ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET
FORM DC-2

LABORATORY NAME Mitkem Laboratories
CITY/STATE Warwick, RI
CASE NO. 40245 SDG NO. F3JK9
SDG NOs. TO FOLLOW — — —
MOD. REF. NO. —
CONTRACT NO. EP-W-05-030
SOW NO. SOM01.2

622129

All documents delivered in the Complete SDG File (CSF) must be original documents where possible.

| | PAGE NOs FROM | PAGE NOs TO | CHECK LAB | CHECK USEPA |
|---|---|---|---|---|
| 1. **Inventory Sheet** (Form DC-2) (Do not number) | | | | ✓ |
| 2. **SDG Case Narrative** | 0001 | 0003 | ✓ | ✓ |
| 3. **SDG Cover Sheet/Traffic Report** | 0004 | 0005 | ✓ | ✓ |
| 4. **Trace Volatiles Data** | | | | |
| a. QC Summary | | | | |
| Deuterated Monitoring Compound Recovery (Form II VOA-1 and VOA-2) | 0006 | 0007 | ✓ | ✓ |
| Matrix Spike/Matrix Spike Duplicate Recovery (Form III VOA) (if requested by USEPA Region) | N/A | N/A | NA | ✓ |
| Method Blank Summary (Form IV VOA) | 0008 | 0008 | ✓ | ✓ |
| GC/MS Instrument Performance Check (Form V VOA) | 0009 | 0010 | ✓ | ✓ |
| Internal Standard Area and RT Summary (Form VIII VOA) | 0011 | 0011 | ✓ | ✓ |
| b. Sample Data | 0012 | 0033 | ✓ | ✓ |
| TCL Results - Organics Analysis Data Sheet (Form I VOA-1 and VOA-2) | | | ✓ | ✓ |
| Tentatively Identified Compounds (Form I VOA-TIC) | | | ✓ | ✓ |
| Reconstructed total ion chromatograms (RIC) for each sample | | | ✓ | ✓ |
| For each sample: | | | | |
| Raw Spectra and background-subtracted mass spectra of target compounds identified | | | ✓ | ✓ |
| Quantitation reports | | | ✓ | ✓ |
| Mass Spectra of all reported TICs with three best library matches | | | ✓ | ✓ |
| c. Standards Data (All Instruments) | 0034 | 0069 | | |
| Initial Calibration Data (Form VI VOA-1, VOA-2, VOA-3) | | | ✓ | ✓ |
| RICs and Quantitation Reports for all Standards | | | ✓ | ✓ |
| Continuing Calibration Data (Form VII VOA-1, VOA-2, VOA-3) | | | ✓ | ✓ |
| RICs and Quantitation Reports for all Standards | | | ✓ | ✓ |
| d. Raw/Quality Control (QC) Data | | | ✓ | ✓ |
| BFB | 0070 | 0075 | ✓ | ✓ |
| Blank Data | 0076 | 0087 | ✓ | ✓ |

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET
FORM DC-2 (CON'T)

CASE NO. 40295 SDG NO. F3JK9 SDG NOS. TO FOLLOW —

— — MOD. REF. NO. —

| | PAGE NOs FROM | PAGE NOs TO | CHECK LAB | CHECK USEPA |
|---|---|---|---|---|
| Matrix Spike/Matrix Spike Duplicate Data (if requested by USEPA Region) | N/A | N/A | NA | ✓ |
| e. Trace SIM Data (Place at the end of the Trace Volatiles Section) | | | NA | |
| [Form I VOA-SIM; Form II VOA-SIM1 and VOA-SIM2; Form IV-VOA-SIM; Form VI VOA-SIM; Form VII VOA-SIM; Form VIII VOA-SIM; and all raw data for QC, Samples, and Standards.] | | | | |
| 5. **Low/Med Volatiles Data** | | | | |
| a. QC Summary | | | | |
| Deuterated Monitoring Compound Recovery (Form II VOA-1, VOA-2, VOA-3, VOA-4) | | | NA | |
| Matrix Spike/Matrix Spike Duplicate Recovery (Form III VOA-1 and VOA-2) (if requested by USEPA Region) | | | | |
| Method Blank Summary (Form IV VOA) | | | | |
| GC/MS Instrument Performance Check (Form V VOA) | | | | |
| Internal Standard Area and RT Summary (Form VIII VOA) | | | | |
| b. Sample Data | | | | |
| TCL Results - Organics Analysis Data Sheet (Form I VOA-1 and VOA-2) | | | | |
| Tentatively Identified Compounds (Form I VOA-TIC) | | | | |
| Reconstructed total ion chromatograms (RIC) for each sample | | | | |
| For each sample: | | | | |
| Raw Spectra and background-subtracted mass spectra of target compounds identified | | | | |
| Quantitation reports | | | | |
| Mass Spectra of all reported TICs with three best library matches | | | | |
| c. Standards Data (All Instruments) | | | | |
| Initial Calibration Data (Form VI VOA-1, VOA-2, VOA-3) | | | | |
| RICs and Quantitation Reports for all Standards | | | | |
| Continuing Calibration Data (Form VII VOA-1, VOA-2, VOA-3) | | | | |
| RICs and Quantitation Reports for all Standards | | | | |
| d. Raw/Quality Control (QC) Data | | | | |
| BFB | | | | |
| Blank Data | N/A | N/A | NA | ✓ |

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET
FORM DC-2 (CON'T)

CASE NO. 40245 SDG NO. F3JK9 SDG NOS. TO FOLLOW —

— — MOD. REF. NO. —

| | PAGE NOs FROM | PAGE NOs TO | CHECK LAB | CHECK USEPA |
|---|---|---|---|---|
| Martix Spike/Matrix Spike Duplicate Data (if requested by USEPA Region) | N/A | N/A | NA | ✓ |
| 6. **Semivolatiles Data** | | | | |
| a. QC Summary | | | | |
| Deuterated Monitoring Compound Recovery (Form II SV-1, SV-2, SV-3, SV-4) | | | NA | |
| Matrix Spike/Matrix Spike Duplicate Recovery Summary (Form III SV-1 and SV-2) (if requested by USEPA Region) | | | | |
| Method Blank Summary (Form IV SV) | | | | |
| GC/MS Instrument Performance Check (Form V SV) | | | | |
| Internal Standard Area and RT Summary (Form VIII SV-1 and SV-2) | | | | |
| b. Sample Data | | | | |
| TCL Results - Organics Analysis Data Sheet (Form I SV-1 and SV-2) | | | | |
| Tentatively Identified Compounds (Form I SV-TIC) | | | | |
| Reconstructed total ion chromatograms (RICs) for each sample | | | | |
| For each sample: | | | | |
| Raw Spectra and background-subtracted mass spectra of target compounds | | | | |
| Quantitation reports | | | | |
| Mass Spectra of TICs with three best library matches | | | | |
| GPC chromatograms (if GPC is required) | | | | |
| c. Standards Data (All Instruments) | | | | |
| Initial Calibration Data (Form VI SV-1, SV-2, SV-3) | | | | |
| RICs and Quantitation Reports for all Standards | | | | |
| Continuing Calibration Data (Form VII SV-1, SV-2, SV-3) | | | | |
| RICs and Quantitation Reports for all Standards | | | | |
| d. Raw QC Data | | | | |
| DFTPP | | | | |
| Blank Data | | | | |
| MS/MSD Data (if requested by USEPA Region) | | | | |
| e. Raw GPC Data | N/A | N/A | NA | |

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET
FORM DC-2 (CON'T)

CASE NO. 40275 SDG NO. F3JK9 SDG NOS. TO FOLLOW —

— — MOD. REF. NO. —

| | PAGE NOs FROM | PAGE NOs TO | CHECK LAB | CHECK USEPA |
|---|---|---|---|---|
| f. Semivolatile SIM Data | N/A | N/A | NA | ✓ |
| [Form I SV-SIM; Form II SV-SIM1 and SV-SIM2; Form III SV-SIM1 and SV-SIM2 (if required); Form IV SV-SIM; Form VI SV-SIM; Form VII SV-SIM; Form VIII SV-SIM1 and SV-SIM2; and all raw data for QC, Samples, and Standards.] | | | | |
| 7. **Pesticides Data** | | | | |
| a. QC Summary | | | | |
| Surrogate Recovery Summary (Form II PEST-1 and PEST-2) | | | NA | ✓ |
| Matrix Spike/Matrix Spike Duplicate Recovery Summary (Form III PEST-1 and PEST-2) | | | | |
| Laboratory Control Sample Recovery (Form III PEST-3 and PEST-4) | | | | |
| Method Blank Summary (Form IV PEST) | | | | |
| b. Sample Data | | | | |
| TCL Results - Organics Analysis Data Sheet (Form I PEST) | N/A | N/A | | |
| Chromatograms (Primary Column) | | | | |
| Chromatograms from second GC column confirmation | | | | |
| GC Integration report or data system printout | | | | |
| Manual work sheets | | | | |
| For pesticides by GC/MS | | | | |
| Copies of raw spectra and copies of background-subtracted mass spectra of target compounds (samples & standards) | | | | |
| c. Standards Data | N/A | N/A | | |
| Initial Calibration of Single Component Analytes (Form VI PEST-1 and PEST-2) | | | | |
| Toxaphene Initial Calibration (Form VI PEST-3 and PEST-4) | | | | |
| Analyte Resolution Summary (Form VI PEST-5, per column) | | | | |
| Performance Evaluation Mixture (Form VI PEST-6) | | | | |
| Individual Standard Mixture A (Form VI PEST-7) | | | | |
| Individual Standard Mixture B (Form VI PEST-8) | | | | |
| Individual Standard Mixture C (Form VI PEST-9 and PEST-10) | | | | |
| Calibration Verification Summary (Form VII PEST-1) | | | | |
| Calibration Verification Summary (Form VII PEST-2) | | | | |
| Calibration Verification Summary (Form VII PEST-3) | | | NA | ✓ |

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET
FORM DC-2 (CON'T)

CASE NO. 40275 SDG NO. F3JK9 SDG NOS. TO FOLLOW —

— — MOD. REF. NO. —

| | PAGE NOs FROM | PAGE NOs TO | CHECK LAB | CHECK USEPA |
|---|---|---|---|---|
| Calibration Verification Summary (Form VII PEST-4) | | | NA | ✓ |
| Analytical Sequence (Form VIII PEST) | | | | |
| Florisil Cartridge Check (Form IX PEST-1) | | | | |
| Pesticide GPC Calibration (Form IX PEST-2) | | | | |
| Identification Summary for Single Component Analytes (Form X PEST-1) | | | | |
| Identification Summary for Toxaphene (Form X PEST-2) | | | | |
| Chromatograms and data system printouts A printout of Retention Times and corresponding peak areas or peak heights | | | | |
| d. Raw QC Data | | | | |
| Blank Data | N/A | N/A | | |
| Matrix Spike/Matrix Spike Duplicate Data | | | | |
| Laboratory Control Sample Data | | | | |
| e. Raw GPC Data | | | | |
| f. Raw Florisil Data | | | NA | |
| 8. **Aroclor Data** | | | | |
| a. QC Summary | | | | |
| Surrogate Recovery Summary (Form II ARO-1 and ARO-2) | | | NA | |
| Matrix Spike/Matrix Spike Duplicate Summary (Form III ARO-1 and ARO-2) | | | | |
| Laboratory Control Sample Recovery(Form III ARO-3 and ARO-4) | | | | |
| Method Blank Summary (Form IV ARO) | | | | |
| b. Sample Data | N/A | N/A | | |
| TCL Results - Organics Analysis Data Sheet (Form I ARO) | | | | |
| Chromatograms (Primary Column) | | | | |
| Chromatograms from second GC column confirmation | | | | |
| GC Integration report or data system printout | | | | |
| Manual work sheets | | | | |
| For Aroclors by GC/MS | | | | |
| Copies of raw spectra and copies of background-subtracted mass spectra of target compounds (samples & standards) | | | NA | |

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET
FORM DC-2 (CON'T)

CASE NO. 40245 SDG NO. F3JK9 SDG NOS. TO FOLLOW —

— — MOD. REF. NO. —

| | PAGE NOs FROM | PAGE NOs TO | CHECK LAB | CHECK USEPA |
|---|---|---|---|---|
| c. Standards Data | N/A | N/A | | |
| Aroclors Initial Calibration (Form VI ARO-1, ARO-2, and ARO-3) | | | NA | ✓ |
| Calibration Verification Summary (Form VII ARO-1) | | | | |
| Analytical Sequence (Form VIII ARO) | | | | |
| Identification Summary for Multicomponent Analytes (Form X ARO) | | | | |
| Chromatograms and data system printouts A printout of Retention Times and corresponding peak areas or peak heights | | | | |
| d. Raw QC Data | | | | |
| Blank Data | | | | |
| Matrix Spike/Matrix Spike Duplicate Data | | | | |
| Laboratory Control Sample (LCS) Data | ✓ | ✓ | ✓ | ✓ |
| e. Raw GPC Data (if performed) | N/A | N/A | X NA ACH 7/1/10 | ✓ |
| **9. Miscellaneous Data** | | | | |
| Original preparation and analysis forms or copies of preparation and analysis logbook pages | 0088 | 0090 | ✓ | ✓ |
| Internal sample and sample extract transfer chain-of-custody records | 0091 | 0091 | ✓ | ✓ |
| Screening records | N/A | N/A | NA | ✓ |
| All instrument output, including strip charts from screening activities (describe or list) | | | | |
| Primary, Intermediate and Working Standard Logbook Pages | 0092 | 0101 | ✓ | ✓ |
| — | NA | NA | NA | ✓ |
| **10. EPA Shipping/Receiving Documents** | | | | |
| Airbills (No. of shipments 1) | 0102 | 0102 | ✓ | ✓ |
| Chain of Custody Records | 0103 | 0104 | ✓ | ✓ |
| Sample Tags (in a plastic bag, if present) | | | ✓ | ✓ |
| Sample Log-in Sheet (Lab & DC-1) | 0105 | 0106 | ✓ | ✓ |
| Miscellaneous Shipping/Receiving Records (describe or list) | | | | |
| PE Instructions | N/A | N/A | NA | ✓ |
| — | N/A | N/A | NA | ✓ |

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET
FORM DC-2 (CON'T)

CASE NO. 40295 SDG NO. F3JK9 SDG NOS. TO FOLLOW —

— — MOD. REF. NO. —

| | PAGE NOs FROM | PAGE NOs TO | CHECK LAB | CHECK USEPA |
|---|---|---|---|---|
| 11. **Internal Lab Sample Transfer Records and Tracking Sheets** (describe or list) | | | | |
| | N/A | N/A | NA | ✓ |
| | N/A | N/A | NA | |
| 12. **Other Records** (describe or list) | | | | |
| Telephone Communication Log | N/A | N/A | NA | |
| E-mail(s) | 0101 | 0111 | ✓ | |
| — | N/A | N/A | NA | ✓ |

13. **Comments**

| | | | |
|---|---|---|---|
| Completed by: (CLP Lab) | Marta Kucinski (Signature) | Marta Kucinski Data Reporting Specialist (Printed Name/Title) | 7/1/10 (Date) |
| Verified by: (CLP Lab) | Agnus Huntley (Signature) | Agnus Huntley / CLP Project Manager (Printed Name/Title) | 7/1/10 (Date) |
| Audited by: (USEPA) | (Signature) | TSENG-YING FAN / Data Reviewer (Printed Name/Title) | 7/13/10 (Date) |

(ESAT)

Report Date:
01-Jul-10 15:56

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

MITKEM LABORATORIES

A DIVISION OF SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY

# *Laboratory Report*

Computer Science Corporation
15000 Conference Center Drive
Chantilly, VA 20151-3808

Work Order: J1312
SDG No: F3JK9
Case No: 40275

Attn: Nazy Abousaeedi

| Laboratory ID | Client Sample ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| J1312-01 | F3JK9 | Aqueous | 24-Jun-10 11:20 | 25-Jun-10 08:56 |
| J1312-02 | F3JL0 | Aqueous | 24-Jun-10 08:18 | 25-Jun-10 08:56 |
| J1312-03 | F3JL4 | Aqueous | 24-Jun-10 09:02 | 25-Jun-10 08:56 |

I attest that the information contained within the report has been reviewed for accuracy and checked against the quaility control requirements for each method. The results relate only to the samples(s) as recevied.

All applicable NELAC or USEPA CLP requirments have been meet.

Mitkem Laboratories is accredited under the National Environmental Laboratory Approval Program (NELAP) and is certified by several States, as well as USEPA and US Department of Defense. The current list of our laboratory approvals and certifications is available on the Certifications page our web site at www.mitkem.com.

Please contact the Laboratory or Technical Director at 401-732-3400 with any questions regarding the data contained in the laboratory report.

| | |
|---|---|
| Department of Defense | N/A |
| Connecticut | PH-0153 |
| Delaware | N/A |
| Maine | 2007037 |
| Massachusetts | M-RI907 |
| New Hampshire | 2631 |
| New Jersey | RI001 |
| New York | 11522 |
| North Carolina | 581 |
| Pennsylvania | 68-00520 |
| Rhode Island | LAI00301 |
| Texas | T104704422-08-TX |
| USDA | P330-08-00023 |
| USEPA - ISM | EP-W-09-039 |
| USEPA - SOM | EP-W-05-030 |

Authorized by:

Yihai Ding
Laboratory Director

Technical Reviewer's Initials:

## SDG Narrative

Mitkem Laboratories, a Division of Spectrum Analytical, Inc. submits the enclosed data package in response to USEPA Case # 40275 and SDG# F3JK9. Analyses were performed for three aqueous samples that were received on June 25, 2010. The analyses were performed under USEPA Contract # EP-W-05-030. Please note that the sample-shipping cooler received was measured at 3.0°C.

The TR/COC lists the analysis as VOA. This case was scheduled for TVOA. Per the Region, the laboratory will note and perform the analysis as indicated on the Scheduling notification form.

Scheduling notes that laboratory QC is required for TVOA. A sample was not designated on the TR/COC. The laboratory only received three vials for each sample. This is insufficient sample volume for laboratory QC. Per the Region, MS/MSD will not be required for this SDG.

The following samples are submitted in this data package:

| Client ID | Lab ID | Analysis | VOA pH |
|---|---|---|---|
| F3JK9 | J1312-01A | TV | 7 |
| F3JL0 | J1312-02A | TV | 7 |
| F3JL4 | J1312-03A | TV | 7 |

TV = Trace Volatiles

The analyses were performed using USEPA CLP Multi-Media, Multi-Concentration (SOM01.2) protocols. The analyses were performed with strict adherence to the SOW with the following exceptions and observations:

1. Overall Observation:

Where needed, manual integrations were performed to improve data quality. The corrections were reviewed and associated hardcopies generated and reported as required. Manual integrations are coded to provide the data reviewer justification for such action. The codes are labeled on the ion chromatogram signal (GC/MS signal) and chromatogram for GC based analysis as follows:

- M1 peak tailing or fronting.
- M2 peak co-elution.
- M3 rising or falling baseline.
- M4 retention time shift.

- M5 miscellaneous – under this category, the justification is explained.
- M6 software did not integrate peak
- M7 partial peak integration

2. Trace Volatile Analysis:

Trap used for instrument V5: OI Analytical #10 trap containing 8 cm each of Tenax, silica gel and carbon molecular sieve.

cis-1,3-Dichloropropene-d4 was detected in method blanks and in samples. The volatile organic deuterated monitoring compound spike solution contains both the cis- and trans-1,3-dichloropropene isomers. cis-1,3-Dichloropropene-d4 is not a dueterated monitoring compound for SOM01.2, while the trans isomer is. The cis isomer is considered a laboratory artifact, and is not reported as a tentatively identified compound.

GC column used: 30 m x 0.25 mm id (1.4 um film thickness) DB-624 capillary column.

The following equation was used to calculate the concentration of target analytes for aqueous samples:

$$\text{Concentration } (\mu\text{g/L}) = \frac{(\text{Amt})(\text{DF})(\text{UF})(25)}{\text{V}_o}$$

where: Amt = on-column amount on raw data
DF = Dilution factor
UF = ng unit correction factor
$V_o$ = Sample volume purged (mL)

The following equation was used to calculate the Amt in the previous equation:

$$Amt = \frac{(A_x)(IS)}{(A_{is})(RRF)}$$

where: $A_x$ = area of the characteristic ion for the compound to be measured
$A_{is}$ = area of the characteristic ion for the associated internal standard
IS = concentration of internal standard in ug/L
RRF = relative response factor

Secondary ion 65 was used in the quantitation of 1,1-dichloroethene-d2 instead of primary ion 63 due to the interference with target compound 1,1-dichloroethene in the calibration standards.

DMC recoveries were within the QC limits.

No manual integrations were performed for any sample or standard.

No unusual observation was made for the analysis.

All of the submittals to the region are originals other than logbook pages. Photocopies of logbook pages are included, with the originals maintained on file at the laboratory. Tunes, calibration verifications and initial calibrations that are shared among several cases are photocopies indicating the location of the originals.

I certify that this Sample Data Package is in compliance with the terms and condition of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy Sample Data Package and in the electronic data deliverable has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Agnes R Huntley

Agnes Huntley
CLP Project Manager
07/01/10

*Contract Laboratory Program*

# Sample Delivery Group (SDG)
## Cover Sheet

SDG Number F3JK9

| | | | |
|---|---|---|---|
| Laboratory Name | Mitkem Laboratories | Lab Code | MITKEM |
| Contract No. | EP-W-05-030 | Case No. | 40275 |
| Analysis Price | $437 | SDG Turnaround | 7 days |

EPA Sample Numbers in SDG (Listed in Numerical Order)

| | | | |
|---|---|---|---|
| 01) F3JK9 | | | |
| 02) F3JL0 | | | |
| 03) F3JL4 | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| First Sample in SDG | Last Sample in SDG |
|---|---|
| F3JK9 | F3JL4 |
| **First Sample Receipt Date** | **Last Sample Receipt Date** |
| 06/25/2010 | 06/25/2010 |

**Note:** There are a maximum of 20 field samples [excluding Performance Evaluation (PE) samples in an SDG. Attach the TR/COC Records to this form in alphanumeric order (the order listed above on this form).

Signature Agnes R Huntley Date 06/25/2010

# USEPA Contract Laboratory Program
# Organic Traffic Report & Chain of Custody Record

| | |
|---|---|
| Case No: | 40275 |
| DAS No: | |
| SDG No: | F3JK9 |

L

1

| | |
|---|---|
| Date Shipped: | 6/24/2010 |
| Carrier Name: | FedEx |
| Airbill: | 870536933856 |
| Shipped to: | Mitkem Corporation<br>175 Metro Center Blvd.<br>Warwick RI 02886<br>(401) 732-3400 |

**Chain of Custody Record**

Sampler Signature: [signature]

| Relinquished By | (Date / Time) | Received By | (Date / Time) |
|---|---|---|---|
| 1 [signature] | (6-24-10/1330 Hrs) | [signature] | 6/25/10 8:56 |
| 2 | | | |
| 3 | | | |
| 4 | | | |

**For Lab Use Only**

| | |
|---|---|
| Lab Contract No: | EP-W-05-030 |
| Unit Price: | $437 |
| Transfer To: | — |
| Lab Contract No: | — |
| Unit Price: | — |

| J1288 | ORGANIC SAMPLE No. | MATRIX/ SAMPLER | CONC/ TYPE | ANALYSIS/ TURNAROUND | TAG No./ PRESERVATIVE/ Bottles | STATION LOCATION | SAMPLE COLLECT DATE/TIME | | INORGANIC SAMPLE No. | FOR LAB USE ONLY Sample Condition On Receipt |
|---|---|---|---|---|---|---|---|---|---|---|
| 17 | F3JK1 | Ground Water/ Shelley Stratmann | L/G | VOA (5/7) | 6-345245 (Ice Only), 6-345246 (Ice Only), 6-345247 (Ice Only) (3) | GW-40 | S: 6/24/2010 | 10:00 | MF3JK1 | |
| 18 | F3JK6 | Ground Water/ Shelley Stratmann | L/G | VOA (5/7) | 6-345265 (Ice Only), 6-345266 (Ice Only), 6-345267 (Ice Only) (3) | GW-45 | S: 6/24/2010 | 8:58 | MF3JK6 | |
| 19 | F3JK7 | Ground Water/ Shelley Stratmann | L/G | VOA (5/7) | 6-345269 (Ice Only), 6-345270 (Ice Only), 6-345271 (Ice Only) (3) | GW-46 | S: 6/24/2010 | 8:45 | MF3JK7 | |
| 20 | F3JK8 | Ground Water/ Shelley Stratmann | L/G | VOA (5/7) | 6-345273 (Ice Only), 6-345274 (Ice Only), 6-345275 (Ice Only) (3) | GW-47 | S: 6/24/2010 | 10:32 | MF3JK8 | |
| 01 | F3JK9 | Ground Water/ Shelley Stratmann | L/G | VOA (5/7) | 6-345277 (Ice Only), 6-345278 (Ice Only), 6-345279 (Ice Only) (3) | GW-48 | S: 6/24/2010 | 11:20 | MF3JK9 | Good |
| 02 | F3JL0 | Ground Water/ Shelley Stratmann | L/G | VOA (5/7) | 6-345281 (Ice Only), 6-345282 (Ice Only), 6-345283 (Ice Only) (3) | GW-49 | S: 6/24/2010 | 8:18 | MF3JL0 | Good |
| 03 | F3JL4 | Ground Water/ Shelley Stratmann | L/G | VOA (5/7) | 6-345294 (Ice Only), 6-345295 (Ice Only), 6-345296 (Ice Only) (3) | FB-03 | S: 6/24/2010 | 9:02 | | Good |

SDG - Final Sample

**COPY**

**Original Documents Are Included in CSF** F3JJ4

**Signed:** ALH **Date:** 6/25/10

| Shipment for Case Complete? Y | Sample(s) to be used for laboratory QC: | Additional Sampler Signature(s): | Cooler Temperature Upon Receipt: 3° C | Chain of Custody Seal Number: |
|---|---|---|---|---|
| Analysis Key: VOA = CLP TCL Volatiles | Concentration: L = Low, M = Low/Medium, H = High | Type/Designate: Composite = C, Grab = G | Custody Seal Intact? Y | Shipment Iced? Y |

**TR Number:** 6-043013577-062410-0002

LABORATORY COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.
Send Copy to: Sample Management Office, Attn: Heather Bauer, CSC, 15000 Conference Center Dr., Chantilly, VA 20151-3819; Phone 703/818-4200; Fax 703/818-4602

F2V5.1.047 Page 1 of 1

2A - FORM II VOA-1

WATER VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Level: (TRACE or LOW) TRACE

| | EPA SAMPLE NO. | VDMC1 (VCL) # | VDMC2 (CLA) # | VDMC3 (DCE) # | VDMC4 (BUT) # | VDMC5 (CLF) # | VDMC6 (DCA) # | VDMC7 (BEN) # |
|---|---|---|---|---|---|---|---|---|
| 01 | VBLK5W | 90 | 99 | 85 | 79 | 88 | 92 | 93 |
| 02 | F3JK9 | 68 | 89 | 92 | 74 | 88 | 90 | 89 |
| 03 | F3JL0 | 74 | 93 | 94 | 73 | 89 | 93 | 94 |
| 04 | F3JL4 | 94 | 106 | 94 | 74 | 93 | 97 | 94 |
| 05 | VHBLK5W | 90 | 97 | 82 | 74 | 90 | 90 | 92 |

| | | | QC LIMITS |
|---|---|---|---|
| VDMC1 | (VCL) | = Vinyl chloride-d3 | (65-131) |
| VDMC2 | (CLA) | = Chloroethane-d5 | (71-131) |
| VDMC3 | (DCE) | = 1,1-Dichloroethene-d2 | (55-104) |
| VDMC4 | (BUT) | = 2-Butanone-d5 | (49-155) |
| VDMC5 | (CLF) | = Chloroform-d | (78-121) |
| VDMC6 | (DCA) | = 1,2-Dichloroethane-d4 | (78-129) |
| VDMC7 | (BEN) | = Benzene-d6 | (77-124) |

# Column to be used to flag recovery values

* Values outside of contract required QC limits

2B - FORM II VOA-2

WATER VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Level: (TRACE or LOW) TRACE

| | SAMPLE NO. | VDMC8 (DPA) # | VDMC9 (TOL) # | VDMC10 (TDP) # | VDMC11 (HEX) # | VDMC12 (TCA) # | VDMC13 (DCZ) # | VDMC14 # | TOT OUT |
|---|---|---|---|---|---|---|---|---|---|
| 01 | VBLK5W | 87 | 100 | 82 | 96 | 85 | 104 | | 0 |
| 02 | F3JK9 | 80 | 91 | 90 | 77 | 85 | 97 | | 0 |
| 03 | F3JL0 | 85 | 98 | 92 | 81 | 90 | 94 | | 0 |
| 04 | F3JL4 | 82 | 95 | 90 | 82 | 84 | 95 | | 0 |
| 05 | VHBLK5W | 81 | 95 | 86 | 84 | 87 | 99 | | 0 |

| | | | QC LIMITS |
|---|---|---|---|
| VDMC8 | (DPA) | = 1,2-Dichloropropane-d6 | (79-124) |
| VDMC9 | (TOL) | = Toluene-d8 | (77-121) |
| VDMC10 | (TDP) | = trans-1,3-Dichloropropene-d4 | (73-121) |
| VDMC11 | (HEX) | = 2-Hexanone-d5 | (28-135) |
| VDMC12 | (TCA) | = 1,1,2,2-Tetrachloroethane-d2 | (73-125) |
| VDMC13 | (DCZ) | = 1,2-Dichlorobenzene-d4 | (80-131) |

# Column to be used to flag recovery values

* Values outside of contract required QC limits

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only

4A - FORM IV VOA

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK5W

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Lab File ID: V5M0204.D Lab Sample ID: MB-52637

Instrument ID: V5

Matrix: (SOIL/SED/WATER) WATER Date Analyzed: 06/29/2010

Level: (TRACE or LOW/MED) TRACE Time Analyzed: 10:11

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | TIME ANALYZED |
|---|---|---|---|---|
| 01 | F3JK9 | J1312-01A | V5M0208.D | 14:06 |
| 02 | F3JL0 | J1312-02A | V5M0209.D | 14:35 |
| 03 | F3JL4 | J1312-03A | V5M0210.D | 15:04 |
| 04 | VHBLK5W | VHBLK5W | V5M0211.D | 15:33 |

COMMENTS:



SOM01.2 (6/2007)

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFBL5

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Lab File ID: V5L9660.D BFB Injection Date: 06/07/2010

Instrument ID: V5 BFB Injection Time: 11:26

GC Column: DB-624 ID: 0.25 (mm)

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 31.1 |
| 75 | 30.0 - 80.0% of mass 95 | 48.8 |
| 95 | Base peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0% of mass 95 | 6.1 |
| 173 | Less than 2.0% of mass 174 | 0.0 (0.0)1 |
| 174 | 50.0 -120% of mass 95 | 71.8 |
| 175 | 5.0 - 9.0% of mass 174 | 5.4 (7.6)1 |
| 176 | 95.0 - 101% of mass 174 | 70.9 (98.8)1 |
| 177 | 5.0 - 9.0% of mass 176 | 4.6 (6.5)2 |

1 - Value is % mass 174 2 - Value is % mass 176

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | VSTD005L5 | VSTD005L5 | V5L9661.D | 06/07/2010 | 11:56 |
| 02 | VSTD0.5L5 | VSTD0.5L5 | V5L9662.D | 06/07/2010 | 12:25 |
| 03 | VSTD020L5 | VSTD020L5 | V5L9663.D | 06/07/2010 | 12:53 |
| 04 | VSTD010L5 | VSTD010L5 | V5L9664.D | 06/07/2010 | 13:22 |
| 05 | VSTD001L5 | VSTD001L5 | V5L9665.D | 06/07/2010 | 13:51 |

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFB5V

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Lab File ID: V5M0180.D BFB Injection Date: 06/28/2010

Instrument ID: V5 BFB Injection Time: 22:13

GC Column: DB-624 ID: 0.25 (mm)

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 27.4 |
| 75 | 30.0 - 80.0% of mass 95 | 46.3 |
| 95 | Base peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0% of mass 95 | 6.1 |
| 173 | Less than 2.0% of mass 174 | 0.0 (0.0)1 |
| 174 | 50.0 -120% of mass 95 | 82.8 |
| 175 | 5.0 - 9.0% of mass 174 | 6.5 (7.9)1 |
| 176 | 95.0 - 101% of mass 174 | 82.6 (99.7)1 |
| 177 | 5.0 - 9.0% of mass 176 | 5.6 (6.8)2 |

1 - Value is % mass 174 2 - Value is % mass 176

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | VSTD0055V | VSTD0055V | V5M0181.D | 06/28/2010 | 22:42 |
| 02 | VSTD0055W | VSTD0055W | V5M0203.D | 06/29/2010 | 9:42 |
| 03 | VBLK5W | MB-52637 | V5M0204.D | 06/29/2010 | 10:11 |
| 04 | F3JK9 | J1312-01A | V5M0208.D | 06/29/2010 | 14:06 |
| 05 | F3JL0 | J1312-02A | V5M0209.D | 06/29/2010 | 14:35 |
| 06 | F3JL4 | J1312-03A | V5M0210.D | 06/29/2010 | 15:04 |
| 07 | VHBLK5W | VHBLK5W | V5M0211.D | 06/29/2010 | 15:33 |
| 08 | VSTD0055X | VSTD0055X | V5M0212.D | 06/29/2010 | 16:02 |

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 06/07/2010 06/07/2010

EPA Sample No.(VSTD#####): VSTD0055W Date Analyzed: 06/29/2010

Lab File ID (Standard): V5M0203.D Time Analyzed: 9:42

Instrument ID: V5 Heated Purge: (Y/N) N

| | | IS1 (CBZ) AREA # | RT # | IS2 (DFB) AREA # | RT # | IS3 (DCB) AREA # | RT # |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 245699 | 9.562 | 322283 | 6.414 | 106091 | 12.327 |
| | UPPER LIMIT | 343979 | 9.892 | 451196 | 6.744 | 148527 | 12.657 |
| | LOWER LIMIT | 147419 | 9.232 | 193370 | 6.084 | 63655 | 11.997 |
| | EPA SAMPLE NO. | | | | | | |
| 01 | VBLK5W | 257624 | 9.556 | 335373 | 6.420 | 104660 | 12.333 |
| 02 | F3JK9 | 228041 | 9.562 | 288183 | 6.413 | 91160 | 12.326 |
| 03 | F3JL0 | 214102 | 9.565 | 284065 | 6.417 | 92257 | 12.330 |
| 04 | F3JL4 | 210770 | 9.562 | 266948 | 6.414 | 90438 | 12.326 |
| 05 | VHBLK5W | 245859 | 9.563 | 325126 | 6.414 | 98681 | 12.327 |

IS1 (CBZ) = Chlorobenzene-d5

IS2 (DFB) = 1,4-Difluorobenzene

IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area

AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area

RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT

RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

# Column used to flag values outside contract required QC limits with an asterisk.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

F3JK9

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: J1312-01A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5M0208.D

Level: (TRACE/LOW/MED) TRACE Date Received: 06/25/2010

% Moisture: not dec. Date Analyzed: 06/29/2010

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L | Q |
|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 0.50 | U |
| 74-87-3 | Chloromethane | 0.50 | U |
| 75-01-4 | Vinyl chloride | 0.50 | U |
| 74-83-9 | Bromomethane | 0.50 | U |
| 75-00-3 | Chloroethane | 0.50 | U |
| 75-69-4 | Trichlorofluoromethane | 0.50 | U |
| 75-35-4 | 1,1-Dichloroethene | 0.50 | U |
| 76-13-1 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.50 | U |
| 67-64-1 | Acetone | 5.0 | U |
| 75-15-0 | Carbon disulfide | 0.50 | U |
| 79-20-9 | Methyl acetate | 0.50 | U |
| 75-09-2 | Methylene chloride | 0.50 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 0.50 | U |
| 1634-04-4 | Methyl tert-butyl ether | 0.50 | U |
| 75-34-3 | 1,1-Dichloroethane | 0.50 | U |
| 156-59-2 | cis-1,2-Dichloroethene | 0.50 | U |
| 78-93-3 | 2-Butanone | 5.0 | U |
| 74-97-5 | Bromochloromethane | 0.50 | U |
| 67-66-3 | Chloroform | 0.50 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 0.50 | U |
| 110-82-7 | Cyclohexane | 0.50 | U |
| 56-23-5 | Carbon tetrachloride | 0.50 | U |
| 71-43-2 | Benzene | 0.50 | U |
| 107-06-2 | 1,2-Dichloroethane | 0.50 | U |

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

F3JK9

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: J1312-01A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5M0208.D

Level: (TRACE/LOW/MED) TRACE Date Received: 06/25/2010

% Moisture: not dec. Date Analyzed: 06/29/2010

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L | Q |
|---|---|---|---|
| 79-01-6 | Trichloroethene | 2.7 | |
| 108-87-2 | Methylcyclohexane | 0.50 | U |
| 78-87-5 | 1,2-Dichloropropane | 0.50 | U |
| 75-27-4 | Bromodichloromethane | 0.50 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.50 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 5.0 | U |
| 108-88-3 | Toluene | 0.50 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.50 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 0.50 | U |
| 127-18-4 | Tetrachloroethene | 0.50 | U |
| 591-78-6 | 2-Hexanone | 5.0 | U |
| 124-48-1 | Dibromochloromethane | 0.50 | U |
| 106-93-4 | 1,2-Dibromoethane | 0.50 | U |
| 108-90-7 | Chlorobenzene | 0.50 | U |
| 100-41-4 | Ethylbenzene | 0.50 | U |
| 179601-23-1 | m,p-Xylene | 0.50 | U |
| 95-47-6 | o-Xylene | 0.50 | U |
| 100-42-5 | Styrene | 0.50 | U |
| 75-25-2 | Bromoform | 0.50 | U |
| 98-82-8 | Isopropylbenzene | 0.50 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.50 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 0.50 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 0.50 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 0.50 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 0.50 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.50 | U |
| 87-61-6 | 1,2,3-Trichlorobenzene | 0.50 | U |

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

F3JK9

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: J1312-01A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5M0208.D

Level: (TRACE or LOW/MED) TRACE Date Received: 06/25/2010

% Moisture: not dec. Date Analyzed: 06/29/2010

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L Purge Volume: 25.0 (mL)

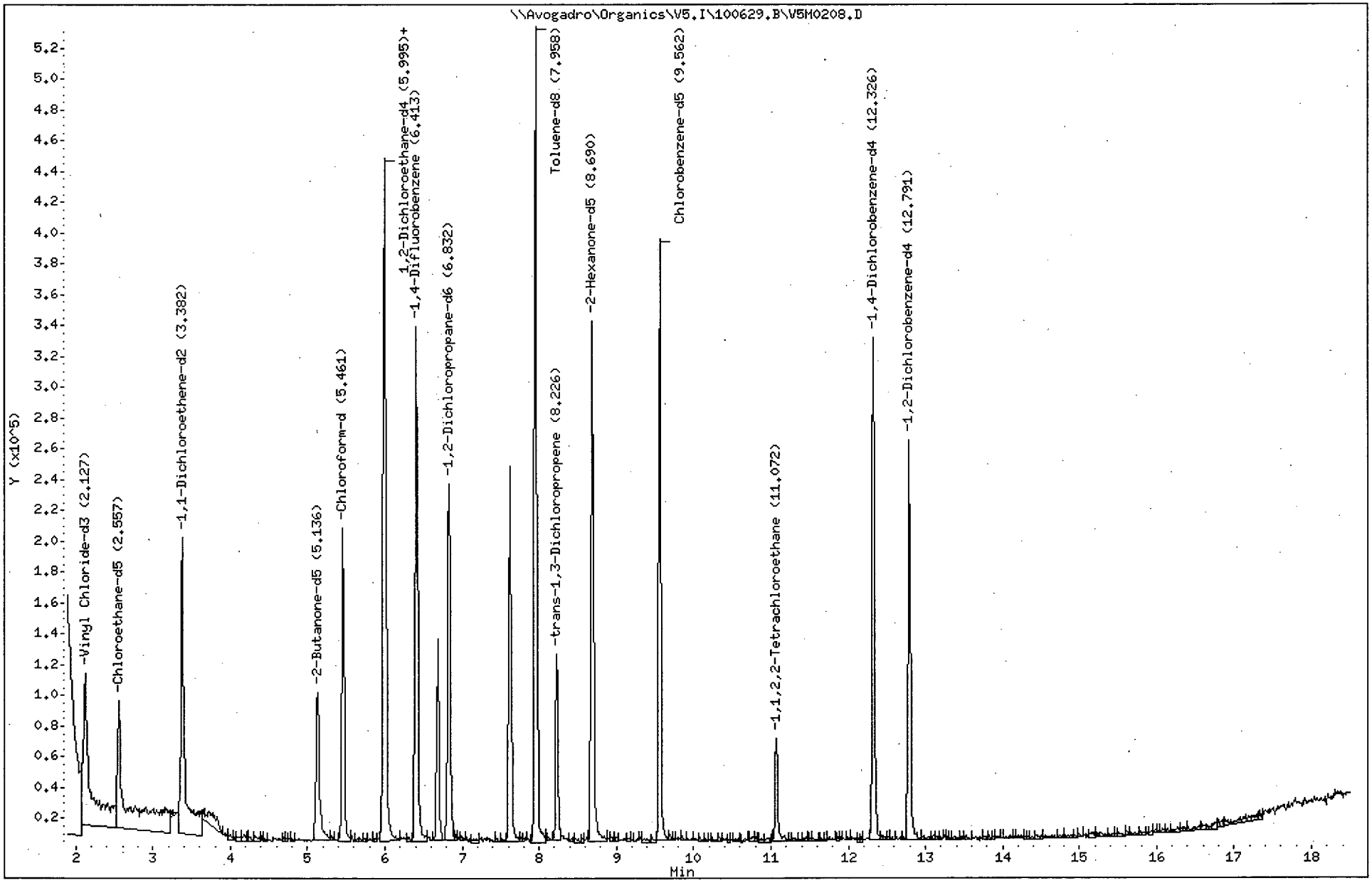
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| E966796[1] | Total Alkanes | N/A | | |

[1] EPA-designated Registry Number.

