
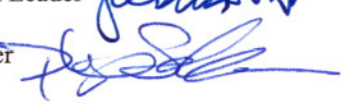




DATE: 3 November 2008

TO: Rajeshmal Singhvi, U.S. EPA/ERT Work Assignment Manager

THROUGH: Jeff Bradstreet, REAC Air Section Leader 

FROM: Philip Solinski, REAC Task Leader 

SUBJECT: CORAL BAY AIR SAMPLING, ST. JOHN, USVI
WORK ASSIGNMENT 0-367 - AIR MONITORING AND SAMPLING FINAL REPORT

BACKGROUND

The United States Environmental Protection Agency/Environmental Response Team (U.S. EPA/ERT) was requested by EPA Region II to perform air monitoring and sampling on Saint (St) John in the U.S. Virgin Islands (VI). The Response Engineering and Analytical Contract (REAC) was tasked by EPA/ERT to perform air monitoring and sampling around the Coral Bay area of St. John during the week of 15 September 2008. The sampling effort was performed in response to complaints by Coral Bay residents of periodic exposure to a smoke plume emanating from a burning trash dump located on the neighboring island of Tortola in the British Virgin Islands.

OBSERVATIONS AND ACTIVITIES

Air monitoring was performed for particulates. Air sampling was performed for volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), inorganic acids, mercury (Hg), carbon monoxide (CO), carbon dioxide (CO₂), methane (CH₄), total non-methane organic compounds (TNMOC) and metals. Up to five sampling locations were utilized, during the four sampling events. The first sampling event began in the evening of 16 September 2008 and ended in the morning of 17 September 2008. The second sampling event occurred during the daytime of 17 September 2008. The third sampling event occurred during the daytime of 18 September 2008. The fourth sampling event began in the evening of 18 September 2008 and ended in the early morning of 19 September 2008.

The monitoring/sampling locations were mainly located in the Coral Bay Area. Final sampling locations were selected in consultation with EPA/ERT. Table 1 presents a description of each of the monitoring/sampling locations. Appendix A contains a GoogleTM Earth map depicting the monitoring locations.

Air Monitoring Methodology

Particulates were monitored by the Thermo Scientific DataRam (DataRam). The DataRam is a high sensitivity nephelometric monitor whose light scattering sensing configuration is optimized for the measurement of airborne dust, smoke, fumes, and mists concentration in ambient environments. The instrument samples the air at a constant flow rate by means of a diaphragm pump. The sampled air stream passes through the optical sensing stage after which the particles are retained by a high-efficiency filter cartridge. The DataRam covers a range of measurement from 0.1 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) to 400 milligrams per cubic meter (mg/m^3) with monitoring information being logged internally.

Air Sampling Methodologies

Ambient sampling and analysis for VOCs was conducted following modified U.S. EPA Toxic Organic Compendium Method TO15: *Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)*. SUMMA[®] canisters were utilized to collect grab samples. Each sample was collected by taking a pre-cleaned, pre-evacuated canister, opening the valve and collecting 6 liters (L) of air within the breathing zone. In addition, the SUMMA[®] canisters were analyzed for CH₄, CO and CO₂ following the protocol outlined in EPA Method 25C, *Determination of Non-Methane Organic Compounds in Landfill Gases*.

Ambient sampling, and analysis for VOCs was conducted following modified (gas chromatography/mass spectrometry (GC/MS)) National Institute for Occupational Safety and Health (NIOSH) methods: Method 1500, *Hydrocarbons, BP 36-216 °C*; Method 1501, *Hydrocarbons, Aromatic*; and Method 1003, *Hydrocarbons, Halogenated*. The sampling train consisted of a 600- mg charcoal solid sorbent tube connected to a low/high flow personal sampling pump (SKC). The sampling pump was calibrated to collect approximately 1 L/minute (min) of air through the sorbent tube. Sampling was conducted for 8-hours with air volumes targeted to be 480 L. Samples were collected within the breathing zone.

Ambient sampling and analysis for PAHs were conducted following modified (GC/MS-Selected Ion Monitoring) NIOSH Method 5515, *Polynuclear Aromatic Hydrocarbons*. The sampling train consisted of a 600-mg washed XAD-2 solid sorbent tube with 2-micron (μm), 37-millimeter (mm) Teflon (PTFE) filter connected to a low/high flow personal sampling pump (SKC). The sampling pump was calibrated to collect approximately 1.5 L/min of air through the sorbent tube. Sampling was conducted for 8-hours with air volume targeted to be 720 L. Samples were collected within the breathing zone.

Ambient sampling and analysis for inorganic acids were conducted following NIOSH Method 7903, *Acids, Inorganic*. The sampling train consisted of a 600-mg specially cleaned silica gel solid sorbent tube connected to a low/high flow personal sampling pump (SKC). The sampling pump was calibrated to collect approximately 0.3 L/min of air through the sorbent tube. Sampling was conducted for 8-hours with air volume targeted to be 144 L. Samples were collected within the breathing zone.

Ambient sampling and analysis for metals were conducted following a modified NIOSH Method 7300, *Elements (ICP)*. The sampling train consisted of a 0.8-μm pore size 37-mm mixed cellulose ester filter (MCEF) connected to a low/high flow personal sampling pump (SKC). The sampling pump was calibrated to collect approximately 1 L/min of air through the filter. Sampling was conducted for 8-hours with air volume targeted to be 480 L. Samples were collected within the breathing zone.

Ambient sampling and analysis for Hg were conducted following a modified NIOSH Method 6009, *Mercury*. The sampling train consists of a 200-milligram carulite/hydrar tube connected to a low/high flow personal sampling pump (SKC). The sampling pump was calibrated to collect approximately 0.5 L/min of air through the tube. Sampling was conducted for 8-hours with air volume targeted to be 240 L. Samples were collected within the breathing zone.

Air Monitoring Events

Air monitoring was performed once per sampling event at each sampling location. Table 2 presents the particulate air monitoring summary. Appendix A contains a GoogleTM Earth map depicting the air monitoring/sampling locations.

Air Sampling Events

A total of five SUMMA[®] canister grab samples were collected. On 17 September 2008, two samples were collected at locations 1 and 2. Three SUMMA[®] canister grab samples were collected on 18 September 2008 at locations 1, 2 and 5.

Air sampling for VOCs, PAHs, inorganic acids, mercury, and metals were collected at all five locations during the of 16

September 2008 evening sampling event, daytime sampling event of 18 September 2008, and the evening sampling event of 18 September 2008. A co-located sample was collected at Location 2 during sampling event evening of 16 September 2008. Only Locations 1 through 4 were sampled during the daytime event of 17 September 2008. Appendix B contains all of air sampling data sheets. Appendix C contains a photo log of the sampling locations.

After sample collection, all samples were packaged and chains of custody were processed using Scribe. The SUMMA[®] canister VOCs, charcoal tube VOCs, metals, Hg, and PAH samples were shipped back to the REAC laboratory in Edison, NJ for analysis. After the REAC analysis, the SUMMA[®] canister (VOCs) samples were sent to Columbia Analytical Services in Simi Valley, CA for analysis of CH₄, CO and CO₂. The inorganic acid samples were sent to Data Chem in Salt Lake City, UT for analysis.

Air Sampling Results

No target compounds for VOCs (in charcoal tubes), PAH or mercury were detected above their respective reporting limits.

The only metal observed was iron ($17.6 \mu\text{g}/\text{m}^3$) at the co-located sample from Location 2 collected during the first sampling event on 17 September 2008. Note that iron was not detected above the reporting limit in the sample that was collected at the same location during the same time period.

Table 3 presents the SUMMA[®] canister grab air sampling summary for VOCs along with CH₄ and CO₂. Samples were collected on 17 and 18 September 2008. The majority of the results were below 1 part per billion by volume (ppbv). The only exception was acetone being present in all samples ranging from 4.49 to 11.6 ppbv, and isopropyl alcohol estimated at 1.22 ppbv at the sample collected on 18 September 2008 at Location 1.

Table 4 presents the inorganic acid air sampling summary in mg/m^3 . Inorganic acids were not detected above their respective reporting limits for both sampling events that ended on 17 September 2008. Only hydrochloric acid was detected, just above the reporting limit, with highest concentration of $0.013 \text{ mg}/\text{m}^3$ at Location 5, the upwind location during the last sampling event.

Appendix D contains the wind roses for the four sampling events from 16 to 18 September 2008 from the Cyril E. King International Airport on St. Thomas, USVI.

