

**40365 Braithwaite, LA
Stolthaven Terminal Facility
Summary of Community Air Monitoring and Sampling Results
September 26, 2012
PO# 12-H0408-MR**

This data report discusses community real-time air monitoring data collected between September 25th 00:00 and September 25th 23:59 in support of mitigation and remediation operations conducted near Stolthaven’s facility near Braithwaite, LA.

Community real-time air monitoring was conducted for VOCs, LEL, hydrogen sulfide (H₂S) and formic acid using stationary AreaRAEs and/or hand-held instruments such as the MultiRAE and colorimetric detector tubes. While real-time monitoring for hydrogen sulfide (H₂S) began on September 15th, 2012; this analyte is unrelated to events at the Stolthaven facility and has been incorporated into real-time community monitoring to evaluate potential H₂S generated by the natural decomposition of organic matter. Table 1 and Table 2 below display data summaries for AreaRAEs and hand-held instrument data, respectively. While stationary AreaRAE results indicate detections of VOCs at seven AreaRAE Units, these results are preliminary and may include drift in the instrument’s electrochemical sensor. AreaRAE Unit 1 reported a maximum detection of 2,999 ppm; a CTEH[®] employee was notified and responded to AreaRAE Unit 1. Large barges were reported in the area of Unit 1 at the time of VOC spike. AreaRAE Unit 1 was shut off and restarted; following restart, AreaRAE Unit 1 reported no detections of VOCs. Additionally, these AreaRAE instruments are located adjacent to roads and are subject to detecting products of combustion due to vehicular emissions. No VOCs, H₂S, formic acid, or LEL detections were observed within the community using real-time handheld or colorimetric tubes. Table 3 highlights analytical sample counts collected within air, residential soil, offsite soil, and offsite surface water. Appendix 1 shows incident site maps.

**Table 1
AreaRAE Summary – September 25th 00:00 – 23:59**

Unit	Analyte	Number of Readings	Number Of Detections	Concentration Range
Unit 1	VOC	5451	182	0.1 - 2999 ppm
Unit 2	VOC	5336	258	0.1 - 22.9 ppm
Unit 3	VOC	5682	1	1.4 - 1.4 ppm
Unit 4	VOC	5426	443	0.1 - 5.6 ppm
Unit 10	VOC	5405	0	0 - 0 ppm
Unit 11	VOC	5442	14	0.1 - 0.1 ppm
Unit 12	VOC	5438	152	0.1 - 1.9 ppm
Unit 13	VOC	5582	76	0.1 - 0.2 ppm

***Detections may include drift events** - Drift is defined as any interference in the electrochemical sensor’s ability to accurately report the concentration of a chemical in the atmosphere. Humidity and temperature changes throughout the monitoring period are typical sources of drift.

**Table 2
Hand-held Real-time Summary – September 25th 00:00 – 23:59**

Community				
Analyte	Number of Readings	Number of Detections	Average Concentration of Detections	Highest Concentration
Formic Acid	3	0	NA	< 0.52 ppm
H ₂ S**	257	0	NA	< 1.0 ppm
LEL	260	0	NA	< 1.0 %
VOC	260	0	NA	< 0.1 ppm

