	11.52	336	-205	1.24	3.78	9.39	
17:35	0.45	7.25	11.70	335	-217	0.83	3.87	11.45	

Purge data continued on next 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: 13043-MW-38 zone 1 Sample Date: 2/12/13 Sample Time: 17:55 # 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

Sample ID. 13043-MW-38 zone 1

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-38 Zone 1

3. PURGE DATA (continued from page /)

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
17:50	0.55	7.20	11.51	334	-218	0.75	6.49	11.52	
17:55	sample								

Purge data continued on next sheet?

[Handwritten Signature]

Signature

GROUNDWATER SAMPLING FIELD DATA SHEET

BROWN AND CALDWELL

WELL ID: MW-38 Zone 2

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-XXX Area of Concern: _____
 Client: Owens Corning Personnel: M. Aufman
 Project Location: Anderson, South Carolina Weather: Cloudy, 64°F

2. WELL DATA

Date Measured: 2/12/13 Time: 15:40 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: +1.5 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: 501 feet Well Volume: 20.5 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: 2/12/13 Time: 15:40 Equipment Model(s)
 Purge Method: Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: Artesian
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: none
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): stability well volumes or 2 hrs gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min
 Calibrated? Yes No

- 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
15:42	0.0	6.06	13.25	200	-69	513	0.81	—	
15:54	0.1	7.18	14.34	179	-128	3.90	0.28	—	
16:04	0.25	7.38	14.42	179	-141	3.14	0.44	—	
16:15	0.35	7.46	14.33	179	-149	2.65	0.21	—	
16:23	0.40	7.50	14.22	178	-153	2.55	0.59	—	
16:25									

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: Artesian
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: none
 Dedicated Prepared Off-Site Field-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: 13043-MW-38 zone 2 Sample Date: 2/12/13 Sample Time: 16:25 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

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

5. COMMENTS

Artesian well - slow flow
sample ID: 13043-MW-38 zone 2

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

GROUNDWATER SAMPLING FIELD DATA SHEET

BROWN AND CALDWELL

WELL ID: MW-39 Zone 1

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: M. Auffman
 Project Location: Anderson, South Carolina Weather: overcast, 55°F

2. WELL DATA

Date Measured: 2/11/13 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: 105 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 21.61 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: 8339 feet Well Volume: 3.42 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: 2/11/13 Time: 10:58 Equipment Model(s)
 Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum stability at 2 hrs well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/ml Calibrated? Yes No

1. YSI 556
2. Lamotte 2020
3. QED bladder
4. _____

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>11:08</u>	<u>0.05</u>	<u>5.90</u>	<u>13.58</u>	<u>126</u>	<u>23.6</u>	<u>2.32</u>	<u>4.23</u>	<u>21.72</u>	
<u>11:18</u>	<u>0.07</u>	<u>6.26</u>	<u>13.71</u>	<u>107</u>	<u>-27</u>	<u>1.37</u>	<u>13.3</u>	<u>21.74</u>	
<u>11:35</u>	<u>0.15</u>	<u>6.34</u>	<u>13.87</u>	<u>94</u>	<u>-46</u>	<u>0.94</u>	<u>7.95</u>	<u>21.74</u>	
<u>11:50</u>	<u>0.25</u>	<u>6.40</u>	<u>14.00</u>	<u>88</u>	<u>-57.5</u>	<u>0.71</u>	<u>4.96</u>	<u>21.68</u>	
<u>12:05</u>	<u>0.35</u>	<u>6.42</u>	<u>14.20</u>	<u>87</u>	<u>-65</u>	<u>0.62</u>	<u>5.17</u>	<u>21.69</u>	

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 21.74 Field Filtered? Yes No
 Sample ID: 13012-MW-2 Zone 1 Sample Date: 2/11/13 Sample Time: 12:25 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

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

5. COMMENTS

Intake at 80' @ 2 cpm 10/14

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-39 Zone 1

3. PURGE DATA (continued from page)

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
12:20	0.4	6.43	14.2	86	-69.6	0.56	5.35	21.74	
12:25	sample								

Purge data continued on next sheet?

Matthews
Signature

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-39 Zone 2

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: M. Aufman
 Project Location: Anderson, South Carolina Weather: on/off rain, 50°F

2. WELL DATA

Date Measured: 2/11/13 Time: 13:50 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: 36.61 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: 178.39 feet Well Volume: 7.31 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 2/11/13 Time: 14:30 Equipment Model(s):
 Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum) stability at 2 hrs well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min
 Calibrated? Yes No

1. YSI 556
2. Lamotte 2020
3. QED bladder
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
14:38	0.05	6.71	14.10	658	-80.6	2.96	3.37	—	
14:52	0.15	7.15	14.32	619	-150.6	0.94	3.58	—	
15:07	0.20	7.18	14.11	605	-151	0.79	3.18	—	
15:22	0.30	7.19	14.38	602	-155	0.72	3.06	—	
15:35	0.40	7.19	14.43	604	-152	0.57	3.52	—	

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13042-MW-39 Zone 2 Sample Date: 2/11/13 Sample Time: 16:05 # 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 level meter malfunctioned, not operating
sample ID: 13042-MW-39 zone 2
intake at 80' 2 cpm 16/11/14

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-39 Zone 2

3. PURGE DATA (continued from page)

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
15:50	0.5	7.20	14.23	606	-156.5	0.68	4.53		
16:00	0.6	7.20	14.11	607	-158	0.75	5.42		
16:05		Sample							

Purge data continued on next sheet?

Signature [Handwritten Signature]

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-39 Zone 3

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: M. Aufman
 Project Location: Anderson, South Carolina Weather: overcast, 55°F

2. WELL DATA

Date Measured: 2/11/13 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: 40.80 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 2/11/13 Time: 16:03:52 Equipment Model(s): _____

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

1. YSL 556
2. Lanotte 2020
3. GED bladder pump
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
16:55	0.05	6.75	13.44	173	87.5	4.39	8.99	—	
17:07	0.10	6.74	13.53	170	-72	3.81	7.90		
17:22	0.20	6.72	13.36	171	-63	2.18	11.29		
17:35	0.30	6.72	13.13	173	-59	2.04	12.3		
17:50	0.40	6.72	13.11	173	-58	2.01	9.7		

17:55 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: 13012MW-39 Zone 3 Sample Date: _____ Sample Time: 17:55 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: 13012-EB # of Containers: _____

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

5. COMMENTS

EB @ 16:21
Water level meter not working
intake at 80' 3cpm 1/9 + 2cpm 1/14

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

M. Aufman

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 Zone 1

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: MM
 Project Location: Anderson, South Carolina Weather: ~overcast ~50°F

2. WELL DATA

Date Measured: 2-11-13 Time: AM Temporary Well: Yes No

Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 129 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 7.00 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: 2-13-13 Time: 1520 Equipment Model(s): _____

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

1. YSI
2. LaMotte
3. MP-50
4. _____

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1530	.1	7.68	14.19	295	-86	4.92		—	water is black
1540	.2	7.75	14.08	280	-79.2	5.07	16.58	—	
1550	.3	7.68	13.21	260	-66.0	4.93	7.12	—	
1600	.4	7.69	13.05	259	-68.0	2.62	5.43	—	
1610	.5	7.65	12.98	257	-64.0	2.60	4.13	—	
1620	.6	7.58	12.94	254	-62.7	2.42	6.16	—	

Purge data continued on next 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: 13044-mw-41-21 Sample Date: 2-13-13 Sample Time: 1630 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: 13044-Dup-021313 # 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

1630

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

GROUNDWATER SAMPLING FIELD DATA SHEET

BROWN AND CALDWELL

WELL ID: MW-41 Zone 1

3. PURGE DATA (continued from page)

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1630	.7	7.59	12.9	.254	-65.1	2.56			
<h1>1630</h1>									

Purge data continued on next sheet?

Signature 

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 Zone 2

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: M. Aufman
 Project Location: Anderson, South Carolina Weather: partly cloudy, 40°F

2. WELL DATA

Date Measured: 2/14/13 Time: 8:22 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: 5.14 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: 123.86 feet Well Volume: 5.07 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: 2/14/13 Time: 8:39

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

Equipment Model(s)

1. QED bladder
2. YSI 556
3. Lanotte 2020
4. _____

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
8:44	0.0	5.73	7.74	347	958	3.52	4.61	5.14	flow cell full
8:54	0.05	6.77	7.36	289	-42.5	1.91	1.89	5.18	
9:04	0.15	6.96	7.73	270	-83	1.47	2.04	5.16	
9:14	0.2	7.08	8.58	268	-106	1.18	0.94	5.16	
9:24	0.3	7.13	9.00	267	-120	0.98	0.79	5.16	

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 5.17 Field Filtered? Yes No
 Sample ID: 13045-MW-41 Zone 2 Sample Date: 2/14/13 Sample Time: 9:47 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: 13045 EB-02 463 # of Containers: 2

Geochemical Analyses

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

5. COMMENTS

pump intake @ 80' bgs
sample ID: 13045-MW-41 Zone 2
2 cpm 1/13

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 Zone 1

3. PURGE DATA (continued from page)

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments	
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU			
9:34	0.4	7.17	8.86	268	-128	0.91	1.72	5.17		
9:44	0.5	7.20	9.08	268	-135	0.85	1.15	5.17		
9:47	sample	—————→								

Purge data continued on next sheet?

Signature



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 Zone 3

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: M. Aufman
 Project Location: Anderson, South Carolina Weather: cloudy 55°F

2. WELL DATA

Date Measured: 2/13/13 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: 299 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: 289.46 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 289.46 feet Well Volume: 11.86 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: 2/13/13 Time: 15:20 Equipment Model(s)
 Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): stability well volumes or 2hs gallons Calibrated? Yes No
 Was well purged dry? Yes No Pumping Rate: _____ gal/min

1. QED bladder
2. YSI 556
3. Lamotte 2020
4. _____

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 (µS/cm)	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
15:26	0.0	6.08	12.71	397	-31	3.75	11.4	8.03	flow cell full
15:36	0.1	7.46	12.78	378	-93	1.56	43.3	9.72	
15:46	0.2	7.97	12.75	386	-95	1.08	46.5	11.70	
15:56	0.3	8.02	12.76	386	-100	0.89	48.8	13.15	
16:06	0.4	8.03	12.83	386	-111	0.93	63.4	14.75	

Purge data continued on next 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: 13044-MW-41 zone 3 Sample Date: 2/13/13 Sample Time: 16:40 # 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

sample ID 13044-MW-41 zone 3
pump intake @ 80' bgs
2 cpm 16/14

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

Signature: _____

WELL ID: MW-41 Zone 3

3. PURGE DATA (continued from page 1)

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
16:16	0.5	8.00	12.7	385	-119	0.71	50.4	16.32	
16:26	0.6	7.94	12.89	386	-119	0.71	49	17.95	
16:36	0.65	7.91	13.07	385	-119	0.67	50.1	19.8	
16:40	sample								

Purge data continued on next sheet?

Signature *Matt*



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42 Zone 1

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: M. Aufman
 Project Location: Anderson, South Carolina Weather: cloudy, 52°F - 60°F, sunny

2. WELL DATA

Date Measured: 2/11/13 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: 43.56 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: 85.44 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: 2/12/13 Time: 9:50 Equipment Model(s): _____

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

- YSI 556
- Lanette 2020
- GED bladder
- _____

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
10:00	0.05	6.89	15.23	248	193	10.04	4.01	—	
10:10	0.1	8.72	16.14	162	124.5	9.51	4.25	—	
10:23	0.15	9.26	16.77	156	17.1	3.54	1.46	—	
10:40	0.2	9.36	17.52	158	-21	1.92	1.20	—	
10:55	0.3	9.45	17.57	159	-47	1.25	0.79	—	

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13043-MW-42 zone 1 Sample Date: 2/12/13 Sample Time: 11:10 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

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

5. COMMENTS

ID: 13043-MW-42 zone 1 Water level meter
intake at 80' 2cpm 10/14 failed

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42 Zone 1

3. PURGE DATA (continued from page)

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
11:05	0.35	9.44	17.72	158	-53	1.14	0.86	—	
11:10	sample								

Purge data continued on next sheet?

Matt [Signature]
Signature

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42 Zone 2

1. PROJECT INFORMATION

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

2. WELL DATA

Date Measured: 2/11/13 Time: _____ Temporary Well: Yes No
 Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 222 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 40.41 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: 181.59 feet Well Volume: 7.44 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 2/12/13 Time: 11:40 Equipment Model(s)
 Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): stability well volumes or 2 hrs gallons Calibrated? Yes No
 Was well purged dry? Yes No Pumping Rate: _____ gal/min

1. QED bladder pump
2. VSI 556
3. Lamotte 2020
4. _____

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>11:55</u>	<u>0.1</u>	<u>7.38</u>	<u>18.60</u>	<u>672</u>	<u>-178</u>	<u>1.26</u>	<u>3.98</u>	—	
<u>12:08</u>	<u>0.2</u>	<u>7.29</u>	<u>17.63</u>	<u>676</u>	<u>-195</u>	<u>0.62</u>	<u>3.21</u>	—	<u>46.44</u>
<u>12:24</u>	<u>0.25</u>	<u>7.38</u>	<u>16.99</u>	<u>631</u>	<u>-200</u>	<u>0.62</u>	<u>4.32</u>		<u>47.65</u>
<u>12:32</u>	<u>0.30</u>	<u>7.39</u>	<u>16.91</u>	<u>558</u>	<u>-210</u>	<u>0.58</u>	<u>6.05</u>		<u>48.72</u>
<u>12:35</u>	<u>sample</u>								

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 48.72 Field Filtered? Yes No
 Sample ID: 13043-MW-39 zone 2 Sample Date: 2/12/13 Sample Time: 12:35 # 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 level meter not working
pump intake at 80' 2cpm 16/14
sample ID: 13043-MW-39 zone 2

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

Signature: [Signature]

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42 Zone 3

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: M. Aufman
 Project Location: Anderson, South Carolina Weather: Cloudy, 55°

2. WELL DATA

Date Measured: 2/11/13 Time: _____ Temporary Well: Yes No
 Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 285 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 39.34 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ 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: 2/12/13 Time: 13:08 Equipment Model(s)
 Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): Stability well volumes or 2 hrs gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. QED bladder
2. YSI 556
3. Lamotte 2020
4. _____

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 (µS/cm)	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
13:12	0.0	9.54	16.87	270	-148	6.29	5.79	41.20	
13:25	0.1	8.12	16.74	265	-178	1.87	4.62	42.70	
13:37	0.2	7.66	16.33	265	-186	1.25	3.31	43.27	
13:50	0.3	7.51	16.55	264	-191.5	1.01	1.75	44.61	
14:03	0.4	7.48	16.61	264	-197	0.77	2.98	45.61	

14:05 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: 13043-MW-42 zone 3 Sample Date: _____ Sample Time: 14:05 # 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

sample ID: 13043-MW-42 zone 3
pump intake at 80'
2cpm 16/14

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 Zone 1

1. PROJECT INFORMATION

Project Number: 143826 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: MM
 Project Location: Anderson, South Carolina Weather: ~50°F overcast

2. WELL DATA

Date Measured: 2-11-13 Time: Am Temporary Well: Yes No
 Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing
 Depth to Static Water: 7.74 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: 2-13-13 Time: 1345 Equipment Model(s)
 Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): Stabilize well volumes or _____ gal ions
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

- Equipment Model(s)
- YSI
 - Camatec
 - MP-50
 - _____

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% 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	—	6.68	11.91	.093	-150	5.23	4.63	—	
1408	.05	6.68	12.59	.086	-177	5.04	3.69	—	
1415	.1	6.69	12.95	.084	-187	5.01	2.69	—	
1425	.15	6.67	13.02	.084	-192.0	5.05	3.61	—	
1435	.20	6.69	13.12	.084	-192.1	5.01	1.79	—	

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13044 - MW-43 Zone 1 Sample Date: 2-13-13 Sample Time: 1435 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

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

5. COMMENTS

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

MM

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: ~~MW-42 Zone 3~~ MW-43 Zone 2

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: MA
 Project Location: Anderson, South Carolina Weather: 40° slight rain

2. WELL DATA

Date Measured: 2-11-13 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: ~~336~~ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 4.14 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: _____ 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: 2-13-13 Time: 1140 Equipment Model(s)

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

Equipment Model(s)
 1. YSI
 2. Lamotte
 3. MP-50
 4. _____

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1145	.05	7.23	10.53	.225	-164.3	6.27	7.89	—	
1155	.1	7.27	10.94	.225	-203	6.07	3.53	—	
1205	.15	7.29	11.32	.225	-219	5.40	3.33	—	
1215	.2	7.30	11.59	.224	-231	5.70	2.41	—	
1225	.25	7.31	11.62	.224	-236	5.57	1.98	—	
1235	.3	7.31	11.79	.224	-243.7	5.49	2.05	—	

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Baller Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-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: 13044-MW-43 Zone 2 Sample Date: 2-13-13 Sample Time: 1325 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

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

5. COMMENTS

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


GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: ~~MW-42 Zone 3~~ MW-43 Zone 2

3. PURGE DATA (continued from page)

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1245	.35	7.32	11.89	.224	-250	5.33	1.97	-	
1255	.4	7.32	11.84	.224	-253.3	5.28	1.23	-	
1305	.45	7.32	11.79	.224	-256	5.15	.98	-	
1315	.50	7.32	12.15	.224	-264	5.06	.72	-	
1325	.55	7.32	12.22	.224	-262.4	5.06	1.11	-	
<p>1325 Sample</p>									

Purge data continued on next sheet?

Signature 

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 Zone 3

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: MM
 Project Location: Anderson, South Carolina Weather: Slight rain ~45°

2. WELL DATA

Date Measured: 2-11-13 Time: AM Temporary Well: Yes No

Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing
 Depth to Static Water: 2.51 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: 2-13-13 Time: 9:17 Equipment Model(s)

Purge Method: Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Baller Polyethylene Stainless PVC 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 _____ gal ions
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes

1. YSL
2. La Matte
3. MP-50
4. _____

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
0925	.00	6.53	9.26	.333	-165.4	9.22	7.22	—	water level so
0935	.05	7.26	8.99	.302	-174.1	8.52	5.44	—	high, water fell
0945	.10	7.46	9.31	.303	-165.9	7.93	4.27	—	and water displaced
0955	.15	7.54	9.74	.303	-159.6	7.53	1.29	—	by pump
1005	.20	7.57	10.05	.303	-148.4	7.20	2.11	—	
1015	.25	7.61	10.21	.299	-135.1	7.02	1.73	—	

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Baller Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-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: B044-MW 43 2013 Sample Date: 2-13-13 Sample Time: 1105 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

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

5. COMMENTS

Pump at ~80 ft

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

MM

GROUNDWATER SAMPLING FIELD DATA SHEET

BROWN AND CALDWELL

WELL ID: ~~MW-12 Zone 1~~ MW-44

1. PROJECT INFORMATION

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

2. WELL DATA

Date Measured: 2-11-13 Time: AM Temporary Well: Yes No
 Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: ~~109~~ 300 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 11.81 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: _____ 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: 2-12-13 Time: 0905 Equipment Model(s):
 Purge Method: Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): Stability well volumes or 2 hours gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

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

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
0910	1.0	7.45	16.23	.178	128.0	1.50	1.13	13.43	
0915	3.0	7.56	16.38	.180	108.4	.53	1.00	13.76	
0920	6.0	8.06	16.46	.154	83.2	.33	1.40	13.76	
0925	8.5	10.11	16.55	.206	24.1	.34	1.42	13.76	
0930	10.5	10.38	16.61	.237	-2.4	.34	1.03	13.76	
0935	13.5	10.48	16.66	.238	-30.7	.34	1.32		Purge data continued on next sheet? <input checked="" type="checkbox"/>

4. SAMPLING DATA

Method(s): Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13043-MW-44 Sample Date: 2-12-13 Sample Time: 0945 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: 13043-Dup-02-12-13 # of Containers: 2
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

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

5. COMMENTS

Pump at ~150ft

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: ~~MW-42 Zone 1~~ MW-44

3. PURGE DATA (continued from page)

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
0940	176	10.51	16.72	242	-46.9	0.34	0.93	13.76	0.242 spec
0945	20	10.47	16.79	241	-59.4	0.34	0.74		0.241 spec
Sample, pH, Spec Cond, DO stable									
0945									

Purge data continued on next sheet?

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-15

1. PROJECT INFORMATION

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

2. WELL DATA

Date Measured: 5-13-13 Time: Am Temporary Well: Yes No
 Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 99.5 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 24.8 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: 5-14-13 Time: 0935 Equipment Model(s):
 Purge Method: Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): dry 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
0940	2.0	6.75	17.46	.199	105.1	.34	.18	25.11	
0945	4.0	6.68	17.49	.193	104.5	.27	.11	25.11	
0950	6.0	6.67	17.54	.193	97.2	.20	.00	25.13	
0955	8.0	6.67	17.56	.193	94.4	.18	.00	25.13	
1000	11.0	6.67	17.56	.193	91.0	.18	.00	25.13	
1005	14.0	6.67	17.56	.193	91.1	.18	.00		

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 25.13 Field Filtered? Yes No
 Sample ID: B134-MW-15 Sample Date: 5-14-13 Sample Time: 1005 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: B134-EB # of Containers: 2

Geochemical Analyses

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

5. COMMENTS

B134-EB here 1020

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-22

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: on-site
 Client: Owens Corning Personnel: MM
 Project Location: Anderson, South Carolina Weather: Sunny SO

2. WELL DATA

Date Measured: 5-13-13 Time: Am Temporary Well: Yes No

Casing Diameter: 8 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 8 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 116 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 10.42 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: 105.8 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: 5-14-13 Time: 0820 Equipment Model(s)

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

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

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>0825</u>	<u>3.0</u>	<u>5.51</u>	<u>18.28</u>	<u>.132</u>	<u>269.1</u>	<u>3.31</u>	<u>.49</u>	<u>10.44</u>	
<u>0830</u>	<u>6.0</u>	<u>5.51</u>	<u>18.27</u>	<u>.133</u>	<u>274.1</u>	<u>3.32</u>	<u>.37</u>	<u>10.44</u>	
<u>0835</u>	<u>9.0</u>	<u>5.51</u>	<u>18.26</u>	<u>.132</u>	<u>277.7</u>	<u>3.34</u>	<u>.00</u>	<u>10.44</u>	
<u>0840</u>	<u>12.0</u>	<u>5.51</u>	<u>18.26</u>	<u>.132</u>	<u>278.8</u>	<u>3.34</u>	<u>.00</u>	<u>10.44</u>	
<u>0845</u>	<u>16.0</u>	<u>5.51</u>	<u>18.26</u>	<u>.132</u>	<u>277.4</u>	<u>3.31</u>	<u>.00</u>	<u>10.44</u>	<u>Sample</u>

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13134-MW-22 Sample Date: 5-14-13 Sample Time: 0845 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

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

5. COMMENTS

pump at bottom

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-29R Zone 3-Waterloo

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: in field by extraction well
 Client: Owens Corning Personnel: MM
 Project Location: Anderson, South Carolina Weather: ~80 Sunny

2. WELL DATA

Date Measured: 5-13-13 Time: Am Temporary Well: Yes No

Casing Diameter: 2 inches
 Screen Diameter: 6 inches
 Sampling Interval: 154.5-169.6 feet
 Depth to Static Water: 692.1 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: 3-14-13 Time: 1540 Equipment Model(s)

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

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

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

Volume to Purge (minimum): _____ well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

- Equipment Model(s)
- VSI
 - LaMotte
 - MP-50
 -

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% 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	.2	6.16	18.17	.159	-10.1	2.22	1.81	6927	4 CPM
1550	.4	5.69	18.06	.163	-18.5	2.18	1.06	6927	
1555	.6	5.65	18.06	.161	36.7	2.32	.73	6927	
1600	.8	5.63	18.07	.159	42.6	2.19	0.00	6927	
1605	1.0	5.63	18.12	.159	45.1	2.17	0.00	6927	
1610	1.2	5.63	18.05	.159	47.3	2.19	0.00		

Purge data continued on next sheet?

4. SAMPLING DATA

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

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

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

Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 18134-mw-29R Zone 3 Sample Date: 5/14/13 Sample Time: 1610 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: ✓

Geochemical Analyses

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

5. COMMENTS

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-29R Zone 4-Waterloo

1. PROJECT INFORMATION

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

2. WELL DATA

Date Measured: 5-13-13 Time: AM Temporary Well: Yes No

Casing Diameter: 2 inches
 Screen Diameter: 6 inches
 Sampling Interval: 177.6-202.2 feet
 Depth to Static Water: 6275 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: 5-14-13 Time: 1620

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

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

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

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

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

Calibrated? Yes No

Equipment Model(s)

1. YSI
2. LaMotte
3. MP-50
4. _____

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1625	.2	5.88	18.42	.140	19.1	1.83	3.21	6275	
1630	.4	5.63	18.38	.142	42.0	1.64	1.86	6275	
1635	.6	5.62	18.42	.141	44.7	1.49	0.97	6275	
1640	.8	5.62	18.40	.141	51.0	1.48	.23	6275	
1645	1.0	5.62	18.36	.141	58.0	1.46	1.00	6275	
1650	1.2	5.62	18.43	.141	63.5	1.47	1.00	6275	

Purge data continued on next sheet?

4. SAMPLING DATA

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

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

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

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

Sample ID: B34-MW-29R Zone 4 Sample Date: 5/14/13 Sample Time: 1650 # of Containers: 2

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

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

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-35

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: MM
 Client: Owens Corning Personnel: Davenport's
 Project Location: Anderson, South Carolina Weather: ~70°

2. WELL DATA

Date Measured: 5-13-13 Time: pm Temporary Well: Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 162 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: artesian feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 150.95 feet Well Volume: 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: 5-13-13 Time: 1450 Equipment Model(s)

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

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

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1455</u>	<u>3.0</u>	<u>11.93</u>	<u>16.27</u>	<u>1.765</u>	<u>-178.1</u>	<u>.35</u>	<u>3.06</u>	<u>12.23</u>	<u>PH is high, not sure why</u>
<u>1500</u>	<u>6.0</u>	<u>11.95</u>	<u>16.46</u>	<u>1.746</u>	<u>-175.1</u>	<u>.20</u>	<u>2.79</u>	<u>12.35</u>	<u>YSI keeps shutting off automatically</u>
<u>1505</u>	<u>9.0</u>	<u>11.95</u>	<u>16.55</u>	<u>1.737</u>	<u>-173.7</u>	<u>.19</u>	<u>2.11</u>	<u>12.35</u>	
<u>1510</u>	<u>11.0</u>	<u>11.95</u>	<u>16.61</u>	<u>1.725</u>	<u>-173.7</u>	<u>.19</u>	<u>1.54</u>	<u>12.35</u>	
<u>1515</u>	<u>13.0</u>	<u>11.95</u>	<u>16.64</u>	<u>1.721</u>	<u>-173.6</u>	<u>.19</u>	<u>.97</u>	<u>12.35</u>	
<u>1520</u>	<u>15.0</u>	<u>11.95</u>	<u>16.67</u>	<u>1.721</u>	<u>-174.1</u>	<u>.17</u>	<u>1.11</u>		

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13133-MW-35 Sample Date: 5/13/13 Sample Time: 1520 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

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

5. COMMENTS

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-36 Zone 1-Waterloo

1. PROJECT INFORMATION

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

2. WELL DATA

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

Casing Diameter: 2 inches
 Screen Diameter: 6 inches
 Sampling interval: 99.1-116 feet
 Depth to Static Water: 635.7 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: 8-14-13 Time: 1315 Equipment Model(s)

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

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

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

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

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

1. YSI
2. Lanette
3. MP-50
4. _____

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1320</u>	<u>.1</u>	<u>6.16</u>	<u>17.73</u>	<u>.106</u>	<u>-72.0</u>	<u>12.53</u>	<u>5.41</u>	<u>6240</u>	
<u>1330</u>	<u>.2</u>	<u>6.12</u>	<u>17.72</u>	<u>.106</u>	<u>-30.4</u>	<u>12.23</u>	<u>3.26</u>	<u>6240</u>	
<u>1340</u>	<u>.3</u>	<u>6.12</u>	<u>17.72</u>	<u>.106</u>	<u>-10.6</u>	<u>11.95</u>	<u>1.17</u>	<u>6240</u>	
<u>1350</u>	<u>.4</u>	<u>6.12</u>	<u>17.79</u>	<u>.106</u>	<u>9.0</u>	<u>11.67</u>	<u>0.00</u>	<u>6240</u>	
<u>1400</u> <u>1350</u>	<u>.5</u>	<u>6.12</u>	<u>17.78</u>	<u>.106</u>	<u>30.8</u>	<u>11.70</u>	<u>0.00</u>	<u>6240</u>	
<u>1410</u>	<u>.6</u>	<u>6.12</u>	<u>17.82</u>	<u>.106</u>	<u>45.4</u>	<u>11.46</u>	<u>0.00</u>		

Purge data continued on next sheet?

4. SAMPLING DATA

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

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

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

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

Sample ID: 1334 MW-36 2013 Sample Date: 8-14-13 Sample Time: 1330 # of Containers: 2

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

Equipment Blank Collected? Yes No ID: _____ # of Containers: ✓

Geochemical Analyses

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

5. COMMENTS

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

GROUNDWATER SAMPLING FIELD DATA SHEET

BROWN AND CALDWELL

WELL ID: MW-36 Zone 1-Waterloo

3. PURGE DATA (continued from page 1)									
Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1420	.7	6.12	17.79	.106	54.4	11.50	0.00	6240	
1430	.8	6.12	17.82	.106	53.9	11.44	0.00	6240	

Sample
1430

Purge data continued on next sheet?

