GRENADA MANUFACTURING, LLC

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Transmitted via Electronic Mail and Overnight Delivery

January 29, 2016

Stephen P. Smith, Esquire
Associate Regional Counsel
United States Environmental Protection Agency
Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street
Atlanta, Georgia 30303-8960

Re: Response to Request for Additional Interim Measures at the Grenada Manufacturing, LLC Facility in Grenada, Grenada County, Mississippi

Dear Mr. Smith:

Consistent with my limited authority and responsibilities as counsel for Grenada Manufacturing, LLC ("Grenada Manufacturing" or "Permittee"), as disclosed and explained in my January 28, 2016 letter to Mr. Greg Luetscher (United States Environmental Protection Agency - EPA) and Mr. Trey Hess (Mississippi Department of Environmental Quality - MDEQ), I am submitting this response to your letter dated December 30, 2015, a copy of which is enclosed as "Exhibit A." As explained in my letter to Mr. Luetscher and Mr. Hess, a copy of which is enclosed as "Exhibit B," while Grenada Manufacturing is the holder of both the EPA Hazardous and Solid Waste Permit I.D. No. MSD 007037278, issued July 29, 2010 to Grenada Manufacturing ("HSWA Permit"), and the MDEQ Resource Conservation and Recovery Act Hazardous Waste Ref. No. MSD007037278 ("RCRA Permit"), Grenada Manufacturing has not been an operating entity since its bankruptcy action over a decade ago. Nevertheless, Grenada Manufacturing recognizes that, as the HSWA permittee, it is responsible for ensuring compliance with the permit and is the primary point of contact for both EPA and MDEQ. Accordingly, Grenada Manufacturing greatly appreciates the opportunity to continue discussions among the relevant parties concerning the permit terms, the requested actions, and the most recent data analyses.

As a preliminary matter, and as emphasized in my letter to Mr. Luetscher and Mr. Hess, please note that, unless contributions by the Permittee to any submission to either EPA, MDEQ, or both, are clearly attributed to the Permittee, the views, data, recommendations, and documents associated with the submissions are presumed to constitute the positions of parties other than Grenada Manufacturing, which parties may be contractually obligated to Grenada Manufacturing or third-parties to perform aspects of work requested by EPA. Thus, as counsel for Grenada Manufacturing, I will confer, as I have done here, with counsel for these other entities to

determine which actions, if any, they are prepared to perform, based on a review of the HSWA Permit, the most recent monitoring data, and the terms of any applicable contractual arrangements, and report their responses to EPA and/or MDEQ in a submission over my signature, unless otherwise necessary or appropriate.

Your December 30, 2015 letter requests that Grenada Manufacturing prepare an updated interim measures work plan ("IMWP") to include a number of additional on-site and off-site "corrective measures" as outlined in the letter. Although the terms "interim measures" and "corrective measures" are used somewhat interchangeably in your letter, we understand that the last sentence of the second paragraph of your letter, which provides in pertinent part that "[t]he EPA requests that all of the following interim measures be conducted to mitigate any current or potential threats to human health or the environment" most clearly reflects EPA's intent.

Under Condition II.F.I.a., EPA may require the performance of "interim measures" at any SWMU or AOC which EPA determines requires accelerated action to protect human health and the environment. Upon notification by EPA, Permittee must prepare and submit to EPA for approval within thirty (30) calendar days of notification an IMWP for any SWMU or AOC with respect to which EPA determines action is necessary.

Before exercising its authority to require interim measures at an on-site SWMU or AOC, EPA first must determine that there has been a release from the subject unit, in accordance with the Confirmatory Sampling provisions of Condition II.D., or the RCRA Facility Investigation provisions of Condition II.E. In addition, with respect to any off-site interim measures requested by EPA, the Agency first must make an initial determination that the requested interim measures are necessary to address contamination migrating beyond the facility boundary from a documented SWMU or AOC on the facility premises, in accordance with the Confirmatory Sampling provisions of Condition II.D., or the RCRA Facility Investigation provisions of Condition II.E.

I. EPA has not Demonstrated that Contamination is Migrating Beyond the Plant Boundary

Under its Permit, Grenada Manufacturing is not responsible for addressing contamination existing beyond the facility's boundaries unless EPA can demonstrate that the plant is the source of such "off-site" contamination. While EPA initially asserted that TCE in plant groundwater was migrating north to the Eastern Heights neighborhood and to an area between the plant boundary and the neighborhood (the MW-20 area), the technical data generated at EPA's direction does not support that conclusion.

Rather, a recent comprehensive evaluation of groundwater data collected between 1990 and 2015 in a study area comprised of the Grenada Manufacturing facility, the MW-20 area located north of the facility, the Eastern Heights neighborhood located further north of the MW-20 area, a railyard located east of the neighborhood, and the Moose Lodge Road Area located further east of the railyard area concluded that contaminants at the "off-site" locations of concern did not emanate from the Grenada facility. See Summary of Comprehensive Evaluation of Groundwater in Study Area, Grenada, Mississippi, T&M Associates, January 22, 2016, enclosed herewith as Exhibit C. Accordingly, as discussed in greater detail below, the terms of Grenada

Manufacturing's permit do not provide a basis for EPA's directives in its December 30th correspondence that Permittee perform the requested off-site corrective actions.

II. Interim Measures Are Not Necessary to Protect Human Health and the Environment

In its December 30, 2015 correspondence, EPA has directed Permittee to perform several interim measures that relate to the vapor intrusion ("VI") investigation previously undertaken pursuant to a September 11, 2015 IMWP prepared by Arcadis. A copy of the September 11, 2015 IMWP was enclosed with EPA's December 30, 2015 letter. The September 11, 2015 IMWP was prepared in response to a June 30, 2015 EPA directive that Permittee investigate a potential vapor intrusion pathway into the Eastern Heights neighborhood north of the Grenada Manufacturing plant. (See Exhibit D.) Initial data from soil gas probes and groundwater samples collected in an area between the plant boundary and the neighborhood (the MW-20 area) indicated the presence of elevated levels of TCE. After EPA determined that groundwater sampling data from the MW-20 area exceeded the new regulatory risk screening level for trichloroethylene ("TCE"), it issued the June 30, 2015 directive requiring an assessment of whether volatilized TCE was entering residences via a groundwater plume present in the southern portion of the neighborhood.

Relying upon EPA's representations regarding the origin of the groundwater plume allegedly migrating toward the neighborhood from the MW-20 area, and that immediate action was necessary to protect human health and the environment, an environmental consulting firm specializing in vapor intrusion matters was retained to prepare the IMWP and conduct the studies required by the June 30, 2015 directive. The approved IMWP included the placement of additional vapor probes along a utility right-of-way behind homes on Lyon Drive; ambient air sampling in and around six homes on Lyon Drive; and soil and groundwater sampling within the neighborhood. Implementation of the IMWP commenced in September of 2015.

The results of the initial sampling indicated that a pathway for VI was not present. EPA has acknowledged that the suspected vapor pathway into the residences does not exist. See e-mail correspondence of December 3, 2015 from Brian Bastek to Don Williams enclosed herewith as Exhibit E, in which EPA stated that "[a]s suggested in Arcadis's comments, [TCE] does not appear to be migrating directly from the sub-surface soil gas to the residential indoor air." EPA also acknowledged in its December 30th correspondence to Permittee that TCE and related contaminants detected in ambient air samples in and around the neighborhood are "below levels that require a response action at this time." Thus, EPA's own statements belie any assertion that additional measures to protect human health and the environment in the neighborhood are necessary.

III. Specific Responses to Requested Off-Site and On-Site Corrective Actions

In light of the foregoing, Grenada Manufacturing responds as follows to EPA's request that it perform the interim measures outlined in your letter of December 30, 2015.

A. Off-Site Corrective Actions

1) EPA has requested that Grenada Manufacturing conduct a comprehensive ambient air investigation to identify sources of TCE and related contaminants detected in the September 2015 VI study. However, the results of that study do not support a finding by EPA that additional ambient air monitoring is necessary to protect human health and the environment. As discussed by Arcadis in its correspondence and demonstrated by the VI study results, TCE was detected in both ambient air and indoor air at similar concentrations, an outcome indicative of the routine exchange of indoor air with ambient air, rather than of the existence of a VI pathway. The same conclusion applies to the minimal concentrations of cis-1,2-dichloroethene, and of benzene, toluene, ethylbenzene, and xylene (BTEX) detected in soil gas or sub slab samples, particularly in light of the fact that BTEX compounds are fairly ubiquitous in the urban environment. See e-mail correspondence of November 13, 2015 from John Ellis to Brian Bastek enclosing the VI study results, enclosed herewith as Exhibit F.

