



December 3, 2013

Mr. Jordan Garrard  
On-Scene Coordinator (OSC)  
U.S. Environmental Protection Agency (EPA), Region 4  
61 Forsyth Street, SW, 11th Floor  
Atlanta, Georgia 30303

**Subject: Oil Pollution Act (OPA) Emergency Response Action Letter Report  
Aliceville Train Derailment  
Aliceville, Pickens County, Alabama  
Contract Number (No.) EP-W-05-054  
TDD No. TTEMI-05-002-0023**

Dear Mr. Garrard:

The Tetra Tech Superfund Technical Assessment and Response Team (Tetra Tech START) is submitting this draft Oil Pollution Act (OPA) emergency response (ER) letter report summarizing activities conducted from November 8 through November 14, 2013 at the derailment site in Aliceville, Pickens County, Alabama. This report includes six enclosures. Enclosure 1 contains figures illustrating the site location and site layout. Enclosure 2 contains the photographic log. Enclosure 3 contains summary monitoring reports prepared by the U.S. Environmental Protection Agency (EPA) during response activities. Enclosure 4 contains the logbook notes. Enclosure 5 contains the Clean Water Act (CWA) Section 311 incident documentation. Enclosure 6 contains a table of witnesses.

## **SITE BACKGROUND**

At around midnight on November 7, 2013, an Alabama & Gulf Coast Railway train hauling crude oil from Amory, Mississippi to Walnut Hill, Florida derailed just south of Aliceville, Alabama at railroad milepost 683. The train was composed of 90 railcars, 26 of which derailed into a wetland slough located along the east and west sides of the rail line. During high water, the slough connects to Lubdub Creek, which discharges into the Tombigbee River approximately 3.5 miles southwest of the derailment. A representative of Genesee & Wyoming Rail (G&W) (G&W owns Alabama & Gulf Coast Railway) notified the National Response Center (Incident Report No. 1065206) of the derailment stating that two explosions and a fire on both sides of the rail were reported by the crew. In addition, an unknown quantity of oil was discharged to the wetland slough. EPA and Tetra Tech START mobilized to the site the morning of November 8, 2013 and coordinated with Unified Command to monitor cleanup efforts and oil recovery operations, and conduct air monitoring in the vicinity of the derailment.

## **EMERGENCY RESPONSE ACTIVITIES**

Following the derailment, G&W mobilized personnel and resources to begin cleanup efforts, including R.J. Corman Railroad Group (RJ Corman), United States Environmental Services LLC (USES), B&P Enterprises, SWS Environmental Services, and the Center for Toxicology and Environmental Health (CTEH). During initial response activities, Unified Command decided to allow actively burning railcars to continue to burn rather than attempt to extinguish them because of the dangers posed to firefighters.

On November 8, 2013, B&P Enterprises began working to prepare the area for cleanup and recovery operations, including the installation of equipment staging areas and access roads to reach the derailment

area, as well as impacted wetland areas. USES installed containment boom and absorbent materials in the wetland slough to corral and contain oil discharged from the railcars; and used water flushing techniques to free oil deposited on the wetland banks and vegetation. RJ Corman assessed the situation in preparation for re-railing and removing railcars.

On November 9, 2013, G&W contractors began re-railing and removing accessible railcars from the derailment area. Railcars that were intact and still contained crude oil were uprighted and staged for future transfer operations. Oil recovery efforts continued with the placement of additional containment boom and absorbent materials, as well as the use of water flushing techniques throughout impacted areas of the wetland slough.

On November 10, 2013, firefighters extinguished the remaining fires with water and Aqueous Film-Forming Foam (AFFF) agent. By November 12, 2013, re-railing operations were completed and remaining railcars were moved and staged for transfer operations or scrapping, as appropriate. On November 13, 2013, railroad personnel removed the remaining oil from one of the damaged railcars using vacuum trucks; approximately 19,800 gallons of oil was recovered from the railcar. After the day's transfer operations were complete, RJ Corman began reconstruction operations to replace the section of rail that was destroyed during the derailment. Rail reconstruction activities continued 24-hours per day until they were completed on November 17, 2013; during rail reconstruction activities, oil transfer operations were temporarily halted.

On November 14, USES began mechanical recovery of oil from the wetland slough using drum skimmers. One skimmer was deployed on the east side of the rail and collected approximately 840 gallons of oil, while two skimmers were deployed on the west side and collected approximately 1,260 gallons of oil. Vacuum trucks transferred recovered oil to frac tanks.

On November 14, 2013, Tetra Tech demobilized while EPA OSCs remained onsite to operate in Unified Command as railcar transfer and wetland oil recovery activities continued.

## AIR MONITORING

Following the derailment, CTEH conducted air monitoring in the morning of November 8, 2013 for various parameters, including volatile organic compounds (VOC), benzene, toluene, nitrogen dioxide, sulfur dioxide, hydrogen sulfide, and carbon monoxide, as well as respirable particulates (2.5 microns in size or smaller [PM<sub>2.5</sub>]). CTEH air monitoring activities included the use of AreaRAE units placed at various fixed locations both at the derailment work area and at points in the immediate vicinity of the work area. CTEH also used 3M personal passive diffusion monitors worn by responders for offsite laboratory analysis of benzene concentrations. In addition, CTEH conducted roving air monitoring using MultiRAE units and colorimetric tubes in the areas surrounding the derailment.

On November 8, EPA and Tetra Tech START deployed AreaRAE and DataRAM units at four locations forming a perimeter around the derailment to monitor for VOCs and respirable particulates (PM<sub>2.5</sub>) that could affect the surrounding community. EPA's wireless cellular Viper system was also deployed, which allowed remote viewing and management of all real-time air monitoring data from the incident base camp. No VOCs or PM<sub>2.5</sub> particulate concentrations exceeded action levels at the perimeter air monitoring stations. Figure 3 of Enclosure 1 illustrates the locations of these air monitoring stations and the daily summary reports are presented in Enclosure 3.

On November 12, 2013, EPA concluded perimeter air monitoring. G&W's contractor, CTEH, continued their full incident air monitoring activities.

## **SURFACE WATER**

As a result of the derailment, an unknown quantity of oil was discharged to the wetland slough present on both sides of the rail line. Based on available information, the wetland slough forms tributaries of Lubbub Creek during periods of high rainfall. Drainage from the wetland slough occurs in two directions, but both ultimately discharge into Lubbub Creek, which is located approximately 1 mile to the west of the derailment. One drainage pathway channels water to the northeast while the other channels water to the west-southwest. During response activities, EPA and Tetra Tech START conducted reconnaissance of the drainage areas, which were dry at the time and provided no discernable pathway for the oil to reach Lubbub Creek at current water levels. Precipitation during and after the derailment posed no threat to raise water levels.

If you have any questions or need additional copies of this ER letter report, please contact me at (678) 775-3113 or Scott Covode at (678) 775-3108.

Sincerely,

Brian Croft  
START III Site Manager

Andrew F. Johnson  
START III Program Manager

Enclosures (6)

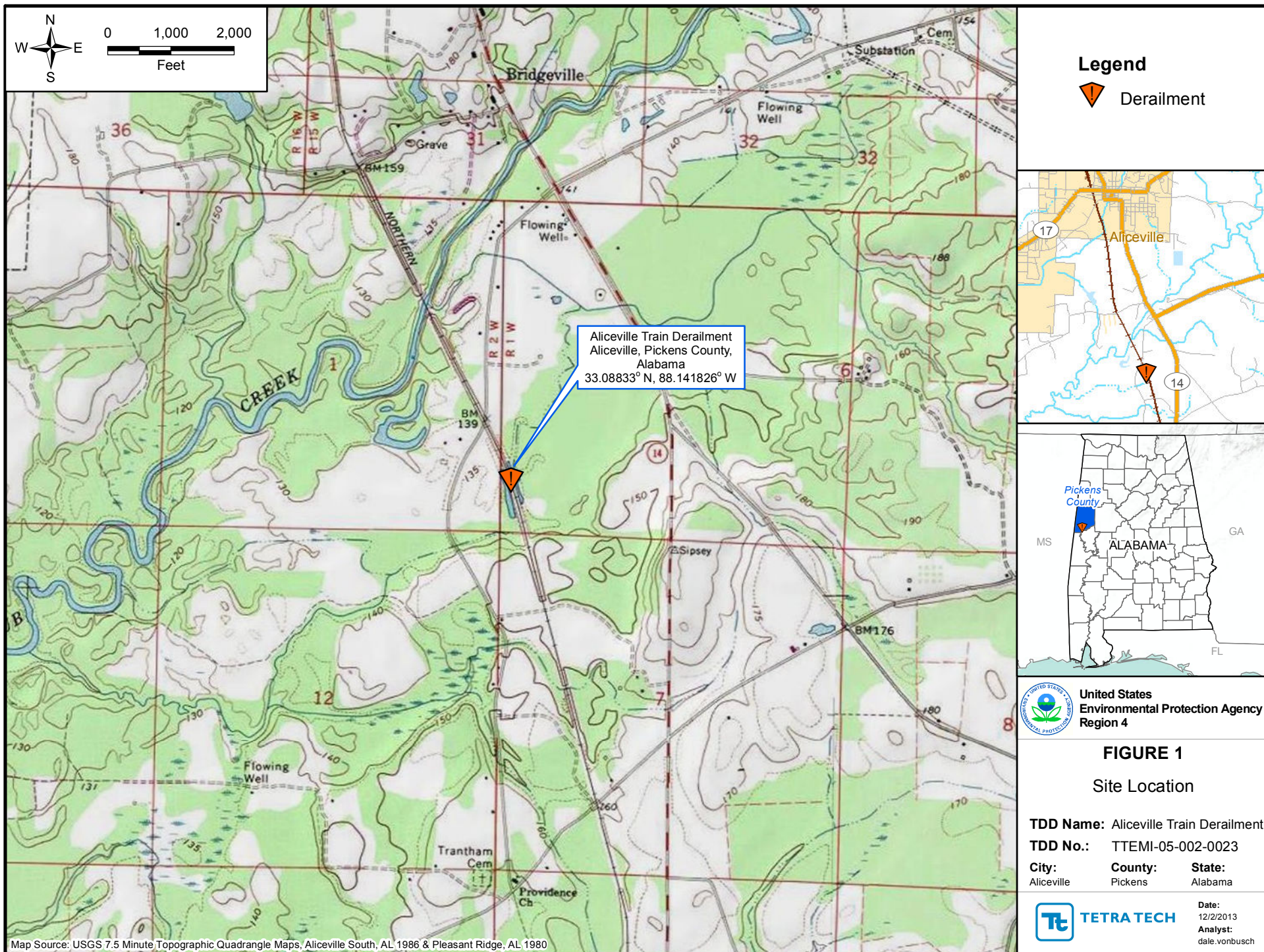
cc: Katrina Jones, EPA Project Officer  
Scott Covode, START III Task Order Manager  
Angel Reed, START III Document Control Coordinator

## **ENCLOSURE 1**

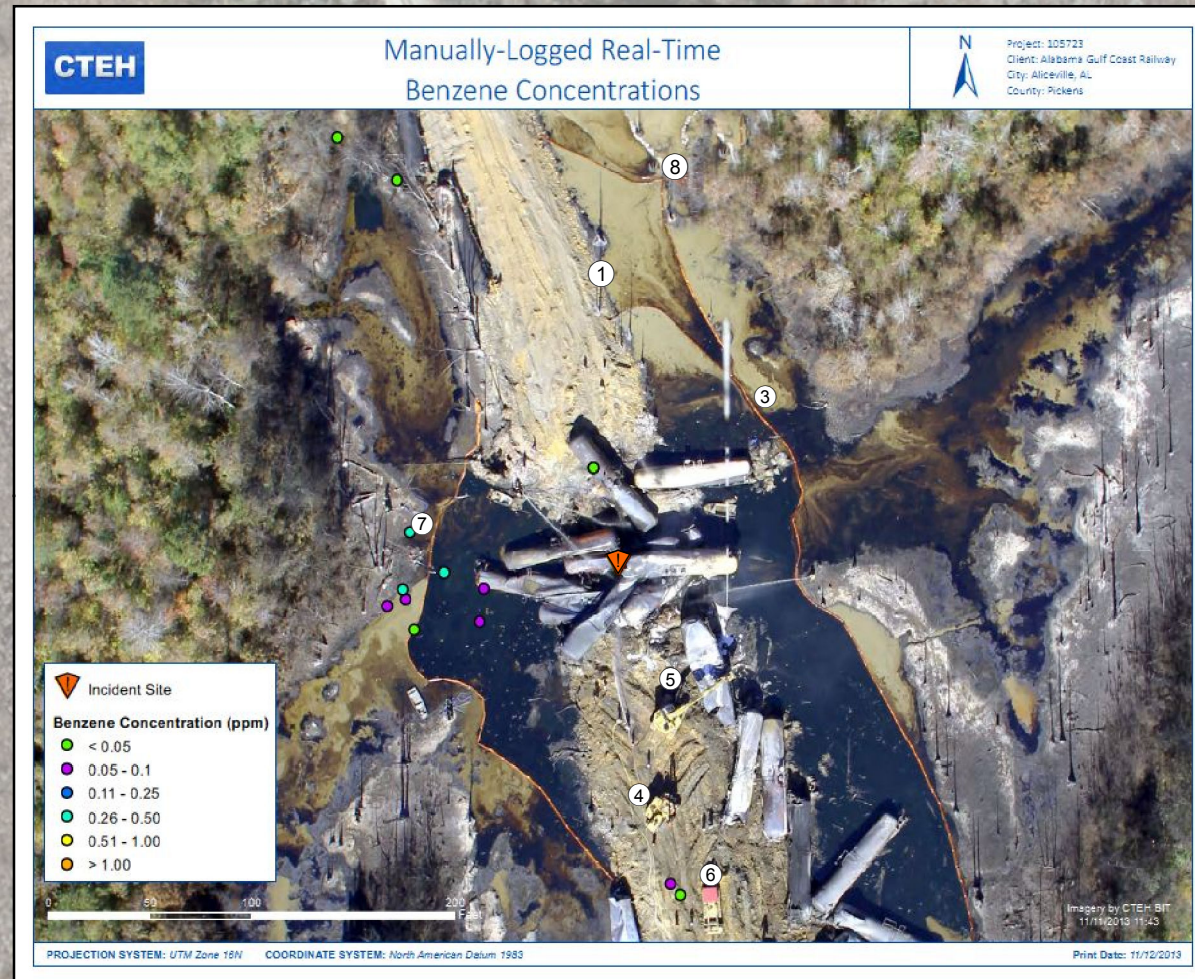
### **FIGURES**

(Three Pages)



