# INORGANIC/ORGANIC COMPLETE SDG FILE (CSF) INVENTORY CHECK LIST

Case No. — SDG No. 010 Date Rec'd 8 / 14 / 91

Site Name Cedar Falls Fm Act. No. DSX72 SAS No. 65686

EPA Lab ID KC Region: VII

CLP Lab ID AATS

CLP Lab Location: Broken Arrow, OK

Re-Submitted CSF? Yes__ No ✓

**COMMENTS:**

| ORIGINALS | YES | NO | N/A |
|---|---|---|---|
| **CUSTODY SEALS** | | | |
| 1. Present on package? | ✓ | | |
| 2. Intact upon receipt? | ✓ | | |
| **FORM DC-2** | | | |
| 3. Numbering scheme accurate? | | | ✓ |
| 4. Are enclosed documents listed? | | | ✓ |
| 5. Are listed documents enclosed? | | | ✓ |
| **FORM DC-1** | | | |
| 6. Present? | | | ✓ |
| 7. Complete? | | | ✓ |
| 8. Accurate? | | | ✓ |
| **CHAIN-OF-CUSTODY RECORD(s)** | | | |
| 9. Signed? | | ✓ | |
| 10. Dated? | | ✓ | |
| **TRAFFIC REPORTS (s) PACKING LISTS (s)** | | | |
| 11. Signed? | | ✓ | |
| 12. Dated? | | ✓ | |
| **AIRBILLS/AIRBILL STICKER** | | | |
| 13. Present? | | | ✓ |
| 14. Signed? | | | ✓ |
| 15. Dated? | | | ✓ |
| **SAMPLE TAGS** | | | |
| 16. Does DC-1 list tags as being included? | | | ✓ |
| 17. Present? | | | ✓ |
| **OTHER DOCUMENTS** | | | |
| 18. Complete? | | | ✓ |
| 19. Legible? | | ✓ | |
| 20. Original? | | ✓ | |
| 20a. If "NO," does the copy indicate where original documents are located? | | ✓ | |

Audited by: [signature] Signature — NICOLE ROBLEZ RSCC Print Name and Title — 8/14/91 Date

Additional comments:

55

30216188

Superfund

OK-00

American Analytical Technical Services
1700 West Albany, Suite C / Broken Arrow, OK 74012
918-251-2858

# CASE NARRATIVE

August 13, 1991

CASE NO.: SAS 6568G

SAMPLE NOS.: 6568G-010, 6568G-012 thru 6568G-016, 6568G-027 thru 6568G-030

SDG NO.: -010

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## VOLATILE FRACTION

No unusual problems were encountered during the analyses.

## SEMIVOLATILE FRACTION

No unusual problems were encountered during the analyses.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the LaboratoryManager, or his designee, as verified by the following signature.

Jayant Shringarpure, Ph.D. Date 8-13-91
Program Manager

AMERICAN ANALYTICAL TECHNICAL SERVICES

SAS 6568G

SDG -010

DSX72

Cedar Falls Fmgr

RECEIVED 8/14/91

EPA United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

# Special Analytical Service

Packing List/Chain of Custody

SAS No. 65636

0002

| | | | | | |
|---|---|---|---|---|---|
| 1. Sample Description (Enter in Column A) 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil 7. Waste 8. Other (Specify) | 2. Preservative (Enter in Column C) 1. HCl 2. HNO3 3. $NAHSO_4$ 4. $H_2SO_4$ 5. NAOH 6. Other (SAS) (Specify) 7. Ice only N. Not preserved | 3. Region No. 01 | Sampling Co. | 5. Date Shipped 7/31/91 | Carrier Fed. Exp. |
| | | Sampler (Name) Bob Aston | | Airbill Number 065792 0752 | |
| | | Sampler Signature Bob Aston | | 6. Ship To AATS | |
| | | 4. Type of Activity: Lead SF, PRP, ST, FED; Pre-Remedial PA, SSI, LSI; Remedial RIFS, RD, RA, O&M, NPLD; Removal CLEM, REMA, REM, OIL, UST | | | |

| | |
|---|---|
| 7. Date Received - Received by | 8/1/91 MSherman |
| Laboratory | AATS |
| 8. Transfer to | Date Received |
| Received by | |
| Laboratory | |

| Sample Numbers | A Matrix Enter from Box 1 | B Conc Low Med High | C Preservative Used from Box 2 | D Analysis | E Sample used for spike and/or duplicate | F Regional Specific Tracking Number or Tag Number | G Station Location Identifier | H Mo/Day/Year/Time Sample Collection | I Sampler Initials | J Sample Condition On Receipt |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. 65686-001 | 5 | L | 7 | VOA and -14 Ag 3H | | DS#92-001 | 7/30/91 09:30 | 15 | BA | Intact |
| 2. 002 | | | | | | 002 | 1SS | 7/30/91 9:50 | | |
| 3. 003 | | | | | | 003 | 3S | 7/30/91 11:25 | | |
| 4. 004 | | | | | | 004 | 3SS | 11:40 | | |
| 5. 005 | | | | | | 005 | 4S | 12:35 | | |
| 6. 006 | | | | | | 006 | 4SS | 12:55 | | |
| 7. 007 | | | | | | 007 | 2S | 15:15 | | |
| 8. 008 | | | | | | 008 | 2SS | 15:20 | | |
| 9. 009 | | | | | | 009D | 2SS-D | 15:25 | | |
| 10. 010 | | | | | | 010F | TRIPBL | 7/30/91 | | |

Shipment for SAS complete? (Y/N) (Y) Pg 1 of 3

## CHAIN OF CUSTODY RECORD

| Relinquished by: (Signature) | Date / Time | Received by: (Signature) | Relinquished by: (Signature) | Date / Time | Received by: (Signature) |
|---|---|---|---|---|---|
| Nicole Robb | 7/31/91 4:00 | Fed. Exp. | | | |
| Relinquished by: (Signature) | Date / Time | Received by: (Signature) | Relinquished by: (Signature) | Date / Time | Received by: (Signature) |
| | | | | | |
| Received by: (Signature) | Date / Time | Received for Laboratory by: (Signature) MSherman | Date / Time 8/1/91 0915 | Remarks Is custody seal intact? Y/N/none | |

Split Samples ☐ Accepted (Signature) ☐ Declined

EPA Form 9110-3 (4-91)

DISTRIBUTION:
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EPA

Contract Laboratory Program Sample Management Office
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703-557-2490 FTS 557-2490

# Special Analytical Service
## Packing List/Chain of Custody

SAS No. 65686

0003

| | | | | | |
|---|---|---|---|---|---|
| 1. Sample Description (Enter in Column A) 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil 7. Waste 8. Other (Specify) | 2. Preservative (Enter in Column C) 1. HCl 2. $HNO_3$ 3. $NaHSO_4$ 4. $H_2SO_4$ 5. NaOH 6. Other (SAS) (Specify) 7. Ice only N. Not preserved | 3. Region No. 07 | Sampling Co. | 5. Date Shipped 7/31/91 | Carrier Jet Cargo |
| | | Sampler (Name) Bob Cota | | Airbill Number 06[illegible]6782 | |
| | | Sampler Signature Bob Cota | | 6. Ship to AATS | |
| | | 4. Type of Activity: Lead: SF, PRP, ST, FED; Pre-Remedial: PA, SSI, LSI; Remedial: RIFS, RD, RA, O&M, NPLD; Removal: CLEM, REMA, REM, OIL, UST | | | |

7. Date Received -- Received by: 8/1/91 M Sherman

Laboratory: AATS

8. Transfer to | Date Received

Received by

Laboratory

| Sample Numbers | A Matrix Enter from Box 1 | B Conc Low Med High | C Preservative Used from Box 2 | D Analysis | Sample used for spike and/or duplicate | Regional Specific Tracking Number or Tag Number | G Station Location Identifier | H Mo/Day/Year/Time Sample Collection | I Sampler Initials | J Sample Condition On Receipt |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. ~~6946 011~~ | ~~25~~ | ~~L~~ | ~~7~~ | ~~VOA-14-DT~~ | | ~~DX72-101~~ | ~~background~~ | ~~7/30/91 16:10~~ | ~~BA~~ | ~~Intact~~ |
| 2. 012 | 2 | | | | | 103 | Well #3 | 10:45 | | |
| 3. 013 | | | | | | 104 | #2 | 11:30 | | 1 broken |
| 4. 014 | | | | | | 105F | + Blank | — | | Intact |
| 5. 015 | | | | | | 106F | Rinsate | 13:45 | | |
| 6. 016 | | | | | | DX72-PE-VOA | PE-952P | 7/31/91 — | | |
| 7. ~~017~~ | ~~5~~ | | ~~7~~ | ~~BNA-14 Day~~ | | ~~001~~ | ~~15~~ | ~~7/30/91 09:05~~ | | |
| 8. ~~018~~ | | | | | | ~~002~~ | ~~155~~ | ~~9:50~~ | | |
| 9. ~~019~~ | | | | | | ~~003~~ | ~~35~~ | ~~11:25~~ | | |
| 10. ~~020~~ | | | | | | ~~004~~ | ~~355~~ | ~~11:40~~ | | |

Shipment for SAS complete? (Y/N) Y

Pg. 2 of 3

### CHAIN OF CUSTODY RECORD

| Relinquished by: (Signature) | Date / Time | Received by: (Signature) | Relinquished by: (Signature) | Date / Time | Received by: (Signature) |
|---|---|---|---|---|---|
| Relinquished by: (Signature) | Date / Time | Received by: (Signature) | Relinquished by: (Signature) | Date / Time | Received by: (Signature) |
| Received by: (Signature) | Date / Time | Received for Laboratory by: (Signature) M Sherman | Date / Time 8/1/91 0915 | Remarks Is custody seal intact? Y/N/none | |

Split Samples ☐ Accepted (Signature)
☐ Declined

EPA Form 9110-3 (4-91)

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703-557-2490 FTS 557-2490

# Special Analytical Service
Packing List/Chain of Custody

SAS No. 6568G

0004

| 1. Sample Description (Enter in Column A) | 2. Preservative (Enter in Column C) | 3. Region No. | Sampling Co. | 5. Date Shipped | Carrier | 7. Date Received -- Received by |
|---|---|---|---|---|---|---|
| 1. Surface Water<br>2. Ground Water<br>3. Leachate<br>4. Rinsate<br>5. Soil/Sediment<br>6. Oil<br>7. Waste<br>8. Other (Specify) | 1. HCl<br>2. HNO3<br>3. $NAHSO_4$<br>4. $H_2SO_4$<br>5. NAOH<br>6. Other (SAS) (Specify)<br>7. Ice only<br>N. Not preserved | 07 | | 7/31/91 | Fed. Exp. | 8/1/91 MSherman |
| | | Sampler (Name): Bob Aston | | Airbill Number: 0657920752 | | Laboratory: AATS |
| | | Sampler Signature: Bob Aston | | 6. Ship To: AATS | | 8. Transfer to / Date Received |
| | | 4. Type of Activity: Lead: SF, PRP, ST, FED; Pre-Remedial: PA, SSI, LSI; Remedial: RIFS, RD, RA, O&M, NPLD; Removal: CLEM, REMA, REM, OIL, UST | | | | Received by |
| | | | | | | Laboratory |

| | Sample Numbers | A Matrix Enter from Box 1 | B Conc Low Med High | C Preservative Used from Box 2 | D Analysis | E Sample used for spike and/or duplicate | F Regional Specific Tracking Number or Tag Number | G Station Location Identifier | H Mo/Day/Year/Time Sample Collection | I Sampler Initials | J Sample Condition On Receipt |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6568G-001 | 5 | L | 7 | BNA-14Day | | DSX72-005 | 45 | 7/30/91 12:35 | BA | Intact |
| 2 | 022 | 5 | | | | | 006 | 455 | 12:35 | | |
| 3 | 023 | 5 | | | | | 007 | 25 | 15:15 | | |
| 4 | 024 | 5 | | | | | 008 | 255 | 15:20 | | |
| 5 | 025 | 5 | | | | | 000D | 255-D | 15:20 | | |
| 6 | 026 | 5 | | | | | 101 | [illegible] | 16:10 | | |
| 7 | 027 | 2 | | | | | 103 | well #3 | 10:45 | | |
| 8 | 028 | | | | | | 104 | #2 | 11:20 | | |
| 9 | 029 | | | | | | 106F | trip blank | — | | |
| 10 | 030 | | | | | | DSX72 PE-BNA | PE-9488 | 7/31/91 — | | |

Shipment for SAS complete? (Y/N) (Y) Pg. 3 of 3

## CHAIN OF CUSTODY RECORD

| Relinquished by: (Signature) | Date / Time | Received by: (Signature) | Relinquished by: (Signature) | Date / Time | Received by: (Signature) |
|---|---|---|---|---|---|
| Nicole Kolly | 7/31/91 4:00 | Fed. Exp. | | | |
| Relinquished by: (Signature) | Date / Time | Received by: (Signature) | Relinquished by: (Signature) | Date / Time | Received by: (Signature) |
| | | | | | |
| Received by: (Signature) | Date / Time | Received for Laboratory by: (Signature) MSherman | Date / Time 8/1/91 0915 | Remarks Is custody seal intact? Y/N/none | |

Split Samples ☐ Accepted (Signature)
☐ Declined

EPA Form 9110-3 (4-91)

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S 00122

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

| | EPA SAMPLE NO. | S1 (TOL)# | S2 (BFB)# | S3 (DCE)# | OTHER | TOT OUT |
|---|---|---|---|---|---|---|
| 01 | 6568G-012 | 99 | 105 | 108 | 0 | 0 |
| 02 | 6568G-013 | 100 | 100 | 95 | 0 | 0 |
| 03 | 6568G-014 | 96 | 101 | 95 | 0 | 0 |
| 04 | 6568G-015 | 93 | 98 | 91 | 0 | 0 |
| 05 | 6568G-016 | 90 | 107 | 99 | 0 | 0 |
| 06 | 6568G-012MS | 97 | 102 | 105 | 0 | 0 |
| 07 | 6568G-012MSD | 97 | 103 | 105 | 0 | 0 |
| 08 | VBLK1 | 95 | 99 | 96 | 0 | 0 |
| 09 | VBLK3 | 97 | 98 | 94 | 0 | 0 |

| | QC LIMITS |
|---|---|
| S1 (TOL) = Toluene-d8 | ( 88-110) |
| S2 (BFB) = Bromofluorobenzene | ( 86-115) |
| S3 (DCE) = 1,2-Dichloroethane-d4 | ( 76-114) |

# Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

2B

# SOIL VOLATILE SURROGATE RECOVERY

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Level:(low/med) LOW

| | EPA SAMPLE NO. | S1 (TOL)# | S2 (BFB)# | S3 (DCE)# | OTHER | TOT OUT |
|---|---|---|---|---|---|---|
| 01 | 6568G-010 | 103 | 100 | 112 | 0 | 0 |
| 02 | VBLK2 | 107 | 102 | 100 | 0 | 0 |

| | | QC LIMITS |
|---|---|---|
| S1 (TOL) | = Toluene-d8 | ( 81-117) |
| S2 (BFB) | = Bromofluorobenzene | ( 74-121) |
| S3 (DCE) | = 1,2-Dichloroethane-d4 | ( 70-121) |

# Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

3A

# WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix Spike - EPA Sample No.: 6568G-012

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC # | QC LIMITS REC. |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50.0 | 0 | 46.6 | 93 | 61-145 |
| Trichloroethene | 50.0 | 0 | 42.7 | 85 | 71-120 |
| Benzene | 50.0 | 0 | 45.7 | 91 | 76-127 |
| Toluene | 50.0 | 0 | 44.6 | 89 | 76-125 |
| Chlorobenzene | 50.0 | 0 | 45.1 | 90 | 75-130 |

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50.0 | 46.7 | 93 | 0 | 14 | 61-145 |
| Trichloroethene | 50.0 | 43.0 | 86 | -1 | 14 | 71-120 |
| Benzene | 50.0 | 44.2 | 88 | 3 | 11 | 76-127 |
| Toluene | 50.0 | 42.2 | 84 | 6 | 13 | 76-125 |
| Chlorobenzene | 50.0 | 43.3 | 87 | 3 | 13 | 75-130 |

# Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: 6568G-012
INST:C*AATS-V*SWLO#6

# VOLATILE METHOD BLANK SUMMARY

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Lab File ID: E6423 Lab Sample ID: VBLK1

Date Analyzed: 08/08/91 Time Analyzed: 0934

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: E

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | TIME ANALYZED |
|---|---|---|---|---|
| 01 | 6568G-016 | 684316 | E6441 | 1757 |

COMMENTS:

4A

# VOLATILE METHOD BLANK SUMMARY

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Lab File ID: K6318 Lab Sample ID: VBLK2

Date Analyzed: 08/08/91 Time Analyzed: 1150

Matrix: (soil/water) SOIL Level:(low/med) LOW

Instrument ID: K

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | TIME ANALYZED |
|---|---|---|---|---|
| 01 | 6568G-010 | 684310 | K6323 | 1546 |

COMMENTS:

4A

# VOLATILE METHOD BLANK SUMMARY

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Lab File ID: CJ995 Lab Sample ID: VBLK3

Date Analyzed: 08/09/91 Time Analyzed: 1155

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: C

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | TIME ANALYZED |
|---|---|---|---|---|
| 01 | 6568G-012 | 685312 | CK004 | 1557 |
| 02 | 6568G-013 | 684313 | CK015 | 2115 |
| 03 | 6568G-014 | 684314 | CK001 | 1430 |
| 04 | 6568G-015 | 684315 | CK002 | 1459 |
| 05 | 6568G-012MS | 684312MS | CK006 | 1655 |
| 06 | 6568G-012MSD | 684312MSD | CK007 | 1724 |

COMMENTS:

5A

# VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Lab File ID: CI543 BFB Injection Date: 05/26/91

Instrument ID: C BFB Injection Time: 1416

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 29.0 |
| 75 | 30.0 - 60.0% of mass 95 | 58.6 |
| 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 | Greater than 50.0% of mass 95 | 83.2 |
| 175 | 5.0 - 9.0% of mass 174 | 5.7 ( 6.9)1 |
| 176 | Greater than 95.0%, but less than 101.0% of mass 174 | 81.8 ( 98.3)1 |
| 177 | 5.0 - 9.0% of mass 176 | 5.2 ( 6.3)2 |

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

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | VSTD200 | VSTD200 | CI544 | 05/26/91 | 1444 |
| 02 | VSTD150 | VSTD150 | CI545 | 05/26/91 | 1523 |
| 03 | VSTD100 | VSTD100 | CI546 | 05/26/91 | 1612 |
| 04 | VSTD50 | VSTD50 | CI547 | 05/26/91 | 1643 |
| 05 | VSTD20 | VSTD20 | CI548 | 05/26/91 | 1717 |

5A

# VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Lab File ID: K6153 BFB Injection Date: 07/25/91

Instrument ID: K BFB Injection Time: 1001

Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) CAP

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 21.6 |
| 75 | 30.0 - 60.0% of mass 95 | 54.1 |
| 95 | Base peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0% of mass 95 | 7.2 |
| 173 | Less than 2.0% of mass 174 | 0.0 ( 0.0)1 |
| 174 | Greater than 50.0% of mass 95 | 82.2 |
| 175 | 5.0 - 9.0% of mass 174 | 6.2 ( 7.6)1 |
| 176 | Greater than 95.0%, but less than 101.0% of mass 174 | 82.1 ( 99.9)1 |
| 177 | 5.0 - 9.0% of mass 176 | 5.8 ( 7.1)2 |

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

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | VSTD50 | VSTD50 | K6154 | 07/25/91 | 1127 |
| 02 | VSTD200 | VSTD200 | K6155 | 07/25/91 | 1224 |
| 03 | VSTD150 | VSTD150 | K6156 | 07/25/91 | 1257 |
| 04 | VSTD100 | VSTD100 | K6157 | 07/25/91 | 1325 |
| 05 | VSTD20 | VSTD20 | K6158 | 07/25/91 | 1350 |

5A

# VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Lab File ID: E6242 BFB Injection Date: 07/29/91

Instrument ID: E BFB Injection Time: 0842

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 23.6 |
| 75 | 30.0 - 60.0% of mass 95 | 48.9 |
| 95 | Base peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0% of mass 95 | 7.2 |
| 173 | Less than 2.0% of mass 174 | 0.0 ( 0.0)1 |
| 174 | Greater than 50.0% of mass 95 | 86.3 |
| 175 | 5.0 - 9.0% of mass 174 | 6.0 ( 7.0)1 |
| 176 | Greater than 95.0%, but less than 101.0% of mass 174 | 84.9 ( 98.4)1 |
| 177 | 5.0 - 9.0% of mass 176 | 5.7 ( 6.7)2 |

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

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | VSTD50 | VSTD50 | E6244 | 07/29/91 | 1205 |
| 02 | VSTD150 | VSTD150 | E6246 | 07/29/91 | 1304 |
| 03 | VSTD100 | VSTD100 | E6247 | 07/29/91 | 1332 |
| 04 | VSTD20 | VSTD20 | E6248 | 07/29/91 | 1401 |
| 05 | VSTD200 | VSTD200 | E6249 | 07/29/91 | 1506 |

5A

# VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Lab File ID: E6421 BFB Injection Date: 08/08/91

Instrument ID: E BFB Injection Time: 0837

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 24.6 |
| 75 | 30.0 - 60.0% of mass 95 | 46.9 |
| 95 | Base peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0% of mass 95 | 6.8 |
| 173 | Less than 2.0% of mass 174 | 0.0 ( 0.0)1 |
| 174 | Greater than 50.0% of mass 95 | 70.6 |
| 175 | 5.0 - 9.0% of mass 174 | 5.2 ( 7.3)1 |
| 176 | Greater than 95.0%, but less than 101.0% of mass 174 | 69.0 ( 97.8)1 |
| 177 | 5.0 - 9.0% of mass 176 | 4.6 ( 6.6)2 |

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

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | VSTD50 | VSTD50 | E6422 | 08/08/91 | 0859 |
| 02 | VBLK1 | VBLK1 | E6423 | 08/08/91 | 0934 |
| 03 | 6568G-016 | 684316 | E6441 | 08/08/91 | 1757 |

5A

# VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Lab File ID: K6316 BFB Injection Date: 08/08/91

Instrument ID: K BFB Injection Time: 0953

Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) CAP

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 25.7 |
| 75 | 30.0 - 60.0% of mass 95 | 58.6 |
| 95 | Base peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0% of mass 95 | 6.4 |
| 173 | Less than 2.0% of mass 174 | 0.0 ( 0.0)1 |
| 174 | Greater than 50.0% of mass 95 | 78.6 |
| 175 | 5.0 - 9.0% of mass 174 | 5.7 ( 7.2)1 |
| 176 | Greater than 95.0%, but less than 101.0% of mass 174 | 75.1 ( 95.6)1 |
| 177 | 5.0 - 9.0% of mass 176 | 4.4 ( 5.9)2 |

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

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | VSTD50 | VSTD50 | K6317 | 08/08/91 | 1103 |
| 02 | VBLK2 | VBLK2 | K6318 | 08/08/91 | 1150 |
| 03 | 6568G-010 | 684310 | K6323 | 08/08/91 | 1546 |

5A

# VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Lab File ID: CJ993 BFB Injection Date: 08/09/91

Instrument ID: C BFB Injection Time: 1058

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 28.0 |
| 75 | 30.0 - 60.0% of mass 95 | 57.7 |
| 95 | Base peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0% of mass 95 | 7.2 |
| 173 | Less than 2.0% of mass 174 | 0.0 ( 0.0)1 |
| 174 | Greater than 50.0% of mass 95 | 73.9 |
| 175 | 5.0 - 9.0% of mass 174 | 5.2 ( 7.0)1 |
| 176 | Greater than 95.0%, but less than 101.0% of mass 174 | 71.7 ( 97.0)1 |
| 177 | 5.0 - 9.0% of mass 176 | 4.7 ( 6.5)2 |

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

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | VSTD50 | VSTD50 | CJ994 | 08/09/91 | 1116 |
| 02 | VBLK3 | VBLK3 | CJ995 | 08/09/91 | 1155 |
| 03 | 6568G-014 | 684314 | CK001 | 08/09/91 | 1430 |
| 04 | 6568G-015 | 684315 | CK002 | 08/09/91 | 1459 |
| 05 | 6568G-012 | 685312 | CK004 | 08/09/91 | 1557 |
| 06 | 6568G-012MS | 684312MS | CK006 | 08/09/91 | 1655 |
| 07 | 6568G-012MSD | 684312MSD | CK007 | 08/09/91 | 1724 |
| 08 | 6568G-013 | 684313 | CK015 | 08/09/91 | 2115 |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-010

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) SOIL Lab Sample ID: 684310

Sample wt/vol: 2.0 (g/mL) G Lab File ID: K6323

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 1 Date Analyzed: 08/08/91

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 25 | U |
| 74-83-9 | Bromomethane | 25 | U |
| 75-01-4 | Vinyl Chloride | 25 | U |
| 75-00-3 | Chloroethane | 25 | U |
| 75-09-2 | Methylene Chloride | 17 | |
| 67-64-1 | Acetone | 30 | B |
| 75-15-0 | Carbon Disulfide | 13 | U |
| 75-35-4 | 1,1-Dichloroethene | 13 | U |
| 75-34-3 | 1,1-Dichloroethane | 13 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 13 | U |
| 67-66-3 | Chloroform | 3 | BJ |
| 107-06-2 | 1,2-Dichloroethane | 13 | U |
| 78-93-3 | 2-Butanone | 140 | |
| 71-55-6 | 1,1,1-Trichloroethane | 3 | J |
| 56-23-5 | Carbon Tetrachloride | 13 | U |
| 108-05-4 | Vinyl Acetate | 25 | U |
| 75-27-4 | Bromodichloromethane | 13 | U |
| 78-87-5 | 1,2-Dichloropropane | 13 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 13 | U |
| 79-01-6 | Trichloroethene | 13 | U |
| 124-48-1 | Dibromochloromethane | 13 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 13 | U |
| 71-43-2 | Benzene | 4 | J |
| 10061-02-6 | Trans-1,3-Dichloropropene | 13 | U |
| 75-25-2 | Bromoform | 13 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 25 | U |
| 591-78-6 | 2-Hexanone | 25 | U |
| 127-18-4 | Tetrachloroethene | 220 | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 13 | U |
| 108-88-3 | Toluene | 14 | |
| 108-90-7 | Chlorobenzene | 13 | U |
| 100-41-4 | Ethylbenzene | 2 | J |
| 100-42-5 | Styrene | 13 | U |
| 1330-20-7 | Xylene (total) | 13 | U |

1E

# VOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

6568G-010

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) SOIL Lab Sample ID: 684310

Sample wt/vol: 2.0 (g/mL) G Lab File ID: K6323

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 1 Date Analyzed: 08/08/91

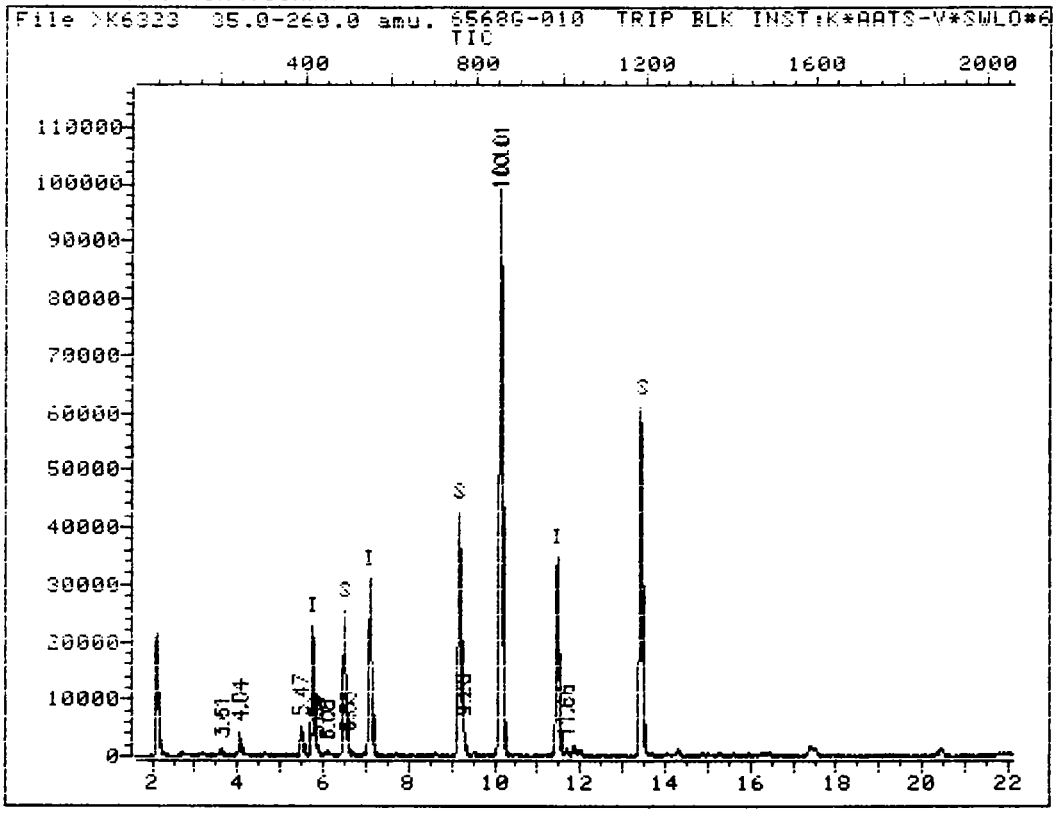
Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |

TOTAL ION CHROMATOGRAM




Data File: >K6323::L2 Quant Output File: ^K6323::D6
Name: 6568G-010 TRIP BLK
Misc: INST:K*AATS-V*SWLO#6843.10*2GM*C#(6568G)

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910808 11:48

Operator ID: DEBBIE
Quant Time: 910808 16:10
Injected at: 910808 15:46

QUANT REPORT

Operator ID: DEBBIE  Quant Rev: 6  Quant Time: 910808 16:10
Output File: ^K6323::D6  Injected at: 910808 15:46
Data File: >K6323::L2  Dilution Factor: 1.00000
Name: 6568G-010 TRIP BLK
Misc: INST:K*AATS-V*SWL0#6843.10*2GM*C#(6568G)

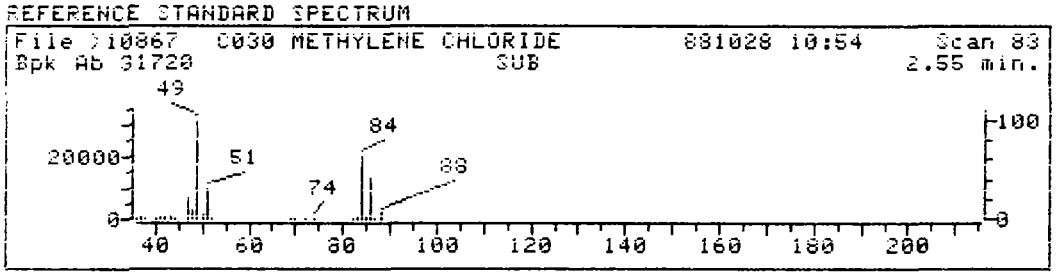
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910808 11:48

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *CI01 BROMOCHLOROMETHANE | 5.73 | 128.0 | 13210 | 50.00 | ng/mL | 76 |
| 6) | C030 METHYLENE CHLORIDE | 4.04 | 84.0 | 3008 | 6.78 | ng/mL | 84 |
| 7) | C035 ACETONE | 3.61 | 43.0 | 2798 | 12.00 | ng/mL | 100 |
| 14) | C060 CHLOROFORM | 5.84 | 83.0 | 1612 | 1.19 | ng/mL | 93 |
| 16) | C110 2-BUTANONE | 5.47 | 72.0 | 3170 | 56.05 | ng/mL | 82 |
| 17) | CS15 1,2-DICHLOROETHANE-D4 | 6.47 | 65.1 | 52735 | 55.80 | ng/mL | 82 |
| 18) | *CI10 1,4-DIFLUOROBENZENE | 7.05 | 114.0 | 49921 | 50.00 | ng/mL | 96 |
| 19) | C115 1,1,1-TRICHLOROETHANE | 6.08 | 96.9 | 1335 | 1.05 | ng/mL | 88 |
| ~~26)~~ | ~~C155 DIBROMOCHLOROMETHANE~~ | ~~10.11~~ | ~~129.0~~ | ~~56825~~ | ~~52.13~~ | ~~ng/mL~~ FP | 100 |
| 28) | C165 BENZENE | 6.55 | 78.0 | 1470 | 1.44 | ng/mL | 92 |
| 32) | *CI20 CHLOROBENZENE-D5 | 11.42 | 117.0 | 40732 | 50.00 | ng/mL | 97 |
| 35) | C220 TETRACHLOROETHENE | 10.10 | 164.0 | 56469 | 87.86 | ng/mL | 95 |
| 37) | C230 TOLUENE | 9.26 | 92.0 | 4023 | 5.56 | ng/mL | 94 |
| 39) | C240 ETHYLBENZENE | 11.66 | 106.0 | 459 | .92 | ng/mL | 98 |
| ~~42)~~ | ~~C299 m,p-XYLENES~~ | ~~11.66~~ | ~~106.0~~ | ~~459~~ | ~~.72~~ | ~~ng/mL~~ FP | 98 |
| 46) | CS05 TOLUENE-D8 | 9.16 | 98.0 | 66520 | 51.35 | ng/mL | 93 |
| 47) | CS10 BROMOFLUOROBENZENE | 13.40 | 95.0 | 51158 | 49.92 | ng/mL | 93 |

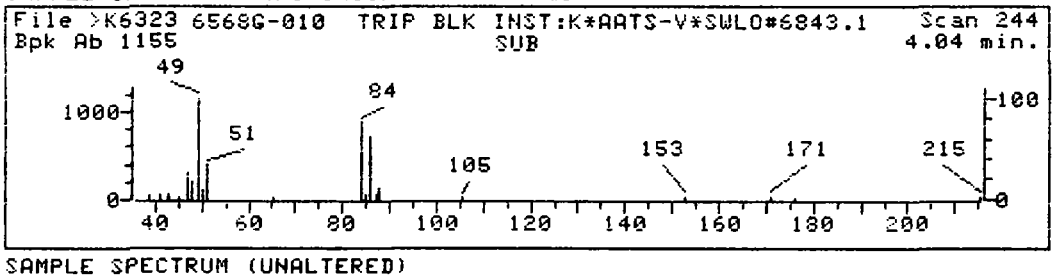
* Compound is ISTD

**FP = FALSE POSITIVE**

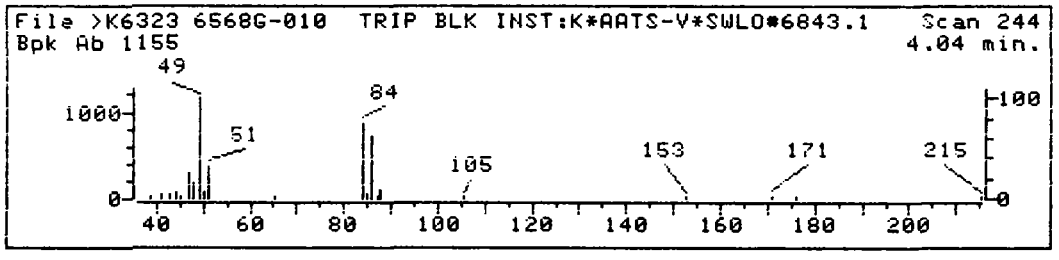
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



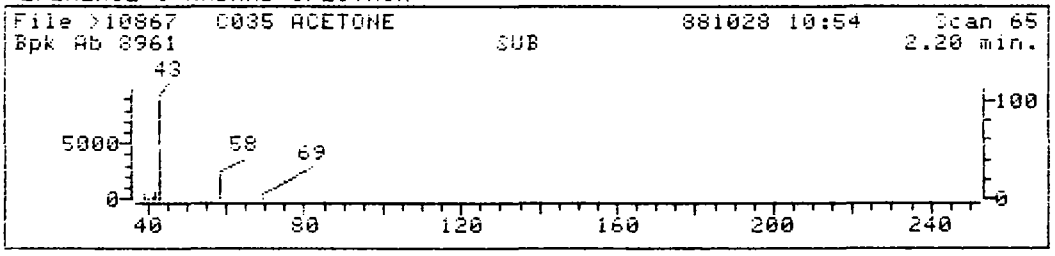

SAMPLE SPECTRUM (UNALTERED)




Data File: >K6323::L2 Quant Output File: ^K6323::D6
Name: 6568G-010 TRIP BLK
Misc: INST:K*AATS-V*SWLO#6843.10*2GM*C#(6568G)
Quant Time: 910808 16:10 Quant ID File: IDV023::EX
Injected at: 910808 15:46 Last Calibration: 910808 11:48

Compound No: 6
Compound Name: C030 METHYLENE CHLORIDE
Scan Number: 244
Retention Time: 4.04 min.
Quant Ion: 84.0
Area: 3008
Concentration: 6.78 ng/mL
q-value: 84

REFERENCE STANDARD SPECTRUM

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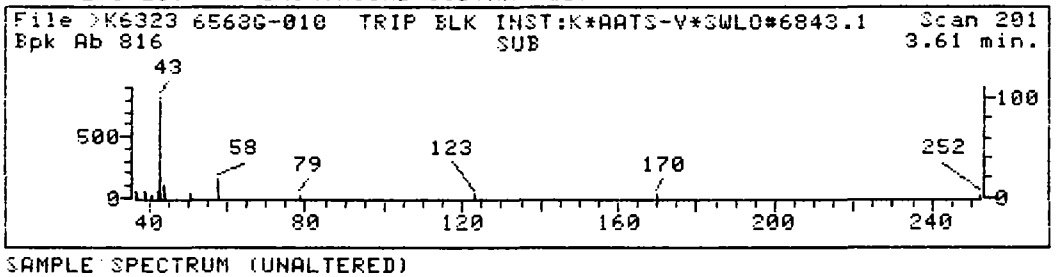


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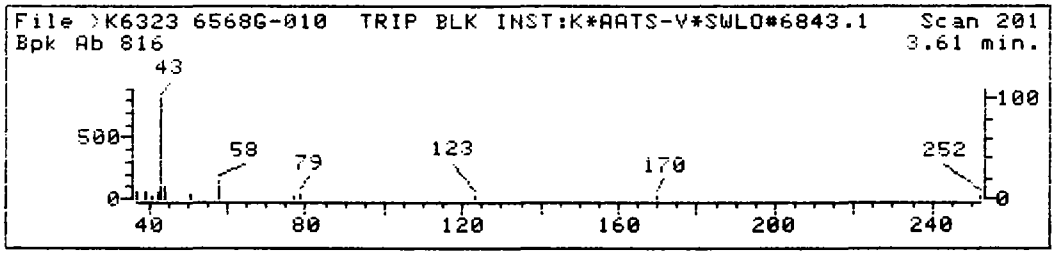
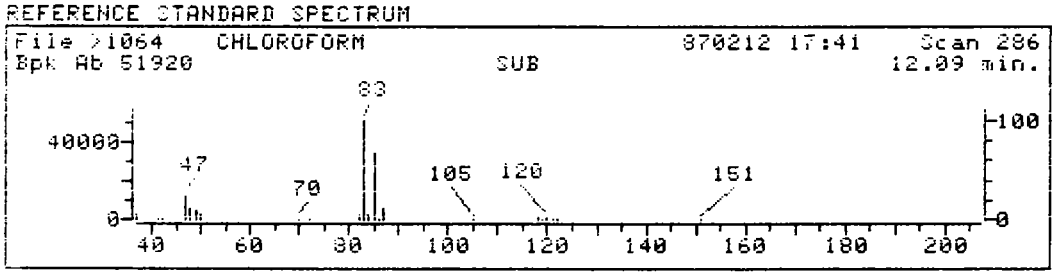


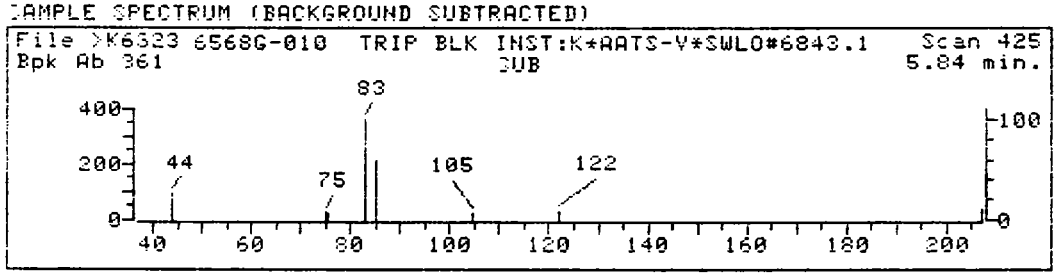

Data File: >K6323::L2 Quant Output File: ^K6323::D6
Name: 6568G-010 TRIP BLK
Misc: INST:K*AATS-V*SWLO#6843.10*2GM*C#(6568G)
Quant Time: 910808 16:10 Quant ID File: IDV023::EX
Injected at: 910808 15:46 Last Calibration: 910808 11:48

