**40365 Braithwaite, LA**
**Stolthaven Terminal Facility**
**Summary of Community Air Monitoring and Sampling Results**
**September 25, 2012**
**PO# 12-H0408-MR**

This data report discusses community real-time air monitoring data collected between September 24th 00:00 and September 24th 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 ($H_2S$) 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 ($H_2S$) 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 $H_2S$ 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 elevated VOC levels at six 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, $H_2S$, 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 24th 00:00 – 23:59**

| Unit | Analyte | Number of Readings | Number Of Detections | Concentration Range |
|---|---|---|---|---|
| Unit 1 | VOC | 5488 | 4 | 0.1 – 0.2 ppm |
| Unit 2 | VOC | 5612 | 580 | 0.1 – 22.7 ppm |
| Unit 3 | VOC | 5520 | 54 | 0.1 – 30.4 ppm |
| Unit 4 | VOC | 5661 | 63 | 0.1 – 0.5 ppm |
| Unit 10 | VOC | 5600 | 0 | 0 - 0 ppm |
| Unit 11 | VOC | 5134 | 562 | 0.1 – 33.4 ppm |
| Unit 12 | VOC | 5602 | 158 | 0.1 – 0.8 ppm |
| Unit 13 | VOC | 5628 | 0 | 0 – 0 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 24th 00:00 – 23:59**

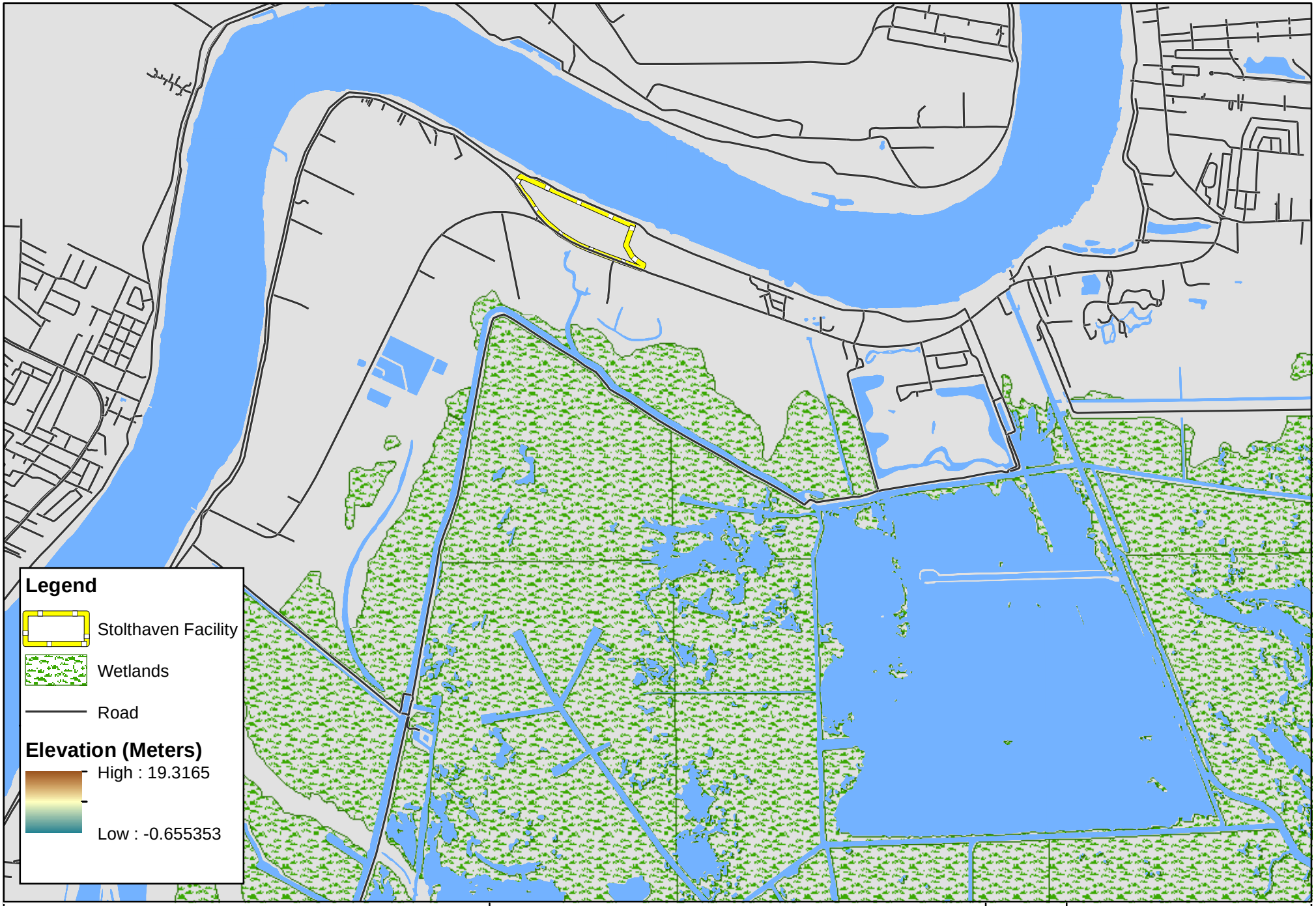
| Community | | | | |
|---|---|---|---|---|
| **Analyte** | **Number of Readings** | **Number of Detections** | **Average Concentration of Detections** | **Highest Concentration** |
| Formic Acid | 2 | 0 | NA | < 0.52 ppm |
| $H_2S$** | 266 | 0 | NA | < 1.0 ppm |
| LEL | 269 | 0 | NA | < 1.0 % |
| VOC | 268 | 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.
** $H_2S$ is a natural product of organic matter decomposition and is unrelated to events at the Stolthaven Facility