FUTURE ACTIVITIES

No future activities are anticipated at this time.

cc: Central File WA 0-367

TABLE 1
Air Monitoring/Sampling Location Summary
Coral Bay
St. John, USVI
November 2008

| Location | Description |
|----------|----------------------------------|
| 1 | 10-25 C Carolina |
| 2 | 6-3-62 Upper Carolina |
| 3 | Majestic Mile |
| 4 | Chateau Bordeaux |
| 5 | East End - Privateer Bay Estates |

TABLE 2
Total Particulate Air Monitoring Summary in $\mu\text{g}/\text{m}^3$
Coral Bay
St. John, USVI
November 2008

| Location | Location Description | September 17, 2008 | | | | September 18, 2008 | | | |
|----------|----------------------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|-------|---------------|
| | | Time | Concentration | Time | Concentration | Time | Concentration | Time | Concentration |
| 1 | 10-25 C Carolina | 12:36 | 20.2 | 20:46 | 32.7 | 9:01 | 6.7 | 17:23 | 15.5 |
| 2 | 6-3-62 Upper Carolina | 10:59 | 20.7 | 19:37 | 23.2 | 9:39 | 6.8 | 18:40 | 6.1 |
| 3 | Majestic Mile | 11:36 | 20.5 | 20:00 | 22.7 | 9:20 | 5.6 | 18:04 | 7.7 |
| 4 | Chateau Bordeaux | 13:15 | 19.7 | 21:22 | 29.5 | 10:08 | 9.3 | 19:13 | 8.6 |
| 5 | East End - Privateer Bay Estates | 9:58 | 18.7 | Not Monitored | Not Monitored | 8:18 | 6.4 | 16:39 | 4.7 |

$\mu\text{g}/\text{m}^3$ - micrograms per cubic meter.

TABLE 3
SUMMA® Canister Grab Air Sampling Summary in ppbv (*)
Coral Bay
St. John, USVI
November 2008

| | September 17, 2008 | | | | September 18, 2008 | | | | | | September 18, 2008 | |
|-------------------------|-----------------------|--------|------------------|--------|--------------------|--------|------------------|--------|-----------------------|--------|--------------------|--------|
| Sample Number | 50428 | | 50429 | | 50424 | | 50425 | | 50426 | | 50302 | |
| Sample Location | Location 2 | | Location 1 | | Location 5 | | Location 1 | | Location 2 | | Trip Blank | |
| Sub Location | 6-3-62 Upper Carolina | | 10-25 C Carolina | | East End | | 10-25 C Carolina | | 6-3-62 Upper Carolina | | Trip Blank | |
| Compounds | Result | RL | Result | RL | Result | RL | Result | RL | Result | RL | Result | RL |
| Propylene | ND | 0.0667 | 0.279 | 0.0667 | 0.0990 | 0.0667 | 0.214 | 0.0667 | ND | 0.0667 | 0.157 | 0.0667 |
| Dichlorodifluoromethane | 0.427 | 0.0667 | 0.586 | 0.0667 | 0.507 | 0.0667 | 0.417 | 0.0667 | 0.487 | 0.0667 | ND | 0.0667 |
| Chloromethane | 0.695 | 0.0667 | 0.714 | 0.0667 | 0.599 | 0.0667 | 0.392 | 0.0667 | 0.437 | 0.0667 | ND | 0.0667 |
| Acetone | 7.84 J | 0.167 | 4.49 J | 0.167 | 5.97 J | 0.167 | 11.6 J | 0.345 | 4.70 J | 0.167 | 0.340 J | 0.167 |
| Trichlorofluoromethane | 0.164 | 0.0667 | 0.213 | 0.0667 | 0.186 | 0.0667 | 0.153 | 0.0667 | 0.180 | 0.0667 | ND | 0.0667 |
| Isopropyl Alcohol | ND | 0.167 | ND | 0.167 | ND | 0.167 | 1.22 J | 0.214 | ND | 0.167 | ND | 0.167 |
| Vinyl Acetate | 0.231 | 0.0667 | 0.167 | 0.0667 | 0.297 | 0.0667 | 0.454 J | 0.0667 | 0.105 | 0.0667 | ND | 0.0667 |
| 2-Butanone | 0.159 | 0.0667 | 0.192 | 0.0667 | 0.138 | 0.0667 | 0.401 | 0.0667 | 0.142 | 0.0667 | ND | 0.0667 |
| Chloroform | 0.0763 | 0.0667 | ND | 0.0667 | ND | 0.0667 | ND | 0.0667 | ND | 0.0667 | ND | 0.0667 |
| Benzene | ND | 0.0667 | ND | 0.0667 | ND | 0.0667 | ND | 0.0667 | ND | 0.0667 | 0.122 | 0.0667 |
| Trichloroethene | ND | 0.0667 | ND | 0.0667 | ND | 0.667 | ND | 0.0667 | ND | 0.0667 | 0.0728 | 0.0667 |
| m&p-Xylene | 0.0969 | 0.0667 | 0.0850 | 0.0667 | ND | 0.0667 | ND | 0.0667 | ND | 0.0667 | ND | 0.0667 |
| Methane (*) | 1.7 | 0.70 | 0.85 | 0.50 | 1.6 | 0.70 | 1.5 | 0.69 | 1.6 | 0.70 | ND | 0.66 |
| Carbon Dioxide(*) | 600 | 7.0 | 190 | 5.0 | 350 | 7.0 | 350 | 6.9 | 380 | 7.0 | ND | 6.6 |

ppbv - - parts per billion by volume

* - Results for methane and carbon dioxide are reported in parts per million

RL – Reporting limit

ND – Not detected above reporting limit listed

J – Value is estimated

TABLE 4
Inorganic Acid Air Sampling Summary in mg/m³
Coral Bay
St. John, USVI
November 2008

| September 18, 2008 | Location 1 | | Location 2 | | Location 3 | | Location 4 | | Location 5 | |
|----------------------------------|------------------|--------|-----------------------|--------|---------------|--------|------------------|--------|----------------------------------|--------|
| Event ended at approximately 6pm | 10-25 C Carolina | | 6-3-62 Upper Carolina | | Majestic Mile | | Chateau Bordeaux | | East End - Privateer Bay Estates | |
| | Result | RL | Result | RL | Result | RL | Result | RL | Result | RL |
| Hydrochloric Acid | ND | 0.0036 | 0.0043 | 0.0036 | 0.0059 | 0.0036 | ND | 0.0050 | ND | 0.0036 |

| September 19, 2008 | Location 1 | | Location 2 | | Location 3 | | Location 4 | | Location 5 | |
|----------------------------------|------------------|--------|-----------------------|--------|---------------|--------|------------------|--------|----------------------------------|--------|
| Event ended by approximately 3am | 10-25 C Carolina | | 6-3-62 Upper Carolina | | Majestic Mile | | Chateau Bordeaux | | East End - Privateer Bay Estates | |
| | Result | RL | Result | RL | Result | RL | Result | RL | Result | RL |
| Hydrochloric Acid | ND | 0.0054 | 0.0039 | 0.0036 | 0.0046 | 0.0036 | ND | 0.0036 | 0.013 | 0.0089 |

mg/m³ - milligrams per cubic meter.

RL – Reporting limit in micrograms per sample.

ND – Not detected above reporting limit listed

APPENDIX A
Google™ Earth Maps Depicting Monitoring/Sampling Locations
Coral Bay
St. John, USVI
November 2008



APPENDIX B
Air Sampling Data Sheets
Coral Bay
St. John, USVI
November 2008



EPA/Environmental Response Team
Response Engineering Analytical Contract
Air Sampling Work Sheet
Lockheed Martin Corp., Edison, NJ
U.S. EPA Contract No. EP-C-04-032

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REAC
Response Engineering and Analytical Contract

Site: ST JOHN

WA#: 50001

Sampler: CATLOW/HEIT/SOLINSKI

U.S. EPA/ERTC WAM: SINGHVI

Date: 9/16/08

REAC Task Leader: SOLINSKI

| Sample # | 50350 | 50351 | 50352 | 50353 | — |
|---------------------------------|--------------------------------------|--------------------------------|--------------------|--|---------|
| Location | PRIVATEER BAY ESTATES BY EAST END | 4218 | | ELECTRICAL TRANSFORMER 450 FT ACROSS FROM LOT | |
| Pump # | 44 | 121 | 521 | 450 | 344 |
| Media | COONING CARBON | 600 mg CARBON + 2.0 um PTFE | SILICA GEL TUBE | 0.4 um MCEP | CALIBRE |
| Analysis/Method | VOL | PAL | INTEGRATION | METAL | Hg |
| Rotameter | MLG | MLG | 7962 | MLG | 7962 |
| Time/Counter (Start) 9/16/08 | 0 2000 | 0 2000 | 0 2000 | 0 2000 | — |
| Time/Counter (Stop) 9/16/08 | 480 0400 | 480 700 | 480 0400 | 480 0400 | — |
| Total Time | 480 | 660 | 480 | 480 | 0 |
| Pump Fault | Y (N) | Y (N) | Y (N) | Y (N) | (Y) N |
| Flow Rate (Start) | 1 | 1.5 | 0.3 | 1 | 0.500 |
| Flow Rate (End) | 0.85 | 1.4 | 0.3 | 1 | — |
| Flow Rate Average | 0.925 | 1.45 | 0.3 | 1 | — |
| Sample Volume | 444 | 957 | 144 | 480 | — |