Signature

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-36 Zone 3-Waterloo

1. PROJECT INFORMATION

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

2. WELL DATA

Date Measured: 5-13-13 Time: 1M Temporary Well: Yes No

Casing Diameter: 2 inches
 Screen Diameter: 6 inches
 Sampling Interval: 180.2-192.7 feet
 Depth to Static Water: 246.1 feet
 Depth to Product: _____ feet
 Length of Water Column: _____ feet
 Well Volume: _____ gal
 Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

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

3. PURGE DATA

Date Purged: 5-14-13 Time: 1055 Equipment Model(s):

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

1. YSI
2. LaMotte
3. MP-50
4. _____

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1100	.1	7.7	16.59	1366	-71.0	9.02	3.19	8030.1	
1110	.3	7.4	16.81	1367	-71.8	9.13	2.71	8037	
1120	.4	7.7	17.04	1366	-60.3	9.09	1.17	8038	
1130	.45	7.08	16.75	1375	-62.9	9.10	1.11	DRY	
DRY at 1130 Sample 1435									

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 1334-MW-36-23 Sample Date: 5-14-13 Sample Time: 1435 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

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

5. COMMENTS

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-36 Zone 5-Waterloo

1. PROJECT INFORMATION

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

2. WELL DATA

Date Measured: 5-13-13 Time: 1140 AM Temporary Well: Yes No

Casing Diameter: 2 inches
 Screen Diameter: 6 inches
 Sampling Interval: 269.9-275 feet
 Depth to Static Water: 609.7 feet
 Depth to Product: _____ feet
 Length of Water Column: _____ feet
 Well Volume: _____ gal
 Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

Length of water column calculation:
 (8843.2-Current Dg reading)*0.03897*2.3108 = Length of water column (ft)
 Well Vol. calculation:
 1 well vol. = [vol of 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)

3. PURGE DATA

Date Purged: 5-14-13 Time: 1140

Equipment Model(s)

Purge Method: Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

1. YSI
2. LaMotte
3. MP-50
4. Air Compressor

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
1150	.1	7.42	17.35	4.060	-141.9	8.94	.29	6199	
1200	.2	7.41	16.82	4.317	-134.0	9.26	.17	7720	bumped up PSI
1210	.25	7.43	17.32	4.269	-132.8	9.33	.00	7719	purging slowly
1220	.30	7.43	18.22	4.225	-106.5	9.09	.00	7719	water is dripping out
1230	.35	7.43	18.86	4.222	-101.6	8.86	.00	7719	
1240	.40	7.43	18.92	4.222	-94.7	8.71	.00		

Purge data continued on next sheet?

4. SAMPLING DATA

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

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

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

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

Sample ID: 13134-MW-36-85 Sample Date: 5-14-13 Sample Time: 1145 # of Containers: 2

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

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

Geochemical Analyses

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

5. COMMENTS

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

GROUNDWATER SAMPLING FIELD DATA SHEET

BROWN AND CALDWELL

WELL ID: MW-36 Zone 5-Waterloo

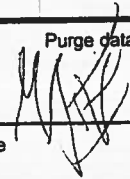
C. F. A. / 10

3. PURGE DATA (continued from page 1)

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1250	.45	7.45	20.58	4,243	-68.5	9.75	0.0	7719	mostly a drop per cycle
1300	.50.46	7.45	20.71	4,257	-267.0	10.86	0.0	7719	flow cell in sunlight now
1310	.47	7.24	20.28	4,191	-291.1	10.50	0.0	7119	
PSI cannot get high enough, No water coming out, will let recharge and continue from here, B Steek said sample.									
1445 sample									

Purge data continued on next sheet?

Signature



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-37 Zone 1

1. PROJECT INFORMATION

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

2. WELL DATA

Date Measured: 5-13-13 Time: AM Temporary Well: Yes No

Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 195 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 32.17 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 162.8 feet Well Volume: 6.67 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: 5-16-13 Time: 0820 Equipment Model(s)

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

1. YSI
2. LaMotte
3. MP-50
4. _____

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>0830</u>	<u>.1</u>	<u>7.45</u>	<u>16.99</u>	<u>.894</u>	<u>-213.8</u>	<u>1.84</u>	<u>6.94</u>	<u>32.84</u>	<u>2 CPM</u>
<u>0840</u>	<u>.15</u>	<u>7.55</u>	<u>17.06</u>	<u>.877</u>	<u>-229.4</u>	<u>1.13</u>	<u>6.76</u>	<u>33.10</u>	
<u>0850</u>	<u>.20</u>	<u>7.56</u>	<u>17.23</u>	<u>.871</u>	<u>-239.1</u>	<u>1.23</u>	<u>7.19</u>	<u>33.91</u>	
<u>0900</u>	<u>.25</u>	<u>7.56</u>	<u>17.18</u>	<u>.870</u>	<u>-242.2</u>	<u>.77</u>	<u>4.23</u>	<u>34.31</u>	
<u>0910</u>	<u>.30</u>	<u>7.56</u>	<u>17.60</u>	<u>.870</u>	<u>-218.1</u>	<u>.64</u>	<u>3.21</u>	<u>34.89</u>	
<u>0920</u>	<u>.35</u>	<u>7.56</u>	<u>17.82</u>	<u>.870</u>	<u>-252.4</u>	<u>.52</u>	<u>2.11</u>	<u>34.91</u>	

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: B136-EB Sample Date: 5-16-13 Sample Time: 1000 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: B136-EB # of Containers: 2

Geochemical Analyses

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

5. COMMENTS

B136-EB at 1010
well cap missing

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-37 Zone 2

1. PROJECT INFORMATION

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

2. WELL DATA

Date Measured: 5-13-13 Time: AM Temporary Well: Yes No

Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 232 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 28.13 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ 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 = 0.687 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 5-16-13 Time: 1040 Equipment Model(s): _____

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

1. YSI
2. LaMotte
3. MP-50
4. _____

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1050	.1	7.40	21.25	.168	-163.3	3.67	3.47	29.70	
1100	.15	7.87	19.51	.159	-159.6	7.12	2.86	29.99	
1110	.20	8.28	19.00	.156	-163.8	7.45	1.13	31.22	
1120	.25	8.55	18.80	.154	-167.9	7.69	0.99	33.33	
1130	.30	8.63	18.97	.153	-167.6	7.90	1.48	33.96	
1140	.35	8.69	19.25	.154	-164.2	8.28	0.99		

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: B136-MW-37 Zone 2 Sample Date: 5/16/13 Sample Time: 1250 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

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

5. COMMENTS

well cap missing

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

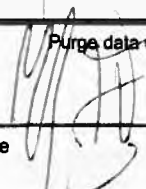
GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-37 Zone 2

3. PURGE DATA (continued from page)

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1150	.40	8.76	20.10	.153	-171.1	8.31	0.41	36.69	
1200	.45	8.77	20.35	.155	-174.1	8.01	4.61	37.89	
1210	.50	8.88	20.17	.152	-173.0	8.31	3.97	39.11	
1220	.55	8.96	20.51	.150	-174.6	8.05	2.88	41.13	
1230	.60	9.02	20.47	.151	-173.6	8.02	3.12	43.01	
1240	.65	9.06	20.51	.151	-173.1	7.91	4.00	45.70	
1250									
Sample 1250									

Purge data continued on next sheet?

Signature 

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-37 Zone 3

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200.001 Area of Concern: _____
 Client: Owens Corning Personnel: M
 Project Location: Anderson, South Carolina Weather: 60° overcast

2. WELL DATA

Date Measured: 5-13-13 Time: AM Temporary Well: Yes No
 Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 272 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 29.58 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: 242.4 feet Well Volume: 9.94 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: 5-16-13 Time: 1420 Equipment Model(s):
 Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 2 hrs well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min
 Calibrated? Yes No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1430	.1	7.36	19.76	29.48	-186.7	2.60	10.99	30.79	
1440	.2	7.45	18.81	.473	-222.6	1.29	7.77	32.10	
1450	.25	7.46	18.73	.473	-239.1	.77	3.27	35.33	
1500	.30	7.45	18.56	.473	-243.8	.59	3.01	37.23	
1510	.35	7.45	18.63	.473	-248.7	.44	2.91	40.01	
1520	.40	7.45	18.79	.473	-253.0	.34	1.71		

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-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: B336-MW-37 Zone 3 Sample Date: 5/16/13 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

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

Signature MFA

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-37 Zone 3

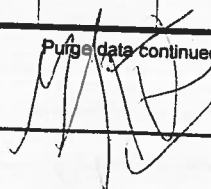
3. PURGE DATA (continued from page)

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1530	.45	7.45	19.56	.473	-256.6	.27	1.76	40.1	
1540	.50	7.45	19.84	.473	-256.3	.27	1.11		

Sample pH, DO, ORP
Spec Cond

1540

Purge data continued on next sheet?



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-38 Zone 1

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: Brian Welch
 Project Location: Anderson, South Carolina Weather: SUNNY 77°F

2. WELL DATA

Date Measured: 5-13-13 Time: 8:35 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: 6.93 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: 3 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: 5-15-13 Time: 1310 Equipment Model(s): _____

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

1. Sample Pro.
2. OED MP-50
3. YSI-556
4. Lanette

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1320	0.10	6.62	21.12	0.335	-147.0	0.71	3.01	11.40'	
1330	0.20	6.62	20.67	0.329	-172.5	0.62	3.00	15.45'	
1340	0.30	6.64	20.48	0.327	-177.9	0.40	3.11	20.10'	
1350	0.40	6.70	20.97	0.325	-181.7	0.30	2.57	24.25'	
1400	0.50	6.74	21.25	0.324	-184.9	0.27	3.09	27.90'	

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13135-MW-38-Zone-1 Sample Date: 5-15-13 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

Intake at ~ 85'

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-38 Zone 2

1. PROJECT INFORMATION

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

2. WELL DATA

Date Measured: 5-13-13 Time: AM Temporary Well: Yes No
 Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 499.6 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: +0.05 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 499.6 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: 5-16-13 Time: 0805 Equipment Model(s): _____
 Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: Artesian
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. Sample 10
2. RED MA-50
3. YSI-556
4. Lamotte

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments	
0810	1.00	7.36	16.56	0.175	-107.2	0.61	0.05	—		
0815	1.75	7.53	16.69	0.175	-122.7	0.38	0.10	—		
0820	2.50	7.57	16.67	0.175	-130.1	0.32	0.15	—		
0825	3.00	7.60	16.69	0.175	-136.1	0.28	0.17	—		
0830	— Next Page —								0.13	

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: Artesian
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-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: 13136-MW-38-Zone-2 Sample Date: 5-16-13 Sample Time: 0910 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

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

5. COMMENTS

Artesian well

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-39 Zone 1

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx *Area of Concern: _____
 Client: Owens Corning Personnel: Brian Steeb
 Project Location: Anderson, South Carolina Weather: Sunny ~ 77° F

2. WELL DATA

Date Measured: 5-13-13 Time: AM Temporarily 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: 17.89 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: — feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 87.11 feet Well Volume: 3.57 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: 5-14-13 Time: 1200 Equipment Model(s) _____

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

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

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

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

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

1. Sample Pro
2. QED M1-50
3. YSI-556
4. Lamotte

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1210	0.10	6.41	20.00	0.100	-86.2	2.66	1.59	18.10'	
1220	0.20	6.57	19.70	0.100	-92.1	1.88	0.93	18.05'	
1230	0.30	6.79	19.59	0.101	-101.5	1.33	1.11	18.08'	
1250	0.50	7.76	19.66	0.104	-99.0	1.94	1.53	18.05'	
1310	0.70	8.09	19.70	0.110	-101.6	2.41	1.63	18.10'	

Purge data continued on next sheet?

4. SAMPLING DATA

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

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

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

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

Sample ID: 13134 MW-39-Zone-1 Sample Date: 5-14-13 Sample Time: 1400 # of Containers: 2

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

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

Geochemical Analyses

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

5. COMMENTS

Fatake at ~ 80'

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-39 Zone 2

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: Brian Steele
 Project Location: Anderson, South Carolina Weather: Sunny ~ 77°F

2. WELL DATA

Date Measured: 5-13-13 Time: AM Temporary Well: Yes No

Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other _____
 Total Depth of Well: 215 feet From: Top of Well Casing (TOC) Top of Protective Casing Other _____
 Depth to Static Water: 35.37 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: 179.63 feet Well Volume: 7.39 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: 5-14-13 Time: 14:15 Equipment Model(s) _____

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

1. Sample Pro
2. QED M-90
3. YSI-666
4. DLT-106E
Comark

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1435	0.10	7.40	24.09	0.602	-205.6	1.71	7.17	36.70'	
1445	0.20	7.36	24.25	0.600	-212.5	0.72	9.67	37.55'	
1455	0.30	7.17	22.79	0.592	-202.4	0.37	8.49	42.65'	
1505	0.40	7.18	22.81	0.590	-205.6	0.24	7.09	45.65'	
1515	0.50	7.20	22.19	0.592	-208.1	0.20	6.16	49.60'	

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13134-NW-39-200-2 Sample Date: 5-14-13 Sample Time: 1630 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

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

5. COMMENTS

Take at ~ 55'

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-39 Zone 2

3. PURGE DATA (continued from page 1)

Time	Cum. Gallons Removed (gal)	pH ±0.1	Temp ±0.2°C	Spec. Cond. > of ±3% 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	0.60	7.09	22.71	0.591	-202.3	0.17	4.77	52.90'	
1535	0.70	7.37	25.13	0.593	-223.3	0.13	4.43	54.90'	
1545	0.80	7.34	25.31	0.593	-219.8	0.14	4.41	56.40'	
1555	0.90	7.08	24.99	0.589	-198.8	0.21	4.15	60.95'	
1605	1.00	6.99	21.75	0.591	-194.0	0.17	4.22	64.40'	
1615	1.10	7.00	21.56	0.591	-194.2	0.15	3.76	67.10'	
1625	1.20	7.06	23.41	0.593	-200.1	0.14	3.57	69.20'	
1630	Collect sample								

Purge data continued on next sheet?

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-39 Zone 3

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: BS
 Project Location: Anderson, South Carolina Weather: SUNNY ~ 77°F

2. WELL DATA

Date Measured: 5.13.13 Time: 4A 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: 47.69 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: 252.31 feet Well Volume: 10.34 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: 5.15.13 Time: 0837 Equipment Model(s):
 Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. Sample #10
2. QED NP-50
3. VSL-556
4. Levette

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
0847	0.10	6.59	17.62	0.169	-121.4	0.97	5.62	54.50	
0857	0.15	6.67	18.88	0.164	-124.3	0.70	5.17	56.10'	slowed rate
0907	0.20	6.71	19.77	0.168	-120.9	0.82	5.83	57.70'	blc drawdown
0927	0.30	6.75	21.58	0.169	-113.5	0.89	5.76	61.20'	
0947	0.40	6.77	23.21	0.170	-111.9	0.70	5.74	64.10	

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13135-MW-39-Zone 3 Sample Date: 5.15.13 Sample Time: 1040 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: 13135-EB @ 1055 # of Containers: 2

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

5. COMMENTS

frank ~ 85'

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 Zone 1

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-XXX Area of Concern: _____
 Client: Owens Corning Personnel: Brian Steele
 Project Location: Anderson, South Carolina Weather: 78° F Sunny

2. WELL DATA

Date Measured: 5.13.13 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: 125.32 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 7.15 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 24.85 feet Well Volume: 1.01 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.04 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: 5.16.13 Time: 0947 Equipment Model(s): _____

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 3 well volumes or 3.05 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. Sample Pro
2. QED MP-50
3. Lamtha
4. YSI-556

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
0957	0.10	7.44	19.04	0.254	-57.3	1.98	4.62	7.16'	
1007	0.20	7.46	18.06	0.239	-72.0	0.92	0.47	7.16'	
1017	0.30	7.51	19.38	0.238	-88.9	0.51	0.36	7.16'	
1027	0.40	7.47	19.05	0.237	-94.1	0.45	0.10	7.16'	
1037	0.50	7.43	18.51	0.237	-99.8	0.38	0.13	7.16'	

Purge data continued on next 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: 13136-MW-41-200-1 Sample Date: 5-16-13 Sample Time: 1150 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: 13136-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

Intake at ~ 30'

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

GROUNDWATER SAMPLING FIELD DATA SHEET

BROWN AND CALDWELL

WELL ID: MW-41 Zone 1

3. PURGE DATA (continued from page 1)

Time	Cum. Gallons Removed (gal)	pH ±0.1 eu	Temp ±2°C	Spec. Cond. ≥ of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1047	0.60	7.49	18.81	0.236	-108.8	0.34	0.05	7.16'	
1057	0.70	7.53	19.12	0.236	-115.5	0.32	0.10	7.16'	
1107	0.80	7.50	18.98	0.236	-119.2	0.30	0.01	7.16'	
1117	0.90	7.49	19.03	0.236	-121.2	0.29	0.00	7.16'	
1127	1.00	7.48	18.92	0.236	-124.2	0.28	0.00	7.16'	
1137	1.10	7.49	18.92	0.236	-126.4	0.29	0.00	7.16'	
1147	1.20	7.50	18.89	0.236	-129.4	0.28	0.00	7.16'	
1150	Collect sample								

Purge data continued on next sheet?

Signature

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 Zone 2

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-XXX Area of Concern: _____
 Client: Owens Corning Personnel: Brian Steele
 Project Location: Anderson, South Carolina Weather: Cloudy ~ 77°F

2. WELL DATA

Date Measured: 5-15-13 Time: AM Temporary Well: Yes No

Casing Diameter: 1.5 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: _____ 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: 45.4 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: 85 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 124.46 Well Volume: 5.10 gal Sorehead Interval (from GS): 8.3
 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: 5-16-13 Time: 1313 Equipment Model(s): _____

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: None
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. Sample 100
2. QED-MP-50
3. YU-554
4. Lanette

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1323	0.10	7.39	18.94	0.249	-90.1	1.78	0.00	4.55'	
1333	0.20	7.47	18.45	0.249	-109.9	0.81	0.00	4.55'	
1343	0.30	7.54	18.67	0.248	-121.6	0.54	0.00	4.55'	
1353	0.40	7.59	18.79	0.248	-131.3	0.42	0.00	4.55'	
1403	0.50	7.61	18.50	0.249	-136.2	0.36	0.00	4.55'	

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13136-MW-41-2002-2 Sample Date: 5-16-13 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

Intake at ~ 85'

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 Zone 3

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: Brian Steek
 Project Location: Anderson, South Carolina Weather: SUNNY ~ 78°F

2. WELL DATA

Date Measured: 5-13-13 Time: AM Temporary Well: Yes No
 Casing Diameter: 3.5 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: 1.03 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 297.97 feet Well Volume: 12.21 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.04 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: 5-16-13 Time: 1542 Equipment Model(s): _____
 Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. Sample from
2. YSI-556
3. Lanolin
4. MI-50

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1552	0.10	8.30	20.32	0.379	-156.3	0.59	68.9	7.65'	
1602	0.20	8.15	19.99	0.373	-157.3	0.45	68.6	11.1'	
1612	0.30	7.97	20.29	0.382	-162.5	0.36	63.5	15.35'	
1622	0.40	7.79	19.87	0.379	-164.7	0.31	60.4	18.53'	
1632	0.50	7.64	20.32	0.373	-171.2	0.30	58.0	21.60'	

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13136-MW-41-Zone-3 Sample Date: 5-16-13 Sample Time: 1755 # 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 285'

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



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42 Zone 1

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: Brian Steele
 Project Location: Anderson, South Carolina Weather: Sunny ~ 75°F

2. WELL DATA

Date Measured: 5-13-13 Time: AM Temporary Well: Yes No

Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 129 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 41.51 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: 87.49 feet Well Volume: 3.58 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.489 gal/ft

3. PURGE DATA

Date Purged: 5-13-13 Time: 11:58 Equipment Model(s): _____

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

- Equipment Model(s):
 1. Sample Pro
 2. QED MP-60
 3. YSI-556
 4. Lanotte

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1208	0.10	9.80	16.58	0.186	87.4	2.73	5.40	41.80'	
1218	0.13	10.19	16.28	0.217	85.2	1.68	2.73	41.80'	
1228	0.16	10.43	16.80	0.253	85.4	1.08	2.27	41.80'	
1238	0.20	10.65	17.61	0.277	81.3	0.73	2.15	41.80'	
1248	0.40	10.71	18.14	0.282	81.5	0.68	1.97	41.80'	

Purge data continued on next 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: 13133-MW-42-Zone-1 Sample Date: 5-13-13 Sample Time: 1400 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

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

5. COMMENTS

Intake at ~ 85 ft

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42 Zone 1

3. PURGE DATA (continued from page <u>1</u>)									
Time	Cum. Gallons Removed (gal)	pH ±0.1 su.	Temp ±0.2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1258	0.50	10.96	19.43	0.335	71.0	0.94	2.05	41.80	
1308	0.60	11.11	21.06	0.381	65.8	1.26	1.95	41.80	
1318	0.70	11.13	22.55	0.415	64.4	1.38	1.53	41.80	
1328	0.80	11.14	22.06	0.484	67.6	2.00	1.51	41.80	
1338	0.90	11.10	22.13	0.478	71.1	2.23	1.49	41.80	
1348	1.00	11.09	23.20	0.451	73.4	2.47	1.42	41.80	
1358	1.10	10.94	21.89	0.412	79.6	2.65	1.40	41.80	
1400	collect sample								

Purge data continued on next sheet?

GROUNDWATER SAMPLING FIELD DATA SHEET



WELL ID: MW-42 Zone 2

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: Brian Steele
 Project Location: Anderson, South Carolina Weather: Sunny ~ 75°F

2. WELL DATA

Date Measured: 5-13-13 Time: AM Temporary Well: Yes No
 Casing Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 222 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 43.81 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: 178.19 feet Well Volume: 7.30 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 5-13-13 Time: 1432 Equipment Model(s): _____
 Purge Method: Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Baller Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons Calibrated? Yes No
 Was well purged dry? Yes No Pumping Rate: _____ gal/min

1. Sample No
2. QED MP-50
3. YSI-556
4. Lanark

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1442	0.10	7.52	22.66	0.673	189	1.54	4.63	45.75'	ORP = 16.5
1452	0.20	7.47	21.90	0.690	5.7	1.00	4.97	49.05'	
1502	0.30	7.48	21.31	0.685	-17.6	0.62	4.24	52.15'	
1512	0.40	7.54	21.65	0.685	-93.9	0.39	3.83	55.10'	
1522	0.50	7.50	21.82	0.680	-159.1	0.27	3.79	57.68'	

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Baller Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-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: 13133-MW-42-Zone-2 Sample Date: 5-13-13 Sample Time: 1625 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: 13133-EB G # of Containers: 2

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

5. COMMENTS

Intake ~ 80 #

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

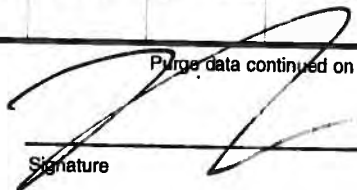
GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42 Zone 2

3. PURGE DATA (continued from page 1)

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp. ±0.2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1532	0.60	7.46	21.32	0.674	-177.5	0.20	2.59	61.10'	
1542	0.70	7.53	22.13	0.679	-194.8	0.13	2.52	63.30'	
1552	0.80	7.44	22.03	0.676	-193.7	0.12	2.54	66.15'	
1602	0.90	7.43	21.82	0.672	-199.5	0.10	3.06	69.25'	
1612	1.00	7.44	21.67	0.666	-202.7	0.10	3.12	71.60'	
1622	1.10	7.48	21.45	0.646	-199.7	0.10	3.17	75.70'	
1625	collect sample!								

Purge data continued on next sheet?

Signature 



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42 Zone 3

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: Brian Steele
 Project Location: Anderson, South Carolina Weather: Sunny ~ 77°F

2. WELL DATA

Date Measured: 5-13-13 Time: AM Temporary Well: Yes No
 Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 285 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 38.47 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: 246.53 feet Well Volume: 10.10 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.047 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: 5-14-13 Time: 0836 Equipment Model(s): _____
 Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. Sample Pro
2. QED MP-50
3. YSI-556
4. Levitt

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
0846	0.10	7.57	15.86	0.259	-143.5	1.15	3.75	42.10	
0858	0.20	7.57	16.38	0.256	-169.3	0.67	2.66	46.00'	
0908	0.30	7.57	16.62	0.256	-182.7	0.55	3.59	48.45'	
0918	0.40	7.60	16.56	0.257	-190.6	0.45	3.43	50.80'	
0928	0.50	7.74	16.47	0.257	-193.3	0.42	3.29	53.10'	

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13134 MW-42 Zone 3 Sample Date: 5-14-13 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 ~ 80'

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

GROUNDWATER SAMPLING FIELD DATA SHEET

BROWN AND CALDWELL

WELL ID: MW-42 Zone 3

3. PURGE DATA (continued from page 1)

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±0.1°C	Spec. Cond. > of ±3% 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	0.60	8.08	16.58	0.257	-187.5	0.33	2.26	55.40'	
0948	0.70	8.44	16.67	0.256	-201.2	0.29	2.21	57.30'	
0958	0.80	8.65	16.63	0.256	-204.4	0.28	2.15	59.55'	
1008	0.90	8.72	16.64	0.255	-205.5	0.28	2.49	61.45'	
1018	1.00	8.76	16.24	0.255	-204.7	0.23	2.36	62.70'	
1028	1.10	8.68	16.64	0.255	-208.6	0.24	2.32	64.50'	
1038	1.20	8.80	16.65	0.255	-208.1	0.22	2.40	66.10'	
1040	*effect sample								

Purge data continued on next sheet?

GROUNDWATER SAMPLING FIELD DATA SHEET

149
175.100
6.69
108.31
.167

WELL ID: MW-43 Zone 1

1. PROJECT INFORMATION

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

2. WELL DATA

Date Measured: 5-13-13 Time: AM Temporary Well: Yes No

Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 115 feet From: Top of Well Casing (TOC) Top of Protective Casing
 Depth to Static Water: 6.69 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: 108.2 feet Well Volume: 18.09 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: 5-15-13 Time: 0830 Equipment Model(s)

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): dry well volumes or 5.118 gal/lons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSL
2. LaMotte
3. MP-50
4. _____

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
0840	.1	6.67	17.11	.090	101.0	9.51	17.9	6.69	at top of casing,
0850	.2	6.65	17.32	.103	-58.7	6.29	17.1	<1ft	water flows due
0900	.3	7.17	17.25	.129	-22.6	5.26	19.2	<1ft	to displacement
0910	.4	7.16	17.39	.126	2.3	5.30	76.1	<1ft	muddy water
0920	.5	7.13	17.42	.122	26.3	5.62	85.3	<1ft	
0930	.6	7.09	17.57	.122	4.4	4.76	99.2		Purge data continued on next sheet? <input type="checkbox"/>

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13135-MW-43 Zone 1 Sample Date: 5-15-13 Sample Time: 1010 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

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

5. COMMENTS

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

1 of 2

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 Zone 1

3. PURGE DATA (continued from page 1)									
Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
0940	.7	7.08	17.77	.119	45.8	4.69	90.9	<1 ft	
0950	.8	7.09	17.96	.119	50.9	5.62	57.2	<1 ft	
1000	.9	7.07	14.32	.119	46.3	5.81	48.3	<1 ft	
1010	1.0	7.07	18.57	.119	46.2	5.83	60.3		
<p>Sample 1010 pH, spec cond, ORP, stable</p>									

Purge data continued on next sheet?

Signature _____

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MYL43 Zone 2

1. PROJECT INFORMATION

Project Number: 143895 Task Number: 100 Area of Concern: _____
 Client: OC Personnel: MI
 Project Location: _____ Weather: 280° Sunny

2. WELL DATA

Date Measured: 5-13-13 Time: PM Temporary Well: Yes No

Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 190 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 3.91 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: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____

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

3. PURGE DATA

Date Purged: 5-13-13 Time: 1055

Equipment Model(s)

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

1. YSI
2. LaMotte
3. MP-50
4. _____

Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1100	.1	7.57	20.24	.211	-186.4	5.51	10.91	<1 ft	water at TOC
1110	.2	7.65	20.12	.210	-202.9	2.70	7.61	2.17	
1120	.3	7.79	20.74	.210	-224.4	.95	7.03	3.41	
1130	.35	7.91	20.59	.210	-231.1	.78	6.98	3.41	
1140	.40	7.86	20.60	.210	-235.8	.69	5.41	4.98	
1150	.45	7.89	21.24	.210	-236.2	.66	3.73		Purge data continued on next sheet? <input checked="" type="checkbox"/>

4. SAMPLING DATA

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

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

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

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

Sample ID: 1335 Sample Date: 5/13/13 Sample Time: 1300 # of Containers: 2

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

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

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

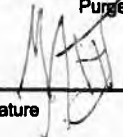
Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: MW-43 Zone 2

3. PURGE DATA (continued from page)

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1200	.5	7.91	21.97	.206	-236.9	.68	2.14	4.98	
1210	.6	7.94	21.99	.206	-237.5	.71	1.17	4.98	
1220	.65	7.96	22.28	.206	-237.6	.66	1.23	4.98	
1230	.70	7.98	22.46	.206	-237.8	.63	1.17	4.98	
1240	.75	8.02	22.51	.206	-237.8	.61	1.12	4.98	
1250	.80	8.04	22.54	.206	-237.9	.58	1.07	4.98	
1300	.85	8.05	22.57	.206	-239.1	.59	1.01	4.98	
Sample 1300 2 hours									

Purge data continued on next sheet?