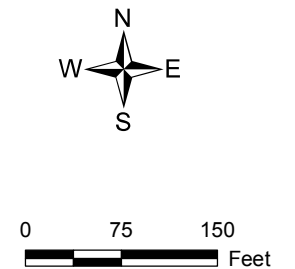






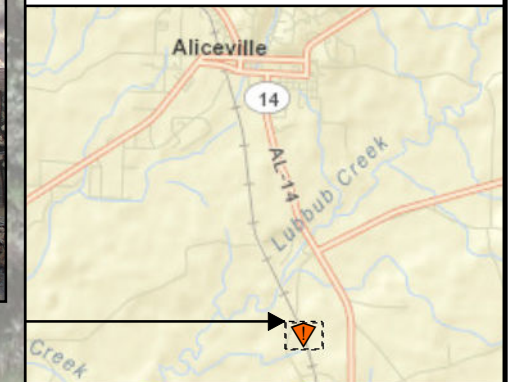
Legend

Derailment



Note:  
\* G&W Derailment image is courtesy of ABC 33/40 News

Map Source:  
Aerial Imagery: ESRI Aerials, 2011 - 2012.



United States  
Environmental Protection Agency  
Region 4

## FIGURE 2

### Site Layout

TDD Name: Aliceville Train Derailment

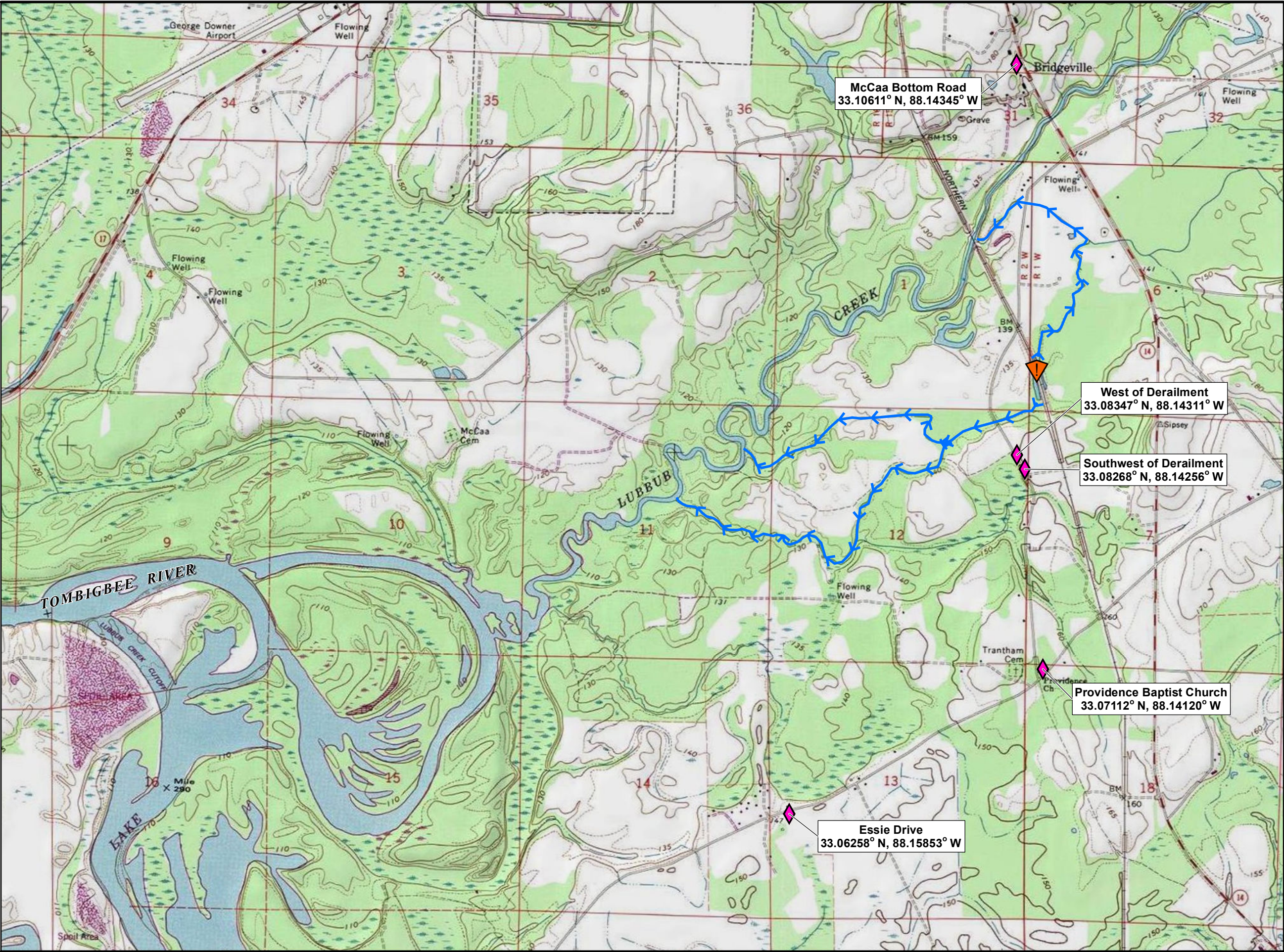
TDD No.: TTEMI-05-002-0023

City: Aliceville County: Pickens State: Alabama



Date:  
12/2/2013  
Analyst:  
dale.vonbusch





- Legend**
- ◆ AreaRAE/DataRAM Monitoring Station
  - 🚚 Derailment
  - Highway, Secondary
  - Road, Light Duty
  - ==== Road, Unimproved
  - Railroad, Standard Gauge, Single Track
  - ➡ Surface Water Flow



0 1,000 2,000  
Feet

Map Source:  
USGS Topographic Quadrangle Maps,  
Aliceville South, AL 1986  
& Pleasant Ridge, AL 1980



United States  
Environmental Protection Agency  
Region 4

**FIGURE 3**

Surface Water Pathways  
with Air Monitoring Stations

**TDD Name:** Aliceville Train Derailment

**TDD No.:** TTEMI-05-002-0023

**City:** Aliceville      **County:** Pickens      **State:** Alabama



**Date:**  
12/2/2013  
**Analyst:**  
dale.vonbusch



**ENCLOSURE 2**  
**PHOTOGRAPHIC LOG**  
(11 Pages)



**OFFICIAL PHOTOGRAPH NO. 1**  
**U.S. ENVIRONMENTAL PROTECTION AGENCY**

**TDD Number:** TTEMI-05-002-0023

**Location:** Aliceville Train Derailment

**Orientation:** South

**Date:** November 8, 2013

**Photographer:** ABC3340.com

**Witness:** Unknown

**Subject:** Train derailment with ongoing fire and smoke.



**OFFICIAL PHOTOGRAPH NO. 2**  
**U.S. ENVIRONMENTAL PROTECTION AGENCY**

**TDD Number:** TTEMI-05-002-0023

**Location:** Aliceville Train Derailment

**Orientation:** West

**Date:** November 9, 2013

**Photographer:** Didi Fung, Tetra Tech

**Witness:** Jordan Garrard, Environmental  
Protection Agency (EPA)

**Subject:** Smoke and fire from burning oil inside railcars located along the edge of the rail line and wetland slough.





**OFFICIAL PHOTOGRAPH NO. 3**  
**U.S. ENVIRONMENTAL PROTECTION AGENCY**

<b>TDD Number:</b>	TTEMI-05-002-0023	<b>Location:</b>	Aliceville Train Derailment
<b>Orientation:</b>	West	<b>Date:</b>	November 10, 2013
<b>Photographer:</b>	Didi Fung, Tetra Tech	<b>Witness:</b>	United States Environmental Services (USES)
<b>Subject:</b>	Personnel spray railcars with water to keep them cool and to limit the spread of fire.		



**OFFICIAL PHOTOGRAPH NO. 4**  
**U.S. ENVIRONMENTAL PROTECTION AGENCY**

**TDD Number:** TTEMI-05-002-0023

**Location:** Aliceville Train Derailment

**Orientation:** Northwest

**Date:** November 9, 2013

**Photographer:** Didi Fung, Tetra Tech

**Witness:** USES

**Subject:** Recovery teams set out containment booms to control the spread of oil discharged from the train derailment.





**OFFICIAL PHOTOGRAPH NO. 5**  
**U.S. ENVIRONMENTAL PROTECTION AGENCY**

**TDD Number:** TTEMI-05-002-0023

**Location:** Aliceville Train Derailment

**Orientation:** South

**Date:** November 9, 2013

**Photographer:** Didi Fung, Tetra Tech

**Witness:** Brian Croft, Tetra Tech

**Subject:** Recovery teams use water flushing techniques to corral and contain oil released from the train derailment.



**OFFICIAL PHOTOGRAPH NO. 6**  
**U.S. ENVIRONMENTAL PROTECTION AGENCY**

<b>TDD Number:</b>	TTEMI-05-002-0023	<b>Location:</b>	Aliceville Train Derailment
<b>Orientation:</b>	Southwest	<b>Date:</b>	November 10, 2013
<b>Photographer:</b>	Chris Jones, Tetra Tech	<b>Witness:</b>	Helen Mayoral, Tetra Tech
<b>Subject:</b>	Wrecking and derailment crews working to clear damaged railcars from rail line.		





**OFFICIAL PHOTOGRAPH NO. 7**  
**U.S. ENVIRONMENTAL PROTECTION AGENCY**

**TDD Number:** TTEMI-05-002-0023

**Location:** Aliceville Train Derailment

**Orientation:** Southeast

**Date:** November 13, 2013

**Photographer:** Brian Croft, Tetra Tech

**Witness:** Amber Skiles, Tetra Tech

**Subject:** Crews working to access the contents of one railcar in preparation for the transfer of crude oil remaining inside. Firefighting foam was sprayed on the railcar and equipment to minimize the potential for ignition.



**OFFICIAL PHOTOGRAPH NO. 8**  
**U.S. ENVIRONMENTAL PROTECTION AGENCY**

<b>TDD Number:</b>	TTEMI-05-002-0023	<b>Location:</b>	Aliceville Train Derailment
<b>Orientation:</b>	North	<b>Date:</b>	November 13, 2013
<b>Photographer:</b>	Brain Croft, Tetra Tech	<b>Witness:</b>	Amber Skiles, Tetra Tech
<b>Subject:</b>	Recovery team setting up drum skimmer to recover oil discharged to the wetland slough along the eastern side of the rail line.		





**OFFICIAL PHOTOGRAPH NO. 9**  
**U.S. ENVIRONMENTAL PROTECTION AGENCY**

<b>TDD Number:</b>	TTEMI-05-002-0023	<b>Location:</b>	Aliceville Train Derailment
<b>Orientation:</b>	Northeast	<b>Date:</b>	November 14, 2013
<b>Photographer:</b>	Brian Croft, Tetra Tech	<b>Witness:</b>	Amber Skiles, Tetra Tech
<b>Subject:</b>	Drum skimmer (center) deployed to recover oil from wetland slough along western side of rail line.		



**OFFICIAL PHOTOGRAPH NO. 10**  
**U.S. ENVIRONMENTAL PROTECTION AGENCY**

**TDD Number:** TTEMI-05-002-0023

**Location:** Aliceville Train Derailment

**Orientation:** South

**Date:** November 14, 2013

**Photographer:** Brian Croft, Tetra Tech

**Witness:** Amber Skiles, Tetra Tech

**Subject:** Area of train derailment where trestle was formerly located.





**OFFICIAL PHOTOGRAPH NO. 11**  
**U.S. ENVIRONMENTAL PROTECTION AGENCY**

**TDD Number:** TTEMI-05-002-0023

**Location:** Aliceville Train Derailment

**Orientation:** Northeast

**Date:** November 14, 2013

**Photographer:** Brian Croft, Tetra Tech

**Witness:** Amber Skiles, Tetra Tech

**Subject:** Mechanical recovery (drum skimmer) of oil in progress in the wetland slough along the eastern side of the rail line.

**ENCLOSURE 3**

**EPA DAILY AIR MONITORING SUMMARY REPORTS**

(16 Pages)



# Air Monitoring Summary Tables

The table below summarize monitoring data collected on using EPA's Viper wireless remote monitoring system.