Data File: \\Avogadro\Organics\V5.I\100629.B\V5M0208.D
Date : 29-JUN-2010 14:06
Client ID: F3JK9
Sample Info: 25ML,J1312-01A,,52637,
Purge Volume: 25.0
Column phase: DB-624

Instrument: V5.i

Operator: SRC: LIMS
Column diameter: 0.25




0015

Data File: \\Avogadro\Organics\V5.I\100629.B\V5M0208.D
Report Date: 30-Jun-2010 12:55

Mitkem Laboratories

SOM01.0 - Trace Water Volatiles

Data file : \\Avogadro\Organics\V5.I\100629.B\V5M0208.D
Lab Smp Id: J1312-01A  Client Smp ID: F3JK9
Inj Date : 29-JUN-2010 14:06
Operator : SRC: LIMS  Inst ID: V5.i
Smp Info : 25ML,J1312-01A,,52637,
Misc Info :
Comment :
Method : \\Avogadro\Organics\V5.I\100629.B\V5_TVOA1359.m
Meth Date : 30-Jun-2010 12:34 V5.i  Quant Type: ISTD
Cal Date : 07-JUN-2010 13:51  Cal File: V5L9665.D
Als bottle: 36
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: SOM01.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Vo | 25.000 | Sample volume purged (mL) |
| Va | 10.000 | LCS Aliquot volume |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/L) | FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|
| $ 79 Vinyl Chloride-d3 | 65 | 2.126 | 2.116 | (0.332) | 147942 | 3.39428 | 3.4 |
| $ 80 Chloroethane-d5 | 69 | 2.556 | 2.557 | (0.399) | 92059 | 4.46944 | 4.5 |
| $ 81 1,1-Dichloroethene-d2 | 65 | 3.381 | 3.382 | (0.527) | 51072 | 4.59232 | 4.6(Q) |
| $ 82 2-Butanone-d5 | 46 | 5.135 | 5.124 | (0.801) | 213450 | 36.7549 | 37(A) |
| $ 83 Chloroform-d | 84 | 5.460 | 5.461 | (0.851) | 159035 | 4.39510 | 4.4(Q) |
| $ 23 1,2-Dichloroethane-d4 | 65 | 5.983 | 5.984 | (0.933) | 68195 | 4.50653 | 4.5 |
| $ 84 Benzene-d6 | 84 | 5.995 | 5.996 | (0.627) | 412858 | 4.45705 | 4.5 |
| * 26 1,4-Difluorobenzene | 114 | 6.413 | 6.414 | (1.000) | 288183 | 5.00000 | |
| 27 Trichloroethene | 95 | 6.680 | 6.681 | (0.699) | 53925 | 2.66563 | 2.7(H) |
| $ 85 1,2-Dichloropropane-d6 | 67 | 6.831 | 6.832 | (0.714) | 126141 | 4.00854 | 4.0 |
| $ 33 Toluene-d8 | 98 | 7.958 | 7.959 | (0.832) | 365020 | 4.54990 | 4.5 |
| $ 86 trans-1,3-Dichloropropene-d4 | 79 | 8.225 | 8.226 | (0.860) | 67521 | 4.49301 | 4.5 |
| $ 87 2-Hexanone-d5 | 63 | 8.690 | 8.691 | (0.909) | 138261 | 38.4713 | 38(A) |
| * 42 Chlorobenzene-d5 | 117 | 9.561 | 9.562 | (1.000) | 228041 | 5.00000 | |
| $ 89 1,1,2,2-Tetrachloroethane-d2 | 84 | 11.071 | 11.072 | (1.158) | 45461 | 4.23901 | 4.2 |
| * 78 1,4-Dichlorobenzene-d4 | 152 | 12.326 | 12.327 | (1.000) | 91160 | 5.00000 | |
| $ 90 1,2-Dichlorobenzene-d4 | 152 | 12.790 | 12.791 | (1.038) | 69734 | 4.83577 | 4.8 |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\Avogadro\Organics\V5.I\100629.B\V5M0208.D
Report Date: 30-Jun-2010 12:55

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: \\Avogadro\Organics\V5.I\100629.B\V5M0208.D
Report Date: 30-Jun-2010 12:55

Mitkem Laboratories

SOM01.0 - Trace Water Volatiles

Data file : \\Avogadro\Organics\V5.I\100629.B\V5M0208.D
Lab Smp Id: J1312-01A  Client Smp ID: F3JK9
Inj Date : 29-JUN-2010 14:06
Operator : SRC: LIMS  Inst ID: V5.i
Smp Info : 25ML,J1312-01A,,52637,
Misc Info :
Comment :
Method : \\Avogadro\Organics\V5.I\100629.B\V5_TVOA1359.m
Meth Date : 30-Jun-2010 12:34 V5.i  Quant Type: ISTD
Cal Date : 07-JUN-2010 13:51  Cal File: V5L9665.D
Als bottle: 36
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: SOM01.2.sub
Target Version: 4.14

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: \\Avogadro\Organics\V5.I\100629.B\V5M0208.D

Date : 29-JUN-2010 14:06

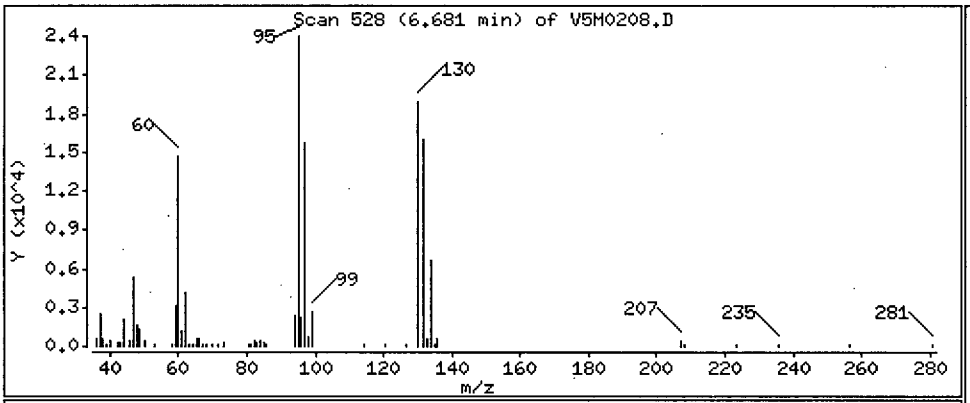
Client ID: F3JK9 | Instrument: V5.i

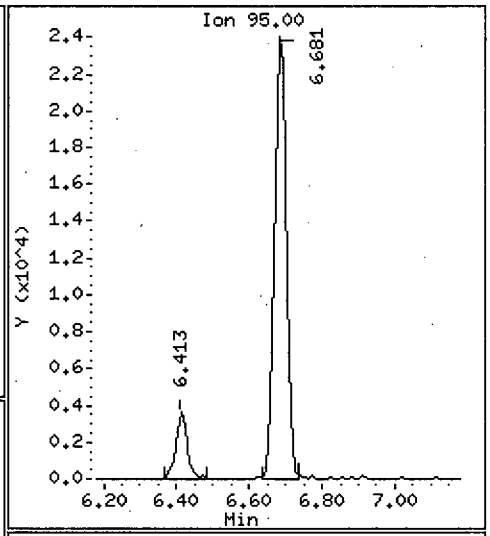
Sample Info: 25ML,J1312-01A,,52637,

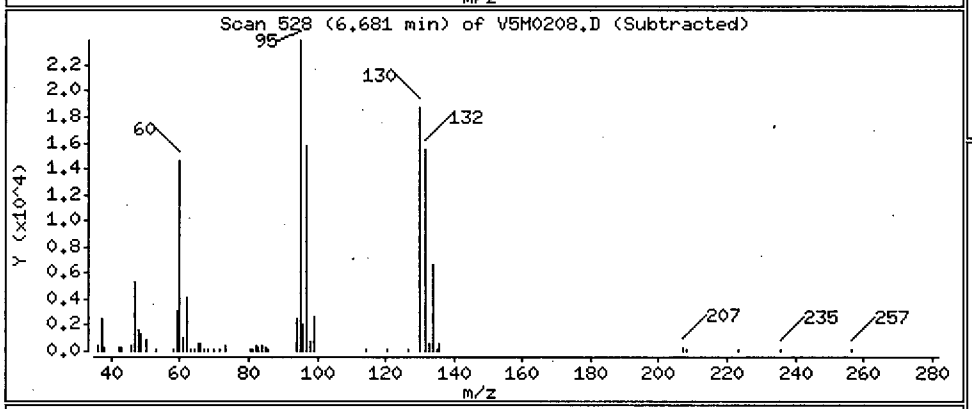
Purge Volume: 25.0 | Operator: SRC: LIMS

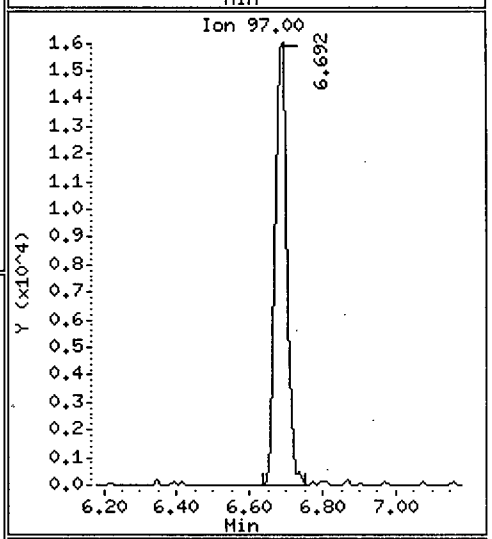
Column phase: DB-624 | Column diameter: 0.25

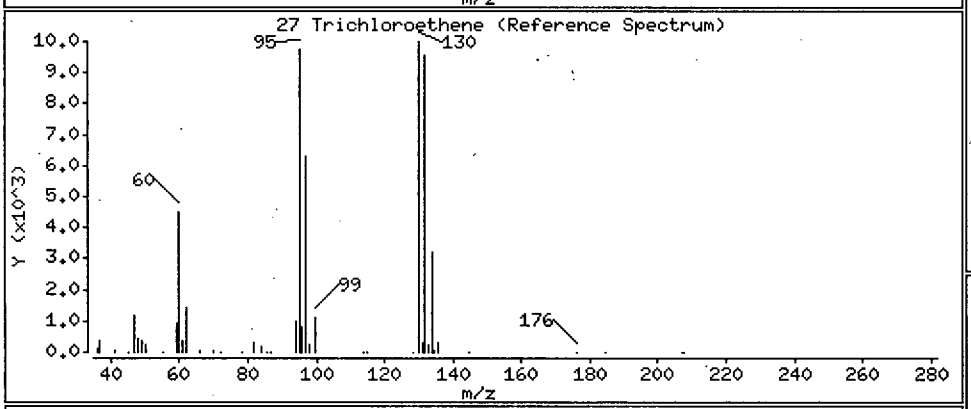
27 Trichloroethene | Concentration: 2.7 ug/L

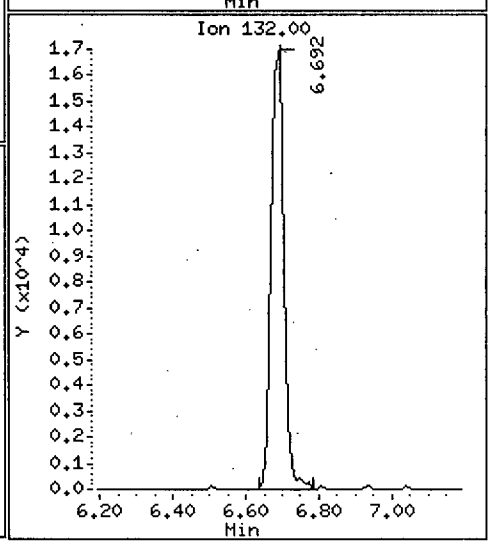


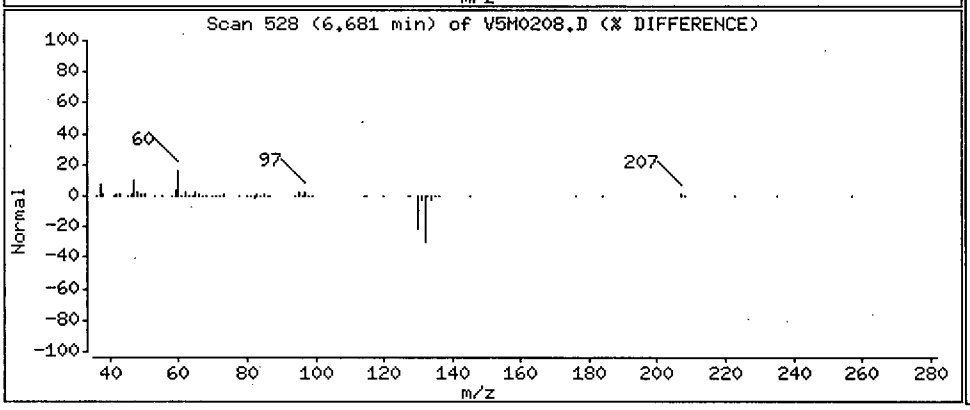



1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

F3JL0

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: J1312-02A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5M0209.D

Level: (TRACE/LOW/MED) TRACE Date Received: 06/25/2010

% Moisture: not dec. Date Analyzed: 06/29/2010

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L | Q |
|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 0.50 | U |
| 74-87-3 | Chloromethane | 0.50 | U |
| 75-01-4 | Vinyl chloride | 0.50 | U |
| 74-83-9 | Bromomethane | 0.50 | U |
| 75-00-3 | Chloroethane | 0.50 | U |
| 75-69-4 | Trichlorofluoromethane | 0.50 | U |
| 75-35-4 | 1,1-Dichloroethene | 0.50 | U |
| 76-13-1 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.50 | U |
| 67-64-1 | Acetone | 5.0 | U |
| 75-15-0 | Carbon disulfide | 0.50 | U |
| 79-20-9 | Methyl acetate | 0.50 | U |
| 75-09-2 | Methylene chloride | 0.50 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 0.50 | U |
| 1634-04-4 | Methyl tert-butyl ether | 0.50 | U |
| 75-34-3 | 1,1-Dichloroethane | 0.50 | U |
| 156-59-2 | cis-1,2-Dichloroethene | 0.50 | U |
| 78-93-3 | 2-Butanone | 5.0 | U |
| 74-97-5 | Bromochloromethane | 0.50 | U |
| 67-66-3 | Chloroform | 0.50 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 0.50 | U |
| 110-82-7 | Cyclohexane | 0.50 | U |
| 56-23-5 | Carbon tetrachloride | 0.50 | U |
| 71-43-2 | Benzene | 0.50 | U |
| 107-06-2 | 1,2-Dichloroethane | 0.50 | U |

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

F3JL0

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: J1312-02A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5M0209.D

Level: (TRACE/LOW/MED) TRACE Date Received: 06/25/2010

% Moisture: not dec. Date Analyzed: 06/29/2010

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L | Q |
|---|---|---|---|
| 79-01-6 | Trichloroethene | 0.50 | U |
| 108-87-2 | Methylcyclohexane | 0.50 | U |
| 78-87-5 | 1,2-Dichloropropane | 0.50 | U |
| 75-27-4 | Bromodichloromethane | 0.50 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.50 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 5.0 | U |
| 108-88-3 | Toluene | 0.50 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.50 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 0.50 | U |
| 127-18-4 | Tetrachloroethene | 0.50 | U |
| 591-78-6 | 2-Hexanone | 5.0 | U |
| 124-48-1 | Dibromochloromethane | 0.50 | U |
| 106-93-4 | 1,2-Dibromoethane | 0.50 | U |
| 108-90-7 | Chlorobenzene | 0.50 | U |
| 100-41-4 | Ethylbenzene | 0.50 | U |
| 179601-23-1 | m,p-Xylene | 0.50 | U |
| 95-47-6 | o-Xylene | 0.50 | U |
| 100-42-5 | Styrene | 0.50 | U |
| 75-25-2 | Bromoform | 0.50 | U |
| 98-82-8 | Isopropylbenzene | 0.50 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.50 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 0.50 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 0.50 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 0.50 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 0.50 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.50 | U |
| 87-61-6 | 1,2,3-Trichlorobenzene | 0.50 | U |

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

F3JL0

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: J1312-02A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5M0209.D

Level: (TRACE or LOW/MED) TRACE Date Received: 06/25/2010

% Moisture: not dec. Date Analyzed: 06/29/2010

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L Purge Volume: 25.0 (mL)

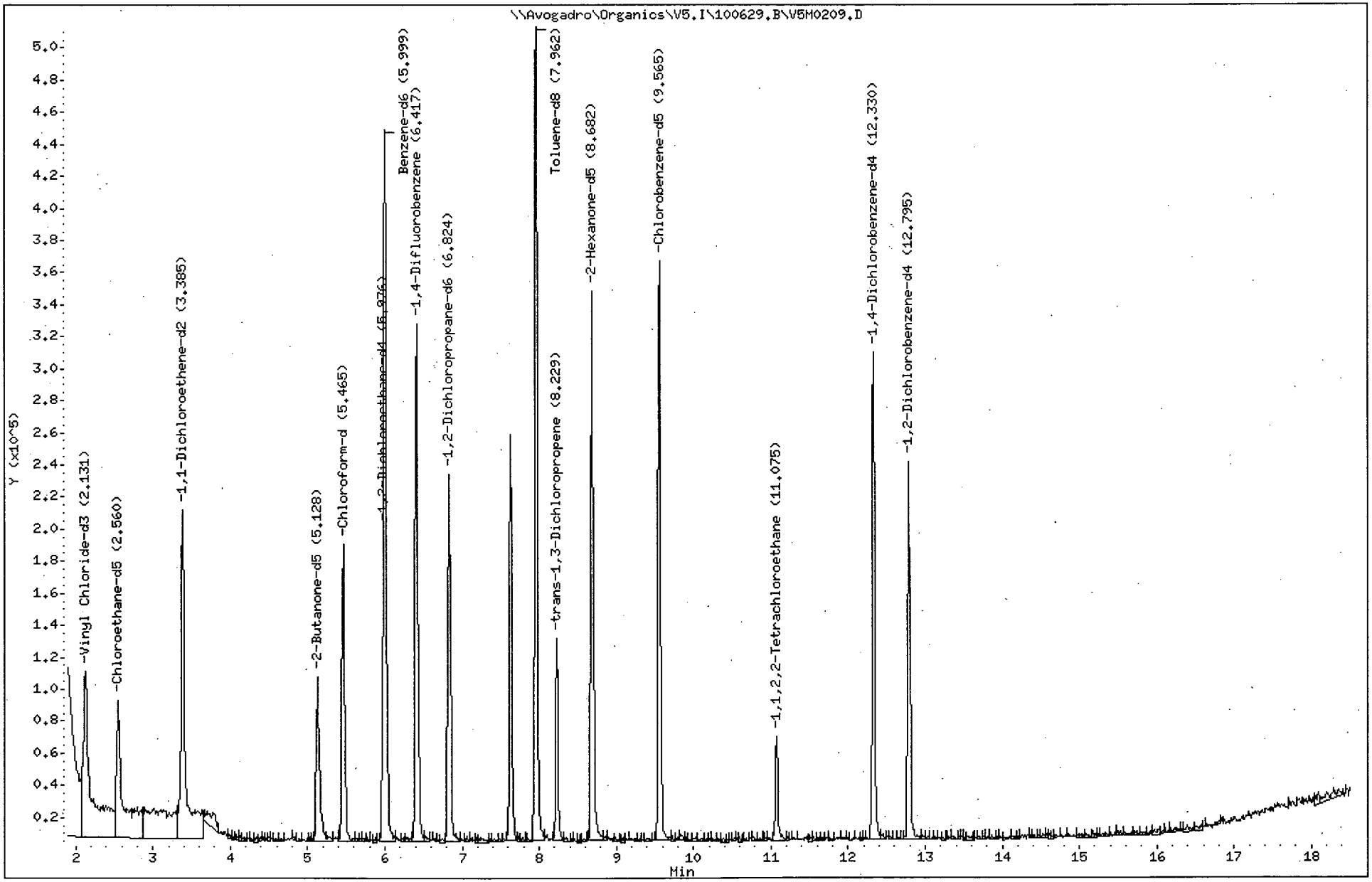
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| E9667961 | Total Alkanes | N/A | | |

[1]EPA-designated Registry Number.

Data File: \\Avogadro\Organics\V5.I\100629.B\V5M0209.D
Date : 29-JUN-2010 14:35
Client ID: F3JL0
Sample Info: 25ML,J1312-02A,,52637,
Purge Volume: 25.0
Column phase: DB-624

Instrument: V5.i

Operator: SRC: LIMS
Column diameter: 0.25




0023

Data File: \\Avogadro\Organics\V5.I\100629.B\V5M0209.D
Report Date: 30-Jun-2010 12:55

Mitkem Laboratories

SOM01.0 - Trace Water Volatiles

Data file : \\Avogadro\Organics\V5.I\100629.B\V5M0209.D
Lab Smp Id: J1312-02A  Client Smp ID: F3JL0
Inj Date : 29-JUN-2010 14:35
Operator : SRC: LIMS  Inst ID: V5.i
Smp Info : 25ML,J1312-02A,,52637,
Misc Info :
Comment :
Method : \\Avogadro\Organics\V5.I\100629.B\V5_TVOA1359.m
Meth Date : 30-Jun-2010 12:34 V5.i  Quant Type: ISTD
Cal Date : 07-JUN-2010 13:51  Cal File: V5L9665.D
Als bottle: 37
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: SOM01.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Vo | 25.000 | Sample volume purged (mL) |
| Va | 10.000 | LCS Aliquot volume |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/L) | FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|
| $ 79 Vinyl Chloride-d3 | 65 | 2.130 | 2.116 | (0.332) | 157946 | 3.67634 | 3.7 |
| $ 80 Chloroethane-d5 | 69 | 2.560 | 2.557 | (0.399) | 94612 | 4.65997 | 4.7 |
| $ 81 1,1-Dichloroethene-d2 | 65 | 3.385 | 3.382 | (0.528) | 51410 | 4.68972 | 4.7(Q) |
| $ 82 2-Butanone-d5 | 46 | 5.127 | 5.124 | (0.799) | 209445 | 36.5880 | 37(A) |
| $ 83 Chloroform-d | 84 | 5.464 | 5.461 | (0.852) | 158241 | 4.43656 | 4.4(Q) |
| $ 23 1,2-Dichloroethane-d4 | 65 | 5.975 | 5.984 | (0.931) | 69695 | 4.67242 | 4.7 |
| $ 84 Benzene-d6 | 84 | 5.998 | 5.996 | (0.627) | 406684 | 4.67624 | 4.7 |
| * 26 1,4-Difluorobenzene | 114 | 6.417 | 6.414 | (1.000) | 284065 | 5.00000 | |
| $ 85 1,2-Dichloropropane-d6 | 67 | 6.823 | 6.832 | (0.713) | 125297 | 4.24095 | 4.2 |
| $ 33 Toluene-d8 | 98 | 7.962 | 7.959 | (0.832) | 368762 | 4.89580 | 4.9 |
| $ 86 trans-1,3-Dichloropropene-d4 | 79 | 8.229 | 8.226 | (0.860) | 64645 | 4.58169 | 4.6 |
| $ 87 2-Hexanone-d5 | 63 | 8.682 | 8.691 | (0.908) | 137209 | 40.6642 | 41(A) |
| * 42 Chlorobenzene-d5 | 117 | 9.565 | 9.562 | (1.000) | 214102 | 5.00000 | |
| $ 89 1,1,2,2-Tetrachloroethane-d2 | 84 | 11.075 | 11.072 | (1.158) | 45091 | 4.47824 | 4.5 |
| * 78 1,4-Dichlorobenzene-d4 | 152 | 12.329 | 12.327 | (1.000) | 92257 | 5.00000 | (Q) |
| $ 90 1,2-Dichlorobenzene-d4 | 152 | 12.794 | 12.791 | (1.038) | 68425 | 4.68858 | 4.7 |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

Data File: \\Avogadro\Organics\V5.I\100629.B\V5M0209.D
Report Date: 30-Jun-2010 12:55

Mitkem Laboratories

SOM01.0 - Trace Water Volatiles

Data file : \\Avogadro\Organics\V5.I\100629.B\V5M0209.D
Lab Smp Id: J1312-02A  Client Smp ID: F3JL0
Inj Date : 29-JUN-2010 14:35
Operator : SRC: LIMS  Inst ID: V5.i
Smp Info : 25ML,J1312-02A,,52637,
Misc Info :
Comment :
Method : \\Avogadro\Organics\V5.I\100629.B\V5_TVOA1359.m
Meth Date : 30-Jun-2010 12:34 V5.i  Quant Type: ISTD
Cal Date : 07-JUN-2010 13:51  Cal File: V5L9665.D
Als bottle: 37
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: SOM01.2.sub
Target Version: 4.14

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

F3JL4

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: J1312-03A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5M0210.D

Level: (TRACE/LOW/MED) TRACE Date Received: 06/25/2010

% Moisture: not dec. Date Analyzed: 06/29/2010

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L | Q |
|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 0.50 | U |
| 74-87-3 | Chloromethane | 0.50 | U |
| 75-01-4 | Vinyl chloride | 0.50 | U |
| 74-83-9 | Bromomethane | 0.50 | U |
| 75-00-3 | Chloroethane | 0.50 | U |
| 75-69-4 | Trichlorofluoromethane | 0.50 | U |
| 75-35-4 | 1,1-Dichloroethene | 0.50 | U |
| 76-13-1 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.50 | U |
| 67-64-1 | Acetone | 5.0 | U |
| 75-15-0 | Carbon disulfide | 0.50 | U |
| 79-20-9 | Methyl acetate | 0.50 | U |
| 75-09-2 | Methylene chloride | 0.50 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 0.50 | U |
| 1634-04-4 | Methyl tert-butyl ether | 0.50 | U |
| 75-34-3 | 1,1-Dichloroethane | 0.50 | U |
| 156-59-2 | cis-1,2-Dichloroethene | 0.50 | U |
| 78-93-3 | 2-Butanone | 5.0 | U |
| 74-97-5 | Bromochloromethane | 0.50 | U |
| 67-66-3 | Chloroform | 0.50 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 0.50 | U |
| 110-82-7 | Cyclohexane | 0.50 | U |
| 56-23-5 | Carbon tetrachloride | 0.50 | U |
| 71-43-2 | Benzene | 0.50 | U |
| 107-06-2 | 1,2-Dichloroethane | 0.50 | U |

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

F3JL4

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: J1312-03A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5M0210.D

Level: (TRACE/LOW/MED) TRACE Date Received: 06/25/2010

% Moisture: not dec. Date Analyzed: 06/29/2010

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L | Q |
|---|---|---|---|
| 79-01-6 | Trichloroethene | 0.50 | U |
| 108-87-2 | Methylcyclohexane | 0.50 | U |
| 78-87-5 | 1,2-Dichloropropane | 0.50 | U |
| 75-27-4 | Bromodichloromethane | 0.50 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.50 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 5.0 | U |
| 108-88-3 | Toluene | 0.50 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.50 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 0.50 | U |
| 127-18-4 | Tetrachloroethene | 0.50 | U |
| 591-78-6 | 2-Hexanone | 5.0 | U |
| 124-48-1 | Dibromochloromethane | 0.50 | U |
| 106-93-4 | 1,2-Dibromoethane | 0.50 | U |
| 108-90-7 | Chlorobenzene | 0.50 | U |
| 100-41-4 | Ethylbenzene | 0.50 | U |
| 179601-23-1 | m,p-Xylene | 0.50 | U |
| 95-47-6 | o-Xylene | 0.50 | U |
| 100-42-5 | Styrene | 0.50 | U |
| 75-25-2 | Bromoform | 0.50 | U |
| 98-82-8 | Isopropylbenzene | 0.50 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.50 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 0.50 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 0.50 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 0.50 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 0.50 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.50 | U |
| 87-61-6 | 1,2,3-Trichlorobenzene | 0.50 | U |

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

F3JL4

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: J1312-03A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5M0210.D

Level: (TRACE or LOW/MED) TRACE Date Received: 06/25/2010

% Moisture: not dec. Date Analyzed: 06/29/2010

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

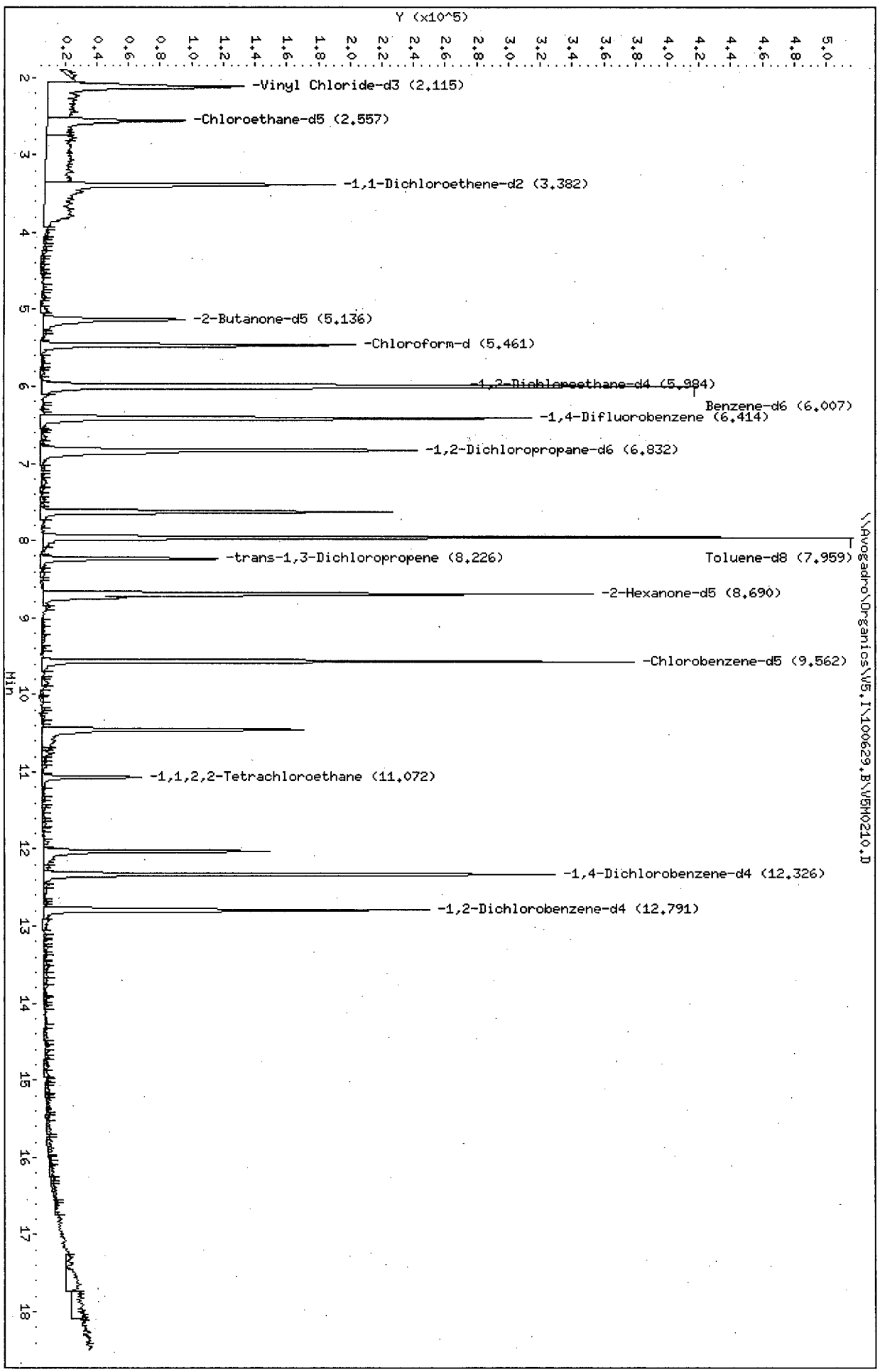
CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L Purge Volume: 25.0 (mL)

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|---|
| 01 | | Unknown-01 | 10.456 | 3.0 | J |
| 02 | 111-13-7 | 2-Octanone | 12.024 | 2.7 | NJ |
| | E966796[1] | Total Alkanes | N/A | | |

[1]EPA-designated Registry Number.

Data File: \\Avogadro\Organics\V5,I\100629,B\V5H0210,D
Date : 29-JUN-2010 15:04
Client ID: F3JL4
Sample Info: 25ML,J1312-03A,52637,
Purge Volume: 25.0
Column phase: DB-624

Instrument: V5,i
Operator: SRC: LIMS
Column diameter: 0.25



Data File: \\Avogadro\Organics\V5.I\100629.B\V5M0210.D
Report Date: 30-Jun-2010 12:55

Mitkem Laboratories

SOM01.0 - Trace Water Volatiles

Data file : \\Avogadro\Organics\V5.I\100629.B\V5M0210.D
Lab Smp Id: J1312-03A  Client Smp ID: F3JL4
Inj Date : 29-JUN-2010 15:04
Operator : SRC: LIMS  Inst ID: V5.i
Smp Info : 25ML,J1312-03A,,52637,
Misc Info :
Comment :
Method : \\Avogadro\Organics\V5.I\100629.B\V5_TVOA1359.m
Meth Date : 30-Jun-2010 12:34 V5.i  Quant Type: ISTD
Cal Date : 07-JUN-2010 13:51  Cal File: V5L9665.D
Als bottle: 38
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: SOM01.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Vo | 25.000 | Sample volume purged (mL) |
| Va | 10.000 | LCS Aliquot volume |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/L) | FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|
| $ 79 Vinyl Chloride-d3 | 65 | 2.115 | 2.116 | (0.330) | 190092 | 4.70828 | 4.7 |
| $ 80 Chloroethane-d5 | 69 | 2.556 | 2.557 | (0.399) | 101382 | 5.31360 | 5.3 |
| $ 81 1,1-Dichloroethene-d2 | 65 | 3.393 | 3.382 | (0.529) | 48536 | 4.71145 | 4.7(Q) |
| $ 82 2-Butanone-d5 | 46 | 5.135 | 5.124 | (0.801) | 198839 | 36.9625 | 37(A) |
| $ 83 Chloroform-d | 84 | 5.460 | 5.461 | (0.851) | 155670 | 4.64433 | 4.6(Q) |
| $ 23 1,2-Dichloroethane-d4 | 65 | 5.983 | 5.984 | (0.933) | 68026 | 4.85295 | 4.9 |
| $ 84 Benzene-d6 | 84 | 6.006 | 5.996 | (0.628) | 403807 | 4.71656 | 4.7 |
| * 26 1,4-Difluorobenzene | 114 | 6.413 | 6.414 | (1.000) | 266948 | 5.00000 | |
| $ 85 1,2-Dichloropropane-d6 | 67 | 6.831 | 6.832 | (0.714) | 119897 | 4.12233 | 4.1 |
| $ 33 Toluene-d8 | 98 | 7.958 | 7.959 | (0.832) | 351076 | 4.73468 | 4.7 |
| $ 86 trans-1,3-Dichloropropene-d4 | 79 | 8.225 | 8.226 | (0.860) | 62471 | 4.49761 | 4.5 |
| $ 87 2-Hexanone-d5 | 63 | 8.690 | 8.691 | (0.909) | 136444 | 41.0768 | 41(A) |
| * 42 Chlorobenzene-d5 | 117 | 9.561 | 9.562 | (1.000) | 210770 | 5.00000 | |
| $ 89 1,1,2,2-Tetrachloroethane-d2 | 84 | 11.071 | 11.072 | (1.158) | 41692 | 4.20612 | 4.2 |
| * 78 1,4-Dichlorobenzene-d4 | 152 | 12.326 | 12.327 | (1.000) | 90438 | 5.00000 | (Q) |
| $ 90 1,2-Dichlorobenzene-d4 | 152 | 12.791 | 12.791 | (1.038) | 67920 | 4.74758 | 4.7 |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

Data File: \\Avogadro\Organics\V5.I\100629.B\V5M0210.D
Report Date: 30-Jun-2010 12:55

Mitkem Laboratories

SOM01.0 - Trace Water Volatiles

Data file : \\Avogadro\Organics\V5.I\100629.B\V5M0210.D
Lab Smp Id: J1312-03A  Client Smp ID: F3JL4
Inj Date : 29-JUN-2010 15:04
Operator : SRC: LIMS  Inst ID: V5.i
Smp Info : 25ML,J1312-03A,,52637,
Misc Info :
Comment :
Method : \\Avogadro\Organics\V5.I\100629.B\V5_TVOA1359.m
Meth Date : 30-Jun-2010 12:34 V5.i  Quant Type: ISTD
Cal Date : 07-JUN-2010 13:51  Cal File: V5L9665.D
Als bottle: 38
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: SOM01.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Vo | 25.000 | Sample volume purged (mL) |
| Va | 10.000 | LCS Aliquot volume |
| Cpnd Variable | | Local Compound Variable |

| ISTD | RT | AREA | AMOUNT |
|---|---|---|---|
| * 42 Chlorobenzene-d5 | 9.562 | 772334 | 5.000 |
| * 78 1,4-Dichlorobenzene-d4 | 12.326 | 664145 | 5.000 |

| | CONCENTRATIONS | | | | QUANT | | |
|---|---|---|---|---|---|---|---|
| RT | AREA | ON-COL( ug/L) | FINAL( ug/L) | QUAL | LIBRARY | LIB ENTRY | CPND # |
| Unknown | | | | CAS #: | | | |
| 10.456 | 460111 | 2.97870387 | 3.0 | 0 | | 0 | 42 |
| 2-Octanone | | | | CAS #: 111-13-7 | | | |
| 12.024 | 352007 | 2.65007142 | 2.7 | 91 | NIST2002.L | 12028 | 78 |

Data File: \\Avogadro\Organics\V5.I\100629.B\V5M0210.D

Date : 29-JUN-2010 15:04

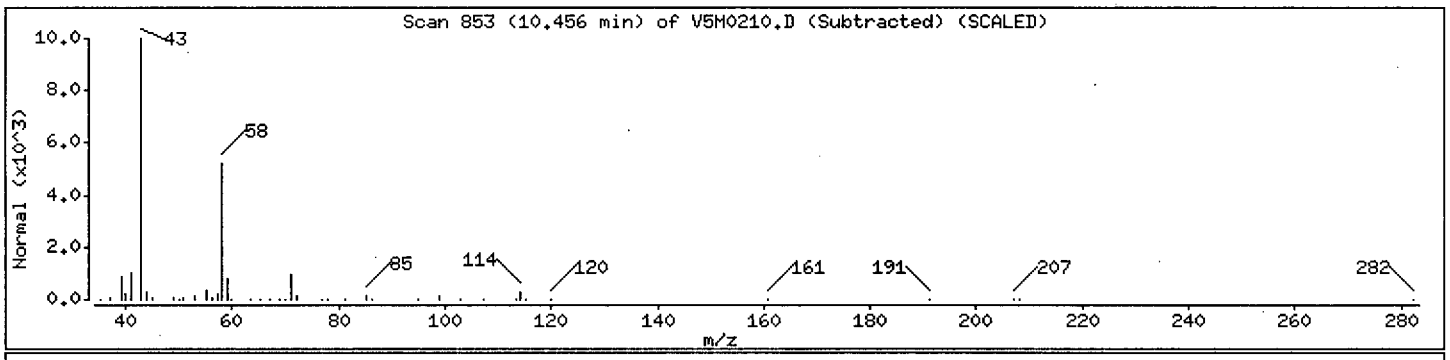
Client ID: F3JL4 Instrument: V5.i

Sample Info: 25ML,J1312-03A,,52637,

Purge Volume: 25.0 Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

| Library Search Compound Match | CAS Number | Library | Entry | Quality | Formula | Weight |
|---|---|---|---|---|---|---|
| Unknown | | | 0 | 0 | | 0 |



Data File: \\Avogadro\Organics\V5.I\100629.B\V5M0210.D

Date : 29-JUN-2010 15:04

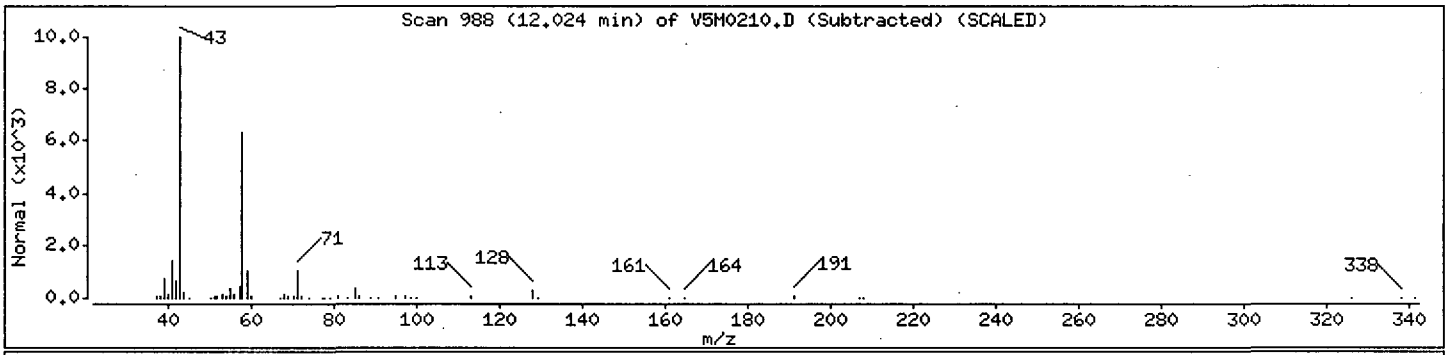
Client ID: F3JL4 Instrument: V5.i

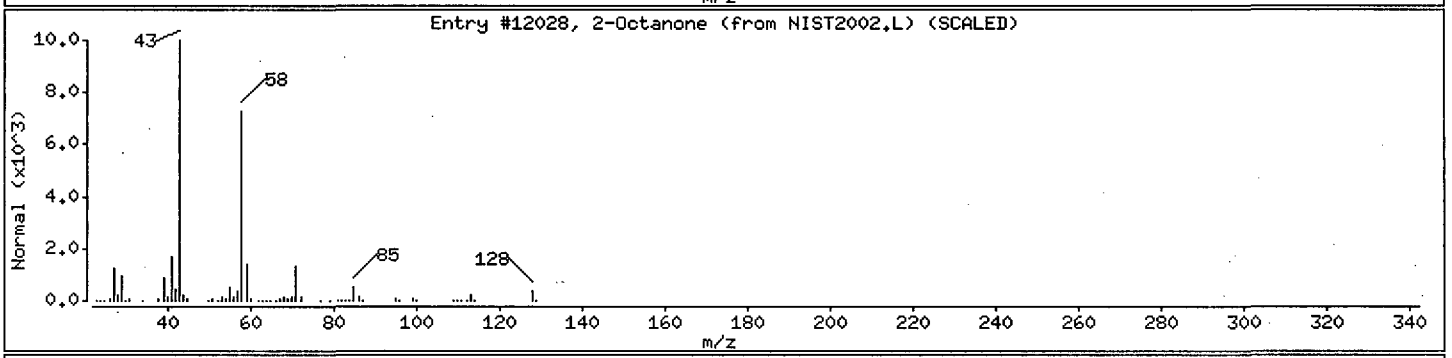
Sample Info: 25ML,J1312-03A,,52637,

Purge Volume: 25.0 Operator: SRC: LIMS

Column phase: DB-624 Column diameter: 0.25

| Library Search Compound Match | CAS Number | Library | Entry | Quality | Formula | Weight |
|---|---|---|---|---|---|---|
| 2-Octanone | 111-13-7 | NIST2002.L | 12028 | 91 | C8H16O | 128 |



6A - FORM VI VOA-1

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Instrument ID: V5 Calibration Date(s): 06/07/2010 06/07/2010

Heated Purge: (Y/N) N Calibration Time(s): 11:56 13:51

Purge Volume: 25.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: RRF0.5 = V5L9662.D RRF001 = V5L9665.D