Signature 



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 Zone 3

1. PROJECT INFORMATION

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

2. WELL DATA Date Measured: 5-13-13 Time: PM Temporary Well: Yes No

Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 300 feet From: Top of Well Casing (TOC) Top of Protective Casing
 Depth to Static Water: 1103 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: 218.7 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 = 0.687 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA Date Purged: 5-15-13 Time: 1310 Equipment Model(s):
 Purge Method: Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____ 1. VSI
 Materials: Pump/Baller Polyethylene Stainless PVC Teflon® Other: _____ 2. LaMotte
 Dedicated Prepared Off-Site Field-Cleaned Disposable 3. MP-50
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____ 4. _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 214 well volumes or stability gal ions
 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
1320	.1	7.46	25.75	.299	-235.2	0.70	5.86	3.10	
1330	.2	7.85	26.05	.299	-162.0	6.75	4.14	3.14	
1340	.25	7.99	26.28	.284	-135.1	8.30	3.86	3.41	
1350	.30	7.99	26.43	.268	-119.1	11.09	18.8	4.28	
1400	.35	7.98	26.95	.263	-110.4	12.14	20.3	5.79	
1410	.40	7.99	26.60	.257	-105.3	11.40	17.1		

4. SAMPLING DATA

Method(s): Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Baller Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-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: 13135 - MW-43 Zone 3 Sample Date: 5/15/13 Sample Time: 1520 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

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

5. COMMENTS

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

1 of 2

(Handwritten signature)

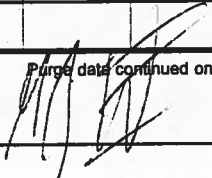
GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 Zone 3

3. PURGE DATA (continued from page 1)									
Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1420	.45	7.96	26.49	.249	-92.6	11.80	14.3	7.11	
1430	.80	7.94	26.51	.242	-89.9	11.82	13.7	8.32	
1440	.55	7.95	26.87	.239	-73.0	11.00	9.87	9.47	
1450	.60	7.94	26.86	.235	-63.4	10.35	10.17	11.28	
1500	.65	7.93	27.13	.232	-54.9	10.26	9.89	13.94	
1510	.70								
1520	.75								

Sample 1520

Purge data continued on next sheet?

Signature 

WELL ID: MW-44

1. PROJECT INFORMATION

Project Number: 143825 Task Number: 100,001 Area of Concern: _____
 Client: OC Personnel: MJD
 Project Location: Anderson SC Weather: ~70 sunny

2. WELL DATA

Date Measured: 5-13-13 Time: PM Temporary Well: Yes No
 Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 300ft feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 10.65 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: 289.35 feet Well Volume: 47 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 5-13-13 Time: 1550-1350 Equipment Model(s)
 Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or Stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

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
1350	1.5	9.39	16.55	.241	76.1	2.16	3.75	10.71	
1355	3.0	9.44	16.73	.240	34.7	.52	2.89	10.75	
<u>1400</u>	<u>5.5</u>	<u>9.45</u>	<u>16.78</u>	<u>.238</u>	<u>22.5</u>	<u>.29</u>	<u>2.74</u>	<u>10.75</u>	
<u>1405</u>	<u>9.0</u>	<u>9.49</u>	<u>16.86</u>	<u>.236</u>	<u>4.1</u>	<u>.14</u>	<u>1.65</u>	<u>10.75</u>	
<u>1410</u>	<u>12.0</u>	<u>9.51</u>	<u>16.92</u>	<u>.234</u>	<u>-11.8</u>	<u>.10</u>	<u>1.61</u>	<u>10.75</u>	
<u>1415</u>	<u>15.0</u>	<u>9.54</u>	<u>16.97</u>	<u>.234</u>	<u>-83.6</u>	<u>.08</u>	<u>1.54</u>		

1350
1355
1

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13133-MW-44 Sample Date: 5-13-13 Sample Time: 1430 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

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

5. COMMENTS

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

Signature: [Signature]

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-44

3. PURGE DATA (continued from page)

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1420	18.0	9.52	17.02	.219	-71.8	.08	0.00	10.75	
1425	21.0	9.49	17.06	.204	-185.0	.08	0.00	10.75	
1430	25.0	9.49	17.09	2.05	-185.4	.08	0.00	10.75	
Sample 1430									

Purge data continued on next sheet?

Signature [Handwritten Signature]

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 628 Airline Road

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: Philip Bantel's Residence
 Client: Owens Corning Personnel: M
 Project Location: Anderson, South Carolina Weather: _____

2. WELL DATA

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

3. PURGE DATA

Date Purged: 5-13-43 Time: 1645 Equipment Model(s):
 Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____ 1. YSI
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____ 2. _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____ 3. _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable 4. _____
 Volume to Purge (minimum): _____ well volumes or _____ gallons Calibrated? Yes No
 Was well purged dry? Yes No Pumping Rate: _____ gal/min

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1645</u>	<u>5</u>	<u>7.15</u>	<u>16.93</u>	<u>050</u>	<u>178.6</u>	<u>8.43</u>	<u><10</u>		

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13133-628 Airline Rd Sample Date: 5-13-43 Sample Time: 1645 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

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

5. COMMENTS

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



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 117 Faye Drive

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: _____
 Client: Owens Corning Personnel: MB
 Project Location: Anderson, South Carolina Weather: _____

2. WELL DATA

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

3. PURGE DATA

Date Purged: _____ Time: 1700 Equipment Model(s):
 Purge Method: Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1700</u>	<u>5</u>	<u>6.32</u>	<u>19.13</u>	<u>.194</u>	<u>-823</u>	<u>6.00</u>	<u>.49</u>	—	—

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13135-Faye Dr. Sample Date: 5/15/19 Sample Time: 1700 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: 5
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

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

5. COMMENTS

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 311 Kaye Drive

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: _____
 Client: Owens Corning Personnel: MA BS
 Project Location: Anderson, South Carolina Weather: _____

2. WELL DATA

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

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

3. PURGE DATA

Date Purged: 5-15-13 Time: 1650 Equipment Model(s)

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

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

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

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

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

Calibrated? Yes No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1650	5	7.20	18.90	200	-87.7	6.56	0.25	↑	—

Purge data continued on next sheet?

4. SAMPLING DATA

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

Materials: Pump/Baller Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-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: 13195-311 Kaye Dr. Sample Date: 5/15/13 Sample Time: 1650 # of Containers: 2

Duplicate Sample Collected? Yes No ID: _____ # of Containers: 1

Equipment Blank Collected? Yes No ID: _____ # of Containers: 1

Geochemical Analyses

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

5. COMMENTS

Well house packed in tarp, samples from faucet out back, homeowner said it was well water.

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



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 412 Kaye Drive

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: _____
 Client: Owens Corning Personnel: MA, BS
 Project Location: Anderson, South Carolina Weather: _____

2. WELL DATA

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

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

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

3. PURGE DATA

Date Purged: 5-15-13 Time: 1655

Equipment Model(s)

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

1. YST
2. LaMotte
3. _____
4. _____

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

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

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

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

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
<u>1655</u>	<u>5</u>	<u>5.80</u>	<u>20.10</u>	<u>.043</u>	<u>-63.2</u>	<u>7.23</u>	<u>9.70</u>		

Purge data continued on next sheet?

4. SAMPLING DATA

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

Materials: Pump/Baller Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-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: 13135-412 Kaye Dr Sample Date: 5/15/13 Sample Time: 1655 # of Containers: 2

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

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

Geochemical Analyses

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

5. COMMENTS

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



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 303 Kaye Drive

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: _____
 Client: Owens Corning Personnel: MB
 Project Location: Anderson, South Carolina Weather: _____

2. WELL DATA

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

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

3. PURGE DATA

Date Purged: 5-15-03 Time: 1640 Equipment Model(s): _____

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

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

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
<u>1640</u>	<u>5</u>	<u>5.64</u>	<u>18.91</u>	<u>107</u>	<u>-73.3</u>	<u>7.27</u>	<u>98</u>	<u>-</u>	<u>-</u>

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Baller Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-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: 1315-303 Kaye Dr Sample Date: 5-15-03 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.



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 115 Elrod Road

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: _____
 Client: Owens Corning Personnel: _____
 Project Location: Anderson, South Carolina Weather: _____

2. WELL DATA

Date Measured: 5-18-13 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: _____ Equipment Model(s) _____

Purge Method: Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____ 1. _____
 Materials: Pump/Baller Polyethylene Stainless PVC Teflon® Other: _____ 2. _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____ 3. _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable 4. _____
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
									Well is out-of-order, check back again

Purge data continued on next sheet?

4. SAMPLING DATA

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

Geochemical Analyses

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

5. COMMENTS

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 335 Elrod Road

0

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: _____
 Client: Owens Corning Personnel: _____
 Project Location: Anderson, South Carolina Weather: _____

2. WELL DATA

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

Casing Diameter: _____ 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: 5-15-13 Time: 1540 Equipment Model(s) _____

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

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments	
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU			
		Well out-of-order, need to check next event, owner said it might be fixed								

Purge data continued on next sheet?

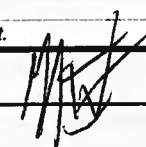
4. SAMPLING DATA

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 

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 1303 Clinkscales Road

6

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.XXX Area of Concern: _____
 Client: Owens Corning Personnel: MA BS
 Project Location: Anderson, South Carolina Weather: _____

2. WELL DATA

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

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

3. PURGE DATA

Date Purged: 5-15-13 Time: 1600 Equipment Model(s)

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

1. YST
 2. LaMotte
 3. _____
 4. _____

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
<u>1600</u>	<u>5</u>	<u>6.74</u>	<u>19.33</u>	<u>.055</u>	<u>-99.4</u>	<u>7.63</u>	<u>.092</u>	<u>-</u>	<u>- .80 turbidity</u>

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13135-1303 Clinkscales Sample Date: 5/15/13 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 [Signature]

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 119 Cloverhill Drive

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: _____
 Client: Owens Corning Personnel: MJ BS
 Project Location: Anderson, South Carolina Weather: _____

2. WELL DATA

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

3. PURGE DATA

Date Purged: 5-15-13 Time: 1605 Equipment Model(s):
 Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1605</u>	<u>S</u>	<u>5.11</u>	<u>18.84</u>	<u>0.042</u>	<u>-31.4</u>	<u>7.81</u>	<u>0.11</u>	<u>-</u>	<u>-</u>

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13135-2013 (1605) Sample Date: 5/15/13 Sample Time: 1605 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: 13135-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 here

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 721 Clinkscales Road

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: _____
 Client: Owens Corning Personnel: MA BA TO Sunny
 Project Location: Anderson, South Carolina Weather: _____

2. WELL DATA

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

3. PURGE DATA

Date Purged: 5-14-13 Time: 1730 Equipment Model(s): _____
 Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1730</u>	<u>S</u>	<u>5.60</u>	<u>20.32</u>	<u>.054</u>	<u>-6.7</u>	<u>6.55</u>	<u>.14</u>		

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 3134-721 Sample Date: 5-14-13 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.



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 200 Friendship Lane

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: _____
 Client: Owens Corning Personnel: M, B, S
 Project Location: Anderson, South Carolina Weather: _____

2. WELL DATA

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

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

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

3. PURGE DATA

Date Purged: 5-11-13 Time: 1740 Equipment Model(s): _____

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

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

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
<u>1740</u>	<u>5</u>	<u>5.99</u>	<u>16.44</u>	<u>141</u>	<u>-19.1</u>	<u>6.63</u>	<u>8.89</u>		

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 15131-200 Sample Date: 5/14/13 Sample Time: 1740 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

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

5. COMMENTS

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 605 Clinkscales Road

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: _____
 Client: Owens Corning Personnel: M, BA
 Project Location: Anderson, South Carolina Weather: _____

2. WELL DATA

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

3. PURGE DATA

Date Purged: 5-14-13 Time: 1720 Equipment Model(s):
 Purge Method: Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Baller Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1720</u>	<u>5</u>	<u>6.95</u>	<u>17.08</u>	<u>106</u>	<u>-74.6</u>	<u>6.37</u>	<u>1.98</u>	---	---

4. SAMPLING DATA

Method(s): Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Baller Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-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: B37-605 Clinkscales Sample Date: 5/14 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

Purge data continued on next sheet?

5. COMMENTS

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

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 408 Clinkscales Road

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: _____
 Client: Owens Corning Personnel: M BS
 Project Location: Anderson, South Carolina Weather: 70° Sunny

2. WELL DATA

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

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

3. PURGE DATA

Date Purged: 5-14-13 Time: 1715 Equipment Model(s): _____

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

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
<u>1715</u>	<u>5</u>	<u>6.53</u>	<u>17.69</u>	<u>.038</u>	<u>-142</u>	<u>7.32</u>	<u>1.05</u>	—	—

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 13154-408 Sample Date: 5/14/13 Sample Time: 1715 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

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

5. COMMENTS

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

Appendix B: Laboratory Analytical Reports





February 25, 2013

Tamara Berryman
BROWN AND CALDWELL
990 Hammond Drive
Atlanta GA 30328

TEL: (770) 394-2997
FAX: (770) 396-9495

RE: Owens Corning

Dear Tamara Berryman:

Order No: 1302D02

Analytical Environmental Services, Inc. received 34 samples on 2/14/2013 12:55:00 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 07/01/12-06/30/13.
- AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/13.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Tara Esbeck
Project Manager

#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)	ANALYSIS REQUESTED		REMARKS	No # of Containers
							DATE	TIME		
1	13043-MW-44	2-12-13	0945	X		GW				
2	13043-Dmp-021213	2-12-13	1200							
3	13042-MW-15	2-11-13	1635							
4	13043-MW-22	2-12-13	1130							
5	13043-EB-021213	2-12-13	1150							
6	13043-MW-29R Zone 3	2-12-13	1740							
7	13043-MW-29R Zone 4	2-12-13	1815							
8	13043-MW-35	2-11-13	1755							
9	13043-MW-36 Zone 1	2-12-13	1615							
10	13043-MW-36 Zone 3	2-12-13	1625							
11	13043-MW-36 Zone 5	2-12-13	1845							
12	13044-MW-43 Zone 3	2-13-13	1105							
13	13044-MW-43 Zone 2	2-13-13	1325							
14	13044-MW-43 Zone 2	2-13-13	1435							

RELINQUISHED BY: <i>[Signature]</i>	DATE/TIME: 2/14/13 12:55
RECEIVED BY: <i>[Signature]</i>	DATE/TIME: 2/14/13 12:55

COMPANY: Brown & Caldwell	ADDRESS: 940 Hammond Drive Ste 400 Atlanta, Ga 30306
PHONE:	FAX:
SAMPLED BY: Mercee Nkanga & Matt Aufman	SIGNATURE: <i>[Signature]</i>
VISIT OUR WEBSITE: www.aesatlanta.com to check on the status of your results, place bottle orders, etc.	

PROJECT NAME: Owens-Corning	PROJECT #: 143805
SITE ADDRESS:	
SEND REPORT TO: TBarryman@browncauld.com	
INVOICE TO: (IF DIFFERENT FROM ABOVE)	
QUOTE #:	

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

TURNAROUND TIME REQUEST	Standard 5 Business Days	<input checked="" type="radio"/>
2 Business Day Rush	Next Business Day Rush	<input type="radio"/>
Same Day Rush (auth req.)	Other	<input type="radio"/>

TOTAL # OF CONTAINERS	2
-----------------------	---



ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

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

CHAIN OF CUSTODY

Work Order: 1302002

Page 2 of 3

Date: 2-14-13

COMPANY: Brown & Calvert
 ADDRESS: 990 Hammonds Dr, Ste 400 Atlanta, Ga 30328
 PHONE: FAX: SIGNATURE: [Signature]

#	SAMPLE ID	SAMPLED		Grab	Composite	Matrix (See codes)	ANALYSIS REQUESTED		REMARKS	No # of Containers
		DATE	TIME				PRESERVATION (See codes)			
1	13044-MW-41 Zone 1	2-13-13	1630	X		GW				2
2	13044-Dup-021313	2-13-13	1200							2
3	13044-MW-41 Zone 3	2-13-13	1640							2
4	13044-MW-37 Zone 3	2-13-13	1409							2
5	13044-MW-37 Zone 2	2-13-13	1235							2
6	13044-MW-37 Zone 1	2-13-13	1050							2
7	13044-EB	2-13-13	0858			W				2
8	13043-MW-38-Zone 1	2-13-13	1755			GW				2
9	13043-MW-38 Zone 2	2-13-13	1625							2
10	13043-MW-40 Zone 3	2-13-13	1405							2
11	13043-MW-40 Zone 2	2-13-13	1235							2
12	13043-MW-40 Zone 1	2-13-13	1110							2
13	13042-MW-39 Zone 1	2-11-13	1225							2
14	13042-MW-39 Zone 2	2-11-13	1605							2

RELINQUISHED BY: [Signature] DATE/TIME: 2/14/13 12:55
 RECEIVED BY: [Signature] DATE/TIME: 2/14/13 12:55

PROJECT NAME: Owens-Corning
 PROJECT #: [Blank]
 SITE ADDRESS: [Blank]
 SEND REPORT TO: [Blank]
 INVOICE TO: [Blank]
 QUOTE #: [Blank]

SHIPMENT METHOD: [Blank] VIA: [Blank]
 CLIENT: [Signature] FedEx UPS MAIL COURIER
 GREYHOUND OTHER: [Blank]

SPECIAL INSTRUCTIONS/COMMENTS: See VOC focus list

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? N; Fax? Y
 DATA PACKAGE: I (i) 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+H = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original, Yellow Copy - Client



ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

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

CHAIN OF CUSTODY

Work Order: 1302002

Page 3 of 3

Date: 2-14-13

#	SAMPLE ID	SIGNED BY	SAMPLED		Grab	Composite	Matrix (See codes)	ANALYSIS REQUESTED	REMARKS	No # of Containers
			DATE	TIME						
1	13042-MW-39 Zone 3	George Akala & Matt Aufman	2-11-13	1755	X		GW			2
2	13042-EB		2-11-13	1621	X		W			2
3	13045-MW-41 Zone 2		2-14-13	0947	X		GW			2
4	13045-EB-021413		2-14-13	1010	X		W			2
5	Trip blank						W			2
6	Trip blank						W			2
7										
8										
9										
10										
11										
12										
13										
14										

COMPANY: Brown & Caldwell	ADDRESS: 990 Hammond Drive Ste 400, Atlanta, Ga 30338
PHONE:	FAX:
SIGNED BY: George Akala & Matt Aufman	SIGNATURE: <i>[Signature]</i>
RECEIVED BY: <i>[Signature]</i>	DATE/TIME: 2/14/13 12:55
PROJECT NAME: Owens - Corning	PROJECT #: _____
SITE ADDRESS: _____	SEND REPORT TO: Tberry@brownandcald.com
SHIPMENT METHOD: _____	INVOICE TO: (IF DIFFERENT FROM ABOVE)
OUT: _____	VIA: _____
IN: _____	VIA: _____
	SHIPMENT METHOD: GREYHOUND OTHER: _____
SPECIAL INSTRUCTIONS/COMMENTS: See fused list of VOCs	QUOTE #: _____ PO#: _____

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
 PRESERVATIVE CODES: H+1 = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

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

Turnaround Time Request:
 Standard 5 Business Days
 2 Business Day Rush
 Next Business Day Rush
 Same Day Rush (auth req.)
 Other

Total # of Containers: _____
 Turnaround Time Request: _____

White Copy - Original; Yellow Copy - Client

Client: BROWN AND CALDWELL

Project: Owens Corning

Lab ID: 1302D02

Case Narrative

Sample 1302D02-025A has 13043-MW-39 Zone 2 on sample label but matches the collection date/time as 13043-MW-42 ZONE 2.

Client: BROWN AND CALDWELL	Client Sample ID: 13043-MW-44
Project Name: Owens Corning	Collection Date: 2/12/2013 9:45:00 AM
Lab ID: 1302D02-001	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	172597	1	02/18/2013 18:32	NP
1,1-Dichloroethene	7.8	5.0		ug/L	172597	1	02/18/2013 18:32	NP
Methylene chloride	BRL	5.0		ug/L	172597	1	02/18/2013 18:32	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/18/2013 18:32	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172597	1	02/18/2013 18:32	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/18/2013 18:32	NP
Chloroform	BRL	5.0		ug/L	172597	1	02/18/2013 18:32	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172597	1	02/18/2013 18:32	NP
Carbon tetrachloride	BRL	5.0		ug/L	172597	1	02/18/2013 18:32	NP
Benzene	BRL	5.0		ug/L	172597	1	02/18/2013 18:32	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172597	1	02/18/2013 18:32	NP
Trichloroethene	BRL	5.0		ug/L	172597	1	02/18/2013 18:32	NP
Toluene	BRL	5.0		ug/L	172597	1	02/18/2013 18:32	NP
Tetrachloroethene	BRL	5.0		ug/L	172597	1	02/18/2013 18:32	NP
Ethylbenzene	BRL	5.0		ug/L	172597	1	02/18/2013 18:32	NP
Xylenes, Total	BRL	5.0		ug/L	172597	1	02/18/2013 18:32	NP
Surr: 4-Bromofluorobenzene	94.5	64.6-123		%REC	172597	1	02/18/2013 18:32	NP
Surr: Dibromofluoromethane	94.4	76.6-133		%REC	172597	1	02/18/2013 18:32	NP
Surr: Toluene-d8	86.3	77.8-120		%REC	172597	1	02/18/2013 18:32	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

Client: BROWN AND CALDWELL	Client Sample ID: 13043-DUP-021213
Project Name: Owens Corning	Collection Date: 2/12/2013 12:00:00 PM
Lab ID: 1302D02-002	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	172597	1	02/18/2013 18:58	NP
1,1-Dichloroethene	8.7	5.0		ug/L	172597	1	02/18/2013 18:58	NP
Methylene chloride	BRL	5.0		ug/L	172597	1	02/18/2013 18:58	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/18/2013 18:58	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172597	1	02/18/2013 18:58	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/18/2013 18:58	NP
Chloroform	BRL	5.0		ug/L	172597	1	02/18/2013 18:58	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172597	1	02/18/2013 18:58	NP
Carbon tetrachloride	BRL	5.0		ug/L	172597	1	02/18/2013 18:58	NP
Benzene	BRL	5.0		ug/L	172597	1	02/18/2013 18:58	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172597	1	02/18/2013 18:58	NP
Trichloroethene	BRL	5.0		ug/L	172597	1	02/18/2013 18:58	NP
Toluene	BRL	5.0		ug/L	172597	1	02/18/2013 18:58	NP
Tetrachloroethene	BRL	5.0		ug/L	172597	1	02/18/2013 18:58	NP
Ethylbenzene	BRL	5.0		ug/L	172597	1	02/18/2013 18:58	NP
Xylenes, Total	BRL	5.0		ug/L	172597	1	02/18/2013 18:58	NP
Surr: 4-Bromofluorobenzene	92.5	64.6-123		%REC	172597	1	02/18/2013 18:58	NP
Surr: Dibromofluoromethane	98.1	76.6-133		%REC	172597	1	02/18/2013 18:58	NP
Surr: Toluene-d8	87.4	77.8-120		%REC	172597	1	02/18/2013 18:58	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

Client: BROWN AND CALDWELL	Client Sample ID: 13042-MW-15
Project Name: Owens Corning	Collection Date: 2/11/2013 4:35:00 PM
Lab ID: 1302D02-003	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	172597	1	02/18/2013 19:22	NP
1,1-Dichloroethene	200	5.0		ug/L	172597	1	02/18/2013 19:22	NP
Methylene chloride	BRL	5.0		ug/L	172597	1	02/18/2013 19:22	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/18/2013 19:22	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172597	1	02/18/2013 19:22	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/18/2013 19:22	NP
Chloroform	BRL	5.0		ug/L	172597	1	02/18/2013 19:22	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172597	1	02/18/2013 19:22	NP
Carbon tetrachloride	BRL	5.0		ug/L	172597	1	02/18/2013 19:22	NP
Benzene	BRL	5.0		ug/L	172597	1	02/18/2013 19:22	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172597	1	02/18/2013 19:22	NP
Trichloroethene	BRL	5.0		ug/L	172597	1	02/18/2013 19:22	NP
Toluene	BRL	5.0		ug/L	172597	1	02/18/2013 19:22	NP
Tetrachloroethene	BRL	5.0		ug/L	172597	1	02/18/2013 19:22	NP
Ethylbenzene	BRL	5.0		ug/L	172597	1	02/18/2013 19:22	NP
Xylenes, Total	BRL	5.0		ug/L	172597	1	02/18/2013 19:22	NP
Surr: 4-Bromofluorobenzene	91.4	64.6-123		%REC	172597	1	02/18/2013 19:22	NP
Surr: Dibromofluoromethane	95.9	76.6-133		%REC	172597	1	02/18/2013 19:22	NP
Surr: Toluene-d8	86	77.8-120		%REC	172597	1	02/18/2013 19:22	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

Client: BROWN AND CALDWELL	Client Sample ID: 13043-MW-22
Project Name: Owens Corning	Collection Date: 2/12/2013 11:30:00 AM
Lab ID: 1302D02-004	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	172597	1	02/18/2013 19:48	NP
1,1-Dichloroethene	460	50		ug/L	172597	10	02/19/2013 14:02	NP
Methylene chloride	BRL	5.0		ug/L	172597	1	02/18/2013 19:48	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/18/2013 19:48	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172597	1	02/18/2013 19:48	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/18/2013 19:48	NP
Chloroform	10	5.0		ug/L	172597	1	02/18/2013 19:48	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172597	1	02/18/2013 19:48	NP
Carbon tetrachloride	31	5.0		ug/L	172597	1	02/18/2013 19:48	NP
Benzene	BRL	5.0		ug/L	172597	1	02/18/2013 19:48	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172597	1	02/18/2013 19:48	NP
Trichloroethene	BRL	5.0		ug/L	172597	1	02/18/2013 19:48	NP
Toluene	BRL	5.0		ug/L	172597	1	02/18/2013 19:48	NP
Tetrachloroethene	BRL	5.0		ug/L	172597	1	02/18/2013 19:48	NP
Ethylbenzene	BRL	5.0		ug/L	172597	1	02/18/2013 19:48	NP
Xylenes, Total	BRL	5.0		ug/L	172597	1	02/18/2013 19:48	NP
Surr: 4-Bromofluorobenzene	90.6	64.6-123		%REC	172597	1	02/18/2013 19:48	NP
Surr: 4-Bromofluorobenzene	93.2	64.6-123		%REC	172597	10	02/19/2013 14:02	NP
Surr: Dibromofluoromethane	103	76.6-133		%REC	172597	1	02/18/2013 19:48	NP
Surr: Dibromofluoromethane	110	76.6-133		%REC	172597	10	02/19/2013 14:02	NP
Surr: Toluene-d8	85.9	77.8-120		%REC	172597	1	02/18/2013 19:48	NP
Surr: Toluene-d8	88.1	77.8-120		%REC	172597	10	02/19/2013 14:02	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

Client: BROWN AND CALDWELL	Client Sample ID: 13043-EB-021213
Project Name: Owens Corning	Collection Date: 2/12/2013 11:50:00 AM
Lab ID: 1302D02-005	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	172597	1	02/18/2013 20:13	NP
1,1-Dichloroethene	BRL	5.0		ug/L	172597	1	02/18/2013 20:13	NP
Methylene chloride	BRL	5.0		ug/L	172597	1	02/18/2013 20:13	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/18/2013 20:13	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172597	1	02/18/2013 20:13	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/18/2013 20:13	NP
Chloroform	BRL	5.0		ug/L	172597	1	02/18/2013 20:13	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172597	1	02/18/2013 20:13	NP
Carbon tetrachloride	BRL	5.0		ug/L	172597	1	02/18/2013 20:13	NP
Benzene	BRL	5.0		ug/L	172597	1	02/18/2013 20:13	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172597	1	02/18/2013 20:13	NP
Trichloroethene	BRL	5.0		ug/L	172597	1	02/18/2013 20:13	NP
Toluene	BRL	5.0		ug/L	172597	1	02/18/2013 20:13	NP
Tetrachloroethene	BRL	5.0		ug/L	172597	1	02/18/2013 20:13	NP
Ethylbenzene	BRL	5.0		ug/L	172597	1	02/18/2013 20:13	NP
Xylenes, Total	BRL	5.0		ug/L	172597	1	02/18/2013 20:13	NP
Surr: 4-Bromofluorobenzene	93.4	64.6-123		%REC	172597	1	02/18/2013 20:13	NP
Surr: Dibromofluoromethane	98.8	76.6-133		%REC	172597	1	02/18/2013 20:13	NP
Surr: Toluene-d8	87.8	77.8-120		%REC	172597	1	02/18/2013 20:13	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

Client: BROWN AND CALDWELL	Client Sample ID: 13043-MW-29R ZONE 3
Project Name: Owens Corning	Collection Date: 2/12/2013 5:40:00 PM
Lab ID: 1302D02-006	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	172597	1	02/18/2013 20:39	NP
1,1-Dichloroethene	400	50		ug/L	172597	10	02/19/2013 14:28	NP
Methylene chloride	BRL	5.0		ug/L	172597	1	02/18/2013 20:39	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/18/2013 20:39	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172597	1	02/18/2013 20:39	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/18/2013 20:39	NP
Chloroform	7.9	5.0		ug/L	172597	1	02/18/2013 20:39	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172597	1	02/18/2013 20:39	NP
Carbon tetrachloride	15	5.0		ug/L	172597	1	02/18/2013 20:39	NP
Benzene	BRL	5.0		ug/L	172597	1	02/18/2013 20:39	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172597	1	02/18/2013 20:39	NP
Trichloroethene	BRL	5.0		ug/L	172597	1	02/18/2013 20:39	NP
Toluene	BRL	5.0		ug/L	172597	1	02/18/2013 20:39	NP
Tetrachloroethene	BRL	5.0		ug/L	172597	1	02/18/2013 20:39	NP
Ethylbenzene	BRL	5.0		ug/L	172597	1	02/18/2013 20:39	NP
Xylenes, Total	BRL	5.0		ug/L	172597	1	02/18/2013 20:39	NP
Surr: 4-Bromofluorobenzene	91.6	64.6-123		%REC	172597	10	02/19/2013 14:28	NP
Surr: 4-Bromofluorobenzene	93.2	64.6-123		%REC	172597	1	02/18/2013 20:39	NP
Surr: Dibromofluoromethane	102	76.6-133		%REC	172597	1	02/18/2013 20:39	NP
Surr: Dibromofluoromethane	109	76.6-133		%REC	172597	10	02/19/2013 14:28	NP
Surr: Toluene-d8	87.7	77.8-120		%REC	172597	1	02/18/2013 20:39	NP
Surr: Toluene-d8	88	77.8-120		%REC	172597	10	02/19/2013 14:28	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