**Project Name:** Aliceville Train Derailment

**Date:** November 8-9, 2013

**Time:** 7:48 p.m. - 4:00 a.m.

SW of Derailment & County Rd 2						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Period TWA <sup>d</sup>
Area Rae (.134)	VOCs	495	492	0	1 - 4.8 ppm	2.989035
Data Ram (.228)	PM-2.5	495	495	0	10.3 - 397.3 ug/m3	51.209997

Essie Dr & County Rd 13						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Period TWA <sup>d</sup>
Area Rae (.229)	VOCs	502	501	0	0.4 - 2.2 ppm	1.801663
Data Ram (.227)	PM-2.5	500	500	0	12.1 - 154.5 ug/m3	38.100618

W of Derailment & County Rd 2						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Period TWA <sup>d</sup>
Area Rae (.230)	VOCs	495	492	0	0.8 - 5.2 ppm	2.767205
Data Ram (.140)	PM-2.5	124	124	0	5.3 - 12.6 ug/m3	9.321955

## Notes:

a Values recorded by the instrument

b Values at or above the instrument's detection limits

AreaRae VOC	0.1 ppm
DataRam	0.1 ug/m3

c 1-hour TWA values at or above the 1-hour TWA Alarm Level

AreaRae VOC	5 ppm
DataRam	200 ug/m3

d Monitoring period was approximately 8 hours, therefore the final 8-hour TWA is displayed

< Less than

PM-2.5 Particulate matter with an average diameter less than 2.5 microns

ppm Parts per million

ug/m3 micrograms per cubic meter

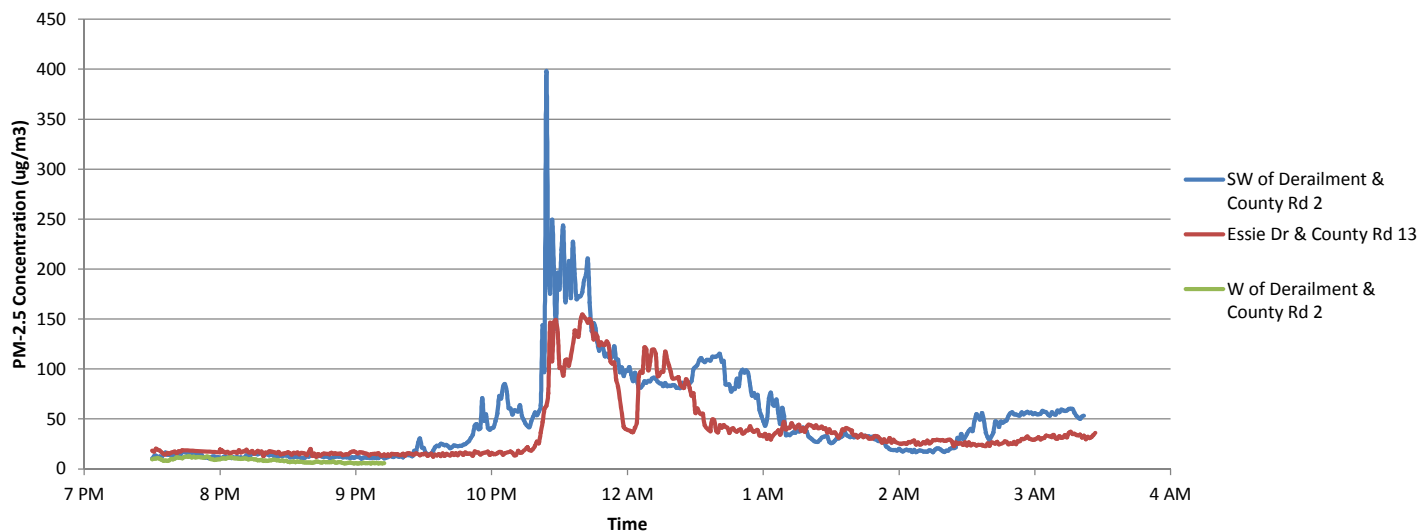
VOC Volatile organic compounds

# Air Monitoring Summary Charts

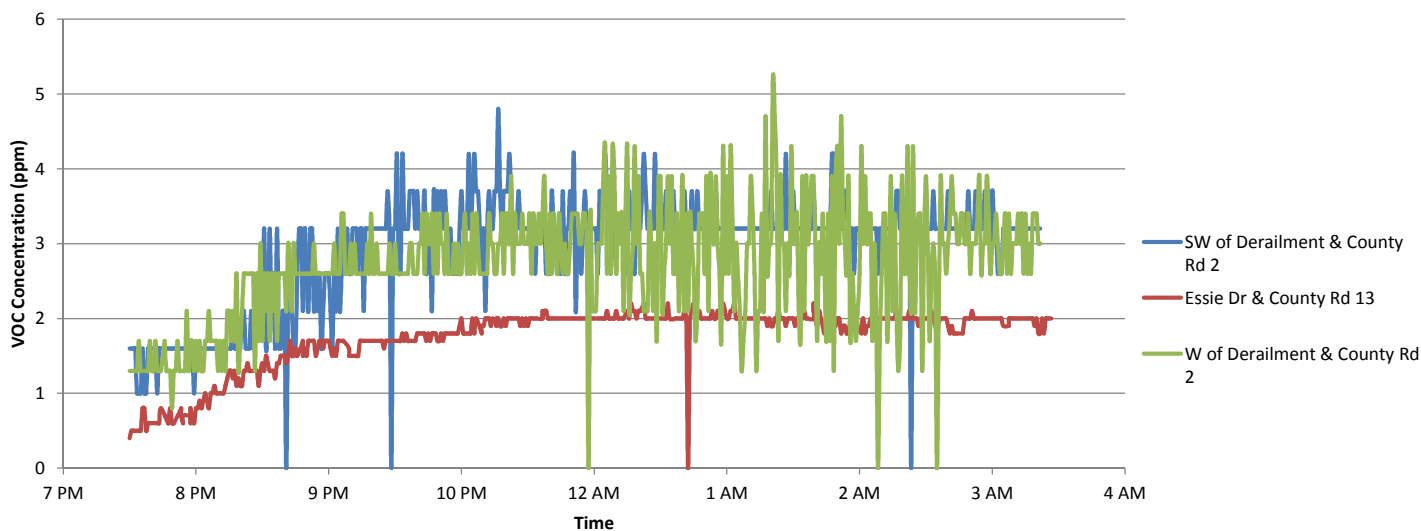
The charts below summarize EPA monitoring data collected in 11/08 to 11/09 .



## DataRam Instantaneous PM-2.5 Values 11/08 night



## AreaRae Instantaneous VOC Values 11/08 night



# Air Monitoring Summary Tables

The table below summarize monitoring data collected on using EPA's Viper wireless remote monitoring system.



**Project Name:** Aliceville Train Derailment

**Date:** November 9, 2013

**Time:** Noon - 4:00 p.m.

SW of Derailment & County Rd 2						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Period TWA <sup>d</sup>
Area Rae (.134)	VOCs	208	1	0	0 - 0.5 ppm	0.001042
Data Ram (.228)	PM-2.5	220	219	0	0 - 307 ug/m3	4.228837

Essie Dr & County Rd 13						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Period TWA <sup>d</sup>
Area Rae (.229)	VOCs	313	312	0	0.1 - 1.5 ppm	0.963014
Data Ram (.227)	PM-2.5	314	314	0	5.9 - 19.3 ug/m3	8.365309

W of Derailment & County Rd 2						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Period TWA <sup>d</sup>
Area Rae (.230)	VOCs	171	124	0	0 - 2.6 ppm	0.39349
Data Ram (.140)	PM-2.5	172	172	0	4.4 - 28.1 ug/m3	7.145809

Notes:

a Values recorded by the instrument

b Values at or above the instrument's detection limits

AreaRae VOC	0.1 ppm
DataRam	0.1 ug/m3

c 1-hour TWA values at or above the 1-hour TWA Alarm Level

AreaRae VOC	5 ppm
DataRam	200 ug/m3

d Monitoring period was approximately 8 hours, therefore the final 8-hour TWA is displayed

< Less than

PM-2.5 Particulate matter with an average diameter less than 2.5 microns

ppm Parts per million

ug/m3 micrograms per cubic meter

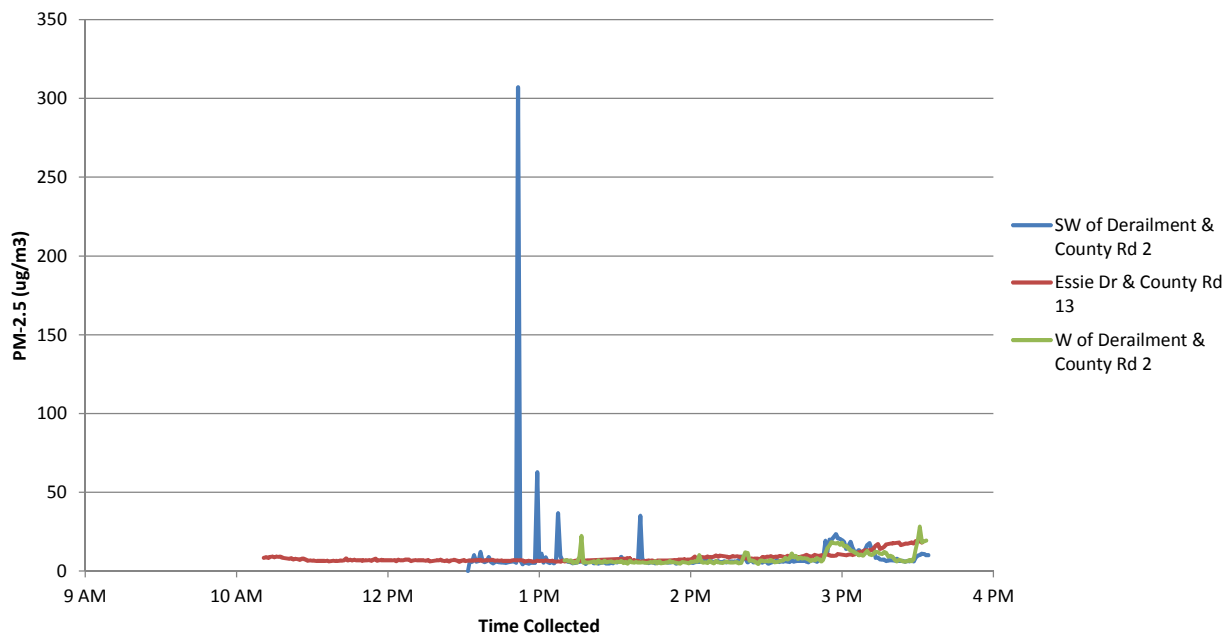
VOC Volatile organic compounds

## Air Monitoring Summary Charts

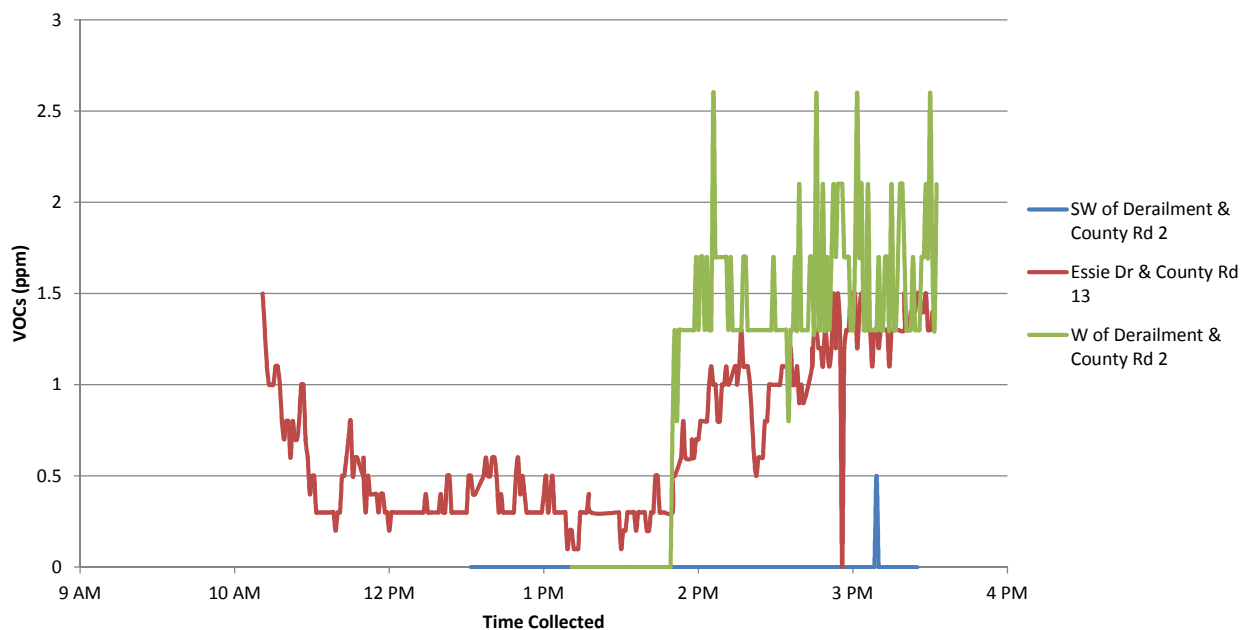
The charts below summarize EPA monitoring data collected throughout 11/09 day.



**DataRam Instantaneous PM-2.5 Values  
11/09 day**



**AreaRae Instantaneous VOC Values  
11/09 day**



# Air Monitoring Summary Tables

The table below summarize monitoring data collected on using EPA's Viper wireless remote monitoring system.