Compound No: 7
Compound Name: C035 ACETONE
Scan Number: 201
Retention Time: 3.61 min.
Quant Ion: 43.0
Area: 2798
Concentration: 12.00 ng/mL
q-value: 100

REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

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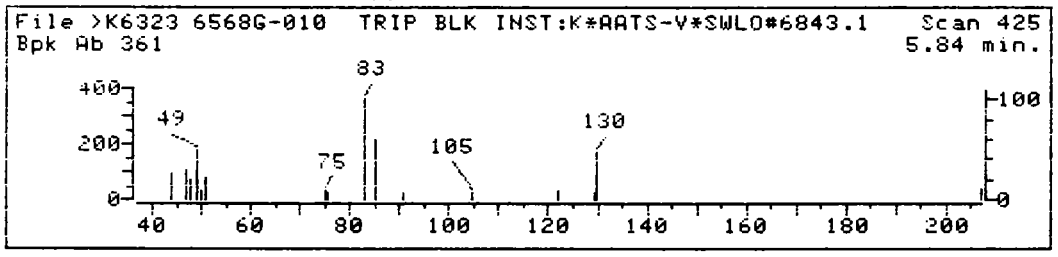
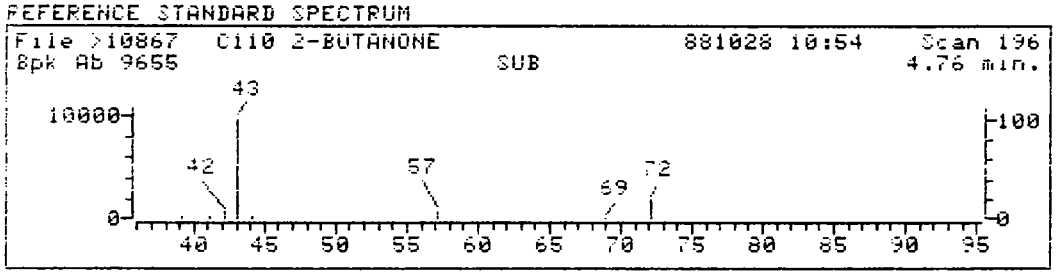


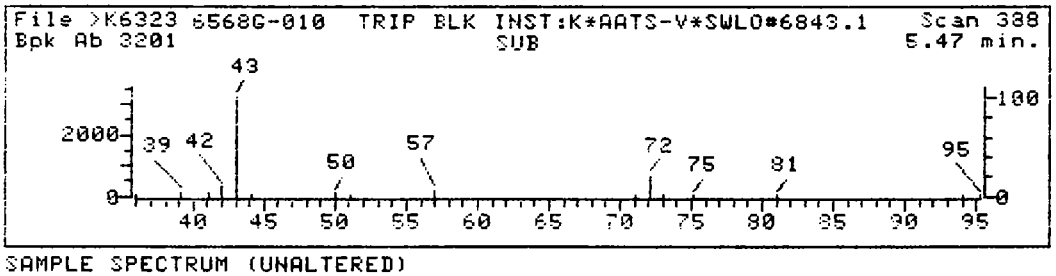

Data File: >K6323::L2 Quant Output File: ^K6323::D6
Name: 6568G-010 TRIP BLK
Misc: INST:K*AATS-V*SWLO#6843.10*2GM*C#(6568G)
Quant Time: 910808 16:10 Quant ID File: IDV023::EX
Injected at: 910808 15:46 Last Calibration: 910808 11:48

Compound No: 14
Compound Name: C060 CHLOROFORM
Scan Number: 425
Retention Time: 5.84 min.
Quant Ion: 83.0
Area: 1612
Concentration: 1.19 ng/mL
q-value: 93

REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

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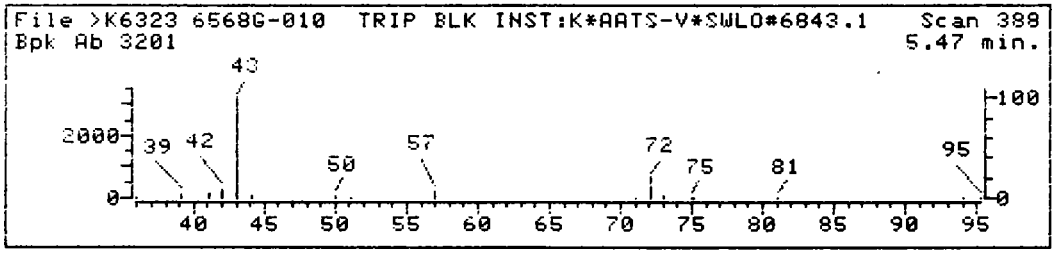
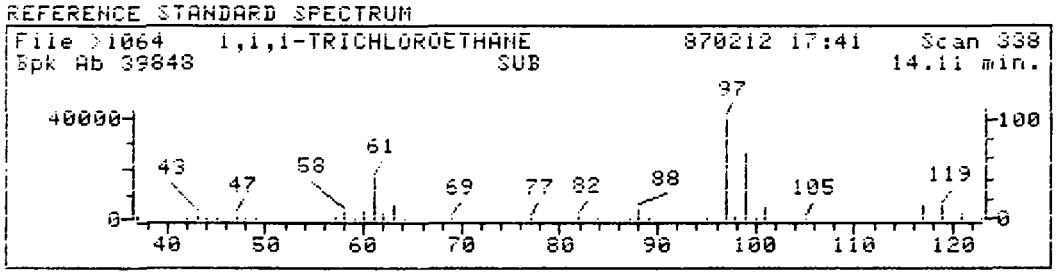


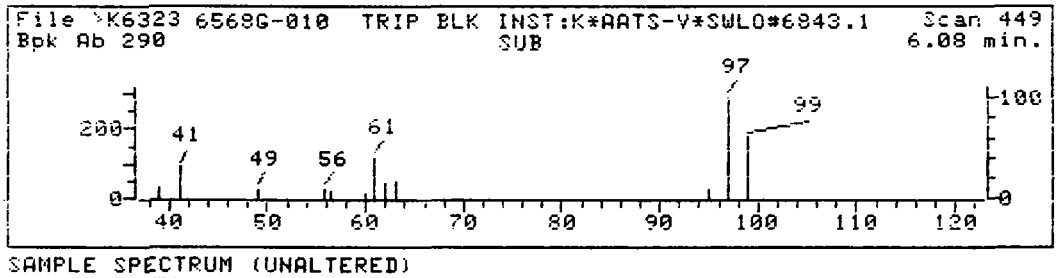

Data File: >K6323::L2 Quant Output File: ^K6323::D6
Name: 6568G-010 TRIP BLK
Misc: INST:K*AATS-V*SWLO#6843.10*2GM*C#(6568G)
Quant Time: 910808 16:10 Quant ID File: IDV023::EX
Injected at: 910808 15:46 Last Calibration: 910808 11:48

Compound No: 16
Compound Name: C110 2-BUTANONE
Scan Number: 388
Retention Time: 5.47 min.
Quant Ion: 72.0
Area: 3170
Concentration: 56.05 ng/mL
q-value: 82

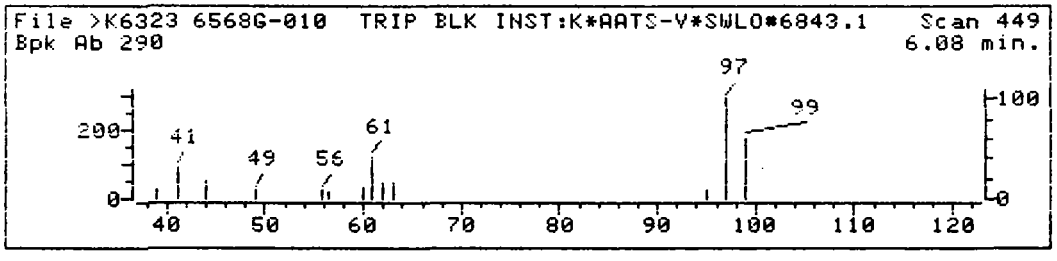
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



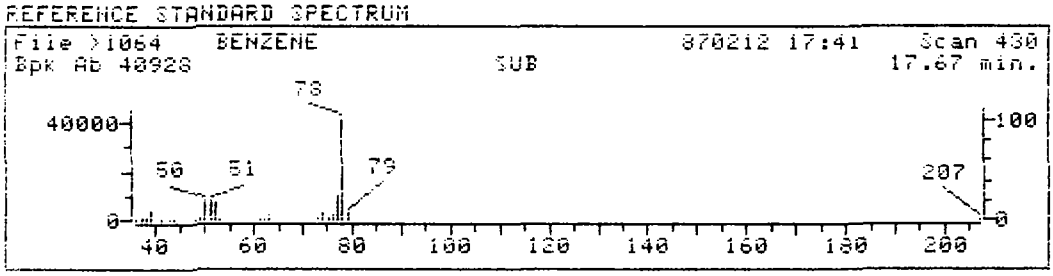

SAMPLE SPECTRUM (UNALTERED)



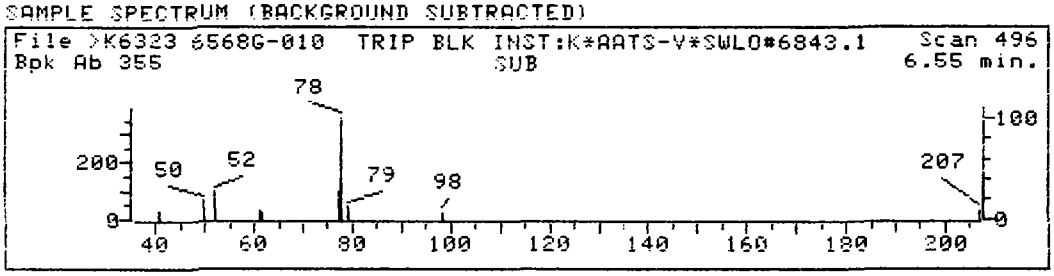

Data File: >K6323::L2 Quant Output File: ^K6323::D6
Name: 6568G-010 TRIP BLK
Misc: INST:K*AATS-V*SWLO#6843.10*2GM*C#(6568G)
Quant Time: 910808 16:10 Quant ID File: IDV023::EX
Injected at: 910808 15:46 Last Calibration: 910808 11:48

Compound No: 19
Compound Name: C115 1,1,1-TRICHLOROETHANE
Scan Number: 449
Retention Time: 6.08 min.
Quant Ion: 96.9
Area: 1335
Concentration: 1.05 ng/mL
q-value: 88

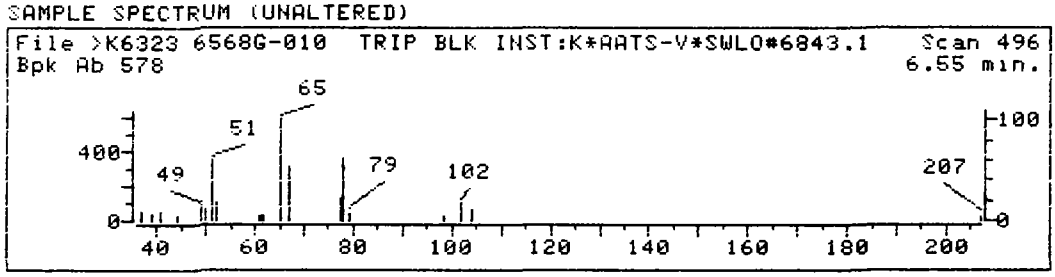
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



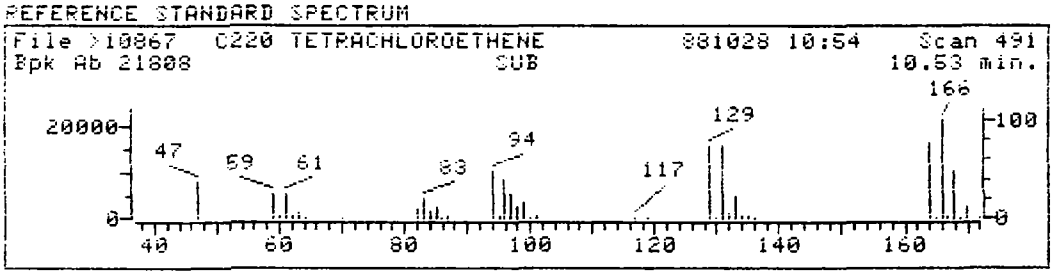

SAMPLE SPECTRUM (UNALTERED)



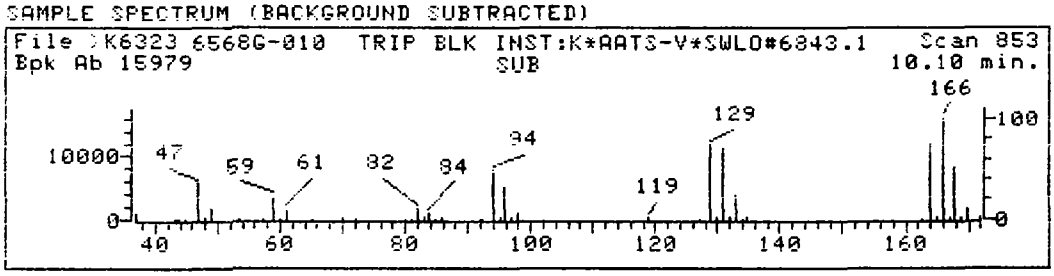

Data File: >K6323::L2 Quant Output File: ^K6323::D6
Name: 6568G-010 TRIP BLK
Misc: INST:K*AATS-V*SWLO#6843.10*2GM*C#(6568G)
Quant Time: 910808 16:10 Quant ID File: IDV023::EX
Injected at: 910808 15:46 Last Calibration: 910808 11:48

Compound No: 28
Compound Name: C165 BENZENE
Scan Number: 496
Retention Time: 6.55 min.
Quant Ion: 78.0
Area: 1470
Concentration: 1.44 ng/mL
q-value: 92

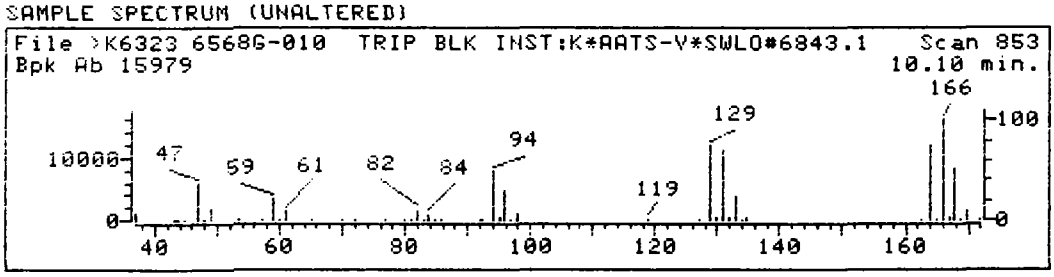
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



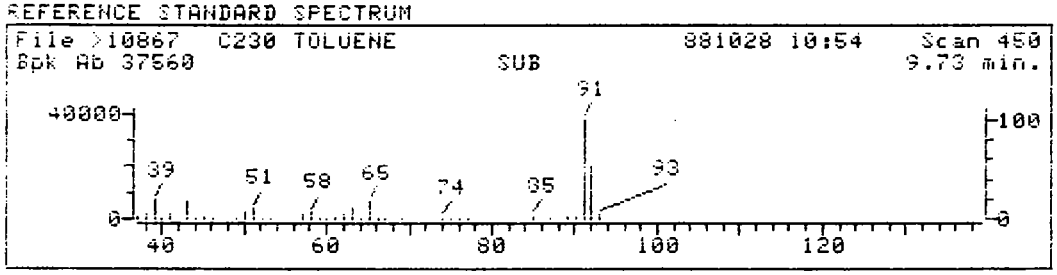

SAMPLE SPECTRUM (UNALTERED)



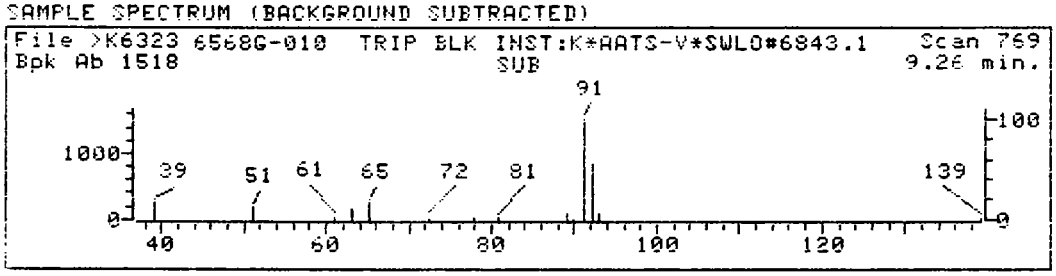

Data File: >K6323::L2 Quant Output File: ^K6323::D6
Name: 6568G-010 TRIP BLK
Misc: INST:K*AATS-V*SWLO#6843.10*2GM*C#(6568G)
Quant Time: 910808 16:10 Quant ID File: IDV023::EX
Injected at: 910808 15:46 Last Calibration: 910808 11:48

Compound No: 35
Compound Name: C220 TETRACHLOROETHENE
Scan Number: 853
Retention Time: 10.10 min.
Quant Ion: 164.0
Area: 56469
Concentration: 87.86 ng/mL
q-value: 95

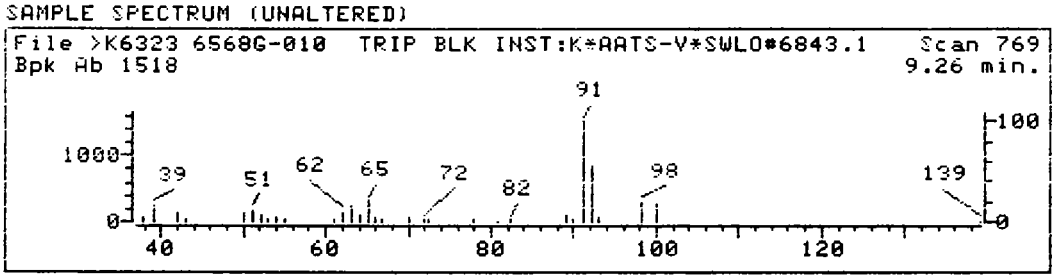
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



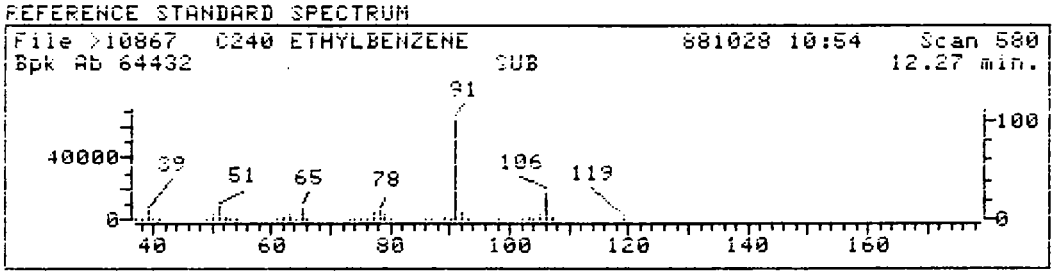

SAMPLE SPECTRUM (UNALTERED)



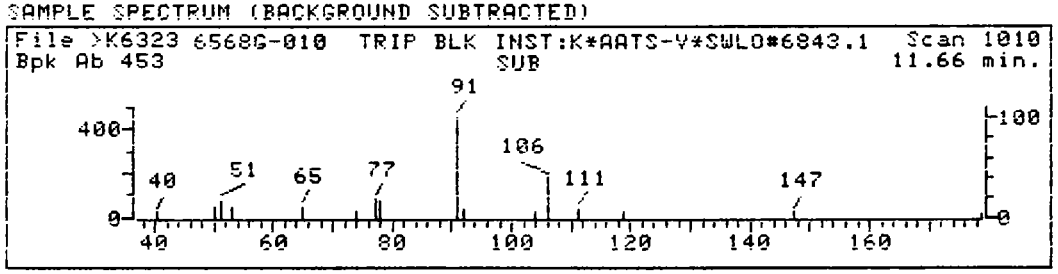

Data File: >K6323::L2 Quant Output File: ^K6323::D6
Name: 6568G-010 TRIP BLK
Misc: INST:K*AATS-V*SWLO#6843.10*2GM*C#(6568G)
Quant Time: 910808 16:10 Quant ID File: IDV023::EX
Injected at: 910808 15:46 Last Calibration: 910808 11:48

Compound No: 37
Compound Name: C230 TOLUENE
Scan Number: 769
Retention Time: 9.26 min.
Quant Ion: 92.0
Area: 4023
Concentration: 5.56 ng/mL
q-value: 94

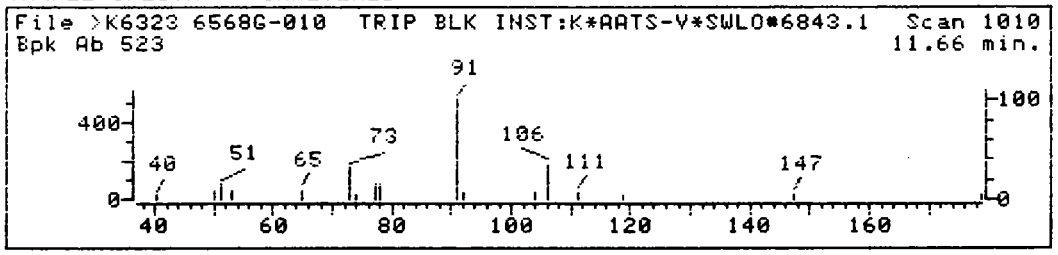
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)




SAMPLE SPECTRUM (UNALTERED)




Data File: >K6323::L2 Quant Output File: ^K6323::D6
Name: 6568G-010 TRIP BLK
Misc: INST:K*AATS-V*SWLO#6843.10*2GM*C#(6568G)
Quant Time: 910808 16:10 Quant ID File: IDV023::EX
Injected at: 910808 15:46 Last Calibration: 910808 11:48

Compound No: 39
Compound Name: C240 ETHYLBENZENE
Scan Number: 1010
Retention Time: 11.66 min.
Quant Ion: 106.0
Area: 459
Concentration: .92 ng/mL
q-value: 98

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-012

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 685312

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CK004

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. ____ Date Analyzed: 08/09/91

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 5 | U |
| 67-64-1 | Acetone | 10 | U |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 2 | J |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
6568G-012

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 685312

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CK004

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. _____ Date Analyzed: 08/09/91

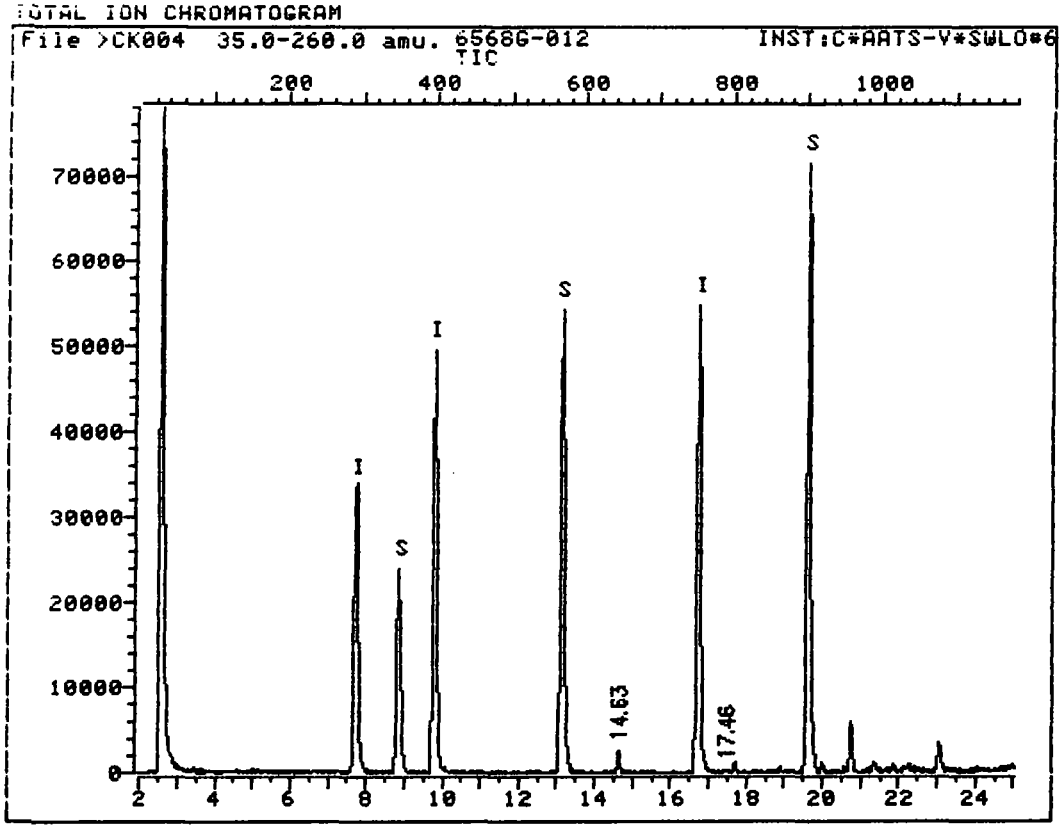
Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN HYDROCARBON | 20.75 | 4.0 | J |
| 2. | UNKNOWN COMPOUND | 23.09 | 3.0 | J |

TOTAL ION CHROMATOGRAM




Data File: >CK004::D5 Quant Output File: ^CK004::D4
Name: 6568G-012
Misc: INST:C*AATS-V*SWLO#6843.12*5mL

Id File: IDV012::PS
Title: VOA (EPA CLP) 5mL AMBIENT PURGE (WATERS) INST:C
Last Calibration: 910809 12:23

Operator ID: GINA
Quant Time: 910809 16:26
Injected at: 910809 15:57

QUANT REPORT

Operator ID: GINA  Quant Rev: 6  Quant Time: 910809 16:26
Output File: ^CK004::D4  Injected at: 910809 15:57
Data File: >CK004::D5  Dilution Factor: 1.00000
Name: 6568G-012
Misc: INST:C*AATS-V*SWLO#6843.12*5mL

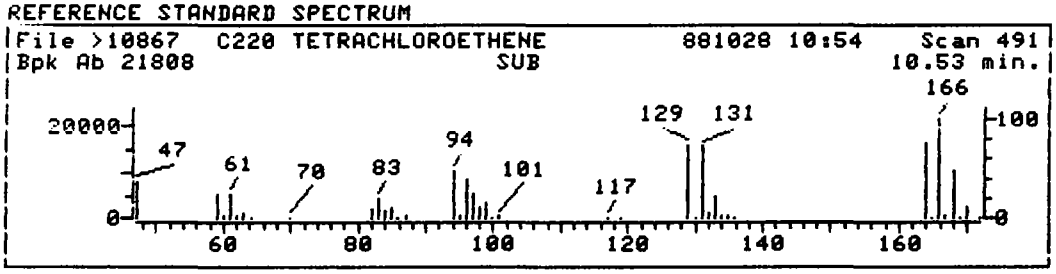
ID File: IDV012::PS
Title: VOA (EPA CLP) 5mL AMBIENT PURGE (WATERS) INST:C
Last Calibration: 910809 12:23

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *CI01 BROMOCHLOROMETHANE | 7.71 | 128.0 | 28713 | 50.00 | NG/ML | 60 |
| 17) | CS15 1,2-DICHLOROETHANE-D4 | 8.85 | 65.1 | 61668 | 54.03 | NG/ML | 97 |
| 18) | *CI10 1,4-DIFLUOROBENZENE | 9.80 | 114.0 | 137759 | 50.00 | NG/ML | 97 |
| 32) | *CI20 CHLOROBENZENE-D5 | 16.71 | 117.0 | 112599 | 50.00 | NG/ML | 95 |
| 35) | C220 TETRACHLOROETHENE | 14.63 | 164.0 | 2304 | 1.88 | NG/ML | 90 |
| ~~42)~~ | ~~C250 m,p-XYLENE (TOTAL)~~ | ~~17.46~~ | ~~106.0~~ | ~~223~~ | ~~.15~~ | ~~NG/ML~~ FP | 84 |
| 46) | CS05 TOLUENE-D8 | 13.14 | 98.0 | 135975 | 49.57 | NG/ML | 99 |
| 47) | CS10 BROMOFLUOROBENZENE | 19.62 | 95.0 | 87507 | 52.33 | NG/ML | 87 |

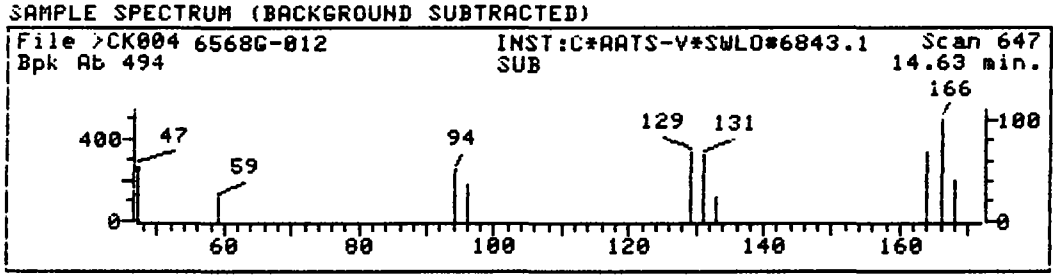
* Compound is ISTD

**FP = FALSE POSITIVE**

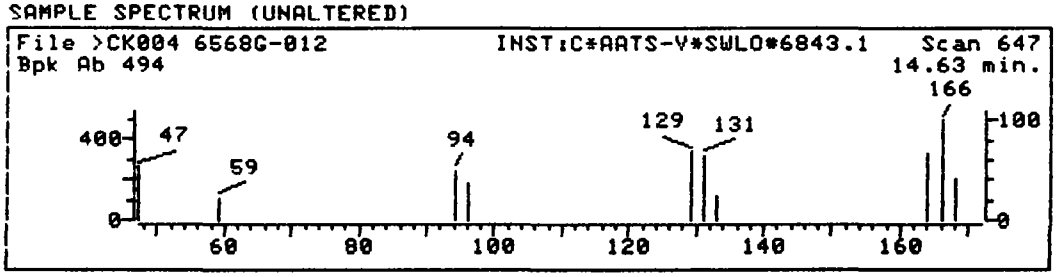
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)




SAMPLE SPECTRUM (UNALTERED)




Data File: >CK004::D5 Quant Output File: ^CK004::D4
Name: 6568G-012
Misc: INST:C*AATS-V*SWLO#6843.12*5mL
Quant Time: 910809 16:26 Quant ID File: IDV012::PS
Injected at: 910809 15:57 Last Calibration: 910809 12:23

Compound No: 35
Compound Name: C220 TETRACHLOROETHENE
Scan Number: 647
Retention Time: 14.63 min.
Quant Ion: 164.0
Area: 2304
Concentration: 1.88 NG/ML
q-value: 90

MS data file header from : >CK004

Sample: 6568G-012 Operator: GINA MS 8/09/91 15:57
Misc : INST:C*AATS-V*SWLO#6843.12*5mL
Sys. #: 1 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: #1STD Tuning file: MT9108 No. of extra records: 2
Source temp.: 0 Analyzer temp.: 200 Transfer line temp. : 0

| | | | | | |
|---|---|---|---|---|---|
| Chromatographic temperatures : | 45. | 105. | 180. | 0. | 0. |
| Chromatographic times, min. : | 5.0 | .1 | .5 | 0.0 | 0.0 |
| Chromatographic rate, deg/min: | 5.0 | 10.0 | 0.0 | 0.0 | 0.0 |

>CK004 6568G-012 INST:C*AATS-V*SWLO#6843.12*5mL
35.01 260.0 CLP ADC TIC
Upslope: .00 Area Reject: 22451. Max Peaks: 2 Bunching: 1
Dnslope: 0.00 Results File ICK004 Sorted by Time/Area INT

| Peak # | R.T. min. | first scan | max scan | last scan | peak height | raw area | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 20.75 | 956 | 961 | 971 | 6021 | 33354 | 33354 | 100.00 | 58.704 |
| 2 | 23.08 | 1070 | 1080 | 1086 | 3453 | 23463 | 23463 | 70.35 | 41.296 |

Sum of corrected areas: 56817.

Summary of Unknowns PBM Library Search and Quantitation

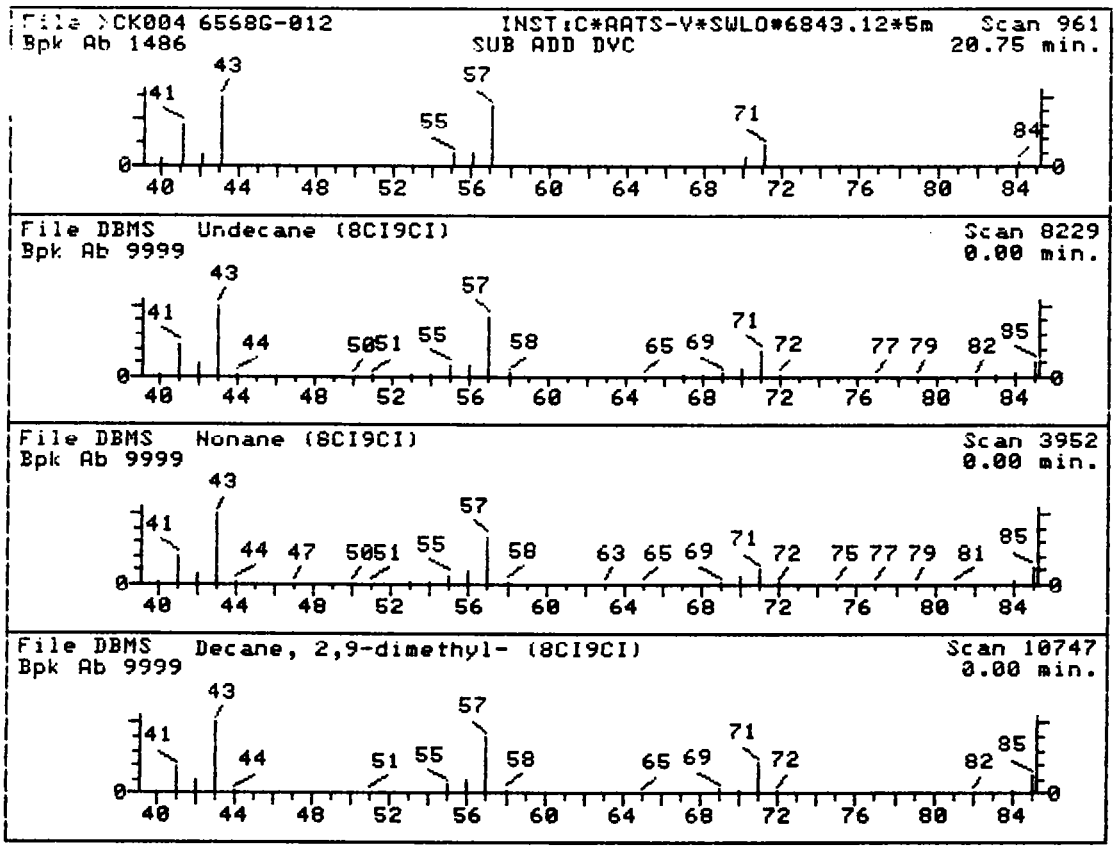
| Standard | Concentration | Area | Retention Time | Unknown Window |
|---|---|---|---|---|
| 1 | 50.0 | 224505. | 7.71 | 3.30 - 8.76 |
| 2 | 50.0 | 340965. | 9.80 | 8.76 - 13.26 |
| 3 | 50.0 | 382821. | 16.71 | 13.26 - 24.50 |

Dilution Factor (DF) = 0.00 Fractional Solids (FS) = 0.00
Amount Method (AM) = 0.00 Amount Used (AU) = 0.00

Correction Factor = 1.00 = (AM / AU) / DF FS not used

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unk} * \text{Correction Factor}$$

4:42 PM FRI., 9 AUG., 1991




UNKNOWN hydrocarbon

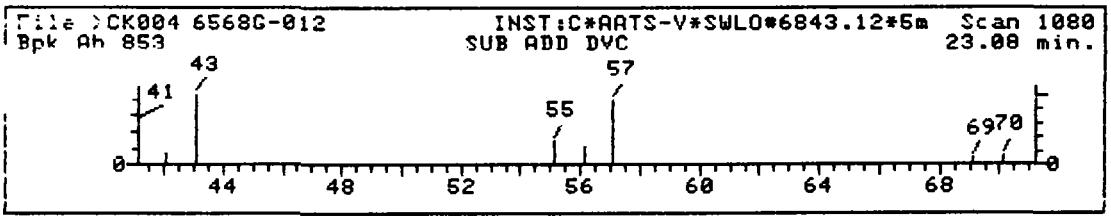
Sample: 6568G-012 Operator: GINA MS 8/09/91 15:57

Unknown #,1
Area = 33354.00 Tentative Concentration is 4.00

1. Undecane (8CI9CI) 156 C11H24
2. Nonane (8CI9CI) 128 C9H20
3. Decane, 2,9-dimethyl- (8CI9CI) 170 C12H26

Sample file: >CK004 Spectrum #: 961
Search speed: 1 Tilting option: N No. of ion ranges searched: 50

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_IV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 45 | 1120214 | 6161 | DBMS | 55 | 42 | 2 | 0 | 87 | 25 | 17 | 16 |
| 2. | 41 | 111842 | 6069 | DBMS | 47 | 49 | 2 | 0 | 86 | 21 | 17 | 12 |
| 3. | 35 | 1002171 | 6224 | DBMS | 44 | 48 | 2 | 0 | 74 | 28 | 14 | 12 |




NO LIBRARY MATCH
FOUND - UNKNOWN

Sample: 6568G-012 Operator: GINA MS 8/09/91 15:57

Unknown #,2
Area = 23463.00 Tentative Concentration is 3.00

Sample file: >CK004 Spectrum #: 1080

No data base entries were retrieved.