Client: BROWN AND CALDWELL	Client Sample ID: 13043-MW-29R ZONE 4
Project Name: Owens Corning	Collection Date: 2/12/2013 6:15:00 PM
Lab ID: 1302D02-007	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	172597	1	02/19/2013 00:04	NP
1,1-Dichloroethene	290	50		ug/L	172597	10	02/19/2013 14:54	NP
Methylene chloride	BRL	5.0		ug/L	172597	1	02/19/2013 00:04	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 00:04	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 00:04	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 00:04	NP
Chloroform	7.3	5.0		ug/L	172597	1	02/19/2013 00:04	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 00:04	NP
Carbon tetrachloride	8.0	5.0		ug/L	172597	1	02/19/2013 00:04	NP
Benzene	BRL	5.0		ug/L	172597	1	02/19/2013 00:04	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 00:04	NP
Trichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 00:04	NP
Toluene	BRL	5.0		ug/L	172597	1	02/19/2013 00:04	NP
Tetrachloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 00:04	NP
Ethylbenzene	BRL	5.0		ug/L	172597	1	02/19/2013 00:04	NP
Xylenes, Total	BRL	5.0		ug/L	172597	1	02/19/2013 00:04	NP
Surr: 4-Bromofluorobenzene	90.8	64.6-123		%REC	172597	1	02/19/2013 00:04	NP
Surr: 4-Bromofluorobenzene	93.3	64.6-123		%REC	172597	10	02/19/2013 14:54	NP
Surr: Dibromofluoromethane	109	76.6-133		%REC	172597	10	02/19/2013 14:54	NP
Surr: Dibromofluoromethane	105	76.6-133		%REC	172597	1	02/19/2013 00:04	NP
Surr: Toluene-d8	87.2	77.8-120		%REC	172597	10	02/19/2013 14:54	NP
Surr: Toluene-d8	87.7	77.8-120		%REC	172597	1	02/19/2013 00:04	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

Client: BROWN AND CALDWELL	Client Sample ID: 13042-MW-35
Project Name: Owens Corning	Collection Date: 2/11/2013 5:55:00 PM
Lab ID: 1302D02-008	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	172597	1	02/19/2013 00:30	NP
1,1-Dichloroethene	31	5.0		ug/L	172597	1	02/19/2013 00:30	NP
Methylene chloride	BRL	5.0		ug/L	172597	1	02/19/2013 00:30	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 00:30	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 00:30	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 00:30	NP
Chloroform	BRL	5.0		ug/L	172597	1	02/19/2013 00:30	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 00:30	NP
Carbon tetrachloride	BRL	5.0		ug/L	172597	1	02/19/2013 00:30	NP
Benzene	BRL	5.0		ug/L	172597	1	02/19/2013 00:30	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 00:30	NP
Trichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 00:30	NP
Toluene	BRL	5.0		ug/L	172597	1	02/19/2013 00:30	NP
Tetrachloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 00:30	NP
Ethylbenzene	BRL	5.0		ug/L	172597	1	02/19/2013 00:30	NP
Xylenes, Total	BRL	5.0		ug/L	172597	1	02/19/2013 00:30	NP
Surr: 4-Bromofluorobenzene	91.1	64.6-123		%REC	172597	1	02/19/2013 00:30	NP
Surr: Dibromofluoromethane	105	76.6-133		%REC	172597	1	02/19/2013 00:30	NP
Surr: Toluene-d8	87.1	77.8-120		%REC	172597	1	02/19/2013 00:30	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

Client: BROWN AND CALDWELL	Client Sample ID: 13043-MW-36 ZONE 1
Project Name: Owens Corning	Collection Date: 2/12/2013 4:15:00 PM
Lab ID: 1302D02-009	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	172597	1	02/19/2013 00:55	NP
1,1-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 00:55	NP
Methylene chloride	BRL	5.0		ug/L	172597	1	02/19/2013 00:55	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 00:55	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 00:55	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 00:55	NP
Chloroform	BRL	5.0		ug/L	172597	1	02/19/2013 00:55	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 00:55	NP
Carbon tetrachloride	BRL	5.0		ug/L	172597	1	02/19/2013 00:55	NP
Benzene	BRL	5.0		ug/L	172597	1	02/19/2013 00:55	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 00:55	NP
Trichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 00:55	NP
Toluene	BRL	5.0		ug/L	172597	1	02/19/2013 00:55	NP
Tetrachloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 00:55	NP
Ethylbenzene	BRL	5.0		ug/L	172597	1	02/19/2013 00:55	NP
Xylenes, Total	BRL	5.0		ug/L	172597	1	02/19/2013 00:55	NP
Surr: 4-Bromofluorobenzene	91	64.6-123		%REC	172597	1	02/19/2013 00:55	NP
Surr: Dibromofluoromethane	106	76.6-133		%REC	172597	1	02/19/2013 00:55	NP
Surr: Toluene-d8	87.2	77.8-120		%REC	172597	1	02/19/2013 00:55	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

Client: BROWN AND CALDWELL	Client Sample ID: 13043-MW-36 ZONE 3
Project Name: Owens Corning	Collection Date: 2/12/2013 4:25:00 PM
Lab ID: 1302D02-010	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	172597	1	02/19/2013 01:20	NP
1,1-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 01:20	NP
Methylene chloride	BRL	5.0		ug/L	172597	1	02/19/2013 01:20	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 01:20	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 01:20	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 01:20	NP
Chloroform	BRL	5.0		ug/L	172597	1	02/19/2013 01:20	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 01:20	NP
Carbon tetrachloride	BRL	5.0		ug/L	172597	1	02/19/2013 01:20	NP
Benzene	BRL	5.0		ug/L	172597	1	02/19/2013 01:20	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 01:20	NP
Trichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 01:20	NP
Toluene	BRL	5.0		ug/L	172597	1	02/19/2013 01:20	NP
Tetrachloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 01:20	NP
Ethylbenzene	BRL	5.0		ug/L	172597	1	02/19/2013 01:20	NP
Xylenes, Total	BRL	5.0		ug/L	172597	1	02/19/2013 01:20	NP
Surr: 4-Bromofluorobenzene	92	64.6-123		%REC	172597	1	02/19/2013 01:20	NP
Surr: Dibromofluoromethane	105	76.6-133		%REC	172597	1	02/19/2013 01:20	NP
Surr: Toluene-d8	86.4	77.8-120		%REC	172597	1	02/19/2013 01:20	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

Client: BROWN AND CALDWELL	Client Sample ID: 13043-MW-36 ZONE 5
Project Name: Owens Corning	Collection Date: 2/12/2013 3:45:00 PM
Lab ID: 1302D02-011	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	172597	1	02/19/2013 01:46	NP
1,1-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 01:46	NP
Methylene chloride	BRL	5.0		ug/L	172597	1	02/19/2013 01:46	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 01:46	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 01:46	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 01:46	NP
Chloroform	BRL	5.0		ug/L	172597	1	02/19/2013 01:46	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 01:46	NP
Carbon tetrachloride	BRL	5.0		ug/L	172597	1	02/19/2013 01:46	NP
Benzene	BRL	5.0		ug/L	172597	1	02/19/2013 01:46	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 01:46	NP
Trichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 01:46	NP
Toluene	BRL	5.0		ug/L	172597	1	02/19/2013 01:46	NP
Tetrachloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 01:46	NP
Ethylbenzene	BRL	5.0		ug/L	172597	1	02/19/2013 01:46	NP
Xylenes, Total	BRL	5.0		ug/L	172597	1	02/19/2013 01:46	NP
Surr: 4-Bromofluorobenzene	98.1	64.6-123		%REC	172597	1	02/19/2013 01:46	NP
Surr: Dibromofluoromethane	103	76.6-133		%REC	172597	1	02/19/2013 01:46	NP
Surr: Toluene-d8	87.3	77.8-120		%REC	172597	1	02/19/2013 01:46	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

Client: BROWN AND CALDWELL	Client Sample ID: 13044-MW-43 ZONE 3
Project Name: Owens Corning	Collection Date: 2/13/2013 11:05:00 AM
Lab ID: 1302D02-012	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	172597	1	02/19/2013 02:11	NP
1,1-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 02:11	NP
Methylene chloride	BRL	5.0		ug/L	172597	1	02/19/2013 02:11	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 02:11	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 02:11	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 02:11	NP
Chloroform	BRL	5.0		ug/L	172597	1	02/19/2013 02:11	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 02:11	NP
Carbon tetrachloride	BRL	5.0		ug/L	172597	1	02/19/2013 02:11	NP
Benzene	BRL	5.0		ug/L	172597	1	02/19/2013 02:11	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 02:11	NP
Trichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 02:11	NP
Toluene	BRL	5.0		ug/L	172597	1	02/19/2013 02:11	NP
Tetrachloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 02:11	NP
Ethylbenzene	BRL	5.0		ug/L	172597	1	02/19/2013 02:11	NP
Xylenes, Total	BRL	5.0		ug/L	172597	1	02/19/2013 02:11	NP
Surr: 4-Bromofluorobenzene	95.4	64.6-123		%REC	172597	1	02/19/2013 02:11	NP
Surr: Dibromofluoromethane	106	76.6-133		%REC	172597	1	02/19/2013 02:11	NP
Surr: Toluene-d8	88.2	77.8-120		%REC	172597	1	02/19/2013 02:11	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

Client: BROWN AND CALDWELL	Client Sample ID: 13044-MW-43 ZONE 2
Project Name: Owens Corning	Collection Date: 2/13/2013 1:25:00 PM
Lab ID: 1302D02-013	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	172597	1	02/19/2013 02:37	NP
1,1-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 02:37	NP
Methylene chloride	BRL	5.0		ug/L	172597	1	02/19/2013 02:37	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 02:37	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 02:37	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 02:37	NP
Chloroform	BRL	5.0		ug/L	172597	1	02/19/2013 02:37	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 02:37	NP
Carbon tetrachloride	BRL	5.0		ug/L	172597	1	02/19/2013 02:37	NP
Benzene	BRL	5.0		ug/L	172597	1	02/19/2013 02:37	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 02:37	NP
Trichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 02:37	NP
Toluene	BRL	5.0		ug/L	172597	1	02/19/2013 02:37	NP
Tetrachloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 02:37	NP
Ethylbenzene	BRL	5.0		ug/L	172597	1	02/19/2013 02:37	NP
Xylenes, Total	BRL	5.0		ug/L	172597	1	02/19/2013 02:37	NP
Surr: 4-Bromofluorobenzene	92.5	64.6-123		%REC	172597	1	02/19/2013 02:37	NP
Surr: Dibromofluoromethane	108	76.6-133		%REC	172597	1	02/19/2013 02:37	NP
Surr: Toluene-d8	88.1	77.8-120		%REC	172597	1	02/19/2013 02:37	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

Client: BROWN AND CALDWELL	Client Sample ID: 13044-MW-43 ZONE 1
Project Name: Owens Corning	Collection Date: 2/13/2013 2:35:00 PM
Lab ID: 1302D02-014	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	172597	1	02/19/2013 03:02	NP
1,1-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 03:02	NP
Methylene chloride	BRL	5.0		ug/L	172597	1	02/19/2013 03:02	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 03:02	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 03:02	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 03:02	NP
Chloroform	BRL	5.0		ug/L	172597	1	02/19/2013 03:02	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 03:02	NP
Carbon tetrachloride	BRL	5.0		ug/L	172597	1	02/19/2013 03:02	NP
Benzene	BRL	5.0		ug/L	172597	1	02/19/2013 03:02	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 03:02	NP
Trichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 03:02	NP
Toluene	BRL	5.0		ug/L	172597	1	02/19/2013 03:02	NP
Tetrachloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 03:02	NP
Ethylbenzene	BRL	5.0		ug/L	172597	1	02/19/2013 03:02	NP
Xylenes, Total	BRL	5.0		ug/L	172597	1	02/19/2013 03:02	NP
Surr: 4-Bromofluorobenzene	92	64.6-123		%REC	172597	1	02/19/2013 03:02	NP
Surr: Dibromofluoromethane	107	76.6-133		%REC	172597	1	02/19/2013 03:02	NP
Surr: Toluene-d8	87.7	77.8-120		%REC	172597	1	02/19/2013 03:02	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

Client: BROWN AND CALDWELL	Client Sample ID: 13044-MW-41 ZONE 1
Project Name: Owens Corning	Collection Date: 2/13/2013 4:30:00 PM
Lab ID: 1302D02-015	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	172597	1	02/19/2013 03:27	NP
1,1-Dichloroethene	250	50		ug/L	172597	10	02/19/2013 15:19	NP
Methylene chloride	BRL	5.0		ug/L	172597	1	02/19/2013 03:27	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 03:27	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 03:27	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 03:27	NP
Chloroform	BRL	5.0		ug/L	172597	1	02/19/2013 03:27	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 03:27	NP
Carbon tetrachloride	BRL	5.0		ug/L	172597	1	02/19/2013 03:27	NP
Benzene	BRL	5.0		ug/L	172597	1	02/19/2013 03:27	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 03:27	NP
Trichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 03:27	NP
Toluene	BRL	5.0		ug/L	172597	1	02/19/2013 03:27	NP
Tetrachloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 03:27	NP
Ethylbenzene	BRL	5.0		ug/L	172597	1	02/19/2013 03:27	NP
Xylenes, Total	BRL	5.0		ug/L	172597	1	02/19/2013 03:27	NP
Surr: 4-Bromofluorobenzene	91.1	64.6-123		%REC	172597	10	02/19/2013 15:19	NP
Surr: 4-Bromofluorobenzene	93.5	64.6-123		%REC	172597	1	02/19/2013 03:27	NP
Surr: Dibromofluoromethane	108	76.6-133		%REC	172597	1	02/19/2013 03:27	NP
Surr: Dibromofluoromethane	111	76.6-133		%REC	172597	10	02/19/2013 15:19	NP
Surr: Toluene-d8	88.2	77.8-120		%REC	172597	1	02/19/2013 03:27	NP
Surr: Toluene-d8	88.2	77.8-120		%REC	172597	10	02/19/2013 15:19	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

Client: BROWN AND CALDWELL	Client Sample ID: 13044-DUP-021313
Project Name: Owens Corning	Collection Date: 2/13/2013 12:00:00 PM
Lab ID: 1302D02-016	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	172597	1	02/19/2013 03:53	NP
1,1-Dichloroethene	220	50		ug/L	172597	10	02/19/2013 15:44	NP
Methylene chloride	BRL	5.0		ug/L	172597	1	02/19/2013 03:53	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 03:53	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 03:53	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 03:53	NP
Chloroform	BRL	5.0		ug/L	172597	1	02/19/2013 03:53	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 03:53	NP
Carbon tetrachloride	BRL	5.0		ug/L	172597	1	02/19/2013 03:53	NP
Benzene	BRL	5.0		ug/L	172597	1	02/19/2013 03:53	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 03:53	NP
Trichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 03:53	NP
Toluene	BRL	5.0		ug/L	172597	1	02/19/2013 03:53	NP
Tetrachloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 03:53	NP
Ethylbenzene	BRL	5.0		ug/L	172597	1	02/19/2013 03:53	NP
Xylenes, Total	BRL	5.0		ug/L	172597	1	02/19/2013 03:53	NP
Surr: 4-Bromofluorobenzene	91.1	64.6-123		%REC	172597	10	02/19/2013 15:44	NP
Surr: 4-Bromofluorobenzene	94	64.6-123		%REC	172597	1	02/19/2013 03:53	NP
Surr: Dibromofluoromethane	108	76.6-133		%REC	172597	1	02/19/2013 03:53	NP
Surr: Dibromofluoromethane	110	76.6-133		%REC	172597	10	02/19/2013 15:44	NP
Surr: Toluene-d8	87.9	77.8-120		%REC	172597	1	02/19/2013 03:53	NP
Surr: Toluene-d8	87.2	77.8-120		%REC	172597	10	02/19/2013 15:44	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

Client: BROWN AND CALDWELL	Client Sample ID: 13044-MW-41-ZONE 3
Project Name: Owens Corning	Collection Date: 2/13/2013 4:40:00 PM
Lab ID: 1302D02-017	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	172597	1	02/19/2013 04:18	NP
1,1-Dichloroethene	76	5.0		ug/L	172597	1	02/19/2013 04:18	NP
Methylene chloride	BRL	5.0		ug/L	172597	1	02/19/2013 04:18	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 04:18	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 04:18	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 04:18	NP
Chloroform	BRL	5.0		ug/L	172597	1	02/19/2013 04:18	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 04:18	NP
Carbon tetrachloride	BRL	5.0		ug/L	172597	1	02/19/2013 04:18	NP
Benzene	BRL	5.0		ug/L	172597	1	02/19/2013 04:18	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 04:18	NP
Trichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 04:18	NP
Toluene	BRL	5.0		ug/L	172597	1	02/19/2013 04:18	NP
Tetrachloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 04:18	NP
Ethylbenzene	BRL	5.0		ug/L	172597	1	02/19/2013 04:18	NP
Xylenes, Total	BRL	5.0		ug/L	172597	1	02/19/2013 04:18	NP
Surr: 4-Bromofluorobenzene	94	64.6-123		%REC	172597	1	02/19/2013 04:18	NP
Surr: Dibromofluoromethane	108	76.6-133		%REC	172597	1	02/19/2013 04:18	NP
Surr: Toluene-d8	88.2	77.8-120		%REC	172597	1	02/19/2013 04:18	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

Client: BROWN AND CALDWELL	Client Sample ID: 13044-MW-37 ZONE 3
Project Name: Owens Corning	Collection Date: 2/13/2013 2:08:00 PM
Lab ID: 1302D02-018	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	172597	1	02/19/2013 04:44	NP
1,1-Dichloroethene	5.9	5.0		ug/L	172597	1	02/19/2013 04:44	NP
Methylene chloride	BRL	5.0		ug/L	172597	1	02/19/2013 04:44	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 04:44	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 04:44	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 04:44	NP
Chloroform	BRL	5.0		ug/L	172597	1	02/19/2013 04:44	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 04:44	NP
Carbon tetrachloride	BRL	5.0		ug/L	172597	1	02/19/2013 04:44	NP
Benzene	BRL	5.0		ug/L	172597	1	02/19/2013 04:44	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 04:44	NP
Trichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 04:44	NP
Toluene	BRL	5.0		ug/L	172597	1	02/19/2013 04:44	NP
Tetrachloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 04:44	NP
Ethylbenzene	BRL	5.0		ug/L	172597	1	02/19/2013 04:44	NP
Xylenes, Total	BRL	5.0		ug/L	172597	1	02/19/2013 04:44	NP
Surr: 4-Bromofluorobenzene	90.3	64.6-123		%REC	172597	1	02/19/2013 04:44	NP
Surr: Dibromofluoromethane	110	76.6-133		%REC	172597	1	02/19/2013 04:44	NP
Surr: Toluene-d8	86.9	77.8-120		%REC	172597	1	02/19/2013 04:44	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

Client: BROWN AND CALDWELL	Client Sample ID: 13044-MW-37 ZONE 2
Project Name: Owens Corning	Collection Date: 2/13/2013 12:35:00 PM
Lab ID: 1302D02-019	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	172597	1	02/19/2013 05:09	NP
1,1-Dichloroethene	130	5.0		ug/L	172597	1	02/19/2013 05:09	NP
Methylene chloride	BRL	5.0		ug/L	172597	1	02/19/2013 05:09	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 05:09	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 05:09	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 05:09	NP
Chloroform	5.8	5.0		ug/L	172597	1	02/19/2013 05:09	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 05:09	NP
Carbon tetrachloride	BRL	5.0		ug/L	172597	1	02/19/2013 05:09	NP
Benzene	BRL	5.0		ug/L	172597	1	02/19/2013 05:09	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 05:09	NP
Trichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 05:09	NP
Toluene	BRL	5.0		ug/L	172597	1	02/19/2013 05:09	NP
Tetrachloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 05:09	NP
Ethylbenzene	BRL	5.0		ug/L	172597	1	02/19/2013 05:09	NP
Xylenes, Total	BRL	5.0		ug/L	172597	1	02/19/2013 05:09	NP
Surr: 4-Bromofluorobenzene	92	64.6-123		%REC	172597	1	02/19/2013 05:09	NP
Surr: Dibromofluoromethane	110	76.6-133		%REC	172597	1	02/19/2013 05:09	NP
Surr: Toluene-d8	88.1	77.8-120		%REC	172597	1	02/19/2013 05:09	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

Client: BROWN AND CALDWELL	Client Sample ID: 13044-MW-37 ZONE 1
Project Name: Owens Corning	Collection Date: 2/13/2013 10:50:00 AM
Lab ID: 1302D02-020	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	172597	1	02/19/2013 05:34	NP
1,1-Dichloroethene	98	5.0		ug/L	172597	1	02/19/2013 05:34	NP
Methylene chloride	BRL	5.0		ug/L	172597	1	02/19/2013 05:34	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 05:34	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 05:34	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 05:34	NP
Chloroform	BRL	5.0		ug/L	172597	1	02/19/2013 05:34	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 05:34	NP
Carbon tetrachloride	BRL	5.0		ug/L	172597	1	02/19/2013 05:34	NP
Benzene	BRL	5.0		ug/L	172597	1	02/19/2013 05:34	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172597	1	02/19/2013 05:34	NP
Trichloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 05:34	NP
Toluene	BRL	5.0		ug/L	172597	1	02/19/2013 05:34	NP
Tetrachloroethene	BRL	5.0		ug/L	172597	1	02/19/2013 05:34	NP
Ethylbenzene	BRL	5.0		ug/L	172597	1	02/19/2013 05:34	NP
Xylenes, Total	BRL	5.0		ug/L	172597	1	02/19/2013 05:34	NP
Surr: 4-Bromofluorobenzene	93	64.6-123		%REC	172597	1	02/19/2013 05:34	NP
Surr: Dibromofluoromethane	107	76.6-133		%REC	172597	1	02/19/2013 05:34	NP
Surr: Toluene-d8	88.3	77.8-120		%REC	172597	1	02/19/2013 05:34	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

Client: BROWN AND CALDWELL	Client Sample ID: 13044-EB
Project Name: Owens Corning	Collection Date: 2/13/2013 8:58:00 AM
Lab ID: 1302D02-021	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	172600	1	02/19/2013 06:00	NP
1,1-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 06:00	NP
Methylene chloride	BRL	5.0		ug/L	172600	1	02/19/2013 06:00	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 06:00	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 06:00	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 06:00	NP
Chloroform	BRL	5.0		ug/L	172600	1	02/19/2013 06:00	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 06:00	NP
Carbon tetrachloride	BRL	5.0		ug/L	172600	1	02/19/2013 06:00	NP
Benzene	BRL	5.0		ug/L	172600	1	02/19/2013 06:00	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 06:00	NP
Trichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 06:00	NP
Toluene	BRL	5.0		ug/L	172600	1	02/19/2013 06:00	NP
Tetrachloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 06:00	NP
Ethylbenzene	BRL	5.0		ug/L	172600	1	02/19/2013 06:00	NP
Xylenes, Total	BRL	5.0		ug/L	172600	1	02/19/2013 06:00	NP
Surr: 4-Bromofluorobenzene	92.8	64.6-123		%REC	172600	1	02/19/2013 06:00	NP
Surr: Dibromofluoromethane	107	76.6-133		%REC	172600	1	02/19/2013 06:00	NP
Surr: Toluene-d8	87.7	77.8-120		%REC	172600	1	02/19/2013 06:00	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

Client: BROWN AND CALDWELL	Client Sample ID: 13043-MW-38 ZONE 1
Project Name: Owens Corning	Collection Date: 2/12/2013 5:55:00 PM
Lab ID: 1302D02-022	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	172600	1	02/19/2013 06:24	NP
1,1-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 06:24	NP
Methylene chloride	BRL	5.0		ug/L	172600	1	02/19/2013 06:24	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 06:24	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 06:24	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 06:24	NP
Chloroform	BRL	5.0		ug/L	172600	1	02/19/2013 06:24	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 06:24	NP
Carbon tetrachloride	BRL	5.0		ug/L	172600	1	02/19/2013 06:24	NP
Benzene	BRL	5.0		ug/L	172600	1	02/19/2013 06:24	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 06:24	NP
Trichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 06:24	NP
Toluene	BRL	5.0		ug/L	172600	1	02/19/2013 06:24	NP
Tetrachloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 06:24	NP
Ethylbenzene	BRL	5.0		ug/L	172600	1	02/19/2013 06:24	NP
Xylenes, Total	BRL	5.0		ug/L	172600	1	02/19/2013 06:24	NP
Surr: 4-Bromofluorobenzene	92.9	64.6-123		%REC	172600	1	02/19/2013 06:24	NP
Surr: Dibromofluoromethane	108	76.6-133		%REC	172600	1	02/19/2013 06:24	NP
Surr: Toluene-d8	87.4	77.8-120		%REC	172600	1	02/19/2013 06:24	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

Client: BROWN AND CALDWELL	Client Sample ID: 13043-MW-38 ZONE 2
Project Name: Owens Corning	Collection Date: 2/12/2013 4:25:00 PM
Lab ID: 1302D02-023	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	172600	1	02/19/2013 06:50	NP
1,1-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 06:50	NP
Methylene chloride	BRL	5.0		ug/L	172600	1	02/19/2013 06:50	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 06:50	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 06:50	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 06:50	NP
Chloroform	BRL	5.0		ug/L	172600	1	02/19/2013 06:50	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 06:50	NP
Carbon tetrachloride	BRL	5.0		ug/L	172600	1	02/19/2013 06:50	NP
Benzene	BRL	5.0		ug/L	172600	1	02/19/2013 06:50	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 06:50	NP
Trichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 06:50	NP
Toluene	BRL	5.0		ug/L	172600	1	02/19/2013 06:50	NP
Tetrachloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 06:50	NP
Ethylbenzene	BRL	5.0		ug/L	172600	1	02/19/2013 06:50	NP
Xylenes, Total	BRL	5.0		ug/L	172600	1	02/19/2013 06:50	NP
Surr: 4-Bromofluorobenzene	93.4	64.6-123		%REC	172600	1	02/19/2013 06:50	NP
Surr: Dibromofluoromethane	109	76.6-133		%REC	172600	1	02/19/2013 06:50	NP
Surr: Toluene-d8	87	77.8-120		%REC	172600	1	02/19/2013 06:50	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

Client: BROWN AND CALDWELL	Client Sample ID: 13043-MW-42 ZONE 3
Project Name: Owens Corning	Collection Date: 2/12/2013 2:05:00 PM
Lab ID: 1302D02-024	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	172600	1	02/19/2013 07:15	NP
1,1-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 07:15	NP
Methylene chloride	BRL	5.0		ug/L	172600	1	02/19/2013 07:15	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 07:15	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 07:15	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 07:15	NP
Chloroform	BRL	5.0		ug/L	172600	1	02/19/2013 07:15	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 07:15	NP
Carbon tetrachloride	BRL	5.0		ug/L	172600	1	02/19/2013 07:15	NP
Benzene	BRL	5.0		ug/L	172600	1	02/19/2013 07:15	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 07:15	NP
Trichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 07:15	NP
Toluene	BRL	5.0		ug/L	172600	1	02/19/2013 07:15	NP
Tetrachloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 07:15	NP
Ethylbenzene	BRL	5.0		ug/L	172600	1	02/19/2013 07:15	NP
Xylenes, Total	BRL	5.0		ug/L	172600	1	02/19/2013 07:15	NP
Surr: 4-Bromofluorobenzene	94.8	64.6-123		%REC	172600	1	02/19/2013 07:15	NP
Surr: Dibromofluoromethane	108	76.6-133		%REC	172600	1	02/19/2013 07:15	NP
Surr: Toluene-d8	89.4	77.8-120		%REC	172600	1	02/19/2013 07:15	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

Client: BROWN AND CALDWELL	Client Sample ID: 13043-MW-42 ZONE 2
Project Name: Owens Corning	Collection Date: 2/12/2013 12:35:00 PM
Lab ID: 1302D02-025	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	172600	1	02/19/2013 07:41	NP
1,1-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 07:41	NP
Methylene chloride	BRL	5.0		ug/L	172600	1	02/19/2013 07:41	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 07:41	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 07:41	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 07:41	NP
Chloroform	BRL	5.0		ug/L	172600	1	02/19/2013 07:41	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 07:41	NP
Carbon tetrachloride	BRL	5.0		ug/L	172600	1	02/19/2013 07:41	NP
Benzene	BRL	5.0		ug/L	172600	1	02/19/2013 07:41	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 07:41	NP
Trichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 07:41	NP
Toluene	BRL	5.0		ug/L	172600	1	02/19/2013 07:41	NP
Tetrachloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 07:41	NP
Ethylbenzene	BRL	5.0		ug/L	172600	1	02/19/2013 07:41	NP
Xylenes, Total	BRL	5.0		ug/L	172600	1	02/19/2013 07:41	NP
Surr: 4-Bromofluorobenzene	91.3	64.6-123		%REC	172600	1	02/19/2013 07:41	NP
Surr: Dibromofluoromethane	110	76.6-133		%REC	172600	1	02/19/2013 07:41	NP
Surr: Toluene-d8	85.5	77.8-120		%REC	172600	1	02/19/2013 07:41	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