MET Station on Site?: Y / N

50355

50356

50357

50358

FILLER
BLANKS

50354

DIAGRAM 948-958 = 18.7 um / 3 75 um DELAY START @ 18:45
10 MIN TOTAL PARTICULATE AUB



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U.S. EPA Contract No. EP-C-04-032

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REAC
Response Engineering and Analytical Contract

Site: ST JOHN

WA#: 90 001

Sampler: SOLINSKI/CARROLL

U.S. EPA/ERTC WAM: SINGHVI

Date: 9/16/08

REAC Task Leader: SOLINSKI

| Sample # | — | 50361 | 50362 | 50363 | 50364 |
|---------------------------------|--------------|--------------------------|-------------|-------------|--------------|
| Location | LOCATION 2 | 6-3-62 | UPPER | CAROLINA | |
| Pump # | 497 | 138 | 413 | 302 | 529 |
| Media | 600mg CARBON | 600 mg XAD2 20um PTFE | SILICA GEL | 0.8 um MCE | 200mg CARBON |
| Analysis/Method | VOC | PAH | INORGANICS | METALS | UG |
| Rotameter | MG | MG | 7962 | MG | 7962 |
| Time/Counter 9/16/08 (Start) | 0 | 0 | 0 | 0 | 0 |
| Time/Counter 9/17/08 (Stop) | X | 660 0700 | 480 0740 | 480 0740 | 480 0740 |
| Total Time | — | 660 | 480 | 480 | 480 * 57 min |
| Pump Fault | Y/N | Y/N | Y/N | Y/N | Y/N |
| Flow Rate (Start) L/min | 1 | 1.5 | 300 mL/min | 1 | 500 mL/min |
| Flow Rate (End) L/min | — | 1.5 | 300 mL/min | 1 | 0.20 mL/min |
| Flow Rate Average L/min | — | 1.5 | 300 mL/min | 1 | 0.350 mL/min |
| Sample Volume L | — | 990 | 144 | 480 | 480/68 |

MET Station on Site?: Y/N

↓ DELAY
FAILED

18 min Ave
@ 1059

DATA RUN @ 20.7 mg/m³

DELAYED START 130 min @ 1750



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Site: ST JOHN

WA#: SB001

Sampler: SOLINSKI/CARTMILLER

U.S. EPA/ERTC WAM: SINGHVI

Date: 9/14/08

REAC Task Leader: SOLINSKI

| Sample # | 50365 | 50366 | 50367 | 50368 | 50369 |
|-----------------------------|--------------|--------------------|-----------------|-------------|---------------|
| Location | LOCATION 2 | COLOCATED 2 DOGS | 6-3-62 | UPPER | CAROLINA |
| Pump # | 472 | 311 | 133 | 173 | 437 |
| Media | 600mg CARBON | 600mg XAD2 2.0 PPF | SILICA GEL | 0.8 um MCEP | 200mg CARBITE |
| Analysis/Method | VOI | PAH | INORGANIC ACIDS | METALS | Hg |
| Rotameter | MG | MG | 7962 | MG | 7962 |
| Time/Counter (Start) | 0/2000 | 0/2000 | 0/2000 | 0/2000 | 0/2000 |
| Time/Counter (Stop) | 480/0400 | 000/0700 | 480/0400 | 480/0400 | 480/0400 |
| Total Time | 480 | 660 | 480 | 480 | 480 |
| Pump Fault | Y/N | Y/N | Y/N | Y/N | Y/N |
| Flow Rate (Start) | 1 LPM | 1.5 | 300 mL/min | 1 | 500 mL/min |
| Flow Rate (End) | 0.95 LPM | 1.5 | 300 mL/min | 0.9 | 500 mL/min |
| Flow Rate Average | 0.975 LPM | 1.5 | 300 mL/min | 0.95 | 500 mL/min |
| Sample Volume | 468 | 990 | 144 | 456 | 240 |
| MET Station on Site?: Y/N | | | | | |
| 1300hr DELAYED START @ 1700 | | | | | |



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Site: ST JOHN

WA#: 50001

Sampler: CARTWRIGHT/SOLINSKI

U.S. EPA/ERTC WAM: SINAHVI

Date: 9/16/08

REAC Task Leader: SOLINSKI

| Sample # | 50370 | 50371 | 50372 | 50373 | 50374 |
|--|-----------------------|------------------------|------------------------|------------------------|------------------------|
| Location | MAJESTIC ROAD | | LOCATION 3 | | |
| Pump # | 317 | 325 | 352 | 150 | 381 |
| Media | VOC | PAH | IA | METALS | HS |
| Analysis/Method | CARBON | XAD2 PTFE | SILICA | WCEP | CARBIDE |
| Rotameter | MG | MG | 7962 | MG | 7962 |
| Time/Counter (Start) | 0 2000 | 0 2000 | 0 2000 | 0 2000 | 0 2000 |
| Time/Counter (Stop) | 2045 45 | 0700 660 | 0400 480 | 0400 480 | 0400 480 |
| Total Time | 45 | 660 | 480 | 480 | 480 |
| Pump Fault | Y/N | Y/N | Y/N | Y/N | Y/N |
| Flow Rate (Start) | 1 | 1.5 | 0.3 | 1 | 0.5 |
| Flow Rate (End) | 1 | 1.5 | 0.3 | 1 | 0.5 |
| Flow Rate Average | 1 | 1.5 | 0.3 | 1 | 0.5 |
| Sample Volume | 45 | 990 | 144 | 480 | 480 |
| MET Station on Site?: Y/N | | | | | |
| <p>20.5 ug/m³ DATA taken 12 min AVG ending @ 11:36 3 min OLS @ 7:30</p> | | | | | |



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REAC
Response Engineering and Analytical Contract

Site: ST JOHN

WA#: 50001

Sampler: CARTWRIGHT/SOLINGER

U.S. EPA/ERTC WAM: SLABHVI

Date: 9/14/08

REAC Task Leader: SOLINGER

| Sample # | 50375 | 50376 | 50377 | 50378 | 50379 |
|-------------------------|--------------|---------------|--------------|--------|-----------|
| Location | 25C CARDINAL | | LOC 1 (WASH) | | |
| Pump # | 47 | 416 | 495 | 426 | 476 |
| Media | CARBON | XAD 2 PTFE | SILICA | MCEP | CARBONATE |
| Analysis/Method | VOL | PAH | IN ACID | METALS | Hg |
| Rotameter | WLG | MG | 7962 | MG | 7962 |
| Time/Counter (Start) | 0 | 0 | 0 | 0 | 0 |
| Time/Counter (Stop) | 480 | 660 | 480 | 480 | 480 |
| Total Time | 480 | 660 | 480 | 480 | 480 |
| Pump Fault | Y/N | Y/N | Y/N | Y/N | Y/N |
| Flow Rate (Start) | 1 | 1.5 | 300 | 1 | 500 |
| Flow Rate (End) | 1 | 1.5 | 300 | 1 | 500 |
| Flow Rate Average | 1 | 1.5 | 300 | 1 | 500 |
| Sample Volume | 480 | 990 | 144 | 480 | 240 |

