

**40365 Braithwaite, LA
Stolthaven Terminal Facility
Summary of Community Air Monitoring and Sampling Results
September 30, 2012
PO# 12-H0408-MR**

This data report discusses community real-time air monitoring data collected between September 29th 00:00 and September 29th 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 five AreaRAE units, these results are preliminary and may include drift in the instrument’s electrochemical sensor. 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 and residential soil. Appendix 1 shows incident site maps.

**Table 1
AreaRAE Summary – September 29th 00:00 – 23:59**

| Unit | Analyte | Number of Readings | Number Of Detections | Concentration Range |
|---------|---------|--------------------|----------------------|---------------------|
| Unit 1 | VOC | 3447 | 53 | 0.1 - 0.3 ppm |
| Unit 2 | VOC | 3451 | 33 | 0.1 - 5.1 ppm |
| Unit 3 | VOC | 3579 | 23 | 0.1 - 0.2 ppm |
| Unit 4 | VOC | 3446 | 146 | 0.1 - 6.7 ppm |
| Unit 10 | VOC | 434 | 0 | 0 - 0 ppm |
| Unit 11 | VOC | 3068 | 0 | 0 - 0 ppm |
| Unit 12 | VOC | 3374 | 77 | 0.1 - 0.8 ppm |
| Unit 13 | VOC | 3466 | 0 | 0 - 0 ppm |

***Detections may include drift events** - Drift is defined as any interference in the 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 29th 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** | 190 | 0 | NA | < 1.0 ppm |
| LEL | 260 | 0 | NA | < 1.0 % |
| VOC | 262 | 0 | NA | < 0.1 ppm |

NA = not applicable

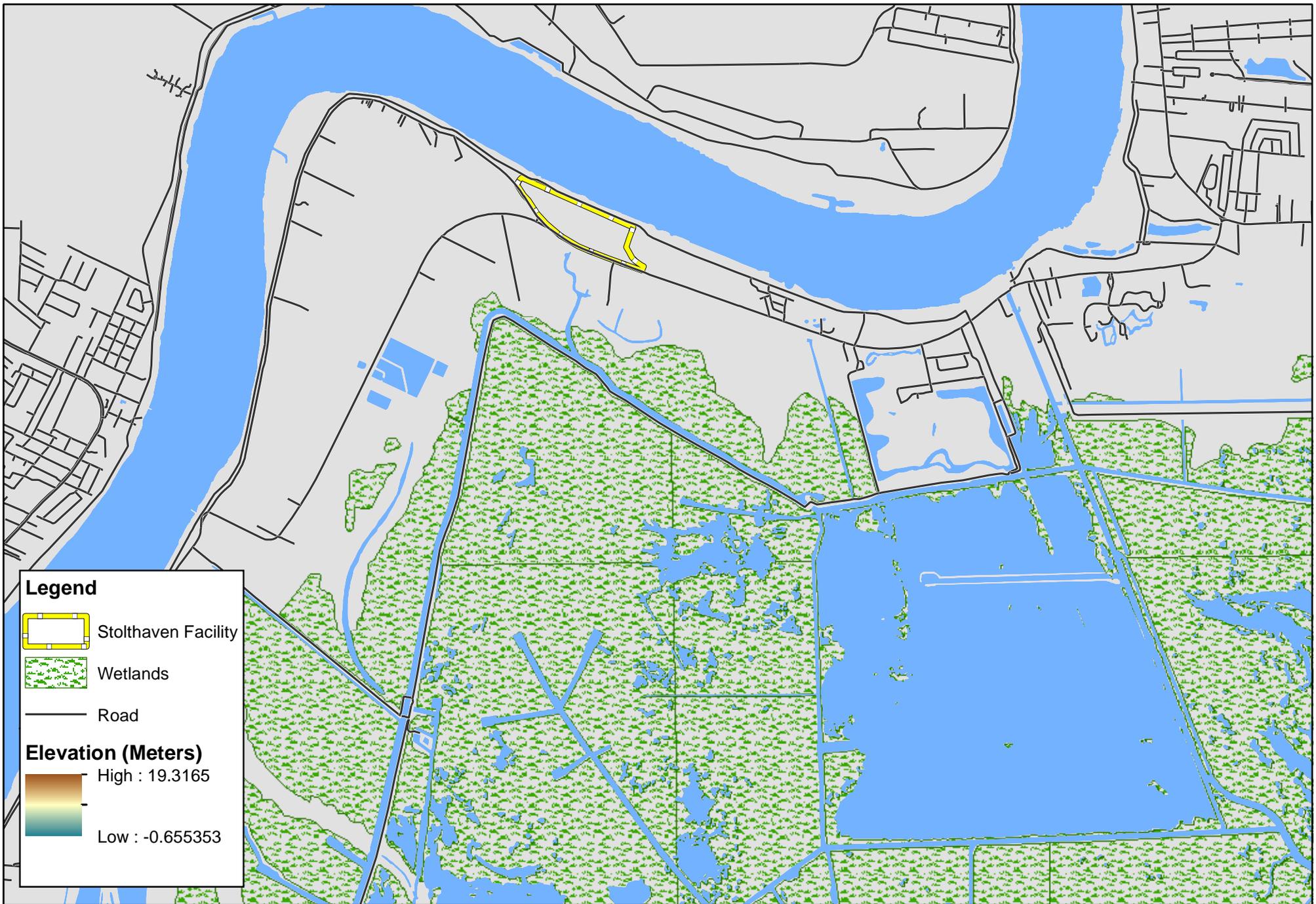
* In addition to the tabulated real-time data, additional air monitoring for the purpose of worker protection was performed throughout the work area. These data are used for task-specific decision-making, but may not be recorded in the tabulated data represented above.