RRF005 = V5L9661.D RRF010 = V5L9664.D RRF020 = V5L9663.D

| COMPOUND | RRF0.5 | RRF001 | RRF005 | RRF010 | RRF020 | $\overline{RRF}$ | %RSD |
|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 0.506 | 0.440 | 0.553 | 0.599 | 0.604 | 0.540 | 12.7 |
| Chloromethane | 1.277 | 1.178 | 1.215 | 1.328 | 1.338 | 1.267 | 5.5 |
| Vinyl chloride | 0.743 | 0.762 | 0.791 | 0.866 | 0.861 | 0.804 | 7.0 |
| Bromomethane | 0.357 | 0.286 | 0.290 | 0.310 | 0.290 | 0.307 | 9.6 |
| Chloroethane | 0.306 | 0.307 | 0.292 | 0.296 | 0.291 | 0.299 | 2.5 |
| Trichlorofluoromethane | 0.289 | 0.319 | 0.305 | 0.339 | 0.324 | 0.315 | 6.1 |
| 1,1-Dichloroethene | 0.242 | 0.243 | 0.256 | 0.266 | 0.261 | 0.254 | 4.2 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.219 | 0.228 | 0.232 | 0.263 | 0.250 | 0.238 | 7.6 |
| Acetone | 0.076 | 0.069 | 0.047 | 0.046 | 0.048 | 0.057 | 24.4 |
| Carbon disulfide | 1.001 | 1.038 | 1.069 | 1.075 | 1.096 | 1.056 | 3.5 |
| Methyl acetate | 0.244 | 0.175 | 0.143 | 0.140 | 0.135 | 0.167 | 27.2 |
| Methylene chloride | 0.225 | 0.245 | 0.250 | 0.243 | 0.249 | 0.243 | 4.3 |
| trans-1,2-Dichloroethene | 0.282 | 0.284 | 0.299 | 0.317 | 0.311 | 0.299 | 5.3 |
| Methyl tert-butyl ether | 0.356 | 0.372 | 0.335 | 0.370 | 0.397 | 0.366 | 6.2 |
| 1,1-Dichloroethane | 0.709 | 0.728 | 0.736 | 0.767 | 0.801 | 0.748 | 4.9 |
| cis-1,2-Dichloroethene | 0.344 | 0.316 | 0.342 | 0.360 | 0.360 | 0.344 | 5.2 |
| 2-Butanone | 0.103 | 0.101 | 0.091 | 0.097 | 0.103 | 0.099 | 5.0 |
| Bromochloromethane | 0.099 | 0.084 | 0.086 | 0.089 | 0.090 | 0.089 | 6.2 |
| Chloroform | 0.497 | 0.546 | 0.512 | 0.542 | 0.566 | 0.533 | 5.2 |
| 1,1,1-Trichloroethane | 0.517 | 0.520 | 0.540 | 0.542 | 0.528 | 0.529 | 2.1 |
| Cyclohexane | 1.183 | 1.159 | 1.201 | 1.178 | 1.119 | 1.168 | 2.7 |
| Carbon tetrachloride | 0.382 | 0.361 | 0.391 | 0.389 | 0.367 | 0.378 | 3.6 |
| Benzene | 2.163 | 1.927 | 2.039 | 1.949 | 1.814 | 1.979 | 6.6 |
| 1,2-Dichloroethane | 0.300 | 0.316 | 0.296 | 0.327 | 0.314 | 0.311 | 4.1 |
| Trichloroethene | 0.387 | 0.473 | 0.469 | 0.451 | 0.438 | 0.444 | 7.9 |
| Methylcyclohexane | 0.813 | 0.815 | 0.880 | 0.829 | 0.743 | 0.816 | 6.0 |

Report 1,4-Dioxane for Low-Medium VOA analysis only

6B - FORM VI VOA-2

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Instrument ID: V5 Calibration Date(s): 06/07/2010 06/07/2010

Heated Purge: (Y/N) N Calibration Time(s): 11:56 13:51

Purge Volume: 25.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: RRF0.5 = V5L9662.D RRF001 = V5L9665.D

RRF005 = V5L9661.D RRF010 = V5L9664.D RRF020 = V5L9663.D

| COMPOUND | RRF0.5 | RRF001 | RRF005 | RRF010 | RRF020 | $\overline{RRF}$ | %RSD |
|---|---|---|---|---|---|---|---|
| 1,2-Dichloropropane | 0.583 | 0.543 | 0.552 | 0.524 | 0.507 | 0.542 | 5.3 |
| Bromodichloromethane | 0.434 | 0.446 | 0.448 | 0.420 | 0.415 | 0.432 | 3.5 |
| cis-1,3-Dichloropropene | 0.628 | 0.624 | 0.601 | 0.601 | 0.610 | 0.613 | 2.1 |
| 4-Methyl-2-pentanone | 0.350 | 0.365 | 0.287 | 0.292 | 0.289 | 0.317 | 11.9 |
| Toluene | 1.991 | 1.964 | 1.906 | 1.848 | 1.736 | 1.889 | 5.4 |
| trans-1,3-Dichloropropene | 0.420 | 0.422 | 0.423 | 0.411 | 0.406 | 0.416 | 1.8 |
| 1,1,2-Trichloroethane | 0.201 | 0.182 | 0.199 | 0.187 | 0.180 | 0.190 | 5.1 |
| Tetrachloroethene | 0.303 | 0.316 | 0.322 | 0.298 | 0.263 | 0.300 | 7.7 |
| 2-Hexanone | 0.261 | 0.284 | 0.192 | 0.202 | 0.190 | 0.226 | 19.3 |
| Dibromochloromethane | 0.195 | 0.190 | 0.188 | 0.171 | 0.172 | 0.183 | 6.1 |
| 1,2-Dibromoethane | 0.123 | 0.196 | 0.185 | 0.174 | 0.164 | 0.168 | 16.6 |
| Chlorobenzene | 1.125 | 1.165 | 1.027 | 1.007 | 0.987 | 1.062 | 7.4 |
| Ethylbenzene | 2.201 | 2.137 | 2.128 | 2.082 | 2.000 | 2.110 | 3.5 |
| m,p-Xylene | 0.807 | 0.826 | 0.802 | 0.780 | 0.716 | 0.786 | 5.4 |
| o-Xylene | 0.656 | 0.745 | 0.740 | 0.691 | 0.680 | 0.702 | 5.5 |
| Styrene | 1.053 | 1.144 | 1.106 | 1.109 | 1.074 | 1.098 | 3.2 |
| Bromoform | 0.151 | 0.257 | 0.228 | 0.227 | 0.200 | 0.213 | 18.6 |
| Isopropylbenzene | 1.805 | 1.948 | 1.826 | 1.806 | 1.711 | 1.819 | 4.6 |
| 1,1,2,2-Tetrachloroethane | 0.230 | 0.240 | 0.213 | 0.211 | 0.203 | 0.219 | 7.0 |
| 1,3-Dichlorobenzene | 1.659 | 1.543 | 1.458 | 1.498 | 1.401 | 1.512 | 6.5 |
| 1,4-Dichlorobenzene | 1.630 | 1.592 | 1.358 | 1.410 | 1.287 | 1.456 | 10.3 |
| 1,2-Dichlorobenzene | 1.102 | 1.180 | 1.078 | 1.112 | 1.020 | 1.099 | 5.3 |
| 1,2-Dibromo-3-chloropropane | 0.061 | 0.067 | 0.068 | 0.063 | 0.059 | 0.064 | 6.1 |
| 1,2,4-Trichlorobenzene | 1.056 | 1.111 | 0.925 | 1.041 | 1.031 | 1.033 | 6.6 |
| 1,2,3-Trichlorobenzene | 0.846 | 0.819 | 0.663 | 0.745 | 0.731 | 0.761 | 9.6 |

6C - FORM VI VOA-3

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Instrument ID: V5 Calibration Date(s): 06/07/2010 06/07/2010

Heated Purge: (Y/N) N Calibration Time(s): 11:56 13:51

Purge Volume: 25.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: RRF0.5 = V5L9662.D RRF001 = V5L9665.D

RRF005 = V5L9661.D RRF010 = V5L9664.D RRF020 = V5L9663.D

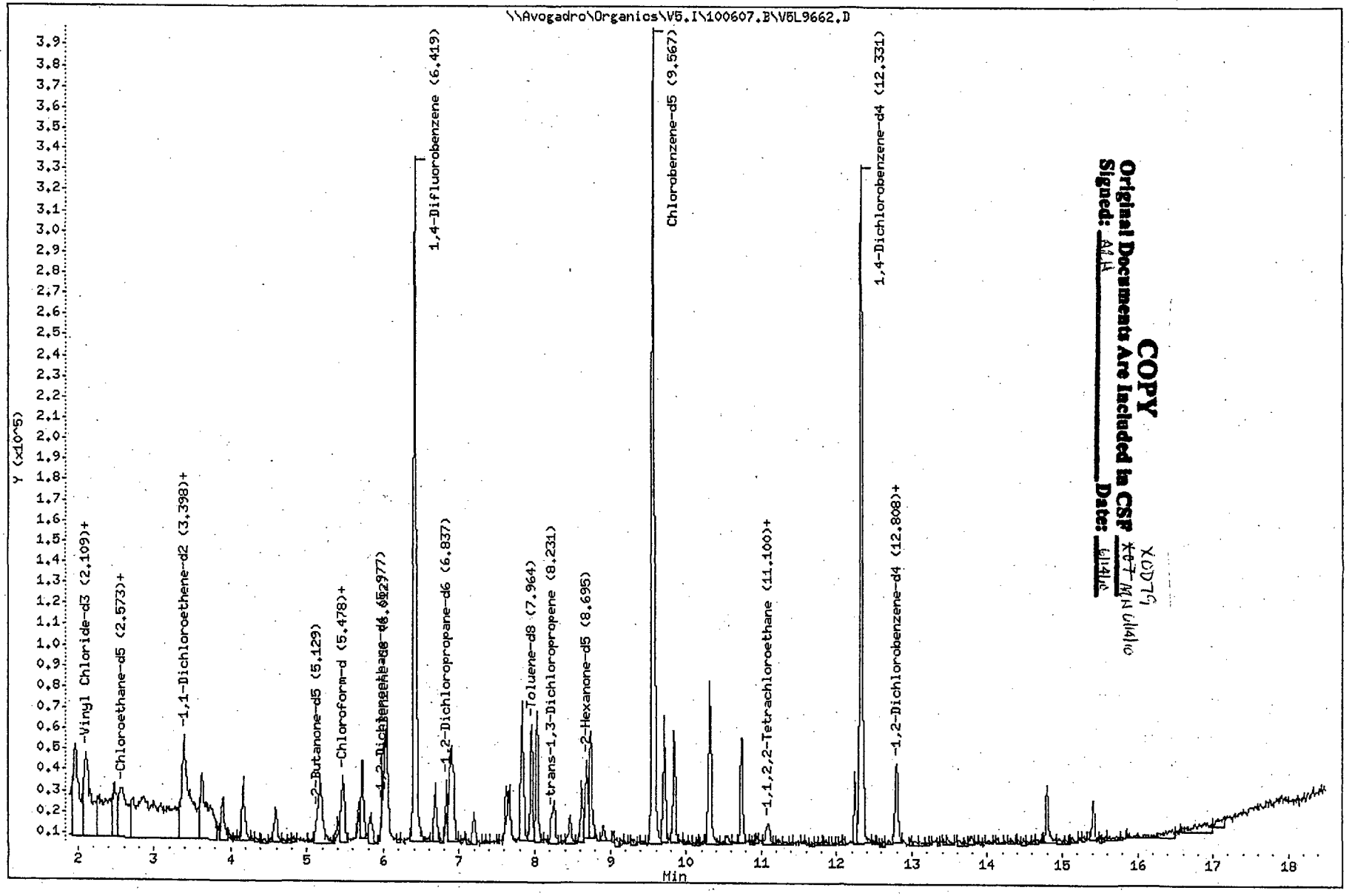
| COMPOUND | RRF0.5 | RRF001 | RRF005 | RRF010 | RRF020 | $\overline{RRF}$ | %RSD |
|---|---|---|---|---|---|---|---|
| Vinyl chloride-d3 | 0.680 | 0.721 | 0.754 | 0.817 | 0.809 | 0.756 | 7.7 |
| Chloroethane-d5 | 0.360 | 0.364 | 0.345 | 0.369 | 0.349 | 0.357 | 2.8 |
| 1,1-Dichloroethene-d2 | 0.238 | 0.194 | 0.169 | 0.180 | 0.184 | 0.193 | 13.9 |
| 2-Butanone-d5 | 0.095 | 0.098 | 0.094 | 0.104 | 0.113 | 0.101 | 7.8 |
| Chloroform-d | 0.583 | 0.593 | 0.640 | 0.655 | 0.668 | 0.628 | 6.0 |
| 1,2-Dichloroethane-d4 | 0.233 | 0.266 | 0.268 | 0.274 | 0.272 | 0.263 | 6.5 |
| Benzene-d6 | 1.892 | 2.059 | 2.142 | 2.074 | 1.989 | 2.031 | 4.7 |
| 1,2-Dichloropropane-d6 | 0.575 | 0.702 | 0.744 | 0.727 | 0.701 | 0.690 | 9.7 |
| Toluene-d8 | 1.767 | 1.810 | 1.815 | 1.749 | 1.655 | 1.759 | 3.7 |
| trans-1,3-Dichloropropene-d4 | 0.353 | 0.320 | 0.334 | 0.323 | 0.316 | 0.330 | 4.5 |
| 2-Hexanone-d5 | 0.080 | 0.084 | 0.075 | 0.076 | 0.081 | 0.079 | 4.7 |
| 1,1,2,2-Tetrachloroethane-d2 | 0.212 | 0.243 | 0.247 | 0.234 | 0.239 | 0.235 | 5.9 |
| 1,2-Dichlorobenzene-d4 | 0.727 | 0.878 | 0.776 | 0.806 | 0.767 | 0.791 | 7.1 |

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only

Data File: \\Avogadro\Organics\V5.I\100607.B\V5L9662.D
Date : 07-JUN-2010 12:25
Client ID: VSTD0.5L5
Sample Info: 25ML,VSTD0.5L5,VSTD0.5L5
Purge Volume: 25.0
Column phase: DB-624

Instrument: V5.i

Operator: SRC:
Column diameter: 0.25




**COPY**
**Original Documents Are Included in CSP**
**Signed:** AJH **Date:** 6/14/10

0037

Data File: \\Avogadro\Organics\V5.I\100607.B\V5L9662.D
Report Date: 08-Jun-2010 10:42

Mitkem Laboratories

SOM01.0 - Trace Water Volatiles

Data file : \\Avogadro\Organics\V5.I\100607.B\V5L9662.D
Lab Smp Id: VSTD0.5L5 Client Smp ID: VSTD0.5L5
Inj Date : 07-JUN-2010 12:25
Operator : SRC: Inst ID: V5.i
Smp Info : 25ML,VSTD0.5L5,VSTD0.5L5
Misc Info :
Comment :
Method : \\Avogadro\Organics\V5.I\100607.B\V5_TVOA1359.m
Meth Date : 08-Jun-2010 10:25 V5.i Quant Type: ISTD
Cal Date : 07-JUN-2010 12:25 Cal File: V5L9662.D
Als bottle: 28 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM01.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Vo | 25.000 | Sample volume purged (mL) |
| Va | 10.000 | LCS Aliquot volume |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) |
|---|---|---|---|---|---|---|---|
| 1 Dichlorodifluoromethane | 85 | 1.830 | 1.816 | (0.285) | 14363 | 0.50000 | 0.47(a) |
| 2 Chloromethane | 50 | 1.969 | 1.990 | (0.307) | 36268 | 0.50000 | 0.50 |
| $ 79 Vinyl Chloride-d3 | 65 | 2.108 | 2.130 | (0.329) | 19313 | 0.50000 | 0.45(a) |
| 3 Vinyl Chloride | 62 | 2.120 | 2.141 | (0.330) | 21099 | 0.50000 | 0.46(a) |
| 4 Bromomethane | 94 | 2.468 | 2.490 | (0.385) | 10132 | 0.50000 | 0.58 |
| $ 80 Chloroethane-d5 | 69 | 2.561 | 2.560 | (0.399) | 10220 | 0.50000 | 0.50 |
| 5 Chloroethane | 64 | 2.585 | 2.594 | (0.403) | 8700 | 0.50000 | 0.51 |
| 6 Trichlorofluoromethane | 101 | 2.863 | 2.873 | (0.446) | 8207 | 0.50000 | 0.46(a) |
| $ 81 1,1-Dichloroethene-d2 | 65 | 3.386 | 3.384 | (0.528) | 6767 | 0.50000 | 0.62(Q) |
| 7 1,1-Dichloroethene | 96 | 3.398 | 3.408 | (0.529) | 6885 | 0.50000 | 0.48(a) |
| 8 1,1,2-Trichloro-1,2,2-trifluo | 101 | 3.409 | 3.419 | (0.531) | 6214 | 0.50000 | 0.46(a) |
| 9 Acetone | 43 | 3.479 | 3.477 | (0.542) | 21604 | 5.00000 | 6.6 |
| 10 Carbon Disulfide | 76 | 3.630 | 3.628 | (0.566) | 28436 | 0.50000 | 0.47(a) |
| 11 Methyl Acetate | 43 | 3.804 | 3.814 | (0.593) | 6923 | 0.50000 | 0.73(T) |
| 12 Methylene Chloride | 84 | 3.897 | 3.907 | (0.607) | 6387 | 0.50000 | 0.46(aQ) |
| 13 trans-1,2-Dichloroethene | 96 | 4.164 | 4.174 | (0.649) | 8007 | 0.50000 | 0.47(a) |
| 14 Methyl tert-Butyl Ether | 73 | 4.176 | 4.186 | (0.651) | 10103 | 0.50000 | 0.49(aQ) |
| 15 1,1-Dichloroethane | 63 | 4.594 | 4.604 | (0.716) | 20150 | 0.50000 | 0.47(a) |
| $ 82 2-Butanone-d5 | 46 | 5.129 | 5.138 | (0.799) | 27070 | 5.00000 | 4.7 |
| 17 cis-1,2-Dichloroethene | 96 | 5.175 | 5.173 | (0.806) | 9762 | 0.50000 | 0.50 |
| 16 2-Butanone | 43 | 5.198 | 5.197 | (0.810) | 29183 | 5.00000 | 5.2 |
| 18 Bromochloromethane | 128 | 5.419 | 5.417 | (0.844) | 2799 | 0.50000 | 0.55(Q) |

Data File: \\Avogadro\Organics\V5.I\100607.B\V5L9662.D
Report Date: 08-Jun-2010 10:42

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) |
|---|---|---|---|---|---|---|---|
| $ 83 Chloroform-d | 84 | 5.466 | 5.464 | (0.852) | 16553 | 0.50000 | 0.46(a) |
| 19 Chloroform | 83 | 5.477 | 5.487 | (0.853) | 14130 | 0.50000 | 0.47(a) |
| 20 1,1,1-Trichloroethane | 97 | 5.675 | 5.673 | (0.593) | 11359 | 0.50000 | 0.49(a) |
| 21 Cyclohexane | 56 | 5.733 | 5.731 | (0.599) | 25985 | 0.50000 | 0.51 |
| 22 Carbon Tetrachloride | 117 | 5.837 | 5.847 | (0.610) | 8385 | 0.50000 | 0.51 |
| $ 23 1,2-Dichloroethane-d4 | 65 | 5.977 | 5.986 | (0.931) | 6610 | 0.50000 | 0.44(aQ) |
| $ 84 Benzene-d6 | 84 | 6.000 | 6.010 | (0.627) | 41545 | 0.50000 | 0.47(a) |
| 25 Benzene | 78 | 6.046 | 6.045 | (0.632) | 47507 | 0.50000 | 0.55 |
| 24 1,2-Dichloroethane | 62 | 6.058 | 6.068 | (0.944) | 8534 | 0.50000 | 0.48(a) |
| * 26 1,4-Difluorobenzene | 114 | 6.418 | 6.416 | (1.000) | 284078 | 5.00000 | |
| 27 Trichloroethene | 95 | 6.685 | 6.683 | (0.699) | 8490 | 0.50000 | 0.44(a) |
| $ 85 1,2-Dichloropropane-d6 | 67 | 6.836 | 6.834 | (0.715) | 12635 | 0.50000 | 0.42(a) |
| 28 Methylcyclohexane | 83 | 6.883 | 6.893 | (0.720) | 17855 | 0.50000 | 0.50 |
| 29 1,2-Dichloropropane | 63 | 6.929 | 6.927 | (0.724) | 12800 | 0.50000 | 0.54(T) |
| 30 Bromodichloromethane | 83 | 7.208 | 7.206 | (0.754) | 9527 | 0.50000 | 0.50 |
| 31 cis-1,3-Dichloropropene | 75 | 7.673 | 7.671 | (0.802) | 13799 | 0.50000 | 0.51 |
| 32 4-Methyl-2-Pentanone | 43 | 7.835 | 7.834 | (0.819) | 76963 | 5.00000 | 5.5 |
| $ 33 Toluene-d8 | 98 | 7.963 | 7.961 | (0.832) | 38792 | 0.50000 | 0.50 |
| 34 Toluene | 91 | 8.033 | 8.031 | (0.840) | 43724 | 0.50000 | 0.53 |
| $ 86 trans-1,3-Dichloropropene-d4 | 79 | 8.230 | 8.228 | (0.860) | 7755 | 0.50000 | 0.54 |
| 35 trans-1,3-Dichloropropene | 75 | 8.253 | 8.263 | (0.863) | 9212 | 0.50000 | 0.50 |
| 36 1,1,2-Trichloroethane | 97 | 8.474 | 8.472 | (0.886) | 4423 | 0.50000 | 0.53 |
| 37 Tetrachloroethene | 164 | 8.625 | 8.635 | (0.902) | 6659 | 0.50000 | 0.50 |
| $ 87 2-Hexanone-d5 | 63 | 8.683 | 8.682 | (0.908) | 17461 | 5.00000 | 5.0 |
| 38 2-Hexanone | 43 | 8.741 | 8.740 | (0.914) | 57315 | 5.00000 | 5.8 |
| 39 Dibromochloromethane | 129 | 8.916 | 8.914 | (0.932) | 4278 | 0.50000 | 0.53 |
| 40 1,2-Dibromoethane | 107 | 9.043 | 9.053 | (0.945) | 2706 | 0.50000 | 0.37(TaQ) |
| * 42 Chlorobenzene-d5 | 117 | 9.566 | 9.564 | (1.000) | 219593 | 5.00000 | |
| 43 Chlorobenzene | 112 | 9.601 | 9.599 | (1.004) | 24702 | 0.50000 | 0.53 |
| 44 Ethylbenzene | 91 | 9.717 | 9.715 | (1.016) | 48329 | 0.50000 | 0.52 |
| 45 m,p-Xylene | 106 | 9.845 | 9.843 | (1.029) | 17716 | 0.50000 | 0.51 |
| 46 o-Xylene | 106 | 10.310 | 10.308 | (1.078) | 14404 | 0.50000 | 0.47(aQ) |
| 47 Styrene | 104 | 10.333 | 10.331 | (1.080) | 23131 | 0.50000 | 0.48(a) |
| 48 Bromoform | 173 | 10.554 | 10.563 | (0.856) | 1348 | 0.50000 | 0.36(aQ) |
| 49 Isopropylbenzene | 105 | 10.751 | 10.749 | (1.124) | 39630 | 0.50000 | 0.50 |
| $ 89 1,1,2,2-Tetrachloroethane-d2 | 84 | 11.088 | 11.075 | (1.159) | 4653 | 0.50000 | 0.45(a) |
| 51 1,1,2,2-Tetrachloroethane | 83 | 11.111 | 11.098 | (1.161) | 5051 | 0.50000 | 0.52(T) |
| 52 1,3-Dichlorobenzene | 146 | 12.250 | 12.248 | (0.993) | 14766 | 0.50000 | 0.55 |
| * 78 1,4-Dichlorobenzene-d4 | 152 | 12.331 | 12.329 | (1.000) | 88999 | 5.00000 | |
| 53 1,4-Dichlorobenzene | 146 | 12.354 | 12.352 | (1.002) | 14510 | 0.50000 | 0.56 |
| $ 90 1,2-Dichlorobenzene-d4 | 152 | 12.796 | 12.794 | (1.038) | 6470 | 0.50000 | 0.46(a) |
| 54 1,2-Dichlorobenzene | 146 | 12.819 | 12.817 | (1.040) | 9812 | 0.50000 | 0.50 |
| 55 1,2-Dibromo-3-chloropropane | 75 | 13.771 | 13.781 | (1.117) | 546 | 0.50000 | 0.48(TaQ) |
| 56 1,2,4-Trichlorobenzene | 180 | 14.805 | 14.803 | (1.201) | 9397 | 0.50000 | 0.51 |
| 77 1,2,3-Trichlorobenzene | 180 | 15.421 | 15.408 | (1.251) | 7533 | 0.50000 | 0.56(Q) |

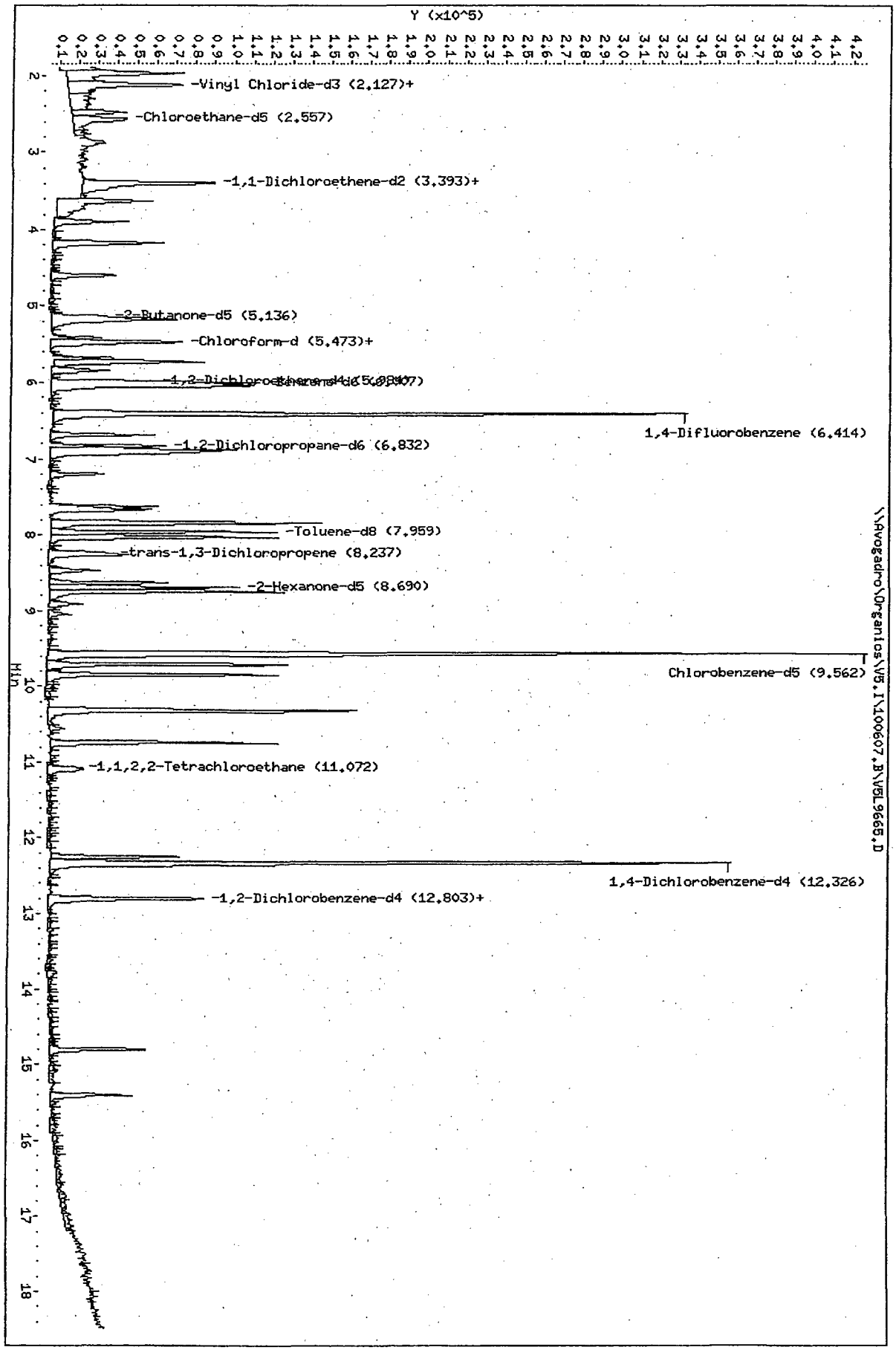
QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

0h00

Data File: \\Avogadro\Organics\V5.I\100607.B\VSL9665.D
Date : 07-JUN-2010 13:51
Client ID: VSTD001L5
Sample Info: 25ML,VSTD001L5,VSTD001L5
Purge Volume: 25.0
Column phase: DB-624

Instrument: V5.i
Operator: SRC:
Column diameter: 0.25



Data File: \\Avogadro\Organics\V5.I\100607.B\V5L9665.D
Report Date: 08-Jun-2010 10:42

Mitkem Laboratories

SOM01.0 - Trace Water Volatiles

Data file : \\Avogadro\Organics\V5.I\100607.B\V5L9665.D
Lab Smp Id: VSTD001L5 Client Smp ID: VSTD001L5
Inj Date : 07-JUN-2010 13:51
Operator : SRC: Inst ID: V5.i
Smp Info : 25ML,VSTD001L5,VSTD001L5
Misc Info :
Comment :
Method : \\Avogadro\Organics\V5.I\100607.B\V5_TVOA1359.m
Meth Date : 08-Jun-2010 10:25 V5.i Quant Type: ISTD
Cal Date : 07-JUN-2010 13:51 Cal File: V5L9665.D
Als bottle: 31 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM01.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Vo | 25.000 | Sample volume purged (mL) |
| Va | 10.000 | LCS Aliquot volume |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | ON-COL ( ug/L) |
|---|---|---|---|---|---|---|---|
| 1 Dichlorodifluoromethane | 85 | 1.825 | 1.816 | (0.285) | 25514 | 1.00000 | 0.81 |
| 2 Chloromethane | 50 | 1.976 | 1.990 | (0.308) | 68254 | 1.00000 | 0.93 |
| $ 79 Vinyl Chloride-d3 | 65 | 2.115 | 2.130 | (0.330) | 41798 | 1.00000 | 0.95 |
| 3 Vinyl Chloride | 62 | 2.127 | 2.141 | (0.332) | 44134 | 1.00000 | 0.95 |
| 4 Bromomethane | 94 | 2.475 | 2.490 | (0.386) | 16571 | 1.00000 | 0.93(Q) |
| $ 80 Chloroethane-d5 | 69 | 2.556 | 2.560 | (0.399) | 21097 | 1.00000 | 1.0 |
| 5 Chloroethane | 64 | 2.591 | 2.594 | (0.404) | 17781 | 1.00000 | 1.0 |
| 6 Trichlorofluoromethane | 101 | 2.870 | 2.873 | (0.448) | 18469 | 1.00000 | 1.0 |
| $ 81 1,1-Dichloroethene-d2 | 65 | 3.393 | 3.384 | (0.529) | 11230 | 1.00000 | 1.0(Q) |
| 7 1,1-Dichloroethene | 96 | 3.404 | 3.408 | (0.531) | 14096 | 1.00000 | 0.96 |
| 8 1,1,2-Trichloro-1,2,2-trifluo | 101 | 3.404 | 3.419 | (0.531) | 13201 | 1.00000 | 0.96 |
| 9 Acetone | 43 | 3.486 | 3.477 | (0.544) | 39810 | 10.0000 | 12 |
| 10 Carbon Disulfide | 76 | 3.637 | 3.628 | (0.567) | 60135 | 1.00000 | 0.98 |
| 11 Methyl Acetate | 43 | 3.811 | 3.814 | (0.594) | 10168 | 1.00000 | 1.0 |
| 12 Methylene Chloride | 84 | 3.904 | 3.907 | (0.609) | 14219 | 1.00000 | 1.0 |
| 13 trans-1,2-Dichloroethene | 96 | 4.183 | 4.174 | (0.652) | 16431 | 1.00000 | 0.95 |
| 14 Methyl tert-Butyl Ether | 73 | 4.194 | 4.186 | (0.654) | 21572 | 1.00000 | 1.0 |
| 15 1,1-Dichloroethane | 63 | 4.601 | 4.604 | (0.717) | 42163 | 1.00000 | 0.97 |
| $ 82 2-Butanone-d5 | 46 | 5.135 | 5.138 | (0.801) | 56710 | 10.0000 | 9.7 |
| 17 cis-1,2-Dichloroethene | 96 | 5.182 | 5.173 | (0.808) | 18335 | 1.00000 | 0.92 |
| 16 2-Butanone | 43 | 5.193 | 5.197 | (0.810) | 58258 | 10.0000 | 10 |
| 18 Bromochloromethane | 128 | 5.414 | 5.417 | (0.844) | 4874 | 1.00000 | 0.94(Q) |

Data File: \\Avogadro\Organics\V5.I\100607.B\V5L9665.D
Report Date: 08-Jun-2010 10:42

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) |
|---|---|---|---|---|---|---|---|---|
| $ | 83 Chloroform-d | 84 | 5.472 | 5.464 | (0.853) | 34371 | 1.00000 | 0.94 |
| | 19 Chloroform | 83 | 5.484 | 5.487 | (0.855) | 31627 | 1.00000 | 1.0 |
| | 20 1,1,1-Trichloroethane | 97 | 5.681 | 5.673 | (0.594) | 23398 | 1.00000 | 0.98 |
| | 21 Cyclohexane | 56 | 5.728 | 5.731 | (0.599) | 52143 | 1.00000 | 0.99 |
| | 22 Carbon Tetrachloride | 117 | 5.844 | 5.847 | (0.611) | 16244 | 1.00000 | 0.96 |
| $ | 23 1,2-Dichloroethane-d4 | 65 | 5.983 | 5.986 | (0.933) | 15439 | 1.00000 | 1.0 |
| $ | 84 Benzene-d6 | 84 | 6.007 | 6.010 | (0.628) | 92618 | 1.00000 | 1.0 |
| | 25 Benzene | 78 | 6.041 | 6.045 | (0.632) | 86715 | 1.00000 | 0.97 |
| | 24 1,2-Dichloroethane | 62 | 6.065 | 6.068 | (0.946) | 18315 | 1.00000 | 1.0 |
| * | 26 1,4-Difluorobenzene | 114 | 6.413 | 6.416 | (1.000) | 289747 | 5.00000 | |
| | 27 Trichloroethene | 95 | 6.692 | 6.683 | (0.700) | 21303 | 1.00000 | 1.1 |
| $ | 85 1,2-Dichloropropane-d6 | 67 | 6.831 | 6.834 | (0.714) | 31589 | 1.00000 | 1.0 |
| | 28 Methylcyclohexane | 83 | 6.889 | 6.893 | (0.721) | 36676 | 1.00000 | 1.00 |
| | 29 1,2-Dichloropropane | 63 | 6.924 | 6.927 | (0.724) | 24439 | 1.00000 | 1.0 |
| | 30 Bromodichloromethane | 83 | 7.203 | 7.206 | (0.753) | 20049 | 1.00000 | 1.0 |
| | 31 cis-1,3-Dichloropropene | 75 | 7.668 | 7.671 | (0.802) | 28071 | 1.00000 | 1.0 |
| | 32 4-Methyl-2-Pentanone | 43 | 7.842 | 7.834 | (0.820) | 164169 | 10.0000 | 12 |
| $ | 33 Toluene-d8 | 98 | 7.958 | 7.961 | (0.832) | 81420 | 1.00000 | 1.0 |
| | 34 Toluene | 91 | 8.028 | 8.031 | (0.840) | 88351 | 1.00000 | 1.0 |
| $ | 86 trans-1,3-Dichloropropene-d4 | 79 | 8.237 | 8.228 | (0.862) | 14419 | 1.00000 | 0.97 |
| | 35 trans-1,3-Dichloropropene | 75 | 8.260 | 8.263 | (0.864) | 18986 | 1.00000 | 1.0 |
| | 36 1,1,2-Trichloroethane | 97 | 8.469 | 8.472 | (0.886) | 8205 | 1.00000 | 0.96 |
| | 37 Tetrachloroethene | 164 | 8.632 | 8.635 | (0.903) | 14216 | 1.00000 | 1.1 |
| $ | 87 2-Hexanone-d5 | 63 | 8.690 | 8.682 | (0.909) | 37622 | 10.0000 | 11 |
| | 38 2-Hexanone | 43 | 8.748 | 8.740 | (0.915) | 127668 | 10.0000 | 13 |
| | 39 Dibromochloromethane | 129 | 8.911 | 8.914 | (0.932) | 8561 | 1.00000 | 1.0 |
| | 40 1,2-Dibromoethane | 107 | 9.050 | 9.053 | (0.947) | 8822 | 1.00000 | 1.2(T) |
| * | 42 Chlorobenzene-d5 | 117 | 9.561 | 9.564 | (1.000) | 224953 | 5.00000 | |
| | 43 Chlorobenzene | 112 | 9.596 | 9.599 | (1.004) | 52420 | 1.00000 | 1.1 |
| | 44 Ethylbenzene | 91 | 9.712 | 9.715 | (1.016) | 96144 | 1.00000 | 1.0 |
| | 45 m,p-Xylene | 106 | 9.852 | 9.843 | (1.030) | 37157 | 1.00000 | 1.1 |
| | 46 o-Xylene | 106 | 10.316 | 10.308 | (1.079) | 33516 | 1.00000 | 1.1 |
| | 47 Styrene | 104 | 10.328 | 10.331 | (1.080) | 51485 | 1.00000 | 1.0 |
| | 48 Bromoform | 173 | 10.560 | 10.563 | (0.857) | 4625 | 1.00000 | 1.2 |
| | 49 Isopropylbenzene | 105 | 10.746 | 10.749 | (1.124) | 87632 | 1.00000 | 1.1 |
| $ | 89 1,1,2,2-Tetrachloroethane-d2 | 84 | 11.071 | 11.075 | (1.158) | 10946 | 1.00000 | 1.0 |
| | 51 1,1,2,2-Tetrachloroethane | 83 | 11.106 | 11.098 | (1.162) | 10796 | 1.00000 | 1.1(T) |
| | 52 1,3-Dichlorobenzene | 146 | 12.256 | 12.248 | (0.994) | 27821 | 1.00000 | 1.0 |
| * | 78 1,4-Dichlorobenzene-d4 | 152 | 12.326 | 12.329 | (1.000) | 90145 | 5.00000 | (Q) |
| | 53 1,4-Dichlorobenzene | 146 | 12.361 | 12.352 | (1.003) | 28711 | 1.00000 | 1.1 |
| $ | 90 1,2-Dichlorobenzene-d4 | 152 | 12.791 | 12.794 | (1.038) | 15821 | 1.00000 | 1.1 |
| | 54 1,2-Dichlorobenzene | 146 | 12.814 | 12.817 | (1.040) | 21279 | 1.00000 | 1.1 |
| | 55 1,2-Dibromo-3-chloropropane | 75 | 13.790 | 13.781 | (1.119) | 1205 | 1.00000 | 1.1(Q) |
| | 56 1,2,4-Trichlorobenzene | 180 | 14.812 | 14.803 | (1.202) | 20026 | 1.00000 | 1.1 |
| | 77 1,2,3-Trichlorobenzene | 180 | 15.416 | 15.408 | (1.251) | 14763 | 1.00000 | 1.1 |

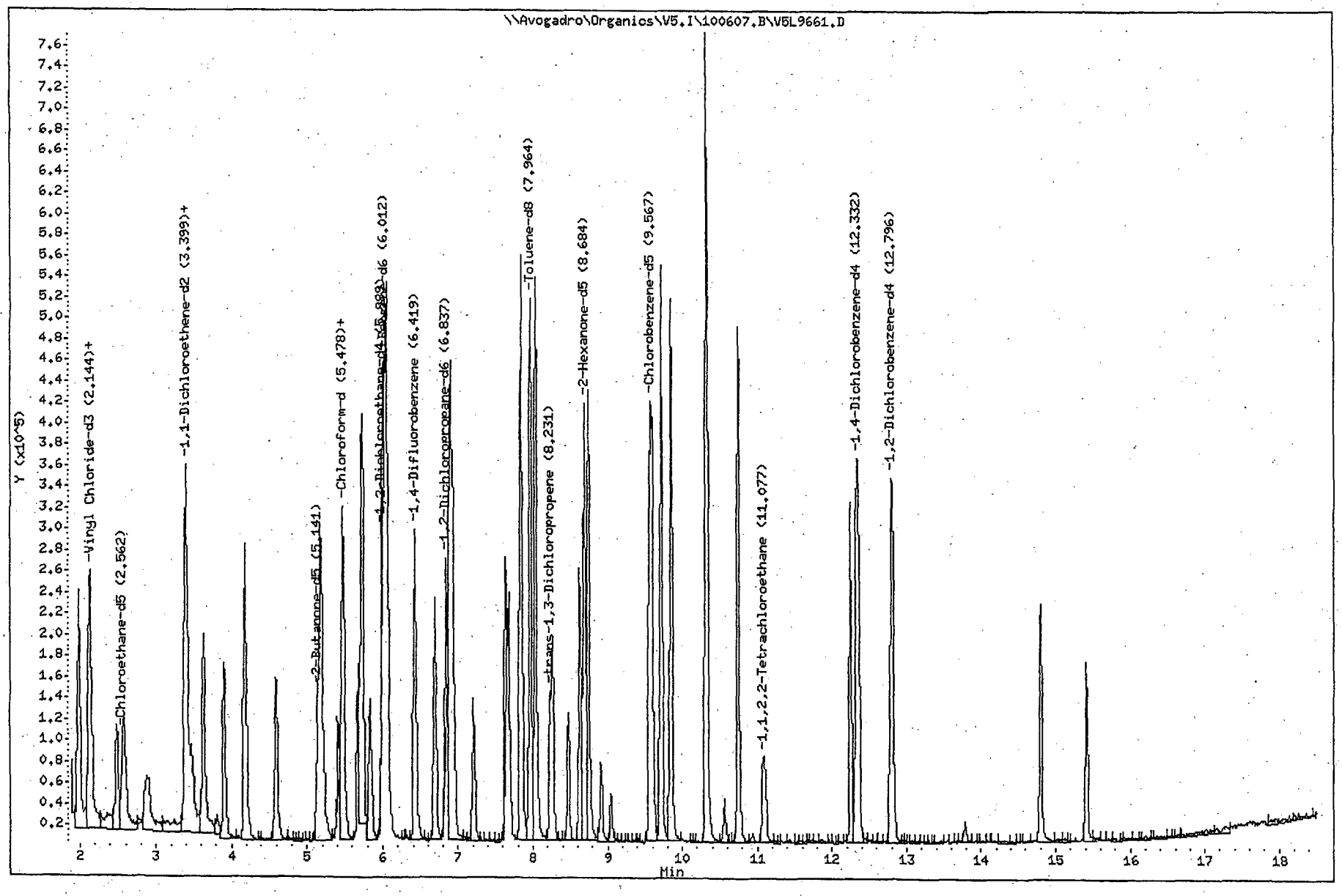
QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: \\Avogadro\Organics\V5.I\100607.B\V5L9661.D
Date : 07-JUN-2010 11:56
Client ID: VSTD005L5
Sample Info: 25ML,VSTD005L5,VSTD005L5
Purge Volume: 25.0
Column phase: DB-624

