

IEI Plastics Facility Fire
Parkersburg, WV
Preliminary Air Monitoring Summary
October 26, 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 air monitoring. Analytical sampling locations were also established for the collection of air samples to be analyzed at an offsite laboratory. Appendix I contains incident site maps and closest available meteorological data.

Real-time Air Monitoring¹

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 volatile organic compounds (VOCs), acrolein, carbon monoxide, formaldehyde, hydrogen chloride, hydrogen cyanide, nitrogen dioxide, nitrogen oxide, particulate matter (PM and Total Dust), and sulfur dioxide using handheld instruments, such as RAESystems® 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.

*Table 1: Hand-held Real-time Air Monitoring Summary¹
October 25, 2017 07:00 to October 26, 2017 07:00*

| Location Category | Analyte | Instrument | Number of Readings | Number of Detections | Range of Detections ² |
|-------------------------------|-------------------|---------------|--------------------|----------------------|----------------------------------|
| Community Exposure Monitoring | Acrolein | Gastec 93 | 23 | 0 | < 2 ppm |
| | Carbon Monoxide | MultiRAE Plus | 22 | 0 | < 1 ppm |
| | Carbon Monoxide | MultiRAE Pro | 97 | 1 | 4 ppm |
| | Formaldehyde | Gastec 91L | 22 | 0 | < 0.05 ppm |
| | Formaldehyde | Gastec 91 | 1 | 0 | < 0.5 ppm |
| | Hydrogen Chloride | Gastec 14L | 27 | 0 | < 0.05 ppm |
| | Hydrogen Cyanide | Gastec 12L | 18 | 0 | < 0.1 ppm |
| | Nitrogen Dioxide | Gastec 9L | 30 | 0 | < 0.1 ppm |
| | Nitrogen Oxide | Gastec 10 | 18 | 0 | < 1 ppm |
| | PM10 | AM510 | 14 | 14 | 0.012 - 0.137 mg/m3 |
| | PM10 | DustTrak DRX | 1 | 1 | 0.073 mg/m3 |
| | PM2.5 | AM510 | 24 | 24 | 0 - 0.184 mg/m3 |
| | PM2.5 | DustTrak DRX | 58 | 58 | 0.001 - 0.442 mg/m3 |
| | Sulfur Dioxide | Gastec 5Lb | 8 | 0 | < 0.01 ppm |
| | Sulfur Dioxide | MultiRAE Plus | 22 | 0 | < 0.1 ppm |
| | Sulfur Dioxide | MultiRAE Pro | 77 | 0 | < 0.1 ppm |
| | VOCs | MultiRAE Plus | 20 | 0 | < 0.1 ppm |
| | VOCs | MultiRAE Pro | 97 | 1 | 0.1 ppm |