MET Station on Site?: Y/N

2000 ug/m³
DATA RAN 18 MIN AVG @ 12:36

50 MIN YELM START
@ 1910



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Site: ST JOHNWA#: 50001Sampler: CARDINAL/SOLINSKIU.S. EPA/ERTC WAM: SOLINSKIDate: 9/16/08REAC Task Leader: SOLINSKI

| Sample # | 50380 | 50381 | 50382 | 50383 | 50384 |
|---|----------|--------------|----------|----------|-----------|
| Location | BORDEAUX | | LOZATSKY | | |
| Pump # | 509 | 336 | 312 | 306 | 523 |
| Media | CARBON | LAO2 PTFE | SILICA | MOEF | CARBOLITE |
| Analysis/Method | VOLCS | PAH | EA | METALS | HS |
| Rotameter | MG | MG | 7962 | MG | 7962 |
| Time/Counter (Start) | 0 1959 | 0 1959 | 0 1959 | 0 1959 | 0 1959 |
| Time/Counter (Stop) | 480 0359 | 660 0659 | 480 0359 | 480 0359 | 480 0359 |
| Total Time | 480 | 660 | 480 | 480 | 480 |
| Pump Fault | Y/N | Y/N | Y/N | Y/N | Y/N |
| Flow Rate (Start) | 1 | 1.5 | 300 | 1 | 500 |
| Flow Rate (End) | 1 | 1.5 | 250 | 1 | 400 |
| Flow Rate Average | 1 | 1.5 | 275 | 1 | 450 |
| Sample Volume | 480 | 990 | 132 | 480 | 216 |
| MET Station on Site?: Y/N 19.7 mg/m ³ DATA 20 min AVG @ 13:15 ON @ 754 1959 | | | | | |



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REAC
Response Engineering and Analytical Contract

Site: ST JOHN

WA#: 50001

Sampler: CARTWRIGHT/BONGER

U.S. EPA/ERTC WAM: SINLHVI

Date: 9/17/08 PM 5

REAC Task Leader: SOLOVSKY

| Sample # | 50385 | 50386 | 50387 | 50388 | 50389 |
|----------------------|-----------------------------------|----------------------|-------------|-------------|-----------------|
| Location | LOCATION 2 UPPER CAROLINA (63-62) | | | | |
| Pump # | 65 | 361 | 107 | 187 | 17 |
| Media | GOODS CARBON | GOODS RAD-2.0um PTFE | SILICA GEL | 0.8um MCEP | 200um CARBONATE |
| Analysis/Method | VOC | PAH | IA | METALS | Hg |
| Rotameter | MG | MG | 7962 | MG | 7962 |
| Time/Counter (Start) | 0 | 0 | 0 | 0 | 0 |
| Time/Counter (Stop) | 480 1911 | 495 1926 | 480 1911 | 480 1911 | 480 1911 |
| Total Time | 480 | 495 | 480 | 480 | 480 |
| Pump Fault | Y/N | Y/N | Y/N | Y/N | Y/N |
| Flow Rate (Start) | 1 | 1.5 | 300 | 1 | 500 cc |
| Flow Rate (End) | 1 | 1.5 | 300 | 1.1 | 500 cc |
| Flow Rate Average | 1 | 1.5 | 300 | 1.05 | 500 cc |
| Sample Volume | 480 | 697.5 | 144 | 504 | 240 |

MET Station on Site?: Y/N

SUMMA CRAB 50428

SUMMA #68

-IP = -29

TIME 1925

Date 9/17/08

DATA ROOM 5 min Ave
at 282 ug/m³ at 1937



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Site: ST JOHN

WA#: 50 001

Sampler: CARTRIGHT/SOLINSKI

U.S. EPA/ERTC WAM: SINGHVI

Date: 9/17/8 DAYTIME

REAC Task Leader: SOLINSKI

| Sample # | 50390 | 50391 | 50392 | 50393 | 50394 |
|--|----------------------|----------------------|----------------------|--------------------|----------------------|
| Location | <u>MAJESTIC ROAD</u> | <u>MILE 1.3</u> | <u>UPPER CROWN</u> | | |
| Pump # | <u>498</u> | <u>318</u> | <u>373</u> | <u>382</u> | <u>428</u> |
| Media | <u>600 mg CARBON</u> | <u>600 mg CARBON</u> | <u>300 mg CARBON</u> | <u>0.8 um MCEP</u> | <u>200 mg CARBON</u> |
| Analysis/Method | <u>VOL</u> | <u>PAH</u> | <u>TA</u> | <u>METALS</u> | <u>Hg</u> |
| Rotameter | <u>MG</u> | <u>MG</u> | <u>7962</u> | <u>MG</u> | <u>7962</u> |
| Time/Counter (Start) | <u>1149</u> | <u>1149</u> | <u>1149</u> | <u>1149</u> | <u>1149</u> |
| Time/Counter (Stop) | <u>1949</u> | <u>1823</u> | <u>1949</u> | <u>1949</u> | <u>1949</u> |
| Total Time | <u>480</u> | <u>394</u> | <u>480</u> | <u>480</u> | <u>480</u> |
| Pump Fault | <u>Y/N</u> | <u>Y/N</u> | <u>Y/N</u> | <u>Y/N</u> | <u>Y/N</u> |
| Flow Rate (Start) | <u>1</u> | <u>1.5</u> | <u>300</u> | <u>1</u> | <u>500</u> |
| Flow Rate (End) | <u>1</u> | <u>1.5</u> | <u>300</u> | <u>1</u> | <u>320</u> |
| Flow Rate Average | <u>1</u> | <u>1.5</u> | <u>300</u> | <u>1</u> | <u>410</u> |
| Sample Volume | <u>480</u> | <u>591</u> | <u>144</u> | <u>480</u> | <u>196.8</u> |
| MET Station on Site?: <u>Y/N</u> | | | | | |
| <u>DATA FROM 7 min. Average</u> <u>@ 22.7 mg/m³ at 2000</u> <u>1749</u> <u>34</u> <u>1823</u> | | | | | |



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REAC
Response Engineering and Analytical Contract

Site: STTDW

WA#: 50 out

Sampler: CARTWRIGHT/BOUNSKI

U.S. EPA/ERTC WAM: SINGHVI

Date: 9/17/98

REAC Task Leader: BOUNSKI

| Sample # | 50395 | 50396 | 50397 | 50398 | 50399 |
|---------------------------|----------------------------|------------|-------------------|------------------------|-----------------|
| Location | 10-25C CAROLINA LOCATION 1 | | | | |
| Pump # | 315 | 442 | 388 | 194 | 369 |
| Media | 600mg CARBO | 600mg PTFE | 500mg SILENT CELL | 600mg WCEP | 200mg CARBOLITE |
| Analysis/Method | VOC | PAM | IA | MEALS | Hg |
| Rotameter | MG | MG | 7962 | MG | 7962 |
| Time/Counter (Start) | 0/1230 | 0/1230 | 0/1230 | 0/1230 | 0/1230 |
| Time/Counter (Stop) | 480/2030 | 480/2030 | 350/1820 | 480/2030 | 480/2030 |
| Total Time | 480 | 480 | 350 | 2030 | 2030 |
| Pump Fault | Y/N | Y/N | Y/N | Y/N | Y/N |
| Flow Rate (Start) | 1 | 1.5 | 300 | 1 | 500 |
| Flow Rate (End) | 0.75 | 1.4 | 300 | 1 | 500 |
| Flow Rate Average | 0.875 | 1.45 | 300 | 1 | 500 |
| Sample Volume | 420 | 696 | 105 | 480 | 240 |
| MET Station on Site?: Y/N | | | | | |
| FIELD BLANKS | 50405 | 50406 | 50407 | 50408 | 50409 |
| LOT BLANKS | 50410 | 50411 | 50412 | 50413 | 50414 |
| LOT # | # 2000 | # 3722 | # 3722 | HSCN 68558-051104 | 2611 |
| SUMMA GRAB | SUMMA # | 50420 | TIME 8:41 | DATA RAM 5 MIN AVERAGE | |



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REAC
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Site: ST JOHN

WA#: 50 001

Sampler: CANTWRIGHT/SOLINSKI

U.S. EPA/ERTC WAM: SOLINSKI

Date: 9/17/08

REAC Task Leader: SOLINSKI

| Sample # | 50400 | 50401 | 50402 | 50403 | 50404 |
|--|---------------------------|-----------------------------|---------------------------|---------------------------|---------------------------|
| Location | <u>BORDEAUX</u> | <u>LOCATION</u> | <u>4</u> | | |
| Pump # | <u>335</u> | <u>215</u> | <u>323</u> | <u>181</u> | <u>314</u> |
| Media | <u>600mg CARBON</u> | <u>600mg AD2 2.0um PTFE</u> | <u>SILICA GEL</u> | <u>0.8um MCF</u> | <u>200mg CARBONITE</u> |
| Analysis/Method | <u>VOC</u> | <u>PAN</u> | <u>IA</u> | <u>METALS</u> | <u>Hg</u> |
| Rotameter | <u>MG</u> | <u>MG</u> | <u>7462</u> | <u>MG</u> | <u>7462</u> |
| Time/Counter (Start) | <u>0</u> <u>1300</u> | <u>0</u> <u>1300</u> | <u>0</u> <u>1300</u> | <u>0</u> <u>1300</u> | <u>0</u> <u>1300</u> |
| Time/Counter (Stop) | <u>338</u> <u>1722</u> | <u>480</u> <u>2100</u> | <u>480</u> <u>2100</u> | <u>480</u> <u>2100</u> | <u>480</u> <u>2100</u> |
| Total Time | <u>338</u> | <u>480</u> | <u>480</u> | <u>480</u> | <u>480</u> |
| Pump Fault | <u>Y/N</u> | <u>Y/N</u> | <u>Y/N</u> | <u>Y/N</u> | <u>Y/N</u> |
| Flow Rate (Start) | <u>1</u> | <u>1.5</u> | <u>300</u> | <u>1</u> | <u>500</u> |
| Flow Rate (End) | <u>0.9</u> | <u>1.5</u> | <u>300</u> | <u>1</u> | <u>500</u> |
| Flow Rate Average | <u>0.95</u> | <u>1.5</u> | <u>300</u> | <u>1</u> | <u>500</u> |
| Sample Volume | <u>321.1</u> | <u>720</u> | <u>144</u> | <u>480</u> | <u>240</u> |
| MET Station on Site?: <u>Y/N</u> <u>10 min DATARAM AVG 295 ug/m3 at 920 2122</u> | | | | | |