Instrument: V5.i

Operator: SRC:
Column diameter: 0.25



Data File: \\Avogadro\Organics\V5.I\100607.B\V5L9661.D
Report Date: 08-Jun-2010 10:42

Mitkem Laboratories

SOM01.0 - Trace Water Volatiles

Data file : \\Avogadro\Organics\V5.I\100607.B\V5L9661.D
Lab Smp Id: VSTD005L5 Client Smp ID: VSTD005L5
Inj Date : 07-JUN-2010 11:56
Operator : SRC: Inst ID: V5.i
Smp Info : 25ML,VSTD005L5,VSTD005L5
Misc Info :
Comment :
Method : \\Avogadro\Organics\V5.I\100607.B\V5_TVOA1359.m
Meth Date : 08-Jun-2010 10:25 V5.i Quant Type: ISTD
Cal Date : 07-JUN-2010 11:56 Cal File: V5L9661.D
Als bottle: 27 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM01.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Vo | 25.000 | Sample volume purged (mL) |
| Va | 10.000 | LCS Aliquot volume |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) |
|---|---|---|---|---|---|---|---|
| 1 Dichlorodifluoromethane | 85 | 1.830 | 1.816 | (0.285) | 157048 | 5.00000 | 5.1 |
| 2 Chloromethane | 50 | 1.993 | 1.990 | (0.310) | 345296 | 5.00000 | 4.8 |
| $ 79 Vinyl Chloride-d3 | 65 | 2.144 | 2.130 | (0.334) | 214416 | 5.00000 | 5.0 |
| 3 Vinyl Chloride | 62 | 2.144 | 2.141 | (0.334) | 224695 | 5.00000 | 4.9 |
| 4 Bromomethane | 94 | 2.480 | 2.490 | (0.387) | 82536 | 5.00000 | 4.7(Q) |
| $ 80 Chloroethane-d5 | 69 | 2.562 | 2.560 | (0.399) | 98155 | 5.00000 | 4.8 |
| 5 Chloroethane | 64 | 2.585 | 2.594 | (0.403) | 83096 | 5.00000 | 4.9 |
| 6 Trichlorofluoromethane | 101 | 2.875 | 2.873 | (0.448) | 86621 | 5.00000 | 4.8 |
| $ 81 1,1-Dichloroethene-d2 | 65 | 3.387 | 3.384 | (0.528) | 47963 | 5.00000 | 4.4(Q) |
| 7 1,1-Dichloroethene | 96 | 3.410 | 3.408 | (0.531) | 72804 | 5.00000 | 5.0 |
| 8 1,1,2-Trichloro-1,2,2-trifluo | 101 | 3.433 | 3.419 | (0.535) | 65912 | 5.00000 | 4.9 |
| 9 Acetone | 43 | 3.479 | 3.477 | (0.542) | 134659 | 50.0000 | 41 |
| 10 Carbon Disulfide | 76 | 3.630 | 3.628 | (0.566) | 303861 | 5.00000 | 5.1 |
| 11 Methyl Acetate | 43 | 3.805 | 3.814 | (0.593) | 40767 | 5.00000 | 4.3 |
| 12 Methylene Chloride | 84 | 3.898 | 3.907 | (0.607) | 71157 | 5.00000 | 5.2 |
| 13 trans-1,2-Dichloroethene | 96 | 4.176 | 4.174 | (0.651) | 85020 | 5.00000 | 5.0 |
| 14 Methyl tert-Butyl Ether | 73 | 4.200 | 4.186 | (0.654) | 95231 | 5.00000 | 4.6 |
| 15 1,1-Dichloroethane | 63 | 4.595 | 4.604 | (0.716) | 209035 | 5.00000 | 4.9 |
| $ 82 2-Butanone-d5 | 46 | 5.141 | 5.138 | (0.801) | 266665 | 50.0000 | 47(A) |
| 17 cis-1,2-Dichloroethene | 96 | 5.175 | 5.173 | (0.806) | 97198 | 5.00000 | 5.0 |
| 16 2-Butanone | 43 | 5.199 | 5.197 | (0.810) | 259953 | 50.0000 | 46 |
| 18 Bromochloromethane | 128 | 5.408 | 5.417 | (0.843) | 24390 | 5.00000 | 4.8(Q) |

Data File: \\Avogadro\Organics\V5.I\100607.B\V5L9661.D
Report Date: 08-Jun-2010 10:42

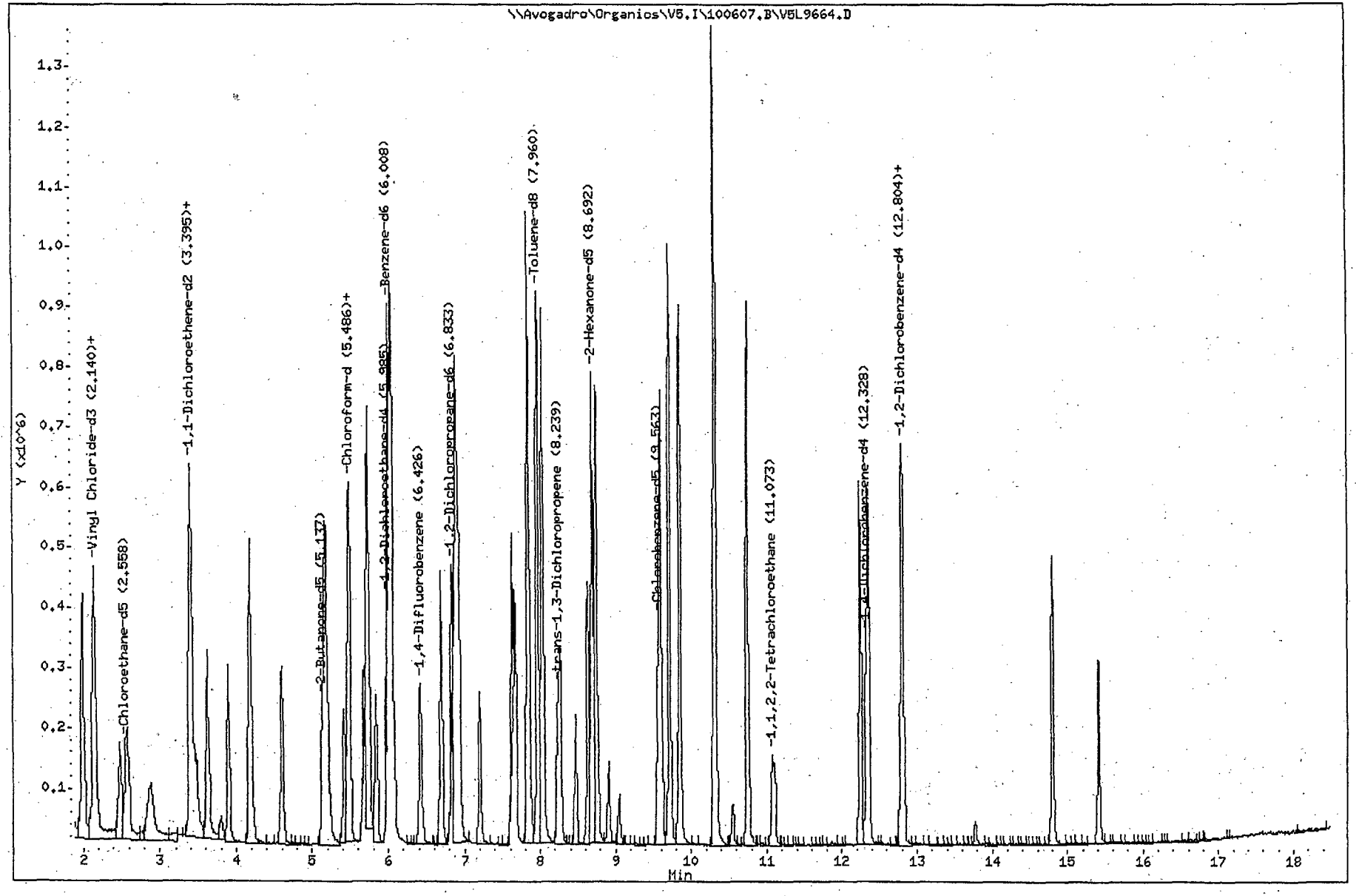
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) |
|---|---|---|---|---|---|---|---|---|
| $ | 83 Chloroform-d | 84 | 5.466 | 5.464 | (0.852) | 181909 | 5.00000 | 5.1 |
| | 19 Chloroform | 83 | 5.489 | 5.487 | (0.855) | 145607 | 5.00000 | 4.8 |
| | 20 1,1,1-Trichloroethane | 97 | 5.675 | 5.673 | (0.593) | 114623 | 5.00000 | 5.1 |
| | 21 Cyclohexane | 56 | 5.733 | 5.731 | (0.599) | 255154 | 5.00000 | 5.1 |
| | 22 Carbon Tetrachloride | 117 | 5.838 | 5.847 | (0.610) | 82985 | 5.00000 | 5.2 |
| $ | 23 1,2-Dichloroethane-d4 | 65 | 5.989 | 5.986 | (0.933) | 76122 | 5.00000 | 5.1 |
| $ | 84 Benzene-d6 | 84 | 6.012 | 6.010 | (0.628) | 454877 | 5.00000 | 5.3 |
| | 25 Benzene | 78 | 6.047 | 6.045 | (0.632) | 433102 | 5.00000 | 5.2 |
| | 24 1,2-Dichloroethane | 62 | 6.070 | 6.068 | (0.946) | 84068 | 5.00000 | 4.8 |
| * | 26 1,4-Difluorobenzene | 114 | 6.418 | 6.416 | (1.000) | 284189 | 5.00000 | |
| | 27 Trichloroethene | 95 | 6.686 | 6.683 | (0.699) | 99525 | 5.00000 | 5.3 |
| $ | 85 1,2-Dichloropropane-d6 | 67 | 6.837 | 6.834 | (0.715) | 158082 | 5.00000 | 5.4 |
| | 28 Methylcyclohexane | 83 | 6.895 | 6.893 | (0.721) | 186875 | 5.00000 | 5.4 |
| | 29 1,2-Dichloropropane | 63 | 6.930 | 6.927 | (0.724) | 117191 | 5.00000 | 5.1 |
| | 30 Bromodichloromethane | 83 | 7.208 | 7.206 | (0.754) | 95250 | 5.00000 | 5.2 |
| | 31 cis-1,3-Dichloropropene | 75 | 7.673 | 7.671 | (0.802) | 127579 | 5.00000 | 4.9 |
| | 32 4-Methyl-2-Pentanone | 43 | 7.836 | 7.834 | (0.819) | 610249 | 50.0000 | 45 |
| $ | 33 Toluene-d8 | 98 | 7.963 | 7.961 | (0.832) | 385395 | 5.00000 | 5.2 |
| | 34 Toluene | 91 | 8.033 | 8.031 | (0.840) | 404897 | 5.00000 | 5.0 |
| $ | 86 trans-1,3-Dichloropropene-d4 | 79 | 8.231 | 8.228 | (0.860) | 70956 | 5.00000 | 5.1 |
| | 35 trans-1,3-Dichloropropene | 75 | 8.266 | 8.263 | (0.864) | 89811 | 5.00000 | 5.1 |
| | 36 1,1,2-Trichloroethane | 97 | 8.475 | 8.472 | (0.886) | 42273 | 5.00000 | 5.2(Q) |
| | 37 Tetrachloroethene | 164 | 8.626 | 8.635 | (0.902) | 68391 | 5.00000 | 5.4 |
| $ | 87 2-Hexanone-d5 | 63 | 8.684 | 8.682 | (0.908) | 158357 | 50.0000 | 47(A) |
| | 38 2-Hexanone | 43 | 8.742 | 8.740 | (0.914) | 408417 | 50.0000 | 43 |
| | 39 Dibromochloromethane | 129 | 8.916 | 8.914 | (0.932) | 39867 | 5.00000 | 5.1 |
| | 40 1,2-Dibromoethane | 107 | 9.044 | 9.053 | (0.945) | 39276 | 5.00000 | 5.5 |
| * | 42 Chlorobenzene-d5 | 117 | 9.567 | 9.564 | (1.000) | 212385 | 5.00000 | |
| | 43 Chlorobenzene | 112 | 9.601 | 9.599 | (1.004) | 218053 | 5.00000 | 4.8 |
| | 44 Ethylbenzene | 91 | 9.718 | 9.715 | (1.016) | 451923 | 5.00000 | 5.0 |
| | 45 m,p-Xylene | 106 | 9.845 | 9.843 | (1.029) | 170315 | 5.00000 | 5.1 |
| | 46 o-Xylene | 106 | 10.310 | 10.308 | (1.078) | 157257 | 5.00000 | 5.3 |
| | 47 Styrene | 104 | 10.333 | 10.331 | (1.080) | 234993 | 5.00000 | 5.0 |
| | 48 Bromoform | 173 | 10.554 | 10.563 | (0.856) | 20809 | 5.00000 | 5.4 |
| | 49 Isopropylbenzene | 105 | 10.740 | 10.749 | (1.123) | 387709 | 5.00000 | 5.0 |
| $ | 89 1,1,2,2-Tetrachloroethane-d2 | 84 | 11.077 | 11.075 | (1.158) | 52479 | 5.00000 | 5.3 |
| | 51 1,1,2,2-Tetrachloroethane | 83 | 11.100 | 11.098 | (1.160) | 45247 | 5.00000 | 4.9 |
| | 52 1,3-Dichlorobenzene | 146 | 12.250 | 12.248 | (0.993) | 133324 | 5.00000 | 4.8 |
| * | 78 1,4-Dichlorobenzene-d4 | 152 | 12.331 | 12.329 | (1.000) | 91457 | 5.00000 | |
| | 53 1,4-Dichlorobenzene | 146 | 12.355 | 12.352 | (1.002) | 124243 | 5.00000 | 4.7 |
| $ | 90 1,2-Dichlorobenzene-d4 | 152 | 12.796 | 12.794 | (1.038) | 71010 | 5.00000 | 4.9 |
| | 54 1,2-Dichlorobenzene | 146 | 12.819 | 12.817 | (1.040) | 98585 | 5.00000 | 4.9 |
| | 55 1,2-Dibromo-3-chloropropane | 75 | 13.783 | 13.781 | (1.118) | 6219 | 5.00000 | 5.3(Q) |
| | 56 1,2,4-Trichlorobenzene | 180 | 14.806 | 14.803 | (1.201) | 84563 | 5.00000 | 4.5 |
| | 77 1,2,3-Trichlorobenzene | 180 | 15.410 | 15.408 | (1.250) | 60620 | 5.00000 | 4.4 |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

Data File: \\Avogadro\Organics\V5.I\100607.B\V5L9664.D
Date : 07-JUN-2010 13:22
Client ID: VSTD010L5
Sample Info: 25ML,VSTD010L5,VSTD010L5
Purge Volume: 25.0
Column phase: DB-624

Instrument: V5.i
Operator: SRC:
Column diameter: 0.25



Data File: \\Avogadro\Organics\V5.I\100607.B\V5L9664.D
Report Date: 08-Jun-2010 10:42

Mitkem Laboratories

SOM01.0 - Trace Water Volatiles

Data file : \\Avogadro\Organics\V5.I\100607.B\V5L9664.D
Lab Smp Id: VSTD010L5 Client Smp ID: VSTD010L5
Inj Date : 07-JUN-2010 13:22
Operator : SRC: Inst ID: V5.i
Smp Info : 25ML,VSTD010L5,VSTD010L5
Misc Info :
Comment :
Method : \\Avogadro\Organics\V5.I\100607.B\V5_TVOA1359.m
Meth Date : 08-Jun-2010 10:25 V5.i Quant Type: ISTD
Cal Date : 07-JUN-2010 13:22 Cal File: V5L9664.D
Als bottle: 30 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM01.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Vo | 25.000 | Sample volume purged (mL) |
| Va | 10.000 | LCS Aliquot volume |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) |
|---|---|---|---|---|---|---|---|
| 1 Dichlorodifluoromethane | 85 | 1.826 | 1.816 | (0.284) | 298072 | 10.0000 | 11 |
| 2 Chloromethane | 50 | 2.000 | 1.990 | (0.311) | 660627 | 10.0000 | 10 |
| $ 79 Vinyl Chloride-d3 | 65 | 2.139 | 2.130 | (0.333) | 406376 | 10.0000 | 11 |
| 3 Vinyl Chloride | 62 | 2.151 | 2.141 | (0.335) | 431016 | 10.0000 | 11 |
| 4 Bromomethane | 94 | 2.488 | 2.490 | (0.387) | 154365 | 10.0000 | 10 |
| $ 80 Chloroethane-d5 | 69 | 2.558 | 2.560 | (0.398) | 183665 | 10.0000 | 10 |
| 5 Chloroethane | 64 | 2.593 | 2.594 | (0.403) | 147461 | 10.0000 | 9.9 |
| 6 Trichlorofluoromethane | 101 | 2.883 | 2.873 | (0.449) | 168894 | 10.0000 | 11 |
| $ 81 1,1-Dichloroethene-d2 | 65 | 3.382 | 3.384 | (0.526) | 89360 | 10.0000 | 9.3 |
| 7 1,1-Dichloroethene | 96 | 3.406 | 3.408 | (0.530) | 132545 | 10.0000 | 10 |
| 8 1,1,2-Trichloro-1,2,2-trifluo | 101 | 3.417 | 3.419 | (0.532) | 130978 | 10.0000 | 11 |
| 9 Acetone | 43 | 3.475 | 3.477 | (0.541) | 231138 | 100.000 | 81 |
| 10 Carbon Disulfide | 76 | 3.626 | 3.628 | (0.564) | 534739 | 10.0000 | 10 |
| 11 Methyl Acetate | 43 | 3.812 | 3.814 | (0.593) | 69487 | 10.0000 | 8.3 |
| 12 Methylene Chloride | 84 | 3.905 | 3.907 | (0.608) | 121079 | 10.0000 | 10 |
| 13 trans-1,2-Dichloroethene | 96 | 4.172 | 4.174 | (0.649) | 157607 | 10.0000 | 11 |
| 14 Methyl tert-Butyl Ether | 73 | 4.196 | 4.186 | (0.653) | 184085 | 10.0000 | 10 |
| 15 1,1-Dichloroethane | 63 | 4.602 | 4.604 | (0.716) | 381737 | 10.0000 | 10 |
| $ 82 2-Butanone-d5 | 46 | 5.137 | 5.138 | (0.799) | 515390 | 100.000 | 100(A) |
| 17 cis-1,2-Dichloroethene | 96 | 5.171 | 5.173 | (0.805) | 179034 | 10.0000 | 10 |
| 16 2-Butanone | 43 | 5.206 | 5.197 | (0.810) | 480545 | 100.000 | 98 |
| 18 Bromochloromethane | 128 | 5.415 | 5.417 | (0.843) | 44141 | 10.0000 | 9.9 |

Data File: \\Avogadro\Organics\V5.I\100607.B\V5L9664.D
Report Date: 08-Jun-2010 10:42

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) |
|---|---|---|---|---|---|---|---|
| $ 83 Chloroform-d | 84 | 5.473 | 5.464 | (0.852) | 325887 | 10.0000 | 10 |
| 19 Chloroform | 83 | 5.485 | 5.487 | (0.854) | 269739 | 10.0000 | 10 |
| 20 1,1,1-Trichloroethane | 97 | 5.683 | 5.673 | (0.594) | 213661 | 10.0000 | 10 |
| 21 Cyclohexane | 56 | 5.729 | 5.731 | (0.599) | 464870 | 10.0000 | 10 |
| 22 Carbon Tetrachloride | 117 | 5.845 | 5.847 | (0.611) | 153663 | 10.0000 | 10 |
| $ 23 1,2-Dichloroethane-d4 | 65 | 5.985 | 5.986 | (0.931) | 136457 | 10.0000 | 10 |
| $ 84 Benzene-d6 | 84 | 6.008 | 6.010 | (0.628) | 818123 | 10.0000 | 10 |
| 25 Benzene | 78 | 6.043 | 6.045 | (0.632) | 768790 | 10.0000 | 9.8 |
| 24 1,2-Dichloroethane | 62 | 6.066 | 6.068 | (0.944) | 162742 | 10.0000 | 11 |
| * 26 1,4-Difluorobenzene | 114 | 6.426 | 6.416 | (1.000) | 248802 | 5.00000 | (Q) |
| 27 Trichloroethene | 95 | 6.693 | 6.683 | (0.700) | 178088 | 10.0000 | 10 |
| $ 85 1,2-Dichloropropane-d6 | 67 | 6.833 | 6.834 | (0.715) | 286908 | 10.0000 | 11 |
| 28 Methylcyclohexane | 83 | 6.891 | 6.893 | (0.721) | 327139 | 10.0000 | 10 |
| 29 1,2-Dichloropropane | 63 | 6.925 | 6.927 | (0.724) | 206901 | 10.0000 | 9.7 |
| 30 Bromodichloromethane | 83 | 7.204 | 7.206 | (0.753) | 165557 | 10.0000 | 9.7 |
| 31 cis-1,3-Dichloropropene | 75 | 7.669 | 7.671 | (0.802) | 236974 | 10.0000 | 9.8 |
| 32 4-Methyl-2-Pentanone | 43 | 7.843 | 7.834 | (0.820) | 1153923 | 100.000 | 92 |
| $ 33 Toluene-d8 | 98 | 7.959 | 7.961 | (0.832) | 689960 | 10.0000 | 9.9 |
| 34 Toluene | 91 | 8.041 | 8.031 | (0.841) | 728912 | 10.0000 | 9.8 |
| $ 86 trans-1,3-Dichloropropene-d4 | 79 | 8.238 | 8.228 | (0.862) | 127603 | 10.0000 | 9.8 |
| 35 trans-1,3-Dichloropropene | 75 | 8.261 | 8.263 | (0.864) | 162092 | 10.0000 | 9.9 |
| 36 1,1,2-Trichloroethane | 97 | 8.470 | 8.472 | (0.886) | 73882 | 10.0000 | 9.9 |
| 37 Tetrachloroethene | 164 | 8.633 | 8.635 | (0.903) | 117460 | 10.0000 | 9.9 |
| $ 87 2-Hexanone-d5 | 63 | 8.691 | 8.682 | (0.909) | 298097 | 100.000 | 96 (A) |
| 38 2-Hexanone | 43 | 8.749 | 8.740 | (0.915) | 795771 | 100.000 | 89 |
| 39 Dibromochloromethane | 129 | 8.912 | 8.914 | (0.932) | 67310 | 10.0000 | 9.3 |
| 40 1,2-Dibromoethane | 107 | 9.051 | 9.053 | (0.947) | 68611 | 10.0000 | 10 |
| * 42 Chlorobenzene-d5 | 117 | 9.562 | 9.564 | (1.000) | 197259 | 5.00000 | |
| 43 Chlorobenzene | 112 | 9.597 | 9.599 | (1.004) | 397269 | 10.0000 | 9.5 |
| 44 Ethylbenzene | 91 | 9.713 | 9.715 | (1.016) | 821519 | 10.0000 | 9.9 |
| 45 m,p-Xylene | 106 | 9.853 | 9.843 | (1.030) | 307675 | 10.0000 | 9.9 |
| 46 o-Xylene | 106 | 10.318 | 10.308 | (1.079) | 272695 | 10.0000 | 9.8 |
| 47 Styrene | 104 | 10.329 | 10.331 | (1.080) | 437571 | 10.0000 | 10 |
| 48 Bromoform | 173 | 10.561 | 10.563 | (0.857) | 37803 | 10.0000 | 11 |
| 49 Isopropylbenzene | 105 | 10.747 | 10.749 | (1.124) | 712317 | 10.0000 | 9.9 |
| $ 89 1,1,2,2-Tetrachloroethane-d2 | 84 | 11.073 | 11.075 | (1.158) | 92403 | 10.0000 | 10 |
| 51 1,1,2,2-Tetrachloroethane | 83 | 11.107 | 11.098 | (1.162) | 83117 | 10.0000 | 9.6 |
| 52 1,3-Dichlorobenzene | 146 | 12.246 | 12.248 | (0.993) | 249615 | 10.0000 | 9.9 |
| * 78 1,4-Dichlorobenzene-d4 | 152 | 12.327 | 12.329 | (1.000) | 83330 | 5.00000 | |
| 53 1,4-Dichlorobenzene | 146 | 12.362 | 12.352 | (1.003) | 235035 | 10.0000 | 9.7 |
| $ 90 1,2-Dichlorobenzene-d4 | 152 | 12.792 | 12.794 | (1.038) | 134385 | 10.0000 | 10 |
| 54 1,2-Dichlorobenzene | 146 | 12.815 | 12.817 | (1.040) | 185253 | 10.0000 | 10 |
| 55 1,2-Dibromo-3-chloropropane | 75 | 13.779 | 13.781 | (1.118) | 10512 | 10.0000 | 9.9 |
| 56 1,2,4-Trichlorobenzene | 180 | 14.802 | 14.803 | (1.201) | 173454 | 10.0000 | 10 |
| 77 1,2,3-Trichlorobenzene | 180 | 15.417 | 15.408 | (1.251) | 124100 | 10.0000 | 9.8 |

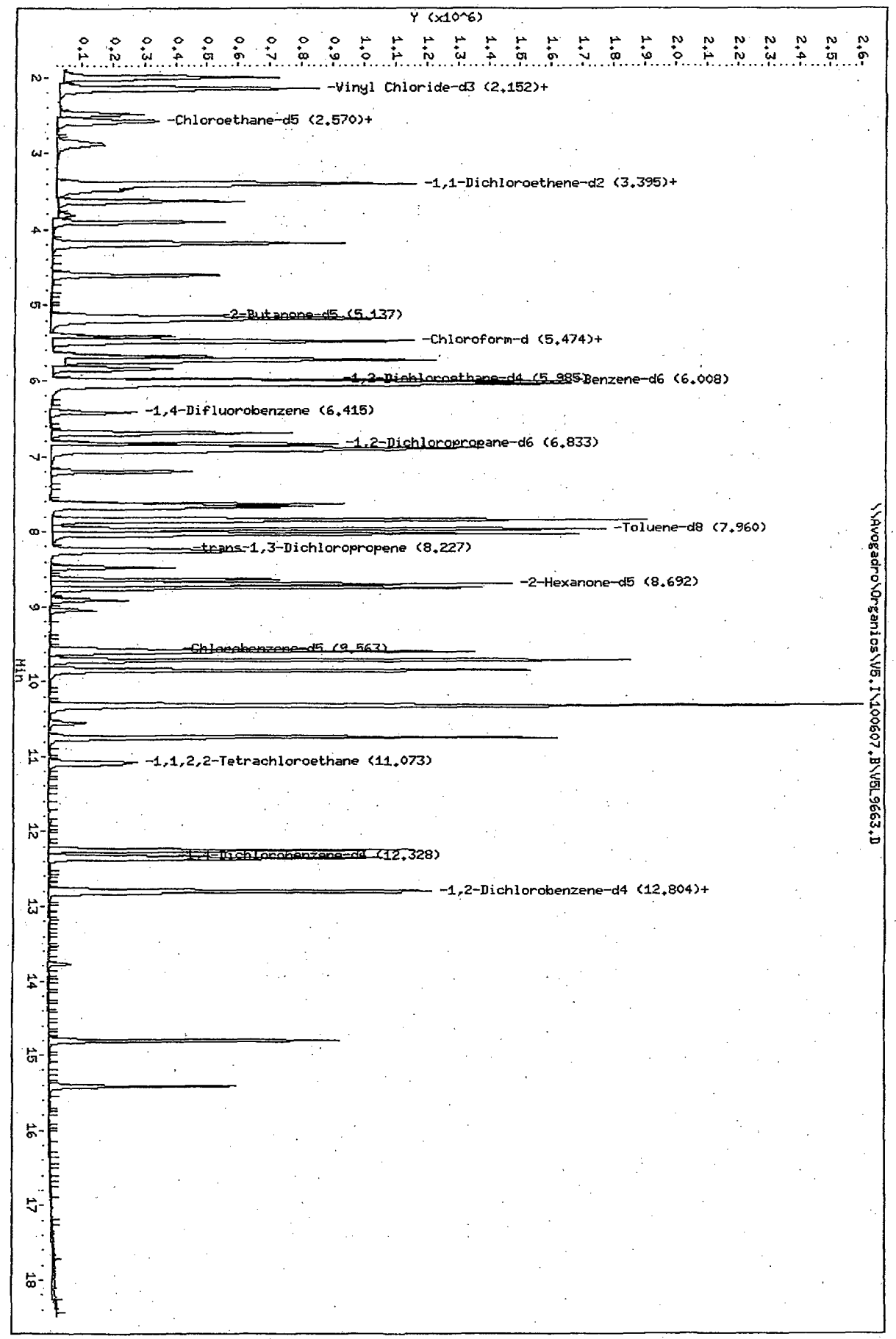
QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

6h00

Data File: \\Avogadro\Organics\V5.I\100607.B\VBL9663.D
Date : 07-JUN-2010 12:53
Client ID: VSTD020LB
Sample Info: 25ML,VSTD020L5,VSTD020L5
Purge Volume: 25.0
Column phase: DB-624

Instrument: V5.i
Operator: SRC:
Column diameter: 0.25



Data File: \\Avogadro\Organics\V5.I\100607.B\V5L9663.D
Report Date: 08-Jun-2010 10:42

Mitkem Laboratories

SOM01.0 - Trace Water Volatiles

Data file : \\Avogadro\Organics\V5.I\100607.B\V5L9663.D
Lab Smp Id: VSTD020L5 Client Smp ID: VSTD020L5
Inj Date : 07-JUN-2010 12:53
Operator : SRC: Inst ID: V5.i
Smp Info : 25ML,VSTD020L5,VSTD020L5
Misc Info :
Comment :
Method : \\Avogadro\Organics\V5.I\100607.B\V5_TVOA1359.m
Meth Date : 08-Jun-2010 10:25 V5.i Quant Type: ISTD
Cal Date : 07-JUN-2010 12:53 Cal File: V5L9663.D
Als bottle: 29 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM01.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Vo | 25.000 | Sample volume purged (mL) |
| Va | 10.000 | LCS Aliquot volume |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT. ( ug/L) | AMOUNTS ON-COL ( ug/L) |
|---|---|---|---|---|---|---|---|
| 1 Dichlorodifluoromethane | 85 | 1.826 | 1.816 | (0.285) | 543689 | 20.0000 | 22(A) |
| 2 Chloromethane | 50 | 2.000 | 1.990 | (0.312) | 1204534 | 20.0000 | 21(A) |
| $ 79 Vinyl Chloride-d3 | 65 | 2.140 | 2.130 | (0.334) | 728231 | 20.0000 | 21(A) |
| 3 Vinyl Chloride | 62 | 2.151 | 2.141 | (0.335) | 775029 | 20.0000 | 21(A) |
| 4 Bromomethane | 94 | 2.477 | 2.490 | (0.386) | 260877 | 20.0000 | 19 |
| $ 80 Chloroethane-d5 | 69 | 2.558 | 2.560 | (0.399) | 313817 | 20.0000 | 20 |
| 5 Chloroethane | 64 | 2.581 | 2.594 | (0.402) | 262301 | 20.0000 | 20 |
| 6 Trichlorofluoromethane | 101 | 2.883 | 2.873 | (0.450) | 291812 | 20.0000 | 21(A) |
| $ 81 1,1-Dichloroethene-d2 | 65 | 3.383 | 3.384 | (0.527) | 166047 | 20.0000 | 19(Q) |
| 7 1,1-Dichloroethene | 96 | 3.406 | 3.408 | (0.531) | 235175 | 20.0000 | 21(A) |
| 8 1,1,2-Trichloro-1,2,2-trifluo | 101 | 3.417 | 3.419 | (0.533) | 225539 | 20.0000 | 21(A) |
| 9 Acetone | 43 | 3.476 | 3.477 | (0.542) | 433271 | 200.000 | 170 |
| 10 Carbon Disulfide | 76 | 3.627 | 3.628 | (0.565) | 986637 | 20.0000 | 21(A) |
| 11 Methyl Acetate | 43 | 3.812 | 3.814 | (0.594) | 121627 | 20.0000 | 16 |
| 12 Methylene Chloride | 84 | 3.894 | 3.907 | (0.607) | 224282 | 20.0000 | 21(AQ) |
| 13 trans-1,2-Dichloroethene | 96 | 4.173 | 4.174 | (0.651) | 280228 | 20.0000 | 21(A) |
| 14 Methyl tert-Butyl Ether | 73 | 4.196 | 4.186 | (0.654) | 357546 | 20.0000 | 22(AQ) |
| 15 1,1-Dichloroethane | 63 | 4.602 | 4.604 | (0.718) | 721663 | 20.0000 | 21(A) |
| $ 82 2-Butanone-d5 | 46 | 5.137 | 5.138 | (0.801) | 1019551 | 200.000 | 220(A) |
| 17 cis-1,2-Dichloroethene | 96 | 5.172 | 5.173 | (0.806) | 323979 | 20.0000 | 21(A) |
| 16 2-Butanone | 43 | 5.195 | 5.197 | (0.810) | 929017 | 200.000 | 210(A) |
| 18 Bromochloromethane | 128 | 5.416 | 5.417 | (0.844) | 80806 | 20.0000 | 20(AQ) |

Data File: \\Avogadro\Organics\V5.I\100607.B\V5L9663.D
Report Date: 08-Jun-2010 10:42

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) |
|---|---|---|---|---|---|---|---|---|
| $ | 83 Chloroform-d | 84 | 5.474 | 5.464 | (0.853) | 601646 | 20.0000 | 21(A) |
| | 19 Chloroform | 83 | 5.485 | 5.487 | (0.855) | 509890 | 20.0000 | 21(A) |
| | 20 1,1,1-Trichloroethane | 97 | 5.683 | 5.673 | (0.594) | 380337 | 20.0000 | 20 |
| | 21 Cyclohexane | 56 | 5.729 | 5.731 | (0.599) | 805953 | 20.0000 | 19 |
| | 22 Carbon Tetrachloride | 117 | 5.845 | 5.847 | (0.611) | 264109 | 20.0000 | 19 |
| $ | 23 1,2-Dichloroethane-d4 | 65 | 5.985 | 5.986 | (0.933) | 244511 | 20.0000 | 21(AQ) |
| $ | 84 Benzene-d6 | 84 | 6.008 | 6.010 | (0.628) | 1433194 | 20.0000 | 20 |
| | 25 Benzene | 78 | 6.043 | 6.045 | (0.632) | 1307142 | 20.0000 | 18 |
| | 24 1,2-Dichloroethane | 62 | 6.066 | 6.068 | (0.946) | 283163 | 20.0000 | 20(A) |
| * | 26 1,4-Difluorobenzene | 114 | 6.415 | 6.416 | (1.000) | 225098 | 5.00000 | (Q) |
| | 27 Trichloroethene | 95 | 6.693 | 6.683 | (0.700) | 315343 | 20.0000 | 20 |
| $ | 85 1,2-Dichloropropane-d6 | 67 | 6.833 | 6.834 | (0.715) | 504941 | 20.0000 | 20(A) |
| | 28 Methylcyclohexane | 83 | 6.891 | 6.893 | (0.721) | 535709 | 20.0000 | 18 |
| | 29 1,2-Dichloropropane | 63 | 6.926 | 6.927 | (0.724) | 365034 | 20.0000 | 19 |
| | 30 Bromodichloromethane | 83 | 7.204 | 7.206 | (0.753) | 298906 | 20.0000 | 19 |
| | 31 cis-1,3-Dichloropropene | 75 | 7.669 | 7.671 | (0.802) | 439370 | 20.0000 | 20 |
| | 32 4-Methyl-2-Pentanone | 43 | 7.843 | 7.834 | (0.820) | 2081914 | 200.000 | 180 |
| $ | 33 Toluene-d8 | 98 | 7.960 | 7.961 | (0.832) | 1192810 | 20.0000 | 19 |
| | 34 Toluene | 91 | 8.029 | 8.031 | (0.840) | 1250740 | 20.0000 | 18 |
| $ | 86 trans-1,3-Dichloropropene-d4 | 79 | 8.227 | 8.228 | (0.860) | 227939 | 20.0000 | 19 |
| | 35 trans-1,3-Dichloropropene | 75 | 8.262 | 8.263 | (0.864) | 292528 | 20.0000 | 20 |
| | 36 1,1,2-Trichloroethane | 97 | 8.471 | 8.472 | (0.886) | 129533 | 20.0000 | 19 |
| | 37 Tetrachloroethene | 164 | 8.633 | 8.635 | (0.903) | 189574 | 20.0000 | 18 |
| $ | 87 2-Hexanone-d5 | 63 | 8.691 | 8.682 | (0.909) | 581748 | 200.000 | 200(A) |
| | 38 2-Hexanone | 43 | 8.738 | 8.740 | (0.914) | 1368919 | 200.000 | 170 |
| | 39 Dibromochloromethane | 129 | 8.912 | 8.914 | (0.932) | 123779 | 20.0000 | 19 |
| | 40 1,2-Dibromoethane | 107 | 9.052 | 9.053 | (0.947) | 118252 | 20.0000 | 19(Q) |
| * | 42 Chlorobenzene-d5 | 117 | 9.563 | 9.564 | (1.000) | 180140 | 5.00000 | |
| | 43 Chlorobenzene | 112 | 9.598 | 9.599 | (1.004) | 710984 | 20.0000 | 19 |
| | 44 Ethylbenzene | 91 | 9.714 | 9.715 | (1.016) | 1441440 | 20.0000 | 19 |
| | 45 m,p-Xylene | 106 | 9.853 | 9.843 | (1.030) | 516058 | 20.0000 | 18 |
| | 46 o-Xylene | 106 | 10.318 | 10.308 | (1.079) | 489813 | 20.0000 | 19 |
| | 47 Styrene | 104 | 10.329 | 10.331 | (1.080) | 774193 | 20.0000 | 20 |
| | 48 Bromoform | 173 | 10.562 | 10.563 | (0.857) | 65103 | 20.0000 | 19 |
| | 49 Isopropylbenzene | 105 | 10.748 | 10.749 | (1.124) | 1233104 | 20.0000 | 19 |
| $ | 89 1,1,2,2-Tetrachloroethane-d2 | 84 | 11.073 | 11.075 | (1.158) | 172370 | 20.0000 | 20(A) |
| | 51 1,1,2,2-Tetrachloroethane | 83 | 11.096 | 11.098 | (1.160) | 145979 | 20.0000 | 18 |
| | 52 1,3-Dichlorobenzene | 146 | 12.246 | 12.248 | (0.993) | 455230 | 20.0000 | 19 |
| * | 78 1,4-Dichlorobenzene-d4 | 152 | 12.327 | 12.329 | (1.000) | 81245 | 5.00000 | (Q) |
| | 53 1,4-Dichlorobenzene | 146 | 12.362 | 12.352 | (1.003) | 418361 | 20.0000 | 18 |
| $ | 90 1,2-Dichlorobenzene-d4 | 152 | 12.792 | 12.794 | (1.038) | 249400 | 20.0000 | 19 |
| | 54 1,2-Dichlorobenzene | 146 | 12.815 | 12.817 | (1.040) | 331601 | 20.0000 | 19 |
| | 55 1,2-Dibromo-3-chloropropane | 75 | 13.779 | 13.781 | (1.118) | 19069 | 20.0000 | 18(Q) |
| | 56 1,2,4-Trichlorobenzene | 180 | 14.802 | 14.803 | (1.201) | 335006 | 20.0000 | 20 |
| | 77 1,2,3-Trichlorobenzene | 180 | 15.417 | 15.408 | (1.251) | 237712 | 20.0000 | 19(Q) |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

7A - FORM VII VOA-1

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Instrument ID: V5 Calibration Date: 06/28/2010 Time: 22:42

Lab File ID: V5M0181.D Init. Calib. Date(s): 06/07/2010 06/07/2010

EPA Sample No.(VSTD#####): VSTD0055V Init. Calib. Time(s): 11:56 13:51

Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 25.0 (mL)

| COMPOUND | RRF | RRF005 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| Dichlorodifluoromethane | 0.540 | 0.375 | 0.010 | -30.7 | 40.0 |
| Chloromethane | 1.267 | 0.868 | 0.010 | -31.5 | 40.0 |
| Vinyl chloride | 0.804 | 0.624 | 0.100 | -22.5 | 30.0 |
| Bromomethane | 0.307 | 0.289 | 0.100 | -5.7 | 30.0 |
| Chloroethane | 0.299 | 0.256 | 0.010 | -14.4 | 40.0 |
| Trichlorofluoromethane | 0.315 | 0.300 | 0.010 | -4.9 | 40.0 |
| 1,1-Dichloroethene | 0.254 | 0.254 | 0.100 | 0.2 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.238 | 0.220 | 0.010 | -7.9 | 40.0 |
| Acetone | 0.057 | 0.038 | 0.010 | -33.8 | 40.0 |
| Carbon disulfide | 1.056 | 0.926 | 0.010 | -12.3 | 40.0 |
| Methyl acetate | 0.167 | 0.106 | 0.010 | -36.7 | 40.0 |
| Methylene chloride | 0.243 | 0.216 | 0.010 | -10.8 | 40.0 |
| trans-1,2-Dichloroethene | 0.299 | 0.293 | 0.010 | -1.9 | 40.0 |
| Methyl tert-butyl ether | 0.366 | 0.348 | 0.010 | -4.8 | 40.0 |
| 1,1-Dichloroethane | 0.748 | 0.604 | 0.200 | -19.3 | 30.0 |
| cis-1,2-Dichloroethene | 0.344 | 0.315 | 0.010 | -8.7 | 40.0 |
| 2-Butanone | 0.099 | 0.078 | 0.010 | -20.6 | 40.0 |
| Bromochloromethane | 0.089 | 0.092 | 0.050 | 3.4 | 40.0 |
| Chloroform | 0.533 | 0.472 | 0.200 | -11.4 | 30.0 |
| 1,1,1-Trichloroethane | 0.529 | 0.512 | 0.100 | -3.3 | 30.0 |
| Cyclohexane | 1.168 | 0.886 | 0.010 | -24.2 | 40.0 |
| Carbon tetrachloride | 0.378 | 0.386 | 0.100 | 2.1 | 30.0 |
| Benzene | 1.979 | 1.669 | 0.400 | -15.7 | 30.0 |
| 1,2-Dichloroethane | 0.311 | 0.256 | 0.100 | -17.6 | 30.0 |
| Trichloroethene | 0.444 | 0.445 | 0.300 | 0.4 | 30.0 |
| Methylcyclohexane | 0.816 | 0.652 | 0.010 | -20.1 | 40.0 |