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

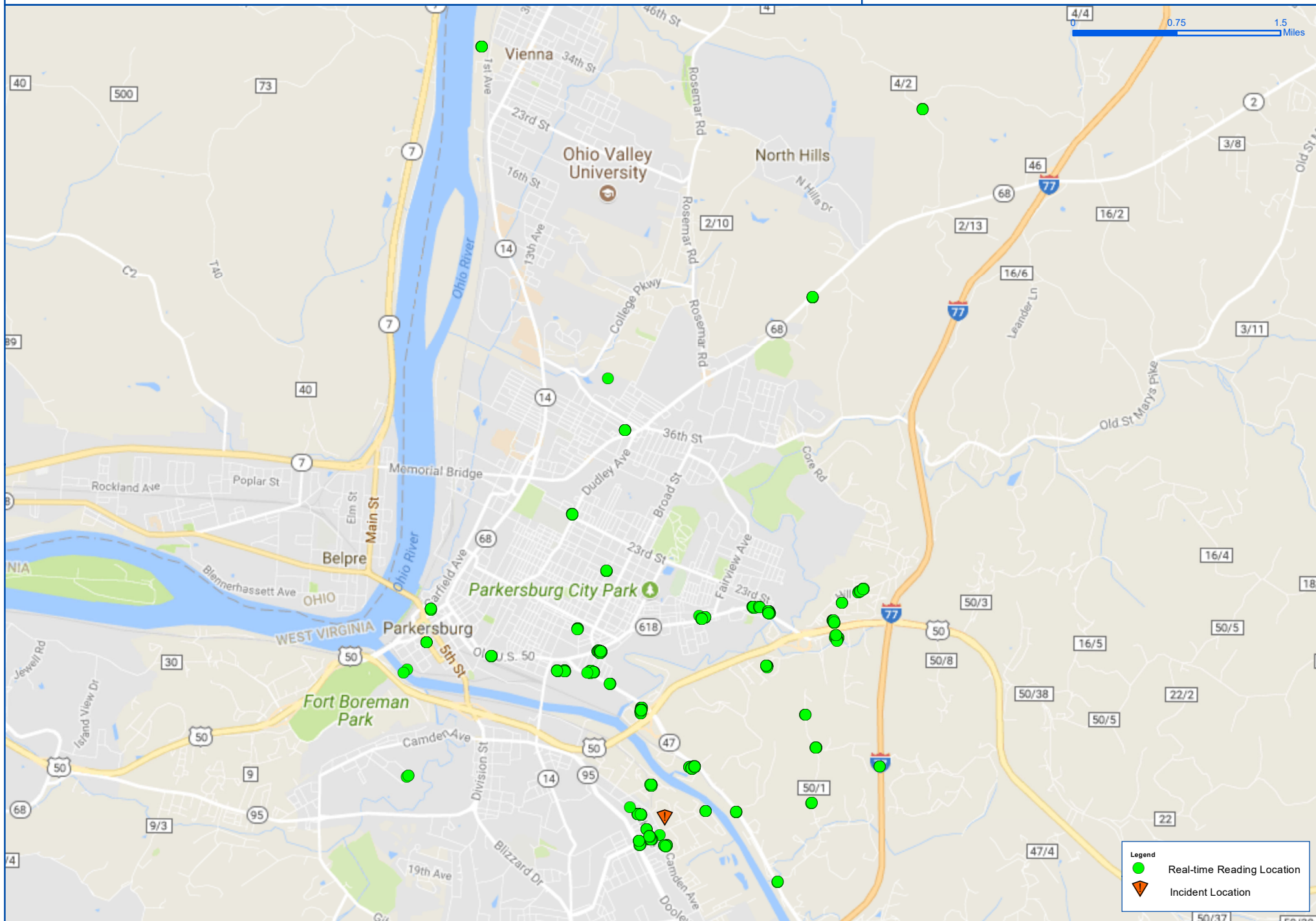
²Maximum detections preceded by the "<" symbol are considered non-detections at the limit of detection (LoD) value to the right.

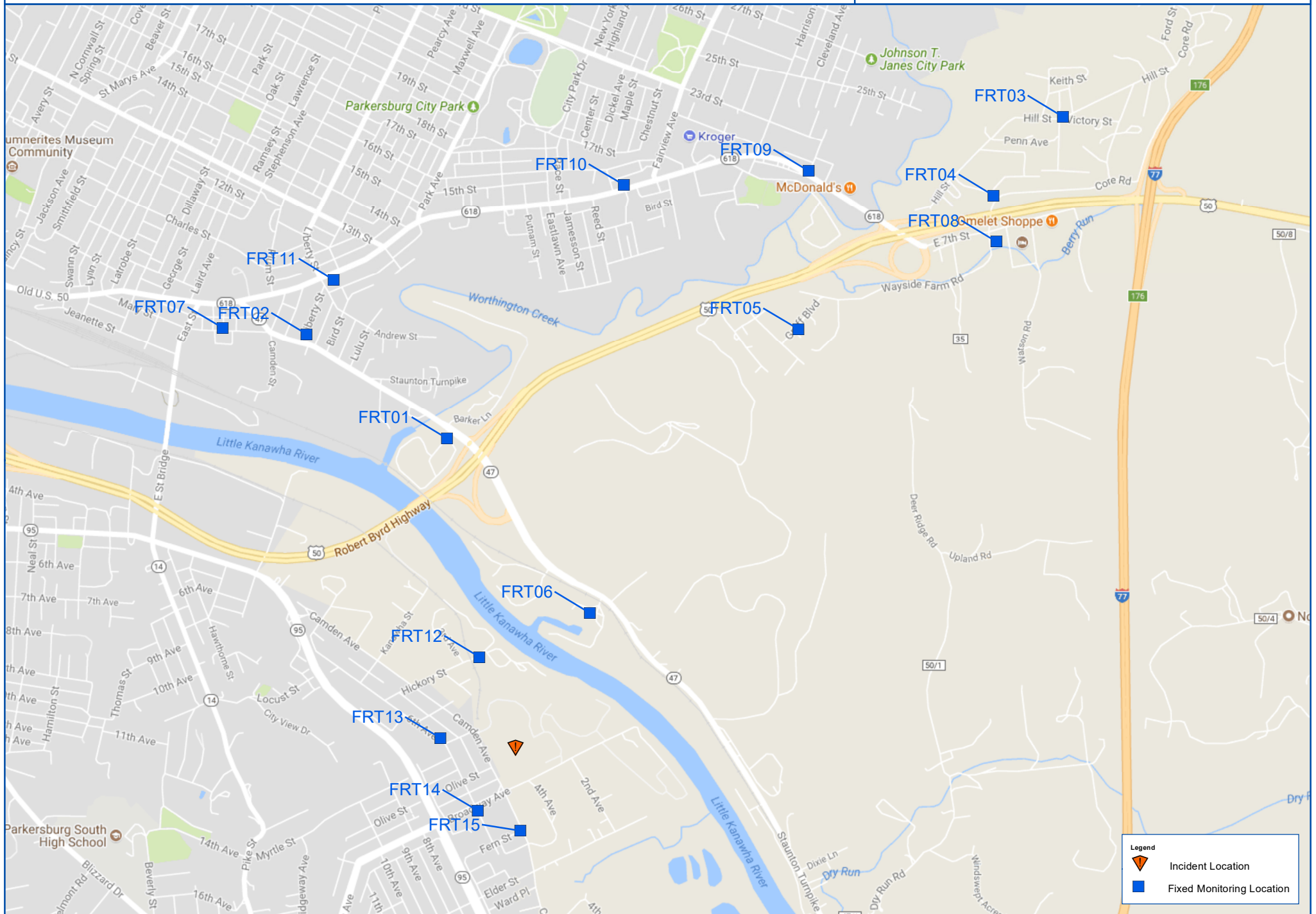
³Sulfur Dioxide readings have not had the correction factor applied, a correction factor of 0.25 should be applied, showing a range of detections from 0.05 – 0.125 ppm, respectively.