In addition, before EPA may require such an investigation in off-site areas, it first must determine that there has been a release from an on-site SWMU or AOC that has resulted in the migration of contamination beyond the plant boundary. In order to make that determination under the terms of the HSWA Permit, EPA first must comply with the Confirmatory Sampling provisions of Condition II.D., or the RCRA Facility Investigation provisions of Condition II.E. Permittee has no information indicating that this necessary prerequisite has been satisfied.

Rather, as discussed above, recent data indicates that the groundwater plume initially believed by EPA to be migrating from the MW-20 area into the southern portion of the neighborhood does not emanate from the Grenada plant. See Exhibit C. Instead, the groundwater plume appears to be emanating from the railroad yard east of the neighborhood or from an area further east of the railroad yard. Thus, a likely source of the TCE and related compounds identified in ambient air samples in the neighborhood are the areas east of the neighborhood, which are unrelated to the Grenada plant.

2) EPA has requested that Grenada Manufacturing conduct a second round of soil gas, sub-slab, and indoor air sampling in homes previously sampled during the September 2015 VI study, and expand the investigation as directed by the EPA to additional homes on Lyon Drive and other possible roads in the Eastern Heights neighborhood. For the reasons set forth in response to item 1) above, Permittee has no responsibility to perform the requested additional sampling measures based on current information. Nonetheless, Arcadis will complete the second round of sampling at the six homes, as provided in the approved IMWP.

In your December 30th letter, you state that "the EPA is arranging for its Science and Ecosystem Support Division to conduct the ambient air sampling within the next two weeks." You also request "that Grenada Manufacturing take over the investigation if or when additional rounds of ambient air sampling are determined to be necessary." Given the open-ended nature of this request, and the results of the sampling conducted thus far, a response by Grenada Manufacturing at this time would be premature. Rather, once EPA obtains the additional ambient air sampling results and makes them available to Grenada Manufacturing, EPA and Permittee can then discuss whether further investigation is even necessary and, if it is, whether it

constitutes an obligation of Grenada Manufacturing under the interim measures provisions of the HSWA Permit.

3) EPA has requested that Grenada Manufacturing complete delineation of groundwater contamination at or adjacent to the Grenada Manufacturing facility. However, additional sampling intended to further delineate groundwater contamination at or adjacent to the Grenada Manufacturing facility is not an "interim measure" authorized under the HSWA Permit, but rather would constitute additional investigative measures subject to the Confirmatory Sampling provisions of Condition II.D., or the RCRA Facility Investigation provisions of Condition II.E. In addition, to the extent that EPA is seeking further delineation of groundwater contamination beyond the Grenada facility's boundary, EPA first must determine in accordance with the Conditions referenced above that any such groundwater contamination resulted from migration beyond the Grenada facility boundary. Permittee has no information indicating that this necessary prerequisite has been satisfied.

In any event, a delineation of groundwater contamination previously was performed at the Grenada Manufacturing facility. More recently, as discussed in Exhibit C, a delineation of groundwater in the entire study area was completed under MDEQ's direction, and the final report will be issued shortly.

4) EPA has requested that Grenada Manufacturing develop and implement interim measures to control and remediate off-site contaminated groundwater. As an initial matter, this directive is vague and lacks the definition and precision necessary to enable Permittee to understand its obligations thereunder. Moreover, as noted in response to item 1) above, a summary of a comprehensive groundwater evaluation was submitted to EPA on January 22, 2016, and that evaluation demonstrated that off-site groundwater contamination in the study area did not emanate from Grenada Manufacturing. Further, as discussed in response to item 3) above, EPA first must determine that any such groundwater contamination resulted from migration beyond the Grenada facility boundary. Permittee has no information indicating that this necessary prerequisite has been satisfied.

5) EPA has requested that Grenada Manufacturing conduct any other measures determined to be necessary to protect the residents in the nearby neighborhood as data is received. This directive is ambiguous and lacks clarity. For example, it fails to identify gating events that would trigger the need to conduct "any other measures." The directive also fails to specify the process by which the need to conduct "any other measures" would be determined. Thus, the directive lacks the definition and precision necessary for the Permittee to understand its obligations thereunder. In addition, for the reasons outlined above with respect to EPA's other directives, before requiring such measures, EPA first must determine that the contamination at issue resulted from migration beyond the Grenada facility boundary. Permittee has no information indicating that this necessary prerequisite has been satisfied and, as further discussed in items 1) and 4) above, the recent comprehensive analysis of area-wide groundwater data demonstrates that "off-site" contamination did not emanate from the Grenada plant.

B. On-site Corrective Measures

1) EPA has requested that Grenada Manufacturing undertake interim measures to prevent releases of contaminants to Riverdale Creek, including the conduct of a thorough investigation and the preparation of recommendations for upgrading the existing permeable reactive barrier (PRB). EPA has further requested that, if no feasible and timely solution to the PRB is available, Grenada Manufacturing develop, install, and operate alternative control measures.

As EPA staff knows, parties other than Grenada Manufacturing are implementing various portions of the approved Corrective Measures Study ('CMS"). In relevant part, the CMS provides that "Component 6 (PRB) was selected for the site-wide groundwater plume control for the plant site." The strategy behind this recommendation was to "[u]tilize the PRB as a site-wide migration control measure." CMS at p. 1-15. EPA provided unconditional approval of the CMS. Since the PRB's installation adjacent to the Riverdale Creek, monitoring has occurred regularly pursuant to an Agency-approved performance monitoring plan. Detailed annual monitoring reports are submitted to EPA, which the Agency has approved. Over the years of the PRB's operation, the sampling data has shown that the PRB is effective in protecting the Creek, as contaminant concentrations have decreased significantly in both the surface water and the sediment. Recently, however, a slight increase was noted in surface water data obtained during local drought conditions in the summer of 2015.

A detailed investigation of the PRB was undertaken, and a comprehensive report of the investigation was submitted to EPA. Following a series of studies, a decrease in permeability was detected at the front face of panels comprising the PRB. Nonetheless, it was determined that the PRB continues to be protective of Riverdale Creek and remains capable of treating sitewide groundwater with modifications to be installed in the near future.

A status update on activities conducted to investigate and rejuvenate the PRB was submitted to EPA under cover of a letter dated November 20, 2015. (See Exhibit G hereto.) A further detailed oral presentation was made to EPA staff at a meeting held on December 11, 2015. Since that meeting, analysis has been conducted of in-wall tests that were completed in the last quarter of 2015, and additional laboratory tests were performed to aid in the selection of effective methods to prevent clogging of injection wells that will be part of the PRB rejuvenation process. A plan also is under development to address groundwater bypass that may be occurring to the south of the PRB to better protect Riverdale Creek. Upon completion, the plan will be submitted to EPA for discussion and approval.

EPA's authority under the HSWA Permit to require modifications to the PRB, the remedy selected by EPA to address site-wide groundwater contamination at the Grenada facility, resides under the provisions of Section II.I. (Selected Remedy), Section II.H. (Remedy Approval and Permit Modification), and Section II.J. (Corrective Measures Implementation). Grenada Manufacturing's understanding of these permit provisions is as follows.

Condition II.I.2. provides that the "Permittee shall implement the remedies recommended by the Permittee in the Corrective Measures Study Report (August 2003), the Design Basis Report for the Permeable Reactive Barrier (PRB) Groundwater Interim Measure (September

2004), and the Final Corrective Measures Pre-Design Investigation Report (July 2008) ... ." Those documents constitute the primary record pursuant to which EPA selected the PRB as the remedy for site-wide contaminated groundwater at the plant.

In addition, Condition II.J.1. provides that "[t]he Permittee shall submit, for review by [EPA], effectiveness reports on the corrective measures on a semi-annual or other basis as agreed upon," and Condition II.J.2. provides, in pertinent part, that "[i]f the Corrective Measures Effectiveness Report concludes that the selected corrective measures are ineffective, then the [Report] shall propose alternate corrective measures ... " Finally, Condition II.J.2. further provides, in pertinent part, that "[i]f [EPA's] review finds that the selected corrective measures are ineffective, then within ninety (90) calendar days of notification by [EPA] ... the Permittee shall submit a revised Corrective Action Work Plan containing alternate corrective measures ... ."

The foregoing provisions constitute the procedural mechanism pursuant to which EPA may seek to modify a selected remedy under the HSWA Permit. Permittee has no information indicating that EPA intends to utilize any of the foregoing procedures with respect to its request for modifications to the PRB. In light of the on-going investigation and the plans for rejuvenation of the PRB, EPA's request for a more formal modification of that remedy is premature.