NA = not applicable

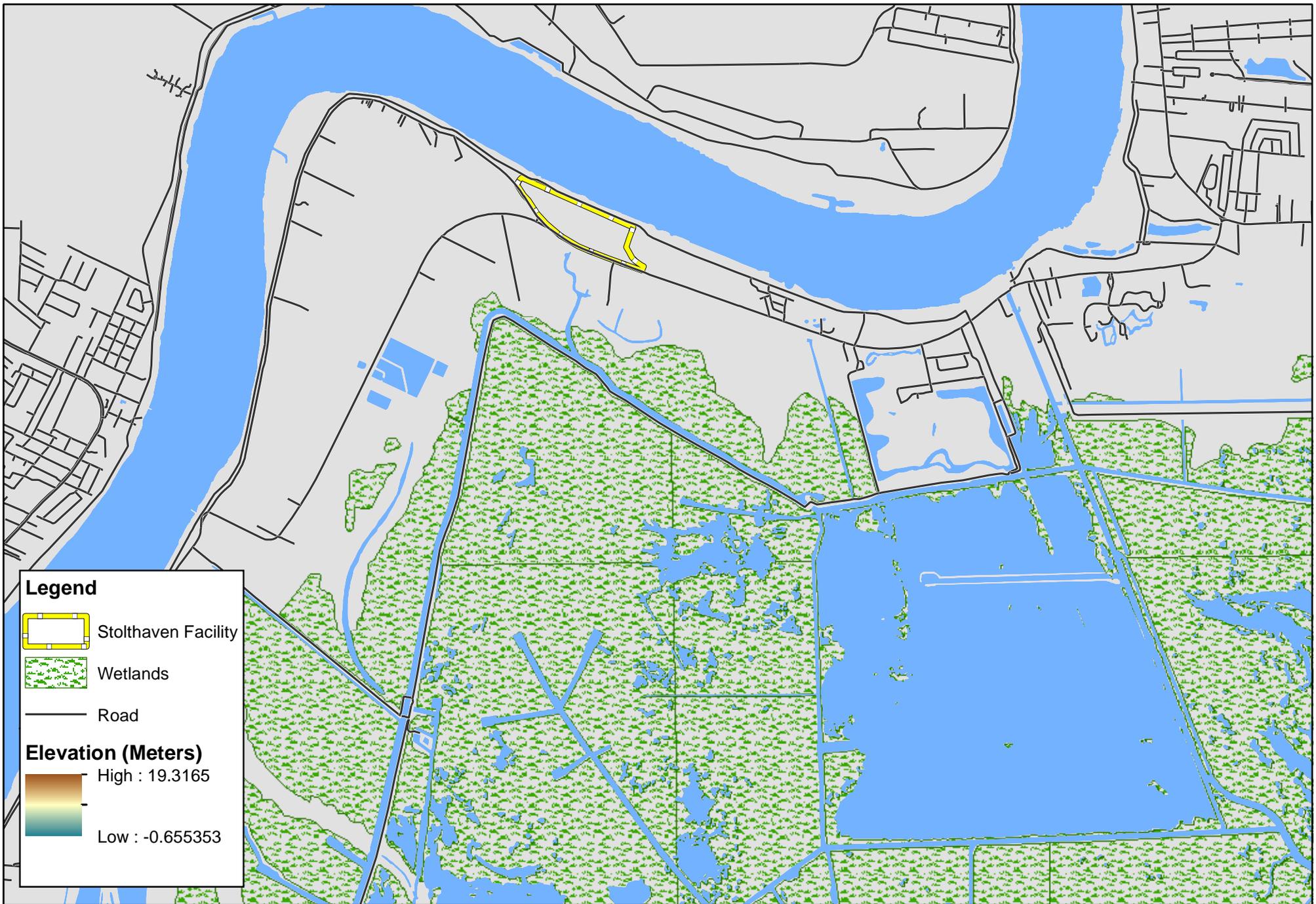
* In addition to the tabulated real-time data, additional air monitoring for the purpose of worker protection was performed throughout the work area. These data are used for task-specific decision-making, but may not be recorded in the tabulated data represented above.

** H₂S is a natural product of organic matter decomposition and is unrelated to events at the Stolthaven Facility

**Table 3
Analytical Sample Counts – September 25th 00:00 – 23:59**

Matrix	Number of Samples
Air	44
Ditch Soil	3
Residential Soil	18
Offsite Surface Water	1

Appendix 1: Incident Maps



Legend

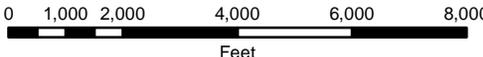
-  Stolthaven Facility
-  Wetlands
-  Road

Elevation (Meters)