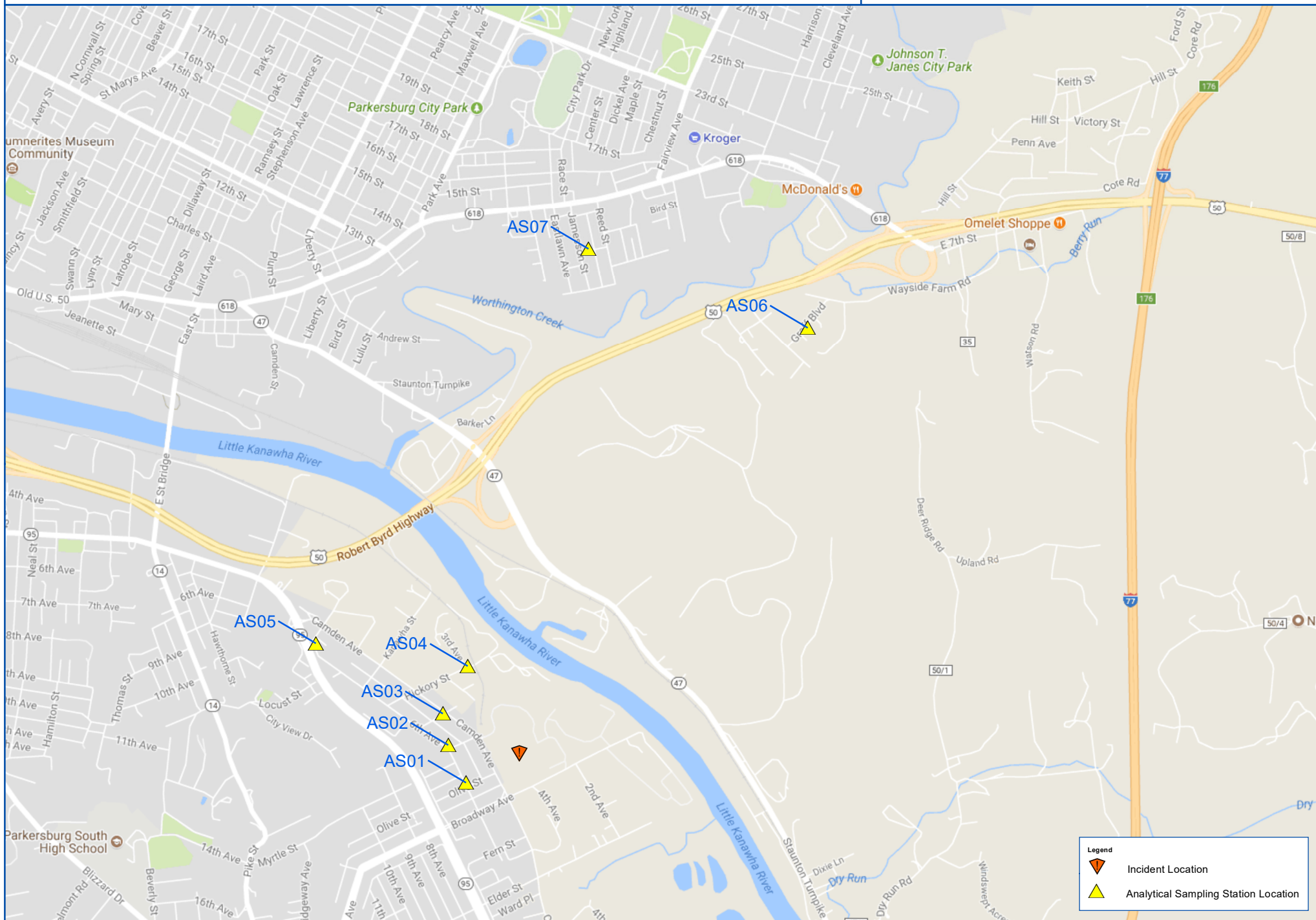
¹ Real-time air monitoring provides near instantaneous measurements for concentrations in air without the need for laboratory analysis.