2) EPA has requested that Grenada Manufacturing develop and implement interim measures to remediate contaminated groundwater beneath the facility. Although EPA notes that groundwater contaminant levels have remained at elevated levels for ten years, contaminant concentrations in the core of the plume have decreased significantly.

In addition, the HSWA Permit does not specify any deadline by which the PRB remedy must achieve appropriate cleanup standards for site-wide groundwater. Rather, Condition II.I.4. simply provides that the PRB must remain in place until applicable MCLs or Alternate Concentration Limits are met.

Accordingly, as stated in response to item 1) above, EPA's authority under the HSWA Permit to require modifications to the site-wide groundwater remedy at the Grenada facility, resides under the provisions of Section II.I. (Selected Remedy), Section II.H. (Remedy Approval and Permit Modification), and Section II.J. (Corrective Measures Implementation). Permittee has no information indicating that EPA intends to utilize any of the foregoing procedures with respect to its request for modifications to the site-wide groundwater remedy for the plant.

3) EPA has requested that Grenada Manufacturing assess and remediate SWMUs that were previously recognized as "No further action until taken out of service" and which now are out of service. The assessment of any such SWMUs would not be subject to the "interim measures" referenced by EPA, but rather first would be subject to the Confirmatory Sampling provisions of Condition II.D., or the RCRA Facility Investigation provisions of Condition II.E. before consideration of appropriate remediation measures, if any, could be undertaken.

4) EPA has requested that Grenada Manufacturing conduct sampling of lower aquifer production wells to determine if any impact has occurred from prior facility operations. Permitee's response to this request is provided in Item No. 4 in the letter dated November 20, 2015. See Exhibit G.

As noted at the outset, Grenada Manufacturing greatly appreciates the opportunity to continue discussions between the parties concerning the permit terms, the requested actions, and the most recent data analysis. Please do not hesitate to contact the undersigned if you have any questions or comments regarding this letter.

Respectfully,

Grenada Manufacturing, LLC
By: James I. Palmer, Jr., Legal Counsel

Enclosures

Cc: Mr. Greg Luetscher, Esq. (w/ enclosures)
Mr. Trey Hess, Mississippi Department of Environmental Quality (w/ enclosures)
Ms. Gretchen Zmitrovich, Esq. Mississippi Department of Environmental Quality (w/ enclosures)
Ms. Trudy Fisher, Esq., Butler Snow LLP (w/ enclosures)

EXHIBIT A

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

December 30, 2015

URGENT LEGAL MATTER
SENT VIA ELECTRONIC MAIL

Grenada Manufacturing, LLC
c/o Mr. Jimmy I. Palmer
778 Shady Oaks Circle
Oxford, Mississippi 38655

Re: Request for Additional Interim Measures at the Grenada Manufacturing, LLC, Facility in Grenada, Grenada County, Mississippi

Dear Mr. Palmer:

The purpose of this letter is to follow up on prior requests made by the U.S. Environmental Protection Agency for your client, Grenada Manufacturing, LLC (Grenada Manufacturing or Permittee), to conduct additional interim measures pursuant to its EPA Hazardous and Solid Waste Amendment Permit (HSWA Permit), I.D. No. MSD 007037278, issued July 29, 2010. Specifically, on December 3, 2015, the EPA sent Don Williams, on behalf of Grenada Manufacturing, an email (see Enclosure A) requesting performance by mid-December of certain interim measures relating to additional ambient air investigations. During the December 11, 2015, meeting between representatives from the EPA, Grenada Manufacturing, and Meritor, Inc., at the EPA Region 4 offices in Atlanta, GA, the EPA again highlighted the need for prompt performance of this ambient air investigation. Recognizing that some delay in response may be attributable to Grenada Manufacturing only recently securing new legal counsel, the EPA is concerned that Grenada Manufacturing has provided no indication to date of its willingness to perform the requested actions. This letter therefore serves to more formally outline and detail the necessary interim actions and to clarify the EPA's expectations for next steps and timing.

Pursuant to Condition II.F of the HSWA Permit, the EPA hereby notifies Grenada Manufacturing that it shall update the existing Interim Measures Work Plan (IMWP), dated September 11, 2015 (see Enclosure B), to reflect all off-site and on-site corrective actions outlined below and discussed during the December 11, 2015, meeting and within the December 3, 2015, request. Consistent with Conditions II.F.1.a and II.F.1.c of the HSWA Permit, the updated IMWP shall be submitted within thirty (30) calendar days of Grenada Manufacturing's receipt of this letter, and shall include all interim measures objectives, as well procedures and schedules for implementation. The EPA requests that all of the following interim measures be conducted to mitigate any current or potential threats to human health or the environment and be consistent with and integrated into any long-term solution at the Grenada Manufacturing facility:

me at (404) 562-9554, or Greg D. Luetscher, Associate Regional Counsel, at 404-562-9677. Thank you for your cooperation in this matter.

Sincerely,

/Stephen P. Smith/

Stephen P. Smith
Associate Regional Counsel

Enclosures

cc: Don Williams, Grenada Manufacturing, LLC (via electronic mail)
Trey Hess, Mississippi Department of Environmental Quality (via electronic mail)

EXHIBIT B

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Transmitted Electronically and via United States Mail

January 28, 2016

Mr. Greg Luetscher, Esq.
Attorney/Advisor
United States Environmental Protection Agency, Region IV
61 Forsyth Street, S.W.
Atlanta, Georgia 30303

Mr. Trey Hess
Chief, Groundwater Assessment and Remediation Division
Office of Pollution Control
Mississippi Department of Environmental Quality
Post Office Box 2261
Jackson, Mississippi 39225

Re: Grenada Manufacturing, LLC
635 Hwy. 332
Grenada, Mississippi 38901
EPA HSWA Permit No. MSD 007.037.278; July 29, 2010
MDEQ RCRA Hazardous Waste Ref. No. MSD007037278

Dear Mr. Luetscher and Mr. Hess:

As you both know, I was retained on December 11, 2015 to represent Grenada Manufacturing, LLC (the LLC), in the matter involving legacy environmental issues at and/or near the current Ice Industries manufacturing plant in Grenada, formerly operated by the LLC before declaring bankruptcy. While I have already had informal interactions with both EPA and MDEQ in this matter, I thought it both necessary and appropriate for me to submit a formal entry of appearance statement for the Administrative Record. Accordingly, I present here both the general status of the LLC and my specific role as Legal Counsel going forward.

By letter to Mr. Brian Bastek dated July 16, 2015, which you have in your regulatory files, Mr. David W. Nunn, Esq. provided a concise recapitulation of the role and status of the LLC regarding the Grenada site. For clarity and emphasis, I will incorporate into this letter significant passages from Mr. Nunn's letter, with appropriate updates but without formal quotation.

On April 5, 2004, Grenada Manufacturing, LLC filed for bankruptcy under Title 11, Chapter 11 of the United States Code in Case No. 04.12077 on the docket of the United States Bankruptcy Court for the Northern District of Mississippi. The Court issued an Interim Order on March 10, 2005, and the matter remains under the jurisdiction of the Court. Under the Interim Order and a contemporaneous, collateral written agreement among EPA, MDEQ, the City of Grenada, Grenada County, and Grenada Acquisition Corp. (n/k/a Grenada Stamping & Assembly, Inc. and d/b/a Ice Industries Grenada), the LLC remained the holder of the HSWA and RCRA Permits referenced above and the holder of title to portions of the site.

By virtue of the terms, conditions, and provisions of both the Interim Order and the collateral agreement, the LLC also became an inactive entity, with no liquid assets and no obligation to undertake any response, remedial, or corrective action measures, either onsite or offsite, directed by either EPA or MDEQ during implementation and/or enforcement of the referenced HSWA and RCRA Permits. This said, the LLC acknowledges its responsibility to coordinate with all responsible parties to ensure compliance with both permits.

Mr. Donald Williams, a former employee of the LLC, is now employed by Ice Industries Grenada, which independently operates on a portion of the property. Pursuant to the agreement, Mr. Williams has served as a project coordinator, with the limited responsibility of assisting in the coordination of environmental permitting and corrective action activities at the site with EPA, MDEQ, Meritor, and Collins and Aikman (the last two entities prior to the LLC that were owners and operators of the site and who have historically been involved in corrective action matters). EPA and MDEQ have been interacting with Meritor for quite some time regarding the Interim Measures Work Plan for addressing suspected vapor intrusion and groundwater contamination in the adjacent Eastern Heights subdivision referenced in the June 30, 2015 EPA letter to the LLC, which was expanded by the EPA letter to the LLC dated December 30, 2015 to include suspected ambient air and additional groundwater issues, as well as correlative activities under the purview of MDEQ with respect to the referenced RCRA Permit.