**Table 3**
**Analytical Sample Counts – September 24th 00:00 – 23:59**

| Matrix | Number of Samples |
|---|---|
| Air | 44 |
| Residential Soil | 9 |
| Offsite Soil | 3 |
| Offsite Surface Water | 2 |

# Appendix 1:
# Incident Maps




# Stolthaven Facility
# Shaded Relief of Elevation

0 1,000 2,000 4,000 6,000 8,000
Feet

N

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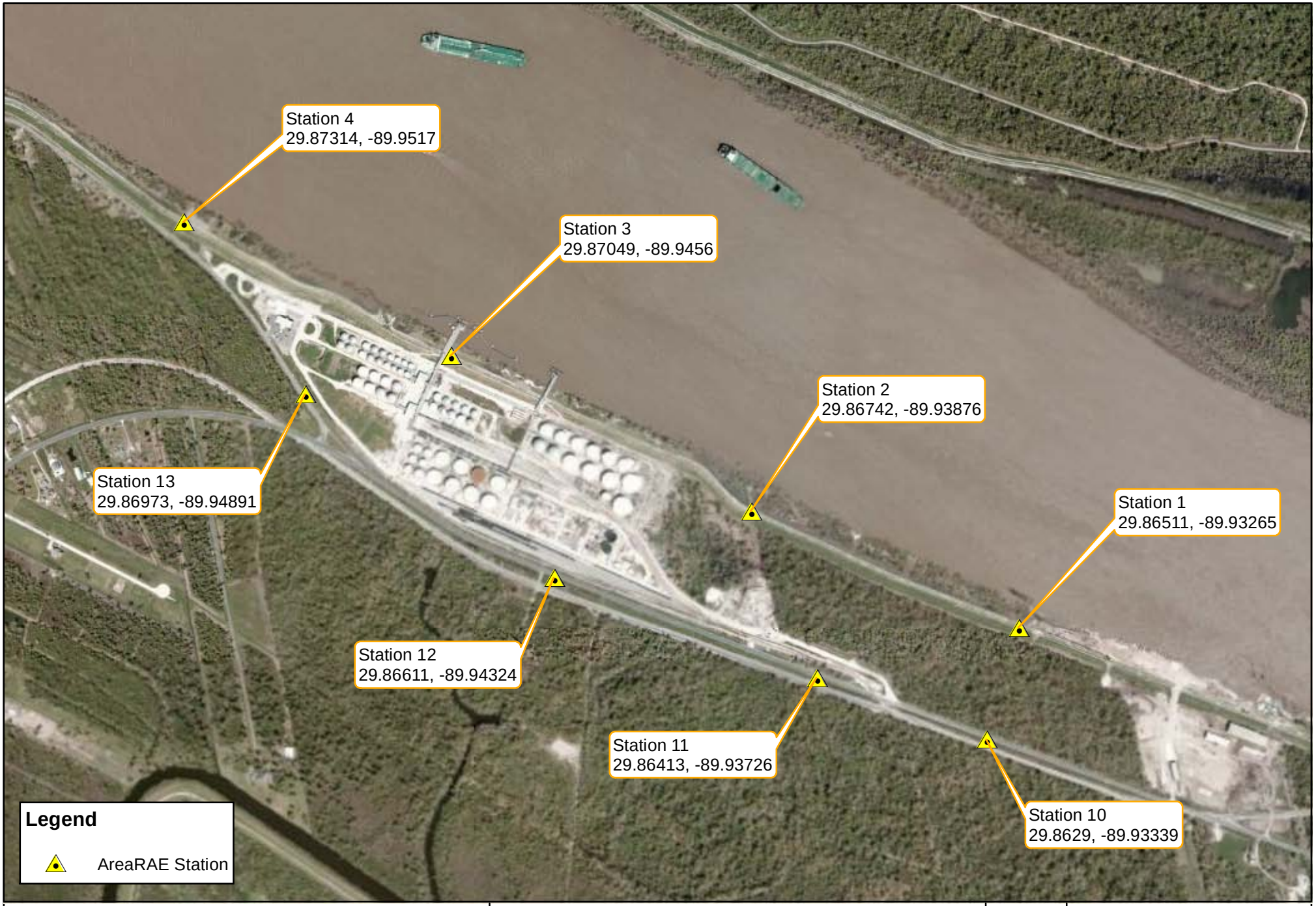
Braithwaite, LA
Plaquemines Parish
Print Date: 9/25/2012