**Project Name:** Aliceville Train Derailment

**Date:** 11/9/2013 to 11/10/13

**Time:** 9:00 p.m. - 5:00 a.m.

SW of Derailment & County Road 2						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Period TWA <sup>d</sup>
Area Rae (.134)	VOCs	444	434	0	0 - 2.6 ppm	1.359094
Data Ram (.228)	PM-2.5	455	455	0	7.2 - 385.1 ug/m3	41.297201

Essie Drive & County Road 13						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Period TWA <sup>d</sup>
Area Rae (.229)	VOCs	452	452	0	1.3 - 1.9 ppm	1.675667
Data Ram (.227)	PM-2.5	454	454	0	10.7 - 190.8 ug/m3	45.227795

Providence Baptist Church on County Road 13						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Period TWA <sup>d</sup>
Area Rae (.230)	VOCs	452	448	0	1.3 - 3.9 ppm	2.571708
Data Ram (.140)	PM-2.5	454	454	0	4.9 - 93.1 ug/m3	16.767049

McCaa Bottom Road and State Road 14						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Period TWA <sup>d</sup>
Area Rae (.135)	VOCs	447	0	0	0 - 0 ppm	0
Data Ram (.139)	PM-2.5	454	454	0	13.9 - 32.1 ug/m3	16.767049

Notes:

a Values recorded by the instrument

b Values at or above the instrument's detection limits

AreaRae VOC	0.1 ppm
DataRam	0.1 ug/m3

c 1-hour TWA values at or above the 1-hour TWA Alarm Level

AreaRae VOC	5 ppm
DataRam	200 ug/m3

d Monitoring period was approximately 8 hours, therefore the final 8-hour TWA is displayed

< Less than

PM-2.5 Particulate matter with an average diameter less than 2.5 microns

ppm Parts per million

ug/m3 micrograms per cubic meter

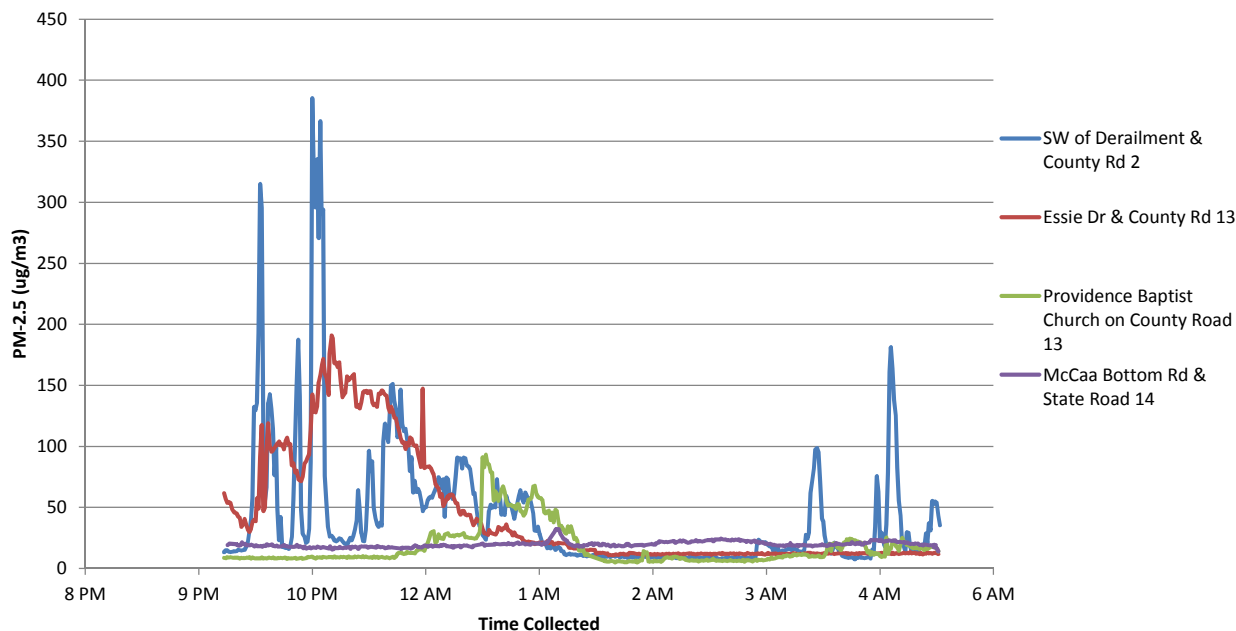
VOC Volatile organic compounds

## Air Monitoring Summary Charts

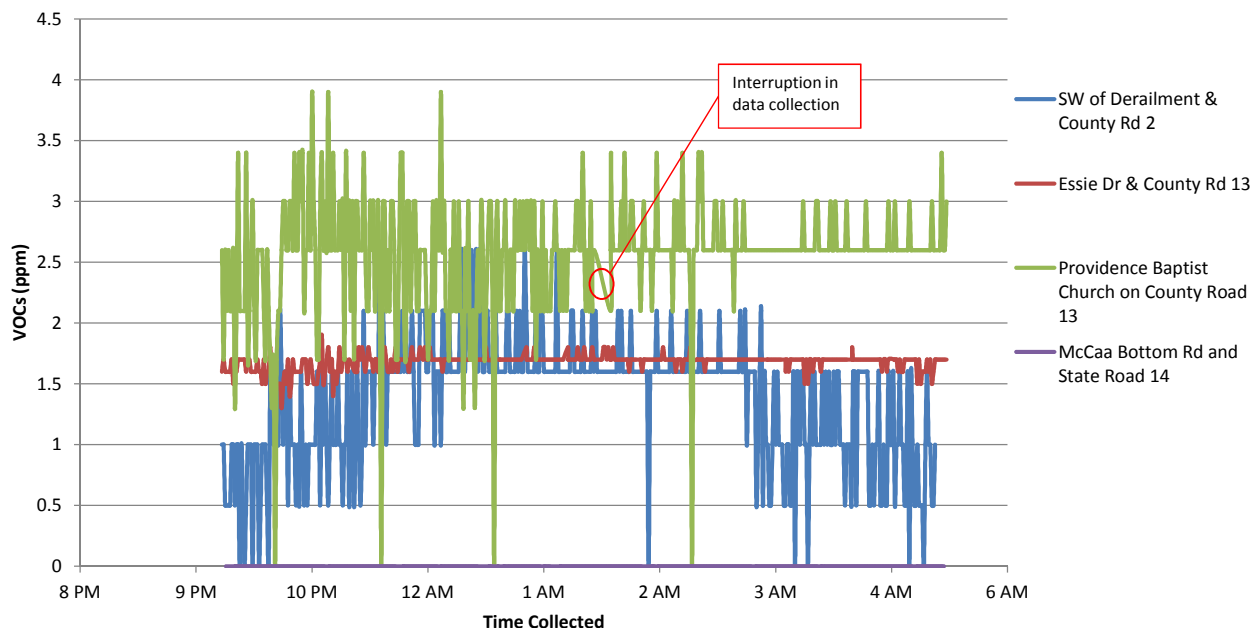
The charts below summarize EPA monitoring data collected throughout 11/09 evening.



**DataRam Instantaneous PM-2.5 Values  
11/09 night**



**AreaRae Instantaneous VOC Values  
11/09 night**



# Air Monitoring Summary Tables

The table below summarize monitoring data collected on using EPA's Viper wireless remote monitoring system.



**Project Name:** Aliceville Train Derailment

**Date:** November 10, 2013

**Time:** 5:00 a.m. - 4:00 p.m.

SW of Derailment & County Road 2						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Period TWA <sup>d</sup>
Area Rae (.134)	VOCs	541	191	0	0 - 2.1 ppm	0.314899
Data Ram (.228)	PM-2.5	661	661	0	2.3 - 169.8 ug/m3	22.644198

Essie Drive & County Road 13						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Period TWA <sup>d</sup>
Area Rae (.229)	VOCs	665	336	0	0 - 1.7 ppm	0.282948
Data Ram (.227)	PM-2.5	660	660	0	2.8 - 54.4 ug/m3	9.75175

Providence Baptist Church on County Road 13						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Period TWA <sup>d</sup>
Area Rae (.230)	VOCs	677	312	0	0 - 3.4 ppm	0.517274
Data Ram (.140)	PM-2.5	661	661	0	0.4 - 45.1 ug/m3	7.912594

McCa Bottom Road and State Road 14						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Period TWA <sup>d</sup>
Area Rae (.135)	VOCs	3697	188	0	0 - 0.2 ppm	0.00274
Data Ram (.139)	PM-2.5	661	661	0	2.4 - 24.3 ug/m3	4.88901

Notes:

a Values recorded by the instrument

b Values at or above the instrument's detection limits

AreaRae VOC	0.1 ppm
DataRam	0.1 ug/m3

c 1-hour TWA values at or above the 1-hour TWA Alarm Level

AreaRae VOC	5 ppm
DataRam	200 ug/m3

d Monitoring period was approximately 8 hours, therefore the final 8-hour TWA is displayed

< Less than

PM-2.5 Particulate matter with an average diameter less than 2.5 microns

ppm Parts per million

ug/m3 micrograms per cubic meter

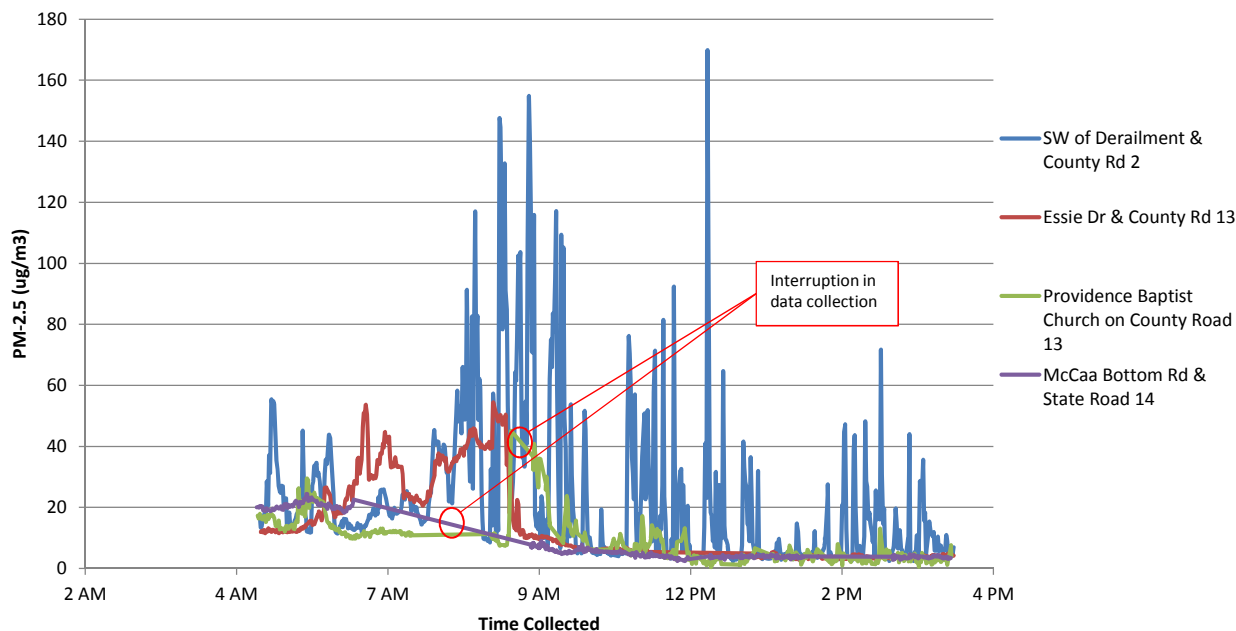
VOC Volatile organic compounds

## Air Monitoring Summary Charts

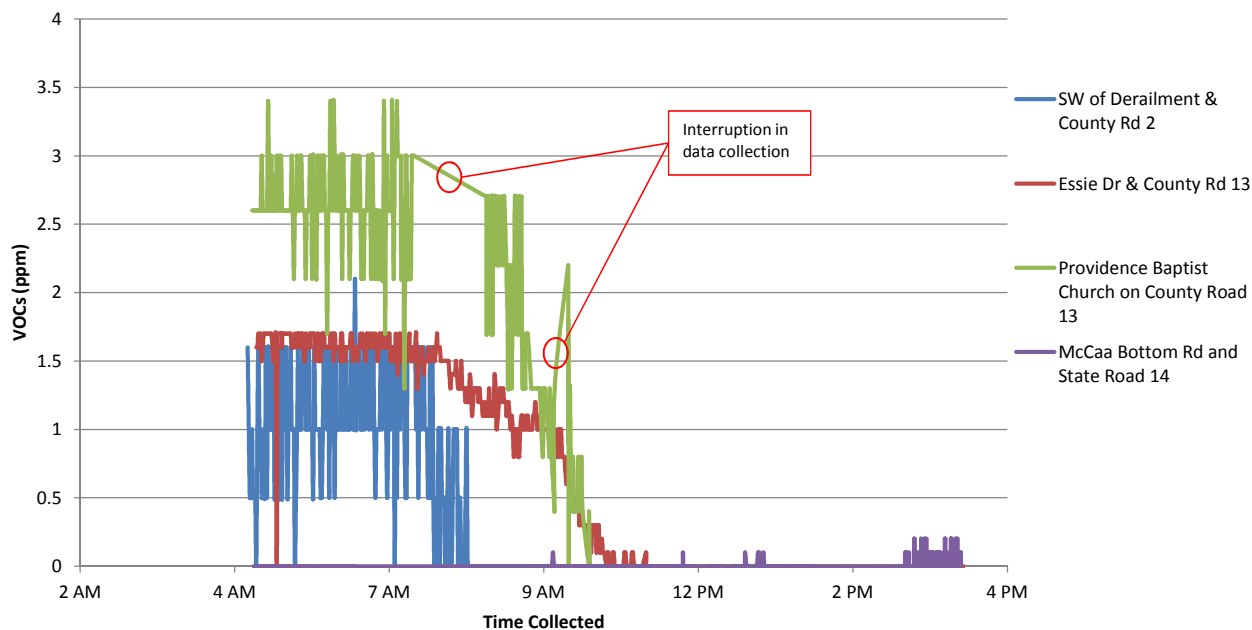
The charts below summarize EPA monitoring data collected throughout 11/10 day.