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Site: ST JOHN

WA#: 50001

Sampler: CARTWRIGHT/SOLINSKI

U.S. EPA/ERTC WAM: SLWGHVI

Date: 9/18/08

REAC Task Leader: SOLINSKI

| Sample # | 50430 | 50431 | 50432 | 50433 | 50434 |
|----------------------|-------------------|-----------------------|------------|------------|---------------|
| Location | EAST END LOCATION | | 5 UPWIND | | |
| Pump # | 47 | 311 | 413 | 450 | 529 |
| Media | 600mg CARBON TUBE | 600mg XAD2 2.0um PTFE | SILICA GEL | 0.8um MUF | 200mg CARBITE |
| Analysis/Method | VOC | PAH | IA | METALS | HG |
| Rotameter | MG | MG | 7962 | MG | 7962 |
| Time/Counter (Start) | 0 / 820 | 0 / 820 | 0 / 820 | 0 / 820 | 0 / 820 |
| Time/Counter (Stop) | 480 / 1620 | 480 / 1620 | 480 / 1620 | 480 / 1620 | 480 / 1620 |
| Total Time | 480 | 480 | 480 | 480 | 480 |
| Pump Fault | Y/N | Y/N | Y/N | Y/N | Y/N |
| Flow Rate (Start) | 1 | 1.5 | 300 | 1 | 500 |
| Flow Rate (End) | 1 | 1.5 | 300 | 1 | 200 |
| Flow Rate Average | 1 | 1.5 | 300 | 1 | 350 |
| Sample Volume | 480 | 720 | 144 | 480 | 168 |

MET Station on Site?: Y/N

50424

SUMMA GRAB #1134
@ 1620 IP-29.5

TOTAL PARTICULATES
5 MIN DATARAM AVis @ 8:18am at 6.4 ug/m³



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REAC
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Site: ST JOHN

WA#: 50001

Sampler: CARTWRIGHT/Singer

U.S. EPA/ERTC WAM: SINGHVI

Date: 9/18/08

REAC Task Leader: SOLINSKI

| Sample # | 50435 | 50436 | 50437 | 50438 | 50439 |
|-------------------------|-----------------|-------------------------|---------------|------------|--------------|
| Location | 10-25C CAROLINA | | | LOCATION 1 | |
| Pump # | 478 | 336 | 107 | 426 | 369 |
| Media | 600mg CARBON | 600mg ADZ 2.0um PTFE | SILICA GEL | 0.8um MCEP | 200mg CARBON |
| Analysis/Method | VOC | PAH | IA | METALS | Hg |
| Rotameter | MG | MG | 7962 | MG | 7962 |
| Time/Counter (Start) | 0/858 | 0/858 | 0/858 | 0/858 | 0/858 |
| Time/Counter (Stop) | 480/1658 | 500/1718 | 480/1658 | 480/1658 | 480/1658 |
| Total Time | 480 | 500 | 480 | 480 | 480 |
| Pump Fault | Y/N | Y/N | Y/N | Y/N | Y/N |
| Flow Rate (Start) | 1 | 1.4 | 300 | 1 | 500 |
| Flow Rate (End) | 1 | 1.4 | 300 | 1 | 550 |
| Flow Rate Average | 1 | 1.4 | 300 | 1 | 525 |
| Sample Volume | 480 | 700 | 144 | 480 | 252 |

MET Station on Site?: Y/N

50425

SUMMA GRAB SAMPLE COLLECTED
-P-295 AT 1713 CAN # 217

TOTAL PARTICULATE DATA 11 min avg 6.7 ug/m³ @ 901



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Site: ST JOHN

WA#: 50001

Sampler: CARTRIGHT/SALINIK

U.S. EPA/ERTC WAM: SINBAHVI

Date: 9/18/88

REAC Task Leader: SALINIK

| Sample # | 50440 | 50441 | 50442 | 50443 | 50444 |
|----------------------|--------------|-----------------------|-------------|-------------|--------------|
| Location | MARSHIC MILE | LOCATION 3 | LOCATION 3 | LOCATION 3 | LOCATION 3 |
| Pump # | 44 | 215 | 521 | 189 | 476 |
| Media | 600mg CARBON | 600mg 402 2.00um PTFE | SILICA GEL | 0.8um MEF | 200mg CARBON |
| Analysis/Method | VOL | PAH | IA | METALS | Hg |
| Rotameter | MG | MG | 7962 | MG | 7962 |
| Time/Counter (Start) | 0 918 | 0 918 | 0 918 | 0 918 | 0 918 |
| Time/Counter (Stop) | 480 1718 | 513 1751 | 480 1718 | 480 1718 | 480 1718 |
| Total Time | 480 | 513 | 480 | 480 | 480 |
| Pump Fault | Y/N | Y/N | Y/N | Y/N | Y/N |
| Flow Rate (Start) | 1 | 1.5 | 300 | 1 | 500 |
| Flow Rate (End) | 1 | 1.5 | 300 | 1 | 500 |
| Flow Rate Average | 1 | 1.5 | 300 | 1 | 500 |
| Sample Volume | 480 | 769.5 | 144 | 480 | 240 |

MET Station on Site?: Y/N

5.6 ug/m³

DATA FROM TOTAL PARTICULATE 4 MIN AVERAGE @ 920



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Site: ST JOHN

WA#: 520001

Sampler: CARTRIDGE POLING

U.S. EPA/ERTC WAM: SINAMVI

Date: 9/18/88

REAC Task Leader: SOLOVSKI

| Sample # | 50445 | 50446 | 50447 | 50448 | 50449 |
|----------------------|--------------|-----------------------|------------|--------------|--------------|
| Location | LOCATION 2 | | 6-3-62 | UPPER GROUND | |
| Pump # | 605 | 416 | 495 | 306 | 314 |
| Media | 600mg CARBON | 600mg XAD2 2.0um PTFE | SILICA GEL | 0.8um WCEF | 200mg CARBON |
| Analysis/Method | VOL | PAH | AA | MEALS | Hg |
| Rotameter | MG | MG | 7962 | MG | 7962 |
| Time/Counter (Start) | 0/935 | 0/935 | 0/935 | 0/935 | 0/935 |
| Time/Counter (Stop) | 480/1735 | 530/1825 | 480/1735 | 480/1735 | 480/1735 |
| Total Time | 480 | 530 | 480 | 480 | 480 |
| Pump Fault | Y/N | Y/N | Y/N | Y/N | Y/N |
| Flow Rate (Start) | 1 | 1.5 | 300 | 1 | 500 |
| Flow Rate (End) | 1 | 1.5 | 300 | 1 | 540 |
| Flow Rate Average | 1 | 1.5 | 300 | 1 | 520 |
| Sample Volume | 480 | 795 | 144 | 480 | 249.6 |

MET Station on Site?: Y/N

GRAND SUMMIT @ 1831 IP=29

same case (50426 SUMMIT #81

50427

SUMMIT TRIP #106 IP=29

DATA 11 min avg 6.8 at 939

@ 1836

24-70gms
25-70gms



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REAC
Response Engineering and Analytical Contract

