

IEI Plastics Fire  
Parkersburg, WV  
Preliminary Air Monitoring Summary  
October 29, 2017

Prepared by  
Center for Toxicology and Environmental Health, L.L.C. (CTEH)  
On Behalf of Wood County



**Introduction**

On October 23, 2017 the Center for Toxicology and Environmental Health, LLC (CTEH) initiated air monitoring following a fire at the IEI Plastics facility in Parkersburg, WV. Real-time air monitoring consisted of roaming hand-held and fixed-location real-time air monitoring. Analytical sampling locations were also established for the collection of air samples to be analyzed at an offsite laboratory for asbestos, sulfur dioxide, volatile organic compounds (VOCs) and polycyclic aromatic hydrocarbons (PAHs). Appendix I contains incident site maps and closest available meteorological data. Real-time air monitoring and analytical sampling was concluded on October 29, 2017 because the IEI facility fire was determined to be contained. CTEH will produce a final report to the Wood County Commission after all results are compiled and standard data quality control/quality assurance measures are completed.

**Real-time Air Monitoring<sup>1</sup>**

Real-time air monitoring was conducted to document and quantify the potential release of hazardous compounds. All instrumentation was calibrated at least once per day or per manufacturer's recommendations. Target analytes were measured as total VOCs, acrolein, carbon monoxide, hydrogen cyanide, particulate matter (PM), and sulfur dioxide using handheld instruments, such as RAESystems<sup>®</sup> MultiRAE Plus/Pro instruments, TSI AM510 and DustTrak DRX aerosol/particle monitors, and Gastec colorimetric tubes.

Table 1, presented below, summarizes data for hand-held instruments.

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<sup>1</sup> Real-time air monitoring provides near instantaneous measurements for concentrations in air without the need for laboratory analysis.

*Table 1: Hand-held Real-time Air Monitoring Summary<sup>1</sup>  
October 28, 2017 07:00 to October 29, 2017 07:00*

Location Category	Analyte	Instrument	Number of Readings	Number of Detections	Range of Detections <sup>2</sup>
Community Exposure Monitoring	Acrolein	Gastec 93	1	0	< 2 ppm
	Carbon Monoxide	MultiRAE Pro	96	0	< 1 ppm
	Hydrogen Cyanide	Gastec 12L	1	0	< 0.1 ppm
	PM <sub>2.5</sub>	AM510	91	91	0.001 - 0.046 mg/m <sup>3</sup>
	Sulfur Dioxide	MultiRAE Pro	98	2	0.1 - 0.1 ppm
	VOCs	MultiRAE Pro	100	0	< 0.1 ppm

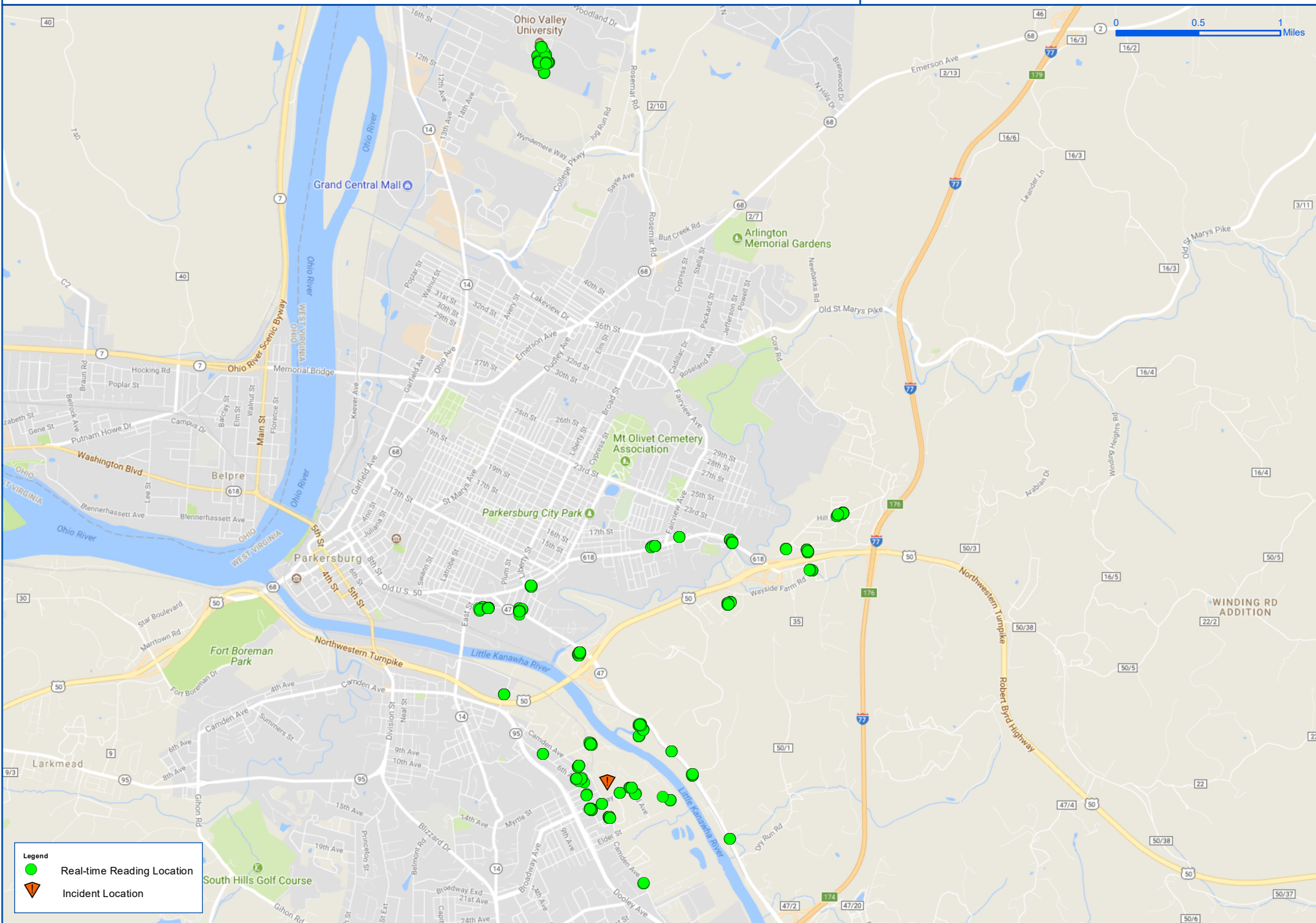
<sup>1</sup>Please Note: The data displayed in the above table has not undergone complete QC analysis and is presented in preliminary format.