Client: BROWN AND CALDWELL	Client Sample ID: 13043-MW-42 ZONE 1
Project Name: Owens Corning	Collection Date: 2/12/2013 11:10:00 AM
Lab ID: 1302D02-026	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	172600	1	02/19/2013 08:06	NP
1,1-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 08:06	NP
Methylene chloride	BRL	5.0		ug/L	172600	1	02/19/2013 08:06	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 08:06	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 08:06	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 08:06	NP
Chloroform	BRL	5.0		ug/L	172600	1	02/19/2013 08:06	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 08:06	NP
Carbon tetrachloride	BRL	5.0		ug/L	172600	1	02/19/2013 08:06	NP
Benzene	BRL	5.0		ug/L	172600	1	02/19/2013 08:06	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 08:06	NP
Trichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 08:06	NP
Toluene	BRL	5.0		ug/L	172600	1	02/19/2013 08:06	NP
Tetrachloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 08:06	NP
Ethylbenzene	BRL	5.0		ug/L	172600	1	02/19/2013 08:06	NP
Xylenes, Total	BRL	5.0		ug/L	172600	1	02/19/2013 08:06	NP
Surr: 4-Bromofluorobenzene	92.8	64.6-123		%REC	172600	1	02/19/2013 08:06	NP
Surr: Dibromofluoromethane	107	76.6-133		%REC	172600	1	02/19/2013 08:06	NP
Surr: Toluene-d8	87	77.8-120		%REC	172600	1	02/19/2013 08:06	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

Client: BROWN AND CALDWELL	Client Sample ID: 13042-MW-39 ZONE 1
Project Name: Owens Corning	Collection Date: 2/11/2013 12:25:00 PM
Lab ID: 1302D02-027	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	172600	1	02/19/2013 08:31	NP
1,1-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 08:31	NP
Methylene chloride	BRL	5.0		ug/L	172600	1	02/19/2013 08:31	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 08:31	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 08:31	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 08:31	NP
Chloroform	BRL	5.0		ug/L	172600	1	02/19/2013 08:31	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 08:31	NP
Carbon tetrachloride	BRL	5.0		ug/L	172600	1	02/19/2013 08:31	NP
Benzene	BRL	5.0		ug/L	172600	1	02/19/2013 08:31	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 08:31	NP
Trichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 08:31	NP
Toluene	BRL	5.0		ug/L	172600	1	02/19/2013 08:31	NP
Tetrachloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 08:31	NP
Ethylbenzene	BRL	5.0		ug/L	172600	1	02/19/2013 08:31	NP
Xylenes, Total	BRL	5.0		ug/L	172600	1	02/19/2013 08:31	NP
Surr: 4-Bromofluorobenzene	93.6	64.6-123		%REC	172600	1	02/19/2013 08:31	NP
Surr: Dibromofluoromethane	109	76.6-133		%REC	172600	1	02/19/2013 08:31	NP
Surr: Toluene-d8	87.8	77.8-120		%REC	172600	1	02/19/2013 08:31	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

Client: BROWN AND CALDWELL	Client Sample ID: 13042-MW-39 ZONE 2
Project Name: Owens Corning	Collection Date: 2/11/2013 4:05:00 PM
Lab ID: 1302D02-028	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	172600	1	02/19/2013 11:55	NP
1,1-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 11:55	NP
Methylene chloride	BRL	5.0		ug/L	172600	1	02/19/2013 11:55	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 11:55	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 11:55	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 11:55	NP
Chloroform	BRL	5.0		ug/L	172600	1	02/19/2013 11:55	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 11:55	NP
Carbon tetrachloride	BRL	5.0		ug/L	172600	1	02/19/2013 11:55	NP
Benzene	BRL	5.0		ug/L	172600	1	02/19/2013 11:55	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 11:55	NP
Trichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 11:55	NP
Toluene	BRL	5.0		ug/L	172600	1	02/19/2013 11:55	NP
Tetrachloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 11:55	NP
Ethylbenzene	BRL	5.0		ug/L	172600	1	02/19/2013 11:55	NP
Xylenes, Total	BRL	5.0		ug/L	172600	1	02/19/2013 11:55	NP
Surr: 4-Bromofluorobenzene	94.1	64.6-123		%REC	172600	1	02/19/2013 11:55	NP
Surr: Dibromofluoromethane	107	76.6-133		%REC	172600	1	02/19/2013 11:55	NP
Surr: Toluene-d8	87	77.8-120		%REC	172600	1	02/19/2013 11:55	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

Client: BROWN AND CALDWELL	Client Sample ID: 13042-MW-39 ZONE 3
Project Name: Owens Corning	Collection Date: 2/11/2013 5:55:00 PM
Lab ID: 1302D02-029	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	172600	1	02/19/2013 12:21	NP
1,1-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 12:21	NP
Methylene chloride	BRL	5.0		ug/L	172600	1	02/19/2013 12:21	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 12:21	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 12:21	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 12:21	NP
Chloroform	BRL	5.0		ug/L	172600	1	02/19/2013 12:21	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 12:21	NP
Carbon tetrachloride	BRL	5.0		ug/L	172600	1	02/19/2013 12:21	NP
Benzene	BRL	5.0		ug/L	172600	1	02/19/2013 12:21	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 12:21	NP
Trichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 12:21	NP
Toluene	BRL	5.0		ug/L	172600	1	02/19/2013 12:21	NP
Tetrachloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 12:21	NP
Ethylbenzene	BRL	5.0		ug/L	172600	1	02/19/2013 12:21	NP
Xylenes, Total	BRL	5.0		ug/L	172600	1	02/19/2013 12:21	NP
Surr: 4-Bromofluorobenzene	93.7	64.6-123		%REC	172600	1	02/19/2013 12:21	NP
Surr: Dibromofluoromethane	112	76.6-133		%REC	172600	1	02/19/2013 12:21	NP
Surr: Toluene-d8	90.1	77.8-120		%REC	172600	1	02/19/2013 12:21	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

Client: BROWN AND CALDWELL	Client Sample ID: 13042-EB
Project Name: Owens Corning	Collection Date: 2/11/2013 4:21:00 PM
Lab ID: 1302D02-030	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	172600	1	02/19/2013 12:46	NP
1,1-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 12:46	NP
Methylene chloride	BRL	5.0		ug/L	172600	1	02/19/2013 12:46	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 12:46	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 12:46	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 12:46	NP
Chloroform	BRL	5.0		ug/L	172600	1	02/19/2013 12:46	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 12:46	NP
Carbon tetrachloride	BRL	5.0		ug/L	172600	1	02/19/2013 12:46	NP
Benzene	BRL	5.0		ug/L	172600	1	02/19/2013 12:46	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 12:46	NP
Trichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 12:46	NP
Toluene	BRL	5.0		ug/L	172600	1	02/19/2013 12:46	NP
Tetrachloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 12:46	NP
Ethylbenzene	BRL	5.0		ug/L	172600	1	02/19/2013 12:46	NP
Xylenes, Total	BRL	5.0		ug/L	172600	1	02/19/2013 12:46	NP
Surr: 4-Bromofluorobenzene	92.7	64.6-123		%REC	172600	1	02/19/2013 12:46	NP
Surr: Dibromofluoromethane	109	76.6-133		%REC	172600	1	02/19/2013 12:46	NP
Surr: Toluene-d8	88.9	77.8-120		%REC	172600	1	02/19/2013 12:46	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

Client: BROWN AND CALDWELL	Client Sample ID: 13045-MW-41 ZONE 2
Project Name: Owens Corning	Collection Date: 2/14/2013 9:47:00 AM
Lab ID: 1302D02-031	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	172600	1	02/19/2013 13:11	NP
1,1-Dichloroethene	230	50		ug/L	172600	10	02/19/2013 16:10	NP
Methylene chloride	BRL	5.0		ug/L	172600	1	02/19/2013 13:11	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 13:11	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 13:11	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 13:11	NP
Chloroform	BRL	5.0		ug/L	172600	1	02/19/2013 13:11	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 13:11	NP
Carbon tetrachloride	BRL	5.0		ug/L	172600	1	02/19/2013 13:11	NP
Benzene	BRL	5.0		ug/L	172600	1	02/19/2013 13:11	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 13:11	NP
Trichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 13:11	NP
Toluene	BRL	5.0		ug/L	172600	1	02/19/2013 13:11	NP
Tetrachloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 13:11	NP
Ethylbenzene	BRL	5.0		ug/L	172600	1	02/19/2013 13:11	NP
Xylenes, Total	BRL	5.0		ug/L	172600	1	02/19/2013 13:11	NP
Surr: 4-Bromofluorobenzene	91.3	64.6-123		%REC	172600	10	02/19/2013 16:10	NP
Surr: 4-Bromofluorobenzene	92.2	64.6-123		%REC	172600	1	02/19/2013 13:11	NP
Surr: Dibromofluoromethane	108	76.6-133		%REC	172600	1	02/19/2013 13:11	NP
Surr: Dibromofluoromethane	109	76.6-133		%REC	172600	10	02/19/2013 16:10	NP
Surr: Toluene-d8	87	77.8-120		%REC	172600	1	02/19/2013 13:11	NP
Surr: Toluene-d8	86.6	77.8-120		%REC	172600	10	02/19/2013 16:10	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

Client: BROWN AND CALDWELL	Client Sample ID: 13045-EB-021413
Project Name: Owens Corning	Collection Date: 2/14/2013 10:10:00 AM
Lab ID: 1302D02-032	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	172600	1	02/19/2013 13:37	NP
1,1-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 13:37	NP
Methylene chloride	BRL	5.0		ug/L	172600	1	02/19/2013 13:37	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 13:37	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 13:37	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 13:37	NP
Chloroform	BRL	5.0		ug/L	172600	1	02/19/2013 13:37	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 13:37	NP
Carbon tetrachloride	BRL	5.0		ug/L	172600	1	02/19/2013 13:37	NP
Benzene	BRL	5.0		ug/L	172600	1	02/19/2013 13:37	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 13:37	NP
Trichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 13:37	NP
Toluene	BRL	5.0		ug/L	172600	1	02/19/2013 13:37	NP
Tetrachloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 13:37	NP
Ethylbenzene	BRL	5.0		ug/L	172600	1	02/19/2013 13:37	NP
Xylenes, Total	BRL	5.0		ug/L	172600	1	02/19/2013 13:37	NP
Surr: 4-Bromofluorobenzene	92.2	64.6-123		%REC	172600	1	02/19/2013 13:37	NP
Surr: Dibromofluoromethane	108	76.6-133		%REC	172600	1	02/19/2013 13:37	NP
Surr: Toluene-d8	88.2	77.8-120		%REC	172600	1	02/19/2013 13:37	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

Client: BROWN AND CALDWELL	Client Sample ID: TRIP BLANK
Project Name: Owens Corning	Collection Date: 2/14/2013
Lab ID: 1302D02-033	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	172600	1	02/19/2013 11:04	NP
1,1-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 11:04	NP
Methylene chloride	BRL	5.0		ug/L	172600	1	02/19/2013 11:04	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 11:04	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 11:04	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 11:04	NP
Chloroform	BRL	5.0		ug/L	172600	1	02/19/2013 11:04	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 11:04	NP
Carbon tetrachloride	BRL	5.0		ug/L	172600	1	02/19/2013 11:04	NP
Benzene	BRL	5.0		ug/L	172600	1	02/19/2013 11:04	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 11:04	NP
Trichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 11:04	NP
Toluene	BRL	5.0		ug/L	172600	1	02/19/2013 11:04	NP
Tetrachloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 11:04	NP
Ethylbenzene	BRL	5.0		ug/L	172600	1	02/19/2013 11:04	NP
Xylenes, Total	BRL	5.0		ug/L	172600	1	02/19/2013 11:04	NP
Surr: 4-Bromofluorobenzene	93.3	64.6-123		%REC	172600	1	02/19/2013 11:04	NP
Surr: Dibromofluoromethane	108	76.6-133		%REC	172600	1	02/19/2013 11:04	NP
Surr: Toluene-d8	87	77.8-120		%REC	172600	1	02/19/2013 11:04	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

Client: BROWN AND CALDWELL	Client Sample ID: TRIP BLANK
Project Name: Owens Corning	Collection Date: 2/14/2013
Lab ID: 1302D02-034	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	172600	1	02/19/2013 11:29	NP
1,1-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 11:29	NP
Methylene chloride	BRL	5.0		ug/L	172600	1	02/19/2013 11:29	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 11:29	NP
1,1-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 11:29	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 11:29	NP
Chloroform	BRL	5.0		ug/L	172600	1	02/19/2013 11:29	NP
1,1,1-Trichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 11:29	NP
Carbon tetrachloride	BRL	5.0		ug/L	172600	1	02/19/2013 11:29	NP
Benzene	BRL	5.0		ug/L	172600	1	02/19/2013 11:29	NP
1,2-Dichloroethane	BRL	5.0		ug/L	172600	1	02/19/2013 11:29	NP
Trichloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 11:29	NP
Toluene	BRL	5.0		ug/L	172600	1	02/19/2013 11:29	NP
Tetrachloroethene	BRL	5.0		ug/L	172600	1	02/19/2013 11:29	NP
Ethylbenzene	BRL	5.0		ug/L	172600	1	02/19/2013 11:29	NP
Xylenes, Total	BRL	5.0		ug/L	172600	1	02/19/2013 11:29	NP
Surr: 4-Bromofluorobenzene	92.2	64.6-123		%REC	172600	1	02/19/2013 11:29	NP
Surr: Dibromofluoromethane	110	76.6-133		%REC	172600	1	02/19/2013 11:29	NP
Surr: Toluene-d8	87.5	77.8-120		%REC	172600	1	02/19/2013 11:29	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 1302002

Checklist completed by [Signature] 2/14/13
Signature Date

Carrier name: FedEx UPS Courier Client US Mail Other

Shipping container/cooler in good condition? Yes No Not Present

Custody seals intact on shipping container/cooler? Yes No Not Present

Custody seals intact on sample bottles? Yes No Not Present

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

Cooler #1 3.1° Cooler #2 3.4° 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: 1302D02

ANALYTICAL QC SUMMARY REPORT

BatchID: 172597

Sample ID: MB-172597	Client ID:	Units: ug/L	Prep Date: 02/18/2013	Run No: 238569							
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 172597	Analysis Date: 02/18/2013	Seq No: 4995757							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	0
1,1-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	0
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
1,2-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	0
Benzene	BRL	5.0	0	0	0	0	0	0	0	0	0
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0	0
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0	0
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	0
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	0
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Toluene	BRL	5.0	0	0	0	0	0	0	0	0	0
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Vinyl chloride	BRL	2.0	0	0	0	0	0	0	0	0	0
Xylenes, Total	BRL	5.0	0	0	0	0	0	0	0	0	0
Surr: 4-Bromofluorobenzene	47.30	0	50	0	94.6	64.6	123	0	0	0	0
Surr: Dibromofluoromethane	50.95	0	50	0	102	76.6	133	0	0	0	0
Surr: Toluene-d8	42.58	0	50	0	85.2	77.8	120	0	0	0	0

Sample ID: LCS-172597	Client ID:	Units: ug/L	Prep Date: 02/18/2013	Run No: 238569							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 172597	Analysis Date: 02/18/2013	Seq No: 4995758							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	51.09	5.0	50	0	102	61.1	142	0	0	0	0
Benzene	41.78	5.0	50	0	83.6	73.5	130	0	0	0	0
Toluene	44.41	5.0	50	0	88.8	73.6	130	0	0	0	0

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
Project Name: Owens Corning
Workorder: 1302D02

ANALYTICAL QC SUMMARY REPORT

BatchID: 172597

Sample ID: LCS-172597	Client ID:	Units: ug/L	Prep Date: 02/18/2013	Run No: 238569							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 172597	Analysis Date: 02/18/2013	Seq No: 4995758							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Trichloroethene	47.24	5.0	50	0	94.5	70	135	0	0	0	
Surr: 4-Bromofluorobenzene	50.20	0	50	0	100	64.6	123	0	0	0	
Surr: Dibromofluoromethane	46.56	0	50	0	93.1	76.6	133	0	0	0	
Surr: Toluene-d8	45.79	0	50	0	91.6	77.8	120	0	0	0	

Sample ID: 1302D02-001AMS	Client ID: 13043-MW-44	Units: ug/L	Prep Date: 02/18/2013	Run No: 238569							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 172597	Analysis Date: 02/18/2013	Seq No: 4995759							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	514.6	50	500	7.820	101	60	168	0	0	0	
Benzene	441.9	50	500	0	88.4	66.6	148	0	0	0	
Toluene	466.0	50	500	0	93.2	68	149	0	0	0	
Trichloroethene	500.3	50	500	0	100	71.1	154	0	0	0	
Surr: 4-Bromofluorobenzene	511.7	0	500	0	102	64.6	123	0	0	0	
Surr: Dibromofluoromethane	460.3	0	500	0	92.1	76.6	133	0	0	0	
Surr: Toluene-d8	443.3	0	500	0	88.7	77.8	120	0	0	0	

Sample ID: 1302D02-001AMSD	Client ID: 13043-MW-44	Units: ug/L	Prep Date: 02/18/2013	Run No: 238569							
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 172597	Analysis Date: 02/18/2013	Seq No: 4995760							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	498.2	50	500	7.820	98.1	60	168	514.6	3.24	18.6	
Benzene	431.5	50	500	0	86.3	66.6	148	441.9	2.38	20	
Toluene	447.7	50	500	0	89.5	68	149	466.0	4.01	20	
Trichloroethene	481.5	50	500	0	96.3	71.1	154	500.3	3.83	20	
Surr: 4-Bromofluorobenzene	500.5	0	500	0	100	64.6	123	511.7	0	0	
Surr: Dibromofluoromethane	461.5	0	500	0	92.3	76.6	133	460.3	0	0	
Surr: Toluene-d8	444.2	0	500	0	88.8	77.8	120	443.3	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: 1302D02

ANALYTICAL QC SUMMARY REPORT

BatchID: 172600

Sample ID: MB-172600	Client ID:	Units: ug/L	Prep Date: 02/18/2013	Run No: 238616							
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 172600	Analysis Date: 02/18/2013	Seq No: 4995826							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	0
1,1-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	0
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
1,2-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	0
Benzene	BRL	5.0	0	0	0	0	0	0	0	0	0
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0	0
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0	0
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	0
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	0
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Toluene	BRL	5.0	0	0	0	0	0	0	0	0	0
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Vinyl chloride	BRL	2.0	0	0	0	0	0	0	0	0	0
Xylenes, Total	BRL	5.0	0	0	0	0	0	0	0	0	0
Surr: 4-Bromofluorobenzene	45.32	0	50	0	90.6	64.6	123	0	0	0	0
Surr: Dibromofluoromethane	50.59	0	50	0	101	76.6	133	0	0	0	0
Surr: Toluene-d8	43.43	0	50	0	86.9	77.8	120	0	0	0	0

Sample ID: LCS-172600	Client ID:	Units: ug/L	Prep Date: 02/18/2013	Run No: 238616							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 172600	Analysis Date: 02/18/2013	Seq No: 4995821							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	54.93	5.0	50	0	110	61.1	142	0	0	0	0
Benzene	47.85	5.0	50	0	95.7	73.5	130	0	0	0	0
Toluene	50.56	5.0	50	0	101	73.6	130	0	0	0	0
Trichloroethene	53.54	5.0	50	0	107	70	135	0	0	0	0

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
Project Name: Owens Corning
Workorder: 1302D02

ANALYTICAL QC SUMMARY REPORT

BatchID: 172600

Sample ID: LCS-172600	Client ID:	Units: ug/L	Prep Date: 02/18/2013	Run No: 238616							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 172600	Analysis Date: 02/18/2013	Seq No: 4995821							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Surr: 4-Bromofluorobenzene	52.69	0	50	0	105	64.6	123	0	0	0	
Surr: Dibromofluoromethane	49.50	0	50	0	99	76.6	133	0	0	0	
Surr: Toluene-d8	45.38	0	50	0	90.8	77.8	120	0	0	0	

Sample ID: 1302D02-022AMS	Client ID: 13043-MW-38 ZONE 1	Units: ug/L	Prep Date: 02/18/2013	Run No: 238616							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 172600	Analysis Date: 02/18/2013	Seq No: 4995823							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	489.4	50	500	0	97.9	60	168	0	0	0	
Benzene	411.1	50	500	0	82.2	66.6	148	0	0	0	
Toluene	435.9	50	500	0	87.2	68	149	0	0	0	
Trichloroethene	470.5	50	500	0	94.1	71.1	154	0	0	0	
Surr: 4-Bromofluorobenzene	543.2	0	500	0	109	64.6	123	0	0	0	
Surr: Dibromofluoromethane	495.2	0	500	0	99	76.6	133	0	0	0	
Surr: Toluene-d8	458.8	0	500	0	91.8	77.8	120	0	0	0	

Sample ID: 1302D02-022AMSD	Client ID: 13043-MW-38 ZONE 1	Units: ug/L	Prep Date: 02/18/2013	Run No: 238616							
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 172600	Analysis Date: 02/18/2013	Seq No: 4995824							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	467.2	50	500	0	93.4	60	168	489.4	4.64	18.6	
Benzene	398.2	50	500	0	79.6	66.6	148	411.1	3.19	20	
Toluene	422.3	50	500	0	84.5	68	149	435.9	3.17	20	
Trichloroethene	458.1	50	500	0	91.6	71.1	154	470.5	2.67	20	
Surr: 4-Bromofluorobenzene	529.5	0	500	0	106	64.6	123	543.2	0	0	
Surr: Dibromofluoromethane	506.3	0	500	0	101	76.6	133	495.2	0	0	
Surr: Toluene-d8	456.9	0	500	0	91.4	77.8	120	458.8	0	0	

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix



May 21, 2013

Tamara Berryman
BROWN AND CALDWELL
990 Hammond Drive
Atlanta GA 30328

TEL: (770) 394-2997
FAX: (770) 396-9495

RE: Owens Corning

Dear Tamara Berryman:

Order No: 1305F17

Analytical Environmental Services, Inc. received 45 samples on 5/17/2013 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 07/01/12-06/30/13.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/13.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Tara Esbeck
Project Manager



ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

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

CHAIN OF CUSTODY

Work Order: 1305F17

Date: 5-17-13 Page 2 of 4

COMPANY: Brown & Caldwell		ADDRESS: 990 Hammond Drive, Ste 400 Atlanta, Ga 30328				ANALYSIS REQUESTED				Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.	No # of Containers
PHONE:		FAX:				PRESERVATION (See codes)					
SAMPLED BY: George Akala & Brian Steele		SIGNATURE: <i>[Signature]</i>									
#	SAMPLE ID	SAMPLED		Grab	Composite	Matrix (See codes)	F#	REMARKS			
		DATE	TIME								
1	13136-MW-37 Zone 1	5-16-13	1000	X		GW	X				
2	13136-EB		1010	X		W	X				
3	13136-MW-37 Zone 2		1250	X		GW	X				
4	13136-MW-37 Zone 3	5-16-13	1540	X		GW	X				
5	Tip Blank			X		W	X				
6	Tip Blank MA			X		W	X				
7											
8											
9											
10											
11											
12											
13											
14											

RELINQUISHED BY: 1: <i>[Signature]</i> 2: <i>[Signature]</i> 3:	DATE/TIME: 1: 0955 5/17/13 2: 9:55 3:	RECEIVED BY: 1: <i>[Signature]</i> 2: 3:	DATE/TIME: 1: 5/17/13 2: 3:	PROJECT INFORMATION PROJECT NAME: Owens-Corning PROJECT #: 143825 SITE ADDRESS: SEND REPORT TO: T.Berryman@browncauld.com INVOICE TO: (IF DIFFERENT FROM ABOVE) QUOTE #: PO#:	RECEIPT Total # of Containers: <input checked="" type="checkbox"/> Turnaround Time Request <input type="checkbox"/> Standard 5 Business Days <input type="checkbox"/> 2 Business Day Rush <input type="checkbox"/> Next Business Day Rush <input type="checkbox"/> Same Day Rush (auth req.) <input type="checkbox"/> Other STATE PROGRAM (if any): E-mail? <input checked="" type="checkbox"/> Y / N; Fax? <input type="checkbox"/> Y / N DATA PACKAGE: I <input checked="" type="checkbox"/> III IV
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SPECIAL INSTRUCTIONS/COMMENTS:
See focused list of VOCs for Owens-Corning

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 Page 3 of 4



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: 1305F17

Date: 5-17-13 Page 4 of 4

COMPANY: Brown + Caldwell		ADDRESS: 990 Hammond Drive, Ste 400 Atlanta, Ga 30328					ANALYSIS REQUESTED										Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		No # of Containers
PHONE:		FAX:					PRESERVATION (See codes)												
SAMPLED BY: Manager / Kala + Brian Steele		SIGNATURE: <i>[Signature]</i>					REMARKS										2		
#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)	H+												
1	13135-MW-39 Zone 3	5-15-13	1040	X		GW	X												
2	13135-EB	5-15-13	1055	X		W													
3	13134-200 Friendship Lane	5-14-13	1740	X		GW													
4	13134-721 Clarkscales Rd	5-14-13	1730	X		GW													
5	13134-408 Clarkscales Rd	5-14-13	1715			GW													
6	13134-605 Clarkscales Rd	5-14-13	1720			GW													
7	13134-MW-39 Zone 2	5-14-13	1630			GW													
8	13134-MW-39 Zone 1	5-14-13	1400			GW													
9	13134-MW-42 Zone 3	5-14-13	1040			GW													
10	13133-MW-42 Zone 2	5-13-13	1625			GW													
11	13133-EB	5-13-13	1640			W													
12	13133-MW-42 Zone 1	5-13-13	1400			GW	✓												
13																			
14																			

RELINQUISHED BY: <i>[Signature]</i>	DATE/TIME: 0955 5-17-13	RECEIVED BY: <i>[Signature]</i>	DATE/TIME: 5/17/13 9:55
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PROJECT INFORMATION	
PROJECT NAME: Owens-Corning	RECEIPT
PROJECT #: 143825	Total # of Containers
SITE ADDRESS:	<input checked="" type="checkbox"/> Turnaround Time Request <input type="checkbox"/> Standard 5 Business Days <input type="checkbox"/> 2 Business Day Rush <input type="checkbox"/> Next Business Day Rush <input type="checkbox"/> Same Day Rush (auth req.) <input type="checkbox"/> Other
SEND REPORT TO: tberryman@bwinca1d.com	STATE PROGRAM (if any):
INVOICE TO: (IF DIFFERENT FROM ABOVE)	E-mail? <input checked="" type="checkbox"/> Y / N; Fax? <input type="checkbox"/> Y / N
QUOTE #:	DATA PACKAGE: I <input checked="" type="checkbox"/> III IV

SPECIAL INSTRUCTIONS/COMMENTS: See Owens-Corning VOCs focused list	SHIPMENT METHOD: OUT / / VIA: IN / / VIA: CLIENT <input checked="" type="checkbox"/> FedEx UPS MAIL COURIER <input checked="" type="checkbox"/> 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