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-013

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 684313

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CK015

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. ____ Date Analyzed: 08/09/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

| CAS NO. | COMPOUND | | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 5 | U |
| 67-64-1 | Acetone | 10 | U |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

6568G-013

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 684313

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CK015

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. ____ Date Analyzed: 08/09/91

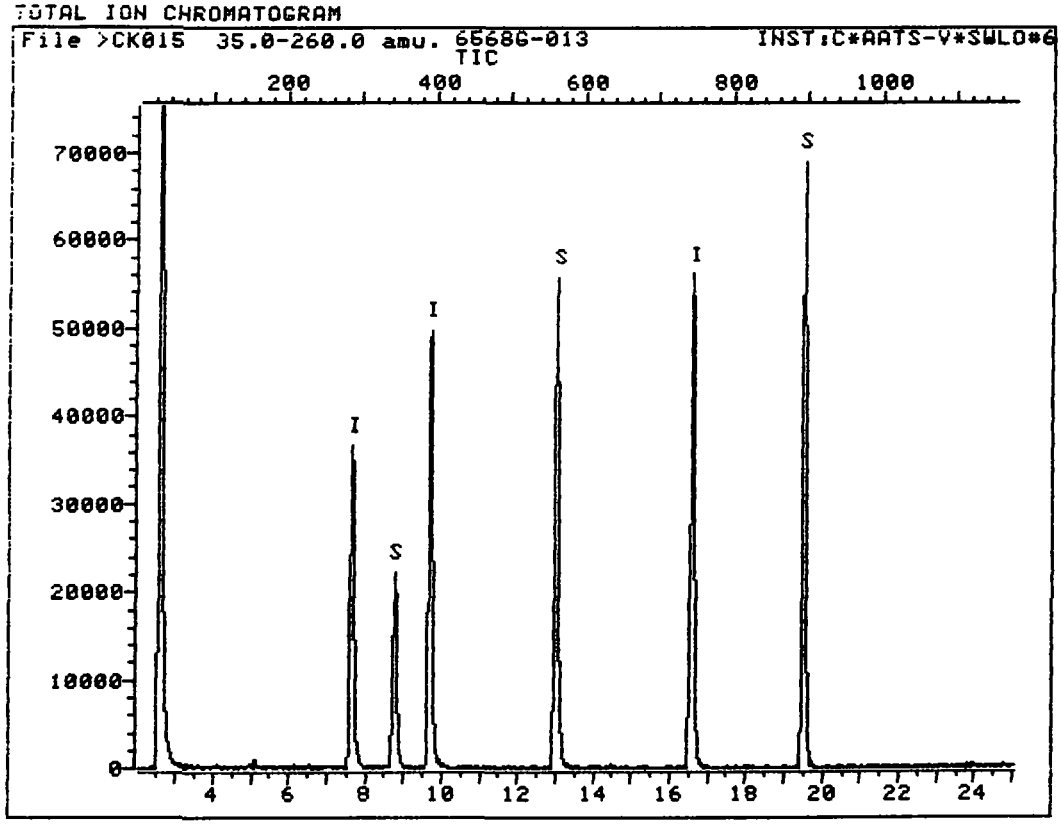
Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |

TOTAL ION CHROMATOGRAM




Data File: >CK015::D5 Quant Output File: ^CK015::D4
Name: 6568G-013
Misc: INST:C*AATS-V*SWLO#6843.13*5mL

Id File: IDV012::PS
Title: VOA (EPA CLP) 5mL AMBIENT PURGE (WATERS) INST:C
Last Calibration: 910809 12:23

Operator ID: GINA
Quant Time: 910809 21:41
Injected at: 910809 21:15

QUANT REPORT

Operator ID: GINA
Output File: ^CK015::D4
Data File: >CK015::D5
Name: 6568G-013
Misc: INST:C*AATS-V*SWLO#6843.13*5mL

Quant Rev: 6
Quant Time: 910809 21:41
Injected at: 910809 21:15
Dilution Factor: 1.00000

ID File: IDV012::PS
Title: VOA (EPA CLP) 5mL AMBIENT PURGE (WATERS) INST:C
Last Calibration: 910809 12:23

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *CI01 BROMOCHLOROMETHANE | 7.64 | 128.0 | 30855 | 50.00 | NG/ML | 61 |
| 17) | CS15 1,2-DICHLOROETHANE-D4 | 8.75 | 65.1 | 58009 | 47.29 | NG/ML | 92 |
| 18) | *CI10 1,4-DIFLUOROBENZENE | 9.71 | 114.0 | 138675 | 50.00 | NG/ML | 98 |
| 32) | *CI20 CHLOROBENZENE-D5 | 16.58 | 117.0 | 113941 | 50.00 | NG/ML | 95 |
| 46) | CS05 TOLUENE-D8 | 13.01 | 98.0 | 138590 | 49.93 | NG/ML | 98 |
| 47) | CS10 BROMOFLUOROBENZENE | 19.51 | 95.0 | 84455 | 49.91 | NG/ML | 92 |

* Compound is ISTD

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-014

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 684314

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CK001

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. ____ Date Analyzed: 08/09/91

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 5 | B |
| 67-64-1 | Acetone | 30 | |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

1E

# VOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

6568G-014

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 684314

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CK001

Level: (low/med) LOW Date Received: 08/01/91

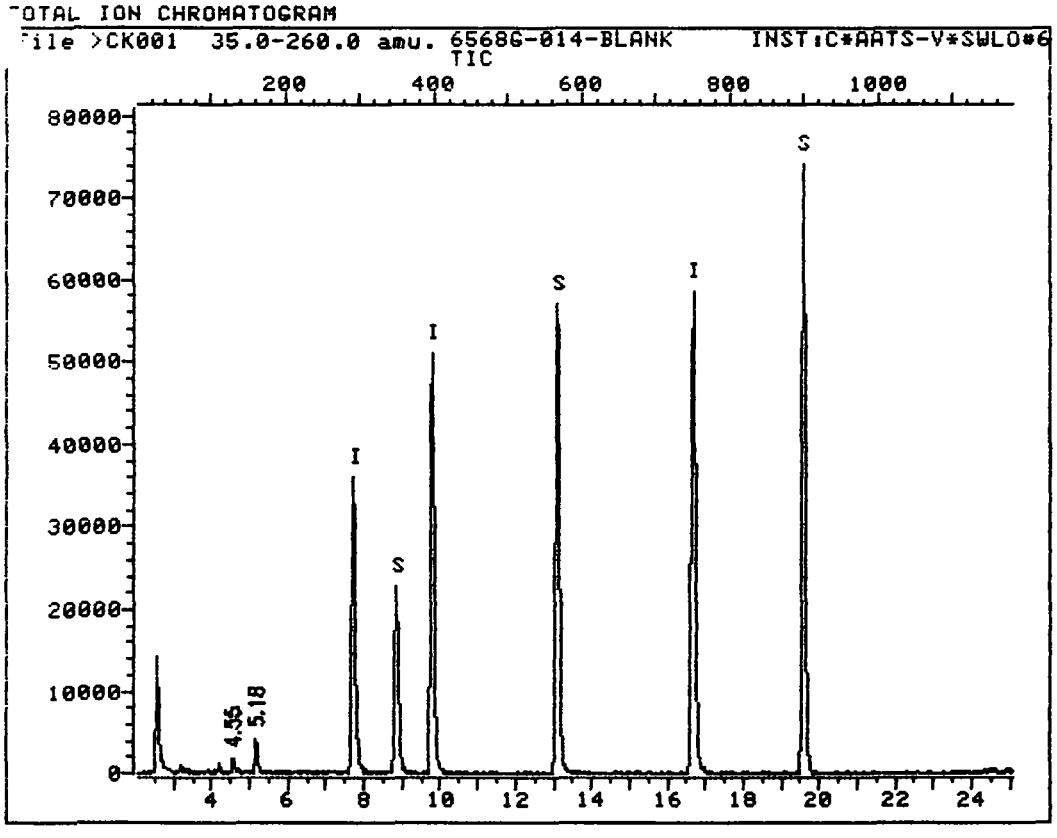
% Moisture: not dec. _____ Date Analyzed: 08/09/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |




Data File: >CK001::D4 Quant Output File: ^CK001::D5
Name: 6568G-014-BLANK
Misc: INST:C*AATS-V*SWLO#6843.14*5mL

Id File: IDV012::PS
Title: VOA (EPA CLP) 5mL AMBIENT PURGE (WATERS) INST:C
Last Calibration: 910809 12:23

Operator ID: GINA
Quant Time: 910809 14:57
Injected at: 910809 14:30

QUANT REPORT

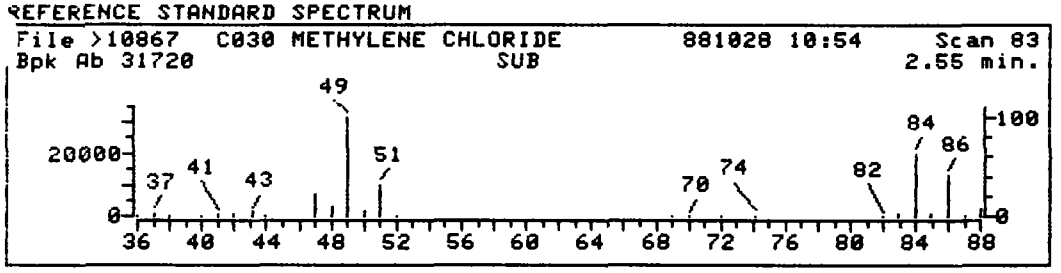
Operator ID: GINA  Quant Rev: 6  Quant Time: 910809 14:57
Output File: ^CK001::D5  Injected at: 910809 14:30
Data File: >CK001::D4  Dilution Factor: 1.00000
Name: 6568G-014-BLANK
Misc: INST:C*AATS-V*SWLO#6843.14*5mL

ID File: IDV012::PS
Title: VOA (EPA CLP) 5mL AMBIENT PURGE (WATERS) INST:C
Last Calibration: 910809 12:23

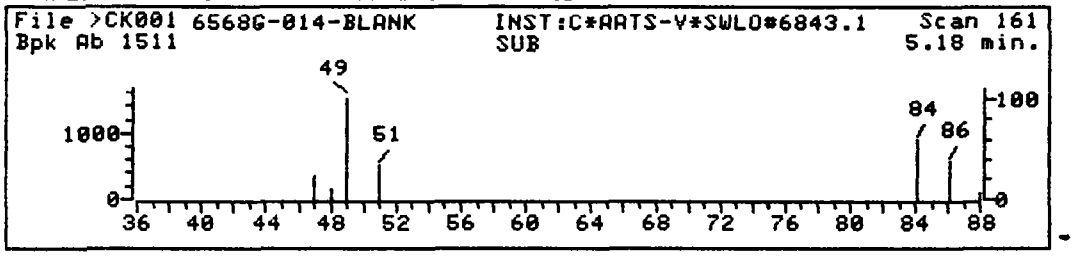
| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *CI01 BROMOCHLOROMETHANE | 7.74 | 128.0 | 30489 | 50.00 | NG/ML | 58 |
| 6) | C030 METHYLENE CHLORIDE | 5.18 | 84.0 | 4523 | 4.99 | NG/ML | 65 |
| 7) | C035 ACETONE | 4.55 | 43.0 | 6680 | 30.43 | NG/ML | 100 |
| 17) | CS15 1,2-DICHLOROETHANE-D4 | 8.85 | 65.1 | 57777 | 47.67 | NG/ML | 92 |
| 18) | *CI10 1,4-DIFLUOROBENZENE | 9.79 | 114.0 | 143321 | 50.00 | NG/ML | 96 |
| 32) | *CI20 CHLOROBENZENE-D5 | 16.68 | 117.0 | 119709 | 50.00 | NG/ML | 99 |
| 46) | CS05 TOLUENE-D8 | 13.10 | 98.0 | 139863 | 47.96 | NG/ML | 99 |
| 47) | CS10 BROMOFLUOROBENZENE | 19.59 | 95.0 | 90023 | 50.63 | NG/ML | 94 |

* Compound is ISTD

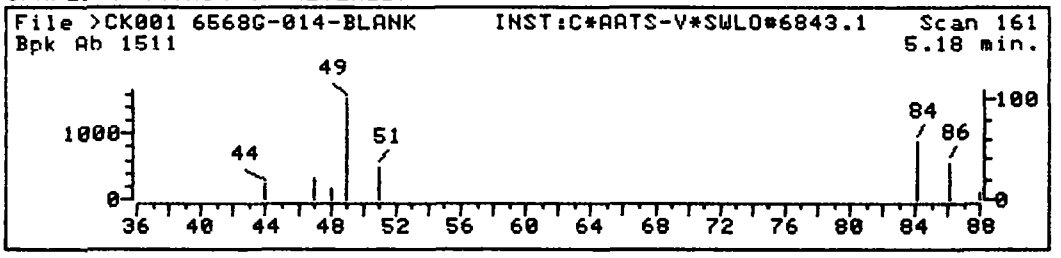
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



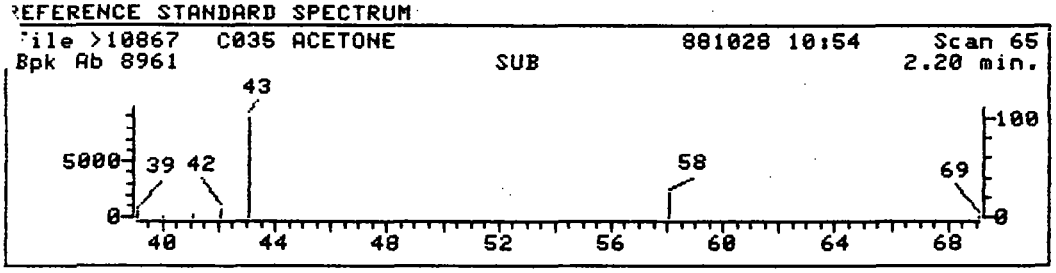

SAMPLE SPECTRUM (UNALTERED)



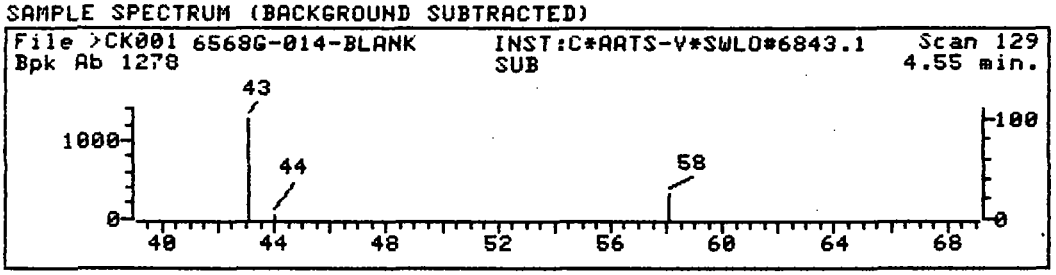

Data File: >CK001::D4 Quant Output File: ^CK001::D5
Name: 6568G-014-BLANK
Misc: INST:C*AATS-V*SWLO#6843.14*5mL
Quant Time: 910809 14:57 Quant ID File: IDV012::PS
Injected at: 910809 14:30 Last Calibration: 910809 12:23

Compound No: 6
Compound Name: C030 METHYLENE CHLORIDE
Scan Number: 161
Retention Time: 5.18 min.
Quant Ion: 84.0
Area: 4523
Concentration: 4.99 NG/ML
q-value: 65

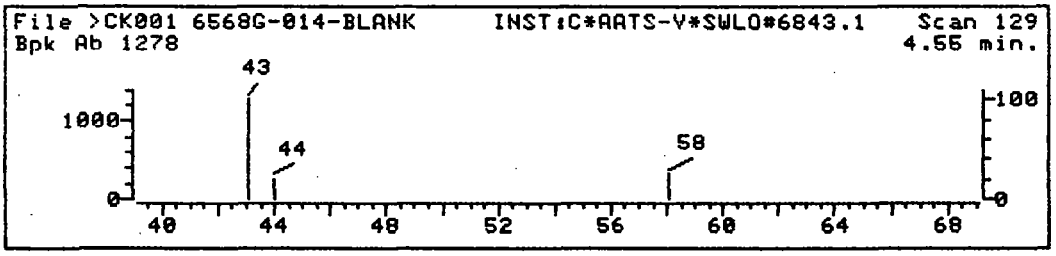
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)




SAMPLE SPECTRUM (UNALTERED)




Data File: >CK001::D4 Quant Output File: ^CK001::D5
Name: 6568G-014-BLANK
Misc: INST:C*AATS-V*SWLO#6843.14*5mL
Quant Time: 910809 14:57 Quant ID File: IDV012::PS
Injected at: 910809 14:30 Last Calibration: 910809 12:23

Compound No: 7
Compound Name: C035 ACETONE
Scan Number: 129
Retention Time: 4.55 min.
Quant Ion: 43.0
Area: 6680
Concentration: 30.43 NG/ML
q-value: 100

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-015

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 684315

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CK002

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. _____ Date Analyzed: 08/09/91

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 5 | U |
| 67-64-1 | Acetone | 10 | U |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

6568G-015

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 684315

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CK002

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. _____ Date Analyzed: 08/09/91

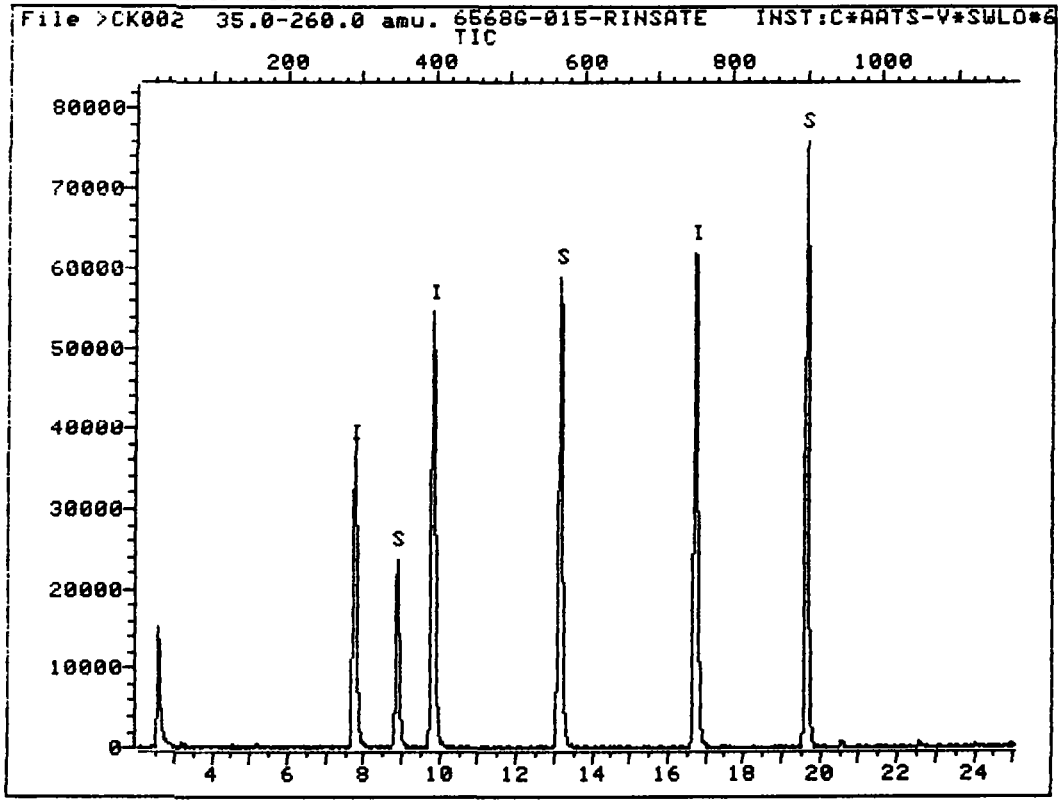
Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |

TOTAL ION CHROMATOGRAM




Data File: >CK002::D4 Quant Output File: ^CK002::D4
Name: 6568G-015-RINSATE
Misc: INST:C*AATS-V*SWLO#6843.15*5mL

Id File: IDV012::PS
Title: VOA (EPA CLP) 5mL AMBIENT PURGE (WATERS) INST:C
Last Calibration: 910809 12:23

Operator ID: GINA
Quant Time: 910809 15:27
Injected at: 910809 14:59

QUANT REPORT

Operator ID: GINA  Quant Rev: 6  Quant Time: 910809 15:27
Output File: ^CK002::D4  Injected at: 910809 14:59
Data File: >CK002::D4  Dilution Factor: 1.00000
Name: 6568G-015-RINSATE
Misc: INST:C*AATS-V*SWLO#6843.15*5mL

ID File: IDV012::PS
Title: VOA (EPA CLP) 5mL AMBIENT PURGE (WATERS) INST:C
Last Calibration: 910809 12:23

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *CI01 BROMOCHLOROMETHANE | 7.73 | 128.0 | 32937 | 50.00 | NG/ML | 63 |
| 17) | CS15 1,2-DICHLOROETHANE-D4 | 8.86 | 65.1 | 59633 | 45.55 | NG/ML | 97 |
| 18) | *CI10 1,4-DIFLUOROBENZENE | 9.80 | 114.0 | 153423 | 50.00 | NG/ML | 96 |
| 32) | *CI20 CHLOROBENZENE-D5 | 16.71 | 117.0 | 127804 | 50.00 | NG/ML | 96 |
| 46) | CS05 TOLUENE-D8 | 13.13 | 98.0 | 145023 | 46.58 | NG/ML | 98 |
| 47) | CS10 BROMOFLUOROBENZENE | 19.61 | 95.0 | 92653 | 48.81 | NG/ML | 94 |

* Compound is ISTD

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-016

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 684316

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E6441

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. _____ Date Analyzed: 08/08/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

| CAS NO. | COMPOUND | | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 37 | |
| 67-64-1 | Acetone | 31 | |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 28 | |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 14 | |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 14 | |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 32 | |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 17 | |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 30 | |
| 124-48-1 | Dibromochloromethane | 22 | |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 28 | |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 20 | |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

1E

# VOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

6568G-016

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 684316

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E6441

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. _____ Date Analyzed: 08/08/91

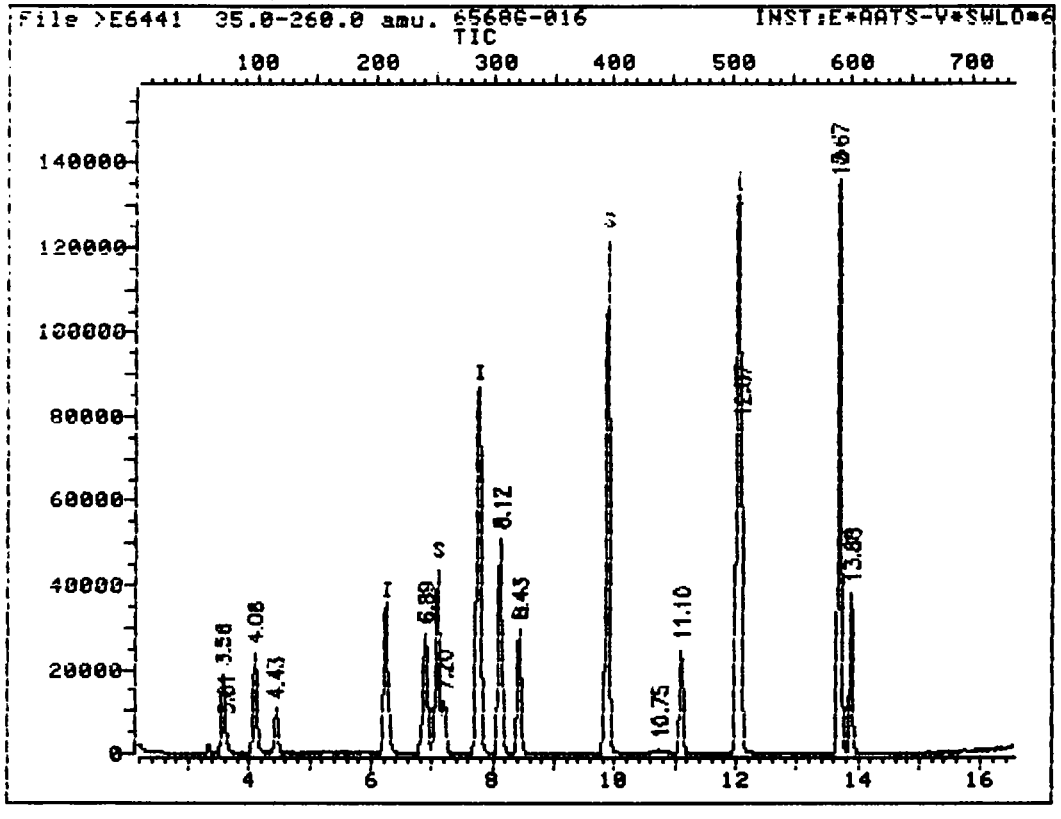
Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |

TOTAL ION CHROMATOGRAM




Data File: >E6441::D5 Quant Output File: ^E6441::D7
Name: 6568G-016
Misc: INST:E*AATS-V*SWLO#6843.16*5ml

Id File: IDVOE1::PS
Title: VOA (EPA CLP) 5ML AMBIENT PURGE (WATER) INST: E
Last Calibration: 910808 09:25

Operator ID: SAM
Quant Time: 910808 18:16
Injected at: 910808 17:57

QUANT REPORT

Operator ID: SAM  Quant Rev: 6  Quant Time: 910808 18:16
Output File: ^E6441::D7  Injected at: 910808 17:57
Data File: >E6441::D5  Dilution Factor: 1.00000
Name: 6568G-016
Misc: INST:E*AATS-V*SWLO#6843.16*5ml

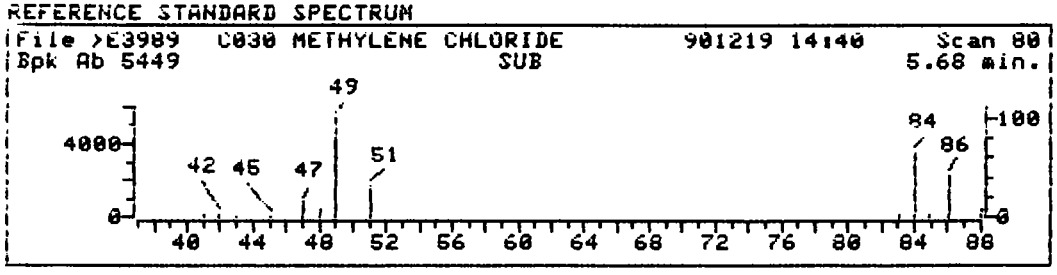
ID File: IDVOE1::PS
Title: VOA (EPA CLP) 5ML AMBIENT PURGE (WATER) INST: E
Last Calibration: 910808 09:25

| | Compound | R.T. | Q ion | Area | Conc | Units | a |
|---|---|---|---|---|---|---|---|
| 1) | *CI01 BROMOCHLOROMETHANE | 6.22 | 128.0 | 23898 | 50.00 | ng/mL | 96 |
| 6) | C030 METHYLENE CHLORIDE | 4.08 | 84.0 | 23133 | 36.90 | ng/mL | 84 |
| 7) | C035 ACETONE | 3.61 | 43.0 | 3665 | 30.84 | ng/mL | 100 |
| 10) | C045 1,1-DICHLOROETHENE | 3.56 | 96.0 | 15298 | 27.66 | ng/mL | 73 |
| ~~12)~~ | ~~C053 1,2-DICHLOROETHENE(TRANS)~~ | ~~3.56~~ | ~~96.0~~ | ~~15298~~ | ~~21.67~~ | ~~ng/mL~~ FP | 80 |
| 12) | C053 1,2-DICHLOROETHENE(TRANS) | 4.43 | 96.0 | 10006 | 14.17 | ng/mL | 88 |
| 15) | C065 1,2-DICHLOROETHANE | 7.20 | 62.0 | 25051 | 13.77 | ng/mL | 99 |
| 17) | CS15 1,2-DICHLOROETHANE-D4 | 7.08 | 65.0 | 78109 | 49.66 | ng/mL | 92 |
| 18) | *CI10 1,4-DIFLUOROBENZENE | 7.74 | 114.0 | 173923 | 50.00 | ng/mL | 95 |
| 20) | C120 CARBON TETRACHLORIDE | 6.89 | 117.0 | 53097 | 32.01 | ng/mL | 96 |
| 23) | C140 1,2-DICHLOROPROPANE | 8.43 | 63.0 | 24695 | 17.17 | ng/mL | 96 |
| 25) | C150 TRICHLOROETHENE | 8.12 | 130.0 | 43820 | 30.11 | ng/mL | 88 |
| 26) | C155 DIBROMOCHLOROMETHANE | 11.10 | 129.0 | 30214 | 21.58 | ng/mL | 90 |
| ~~31)~~ | ~~C180 BROMOFORM~~ | ~~13.67~~ | ~~173.0~~ | ~~400~~ | ~~.45~~ | ~~ng/mL~~ FP | 100 |
| 32) | *CI20 CHLOROBENZENE-D5 | 12.01 | 117.0 | 159557 | 50.00 | ng/mL | 90 |
| ~~35)~~ | ~~C220 TETRACHLOROETHENE~~ | ~~10.75~~ | ~~164.0~~ | ~~500~~ | ~~.37~~ | ~~ng/mL~~ FP | 95 |
| 36) | C225 1,1,2,2-TETRACHLOROETHANE | 13.88 | 83.0 | 40919 | 27.71 | ng/mL | 99 |
| 38) | C235 CHLOROBENZENE | 12.07 | 112.0 | 69152 | 20.38 | ng/mL | 94 |
| 46) | CS05 TOLUENE-D8 | 9.87 | 98.0 | 186845 | 45.23 | ng/mL | 96 |
| 47) | CS10 BROMOFLUOROBENZENE | 13.69 | 95.0 | 104322 | 53.45 | ng/mL | 96 |

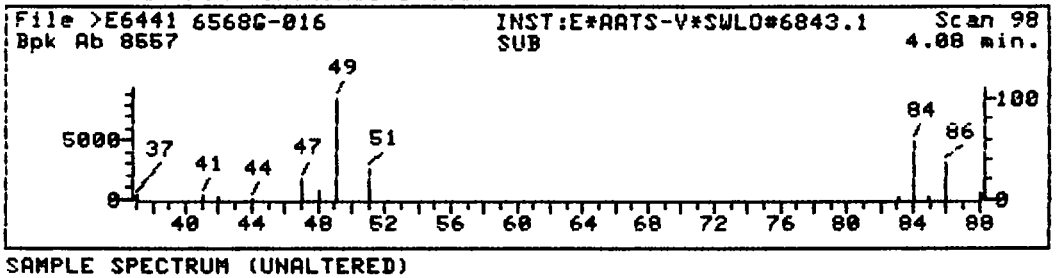
* Compound is ISTD

**FP = FALSE POSITIVE**

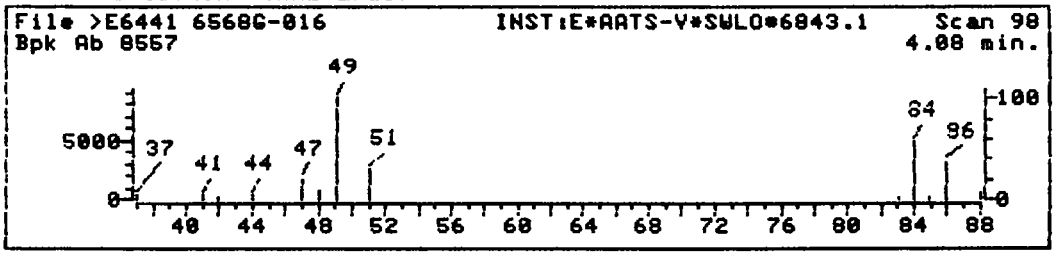
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



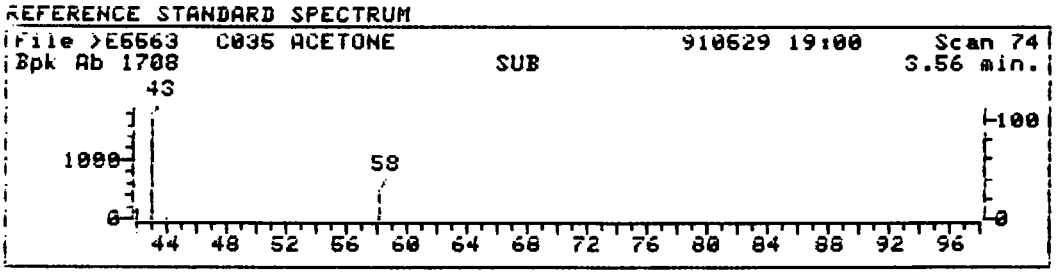

SAMPLE SPECTRUM (UNALTERED)



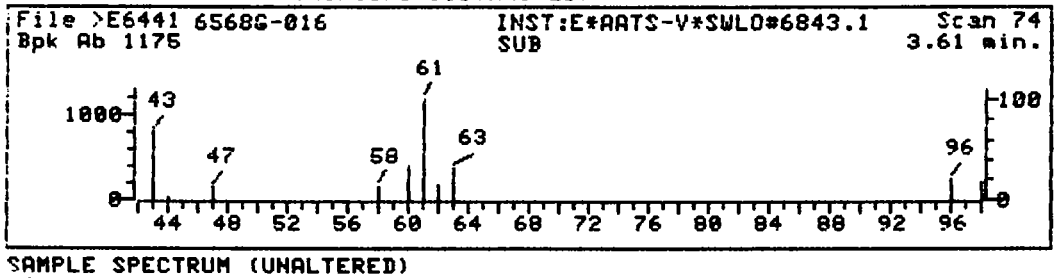

Data File: >E6441::D5 Quant Output File: ^E6441::D7
Name: 6568G-016
Misc: INST:E*AATS-V*SWLO#6843.16*5ml
Quant Time: 910808 18:16 Quant ID File: IDVOE1::PS
Injected at: 910808 17:57 Last Calibration: 910808 09:25

Compound No: 6
Compound Name: C030 METHYLENE CHLORIDE
Scan Number: 98
Retention Time: 4.08 min.
Quant Ion: 84.0
Area: 23133
Concentration: 36.90 ng/mL
q-value: 84

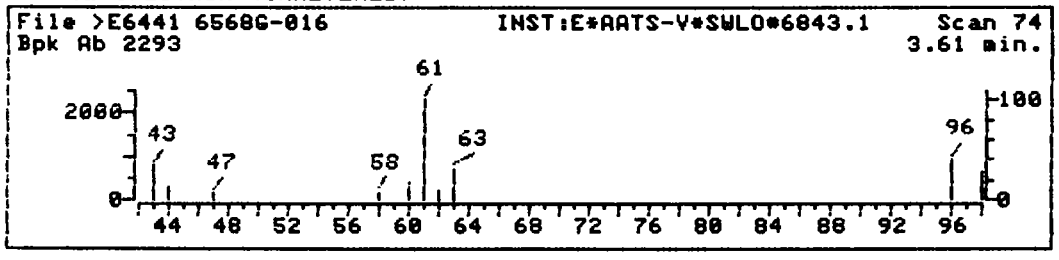
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



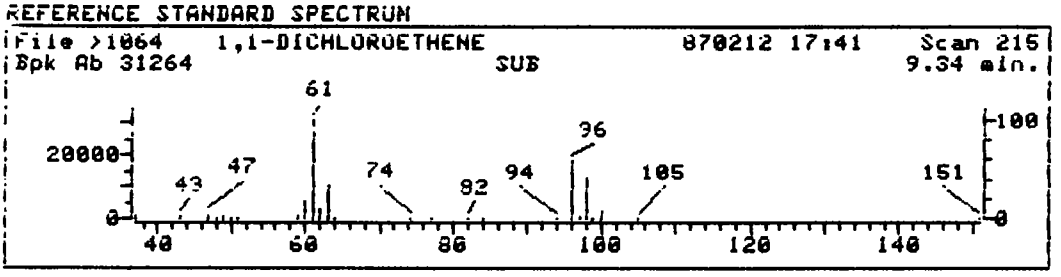

SAMPLE SPECTRUM (UNALTERED)



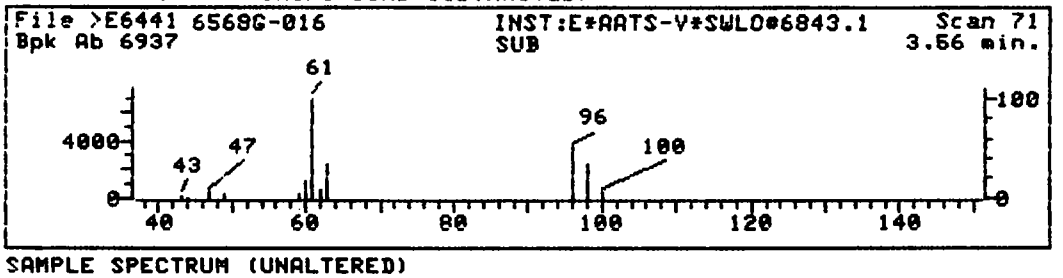

Data File: >E6441::D5 Quant Output File: ^E6441::D7
Name: 6568G-016
Misc: INST:E*AATS-V*SWLO#6843.16*5ml
Quant Time: 910808 18:16 Quant ID File: IDVOE1::PS
Injected at: 910808 17:57 Last Calibration: 910808 09:25

Compound No: 7
Compound Name: C035 ACETONE
Scan Number: 74
Retention Time: 3.61 min.
Quant Ion: 43.0
Area: 3665
Concentration: 30.84 ng/mL
q-value: 100

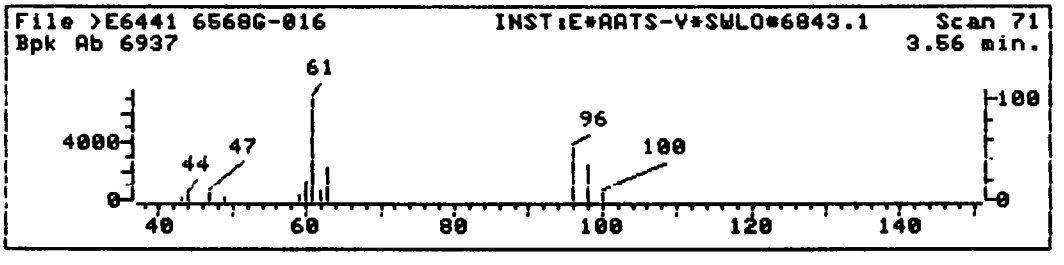
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



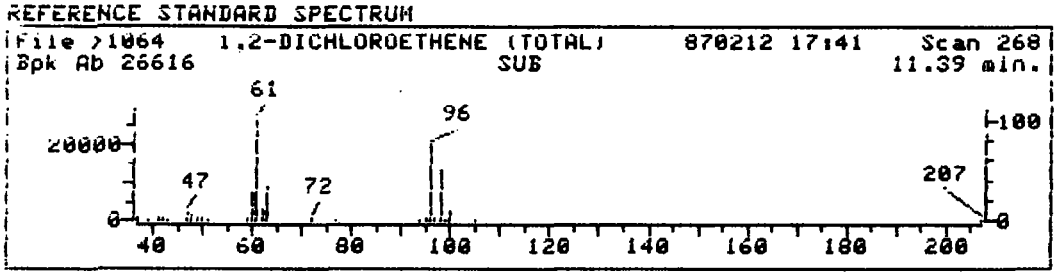

SAMPLE SPECTRUM (UNALTERED)



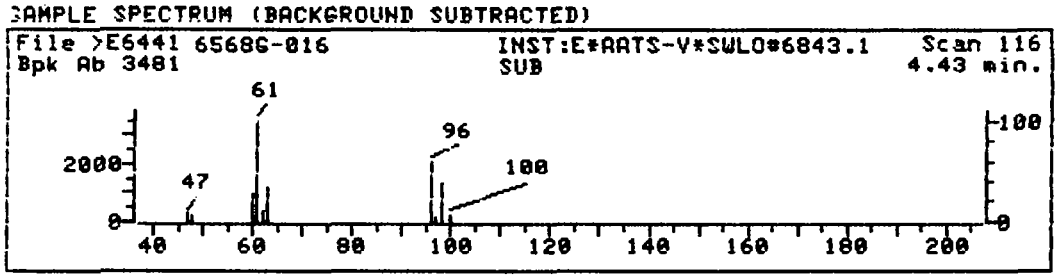

Data File: >E6441::D5 Quant Output File: ^E6441::D7
Name: 6568G-016
Misc: INST:E*AATS-V*SWLO#6843.16*5ml
Quant Time: 910808 18:16 Quant ID File: IDVOE1::PS
Injected at: 910808 17:57 Last Calibration: 910808 09:25

Compound No: 10
Compound Name: C045 1,1-DICHLOROETHENE
Scan Number: 71
Retention Time: 3.56 min.
Quant Ion: 96.0
Area: 15298
Concentration: 27.66 ng/mL
q-value: 73

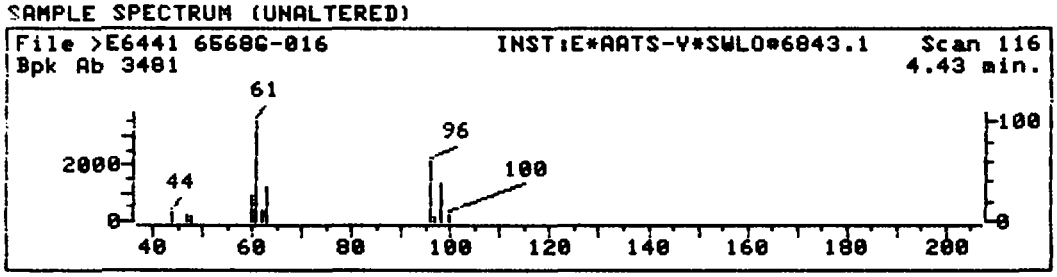
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



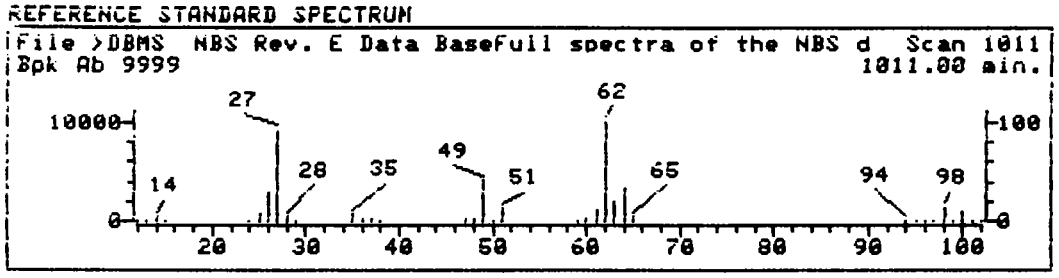

SAMPLE SPECTRUM (UNALTERED)



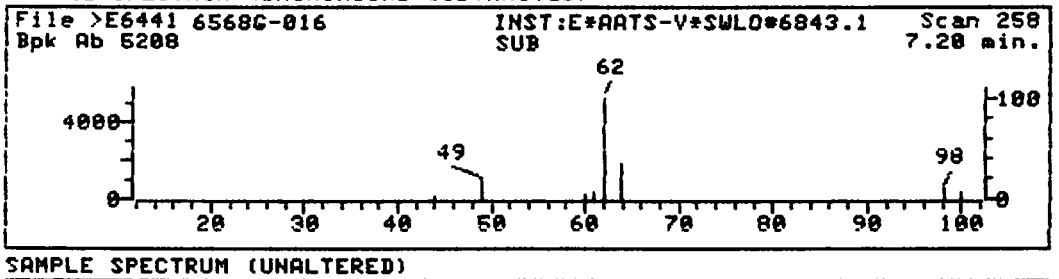

Data File: >E6441::D5 Quant Output File: ^E6441::D7
Name: 6568G-016
Misc: INST:E*AATS-V*SWLO#6843.16*5ml
Quant Time: 910808 18:16 Quant ID File: IDVOE1::PS
Injected at: 910808 17:57 Last Calibration: 910808 09:25