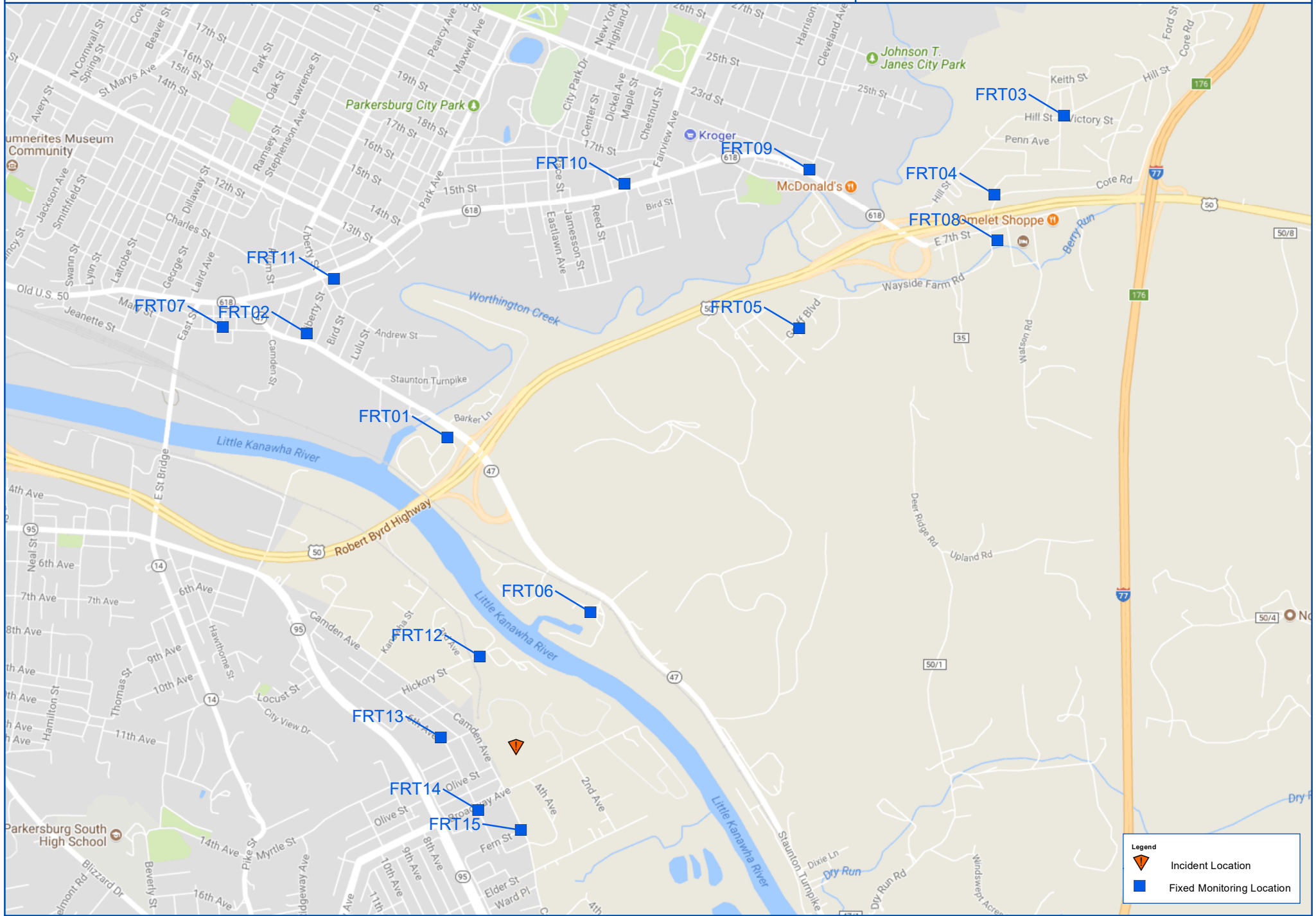
<sup>2</sup>Maximum detections preceded by the "<" symbol are considered non-detections at the limit of detection (LoD) value to the right.