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

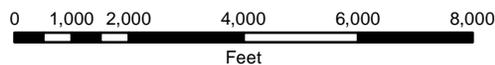
**Table 3
Analytical Sample Counts – September 29th 00:00 – 23:59**

| Matrix | Number of Samples |
|------------------|--------------------------|
| Air | 44 |
| Residential Soil | 12 |

Appendix 1: Incident Maps

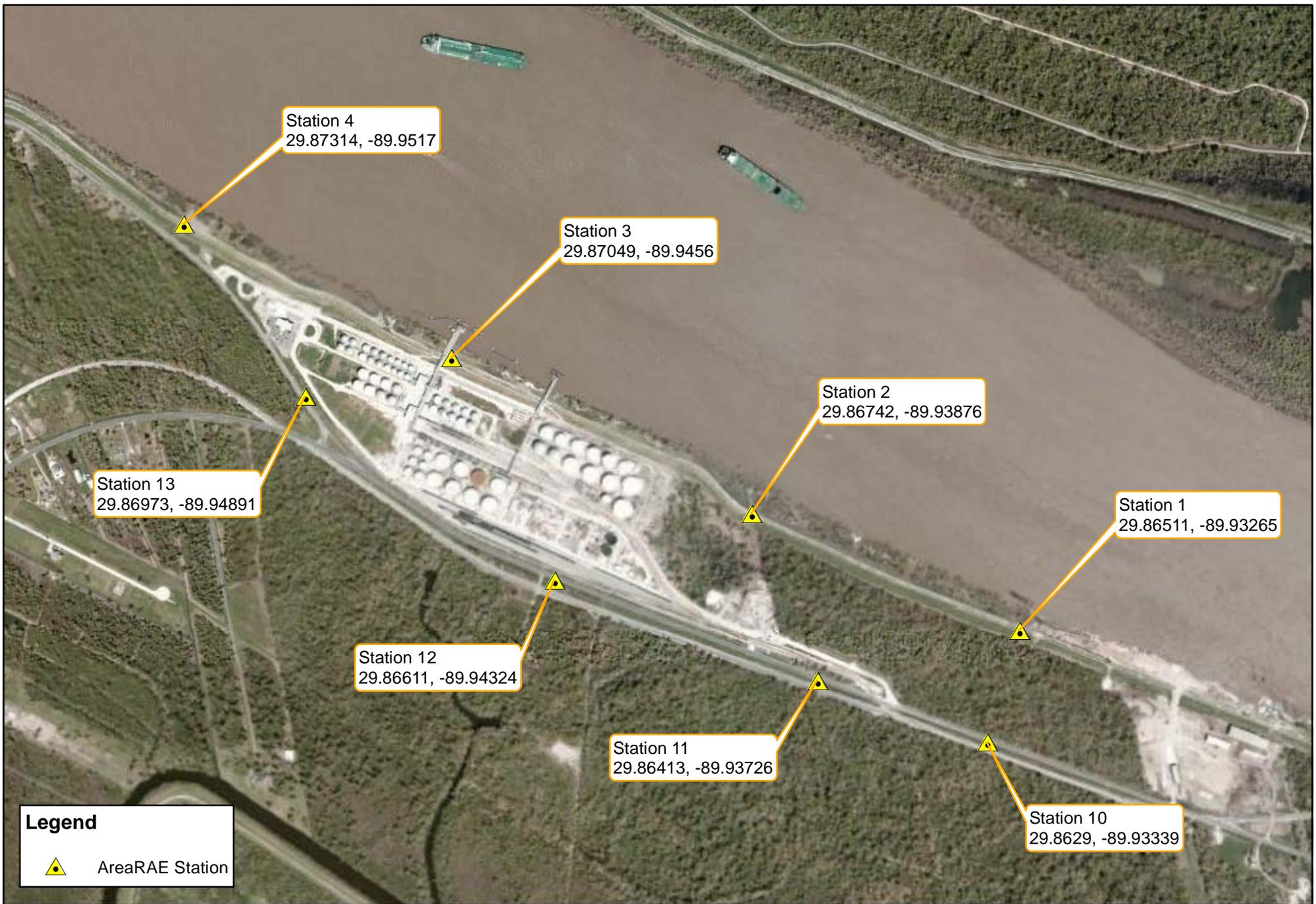


**Stolthaven Facility
Shaded Relief of Elevation**



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Braithwaite, LA**
Plaquemines Parish
Print Date: 9/28/2012