**DataRam Instantaneous PM-2.5 Values  
11/10 day**



**AreaRae Instantaneous VOC Values  
11/10 day**





# Air Monitoring Summary Tables

The table below summarize monitoring data collected on using EPA's Viper wireless remote monitoring system.



**Project Name:** Aliceville Train Derailment

**Date:** 11/10/2013 - 11/11/2013

**Time:** 4:30 p.m. - 4:30 a.m.

SW of Derailment & County Road 2						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Most Recent 8-hour TWA <sup>d</sup>
Area Rae (.134)	VOCs	721	600	0	0 - 4.2 ppm	2.053243
Data Ram (.228)	PM-2.5	721	721	0	7.9 - 70.5 ug/m3	20.518073

Essie Drive & County Road 13						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Most Recent 8-hour TWA <sup>d</sup>
Area Rae (.229)	VOCs	723	720	0	0.1 - 0.8 ppm	0.616021
Data Ram (.227)	PM-2.5	721	721	0	4.7 - 16.4 ug/m3	9.832594

Providence Baptist Church on County Road 13						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Most Recent 8-hour TWA <sup>d</sup>
Area Rae (.230)	VOCs	723	613	0	0 - 3.1 ppm	1.670222
Data Ram (.140)	PM-2.5	721	721	0	5 - 59.2 ug/m3	7.584458

McCaa Bottom Road and State Road 14						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Most Recent 8-hour TWA <sup>d</sup>
Area Rae (.135)	VOCs	1412	71	0	0 - 0.2 ppm	0.00909
Data Ram (.139)	PM-2.5	180	180	0	3.6 - 8.4 ug/m3	4.597625

Notes:

a Values recorded by the instrument

b Values at or above the instrument's detection limits

AreaRae VOC	0.1 ppm
DataRam	0.1 ug/m3

c 1-hour TWA values at or above the 1-hour TWA Alarm Level

AreaRae VOC	5 ppm
DataRam	200 ug/m3

d Monitoring period was approximately 12 hours, the final 8-hour TWA is displayed

< Less than

PM-2.5 Particulate matter with an average diameter less than 2.5 microns

ppm Parts per million

ug/m3 micrograms per cubic meter

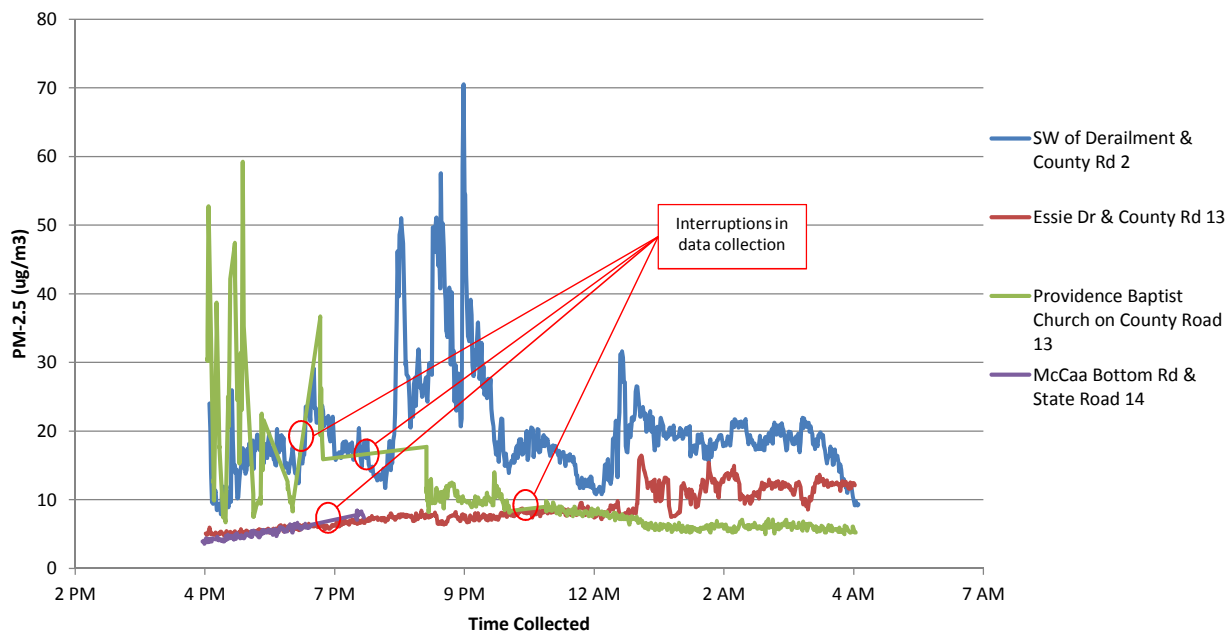
VOC Volatile organic compounds

## Air Monitoring Summary Charts

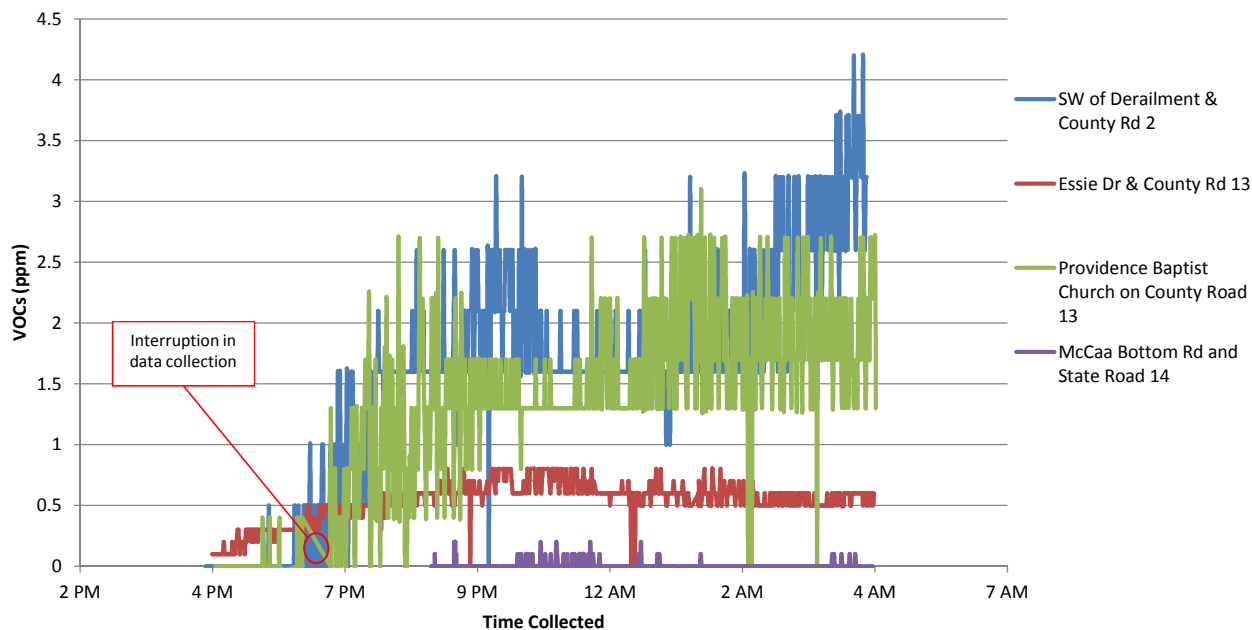
The charts below summarize EPA monitoring data collected throughout 11/10 night.



### DataRam Instantaneous PM-2.5 Values 11/10 night



### AreaRae Instantaneous VOC Values 11/10 night



# Air Monitoring Summary Tables

The table below summarize monitoring data collected on using EPA's Viper wireless remote monitoring system.



**Project Name:** Aliceville Train Derailment

**Date:** November 11, 2013

**Time:** 4:00 a.m. - 4:00 p.m.

SW of Derailment & County Road 2						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Most Recent 8-hour TWA <sup>d</sup>
Area Rae (.134)	VOCs	721	91	0	0 - 4.2 ppm	0
Data Ram (.228)	PM-2.5	721	721	0	1.4 - 377.3 ug/m3	13.039451

Essie Drive & County Road 13						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Most Recent 8-hour TWA <sup>d</sup>
Area Rae (.229)	VOCs	724	325	0	0 - 0.8 ppm	0.064385
Data Ram (.227)	PM-2.5	721	721	0	2.5 - 34.1 ug/m3	5.392219

Providence Baptist Church on County Road 13						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Most Recent 8-hour TWA <sup>d</sup>
Area Rae (.230)	VOCs	730	304	0	0 - 2.7 ppm	0.160441
Data Ram (.140)	PM-2.5	717	717	0	1 - 229.5 ug/m3	6.416566

McCa Bottom Road and State Road 14						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Most Recent 8-hour TWA <sup>d</sup>
Area Rae (.135)	VOCs	1293	27	0	0 - 0.2 ppm	0.003656
Data Ram (.139)	PM-2.5	957	957	0	3.5 - 16.4 ug/m3	4.278063

Notes:

a Values recorded by the instrument

b Values at or above the instrument's detection limits

AreaRae VOC	0.1 ppm
DataRam	0.1 ug/m3

c 1-hour TWA values at or above the 1-hour TWA Alarm Level

AreaRae VOC	5 ppm
DataRam	200 ug/m3

d Monitoring period was approximately 12 hours, the final 8-hour TWA is displayed

< Less than

PM-2.5 Particulate matter with an average diameter less than 2.5 microns

ppm Parts per million

ug/m3 micrograms per cubic meter

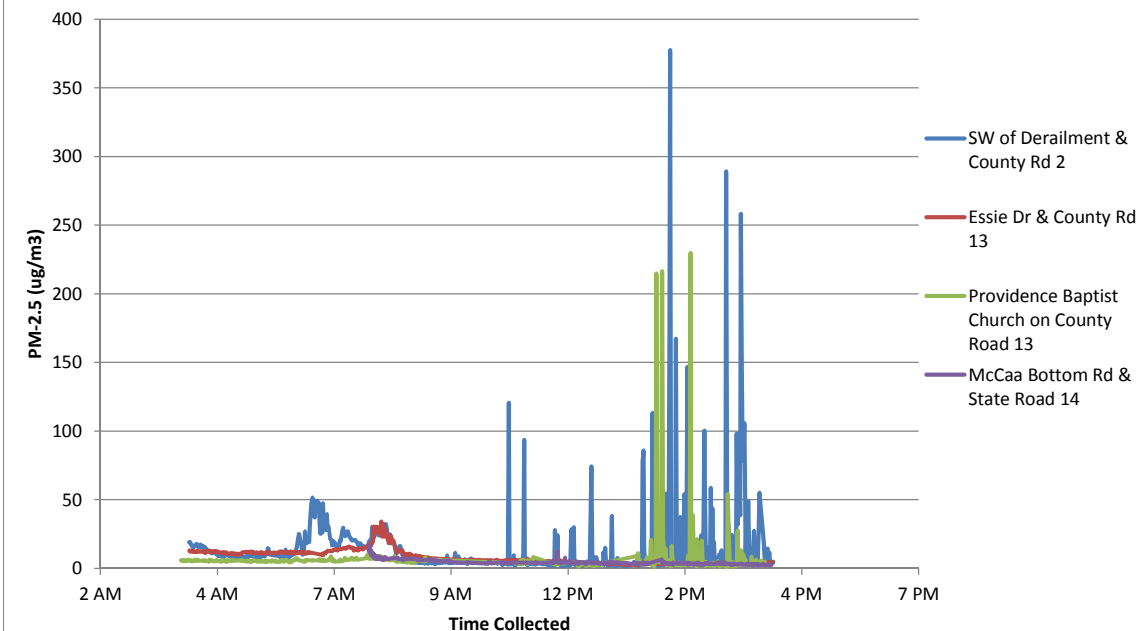
VOC Volatile organic compounds

## Air Monitoring Summary Charts

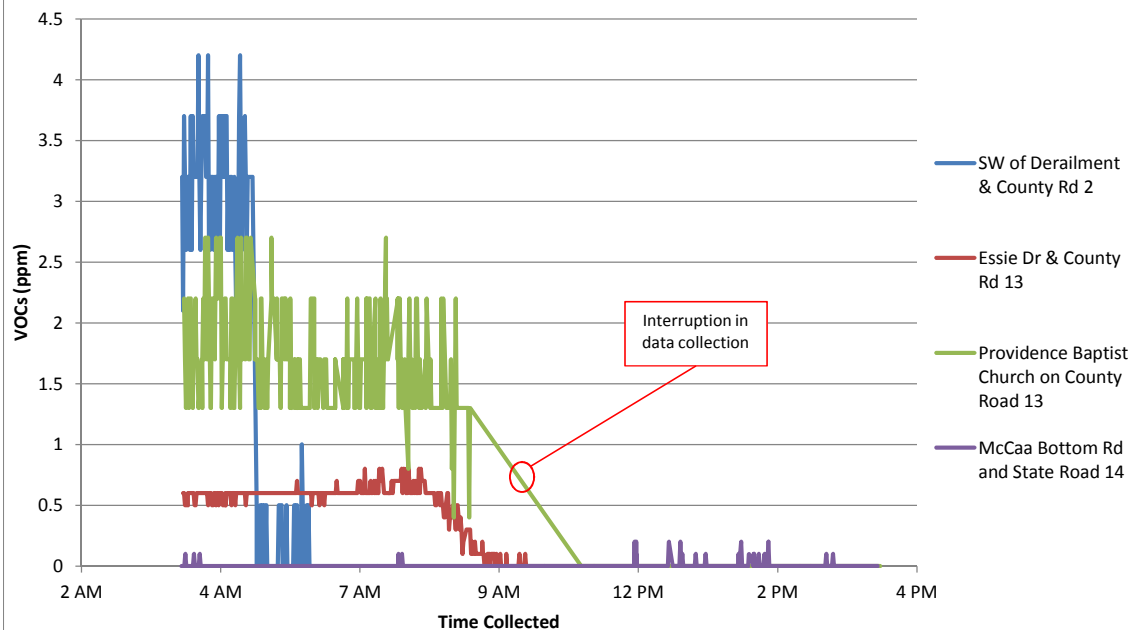
The charts below summarize EPA monitoring data collected throughout 11/11 day.