Compound No: 12
Compound Name: C053 1,2-DICHLOROETHENE(TRANS)
Scan Number: 116
Retention Time: 4.43 min.
Quant Ion: 96.0
Area: 10006
Concentration: 14.17 ng/mL
q-value: 88

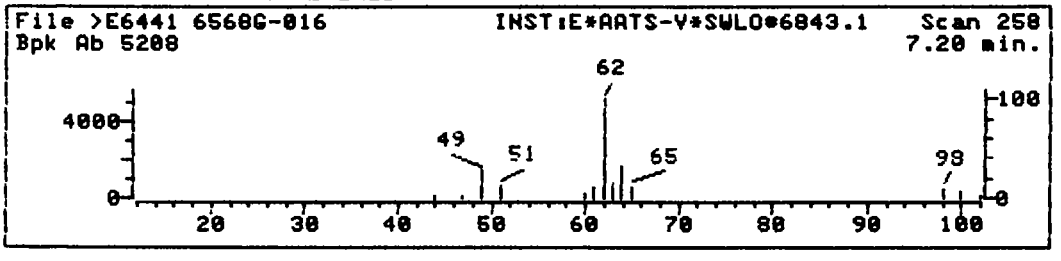
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



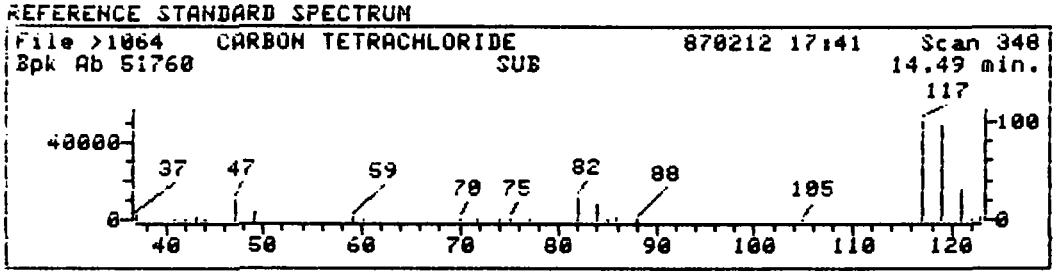

SAMPLE SPECTRUM (UNALTERED)



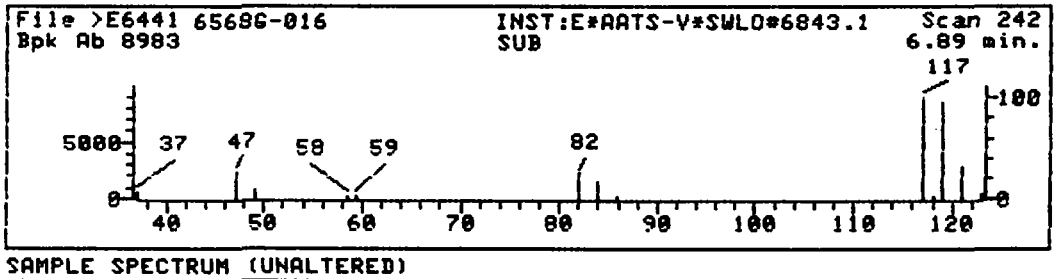

Data File: >E6441::D5 Quant Output File: ^E6441::D7
Name: 6568G-016
Misc: INST:E*AATS-V*SWLO#6843.16*5ml
Quant Time: 910808 18:16 Quant ID File: IDVOE1::PS
Injected at: 910808 17:57 Last Calibration: 910808 09:25

Compound No: 15
Compound Name: C065 1,2-DICHLOROETHANE
Scan Number: 258
Retention Time: 7.20 min.
Quant Ion: 62.0
Area: 25051
Concentration: 13.77 ng/mL
q-value: 99

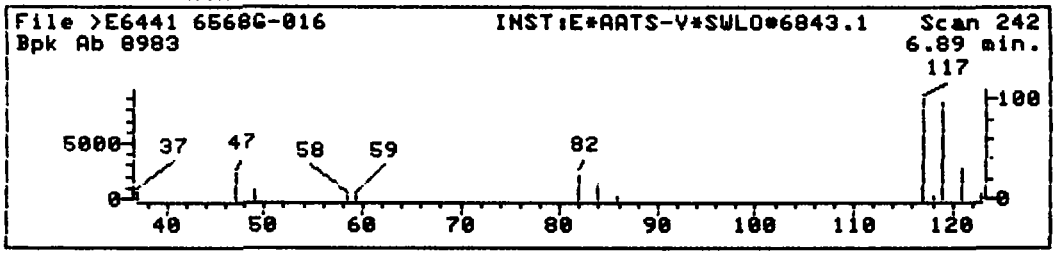
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



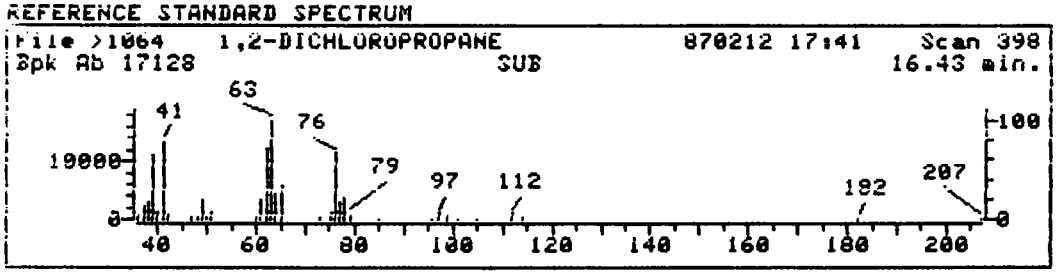

SAMPLE SPECTRUM (UNALTERED)



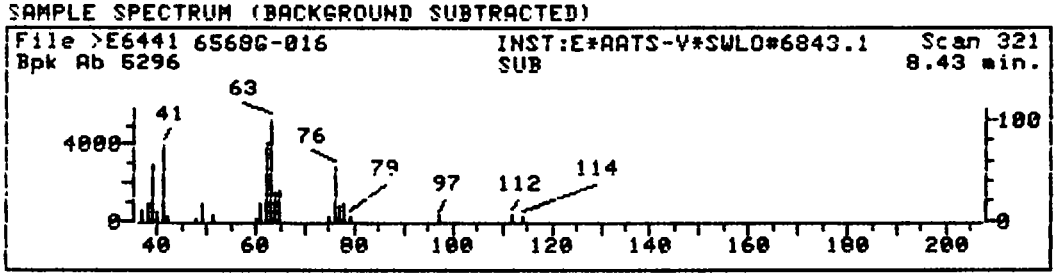

Data File: >E6441::D5 Quant Output File: ^E6441::D7
Name: 6568G-016
Misc: INST:E*AATS-V*SWLO#6843.16*5ml
Quant Time: 910808 18:16 Quant ID File: IDVOE1::PS
Injected at: 910808 17:57 Last Calibration: 910808 09:25

Compound No: 20
Compound Name: C120 CARBON TETRACHLORIDE
Scan Number: 242
Retention Time: 6.89 min.
Quant Ion: 117.0
Area: 53097
Concentration: 32.01 ng/mL
q-value: 96

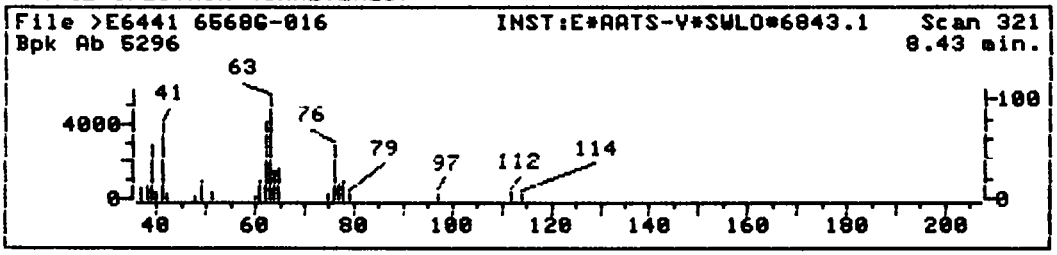
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



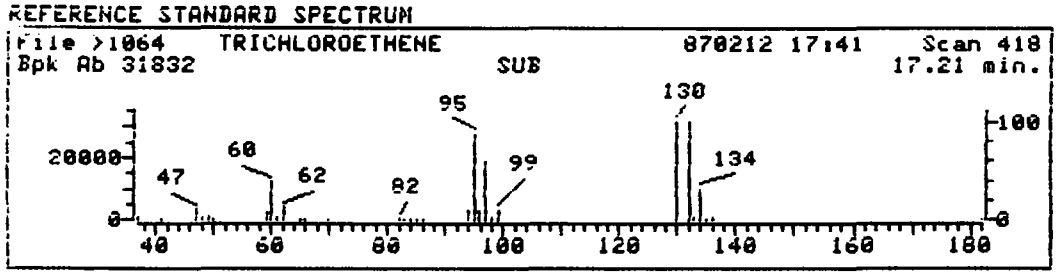

SAMPLE SPECTRUM (UNALTERED)



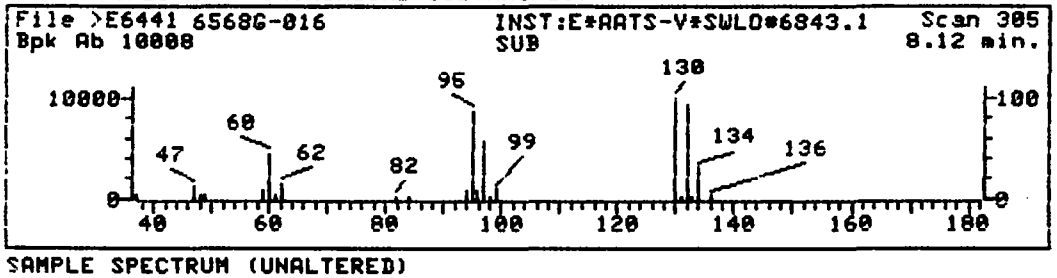

Data File: >E6441::D5 Quant Output File: ^E6441::D7
Name: 6568G-016
Misc: INST:E*AATS-V*SWLO#6843.16*5ml
Quant Time: 910808 18:16 Quant ID File: IDVOE1::PS
Injected at: 910808 17:57 Last Calibration: 910808 09:25

Compound No: 23
Compound Name: C140 1,2-DICHLOROPROPANE
Scan Number: 321
Retention Time: 8.43 min.
Quant Ion: 63.0
Area: 24695
Concentration: 17.17 ng/mL
q-value: 96

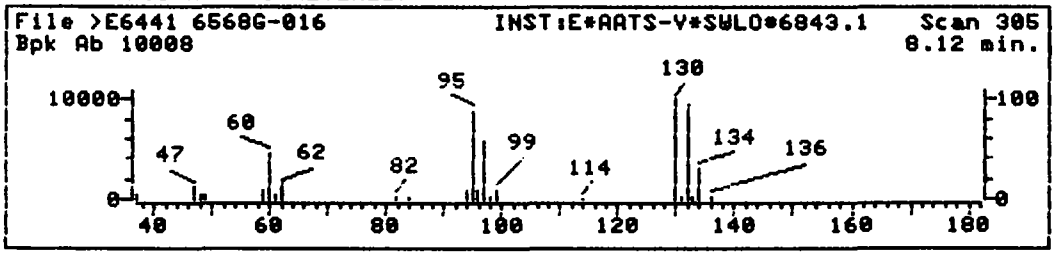
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



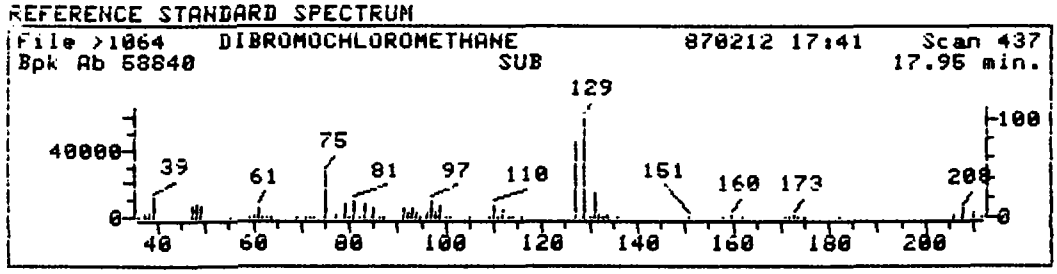

SAMPLE SPECTRUM (UNALTERED)



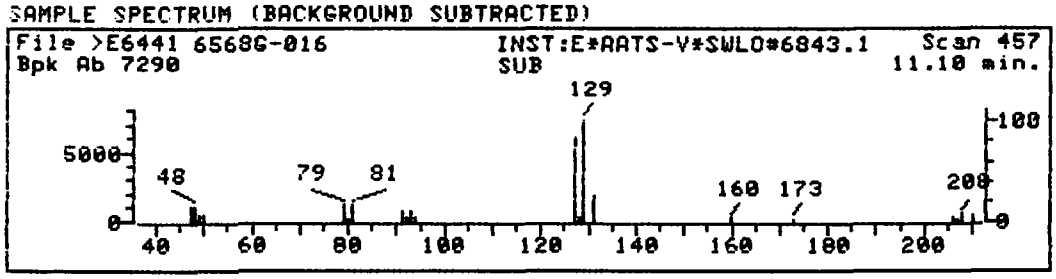

Data File: >E6441::D5 Quant Output File: ^E6441::D7
Name: 6568G-016
Misc: INST:E*AATS-V*SWLO#6843.16*5ml
Quant Time: 910808 18:16 Quant ID File: IDVOE1::PS
Injected at: 910808 17:57 Last Calibration: 910808 09:25

Compound No: 25
Compound Name: C150 TRICHLOROETHENE
Scan Number: 305
Retention Time: 8.12 min.
Quant Ion: 130.0
Area: 43820
Concentration: 30.11 ng/mL
q-value: 88

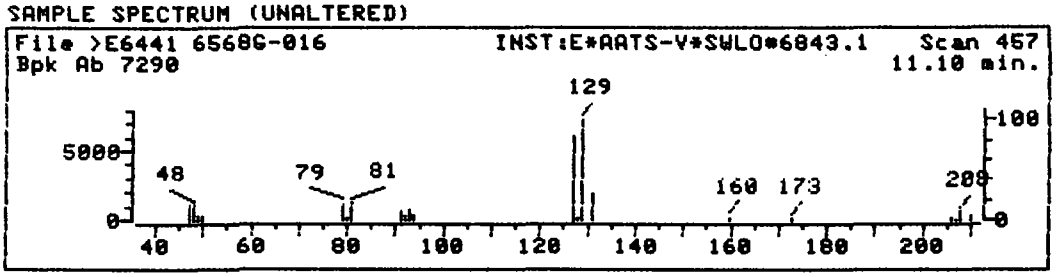
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



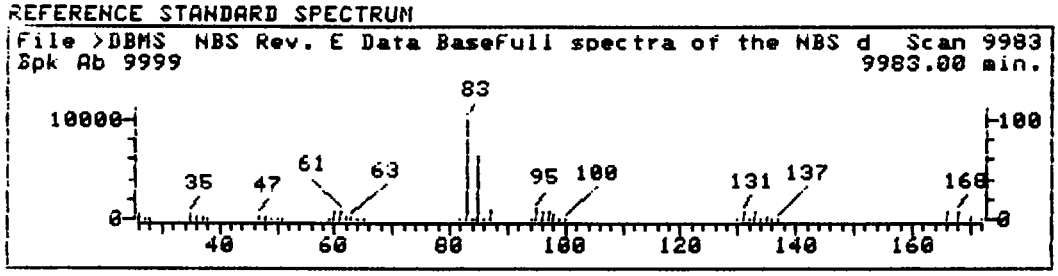

SAMPLE SPECTRUM (UNALTERED)



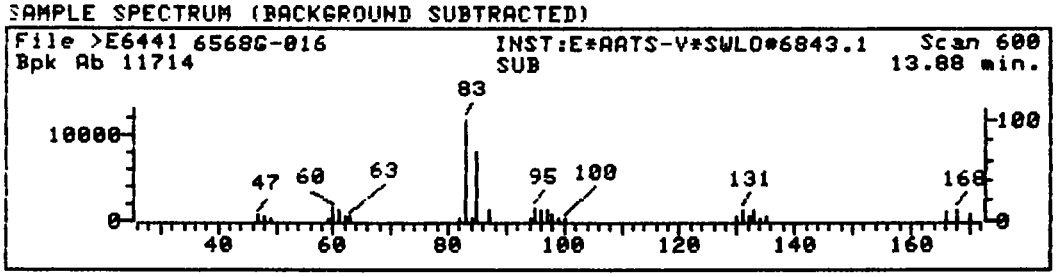

Data File: >E6441::D5 Quant Output File: ^E6441::D7
Name: 6568G-016
Misc: INST:E*AATS-V*SWLO#6843.16*5ml
Quant Time: 910808 18:16 Quant ID File: IDVOE1::PS
Injected at: 910808 17:57 Last Calibration: 910808 09:25

Compound No: 26
Compound Name: C155 DIBROMOCHLOROMETHANE
Scan Number: 457
Retention Time: 11.10 min.
Quant Ion: 129.0
Area: 30214
Concentration: 21.58 ng/mL
q-value: 90

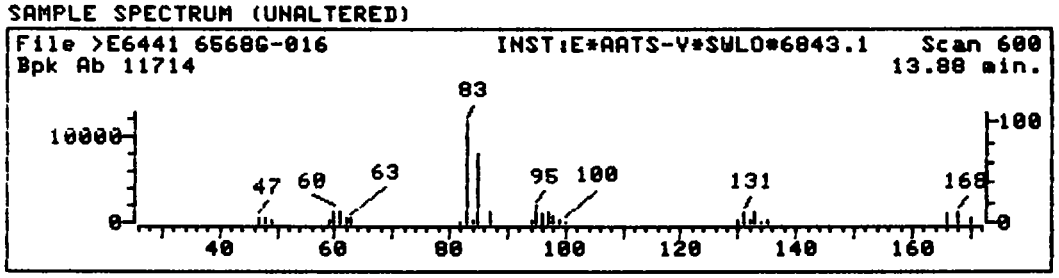
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



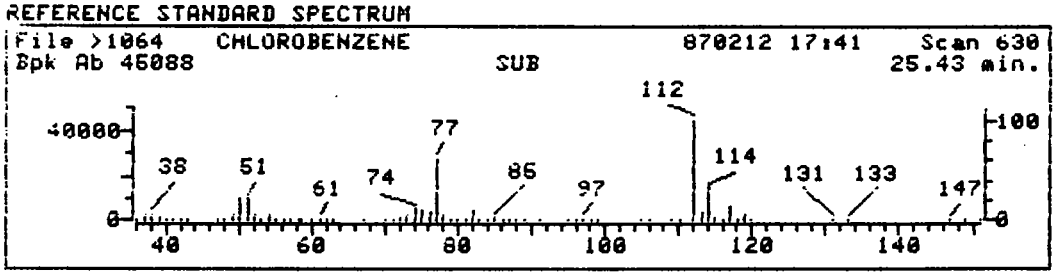

SAMPLE SPECTRUM (UNALTERED)



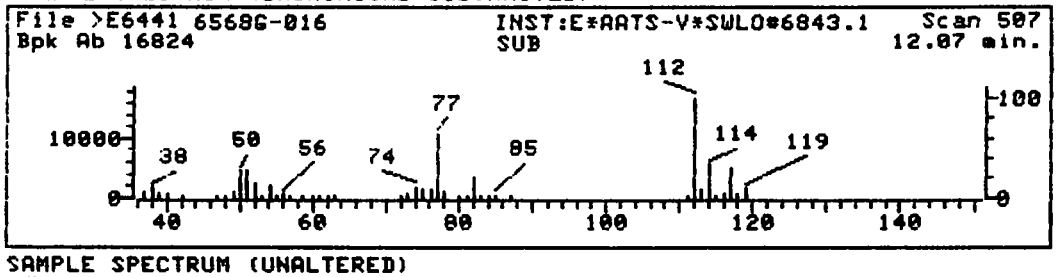

Data File: >E6441::D5 Quant Output File: ^E6441::D7
Name: 6568G-016
Misc: INST:E*AATS-V*SWLO#6843.16*5ml
Quant Time: 910808 18:16 Quant ID File: IDVOE1::PS
Injected at: 910808 17:57 Last Calibration: 910808 09:25

Compound No: 36
Compound Name: C225 1,1,2,2-TETRACHLOROETHANE
Scan Number: 600
Retention Time: 13.88 min.
Quant Ion: 83.0
Area: 40919
Concentration: 27.71 ng/mL
q-value: 99

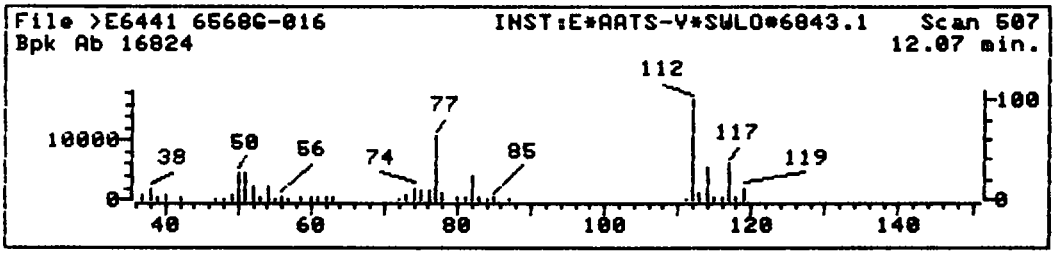
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)




SAMPLE SPECTRUM (UNALTERED)




Data File: >E6441::D5 Quant Output File: ^E6441::D7
Name: 6568G-016
Misc: INST:E*AATS-V*SWLO#6843.16*5ml
Quant Time: 910808 18:16 Quant ID File: IDVOE1::PS
Injected at: 910808 17:57 Last Calibration: 910808 09:25

Compound No: 38
Compound Name: C235 CHLOROBENZENE
Scan Number: 507
Retention Time: 12.07 min.
Quant Ion: 112.0
Area: 69152
Concentration: 20.38 ng/mL
q-value: 94

# VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Instrument ID: C Calibration Date(s): 05/26/91 05/26/91

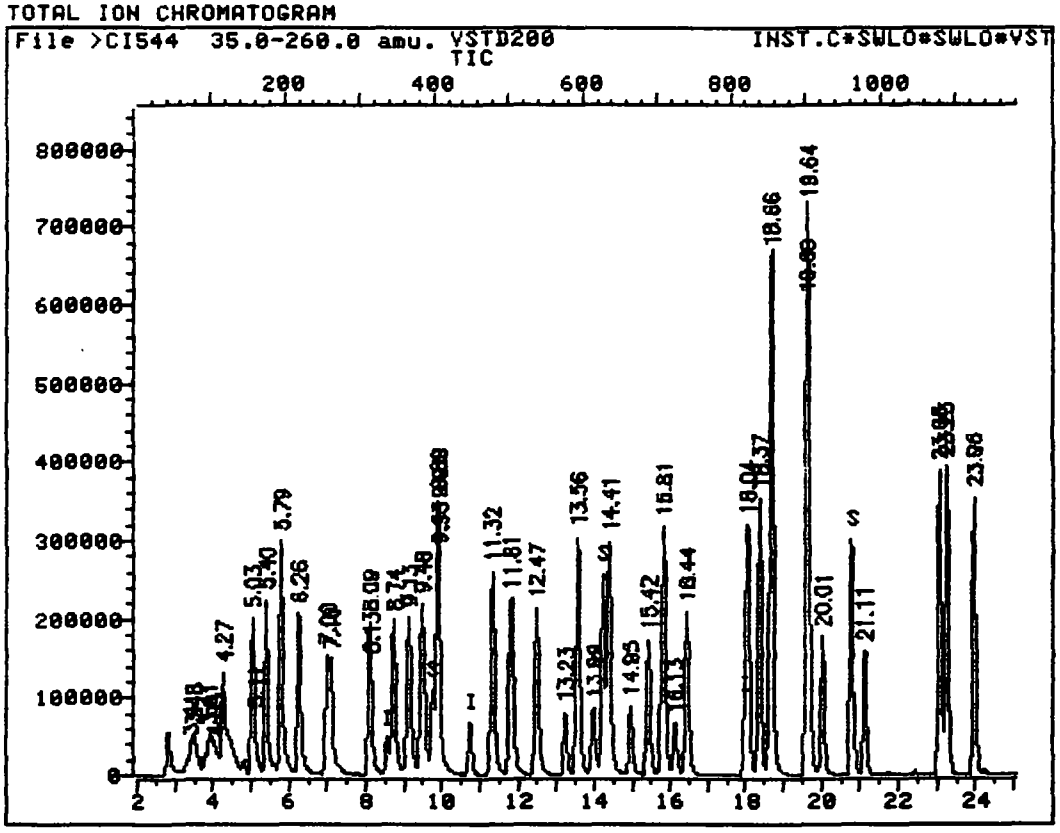
Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

Min RRF for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = CI548 RRF50 = CI547
RRF100= CI546 RRF150= CI545 RRF200= CI544

| COMPOUND | | RRF20 | RRF50 | RRF100 | RRF150 | RRF200 | RRF | % RSD |
|---|---|---|---|---|---|---|---|---|
| Chloromethane | # | 1.659 | 1.580 | 1.490 | 1.475 | 1.505 | 1.542 | 5.0# |
| Bromomethane | | 1.797 | 1.619 | 1.502 | 1.429 | 1.389 | 1.547 | 10.6 |
| Vinyl Chloride | * | 1.510 | 1.568 | 1.363 | 1.428 | 1.526 | 1.479 | 5.6* |
| Chloroethane | | 1.034 | 1.023 | 0.980 | 0.944 | 0.890 | 0.974 | 6.1 |
| Methylene Chloride | | 2.515 | 2.454 | 2.334 | 2.322 | 2.364 | 2.398 | 3.5 |
| Acetone | | 0.393 | 0.380 | 0.329 | 0.339 | 0.334 | 0.355 | 8.3 |
| Carbon Disulfide | | 5.921 | 5.880 | 5.792 | 5.802 | 6.004 | 5.880 | 1.5 |
| 1,1-Dichloroethene | * | 1.527 | 1.502 | 1.435 | 1.418 | 1.480 | 1.472 | 3.1* |
| 1,1-Dichloroethane | # | 3.542 | 3.400 | 3.303 | 3.380 | 3.323 | 3.390 | 2.8# |
| 1,2-Dichloroethene (total) | | 1.609 | 1.584 | 1.548 | 1.508 | 1.581 | 1.566 | 2.5 |
| Chloroform | * | 3.769 | 3.565 | 3.319 | 3.288 | 3.429 | 3.474 | 5.7* |
| 1,2-Dichloroethane | | 2.264 | 2.190 | 2.027 | 2.089 | 2.040 | 2.122 | 4.8 |
| 2-Butanone | | 0.093 | 0.113 | 0.114 | 0.121 | 0.113 | 0.111 | 9.5 |
| 1,1,1-Trichloroethane | | 0.668 | 0.672 | 0.662 | 0.690 | 0.690 | 0.676 | 1.9 |
| Carbon Tetrachloride | | 0.651 | 0.682 | 0.697 | 0.700 | 0.698 | 0.686 | 3.0 |
| Vinyl Acetate | | 0.907 | 0.940 | 0.917 | 0.937 | 0.918 | 0.924 | 1.5 |
| Bromodichloromethane | | 0.668 | 0.688 | 0.689 | 0.678 | 0.679 | 0.680 | 1.3 |
| 1,2-Dichloropropane | * | 0.496 | 0.495 | 0.467 | 0.467 | 0.458 | 0.477 | 3.7* |
| cis-1,3-Dichloropropene | | 0.821 | 0.848 | 0.833 | 0.843 | 0.836 | 0.836 | 1.2 |
| Trichloroethene | | 0.644 | 0.634 | 0.630 | 0.624 | 0.630 | 0.632 | 1.2 |
| Dibromochloromethane | | 0.532 | 0.568 | 0.566 | 0.567 | 0.564 | 0.559 | 2.8 |
| 1,1,2-Trichloroethane | | 0.297 | 0.301 | 0.291 | 0.284 | 0.279 | 0.290 | 3.1 |
| Benzene | | 1.044 | 1.040 | 1.004 | 0.977 | 0.984 | 1.010 | 3.1 |
| Trans-1,3-Dichloropropene | | 0.202 | 0.223 | 0.225 | 0.227 | 0.223 | 0.220 | 4.6 |
| Bromoform | # | 0.322 | 0.361 | 0.369 | 0.370 | 0.369 | 0.358 | 5.7# |
| 4-Methyl-2-Pentanone | | 0.583 | 0.564 | 0.548 | 0.518 | 0.508 | 0.544 | 5.7 |
| 2-Hexanone | | 0.422 | 0.414 | 0.395 | 0.385 | 0.371 | 0.397 | 5.2 |
| Tetrachloroethene | | 0.557 | 0.552 | 0.555 | 0.534 | 0.536 | 0.547 | 2.0 |
| 1,1,2,2-Tetrachloroethane | # | 0.603 | 0.582 | 0.564 | 0.551 | 0.536 | 0.567 | 4.6# |
| Toluene | * | 0.820 | 0.837 | 0.794 | 0.804 | 0.804 | 0.812 | 2.1* |
| Chlorobenzene | # | 1.033 | 1.039 | 1.008 | 0.991 | 1.002 | 1.015 | 2.0# |
| Ethylbenzene | * | 0.513 | 0.510 | 0.490 | 0.482 | 0.483 | 0.496 | 3.0* |
| Styrene | | 1.309 | 1.266 | 1.205 | 1.158 | 1.148 | 1.217 | 5.7 |
| Xylene (total) | | 0.766 | 0.737 | 0.704 | 0.687 | 0.683 | 0.715 | 5.0 |
| Toluene-d8 | | 1.240 | 1.166 | 1.167 | 1.171 | 1.148 | 1.178 | 3.0 |
| Bromofluorobenzene | | 0.679 | 0.636 | 0.636 | 0.620 | 0.594 | 0.633 | 4.9 |
| 1,2-Dichloroethane-d4 | | 1.868 | 1.706 | 1.641 | 1.651 | 1.608 | 1.695 | 6.1 |

TOTAL ION CHROMATOGRAM




Data File: >CI544::D5 Quant Output File: ^CI544::L1
Name: VSTD200
Misc: INST.C*SWLO#SWLO#VSTD200(2-027-4)*5ML

Id File: IDV012::PS
Title: VOA (EPA CLP) 5mL AMBIENT PURGE (WATERS) INST:C
Last Calibration: 910524 13:55

Operator ID: DONNIE
Quant Time: 910526 15:10
Injected at: 910526 14:44

QUANT REPORT

Operator ID: DONNIE  Quant Rev: 6  Quant Time: 910526 15:10
Output File: ^CI544::L1  Injected at: 910526 14:44
Data File: >CI544::D5  Dilution Factor: 1.00000
Name: VSTD200
Misc: INST.C*SWLO#SWLO#VSTD200(2-027-4)*5ML

ID File: IDV012::PS
Title: VOA (EPA CLP) 5mL AMBIENT PURGE (WATERS) INST:C
Last Calibration: 910524 13:55

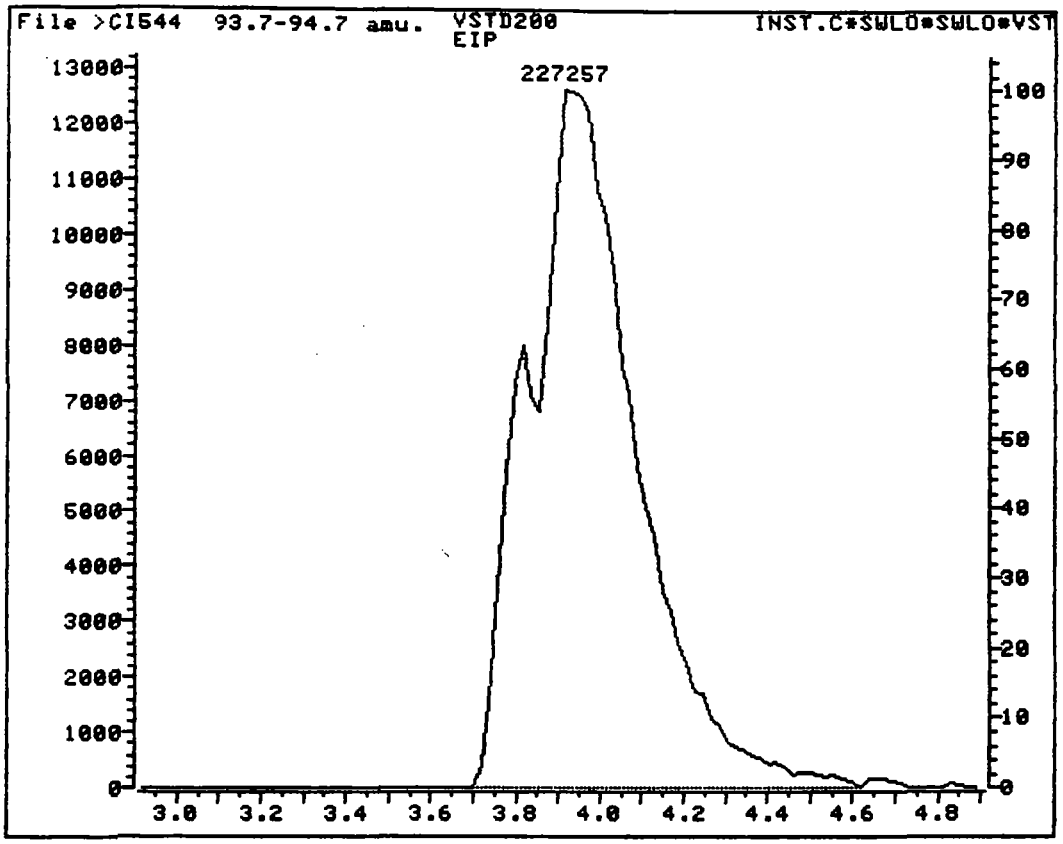
| | | Compound | R.T. | Q ion | Area | Conc | Units | c |
|---|---|---|---|---|---|---|---|---|
| 1) | *CI01 | BROMOCHLOROMETHANE | 8.54 | 128.0 | 40885 | 50.00 | NG/ML | 7 |
| 2) | C010 | CHLOROMETHANE | 3.41 | 50.0 | 246290 | 313.11 | NG/ML | 9 |
| 3) | C015 | BROMOMETHANE | 3.91 | 94.0 | 227257M | 195.89 | NG/ML | 9 |
| 4) | C020 | VINYL CHLORIDE | 3.48 | 62.0 | 249696 | 278.27 | NG/ML | 10 |
| 5) | C025 | CHLOROETHANE | 3.89 | 64.0 | 145527M | 239.94 | NG/ML | 10 |
| 6) | C030 | METHYLENE CHLORIDE | 5.79 | 84.0 | 386785 | 243.46 | NG/ML | 6 |
| 7) | C035 | ACETONE | 5.11 | 43.0 | 54620 | 315.13 | NG/ML | 10 |
| 8) | C040 | CARBON DISULFIDE | 5.40 | 76.0 | 982188 | 279.32 | NG/ML | 9 |
| 9) | C255 | TRICHLOROFLUOROMETHANE | 4.27 | 101.0 | 604835 | 230.25 | NG/ML | 9 |
| 10) | C045 | 1,1-DICHLOROETHENE | 5.03 | 96.0 | 242082 | 228.19 | NG/ML | 8 |
| 11) | C050 | 1,1-DICHLOROETHANE | 7.00 | 63.0 | 543688 | 275.31 | NG/ML | 9 |
| 12) | C053 | 1,2-DICHLOROETHENE(TRANS) | 6.26 | 96.0 | 258591 | 224.00 | NG/ML | 8 |
| 13) | C055 | 1,2-DICHLOROETHENE (CIS) | 8.09 | 96.0 | 280364M | 214.24 | NG/ML | 7 |
| 14) | C060 | CHLOROFORM | 8.74 | 83.0 | 561032 | 237.53 | NG/ML | 9 |
| 15) | C065 | 1,2-DICHLOROETHANE | 9.91 | 62.0 | 333665 | 247.81 | NG/ML | 9 |
| 16) | C110 | 2-BUTANONE | 8.13 | 72.0 | 18515 | 236.74 | NG/ML | 7 |
| 17) | CS15 | 1,2-DICHLOROETHANE-D4 | 9.76 | 65.1 | 262994 | 239.95 | NG/ML | 9 |
| 18) | *CI10 | 1,4-DIFLUOROBENZENE | 10.73 | 114.0 | 187511 | 50.00 | NG/ML | 9 |
| 19) | C115 | 1,1,1-TRICHLOROETHANE | 9.13 | 96.9 | 518763 | 239.43 | NG/ML | 9 |
| 20) | C120 | CARBON TETRACHLORIDE | 9.48 | 117.0 | 524866 | 234.36 | NG/ML | 9 |
| 21) | C125 | VINYL ACETATE | 7.10 | 43.0 | 690228 | 353.57 | NG/ML | 10 |
| 22) | C130 | BROMODICHLOROMETHANE | 12.47 | 83.0 | 510970 | 246.67 | NG/ML | 9 |
| 23) | C140 | 1,2-DICHLOROPROPANE | 11.81 | 63.0 | 344763 | 271.92 | NG/ML | 9 |
| 24) | C172 | TRANS-1,3-DICHLOROPROPENE | 14.95 | 75.0 | 167483 | 205.49 | NG/ML | 9 |
| 25) | C150 | TRICHLOROETHENE | 11.32 | 130.0 | 340929 | 196.50 | NG/ML | 9 |
| 26) | C155 | DIBROMOCHLOROMETHANE | 16.44 | 129.0 | 424268 | 218.02 | NG/ML | 9 |
| 27) | C160 | 1,1,2-TRICHLOROETHANE | 15.42 | 97.0 | 209697 | 210.66 | NG/ML | 9 |
| 28) | C165 | BENZENE | 9.89 | 78.0 | 740138 | 240.46 | NG/ML | 8 |
| 29) | C143 | CIS-1,3-DICHLOROPROPENE | 13.56 | 75.0 | 628509 | 329.63 | NG/ML | 9 |
| 30) | C175 | 2-CHLOROETHYL VINYL ETHER | 13.23 | 63.0 | 125166 | 271.78 | NG/ML | 10 |
| 31) | C180 | BROMOFORM | 20.01 | 172.8 | 277847 | 238.88 | NG/ML | 9 |
| 32) | *CI20 | CHLOROBENZENE-D5 | 17.96 | 117.0 | 138567 | 50.00 | NG/ML | 9 |
| 33) | C205 | 4-METHYL-2-PENTANONE | 13.99 | 43.0 | 282351 | 307.99 | NG/ML | 8 |
| 34) | C210 | 2-HEXANONE | 16.13 | 43.0 | 206079 | 295.53 | NG/ML | 9 |
| 35) | C220 | TETRACHLOROETHENE | 15.81 | 164.0 | 298046 | 202.71 | NG/ML | 9 |
| 36) | C225 | 1,1,2,2-TETRACHLOROETHANE | 21.11 | 83.0 | 298209 | 227.10 | NG/ML | 9 |
| 37) | C230 | TOLUENE | 14.41 | 92.0 | 447167 | 222.09 | NG/ML | 9 |
| 38) | C235 | CHLOROBENZENE | 18.04 | 112.0 | 556887 | 198.96 | NG/ML | 9 |
| 39) | C240 | ETHYLBENZENE | 18.37 | 106.0 | 268330 | 202.44 | NG/ML | 4 |
| 40) | C245 | STYRENE | 19.64 | 104.0 | 638270 | 198.09 | NG/ML | 8 |
| 41) | C299 | o-XYLENE | 19.60 | 106.0 | 379769 | 190.49 | NG/ML | 7 |
| 42) | C250 | m,p-XYLENE (TOTAL) | 18.66 | 106.0 | 662444 | 386.13 | NG/ML | 7 |
| 43) | C265 | 1,3-DICHLOROBENZENE | 23.06 | 146.0 | 507843 | 188.54 | NG/ML | 9 |
| 44) | C270 | 1,4-DICHLOROBENZENE | 23.23 | 146.0 | 532861 | 193.15 | NG/ML | 9 |
| 45) | C260 | 1,2-DICHLOROBENZENE | 23.96 | 146.0 | 471739 | 191.56 | NG/ML | 9 |