Report 1,4-Dioxane for Low-Medium VOA analysis only

7B - FORM VII VOA-2

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Instrument ID: V5 Calibration Date: 06/28/2010 Time: 22:42

Lab File ID: V5M0181.D Init. Calib. Date(s): 06/07/2010 06/07/2010

EPA Sample No.(VSTD#####): VSTD0055V Init. Calib. Time(s): 11:56 13:51

Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 25.0 (mL)

| COMPOUND | $\overline{RRF}$ | RRF005 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| 1,2-Dichloropropane | 0.542 | 0.440 | 0.010 | -18.8 | 40.0 |
| Bromodichloromethane | 0.432 | 0.382 | 0.200 | -11.7 | 30.0 |
| cis-1,3-Dichloropropene | 0.613 | 0.508 | 0.200 | -17.0 | 30.0 |
| 4-Methyl-2-pentanone | 0.317 | 0.241 | 0.010 | -23.8 | 40.0 |
| Toluene | 1.889 | 1.777 | 0.400 | -5.9 | 30.0 |
| trans-1,3-Dichloropropene | 0.416 | 0.367 | 0.100 | -11.9 | 30.0 |
| 1,1,2-Trichloroethane | 0.190 | 0.189 | 0.100 | -0.5 | 30.0 |
| Tetrachloroethene | 0.300 | 0.320 | 0.100 | 6.4 | 30.0 |
| 2-Hexanone | 0.226 | 0.164 | 0.010 | -27.5 | 40.0 |
| Dibromochloromethane | 0.183 | 0.187 | 0.100 | 2.3 | 30.0 |
| 1,2-Dibromoethane | 0.168 | 0.171 | 0.010 | 1.6 | 40.0 |
| Chlorobenzene | 1.062 | 0.983 | 0.500 | -7.4 | 30.0 |
| Ethylbenzene | 2.110 | 1.943 | 0.100 | -7.9 | 30.0 |
| m,p-Xylene | 0.786 | 0.726 | 0.300 | -7.6 | 30.0 |
| o-Xylene | 0.702 | 0.666 | 0.300 | -5.2 | 30.0 |
| Styrene | 1.098 | 1.089 | 0.300 | -0.8 | 30.0 |
| Bromoform | 0.213 | 0.262 | 0.050 | 23.3 | 30.0 |
| Isopropylbenzene | 1.819 | 1.799 | 0.010 | -1.1 | 40.0 |
| 1,1,2,2-Tetrachloroethane | 0.219 | 0.185 | 0.100 | -15.8 | 30.0 |
| 1,3-Dichlorobenzene | 1.512 | 1.497 | 0.400 | -1.0 | 30.0 |
| 1,4-Dichlorobenzene | 1.456 | 1.449 | 0.400 | -0.5 | 30.0 |
| 1,2-Dichlorobenzene | 1.099 | 1.146 | 0.400 | 4.3 | 30.0 |
| 1,2-Dibromo-3-chloropropane | 0.064 | 0.058 | 0.010 | -9.5 | 40.0 |
| 1,2,4-Trichlorobenzene | 1.033 | 1.077 | 0.200 | 4.3 | 30.0 |
| 1,2,3-Trichlorobenzene | 0.761 | 0.773 | 0.200 | 1.7 | 30.0 |

7C - FORM VII VOA-3

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Instrument ID: V5 Calibration Date: 06/28/2010 Time: 22:42

Lab File ID: V5M0181.D Init. Calib. Date(s): 06/07/2010 06/07/2010

EPA Sample No.(VSTD#####): VSTD0055V Init. Calib. Time(s): 11:56 13:51

Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 25.0 (mL)

| COMPOUND | $\overline{RRF}$ | RRF005 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| Vinyl chloride-d3 | 0.756 | 0.592 | 0.010 | -21.7 | 30.0 |
| Chloroethane-d5 | 0.357 | 0.320 | 0.010 | -10.4 | 40.0 |
| 1,1-Dichloroethene-d2 | 0.193 | 0.166 | 0.010 | -14.0 | 30.0 |
| 2-Butanone-d5 | 0.101 | 0.081 | 0.010 | -19.9 | 40.0 |
| Chloroform-d | 0.628 | 0.550 | 0.010 | -12.4 | 30.0 |
| 1,2-Dichloroethane-d4 | 0.263 | 0.226 | 0.010 | -14.0 | 30.0 |
| Benzene-d6 | 2.031 | 1.815 | 0.010 | -10.6 | 30.0 |
| 1,2-Dichloropropane-d6 | 0.690 | 0.613 | 0.010 | -11.1 | 40.0 |
| Toluene-d8 | 1.759 | 1.668 | 0.010 | -5.2 | 30.0 |
| trans-1,3-Dichloropropene-d4 | 0.330 | 0.287 | 0.010 | -12.8 | 30.0 |
| 2-Hexanone-d5 | 0.079 | 0.075 | 0.010 | -5.0 | 40.0 |
| 1,1,2,2-Tetrachloroethane-d2 | 0.235 | 0.222 | 0.010 | -5.7 | 30.0 |
| 1,2-Dichlorobenzene-d4 | 0.791 | 0.833 | 0.010 | 5.3 | 30.0 |

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only

7A - FORM VII VOA-1

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Instrument ID: V5 Calibration Date: 06/29/2010 Time: 9:42

Lab File ID: V5M0203.D Init. Calib. Date(s): 06/07/2010 06/07/2010

EPA Sample No.(VSTD#####): VSTD0055W Init. Calib. Time(s): 11:56 13:51

Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 25.0 (mL)

| COMPOUND | $\overline{RRF}$ | RRF005 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| Dichlorodifluoromethane | 0.540 | 0.383 | 0.010 | -29.2 | 40.0 |
| Chloromethane | 1.267 | 1.042 | 0.010 | -17.8 | 40.0 |
| Vinyl chloride | 0.804 | 0.726 | 0.100 | -9.7 | 30.0 |
| Bromomethane | 0.307 | 0.317 | 0.100 | 3.4 | 30.0 |
| Chloroethane | 0.299 | 0.289 | 0.010 | -3.1 | 40.0 |
| Trichlorofluoromethane | 0.315 | 0.344 | 0.010 | 9.0 | 40.0 |
| 1,1-Dichloroethene | 0.254 | 0.265 | 0.100 | 4.2 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.238 | 0.229 | 0.010 | -3.8 | 40.0 |
| Acetone | 0.057 | 0.037 | 0.010 | -35.0 | 40.0 |
| Carbon disulfide | 1.056 | 0.973 | 0.010 | -7.9 | 40.0 |
| Methyl acetate | 0.167 | 0.101 | 0.010 | -39.5 | 40.0 |
| Methylene chloride | 0.243 | 0.224 | 0.010 | -7.8 | 40.0 |
| trans-1,2-Dichloroethene | 0.299 | 0.282 | 0.010 | -5.5 | 40.0 |
| Methyl tert-butyl ether | 0.366 | 0.352 | 0.010 | -3.8 | 40.0 |
| 1,1-Dichloroethane | 0.748 | 0.643 | 0.200 | -14.1 | 30.0 |
| cis-1,2-Dichloroethene | 0.344 | 0.308 | 0.010 | -10.5 | 40.0 |
| 2-Butanone | 0.099 | 0.078 | 0.010 | -20.8 | 40.0 |
| Bromochloromethane | 0.089 | 0.082 | 0.050 | -8.3 | 40.0 |
| Chloroform | 0.533 | 0.512 | 0.200 | -3.9 | 30.0 |
| 1,1,1-Trichloroethane | 0.529 | 0.550 | 0.100 | 3.9 | 30.0 |
| Cyclohexane | 1.168 | 0.976 | 0.010 | -16.4 | 40.0 |
| Carbon tetrachloride | 0.378 | 0.405 | 0.100 | 7.2 | 30.0 |
| Benzene | 1.979 | 1.781 | 0.400 | -10.0 | 30.0 |
| 1,2-Dichloroethane | 0.311 | 0.283 | 0.100 | -8.9 | 30.0 |
| Trichloroethene | 0.444 | 0.473 | 0.300 | 6.7 | 30.0 |
| Methylcyclohexane | 0.816 | 0.653 | 0.010 | -20.0 | 40.0 |

Report 1,4-Dioxane for Low-Medium VOA analysis only SOM01.2 (6/2007)

7B - FORM VII VOA-2

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Instrument ID: V5 Calibration Date: 06/29/2010 Time: 9:42

Lab File ID: V5M0203.D Init. Calib. Date(s): 06/07/2010 06/07/2010

EPA Sample No.(VSTD#####): VSTD0055W Init. Calib. Time(s): 11:56 13:51

Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 25.0 (mL)

| COMPOUND | $\overline{RRF}$ | RRF005 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| 1,2-Dichloropropane | 0.542 | 0.472 | 0.010 | -12.8 | 40.0 |
| Bromodichloromethane | 0.432 | 0.395 | 0.200 | -8.7 | 30.0 |
| cis-1,3-Dichloropropene | 0.613 | 0.483 | 0.200 | -21.2 | 30.0 |
| 4-Methyl-2-pentanone | 0.317 | 0.246 | 0.010 | -22.5 | 40.0 |
| Toluene | 1.889 | 1.813 | 0.400 | -4.0 | 30.0 |
| trans-1,3-Dichloropropene | 0.416 | 0.348 | 0.100 | -16.4 | 30.0 |
| 1,1,2-Trichloroethane | 0.190 | 0.184 | 0.100 | -3.1 | 30.0 |
| Tetrachloroethene | 0.300 | 0.319 | 0.100 | 6.2 | 30.0 |
| 2-Hexanone | 0.226 | 0.171 | 0.010 | -24.4 | 40.0 |
| Dibromochloromethane | 0.183 | 0.181 | 0.100 | -1.0 | 30.0 |
| 1,2-Dibromoethane | 0.168 | 0.184 | 0.010 | 9.2 | 40.0 |
| Chlorobenzene | 1.062 | 0.980 | 0.500 | -7.8 | 30.0 |
| Ethylbenzene | 2.110 | 2.038 | 0.100 | -3.4 | 30.0 |
| m,p-Xylene | 0.786 | 0.778 | 0.300 | -1.1 | 30.0 |
| o-Xylene | 0.702 | 0.688 | 0.300 | -2.0 | 30.0 |
| Styrene | 1.098 | 1.143 | 0.300 | 4.1 | 30.0 |
| Bromoform | 0.213 | 0.239 | 0.050 | 12.6 | 30.0 |
| Isopropylbenzene | 1.819 | 1.899 | 0.010 | 4.4 | 40.0 |
| 1,1,2,2-Tetrachloroethane | 0.219 | 0.195 | 0.100 | -11.2 | 30.0 |
| 1,3-Dichlorobenzene | 1.512 | 1.412 | 0.400 | -6.6 | 30.0 |
| 1,4-Dichlorobenzene | 1.456 | 1.383 | 0.400 | -5.0 | 30.0 |
| 1,2-Dichlorobenzene | 1.099 | 1.058 | 0.400 | -3.7 | 30.0 |
| 1,2-Dibromo-3-chloropropane | 0.064 | 0.049 | 0.010 | -22.9 | 40.0 |
| 1,2,4-Trichlorobenzene | 1.033 | 1.001 | 0.200 | -3.0 | 30.0 |
| 1,2,3-Trichlorobenzene | 0.761 | 0.694 | 0.200 | -8.8 | 30.0 |

7C - FORM VII VOA-3

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Instrument ID: V5 Calibration Date: 06/29/2010 Time: 9:42

Lab File ID: V5M0203.D Init. Calib. Date(s): 06/07/2010 06/07/2010

EPA Sample No.(VSTD#####): VSTD0055W Init. Calib. Time(s): 11:56 13:51

Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 25.0 (mL)

| COMPOUND | $\overline{RRF}$ | RRF005 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| Vinyl chloride-d3 | 0.756 | 0.687 | 0.010 | -9.2 | 30.0 |
| Chloroethane-d5 | 0.357 | 0.373 | 0.010 | 4.3 | 40.0 |
| 1,1-Dichloroethene-d2 | 0.193 | 0.171 | 0.010 | -11.4 | 30.0 |
| 2-Butanone-d5 | 0.101 | 0.078 | 0.010 | -22.5 | 40.0 |
| Chloroform-d | 0.628 | 0.585 | 0.010 | -6.8 | 30.0 |
| 1,2-Dichloroethane-d4 | 0.263 | 0.255 | 0.010 | -2.8 | 30.0 |
| Benzene-d6 | 2.031 | 1.912 | 0.010 | -5.8 | 30.0 |
| 1,2-Dichloropropane-d6 | 0.690 | 0.648 | 0.010 | -6.1 | 40.0 |
| Toluene-d8 | 1.759 | 1.736 | 0.010 | -1.3 | 30.0 |
| trans-1,3-Dichloropropene-d4 | 0.330 | 0.268 | 0.010 | -18.8 | 30.0 |
| 2-Hexanone-d5 | 0.079 | 0.074 | 0.010 | -5.8 | 40.0 |
| 1,1,2,2-Tetrachloroethane-d2 | 0.235 | 0.224 | 0.010 | -4.6 | 30.0 |
| 1,2-Dichlorobenzene-d4 | 0.791 | 0.790 | 0.010 | -0.1 | 30.0 |

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only

7A - FORM VII VOA-1

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Instrument ID: V5 Calibration Date: 06/29/2010 Time: 16:02

Lab File ID: V5M0212.D Init. Calib. Date(s): 06/07/2010 06/07/2010

EPA Sample No.(VSTD#####): VSTD0055X Init. Calib. Time(s): 11:56 13:51

Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 25.0 (mL)

| COMPOUND | $\overline{RRF}$ | RRF005 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| Dichlorodifluoromethane | 0.540 | 0.551 | 0.010 | 1.9 | 50.0 |
| Chloromethane | 1.267 | 1.313 | 0.010 | 3.6 | 50.0 |
| Vinyl chloride | 0.804 | 0.877 | 0.010 | 9.0 | 50.0 |
| Bromomethane | 0.307 | 0.398 | 0.010 | 29.9 | 50.0 |
| Chloroethane | 0.299 | 0.353 | 0.010 | 18.2 | 50.0 |
| Trichlorofluoromethane | 0.315 | 0.455 | 0.010 | 44.3 | 50.0 |
| 1,1-Dichloroethene | 0.254 | 0.315 | 0.010 | 24.1 | 50.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.238 | 0.292 | 0.010 | 22.7 | 50.0 |
| Acetone | 0.057 | 0.049 | 0.010 | -14.4 | 50.0 |
| Carbon disulfide | 1.056 | 1.192 | 0.010 | 12.9 | 50.0 |
| Methyl acetate | 0.167 | 0.130 | 0.010 | -22.3 | 50.0 |
| Methylene chloride | 0.243 | 0.259 | 0.010 | 6.6 | 50.0 |
| trans-1,2-Dichloroethene | 0.299 | 0.358 | 0.010 | 20.1 | 50.0 |
| Methyl tert-butyl ether | 0.366 | 0.392 | 0.010 | 7.0 | 50.0 |
| 1,1-Dichloroethane | 0.748 | 0.777 | 0.010 | 3.9 | 50.0 |
| cis-1,2-Dichloroethene | 0.344 | 0.372 | 0.010 | 8.0 | 50.0 |
| 2-Butanone | 0.099 | 0.088 | 0.010 | -10.5 | 50.0 |
| Bromochloromethane | 0.089 | 0.096 | 0.010 | 7.6 | 50.0 |
| Chloroform | 0.533 | 0.610 | 0.010 | 14.5 | 50.0 |
| 1,1,1-Trichloroethane | 0.529 | 0.643 | 0.010 | 21.5 | 50.0 |
| Cyclohexane | 1.168 | 1.124 | 0.010 | -3.8 | 50.0 |
| Carbon tetrachloride | 0.378 | 0.465 | 0.010 | 23.1 | 50.0 |
| Benzene | 1.979 | 1.970 | 0.010 | -0.4 | 50.0 |
| 1,2-Dichloroethane | 0.311 | 0.335 | 0.010 | 7.8 | 50.0 |
| Trichloroethene | 0.444 | 0.508 | 0.010 | 14.6 | 50.0 |
| Methylcyclohexane | 0.816 | 0.810 | 0.010 | -0.8 | 50.0 |

Report 1,4-Dioxane for Low-Medium VOA analysis only SOM01.2 (6/2007)

7B - FORM VII VOA-2

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Instrument ID: V5 Calibration Date: 06/29/2010 Time: 16:02

Lab File ID: V5M0212.D Init. Calib. Date(s): 06/07/2010 06/07/2010

EPA Sample No.(VSTD#####): VSTD0055X Init. Calib. Time(s): 11:56 13:51

Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 25.0 (mL)

| COMPOUND | $\overline{RRF}$ | RRF005 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| 1,2-Dichloropropane | 0.542 | 0.508 | 0.010 | -6.2 | 50.0 |
| Bromodichloromethane | 0.432 | 0.443 | 0.010 | 2.4 | 50.0 |
| cis-1,3-Dichloropropene | 0.613 | 0.586 | 0.010 | -4.3 | 50.0 |
| 4-Methyl-2-pentanone | 0.317 | 0.265 | 0.010 | -16.4 | 50.0 |
| Toluene | 1.889 | 2.019 | 0.010 | 6.9 | 50.0 |
| trans-1,3-Dichloropropene | 0.416 | 0.407 | 0.010 | -2.3 | 50.0 |
| 1,1,2-Trichloroethane | 0.190 | 0.197 | 0.010 | 3.5 | 50.0 |
| Tetrachloroethene | 0.300 | 0.364 | 0.010 | 21.3 | 50.0 |
| 2-Hexanone | 0.226 | 0.183 | 0.010 | -18.7 | 50.0 |
| Dibromochloromethane | 0.183 | 0.196 | 0.010 | 7.0 | 50.0 |
| 1,2-Dibromoethane | 0.168 | 0.189 | 0.010 | 12.0 | 50.0 |
| Chlorobenzene | 1.062 | 1.085 | 0.010 | 2.2 | 50.0 |
| Ethylbenzene | 2.110 | 2.290 | 0.010 | 8.5 | 50.0 |
| m,p-Xylene | 0.786 | 0.830 | 0.010 | 5.5 | 50.0 |
| o-Xylene | 0.702 | 0.778 | 0.010 | 10.8 | 50.0 |
| Styrene | 1.098 | 1.229 | 0.010 | 12.0 | 50.0 |
| Bromoform | 0.213 | 0.259 | 0.010 | 21.6 | 50.0 |
| Isopropylbenzene | 1.819 | 2.160 | 0.010 | 18.7 | 50.0 |
| 1,1,2,2-Tetrachloroethane | 0.219 | 0.212 | 0.010 | -3.1 | 50.0 |
| 1,3-Dichlorobenzene | 1.512 | 1.632 | 0.010 | 8.0 | 50.0 |
| 1,4-Dichlorobenzene | 1.456 | 1.614 | 0.010 | 10.8 | 50.0 |
| 1,2-Dichlorobenzene | 1.099 | 1.247 | 0.010 | 13.5 | 50.0 |
| 1,2-Dibromo-3-chloropropane | 0.064 | 0.063 | 0.010 | -1.3 | 50.0 |
| 1,2,4-Trichlorobenzene | 1.033 | 1.108 | 0.010 | 7.4 | 50.0 |
| 1,2,3-Trichlorobenzene | 0.761 | 0.764 | 0.010 | 0.4 | 50.0 |

7C - FORM VII VOA-3

VOLATILE CONTINUING CALIBRATION DATA

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Instrument ID: V5 Calibration Date: 06/29/2010 Time: 16:02

Lab File ID: V5M0212.D Init. Calib. Date(s): 06/07/2010 06/07/2010

EPA Sample No.(VSTD#####): VSTD0055X Init. Calib. Time(s): 11:56 13:51

Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

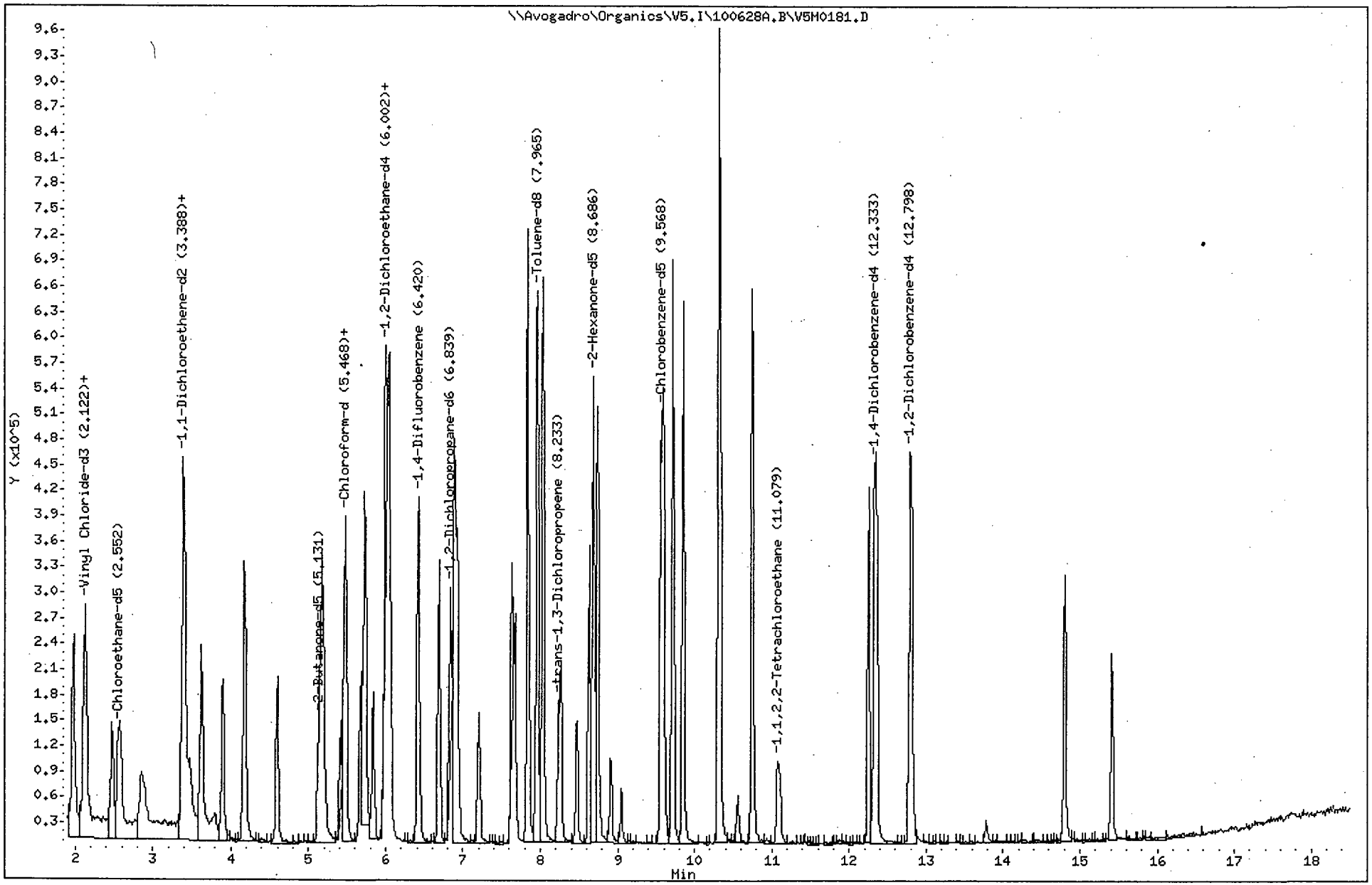
Purge Volume: 25.0 (mL)

| COMPOUND | $\overline{RRF}$ | RRF005 | MIN RRF | %D | MAX %D |
|---|---|---|---|---|---|
| Vinyl chloride-d3 | 0.756 | 0.767 | 0.010 | 1.5 | 50.0 |
| Chloroethane-d5 | 0.357 | 0.382 | 0.010 | 6.8 | 50.0 |
| 1,1-Dichloroethene-d2 | 0.193 | 0.187 | 0.010 | -3.3 | 50.0 |
| 2-Butanone-d5 | 0.101 | 0.076 | 0.010 | -24.2 | 50.0 |
| Chloroform-d | 0.628 | 0.618 | 0.010 | -1.5 | 50.0 |
| 1,2-Dichloroethane-d4 | 0.263 | 0.240 | 0.010 | -8.7 | 50.0 |
| Benzene-d6 | 2.031 | 1.793 | 0.010 | -11.7 | 50.0 |
| 1,2-Dichloropropane-d6 | 0.690 | 0.623 | 0.010 | -9.7 | 50.0 |
| Toluene-d8 | 1.759 | 1.603 | 0.010 | -8.8 | 50.0 |
| trans-1,3-Dichloropropene-d4 | 0.330 | 0.271 | 0.010 | -17.8 | 50.0 |
| 2-Hexanone-d5 | 0.079 | 0.062 | 0.010 | -20.9 | 50.0 |
| 1,1,2,2-Tetrachloroethane-d2 | 0.235 | 0.220 | 0.010 | -6.6 | 50.0 |
| 1,2-Dichlorobenzene-d4 | 0.791 | 0.739 | 0.010 | -6.6 | 50.0 |

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only SOM01.2 (6/2007)

Data File: \\Avogadro\Organics\V5.I\100628A.B\V5M0181.D
Date : 28-JUN-2010 22:42
Client ID: VSTD0055V
Sample Info: 25ML,VSTD0055V,VSTD0055V
Purge Volume: 25.0
Column phase: DB-624

Instrument: V5.i
Operator: SRC:
Column diameter: 0.25



Data File: \\Avogadro\Organics\V5.I\100628A.B\V5M0181.D
Report Date: 30-Jun-2010 12:54

Mitkem Laboratories

SOM01.0 - Trace Water Volatiles

Data file : \\Avogadro\Organics\V5.I\100628A.B\V5M0181.D
Lab Smp Id: VSTD0055V  Client Smp ID: VSTD0055V
Inj Date : 28-JUN-2010 22:42
Operator : SRC:  Inst ID: V5.i
Smp Info : 25ML,VSTD0055V,VSTD0055V
Misc Info :
Comment :
Method : \\Avogadro\Organics\V5.I\100628A.B\V5_TVOA1359.m
Meth Date : 30-Jun-2010 12:33 V5.i  Quant Type: ISTD
Cal Date : 07-JUN-2010 13:51  Cal File: V5L9665.D
Als bottle: 2  Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: SOM01.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Vo | 25.000 | Sample volume purged (mL) |
| Va | 10.000 | LCS Aliquot volume |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | ON-COL ( ug/L) |
|---|---|---|---|---|---|---|---|
| 1 Dichlorodifluoromethane | 85 | 1.808 | 1.813 | (0.282) | 144740 | 5.00000 | 3.5 |
| 2 Chloromethane | 50 | 1.982 | 1.976 | (0.309) | 335520 | 5.00000 | 3.4 |
| $ 79 Vinyl Chloride-d3 | 65 | 2.122 | 2.127 | (0.331) | 228873 | 5.00000 | 3.9 |
| 3 Vinyl Chloride | 62 | 2.133 | 2.127 | (0.332) | 240957 | 5.00000 | 3.9 |
| 4 Bromomethane | 94 | 2.470 | 2.475 | (0.385) | 111750 | 5.00000 | 4.7(Q) |
| $ 80 Chloroethane-d5 | 69 | 2.552 | 2.556 | (0.397) | 123766 | 5.00000 | 4.5 |
| 5 Chloroethane | 64 | 2.586 | 2.580 | (0.403) | 98714 | 5.00000 | 4.3 |
| 6 Trichlorofluoromethane | 101 | 2.854 | 2.858 | (0.445) | 115751 | 5.00000 | 4.8 |
| $ 81 1,1-Dichloroethene-d2 | 65 | 3.376 | 3.381 | (0.526) | 64091 | 5.00000 | 4.3(Q) |
| 7 1,1-Dichloroethene | 96 | 3.400 | 3.393 | (0.530) | 98253 | 5.00000 | 5.0(Q) |
| 8 1,1,2-Trichloro-1,2,2-trifluo | 101 | 3.423 | 3.416 | (0.533) | 84810 | 5.00000 | 4.6 |
| 9 Acetone | 43 | 3.481 | 3.474 | (0.542) | 146706 | 50.0000 | 33 |
| 10 Carbon Disulfide | 76 | 3.620 | 3.625 | (0.564) | 357853 | 5.00000 | 4.4 |
| 11 Methyl Acetate | 43 | 3.806 | 3.799 | (0.593) | 40978 | 5.00000 | 3.2 |
| 12 Methylene Chloride | 84 | 3.899 | 3.892 | (0.607) | 83636 | 5.00000 | 4.5(Q) |
| 13 trans-1,2-Dichloroethene | 96 | 4.166 | 4.171 | (0.649) | 113113 | 5.00000 | 4.9(Q) |
| 14 Methyl tert-Butyl Ether | 73 | 4.178 | 4.183 | (0.651) | 134627 | 5.00000 | 4.8 |
| 15 1,1-Dichloroethane | 63 | 4.596 | 4.589 | (0.716) | 233170 | 5.00000 | 4.0 |
| $ 82 2-Butanone-d5 | 46 | 5.130 | 5.135 | (0.799) | 311922 | 50.0000 | 40(A) |
| 17 cis-1,2-Dichloroethene | 96 | 5.165 | 5.170 | (0.805) | 121508 | 5.00000 | 4.6(Q) |
| 16 2-Butanone | 43 | 5.200 | 5.193 | (0.810) | 303179 | 50.0000 | 40 |
| 18 Bromochloromethane | 128 | 5.409 | 5.403 | (0.843) | 35719 | 5.00000 | 5.2(Q) |

Data File: \\Avogadro\Organics\V5.I\100628A.B\V5M0181.D
Report Date: 30-Jun-2010 12:54

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) |
|---|---|---|---|---|---|---|---|---|
| $ | 83 Chloroform-d | 84 | 5.467 | 5.461 | (0.852) | 212536 | 5.00000 | 4.4 |
| | 19 Chloroform | 83 | 5.479 | 5.484 | (0.853) | 182273 | 5.00000 | 4.4 |
| | 20 1,1,1-Trichloroethane | 97 | 5.676 | 5.670 | (0.593) | 152544 | 5.00000 | 4.8 |
| | 21 Cyclohexane | 56 | 5.723 | 5.728 | (0.598) | 263966 | 5.00000 | 3.8 |
| | 22 Carbon Tetrachloride | 117 | 5.839 | 5.832 | (0.610) | 114994 | 5.00000 | 5.1 |
| $ | 23 1,2-Dichloroethane-d4 | 65 | 5.990 | 5.983 | (0.933) | 87269 | 5.00000 | 4.3 |
| $ | 84 Benzene-d6 | 84 | 6.002 | 6.007 | (0.627) | 540869 | 5.00000 | 4.5 |
| | 25 Benzene | 78 | 6.048 | 6.041 | (0.632) | 497391 | 5.00000 | 4.2 |
| | 24 1,2-Dichloroethane | 62 | 6.060 | 6.053 | (0.944) | 98953 | 5.00000 | 4.1 |
| * | 26 1,4-Difluorobenzene | 114 | 6.420 | 6.413 | (1.000) | 386330 | 5.00000 | |
| | 27 Trichloroethene | 95 | 6.687 | 6.680 | (0.699) | 132747 | 5.00000 | 5.0 |
| $ | 85 1,2-Dichloropropane-d6 | 67 | 6.838 | 6.831 | (0.715) | 182822 | 5.00000 | 4.4 |
| | 28 Methylcyclohexane | 83 | 6.885 | 6.889 | (0.720) | 194252 | 5.00000 | 4.0 |
| | 29 1,2-Dichloropropane | 63 | 6.919 | 6.924 | (0.723) | 131137 | 5.00000 | 4.1 |
| | 30 Bromodichloromethane | 83 | 7.198 | 7.203 | (0.752) | 113821 | 5.00000 | 4.4 |
| | 31 cis-1,3-Dichloropropene | 75 | 7.674 | 7.668 | (0.802) | 151542 | 5.00000 | 4.1 |
| | 32 4-Methyl-2-Pentanone | 43 | 7.837 | 7.830 | (0.819) | 719110 | 50.0000 | 38 |
| $ | 33 Toluene-d8 | 98 | 7.965 | 7.958 | (0.832) | 497210 | 5.00000 | 4.7 |
| | 34 Toluene | 91 | 8.035 | 8.028 | (0.840) | 529669 | 5.00000 | 4.7 |
| $ | 86 trans-1,3-Dichloropropene-d4 | 79 | 8.232 | 8.225 | (0.860) | 85606 | 5.00000 | 4.4 |
| | 35 trans-1,3-Dichloropropene | 75 | 8.267 | 8.260 | (0.864) | 109288 | 5.00000 | 4.4 |
| | 36 1,1,2-Trichloroethane | 97 | 8.464 | 8.469 | (0.885) | 56311 | 5.00000 | 5.0(Q) |
| | 37 Tetrachloroethene | 164 | 8.627 | 8.632 | (0.902) | 95238 | 5.00000 | 5.3 |
| $ | 87 2-Hexanone-d5 | 63 | 8.685 | 8.690 | (0.908) | 223111 | 50.0000 | 48(A) |
| | 38 2-Hexanone | 43 | 8.743 | 8.736 | (0.914) | 487560 | 50.0000 | 36 |
| | 39 Dibromochloromethane | 129 | 8.917 | 8.911 | (0.932) | 55804 | 5.00000 | 5.1 |
| | 40 1,2-Dibromoethane | 107 | 9.045 | 9.050 | (0.945) | 51033 | 5.00000 | 5.1 |
| * | 42 Chlorobenzene-d5 | 117 | 9.568 | 9.561 | (1.000) | 298036 | 5.00000 | |
| | 43 Chlorobenzene | 112 | 9.603 | 9.596 | (1.004) | 293040 | 5.00000 | 4.6 |
| | 44 Ethylbenzene | 91 | 9.719 | 9.712 | (1.016) | 578945 | 5.00000 | 4.6 |
| | 45 m,p-Xylene | 106 | 9.847 | 9.852 | (1.029) | 216459 | 5.00000 | 4.6 |
| | 46 o-Xylene | 106 | 10.311 | 10.316 | (1.078) | 198478 | 5.00000 | 4.7 |
| | 47 Styrene | 104 | 10.335 | 10.328 | (1.080) | 324516 | 5.00000 | 5.0 |
| | 48 Bromoform | 173 | 10.555 | 10.560 | (0.856) | 31964 | 5.00000 | 6.2 |
| | 49 Isopropylbenzene | 105 | 10.741 | 10.746 | (1.123) | 536179 | 5.00000 | 4.9 |
| $ | 89 1,1,2,2-Tetrachloroethane-d2 | 84 | 11.078 | 11.071 | (1.158) | 66062 | 5.00000 | 4.7 |
| | 51 1,1,2,2-Tetrachloroethane | 83 | 11.101 | 11.106 | (1.160) | 54990 | 5.00000 | 4.2 |
| | 52 1,3-Dichlorobenzene | 146 | 12.251 | 12.245 | (0.993) | 182597 | 5.00000 | 5.0 |
| * | 78 1,4-Dichlorobenzene-d4 | 152 | 12.333 | 12.326 | (1.000) | 121989 | 5.00000 | |
| | 53 1,4-Dichlorobenzene | 146 | 12.356 | 12.349 | (1.002) | 176721 | 5.00000 | 5.0 |
| $ | 90 1,2-Dichlorobenzene-d4 | 152 | 12.797 | 12.791 | (1.038) | 101628 | 5.00000 | 5.3 |
| | 54 1,2-Dichlorobenzene | 146 | 12.821 | 12.814 | (1.040) | 139825 | 5.00000 | 5.2 |
| | 55 1,2-Dibromo-3-chloropropane | 75 | 13.785 | 13.778 | (1.118) | 7020 | 5.00000 | 4.5(Q) |
| | 56 1,2,4-Trichlorobenzene | 180 | 14.807 | 14.800 | (1.201) | 131331 | 5.00000 | 5.2 |
| | 77 1,2,3-Trichlorobenzene | 180 | 15.411 | 15.416 | (1.250) | 94355 | 5.00000 | 5.1 |

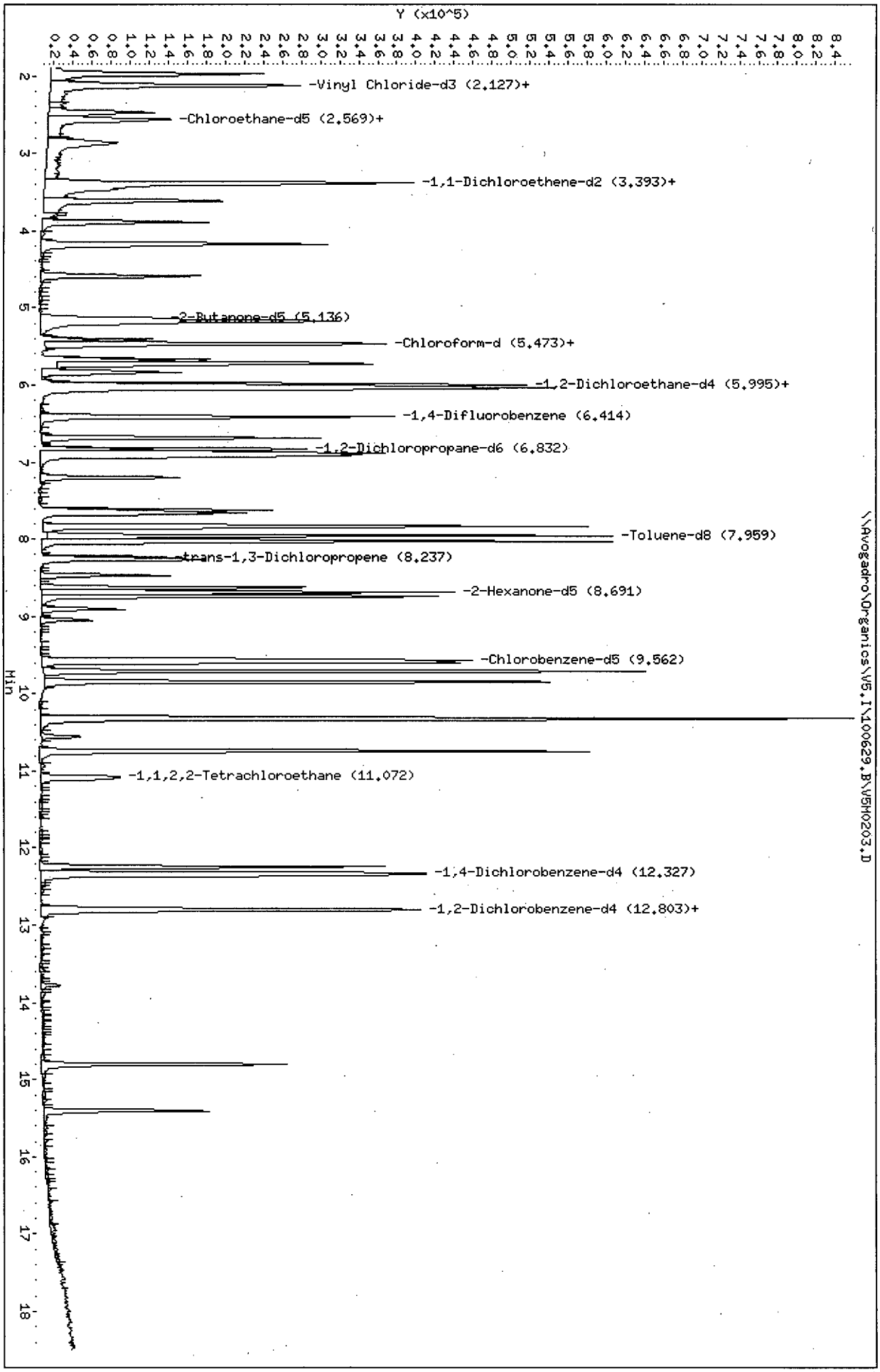
## QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

h900

Data File: \\Avogadro\Organics\V5.I\100629.B\V5H0203.D
Date : 29-JUN-2010 09:42
Client ID: VSTD0055W
Sample Info: 25ML,VSTD0055W,VSTD0055W
Purge Volume: 25.0
Column phase: DB-624

Instrument: V5.i
Operator: SRC
Column diameter: 0.25



Data File: \\Avogadro\Organics\V5.I\100629.B\V5M0203.D
Report Date: 30-Jun-2010 12:54

Mitkem Laboratories

SOM01.0 - Trace Water Volatiles

Data file : \\Avogadro\Organics\V5.I\100629.B\V5M0203.D
Lab Smp Id: VSTD0055W  Client Smp ID: VSTD0055W
Inj Date : 29-JUN-2010 09:42
Operator : SRC:  Inst ID: V5.i
Smp Info : 25ML,VSTD0055W,VSTD0055W
Misc Info :
Comment :
Method : \\Avogadro\Organics\V5.I\100629.B\V5_TVOA1359.m
Meth Date : 30-Jun-2010 12:34 V5.i  Quant Type: ISTD
Cal Date : 07-JUN-2010 13:51  Cal File: V5L9665.D
Als bottle: 32  Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: SOM01.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Vo | 25.000 | Sample volume purged (mL) |
| Va | 10.000 | LCS Aliquot volume |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) |
|---|---|---|---|---|---|---|---|
| 1 Dichlorodifluoromethane | 85 | 1.813 | 1.814 | (0.283) | 123319 | 5.00000 | 3.5 |
| 2 Chloromethane | 50 | 1.976 | 1.976 | (0.308) | 335738 | 5.00000 | 4.1 |
| $ 79 Vinyl Chloride-d3 | 65 | 2.127 | 2.116 | (0.332) | 221300 | 5.00000 | 4.5 |
| 3 Vinyl Chloride | 62 | 2.127 | 2.127 | (0.332) | 234053 | 5.00000 | 4.5 |
| 4 Bromomethane | 94 | 2.475 | 2.476 | (0.386) | 102137 | 5.00000 | 5.2(Q) |
| $ 80 Chloroethane-d5 | 69 | 2.556 | 2.557 | (0.399) | 120080 | 5.00000 | 5.2 |
| 5 Chloroethane | 64 | 2.580 | 2.580 | (0.402) | 93257 | 5.00000 | 4.8 |
| 6 Trichlorofluoromethane | 101 | 2.858 | 2.859 | (0.446) | 110767 | 5.00000 | 5.5 |
| $ 81 1,1-Dichloroethene-d2 | 65 | 3.381 | 3.382 | (0.527) | 55095 | 5.00000 | 4.4(Q) |
| 7 1,1-Dichloroethene | 96 | 3.393 | 3.394 | (0.529) | 85286 | 5.00000 | 5.2 |
| 8 1,1,2-Trichloro-1,2,2-trifluo | 101 | 3.416 | 3.417 | (0.533) | 73953 | 5.00000 | 4.8 |
| 9 Acetone | 43 | 3.474 | 3.475 | (0.542) | 120088 | 50.0000 | 32 |
| 10 Carbon Disulfide | 76 | 3.625 | 3.626 | (0.565) | 313421 | 5.00000 | 4.6 |
| 11 Methyl Acetate | 43 | 3.799 | 3.800 | (0.592) | 32634 | 5.00000 | 3.0 |
| 12 Methylene Chloride | 84 | 3.892 | 3.893 | (0.607) | 72103 | 5.00000 | 4.6 |
| 13 trans-1,2-Dichloroethene | 96 | 4.171 | 4.172 | (0.650) | 90874 | 5.00000 | 4.7 |
| 14 Methyl tert-Butyl Ether | 73 | 4.183 | 4.172 | (0.652) | 113468 | 5.00000 | 4.8 |
| 15 1,1-Dichloroethane | 63 | 4.589 | 4.590 | (0.716) | 207216 | 5.00000 | 4.3 |
| $ 82 2-Butanone-d5 | 46 | 5.135 | 5.124 | (0.801) | 251711 | 50.0000 | 39(A) |
| 17 cis-1,2-Dichloroethene | 96 | 5.170 | 5.171 | (0.806) | 99278 | 5.00000 | 4.5 |
| 16 2-Butanone | 43 | 5.193 | 5.194 | (0.810) | 252387 | 50.0000 | 40 |
| 18 Bromochloromethane | 128 | 5.403 | 5.415 | (0.842) | 26419 | 5.00000 | 4.6(Q) |

