

**40365 Braithwaite, LA
Stolthaven Terminal Facility
Onsite Summary of Air Monitoring and Sampling Results
October 3, 2012
PO# 12-H0408-MR**

This data report discusses real-time air monitoring data collected within the work area between October 2nd 00:00 and October 2nd 23:59 in support of mitigation and remediation operations conducted near Stolthaven’s facility near Braithwaite, LA.

Real-time air monitoring conducted within the work area resulted in reports of detections exceeding the action level required for the donning of respiratory protection. A maximum detection of 19.0 ppm formic acid was observed on a colorimetric tube at a location adjacent to the formic acid scrubber. At the time of the reading, workers in respiratory protection were attempting to perform scrubber maintenance. Following completion of scrubber work, formic acid levels declined to 6.2 ppm and then subsided to undetectable levels.

Real-time hand-held air monitoring reported no VOC detections within the work area on October 2nd. While stationary AreaRAE results indicate detections of VOCs at ten locations within the work area, these results are preliminary and may include drift in the instrument’s chemical sensors. If VOC detections were observed at an AreaRAE Station, CTEH[®] personnel were dispatched to the location for further evaluation.

Real-time air monitoring for VOCs and LEL was conducted using stationary AreaRAEs and/or hand-held instruments including the MultiRAE. When appropriate, a Multi-Rae (11.7 eV lamp) was utilized to monitor for formic acid in areas located near the formic acid scrubber. Table 1 and Table 2 display data summaries for hand-held instruments and AreaRAEs respectively. Table 3 highlights analytical sample counts collected for onsite air, product quality and waste characterization. Appendix 1 shows incident site maps.

**Table 1
Hand-held Real-time Summary – October 2nd 00:00 – 23:59**

Work Area				
Analyte	Number of Readings	Number of Detections	Average Concentration of Detections	Highest Concentration
Formic Acid	7	2	12.6 ppm	19.0 ppm
LEL	608	0	NA	< 1.0 %
VOC	600	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.