Site: ST 304N

WA#: 50001

Sampler: Cartwright/Solinski

U.S. EPA/ERTC WAM: Singhvi

Date: 9/18/08

REAC Task Leader: Solinski

| Sample # | 50450 | 50451 | 50452 | 50453 | 50454 |
|---|---------------------|------------------------------|-------------------|-------------------|----------------------|
| Location | <u>BORDEAUX</u> | <u>CHATEAU</u> | <u>LOCATION 4</u> | | |
| Pump # | <u>315</u> | <u>442</u> | <u>312</u> | <u>187</u> | <u>523</u> |
| Media | <u>600mg CARBON</u> | <u>600mg KADZ 2.0um PTFE</u> | <u>SILICA GEL</u> | <u>0.8um MCEP</u> | <u>200mg CALVERT</u> |
| Analysis/Method | <u>VOA</u> | <u>PAH</u> | <u>IA</u> | <u>METALS</u> | <u>Hg</u> |
| Rotameter | <u>MG</u> | <u>MG</u> | <u>7962</u> | <u>MG</u> | <u>7962</u> |
| Time/Counter (Start) | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |
| Time/Counter (Stop) | <u>1:59</u> | <u>1:59</u> | <u>3:50</u> | <u>1:59</u> | <u>1:59</u> |
| Total Time | <u>480</u> | <u>550</u> | <u>350</u> | <u>480</u> | <u>447</u> |
| Pump Fault | <u>Y/N</u> | <u>Y/N</u> | <u>Y/N</u> | <u>Y/N</u> | <u>Y/N</u> |
| Flow Rate (Start) | <u>1</u> | <u>1.5</u> | <u>300</u> | <u>1</u> | <u>500</u> |
| Flow Rate (End) | <u>1</u> | <u>1.5</u> | <u>300</u> | <u>1</u> | <u>580</u> |
| Flow Rate Average | <u>1</u> | <u>1.5</u> | <u>300</u> | <u>1</u> | <u>540</u> |
| Sample Volume | <u>480</u> | <u>825</u> | <u>105</u> | <u>480</u> | <u>241.4</u> |
| MET Station on Site?: Y/N | <u>Y/N</u> | 50416 | 50417 | 50418 | 50419 |
| <u>FED BLANK</u> | 50415 | | | | |
| <u>DATA from 15 minute ATG 6.8ug/m³ @ 9:29</u> | | | | | |
| <u>9.3 1006</u> | | | | | |



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Site: ST JOHN

WA#: 50001

Sampler: CARTWRIGHT/SOLINSKI

U.S. EPA/ERTC WAM: SINHAIVI

Date: 9/19/08

REAC Task Leader: SOLINSKI

| Sample # | 51605 | 51606 | 51607 | 51608 | |
|----------------------|--------------------|---------------------|--------------------|--------------------|--------------------|
| Location | 3 | 3 | 3 | 3 | 3 |
| Pump # | 65 | 121 | 133 | 194 | 344 |
| Media | 600mg CARBON | 600mg ADZ 2mm PTFE | SILICA GEL | 0.8um MCEP | 200mg CARBONATE |
| Analysis/Method | VOC | PEH | IA | METALS | Ag |
| Rotameter | MG | MG | 7962 | MG | 7962 |
| Time/Counter (Start) | 0 1800 | 0 1800 | 0 1800 | 0 1800 | 0 1800 |
| Time/Counter (Stop) | 480 200 | 114 1946 | 480 200 | 480 200 | 480 200 |
| Total Time | 480 | 114 | 480 | 480 | |
| Pump Fault | Y/N | Y/N | Y/N | Y/N | Y/N |
| Flow Rate (Start) | 1 | 1.5 | 300 | 1 | 500 |
| Flow Rate (End) | 1 | 1.5 | 300 | 1 | |
| Flow Rate Average | 1 | 1.5 | 300 | 1 | |
| Sample Volume | 480 | 171 | 144 | 480 | |

MET Station on Site?: Y/N

MAJESTIC MILE

RTIN
DAMAGED
PUMP
DID NOT RUN

TECH PART
DATA FROM 17 min AVG @ 18:04 @ 7.7 ug/m³



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Site: ST JOHN

WA#: 50001

Sampler: CANTWRIGHT/SOLINGER

U.S. EPA/ERTC WAM: SINGHVI

Date: 9/19/08

REAC Task Leader: SOLINGER

| Sample # | 51610 | 51611 | 51612 | 51613 | 51614 |
|----------------------|---------------------|-----------------------------|-------------------|------------------|------------------------|
| Location | <u>Z</u> | <u>Z</u> | <u>Z</u> | <u>Z</u> | <u>Z</u> |
| Pump # | <u>472</u> | <u>328</u> | <u>352</u> | <u>150</u> | <u>17</u> |
| Media | <u>600mg CARBON</u> | <u>600mg/102 2.0um PTFE</u> | <u>SILICA GEL</u> | <u>0.8um MEF</u> | <u>200mg CARBONATE</u> |
| Analysis/Method | <u>WL</u> | <u>PAH</u> | <u>IA</u> | <u>METALS</u> | <u>Hg</u> |
| Rotameter | <u>MG</u> | <u>MG</u> | <u>7962</u> | <u>MG</u> | <u>7962</u> |
| Time/Counter (Start) | <u>0/1823</u> | <u>0/1823</u> | <u>0/1823</u> | <u>0/1823</u> | <u>0/1823</u> |
| Time/Counter (Stop) | <u>480/223</u> | <u>700/603</u> | <u>480/223</u> | <u>480/223</u> | <u>480/223</u> |
| Total Time | <u>480</u> | <u>700</u> | <u>480</u> | <u>480</u> | <u>480</u> |
| Pump Fault | <u>Y/N</u> | <u>Y/N</u> | <u>Y/N</u> | <u>Y/N</u> | <u>Y/N</u> |
| Flow Rate (Start) | <u>1</u> | <u>1.5</u> | <u>300</u> | <u>1</u> | <u>500</u> |
| Flow Rate (End) | <u>1</u> | <u>1.4</u> | <u>310</u> | <u>1</u> | <u>540</u> |
| Flow Rate Average | <u>1</u> | <u>1.45</u> | <u>305</u> | <u>1</u> | <u>520</u> |
| Sample Volume | <u>480</u> | <u>1015</u> | <u>146.4</u> | <u>480</u> | <u>249.6</u> |

MET Station on Site?: Y/N

UPPER CAROLINA

TOTAL PART
DATA RAN 8 min AVG AT 1840 C./c./m³



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Site: ST JOHN

WA#: 50001

Sampler: CARTWRIGHT/SOLINSKI

U.S. EPA/ERTC WAM: SOLINSKI

Date: 9/19/08

REAC Task Leader: SOLINSKI

| Sample # | 51615 | 51616 | 51617 | 51618 | 51619 |
|----------------------|--------------|---------------------|------------|------------|-----------------|
| Location | 4 | 4 | 4 | 4 | 4 |
| Pump # | 335 | 314 | 323 | 382 | 4128 |
| Media | 600mg CARBON | 600mg AD2 CARBONATE | SILICA GEL | 0.8um MCEP | 200mg CARBONATE |
| Analysis/Method | VOL | RAH | IA | METALS | MS |
| Rotameter | MG | MG | 7962 | MG | 7962 |
| Time/Counter (Start) | 0/1904 | 0/1904 | 0/1904 | 0/1904 | 0/1904 |
| Time/Counter (Stop) | 480/304 | 700/644 | 480/304 | 480/304 | 480/304 |
| Total Time | 480 | 700 | 480 | 480 | 480 |
| Pump Fault | Y/N | Y/N | Y/N | Y/N | Y/N |
| Flow Rate (Start) | 1 | 1.5 | 300 | 1 | 500 |
| Flow Rate (End) | 1 | 1.5 | 300 | 1 | 320 |
| Flow Rate Average | 1 | 1.5 | 300 | 1 | 410 |
| Sample Volume | 480 | 1050 | 144 | 480 | 196.8 |

MET Station on Site?: Y/N

NO

TOTAL PART
DATA RUN 14 MIN AVG @ 8.6 ug/m³ 1913

50420 VOL TRIP BLANK @ 1013 ON 9/19/08



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REAC
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Site: ST504IN