Data File: \\Avogadro\Organics\V5.I\100629.B\V5M0203.D
Report Date: 30-Jun-2010 12:54

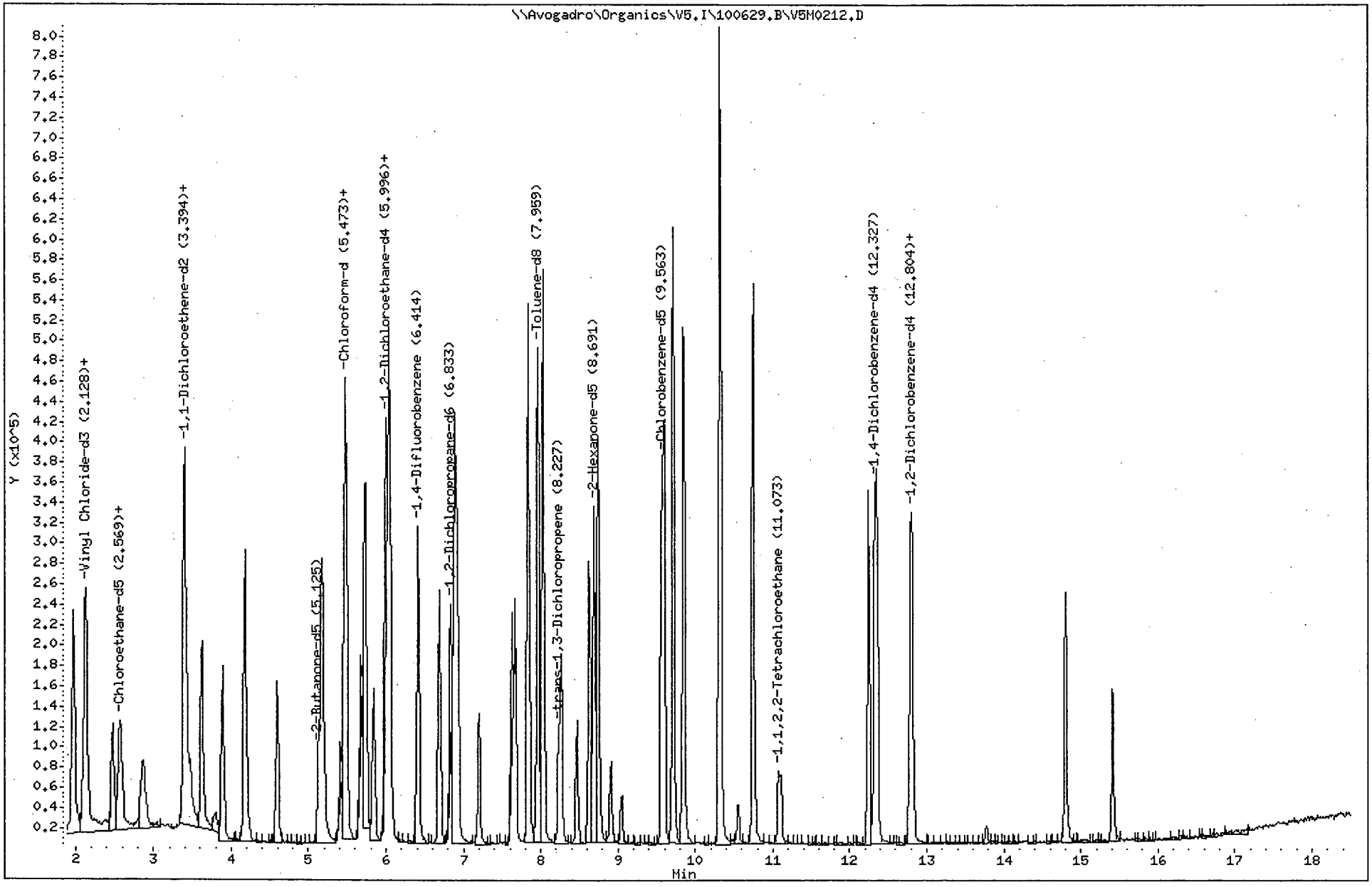
| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) |
|---|---|---|---|---|---|---|---|
| $ 83 Chloroform-d | 84 | 5.461 | 5.461 | (0.851) | 188654 | 5.00000 | 4.7 |
| 19 Chloroform | 83 | 5.484 | 5.485 | (0.855) | 164973 | 5.00000 | 4.8 |
| 20 1,1,1-Trichloroethane | 97 | 5.670 | 5.670 | (0.593) | 135077 | 5.00000 | 5.2 |
| 21 Cyclohexane | 56 | 5.728 | 5.729 | (0.599) | 239917 | 5.00000 | 4.2 |
| 22 Carbon Tetrachloride | 117 | 5.832 | 5.833 | (0.610) | 99543 | 5.00000 | 5.4 |
| $ 23 1,2-Dichloroethane-d4 | 65 | 5.983 | 5.984 | (0.933) | 82219 | 5.00000 | 4.9 |
| $ 84 Benzene-d6 | 84 | 6.007 | 5.996 | (0.628) | 469896 | 5.00000 | 4.7 |
| 25 Benzene | 78 | 6.041 | 6.042 | (0.632) | 437655 | 5.00000 | 4.5 |
| 24 1,2-Dichloroethane | 62 | 6.053 | 6.054 | (0.944) | 91243 | 5.00000 | 4.6 |
| * 26 1,4-Difluorobenzene | 114 | 6.413 | 6.414 | (1.000) | 322283 | 5.00000 | |
| 27 Trichloroethene | 95 | 6.680 | 6.681 | (0.699) | 116230 | 5.00000 | 5.3 |
| $ 85 1,2-Dichloropropane-d6 | 67 | 6.831 | 6.832 | (0.714) | 159137 | 5.00000 | 4.7 |
| 28 Methylcyclohexane | 83 | 6.889 | 6.890 | (0.721) | 160379 | 5.00000 | 4.0 |
| 29 1,2-Dichloropropane | 63 | 6.924 | 6.925 | (0.724) | 116024 | 5.00000 | 4.4 |
| 30 Bromodichloromethane | 83 | 7.203 | 7.204 | (0.753) | 97064 | 5.00000 | 4.6 |
| 31 cis-1,3-Dichloropropene | 75 | 7.668 | 7.669 | (0.802) | 118650 | 5.00000 | 3.9 |
| 32 4-Methyl-2-Pentanone | 43 | 7.830 | 7.831 | (0.819) | 603634 | 50.0000 | 39 |
| $ 33 Toluene-d8 | 98 | 7.958 | 7.959 | (0.832) | 426550 | 5.00000 | 4.9 |
| 34 Toluene | 91 | 8.028 | 8.029 | (0.840) | 445558 | 5.00000 | 4.8 |
| $ 86 trans-1,3-Dichloropropene-d4 | 79 | 8.225 | 8.226 | (0.860) | 65771 | 5.00000 | 4.1 |
| 35 trans-1,3-Dichloropropene | 75 | 8.260 | 8.261 | (0.864) | 85524 | 5.00000 | 4.2 |
| 36 1,1,2-Trichloroethane | 97 | 8.469 | 8.470 | (0.886) | 45217 | 5.00000 | 4.8(Q) |
| 37 Tetrachloroethene | 164 | 8.632 | 8.621 | (0.903) | 78375 | 5.00000 | 5.3 |
| $ 87 2-Hexanone-d5 | 63 | 8.690 | 8.691 | (0.909) | 182386 | 50.0000 | 47(A) |
| 38 2-Hexanone | 43 | 8.736 | 8.737 | (0.914) | 419132 | 50.0000 | 38 |
| 39 Dibromochloromethane | 129 | 8.911 | 8.912 | (0.932) | 44543 | 5.00000 | 5.0 |
| 40 1,2-Dibromoethane | 107 | 9.050 | 9.051 | (0.947) | 45206 | 5.00000 | 5.5 |
| * 42 Chlorobenzene-d5 | 117 | 9.561 | 9.562 | (1.000) | 245699 | 5.00000 | |
| 43 Chlorobenzene | 112 | 9.596 | 9.597 | (1.004) | 240663 | 5.00000 | 4.6 |
| 44 Ethylbenzene | 91 | 9.712 | 9.713 | (1.016) | 500843 | 5.00000 | 4.8 |
| 45 m,p-Xylene | 106 | 9.852 | 9.852 | (1.030) | 191111 | 5.00000 | 4.9 |
| 46 o-Xylene | 106 | 10.316 | 10.317 | (1.079) | 169120 | 5.00000 | 4.9 |
| 47 Styrene | 104 | 10.328 | 10.329 | (1.080) | 280723 | 5.00000 | 5.2 |
| 48 Bromoform | 173 | 10.560 | 10.549 | (0.857) | 25392 | 5.00000 | 5.6 |
| 49 Isopropylbenzene | 105 | 10.746 | 10.747 | (1.124) | 466562 | 5.00000 | 5.2 |
| $ 89 1,1,2,2-Tetrachloroethane-d2 | 84 | 11.071 | 11.072 | (1.158) | 55130 | 5.00000 | 4.8 |
| 51 1,1,2,2-Tetrachloroethane | 83 | 11.106 | 11.107 | (1.162) | 47828 | 5.00000 | 4.4 |
| 52 1,3-Dichlorobenzene | 146 | 12.245 | 12.245 | (0.993) | 149848 | 5.00000 | 4.7 |
| * 78 1,4-Dichlorobenzene-d4 | 152 | 12.326 | 12.327 | (1.000) | 106091 | 5.00000 | |
| 53 1,4-Dichlorobenzene | 146 | 12.349 | 12.350 | (1.002) | 146719 | 5.00000 | 4.7 |
| $ 90 1,2-Dichlorobenzene-d4 | 152 | 12.791 | 12.791 | (1.038) | 83860 | 5.00000 | 5.0 |
| 54 1,2-Dichlorobenzene | 146 | 12.814 | 12.815 | (1.040) | 112258 | 5.00000 | 4.8 |
| 55 1,2-Dibromo-3-chloropropane | 75 | 13.778 | 13.779 | (1.118) | 5201 | 5.00000 | 3.9(Q) |
| 56 1,2,4-Trichlorobenzene | 180 | 14.800 | 14.801 | (1.201) | 106248 | 5.00000 | 4.8 |
| 77 1,2,3-Trichlorobenzene | 180 | 15.416 | 15.417 | (1.251) | 73585 | 5.00000 | 4.6 |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

Data File: \\Avogadro\Organics\V5.I\100629.B\V5M0212.D
Date : 29-JUN-2010 16:02
Client ID: VSTD0055X
Sample Info: 25ML,VSTD0055X,VSTD0055X
Purge Volume: 25.0
Column phase: DB-624

Instrument: V5.i
Operator: SRC:
Column diameter: 0.25



Data File: \\Avogadro\Organics\V5.I\100629.B\V5M0212.D
Report Date: 30-Jun-2010 12:55

Mitkem Laboratories

SOM01.0 - Trace Water Volatiles

Data file : \\Avogadro\Organics\V5.I\100629.B\V5M0212.D
Lab Smp Id: VSTD0055X  Client Smp ID: VSTD0055X
Inj Date : 29-JUN-2010 16:02
Operator : SRC:  Inst ID: V5.i
Smp Info : 25ML,VSTD0055X,VSTD0055X
Misc Info :
Comment :
Method : \\Avogadro\Organics\V5.I\100629.B\V5_TVOA1359.m
Meth Date : 30-Jun-2010 12:34 V5.i  Quant Type: ISTD
Cal Date : 07-JUN-2010 13:51  Cal File: V5L9665.D
Als bottle: 40  Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: SOM01.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Vo | 25.000 | Sample volume purged (mL) |
| Va | 10.000 | LCS Aliquot volume |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) |
|---|---|---|---|---|---|---|---|
| 1 Dichlorodifluoromethane | 85 | 1.814 | 1.814 | (0.283) | 140907 | 5.00000 | 5.1 |
| 2 Chloromethane | 50 | 1.976 | 1.976 | (0.308) | 335925 | 5.00000 | 5.2 |
| $ 79 Vinyl Chloride-d3 | 65 | 2.116 | 2.116 | (0.330) | 196365 | 5.00000 | 5.1 |
| 3 Vinyl Chloride | 62 | 2.127 | 2.127 | (0.332) | 224457 | 5.00000 | 5.5 |
| 4 Bromomethane | 94 | 2.476 | 2.476 | (0.386) | 101887 | 5.00000 | 6.5(Q) |
| $ 80 Chloroethane-d5 | 69 | 2.557 | 2.557 | (0.399) | 97645 | 5.00000 | 5.3 |
| 5 Chloroethane | 64 | 2.580 | 2.580 | (0.402) | 90358 | 5.00000 | 5.9 |
| 6 Trichlorofluoromethane | 101 | 2.859 | 2.859 | (0.446) | 116387 | 5.00000 | 7.2 |
| $ 81 1,1-Dichloroethene-d2 | 65 | 3.382 | 3.382 | (0.527) | 47758 | 5.00000 | 4.8(Q) |
| 7 1,1-Dichloroethene | 96 | 3.394 | 3.394 | (0.529) | 80651 | 5.00000 | 6.2 |
| 8 1,1,2-Trichloro-1,2,2-trifluo | 101 | 3.417 | 3.417 | (0.533) | 74850 | 5.00000 | 6.1 |
| 9 Acetone | 43 | 3.475 | 3.475 | (0.542) | 125567 | 50.0000 | 43 |
| 10 Carbon Disulfide | 76 | 3.626 | 3.626 | (0.565) | 304939 | 5.00000 | 5.6 |
| 11 Methyl Acetate | 43 | 3.800 | 3.800 | (0.593) | 33320 | 5.00000 | 3.9 |
| 12 Methylene Chloride | 84 | 3.893 | 3.893 | (0.607) | 66178 | 5.00000 | 5.3 |
| 13 trans-1,2-Dichloroethene | 96 | 4.172 | 4.172 | (0.650) | 91714 | 5.00000 | 6.0(Q) |
| 14 Methyl tert-Butyl Ether | 73 | 4.172 | 4.172 | (0.650) | 100206 | 5.00000 | 5.3 |
| 15 1,1-Dichloroethane | 63 | 4.590 | 4.590 | (0.716) | 198954 | 5.00000 | 5.2 |
| $ 82 2-Butanone-d5 | 46 | 5.124 | 5.124 | (0.799) | 195322 | 50.0000 | 38(A) |
| 17 cis-1,2-Dichloroethene | 96 | 5.171 | 5.171 | (0.806) | 95189 | 5.00000 | 5.4(Q) |
| 16 2-Butanone | 43 | 5.194 | 5.194 | (0.810) | 226422 | 50.0000 | 45 |
| 18 Bromochloromethane | 128 | 5.415 | 5.415 | (0.844) | 24622 | 5.00000 | 5.4(Q) |

Data File: \\Avogadro\Organics\V5.I\100629.B\V5M0212.D
Report Date: 30-Jun-2010 12:55

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT ( ug/L) | AMOUNTS ON-COL ( ug/L) |
|---|---|---|---|---|---|---|---|
| $ 83 Chloroform-d | 84 | 5.461 | 5.461 | (0.851) | 158255 | 5.00000 | 4.9 |
| 19 Chloroform | 83 | 5.485 | 5.485 | (0.855) | 156054 | 5.00000 | 5.7 |
| 20 1,1,1-Trichloroethane | 97 | 5.670 | 5.670 | (0.593) | 133444 | 5.00000 | 6.1 |
| 21 Cyclohexane | 56 | 5.729 | 5.729 | (0.599) | 233303 | 5.00000 | 4.8 |
| 22 Carbon Tetrachloride | 117 | 5.833 | 5.833 | (0.610) | 96586 | 5.00000 | 6.2 |
| $ 23 1,2-Dichloroethane-d4 | 65 | 5.984 | 5.984 | (0.933) | 61340 | 5.00000 | 4.6 |
| $ 84 Benzene-d6 | 84 | 5.996 | 5.996 | (0.627) | 372221 | 5.00000 | 4.4 |
| 25 Benzene | 78 | 6.042 | 6.042 | (0.632) | 408831 | 5.00000 | 5.0 |
| 24 1,2-Dichloroethane | 62 | 6.054 | 6.054 | (0.944) | 85713 | 5.00000 | 5.4 |
| * 26 1,4-Difluorobenzene | 114 | 6.414 | 6.414 | (1.000) | 255904 | 5.00000 | |
| 27 Trichloroethene | 95 | 6.681 | 6.681 | (0.699) | 105489 | 5.00000 | 5.7 |
| $ 85 1,2-Dichloropropane-d6 | 67 | 6.832 | 6.832 | (0.715) | 129290 | 5.00000 | 4.5 |
| 28 Methylcyclohexane | 83 | 6.890 | 6.890 | (0.721) | 168053 | 5.00000 | 5.0 |
| 29 1,2-Dichloropropane | 63 | 6.925 | 6.925 | (0.724) | 105499 | 5.00000 | 4.7 |
| 30 Bromodichloromethane | 83 | 7.204 | 7.204 | (0.753) | 91951 | 5.00000 | 5.1 |
| 31 cis-1,3-Dichloropropene | 75 | 7.669 | 7.669 | (0.802) | 121638 | 5.00000 | 4.8 |
| 32 4-Methyl-2-Pentanone | 43 | 7.831 | 7.831 | (0.819) | 549985 | 50.0000 | 42 |
| $ 33 Toluene-d8 | 98 | 7.959 | 7.959 | (0.832) | 332798 | 5.00000 | 4.6 |
| 34 Toluene | 91 | 8.029 | 8.029 | (0.840) | 419000 | 5.00000 | 5.3 |
| $ 86 trans-1,3-Dichloropropene-d4 | 79 | 8.226 | 8.226 | (0.860) | 56206 | 5.00000 | 4.1 |
| 35 trans-1,3-Dichloropropene | 75 | 8.261 | 8.261 | (0.864) | 84385 | 5.00000 | 4.9 |
| 36 1,1,2-Trichloroethane | 97 | 8.470 | 8.470 | (0.886) | 40805 | 5.00000 | 5.2(Q) |
| 37 Tetrachloroethene | 164 | 8.621 | 8.621 | (0.902) | 75615 | 5.00000 | 6.1 |
| $ 87 2-Hexanone-d5 | 63 | 8.691 | 8.691 | (0.909) | 129295 | 50.0000 | 40(A) |
| 38 2-Hexanone | 43 | 8.737 | 8.737 | (0.914) | 380851 | 50.0000 | 41 |
| 39 Dibromochloromethane | 129 | 8.912 | 8.912 | (0.932) | 40639 | 5.00000 | 5.3 |
| 40 1,2-Dibromoethane | 107 | 9.051 | 9.051 | (0.947) | 39153 | 5.00000 | 5.6 |
| * 42 Chlorobenzene-d5 | 117 | 9.562 | 9.562 | (1.000) | 207551 | 5.00000 | |
| 43 Chlorobenzene | 112 | 9.597 | 9.597 | (1.004) | 225193 | 5.00000 | 5.1 |
| 44 Ethylbenzene | 91 | 9.713 | 9.713 | (1.016) | 475213 | 5.00000 | 5.4 |
| 45 m,p-Xylene | 106 | 9.852 | 9.852 | (1.030) | 172164 | 5.00000 | 5.3 |
| 46 o-Xylene | 106 | 10.317 | 10.317 | (1.079) | 161554 | 5.00000 | 5.5 |
| 47 Styrene | 104 | 10.329 | 10.329 | (1.080) | 255111 | 5.00000 | 5.6 |
| 48 Bromoform | 173 | 10.549 | 10.549 | (0.856) | 22076 | 5.00000 | 6.1 |
| 49 Isopropylbenzene | 105 | 10.747 | 10.747 | (1.124) | 448292 | 5.00000 | 5.9 |
| $ 89 1,1,2,2-Tetrachloroethane-d2 | 84 | 11.072 | 11.072 | (1.158) | 45573 | 5.00000 | 4.7 |
| 51 1,1,2,2-Tetrachloroethane | 83 | 11.107 | 11.107 | (1.162) | 44100 | 5.00000 | 4.8 |
| 52 1,3-Dichlorobenzene | 146 | 12.245 | 12.245 | (0.993) | 139361 | 5.00000 | 5.4 |
| * 78 1,4-Dichlorobenzene-d4 | 152 | 12.327 | 12.327 | (1.000) | 85387 | 5.00000 | |
| 53 1,4-Dichlorobenzene | 146 | 12.350 | 12.350 | (1.002) | 137782 | 5.00000 | 5.5 |
| $ 90 1,2-Dichlorobenzene-d4 | 152 | 12.791 | 12.791 | (1.038) | 63093 | 5.00000 | 4.7 |
| 54 1,2-Dichlorobenzene | 146 | 12.815 | 12.815 | (1.040) | 106484 | 5.00000 | 5.7 |
| 55 1,2-Dibromo-3-chloropropane | 75 | 13.779 | 13.779 | (1.118) | 5359 | 5.00000 | 4.9(Q) |
| 56 1,2,4-Trichlorobenzene | 180 | 14.801 | 14.801 | (1.201) | 94651 | 5.00000 | 5.4 |
| 77 1,2,3-Trichlorobenzene | 180 | 15.417 | 15.417 | (1.251) | 65220 | 5.00000 | 5.0 |

## QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

Data File: \\Avogadro\Organics\V5.I\100607.B\V5L9660.D



Date : 07-JUN-2010 11:26

Client ID: BFBL5

Instrument: V5.i

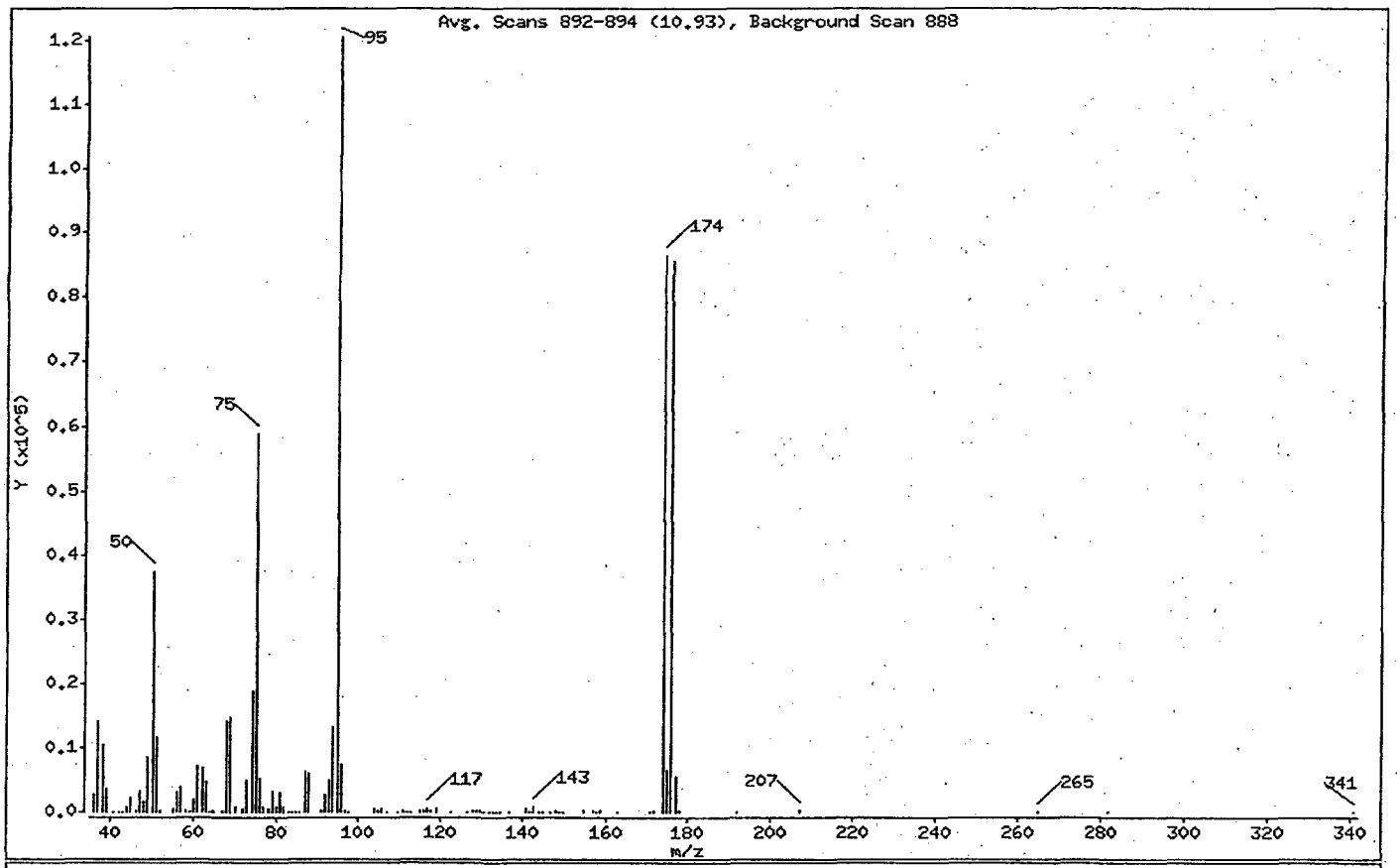
Sample Info: 2UL,BFBL5,BFBL5

Operator: SRC:

Column phase: DB-624

Column diameter: 0.25

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 31.08 |
| 75 | 30.00 - 80.00% of mass 95 | 48.79 |
| 96 | 5.00 - 9.00% of mass 95 | 6.11 |
| 173 | Less than 2.00% of mass 174 | 0.00 ( 0.00) |
| 174 | 50.00 - 120.00% of mass 95 | 71.78 |
| 175 | 5.00 - 9.00% of mass 174 | 5.42 ( 7.55) |
| 176 | 95.00 - 101.00% of mass 174 | 70.95 ( 98.84) |
| 177 | 5.00 - 9.00% of mass 176 | 4.61 ( 6.49) |

**COPY**

**Original Documents Are Included in CSF** XOD79

**Signed:** AH **Date:** 6/14/10

Data File: \\Avogadro\Organics\V5.I\100607.B\V5L9660.D

Date : 07-JUN-2010 11:26

Client ID: BFBL5 Instrument: V5.i

Sample Info: 2UL,BFBL5,BFBL5

Operator: SRC:

Column phase: DB-624 Column diameter: 0.25

Data File: V5L9660.D
Spectrum: Avg. Scans 892-894 (10.93), Background Scan 888
Location of Maximum: 95.00
Number of points: 106

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 2697 | 67.00 | 159 | 97.00 | 147 | 142.00 | 53 |
| 37.00 | 14047 | 68.00 | 14252 | 98.00 | 37 | 143.00 | 729 |
| 38.00 | 10603 | 69.00 | 14674 | 104.00 | 456 | 144.00 | 110 |
| 39.00 | 3656 | 70.00 | 823 | 105.00 | 180 | 145.00 | 45 |
| 41.00 | 42 | 72.00 | 658 | 106.00 | 429 | 147.00 | 33 |
| 42.00 | 91 | 73.00 | 5114 | 107.00 | 79 | 148.00 | 145 |
| 43.00 | 45 | 74.00 | 18960 | 110.00 | 39 | 149.00 | 79 |
| 44.00 | 698 | 75.00 | 58832 | 111.00 | 197 | 150.00 | 46 |
| 45.00 | 2293 | 76.00 | 5213 | 112.00 | 48 | 155.00 | 147 |
| 46.00 | 220 | 77.00 | 736 | 113.00 | 39 | 157.00 | 179 |
| 47.00 | 3256 | 78.00 | 447 | 115.00 | 202 | 158.00 | 67 |
| 48.00 | 1577 | 79.00 | 3319 | 116.00 | 292 | 159.00 | 160 |
| 49.00 | 8512 | 80.00 | 865 | 117.00 | 498 | 163.00 | 39 |
| 50.00 | 37480 | 81.00 | 2978 | 118.00 | 325 | 171.00 | 71 |
| 51.00 | 11710 | 82.00 | 817 | 119.00 | 472 | 172.00 | 273 |
| 52.00 | 214 | 83.00 | 52 | 123.00 | 35 | 174.00 | 86552 |
| 55.00 | 692 | 84.00 | 49 | 127.00 | 41 | 175.00 | 6535 |
| 56.00 | 2934 | 85.00 | 92 | 128.00 | 296 | 176.00 | 85552 |
| 57.00 | 3976 | 86.00 | 123 | 129.00 | 186 | 177.00 | 5554 |
| 58.00 | 414 | 87.00 | 6391 | 130.00 | 272 | 178.00 | 157 |
| 59.00 | 41 | 88.00 | 6184 | 131.00 | 116 | 192.00 | 49 |
| 60.00 | 1898 | 91.00 | 334 | 132.00 | 35 | 207.00 | 242 |
| 61.00 | 7181 | 92.00 | 2789 | 133.00 | 40 | 265.00 | 36 |
| 62.00 | 6814 | 93.00 | 4969 | 134.00 | 53 | 282.00 | 36 |
| 63.00 | 4803 | 94.00 | 13177 | 135.00 | 56 | 341.00 | 53 |
| 64.00 | 123 | 95.00 | 120584 | 137.00 | 98 | | |
| 65.00 | 155 | 96.00 | 7372 | 141.00 | 628 | | |

Data File: \\Avogadro\Organics\V5.I\100607.B\V5L9660.D



Date : 07-JUN-2010 11:26

Client ID: BFBL5

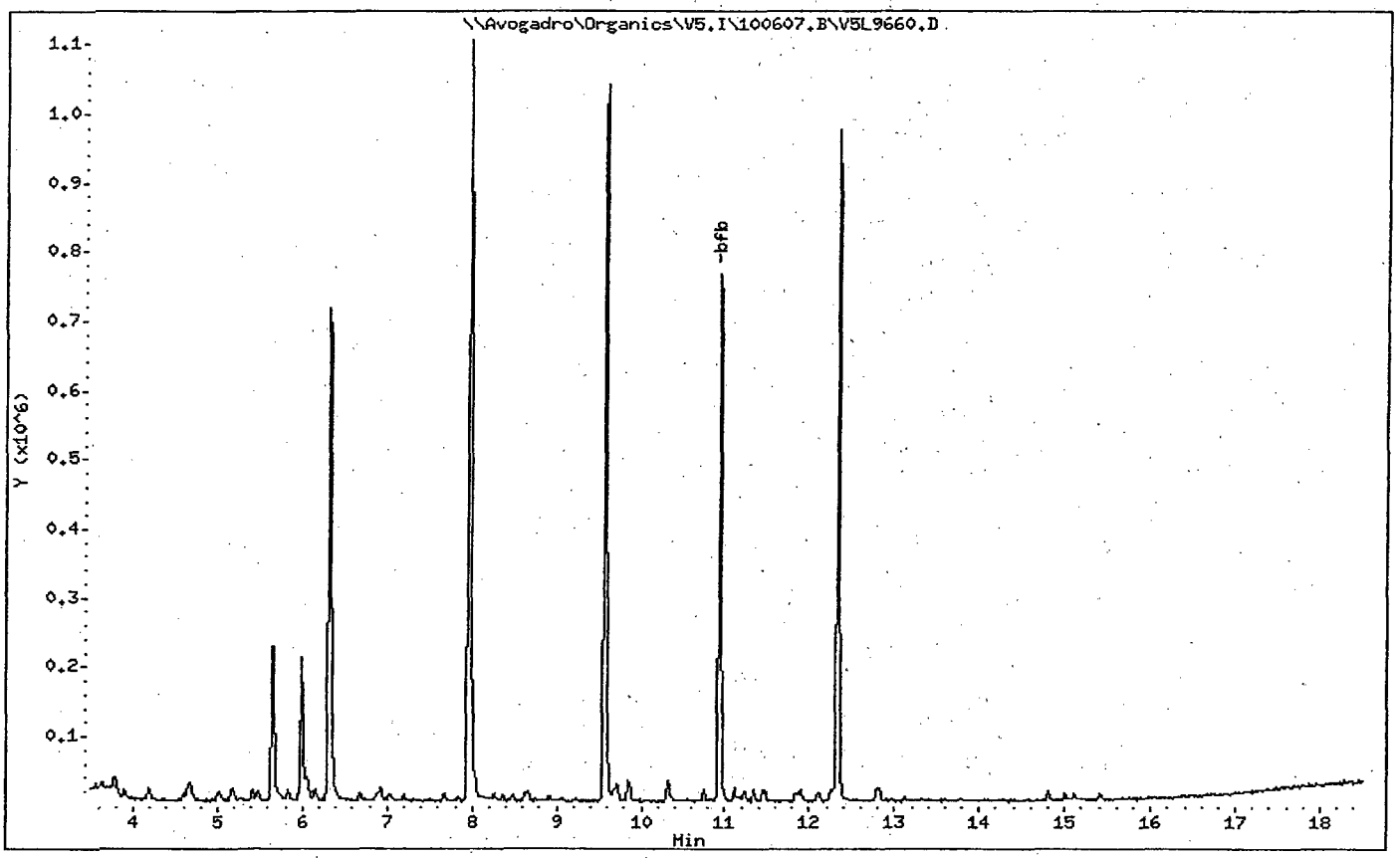
Instrument: V5.i

Sample Info: 2UL,BFBL5,BFBL5

Operator: SRC:

Column phase: DB-624

Column diameter: 0.25



Data File: \\Avogadro\Organics\V5.I\100628A.B\V5M0180.D

Date : 28-JUN-2010 22:13

Client ID: BFB5V

Instrument: V5.i

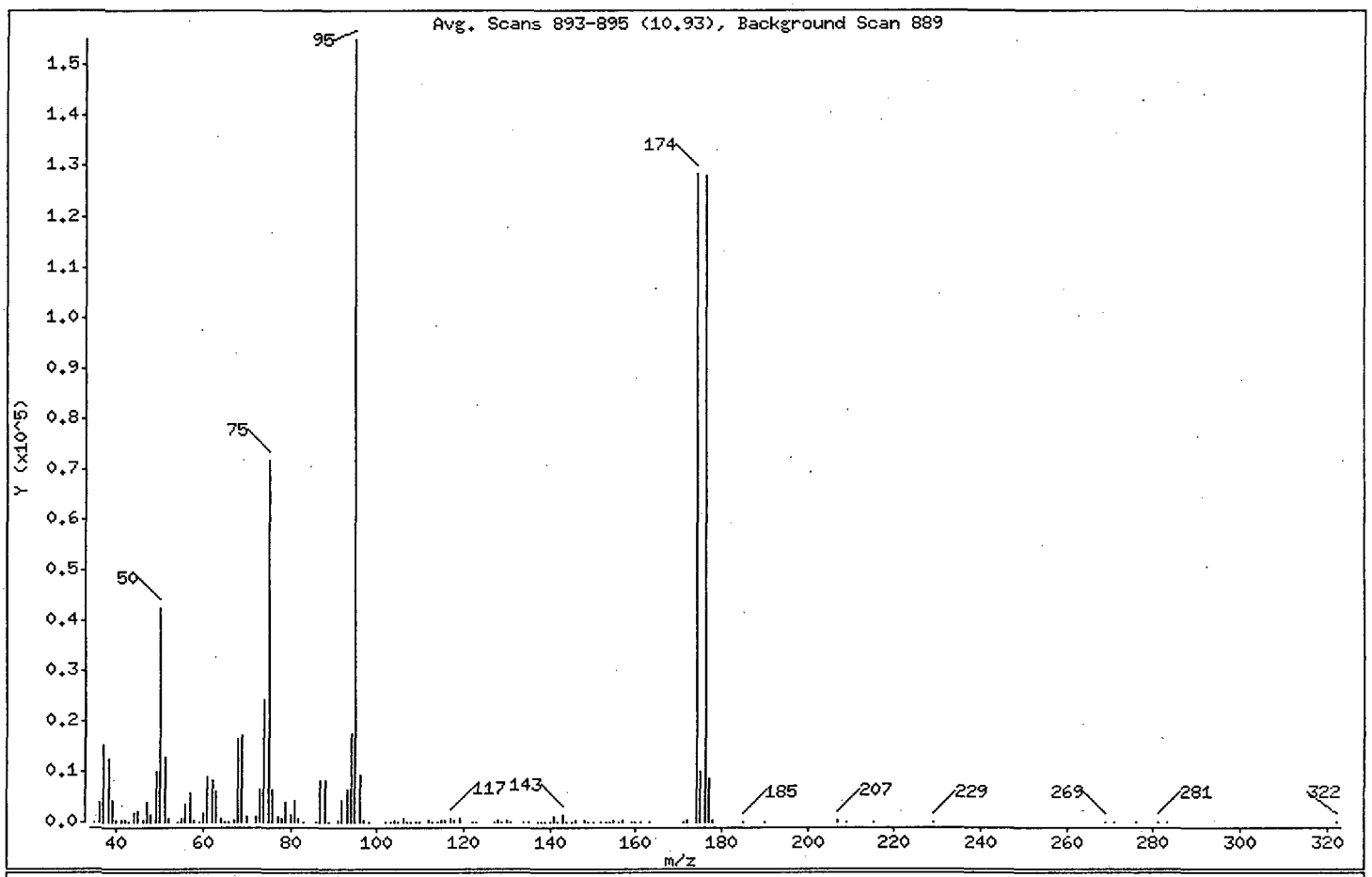
Sample Info: 2UL,BFB5V,BFB5V

Operator: SRC:

Column phase: DB-624

Column diameter: 0.25

1 bfb




| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 95 | Base Peak, 100% relative abundance | 100.00 |
| 50 | 15.00 - 40.00% of mass 95 | 27.39 |
| 75 | 30.00 - 80.00% of mass 95 | 46.26 |
| 96 | 5.00 - 9.00% of mass 95 | 6.08 |
| 173 | Less than 2.00% of mass 174 | 0.00 ( 0.00) |
| 174 | 50.00 - 120.00% of mass 95 | 82.79 |
| 175 | 5.00 - 9.00% of mass 174 | 6.51 ( 7.87) |
| 176 | 95.00 - 101.00% of mass 174 | 82.56 ( 99.72) |
| 177 | 5.00 - 9.00% of mass 176 | 5.59 ( 6.77) |

Data File: \\Avogadro\Organics\V5.I\100628A.B\V5M0180.D

Date : 28-JUN-2010 22:13

Client ID: BFB5V

Instrument: V5.i

Sample Info: 2UL,BFB5V,BFB5V

Operator: SRC:

Column phase: DB-624

Column diameter: 0.25

Data File: V5M0180.D
Spectrum: Avg. Scans 893-895 (10.93), Background Scan 889
Location of Maximum: 95.00
Number of points: 127

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 35.00 | 52 | 68.00 | 16416 | 107.00 | 35 | 149.00 | 37 |
| 36.00 | 3801 | 69.00 | 17296 | 108.00 | 34 | 150.00 | 50 |
| 37.00 | 15416 | 70.00 | 1086 | 109.00 | 33 | 152.00 | 44 |
| 38.00 | 12631 | 72.00 | 1023 | 110.00 | 106 | 153.00 | 118 |
| 39.00 | 4441 | 73.00 | 6558 | 112.00 | 186 | 154.00 | 39 |
| 40.00 | 183 | 74.00 | 24416 | 113.00 | 62 | 155.00 | 477 |
| 41.00 | 247 | 75.00 | 71760 | 114.00 | 46 | 156.00 | 56 |
| 42.00 | 182 | 76.00 | 6261 | 115.00 | 224 | 157.00 | 245 |
| 43.00 | 173 | 77.00 | 1155 | 116.00 | 455 | 159.00 | 51 |
| 44.00 | 1760 | 78.00 | 569 | 117.00 | 713 | 160.00 | 72 |
| 45.00 | 2286 | 79.00 | 3933 | 118.00 | 298 | 161.00 | 172 |
| 46.00 | 230 | 80.00 | 1448 | 119.00 | 626 | 163.00 | 41 |
| 47.00 | 3851 | 81.00 | 4153 | 122.00 | 39 | 171.00 | 51 |
| 48.00 | 1547 | 82.00 | 791 | 123.00 | 64 | 172.00 | 352 |
| 49.00 | 10096 | 83.00 | 61 | 127.00 | 35 | 174.00 | 128440 |
| 50.00 | 42496 | 86.00 | 88 | 128.00 | 424 | 175.00 | 10107 |
| 51.00 | 12952 | 87.00 | 8139 | 129.00 | 153 | 176.00 | 128080 |
| 52.00 | 566 | 88.00 | 8208 | 130.00 | 350 | 177.00 | 8677 |
| 54.00 | 40 | 89.00 | 49 | 131.00 | 111 | 178.00 | 277 |
| 55.00 | 660 | 91.00 | 497 | 134.00 | 33 | 185.00 | 49 |
| 56.00 | 3389 | 92.00 | 4126 | 135.00 | 139 | 190.00 | 35 |
| 57.00 | 5615 | 93.00 | 6422 | 137.00 | 49 | 207.00 | 261 |
| 58.00 | 291 | 94.00 | 17496 | 138.00 | 53 | 209.00 | 41 |
| 59.00 | 80 | 95.00 | 155136 | 139.00 | 57 | 215.00 | 45 |
| 60.00 | 1947 | 96.00 | 9432 | 140.00 | 91 | 229.00 | 34 |
| 61.00 | 8987 | 97.00 | 265 | 141.00 | 1176 | 269.00 | 37 |
| 62.00 | 8195 | 98.00 | 78 | 142.00 | 70 | 271.00 | 35 |
| 63.00 | 6011 | 102.00 | 40 | 143.00 | 1258 | 276.00 | 45 |
| 64.00 | 558 | 103.00 | 173 | 144.00 | 52 | 281.00 | 67 |
| 65.00 | 164 | 104.00 | 519 | 145.00 | 77 | 283.00 | 43 |
| 66.00 | 42 | 105.00 | 175 | 146.00 | 185 | 322.00 | 46 |
| 67.00 | 517 | 106.00 | 570 | 148.00 | 247 | | |