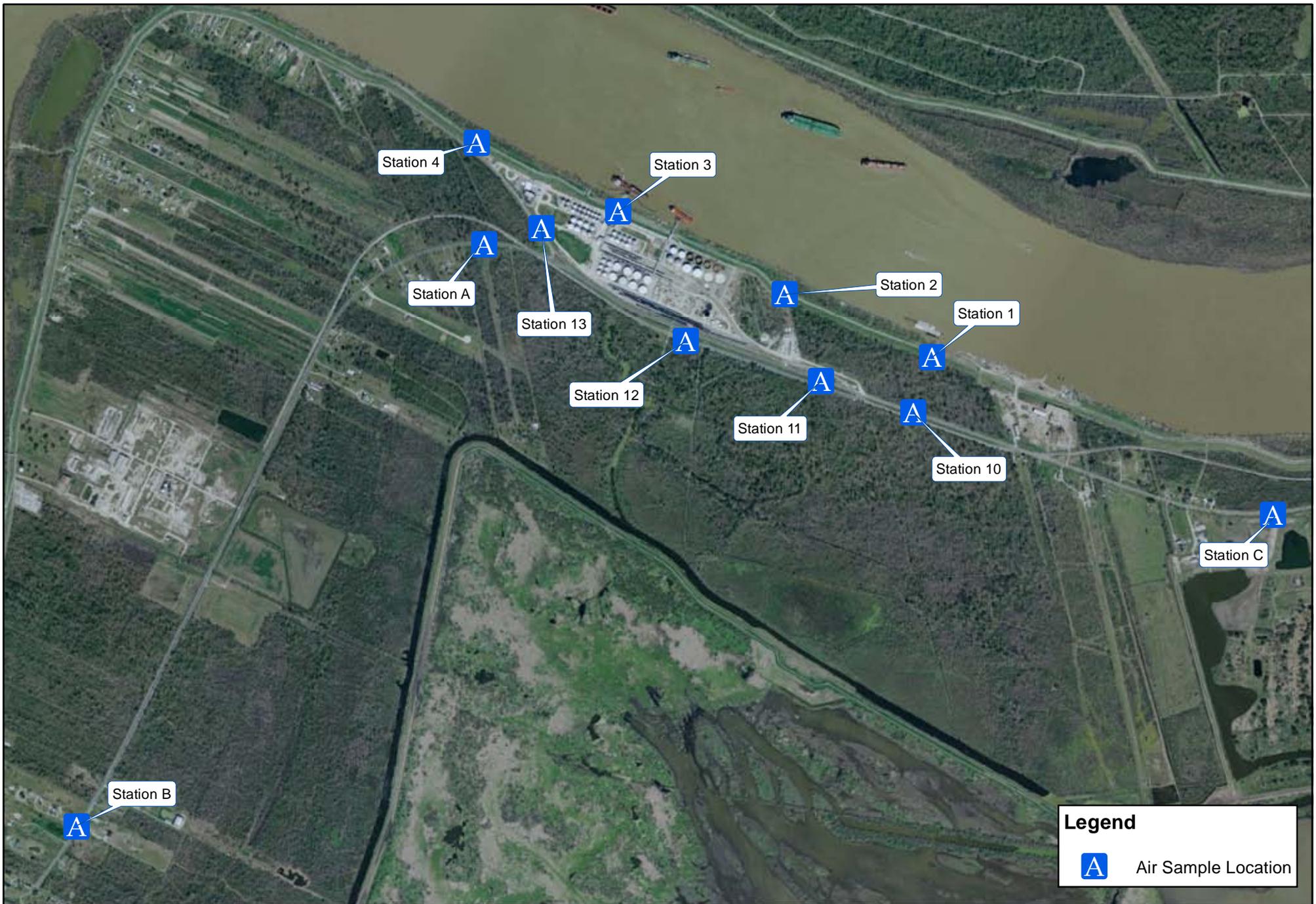


Legend
 AreaRAE Station

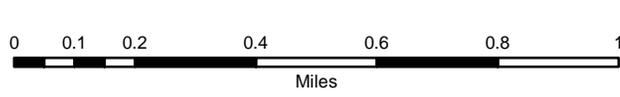
**Community
AreaRAE Station Locations**
September 21, 2012