Client: BROWN AND CALDWELL	Client Sample ID: 13134-MW-15
Project Name: Owens Corning	Collection Date: 5/14/2013 10:05:00 AM
Lab ID: 1305F17-001	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	176300	1	05/18/2013 02:44	GK
1,1-Dichloroethene	220	50		ug/L	176300	10	05/21/2013 11:28	GK
Methylene chloride	BRL	5.0		ug/L	176300	1	05/18/2013 02:44	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 02:44	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 02:44	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 02:44	GK
Chloroform	BRL	5.0		ug/L	176300	1	05/18/2013 02:44	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 02:44	GK
Carbon tetrachloride	BRL	5.0		ug/L	176300	1	05/18/2013 02:44	GK
Benzene	BRL	5.0		ug/L	176300	1	05/18/2013 02:44	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 02:44	GK
Trichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 02:44	GK
Toluene	BRL	5.0		ug/L	176300	1	05/18/2013 02:44	GK
Tetrachloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 02:44	GK
Ethylbenzene	BRL	5.0		ug/L	176300	1	05/18/2013 02:44	GK
Xylenes, Total	BRL	5.0		ug/L	176300	1	05/18/2013 02:44	GK
Surr: 4-Bromofluorobenzene	95.7	64.6-123		%REC	176300	1	05/18/2013 02:44	GK
Surr: 4-Bromofluorobenzene	95.8	64.6-123		%REC	176300	10	05/21/2013 11:28	GK
Surr: Dibromofluoromethane	94.2	76.6-133		%REC	176300	1	05/18/2013 02:44	GK
Surr: Dibromofluoromethane	94.9	76.6-133		%REC	176300	10	05/21/2013 11:28	GK
Surr: Toluene-d8	94.9	77.8-120		%REC	176300	1	05/18/2013 02:44	GK
Surr: Toluene-d8	97.3	77.8-120		%REC	176300	10	05/21/2013 11:28	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13134-EB
Project Name: Owens Corning	Collection Date: 5/14/2013 10:20:00 AM
Lab ID: 1305F17-002	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	176300	1	05/18/2013 02:15	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 02:15	GK
Methylene chloride	BRL	5.0		ug/L	176300	1	05/18/2013 02:15	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 02:15	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 02:15	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 02:15	GK
Chloroform	BRL	5.0		ug/L	176300	1	05/18/2013 02:15	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 02:15	GK
Carbon tetrachloride	BRL	5.0		ug/L	176300	1	05/18/2013 02:15	GK
Benzene	BRL	5.0		ug/L	176300	1	05/18/2013 02:15	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 02:15	GK
Trichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 02:15	GK
Toluene	BRL	5.0		ug/L	176300	1	05/18/2013 02:15	GK
Tetrachloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 02:15	GK
Ethylbenzene	BRL	5.0		ug/L	176300	1	05/18/2013 02:15	GK
Xylenes, Total	BRL	5.0		ug/L	176300	1	05/18/2013 02:15	GK
Surr: 4-Bromofluorobenzene	96.5	64.6-123		%REC	176300	1	05/18/2013 02:15	GK
Surr: Dibromofluoromethane	96	76.6-133		%REC	176300	1	05/18/2013 02:15	GK
Surr: Toluene-d8	96.6	77.8-120		%REC	176300	1	05/18/2013 02:15	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13134-MW-22
Project Name: Owens Corning	Collection Date: 5/14/2013 8:45:00 AM
Lab ID: 1305F17-003	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	176300	1	05/17/2013 21:51	GK
1,1-Dichloroethene	370	50		ug/L	176300	10	05/17/2013 23:19	GK
Methylene chloride	BRL	5.0		ug/L	176300	1	05/17/2013 21:51	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/17/2013 21:51	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176300	1	05/17/2013 21:51	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/17/2013 21:51	GK
Chloroform	8.4	5.0		ug/L	176300	1	05/17/2013 21:51	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176300	1	05/17/2013 21:51	GK
Carbon tetrachloride	14	5.0		ug/L	176300	1	05/17/2013 21:51	GK
Benzene	BRL	5.0		ug/L	176300	1	05/17/2013 21:51	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176300	1	05/17/2013 21:51	GK
Trichloroethene	BRL	5.0		ug/L	176300	1	05/17/2013 21:51	GK
Toluene	BRL	5.0		ug/L	176300	1	05/17/2013 21:51	GK
Tetrachloroethene	BRL	5.0		ug/L	176300	1	05/17/2013 21:51	GK
Ethylbenzene	BRL	5.0		ug/L	176300	1	05/17/2013 21:51	GK
Xylenes, Total	BRL	5.0		ug/L	176300	1	05/17/2013 21:51	GK
Surr: 4-Bromofluorobenzene	97.7	64.6-123		%REC	176300	10	05/17/2013 23:19	GK
Surr: 4-Bromofluorobenzene	99.1	64.6-123		%REC	176300	1	05/17/2013 21:51	GK
Surr: Dibromofluoromethane	95.8	76.6-133		%REC	176300	1	05/17/2013 21:51	GK
Surr: Dibromofluoromethane	96	76.6-133		%REC	176300	10	05/17/2013 23:19	GK
Surr: Toluene-d8	97.1	77.8-120		%REC	176300	1	05/17/2013 21:51	GK
Surr: Toluene-d8	97	77.8-120		%REC	176300	10	05/17/2013 23:19	GK

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13134-MW-29R Zone 3
Project Name: Owens Corning	Collection Date: 5/14/2013 4:10:00 PM
Lab ID: 1305F17-004	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	176300	1	05/17/2013 23:48	GK
1,1-Dichloroethene	330	50		ug/L	176300	10	05/18/2013 00:18	GK
Methylene chloride	BRL	5.0		ug/L	176300	1	05/17/2013 23:48	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/17/2013 23:48	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176300	1	05/17/2013 23:48	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/17/2013 23:48	GK
Chloroform	8.5	5.0		ug/L	176300	1	05/17/2013 23:48	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176300	1	05/17/2013 23:48	GK
Carbon tetrachloride	12	5.0		ug/L	176300	1	05/17/2013 23:48	GK
Benzene	BRL	5.0		ug/L	176300	1	05/17/2013 23:48	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176300	1	05/17/2013 23:48	GK
Trichloroethene	BRL	5.0		ug/L	176300	1	05/17/2013 23:48	GK
Toluene	BRL	5.0		ug/L	176300	1	05/17/2013 23:48	GK
Tetrachloroethene	BRL	5.0		ug/L	176300	1	05/17/2013 23:48	GK
Ethylbenzene	BRL	5.0		ug/L	176300	1	05/17/2013 23:48	GK
Xylenes, Total	BRL	5.0		ug/L	176300	1	05/17/2013 23:48	GK
Surr: 4-Bromofluorobenzene	95.9	64.6-123		%REC	176300	10	05/18/2013 00:18	GK
Surr: 4-Bromofluorobenzene	97.4	64.6-123		%REC	176300	1	05/17/2013 23:48	GK
Surr: Dibromofluoromethane	93.3	76.6-133		%REC	176300	10	05/18/2013 00:18	GK
Surr: Dibromofluoromethane	94.8	76.6-133		%REC	176300	1	05/17/2013 23:48	GK
Surr: Toluene-d8	96.7	77.8-120		%REC	176300	1	05/17/2013 23:48	GK
Surr: Toluene-d8	96.9	77.8-120		%REC	176300	10	05/18/2013 00:18	GK

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13134-MW-29R Zone 4
Project Name: Owens Corning	Collection Date: 5/14/2013 4:50:00 PM
Lab ID: 1305F17-005	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	176300	1	05/18/2013 00:47	GK
1,1-Dichloroethene	310	50		ug/L	176300	10	05/18/2013 01:16	GK
Methylene chloride	BRL	5.0		ug/L	176300	1	05/18/2013 00:47	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 00:47	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 00:47	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 00:47	GK
Chloroform	8.2	5.0		ug/L	176300	1	05/18/2013 00:47	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 00:47	GK
Carbon tetrachloride	9.2	5.0		ug/L	176300	1	05/18/2013 00:47	GK
Benzene	BRL	5.0		ug/L	176300	1	05/18/2013 00:47	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 00:47	GK
Trichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 00:47	GK
Toluene	BRL	5.0		ug/L	176300	1	05/18/2013 00:47	GK
Tetrachloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 00:47	GK
Ethylbenzene	BRL	5.0		ug/L	176300	1	05/18/2013 00:47	GK
Xylenes, Total	BRL	5.0		ug/L	176300	1	05/18/2013 00:47	GK
Surr: 4-Bromofluorobenzene	95.9	64.6-123		%REC	176300	10	05/18/2013 01:16	GK
Surr: 4-Bromofluorobenzene	97.5	64.6-123		%REC	176300	1	05/18/2013 00:47	GK
Surr: Dibromofluoromethane	95	76.6-133		%REC	176300	1	05/18/2013 00:47	GK
Surr: Dibromofluoromethane	96	76.6-133		%REC	176300	10	05/18/2013 01:16	GK
Surr: Toluene-d8	97	77.8-120		%REC	176300	1	05/18/2013 00:47	GK
Surr: Toluene-d8	98.6	77.8-120		%REC	176300	10	05/18/2013 01:16	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13133-MW-35
Project Name: Owens Corning	Collection Date: 5/13/2013 3:20:00 PM
Lab ID: 1305F17-006	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	176300	1	05/18/2013 03:13	GK
1,1-Dichloroethene	100	5.0		ug/L	176300	1	05/18/2013 03:13	GK
Methylene chloride	BRL	5.0		ug/L	176300	1	05/18/2013 03:13	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 03:13	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 03:13	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 03:13	GK
Chloroform	BRL	5.0		ug/L	176300	1	05/18/2013 03:13	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 03:13	GK
Carbon tetrachloride	BRL	5.0		ug/L	176300	1	05/18/2013 03:13	GK
Benzene	BRL	5.0		ug/L	176300	1	05/18/2013 03:13	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 03:13	GK
Trichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 03:13	GK
Toluene	BRL	5.0		ug/L	176300	1	05/18/2013 03:13	GK
Tetrachloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 03:13	GK
Ethylbenzene	BRL	5.0		ug/L	176300	1	05/18/2013 03:13	GK
Xylenes, Total	BRL	5.0		ug/L	176300	1	05/18/2013 03:13	GK
Surr: 4-Bromofluorobenzene	94.6	64.6-123		%REC	176300	1	05/18/2013 03:13	GK
Surr: Dibromofluoromethane	95.6	76.6-133		%REC	176300	1	05/18/2013 03:13	GK
Surr: Toluene-d8	97.9	77.8-120		%REC	176300	1	05/18/2013 03:13	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13134-MW-36 Zone 1
Project Name: Owens Corning	Collection Date: 5/14/2013 2:30:00 PM
Lab ID: 1305F17-007	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	176300	1	05/18/2013 03:42	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 03:42	GK
Methylene chloride	BRL	5.0		ug/L	176300	1	05/18/2013 03:42	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 03:42	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 03:42	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 03:42	GK
Chloroform	BRL	5.0		ug/L	176300	1	05/18/2013 03:42	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 03:42	GK
Carbon tetrachloride	BRL	5.0		ug/L	176300	1	05/18/2013 03:42	GK
Benzene	BRL	5.0		ug/L	176300	1	05/18/2013 03:42	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 03:42	GK
Trichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 03:42	GK
Toluene	BRL	5.0		ug/L	176300	1	05/18/2013 03:42	GK
Tetrachloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 03:42	GK
Ethylbenzene	BRL	5.0		ug/L	176300	1	05/18/2013 03:42	GK
Xylenes, Total	BRL	5.0		ug/L	176300	1	05/18/2013 03:42	GK
Surr: 4-Bromofluorobenzene	96.2	64.6-123		%REC	176300	1	05/18/2013 03:42	GK
Surr: Dibromofluoromethane	95.5	76.6-133		%REC	176300	1	05/18/2013 03:42	GK
Surr: Toluene-d8	97.4	77.8-120		%REC	176300	1	05/18/2013 03:42	GK

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13134-MW-36 Zone 3
Project Name: Owens Corning	Collection Date: 5/14/2013 2:35:00 PM
Lab ID: 1305F17-008	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	176300	1	05/18/2013 04:12	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 04:12	GK
Methylene chloride	BRL	5.0		ug/L	176300	1	05/18/2013 04:12	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 04:12	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 04:12	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 04:12	GK
Chloroform	BRL	5.0		ug/L	176300	1	05/18/2013 04:12	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 04:12	GK
Carbon tetrachloride	BRL	5.0		ug/L	176300	1	05/18/2013 04:12	GK
Benzene	BRL	5.0		ug/L	176300	1	05/18/2013 04:12	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 04:12	GK
Trichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 04:12	GK
Toluene	BRL	5.0		ug/L	176300	1	05/18/2013 04:12	GK
Tetrachloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 04:12	GK
Ethylbenzene	BRL	5.0		ug/L	176300	1	05/18/2013 04:12	GK
Xylenes, Total	BRL	5.0		ug/L	176300	1	05/18/2013 04:12	GK
Surr: 4-Bromofluorobenzene	93.9	64.6-123		%REC	176300	1	05/18/2013 04:12	GK
Surr: Dibromofluoromethane	94	76.6-133		%REC	176300	1	05/18/2013 04:12	GK
Surr: Toluene-d8	98	77.8-120		%REC	176300	1	05/18/2013 04:12	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13134-MW-36 Zone 5
Project Name: Owens Corning	Collection Date: 5/14/2013 2:45:00 PM
Lab ID: 1305F17-009	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	176300	1	05/18/2013 04:42	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 04:42	GK
Methylene chloride	BRL	5.0		ug/L	176300	1	05/18/2013 04:42	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 04:42	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 04:42	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 04:42	GK
Chloroform	BRL	5.0		ug/L	176300	1	05/18/2013 04:42	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 04:42	GK
Carbon tetrachloride	BRL	5.0		ug/L	176300	1	05/18/2013 04:42	GK
Benzene	BRL	5.0		ug/L	176300	1	05/18/2013 04:42	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 04:42	GK
Trichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 04:42	GK
Toluene	BRL	5.0		ug/L	176300	1	05/18/2013 04:42	GK
Tetrachloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 04:42	GK
Ethylbenzene	BRL	5.0		ug/L	176300	1	05/18/2013 04:42	GK
Xylenes, Total	BRL	5.0		ug/L	176300	1	05/18/2013 04:42	GK
Surr: 4-Bromofluorobenzene	96.2	64.6-123		%REC	176300	1	05/18/2013 04:42	GK
Surr: Dibromofluoromethane	96.3	76.6-133		%REC	176300	1	05/18/2013 04:42	GK
Surr: Toluene-d8	97.9	77.8-120		%REC	176300	1	05/18/2013 04:42	GK

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13135-MW-43 Zone 1
Project Name: Owens Corning	Collection Date: 5/15/2013 10:10:00 AM
Lab ID: 1305F17-010	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	176300	1	05/18/2013 05:11	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 05:11	GK
Methylene chloride	BRL	5.0		ug/L	176300	1	05/18/2013 05:11	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 05:11	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 05:11	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 05:11	GK
Chloroform	BRL	5.0		ug/L	176300	1	05/18/2013 05:11	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 05:11	GK
Carbon tetrachloride	BRL	5.0		ug/L	176300	1	05/18/2013 05:11	GK
Benzene	BRL	5.0		ug/L	176300	1	05/18/2013 05:11	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 05:11	GK
Trichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 05:11	GK
Toluene	BRL	5.0		ug/L	176300	1	05/18/2013 05:11	GK
Tetrachloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 05:11	GK
Ethylbenzene	BRL	5.0		ug/L	176300	1	05/18/2013 05:11	GK
Xylenes, Total	BRL	5.0		ug/L	176300	1	05/18/2013 05:11	GK
Surr: 4-Bromofluorobenzene	96.5	64.6-123		%REC	176300	1	05/18/2013 05:11	GK
Surr: Dibromofluoromethane	97	76.6-133		%REC	176300	1	05/18/2013 05:11	GK
Surr: Toluene-d8	95.4	77.8-120		%REC	176300	1	05/18/2013 05:11	GK

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13133-MW-44
Project Name: Owens Corning	Collection Date: 5/13/2013 2:30:00 PM
Lab ID: 1305F17-011	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	176300	1	05/20/2013 11:12	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 11:12	GK
Methylene chloride	BRL	5.0		ug/L	176300	1	05/20/2013 11:12	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 11:12	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 11:12	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 11:12	GK
Chloroform	BRL	5.0		ug/L	176300	1	05/20/2013 11:12	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 11:12	GK
Carbon tetrachloride	BRL	5.0		ug/L	176300	1	05/20/2013 11:12	GK
Benzene	BRL	5.0		ug/L	176300	1	05/20/2013 11:12	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 11:12	GK
Trichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 11:12	GK
Toluene	BRL	5.0		ug/L	176300	1	05/20/2013 11:12	GK
Tetrachloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 11:12	GK
Ethylbenzene	BRL	5.0		ug/L	176300	1	05/20/2013 11:12	GK
Xylenes, Total	BRL	5.0		ug/L	176300	1	05/20/2013 11:12	GK
Surr: 4-Bromofluorobenzene	98.5	64.6-123		%REC	176300	1	05/20/2013 11:12	GK
Surr: Dibromofluoromethane	96.2	76.6-133		%REC	176300	1	05/20/2013 11:12	GK
Surr: Toluene-d8	94.9	77.8-120		%REC	176300	1	05/20/2013 11:12	GK

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13133-628-Airline Rd
Project Name: Owens Corning	Collection Date: 5/13/2013 4:45:00 PM
Lab ID: 1305F17-012	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	176300	1	05/20/2013 11:41	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 11:41	GK
Methylene chloride	BRL	5.0		ug/L	176300	1	05/20/2013 11:41	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 11:41	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 11:41	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 11:41	GK
Chloroform	BRL	5.0		ug/L	176300	1	05/20/2013 11:41	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 11:41	GK
Carbon tetrachloride	BRL	5.0		ug/L	176300	1	05/20/2013 11:41	GK
Benzene	BRL	5.0		ug/L	176300	1	05/20/2013 11:41	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 11:41	GK
Trichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 11:41	GK
Toluene	BRL	5.0		ug/L	176300	1	05/20/2013 11:41	GK
Tetrachloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 11:41	GK
Ethylbenzene	BRL	5.0		ug/L	176300	1	05/20/2013 11:41	GK
Xylenes, Total	BRL	5.0		ug/L	176300	1	05/20/2013 11:41	GK
Surr: 4-Bromofluorobenzene	97.6	64.6-123		%REC	176300	1	05/20/2013 11:41	GK
Surr: Dibromofluoromethane	96.6	76.6-133		%REC	176300	1	05/20/2013 11:41	GK
Surr: Toluene-d8	97	77.8-120		%REC	176300	1	05/20/2013 11:41	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13135-MW-43 Zone 2
Project Name: Owens Corning	Collection Date: 5/15/2013 1:00:00 PM
Lab ID: 1305F17-013	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	176300	1	05/20/2013 12:10	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 12:10	GK
Methylene chloride	BRL	5.0		ug/L	176300	1	05/20/2013 12:10	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 12:10	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 12:10	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 12:10	GK
Chloroform	BRL	5.0		ug/L	176300	1	05/20/2013 12:10	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 12:10	GK
Carbon tetrachloride	BRL	5.0		ug/L	176300	1	05/20/2013 12:10	GK
Benzene	BRL	5.0		ug/L	176300	1	05/20/2013 12:10	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 12:10	GK
Trichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 12:10	GK
Toluene	BRL	5.0		ug/L	176300	1	05/20/2013 12:10	GK
Tetrachloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 12:10	GK
Ethylbenzene	BRL	5.0		ug/L	176300	1	05/20/2013 12:10	GK
Xylenes, Total	BRL	5.0		ug/L	176300	1	05/20/2013 12:10	GK
Surr: 4-Bromofluorobenzene	95.5	64.6-123		%REC	176300	1	05/20/2013 12:10	GK
Surr: Dibromofluoromethane	96.8	76.6-133		%REC	176300	1	05/20/2013 12:10	GK
Surr: Toluene-d8	97.2	77.8-120		%REC	176300	1	05/20/2013 12:10	GK

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13135-MW-43 Zone 3
Project Name: Owens Corning	Collection Date: 5/15/2013 3:20:00 PM
Lab ID: 1305F17-014	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	176300	1	05/20/2013 12:40	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 12:40	GK
Methylene chloride	BRL	5.0		ug/L	176300	1	05/20/2013 12:40	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 12:40	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 12:40	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 12:40	GK
Chloroform	BRL	5.0		ug/L	176300	1	05/20/2013 12:40	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 12:40	GK
Carbon tetrachloride	BRL	5.0		ug/L	176300	1	05/20/2013 12:40	GK
Benzene	BRL	5.0		ug/L	176300	1	05/20/2013 12:40	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 12:40	GK
Trichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 12:40	GK
Toluene	BRL	5.0		ug/L	176300	1	05/20/2013 12:40	GK
Tetrachloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 12:40	GK
Ethylbenzene	BRL	5.0		ug/L	176300	1	05/20/2013 12:40	GK
Xylenes, Total	BRL	5.0		ug/L	176300	1	05/20/2013 12:40	GK
Surr: 4-Bromofluorobenzene	97	64.6-123		%REC	176300	1	05/20/2013 12:40	GK
Surr: Dibromofluoromethane	97.3	76.6-133		%REC	176300	1	05/20/2013 12:40	GK
Surr: Toluene-d8	97.1	77.8-120		%REC	176300	1	05/20/2013 12:40	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13136-MW-37 Zone 1
Project Name: Owens Corning	Collection Date: 5/16/2013 10:00:00 AM
Lab ID: 1305F17-015	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	176300	1	05/20/2013 13:09	GK
1,1-Dichloroethene	98	5.0		ug/L	176300	1	05/20/2013 13:09	GK
Methylene chloride	BRL	5.0		ug/L	176300	1	05/20/2013 13:09	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 13:09	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 13:09	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 13:09	GK
Chloroform	BRL	5.0		ug/L	176300	1	05/20/2013 13:09	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 13:09	GK
Carbon tetrachloride	BRL	5.0		ug/L	176300	1	05/20/2013 13:09	GK
Benzene	BRL	5.0		ug/L	176300	1	05/20/2013 13:09	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 13:09	GK
Trichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 13:09	GK
Toluene	BRL	5.0		ug/L	176300	1	05/20/2013 13:09	GK
Tetrachloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 13:09	GK
Ethylbenzene	BRL	5.0		ug/L	176300	1	05/20/2013 13:09	GK
Xylenes, Total	BRL	5.0		ug/L	176300	1	05/20/2013 13:09	GK
Surr: 4-Bromofluorobenzene	96.7	64.6-123		%REC	176300	1	05/20/2013 13:09	GK
Surr: Dibromofluoromethane	96.1	76.6-133		%REC	176300	1	05/20/2013 13:09	GK
Surr: Toluene-d8	99.3	77.8-120		%REC	176300	1	05/20/2013 13:09	GK

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13136-EB
Project Name: Owens Corning	Collection Date: 5/16/2013 10:10:00 AM
Lab ID: 1305F17-016	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	176300	1	05/20/2013 10:43	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 10:43	GK
Methylene chloride	BRL	5.0		ug/L	176300	1	05/20/2013 10:43	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 10:43	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 10:43	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 10:43	GK
Chloroform	BRL	5.0		ug/L	176300	1	05/20/2013 10:43	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 10:43	GK
Carbon tetrachloride	BRL	5.0		ug/L	176300	1	05/20/2013 10:43	GK
Benzene	BRL	5.0		ug/L	176300	1	05/20/2013 10:43	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 10:43	GK
Trichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 10:43	GK
Toluene	BRL	5.0		ug/L	176300	1	05/20/2013 10:43	GK
Tetrachloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 10:43	GK
Ethylbenzene	BRL	5.0		ug/L	176300	1	05/20/2013 10:43	GK
Xylenes, Total	BRL	5.0		ug/L	176300	1	05/20/2013 10:43	GK
Surr: 4-Bromofluorobenzene	97.7	64.6-123		%REC	176300	1	05/20/2013 10:43	GK
Surr: Dibromofluoromethane	96.2	76.6-133		%REC	176300	1	05/20/2013 10:43	GK
Surr: Toluene-d8	97.2	77.8-120		%REC	176300	1	05/20/2013 10:43	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13136-MW-37 Zone 2
Project Name: Owens Corning	Collection Date: 5/16/2013 12:50:00 PM
Lab ID: 1305F17-017	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	176300	1	05/20/2013 13:39	GK
1,1-Dichloroethene	83	5.0		ug/L	176300	1	05/20/2013 13:39	GK
Methylene chloride	BRL	5.0		ug/L	176300	1	05/20/2013 13:39	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 13:39	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 13:39	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 13:39	GK
Chloroform	BRL	5.0		ug/L	176300	1	05/20/2013 13:39	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 13:39	GK
Carbon tetrachloride	BRL	5.0		ug/L	176300	1	05/20/2013 13:39	GK
Benzene	BRL	5.0		ug/L	176300	1	05/20/2013 13:39	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 13:39	GK
Trichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 13:39	GK
Toluene	BRL	5.0		ug/L	176300	1	05/20/2013 13:39	GK
Tetrachloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 13:39	GK
Ethylbenzene	BRL	5.0		ug/L	176300	1	05/20/2013 13:39	GK
Xylenes, Total	BRL	5.0		ug/L	176300	1	05/20/2013 13:39	GK
Surr: 4-Bromofluorobenzene	95.1	64.6-123		%REC	176300	1	05/20/2013 13:39	GK
Surr: Dibromofluoromethane	95.6	76.6-133		%REC	176300	1	05/20/2013 13:39	GK
Surr: Toluene-d8	98	77.8-120		%REC	176300	1	05/20/2013 13:39	GK

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13136-MW-37 Zone 3
Project Name: Owens Corning	Collection Date: 5/16/2013 3:40:00 PM
Lab ID: 1305F17-018	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	176300	1	05/20/2013 14:08	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 14:08	GK
Methylene chloride	BRL	5.0		ug/L	176300	1	05/20/2013 14:08	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 14:08	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 14:08	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 14:08	GK
Chloroform	BRL	5.0		ug/L	176300	1	05/20/2013 14:08	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 14:08	GK
Carbon tetrachloride	BRL	5.0		ug/L	176300	1	05/20/2013 14:08	GK
Benzene	BRL	5.0		ug/L	176300	1	05/20/2013 14:08	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 14:08	GK
Trichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 14:08	GK
Toluene	BRL	5.0		ug/L	176300	1	05/20/2013 14:08	GK
Tetrachloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 14:08	GK
Ethylbenzene	BRL	5.0		ug/L	176300	1	05/20/2013 14:08	GK
Xylenes, Total	BRL	5.0		ug/L	176300	1	05/20/2013 14:08	GK
Surr: 4-Bromofluorobenzene	97.8	64.6-123		%REC	176300	1	05/20/2013 14:08	GK
Surr: Dibromofluoromethane	97	76.6-133		%REC	176300	1	05/20/2013 14:08	GK
Surr: Toluene-d8	98.8	77.8-120		%REC	176300	1	05/20/2013 14:08	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: Trip Blank
Project Name: Owens Corning	Collection Date: 5/17/2013
Lab ID: 1305F17-019	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	176300	1	05/18/2013 01:45	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 01:45	GK
Methylene chloride	BRL	5.0		ug/L	176300	1	05/18/2013 01:45	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 01:45	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 01:45	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 01:45	GK
Chloroform	BRL	5.0		ug/L	176300	1	05/18/2013 01:45	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 01:45	GK
Carbon tetrachloride	BRL	5.0		ug/L	176300	1	05/18/2013 01:45	GK
Benzene	BRL	5.0		ug/L	176300	1	05/18/2013 01:45	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176300	1	05/18/2013 01:45	GK
Trichloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 01:45	GK
Toluene	BRL	5.0		ug/L	176300	1	05/18/2013 01:45	GK
Tetrachloroethene	BRL	5.0		ug/L	176300	1	05/18/2013 01:45	GK
Ethylbenzene	BRL	5.0		ug/L	176300	1	05/18/2013 01:45	GK
Xylenes, Total	BRL	5.0		ug/L	176300	1	05/18/2013 01:45	GK
Surr: 4-Bromofluorobenzene	95	64.6-123		%REC	176300	1	05/18/2013 01:45	GK
Surr: Dibromofluoromethane	95.5	76.6-133		%REC	176300	1	05/18/2013 01:45	GK
Surr: Toluene-d8	97.3	77.8-120		%REC	176300	1	05/18/2013 01:45	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13136-MW-41 Zone 3
Project Name: Owens Corning	Collection Date: 5/16/2013 5:55:00 PM
Lab ID: 1305F17-020	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	176300	1	05/20/2013 14:38	GK
1,1-Dichloroethene	32	5.0		ug/L	176300	1	05/20/2013 14:38	GK
Methylene chloride	BRL	5.0		ug/L	176300	1	05/20/2013 14:38	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 14:38	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 14:38	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 14:38	GK
Chloroform	BRL	5.0		ug/L	176300	1	05/20/2013 14:38	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 14:38	GK
Carbon tetrachloride	BRL	5.0		ug/L	176300	1	05/20/2013 14:38	GK
Benzene	BRL	5.0		ug/L	176300	1	05/20/2013 14:38	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176300	1	05/20/2013 14:38	GK
Trichloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 14:38	GK
Toluene	BRL	5.0		ug/L	176300	1	05/20/2013 14:38	GK
Tetrachloroethene	BRL	5.0		ug/L	176300	1	05/20/2013 14:38	GK
Ethylbenzene	BRL	5.0		ug/L	176300	1	05/20/2013 14:38	GK
Xylenes, Total	BRL	5.0		ug/L	176300	1	05/20/2013 14:38	GK
Surr: 4-Bromofluorobenzene	93.7	64.6-123		%REC	176300	1	05/20/2013 14:38	GK
Surr: Dibromofluoromethane	98.3	76.6-133		%REC	176300	1	05/20/2013 14:38	GK
Surr: Toluene-d8	98	77.8-120		%REC	176300	1	05/20/2013 14:38	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13136-MW-41 Zone 2
Project Name: Owens Corning	Collection Date: 5/16/2013 3:15:00 PM
Lab ID: 1305F17-021	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	176363	1	05/18/2013 11:00	GK
1,1-Dichloroethene	280	50		ug/L	176363	10	05/18/2013 12:28	GK
Methylene chloride	BRL	5.0		ug/L	176363	1	05/18/2013 11:00	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 11:00	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 11:00	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 11:00	GK
Chloroform	BRL	5.0		ug/L	176363	1	05/18/2013 11:00	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 11:00	GK
Carbon tetrachloride	BRL	5.0		ug/L	176363	1	05/18/2013 11:00	GK
Benzene	BRL	5.0		ug/L	176363	1	05/18/2013 11:00	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 11:00	GK
Trichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 11:00	GK
Toluene	BRL	5.0		ug/L	176363	1	05/18/2013 11:00	GK
Tetrachloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 11:00	GK
Ethylbenzene	BRL	5.0		ug/L	176363	1	05/18/2013 11:00	GK
Xylenes, Total	BRL	5.0		ug/L	176363	1	05/18/2013 11:00	GK
Surr: 4-Bromofluorobenzene	94.2	64.6-123		%REC	176363	1	05/18/2013 11:00	GK
Surr: 4-Bromofluorobenzene	96.2	64.6-123		%REC	176363	10	05/18/2013 12:28	GK
Surr: Dibromofluoromethane	95.4	76.6-133		%REC	176363	1	05/18/2013 11:00	GK
Surr: Dibromofluoromethane	94.9	76.6-133		%REC	176363	10	05/18/2013 12:28	GK
Surr: Toluene-d8	97.9	77.8-120		%REC	176363	10	05/18/2013 12:28	GK
Surr: Toluene-d8	98.2	77.8-120		%REC	176363	1	05/18/2013 11:00	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13136-MW-41 Zone 1
Project Name: Owens Corning	Collection Date: 5/16/2013 11:50:00 AM
Lab ID: 1305F17-022	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	176363	1	05/18/2013 12:57	GK
1,1-Dichloroethene	240	50		ug/L	176363	10	05/18/2013 13:26	GK
Methylene chloride	BRL	5.0		ug/L	176363	1	05/18/2013 12:57	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 12:57	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 12:57	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 12:57	GK
Chloroform	BRL	5.0		ug/L	176363	1	05/18/2013 12:57	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 12:57	GK
Carbon tetrachloride	BRL	5.0		ug/L	176363	1	05/18/2013 12:57	GK
Benzene	BRL	5.0		ug/L	176363	1	05/18/2013 12:57	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 12:57	GK
Trichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 12:57	GK
Toluene	BRL	5.0		ug/L	176363	1	05/18/2013 12:57	GK
Tetrachloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 12:57	GK
Ethylbenzene	BRL	5.0		ug/L	176363	1	05/18/2013 12:57	GK
Xylenes, Total	BRL	5.0		ug/L	176363	1	05/18/2013 12:57	GK
Surr: 4-Bromofluorobenzene	95.4	64.6-123		%REC	176363	1	05/18/2013 12:57	GK
Surr: 4-Bromofluorobenzene	96.2	64.6-123		%REC	176363	10	05/18/2013 13:26	GK
Surr: Dibromofluoromethane	95.3	76.6-133		%REC	176363	1	05/18/2013 12:57	GK
Surr: Dibromofluoromethane	94.5	76.6-133		%REC	176363	10	05/18/2013 13:26	GK
Surr: Toluene-d8	97.9	77.8-120		%REC	176363	10	05/18/2013 13:26	GK
Surr: Toluene-d8	98.2	77.8-120		%REC	176363	1	05/18/2013 12:57	GK