**DataRam Instantaneous PM-2.5 Values  
11/11 day**



**AreaRae Instantaneous VOC Values  
11/11 day**



# Air Monitoring Summary Tables

The table below summarize monitoring data collected on using EPA's Viper wireless remote monitoring system.



**Project Name:** Aliceville Train Derailment

**Date:** 11/11/2013 to 11/12/13

**Time:** 4:30 p.m. - 4:30 a.m.

SW of Derailment & County Road 2						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Most Recent 8 hour TWA <sup>d</sup>
Area Rae (.134)	VOCs	722	0	0	0 - 0 ppm	0
Data Ram (.228)	PM-2.5	721	721	0	2.6 - 162.6 ug/m3	6.626142

Essie Drive & County Road 13						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Most Recent 8 hour TWA <sup>d</sup>
Area Rae (.229)	VOCs	720	581	0	0 - 0.4 ppm	0.225031
Data Ram (.227)	PM-2.5	720	720	0	4.1 - 30.9 ug/m3	7.012653

Providence Baptist Church on County Road 13						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Most Recent 8 hour TWA <sup>d</sup>
Area Rae (.230)	VOCs	723	508	0	0 - 2.7 ppm	1.216913
Data Ram (.140)	PM-2.5	604	604	0	2.1 - 272.6 ug/m3	9.578872

McCaa Bottom Road and State Road 14						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Most Recent 8 hour TWA <sup>d</sup>
Area Rae (.135)	VOCs	729	2	0	0 - 0.2 ppm	0
Data Ram (.139)	PM-2.5	729	729	0	2.4 - 16.1 ug/m3	11.179281

Notes:

a Values recorded by the instrument

b Values at or above the instrument's detection limits

AreaRae VOC	0.1 ppm
DataRam	0.1 ug/m3

c 1-hour TWA values at or above the 1-hour TWA Alarm Level

AreaRae VOC	5 ppm
DataRam	200 ug/m3

d Monitoring period was approximately 12 hours, the final 8-hour TWA is displayed

< Less than

PM-2.5 Particulate matter with an average diameter less than 2.5 microns

ppm Parts per million

ug/m3 micrograms per cubic meter

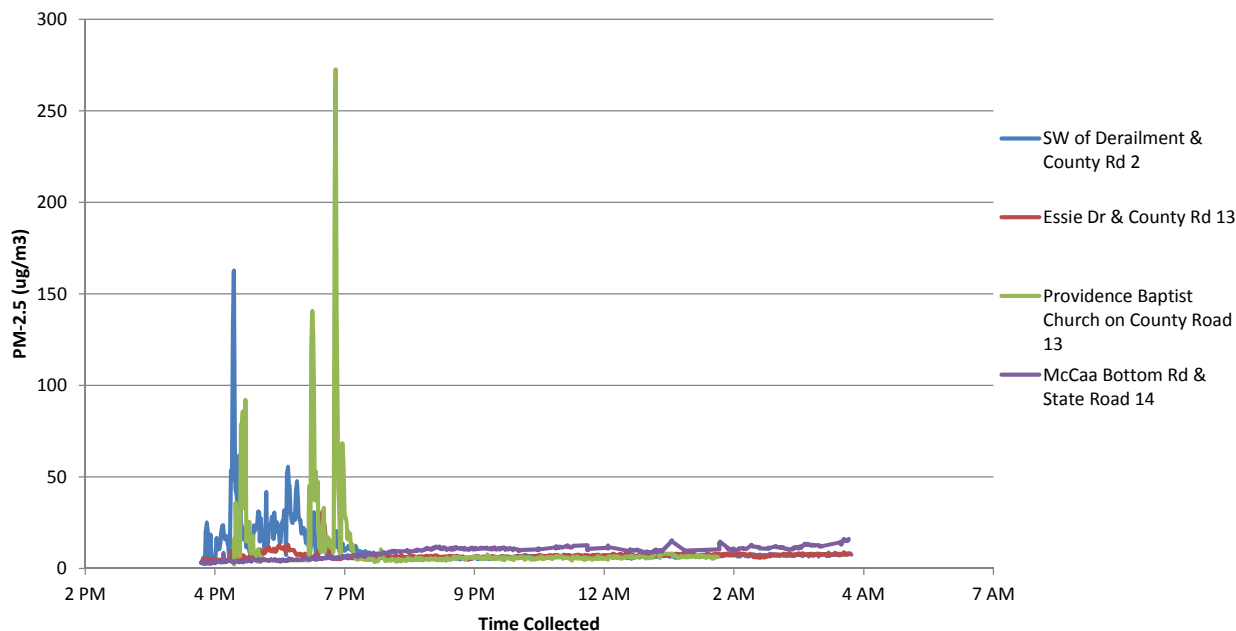
VOC Volatile organic compounds

## Air Monitoring Summary Charts

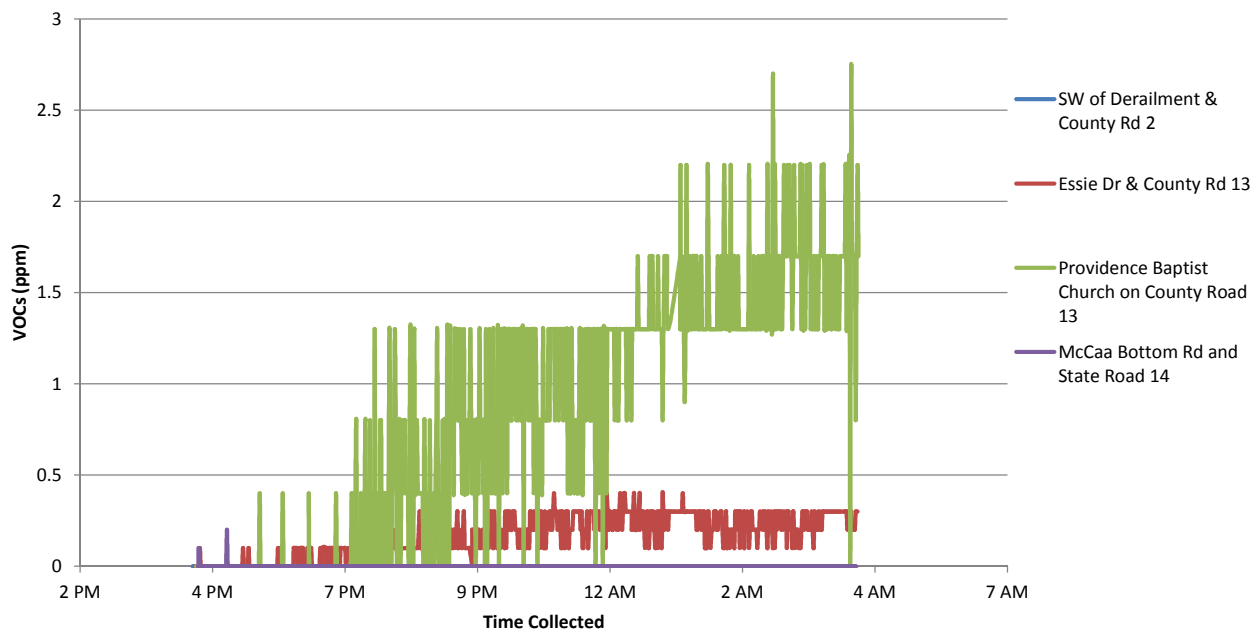
The charts below summarize EPA monitoring data collected throughout 11/11 night.



**DataRam Instantaneous PM-2.5 Values  
11/11 night**



**AreaRae Instantaneous VOC Values  
11/11 night**



# Air Monitoring Summary Tables

The table below summarize monitoring data collected on using EPA's Viper wireless remote monitoring system.



**Project Name:** Aliceville Train Derailment

**Date:** November 12, 2013

**Time:** 4:00 a.m. - 4:00 p.m.

SW of Derailment & County Road 2						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Most Recent 8-hour TWA <sup>d</sup>
Area Rae (.134)	VOCs	541	46	0	0 - 1.6 ppm	0.064965
Data Ram (.228)	PM-2.5	525	525	0	2.7 - 191 ug/m3	11.375993

Essie Drive & County Road 13						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Most Recent 8-hour TWA <sup>d</sup>
Area Rae (.229)	VOCs	723	300	0	0 - 0.5 ppm	0.01376
Data Ram (.227)	PM-2.5	721	721	0	2.7 - 16.8 ug/m3	6.176601

Providence Baptist Church on County Road 13						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Most Recent 8-hour TWA <sup>d</sup>
Area Rae (.230)	VOCs	601	282	0	0 - 2.2 ppm	0.417306
Data Ram (.140)	PM-2.5	663	663	0	1.3 - 88 ug/m3	10.361045

McCaa Bottom Road and State Road 14						
Instrument (Linc #)	Analyte	Number of Readings <sup>a</sup>	Number of Detections <sup>b</sup>	Number of 1-hour TWA Exceedances <sup>c</sup>	Concentration Range	Most Recent 8-hour TWA <sup>d</sup>
Area Rae (.135)	VOCs	729	0	0	0 - 0 ppm	0
Data Ram (.139)	PM-2.5	342	342	0	12 - 243.3 ug/m3	33.350837

Notes:

a Values recorded by the instrument

b Values at or above the instrument's detection limits

AreaRae VOC	0.1 ppm
DataRam	0.1 ug/m3

c 1-hour TWA values at or above the 1-hour TWA Alarm Level

AreaRae VOC	5 ppm
DataRam	200 ug/m3

d Monitoring period was approximately 12 hours, the final 8-hour TWA is displayed