0069

| | | | | | | |
|---|---|---|---|---|---|---|
| 47) | CS10 BROMOFLUOROBENZENE | 20.77 | 95.0 | 330429 | 209.53 | NG/ML |

* Compound is ISTD

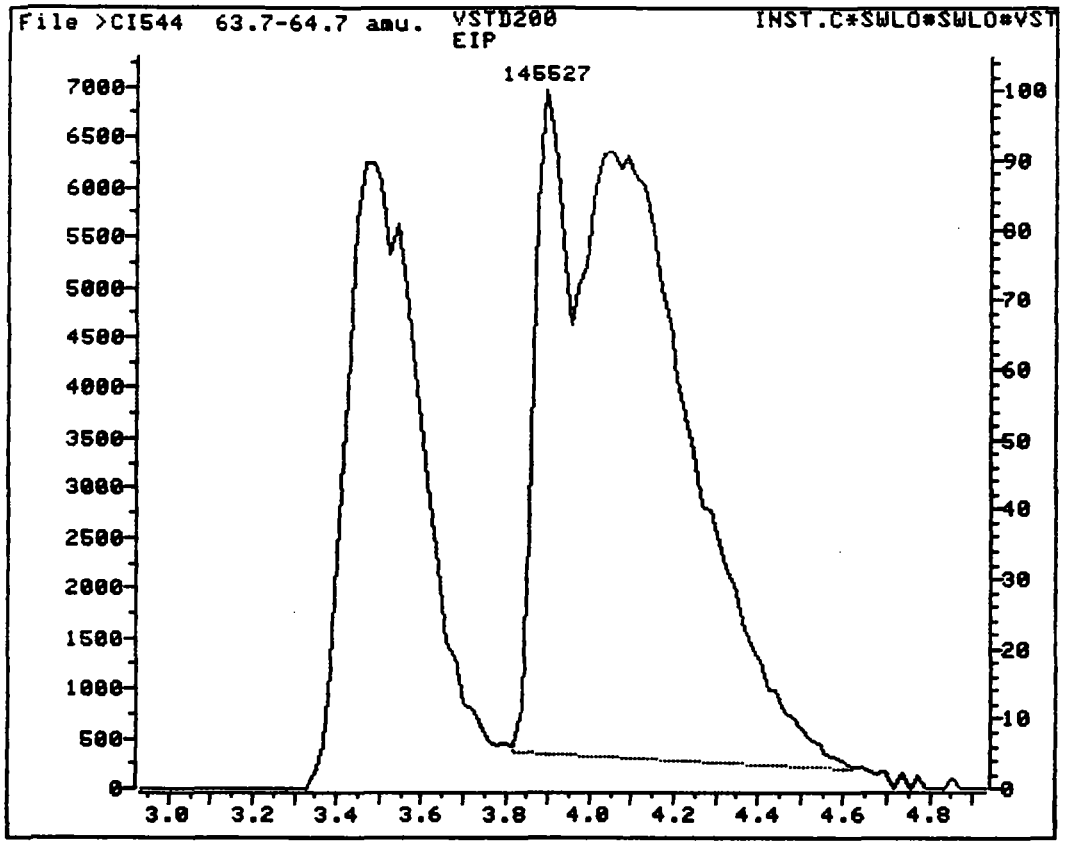
VSTD200
Inst:C
CI 544
05/26/91
14:44




Data File: >CI544::D5 Quant Output File: ^CI544::L1
Name: VSTD200
Misc: INST.C*SWLO#SWLO#VSTD200(2-027-4)*5ML
Quant Time: 910526 15:10 Quant ID File: IDV012::PS
Injected at: 910526 14:44 Last Calibration: 910524 13:55

Compound No: 3
Compound Name: C015 BROMOMETHANE
Scan Number: 99
Retention Time: 3.91 min.
Quant Ion: 94.0
Area: 227257M
Concentration: 195.89 NG/ML
q-value: 93

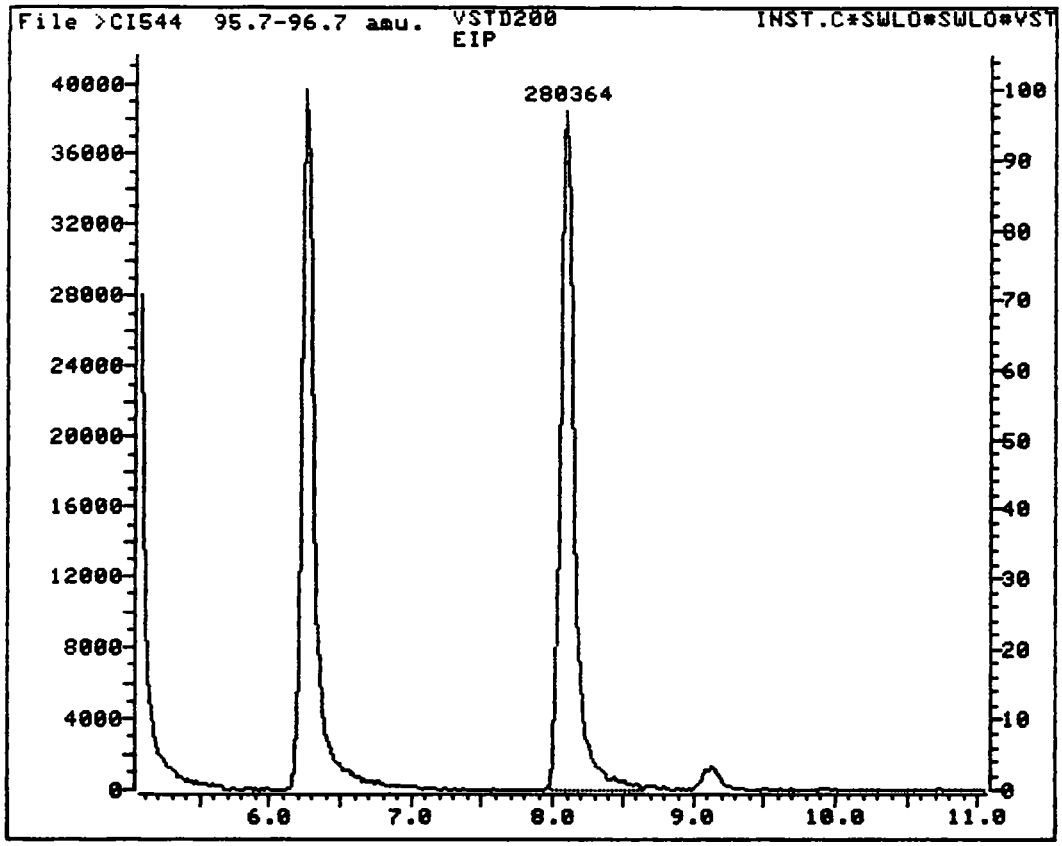
This report was produced by QAREA on: 910526 15:22




Data File: >CI544::D5 Quant Output File: ^CI544::L1
Name: VSTD200
Misc: INST.C*SWLO#SWLO#VSTD200(2-027-4)*5ML
Quant Time: 910526 15:10 Quant ID File: IDV012::PS
Injected at: 910526 14:44 Last Calibration: 910524 13:55

Compound No: 5
Compound Name: C025 CHLOROETHANE
Scan Number: 98
Retention Time: 3.89 min.
Quant Ion: 64.0
Area: 145527M
Concentration: 239.94 NG/ML
q-value: 100

This report was produced by QAREA on: 910526 15:23

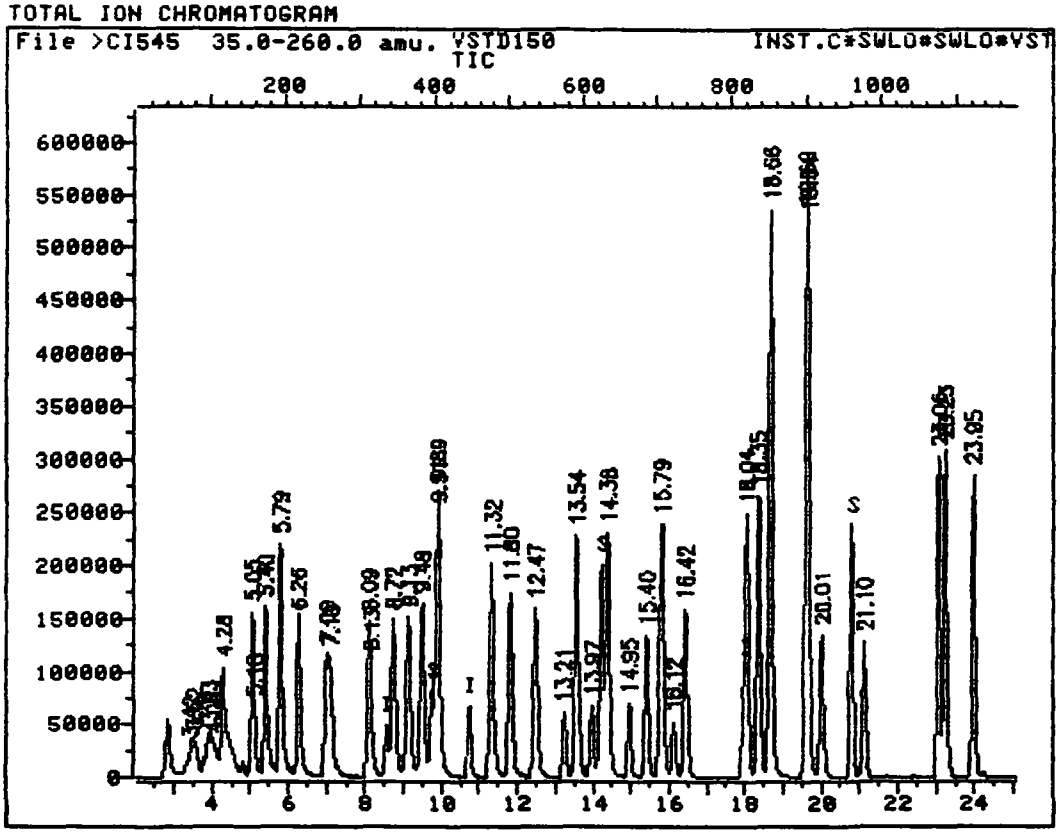



Data File: >CI544::D5 Quant Output File: ^CI544::L1
Name: VSTD200
Misc: INST.C*SWLO#SWLO#VSTD200(2-027-4)*5ML
Quant Time: 910526 15:10 Quant ID File: IDV012::PS
Injected at: 910526 14:44 Last Calibration: 910524 13:55

Compound No: 13
Compound Name: C055 1,2-DICHLOROETHENE (CIS)
Scan Number: 313
Retention Time: 8.09 min.
Quant Ion: 96.0
Area: 280364M
Concentration: 214.24 NG/ML
q-value: 72

This report was produced by QAREA on: 910526 15:54

TOTAL ION CHROMATOGRAM




Data File: >CI545::D5 Quant Output File: ^CI545::L1
Name: VSTD150
Misc: INST.C*SWLO#SWLO#VSTD150(2-027-4)*5ML

Id File: IDV012::PS
Title: VOA (EPA CLP) 5mL AMBIENT PURGE (WATERS) INST:C
Last Calibration: 910524 13:55

Operator ID: DONNIE
Quant Time: 910526 15:48
Injected at: 910526 15:23

QUANT REPORT

Operator ID: DONNIE  Quant Rev: 6  Quant Time: 910526 15:48
Output File: ^CI545::L1  Injected at: 910526 15:23
Data File: >CI545::D5  Dilution Factor: 1.00000
Name: VSTD150
Misc: INST.C*SWLO#SWLO#VSTD150(2-027-4)*5ML

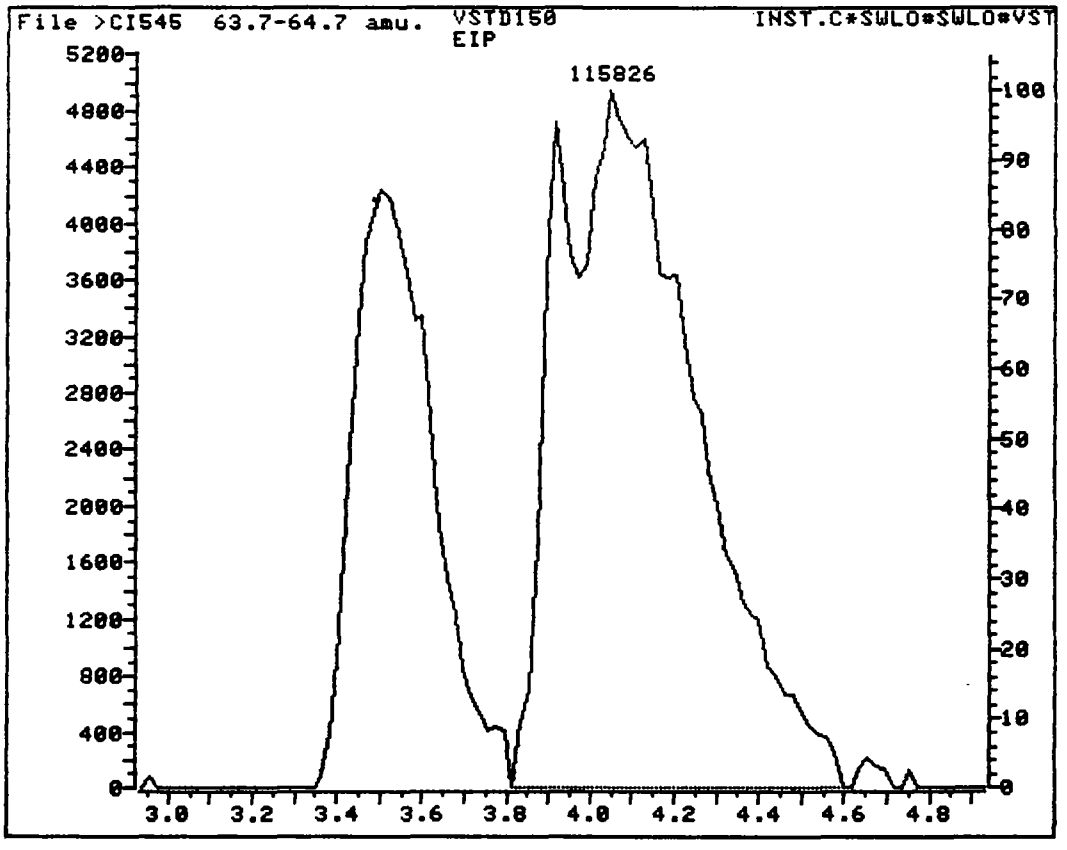
ID File: IDV012::PS
Title: VOA (EPA CLP) 5mL AMBIENT PURGE (WATERS) INST:C
Last Calibration: 910524 13:55

| | | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|---|
| 1) | *CI01 | BROMOCHLOROMETHANE | 8.54 | 128.0 | 40905 | 50.00 | NG/ML | 46 |
| 2) | C010 | CHLOROMETHANE | 3.42 | 50.0 | 181019 | 230.02 | NG/ML | 97 |
| 3) | C015 | BROMOMETHANE | 3.93 | 94.0 | 175384 | 151.10 | NG/ML | 95 |
| 4) | C020 | VINYL CHLORIDE | 3.52 | 62.0 | 175254 | 195.21 | NG/ML | 100 |
| 5) | C025 | CHLOROETHANE | 4.05 | 64.0 | 115826M | 190.87 | NG/ML | 100 |
| 6) | C030 | METHYLENE CHLORIDE | 5.79 | 84.0 | 284946 | 179.27 | NG/ML | 61 |
| 7) | C035 | ACETONE | 5.10 | 43.0 | 41632 | 240.08 | NG/ML | 100 |
| 8) | C040 | CARBON DISULFIDE | 5.40 | 76.0 | 711913 | 202.36 | NG/ML | 94 |
| 9) | C255 | TRICHLOROFLUOROMETHANE | 4.28 | 101.0 | 451683 | 171.86 | NG/ML | 97 |
| 10) | C045 | 1,1-DICHLOROETHENE | 5.05 | 96.0 | 173967 | 163.91 | NG/ML | 81 |
| 11) | C050 | 1,1-DICHLOROETHANE | 7.00 | 63.0 | 414682 | 209.88 | NG/ML | 96 |
| 12) | C053 | 1,2-DICHLOROETHENE(TRANS) | 6.26 | 96.0 | 185052 | 160.22 | NG/ML | 89 |
| 13) | C055 | 1,2-DICHLOROETHENE (CIS) | 8.09 | 96.0 | 208383M | 159.16 | NG/ML | |
| 14) | C060 | CHLOROFORM | 8.72 | 83.0 | 403374 | 170.70 | NG/ML | 99 |
| 15) | C065 | 1,2-DICHLOROETHANE | 9.91 | 62.0 | 256336 | 190.28 | NG/ML | 98 |
| 16) | C110 | 2-BUTANONE | 8.13 | 72.0 | 14852 | 189.81 | NG/ML | 72 |
| 17) | CS15 | 1,2-DICHLOROETHANE-D4 | 9.75 | 65.1 | 202592 | 184.75 | NG/ML | 99 |
| 18) | *CI10 | 1,4-DIFLUOROBENZENE | 10.73 | 114.0 | 188132 | 50.00 | NG/ML | 99 |
| 19) | C115 | 1,1,1-TRICHLOROETHANE | 9.13 | 96.9 | 388935 | 178.92 | NG/ML | 94 |
| 20) | C120 | CARBON TETRACHLORIDE | 9.48 | 117.0 | 394984 | 175.78 | NG/ML | 92 |
| 21) | C125 | VINYL ACETATE | 7.10 | 43.0 | 528576 | 269.87 | NG/ML | 100 |
| 22) | C130 | BROMODICHLOROMETHANE | 12.47 | 83.0 | 382162 | 183.88 | NG/ML | 97 |
| 23) | C140 | 1,2-DICHLOROPROPANE | 11.80 | 63.0 | 263443 | 207.10 | NG/ML | 98 |
| 24) | C172 | TRANS-1,3-DICHLOROPROPENE | 14.99 | 75.0 | 127947 | 156.46 | NG/ML | 96 |
| 25) | C150 | TRICHLOROETHENE | 11.32 | 130.0 | 253442 | 145.60 | NG/ML | 97 |
| 26) | C155 | DIBROMOCHLOROMETHANE | 16.42 | 129.0 | 320060 | 163.93 | NG/ML | 97 |
| 27) | C160 | 1,1,2-TRICHLOROETHANE | 15.40 | 97.0 | 160369 | 160.57 | NG/ML | 96 |
| 28) | C165 | BENZENE | 9.89 | 78.0 | 551220 | 178.50 | NG/ML | 80 |
| 29) | C143 | CIS-1,3-DICHLOROPROPENE | 13.54 | 75.0 | 475224 | 248.42 | NG/ML | 95 |
| 30) | C175 | 2-CHLOROETHYL VINYL ETHER | 13.21 | 63.0 | 98444 | 213.05 | NG/ML | 100 |
| 31) | C180 | BROMOFORM | 20.01 | 172.8 | 208680 | 178.82 | NG/ML | 98 |
| 32) | *CI20 | CHLOROBENZENE-D5 | 17.96 | 117.0 | 141420 | 50.00 | NG/ML | 98 |
| 33) | C205 | 4-METHYL-2-PENTANONE | 13.97 | 43.0 | 219282 | 234.37 | NG/ML | 84 |
| 34) | C210 | 2-HEXANONE | 16.12 | 43.0 | 162734 | 228.66 | NG/ML | 91 |
| 35) | C220 | TETRACHLOROETHENE | 15.79 | 164.0 | 226068 | 150.65 | NG/ML | 97 |
| 36) | C225 | 1,1,2,2-TETRACHLOROETHANE | 21.10 | 83.0 | 233202 | 174.01 | NG/ML | 98 |
| 37) | C230 | TOLUENE | 14.38 | 92.0 | 340035 | 165.47 | NG/ML | 94 |
| 38) | C235 | CHLOROBENZENE | 18.04 | 112.0 | 419017 | 146.68 | NG/ML | 96 |
| 39) | C240 | ETHYLBENZENE | 18.35 | 106.0 | 204014 | 150.81 | NG/ML | 42 |
| 40) | C245 | STYRENE | 19.64 | 104.0 | 489772 | 148.93 | NG/ML | 87 |
| 41) | C299 | o-XYLENE | 19.60 | 106.0 | 290640 | 142.84 | NG/ML | 70 |
| 42) | C250 | m,p-XYLENE (TOTAL) | 18.66 | 106.0 | 506703 | 289.39 | NG/ML | 72 |
| 43) | C265 | 1,3-DICHLOROBENZENE | 23.06 | 146.0 | 395709 | 143.94 | NG/ML | 98 |

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 44) | C270 1,4-DICHLOROBENZENE | 23.23 | 146.0 | 406524 | 144.38 | NG/ML | 9 |
| 45) | C260 1,2-DICHLOROBENZENE | 23.95 | 146.0 | 366570 | 145.85 | NG/ML | 9 |
| 46) | CS05 TOLUENE-D8 | 14.23 | 98.0 | 495449 | 158.04 | NG/ML | 9 |
| 47) | CS10 BROMOFLUOROBENZENE | 20.77 | 95.0 | 262356 | 163.01 | NG/ML | 9 |

* Compound is ISTD

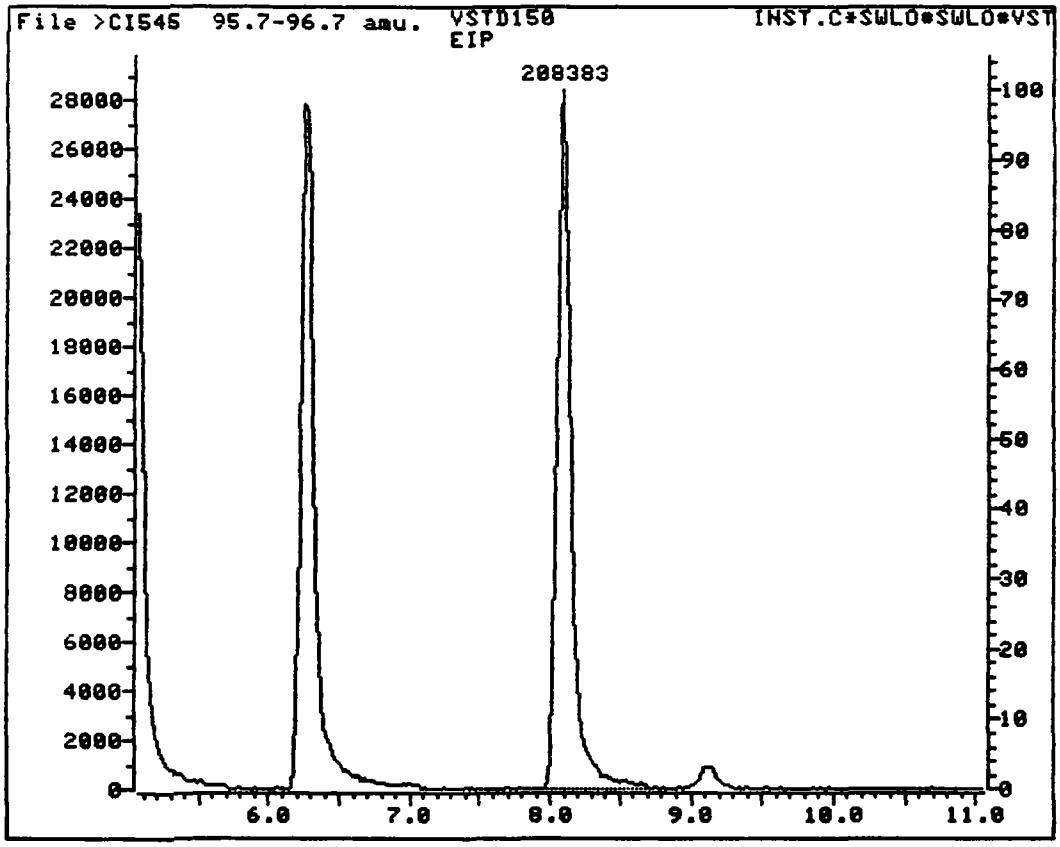
VSTD150 [illegible] 5/28/91
Inst: C
CI545
05/26/91
15:23




Data File: >CI545::D5 Quant Output File: ^CI545::L1
Name: VSTD150
Misc: INST.C*SWLO#SWLO#VSTD150(2-027-4)*5ML
Quant Time: 910526 15:48 Quant ID File: IDV012::PS
Injected at: 910526 15:23 Last Calibration: 910524 13:55

Compound No: 5
Compound Name: C025 CHLOROETHANE
Scan Number: 104
Retention Time: 4.05 min.
Quant Ion: 64.0
Area: 115826M
Concentration: 190.87 NG/ML
q-value: 100

This report was produced by QAREA on: 910526 16:01

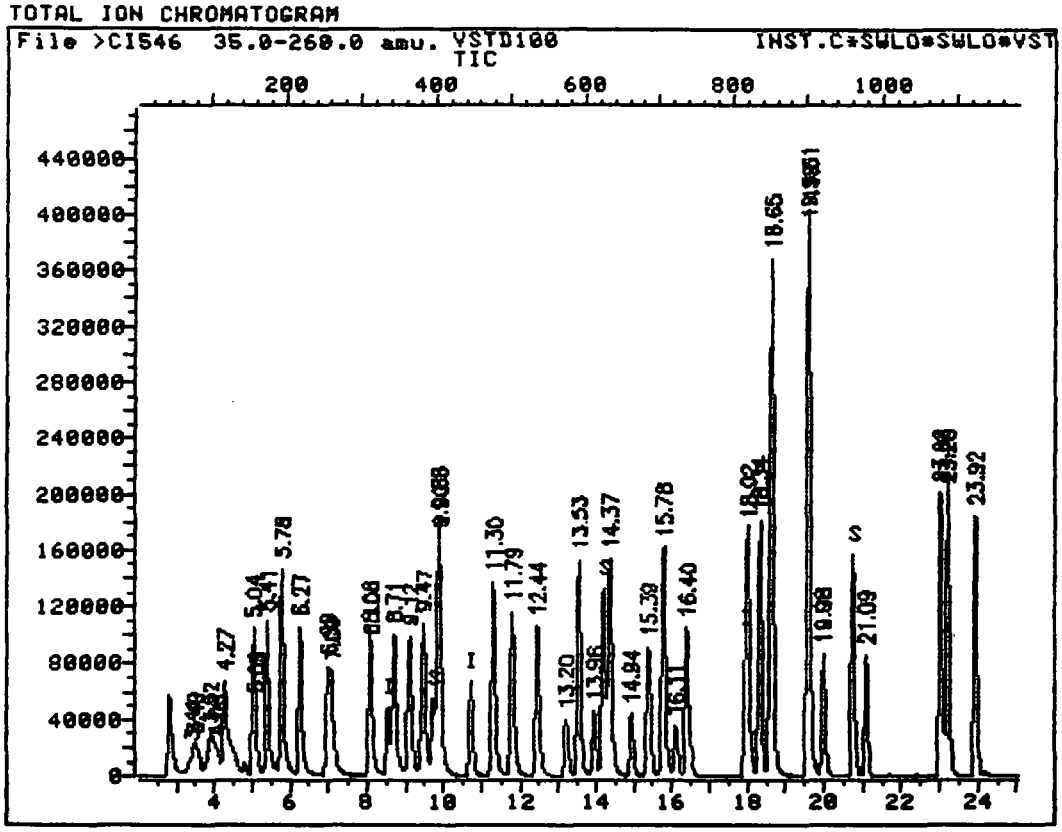



Data File: >CI545::D5 Quant Output File: ^CI545::L1
Name: VSTD150
Misc: INST.C*SWLO#SWLO#VSTD150(2-027-4)*5ML
Quant Time: 910526 15:48 Quant ID File: IDV012::PS
Injected at: 910526 15:23 Last Calibration: 910524 13:55

Compound No: 13
Compound Name: C055 1,2-DICHLOROETHENE (CIS)
Scan Number: 311
Retention Time: 8.09 min.
Quant Ion: 96.0
Area: 208383M
Concentration: 159.16 NG/ML

This report was produced by QAREA on: 910526 16:12

TOTAL ION CHROMATOGRAM




Data File: >CI546::D5 Quant Output File: ^CI546::L1
Name: VSTD100
Misc: INST.C*SWLO#SWLO#VSTD100(2-027-4)*5ML

Id File: IDV012::PS
Title: VOA (EPA CLP) 5mL AMBIENT PURGE (WATERS) INST:C
Last Calibration: 910524 13:55

Operator ID: DONNIE
Quant Time: 910526 16:38
Injected at: 910526 16:12

QUANT REPORT

Operator ID: DONNIE  Quant Rev: 6  Quant Time: 910526 16:38
Output File: ^CI546::L1  Injected at: 910526 16:12
Data File: >CI546::D5  Dilution Factor: 1.00000
Name: VSTD100
Misc: INST.C*SWLO#SWLO#VSTD100(2-027-4)*5ML

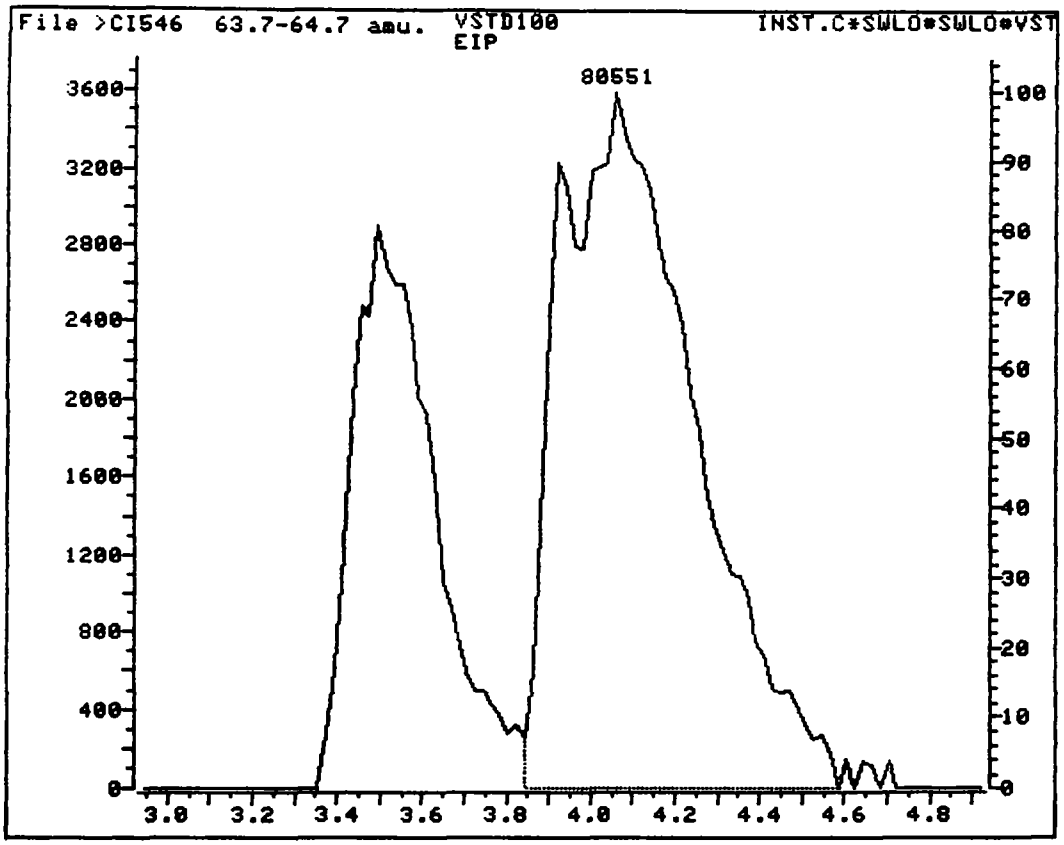
ID File: IDV012::PS
Title: VOA (EPA CLP) 5mL AMBIENT PURGE (WATERS) INST:C
Last Calibration: 910524 13:55

| | | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|---|
| 1) | *CI01 | BROMOCHLOROMETHANE | 8.55 | 128.0 | 41102 | 50.00 | NG/ML | 4 |
| 2) | C010 | CHLOROMETHANE | 3.41 | 50.0 | 122458 | 154.86 | NG/ML | 9 |
| 3) | C015 | BROMOMETHANE | 3.92 | 94.0 | 123453 | 105.85 | NG/ML | 9 |
| 4) | C020 | VINYL CHLORIDE | 3.49 | 62.0 | 112060 | 124.22 | NG/ML | 10 |
| 5) | C025 | CHLOROETHANE | 4.06 | 64.0 | 80551M | 132.11 | NG/ML | 10 |
| 6) | C030 | METHYLENE CHLORIDE | 5.78 | 84.0 | 191825 | 120.11 | NG/ML | 6 |
| 7) | C035 | ACETONE | 5.09 | 43.0 | 27049 | 155.24 | NG/ML | 10 |
| 8) | C040 | CARBON DISULFIDE | 5.41 | 76.0 | 476111 | 134.68 | NG/ML | 9 |
| 9) | C255 | TRICHLOROFLUOROMETHANE | 4.27 | 101.0 | 300497 | 113.79 | NG/ML | 9 |
| 10) | C045 | 1,1-DICHLOROETHENE | 5.04 | 96.0 | 117991 | 110.63 | NG/ML | 8 |
| 11) | C050 | 1,1-DICHLOROETHANE | 6.99 | 63.0 | 271507 | 136.76 | NG/ML | 9 |
| 12) | C053 | 1,2-DICHLOROETHENE(TRANS) | 6.27 | 96.0 | 127217 | 109.62 | NG/ML | 8 |
| 13) | C055 | 1,2-DICHLOROETHENE (CIS) | 8.08 | 96.0 | 138686M | 105.42 | NG/ML | |
| 14) | C060 | CHLOROFORM | 8.71 | 83.0 | 272833 | 114.90 | NG/ML | 9 |
| 15) | C065 | 1,2-DICHLOROETHANE | 9.90 | 62.0 | 166598 | 123.08 | NG/ML | 9 |
| 16) | C110 | 2-BUTANONE | 8.10 | 72.0 | 9370 | 119.18 | NG/ML | 7 |
| 17) | CS15 | 1,2-DICHLOROETHANE-D4 | 9.72 | 65.1 | 134891 | 122.42 | NG/ML | 9 |
| 18) | *CI10 | 1,4-DIFLUOROBENZENE | 10.72 | 114.0 | 186024 | 50.00 | NG/ML | 9 |
| 19) | C115 | 1,1,1-TRICHLOROETHANE | 9.12 | 96.9 | 246220 | 114.55 | NG/ML | 9 |
| 20) | C120 | CARBON TETRACHLORIDE | 9.47 | 117.0 | 259251 | 116.68 | NG/ML | 9 |
| 21) | C125 | VINYL ACETATE | 7.09 | 43.0 | 340977 | 176.06 | NG/ML | 10 |
| 22) | C130 | BROMODICHLOROMETHANE | 12.44 | 83.0 | 256271 | 124.70 | NG/ML | 9 |
| 23) | C140 | 1,2-DICHLOROPROPANE | 11.79 | 63.0 | 173890 | 138.25 | NG/ML | 9 |
| 24) | C172 | TRANS-1,3-DICHLOROPROPENE | 14.94 | 75.0 | 83572 | 103.36 | NG/ML | 9 |
| 25) | C150 | TRICHLOROETHENE | 11.30 | 130.0 | 168824 | 98.08 | NG/ML | 9 |
| 26) | C155 | DIBROMOCHLOROMETHANE | 16.40 | 129.0 | 210509 | 109.04 | NG/ML | 9 |
| 27) | C160 | 1,1,2-TRICHLOROETHANE | 15.39 | 97.0 | 108308 | 109.67 | NG/ML | 9 |
| 28) | C165 | BENZENE | 9.88 | 78.0 | 373304 | 122.25 | NG/ML | 8 |
| 29) | C143 | CIS-1,3-DICHLOROPROPENE | 13.53 | 75.0 | 310021 | 163.90 | NG/ML | 9 |
| 30) | C175 | 2-CHLOROETHYL VINYL ETHER | 13.20 | 63.0 | 64184 | 140.48 | NG/ML | 10 |
| 31) | C180 | BROMOFORM | 19.98 | 172.8 | 137317 | 119.00 | NG/ML | 9 |
| 32) | *CI20 | CHLOROBENZENE-D5 | 17.94 | 117.0 | 139754 | 50.00 | NG/ML | 9 |
| 33) | C205 | 4-METHYL-2-PENTANONE | 13.96 | 43.0 | 153381 | 165.89 | NG/ML | 8 |
| 34) | C210 | 2-HEXANONE | 16.11 | 43.0 | 110490 | 157.10 | NG/ML | 9 |
| 35) | C220 | TETRACHLOROETHENE | 15.78 | 164.0 | 155356 | 104.76 | NG/ML | 9 |
| 36) | C225 | 1,1,2,2-TETRACHLOROETHANE | 21.09 | 83.0 | 158009 | 119.31 | NG/ML | 9 |
| 37) | C230 | TOLUENE | 14.37 | 92.0 | 222269 | 109.45 | NG/ML | 9 |
| 38) | C235 | CHLOROBENZENE | 18.02 | 112.0 | 282288 | 100.00 | NG/ML | 9 |
| 39) | C240 | ETHYLBENZENE | 18.34 | 106.0 | 137291 | 102.70 | NG/ML | 4 |
| 40) | C245 | STYRENE | 19.61 | 104.0 | 337304 | 103.79 | NG/ML | 8 |
| 41) | C299 | o-XYLENE | 19.59 | 106.0 | 197225 | 98.08 | NG/ML | 7 |
| 42) | C250 | m,p-XYLENE (TOTAL) | 18.65 | 106.0 | 348764 | 201.56 | NG/ML | 7 |
| 43) | C265 | 1,3-DICHLOROBENZENE | 23.02 | 146.0 | 264651 | 97.42 | NG/ML | 9 |

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 44) | C270 1,4-DICHLOROBENZENE | 23.20 | 146.0 | 279133 | 100.32 | NG/ML | 95 |
| 45) | C260 1,2-DICHLOROBENZENE | 23.92 | 146.0 | 251589 | 101.30 | NG/ML | 99 |
| 46) | CS05 TOLUENE-D8 | 14.21 | 98.0 | 326790 | 105.48 | NG/ML | 96 |
| 47) | CS10 BROMOFLUOROBENZENE | 20.76 | 95.0 | 177964 | 111.89 | NG/ML | 98 |

* Compound is ISTD

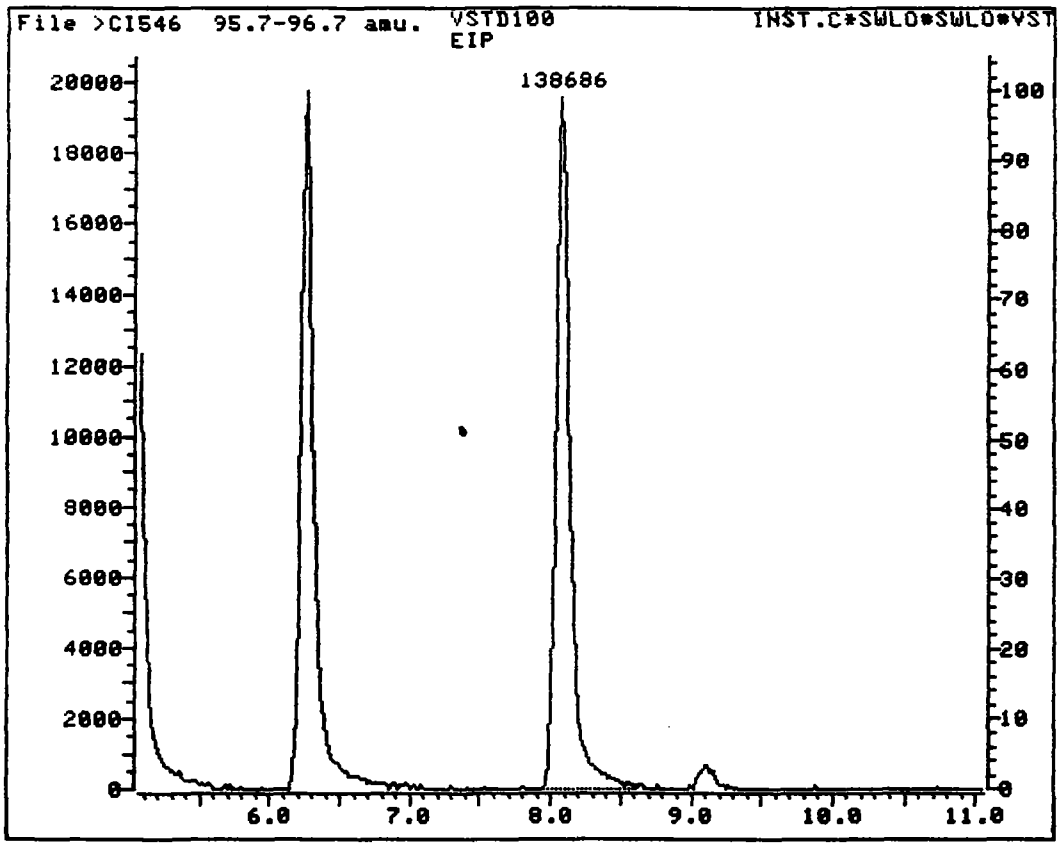
VSTD100
dust; C
CI546
05/26/91
16:12




Data File: >CI546::D5 Quant Output File: ^CI546::L1
Name: VSTD100
Misc: INST.C*SWLO#SWLO#VSTD100(2-027-4)*5ML
Quant Time: 910526 16:38 Quant ID File: IDV012::PS
Injected at: 910526 16:12 Last Calibration: 910524 13:55