High : 19.3165

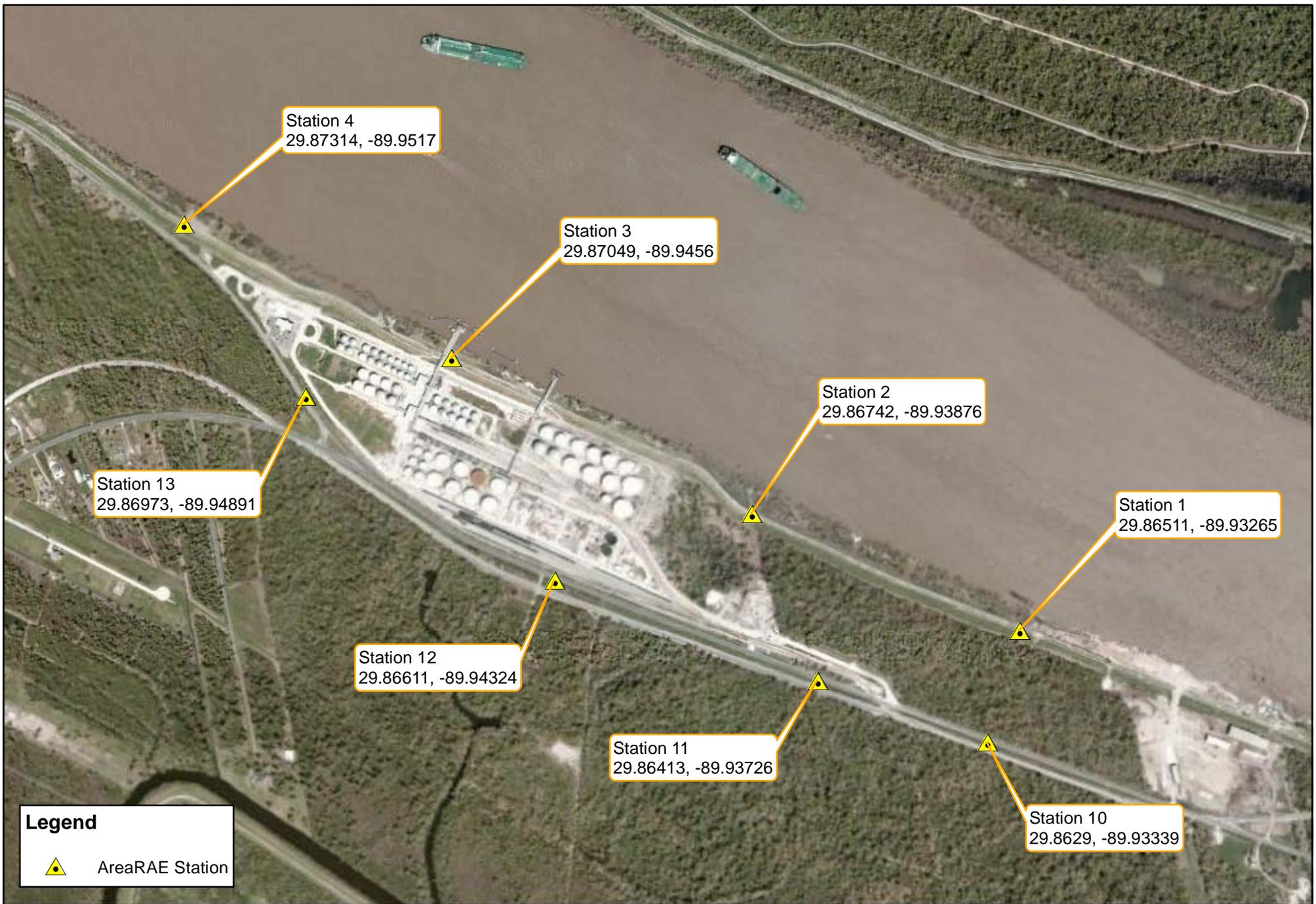
Low : -0.655353

**Stolthaven Facility
Shaded Relief of Elevation**



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40365

**Stolthaven
Braithwaite, LA**