**Table 2
AreaRAE Summary – October 2nd 00:00 – 23:59**

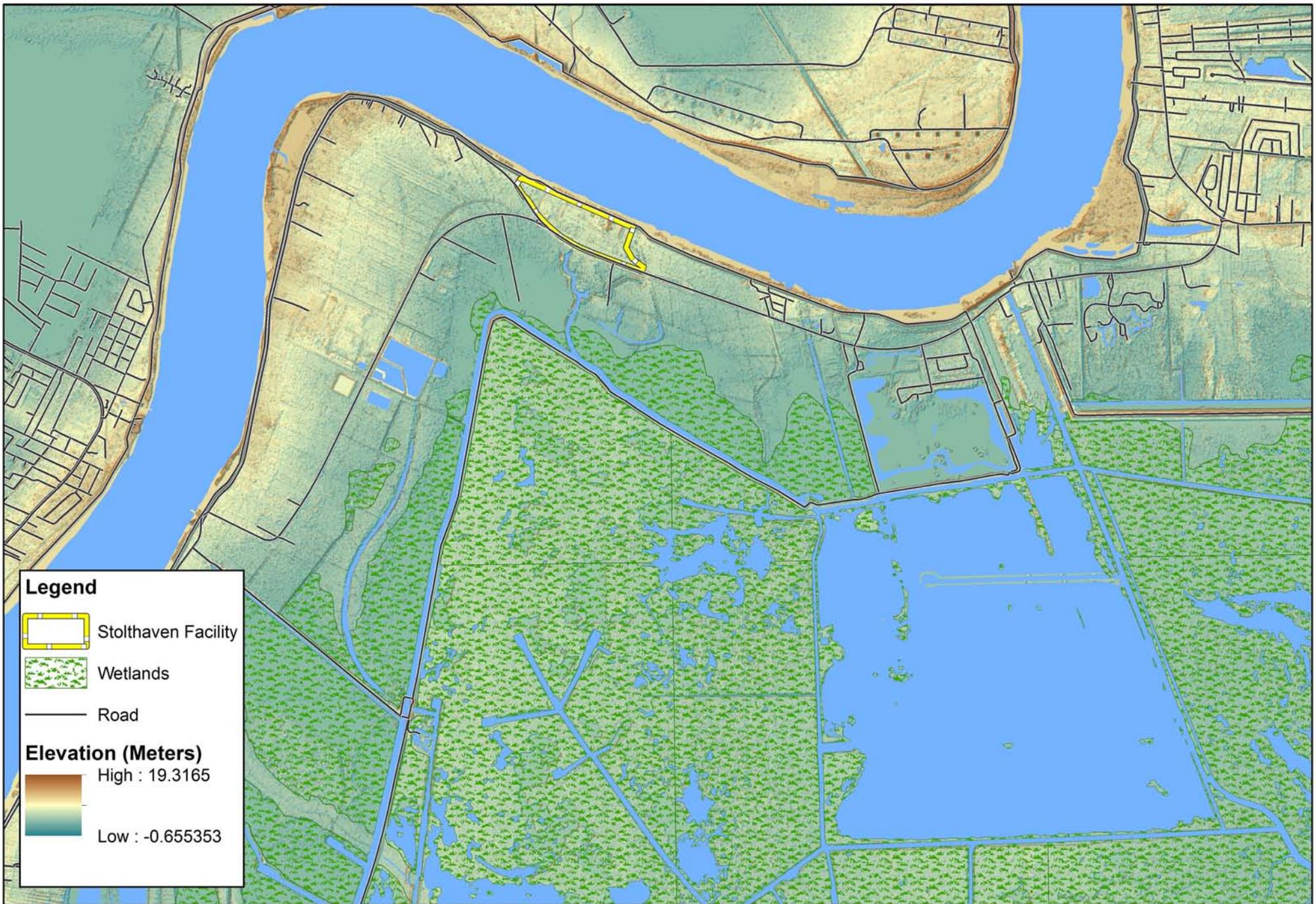
Unit	Analyte	Number of Readings	Number Of Detections	Concentration Range
Unit 14	LEL	5654	0	0 - 0 %
	VOC	5654	50	0.1 - 1.2 ppm
Unit 15	LEL	5095	0	0 - 0 %
	VOC	5095	0	0 – 0 ppm
Unit 16	LEL	5671	0	0 - 0 %
	VOC	5671	3	0.1 - 0.3 ppm
Unit 17	LEL	5155	0	0 - 0 %
	VOC	5155	21	0.1 - 0.9 ppm
Unit 18	LEL	5563	0	0 - 0 %
	VOC	5563	0	0 - 0 ppm
Unit 19	LEL	5680	0	0 - 0 %
	VOC	5680	7	0.1 - 0.5 ppm
Unit 20	LEL	5669	0	0 - 0 %
	VOC	5669	1	0.9 - 0.9 ppm
Unit 21	LEL	5606	0	0 - 0 %
	VOC	5606	143	0.1 - 0.7 ppm
Unit 22	LEL	5671	0	0 - 0 %
	VOC	5671	37	0.1 - 0.2 ppm
Unit 23	LEL	5487	0	0 - 0 %
	VOC	5487	101	0.1 - 0.2 ppm
Unit 24	LEL	5577	0	0 - 0 %
	VOC	5577	4	0.1 - 0.4 ppm
Unit 25	LEL	5072	0	0 - 0 %
	VOC	5072	3	0.1 - 0.7 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 3
Analytical Sample Counts – October 2nd 00:00 – 22:59

Matrix	Number of Samples
Air	4
Product Quality	9
Waste Characterization	5

Appendix 1: Incident Maps



Legend

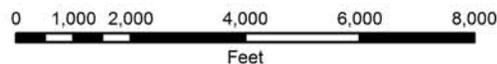
-  Stolthaven Facility
-  Wetlands
-  Road

Elevation (Meters)