Appendix I:

Incident Site Maps and Meteorological Data



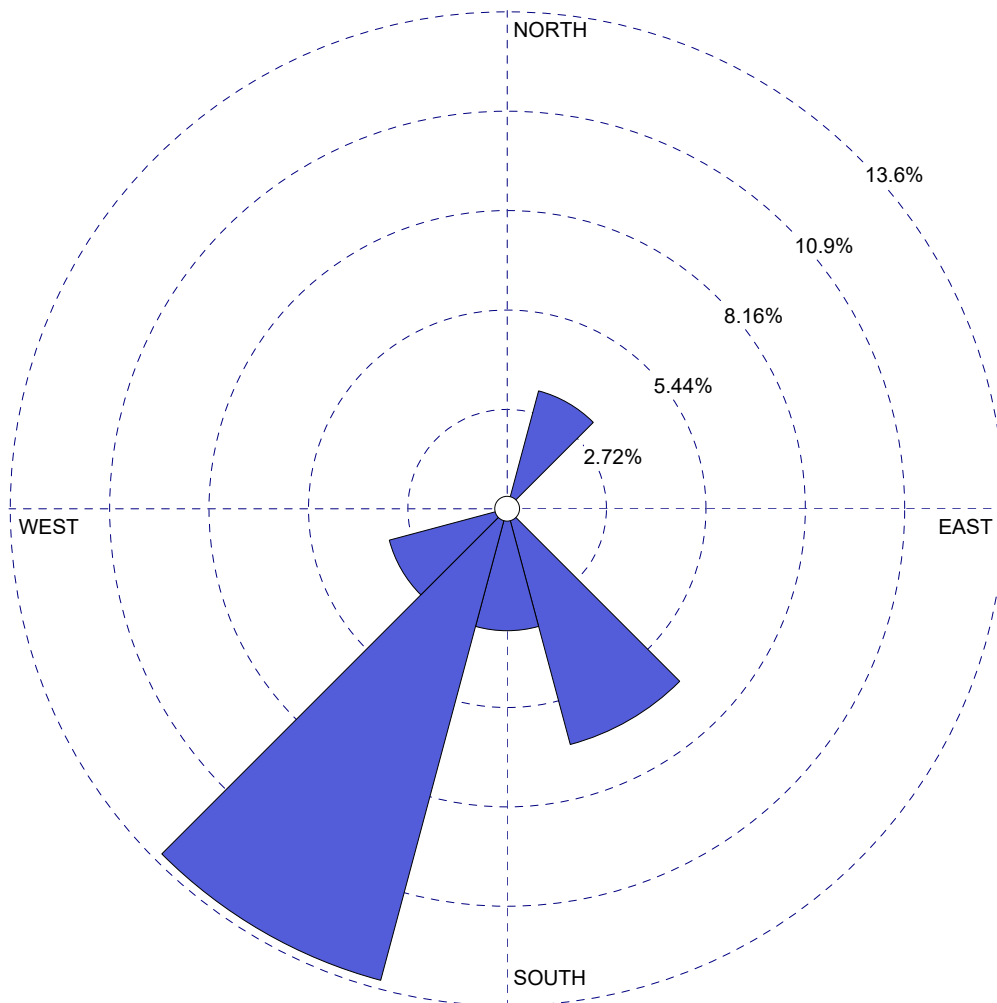
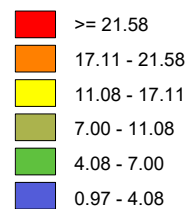




WIND ROSE PLOT:

Station #kwvparke13

DISPLAY:

Wind Speed
Direction (blowing from)WIND SPEED
(Knots)

Calms: 70.00%

COMMENTS:

DATA PERIOD:

Start Date: 10/25/2017 - 00:00
End Date: 10/26/2017 - 05:00

COMPANY NAME:

MODELER:

CALM WINDS:

70.00%

TOTAL COUNT:

30 hrs.

AVG. WIND SPEED:

0.53 Knots

DATE:

10/26/2017

PROJECT NO.:

109708