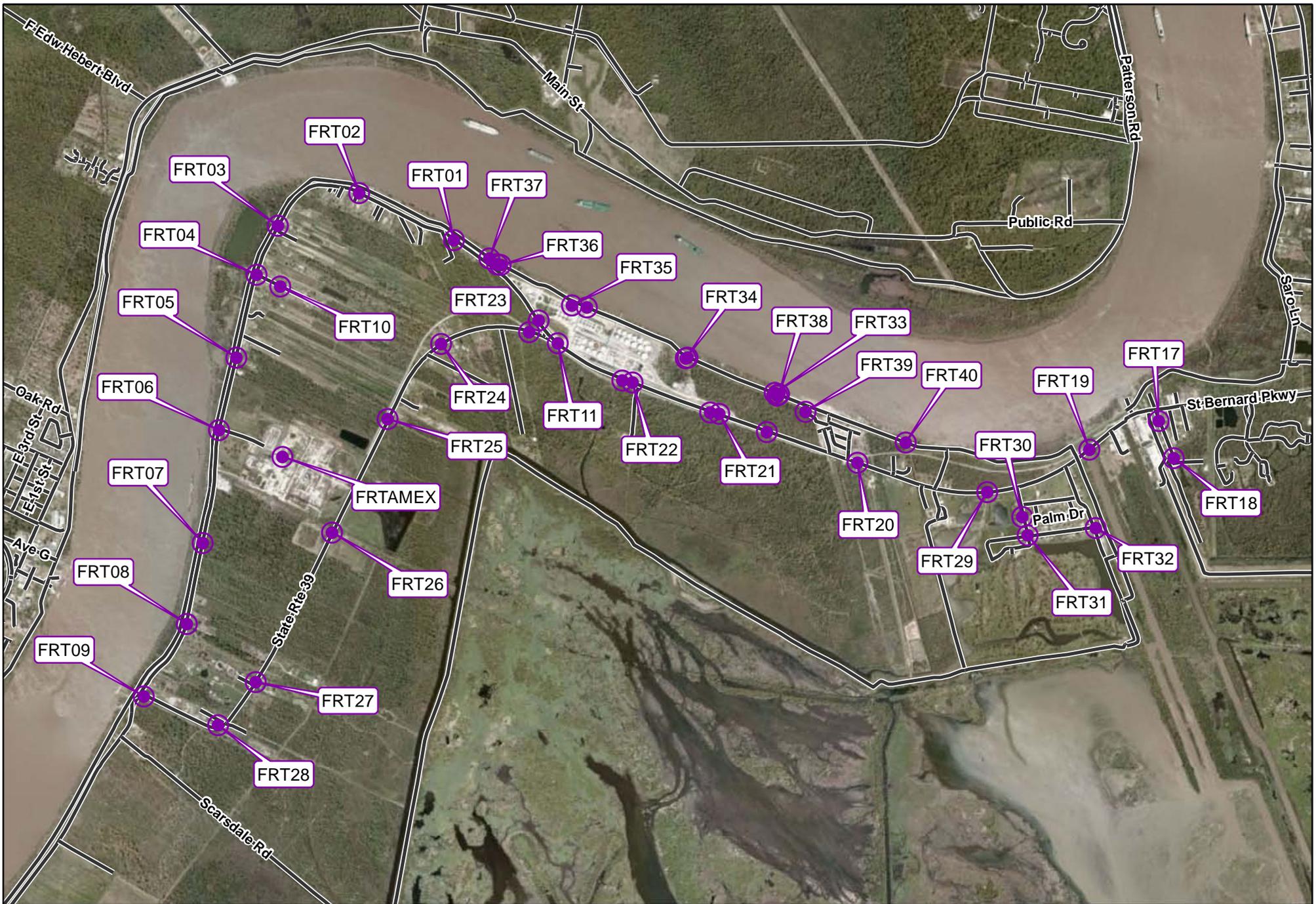
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|  Project No. 40365 | Stolthaven Braithwaite, LA |
| | Plaquemines Parish Print Date: 9/26/2012 |



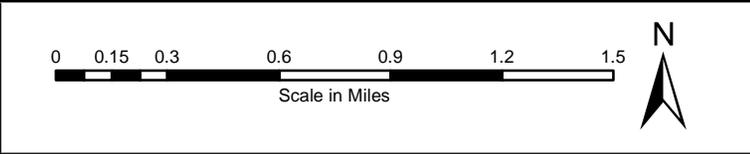
**Ambient Air
Analytical Sampling Locations**