# Community
# AreaRAE Station Locations

**September 21, 2012**

0 0.125 0.25 0.5
Miles

N

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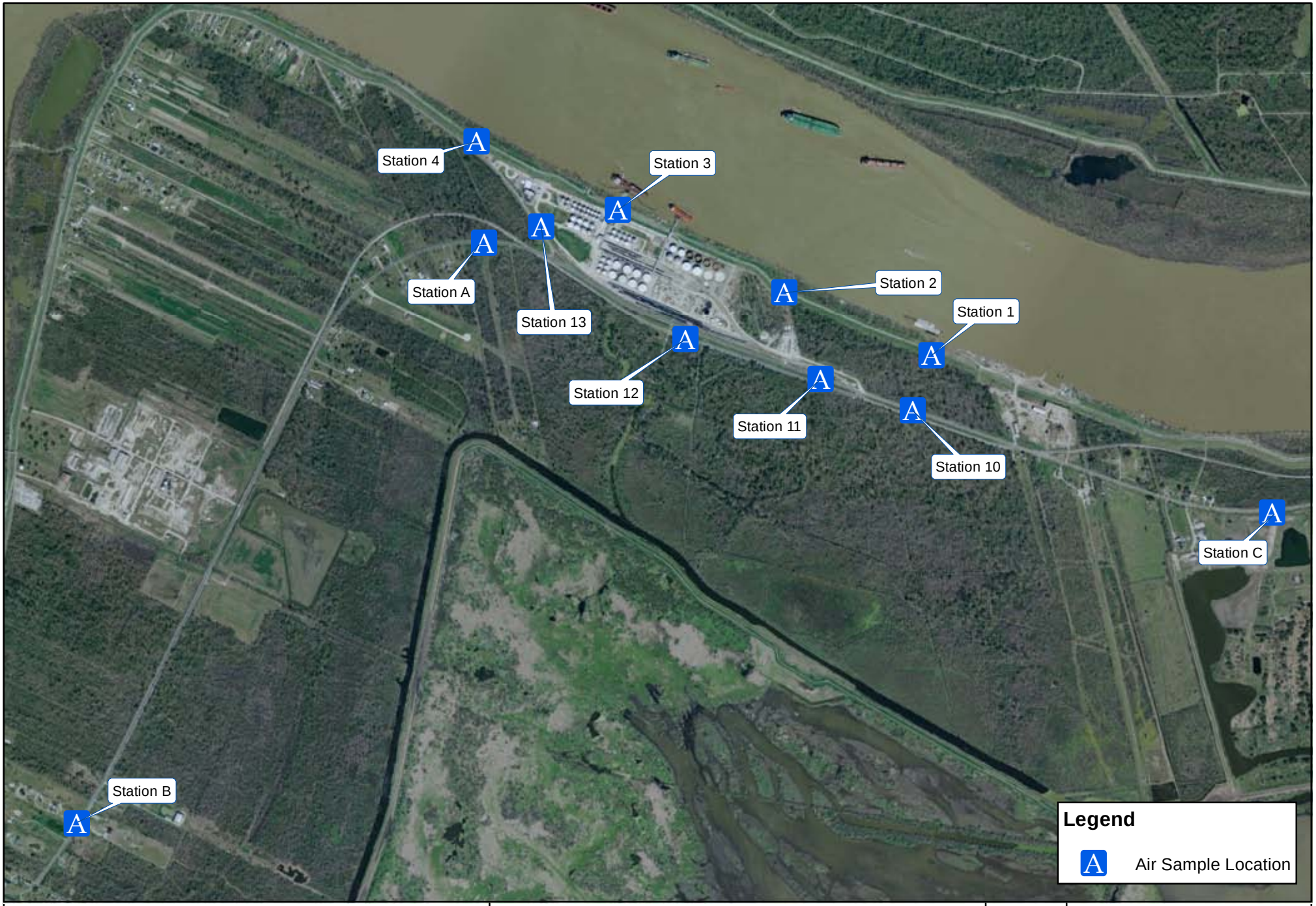
**Braithwaite, LA**
**Plaquemines Parish**
**Print Date: 9/25/2012**