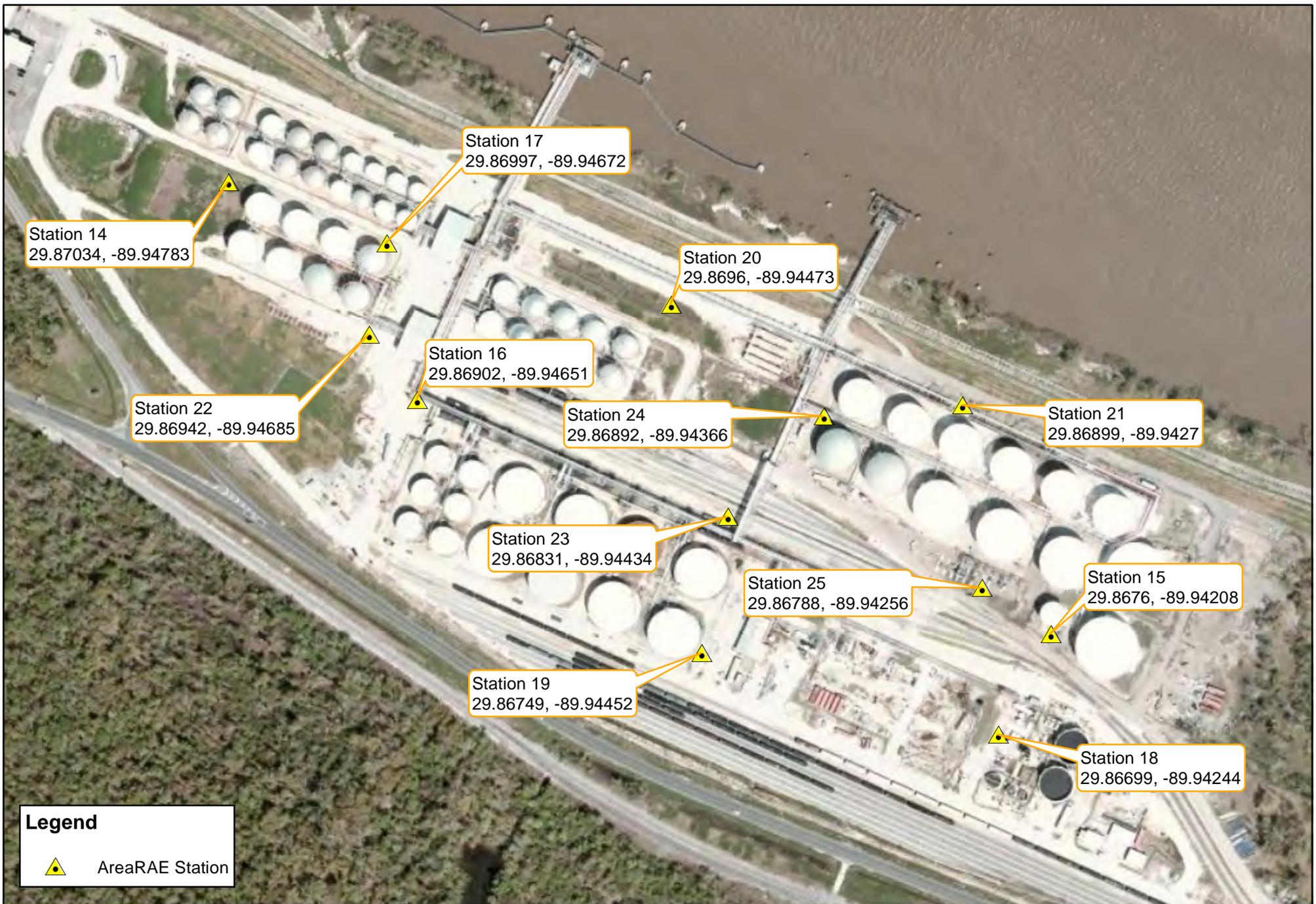
High : 19.3165

Low : -0.655353

**Stolthaven Facility
Shaded Relief of Elevation**



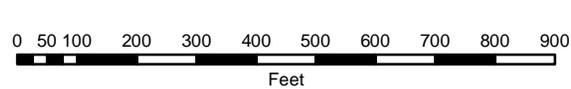
CTEH <small>Project No. 40355</small>	Stolthaven
	Braithwaite, LA
	Plaquemines Parish
Print Date: 9/17/2012	



Legend

 AreaRAE Station

Work Area
AreaRAE Station Locations
September 21, 2012



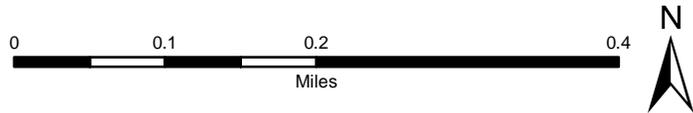
 Project No. 40365	Stolthaven Braithwaite, LA
	Plaquemines Parish Print Date: 9/26/2012