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13136-Dup
Project Name: Owens Corning	Collection Date: 5/16/2013 12:00:00 PM
Lab ID: 1305F17-023	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	176363	1	05/18/2013 13:56	GK
1,1-Dichloroethene	250	50		ug/L	176363	10	05/21/2013 11:57	GK
Methylene chloride	BRL	5.0		ug/L	176363	1	05/18/2013 13:56	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 13:56	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 13:56	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 13:56	GK
Chloroform	BRL	5.0		ug/L	176363	1	05/18/2013 13:56	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 13:56	GK
Carbon tetrachloride	BRL	5.0		ug/L	176363	1	05/18/2013 13:56	GK
Benzene	BRL	5.0		ug/L	176363	1	05/18/2013 13:56	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 13:56	GK
Trichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 13:56	GK
Toluene	BRL	5.0		ug/L	176363	1	05/18/2013 13:56	GK
Tetrachloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 13:56	GK
Ethylbenzene	BRL	5.0		ug/L	176363	1	05/18/2013 13:56	GK
Xylenes, Total	BRL	5.0		ug/L	176363	1	05/18/2013 13:56	GK
Surr: 4-Bromofluorobenzene	95.3	64.6-123		%REC	176363	1	05/18/2013 13:56	GK
Surr: 4-Bromofluorobenzene	95	64.6-123		%REC	176363	10	05/21/2013 11:57	GK
Surr: Dibromofluoromethane	95.3	76.6-133		%REC	176363	10	05/21/2013 11:57	GK
Surr: Dibromofluoromethane	97	76.6-133		%REC	176363	1	05/18/2013 13:56	GK
Surr: Toluene-d8	97	77.8-120		%REC	176363	1	05/18/2013 13:56	GK
Surr: Toluene-d8	97.5	77.8-120		%REC	176363	10	05/21/2013 11:57	GK

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13136-MW-38 Zone 2
Project Name: Owens Corning	Collection Date: 5/16/2013 9:10:00 AM
Lab ID: 1305F17-024	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	176363	1	05/18/2013 14:25	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 14:25	GK
Methylene chloride	BRL	5.0		ug/L	176363	1	05/18/2013 14:25	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 14:25	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 14:25	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 14:25	GK
Chloroform	BRL	5.0		ug/L	176363	1	05/18/2013 14:25	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 14:25	GK
Carbon tetrachloride	BRL	5.0		ug/L	176363	1	05/18/2013 14:25	GK
Benzene	BRL	5.0		ug/L	176363	1	05/18/2013 14:25	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 14:25	GK
Trichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 14:25	GK
Toluene	BRL	5.0		ug/L	176363	1	05/18/2013 14:25	GK
Tetrachloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 14:25	GK
Ethylbenzene	BRL	5.0		ug/L	176363	1	05/18/2013 14:25	GK
Xylenes, Total	BRL	5.0		ug/L	176363	1	05/18/2013 14:25	GK
Surr: 4-Bromofluorobenzene	94.3	64.6-123		%REC	176363	1	05/18/2013 14:25	GK
Surr: Dibromofluoromethane	95.3	76.6-133		%REC	176363	1	05/18/2013 14:25	GK
Surr: Toluene-d8	96.9	77.8-120		%REC	176363	1	05/18/2013 14:25	GK

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13135-MW-38 Zone 1
Project Name: Owens Corning	Collection Date: 5/15/2013 3:15:00 PM
Lab ID: 1305F17-025	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	176363	1	05/18/2013 14:54	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 14:54	GK
Methylene chloride	BRL	5.0		ug/L	176363	1	05/18/2013 14:54	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 14:54	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 14:54	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 14:54	GK
Chloroform	BRL	5.0		ug/L	176363	1	05/18/2013 14:54	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 14:54	GK
Carbon tetrachloride	BRL	5.0		ug/L	176363	1	05/18/2013 14:54	GK
Benzene	BRL	5.0		ug/L	176363	1	05/18/2013 14:54	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 14:54	GK
Trichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 14:54	GK
Toluene	BRL	5.0		ug/L	176363	1	05/18/2013 14:54	GK
Tetrachloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 14:54	GK
Ethylbenzene	BRL	5.0		ug/L	176363	1	05/18/2013 14:54	GK
Xylenes, Total	BRL	5.0		ug/L	176363	1	05/18/2013 14:54	GK
Surr: 4-Bromofluorobenzene	96.5	64.6-123		%REC	176363	1	05/18/2013 14:54	GK
Surr: Dibromofluoromethane	95.1	76.6-133		%REC	176363	1	05/18/2013 14:54	GK
Surr: Toluene-d8	96.6	77.8-120		%REC	176363	1	05/18/2013 14:54	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13135-117 Faye Drive
Project Name: Owens Corning	Collection Date: 5/15/2013 5:00:00 PM
Lab ID: 1305F17-026	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	176363	1	05/18/2013 15:23	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 15:23	GK
Methylene chloride	BRL	5.0		ug/L	176363	1	05/18/2013 15:23	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 15:23	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 15:23	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 15:23	GK
Chloroform	BRL	5.0		ug/L	176363	1	05/18/2013 15:23	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 15:23	GK
Carbon tetrachloride	BRL	5.0		ug/L	176363	1	05/18/2013 15:23	GK
Benzene	BRL	5.0		ug/L	176363	1	05/18/2013 15:23	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 15:23	GK
Trichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 15:23	GK
Toluene	BRL	5.0		ug/L	176363	1	05/18/2013 15:23	GK
Tetrachloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 15:23	GK
Ethylbenzene	BRL	5.0		ug/L	176363	1	05/18/2013 15:23	GK
Xylenes, Total	BRL	5.0		ug/L	176363	1	05/18/2013 15:23	GK
Surr: 4-Bromofluorobenzene	95.3	64.6-123		%REC	176363	1	05/18/2013 15:23	GK
Surr: Dibromofluoromethane	96	76.6-133		%REC	176363	1	05/18/2013 15:23	GK
Surr: Toluene-d8	96.9	77.8-120		%REC	176363	1	05/18/2013 15:23	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13135-412 Kaye Drive
Project Name: Owens Corning	Collection Date: 5/15/2013 4:55:00 PM
Lab ID: 1305F17-027	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	176363	1	05/18/2013 15:53	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 15:53	GK
Methylene chloride	BRL	5.0		ug/L	176363	1	05/18/2013 15:53	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 15:53	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 15:53	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 15:53	GK
Chloroform	BRL	5.0		ug/L	176363	1	05/18/2013 15:53	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 15:53	GK
Carbon tetrachloride	BRL	5.0		ug/L	176363	1	05/18/2013 15:53	GK
Benzene	BRL	5.0		ug/L	176363	1	05/18/2013 15:53	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 15:53	GK
Trichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 15:53	GK
Toluene	BRL	5.0		ug/L	176363	1	05/18/2013 15:53	GK
Tetrachloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 15:53	GK
Ethylbenzene	BRL	5.0		ug/L	176363	1	05/18/2013 15:53	GK
Xylenes, Total	BRL	5.0		ug/L	176363	1	05/18/2013 15:53	GK
Surr: 4-Bromofluorobenzene	93	64.6-123		%REC	176363	1	05/18/2013 15:53	GK
Surr: Dibromofluoromethane	97.1	76.6-133		%REC	176363	1	05/18/2013 15:53	GK
Surr: Toluene-d8	96.8	77.8-120		%REC	176363	1	05/18/2013 15:53	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13135-311 Kaye Drive
Project Name: Owens Corning	Collection Date: 5/15/2013 4:50:00 PM
Lab ID: 1305F17-028	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	176363	1	05/18/2013 16:22	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 16:22	GK
Methylene chloride	BRL	5.0		ug/L	176363	1	05/18/2013 16:22	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 16:22	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 16:22	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 16:22	GK
Chloroform	BRL	5.0		ug/L	176363	1	05/18/2013 16:22	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 16:22	GK
Carbon tetrachloride	BRL	5.0		ug/L	176363	1	05/18/2013 16:22	GK
Benzene	BRL	5.0		ug/L	176363	1	05/18/2013 16:22	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 16:22	GK
Trichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 16:22	GK
Toluene	BRL	5.0		ug/L	176363	1	05/18/2013 16:22	GK
Tetrachloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 16:22	GK
Ethylbenzene	BRL	5.0		ug/L	176363	1	05/18/2013 16:22	GK
Xylenes, Total	BRL	5.0		ug/L	176363	1	05/18/2013 16:22	GK
Surr: 4-Bromofluorobenzene	93.3	64.6-123		%REC	176363	1	05/18/2013 16:22	GK
Surr: Dibromofluoromethane	95.5	76.6-133		%REC	176363	1	05/18/2013 16:22	GK
Surr: Toluene-d8	97.1	77.8-120		%REC	176363	1	05/18/2013 16:22	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13135-303 Kaye Drive
Project Name: Owens Corning	Collection Date: 5/15/2013 4:40:00 PM
Lab ID: 1305F17-029	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	176363	1	05/18/2013 16:51	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 16:51	GK
Methylene chloride	BRL	5.0		ug/L	176363	1	05/18/2013 16:51	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 16:51	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 16:51	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 16:51	GK
Chloroform	BRL	5.0		ug/L	176363	1	05/18/2013 16:51	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 16:51	GK
Carbon tetrachloride	BRL	5.0		ug/L	176363	1	05/18/2013 16:51	GK
Benzene	BRL	5.0		ug/L	176363	1	05/18/2013 16:51	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 16:51	GK
Trichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 16:51	GK
Toluene	BRL	5.0		ug/L	176363	1	05/18/2013 16:51	GK
Tetrachloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 16:51	GK
Ethylbenzene	BRL	5.0		ug/L	176363	1	05/18/2013 16:51	GK
Xylenes, Total	BRL	5.0		ug/L	176363	1	05/18/2013 16:51	GK
Surr: 4-Bromofluorobenzene	95.3	64.6-123		%REC	176363	1	05/18/2013 16:51	GK
Surr: Dibromofluoromethane	96.9	76.6-133		%REC	176363	1	05/18/2013 16:51	GK
Surr: Toluene-d8	97.4	77.8-120		%REC	176363	1	05/18/2013 16:51	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13135-200 Kaye Drive
Project Name: Owens Corning	Collection Date: 5/15/2013 4:30:00 PM
Lab ID: 1305F17-030	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	176363	1	05/18/2013 17:20	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 17:20	GK
Methylene chloride	BRL	5.0		ug/L	176363	1	05/18/2013 17:20	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 17:20	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 17:20	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 17:20	GK
Chloroform	BRL	5.0		ug/L	176363	1	05/18/2013 17:20	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 17:20	GK
Carbon tetrachloride	BRL	5.0		ug/L	176363	1	05/18/2013 17:20	GK
Benzene	BRL	5.0		ug/L	176363	1	05/18/2013 17:20	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 17:20	GK
Trichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 17:20	GK
Toluene	BRL	5.0		ug/L	176363	1	05/18/2013 17:20	GK
Tetrachloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 17:20	GK
Ethylbenzene	BRL	5.0		ug/L	176363	1	05/18/2013 17:20	GK
Xylenes, Total	BRL	5.0		ug/L	176363	1	05/18/2013 17:20	GK
Surr: 4-Bromofluorobenzene	94.4	64.6-123		%REC	176363	1	05/18/2013 17:20	GK
Surr: Dibromofluoromethane	98.6	76.6-133		%REC	176363	1	05/18/2013 17:20	GK
Surr: Toluene-d8	98.7	77.8-120		%REC	176363	1	05/18/2013 17:20	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13135-119 Cloverhill Drive
Project Name: Owens Corning	Collection Date: 5/15/2013 4:05:00 PM
Lab ID: 1305F17-031	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	176363	1	05/18/2013 17:49	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 17:49	GK
Methylene chloride	BRL	5.0		ug/L	176363	1	05/18/2013 17:49	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 17:49	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 17:49	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 17:49	GK
Chloroform	BRL	5.0		ug/L	176363	1	05/18/2013 17:49	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 17:49	GK
Carbon tetrachloride	BRL	5.0		ug/L	176363	1	05/18/2013 17:49	GK
Benzene	BRL	5.0		ug/L	176363	1	05/18/2013 17:49	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 17:49	GK
Trichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 17:49	GK
Toluene	BRL	5.0		ug/L	176363	1	05/18/2013 17:49	GK
Tetrachloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 17:49	GK
Ethylbenzene	BRL	5.0		ug/L	176363	1	05/18/2013 17:49	GK
Xylenes, Total	BRL	5.0		ug/L	176363	1	05/18/2013 17:49	GK
Surr: 4-Bromofluorobenzene	94.1	64.6-123		%REC	176363	1	05/18/2013 17:49	GK
Surr: Dibromofluoromethane	96	76.6-133		%REC	176363	1	05/18/2013 17:49	GK
Surr: Toluene-d8	98.1	77.8-120		%REC	176363	1	05/18/2013 17:49	GK

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13135-Dup
Project Name: Owens Corning	Collection Date: 5/15/2013 12:00:00 PM
Lab ID: 1305F17-032	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	176363	1	05/18/2013 18:19	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 18:19	GK
Methylene chloride	BRL	5.0		ug/L	176363	1	05/18/2013 18:19	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 18:19	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 18:19	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 18:19	GK
Chloroform	BRL	5.0		ug/L	176363	1	05/18/2013 18:19	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 18:19	GK
Carbon tetrachloride	BRL	5.0		ug/L	176363	1	05/18/2013 18:19	GK
Benzene	BRL	5.0		ug/L	176363	1	05/18/2013 18:19	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 18:19	GK
Trichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 18:19	GK
Toluene	BRL	5.0		ug/L	176363	1	05/18/2013 18:19	GK
Tetrachloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 18:19	GK
Ethylbenzene	BRL	5.0		ug/L	176363	1	05/18/2013 18:19	GK
Xylenes, Total	BRL	5.0		ug/L	176363	1	05/18/2013 18:19	GK
Surr: 4-Bromofluorobenzene	93.4	64.6-123		%REC	176363	1	05/18/2013 18:19	GK
Surr: Dibromofluoromethane	97.7	76.6-133		%REC	176363	1	05/18/2013 18:19	GK
Surr: Toluene-d8	96.8	77.8-120		%REC	176363	1	05/18/2013 18:19	GK

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13135-1303 Clinkscales Road
Project Name: Owens Corning	Collection Date: 5/15/2013 4:00:00 PM
Lab ID: 1305F17-033	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	176363	1	05/18/2013 18:48	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 18:48	GK
Methylene chloride	BRL	5.0		ug/L	176363	1	05/18/2013 18:48	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 18:48	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 18:48	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 18:48	GK
Chloroform	BRL	5.0		ug/L	176363	1	05/18/2013 18:48	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 18:48	GK
Carbon tetrachloride	BRL	5.0		ug/L	176363	1	05/18/2013 18:48	GK
Benzene	BRL	5.0		ug/L	176363	1	05/18/2013 18:48	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 18:48	GK
Trichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 18:48	GK
Toluene	BRL	5.0		ug/L	176363	1	05/18/2013 18:48	GK
Tetrachloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 18:48	GK
Ethylbenzene	BRL	5.0		ug/L	176363	1	05/18/2013 18:48	GK
Xylenes, Total	BRL	5.0		ug/L	176363	1	05/18/2013 18:48	GK
Surr: 4-Bromofluorobenzene	93.4	64.6-123		%REC	176363	1	05/18/2013 18:48	GK
Surr: Dibromofluoromethane	98.9	76.6-133		%REC	176363	1	05/18/2013 18:48	GK
Surr: Toluene-d8	96.6	77.8-120		%REC	176363	1	05/18/2013 18:48	GK

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13135-MW-39 Zone 3
Project Name: Owens Corning	Collection Date: 5/15/2013 10:40:00 AM
Lab ID: 1305F17-034	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	176363	1	05/18/2013 19:17	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 19:17	GK
Methylene chloride	BRL	5.0		ug/L	176363	1	05/18/2013 19:17	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 19:17	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 19:17	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 19:17	GK
Chloroform	BRL	5.0		ug/L	176363	1	05/18/2013 19:17	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 19:17	GK
Carbon tetrachloride	BRL	5.0		ug/L	176363	1	05/18/2013 19:17	GK
Benzene	BRL	5.0		ug/L	176363	1	05/18/2013 19:17	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 19:17	GK
Trichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 19:17	GK
Toluene	BRL	5.0		ug/L	176363	1	05/18/2013 19:17	GK
Tetrachloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 19:17	GK
Ethylbenzene	BRL	5.0		ug/L	176363	1	05/18/2013 19:17	GK
Xylenes, Total	BRL	5.0		ug/L	176363	1	05/18/2013 19:17	GK
Surr: 4-Bromofluorobenzene	95.1	64.6-123		%REC	176363	1	05/18/2013 19:17	GK
Surr: Dibromofluoromethane	98	76.6-133		%REC	176363	1	05/18/2013 19:17	GK
Surr: Toluene-d8	96	77.8-120		%REC	176363	1	05/18/2013 19:17	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13135-EB
Project Name: Owens Corning	Collection Date: 5/15/2013 10:55:00 AM
Lab ID: 1305F17-035	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	176363	1	05/18/2013 19:46	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 19:46	GK
Methylene chloride	BRL	5.0		ug/L	176363	1	05/18/2013 19:46	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 19:46	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 19:46	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 19:46	GK
Chloroform	BRL	5.0		ug/L	176363	1	05/18/2013 19:46	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 19:46	GK
Carbon tetrachloride	BRL	5.0		ug/L	176363	1	05/18/2013 19:46	GK
Benzene	BRL	5.0		ug/L	176363	1	05/18/2013 19:46	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 19:46	GK
Trichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 19:46	GK
Toluene	BRL	5.0		ug/L	176363	1	05/18/2013 19:46	GK
Tetrachloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 19:46	GK
Ethylbenzene	BRL	5.0		ug/L	176363	1	05/18/2013 19:46	GK
Xylenes, Total	BRL	5.0		ug/L	176363	1	05/18/2013 19:46	GK
Surr: 4-Bromofluorobenzene	95.5	64.6-123		%REC	176363	1	05/18/2013 19:46	GK
Surr: Dibromofluoromethane	97.8	76.6-133		%REC	176363	1	05/18/2013 19:46	GK
Surr: Toluene-d8	96.5	77.8-120		%REC	176363	1	05/18/2013 19:46	GK

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13134-200 Friendship Lane
Project Name: Owens Corning	Collection Date: 5/14/2013 5:40:00 PM
Lab ID: 1305F17-036	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	176363	1	05/18/2013 20:15	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 20:15	GK
Methylene chloride	BRL	5.0		ug/L	176363	1	05/18/2013 20:15	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 20:15	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 20:15	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 20:15	GK
Chloroform	BRL	5.0		ug/L	176363	1	05/18/2013 20:15	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 20:15	GK
Carbon tetrachloride	BRL	5.0		ug/L	176363	1	05/18/2013 20:15	GK
Benzene	BRL	5.0		ug/L	176363	1	05/18/2013 20:15	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 20:15	GK
Trichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 20:15	GK
Toluene	BRL	5.0		ug/L	176363	1	05/18/2013 20:15	GK
Tetrachloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 20:15	GK
Ethylbenzene	BRL	5.0		ug/L	176363	1	05/18/2013 20:15	GK
Xylenes, Total	BRL	5.0		ug/L	176363	1	05/18/2013 20:15	GK
Surr: 4-Bromofluorobenzene	93.1	64.6-123		%REC	176363	1	05/18/2013 20:15	GK
Surr: Dibromofluoromethane	97.9	76.6-133		%REC	176363	1	05/18/2013 20:15	GK
Surr: Toluene-d8	96.5	77.8-120		%REC	176363	1	05/18/2013 20:15	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13134-721 Clinkscals Rd
Project Name: Owens Corning	Collection Date: 5/14/2013 5:30:00 PM
Lab ID: 1305F17-037	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	176363	1	05/18/2013 20:44	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 20:44	GK
Methylene chloride	BRL	5.0		ug/L	176363	1	05/18/2013 20:44	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 20:44	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 20:44	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 20:44	GK
Chloroform	BRL	5.0		ug/L	176363	1	05/18/2013 20:44	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 20:44	GK
Carbon tetrachloride	BRL	5.0		ug/L	176363	1	05/18/2013 20:44	GK
Benzene	BRL	5.0		ug/L	176363	1	05/18/2013 20:44	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176363	1	05/18/2013 20:44	GK
Trichloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 20:44	GK
Toluene	BRL	5.0		ug/L	176363	1	05/18/2013 20:44	GK
Tetrachloroethene	BRL	5.0		ug/L	176363	1	05/18/2013 20:44	GK
Ethylbenzene	BRL	5.0		ug/L	176363	1	05/18/2013 20:44	GK
Xylenes, Total	BRL	5.0		ug/L	176363	1	05/18/2013 20:44	GK
Surr: 4-Bromofluorobenzene	95	64.6-123		%REC	176363	1	05/18/2013 20:44	GK
Surr: Dibromofluoromethane	97	76.6-133		%REC	176363	1	05/18/2013 20:44	GK
Surr: Toluene-d8	96.8	77.8-120		%REC	176363	1	05/18/2013 20:44	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13134-408 Clinkscales Rd
Project Name: Owens Corning	Collection Date: 5/14/2013 5:15:00 PM
Lab ID: 1305F17-038	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	176363	1	05/20/2013 17:33	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176363	1	05/20/2013 17:33	GK
Methylene chloride	BRL	5.0		ug/L	176363	1	05/20/2013 17:33	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/20/2013 17:33	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176363	1	05/20/2013 17:33	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/20/2013 17:33	GK
Chloroform	BRL	5.0		ug/L	176363	1	05/20/2013 17:33	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176363	1	05/20/2013 17:33	GK
Carbon tetrachloride	BRL	5.0		ug/L	176363	1	05/20/2013 17:33	GK
Benzene	BRL	5.0		ug/L	176363	1	05/20/2013 17:33	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176363	1	05/20/2013 17:33	GK
Trichloroethene	BRL	5.0		ug/L	176363	1	05/20/2013 17:33	GK
Toluene	BRL	5.0		ug/L	176363	1	05/20/2013 17:33	GK
Tetrachloroethene	BRL	5.0		ug/L	176363	1	05/20/2013 17:33	GK
Ethylbenzene	BRL	5.0		ug/L	176363	1	05/20/2013 17:33	GK
Xylenes, Total	BRL	5.0		ug/L	176363	1	05/20/2013 17:33	GK
Surr: 4-Bromofluorobenzene	94.8	64.6-123		%REC	176363	1	05/20/2013 17:33	GK
Surr: Dibromofluoromethane	96.7	76.6-133		%REC	176363	1	05/20/2013 17:33	GK
Surr: Toluene-d8	98.6	77.8-120		%REC	176363	1	05/20/2013 17:33	GK

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13134-605 Clinkscales Rd
Project Name: Owens Corning	Collection Date: 5/14/2013 5:20:00 PM
Lab ID: 1305F17-039	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)								
Vinyl chloride	BRL	2.0		ug/L	176363	1	05/20/2013 18:03	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176363	1	05/20/2013 18:03	GK
Methylene chloride	BRL	5.0		ug/L	176363	1	05/20/2013 18:03	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/20/2013 18:03	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176363	1	05/20/2013 18:03	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/20/2013 18:03	GK
Chloroform	BRL	5.0		ug/L	176363	1	05/20/2013 18:03	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176363	1	05/20/2013 18:03	GK
Carbon tetrachloride	BRL	5.0		ug/L	176363	1	05/20/2013 18:03	GK
Benzene	BRL	5.0		ug/L	176363	1	05/20/2013 18:03	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176363	1	05/20/2013 18:03	GK
Trichloroethene	BRL	5.0		ug/L	176363	1	05/20/2013 18:03	GK
Toluene	BRL	5.0		ug/L	176363	1	05/20/2013 18:03	GK
Tetrachloroethene	BRL	5.0		ug/L	176363	1	05/20/2013 18:03	GK
Ethylbenzene	BRL	5.0		ug/L	176363	1	05/20/2013 18:03	GK
Xylenes, Total	BRL	5.0		ug/L	176363	1	05/20/2013 18:03	GK
Surr: 4-Bromofluorobenzene	94.7	64.6-123		%REC	176363	1	05/20/2013 18:03	GK
Surr: Dibromofluoromethane	95.3	76.6-133		%REC	176363	1	05/20/2013 18:03	GK
Surr: Toluene-d8	97.3	77.8-120		%REC	176363	1	05/20/2013 18:03	GK

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13134-MW-39 Zone 2
Project Name: Owens Corning	Collection Date: 5/14/2013 4:30:00 PM
Lab ID: 1305F17-040	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	176363	1	05/20/2013 18:32	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176363	1	05/20/2013 18:32	GK
Methylene chloride	BRL	5.0		ug/L	176363	1	05/20/2013 18:32	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/20/2013 18:32	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176363	1	05/20/2013 18:32	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176363	1	05/20/2013 18:32	GK
Chloroform	BRL	5.0		ug/L	176363	1	05/20/2013 18:32	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176363	1	05/20/2013 18:32	GK
Carbon tetrachloride	BRL	5.0		ug/L	176363	1	05/20/2013 18:32	GK
Benzene	BRL	5.0		ug/L	176363	1	05/20/2013 18:32	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176363	1	05/20/2013 18:32	GK
Trichloroethene	BRL	5.0		ug/L	176363	1	05/20/2013 18:32	GK
Toluene	BRL	5.0		ug/L	176363	1	05/20/2013 18:32	GK
Tetrachloroethene	BRL	5.0		ug/L	176363	1	05/20/2013 18:32	GK
Ethylbenzene	BRL	5.0		ug/L	176363	1	05/20/2013 18:32	GK
Xylenes, Total	BRL	5.0		ug/L	176363	1	05/20/2013 18:32	GK
Surr: 4-Bromofluorobenzene	94.2	64.6-123		%REC	176363	1	05/20/2013 18:32	GK
Surr: Dibromofluoromethane	97.5	76.6-133		%REC	176363	1	05/20/2013 18:32	GK
Surr: Toluene-d8	98	77.8-120		%REC	176363	1	05/20/2013 18:32	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13134-MW-39 Zone 1
Project Name: Owens Corning	Collection Date: 5/14/2013 2:00:00 PM
Lab ID: 1305F17-041	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	176373	1	05/20/2013 19:01	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176373	1	05/20/2013 19:01	GK
Methylene chloride	BRL	5.0		ug/L	176373	1	05/20/2013 19:01	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176373	1	05/20/2013 19:01	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176373	1	05/20/2013 19:01	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176373	1	05/20/2013 19:01	GK
Chloroform	BRL	5.0		ug/L	176373	1	05/20/2013 19:01	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176373	1	05/20/2013 19:01	GK
Carbon tetrachloride	BRL	5.0		ug/L	176373	1	05/20/2013 19:01	GK
Benzene	BRL	5.0		ug/L	176373	1	05/20/2013 19:01	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176373	1	05/20/2013 19:01	GK
Trichloroethene	BRL	5.0		ug/L	176373	1	05/20/2013 19:01	GK
Toluene	BRL	5.0		ug/L	176373	1	05/20/2013 19:01	GK
Tetrachloroethene	BRL	5.0		ug/L	176373	1	05/20/2013 19:01	GK
Ethylbenzene	BRL	5.0		ug/L	176373	1	05/20/2013 19:01	GK
Xylenes, Total	BRL	5.0		ug/L	176373	1	05/20/2013 19:01	GK
Surr: 4-Bromofluorobenzene	94.1	64.6-123		%REC	176373	1	05/20/2013 19:01	GK
Surr: Dibromofluoromethane	96	76.6-133		%REC	176373	1	05/20/2013 19:01	GK
Surr: Toluene-d8	96.1	77.8-120		%REC	176373	1	05/20/2013 19:01	GK