WA#: 50001

Sampler: CAPTURE UNIT SAMPLER

U.S. EPA/ERTC WAM: SINATHVI

Date: 9/19/08

REAC Task Leader: SOLINSK

| Sample # | 51600 | 51601 | 51602 | 51603 | 51604 |
|-------------------------|---------------------------|------------------------------|---------------------------|---------------------------|---------------------------|
| Location | <u>ENGEND</u> | <u>5</u> | <u>Engend</u> | <u>5</u> | <u>5</u> |
| Pump # | <u>47</u> | <u>138</u> | <u>373</u> | <u>302</u> | <u>529</u> |
| Media | <u>600mg CARBON</u> | <u>600mg KAD2 2.0um MCEF</u> | <u>SILICA GEL</u> | <u>0.8um MCEF</u> | <u>200um CARULITE</u> |
| Analysis/Method | <u>VOC</u> | <u>PAH</u> | <u>IA</u> | <u>METALS</u> | <u>Hg</u> |
| Rotameter | <u>MG</u> | <u>MG</u> | <u>7962</u> | <u>MG</u> | <u>7962</u> |
| Time/Counter (Start) 18 | <u>0</u> <u>1637</u> | <u>0</u> <u>1637</u> | <u>0</u> <u>1637</u> | <u>0</u> <u>1637</u> | <u>0</u> <u>1637</u> |
| Time/Counter (Stop) 19 | <u>480</u> <u>0037</u> | <u>700</u> <u>417</u> | <u>480</u> <u>1952</u> | <u>480</u> <u>0037</u> | <u>480</u> <u>0037</u> |
| Total Time | <u>480</u> | <u>700</u> | <u>195</u> | <u>480</u> | <u>480</u> |
| Pump Fault | <u>Y/N</u> | <u>Y/N</u> | <u>Y/N</u> | <u>Y/N</u> | <u>Y/N</u> |
| Flow Rate (Start) | <u>1</u> | <u>1.5</u> | <u>300</u> | <u>1</u> | <u>500</u> |
| Flow Rate (End) | <u>1</u> | <u>1.5</u> | <u>300</u> | <u>1</u> | <u>200</u> |
| Flow Rate Average | <u>1</u> | <u>1.5</u> | <u>300</u> | <u>1</u> | <u>350</u> |
| Sample Volume | <u>480</u> | <u>1050</u> | <u>58.5</u> | <u>480</u> | <u>168</u> |

MET Station on Site?: Y/N

DATAM 26 MIN AVG d 1639 4.7ug/ms TOTAL PARTICULATE



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Site: ST JOHN

WA#: 50001

Sampler: AMTAMOUNT / Scanner

U.S. EPA/ERTC WAM: SINGHVI

Date: 9/19/04

REAC Task Leader: SOLINSKI

| Sample # | 50455 | 50456 | 50457 | 50458 | 50459 |
|---|--------------|--------------------------|---------------|---------------|------------------|
| Location | 1 | 1 | 1 | 1 | 1 |
| Pump # | 497 | 361 | 388 | 173 | 437 |
| Media | 600mg CARBON | 600mg XAD2 2.0um PTFE | SILICA GEL | 0.8um MCEP | 200mg CARBITE |
| Analysis/Method | VOL | PAH | IA | METALS | Hg |
| Rotameter | MG | MG | 7962 | MG | 7962 |
| Time/Counter (Start) | 0 / 1721 | 0 / 1721 | 0 / 1721 | 0 / 1721 | 0 / 1721 |
| Time/Counter (Stop) | 480 / 121 | 700 / 501 | 320 / 2141 | 480 / 121 | 480 / 121 |
| Total Time | 480 | 700 | 320 | 480 | 480 |
| Pump Fault | Y/N | Y/N | Y/N | Y/N | Y/N |
| Flow Rate (Start) | 1 | 1.5 | 300 | 1 | 500 |
| Flow Rate (End) | 1 | 1.5 | 300 | 1 | 500 |
| Flow Rate Average | 1 | 1.5 | 300 | 1 | 500 |
| Sample Volume | 480 | 1050 | 96 | 480 | 240 |
| MET Station on Site?: Y/N | | | | | |
| 10-25 C CARBONINA | | | | | |
| TOTAL PARTICULATE DATA-RAM 11 min AVG 15.5 ug/m3 at 1723 | | | | | |

APPENDIX C
Photo Log
Coral Bay
St. John, USVI
November 2008



Location 1 – 10-25 C Carolina



Location 2 – 6-3-62 Upper Carolina



Location 3 – Majestic Mile



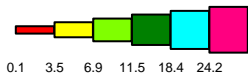
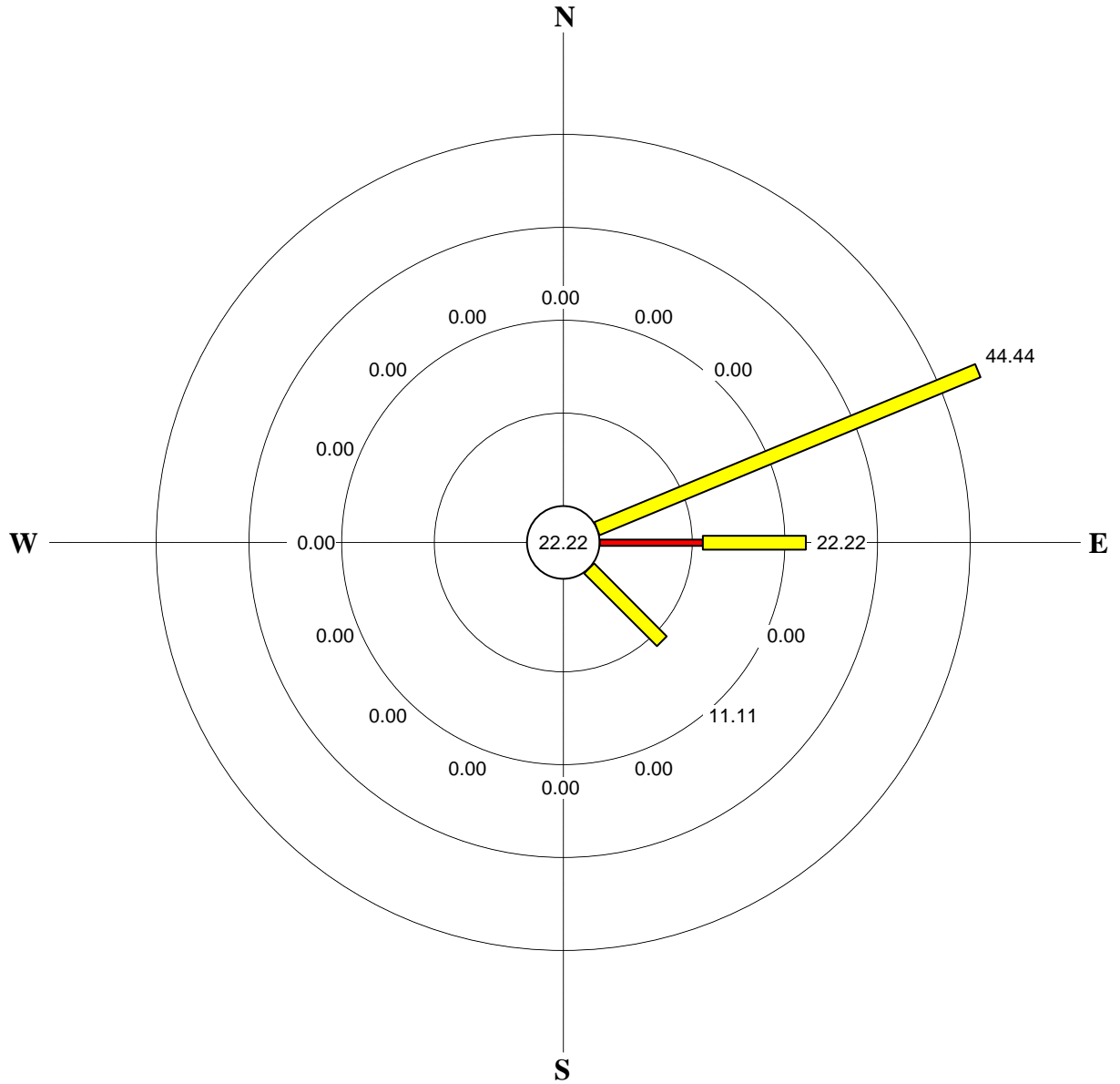
Location 4 – Chateau Bordeaux



Location 5 – East End –Privateer Estates

APPENDIX D
Event Wind Roses from September 16 to 19, 2008 from the Cyril E. King International Airport
Coral Bay
St. John, USVI
November 2008