< Less than

PM-2.5 Particulate matter with an average diameter less than 2.5 microns

ppm Parts per million

ug/m3 micrograms per cubic meter

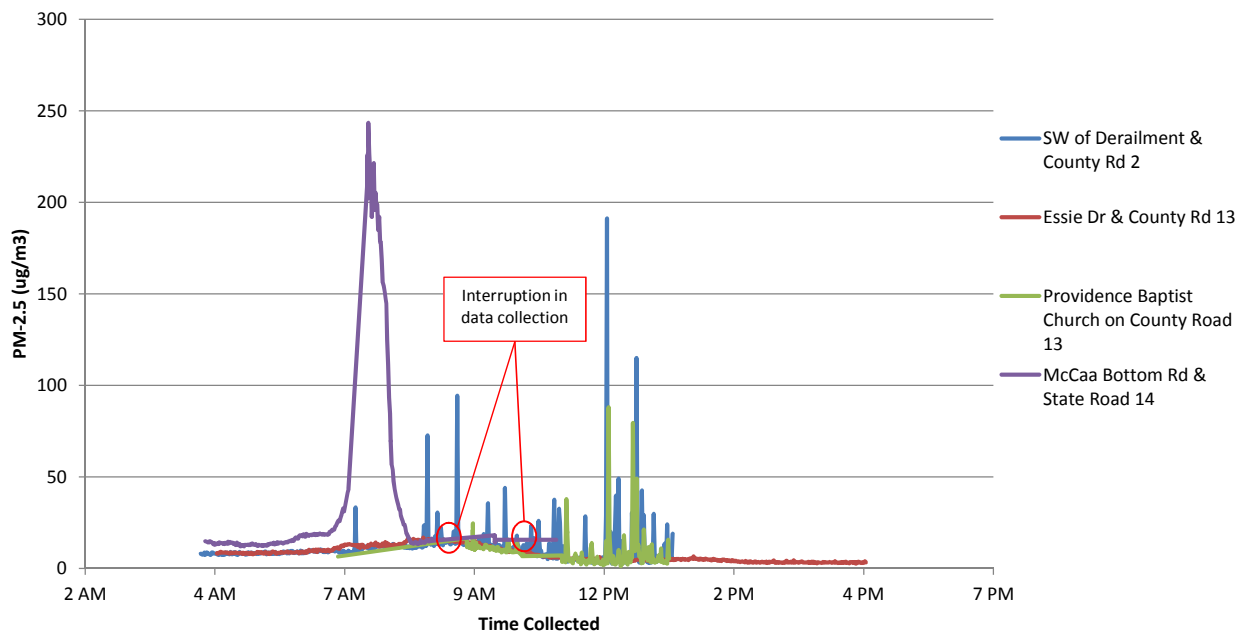
VOC Volatile organic compounds

## Air Monitoring Summary Charts

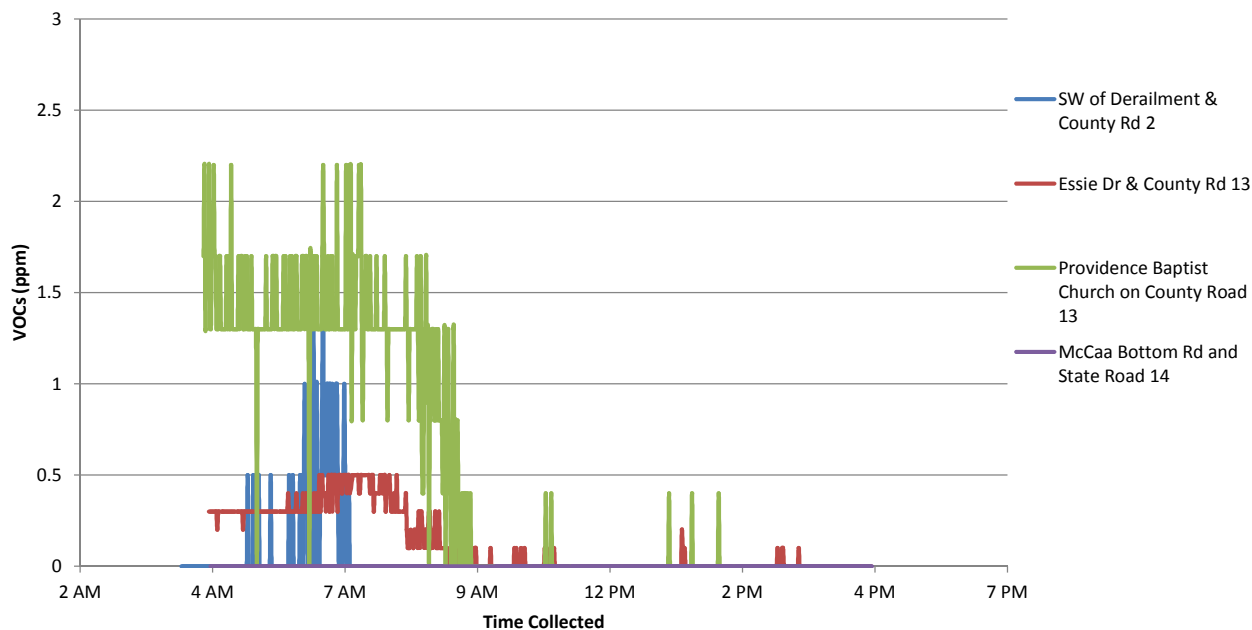
The charts below summarize EPA monitoring data collected throughout 11/12 day.



### DataRam Instantaneous PM-2.5 Values 11/12 day



### AreaRae Instantaneous VOC Values 11/12 day





**ENCLOSURE 4**

**TETRA TECH FIELD LOGBOOK NOTES**

(11 Pages)

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# TTEMI-05-002-0023

## Aliceville Train Derailment Emergency Response



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ALL-WEATHER  
**UNIVERSAL**

Nº 371

November 08, 2013  
to  
November 15, 2013

Name \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_

Project \_\_\_\_\_

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	START Brian Croft	
	START Amber Skiles	
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	EPA	
	GW	
	CTEH	
	Corman	
	USCG	
	ADEM	
	RP	00538
	B+P	
	USES	
	FRA	
	DOT	

LEGAL DOCUMENT  
DO NOT DESTROY



11/8/2013

Aliceville Derailment

D. Fung

0600 EPA notified TE of a derailment near Aliceville, AL west of Tuscaloosa, AL.

- START Craft & Skiles from Atlanta mobilized & START Fung from Birmingham, AL mobilized
- Background: at 11:30PM on Thursday 11/7/2013 a G&W train composed of 90 railcars derailed when a trestle collapsed. 12-14 railcars were derailed & 3-4 cars are burning.

Local hazard, Fire & Rescue arrived on site at 2 AM 11/8/2013. All 90 cars were <sup>DEF</sup> contained US High Sweet <sup>DDP</sup> ~~Grade~~ Clearbrook (UHC) Crude oil.

- EPA arrived on site the morning of 11/8/2013 and START arrived around 1230 the same day. Viper air monitoring was setup at down wind locations (3 stations)

- o Essie Drive & County Road 13  
33.08258, -88.15853
- o SW of Derailment & County Road 2  
33.08268, -88.14256
- o W of Derailment & County Road 2  
33.08347, -88.14311

Scale: 1 square = \_\_\_\_\_

BSC 11/8/13

11/8/2013

Aliceville Derailment

D. Fung

- CTEH max PM<sub>2.5</sub> between 11/8/2013 900AM to 11/9/2013 3:42AM was 0.124 mg/m<sup>3</sup> [Action level = 0.15 mg/m<sup>3</sup>] in the community.
- CTEH max VOC between 11/8/2013 17:11 to 11/9/2013 04:41 AM <sup>DDP</sup> was 0.1 ppm [Action level = 10 ppm] at the staging area
- EPA data showed no 1-hr TWA exceedances for VOCs or PM<sub>2.5</sub> between 7:40PM & 4:02AM 11/8/2013 - 11/9/2013.
- AT SW of Derailment location, EPA's DataRAM showed PM<sub>2.5</sub> levels above 0.150 mg/m<sup>3</sup> for about 30 mins (instantaneous readings) & for about 3 min at the Essie Dr. & County Road 13
- 1930 EPA & TE START left site for the hotel in West Point, MS.

2030 Arrived at hotel in West Point.

### LIST OF RESPONDING ORGANIZATIONS

- |   |                   |
|---|-------------------|
| - RJ Corman (wrecking)                    | - EPA             |
| - USES (wrecking)                         | - ADEM            |
| - CTEH (air monitoring)                   | - Pickens Co. EMA |
| - Enviro Science (environmental sampling) | - AL EMA          |
| - B & P Emergency Response                | - FRA             |
| - CSX (consultant)                        | - FBI             |
| - G&W Railroad                            | - NTSB            |

Scale: 1 square = \_\_\_\_\_

BSC 11/8/13

Rite in the Rain

11/8/2013

Altoeville Derailment

D. Fung

- CTEH is monitoring for
  - VOCs
  - $\text{NO}_2$
  - $\text{PM}_{2.5}$
  - Benzene
  - $\text{SO}_2$
  - Toluene
  - $\text{H}_2\text{S}$
  - Xylene
  - CO
- ~~RT~~ USES allowed rail cars to burn instead of trying to extinguish due to hazards with possible over pressuring the cars. They also deployed booms in the slough to contain the sweet crude that was released. Reports state that no oil has escaped the slough. Non-derailed cars were moved out of the way.
- RT Corman crews were mobilizing resources.

D. Fung

Scale: 1 square = \_\_\_\_\_

11/9/2013

Altoeville Derailment

0600 START Fung, Croft, & Skiles arrived on site with OSL Jordan Gannard.

Attended morning H&S briefing conducted by lead supervisors. EPA set out new air location at McCaa Bottom Rd & SR 14.

1- AreaRAE was placed at this location.

◦ McCaa Bottom Rd & SR 14

33.10611, -88.14345

1340 START Fung, Croft, & Skiles completed maintenance of all Viper stations after additional equipment came from Atlanta.

- Wrecking crews continue to move railcars

- Oil recovery crews are working in the slough using trash pumps to wash oil to collection point and using a mop line to soak up the 1st layer.

1700 Additional START H. Mayoral & C. Jones  
Two Coast Guard personnel arrived on site  
Night ops will be conducted tonight (24hr)  
Briefed START Mayoral on current VIPER set up and showed START C. Jones where actual instruments were set up.  
1900 START B. Croft and C. Jones relocated Data RAM and AreaRAE from 'West

Scale: 1 square = BSC w/ 2/13

*Rite in the Rain*



11/9/2013

~~at derailment~~ Aliceville Derailment  
of derailment & County Rd 2' site to  
new location (33.07112, -88.1412) at  
Providence Baptist Church on County  
Rd 13. Batteries at all locations  
without powerbacks were changed  
out.

2000 START B. Croft, D. Fung and A. Skiles  
left site to go to hotel. START C. Jones  
and H. Mayoral were given objectives  
to troubleshoot issues with VIPER  
at Providence Church location.

Gateway was changed and power-  
back on LINC 140 was changed out.

2200 START C. Jones troubleshoots VIPER  
Setup at McCaa Bottom Road & State  
Rd. 14.

2300 START H. Mayoral and C. Jones  
investigate high particulate readings  
at 'SW of Derailment & County Rd 2'  
Site. Suspected high humidity, —  
installed heaters at 'SW of —  
derailment & County Rd 2' site, and ~~at~~  
'Essie Drive & County 13' site, ~~and~~

11/9/2013

Scale: 1 square =

H. Mayoral

11/10/2013 Aliceville Derailment

0100 Change out of batteries and  
installation of heater on Data  
ARM located at 'Providence  
Baptist Church location.' —

0115 START C. Jones and H. Mayoral  
to McCaa site to change  
batteries on Lincs & AREALDES  
Temporarily shut off Lincs. —

0125 Changed batteries at SW site  
and topped off generator with  
fuel. Temporary shut off of Lincs.

0140 Topped off generator with fuel  
at Church site.

0155 Topped off fuel at Essie site,  
generator.

0245 START H. MAYORAL and C. Jones leave  
Site for fuel and transit to hotel.

0400 START C. Jones & H. Mayoral arrive  
at hotel.

H. Mayoral

Scale: 1 square =

Rite in the Rain.

11/10/2013 Aliceville Derailment D. Fung  
0600 on site w/ START Craft, Stokes, & Fung.

Attended H8 meeting that discussed hazards with operators. Slips, trips, & falls along with heavy equipment wrecking.

- Viper equipment stations are all up and running.

0730 START Fung stationed at the South end of the derailment to observe activities.

• Oil recovery is not occurring

• Crews are cooling down the cws with water from the slough area.

• CTEH is conducting air monitoring for Benzene (tubes mounted in RAE3000)

- PM2.5 with AMS10 Dust Tracker

- VOL using multiRAE PID

Action levels in worker zones are

• 50 ppm VOL

• 2 mg/m<sup>3</sup> for PM2.5

• Any detections on benzene

0845 CTEH placed passive filters on workers for benzene & VOL analysis in the lab.

0900 CTEH VOL around the railcar range 28-36 ppm. Benzene non-detected.

1100 South end crews have laid out hose, fire retardant foam, pump. The water source

11/10/13

Aliceville Derailment

high rail truck is down for maintenance.

### LATE NOTES:

0845 - calibrated AccuRAE for VOCs @ <sup>provident creek location</sup>  
got Viper Line's/Gateway back up and running (air card issues)

0930 installed new backup battery for McCaa Bottom Gateway - restarted Line's/Gateway - up & running

0950 attempted to access Lubbub Creek from McCaa Bottom Road to assess impacts of oil @ Lubbub Creek confluence of tributary from derailment area - could not access due to private property/gate restrictions.

1020 @ boat ramp located @ western end of county road 13 - no signs of oil in creek

1040 no signs of oil observed @ tributary where it crosses through culvert beneath county road 2

1200 begin maintenance loop of Viper & air monitoring equipment

1430 Viper maintenance complete



11/10/2013 Aliceville Derailment

1600 STARTS C. Jones & H. Mayoral arrive on site for night shift. STARTS B. Croft, Amber Skiles & D. Fung brief them on daytime operations. STARTS C. Jones & H. Mayoral observe site of derailment fire to take pictures for documentation.

1830 STARTS D. Fung, B. Croft & A. Skiles offsite. STARTS C. Jones to Providence Baptist Church site to troubleshoot VIPER issues for LINC 140 - DataRAM. LINC reset and came back online. Gateway 29 needs to be flagged/checked to ensure battery is functional and takes a charge.

1945 START C. Jones removes DataRAM from McCaa site (LINC 139) to charge. Will be reconnected after fully charged.

2020 Changed batteries at McCaa site and SW location. Fresh air calibration for AreaRAE at McCaa Site (LINC 136).

2100 Generators topped off with gas.

2230 START C. Jones to troubleshoot

Scale: 1 square = \_\_\_\_\_

11/10/2013 HMN

11/10/2013

Church ~~Site~~  
DataRAM at Essie Drive site,  
and at Essie Drive.

~~STARTS~~ 11/10/2013 H. Mayoral

11/11/2013 Aliceville Derailment

0100 STARTS C. Jones & H. Mayoral troubleshoot VIPER/Linc issues at Church site (LINC 140, DataRAM).

0200 Photodocumentation of derailment area.

0230 Refill generators at each monitoring site with gas.

~~0330 STARTS C. Jones & H. Mayoral offsite to refill gas containers in preparation of daytime operations.~~

0430 Changed batteries at monitoring location(s) on battery power (McCaa site) on Lincs & AreaRAE. Issues with reconnecting LINC 139 DataRAM at McCaa Site.

Tested cable from link to AreaRAE (changed out with different cable from another instrument), no change - still did not work, LINC would not reconnect. Changed

Scale: 1 square = \_\_\_\_\_

11/11/2013  
Rate in the Rain  
HMN



11/11/2013 Aliceville Derailment

batteries, still would not connect.

0600 START Craft & Skiles onsite

- attend morning safety briefing

0730 START Skiles to McCaa Bottom location

to troubleshoot Viper issues w/ Lines

139 (Data RAM) & 140 (Area RAE)

- returned to service, but apparent issues w/ Gateway / aircard connectivity

0830 START Skiles performing refueling of generators @ air monitoring locations

1000 START Craft & Skiles to Providence Church

location for Viper maintenance (also McCaa Bottom) & both locations having issues w/ Gateway / aircard connectivity

1300 <sup>on</sup> ~~part~~ installed different VZW aircard in Gateway 29 @ Providence Church to try to re-establish connectivity - data transmission restored

1345 installed different VZW aircard in Gateway 85 @ McCaa Bottom location

- data transmission restored (note: VZW aircard currently @ this location is the one that was previously used @ Providence Church location

7  
BSC 11/11/13

Scale: 1 square = \_\_\_\_\_

11/11/13 Aliceville Derailment

1545 begin round of Viper maintenance (battery swap, fuel generator)

1615 Viper maintenance complete

1700 additional maintenance of Viper @ Providence

Church - switched Linc's for both DataRAM

& Area RAE off/on - data transmission returned

1730 STARTS C. Jones & H. Mayoral on site, briefed on daytime operations.

1800 START C. Jones to Church site to troubleshoot Linc 140 - DataRAM. Lincs were restarted, as well as Gateway 29 - all connections made.