Compound No: 5
Compound Name: C025 CHLOROETHANE
Scan Number: 106
Retention Time: 4.06 min.
Quant Ion: 64.0
Area: 80551M
Concentration: 132.11 NG/ML
q-value: 100

This report was produced by QAREA on: 910526 16:45

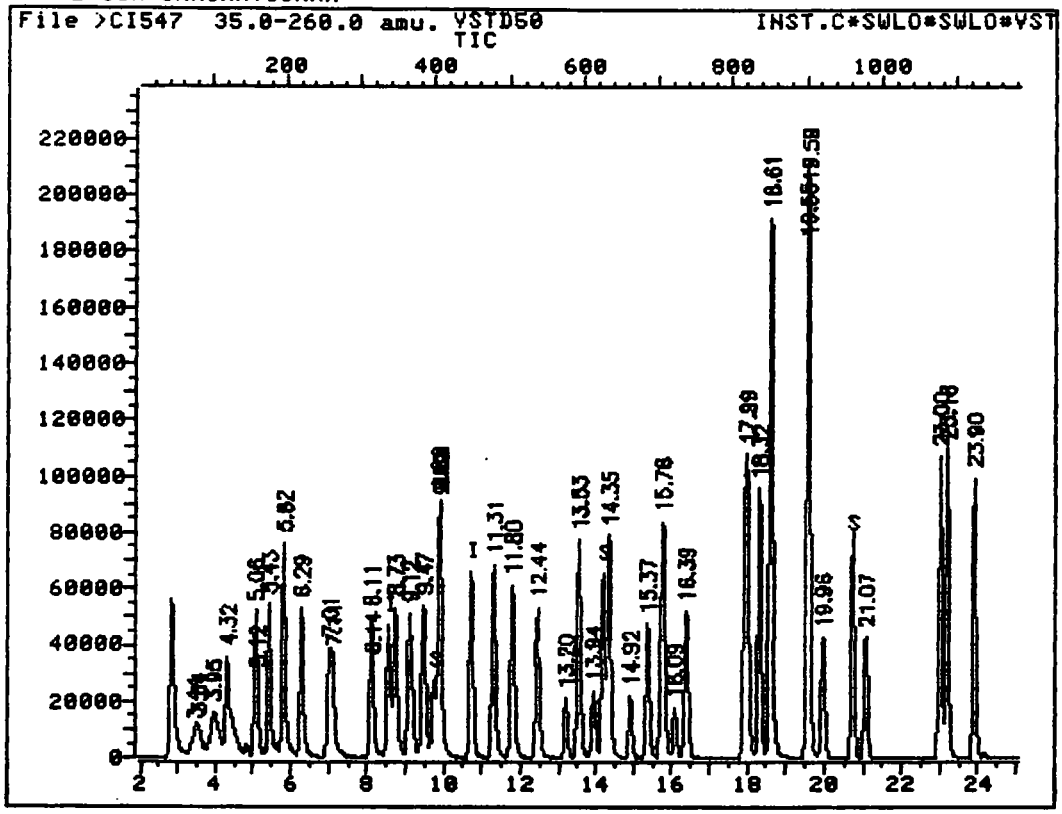



Data File: >CI546::D5 Quant Output File: ^CI546::L1
Name: VSTD100
Misc: INST.C*SWLO#SWLO#VSTD100(2-027-4)*5ML
Quant Time: 910526 16:38 Quant ID File: IDV012::PS
Injected at: 910526 16:12 Last Calibration: 910524 13:55

Compound No: 13
Compound Name: C055 1,2-DICHLOROETHENE (CIS)
Scan Number: 312
Retention Time: 8.08 min.
Quant Ion: 96.0
Area: 138686M
Concentration: 105.42 NG/ML

This report was produced by QAREA on: 910526 16:47

TOTAL ION CHROMATOGRAM




Data File: >CI547::D5 Quant Output File: ^CI547::L1
Name: VSTD50
Misc: INST.C*SWLO#SWLO#VSTD50(2-027-4)*5ML

Id File: IDV012::PS
Title: VOA (EPA CLP) 5mL AMBIENT PURGE (WATERS) INST:C
Last Calibration: 910524 13:55

Operator ID: DONNIE
Quant Time: 910526 17:09
Injected at: 910526 16:43

QUANT REPORT

Operator ID: DONNIE  Quant Rev: 6  Quant Time: 910526 17:09
Output File: ^CI547::L1  Injected at: 910526 16:43
Data File: >CI547::D5  Dilution Factor: 1.00000
Name: VSTD50
Misc: INST.C*SWLO#SWLO#VSTD50(2-027-4)*5ML

ID File: IDV012::PS
Title: VOA (EPA CLP) 5mL AMBIENT PURGE (WATERS) INST:C
Last Calibration: 910524 13:55

| | Compound | R.T. | Q ion | Area | Conc | Units | c |
|---|---|---|---|---|---|---|---|
| 1) | *CI01 BROMOCHLOROMETHANE | 8.55 | 128.0 | 39053 | 50.00 | NG/ML | 4 |
| 2) | C010 CHLOROMETHANE | 3.44 | 50.0 | 61788M | 82.24 | NG/ML | 9 |
| 3) | C015 BROMOMETHANE | 3.95 | 94.0 | 63287 | 57.11 | NG/ML | 9 |
| 4) | C020 VINYL CHLORIDE | 3.54 | 62.0 | 61288 | 71.51 | NG/ML | 10 |
| 5) | C025 CHLOROETHANE | 4.08 | 64.0 | 39999M | 69.04 | NG/ML | 10 |
| 6) | C030 METHYLENE CHLORIDE | 5.82 | 84.0 | 95933 | 63.22 | NG/ML | 5 |
| 7) | C035 ACETONE | 5.12 | 43.0 | 14877 | 89.86 | NG/ML | 10 |
| 8) | C040 CARBON DISULFIDE | 5.43 | 76.0 | 229924 | 68.45 | NG/ML | 9 |
| 9) | C255 TRICHLOROFLUOROMETHANE | 4.32 | 101.0 | 150860 | 60.12 | NG/ML | 9 |
| 10) | C045 1,1-DICHLOROETHENE | 5.06 | 96.0 | 58731 | 57.96 | NG/ML | 8 |
| 11) | C050 1,1-DICHLOROETHANE | 7.01 | 63.0 | 132919 | 70.46 | NG/ML | 9 |
| 12) | C053 1,2-DICHLOROETHENE(TRANS) | 6.29 | 96.0 | 61952 | 56.18 | NG/ML | 8 |
| 13) | C055 1,2-DICHLOROETHENE (CIS) | 8.11 | 96.0 | 68236M | 54.59 | NG/ML | |
| 14) | C060 CHLOROFORM | 8.73 | 83.0 | 139391 | 61.78 | NG/ML | 9 |
| 15) | C065 1,2-DICHLOROETHANE | 9.90 | 62.0 | 85609 | 66.56 | NG/ML | 9 |
| 16) | C110 2-BUTANONE | 8.14 | 72.0 | 4432 | 59.33 | NG/ML | 7 |
| 17) | CS15 1,2-DICHLOROETHANE-D4 | 9.75 | 65.1 | 66696 | 63.71 | NG/ML | 9 |
| 18) | *CI10 1,4-DIFLUOROBENZENE | 10.72 | 114.0 | 180752 | 50.00 | NG/ML | 9 |
| 19) | C115 1,1,1-TRICHLOROETHANE | 9.12 | 96.9 | 121545 | 58.20 | NG/ML | 9 |
| 20) | C120 CARBON TETRACHLORIDE | 9.47 | 117.0 | 123430 | 57.17 | NG/ML | 9 |
| 21) | C125 VINYL ACETATE | 7.11 | 43.0 | 170146 | 90.42 | NG/ML | 10 |
| 22) | C130 BROMODICHLOROMETHANE | 12.44 | 83.0 | 124611 | 62.40 | NG/ML | 9 |
| 23) | C140 1,2-DICHLOROPROPANE | 11.80 | 63.0 | 89601 | 73.31 | NG/ML | 9 |
| 24) | C172 TRANS-1,3-DICHLOROPROPENE | 14.92 | 75.0 | 40314 | 51.31 | NG/ML | 9 |
| 25) | C150 TRICHLOROETHENE | 11.31 | 130.0 | 82642 | 49.41 | NG/ML | 9 |
| 26) | C155 DIBROMOCHLOROMETHANE | 16.39 | 129.0 | 102722 | 54.76 | NG/ML | 9 |
| 27) | C160 1,1,2-TRICHLOROETHANE | 15.37 | 97.0 | 54562 | 56.86 | NG/ML | 9 |
| 28) | C165 BENZENE | 9.88 | 78.0 | 188282 | 63.46 | NG/ML | 8 |
| 29) | C143 CIS-1,3-DICHLOROPROPENE | 13.53 | 75.0 | 153558 | 83.55 | NG/ML | 9 |
| 30) | C175 2-CHLOROETHYL VINYL ETHER | 13.20 | 63.0 | 32606 | 73.45 | NG/ML | 10 |
| 31) | C180 BROMOFORM | 19.96 | 172.8 | 65341 | 58.28 | NG/ML | 9 |
| 32) | *CI20 CHLOROBENZENE-D5 | 17.93 | 117.0 | 138891 | 50.00 | NG/ML | 9 |
| 33) | C205 4-METHYL-2-PENTANONE | 13.94 | 43.0 | 78393 | 85.31 | NG/ML | 8 |
| 34) | C210 2-HEXANONE | 16.09 | 43.0 | 57598 | 82.41 | NG/ML | 9 |
| 35) | C220 TETRACHLOROETHENE | 15.76 | 164.0 | 76697 | 52.04 | NG/ML | 9 |
| 36) | C225 1,1,2,2-TETRACHLOROETHANE | 21.07 | 83.0 | 80917 | 61.48 | NG/ML | 9 |
| 37) | C230 TOLUENE | 14.39 | 92.0 | 116338 | 57.65 | NG/ML | 9 |
| 38) | C235 CHLOROBENZENE | 17.99 | 112.0 | 144394 | 51.47 | NG/ML | 9 |
| 39) | C240 ETHYLBENZENE | 18.32 | 106.0 | 70947 | 53.40 | NG/ML | 4 |
| 40) | C245 STYRENE | 19.59 | 104.0 | 176000 | 54.49 | NG/ML | 8 |
| 41) | C299 o-XYLENE | 19.55 | 106.0 | 102425 | 51.25 | NG/ML | 7 |
| 42) | C250 m,p-XYLENE (TOTAL) | 18.61 | 106.0 | 180200 | 104.79 | NG/ML | 7 |
| 43) | C265 1,3-DICHLOROBENZENE | 23.00 | 146.0 | 137128 | 50.79 | NG/ML | 9 |
| 44) | C270 1,4-DICHLOROBENZENE | 23.18 | 146.0 | 143560 | 51.92 | NG/ML | 9 |
| 45) | C260 1,2-DICHLOROBENZENE | 23.90 | 146.0 | 127576 | 51.69 | NG/ML | 9 |
| 46) | CS05 TOLUENE-D8 | 14.20 | 98.0 | 162143 | 52.66 | NG/ML | 9 |

0085

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4/7 | CS10 BROMOFLUOROBENZENE | 20.74 | 99.0 | 88415 | 99.94 | NG/ML | 9 |

* Compound is ISTD

VSTD50
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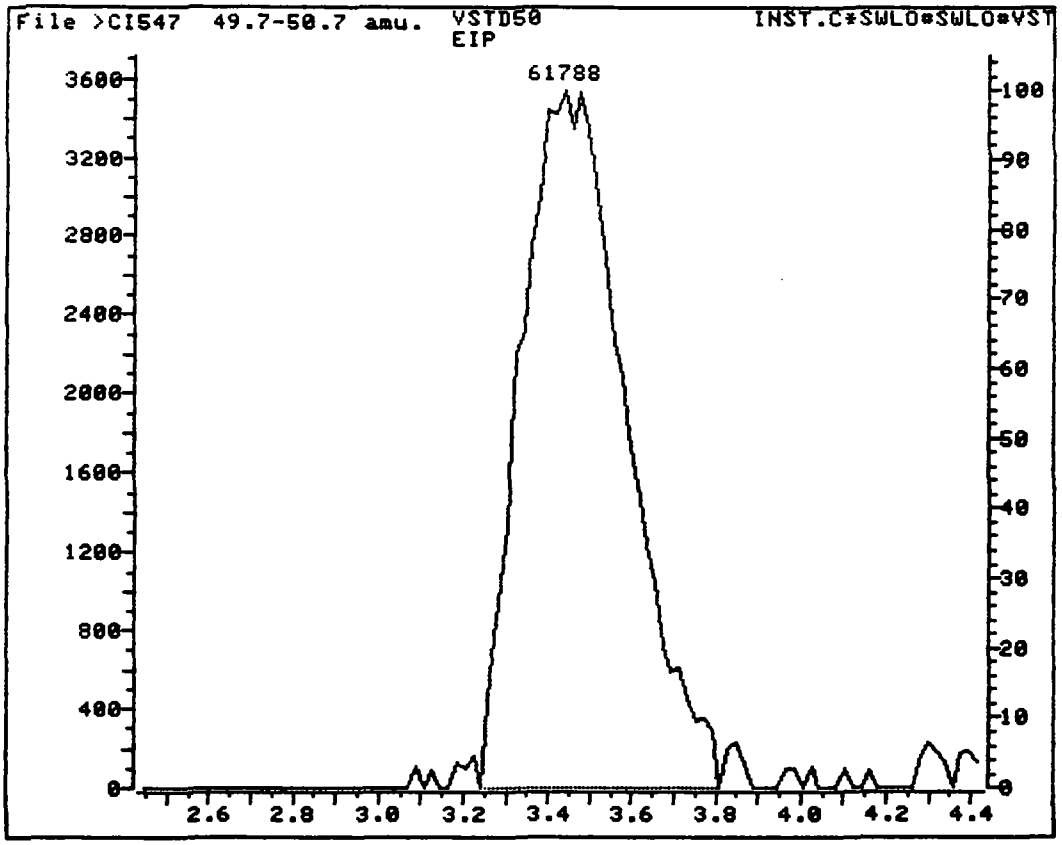
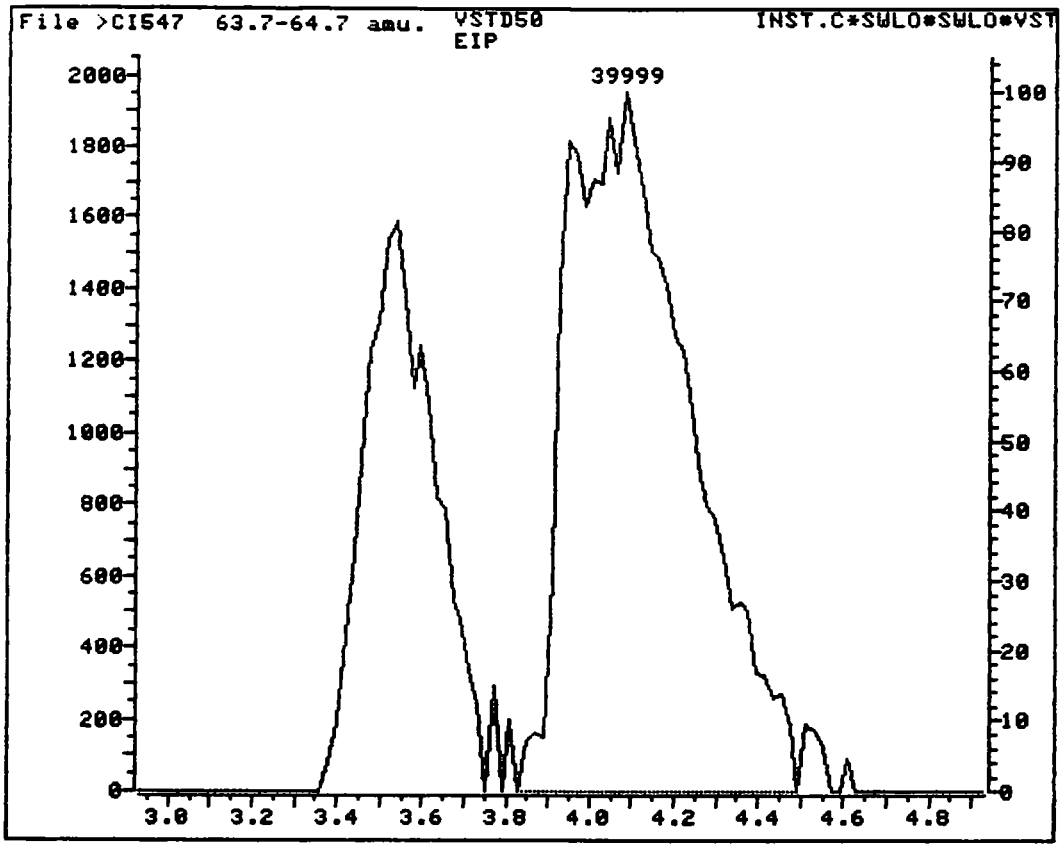
16:43




Data File: >CI547::D5 Quant Output File: ^CI547::L1
Name: VSTD50
Misc: INST.C*SWLO#SWLO#VSTD50(2-027-4)*5ML
Quant Time: 910526 17:09 Quant ID File: IDV012::PS
Injected at: 910526 16:43 Last Calibration: 910524 13:55

Compound No: 2
Compound Name: C010 CHLOROMETHANE
Scan Number: 76
Retention Time: 3.44 min.
Quant Ion: 50.0
Area: 61788M
Concentration: 82.24 NG/ML
q-value: 94

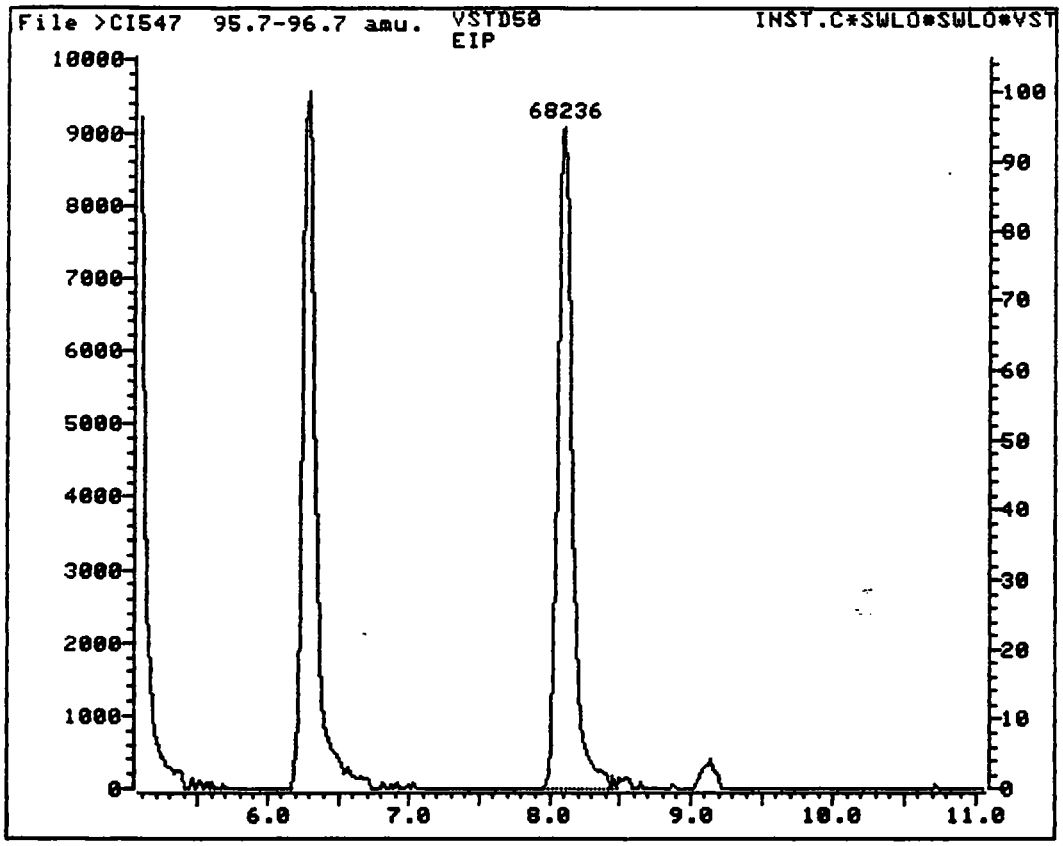
This report was produced by QAREA on: 910526 17:17




Data File: >CI547::D5 Quant Output File: ^CI547::L1
Name: VSTD50
Misc: INST.C*SWLO#SWLO#VSTD50(2-027-4)*5ML
Quant Time: 910526 17:09 Quant ID File: IDV012::PS
Injected at: 910526 16:43 Last Calibration: 910524 13:55

Compound No: 5
Compound Name: C025 CHLOROETHANE
Scan Number: 109
Retention Time: 4.08 min.
Quant Ion: 64.0
Area: 39999M
Concentration: 69.04 NG/ML
q-value: 100

This report was produced by QAREA on: 910526 17:19

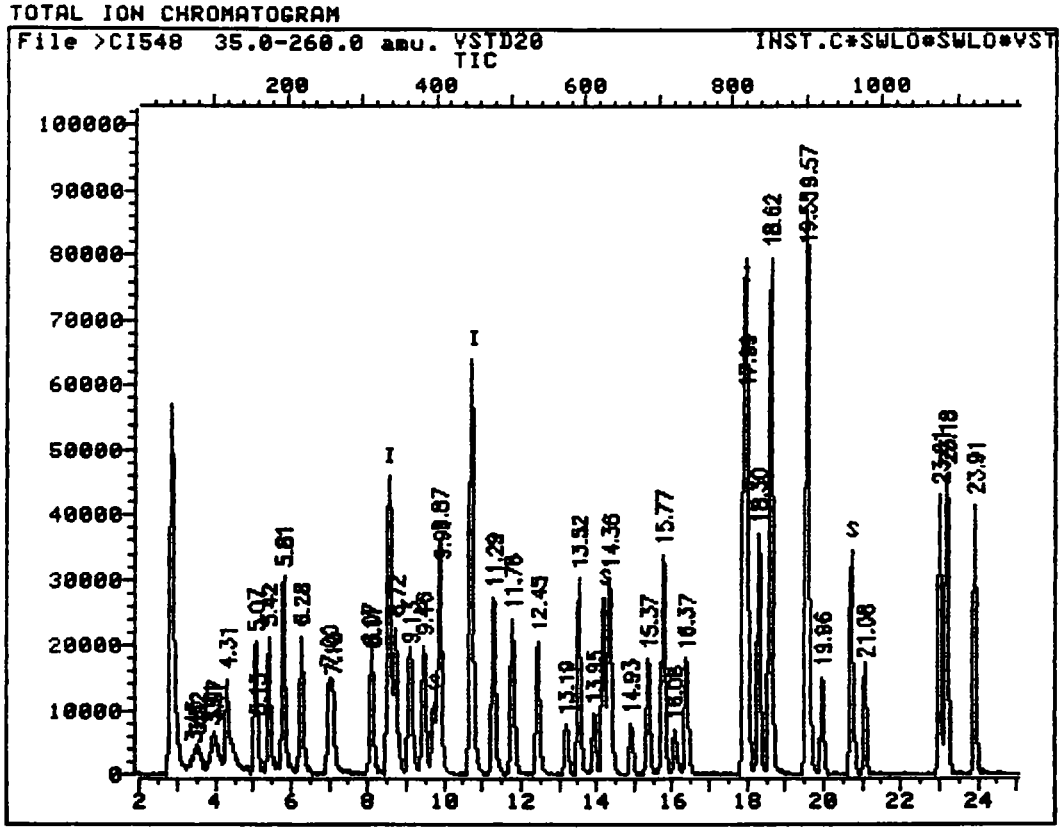



Data File: >CI547::D5 Quant Output File: ^CI547::L1
Name: VSTD50
Misc: INST.C*SWLO#SWLO#VSTD50(2-027-4)*5ML
Quant Time: 910526 17:09 Quant ID File: IDV012::PS
Injected at: 910526 16:43 Last Calibration: 910524 13:55

Compound No: 13
Compound Name: C055 1,2-DICHLOROETHENE (CIS)
Scan Number: 315
Retention Time: 8.11 min.
Quant Ion: 96.0
Area: 68236M
Concentration: 54.59 NG/ML

This report was produced by QAREA on: 910526 17:33

TOTAL ION CHROMATOGRAM




Data File: >CI548::D5 Quant Output File: ^CI548::L1
Name: VSTD20
Misc: INST.C*SWLO#SWLO#VSTD20(2-027-4)*5ML

Id File: IDV012::PS
Title: VOA (EPA CLP) 5mL AMBIENT PURGE (WATERS) INST:C
Last Calibration: 910526 17:39

Operator ID: DONNIE
Quant Time: 910526 17:43
Injected at: 910526 17:17

QUANT REPORT

Operator ID: DONNIE  Quant Rev: 6  Quant Time: 910526 17:43
Output File: ^CI548::L1  Injected at: 910526 17:17
Data File: >CI548::D5  Dilution Factor: 1.00000
Name: VSTD20
Misc: INST.C*SWLO#SWLO#VSTD20(2-027-4)*5ML

ID File: IDV012::PS
Title: VOA (EPA CLP) 5mL AMBIENT PURGE (WATERS) INST:C
Last Calibration: 910526 17:39

| | | Compound | R.T. | Q ion | Area | Conc | Units | c |
|---|---|---|---|---|---|---|---|---|
| 1) | *CI01 | BROMOCHLOROMETHANE | 8.54 | 128.0 | 37309 | 50.00 | NG/ML | 4 |
| 2) | C010 | CHLOROMETHANE | 3.43 | 50.0 | 24751M | 20.97 | NG/ML | 7 |
| 3) | C015 | BROMOMETHANE | 3.91 | 94.0 | 26812M | 22.17 | NG/ML | 9 |
| 4) | C020 | VINYL CHLORIDE | 3.52 | 62.0 | 22525 | 19.24 | NG/ML | 10 |
| 5) | C025 | CHLOROETHANE | 3.97 | 64.0 | 15424M | 20.18 | NG/ML | 10 |
| 6) | C030 | METHYLENE CHLORIDE | 5.81 | 84.0 | 37520 | 20.47 | NG/ML | 6 |
| 7) | C035 | ACETONE | 5.13 | 43.0 | 5863 | 20.63 | NG/ML | 10 |
| 8) | C040 | CARBON DISULFIDE | 5.42 | 76.0 | 88335 | 20.11 | NG/ML | 9 |
| 9) | C255 | TRICHLOROFLUOROMETHANE | 4.31 | 101.0 | 56416 | 19.57 | NG/ML | 9 |
| 10) | C045 | 1,1-DICHLOROETHENE | 5.07 | 96.0 | 22784 | 20.30 | NG/ML | 8 |
| 11) | C050 | 1,1-DICHLOROETHANE | 7.00 | 63.0 | 52850 | 20.81 | NG/ML | 9 |
| 12) | C053 | 1,2-DICHLOROETHENE(TRANS) | 6.28 | 96.0 | 24001 | 20.28 | NG/ML | 8 |
| 13) | C055 | 1,2-DICHLOROETHENE (CIS) | 8.07 | 96.0 | 25919M | 19.88 | NG/ML | |
| 14) | C060 | CHLOROFORM | 8.72 | 83.0 | 56227 | 21.11 | NG/ML | 9 |
| 15) | C065 | 1,2-DICHLOROETHANE | 9.91 | 62.0 | 33772 | 20.65 | NG/ML | 9 |
| 16) | C110 | 2-BUTANONE | 8.11 | 72.0 | 1392 | 16.44 | NG/ML | 8 |
| 17) | CS15 | 1,2-DICHLOROETHANE-D4 | 9.73 | 65.1 | 27873 | 21.87 | NG/ML | 9 |
| 18) | *CI10 | 1,4-DIFLUOROBENZENE | 10.71 | 114.0 | 176684 | 50.00 | NG/ML | 9 |
| 19) | C115 | 1,1,1-TRICHLOROETHANE | 9.13 | 96.9 | 47304 | 19.91 | NG/ML | 9 |
| 20) | C120 | CARBON TETRACHLORIDE | 9.46 | 117.0 | 46115 | 19.11 | NG/ML | 9 |
| 21) | C125 | VINYL ACETATE | 7.10 | 43.0 | 64248 | 19.31 | NG/ML | 10 |
| 22) | C130 | BROMODICHLOROMETHANE | 12.45 | 83.0 | 47328 | 19.43 | NG/ML | 9 |
| 23) | C140 | 1,2-DICHLOROPROPANE | 11.78 | 63.0 | 35096 | 20.04 | NG/ML | 9 |
| 24) | C172 | TRANS-1,3-DICHLOROPROPENE | 14.93 | 75.0 | 14285 | 13.05 | NG/ML | 9 |
| 25) | C150 | TRICHLOROETHENE | 11.29 | 130.0 | 32853 | 20.33 | NG/ML | 9 |
| 26) | C155 | DIBROMOCHLOROMETHANE | 16.37 | 129.0 | 37676 | 18.76 | NG/ML | 9 |
| 27) | C160 | 1,1,2-TRICHLOROETHANE | 15.37 | 97.0 | 21049 | 19.73 | NG/ML | 9 |
| 28) | C165 | BENZENE | 9.87 | 78.0 | 73911 | 20.08 | NG/ML | 8 |
| 29) | C143 | CIS-1,3-DICHLOROPROPENE | 13.52 | 75.0 | 58105 | 24.77 | NG/ML | 9 |
| 30) | C175 | 2-CHLOROETHYL VINYL ETHER | 13.19 | 63.0 | 13063 | 20.49 | NG/ML | 10 |
| 31) | C180 | BROMOFORM | 19.96 | 172.8 | 22825 | 17.87 | NG/ML | 9 |
| 32) | *CI20 | CHLOROBENZENE-D5 | 17.91 | 117.0 | 136896 | 50.00 | NG/ML | 9 |
| 33) | C205 | 4-METHYL-2-PENTANONE | 13.95 | 43.0 | 31935 | 20.67 | NG/ML | 7 |
| 34) | C210 | 2-HEXANONE | 16.08 | 43.0 | 23136 | 20.38 | NG/ML | 9 |
| 35) | C220 | TETRACHLOROETHENE | 15.77 | 164.0 | 30543 | 20.20 | NG/ML | 9 |
| 36) | C225 | 1,1,2,2-TETRACHLOROETHANE | 21.08 | 83.0 | 33032 | 20.71 | NG/ML | 9 |
| 37) | C230 | TOLUENE | 14.36 | 92.0 | 44921 | 19.59 | NG/ML | 9 |
| 38) | C235 | CHLOROBENZENE | 17.99 | 112.0 | 56627 | 19.89 | NG/ML | 9 |
| 39) | C240 | ETHYLBENZENE | 18.30 | 106.0 | 28136 | 20.12 | NG/ML | 4 |
| 40) | C245 | STYRENE | 19.57 | 104.0 | 71711 | 20.67 | NG/ML | 8 |
| 41) | C299 | o-XYLENE | 19.55 | 106.0 | 41959 | 20.78 | NG/ML | 6 |
| 42) | C250 | m,p-XYLENE (TOTAL) | 18.62 | 106.0 | 73067 | 41.14 | NG/ML | 7 |
| 43) | C265 | 1,3-DICHLOROBENZENE | 23.01 | 146.0 | 57296 | 21.20 | NG/ML | 9 |
| 44) | C270 | 1,4-DICHLOROBENZENE | 23.18 | 146.0 | 57779 | 20.42 | NG/ML | 9 |
| 45) | C260 | 1,2-DICHLOROBENZENE | 23.91 | 146.0 | 52782 | 20.99 | NG/ML | 9 |
| 46) | CS05 | TOLUENE-D8 | 14.18 | 98.0 | 67957 | 21.26 | NG/ML | 9 |

* Compound is ISTD

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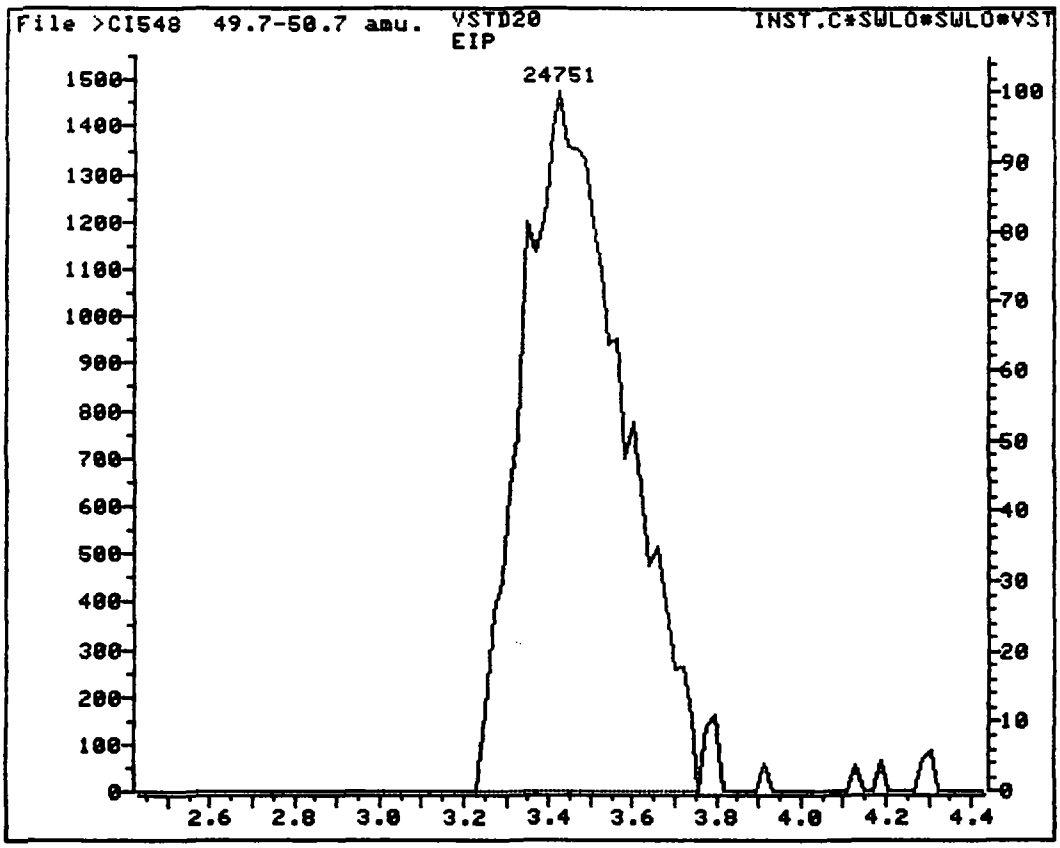
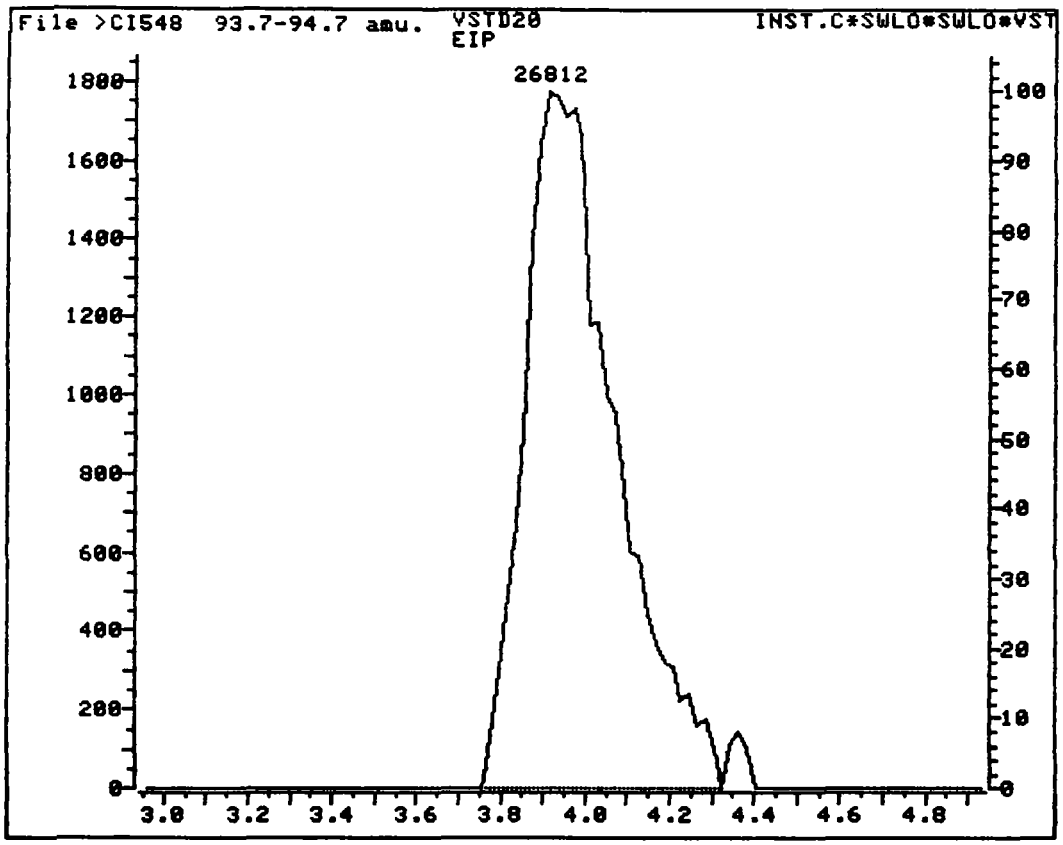
17:17




Data File: >CI548::D5 Quant Output File: ^CI548::L1
Name: VSTD20
Misc: INST.C*SWLO#SWLO#VSTD20(2-027-4)*5ML
Quant Time: 910526 17:43 Quant ID File: IDV012::PS
Injected at: 910526 17:17 Last Calibration: 910526 17:39

Compound No: 2
Compound Name: C010 CHLOROMETHANE
Scan Number: 75
Retention Time: 3.43 min.
Quant Ion: 50.0
Area: 24751M
Concentration: 20.97 NG/ML
q-value: 74

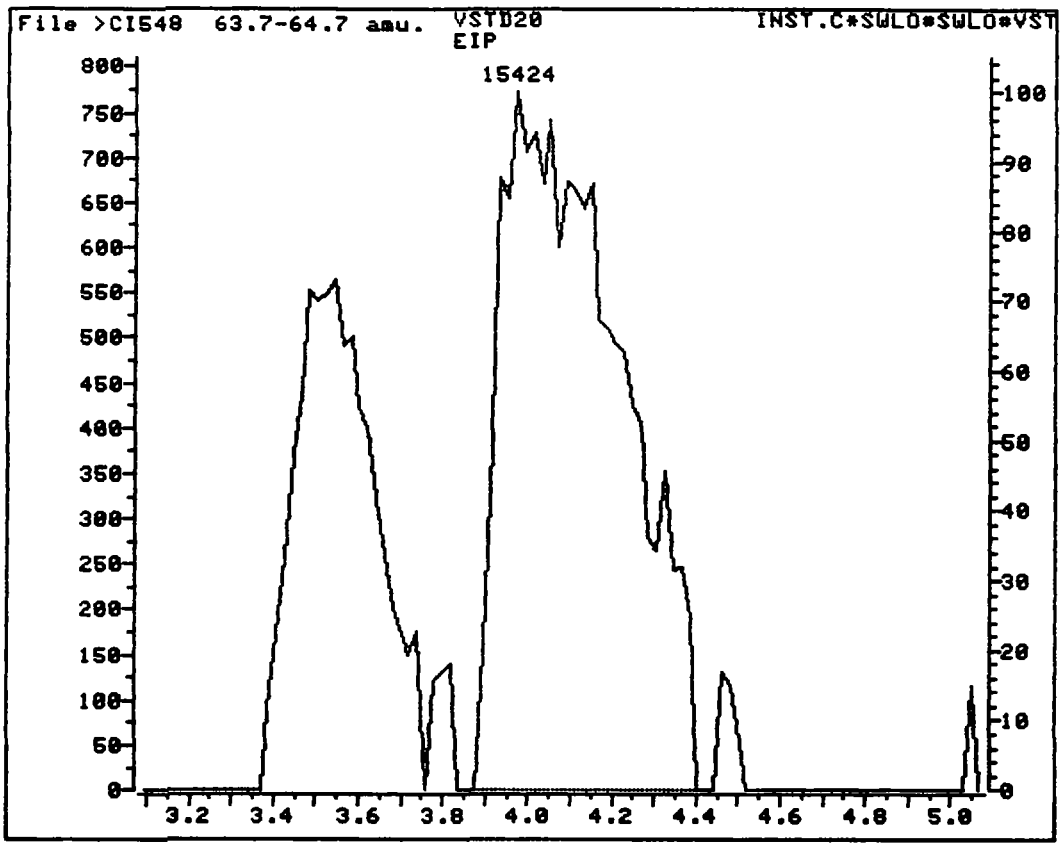
This report was produced by QAREA on: 910526 17:55