Plaquemines Parish
Print Date: 9/26/2012

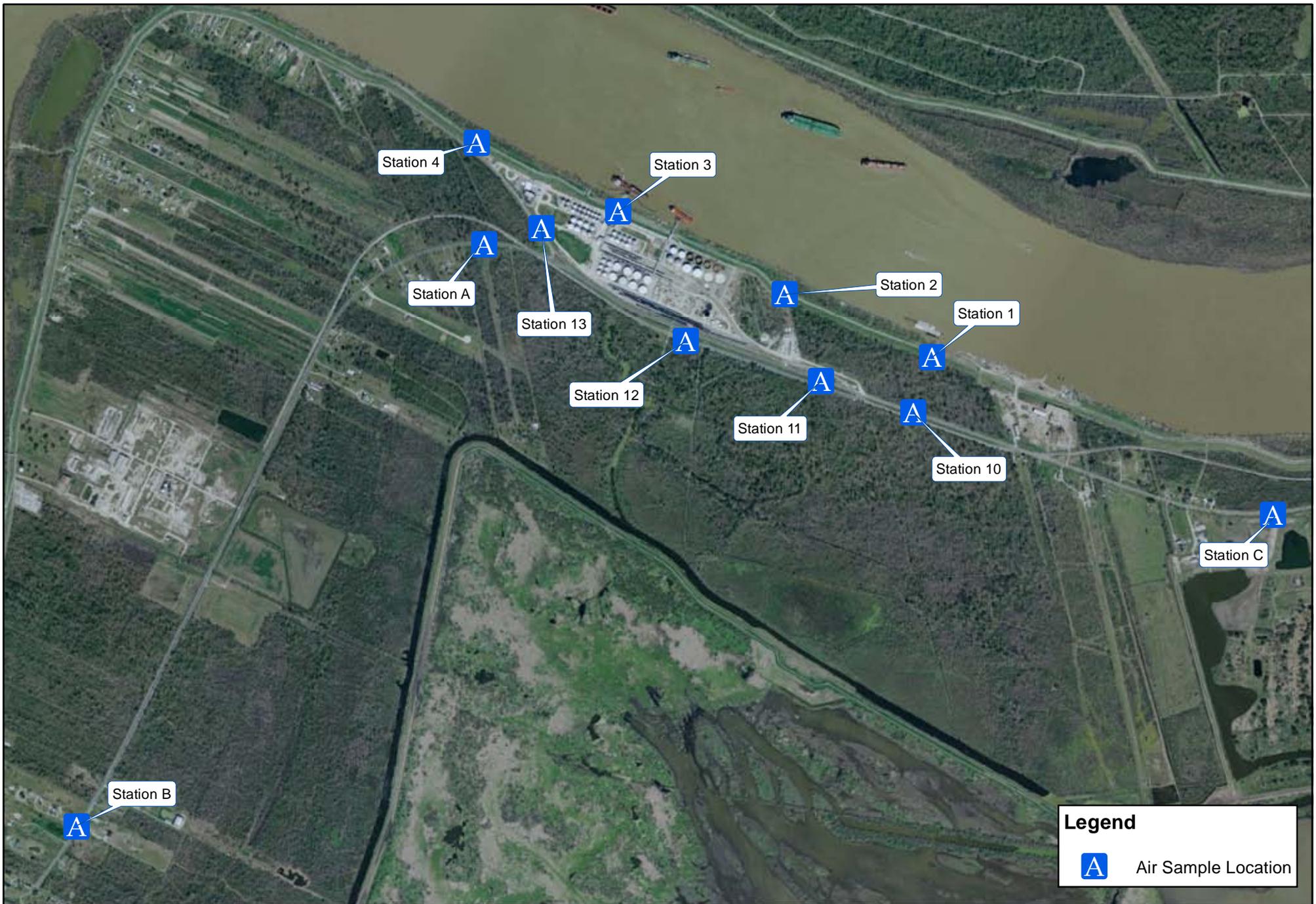


Legend
 AreaRAE Station

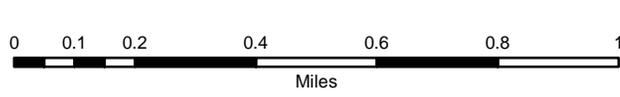
**Community
 AreaRAE Station Locations**
 September 21, 2012