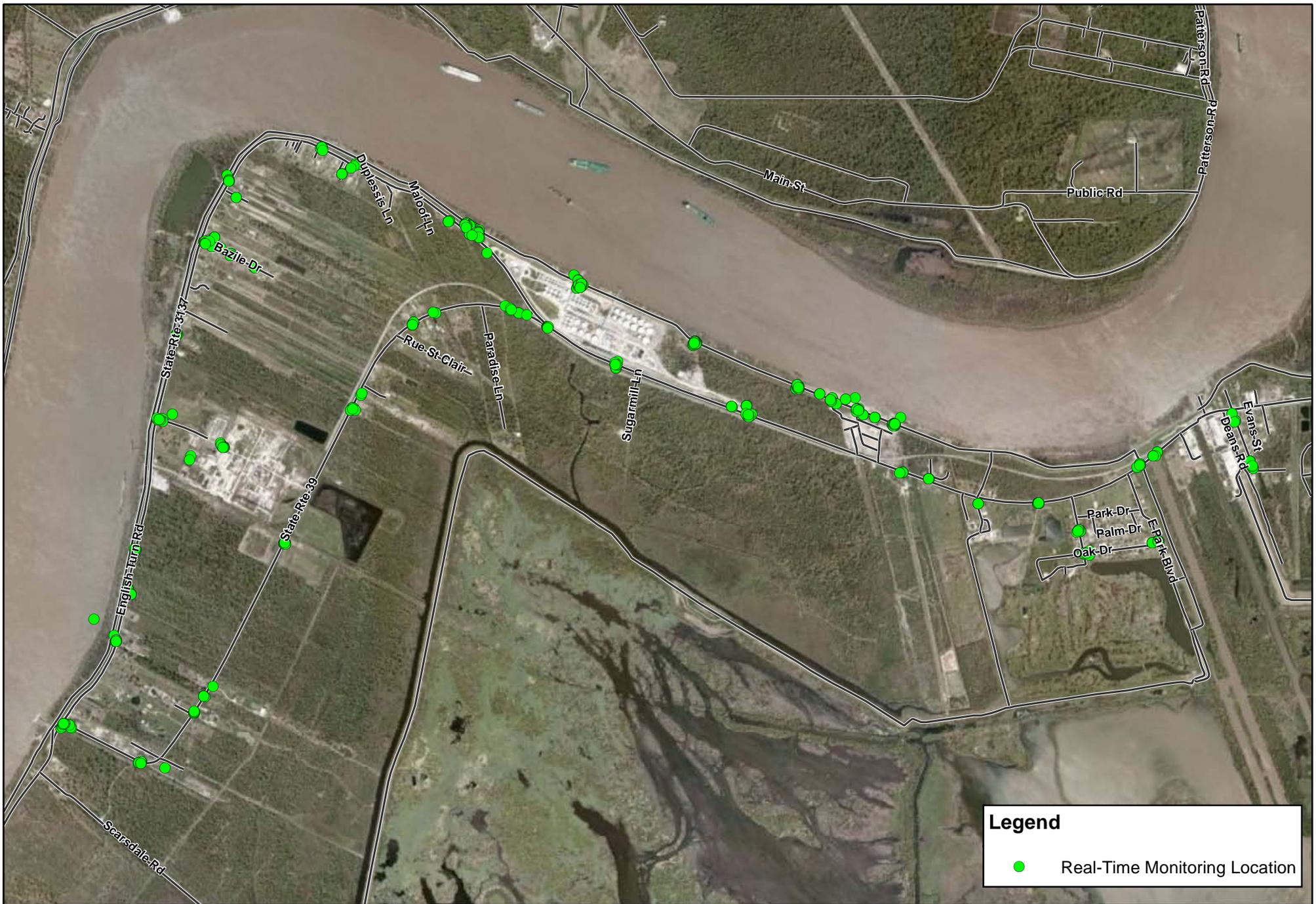
| | |
|---|------------------------------|
|  | Stolthaven |
| | Braithwaite, LA |
| Project No. 40365 | Plaquemines Parish |
| | Print Date: 9/28/2012 |



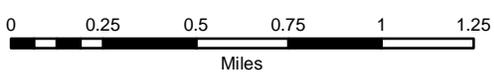
Community Fixed Real-Time Monitoring Locations



| | |
|-----------------------------|---|
| | Stolthaven Braithwaite, LA |
| | Plaquemines Parish Print Date: 9/26/2012 |
| Project No. 40365 | |



Community Real-Time Monitoring Locations
9/29/2012



Legend

- Real-Time Monitoring Location

| | |
|--|---|
|  Project No. 40365 | Stolthaven Braithwaite, LA |
| | Plaquemines Parish Print Date: 9/30/2012 |

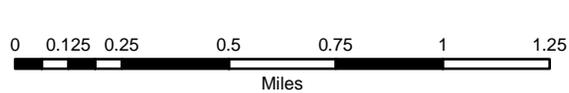


Legend

VOC Concentration

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

**Manually-Logged
Community VOC Concentrations**
9/29/2012



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