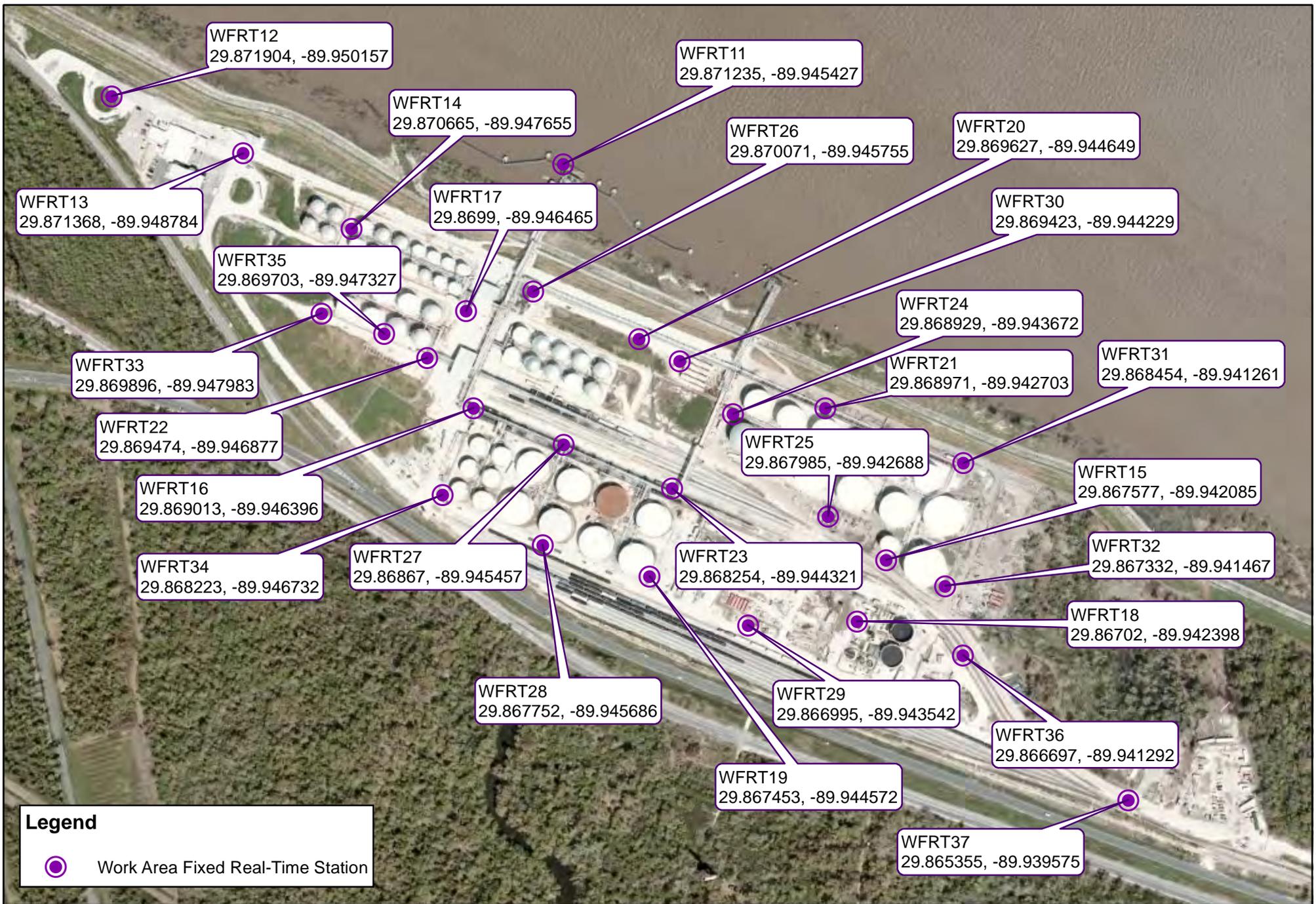
Legend

 Air Sample Location

**Ambient Air
Analytical Sampling Locations**



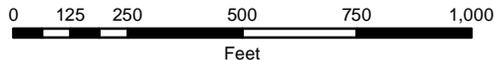
 Project No. 40365	Stolthaven
	Braithwaite, LA
	Plaquemines Parish
	Print Date: 9/28/2012



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 Work Area Fixed Real-Time Station

**Work Area
Fixed Real-Time Station**
September 21, 2012



Project No.
40365

**Stolthaven
Braithwaite, LA**

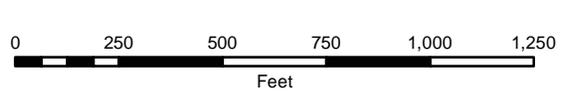
**Plaquemines Parish
Print Date: 9/28/2012**



Legend

- Real-Time Monitoring Location

Work Area
Real-Time Monitoring Locations
 10/02/2012



 Project No. 40365	Stolthaven Braithwaite, LA
	Plaquemines Parish Print Date: 10/3/2012

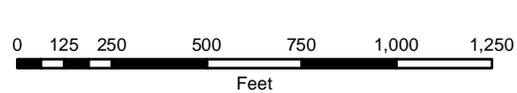


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VOC Concentration

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

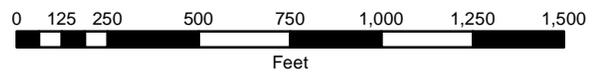
**Manually-Logged
Work Area VOC Concentrations**
10/02/2012



 Project No. 40365	Stolthaven Braithwaite, LA
	Plaquemines Parish Print Date: 10/3/2012



**Formic Acid
Reading Locations**
10/02/2012



 Project No. 40355	Stolthaven Braithwaite, LA
	Plaquemines Parish Print Date: 10/3/2012