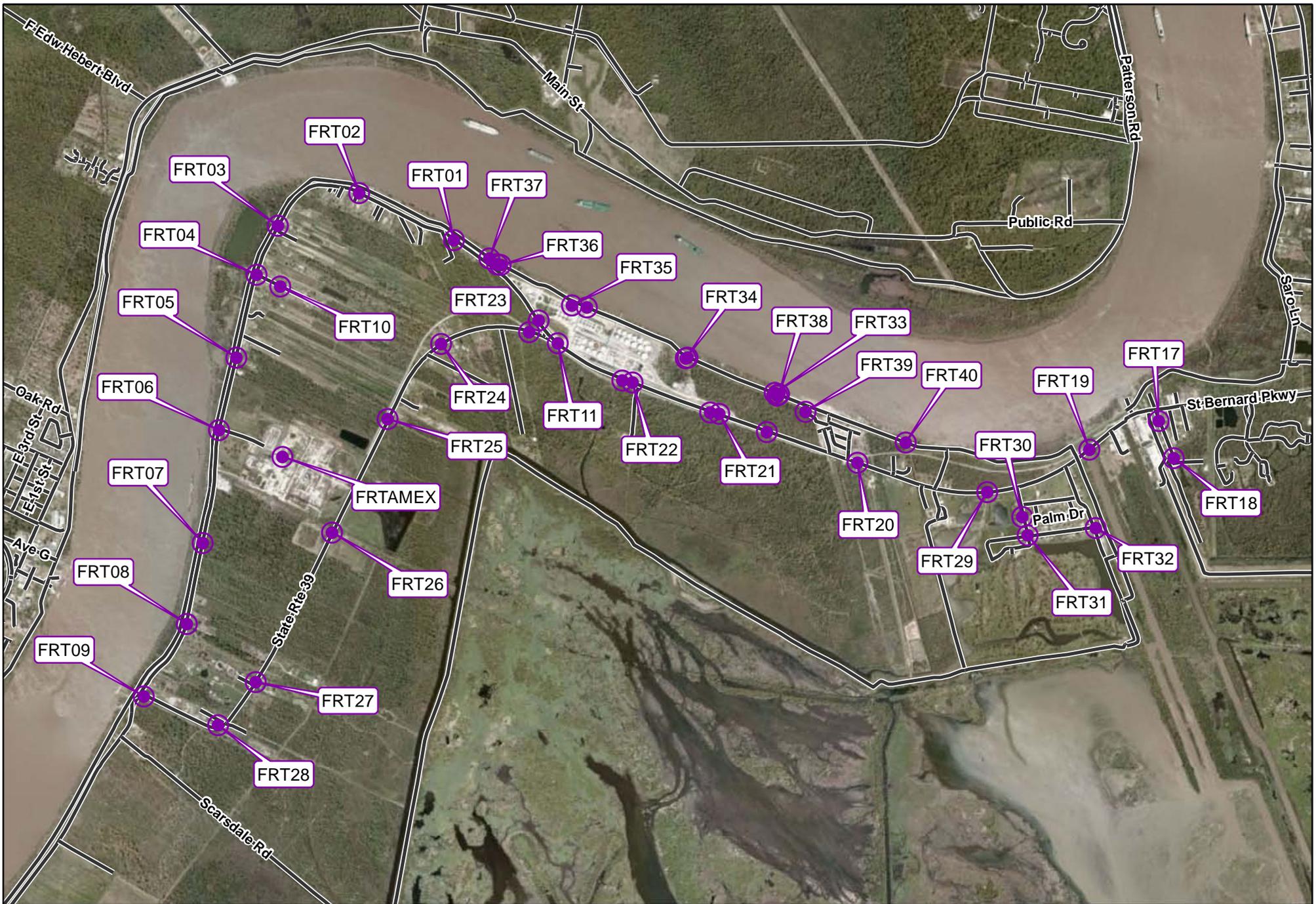
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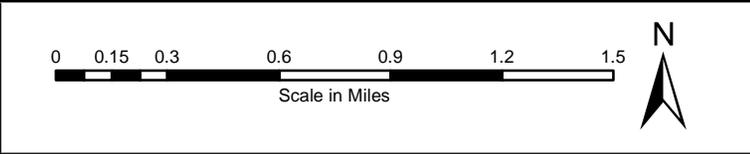
Ambient Air Analytical Sampling Locations