Given the limited authority and responsibilities of the LLC under the March 10, 2005 Interim Order and the collateral agreement, but consistent with its obligations as the holder of the HSWA and RCRA Permits, the LLC has previously forwarded to EPA and MDEQ, under cover of letters signed by Mr. Williams, reports and other documents that were developed by other parties, including parties which were contractually or otherwise obligated to the LLC to perform work requested by EPA and/or MDEQ. It is anticipated that this protocol will continue to be followed in the future, but with clearer statements regarding what performance is attributable to the LLC, and what is not.

These premises considered, I was retained to provide legal representation to the LLC for the specific and limited purposes of pursuing further formal proceedings with the Bankruptcy Court, as needed, and to continue to serve the LLC, as the holder of the referenced HSWA and RCRA Permits, as a conduit for communications among EPA, MDEQ, and other parties that are responsible for any and all response, remedial, and/or corrective action measures that are deemed necessary for the LLC to be able to continue maintaining compliance with both the HSWA and RCRA Permits. While Mr. Williams remains in active service to the LLC, I will now assume the facilitative responsibilities that he has heretofore, and very ably, undertaken.

No further Orders have been issued by the Bankruptcy Court in the LLC case since March 10, 2005. The LLC will continue to comply with both the Order and the collateral written agreement that was consummated in furtherance of that Order, as discussed above. If any party to the agreement chooses to deviate or depart from it, the LLC will expect that party to comply with all protocols of the Bankruptcy Court that could apply to such actions.

If you would like to further discuss any aspect of this statement, please do not hesitate to contact me at your convenience.

Respectfully,

/s/

James I. Palmer, Jr.

JIP/bbp

cc: Mr. Don Williams

EXHIBIT C

YOUR GOALS. OUR MISSION.

Summary of Comprehensive Evaluation Of Groundwater in Study Area Grenada, Mississippi

Prepared for: Mississippi Department of Environmental Quality

JANUARY 22, 2016

INTRODUCTION

This document provides a summary analysis and sets forth key findings from a comprehensive evaluation of groundwater in a study area in Grenada, Mississippi comprised of: 1) the Moose Lodge Road Area (MLRA); 2) the Grenada Manufacturing, LLC facility (facility or plant); 3) the MW-20 area located north of the facility; 4) the Eastern Heights neighborhood (neighborhood) located further north of the MW-20 area; and 5) a railyard area located east of the neighborhood. Each of these locations within the study area is identified on Figure 1. The genesis of the evaluation discussed in the summary is a directive by the Mississippi Department of Environmental Quality (MDEQ) correspondence of August 25, 2015.

Key findings reported in this summary document are based on an analysis of sampling results from investigations conducted at the referenced areas between 1989 and 2015. This summary is intended to serve as a preliminary presentation of results prior to the completion and submission of a final report. The results are reflective of a conceptual model of the study area and are based on an evaluation of the recent and past investigative data. In preparing the study area conceptual model, the following documents, data and investigation results were evaluated:

- Remedial Investigation (RI) for the facility;
- Supplemental RI for the MLRA;
- Corrective Measures Study (CMS);
- Equalization Lagoon Closure Report;
- Sludge Lagoon Closure Report;
- Supplemental Report to the 2012 facility Annual Monitoring Report;
- The monitoring data for the facility;
- The monitoring data for the MLRA;
- Various investigations completed in the MLRA, most recently in the summer and fall of 2015;
- Investigations completed from 2013-2015 in the MW-20 area;
- Investigations completed in 2015 in the Railyard Area; and
- Investigations completed in 2015 in the Eastern Heights Neighborhood.

The investigations conducted from 2013 to 2015 have served to fill data gaps and helped to clarify the CSM for the study area. Also, the additional data have provided a thorough understanding of site geology, hydrogeology, and contaminant fate and transport throughout the study area.

AREA GEOLOGY

The geology of the study area consists of the following stratigraphic units listed and described from ground surface downward:

- Surficial Soil, consisting of clayey silt to silty clay, is found in nearly all locations through the area, ranging in thickness from more than 15 feet to a few rare locations where sandy soil is present at ground surface in place of this unit. The Surficial Soil provides a protective barrier for vapor migration from impacted groundwater. Generally it would provide a protective barrier to trichloroethylene (TCE) releases where the barrier is present and where it has not been breached by human activities. In Area of Concern (AOC) A, subsurface piping breached this unit and allowed TCE to enter the Upper Aquifer.

- Upper Aquifer, consisting of interbedded layers of fine to coarse sand, extends from the base of the Surficial Soil to the Shaley Clay Aquitard, approximately 45 to 60 feet below ground surface. This permeable unit, with an average hydraulic conductivity ranging from approximately 50 to 150 feet/day, allows vertical and horizontal groundwater flow throughout the study area. The spatial variation in permeability of this unit is minor and is expected to have a limited influence on the direction of groundwater flow. Groundwater flow within this unit is controlled almost entirely by hydraulic gradient.

- Intermediate Clay, consisting of clayey silt, is of very low permeability and presents a barrier to the flow of groundwater and dense non-aqueous phase liquid (DNAPL). Where present, it separates the Upper Aquifer into Shallow and Deep Zones. The unit varies in thickness across the study area, from nonexistent to 18 feet. Significant DNAPL migration through this unit to the Deep Zone of the Upper Aquifer is unlikely, except where the unit is very thin or absent.

- Shaley Clay Aquitard, consisting of a dense interbedding of shale, clay, silt and sand, forms a consistent low permeability "aquitard" layer isolating the Upper Aquifer from the Lower Aquifer. This unit has been encountered in every location where borings have been advanced deep enough to reach it (generally 45 to 60 feet below ground surface). A significant upward gradient exists between the Lower and Upper Aquifers. The long-term persistence of this strong upward gradient, the low measured vertical permeability of this unit, and the consistent presence of this unit provide strong evidence of its effectiveness as a barrier to the movement of groundwater and DNAPL between the Upper and Lower Aquifers.

AREA HYDROGEOLOGY

The hydrogeology and groundwater flow in the Upper Aquifer is influenced by zones where water enters (recharge zones) and exits (discharge zones) the aquifer. The primary source of water to the aquifer is slow recharge of surface water through the Surficial Soil. The primary discharge zone for groundwater is Riverdale Creek, south of the railroad bridge located at the northwestern corner of the facility. A dam is present at the railroad bridge and prevents the stretch of Riverdale Creek north of this location from acting as an outlet/discharge zone for the aquifer.
The stretch of Riverdale Creek abutting the western boundary of the facility is in direct communication with the Upper Aquifer, and is a strong discharge zone exerting the primary influence over groundwater flow in the study area. The Yalobusha River to the east of the study area is a secondary discharge zone for groundwater. Unlike Riverdale Creek, which frequently receives high flow conditions and fast currents following rainfall events that scour the river base and banks, the Yalobusha River, in the vicinity of the study area, is characterized by steady flow manually controlled by the release of water from Grenada Lake. Fast currents on the Yalobusha River that could scour the riverbed are rare. A silt layer on the base of the Yalobusha is expected to limit communication between the Upper Aquifer and the River and to limit its effectiveness as a discharge zone for the aquifer. Water level measurements taken in the study area in recent years support this conclusion.

CONTAMINANT FATE AND TRANSPORT

Figures 2 and 3 present the current plume configurations for the Deep and Shallow Zones of the Upper Aquifer. Two distinct chlorinated volatile organic compound (CVOC*) groundwater plumes migrate in the Upper Aquifer toward Riverdale Creek. The primary plume originates at AOC A. It is related to a known release of TCE from the piping system of a storage tank at the facility. Other, lesser sources of CVOCs to groundwater at the facility include the former EQ Lagoon, the former Sludge Lagoon and the former On-Site Landfill (all of which have been remediated and closed).

The second plume within the influence of Riverdale Creek crosses the neighborhood parallel to the referenced facility plume, but to the north. The source of this plume has been the focus of much of the investigational work conducted in recent years. Based on the proximity and axis of the plume, it cannot be sourced by groundwater flow from the facility. Ample historical data and recent investigation findings indicate that groundwater cannot flow perpendicular to the well-defined east-west axis of the facility plume to source the neighborhood plume.

Furthermore, the data negate the possibility that DNAPL from the facility provided the source for the second plume to the north. That plume can be traced through the Deep Zone of the Upper Aquifer to a likely source zone for TCE DNAPL within or east of the railyard area. The most likely source of DNAPL TCE in this location is a release occurring at the railyard. A surface release in this area would

enter where Surficial Soil is absent, move through the Shallow Zone of the Upper Aquifer, penetrate the Intermediate Clay where it is thin or absent, flow through the Deep Zone of the Upper Aquifer, and come to rest on the Shaley Clay Aquitard.