<sup>3</sup>Sulfur Dioxide readings have not had the correction factor applied, a correction factor of 0.25 should be applied, showing a range of detections from 0.05 – 0.125 ppm, respectively.

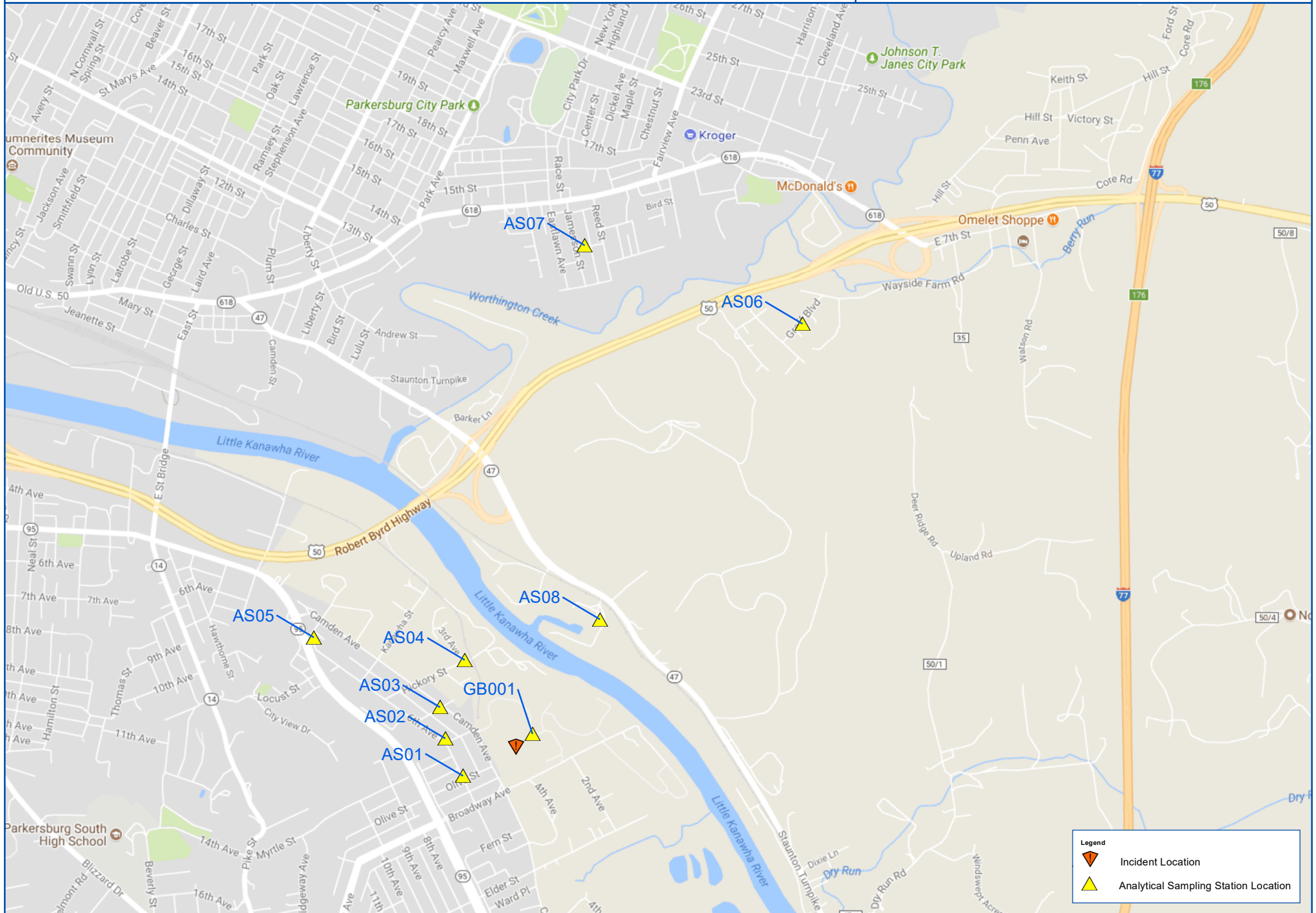
# Appendix I:

## Incident Site Maps and Meteorological Data



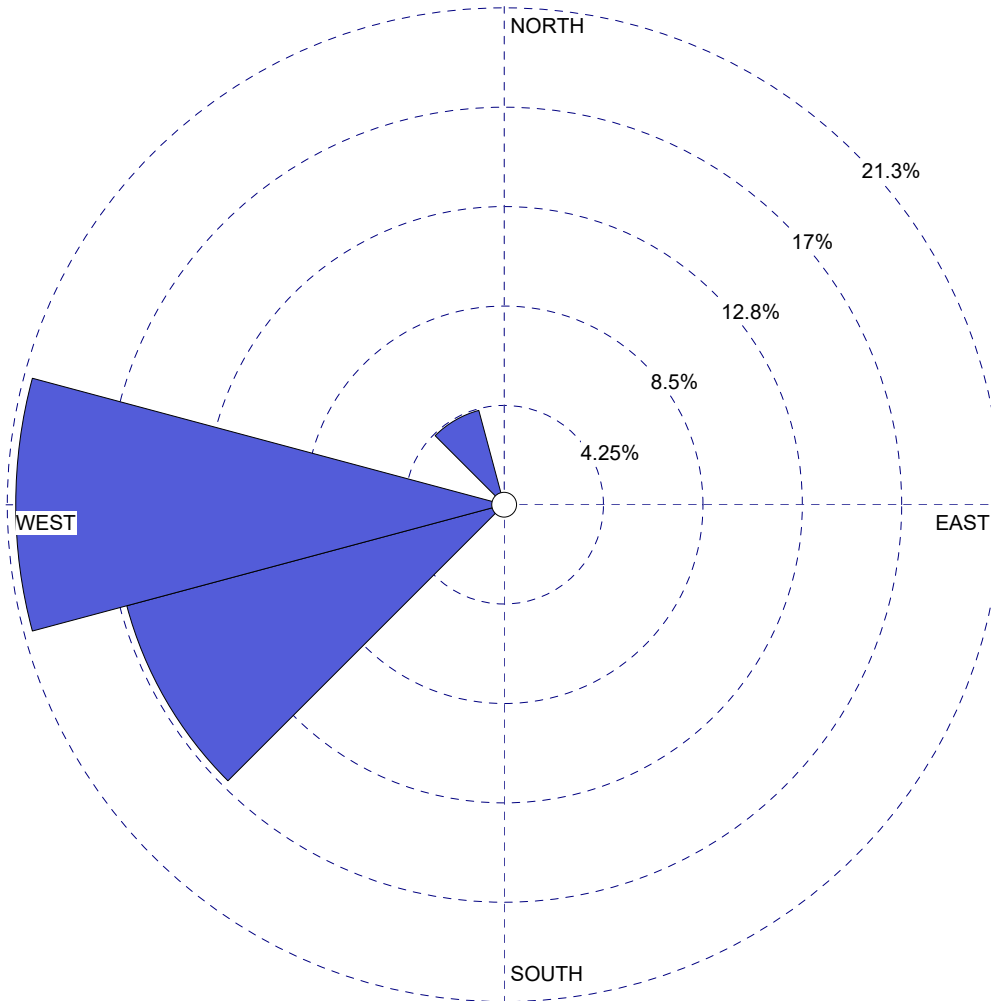






WIND ROSE PLOT:  
**Parkersburg, WV**


DISPLAY:  
**Wind Speed**  
**Direction (blowing from)**



**WIND SPEED**  
(Knots)

- $\geq 21.58$
- 17.11 - 21.58
- 11.08 - 17.11
- 7.00 - 11.08
- 4.08 - 7.00
- 0.97 - 4.08

Calms: 58.33%

COMMENTS:	DATA PERIOD:	COMPANY NAME:	
	<b>Start Date: 10/28/2017 - 00:00</b> <b>End Date: 10/28/2017 - 23:00</b>	MODELER:	
	CALM WINDS:	TOTAL COUNT:	
	<b>58.33%</b>	<b>24 hrs.</b>	
	AVG. WIND SPEED:	DATE:	PROJECT NO.:
	<b>0.75 Knots</b>	<b>10/29/2017</b>	<b>109708</b>