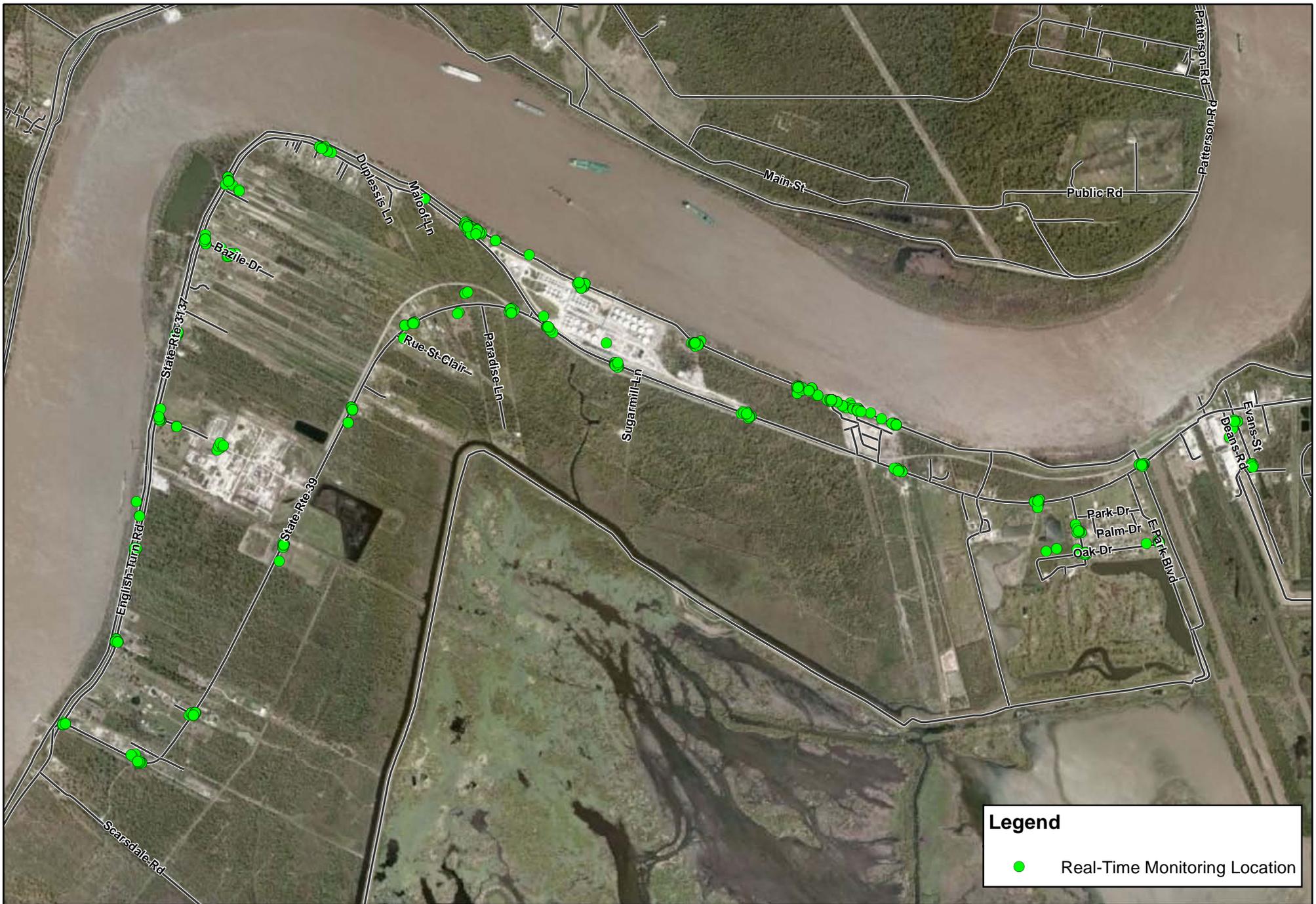
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Community Fixed Real-Time Monitoring Locations