Data File: \\Avogadro\Organics\V5.I\100628A.B\V5M0180.D



Date : 28-JUN-2010 22:13

Client ID: BFB5V

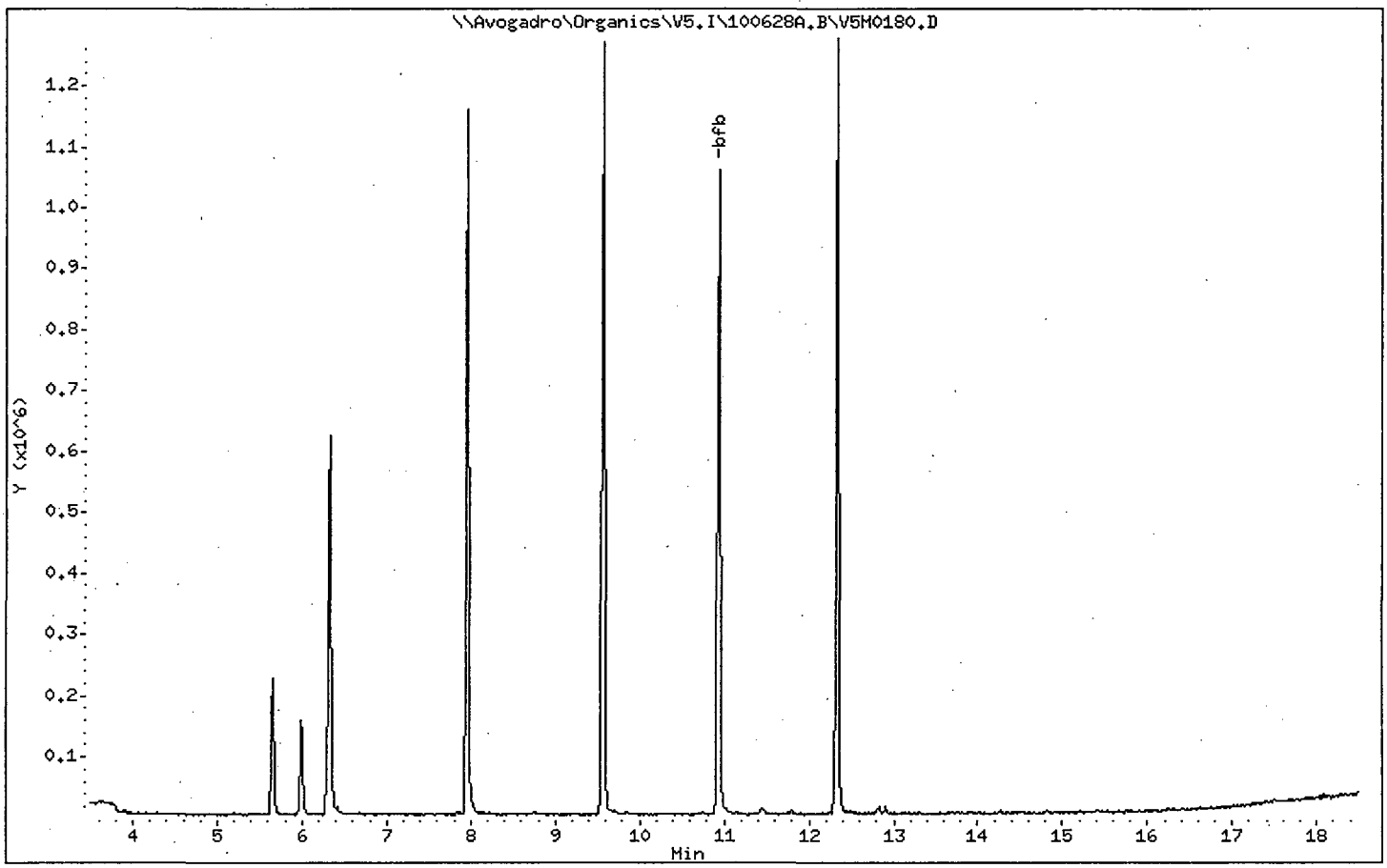
Instrument: V5.i

Sample Info: 2UL,BFB5V,BFB5V

Operator: SRC:

Column phase: DB-624

Column diameter: 0.25



1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK5W

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: MB-52637

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5M0204.D

Level: (TRACE/LOW/MED) TRACE Date Received:

% Moisture: not dec. Date Analyzed: 06/29/2010

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L | Q |
|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 0.50 | U |
| 74-87-3 | Chloromethane | 0.50 | U |
| 75-01-4 | Vinyl chloride | 0.50 | U |
| 74-83-9 | Bromomethane | 0.50 | U |
| 75-00-3 | Chloroethane | 0.50 | U |
| 75-69-4 | Trichlorofluoromethane | 0.50 | U |
| 75-35-4 | 1,1-Dichloroethene | 0.50 | U |
| 76-13-1 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.50 | U |
| 67-64-1 | Acetone | 5.0 | U |
| 75-15-0 | Carbon disulfide | 0.50 | U |
| 79-20-9 | Methyl acetate | 0.50 | U |
| 75-09-2 | Methylene chloride | 0.50 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 0.50 | U |
| 1634-04-4 | Methyl tert-butyl ether | 0.50 | U |
| 75-34-3 | 1,1-Dichloroethane | 0.50 | U |
| 156-59-2 | cis-1,2-Dichloroethene | 0.50 | U |
| 78-93-3 | 2-Butanone | 5.0 | U |
| 74-97-5 | Bromochloromethane | 0.50 | U |
| 67-66-3 | Chloroform | 0.50 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 0.50 | U |
| 110-82-7 | Cyclohexane | 0.50 | U |
| 56-23-5 | Carbon tetrachloride | 0.50 | U |
| 71-43-2 | Benzene | 0.50 | U |
| 107-06-2 | 1,2-Dichloroethane | 0.50 | U |

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK5W

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: MB-52637

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5M0204.D

Level: (TRACE/LOW/MED) TRACE Date Received:

% Moisture: not dec. Date Analyzed: 06/29/2010

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L | Q |
|---|---|---|---|
| 79-01-6 | Trichloroethene | 0.50 | U |
| 108-87-2 | Methylcyclohexane | 0.50 | U |
| 78-87-5 | 1,2-Dichloropropane | 0.50 | U |
| 75-27-4 | Bromodichloromethane | 0.50 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.50 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 5.0 | U |
| 108-88-3 | Toluene | 0.50 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.50 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 0.50 | U |
| 127-18-4 | Tetrachloroethene | 0.50 | U |
| 591-78-6 | 2-Hexanone | 5.0 | U |
| 124-48-1 | Dibromochloromethane | 0.50 | U |
| 106-93-4 | 1,2-Dibromoethane | 0.50 | U |
| 108-90-7 | Chlorobenzene | 0.50 | U |
| 100-41-4 | Ethylbenzene | 0.50 | U |
| 179601-23-1 | m,p-Xylene | 0.50 | U |
| 95-47-6 | o-Xylene | 0.50 | U |
| 100-42-5 | Styrene | 0.50 | U |
| 75-25-2 | Bromoform | 0.50 | U |
| 98-82-8 | Isopropylbenzene | 0.50 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.50 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 0.50 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 0.50 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 0.50 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 0.50 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.50 | U |
| 87-61-6 | 1,2,3-Trichlorobenzene | 0.50 | U |

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK5W

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: MB-52637

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5M0204.D

Level: (TRACE or LOW/MED) TRACE Date Received:

% Moisture: not dec. Date Analyzed: 06/29/2010

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

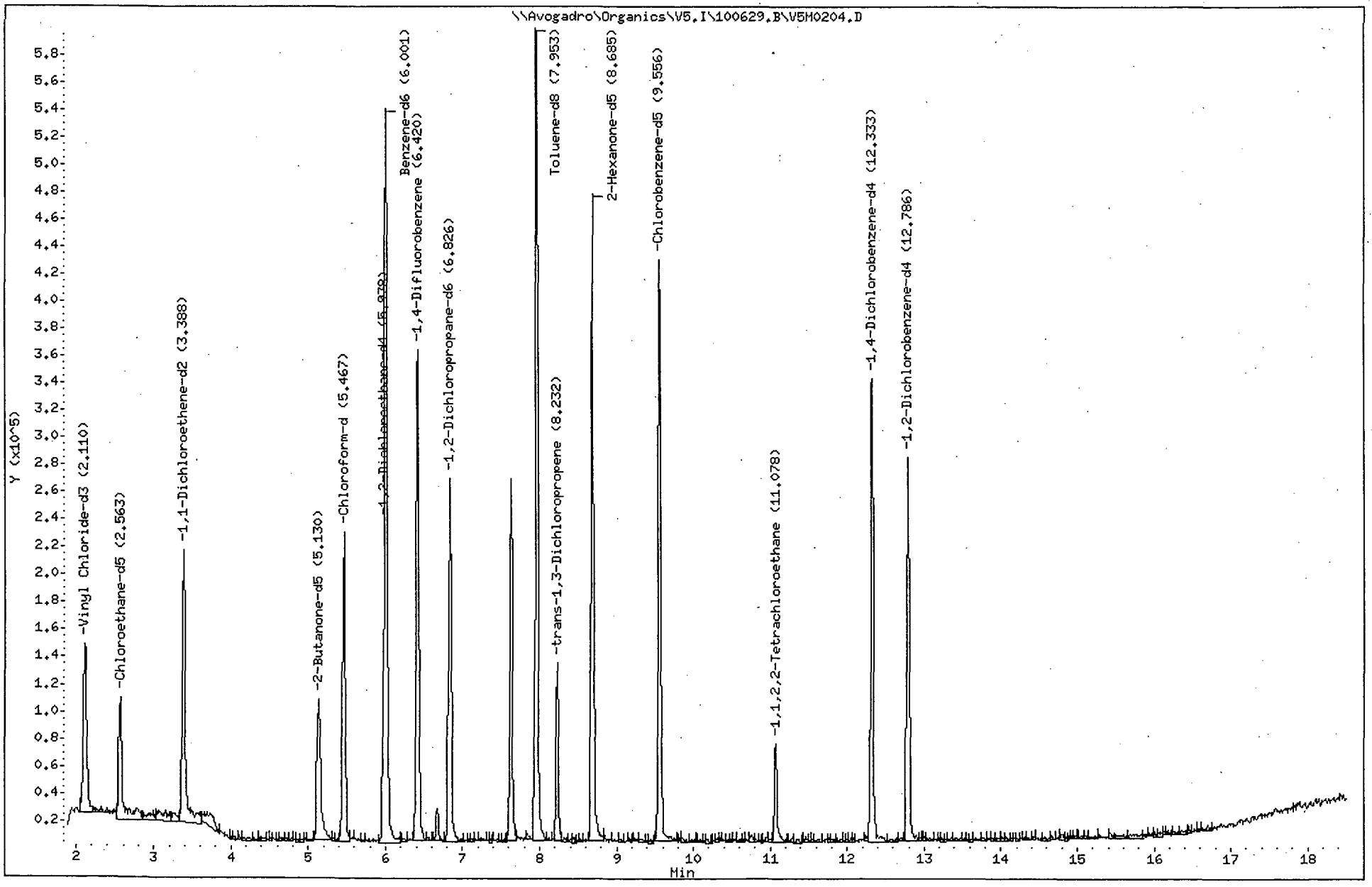
CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L Purge Volume: 25.0 (mL)

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| E966796[1] | Total Alkanes | N/A | | |

[1]EPA-designated Registry Number.

Data File: \\Avogadro\Organics\V5.I\100629.B\V5M0204.D
Date : 29-JUN-2010 10:11
Client ID: VBLK5W
Sample Info: 25ML,MB-52637,VBLK5W,52637
Purge Volume: 25.0
Column phase: DB-624

Instrument: V5.i
Operator: SRC: LIMS
Column diameter: 0.25



Data File: \\Avogadro\Organics\V5.I\100629.B\V5M0204.D
Report Date: 30-Jun-2010 12:55

Mitkem Laboratories

SOM01.0 - Trace Water Volatiles

Data file : \\Avogadro\Organics\V5.I\100629.B\V5M0204.D
Lab Smp Id: MB-52637 Client Smp ID: VBLK5W
Inj Date : 29-JUN-2010 10:11
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 25ML,MB-52637,VBLK5W,52637
Misc Info :
Comment :
Method : \\Avogadro\Organics\V5.I\100629.B\V5_TVOA1359.m
Meth Date : 30-Jun-2010 12:34 V5.i Quant Type: ISTD
Cal Date : 07-JUN-2010 13:51 Cal File: V5L9665.D
Als bottle: 32 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM01.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Vo | 25.000 | Sample volume purged (mL) |
| Va | 10.000 | LCS Aliquot volume |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/L) | FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|
| $ 79 Vinyl Chloride-d3 | 65 | 2.109 | 2.116 | (0.329) | 227934 | 4.49372 | 4.5 |
| $ 80 Chloroethane-d5 | 69 | 2.562 | 2.557 | (0.399) | 118886 | 4.95972 | 5.0 |
| $ 81 1,1-Dichloroethene-d2 | 65 | 3.387 | 3.382 | (0.528) | 54987 | 4.24863 | 4.2(Q) |
| $ 82 2-Butanone-d5 | 46 | 5.130 | 5.124 | (0.799) | 267406 | 39.5667 | 40(A) |
| $ 83 Chloroform-d | 84 | 5.467 | 5.461 | (0.852) | 184815 | 4.38888 | 4.4(Q) |
| $ 23 1,2-Dichloroethane-d4 | 65 | 5.978 | 5.984 | (0.931) | 81207 | 4.61130 | 4.6 |
| $ 84 Benzene-d6 | 84 | 6.001 | 5.996 | (0.628) | 487627 | 4.65974 | 4.7 |
| * 26 1,4-Difluorobenzene | 114 | 6.419 | 6.414 | (1.000) | 335373 | 5.00000 | |
| $ 85 1,2-Dichloropropane-d6 | 67 | 6.837 | 6.832 | (0.716) | 155173 | 4.36489 | 4.4 |
| $ 33 Toluene-d8 | 98 | 7.964 | 7.959 | (0.833) | 451037 | 4.97650 | 5.0 |
| $ 86 trans-1,3-Dichloropropene-d4 | 79 | 8.231 | 8.226 | (0.861) | 69384 | 4.08681 | 4.1 |
| $ 87 2-Hexanone-d5 | 63 | 8.684 | 8.691 | (0.909) | 195742 | 48.2112 | 48(AQ) |
| * 42 Chlorobenzene-d5 | 117 | 9.556 | 9.562 | (1.000) | 257624 | 5.00000 | |
| $ 89 1,1,2,2-Tetrachloroethane-d2 | 84 | 11.077 | 11.072 | (1.159) | 51335 | 4.23707 | 4.2 |
| * 78 1,4-Dichlorobenzene-d4 | 152 | 12.332 | 12.327 | (1.000) | 104660 | 5.00000 | |
| $ 90 1,2-Dichlorobenzene-d4 | 152 | 12.785 | 12.791 | (1.037) | 85815 | 5.18332 | 5.2 |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

Data File: \\Avogadro\Organics\V5.I\100629.B\V5M0204.D
Report Date: 30-Jun-2010 12:55

Mitkem Laboratories

SOM01.0 - Trace Water Volatiles

Data file : \\Avogadro\Organics\V5.I\100629.B\V5M0204.D
Lab Smp Id: MB-52637 Client Smp ID: VBLK5W
Inj Date : 29-JUN-2010 10:11
Operator : SRC: LIMS Inst ID: V5.i
Smp Info : 25ML,MB-52637,VBLK5W,52637
Misc Info :
Comment :
Method : \\Avogadro\Organics\V5.I\100629.B\V5_TVOA1359.m
Meth Date : 30-Jun-2010 12:34 V5.i Quant Type: ISTD
Cal Date : 07-JUN-2010 13:51 Cal File: V5L9665.D
Als bottle: 32 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SOM01.2.sub
Target Version: 4.14

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VHBLK5W

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: VHBLK5W

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5M0211.D

Level: (TRACE/LOW/MED) TRACE Date Received:

% Moisture: not dec. Date Analyzed: 06/29/2010

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L | Q |
|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 0.50 | U |
| 74-87-3 | Chloromethane | 0.50 | U |
| 75-01-4 | Vinyl chloride | 0.50 | U |
| 74-83-9 | Bromomethane | 0.50 | U |
| 75-00-3 | Chloroethane | 0.50 | U |
| 75-69-4 | Trichlorofluoromethane | 0.50 | U |
| 75-35-4 | 1,1-Dichloroethene | 0.50 | U |
| 76-13-1 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.50 | U |
| 67-64-1 | Acetone | 5.0 | U |
| 75-15-0 | Carbon disulfide | 0.50 | U |
| 79-20-9 | Methyl acetate | 0.50 | U |
| 75-09-2 | Methylene chloride | 0.50 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 0.50 | U |
| 1634-04-4 | Methyl tert-butyl ether | 0.50 | U |
| 75-34-3 | 1,1-Dichloroethane | 0.50 | U |
| 156-59-2 | cis-1,2-Dichloroethene | 0.50 | U |
| 78-93-3 | 2-Butanone | 5.0 | U |
| 74-97-5 | Bromochloromethane | 0.50 | U |
| 67-66-3 | Chloroform | 0.50 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 0.50 | U |
| 110-82-7 | Cyclohexane | 0.50 | U |
| 56-23-5 | Carbon tetrachloride | 0.50 | U |
| 71-43-2 | Benzene | 0.50 | U |
| 107-06-2 | 1,2-Dichloroethane | 0.50 | U |

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VHBLK5W

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: VHBLK5W

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5M0211.D

Level: (TRACE/LOW/MED) TRACE Date Received:

% Moisture: not dec. Date Analyzed: 06/29/2010

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L | Q |
|---|---|---|---|
| 79-01-6 | Trichloroethene | 0.50 | U |
| 108-87-2 | Methylcyclohexane | 0.50 | U |
| 78-87-5 | 1,2-Dichloropropane | 0.50 | U |
| 75-27-4 | Bromodichloromethane | 0.50 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 0.50 | U |
| 108-10-1 | 4-Methyl-2-pentanone | 5.0 | U |
| 108-88-3 | Toluene | 0.50 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 0.50 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 0.50 | U |
| 127-18-4 | Tetrachloroethene | 0.50 | U |
| 591-78-6 | 2-Hexanone | 5.0 | U |
| 124-48-1 | Dibromochloromethane | 0.50 | U |
| 106-93-4 | 1,2-Dibromoethane | 0.50 | U |
| 108-90-7 | Chlorobenzene | 0.50 | U |
| 100-41-4 | Ethylbenzene | 0.50 | U |
| 179601-23-1 | m,p-Xylene | 0.50 | U |
| 95-47-6 | o-Xylene | 0.50 | U |
| 100-42-5 | Styrene | 0.50 | U |
| 75-25-2 | Bromoform | 0.50 | U |
| 98-82-8 | Isopropylbenzene | 0.50 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.50 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 0.50 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 0.50 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 0.50 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 0.50 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.50 | U |
| 87-61-6 | 1,2,3-Trichlorobenzene | 0.50 | U |

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VHBLK5W

Lab Name: MITKEM LABORATORIES Contract: EP-W-05-030

Lab Code: MITKEM Case No.: 40275 Mod. Ref No.: SDG No.: F3JK9

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: VHBLK5W

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5M0211.D

Level: (TRACE or LOW/MED) TRACE Date Received:

% Moisture: not dec. Date Analyzed: 06/29/2010

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

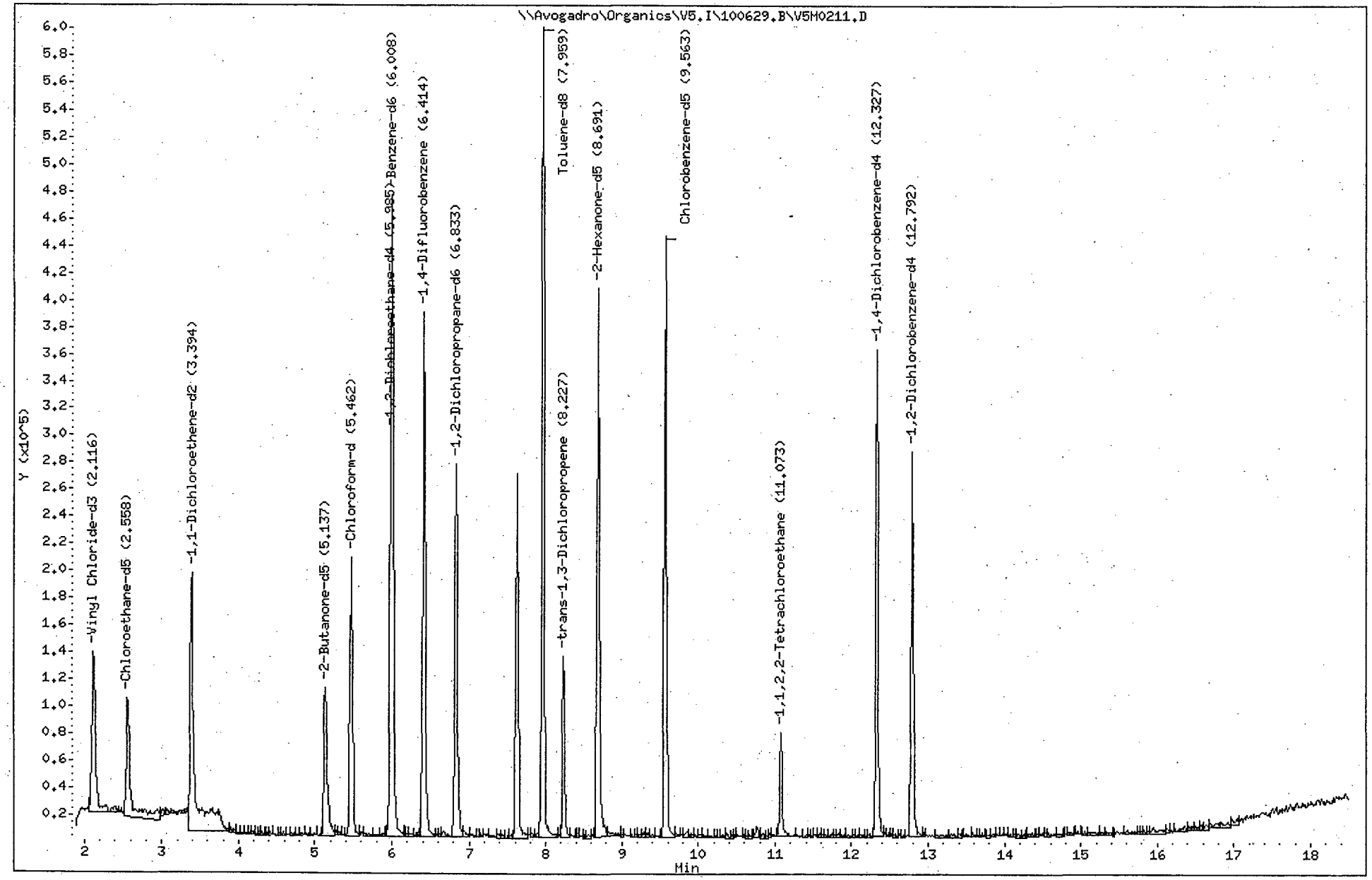
CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L Purge Volume: 25.0 (mL)

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| E966796[1] | Total Alkanes | N/A | | |

[1] EPA-designated Registry Number.

Data File: \\Avogadro\Organics\V5.I\100629.B\V5M0211.D
Date : 29-JUN-2010 15:33
Client ID: VHBLK5W
Sample Info: 25ML,VHBLK5W,VHBLK5W,52637,
Purge Volume: 25.0
Column phase: DB-624

Instrument: V5.i
Operator: SRC:
Column diameter: 0.25



Data File: \\Avogadro\Organics\V5.I\100629.B\V5M0211.D
Report Date: 30-Jun-2010 12:55

Mitkem Laboratories

SOM01.0 - Trace Water Volatiles

Data file : \\Avogadro\Organics\V5.I\100629.B\V5M0211.D
Lab Smp Id: VHBLK5W  Client Smp ID: VHBLK5W
Inj Date : 29-JUN-2010 15:33
Operator : SRC:  Inst ID: V5.i
Smp Info : 25ML,VHBLK5W,VHBLK5W,52637,
Misc Info :
Comment :
Method : \\Avogadro\Organics\V5.I\100629.B\V5_TVOA1359.m
Meth Date : 30-Jun-2010 12:34 V5.i  Quant Type: ISTD
Cal Date : 07-JUN-2010 13:51  Cal File: V5L9665.D
Als bottle: 39  QC Sample: STORAGEBLANK
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: SOM01.2.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 25/Vo * CpndVariable

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Vo | 25.000 | Sample volume purged (mL) |
| Va | 10.000 | LCS Aliquot volume |
| Cpnd Variable | | Local Compound Variable |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN ( ug/L) | FINAL ( ug/L) |
|---|---|---|---|---|---|---|---|
| $ 79 Vinyl Chloride-d3 | 65 | 2.116 | 2.116 | (0.330) | 221334 | 4.50113 | 4.5 |
| $ 80 Chloroethane-d5 | 69 | 2.569 | 2.557 | (0.401) | 112401 | 4.83697 | 4.8 |
| $ 81 1,1-Dichloroethene-d2 | 65 | 3.394 | 3.382 | (0.529) | 51572 | 4.11036 | 4.1(Q) |
| $ 82 2-Butanone-d5 | 46 | 5.136 | 5.124 | (0.801) | 242394 | 36.9962 | 37(A) |
| $ 83 Chloroform-d | 84 | 5.461 | 5.461 | (0.851) | 184204 | 4.51224 | 4.5(Q) |
| $ 23 1,2-Dichloroethane-d4 | 65 | 5.984 | 5.984 | (0.933) | 76501 | 4.48098 | 4.5 |
| $ 84 Benzene-d6 | 84 | 6.007 | 5.996 | (0.628) | 460505 | 4.61114 | 4.6 |
| * 26 1,4-Difluorobenzene | 114 | 6.414 | 6.414 | (1.000) | 325126 | 5.00000 | |
| $ 85 1,2-Dichloropropane-d6 | 67 | 6.832 | 6.832 | (0.715) | 136680 | 4.02867 | 4.0 |
| $ 33 Toluene-d8 | 98 | 7.959 | 7.959 | (0.832) | 411174 | 4.75377 | 4.8 |
| $ 86 trans-1,3-Dichloropropene-d4 | 79 | 8.226 | 8.226 | (0.860) | 69331 | 4.27911 | 4.3 |
| $ 87 2-Hexanone-d5 | 63 | 8.691 | 8.691 | (0.909) | 162957 | 42.0569 | 42(A) |
| * 42 Chlorobenzene-d5 | 117 | 9.562 | 9.562 | (1.000) | 245859 | 5.00000 | |
| $ 89 1,1,2,2-Tetrachloroethane-d2 | 84 | 11.072 | 11.072 | (1.158) | 50413 | 4.36008 | 4.4 |
| * 78 1,4-Dichlorobenzene-d4 | 152 | 12.327 | 12.327 | (1.000) | 98681 | 5.00000 | |
| $ 90 1,2-Dichlorobenzene-d4 | 152 | 12.791 | 12.791 | (1.038) | 77581 | 4.96990 | 5.0 |

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

Data File: \\Avogadro\Organics\V5.I\100629.B\V5M0211.D
Report Date: 30-Jun-2010 12:55

Mitkem Laboratories

SOM01.0 - Trace Water Volatiles

Data file : \\Avogadro\Organics\V5.I\100629.B\V5M0211.D
Lab Smp Id: VHBLK5W  Client Smp ID: VHBLK5W
Inj Date : 29-JUN-2010 15:33
Operator : SRC:  Inst ID: V5.i
Smp Info : 25ML,VHBLK5W,VHBLK5W,52637,
Misc Info :
Comment :
Method : \\Avogadro\Organics\V5.I\100629.B\V5_TVOA1359.m
Meth Date : 30-Jun-2010 12:34 V5.i  Quant Type: ISTD
Cal Date : 07-JUN-2010 13:51  Cal File: V5L9665.D
Als bottle: 39  QC Sample: STORAGEBLANK
Dil Factor: 1.00000
Integrator: HP RTE  Compound Sublist: SOM01.2.sub
Target Version: 4.14

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

METHOD: CAL. ID: ANALYST:

#5413

Mitkem Laboratories
Volatiles Laboratory

Instrument V5 Injection Log

METHOD: TVOA
ICAL DATE: 6/2/10
ANALYST: ML

BATCH: 100607.B

Start: 07-JUN-10 11:26
End: 07-JUN-10 19:37

Comments:

Standards: IS-VW100601A ___ uL
DMC-VW100601B ___ uL
STD-VW100601C ___ uL
___ uL

Reviewed By: SZ 6/08/10

| FILE | TIME | LAB ID | CLIENT ID | PREP BATCH | MT | BN | INTERNAL STDS DFB | CBZ | DCB | SURROGATES OLC-SOM A | B | C | D | E | F | G | H | I | J | K | L | M | N | DILN | FLG | COMMENTS | pH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V5L9660 | 11:26 | BFBL5 | BFBL5 | | AQ | | | | | | | | | | | | | | | | | | | 1 | | OK | |
| V5L9661 | 11:56 | VSTD005L5 | VSTD005L5 | | AQ | | 100 | 100 | 100 | | | | | | | | | | | | | | | 1 | | OK | |
| V5L9662 | 12:25 | VSTD0.5L5 | VSTD0.5L5 | | AQ | | 100 | 103 | 97 | | | | | | | | | | | | | | | 1 | | OK | |
| V5L9663 | 12:53 | VSTD020L5 | VSTD020L5 | | AQ | | 79 | 85 | 89 | | | | | | | | | | | | | | | 1 | | OK | |
| V5L9664 | 13:22 | VSTD010L5 | VSTD010L5 | | AQ | | 88 | 93 | 91 | | | | | | | | | | | | | | | 1 | | OK | |
| V5L9665 | 13:51 | VSTD001L5 | VSTD001L5 | | AQ | | 102 | 106 | 99 | | | | | | | | | | | | | | | 1 | | OK | |
| V5L9666 | 14:19 | BLK | | | AQ | | 97 | 103 | 108 | | | | | | | | | | | | | | | 1 | | OK, out used | |
| V5L9667 | 14:48 | MB-52124 | VBLKL5 | 52124 | AQ | | 102 | 105 | 102 | | | | | | | | | | | | | | | 1 | | OK | |
| V5L9668 | 15:16 | J0002-01A | MDL-1 | 52124 | AQ | 1 | 94 | 102 | 106 | | | | | | | | | | | | | | | 1 | | OK | |
| V5L9669 | 15:44 | J0002-02A | MDL-2 | 52124 | AQ | 1 | 94 | 104 | 105 | | | | | | | | | | | | | | | 1 | | OK | |
| V5L9670 | 16:13 | J0002-03A | MDL-3 | 52124 | AQ | 1 | 93 | 102 | 105 | | | | | | | | | | | | | | | 1 | | OK (out used) | |
| V5L9671 | 16:42 | J0002-04A | MDL-4 | 52124 | AQ | 1 | 91 | 101 | 102 | | | | | | | | | | | | | | | 1 | | OK | |
| V5L9672 | 17:11 | J0002-05A | MDL-5 | 52124 | AQ | 1 | 94 | 104 | 104 | | | | | | | | | | | | | | | 1 | | OK | |
| V5L9673 | 17:40 | J0002-06A | MDL-6 | 52124 | AQ | 1 | 93 | 102 | 103 | | | * | | | | | | | | | | | | 1 | | OK | |
| V5L9674 | 18:09 | J0002-07A | MDL-7 | 52124 | AQ | 1 | 92 | 103 | 99 | | | | | | | | | | | | | | | 1 | | OK | |
| V5L9675 | 18:38 | J0002-08A | MDL-8 | 52124 | AQ | 1 | 94 | 106 | 103 | | | | | | | | | | | | | | | 1 | | OK | |
| V5L9676 | 19:07 | J1116-02A | X0D80 | 52124 | AQ | 1 | 94 | 95 | 91 | | | | | | | | | | | | | | | 1 | | OK, RE# V05113, 10ml/25ml | 7 |
| V5L9677 | 19:37 | VSTD005M5 | VSTD005M5 | | AQ | | 100 | 100 | 100 | | | | | | | | | | | | | | | 1 | | OK | |

* - Internal Standard or Surrogate outside of control limits
E - One or more target compounds are above the calibration range
R - One or more spike compounds are outside of control limits
T - Sample was injected outside of the 12 hour sequence
D - Surrogates are diluted

WL 6/8/10

Mitkem Laboratories
Volatiles Laboratory

Instrument V5 Injection Log

METHOD: TVOA
ICAL DATE: 6/7/10
ANALYST: WL
BATCH: 100628A.B
Start: 28-JUN-10 22:13
End: 29-JUN-10 09:42

Comments:

Standards: IT-VW100601A ___ uL
DMC-VW100601B ___ uL
STD-VW100601C ___ uL
___ uL

Reviewed By: [illegible]

| FILE | TIME | LAB ID | CLIENT ID | PREP BATCH | MT | BN | INTERNAL STDS DFB | CBZ | DCB | SURROGATES OLC-SOM A | B | C | D | E | F | G | H | I | J | K | L | M | N | DILN | FLG | COMMENTS | pH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V5M0180 | 22:13 | BFB5V | BFB5V | | AQ | | | | | | | | | | | | | | | | | | | 1 | | OK | |
| V5M0181 | 22:42 | VSTD0055V | VSTD0055V | | AQ | | 100 | 100 | 100 | | | | | | | | | | | | | | | 1 | | OK | |
| V5M0182 | 23:11 | MB-52603 | VBLK5V | 52603 | AQ | | 99 | 99 | 107 | | | | | | | | | | | | | | | 1 | | OK | |
| V5M0183 | 23:40 | J1288-01A | F3JJ4 | 52603 | AQ | 1 | 90 | 92 | 97 | * | | | | | | | | | | | | | | 1 | | OK | 7 |
| V5M0184 | 00:08 | J1288-02A | F3JJ5 | 52603 | AQ | 1 | 86 | 89 | 93 | | | | | | | | | | | | | | | 1 | | OK | 7 |
| V5M0185 | 00:37 | J1288-02AMS | F3JJ5MS | 52603 | AQ | 2 | 85 | 85 | 91 | | | | | | | | | | | | | | | 1 | | OK | 7 |
| V5M0186 | 01:06 | J1288-02AMSD | F3JJ5MSD | 52603 | AQ | 3 | 84 | 86 | 91 | | | | | | | | * | | | | | | | 1 | | OK | 7 |
| V5M0187 | 01:35 | J1288-03A | F3JJ6 | 52603 | AQ | 1 | 83 | 84 | 89 | | | | | | | | | | | | | | | 1 | | OK | 7 |
| V5M0188 | 02:05 | J1288-04A | F3JJ7 | 52603 | AQ | 1 | 84 | 85 | 88 | * | | | | | | | * | | | | | | | 1 | | OK | 7 |
| V5M0189 | 02:34 | J1288-05A | F3JJ8 | 52603 | AQ | 1 | 85 | 87 | 89 | | | | | | | | | | | | | | | 1 | | OK | 7 |
| V5M0190 | 03:03 | J1288-06A | F3JK2 | 52603 | AQ | 1 | 82 | 83 | 87 | | | | | | | | * | | | | | | | 1 | E | ICE=41, PRX4 | 7 |
| V5M0191 | 03:31 | J1288-07A | F3JL1 | 52603 | AQ | 1 | 79 | 80 | 86 | | | | | | | | | | | | | | | 1 | | OK, clean | 7 |
| V5M0192 | 04:00 | J1288-08A | F3JL2 | 52603 | AQ | 1 | 76 | 78 | 82 | | | | | | | | | | | | | | | 1 | | OK | 7 |
| V5M0193 | 04:29 | J1288-09A | F3JJ2 | 52603 | AQ | 1 | 77 | 79 | 83 | | | | | | | | | | | | | | | 1 | | OK | 7 |
| V5M0194 | 04:58 | J1288-10A | F3JJ3 | 52603 | AQ | 1 | 77 | 77 | 81 | | | | | | | | | | | | | | | 1 | | OK | 7 |
| V5M0195 | 05:27 | J1288-11A | F3JJ9 | 52603 | AQ | 1 | 77 | 77 | 81 | | | | | | | | | | | | | | | 1 | | OK | 7 |
| V5M0196 | 05:56 | J1288-12A | F3JK0 | 52603 | AQ | 1 | 74 | 77 | 80 | | | | | | | | | | | | | | | 1 | | OK | 7 |
| V5M0197 | 06:25 | J1288-13A | F3JK3 | 52603 | AQ | 1 | 74 | 75 | 78 | | | | | | | | | | | | | | | 1 | | OK | 7 |
| V5M0198 | 06:54 | J1288-14A | F3JK4 | 52603 | AQ | 1 | 74 | 74 | 78 | | | | | | | | | | | | | | | 1 | | OK | 7 |
| V5M0199 | 07:23 | J1288-15A | F3JK5 | 52603 | AQ | 1 | 71 | 72 | 73 | | | | | | | | | | | | | | | 1 | | OK | 7 |
| V5M0200 | 07:52 | J1288-16A | F3JL3 | 52603 | AQ | 1 | 70 | 71 | 74 | | | | | | | | | | | | | | | 1 | | OK | 7 |
| V5M0201 | 08:21 | J1288-17A | F3JK1 | 52603 | AQ | 1 | 73 | 70 | 75 | | | | | | | | | | | | | | | 1 | | OK | 7 |
| V5M0202 | 08:50 | J1288-18A | F3JK6 | 52603 | AQ | 1 | 73 | 75 | 77 | | | | | | | | | | | | | | | 1 | | OK | 7 |
| V5M0203 | 09:42 | VSTD0055W | VSTD0055W | | AQ | | 100 | 100 | 100 | | | | | | | | | | | | | | | 1 | | OK | |

* - Internal Standard or Surrogate outside of control limits
E - One or more target compounds are above the calibration range
R - One or more spike compounds are outside of control limits
T - Sample was injected outside of the 12 hour sequence
D - Surrogates are diluted

WL 6/30/10

6889

METHOD: CAL ID: ANALYST:

INITIAL CAL: IS/SS ID: ARCHIVE:

COMMENTS: ICV ID:

Mitkem Laboratories
Volatiles Laboratory

Instrument V5 Injection Log

METHOD: TVOA
ICAL DATE: 6/7/10

ANALYST: ml

BATCH: 100629.B

Start: 29-JUN-10 09:42
End: 29-JUN-10 16:02

Comments:

Standards: IS-VW100601A ___ uL
DMC-VW100601B ___ uL
STD-VW100601C ___ uL
___ uL

Reviewed By: 6-30-10

| FILE | TIME | LAB ID | CLIENT ID | PREP BATCH | MT | BN | INTERNAL STDS DFB | CBZ | DCB | SURROGATES OLC-SOM A | B | C | D | E | F | G | H | I | J | K | L | M | N | DILN | FLG | COMMENTS | pH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V5M0203 | 09:42 | VSTD0055W | VSTD0055W | | AQ | | 100 | 100 | 100 | | | | | | | | | | | | | | | 1 | | OK | |
| V5M0204 | 10:11 | MB-52637 | VBLK5W | 52637 | AQ | | 104 | 105 | 99 | | | | | | | | | | | | | | | 1 | | OK | |
| V5M0205 | 10:39 | J1288-06ADL | F3JK2DL | 52637 | AQ | 2 | 89 | 90 | 92 | | | | | | | | | | | | | | | 4 | | OK, TCE=11 | 7 |
| V5M0206 | 11:08 | J1288-19A | F3JK7 | 52637 | AQ | 1 | 87 | 86 | 83 | | | | | | | | | | | | | | | 1 | | OK | 7 |
| V5M0207 | 13:37 | J1288-20A | F3JK8 | 52637 | AQ | 1 | 84 | 86 | 81 | | | | | | | | | | | | | | | 1 | | OK | 7 |
| V5M0208 | 14:06 | J1312-01A | F3JK9 | 52637 | AQ | 1 | 89 | 93 | 86 | | | | | | | | | | | | | | | 1 | | OK | 7 |
| V5M0209 | 14:35 | J1312-02A | F3JL0 | 52637 | AQ | 1 | 88 | 87 | 87 | | | | | | | | | | | | | | | 1 | | OK | 7 |
| V5M0210 | 15:04 | J1312-03A | F3JL4 | 52637 | AQ | 1 | 83 | 86 | 85 | | | | | | | | | | | | | | | 1 | | OK | 7 |
| V5M0211 | 15:33 | VHBLK5W | VHBLK5W | 52637 | AQ | | 101 | 100 | 93 | | | | | | | | | | | | | | | 1 | | OK (J1288) (J1312) | |
| V5M0212 | 16:02 | VSTD0055X | VSTD0055X | | AQ | | 100 | 100 | 100 | | | | | | | | | | | | | | | 1 | | OK | |

* - Internal Standard or Surrogate outside of control limits
E - One or more target compounds are above the calibration range
R - One or more spike compounds are outside of control limits
T - Sample was injected outside of the 12 hour sequence
D - Surrogates are diluted

VVL 6/30/10

# MITKEM LABORATORIES: VOLATILE SAMPLES RECEIVING LOGBOOK

| VOA Log-In Date | Workorder | Client ID | Sample Numbers | Relinquished by: | Received by: | Pres. Used | F/R | Returned to R1 |
|---|---|---|---|---|---|---|---|---|
| 6/24/10 | J1308 | VenuTEK | 01 | SN | CAW | H | R10 | |
| | | | 02 | | | 01 UA | R14 | |
| | | | 03 | | SN 6/24 | F ~~F10~~ | F10 | |
| | J1308 | VenuTEK | 03 | | | M | R10 | |
| 6/24/10 | J1296 | EPA | 13-20 | SN | | H | R9 | |
| 6/24/10 | J1306 | EPA | 02,04,06,08,10,12,14 | SN | CAW | US | R9 | |
| 6-25-10 | J1314 | SENTON | 01-10 | [illegible] | | E | RW | |
| | J1283 | SENTON | 06 | [illegible] | | E | RW | |
| | J1318 | EPA | 01, 04 | | ~~C~~ CAW | E | | |
| | J1288 | EPA | ~~01~~ 17-20 | SN | CAW | T un | R4 | |
| | J1312 | EPA | 01-03 | | | T un | R4 | |
| | J1290 | EPA | 22, 23 | | | T | R4 | |
| | J1300 | EPA | 02, 09-12, 15, 16 | | | T | R4 | |
| 6/25/10 | J1300 | EPA | 03-08, 13, 14, 17 | SN | CAW | H | R9 | |

Logbook ID 90.0191-04/10

Reviewed By:

**"Preservative Used" Key**

| | | | | |
|---|---|---|---|---|
| **UA** = Unpreserved Aqueous | **H** = HCL | **A** = Air | **M** = MeOH | **E** = Encore |
| **US** = Unpreserved Soil | **N** = $NaHSO_4$ | | **F** = Freeze | **T** = Trace, HCL |



0091

Mitkem Corporation

VOA Primary Standard Receipt Logbook

| Date | Description, Vendor Name | Catalog #, Lot # | Concentration | Mitkem ID | *Exp. Date | **Date Opened | Analyst |
|---|---|---|---|---|---|---|---|
| 11/10/09 | Ozi SOM - DMCA - Non-GAS | OZ57 Cat # 122032-01 Lot # 146 PY7 | 2000 ppm | VP091110C | 5/23/2012 | 12/15/09 | WL |
| | | | | VP091110D | 5/23/2012 | | WL |
| 5/22/09 | GRO - LCS | Restek Cat # 30081 Lot # A062078 | 2500 PPM | VP090522D | 5/5/2010 | 9/24/09 | WL |
| 8/20/09 | GRO - STD | ULTRA - SCIEN Lot # CC-2681A | 1000 PPM | VP090820C | 08/2010 | 9/29/09 | WL |
| 12/8/09 | PIANO Custom Mix A Supelco | 2120480C LB71929 | 2000 ug/mL | VP091208A | 12/8/11 | | [illegible] |
| 12/8/09 | PIANO Custom Mix B Supelco | 2121058CP LB7220 | 2000 ug/mL | VP091208B | 12/8/11 | | [illegible] |
| 12/8/09 | PIANO Custom Mix C | 2121058C LB7221 | 2000 ug/mL | VP091208C | 12/8/11 | | [illegible] |
| 2/8/10 | Restek SOM (Ketones) | Restek Cat # 30106 Lot # A068500 | 5000 ug/mL | VP100208A | 01/2012 | 2/14/10 | WL |
| | | | | B | | | |
| | | | | C | | | |
| | | | | D | | | |
| | | | | E | | | |
| 2/8/10 | Restek SOM (Ketones) | Restek Cat # 30106 Lot # A068500 | 5000 ug/mL | VP100208 F | 01/2012 | | WL |

* Expiration dates are 2 years for unopened stock solutions and 5 years for neat materials, unless noted otherwise by manufacturer.