Data File: >CI548::D5 Quant Output File: ^CI548::L1
Name: VSTD20
Misc: INST.C*SWLO#SWLO#VSTD20(2-027-4)*5ML
Quant Time: 910526 17:43 Quant ID File: IDV012::PS
Injected at: 910526 17:17 Last Calibration: 910526 17:39

Compound No: 3
Compound Name: C015 BROMOMETHANE
Scan Number: 100
Retention Time: 3.91 min.
Quant Ion: 94.0
Area: 26812M
Concentration: 22.17 NG/ML
q-value: 91

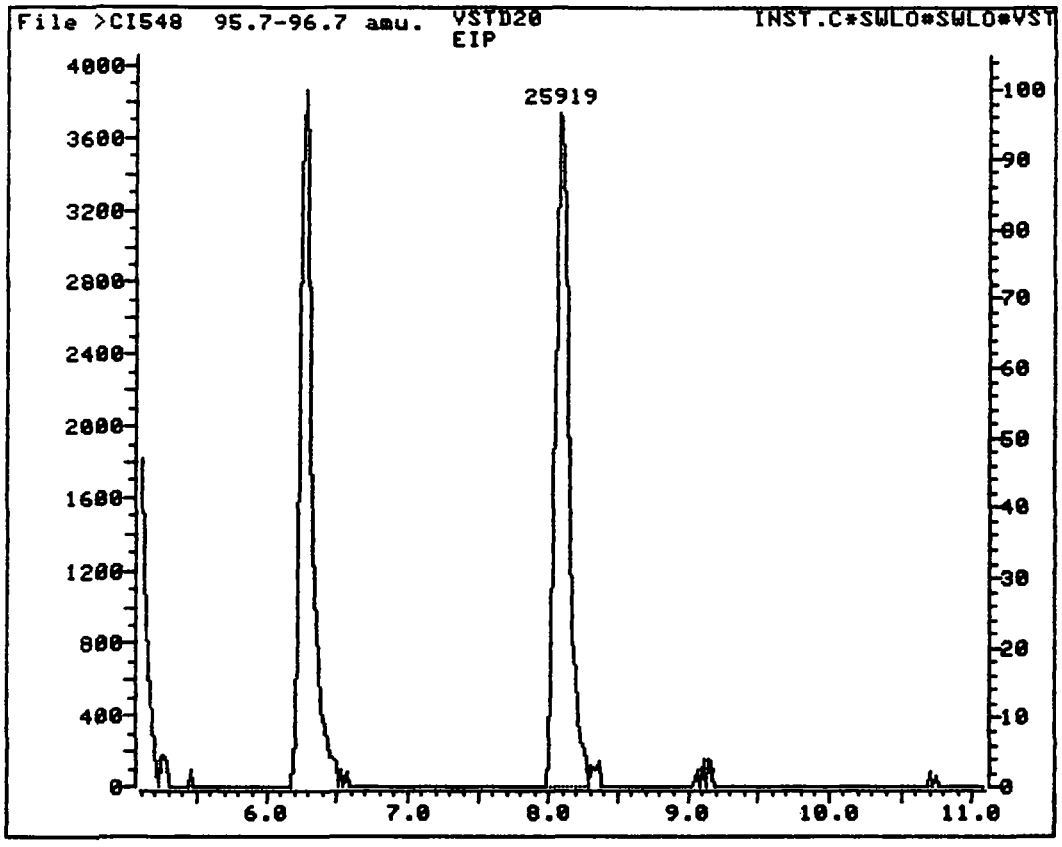
This report was produced by QAREA on: 910526 17:53




Data File: >CI548::D5 Quant Output File: ^CI548::L1
Name: VSTD20
Misc: INST.C*SWLO#SWLO#VSTD20(2-027-4)*5ML
Quant Time: 910526 17:43 Quant ID File: IDV012::PS
Injected at: 910526 17:17 Last Calibration: 910526 17:39

Compound No: 5
Compound Name: C025 CHLOROETHANE
Scan Number: 103
Retention Time: 3.97 min.
Quant Ion: 64.0
Area: 15424M
Concentration: 20.18 NG/ML
q-value: 100

This report was produced by QAREA on: 910526 17:56




Data File: >CI548::D5 Quant Output File: ^CI548::L1
Name: VSTD20
Misc: INST.C*SWLO#SWLO#VSTD20(2-027-4)*5ML
Quant Time: 910526 17:43 Quant ID File: IDV012::PS
Injected at: 910526 17:17 Last Calibration: 910526 17:39

Compound No: 13
Compound Name: C055 1,2-DICHLOROETHENE (CIS)
Scan Number: 313
Retention Time: 8.07 min.
Quant Ion: 96.0
Area: 25919M
Concentration: 19.88 NG/ML

This report was produced by QAREA on: 910526 18:09

6A

# VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Instrument ID: K Calibration Date(s): 07/25/91 07/25/91

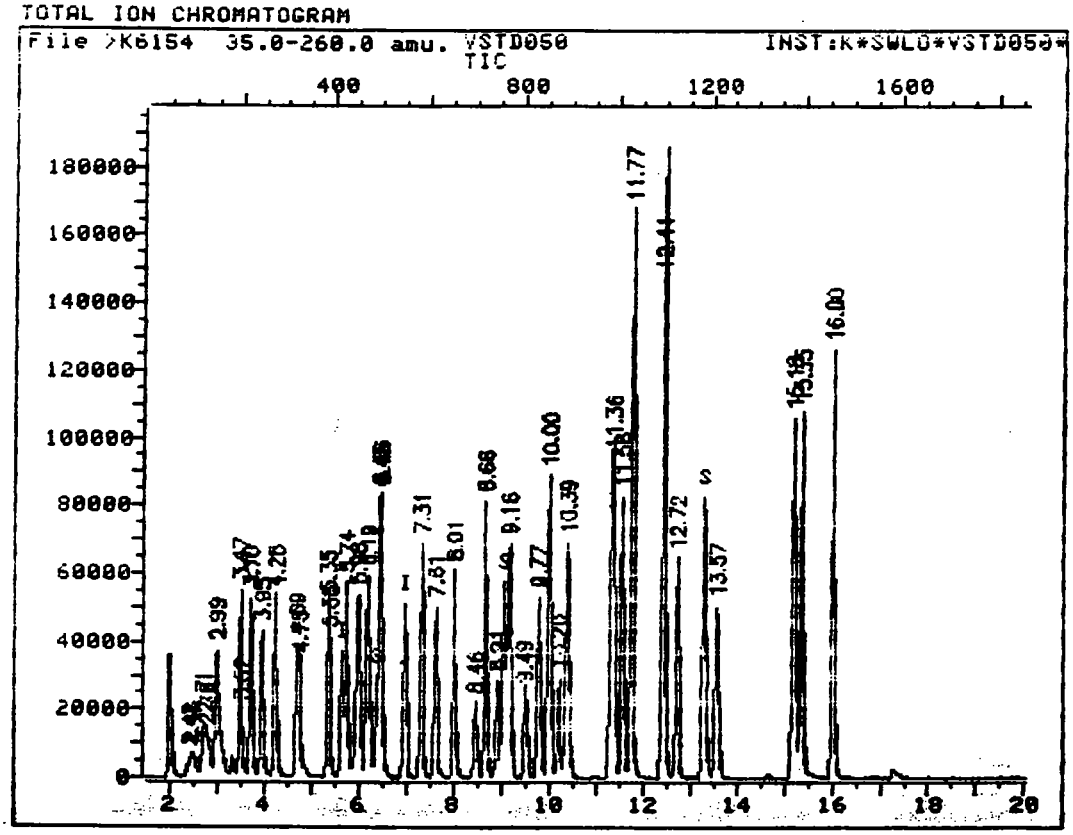
Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) CAP

Min RRF for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = K6158 RRF50 = K6154
RRF100= K6157 RRF150= K6156 RRF200= K6155

| COMPOUND | RRF20 | RRF50 | RRF100 | RRF150 | RRF200 | RRF | % RSD |
|---|---|---|---|---|---|---|---|
| Chloromethane # | 0.557 | 0.660 | 0.522 | 0.739 | 0.622 | 0.620 | 13.8# |
| Bromomethane | 1.851 | 1.871 | 1.703 | 1.696 | 1.673 | 1.759 | 5.4 |
| Vinyl Chloride * | 1.281 | 1.314 | 1.174 | 1.177 | 1.208 | 1.231 | 5.2* |
| Chloroethane | 0.742 | 0.913 | 0.887 | 0.879 | 0.906 | 0.865 | 8.1 |
| Methylene Chloride | 1.678 | 1.668 | 1.634 | 1.550 | 1.574 | 1.621 | 3.5 |
| Acetone | 1.152 | 1.040 | 1.100 | 1.098 | 1.197 | 1.117 | 5.3 |
| Carbon Disulfide | 6.040 | 6.325 | 6.129 | 5.842 | 6.222 | 6.112 | 3.0 |
| 1,1-Dichloroethene * | 1.712 | 1.747 | 1.662 | 1.610 | 1.600 | 1.666 | 3.8* |
| 1,1-Dichloroethane # | 3.824 | 3.696 | 3.556 | 3.492 | 3.547 | 3.623 | 3.7# |
| 1,2-Dichloroethene (total) | 1.837 | 1.826 | 1.745 | 1.698 | 1.787 | 1.779 | 3.2 |
| Chloroform * | 4.958 | 4.750 | 4.624 | 4.323 | 4.381 | 4.607 | 5.7* |
| 1,2-Dichloroethane | 4.013 | 3.707 | 3.645 | 3.503 | 3.348 | 3.643 | 6.8 |
| 2-Butanone | 0.321 | 0.276 | 0.333 | 0.328 | 0.301 | 0.312 | 7.5 |
| 1,1,1-Trichloroethane | 1.054 | 1.023 | 0.994 | 0.959 | 1.021 | 1.010 | 3.5 |
| Carbon Tetrachloride | 1.122 | 1.067 | 1.057 | 1.000 | 1.050 | 1.059 | 4.1 |
| Vinyl Acetate | 1.150 | 1.006 | 1.259 | 1.150 | 0.752 | 1.063 | 18.4 |
| Bromodichloromethane | 1.177 | 1.116 | 1.168 | 1.078 | 1.152 | 1.138 | 3.6 |
| 1,2-Dichloropropane * | 0.481 | 0.449 | 0.473 | 0.435 | 0.450 | 0.458 | 4.1* |
| cis-1,3-Dichloropropene | 0.986 | 0.927 | 0.916 | 0.885 | 0.946 | 0.932 | 4.0 |
| Trichloroethene | 0.646 | 0.609 | 0.615 | 0.572 | 0.607 | 0.610 | 4.3 |
| Dibromochloromethane | 1.085 | 1.021 | 1.104 | 1.094 | 1.018 | 1.064 | 3.9 |
| 1,1,2-Trichloroethane | 0.504 | 0.432 | 0.499 | 0.462 | 0.446 | 0.469 | 6.8 |
| Benzene | 1.144 | 1.064 | 1.124 | 1.074 | 1.157 | 1.113 | 3.7 |
| Trans-1,3-Dichloropropene | 0.587 | 0.562 | 0.581 | 0.565 | 0.539 | 0.567 | 3.3 |
| Bromoform # | 1.076 | 0.902 | 1.157 | 1.037 | 0.926 | 1.020 | 10.4# |
| 4-Methyl-2-Pentanone | 1.125 | 0.733 | 0.551 | 0.835 | 0.652 | 0.779 | 28.2 |
| 2-Hexanone | 0.994 | 0.782 | 0.928 | 0.878 | 0.667 | 0.850 | 15.1 |
| Tetrachloroethene | 0.848 | 0.797 | 0.755 | 0.734 | 0.714 | 0.770 | 7.0 |
| 1,1,2,2-Tetrachloroethane # | 0.669 | 0.966 | 0.740 | 1.087 | 0.913 | 0.875 | 19.4# |
| Toluene * | 0.987 | 0.969 | 0.955 | 0.925 | 0.927 | 0.953 | 2.8* |
| Chlorobenzene # | 1.428 | 1.426 | 1.389 | 1.377 | 1.366 | 1.397 | 2.0# |
| Ethylbenzene * | 0.633 | 0.638 | 0.626 | 0.603 | 0.625 | 0.625 | 2.1* |
| Styrene | 1.507 | 1.600 | 1.658 | 1.555 | 1.725 | 1.609 | 5.3 |
| Xylene (total) | 0.915 | 0.986 | 0.968 | 0.929 | 0.942 | 0.948 | 3.0 |
| Toluene-d8 | 1.392 | 1.352 | 1.241 | 1.229 | 1.246 | 1.292 | 5.8 |
| Bromofluorobenzene | 1.006 | 1.067 | 0.961 | 0.984 | 1.005 | 1.005 | 3.9 |
| 1,2-Dichloroethane-d4 | 2.846 | 2.667 | 2.540 | 2.433 | 2.343 | 2.566 | 7.7 |

TOTAL ION CHROMATOGRAM




Data File: >K6154::D7 Quant Output File: ^K6154::L2
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910724 11:03

Operator ID: DEBBIE
Quant Time: 910725 11:48
Injected at: 910725 11:27

QUANT REPORT

Operator ID: DEBBIE  Quant Rev: 6  Quant Time: 910725 11:48
Output File: ^K6154::L2  Injected at: 910725 11:27
Data File: >K6154::D7  Dilution Factor: 1.00000
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL

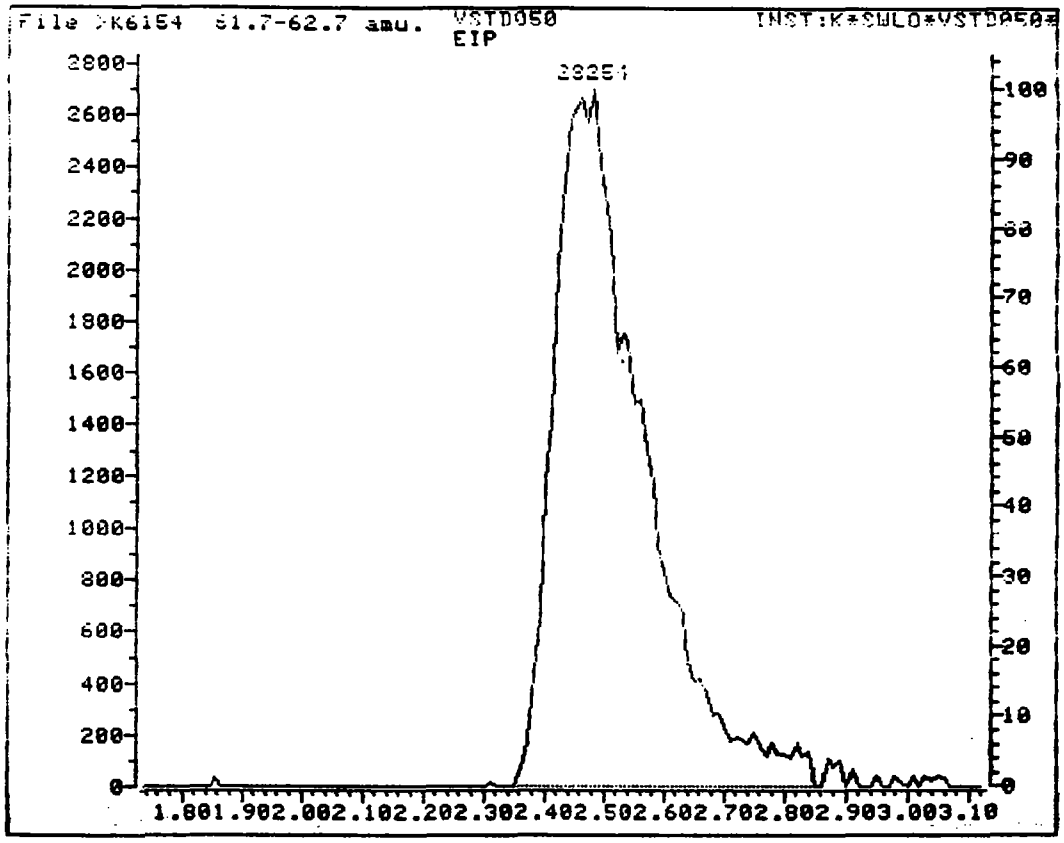
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910724 11:03

| | | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|---|
| 1) | *CI01 | BROMOCHLOROMETHANE | 5.64 | 128.0 | 21476 | 50.00 | ng/mL | 7 |
| 2) | C010 | CHLOROMETHANE | 2.42 | 50.0 | 14198 | 64.18 | ng/mL | 8 |
| 3) | C015 | BROMOMETHANE | 2.71 | 94.0 | 40235 | 168.08 | ng/mL | 9 |
| 4) | C020 | VINYL CHLORIDE | 2.48 | 62.0 | 28254M | 77.00 | ng/mL | 10 |
| 5) | C025 | CHLOROETHANE | 2.81 | 64.0 | 19632M | 168.48 | ng/mL | 10 |
| 6) | C030 | METHYLENE CHLORIDE | 3.95 | 84.0 | 35863 | 59.38 | ng/mL | 9 |
| 7) | C035 | ACETONE | 3.52 | 43.0 | 22353 | 88.01 | ng/mL | 10 |
| 8) | C040 | CARBON DISULFIDE | 3.70 | 76.0 | 135981 | 59.91 | ng/mL | 10 |
| 9) | C255 | TRICHLOROFLUOROMETHANE | 2.99 | 101.0 | 86255 | 64.36 | ng/mL | 9 |
| 10) | C045 | 1,1-DICHLOROETHENE | 3.47 | 96.0 | 37562 | 63.10 | ng/mL | 9 |
| 11) | C050 | 1,1-DICHLOROETHANE | 4.69 | 63.0 | 79465 | 59.72 | ng/mL | 9 |
| 12) | C053 | 1,2-DICHLOROETHENE-TRANS | 4.25 | 96.0 | 39249 | 58.23 | ng/mL | 8 |
| 13) | C055 | 1,2-DICHLOROETHENE-CIS | 5.35 | 96.0 | 42654 | 60.14 | ng/mL | 9 |
| 14) | C060 | CHLOROFORM | 5.74 | 83.0 | 102115 | 60.16 | ng/mL | 9 |
| 15) | C065 | 1,2-DICHLOROETHANE | 6.46 | 62.0 | 79697 | 64.38 | ng/mL | 9 |
| 16) | C110 | 2-BUTANONE | 5.38 | 72.0 | 5924 | 85.20 | ng/mL | 9 |
| 17) | CS15 | 1,2-DICHLOROETHANE-D4 | 6.36 | 65.1 | 57336 | 58.96 | ng/mL | 9 |
| 18) | *CI10 | 1,4-DIFLUOROBENZENE | 6.95 | 114.0 | 89428 | 50.00 | ng/mL | 9 |
| 19) | C115 | 1,1,1-TRICHLOROETHANE | 5.98 | 96.9 | 91447 | 58.76 | ng/mL | 9 |
| 20) | C120 | CARBON TETRACHLORIDE | 6.19 | 117.0 | 95408 | 59.66 | ng/mL | 9 |
| 21) | C125 | VINYL ACETATE | 4.75 | 43.0 | 89969 | 62.88 | ng/mL | 10 |
| 22) | C130 | BROMODICHLOROMETHANE | 8.01 | 83.0 | 99735 | 59.67 | ng/mL | 9 |
| 23) | C140 | 1,2-DICHLOROPROPANE | 7.61 | 63.0 | 40148 | 60.41 | ng/mL | 9 |
| 24) | C172 | TRANS-1,3-DICHLOROPROPENE | 9.49 | 75.0 | 36148 | 45.65 | ng/mL | 8 |
| 25) | C150 | TRICHLOROETHENE | 7.31 | 130.0 | 54410 | 57.75 | ng/mL | 9 |
| 26) | C155 | DIBROMOCHLOROMETHANE | 10.39 | 129.0 | 91264 | 104.21 | ng/mL | 10 |
| 27) | C160 | 1,1,2-TRICHLOROETHANE | 9.77 | 97.0 | 38636 | 60.50 | ng/mL | 10 |
| 28) | C165 | BENZENE | 6.45 | 78.0 | 95156 | 57.11 | ng/mL | 8 |
| 29) | C143 | CIS-1,3-DICHLOROPROPENE | 8.66 | 75.0 | 106045 | 77.22 | ng/mL | 9 |
| 30) | C175 | 2-CHLOROETHYL VINYL ETHER | 8.46 | 63.0 | 21765 | 132.14 | ng/mL | 9 |
| 31) | C180 | BROMOFORM | 12.72 | 172.8 | 80638 | 64.42 | ng/mL | 9 |
| 32) | *CI20 | CHLOROBENZENE-D5 | 11.31 | 117.0 | 69801 | 50.00 | ng/mL | 9 |
| 33) | C205 | 4-METHYL-2-PENTANONE | 8.91 | 43.0 | 51174 | 72.78 | ng/mL | 8 |
| 34) | C210 | 2-HEXANONE | 10.20 | 43.0 | 54597 | 99.52 | ng/mL | 9 |
| 35) | C220 | TETRACHLOROETHENE | 10.00 | 164.0 | 55664 | 55.12 | ng/mL | 9 |
| 36) | C225 | 1,1,2,2-TETRACHLOROETHANE | 13.57 | 83.0 | 67395 | 64.70 | ng/mL | 9 |
| 37) | C230 | TOLUENE | 9.16 | 92.0 | 67670 | 58.01 | ng/mL | 9 |
| 38) | C235 | CHLOROBENZENE | 11.36 | 112.0 | 99512 | 57.83 | ng/mL | 9 |
| 39) | C240 | ETHYLBENZENE | 11.56 | 106.0 | 44510 | 59.58 | ng/mL | 8 |
| 40) | C245 | STYRENE | 12.45 | 104.0 | 111663M | 55.54 | ng/mL | |
| 41) | C250 | o-XYLENE | 12.41 | 106.0 | 68829 | 56.07 | ng/mL | 9 |
| 42) | C299 | m,p-XYLENES | 11.77 | 106.0 | 113271 | 119.68 | ng/mL | 9 |
| 43) | C265 | 1,3-DICHLOROBENZENE | 15.18 | 146.0 | 115137 | 64.69 | ng/mL | 9 |

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 44) | C270 1,4-DICHLOROBENZENE | 15.35 | 146.0 | 121169 | 65.03 | ng/mL | 8 |
| 45) | C260 1,2-DICHLOROBENZENE | 16.00 | 146.0 | 134915 | 67.58 | ng/mL | 9 |
| 46) | CS05 TOLUENE-D8 | 9.05 | 98.0 | 94354 | 54.50 | ng/mL | 9 |
| 47) | CS10 BROMOFLUOROBENZENE | 13.29 | 95.0 | 74475 | 58.47 | ng/mL | 9 |

* Compound is ISTD

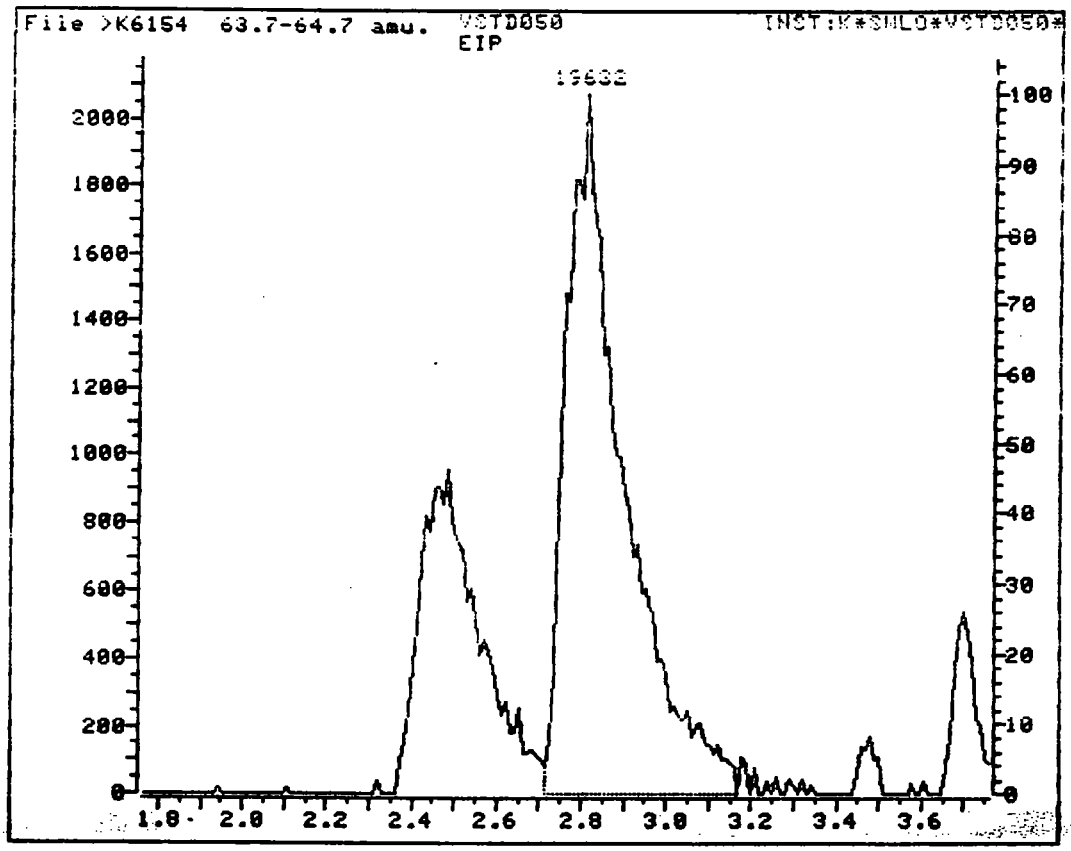
VSTD50
Inst: K
K6154
07/25/91
11:27




Data File: >K6154::D7 Quant Output File: ^K6154::L2
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL
Quant Time: 910725 11:48 Quant ID File: IDV023::EX
Injected at: 910725 11:27 Last Calibration: 910724 11:03

Compound No: 4
Compound Name: C020 VINYL CHLORIDE
Scan Number: 98
Retention Time: 2.48 min.
Quant Ion: 62.0
Area: 28254M
Concentration: 77.00 ng/mL
q-value: 100

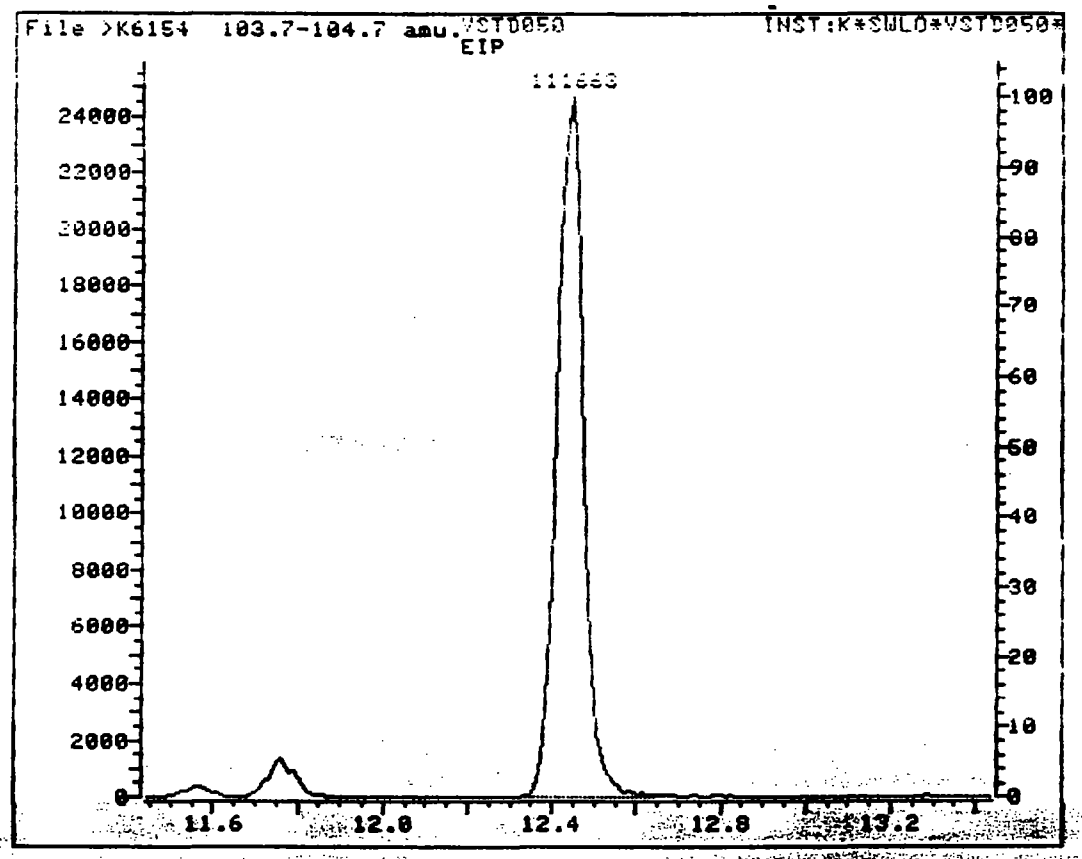
This report was produced by QAREA on: 910729 17:32




Data File: >K6154::D7 Quant Output File: ^K6154::L2
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL
Quant Time: 910725 11:48 Quant ID File: IDV023::EX
Injected at: 910725 11:27 Last Calibration: 910724 11:03

Compound No: 5
Compound Name: C025 CHLOROETHANE
Scan Number: 131
Retention Time: 2.81 min.
Quant Ion: 64.0
Area: 19632M
Concentration: 168.48 ng/mL
q-value: 100

This report was produced by QAREA on: 910729 17:33

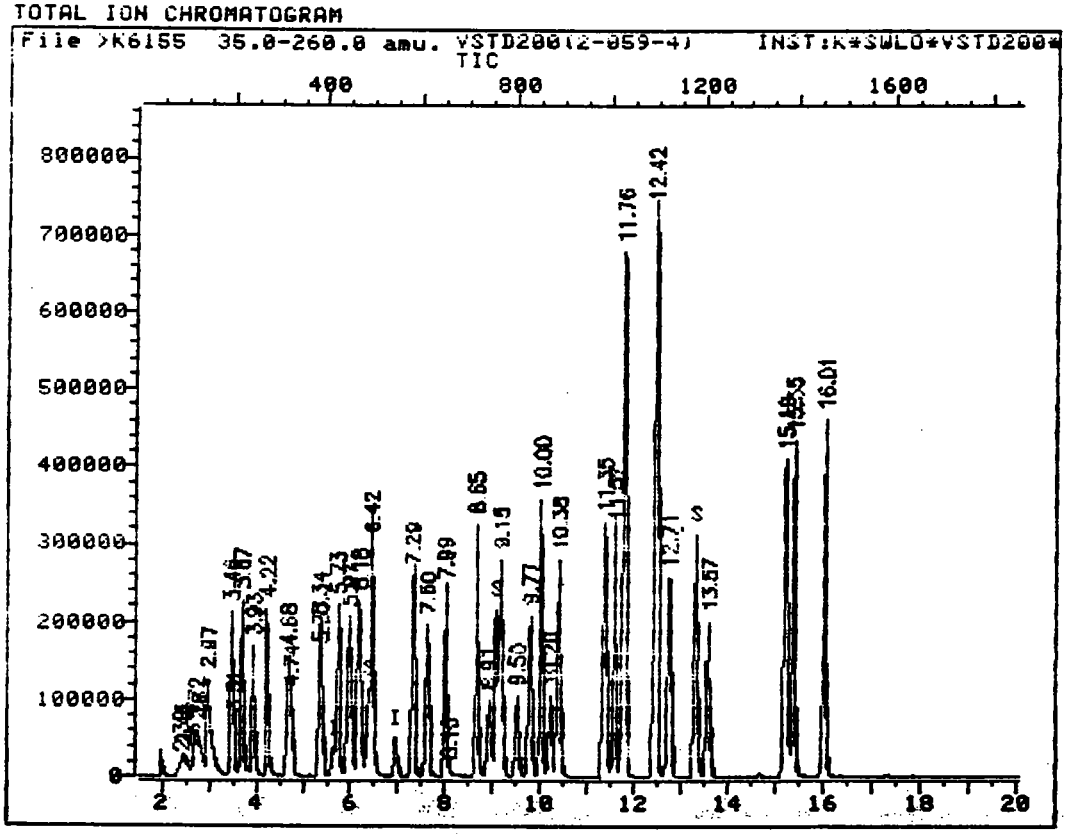



Data File: >K6154::D7 Quant Output File: ^K6154::L2
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL
Quant Time: 910725 11:48 Quant ID File: IDV023::EX
Injected at: 910725 11:27 Last Calibration: 910724 11:03

Compound No: 40
Compound Name: C245 STYRENE
Scan Number: 1099
Retention Time: 12.45 min.
Quant Ion: 104.0
Area: 111663M
Concentration: 55.54 ng/mL

This report was produced by QAREA on: 910729 17:34

TOTAL ION CHROMATOGRAM




Data File: >K6155::D7 Quant Output File: ^K6155::L2
Name: VSTD200(2-059-4)
Misc: INST:K*SWLO*VSTD200*5ML

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910724 11:03

Operator ID: DEBBIE
Quant Time: 910725 12:46
Injected at: 910725 12:24

QUANT REPORT

Operator ID: DEBBIE  Quant Rev: 6  Quant Time: 910725 12:46
Output File: ^K6155::L2  Injected at: 910725 12:24
Data File: >K6155::D7  Dilution Factor: 1.00000
Name: VSTD200(2-059-4)
Misc: INST:K*SWLO*VSTD200*5ML

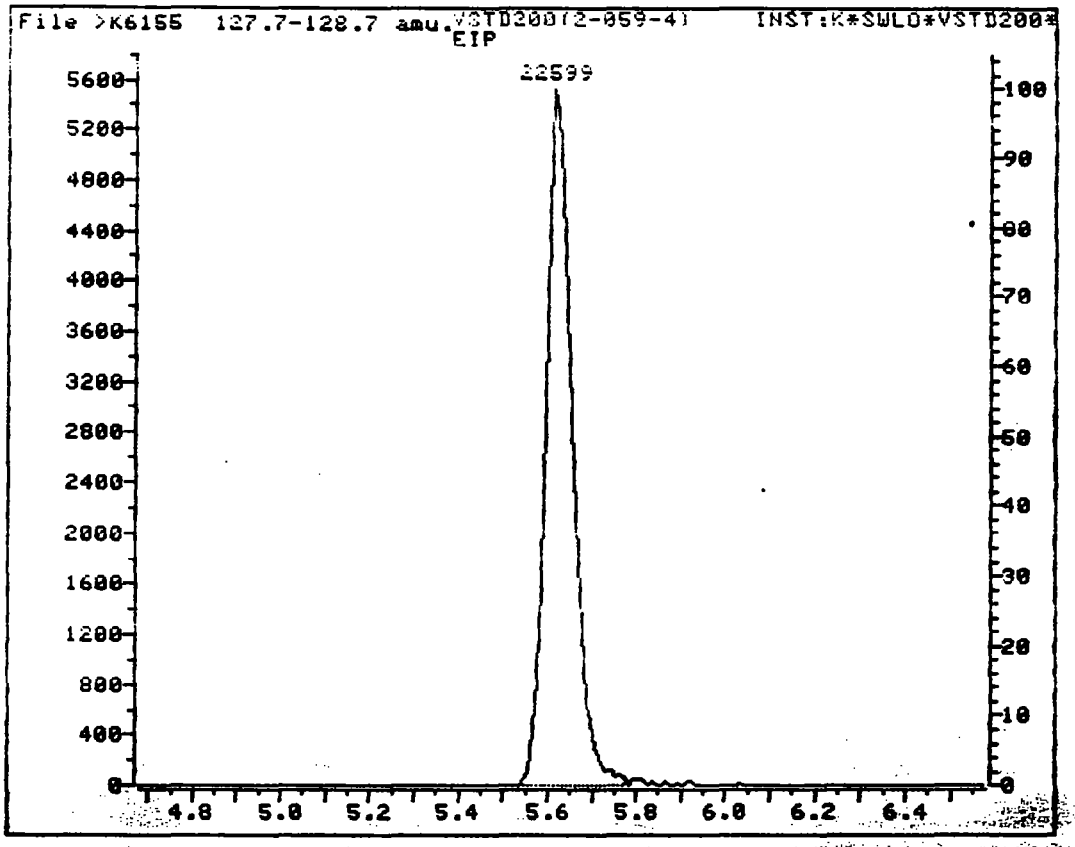
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910724 11:03

| | | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|---|
| 1) | *CI01 | BROMOCHLOROMETHANE | 5.62 | 128.0 | 22599M | 50.00 | ng/mL | |
| 2) | C010 | CHLOROMETHANE | 2.39 | 50.0 | 56262 | 241.68 | ng/mL | 9 |
| 3) | C015 | BROMOMETHANE | 2.72 | 94.0 | 151264 | 600.51 | ng/mL | 8 |
| 4) | C020 | VINYL CHLORIDE | 2.45 | 62.0 | 109229 | 282.87 | ng/mL | 10 |
| 5) | C025 | CHLOROETHANE | 2.78 | 64.0 | 81922M | 668.12 | ng/mL | 10 |
| 6) | C030 | METHYLENE CHLORIDE | 3.93 | 84.0 | 142267 | 223.86 | ng/mL | 9 |
| 7) | C035 | ACETONE | 3.51 | 43.0 | 108188 | 404.80 | ng/mL | 10 |
| 8) | C040 | CARBON DISULFIDE | 3.67 | 76.0 | 562499 | 235.51 | ng/mL | 10 |
| 9) | C255 | TRICHLOROFLUOROMETHANE | 2.97 | 101.0 | 325370 | 230.72 | ng/mL | 8 |
| 10) | C045 | 1,1-DICHLOROETHENE | 3.46 | 96.0 | 144678 | 230.98 | ng/mL | 8 |
| 11) | C050 | 1,1-DICHLOROETHANE | 4.68 | 63.0 | 320648 | 228.99 | ng/mL | 9 |
| 12) | C053 | 1,2-DICHLOROETHENE-TRANS | 4.22 | 96.0 | 161530 | 227.73 | ng/mL | 8 |
| 13) | C055 | 1,2-DICHLOROETHENE-CIS | 5.34 | 96.0 | 166737 | 223.43 | ng/mL | 9 |
| 14) | C060 | CHLOROFORM | 5.73 | 83.0 | 396031 | 221.72 | ng/mL | 9 |
| 15) | C065 | 1,2-DICHLOROETHANE | 6.44 | 62.0 | 302691M | 232.37 | ng/mL | |
| 16) | C110 | 2-BUTANONE | 5.37 | 72.0 | 27230 | 372.16 | ng/mL | 8 |
| 17) | CS15 | 1,2-DICHLOROETHANE-D4 | 6.35 | 65.1 | 211816 | 207.01 | ng/mL | 8 |
| 18) | *CI10 | 1,4-DIFLUOROBENZENE | 6.93 | 114.0 | 86888 | 50.00 | ng/mL | 9 |
| 19) | C115 | 1,1,1-TRICHLOROETHANE | 5.97 | 96.9 | 354760 | 234.61 | ng/mL | 9 |
| 20) | C120 | CARBON TETRACHLORIDE | 6.18 | 117.0 | 365073 | 234.96 | ng/mL | 9 |
| 21) | C125 | VINYL ACETATE | 4.74 | 43.0 | 261487 | 188.11 | ng/mL | 10 |
| 22) | C130 | BROMODICHLOROMETHANE | 7.99 | 83.0 | 400251 | 246.48 | ng/mL | 9 |
| 23) | C140 | 1,2-DICHLOROPROPANE | 7.60 | 63.0 | 156509 | 242.36 | ng/mL | 9 |
| 24) | C172 | TRANS-1,3-DICHLOROPROPENE | 9.50 | 75.0 | 134974 | 175.44 | ng/mL | 8 |
| 25) | C150 | TRICHLOROETHENE | 7.29 | 130.0 | 211069 | 230.59 | ng/mL | 9 |
| 26) | C155 | DIBROMOCHLOROMETHANE | 10.38 | 129.0 | 353959 | 416.00 | ng/mL | 10 |
| 27) | C160 | 1,1,2-TRICHLOROETHANE | 9.77 | 97.0 | 154864 | 249.58 | ng/mL | 10 |
| 28) | C165 | BENZENE | 6.42 | 78.0 | 402097 | 248.38 | ng/mL | 8 |
| 29) | C143 | CIS-1,3-DICHLOROPROPENE | 8.65 | 75.0 | 420810 | 315.36 | ng/mL | 9 |
| 30) | C175 | 2-CHLOROETHYL VINYL ETHER | 8.65 | 63.0 | 2462M | 15.38 | ng/mL | 9 |
| 31) | C180 | BROMOFORM | 12.71 | 172.8 | 321902 | 264.69 | ng/mL | 9 |
| 32) | *CI20 | CHLOROBENZENE-D5 | 11.31 | 117.0 | 72063 | 50.00 | ng/mL | 9 |
| 33) | C205 | 4-METHYL-2-PENTANONE | 8.91 | 43.0 | 187973 | 258.96 | ng/mL | 8 |
| 34) | C210 | 2-HEXANONE | 10.20 | 43.0 | 192381 | 339.66 | ng/mL | 9 |
| 35) | C220 | TETRACHLOROETHENE | 10.00 | 164.0 | 205929 | 197.53 | ng/mL | 8 |
| 36) | C225 | 1,1,2,2-TETRACHLOROETHANE | 13.57 | 83.0 | 263249 | 244.81 | ng/mL | 9 |
| 37) | C230 | TOLUENE | 9.15 | 92.0 | 267378 | 222.01 | ng/mL | 8 |
| 38) | C235 | CHLOROBENZENE | 11.35 | 112.0 | 393863 | 221.68 | ng/mL | 9 |
| 39) | C240 | ETHYLBENZENE | 11.57 | 106.0 | 180192 | 233.62 | ng/mL | 8 |
| 40) | C245 | STYRENE | 12.44 | 104.0 | 497587M | 239.74 | ng/mL | |
| 41) | C250 | o-XYLENE | 12.42 | 106.0 | 271702 | 214.39 | ng/mL | 9 |
| 42) | C299 | m,p-XYLENES | 11.76 | 106.0 | 469358 | 480.34 | ng/mL | 9 |
| 43) | C265 | 1,3-DICHLOROBENZENE | 15.19 | 146.0 | 452479 | 246.24 | ng/mL | 9 |