# Ambient Air
# Analytical Sampling Locations

0 0.1 0.2 0.4 0.6 0.8 1
Miles

N

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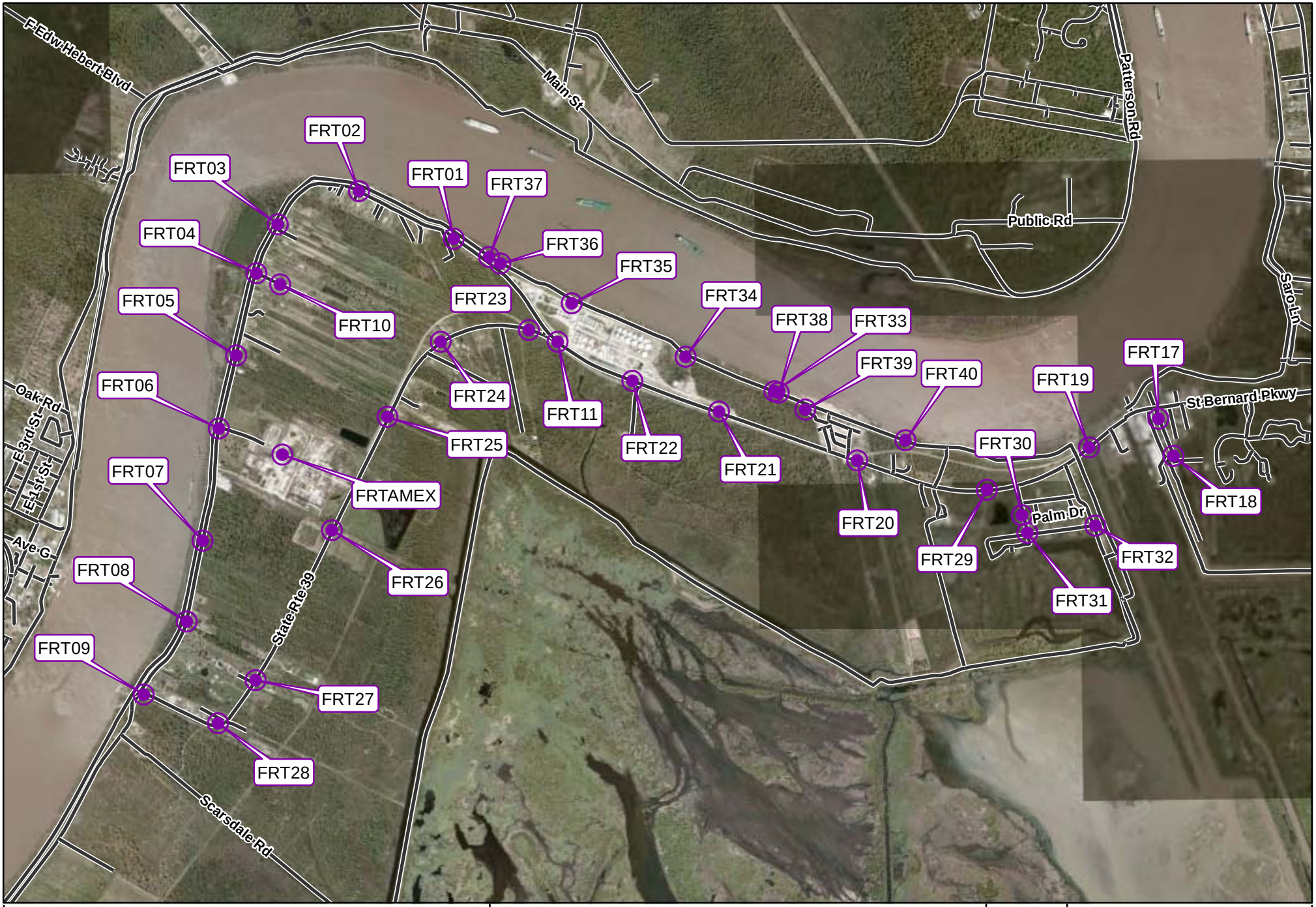