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13134-MW-42 Zone 3
Project Name: Owens Corning	Collection Date: 5/14/2013 10:40:00 AM
Lab ID: 1305F17-042	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	176373	1	05/20/2013 20:29	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176373	1	05/20/2013 20:29	GK
Methylene chloride	BRL	5.0		ug/L	176373	1	05/20/2013 20:29	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176373	1	05/20/2013 20:29	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176373	1	05/20/2013 20:29	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176373	1	05/20/2013 20:29	GK
Chloroform	BRL	5.0		ug/L	176373	1	05/20/2013 20:29	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176373	1	05/20/2013 20:29	GK
Carbon tetrachloride	BRL	5.0		ug/L	176373	1	05/20/2013 20:29	GK
Benzene	BRL	5.0		ug/L	176373	1	05/20/2013 20:29	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176373	1	05/20/2013 20:29	GK
Trichloroethene	BRL	5.0		ug/L	176373	1	05/20/2013 20:29	GK
Toluene	BRL	5.0		ug/L	176373	1	05/20/2013 20:29	GK
Tetrachloroethene	BRL	5.0		ug/L	176373	1	05/20/2013 20:29	GK
Ethylbenzene	BRL	5.0		ug/L	176373	1	05/20/2013 20:29	GK
Xylenes, Total	BRL	5.0		ug/L	176373	1	05/20/2013 20:29	GK
Surr: 4-Bromofluorobenzene	95.2	64.6-123		%REC	176373	1	05/20/2013 20:29	GK
Surr: Dibromofluoromethane	100	76.6-133		%REC	176373	1	05/20/2013 20:29	GK
Surr: Toluene-d8	96.1	77.8-120		%REC	176373	1	05/20/2013 20:29	GK

Qualifiers:	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	NC Not confirmed
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13133-MW-42 Zone 2
Project Name: Owens Corning	Collection Date: 5/13/2013 4:25:00 PM
Lab ID: 1305F17-043	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	176373	1	05/21/2013 12:55	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176373	1	05/21/2013 12:55	GK
Methylene chloride	BRL	5.0		ug/L	176373	1	05/21/2013 12:55	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176373	1	05/21/2013 12:55	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176373	1	05/21/2013 12:55	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176373	1	05/21/2013 12:55	GK
Chloroform	BRL	5.0		ug/L	176373	1	05/21/2013 12:55	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176373	1	05/21/2013 12:55	GK
Carbon tetrachloride	BRL	5.0		ug/L	176373	1	05/21/2013 12:55	GK
Benzene	BRL	5.0		ug/L	176373	1	05/21/2013 12:55	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176373	1	05/21/2013 12:55	GK
Trichloroethene	BRL	5.0		ug/L	176373	1	05/21/2013 12:55	GK
Toluene	BRL	5.0		ug/L	176373	1	05/21/2013 12:55	GK
Tetrachloroethene	BRL	5.0		ug/L	176373	1	05/21/2013 12:55	GK
Ethylbenzene	BRL	5.0		ug/L	176373	1	05/21/2013 12:55	GK
Xylenes, Total	BRL	5.0		ug/L	176373	1	05/21/2013 12:55	GK
Surr: 4-Bromofluorobenzene	93.5	64.6-123		%REC	176373	1	05/21/2013 12:55	GK
Surr: Dibromofluoromethane	97.5	76.6-133		%REC	176373	1	05/21/2013 12:55	GK
Surr: Toluene-d8	98.4	77.8-120		%REC	176373	1	05/21/2013 12:55	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13133-EB
Project Name: Owens Corning	Collection Date: 5/13/2013 4:40:00 PM
Lab ID: 1305F17-044	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	176373	1	05/21/2013 12:28	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176373	1	05/21/2013 12:28	GK
Methylene chloride	BRL	5.0		ug/L	176373	1	05/21/2013 12:28	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176373	1	05/21/2013 12:28	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176373	1	05/21/2013 12:28	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176373	1	05/21/2013 12:28	GK
Chloroform	BRL	5.0		ug/L	176373	1	05/21/2013 12:28	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176373	1	05/21/2013 12:28	GK
Carbon tetrachloride	BRL	5.0		ug/L	176373	1	05/21/2013 12:28	GK
Benzene	BRL	5.0		ug/L	176373	1	05/21/2013 12:28	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176373	1	05/21/2013 12:28	GK
Trichloroethene	BRL	5.0		ug/L	176373	1	05/21/2013 12:28	GK
Toluene	BRL	5.0		ug/L	176373	1	05/21/2013 12:28	GK
Tetrachloroethene	BRL	5.0		ug/L	176373	1	05/21/2013 12:28	GK
Ethylbenzene	BRL	5.0		ug/L	176373	1	05/21/2013 12:28	GK
Xylenes, Total	BRL	5.0		ug/L	176373	1	05/21/2013 12:28	GK
Surr: 4-Bromofluorobenzene	93.8	64.6-123		%REC	176373	1	05/21/2013 12:28	GK
Surr: Dibromofluoromethane	96.5	76.6-133		%REC	176373	1	05/21/2013 12:28	GK
Surr: Toluene-d8	97.4	77.8-120		%REC	176373	1	05/21/2013 12:28	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: BROWN AND CALDWELL	Client Sample ID: 13133-MW-42 Zone 1
Project Name: Owens Corning	Collection Date: 5/13/2013 2:00:00 PM
Lab ID: 1305F17-045	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	176373	1	05/21/2013 13:25	GK
1,1-Dichloroethene	BRL	5.0		ug/L	176373	1	05/21/2013 13:25	GK
Methylene chloride	BRL	5.0		ug/L	176373	1	05/21/2013 13:25	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	176373	1	05/21/2013 13:25	GK
1,1-Dichloroethane	BRL	5.0		ug/L	176373	1	05/21/2013 13:25	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	176373	1	05/21/2013 13:25	GK
Chloroform	BRL	5.0		ug/L	176373	1	05/21/2013 13:25	GK
1,1,1-Trichloroethane	BRL	5.0		ug/L	176373	1	05/21/2013 13:25	GK
Carbon tetrachloride	BRL	5.0		ug/L	176373	1	05/21/2013 13:25	GK
Benzene	BRL	5.0		ug/L	176373	1	05/21/2013 13:25	GK
1,2-Dichloroethane	BRL	5.0		ug/L	176373	1	05/21/2013 13:25	GK
Trichloroethene	BRL	5.0		ug/L	176373	1	05/21/2013 13:25	GK
Toluene	BRL	5.0		ug/L	176373	1	05/21/2013 13:25	GK
Tetrachloroethene	BRL	5.0		ug/L	176373	1	05/21/2013 13:25	GK
Ethylbenzene	BRL	5.0		ug/L	176373	1	05/21/2013 13:25	GK
Xylenes, Total	BRL	5.0		ug/L	176373	1	05/21/2013 13:25	GK
Surr: 4-Bromofluorobenzene	94.3	64.6-123		%REC	176373	1	05/21/2013 13:25	GK
Surr: Dibromofluoromethane	95.8	76.6-133		%REC	176373	1	05/21/2013 13:25	GK
Surr: Toluene-d8	98.5	77.8-120		%REC	176373	1	05/21/2013 13:25	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Brent Caldwell

Work Order Number 1305F17

Checklist completed by MJ Signature Date 5/17/13

Carrier name: FedEx UPS Courier Client US Mail Other

Shipping container/cooler in good condition? Yes No Not Present

Custody seals intact on shipping container/cooler? Yes No Not Present

Custody seals intact on sample bottles? Yes No Not Present

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

Cooler #1 3.1^o 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

Sample Condition: Good Adjusted? _____ Other(Explain) _____ Checked by _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes No

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

Client: BROWN AND CALDWELL
Project Name: Owens Corning
Workorder: 1305F17

ANALYTICAL QC SUMMARY REPORT

BatchID: 176300

Sample ID: MB-176300	Client ID:	Units: ug/L	Prep Date: 05/17/2013	Run No: 244274							
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 176300	Analysis Date: 05/17/2013	Seq No: 5114974							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	0
1,1-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	0
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
1,2-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	0
Benzene	BRL	5.0	0	0	0	0	0	0	0	0	0
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0	0
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0	0
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	0
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	0
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Toluene	BRL	5.0	0	0	0	0	0	0	0	0	0
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Vinyl chloride	BRL	2.0	0	0	0	0	0	0	0	0	0
Xylenes, Total	BRL	5.0	0	0	0	0	0	0	0	0	0
Surr: 4-Bromofluorobenzene	46.93	0	50.00	0	93.9	64.6	123	0	0	0	0
Surr: Dibromofluoromethane	49.10	0	50.00	0	98.2	76.6	133	0	0	0	0
Surr: Toluene-d8	49.47	0	50.00	0	98.9	77.8	120	0	0	0	0

Sample ID: LCS-176300	Client ID:	Units: ug/L	Prep Date: 05/17/2013	Run No: 244274							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 176300	Analysis Date: 05/17/2013	Seq No: 5114973							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	53.36	5.0	50.00	0	107	61.1	142	0	0	0	0
Benzene	46.02	5.0	50.00	0	92.0	73.5	130	0	0	0	0
Toluene	47.31	5.0	50.00	0	94.6	73.6	130	0	0	0	0

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
Project Name: Owens Corning
Workorder: 1305F17

ANALYTICAL QC SUMMARY REPORT

BatchID: 176300

Sample ID: LCS-176300	Client ID:	Units: ug/L	Prep Date: 05/17/2013	Run No: 244274							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 176300	Analysis Date: 05/17/2013	Seq No: 5114973							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Trichloroethene	53.19	5.0	50.00	0	106	70	135	0	0	0	
Surr: 4-Bromofluorobenzene	48.07	0	50.00	0	96.1	64.6	123	0	0	0	
Surr: Dibromofluoromethane	50.51	0	50.00	0	101	76.6	133	0	0	0	
Surr: Toluene-d8	49.69	0	50.00	0	99.4	77.8	120	0	0	0	

Sample ID: 1305F17-003AMS	Client ID: 13134-MW-22	Units: ug/L	Prep Date: 05/17/2013	Run No: 244274							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 176300	Analysis Date: 05/17/2013	Seq No: 5115917							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	909.0	50	500.0	368.3	108	60	168	0	0	0	
Benzene	469.1	50	500.0	0	93.8	66.6	148	0	0	0	
Toluene	485.1	50	500.0	0	97.0	68	149	0	0	0	
Trichloroethene	494.1	50	500.0	0	98.8	71.1	154	0	0	0	
Surr: 4-Bromofluorobenzene	490.2	0	500.0	0	98.0	64.6	123	0	0	0	
Surr: Dibromofluoromethane	498.9	0	500.0	0	99.8	76.6	133	0	0	0	
Surr: Toluene-d8	497.2	0	500.0	0	99.4	77.8	120	0	0	0	

Sample ID: 1305F17-003AMSD	Client ID: 13134-MW-22	Units: ug/L	Prep Date: 05/17/2013	Run No: 244274							
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 176300	Analysis Date: 05/17/2013	Seq No: 5115918							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	915.8	50	500.0	368.3	110	60	168	909.0	0.745	18.6	
Benzene	458.1	50	500.0	0	91.6	66.6	148	469.1	2.37	20	
Toluene	471.1	50	500.0	0	94.2	68	149	485.1	2.93	20	
Trichloroethene	476.0	50	500.0	0	95.2	71.1	154	494.1	3.73	20	
Surr: 4-Bromofluorobenzene	491.1	0	500.0	0	98.2	64.6	123	490.2	0	0	
Surr: Dibromofluoromethane	494.3	0	500.0	0	98.9	76.6	133	498.9	0	0	
Surr: Toluene-d8	495.8	0	500.0	0	99.2	77.8	120	497.2	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
 Project Name: Owens Corning
 Workorder: 1305F17

ANALYTICAL QC SUMMARY REPORT

BatchID: 176363

Sample ID: MB-176363	Client ID:	Units: ug/L	Prep Date: 05/18/2013	Run No: 244323
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 176363	Analysis Date: 05/18/2013	Seq No: 5116041

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
Benzene	BRL	5.0	0	0	0	0	0	0	0	0	
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0	
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0	
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Toluene	BRL	5.0	0	0	0	0	0	0	0	0	
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Vinyl chloride	BRL	2.0	0	0	0	0	0	0	0	0	
Xylenes, Total	BRL	5.0	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	47.03	0	50.00	0	94.1	64.6	123	0	0	0	
Surr: Dibromofluoromethane	47.77	0	50.00	0	95.5	76.6	133	0	0	0	
Surr: Toluene-d8	49.20	0	50.00	0	98.4	77.8	120	0	0	0	

Sample ID: LCS-176363	Client ID:	Units: ug/L	Prep Date: 05/18/2013	Run No: 244323
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 176363	Analysis Date: 05/18/2013	Seq No: 5116040

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	47.93	5.0	50.00	0	95.9	61.1	142	0	0	0	
Benzene	41.95	5.0	50.00	0	83.9	73.5	130	0	0	0	
Toluene	43.02	5.0	50.00	0	86.0	73.6	130	0	0	0	
Trichloroethene	46.12	5.0	50.00	0	92.2	70	135	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
Project Name: Owens Corning
Workorder: 1305F17

ANALYTICAL QC SUMMARY REPORT

BatchID: 176363

Sample ID: LCS-176363	Client ID:	Units: ug/L	Prep Date: 05/18/2013	Run No: 244323							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 176363	Analysis Date: 05/18/2013	Seq No: 5116040							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Surr: 4-Bromofluorobenzene	48.76	0	50.00	0	97.5	64.6	123	0	0	0	
Surr: Dibromofluoromethane	49.03	0	50.00	0	98.1	76.6	133	0	0	0	
Surr: Toluene-d8	48.90	0	50.00	0	97.8	77.8	120	0	0	0	

Sample ID: 1305F17-021AMS	Client ID: 13136-MW-41 Zone 2	Units: ug/L	Prep Date: 05/18/2013	Run No: 244323							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 176363	Analysis Date: 05/18/2013	Seq No: 5116044							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	801.4	50	500.0	279.8	104	60	168	0	0	0	
Benzene	464.8	50	500.0	0	93.0	66.6	148	0	0	0	
Toluene	468.5	50	500.0	0	93.7	68	149	0	0	0	
Trichloroethene	494.6	50	500.0	0	98.9	71.1	154	0	0	0	
Surr: 4-Bromofluorobenzene	487.3	0	500.0	0	97.5	64.6	123	0	0	0	
Surr: Dibromofluoromethane	490.4	0	500.0	0	98.1	76.6	133	0	0	0	
Surr: Toluene-d8	497.0	0	500.0	0	99.4	77.8	120	0	0	0	

Sample ID: 1305F17-021AMSD	Client ID: 13136-MW-41 Zone 2	Units: ug/L	Prep Date: 05/18/2013	Run No: 244323							
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 176363	Analysis Date: 05/18/2013	Seq No: 5116045							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	789.3	50	500.0	279.8	102	60	168	801.4	1.52	18.6	
Benzene	446.4	50	500.0	0	89.3	66.6	148	464.8	4.04	20	
Toluene	455.5	50	500.0	0	91.1	68	149	468.5	2.81	20	
Trichloroethene	468.3	50	500.0	0	93.7	71.1	154	494.6	5.46	20	
Surr: 4-Bromofluorobenzene	490.5	0	500.0	0	98.1	64.6	123	487.3	0	0	
Surr: Dibromofluoromethane	497.2	0	500.0	0	99.4	76.6	133	490.4	0	0	
Surr: Toluene-d8	495.7	0	500.0	0	99.1	77.8	120	497.0	0	0	

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: BROWN AND CALDWELL
 Project Name: Owens Corning
 Workorder: 1305F17

ANALYTICAL QC SUMMARY REPORT

BatchID: 176373

Sample ID: MB-176373	Client ID:	Units: ug/L	Prep Date: 05/20/2013	Run No: 244334							
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 176373	Analysis Date: 05/20/2013	Seq No: 5117088							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	0
1,1-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	0
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
1,2-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	0
Benzene	BRL	5.0	0	0	0	0	0	0	0	0	0
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0	0
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0	0
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	0
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	0
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Toluene	BRL	5.0	0	0	0	0	0	0	0	0	0
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	0
Vinyl chloride	BRL	2.0	0	0	0	0	0	0	0	0	0
Xylenes, Total	BRL	5.0	0	0	0	0	0	0	0	0	0
Surr: 4-Bromofluorobenzene	46.59	0	50.00	0	93.2	64.6	123	0	0	0	0
Surr: Dibromofluoromethane	48.17	0	50.00	0	96.3	76.6	133	0	0	0	0
Surr: Toluene-d8	48.93	0	50.00	0	97.9	77.8	120	0	0	0	0

Sample ID: LCS-176373	Client ID:	Units: ug/L	Prep Date: 05/20/2013	Run No: 244334							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 176373	Analysis Date: 05/20/2013	Seq No: 5117087							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	54.50	5.0	50.00	0	109	61.1	142	0	0	0	0
Benzene	48.87	5.0	50.00	0	97.7	73.5	130	0	0	0	0
Toluene	50.74	5.0	50.00	0	101	73.6	130	0	0	0	0
Trichloroethene	52.98	5.0	50.00	0	106	70	135	0	0	0	0

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
Project Name: Owens Corning
Workorder: 1305F17

ANALYTICAL QC SUMMARY REPORT

BatchID: 176373

Sample ID: LCS-176373	Client ID:	Units: ug/L	Prep Date: 05/20/2013	Run No: 244334							
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 176373	Analysis Date: 05/20/2013	Seq No: 5117087							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Surr: 4-Bromofluorobenzene	49.10	0	50.00	0	98.2	64.6	123	0	0	0	
Surr: Dibromofluoromethane	49.46	0	50.00	0	98.9	76.6	133	0	0	0	
Surr: Toluene-d8	48.86	0	50.00	0	97.7	77.8	120	0	0	0	

Sample ID: 1305F17-041AMS	Client ID: 13134-MW-39 Zone 1	Units: ug/L	Prep Date: 05/20/2013	Run No: 244334							
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 176373	Analysis Date: 05/20/2013	Seq No: 5117947							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	59.78	5.0	50.00	0	120	60	168	0	0	0	
Benzene	50.08	5.0	50.00	0	100	66.6	148	0	0	0	
Toluene	51.74	5.0	50.00	0	103	68	149	0	0	0	
Trichloroethene	51.98	5.0	50.00	0	104	71.1	154	0	0	0	
Surr: 4-Bromofluorobenzene	49.26	0	50.00	0	98.5	64.6	123	0	0	0	
Surr: Dibromofluoromethane	50.01	0	50.00	0	100	76.6	133	0	0	0	
Surr: Toluene-d8	49.27	0	50.00	0	98.5	77.8	120	0	0	0	

Sample ID: 1305F17-041AMSD	Client ID: 13134-MW-39 Zone 1	Units: ug/L	Prep Date: 05/20/2013	Run No: 244334							
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 176373	Analysis Date: 05/20/2013	Seq No: 5117948							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	59.57	5.0	50.00	0	119	60	168	59.78	0.352	18.6	
Benzene	49.21	5.0	50.00	0	98.4	66.6	148	50.08	1.75	20	
Toluene	50.28	5.0	50.00	0	101	68	149	51.74	2.86	20	
Trichloroethene	52.21	5.0	50.00	0	104	71.1	154	51.98	0.442	20	
Surr: 4-Bromofluorobenzene	49.27	0	50.00	0	98.5	64.6	123	49.26	0	0	
Surr: Dibromofluoromethane	50.35	0	50.00	0	101	76.6	133	50.01	0	0	
Surr: Toluene-d8	49.50	0	50.00	0	99.0	77.8	120	49.27	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Appendix C: Historical Groundwater Data

(Excerpted from the *2005 Annual Groundwater and Surface Water Monitoring Report*, ARCADIS G&M, Inc., 2006)



Table E-1 Summary of Selected Groundwater Analytical Results for Overburden Wells, Owens Corning, Anderson, South Carolina.

Sample dates	Units	November-90	August 91	August-93	December-95	December-96	November-97	December-98	December-99	December-00	November-01	December-02	December-03	December-04	November-05
MW-5															
Halogenated Alkenes															
Tetrachloroethene	ug/l	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Perchloroethene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ug/l	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Halogenated Methanes															
Carbon Tetrachloride	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Halogenated Ethenes															
1,1,2-Trichloroethane	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aromatic Hydrocarbons															
Benzene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals															
Arsenic	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/l	390	240	174	160	100	100	130	89	140	140	NA	NA	NA	NA
Cadmium	ug/l	NA	1	NA	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Chromium	ug/l	ND	16	10	43	27	ND	4	ND	ND	ND	NA	NA	NA	NA
Lead	ug/l	ND	ND	NA	3.2	ND	ND	8	ND	ND	ND	NA	NA	NA	NA
Nickel	ug/l	ND	7.1	ND	ND	ND	1	3	ND	ND	ND	NA	NA	NA	NA
Fluoride	mg/l	NA	ND	NA	ND	31.4	100	ND	ND	176	ND	NA	NA	NA	NA

ND: Not Detected
 NA: Not Analyzed
 Conf: Data is Confirmed

Table E-1. Summary of Selected Groundwater Analytical Results for Overburden Wells, Owens Corning, Anderson, South Carolina.

Sample dates	Units	November-90	August-91	September-93	December-95	December-96	November-97	December-98	December-99	December-00	November-01	December-02	June-03	December-03	April-04	July-04	December-04	November-05	
MW-7																			
Alkylated Alkenes																			
1,2-Dichloroethane	ug/L	NA	NA	NA	ND	ND	ND	ND	23	ND	ND	ND	ND	ND	ND	ND	ND	4.51	ND
1,1-Dichloroethane	ug/L	NA	NA	NA	ND	ND	ND	ND	26.6	ND	ND	ND	ND	ND	ND	ND	ND	3.21	ND
1,2-Dibromochloroethane	ug/L	NA	NA	NA	ND	ND	ND	ND	14000	27600	30100	45000	1600	4400	6200	3200	1000	17000	ND
1,1-Dibromoethane	ug/L	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Alkylated Methanes																			
1,1-Dichloroethane	ug/L	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dibromoethane	ug/L	NA	NA	NA	ND	ND	ND	ND	11.3	ND	ND	ND	ND	ND	ND	ND	ND	3.31	ND
1,1-Dibromochloroethane	ug/L	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Alkylated Ethanes																			
1,1,1-Trichloroethane	ug/L	NA	NA	NA	55000	53000	28000	8200	24600	36500	36000	76000	18000	9100	13000	8300	3600	55000	ND
1,1,2-Trichloroethane	ug/L	NA	NA	NA	ND	ND	ND	ND	17.1	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
Aromatic Hydrocarbons																			
Benzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
Toluene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
Xylenes	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,4,5-Tetrachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,3,4-Tetrachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,3,6-Tetrachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,3,5-Tetrachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,3,4,5-Pentachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,3,4,6-Pentachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,3,5,6-Pentachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,3,4,5,6-Hexachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
Summary																			
1,1,1-Trichloroethane	ug/L	55000	53000	28000	8200	24600	36500	36000	76000	18000	9100	13000	8300	3600	55000	55000	3600	55000	55000
1,1,2-Trichloroethane	ug/L	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1
Benzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
Toluene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
Xylenes	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,4,5-Tetrachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,4,6-Tetrachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,3,4-Tetrachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,3,5-Tetrachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,3,6-Tetrachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,3,4,5-Pentachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,3,4,6-Pentachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,3,5,6-Pentachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
1,2,3,4,5,6-Hexachlorobenzene	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND

1. ND = Not Detected
 2. NA = Not Analyzed
 3. Values are in ug/L

ARCADIS

Table E-2. Summary of Selected Groundwater Results for the Top of Rock Wells, Owens Corning, Anderson, South Carolina.

Sample dates	Units	MW-21										MW-24													
		August-93	December-95	December-96	November-97	December-98	December-99	December-00	November-01	December-02	December-03	December-04	November-05	September-93	December-95	December-96	November-97	December-98	December-99	December-00	November-01	December-02	December-03	December-04	
Halogenated Alkenes																									
Tetra Chloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ug/l	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Halogenated Methanes																									
Carbon Tetrachloride	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Halogenated Ethanes																									
1,1,1-Trichloroethane	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aromatic Hydrocarbons																									
Benzene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals																									
Arsenic	ug/l	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Barium	ug/l	1200	601	200	100	100	130	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/l	3.3	2.2	1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	ug/l	9.5	4	2.8	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	ug/l	7.5	31.7	6.7	ND	ND	ND	5.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	ug/l	ND	5.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoride																									
Fluoride	ug/l	NA	ND	44.9	100	ND	ND	180	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

ND - Not Detected

NA - Not Analyzed

Quantities are ug/L unless noted

Table E-2. Summary of Selected Groundwater Results for the Top of Rock Wells, Owens Corning, Anderson, South Carolina.

Sample dates	Units	TW-42				TW-46							
		December-02	December-03	December-04	November-05	October-01	November-01	December-02	December-03	December-04	November-05		
Halogenated Alkenes													
Tetrachloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Halogenated Methanes													
Carbon Tetrachloride	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Halogenated Ethanes													
1,1,1-Trichloroethane	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aromatic Hydrocarbons													
Benzene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals													
Aluminum	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoride													
	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

ND = Not Detected
 NA = Not Analyzed
 Squares are Not Labeled

Table E-3. Summary of Selected Groundwater Results for Bedrock Wells, Owens Corning, Anderson, South Carolina.

Parameter	Units	MW-6										MW-15															
		September-93	December-95	December-96	November-97	December-98	December-99	December-00	November-01	December-02	December-03	December-04	November-05	August-93	December-95	December-96	November-97	December-98	December-99	December-00	November-01	December-02	December-03	December-04	November-05		
Halogenated Alkenes																											
Tetrachloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	ug/l	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Diichloroethylene	ug/l	ND	25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ug/l	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Halogenated Methanes																											
Carbon Tetrachloride	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Halogenated Ethanes																											
1,1,1-Trichloroethane	ug/l	ND	46	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aromatic Hydrocarbons																											
Benzene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals																											
Artenic	ug/l	ND	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/l	ND	40.1	53.7	40	40	42	40	40	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	ug/l	ND	6.6	4	2	1	ND	11	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	ug/l	1.2	4.1	2.6	ND	ND	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	ug/l	ND	2.2	ND	2	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoride																											
Fluoride	ug/l	ND	ND	170	200	160	ND	270	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND - Non-Detect
 NA - Not Analyzed

Table E-3. Summary of Selected Groundwater Results for Bedrock Wells, Owens Corning, Anderson, South Carolina.

Parameter	Units	MW-22							MW-27							
		August-93	December-95	December-96	December-98	December-99	December-00	Nov-01	December-02	December-03	December-04	November-05	December-02	December-03	December-04	November-05
Halogenated Alkenes																
Tetra chloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	ug/l	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ug/l	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Halogenated Methanes																
Carbon Tetrachloride	ug/l	18	26	47	21	24	24	21	19	12	14	19	34	41	43	44
Chloroform	ug/l	ND	ND	11	12	11	12	12	11	10	11	11	23	22	26	26
Methylene Chloride	ug/l	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Halogenated Ethanes																
1,1,1-Trichloroethane	ug/l	ND	ND	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	ND	ND	5	ND	5	5	5	5	5	5	5	9	9	8	8
Aromatic Hydrocarbons																
Benzene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals																
Asbestos	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Boron	ug/l	78	5	9	80	92	100	96	96	96	96	96	96	96	96	96
Chromium	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoride	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND = Not Detected
NA = Not Analyzed

Table E-3. Summary of Selected Groundwater Results for Barrock Wells, Owens Corning, Anderson, South Carolina.

Parameter	Units	MW-29R		Alloy										Gladden					
		December-04	November-05	September-93	December-95	December-96	November-97	December-98	December-99	December-00	Nov-01	December-02	December-03	December-04	November-05	September-93	December-96	November-97	December-98
Halogenated Alkenes																			
Tetrachloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	2.0	95	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Vinyl Chloride	ug/l	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
Halogenated Methanes																			
Carbon Tetrachloride	ug/l	12	3.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ug/l	11	3.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.7
Halogenated Ethanes																			
1,1,1-Trichloroethane	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aromatic Hydrocarbons																			
Benzene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals																			
Arsenic	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/l	NA	NA	1100	216	160	50	40	88	65	77	NA	NA	NA	NA	41	43.4	200	40
Beryllium	ug/l	NA	NA	3.1	1.1	1.7	ND	ND	ND	ND	ND	NA	NA	NA	NA	ND	ND	ND	ND
Chromium	ug/l	NA	NA	22	4	3.6	3	2	ND	ND	ND	NA	NA	NA	NA	ND	ND	2	1
Cadmium	ug/l	NA	NA	190	34	25.9	6	6	7.8	5.5	5.2	NA	NA	NA	NA	1.6	6.6	ND	ND
Nickel	ug/l	NA	NA	28	5.6	ND	3	3	ND	ND	ND	NA	NA	NA	NA	ND	ND	1	1
Fluoride	ug/l	NA	NA	370	ND	88.3	100	100	ND	230	ND	NA	NA	NA	NA	ND	45.3	250	ND

NA = Not Analyzed
 ND = Not Detected

Table E.3 Summary of Selected Groundwater Results for Bedrock Wells, Owens Corning, Anderson, South Carolina.

Parameter	Units	TW-40				TW-41				TW-44					
		October-01	November-01	December-02	December-03	December-04	November-01	December-02	December-03	December-04	November-01	December-02	December-03	December-04	November-05
Halogenated Alkenes															
Tetrachloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Halogenated Methanes															
Carbon tetrachloride	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Halogenated Ethanes															
1,1,1-Trichloroethane	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aromatic Hydrocarbons															
benzene	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals															
Arsenic	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
barium	ug/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beryllium	ug/l	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cadmium	ug/l	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
chromium	ug/l	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
lead	ug/l	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
nickel	ug/l	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoride															
	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND = Not Detected
 NA = Not Analyzed