The stratigraphy beneath the railyard provides nearly unique conditions within the study area to allow the DNAPL movement described above. Although low permeability Surficial Soil is present throughout nearly the entire study area, two locations where sand is present at ground surface, in place of this unit (east and west of the railyard), are depicted on Figure 1. These locations provide openings for potential DNAPL movement to the Upper Aquifer. It is also expected that existing Surficial Soil was removed beneath the railyard at the time of construction and replaced with a high loading capacity ballast material to provide a stable base for the heavy, dynamic loads encountered in a railyard. Removal of just a few feet of soil beneath the railyard would have exposed several direct pathways to the Upper Aquifer.

The Intermediate Clay is relatively thick throughout most of the MLRA and railyard and would provide an effective barrier to the movement of DNAPL from the Shallow to the Deep Zone of the Upper Aquifer. However, thin zones in the Intermediate Clay are present in the railyard and the property to the east, (between the railyard and Moose Lodge Road); a unique condition within the entire MLRA and railyard areas. The thin zones in the Intermediate Clay correlate well with the referenced areas where Surficial Soil is absent or may have been removed in the railyard. The location of the groundwater plume within the neighborhood relative to the potential source area at the railyard along with the vertical distribution of CVOCs within the Upper Aquifer support a conclusion that the neighborhood CVOC plume is sourced in the railyard.

No other area within the MLRA, identified to date, provides the potential for ready movement of a DNAPL release through either the Surficial Soil or the Intermediate Clay Unit. There is a very low probability that two such locations, as yet unidentified, would co-occur within the MLRA such that a DNAPL source could penetrate the Surficial Soil and the Intermediate Clay within the same general area. A further condition - that such a source area must be hydraulically upgradient of the neighborhood with a flow system in the Deep Zone supported by potentiometric data – further serves to reduce the possibility of an alternate DNAPL source area, elsewhere in the MLRA, generating the CVOC plume identified in the neighborhood. As a group, these conditions have led to the conclusion that the source area for the neighborhood plume is within the railyard or the property to the east of the railyard.

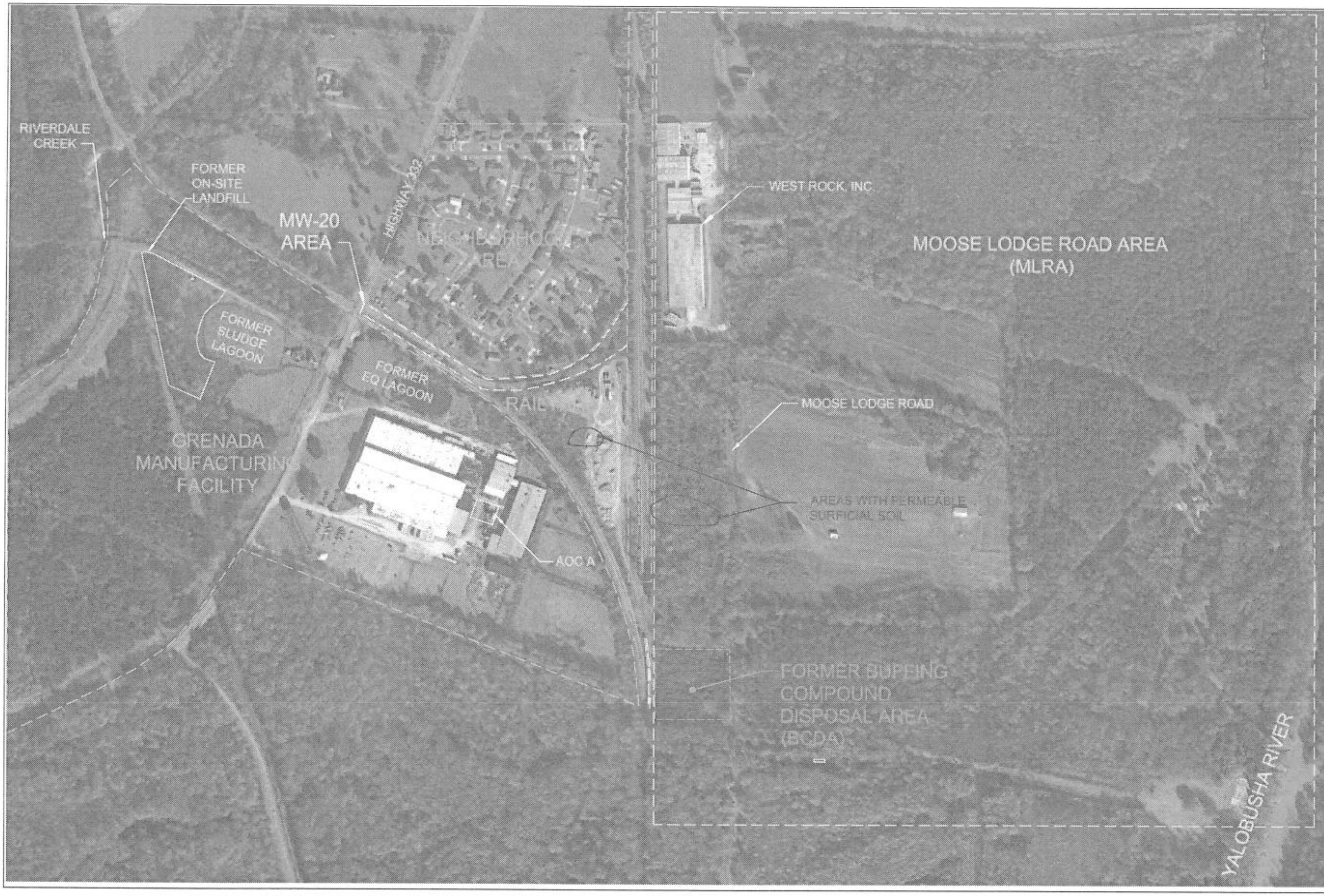
The historical "north" plume in the MLRA (see Figure 3) is a Shallow Zone plume. It likely is an ancillary result of the primary release in the railyard area, as described above, or secondary releases that either could have moved from a primary release location or occurred at different locations and times within the railyard. A scenario involving multiple releases within the railyard is supported by the existence of several, apparently independent, locations where CVOCs are present in groundwater at and near the railyard.

The historical "south" plume in the MLRA (see Figure 3) appears to be independent of the plumes described above. It is unlikely that this plume is sourced from releases in the railyard. Although a source for this plume has yet to be identified, historical data for wells in the south plume and information obtained from in situ oxidation applied to the south plume indicate a DNAPL source area east of Moose Lodge Road that has generated and sustained this plume. Records indicating (1) minor TCE content in soils in the Buffing Compound Disposal Area (BCDA), (2) Lower CVOC content in groundwater within the BCDA, (3) long-term distribution of CVOCs in groundwater in the south plume, (4) locations where oxidant was injected and the plume regenerated following oxidant consumption, and (5) the ratio of TCE to cis-1,2-dichloroethene in groundwater in this plume (with higher ratios indicating closer proximity to the source), all point to a DNAPL TCE source area east of Moose Lodge Road, thus eliminating the BCDA as the source for the south CVOC plume.

The above summary analysis and conclusions will be further substantiated by the data presentation and analysis to be provided in the forthcoming final report. This summary is provided in the interim to help inform discussions that may occur in advance of the final report's release.

*Reference to chlorinated volatile organic compounds (CVOCs) in this document refers specifically to chlorinated ethenes.