# Community Fixed Real-Time Monitoring Locations

0 0.15 0.3 0.6 0.9 1.2 1.5

Scale in Miles

N

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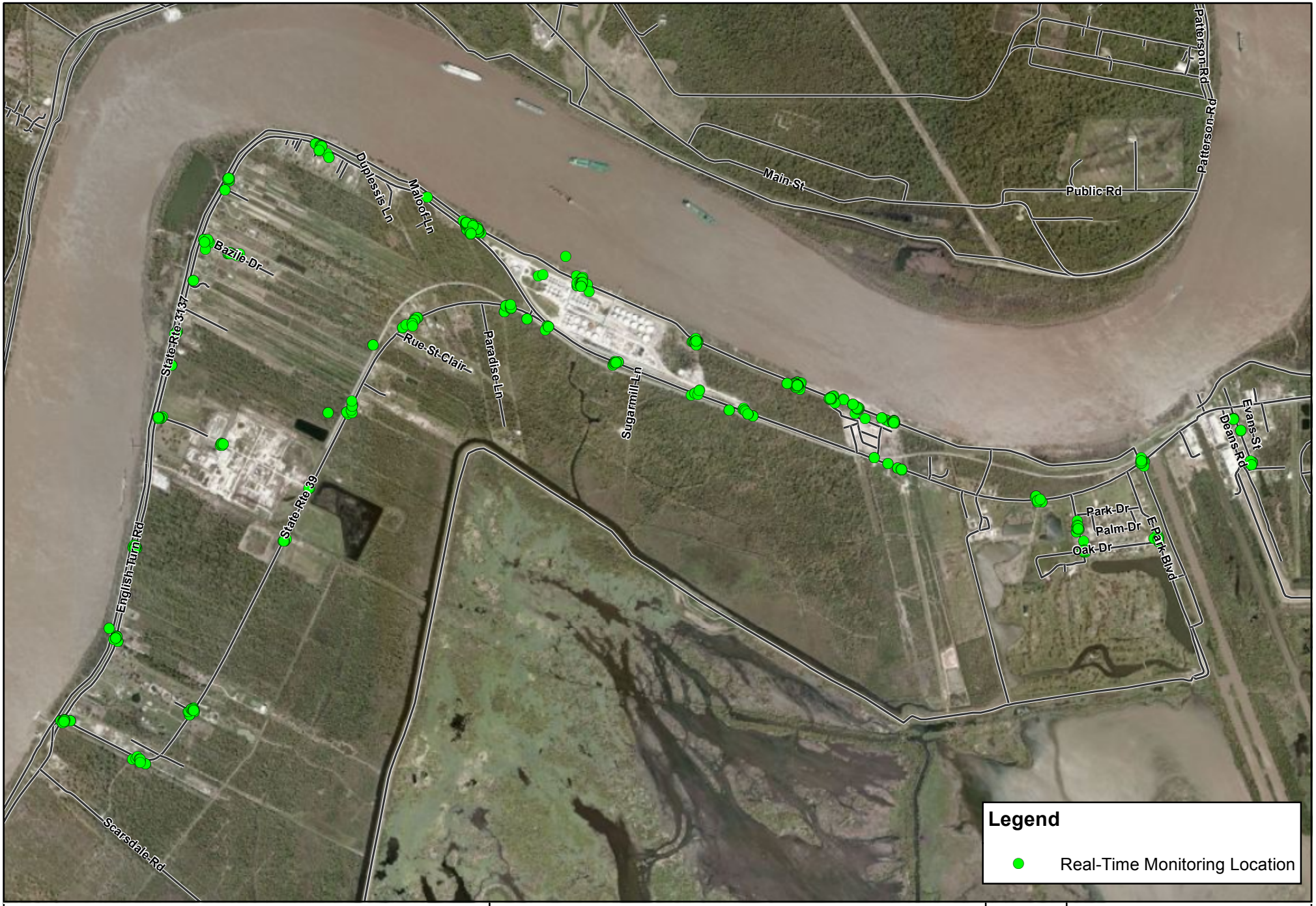