** Expiration dates for opened stock solutions are 6 months.

0992

Logbook ID 90.0151-01/07

Reviewed by: NZA 3/8/10

Mitkem Corporation

VOA Primary Standard Receipt Logbook

| Date | Description, Vendor Name | Catalog #, Lot # | Concentration | Mitkem ID | *Exp. Date | **Date Opened | Analyst |
|---|---|---|---|---|---|---|---|
| 7/21/09 | Restek Ketones Mix | Cat 30006 Lot A064679 | 5000 ppm | VP090921 A | 03/2012 | 4/27/09 m | SZ |
| | | | | -B | 03/2012 | 12/24/09 m | |
| | | | | -C | 03/2012 | | |
| 7/21/09 | Restek Ketones Mix | Cat 30006 Lot A064679 | 5000 ppm | VP090921 D | 03/2012 | | SZ |
| 11/05/09 | Custom 9716 Ultra | Cus 9716 Lot CF3257 | 400-2000 ppm | VP091105A-D | 12/2009 | | SZ |
| 11/05/09 | 4-Bromofluorobenzene Ultra | STS-110N Lot CC 1085A | 2000 ppm | VP091105E- | 06/2012 | | SZ |
| | | | | -F | | | |
| | | | | -G | | | |
| | | | | -H | | | |
| | | | | -I | | | |
| | | | | -J | | | |
| | | | | -K | | | |
| 11/05/09 | 4-Bromofluorobenzene | STS-110N Lot CC1085A | 2000 ppm | VP091105 L | 06/2012 | | SZ |
| 11/10/09 | 50M-DMCA-GAS | Oisi Cat # 12 2001-03 Lot # 134383 | 2000 ppm | VP091110 A | 4/21/2011 | 12/15/09 m | m |
| | | | | VP091110 B | 4/21/2011 | | m |

* Expiration dates are 2 years for unopened stock solutions and 5 years for neat materials, unless noted otherwise by manufacturer.

** Expiration dates for opened stock solutions are 6 months.

0093

Logbook ID 90.0151-01/07

Reviewed by: WZA 3/8/10

Mitkem Corporation

VOA Primary Standard Receipt Logbook

| Date | Description, Vendor Name | Catalog #, Lot # | Concentration | Mitkem ID | *Exp. Date | **Date Opened | Analyst |
|---|---|---|---|---|---|---|---|
| 8/07/09 | Ultra Custom Standard | CUS 9716 | 400 - 2000 | SZ 8/12/09 VP090807A | Dec 09 | | SZ |
| 8/07/09 | Quote 072009-773 | Lot CF-3257 | varies | -B | Dec 09 | | |
| | | | | -C | | | |
| 8/17/09 | Ultra Custom Standard Quote 072009-773 | CUS 9716 | 400 - 2000 | VP090817D | Dec 09 | | SZ |
| 9/01/09 | Ultra 2-Chlorobenzotrifluoride | CUS 11178 Lot CF-3643 | 2000 ug/mL | VP090901A | Sep 2010 | 9/01/09 | SZ |
| 9/01/09 | Ultra 4-Chlorobenzotrifluoride | CUS 11179 Lot CF-3642 | 2000 ug/mL | VP090901B | Sep 2011 | 9/01/09 | SZ |
| 9/08/09 | Ultra 4-Bromofluorobenzene (BFB) | STS-110N | 2000 ug/mL | VP090908A | 06/30/12 | | SZ |
| | | | | -B | | | |
| | | | | -C | | | |
| | | | | -D | | | |
| | | | | -E | | | |
| | | | | -F | | | |
| | | | | -G | | | |
| 9/08/09 | Ultra 4-BFB | STS-110N | 2000 ug/mL | VP090908H | 06/30/12 | | SZ |

* Expiration dates are 2 years for unopened stock solutions and 5 years for neat materials, unless noted otherwise by manufacturer.

** Expiration dates for opened stock solutions are 6 months.

0094

Logbook ID 90.0151-01/07

Reviewed by: HZA 3/8/10

Mitkem Corporation

VOA Primary Standard Receipt Logbook

| Date | Description, Vendor Name | Catalog #, Lot # | Concentration | Mitkem ID | *Exp. Date | **Date Opened | Analyst |
|---|---|---|---|---|---|---|---|
| 3/17/09 | VOC Gas Mixture | Ultra DWM-544 Lot# CF-0524 | 2000 ug/mL | VP090317 E | Feb-2012 | 9/23/09 | SZ |
| 3/17/09 | VOC Gas Mixture | Ultra DWM-544 Lot# CF-0524 | 2000 ug/mL | VP090317 F | Feb-2012 | | SZ |
| 5/05/09 | OLC 03.2 VOA Mega-Mix | Restek Cat# 30492 Lot A053750 | 2000 ug/mL | VP090505 A | Jul-2010 | 9/23/09 | SZ |
| 5/05/09 | OLC 03.2 VOA Mega Mix | Restek Cat # 30492 Lot # A053750 | 2000 ug/mL | VP090505 B | Jul-2010 | 7/19/10 | SZ |
| ~~4/22/09~~ | ~~OLM Cat2000~~ | Restek Cat # 30456 Lot # A058174 | ~~2000 ug/ml~~ | ~~VP090422A~~ | ~~Feb-2011~~ | ~~4/24/09~~ | ~~[illegible]~~ |
| ~~5/22/09~~ | ~~Vol synthetic Monitoring Spike solution~~ | ~~CZ-2710~~ 5/5/09 | WL 5/11/09 | primary standard gas | s properties. | not needed here | |
| 5/22/09 | Vol synthetic Monitoring Spiking sol | Lot CZ-2710 Cat# 30005 | 2500 ug/ml | VP090522A | Aug-2011 | 9/23/09 | XD |
| | CLP SOM 01.1 DMC Mix | Lot 146857 | 2000 ug/ml | VP090522B1 | ~~[illegible]~~ | 9/24/09 | XD |
| 5/22/09 | ↓ | Lot 146857 ~~Lot 134363~~ | ↓ | VP090522B1 | 5/23/2010 | 8/15/10 | ↓ |
| 5/22/09 | CLP OLC.03.2 Surr. | Lot# 134387 ~~134387~~ 5/5/09 | 2000 ug/ml | VP090522C1 | 4/21/2011 | 9/23/09 | ↓ |
| 5/22/09 | CLP OLC 03.2 Surr. | Lot# 134387 | 2000 ug/ml | VP090522C2 | 4/21/2011 | 8/15/10 | XD |
| 6/13/09 | SOM-IS | Restek Cat# 30091 Lot# A067184 | 2500 ug/ml | VP090613 A | 3/2014 | 9/23/09 | WL |
| ↓ 6/13/09 | ↓ SOM-IS | Restek Cat# 30091 Lot # A067184 | 2500 ug/ml | VP090613B | 3/2014 | 1/17/10 | WL |

* Expiration dates are 2 years for unopened stock solutions and 5 years for neat materials, unless noted otherwise by manufacturer.

** Expiration dates for opened stock solutions are 6 months.

0095

Logbook ID 90.0151-01/07

Reviewed by: SZ 9/01/09

Mitkem Corporation

VOA Primary Standard Receipt Logbook

| Date | Description, Vendor Name | Catalog #, Lot # | Concentration | Mitkem ID | *Exp. Date | **Date Opened | Analyst |
|---|---|---|---|---|---|---|---|
| 1/19/09 | VOC gas mix | Ultra DWM-544 lot# CE-3325 | 2000ppm | VP090119A | 10/31/2011 | 4/8/09 | HZA |
| 1/19/09 | VOC gas mix | Ultra DWM-544 lot# CE-3325 | 2000 ppm | VP090119B HZA 1/21/09 | 10/31/2011 | | HZA |
| 1/26/09 | 3-chlorobenzotrifluoride | Ultra CUS-10445 lot# CF-0415 | 2000 ppm | VP090127A | ~~1/31/2009~~ 2/28/2011 HZA 1/26/09 | 2/12/09 | |
| ↓ | ↓ | ↓ | ↓ | B | | 5-1-09 | ↓ |
| | | | | C | | | |
| ↓ | ↓ | ↓ | ↓ | D | ↓ | | ↓ |
| 1/27/09 | 3-chlorobenzotrifluoride | Ultra CUS-10445 lot# CF-0415 | 2000 ppm | VP090127E | 2/28/2011 | | HZA |
| 2/3/09 | GRO-ICV (unleaded gasoline) | Ultra AGO-605 lot# CB-1590A | 2500 ppm | VP090203A | 9/31/2012 | | |
| 2/3/09 | VPH STD | Ultra SMA-101 lot# CC-1018A | 1000 ppm | VP090203B | 6/30/2010 | | |
| ↓ | VPH Matrix spike | Ultra SMA-111 lot# CE-3537 | 50 ppm | VP090203C | 11/30/2011 | | ↓ |
| 2/3/09 | 2-chloroethanol | Ultra EPA-1207 CB-0120A | 1000 ppm | VP090203D HZA 2/4/09 | 3/31/2011 | | HZA |
| | | | | | | | |
| | | | HZA 3/11/09 | | | | |

* Expiration dates are 2 years for unopened stock solutions and 5 years for neat materials, unless noted otherwise by manufacturer.

** Expiration dates for opened stock solutions are 6 months.

0096

Logbook ID 90.0151-01/07

Reviewed by: HZA 3/11/09

Mitkem Laboratories, A Division of Spectrum Analytical, Inc.

VOA Working Standard Logbook

| DATE | DESCRIPTION | STOCK ID | STOCK CONC | INITIAL VOL | FINAL VOL | METHANOL LOT # | FINAL CONC | WORKING STD ID | EXP DATE | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| 3/19/10 | 50m-IS | VP090613B | 2500ppm | 160ml | 4ml | 4916L | 100ppm | VW100319A | 4/19/10 | ML |
| | GAS | VP091110A | 2000ppm | 200ml | | | | | | |
| 3/19/10 | 50m-DMC non-gas | VP091110C | 2000ppm | 200ml | 4ml | 4916L | 100ppm | VW100319B | 4/19/10 | ML |
| | DMCB | VW100126D | 5000ppm | 160ml | | | | | | |
| | DMCC | VW100126E | 20000ppm | 400ml | | | | | | |
| | GAS | VP090317E | 2000ppm | 200ml | | | | | | |
| 3/19/10 | 50m-STD JTP | VP090317B | 2000ppm | 200ml | 4ml | 4916L | 100ppm | VW100319C | 4/19/10 | ML |
| | Kerosene | VP090921B | 5000ppm | 160ml | | | | | | |
| | 1,4-DIOX | VW100126F | 20000ppm | 400ml | | | | | | |
| 3/19/10 | 1,2,3-TCB | VP030612A | Neat | 0.4mg | | SZ 3/26/10 | | partial complete | SZ 3/26/10 | |

Logbook ID 90.0152-10/08

Reviewed by : _____



0097

Mitkem Laboratories, A Division of Spectrum Analytical, Inc.

VOA Working Standard Logbook

| DATE | DESCRIPTION | STOCK ID | STOCK CONC | INITIAL VOL | FINAL VOL | METHANOL LOT # | FINAL CONC | WORKING STD ID | EXP DATE | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| 2/24/10 | TVOA - LCS | VP090522A | 2500 ppm | 40 ml | 1 ml | CY840 | 100 ppm | VW100224P | 3/24/10 | ML |
| 3/8/10 | SOM - IS | VP090613B | 2500 ppm | 160 ml | 4 ml | 49162 | 100 ppm | VW100308A | 4/8/10 | ML |
| | GAS | VP091110A | 2000 ppm | 200 ml | | | | | | |
| 3/8/10 | SOM-DMC NonGAS | VP091110C | 2000 ppm | 200 ml | 4 ml | 49162 | 100 ppm | VW100308B | 4/8/10 | ML |
| | DMCB | VW100126D | 5000 ppm | 160 ml | | | | | | |
| | DMCC | VW100126E | 20000 ppm | 400 ml | | | | | | |
| | GAS | VP090317E | 2000 ppm | 200 ml | | | | | | |
| 3/8/10 | SOM-STD STD | VP090505B | 2000 ppm | 200 ml | 4 ml | 49162 | 100 ppm | VW100308C | 4/8/10 | ML |
| | Ketone | VP090921B ML 7/8/10 | 5000 ppm | 160 ml | | | | | | |
| | 1,4-DIOX | VW100126F | 20000 ppm | 400 ml | | | | | | |
| 3/8/10 | TVOA - ISP | VP060913B | Neat | 4 mg | 4 ml | 49162 | 20 ppm | VW100308P | 4/8/10 | ML |
| | Hex | VP060913A | Neat | 80 mg | | | | | | |
| ← | | Partial Complete | | 3/8/10 | | | | | | → |
| | | | | | | | | | | |
| 3/11/10 | SOM PM IS | VW100219A | 100 ppm | 80 ml | 4 ml | 49162 | 2 ppm | VW100311A | 4/11/10 | ML |
| 3/11/10 | SOM PM DMC | VW100219B | 100 ppm | 80 ml | 4 ml | 49162 | 2 ppm | VW100311B | 4/11/10 | ML |
| 3/11/10 | SOM PM STD | VW100219C | 100 ppm | 80 ml | 4 ml | 49162 | 2 ppm | VW100311C | 4/11/10 | ML |
| 3/12/10 | TVOA - ADP | VP081007A | 250 ppm | 32 ml | 4 ml | 49162 | 20 ppm | VW100312A | 4/12/10 | ML |
| | | | | | | | | | | |

Logbook ID 90.0152-10/08

Reviewed by : SSL 3/26/10



9998

Mitkem Laboratories, A Division of Spectrum Analytical, Inc.

VOA Working Standard Logbook

| DATE | DESCRIPTION | | STOCK ID | STOCK CONC | INITIAL VOL | FINAL VOL | METHANOL LOT # | FINAL CONC | WORKING STD ID | EXP DATE | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2/19/10 | SOM-IS | | VP090013B | 2500 ppm | 160 ml ~~250 ml~~ 3/19/10 | 4 ml | CY840 | 100 ppm | VW100219A | 3/19/10 | ML |
| | | GAS | VP091110A | 2000 ppm | 200 ml | | | | | | |
| 2/19/10 | SOM-DMC | Non-GAS | VP091110 B C 3/19/10 | 2000 ppm | 200 ml | 4 ml | CY840 | 100 ppm | VW100219B | 3/19/10 | ML |
| | | DMCB | VW100126D | 5000 ppm | 160 ml | | | | | | |
| | | DMCC | VW100126E | 20000 ppm | 400 ml | | | | | | |
| | | GAS | VP090317E | 2000 ppm | 200 ml | | | | | | |
| 2/19/10 | SOM-STD | STD | VP090505B | 2000 ppm | 200 ml | 4 ml | CY840 | 100 ppm | VW100219C | 3/19/10 | ML |
| | | Ketone | VP090921B | 5000 ppm | 160 ml | | | | | | |
| | | 1,4-DIOX | VW100126F | 20000 ppm | 400 ml | | | | | | |
| | | Hexane | VP060913A | Neat | 0.4 mg | | | | | | |
| 2/19/10 | SOM-APP | Isp-propanol | VP060913B | Neat | 20 mg | 4 ml | CY840 | 100 ppm | VW100219D | 3/19/10 | ML |
| | | 1,3,5-TCB | VP080612A | Neat | 0.4 mg | | | | | | |
| 2/24/10 | TVOA-IS | | VP090613B | 2500 ppm | 32 ml | 4 ml | CY840 | 20 ppm | VW100224A | 3/24/10 | ML |
| | | GAS | VP091110A | 2000 ppm | 40 ml | | | | | | |
| 2/24/10 | TVOA-DMC | Non GAS | VP091110 B C 3/19/10 | 2000 ppm | 40 ml | 4 ml | CY840 | 20 ppm | VW100224B | 3/24/10 | ML |
| | | DMCB | VW100126D | 5000 ppm | 160 ml | | | | | | |
| | | GAS | VP090317E | 2000 ppm | 40 ml | | | | | | |
| 2/24/10 | TVOA-STD | STD | VP090505B | 2000 ppm | 40 ml | 4 ml | CY840 | 20 ppm | VW100224C | 3/24/10 | ML |
| | | Ketone | VP090921B | 5000 ppm | 160 ml | | | | | | |

Logbook ID 90.0152-10/08

Reviewed by : HZA 3/8/10



0099

Mitkem Laboratories, A Division of Spectrum Analytical, Inc.

VOA Working Standard Logbook

| DATE | DESCRIPTION | STOCK ID | STOCK CONC | INITIAL VOL | FINAL VOL | METHANOL LOT # | FINAL CONC | WORKING STD ID | EXP DATE | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| 1/26/10 | 50M-PMCB (STOCK) | VP060310B | Neat | 20mg | 4ml | CY640 | 5000ppm | VW100126D | 7/26/10 | WL |
| | WL 1/26/10 | VP060310D | Neat | 20mg | | | WL 1/26/10 | | | |
| 1/26/10 | 50M-~~PMCE~~ 1,4-DIOX (STOCK) | VP060608B | Neat | 80mg | 4ml | CY640 | ~~25000~~ 20000 ppm | VW100126F | 7/26/10 | WL |
| | WL 1/26/10 ~~PMC~~ GAS | VP090317E | 2000ppm | 200ml | | | | | | |
| 1/26/10 | 50M-STD NON-GAS | VP090505A | 2000ppm | 200ml | 4ml | CY640 | 100ppm | VW100126C | 2/26/10 | WL |
| | STD | VP090921A | 5000ppm | 160ml | | | | | | |
| | 1,4-DIOX | VW100126F | 20000ppm | 400ml | | | | | | |
| 1/27/10 | TVOA-APP | VP081114A | 2500ppm | 32ml | 4ml | CY640 | 20ppm | VW100127A | 2/27/10 | WL |
| 1/31/10 | 50M STM IS | VW100126A | 100ppm | 80ml | 4ml | CY640 | 2ppm | VW100131A | 3/1/10 | WL |
| 1/31/10 | 50M STM PMC | VW100126B | 100ppm | 80ml | 4ml | CY640 | 2ppm | VW100131B | 3/1/10 | WL |
| 1/31/10 | 50M STM STD | VW100126C | 100ppm | 80ml | 4ml | CY640 | 2ppm | VW100131C | 3/1/10 | WL |
| 2/3/10 | TVOA-Irp | VP060913B | Neat | 4mg | 4ml | CY640 | 20ppm | VW100203A | 3/3/10 | WL |
| | Hex | VP060913A | Neat | 0.08mg | | | | | | |
| 2/3/10 | 50M-Hex | VP060913A | Neat | 0.4mg | 4ml | CY640 | 100ppm | VW100203B | 3/3/10 | WL |
| | Irp | VP060913B | Neat | 20mg | | | | | | |
| 2/10/10 | OLM-IS | VP080915A | 2500ppm | 40ml | 1ml | CY840 | 100ppm | VW100210A | 3/10/10 | WL |
| | GAS | VP090317E | 2000ppm | 50ml | | | | | | |
| 2/10/10 | OLM-STD Cl2 | VP081011B | 2000ppm | 5ml | 1ml | CY840 | 100ppm | VW100210C | 3/10/10 | WL |
| | Kalyte | VP090921A | 5000ppm | 20ml | | | | | | |

Logbook ID 90.0152-10/08

Reviewed by: HZA 3/8/10



0199

Mitkem Corporation

VOA Primary Standard Receipt Logbook

| Date | Description, Vendor Name | Catalog #, Lot # | Concentration | Mitkem ID | *Exp. Date | **Date Opened | Analyst |
|---|---|---|---|---|---|---|---|
| 11/10/09 | 0251 5mM - DMCA - Na-GAT | 0257 Cat # 122072-01 Lot # 146 YY7 | 2000 ppm | VP091110C | 5/23/2011 | 12/15/09 | WL |
| | | | | VP091110P | 5/23/2012 | | WL |
| 5/22/09 | GRO_LCS | Restek Cat # 30081 Lot # A062078 | 2500 PPM | VP090522D | 5/1/2010 | 9/29/09 | WL |
| 8/20/09 | GRO_STD | ULTRA_SCIEN Lot # CC-2681A | 1000 PPM | VP090820C | 08/2010 | 9/29/09 | WL |
| 2/8/09 | PIANO Custom Mix A Supelco | 212048 0C LB 71929 | 2000 mg/L | VP091208A | 12/8/11 | | [illegible] |
| 12/8/09 | PIANO Custom Mix B Supelco | 212 1058Cp LB7220 | 2000 mg/L | VP091208B | 12/8/11 | | [illegible] |
| 12/8/09 | PIANO Custom Mix C | 212 10088 LB7221 | 2000 mg/L | VP091208C | 12/8/11 | | [illegible] |
| 2/8/10 | Restek 5mM (Ketones) | Restek Cat # 30006 Lot # A068300 | 5000 mg/mL | VP100208A | 09/2012 | 2/14/10 | WL |
| | | | | B | | | |
| | | | | C | | | |
| | | | | D | | | |
| | | | | E | | | |
| 2/8/10 | Restek 5mM (Ketones) | Restek Cat # 30006 Lot # A068300 | 5000 mg/mL | VP100208F | 09/2012 | | WL |

* Expiration dates are 2 years for unopened stock solutions and 5 years for neat materials, unless noted otherwise by manufacturer.

** Expiration dates for opened stock solutions are 6 months.

0191

Logbook ID 90.0151-01/07

Reviewed by: NZA 3/8/10

FedEx Express US Airbill 8705 3693 3856 0200 Form ID No. FedEx Retrieval Copy

**1 From**

Date 6/24 Sender's FedEx Account Number 352978787

Sender's Name April Palmie Ph: 512-239-4152

Company TCEQ

Address 12100 Park 35 Circle MC-136 Austin, TX 78753 Fex Ex Acct: 3529 7878 7

Dept./Floor/Suite/Room

City State ZIP

**2 Your Internal Billing Reference** 70848

**3 To**

Recipient's Name Dawne Smarte Phone: 401-732-3400

Company Mitkem Corp. - MITKEM

Address 175 Metro Center Blvd. Warwick, RI 02886

We cannot deliver to P.O. boxes

HOLD Saturday at FedEx location address below. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Dept./Floor/Suite/Room

Address

Print FedEx location address here if a HOLD option is selected.

City State ZIP

Gqual Hunt 6/25/10

8705 3693 3856

**4a Express Package Service** * To most locations. *Packages up to 150 lbs.*

1 [X] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

5 [ ] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

6 [ ] FedEx First Overnight — Earliest next business morning delivery to select locations.* Saturday Delivery NOT available.

3 [ ] FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

20 [ ] FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

**4b Express Freight Service** ** To most locations. *Packages over 150 lbs.*

7 [ ] FedEx 1Day Freight — Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

FedEx 1Day Freight Booking No.

8 [ ] FedEx 2Day Freight — Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

83 [ ] FedEx 3Day Freight — Third business day.** Saturday Delivery NOT available.

**5 Packaging** * Declared value limit $500.

6 [ ] FedEx Envelope* 2 [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak. 3 [ ] FedEx Box 4 [ ] FedEx Tube 1 [X] Other

**6 Special Handling and Delivery Signature Options**

3 [ ] **SATURDAY DELIVERY**

[X] No Signature Required — Package may be left without obtaining a signature for delivery.

10 [ ] Direct Signature — Someone at recipient's address may sign for delivery. *Fee applies.*

34 [ ] Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. *Fee applies.*

**Does this shipment contain dangerous goods?**

One box must be checked.

[X] No

4 [ ] Yes — As per attached Shipper's Declaration.

[ ] Yes — Shipper's Declaration not required.

6 [ ] Dry Ice — Dry ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

[ ] Cargo Aircraft Only

**7 Payment** *Bill to:*

Enter FedEx Acct. No. or Credit Card No. below.

Obtain Recip. Acct. No. [ ]

1 [X] Sender — Acct. No. in Section 1 will be billed. 2 [ ] Recipient 3 [ ] Third Party 4 [ ] Credit Card 5 [ ] Cash/Check

Total Packages 1 Total Weight 54 lbs. Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See the current FedEx Service Guide for details.

554

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fedex.com 1.800.GoFedEx 1.800.463.3339

fedex.com 1.800.GoFedEx 1.800.463.3339

Case 40275

SDG F3JK9

**COPY**

**Original Documents Are Included In CSF** F3JJ4

**Signed:** AGH **Date:** 6/25/10

0102

*Contract Laboratory Program*

# Sample Delivery Group (SDG)
## Cover Sheet

SDG Number F3JK9

| | | | |
|---|---|---|---|
| Laboratory Name | Mitkem Laboratories | Lab Code | MITKEM |
| Contract No. | EP-W-05-030 | Case No. | 40275 |
| Analysis Price | $437 | SDG Turnaround | 7 days |

EPA Sample Numbers in SDG (Listed in Numerical Order)

| | | | |
|---|---|---|---|
| 01) F3JK9 | | | |
| 02) F3JL0 | | | |
| 03) F3JL4 | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| First Sample in SDG | Last Sample in SDG |
|---|---|
| F3JK9 | F3JL4 |
| **First Sample Receipt Date** | **Last Sample Receipt Date** |
| 06/25/2010 | 06/25/2010 |

**Note:** There are a maximum of 20 field samples [excluding Performance Evaluation (PE) samples in an SDG. Attach the TR/COC Records to this form in alphanumeric order (the order listed above on this form).

Signature Agnes R Huntley Date 06/25/2010

# USEPA Contract Laboratory Program
# Organic Traffic Report & Chain of Custody Record

| | |
|---|---|
| Case No: | 40275 |
| DAS No: | |
| SDG No: | F3JK9 |

L

1

| | |
|---|---|
| Date Shipped: | 6/24/2010 |
| Carrier Name: | FedEx |
| Airbill: | 870536933856 |
| Shipped to: | Mitkem Corporation<br>175 Metro Center Blvd.<br>Warwick RI 02886<br>(401) 732-3400 |

**Chain of Custody Record**

Sampler Signature: Shelley Stratmann

| Relinquished By | (Date / Time) | Received By | (Date / Time) |
|---|---|---|---|
| 1 Gary Hazlewood | (6-24-10/1330 Hrs) | Shirley Ng | 6/25/10 8:56 |
| 2 | | | |
| 3 | | | |
| 4 | | | |

**For Lab Use Only**

| | |
|---|---|
| Lab Contract No: | EP-W-05-030 |
| Unit Price: | $437 |
| Transfer To: | — |
| Lab Contract No: | — |
| Unit Price: | — |

| J1288 | ORGANIC SAMPLE No. | MATRIX/ SAMPLER | CONC/ TYPE | ANALYSIS/ TURNAROUND | TAG No./ PRESERVATIVE/ Bottles | STATION LOCATION | SAMPLE COLLECT DATE/TIME | | INORGANIC SAMPLE No. | FOR LAB USE ONLY Sample Condition On Receipt |
|---|---|---|---|---|---|---|---|---|---|---|
| 17 | F3JK1 | Ground Water/ Shelley Stratmann | L/G | VOA (5/7) | 6-345245 (Ice Only), 6-345246 (Ice Only), 6-345247 (Ice Only) (3) | GW-40 | S: 6/24/2010 | 10:00 | MF3JK1 | |
| 18 | F3JK6 | Ground Water/ Shelley Stratmann | L/G | VOA (5/7) | 6-345265 (Ice Only), 6-345266 (Ice Only), 6-345267 (Ice Only) (3) | GW-45 | S: 6/24/2010 | 8:58 | MF3JK6 | |
| 19 | F3JK7 | Ground Water/ Shelley Stratmann | L/G | VOA (5/7) | 6-345269 (Ice Only), 6-345270 (Ice Only), 6-345271 (Ice Only) (3) | GW-46 | S: 6/24/2010 | 8:45 | MF3JK7 | |
| 20 | F3JK8 | Ground Water/ Shelley Stratmann | L/G | VOA (5/7) | 6-345273 (Ice Only), 6-345274 (Ice Only), 6-345275 (Ice Only) (3) | GW-47 | S: 6/24/2010 | 10:32 | MF3JK8 | |
| 01 | F3JK9 | Ground Water/ Shelley Stratmann | L/G | VOA (5/7) | 6-345277 (Ice Only), 6-345278 (Ice Only), 6-345279 (Ice Only) (3) | GW-48 | S: 6/24/2010 | 11:20 | MF3JK9 | Good |
| 02 | F3JL0 | Ground Water/ Shelley Stratmann | L/G | VOA (5/7) | 6-345281 (Ice Only), 6-345282 (Ice Only), 6-345283 (Ice Only) (3) | GW-49 | S: 6/24/2010 | 8:18 | MF3JL0 | Good |
| 03 | F3JL4 | Ground Water/ Shelley Stratmann | L/G | VOA (5/7) | 6-345294 (Ice Only), 6-345295 (Ice Only), 6-345296 (Ice Only) (3) | FB-03 | S: 6/24/2010 | 9:02 | | Good |

SDG - Final Sample

**COPY**
**Original Documents Are Included in CSF** F3JJ4
**Signed:** AH **Date:** 6/25/10

| Shipment for Case Complete?Y | Sample(s) to be used for laboratory QC: | Additional Sampler Signature(s): | Cooler Temperature Upon Receipt: 3° C | Chain of Custody Seal Number: |
|---|---|---|---|---|
| Analysis Key: VOA = CLP TCL Volatiles | Concentration: L = Low, M = Low/Medium, H = High | Type/Designate: Composite = C, Grab = G | Custody Seal Intact? Y | Shipment Iced? Y |

**TR Number: 6-043013577-062410-0002**

LABORATORY COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.
Send Copy to: Sample Management Office, Attn: Heather Bauer, CSC, 15000 Conference Center Dr., Chantilly, VA 20151-3819; Phone 703/818-4200; Fax 703/818-4602

# WorkOrder: J1312

*06/25/2010 13:24*

# Mitkem Laboratories

**Client ID:** EPAINV
**Project:** SOM Region VI 7day TAT
**WO Name:** SOM Region VI 7day TAT
**Location:** SOM_VI_7,
**Comments:** PDF Required

**Case:** 40275
**SDG:** F3JK9
**PO:** EP-W-05-030

**HC Due:** 07/01/10
**Fax Due:**
**Fax Report:** ☐

**Report Level:** CLP_REPORT
**Special Program:**
**EDD:** SOM_SEDD

| Lab Samp ID | Client Sample ID | Collection Date | Date Recv'd | Matrix | Test Code | Samp / Lab Test Comments | HF | HT | MS | SEL | Storage |
|---|---|---|---|---|---|---|---|---|---|---|---|
| J1312-01A | F3JK9 | 06/24/2010 11:20 | 06/25/2010 | Aqueous | SOM1.2_VOA_TRACE_W | / | | | | | VOA |
| J1312-02A | F3JL0 | 06/24/2010 08:18 | 06/25/2010 | Aqueous | SOM1.2_VOA_TRACE_W | / | | | | | VOA |
| J1312-03A | F3JL4 | 06/24/2010 09:02 | 06/25/2010 | Aqueous | SOM1.2_VOA_TRACE_W | / | | | | | VOA |

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold

Lab Client Rep: Agnes R Ng

SAMPLE LOG-IN SHEET
FORM DC-1

| | | |
|---|---|---|
| Lab Name Mitkem Laboratories | | Page 1 of 1 |
| Received By (Print Name) | Shirley Ng | Log-in Date 6/25/10 |
| Received By (Signature) | Shirley Ng | |
| Case Number 40275 | Sample Delivery Group No. F3JK9 | Mod. Ref. No. |

Remarks: (1) Please see associated sample/extract transfer logbook pages submitted with this data package.

| | | EPA Sample # | Corresponding Sample Tag # | Corresponding Assigned Lab # | Remarks: Condition of Sample Shipment, etc. |
|---|---|---|---|---|---|
| 1. Custody Seal(s) | Present/Absent* Intact/Broken | F3JK9 | 6-345277 → 6-345279 | J1312-01 | Good |
| 2. Custody Seal Nos. | NA — | F3JL0 | 6-345281 → 6-345283 | J1312-02 | Good |
| 3. Traffic Reports/ Chain of Custody Records (TR/COCs) or Packing Lists | Present/Absent* | F3JL4 | 6-345294 → 6-345296 | J1312-03 | Good |
| 4. Airbill | Airbill/Sticker Present/Absent* | | | | |
| 5. Airbill No. | FedEx 870536933856 | | | | |
| 6. Sample Tags | Present/Absent* | | | | |
| Sample Tag Numbers | Listed/Not Listed on Chain-of-Custody | | | | |
| 7. Sample Condition | Intact/Broken*/ Leaking | | | | |
| 8. Cooler Temperature Indicator Bottle | Present/Absent | | | | |
| 9. Cooler Temperature | 3.0°C | | | | |
| 10. Does information on TR/COCs and sample tags agree? | Yes/No* | | | | |
| 11. Date Received at Laboratory | 6/25/10 | | | | |
| 12. Time Received | 8:56 | | | | |

SN 6/25/10

| Sample Transfer | |
|---|---|
| Fraction (1) TVOA / VOA | Fraction (1) SVOA/Pest/Aroc |
| Area # VOA Lab | Area # |
| By SN | By |
| On 6/25/10 | On |

* Contact SMO and attach record of resolution.

| | | | |
|---|---|---|---|
| Reviewed By | ARH | Logbook No. | |
| Date | 6/25/10 | Logbook Page No. | |

SOM01.2 (4/2007)

## Agnes Huntley [Mitkem]

**From:** Blackmon, Jacqueline [jblackmon3@fedcsc.com]
**Sent:** Wednesday, June 23, 2010 1:41 PM
**To:** Agnes Huntley [Mitkem]; Dawne Smart [Mitkem]
**Cc:** Marvelyn Humphrey; Mahmoud Elfeky; Myra Perez; Ray Flores
**Subject:** Region 06 | Case 40275 | Lab MITKEM | Issue Discrepancies with tags, jars, and/or TR/COC | FINAL

Agnes,

***Summary Start***
Issue: The TR/COC lists the analysis as VOA, however per scheduling the analysis is for TVOA. The laboratory has logged in the samples for TVOA analysis.
Resolution: In accordance with previous direction from Region 6, the laboratory will note the issue in the SDG Narrative, perform the analyses as indicated on the Scheduling Notification Form, and proceed with the analysis of the samples.
***Summary End***

Please let me know if you have any questions or problems. To waive any defect(s) associated with this issue, please contact your PO.
Thanks,
Jackie Blackmon
Environmental Coordinator- Regions 6 and 9
CSC

15000 Conference Center Drive, Chantilly VA 20151
Civil Division | office phone 703-818-4184 | fax 703-818-4601 | jblackmon3@fedcsc.com | www.csc.com

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**From:** Agnes Huntley [Mitkem] [mailto:agnes_ng@mitkem.com]
**Sent:** Wednesday, June 23, 2010 1:28 PM
**To:** Blackmon, Jacqueline
**Subject:** Case 40275 SDG F3JJ4

Hi Jackie

The TR/COC lists VOA as the analysis. This case was scheduled for TVOA. The laboratory has logged in the samples for TVOA analysis. Is this acceptable to the Region?

Thank you,
Agnes

Agnes Huntley
CLP Project Manager
Mitkem Laboratories
A Division of Spectrum Analytical
Featuring Hanibal Technology
(P) 401-732-3400
(F) 401-732-3499
**********

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## Agnes Huntley [Mitkem]

**From:** Blackmon, Jacqueline [jblackmon3@fedcsc.com]
**Sent:** Friday, June 25, 2010 1:25 PM
**To:** Agnes Huntley [Mitkem]; Dawne Smart [Mitkem]
**Cc:** Marvelyn Humphrey; Mahmoud Elfeky; Myra Perez; Ray Flores
**Subject:** Region 06 | Case 40275 | Lab MITKEM | SDG F3JK9 | Issue Insufficient volume | FINAL
**Attachments:** J1288_SDG Coversheet & TRs.pdf; Case 40275.pdf

Agnes,

***Summary Start***
Issue: Samples F3JK9, F3JL0 and F3JL4 are in SDG F3JK9. The attached TR/COC does not designate a sample for laboratory QC; however per scheduling, laboratory QC is required for TVOA analysis. The laboratory only received three VOA vials for each sample and is stating that this is insufficient sample volume for TVOA laboratory QC. Please advise if laboratory QC should be canceled for SDG F3JK9.
Resolution: Per Region 6, MS/MSD analysis will not be required for the three samples in SDG F3JK9. The laboratory should note the issue in the SDG Narrative and proceed with the analyses of the samples.
***Summary End***

Please let me know if you have any questions or problems. To waive any defect(s) associated with this issue, please contact your PO.
Thanks,
Jackie Blackmon
Environmental Coordinator- Regions 6 and 9
CSC

15000 Conference Center Drive, Chantilly VA 20151
Civil Division | office phone 703-818-4184 | fax 703-818-4601 | jblackmon3@fedcsc.com | www.csc.com

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**From:** Flores.Raymond@epamail.epa.gov [mailto:Flores.Raymond@epamail.epa.gov]
**Sent:** Friday, June 25, 2010 1:12 PM
**To:** Blackmon, Jacqueline
**Cc:** Elfeky.Mahmoud@epamail.epa.gov; Perez.Myra@epamail.epa.gov
**Subject:** Re: FW: Region 06 | Case 40275 | Lab MITKEM | SDG F3JK9 | Issue Insufficient volume

Jackie,

For the 3 samples in SDG F3JK9, an MS/MSD analysis will not be required. The lab should note the issue in the narrative and proceed with the analyses.

Raymond A. Flores
USEPA Region 6
Superfund CLP Project Officer
SDWA Lab Certification Officer
281-983-2139

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**FW: Region 06 | Case 40275 | Lab MITKEM | SDG F3JK9 | Issue Insufficient volume**

**Blackmon, Jacqueline** to: Myra Perez 06/25/2010 11:05 AM

Cc: Mahmoud Elfeky, Raymond Flores

---

Myra,

Please find all of the TR/COCs for this Case attached.

Please let me know if you need any additional information.
Thanks,
Jackie Blackmon
Environmental Coordinator- Regions 6 and 9
CSC

15000 Conference Center Drive, Chantilly VA 20151
Civil Division | office phone 703-818-4184 | fax 703-818-4601 |. jblackmon3@fedcsc.com | www.csc.com

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**From:** Agnes Huntley [Mitkem] [mailto:agnes_ng@mitkem.com]
**Sent:** Friday, June 25, 2010 12:58 PM
**To:** Blackmon, Jacqueline
**Subject:** RE: Region 06 | Case 40275 | Lab MITKEM | SDG F3JK9 | Issue Insufficient volume

Hi Jackie,

Attached are the TR/COC for the first SDG.

Agnes

---

**From:** Blackmon, Jacqueline [mailto:jblackmon3@fedcsc.com]
**Sent:** Friday, June 25, 2010 12:54 PM
**To:** Agnes Huntley [Mitkem]; Dawne Smart [Mitkem]
**Subject:** FW: Region 06 | Case 40275 | Lab MITKEM | SDG F3JK9 | Issue Insufficient volume
Hi Agnes,

The Region has stated that there should only be a total of 20 samples that shipped thus far for this Case, and therefore an additional SDG should not be required. The Region would like to know if you could please provide a copy of all of the TR/COCs received for this Case.

Thanks,
Jackie Blackmon
Environmental Coordinator- Regions 6 and 9
CSC

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Civil Division | office phone 703-818-4184 | fax 703-818-4601 | jblackmon3@fedcsc.com | www.csc.com

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6/25/10 at 12:40pm Phone conversation between Jackie Blackmon, SMO, and Myra Perez, Region 6 RSCC. Myra stated that the sampler has indicated that a total of 20 samples were shipped for Case 40275 and therefore additional QC should not be required. Myra has requested all of the TR/COCs for this Case.

**From:** Blackmon, Jacqueline
**Sent:** Friday, June 25, 2010 11:39 AM
**To:** 'Ray Flores'
**Cc:** 'Mahmoud Elfeky'; 'Myra Perez'
**Subject:** Region 06 | Case 40275 | Lab MITKEM | SDG F3JK9 | Issue Insufficient volume

Ray/Myra,
MITKEM is reporting the following issue for Case 40275. Please advise on how the laboratory is to proceed.

Issue: Samples F3JK9, F3JL0 and F3JL4 are in SDG F3JK9. The attached TR/COC does not designate a sample for laboratory QC; however per scheduling, laboratory QC is required for TVOA analysis. The laboratory only received three VOA vials for each sample and is stating that this is insufficient sample volume for TVOA laboratory QC. Please advise if laboratory QC should be canceled for SDG F3JK9.

Please let me know if you have any questions or problems.
Thanks,
Jackie Blackmon
Environmental Coordinator- Regions 6 and 9
CSC

15000 Conference Center Drive, Chantilly VA 20151
Civil Division | office phone 703-818-4184 | fax 703-818-4601 | jblackmon3@fedcsc.com | www.csc.com

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**From:** Agnes Huntley [Mitkem] [mailto:agnes_ng@mitkem.com]
**Sent:** Friday, June 25, 2010 11:24 AM
**To:** Blackmon, Jacqueline
**Subject:** Case 40275 SDG F3JK9

Hi Jackie,

I have attached the TR/COC.

Samples F3JK9, F3JL0 and F3JL4 are in SDG F3JK9. Scheduling notes that laboratory QC is required for the TVOA analysis. The TR/COC does not designate a sample for laboratory QC. The laboratory only received three VOA vials for each sample. This is insufficient sample volume for TVOA laboratory QC. How does the Region want the

laboratory to proceed?

Thank you,
Agnes

Agnes Huntley
CLP Project Manager
Mitkem Laboratories
A Division of Spectrum Analytical,
Featuring Hanibal Technology
(P) 401-732-3400
(F) 401-732-3499
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