FIGURES



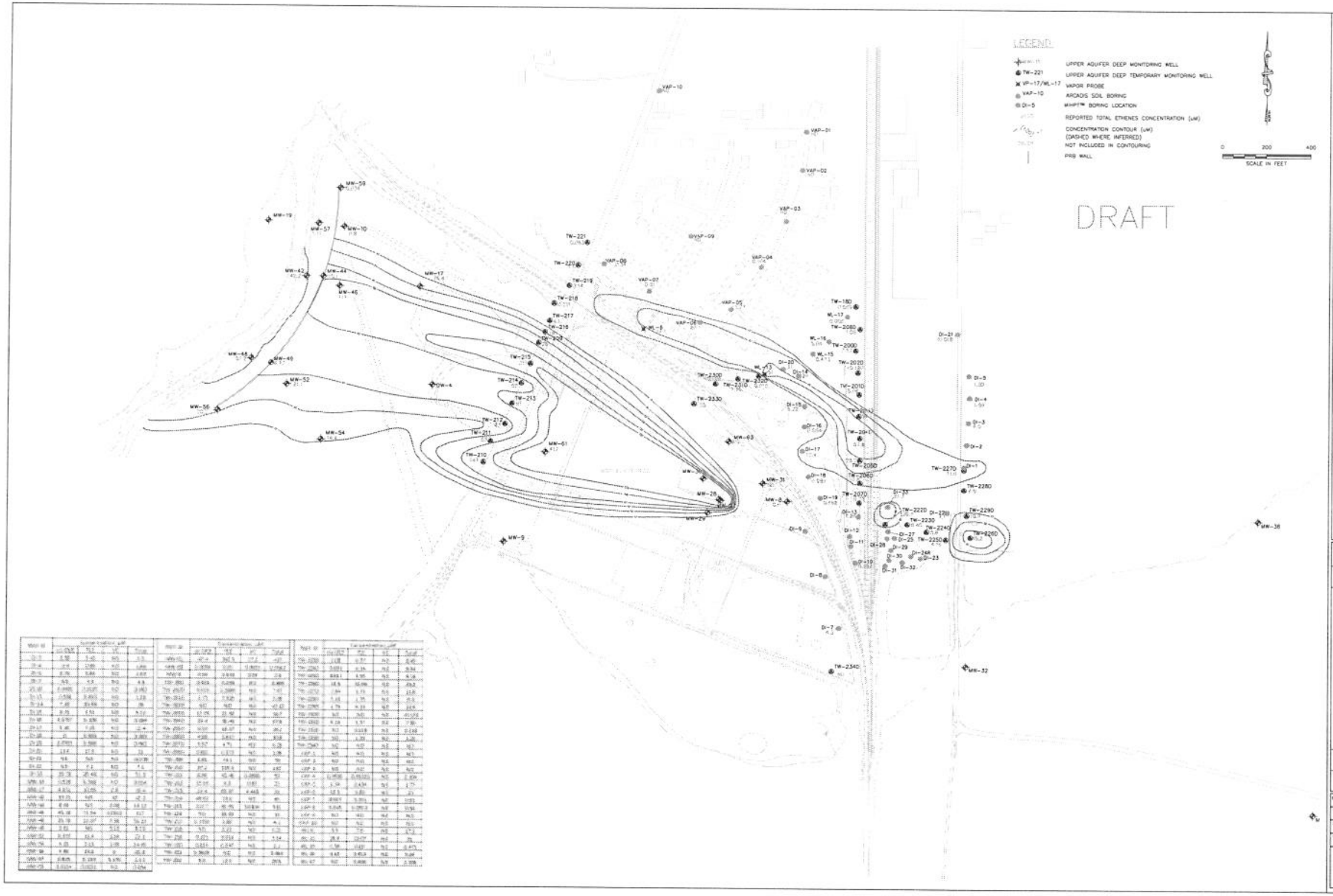
4575 LAKEHURST COURT
SUITE 250
COLUMBUS, OHIO 43016
TEL 614-339-3380
WWW.TANDMASSOCIATES.COM

MAP OF KEY MOOSE LODGE ROAD AREA FEATURES

NO.	DATE	REVISIONS	BY	CHECKED

PROJECT NO.	DATE 01/22/16
SCALE AS NOTED	CADD FILE
DESIGNED BY JP	DWG PATH
CHECKED BY JP	DRAWN BY RW

FIGURE 1



4675 LAKEHURST COURT
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COLUMBUS, OHIO 43016
TEL 614-339-3380
WWW.TANDMASSOCIATES.COM

TOTAL CHLORINATED ETHENES CONCENTRATIONS UPPER AQUIFER – DEEP ZONE WELLS

NO.	DATE	REVISIONS	BY	CHECKED

PROJECT NO. MER7010.13	DATE 1/20/2016
SCALE 1"=200'	CADD FILE
DESIGNED BY JP	DWG PATH
CHECKED BY JP	DRAWN BY BF
FIGURE 2	

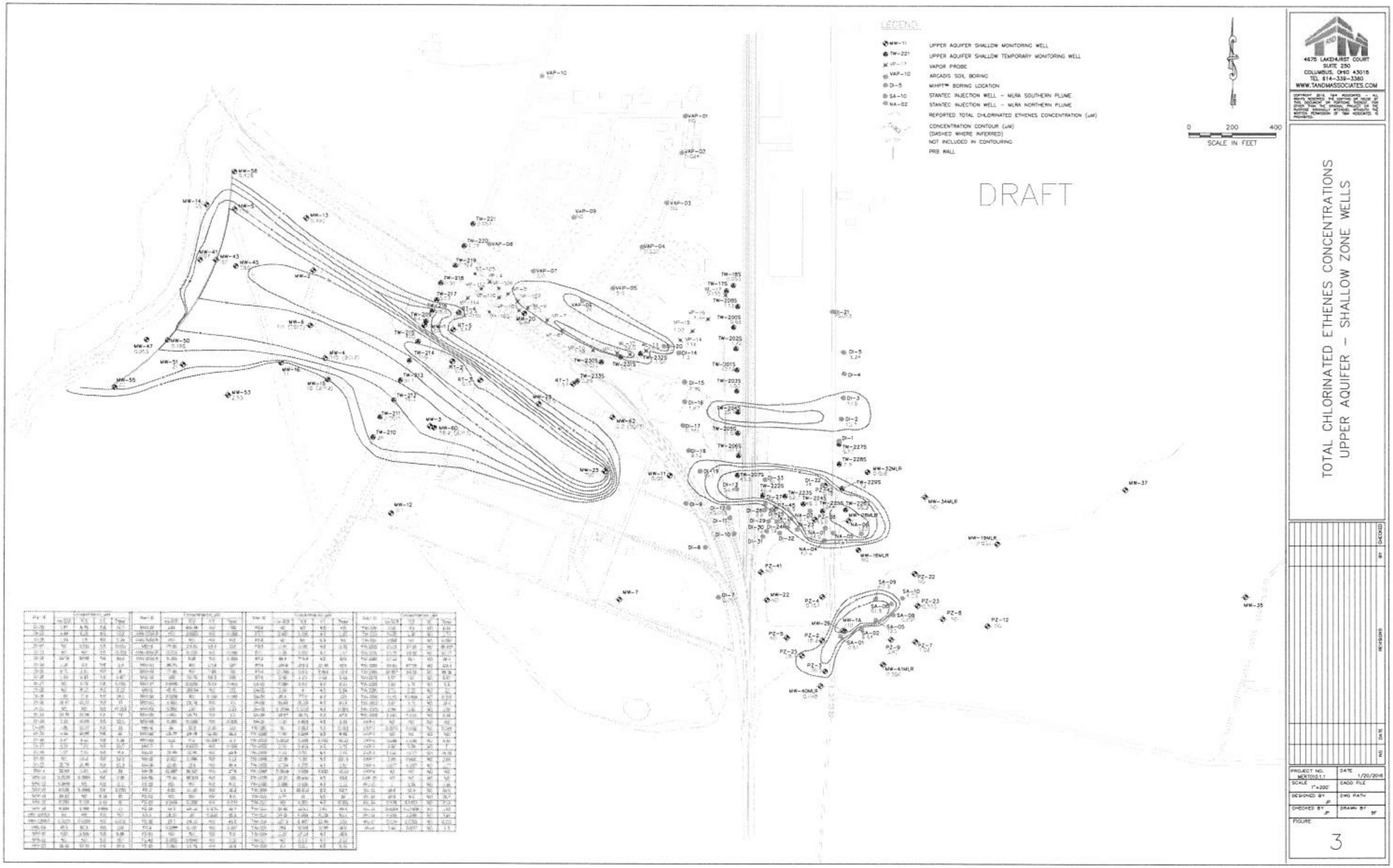
LEGEND
MW-11 UPPER AQUIFER SHALLOW MONITORING WELL
TW-221 UPPER AQUIFER SHALLOW TEMPORARY MONITORING WELL
VP-17 VAPOR PROBE
VAP-10 ARCADIS SOIL BORING
DI-5 MIHPT™ BORING LOCATION
SA-10 STANTEC INJECTION WELL – MLRA SOUTHERN PLUME
NA-02 STANTEC INJECTION WELL – MLRA NORTHERN PLUME
REPORTED TOTAL CHLORINATED ETHENES CONCENTRATION (uM)
CONCENTRATION CONTOUR (uM)
(DASHED WHERE INFERRED)
NOT INCLUDED IN CONTOURING
PRB WALL
DRAFT
0 200 400
SCALE IN FEET
4675 LAKEHURST COURT
SUITE 250
COLUMBUS, OHIO 43016
TEL 614-339-3380
WWW.TANDMASSOCIATES.COM
TOTAL CHLORINATED ETHENES CONCENTRATIONS
UPPER AQUIFER – SHALLOW ZONE WELLS
NO.
DATE
REVISIONS
BY
CHECKED
PROJECT NO. MERT010.1.1
DATE 1/20/2016
SCALE 1"=200'
CADD FILE
DESIGNED BY JP
DWG PATH
CHECKED BY JP
DRAWN BY BF
FIGURE
3