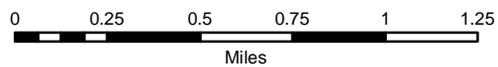


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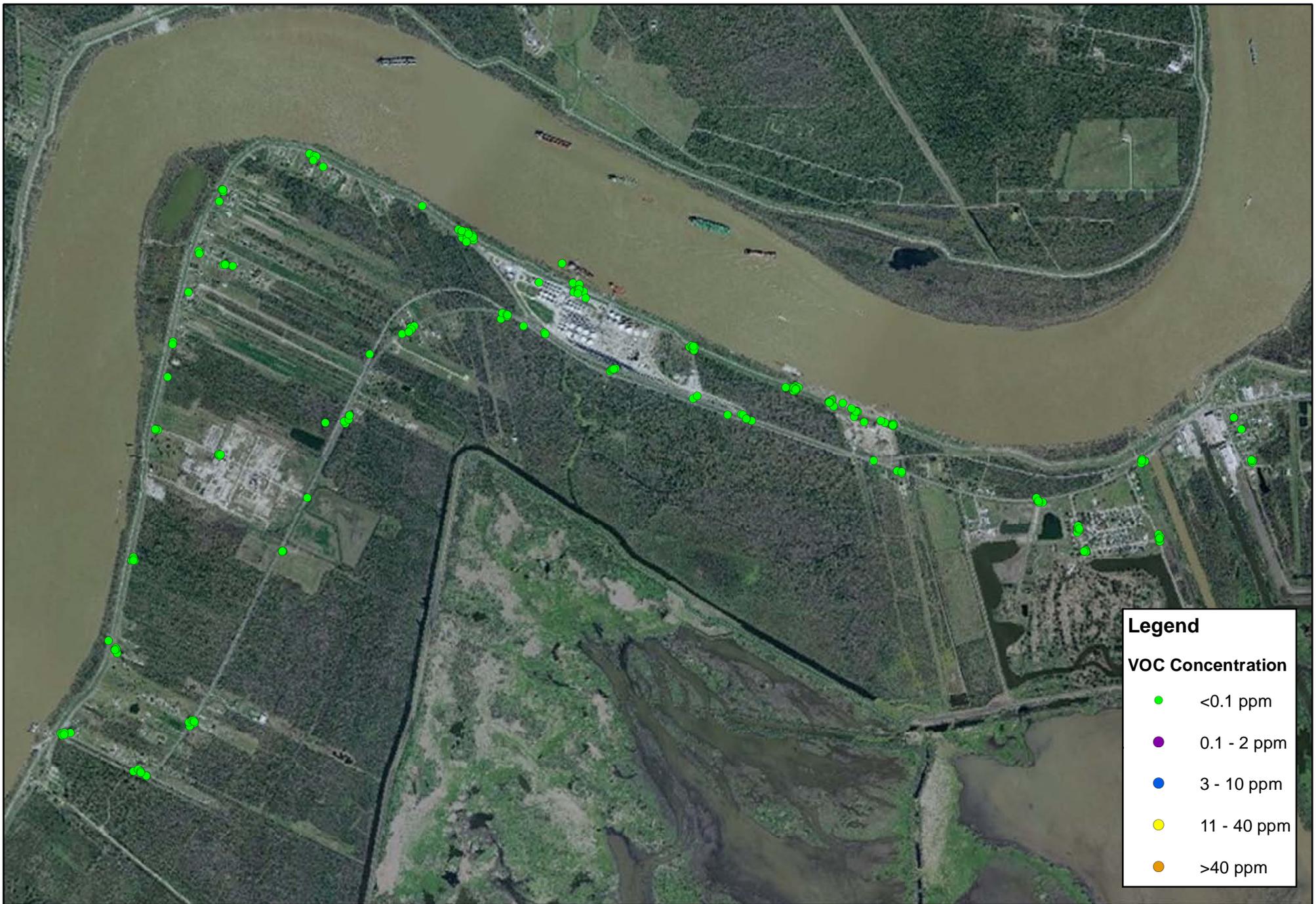
Community Real-Time Monitoring Locations

9/25/2012



Legend	
●	Real-Time Monitoring Location

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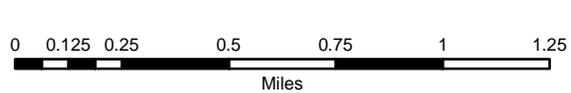


Legend

VOC Concentration

- <0.1 ppm
- 0.1 - 2 ppm
- 3 - 10 ppm
- 11 - 40 ppm
- >40 ppm

**Manually-Logged
Community VOC Concentrations**
9/25/2012



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