# Community Real-Time Monitoring Locations

*9/24/2012*

0 0.25 0.5 0.75 1 1.25
Miles

N

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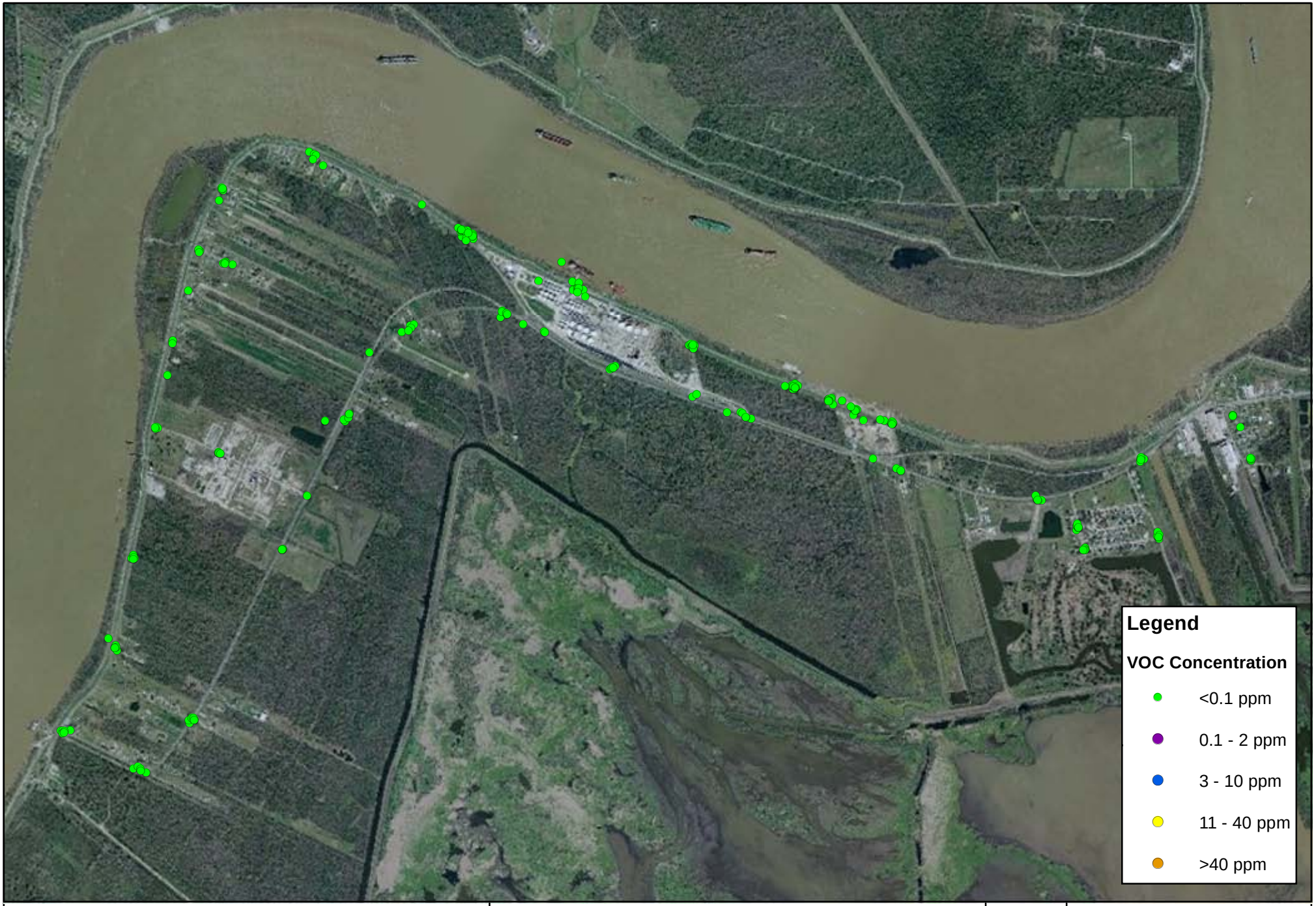


# Manually-Logged Community VOC Concentrations

*9/24/2012*

0 0.125 0.25 0.5 0.75 1 1.25
Miles

N

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