EXHIBIT D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

JUN 30 2015

RECEIVED JUL 02 2015

Via Overnight Delivery Return Receipt Requested

Grenada Manufacturing, LLC
c/o Mr. Donald Williams
635 Highway 332
Grenada, Mississippi 38901

SUBJ: Notice Regarding the Need for Interim Measures Work Plan
EPA HSWA Permit No. MSD 007 037 278, July 29, 2010
Grenada Manufacturing, LLC, Grenada, MS

Dear Mr. Williams:

The U.S. Environmental Protection Agency has reviewed a January 17, 2014 sampling report submitted by T and M Associates regarding groundwater and soil gas sampling conducted near Monitoring Well 20 (MW-20) at the northern boundary of the Grenada Manufacturing, LLC (Grenada) facility (the Facility). Based on the January 2014 report, as well as data from groundwater monitoring performed in 2012, 2013, and 2014, the EPA is concerned about a potential residential vapor intrusion pathway from elevated levels of trichloroethylene (TCE) in groundwater in and around MW-20. Accordingly, pursuant to Condition II.F.1. of the above-referenced EPA HSWA Permit, the EPA hereby notifies Grenada that it shall prepare and submit an Interim Measures Work Plan (IMWP) addressing the potential for vapor intrusion into the residences north of the Facility along Lyon Drive. Consistent with Conditions II.F.1.a. and II.F.1.c. of the EPA HSWA Permit, this IMWP shall be submitted within thirty (30) calendar days of Grenada's receipt of this letter, and shall include interim measures objectives, as well as procedures and schedules for implementation. The IMWP shall account for the analysis of all volatile organic compounds (VOC's) that have been identified as chemicals of concern at the Facility.

In preparing and implementing the IMWP, Grenada shall follow the "OSWER Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway From Subsurface Vapor Sources to Indoor Air" (OSWER Pub. 9200.2-154), June 11, 2015, available at http://www.epa.gov/oswer/vaporintrusion/.

The EPA appreciates your cooperation and response to this request. If you have any technical questions regarding the preparation of the IMWP, please contact me at (404) 562-8511, or at bastek.brian@epa.gov. If you have any legal questions regarding this work or compliance with the terms of the EPA HSWA Permit, please contact Gregory Luetscher at (404) 562-9677, or at luetscher.greg@epa.gov.

Sincerely,

Brian Bastek
RCRA Corrective Action and Permitting Section
RCRA Cleanup and Brownfields Branch

cc: Carla Brown, MDEQ

EXHIBIT E

From: Bastek, Brian
Sent: Thursday, December 03, 2015 3:28 PM
To: 'Don Williams' <dwilliams@iceindustries.com>
Cc: 'Ellis, John' <John.Ellis@arcadis.com>; Anderson, Meredith <Anderson.Meredith@epa.gov>
Subject: Granada Manufacturing, LLC - Air Data Transmittal

Mr. Williams,

The EPA has completed its initial review of the VI Study air and groundwater data. Based on the sampling results, the EPA believes that a more comprehensive ambient air investigation is necessary to determine the source of the TCE being detected above EPA's screening levels. Please see the rationale below.

TCE is showing up in some of the groundwater samples well above MCLs and screening levels for vapor intrusion, but as suggested in Arcadis's comments, it does not appear to be migrating directly from the sub-surface soil gas to the residential indoor air. TCE was detected in the ambient air samples at levels comparable to the indoor air samples, which are above EPA's screening levels. Thus it appears that the TCE could be migrating from the subsurface source area(s) to the surface somewhere away from the residences, and then be getting transported to the residential area via ambient air. Or, alternatively, there could possibly be another above-ground source of the TCE that is being transported to the residential area via ambient air. **More ambient air sampling is needed to pinpoint the source/migration pathway for the airborne TCE.**

The EPA recommends that real-time instrumentation, in addition to 24 hour ambient air samples, be utilized in the identification of the ambient TCE source and that the investigation be conducted in all directions from the previous two locations, 1-AA and 2-AA. Any potential suspected sources of TCE in the area should be targeted for sampling, such as the Grenada Manufacturing process buildings, the EQ basin, the former wastewater treatment unit, any areas of daylighting groundwater or springs, and upwind and downwind locations. This field work shall be conducted as soon as possible and no later than mid-December 2015 in accordance with the currently-approved IM work plan dated September 11, 2015. The EPA is available to discuss specific details of this investigation including sample locations; please contact me by 12/4/15 to set up a conference call.

Brian Bastek
Environmental Engineer
U.S. EPA, Region 4
RCRA Corrective Action and Permitting Section
Resource Conservation and Restoration Division
61 Forsyth Street, SW
Atlanta, GA 30303
404-562-8511
bastek.brian@epa.gov

EXHIBIT F

Karp, Jeffrey M.

From:	Ellis, John <John.Ellis@arcadis.com>
Sent:	Friday, November 13, 2015 5:17 PM
To:	Bastek, Brian
Cc:	Don Williams; Anderson, Meredith
Subject:	RE: Grenada GW Data
Attachments:	Grenada Manufacturing LLC_Groundwater Summary Tables.xlsx; Grenada Manufacturing LLC_Soil Summary Tables.xlsx; J56464-2 UDS Level 2 Report Final Report.pdf; J56464-1 UDS Level 2 Report Final Report.pdf; J56328-1 UDS Level 2 Report Final Report.pdf; J56145-1 UDS Level 2 Report Final Report.pdf; 2027354_frc.pdf; 2026909_frc.pdf; 2026793_frc.pdf; 2026559_frc.pdf; J56876-1 UDS Level 2 Report Final Report.pdf; Geotechnical Data.pdf; draft Grenada Sample Location Figure.pdf

Brian,
As requested, attached are the following items:

- PDFs of the laboratory reports (soil, groundwater and geotechnical report).
- Excel files summarizing the soil and groundwater data.
- Sample location map

We have screened the first groundwater sample from each of the vertical aquifer profile (VAP) locations, pursuant to EPA's VI assessment guidance. This screening shows exceedance of the groundwater VISLs for trichloroethene at locations VAP-2, VAP-5, VAP-6, VAP-7, and VAP-8. When these results are evaluated together with the previously submitted air sampling results, the multiple lines of evidence indicate that the indoor air vapor intrusion pathway is incomplete. This is evidenced by the following:

- No detections of trichloroethene in soil gas samples adjacent to the six residential structures (SG-3, SG-4, SG-5, and SG-6). These locations are in close proximity to groundwater samples collected from VAP-6, VAP-7, and VAP-8.
- No detections of trichloroethene in sub-slab samples collected from five of the six residential structures (2-SS, 3-SS, 4-SS, 5-SS, and 6-SS). There was a detection in the duplicate sample collected at 1-SS; however, trichloroethene was not detected in the 1-SS parent sample.
- The highest concentration of trichloroethene from the uppermost groundwater was detected at location VAP-6, which is adjacent to SG-6 (soil gas sample), 6-IA (indoor air sample), and 6-SS (sub slab sample). As noted above, a review of the soil gas, sub slab, indoor air, and ambient air data indicate that the groundwater to indoor air vapor intrusion pathway is incomplete. Geotechnical data collected from the uppermost silty clay to clay interval show very low to no air filled porosity. This strongly limits vapor migration from the groundwater table to any receptors, and, as expected, presently provides a protective barrier between the VOCs present in groundwater and indoor.
- Detections of trichloroethene in ambient air and indoor air are at similar concentrations. There also are detections of cis-1,2-dichloroethene, benzene, ethylbenzene, toluene, and xylenes in both ambient air and indoor air with minimal detections of these compounds in soil gas and sub-slab samples. The detection of these compounds in both ambient and indoor air indicate the typical exchange of indoor air with ambient air. BTEX compounds are fairly ubiquitous in the urban environment.

As previously mentioned, we are in the process of preparing a report that summarizes the methodologies used for the air and groundwater sampling. The report will provide a more comprehensive discussion of the sampling results and the absence of a VI pathway. The groundwater and soil data will be reviewed as other lines of evidence in the VI assessment. Summary tables, figures, sample logs, and data packages will also be provided in the report.

Thanks,
John

From: Bastek, Brian [mailto:Bastek.Brian@epa.gov]
Sent: Tuesday, November 10, 2015 11:52 AM
To: Ellis, John <John.Ellis@arcadis.com>
Subject: Grenada GW Data

Hi John.