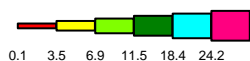
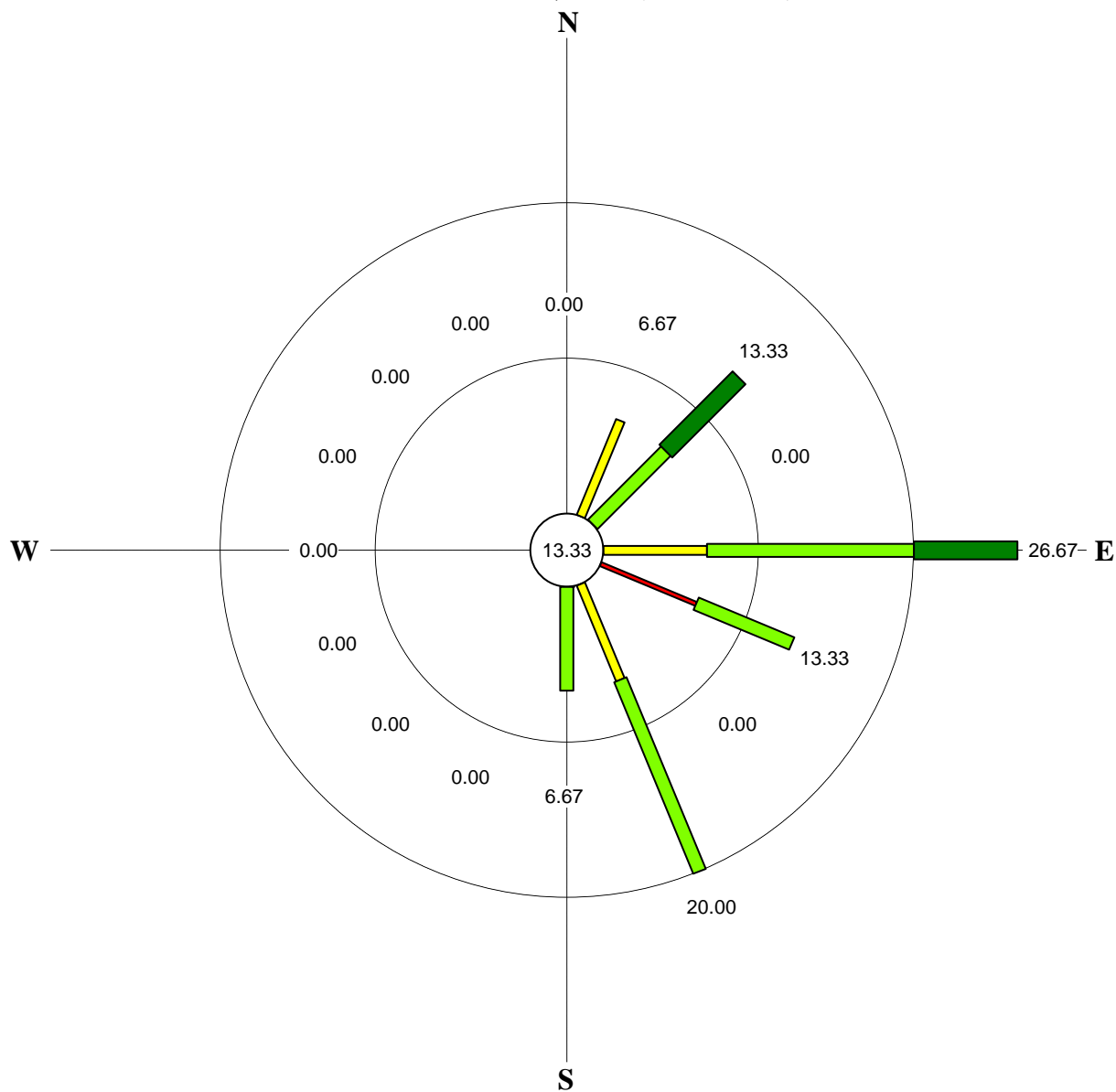
**CORAL BAY AIR SAMPLING SITE
CYRIL E KING AIRPORT (STT)
CHARLOTTE AMALIE, ST. THOMAS, USVI
SEPTEMBER 16 (2000) - SEPTEMBER 17, 2008 (0400)**



Wind Speed (Miles Per Hour)

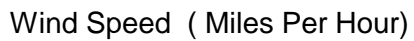
Calms included at center.
Rings drawn at 10% intervals.
Wind flow is FROM the directions shown.
No observations were missing.

**CORAL BAY AIR SAMPLING SITE
CYRIL E KING AIRPORT (STT)
CHARLOTTE AMALIE, ST. THOMAS, USVI
SEPTEMBER 17, 2008 (1100 - 2100)**



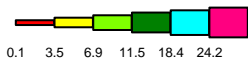
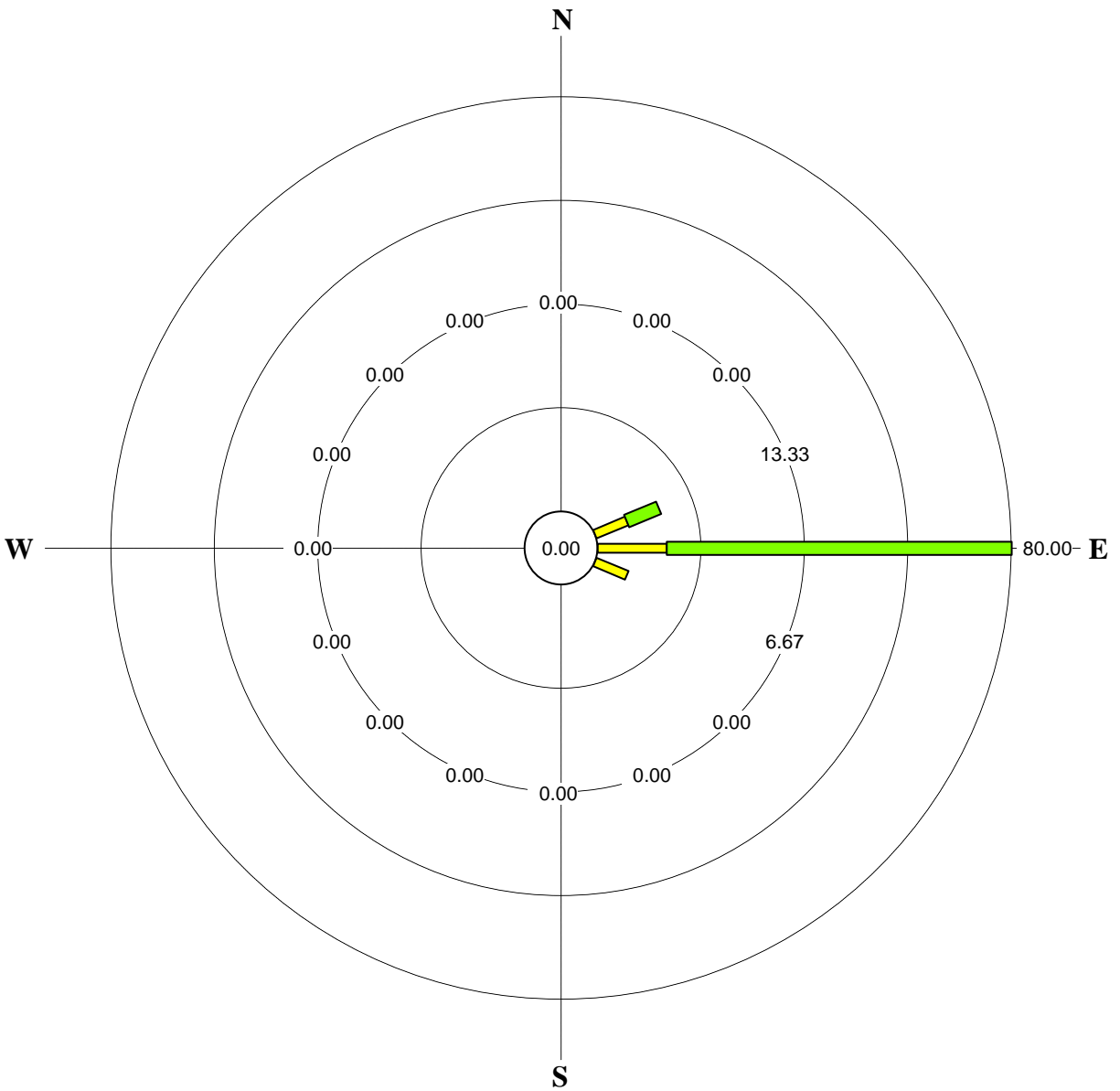
Wind Speed (Miles Per Hour)

Calms included at center.
Rings drawn at 10% intervals.
Wind flow is FROM the directions shown.
No observations were missing.



Calms included at center.
Rings drawn at 20% intervals.
Wind flow is FROM the directions shown.
No observations were missing.

**CORAL BAY AIR SAMPLING SITE
CYRIL E KING AIRPORT (STT)
CHARLOTTE AMALIE, ST. THOMAS, USVI
SEPTEMBER 18 (1700) - SEPTEMBER 19, 2008 (0700)**



Wind Speed (Miles Per Hour)

Calms included at center.
Rings drawn at 20% intervals.
Wind flow is FROM the directions shown.
No observations were missing.