2240 STARTS C. Jones & H. Mayoral to McCaa site to troubleshoot issues with Linc 139 - DataRAM. Restarted Linc and it reconnected albeit momentarily.

Changed battery in Linc and switched out Gateway air card - reconnection established. Note!

Linc 139 seems to have issues with connecting to WiFi given troubleshooting results. Antennae were also repositioned for / with Gateway antennae.

11/11/2013 HMM  
Hite in the Rain

Scale: 1 square = \_\_\_\_\_

## 11/11/2013 Aliceville Derailment

2330 Issues with Linc 139 continue, C. Jones & H. Mayoral return to McCaa site to try troubleshooting. Changed antenna & seemed to solve issue. No. Still only temporary connection made.

o ~~11/11/2013 Mayoral~~

## 11/12/2013 Aliceville Derailment

0030 STARTS C. Jones & H. Mayoral change out batteries and top off generators with gas. Went off-site to refill gas tanks at store.

0145 C. Jones and H. Mayoral to McCaa street for final troubleshooting attempt at Linc 139 and then offsite for return trip to hotel.

0600 STARTS Croft & Skiles onsite

- attend morning safety briefing

AS  
0600

0630 STARTS Skiles leaves to fill generators & change batteries.

0645 Skiles fills gas cans at store.

0700 Skiles leaves with EPA Kevin & Steve to scout extent of contamination.

Scale: 1 square = \_\_\_\_\_ BSC 11/10/13

11/11/13  
11/11/13  
11/11/13

## Aliceville Derailment

in main creek channel east of derailment

8:10 Skiles returns to staging area

1320 begin taking down Viper air monitoring

Lines/Gateways - setting up Mongoose RAE equipment/transmitter

- spent significant time (~4-5 hrs) trying to troubleshoot Mongoose

- got SW location up & running (approx 4,300 ft)

- tried to get Providence Church up and online w/ RAE Link 3 as repeater - unsuccessful

- could only get data from a location approx. 1/4-mile beyond SW location along county-road 2

1800 bring air monitoring equipment in from locations

- will deploy Area RAEs & Data RAEs @ locations in morning to monitor during transfer ops scheduled to begin tomorrow

1900 START Croft & Skiles offsite

BSC 11/11/13

Scale: 1 square = \_\_\_\_\_

*Plot in the Rain*



11/13/13 Aliceville Derailed

- 0600 START Craft & Skiles onsite  
 0730 begin deploying AreaRAE & DataRAM units for local logging only  
 - transfer ops will begin this morning  
 0830 local logging equipment deployed & running  
 1330 transfer ops begin on railcar along east side of tracks ("in the hole")  
 1630 begin retrieving AreaRAE/DataRAM units & download data  
 1900 START offsite

BSC 11/13/13

Scale: 1 square = \_\_\_\_\_

11/14/13 Aliceville Derailed

- 0600 START Craft & Skiles onsite  
 - continue transfer ops ??  
 - begin rebuilding rail line  
 - mechanical recovery w/ skimmers to begin  
 0730 begin deploying AreaRAE & DataRAM units for local logging only  
 0830 local logging equipment deployed  
 1000 USES begun using mechanical recovery equipment (boom skimmers) on west side of rail near northern end of derailment to recover oil - using booms & water spray to push material to collection area  
 1400 boom skimmers in place & operating @ both east & west side of rail line - having issues w/ vac trucks (still close to empty)  
 1630 begin retrieving AreaRAE/DataRAM units for download  
 1840 START Craft/Skiles offsite

BSC 11/14/13

Scale: 1 square = \_\_\_\_\_

Rite in the Rain

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u/15/13

BSC

Scale: 1 square = \_\_\_\_\_

End of Log Book

BSC u/15/13

Scale: 1 square = \_\_\_\_\_

Rite in the Rain

**ENCLOSURE 5**

**CLEAN WATER ACT 311 INCIDENT DOCUMENTATION**

(7 Pages)

## **311: 20 Questions**

- 1) Provide the time and date of oil or hazardous substance discharge, and the time and date of discovery that the discharge was reaching or threatening a waterway.

*Derailment occurred during the early morning hours of November 8, 2013. According to NRC Incident Report No. 1065206, the incident involved the derailment of railcars containing crude oil directly into a wetland slough located on both sides of the rail line.*

- 2) The time and date of the response to the discharge by EPA, START, and the PRP if applicable. Provide the name(s) of any contractor(s) employed.

*The PRP (Gennessee and Wyoming Rail [G&W]) notified the NRC at approximately 0125 hours on November 8, 2013. G&W subsequently mobilized personnel and contractors (RJ Corman, USES, B&P Enterprises, CTEH, SWS Enterprises) to support cleanup efforts. EPA and Tetra Tech START mobilized to the site on the morning of November 8, 2013.*

*G&W owns the Alabama and Gulf Coast Railway (Monroeville, Alabama)*

- 3) The type of discharge (oil or hazardous substances), the type of oil or the chemical name and formula, the total amount of discharge in gallons, barrels, pounds, or kilograms; and the total number of days of discharge. If the solution discharged was a mixture, please give the percentages of substances in the mixture or solution.

*Discharge involved the release of US. High Sweet Clearbrook (UHC) Crude Oil en route from Amory, Mississippi to Walnut Hill, Florida. The quantity of oil actually discharged was unknown, but estimates indicated that approximately 26 railcars containing crude were derailed.*

- 4) The location of the discharge including street address, city, county, and state.

*The derailment occurred at railroad milepost 683 located approximately two miles south of Aliceville, Pickens County, Alabama (along County Road 2). Geographic coordinates are 33.08833 degrees north and 88.141826 degrees west.*

- 5) The description of the facility or vessel from which the material was discharged (i.e. pipeline, tank, well, ship, container, etc.).

*A freight train with a total of 90 railcars containing crude oil, approximately 26 of which were involved in the derailment.*

- 6) The total storage capacity (gallons, barrels, pounds, kilograms, etc.) of the facility or vessel responsible for the discharge.

*A typical rail car used to transport oil is capable of holding approximately 30,000 gallons of oil (714 barrels). The number of cars involved in the derailment is approximately 26; however the number of leaking cars and how much each discharged is unknown.*

- 7) Did the oil or hazardous substances discharge into water?

*Yes*

- a. Please indicate the location, in relation to the facility or vessel responsible for the discharge, of the first water reached.

*The spill discharged into a wetland slough located on both sides of the rail line; site reconnaissance performed during response indicated that oil did not migrate out of the wetland slough.*

- b. If not already in water, what is the distance between the source of discharge and the nearest water body?

*Train cars derailed directly into water (wetland slough)*

- c. Give the quantity of oil or hazardous substances reaching the water.

*Unknown – approximately 26 railcars involved in the derailment.*

- d. Give the quantity of oil or hazardous substances that did not reach the water.

*Unknown - train was reportedly hauling a total of 90 railcars that contained crude oil; approximately 26 of the 90 were involved in the derailment.*

- e. Describe the type of waterway affected (i.e. mudflat, sandflat, wetland, ditch, creek, bayou, tributary, stream, river, lake, etc.). Give the name of the waterway and bodies of water to which it connects.

*The spill discharged into a wetland slough located on both sides of the rail line; during high rain events, the wetland slough discharges into intermittent tributaries of Lubbub Creek, which is located approximately 1 mile to the west of the derailment. Lubbub Creek discharges into the Tombigbee River, which is located approximately 3.5-miles to the southwest of the derailment.*

- f. Provide a physical description of the receiving waters, including depth, width, and flow rate.

*Wetland slough ranged in depth from a few inches to more than 4 feet; width was variable, but wetland slough covers multiple acres; flow rate was not applicable during response activities (during high water, the wetland slough empties into tributaries of Lubbub Creek).*

- g. Indicate if any of the water bodies or connecting water bodies, as described above, are used for commerce, recreation, agriculture, etc.

*The Tombigbee River is used for recreational and commercial purposes*

- h. List any sensitive environments (i.e. wetlands), endangered species, water wells and/or drinking water intakes impacted or potentially impacted by the discharge.

*The Tombigbee River is home to at least two species of endangered mussels – Flat pigtoe (*Pleurobema marshalli*) and Heavy pigtoe (*Pleurobema taitianum*)*

- 8) Document how this spill violated the Clean Water Act.

*A release of crude oil reached a wetland slough that is a tributary of a navigable water way (Lubbub Creek and Tombigbee River).*

- 9) Describe in detail what actually caused the discharge.



*A train derailment involving railcars containing crude oil occurred at milepost 683. As a result of the derailment, crude oil was released into the wetland slough along both sides of the rail line.*

- 10) Describe the damage to public health and the environment as a result of the spill. How many feet, miles, etc., of land and water were affected by the discharge? Was there observed damage to the terrestrial and aquatic biota and vegetation? Were any drinking water intakes forced to close? Were any persons required to evacuate? If yes, describe the damage.

*Crude oil was discharged directly into a wetland slough along both sides of the rail line. Multiple acres of the wetland slough were impacted by the discharge.*

- 11) Describe the procedures taken to clean up the discharge and to mitigate the environmental damage and public health threats. Include dates and times for the individual procedures.

*Containment booms and absorbent materials were deployed to corral the discharge within the wetland slough. Manual and mechanical recovery techniques were used during response activities, including drum skimmers that were deployed beginning November 14, 2013.*

*G&W contractors and EPA and Tetra Tech START conducted air monitoring at the derailment site and in surrounding communities during response activities to monitor potential threats to public health.*

- 12) List the federal and state agencies contacted by the owner or operator at the time of the discharge. Also include the agency's location (mailing address, city, county and state), the date and time of notification, and the name of the official contacted.

*The NRC was contacted by G&W personnel at 0125 hours on the morning of November 08, 2013. The incident report number is 1065206.*

- 13) State whether an SPCC inspection was conducted and describe any findings.

*N/A- not a fixed facility*

- 14) Document the spill history of the facility and list the discharges which have occurred at this facility within the past five years using the following table.

*N/A – not a fixed facility*

- 15) Provide the name, title, home address, and home/work telephone number(s) of the owner(s) of the vessel or facility responsible for the discharge.

*Bill Jasper  
President  
Alabama & Gulf Coast Railway  
734 Hixon Road (Fountain)  
Monroeville, Alabama 36460  
Cell: (904) 596-1086  
Office: (800) 757-7387*

*Gennessee and Wyoming Rail - Southern Region  
13901 Sutton Park Drive S., Suite 175  
Jacksonville, FL 32224  
Office: (877) 220-9535*

- 16) Provide the name, title, home address, and home/work telephone number(s) of the operator(s) of the vessel or facility responsible for the discharge if different from the owner, and the relationship between the owner and operator (i.e. employee, contractor, subcontractor, lessee, etc.)

*Bill Jasper  
President  
Alabama & Gulf Coast Railway (owned by G&W)  
734 Hixon Road (Fountain)  
Monroeville, Alabama 36460  
Cell: (904) 596-1086  
Office: (800) 757-7387*

- 17) Provide the names, titles, home addresses, and home/work telephone numbers of the persons who have knowledge of the facts concerning the spill as an attachment to the report labeled "Table of Witnesses." Include EPA, State, and local officials, START/Strike Team members, other Federal agencies, the company, and the cleanup contractor in the table.

*See attached table*

- 18) Does the owner or operator have a National Pollutant Discharge Elimination System (NPDES) permit or any other discharge permit provided by the local, state, or federal government? If yes, name and describe the permit.

*N/A – Not a fixed facility*

19) Has the facility ever been assessed a fine for this incident or any other discharge by any other government entity (i.e. city, county, state, federal)? If yes, name the agency or agencies that have assessed a fine(s) on the facility or vessel, and the date(s) when the fine(s) was assessed.

*N/A – not a fixed facility*

20) Include the Federal Project Number on the title (cover) sheet of the incident summary report.

*FPN# E14410*

<b>Name</b>	<b>Title</b>	<b>Address</b>	<b>Office Number</b>	<b>Cell Number</b>
Bill Jasper	Alabama & Gulf Coast Railway (owned by G&W)	734 Hixon Road (Fountain) Monroeville, Alabama 36460	800-757-7387	904-596-1086
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Bo Lisenby	USCG GST			
Jamal Busby	ADEM	110 Vulcan Road Birmingham, AL 35209-4702	205-438-1080	205-942-6168
Brian Croft	EPA R4 START	1955 Evergreen Blvd. Building 200, Suite 300 Duluth, GA 30096	678-775-3080	206-300-0301
Chip Day	USES	15109 Heathrow Forest Pkwy #150 Houston, TX 77032		817-845-5912
Wesley Killingsworth	CTEH	5120 North Shore Boulevard Little Rock, AR 72118	501-801-8552	501-952-0343

**ENCLOSURE 6**  
**TABLE OF WITNESSES**  
(One Page)



**TABLE OF WITNESSES**  
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**ALICEVILLE, PICKENS COUNTY, ALABAMA**

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