Thanks for sending in the air data for Grenada. Several folks are currently reviewing it, however, many have asked when the GW data will be in.

Let me know when you get a minute.

Thanks.

Brian Bastek
Environmental Engineer
U.S. EPA, Region 4
RCRA Corrective Action and Permitting Section
Resource Conservation and Restoration Division
61 Forsyth Street, SW
Atlanta, GA 30303
404-562-8511
bastek.brian@epa.gov

EXHIBIT G

GRENADA MANUFACTURING, LLC

November 20, 2015

Ms. Meredith C. Anderson, Chief
RCRA Corrective Action and Permitting Section
Resource Conservation and Restoration Division
U.S. Environmental Protection Agency
Region 4, Atlanta Federal Center
61 Forsyth Street
Atlanta, GA 30303-8960

Re: Grenada Manufacturing Facility, Grenada, Mississippi
007 037 278

Dear Ms. Anderson:

This letter responds to your correspondence of November 12, 2015. Each of the five items raised in your letter is addressed below or in the attachments hereto.

1. The 2013 Annual Report was provided yesterday under separate cover. The 2014 Annual Report will be provided by December 1, 2015, as requested. Also, a supplemental report will be prepared thereafter that addresses several of the additional comments provided by EPA staff regarding the 2012 Annual Report.

2. Attached as Exhibit A to this letter is a report concerning ongoing investigations of the Permeable Reactive Barrier (PRB) and further steps to be taken to identify and effectuate enhancements to the PRB. A discussion concerning your inquiry about supplemental remedies and interim measures while the PRB enhancements are being implemented is a subject for discussion at an upcoming meeting that is proposed below.

3. The aerial photos will be submitted in the requested format by December 1, 2015.

4. As a preliminary matter, it was not mentioned previously that on-site production wells would be sampled. The deep production wells at the facility are inappropriate groundwater sampling locations. They were high-volume production wells completed in deep portions of the Lower Aquifer in the early 1960s. The wells were sampled in 1993, during the remedial investigation, at a time the wells were in use, fully purged, and found to contain no VOCs.

Presently, if any CVOCs were detected in these wells, it would be a result of construction defects or deterioration of the well casing in the Upper Aquifer. The appropriate course of action is to abandon these wells, which is required for wells taken out of service for this duration and no longer used in any capacity.

However, there is one piece of useful information that may be obtained from these wells, if access is granted by the owner. Water levels can be measured in these wells and adjusted to elevations. Using the relative elevations of the wells and their respective locations, the previously unknown direction of the groundwater flow in the Lower Aquifer can be determined. Once the groundwater flow direction is determined, the existing monitoring well in the Lower Aquifer (MW-9) can be evaluated to assess whether it is correctly placed to verify that impact to the Lower Aquifer has not occurred.

5. Please identify each of the SWMUs about which you would like to engage in a discussion.

Given the nature of the topics about which you would like to engage in further discussion, the preference is to arrange an in-person meeting to be attended by relevant persons and their legal representatives. Please provide dates and times that EPA staff is available to meet.

Sincerely,

Grenada Manufacturing, LLC

Enclosures

cc: Carla Brown, MDEQ
Trey Hess, MDEQ
David O'Connor, Meritor

EXHIBIT A

Status Report on Rejuvenation of PRB
November 19, 2015

Further assessments of the PRB have continued since the update was provided in the 2012 Annual Report (Appendix E). The following activities have been completed since that time and through to the present:

1. Water level data loggers have continued to provide water level data for analysis to better define the hydraulics of the PRB and further the understanding of the nature and extent of the observed hydraulic anomalies in the PRB.
2. Test coring of the PRB was completed in May of 2015 at Panels 7 and 8 to further evaluate the potential for placement of "slot-borings" in the front face of the PRB to allow additional flow of groundwater into the PRB. Borings were placed at the approximate location of the front face in Panels 7 and 8 of the PRB and cores were obtained for laboratory analysis.
3. Cores were also obtained from the interior of the PRB for comparison to the front face cores and for use in laboratory analyses.
4. One of the borings placed in Panel 8 was observed to hit the front face of the PRB as noted by the presence of both zero-valent iron (ZVI) and aquifer sand in the cores. Data logging of water levels at multiple locations in the vicinity of the PRB was also used to evaluate the expected additional flow into the PRB when a boring intersects the front face of the PRB, as had been observed previously. Additional flow into the PRB was noted based on the observed head drop in nearby monitoring wells on the upgradient side of the PRB. The purpose of this work was to assess the ease with which the front face could be encountered with a 4-inch diameter rotosonic boring.
5. Water level data logging continued after the front face boring was installed to provide further information regarding the nature of the process whereby the permeability of the slot opening was observed to decline over time.
6. Some cores obtained from the front face area of Panels 7 and 8 and from the interior of the PRB were logged to observe the nature of the ZVI and aquifer sand and to look for signs of biofouling and/or chemical precipitation. Evidence of likely biological growth and chemical precipitation was observed in the field.
7. Additional cores were obtained and rapidly sealed within the PVC sleeves (used to retrieve the cores) for later laboratory analysis. The cores were rapidly sealed to help maintain the anaerobic environment of the core, and provide minimal disturbance to the microbial processes. A total of 17, 3-inch diameter cores, varying in length from 24 inches to 40 inches, were obtained and sealed. The cores were chilled to 4 degrees C and transported to Clemson University for further analysis. Upon arrival at Clemson, the cores were transferred to a cold storage room maintained at 4 degrees C.
8. Multiple tests have been performed on the cores at Clemson in the laboratory. Tests were performed to evaluate the organic content of the core material to assess the quantity of biomass present at various locations near the front face of the PRB and within the aquifer just upgradient of the PRB. Chemical analysis was completed to assess the extent of chemical precipitation present and particle size analyses were performed to further assess the potential for fines entrainment into the ZVI at the time of installation or subsequent to installation.

9. A detailed report will be prepared to provide the results of the core testing, but key findings include more biological material was observed in some locations at the front face of the PRB than was observed in previous (angle boring) cores, and a considerably larger content of sulfide precipitates was present in some of the core material. Both of these findings suggest a biological process is causing a decrease in permeability observed in portions of the front face of the PRB. Sulfate-reducing bacteria may be using hydrogen generated by the corrosion of the ZVI to reduce sulfate to sulfide, which subsequently combines with dissolved ferrous iron (and possibly other metals) to form stable iron sulfide precipitates. If the sulfate-reducing bacteria can be inhibited or eliminated, the clogging process in slot borings or wells placed in the PRB could be slowed or eliminated.
10. Methods were developed in the laboratory for testing the effectiveness of various substances that could be used to control microbial growth on the front face of the PRB, and in any locations where water may be allowed to flow into the PRB (such as slot borings or injection wells, where similar biological processes could lead to reduced permeability over time). An effective method for completing these tests using microcosm vials and the consumption of a hydrogen food source supplied to the vials was fully developed and tested in the laboratory.
11. Several substances considered likely candidates for controlling biological growth were tested in the laboratory, and that testing is ongoing. A detailed report will be prepared to address the results of this work, but it appears that some effective methods for controlling biological growth have been identified for further testing and final selection at the PRB.
12. Methods that provide more control over the flow into the PRB (in comparison to slot-borings) have been designed and tested. A system is needed in which the residence time in a given PRB panel can be controlled to ensure proper treatment; this result was considered difficult to achieve with slot borings. The method developed involves the use of wells inside the front face of the PRB that are close to the upgradient face. Water is delivered to each well at an independent and controllable rate to match the proper residence time with the concentration of CVOCs in the influent water.
13. The first set of test wells were installed in Panels 6 through 10, and a trial period will be held to test substances identified in the Clemson work in-situ on these wells.
14. The front face of the PRB was mapped in July of 2015 for Panels 6 through 10 to allow placement of wells within the PRB that are close to the front face, but within the wall. Wells were installed in August of 2015. Some of the wells hit the front face of the PRB and had to be abandoned. Approximately 45 wells were installed and retained for the next phase of testing.
15. The 45 wells were surged and developed to remove fines and prepare the wells for the next round of testing. Injection and extraction tests also were completed on each of these wells with water-level data loggers in place. It is expected that the data from these tests will enable better definition of flow and residence time within the PRB for each well.
16. When the laboratory testing of treatment methods at Clemson is complete, the most promising treatment/biological inhibitor methods will be selected and these treatment methods will be tested on the in-wall wells, likely in groups of three replicates per treatment. The ability to inhibit the biological processes and to maintain flow to the in-wall wells over time will be tested. The residence times in the PRB and treatment efficiency with this approach also will be tested.
17. Reponses to questions about rejuvenation of the PRB will be provided to USEPA staff at the upcoming proposed meeting.