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 44) | C270 1,4-DICHLOROBENZENE | 15.35 | 146.0 | 471695 | 245.21 | ng/mL | 9 |
| 45) | C260 1,2-DICHLOROBENZENE | 16.01 | 146.0 | 548508 | 266.12 | ng/mL | 9 |
| 46) | CS05 TOLUENE-D8 | 9.05 | 98.0 | 359455 | 201.12 | ng/mL | 8 |
| 47) | CS10 BROMOFLUOROBENZENE | 13.29 | 95.0 | 289897 | 220.45 | ng/mL | 9 |

* Compound is ISTD

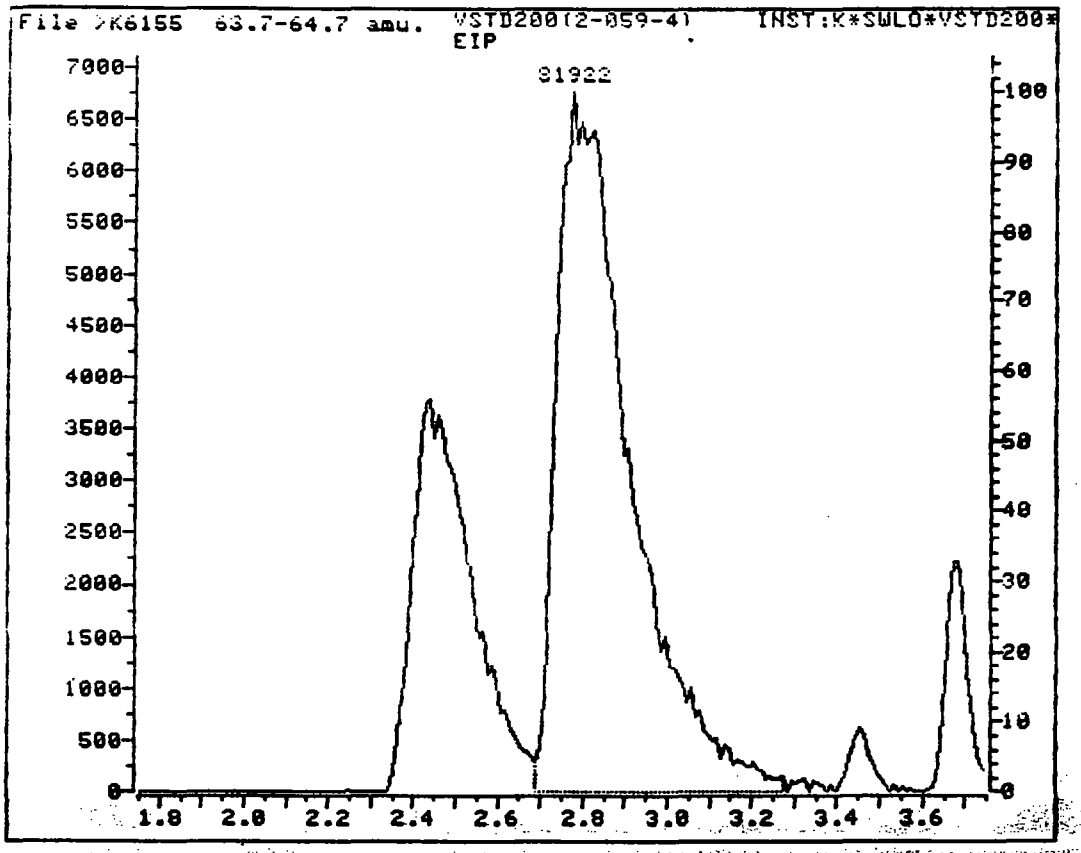
USTD200
Inst:K
K6155
07/25/91
12:24




Data File: >K6155::D7 Quant Output File: ^K6155::L2
Name: VSTD200(2-059-4)
Misc: INST:K*SWLO*VSTD200*5ML
Quant Time: 910725 12:46 Quant ID File: IDV023::EX
Injected at: 910725 12:24 Last Calibration: 910724 11:03

Compound No: 1 (ISTD)
Compound Name: CI01 BROMOCHLOROMETHANE
Scan Number: 412
Retention Time: 5.62 min.
Quant Ion: 128.0
Area: 22599M
Concentration: 50.00 ng/mL

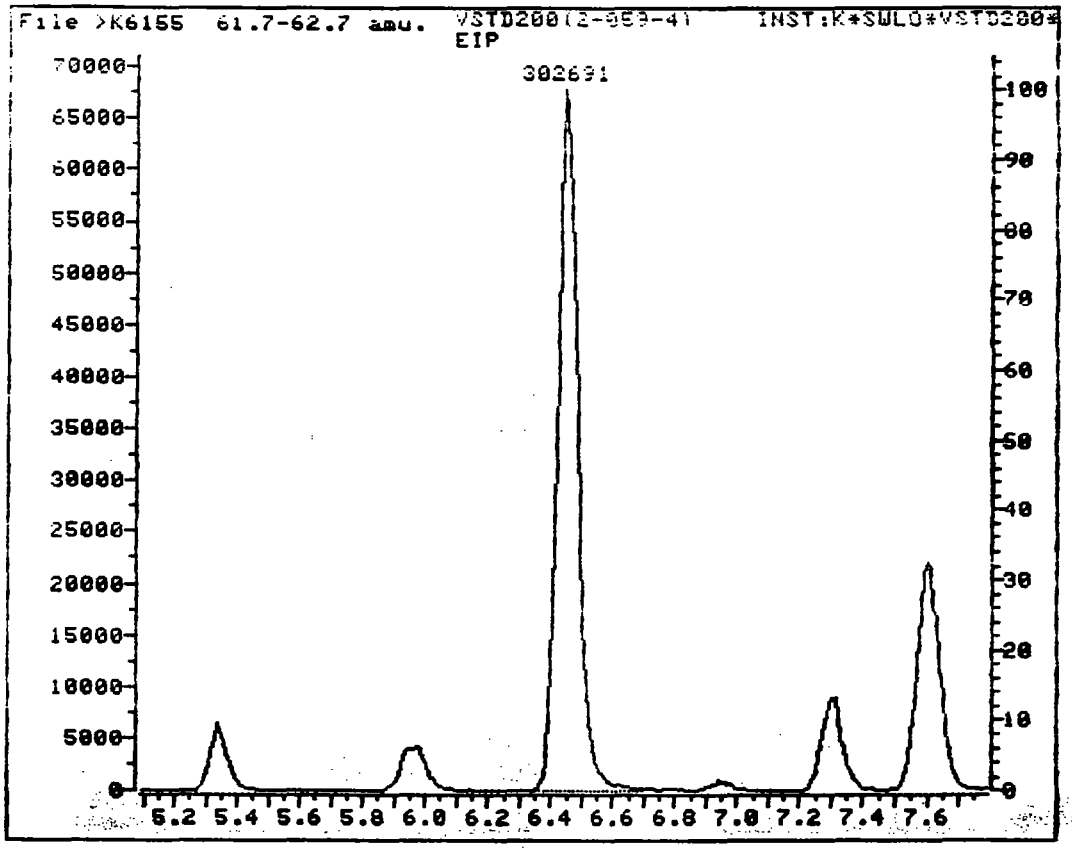
This report was produced by QAREA on: 910729 17:51




**Data File: >K6155::D7** **Quant Output File: ^K6155::L2**
Name: VSTD200(2-059-4)
Misc: INST:K*SWLO*VSTD200*5ML
Quant Time: 910725 12:46 Quant ID File: IDV023::EX
Injected at: 910725 12:24 Last Calibration: 910724 11:03

Compound No: 5
Compound Name: C025 CHLOROETHANE
Scan Number: 127
Retention Time: 2.78 min.
Quant Ion: 64.0
Area: 81922M
Concentration: 668.12 ng/mL
q-value: 100

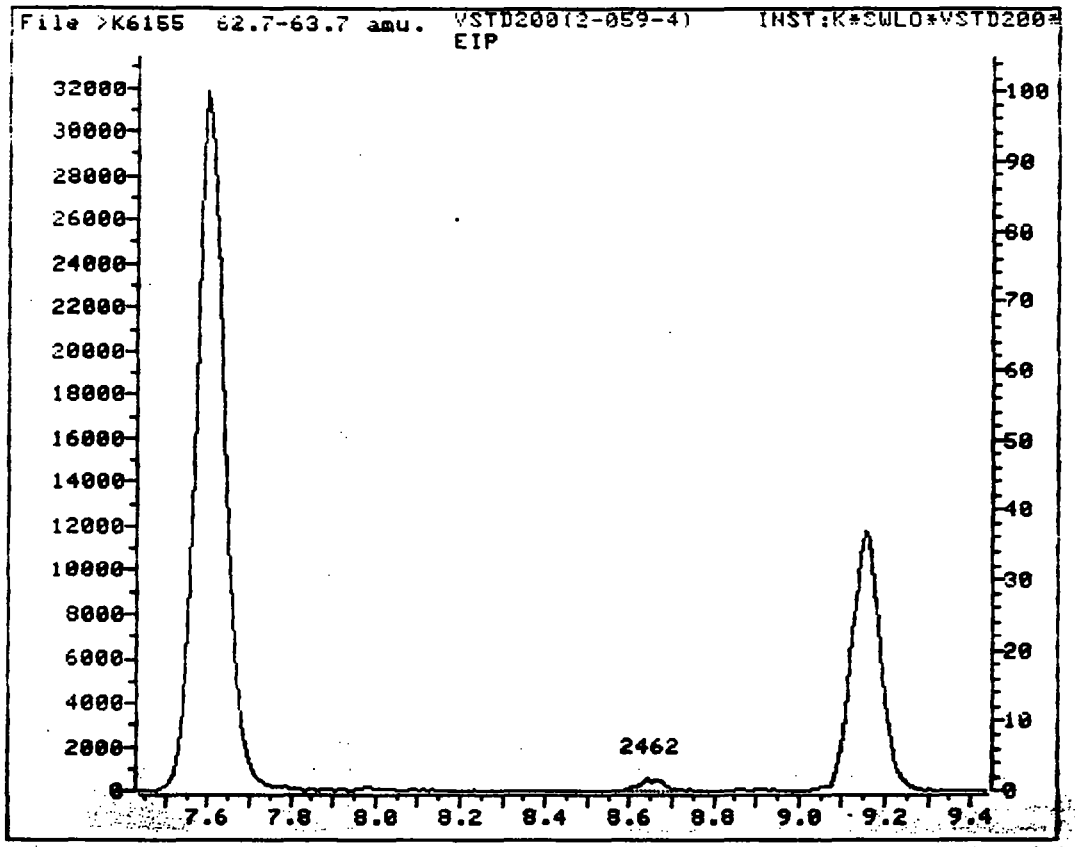
This report was produced by QAREA on: 910729 17:52




Data File: >K6155::D7 Quant Output File: ^K6155::L2
Name: VSTD200(2-059-4)
Misc: INST:K*SWLO*VSTD200*5ML
Quant Time: 910725 12:46 Quant ID File: IDV023::EX
Injected at: 910725 12:24 Last Calibration: 910724 11:03

Compound No: 15
Compound Name: C065 1,2-DICHLOROETHANE
Scan Number: 495
Retention Time: 6.44 min.
Quant Ion: 62.0
Area: 302691M
Concentration: 232.37 ng/mL

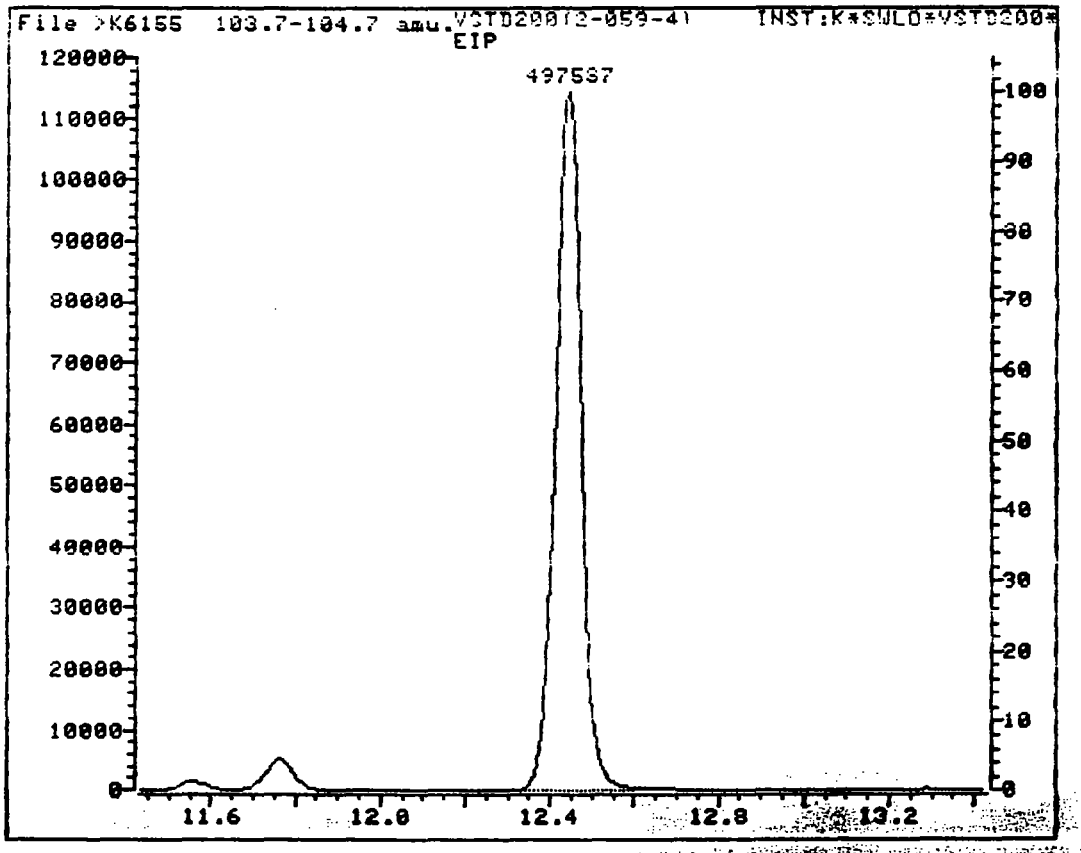
This report was produced by QAREA on: 910729 17:53




Data File: >K6155::D7 Quant Output File: ^K6155::L2
Name: VSTD200(2-059-4)
Misc: INST:K*SWLO*VSTD200*5ML
Quant Time: 910725 12:46 Quant ID File: IDV023::EX
Injected at: 910725 12:24 Last Calibration: 910724 11:03

Compound No: 30
Compound Name: C175 2-CHLOROETHYL VINYL ETHER
Scan Number: 716
Retention Time: 8.65 min.
Quant Ion: 63.0
Area: 2462M
Concentration: 15.38 ng/mL
q-value: 97

This report was produced by QAREA on: 910729 17:55

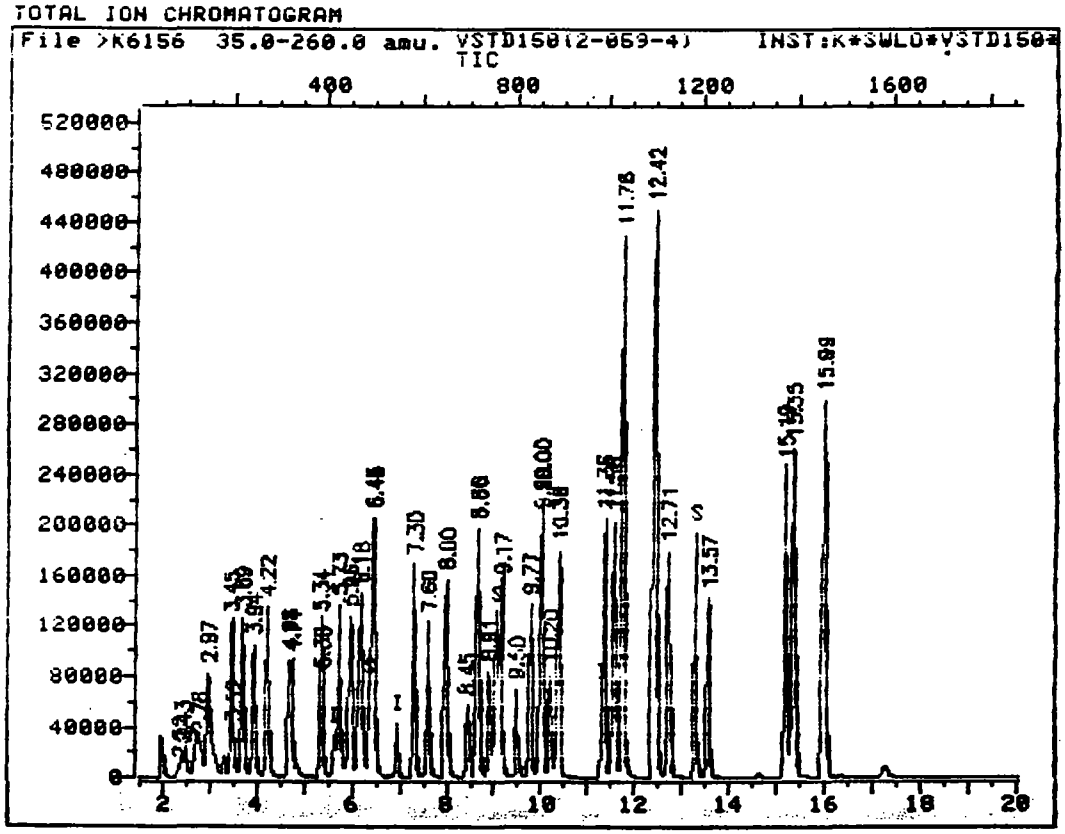



Data File: >K6155::D7 Quant Output File: ^K6155::L2
Name: VSTD200(2-059-4)
Misc: INST:K*SWLO*VSTD200*5ML
Quant Time: 910725 12:46 Quant ID File: IDV023::EX
Injected at: 910725 12:24 Last Calibration: 910724 11:03

Compound No: 40
Compound Name: C245 STYRENE
Scan Number: 1097
Retention Time: 12.44 min.
Quant Ion: 104.0
Area: 497587M
Concentration: 239.74 ng/mL

This report was produced by QAREA on: 910729 17:56

TOTAL ION CHROMATOGRAM




Data File: >K6156::D7 Quant Output File: ^K6156::L2
Name: VSTD150(2-059-4)
Misc: INST:K*SWLO*VSTD150*5ML

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910724 11:03

Operator ID: DEBBIE
Quant Time: 910725 13:19
Injected at: 910725 12:57

QUANT REPORT

Operator ID: DEBBIE  Quant Rev: 6  Quant Time: 910725 13:19
Output File: ^K6156::L2  Injected at: 910725 12:57
Data File: >K6156::D7  Dilution Factor: 1.00000
Name: VSTD150(2-059-4)
Misc: INST:K*SWLO*VSTD150*5ML

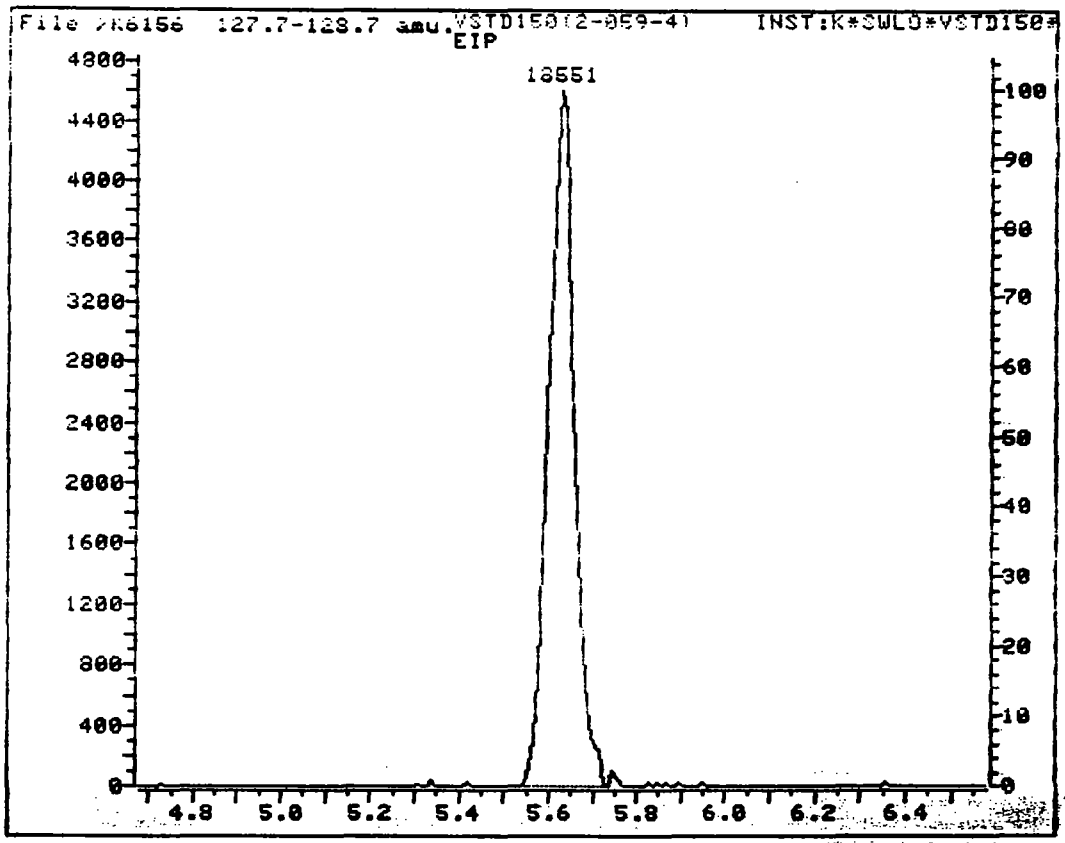
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910724 11:03

| | | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|---|
| 1) | *CI01 | BROMOCHLOROMETHANE | 5.63 | 128.0 | 18551M | 50.00 | ng/mL | |
| 2) | C010 | CHLOROMETHANE | 2.38 | 50.0 | 41226M | 215.73 | ng/mL | 8 |
| 3) | C015 | BROMOMETHANE | 2.74 | 94.0 | 94639M | 457.69 | ng/mL | |
| 4) | C020 | VINYL CHLORIDE | 2.43 | 62.0 | 65658M | 207.14 | ng/mL | 10 |
| 5) | C025 | CHLOROETHANE | 2.83 | 64.0 | 49033M | 487.15 | ng/mL | 10 |
| 6) | C030 | METHYLENE CHLORIDE | 3.94 | 84.0 | 86482 | 165.77 | ng/mL | 9 |
| 7) | C035 | ACETONE | 3.52 | 43.0 | 61284 | 279.34 | ng/mL | 10 |
| 8) | C040 | CARBON DISULFIDE | 3.69 | 76.0 | 325971 | 166.26 | ng/mL | 10 |
| 9) | C255 | TRICHLOROFLUOROMETHANE | 2.97 | 101.0 | 193380 | 167.05 | ng/mL | 9 |
| 10) | C045 | 1,1-DICHLOROETHENE | 3.45 | 96.0 | 89823 | 174.69 | ng/mL | 9 |
| 11) | C050 | 1,1-DICHLOROETHANE | 4.68 | 63.0 | 194859 | 169.53 | ng/mL | 9 |
| 12) | C053 | 1,2-DICHLOROETHENE-TRANS | 4.22 | 96.0 | 94757 | 162.74 | ng/mL | 8 |
| 13) | C055 | 1,2-DICHLOROETHENE-CIS | 5.34 | 96.0 | 102708 | 167.66 | ng/mL | 9 |
| 14) | C060 | CHLOROFORM | 5.73 | 83.0 | 241222 | 164.52 | ng/mL | 9 |
| 15) | C065 | 1,2-DICHLOROETHANE | 6.45 | 62.0 | 195483 | 182.82 | ng/mL | 8 |
| 16) | C110 | 2-BUTANONE | 5.38 | 72.0 | 18302 | 304.72 | ng/mL | 8 |
| 17) | CS15 | 1,2-DICHLOROETHANE-D4 | 6.36 | 65.1 | 135769 | 161.64 | ng/mL | 9 |
| 18) | *CI10 | 1,4-DIFLUOROBENZENE | 6.94 | 114.0 | 74053 | 50.00 | ng/mL | 9 |
| 19) | C115 | 1,1,1-TRICHLOROETHANE | 5.96 | 96.9 | 213131 | 165.38 | ng/mL | 9 |
| 20) | C120 | CARBON TETRACHLORIDE | 6.18 | 117.0 | 222355 | 167.91 | ng/mL | 9 |
| 21) | C125 | VINYL ACETATE | 4.74 | 43.0 | 255631 | 215.77 | ng/mL | 10 |
| 22) | C130 | BROMODICHLOROMETHANE | 8.00 | 83.0 | 239595 | 173.12 | ng/mL | 9 |
| 23) | C140 | 1,2-DICHLOROPROPANE | 7.60 | 63.0 | 96717 | 175.73 | ng/mL | 9 |
| 24) | C172 | TRANS-1,3-DICHLOROPROPENE | 9.50 | 75.0 | 90448 | 137.94 | ng/mL | 8 |
| 25) | C150 | TRICHLOROETHENE | 7.30 | 130.0 | 127212 | 163.06 | ng/mL | 9 |
| 26) | C155 | DIBROMOCHLOROMETHANE | 10.38 | 129.0 | 243082 | 335.20 | ng/mL | 10 |
| 27) | C160 | 1,1,2-TRICHLOROETHANE | 9.77 | 97.0 | 102717 | 194.23 | ng/mL | 10 |
| 28) | C165 | BENZENE | 6.44 | 78.0 | 238654 | 172.97 | ng/mL | 7 |
| 29) | C143 | CIS-1,3-DICHLOROPROPENE | 8.66 | 75.0 | 251950 | 221.54 | ng/mL | 9 |
| 30) | C175 | 2-CHLOROETHYL VINYL ETHER | 8.45 | 63.0 | 61109 | 448.04 | ng/mL | 9 |
| 31) | C180 | BROMOFORM | 12.71 | 172.8 | 230598 | 222.48 | ng/mL | 9 |
| 32) | *CI20 | CHLOROBENZENE-D5 | 11.30 | 117.0 | 60059 | 50.00 | ng/mL | 9 |
| 33) | C205 | 4-METHYL-2-PENTANONE | 8.91 | 43.0 | 150549 | 248.86 | ng/mL | 8 |
| 34) | C210 | 2-HEXANONE | 10.20 | 43.0 | 158366 | 335.49 | ng/mL | 8 |
| 35) | C220 | TETRACHLOROETHENE | 9.99 | 164.0 | 132300 | 152.27 | ng/mL | 9 |
| 36) | C225 | 1,1,2,2-TETRACHLOROETHANE | 13.57 | 83.0 | 195970 | 218.67 | ng/mL | 9 |
| 37) | C230 | TOLUENE | 9.17 | 92.0 | 166699 | 166.08 | ng/mL | 9 |
| 38) | C235 | CHLOROBENZENE | 11.36 | 112.0 | 248307 | 167.69 | ng/mL | 9 |
| 39) | C240 | ETHYLBENZENE | 11.56 | 106.0 | 108786 | 169.23 | ng/mL | 8 |
| 40) | C245 | STYRENE | 12.43 | 104.0 | 280429M | 162.11 | ng/mL | |
| 41) | C250 | o-XYLENE | 12.42 | 106.0 | 167439 | 158.53 | ng/mL | 9 |
| 42) | C299 | m,p-XYLENES | 11.76 | 106.0 | 273828 | 336.24 | ng/mL | 9 |
| 43) | C265 | 1,3-DICHLOROBENZENE | 15.19 | 146.0 | 280032 | 182.85 | ng/mL | 9 |

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 44) | C270 1,4-DICHLOROBENZENE | 15.35 | 146.0 | 289235 | 180.41 | ng/mL | 8 |
| 45) | C260 1,2-DICHLOROBENZENE | 15.99 | 146.0 | 330584 | 192.45 | ng/mL | 9 |
| 46) | CS05 TOLUENE-D8 | 9.05 | 98.0 | 221572 | 148.75 | ng/mL | 9 |
| 47) | CS10 BROMOFLUOROBENZENE | 13.29 | 95.0 | 177352 | 161.82 | ng/mL | 9 |

* Compound is ISTD

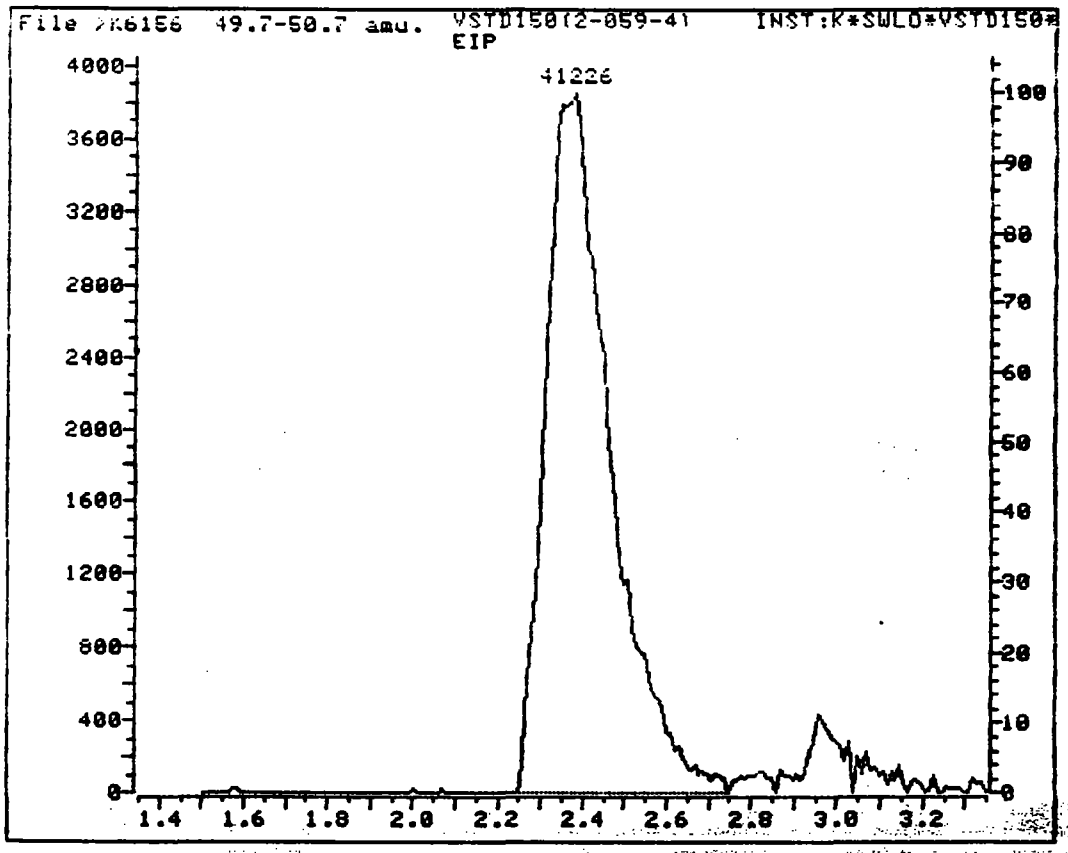
VSTD150
dmstik
K6156
07/23/91
12:57




Data File: >K6156::D7 Quant Output File: ^K6156::L2
Name: VSTD150(2-059-4)
Misc: INST:K*SWLO*VSTD150*5ML
Quant Time: 910725 13:19 Quant ID File: IDV023::EX
Injected at: 910725 12:57 Last Calibration: 910724 11:03

Compound No: 1 (ISTD)
Compound Name: CI01 BROMOCHLOROMETHANE
Scan Number: 415
Retention Time: 5.63 min.
Quant Ion: 128.0
Area: 18551M
Concentration: 50.00 ng/mL

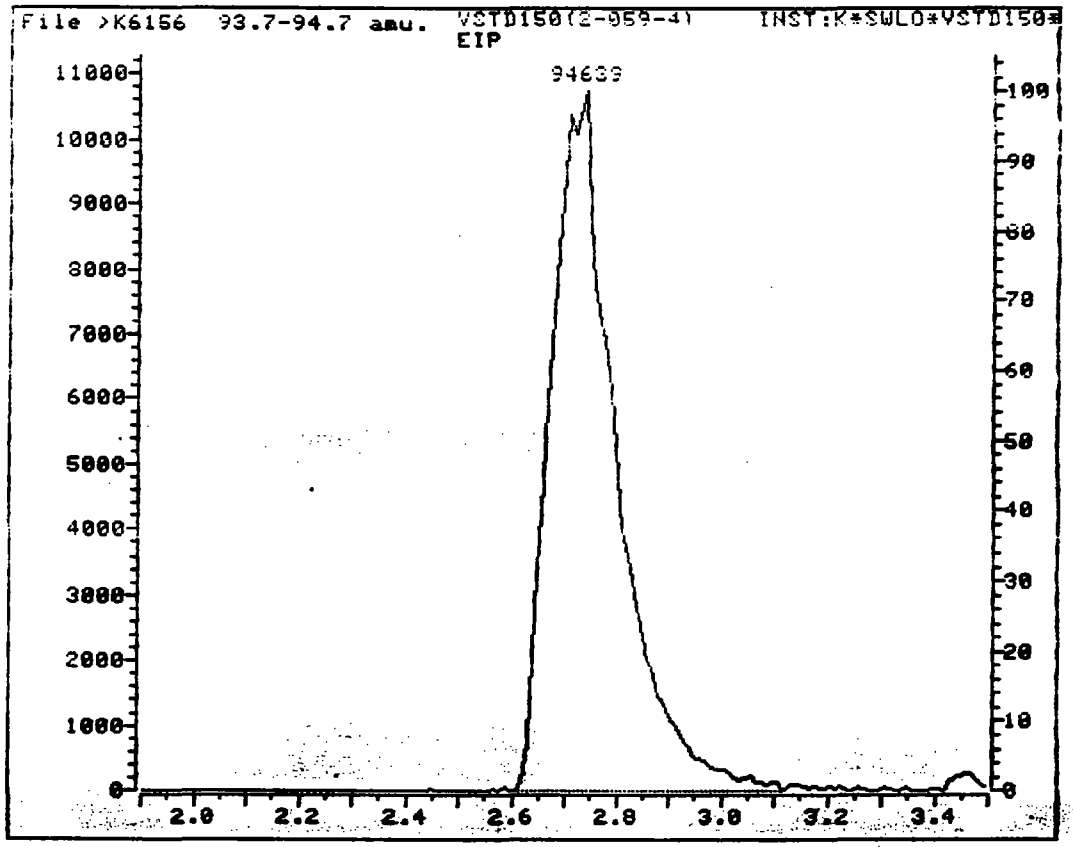
This report was produced by QAREA on: 910729 17:41




Data File: >K6156::D7 Quant Output File: ^K6156::L2
Name: VSTD150(2-059-4)
Misc: INST:K*SWLO*VSTD150*5ML
Quant Time: 910725 13:19 Quant ID File: IDV023::EX
Injected at: 910725 12:57 Last Calibration: 910724 11:03

Compound No: 2
Compound Name: C010 CHLOROMETHANE
Scan Number: 89
Retention Time: 2.38 min.
Quant Ion: 50.0
Area: 41226M
Concentration: 215.73 ng/mL
q-value: 81

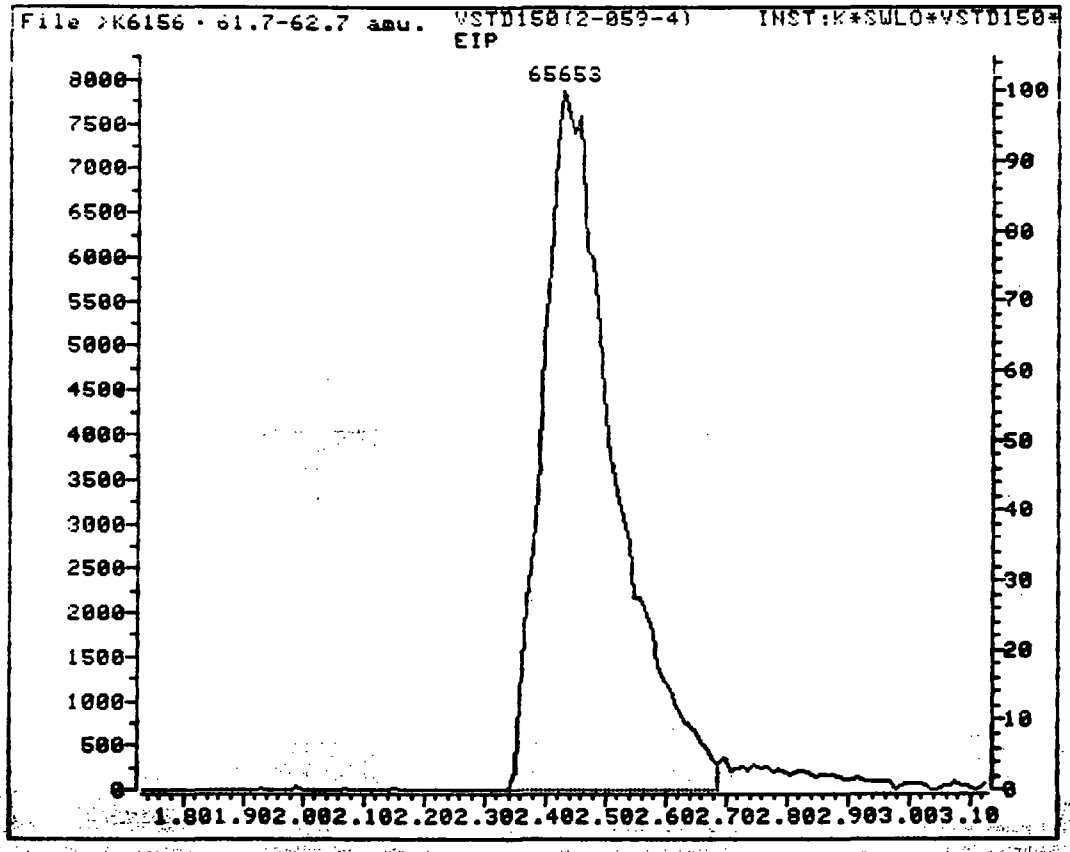
This report was produced by QAREA on: 910729 17:43




Data File: >K6156::D7 Quant Output File: ^K6156::L2
Name: VSTD150(2-059-4)
Misc: INST:K*SWLO*VSTD150*5ML
Quant Time: 910725 13:19 Quant ID File: IDV023::EX
Injected at: 910725 12:57 Last Calibration: 910724 11:03

Compound No: 3
Compound Name: C015 BROMOMETHANE
Scan Number: 125
Retention Time: 2.74 min.
Quant Ion: 94.0
Area: 94639M
Concentration: 457.69 ng/mL

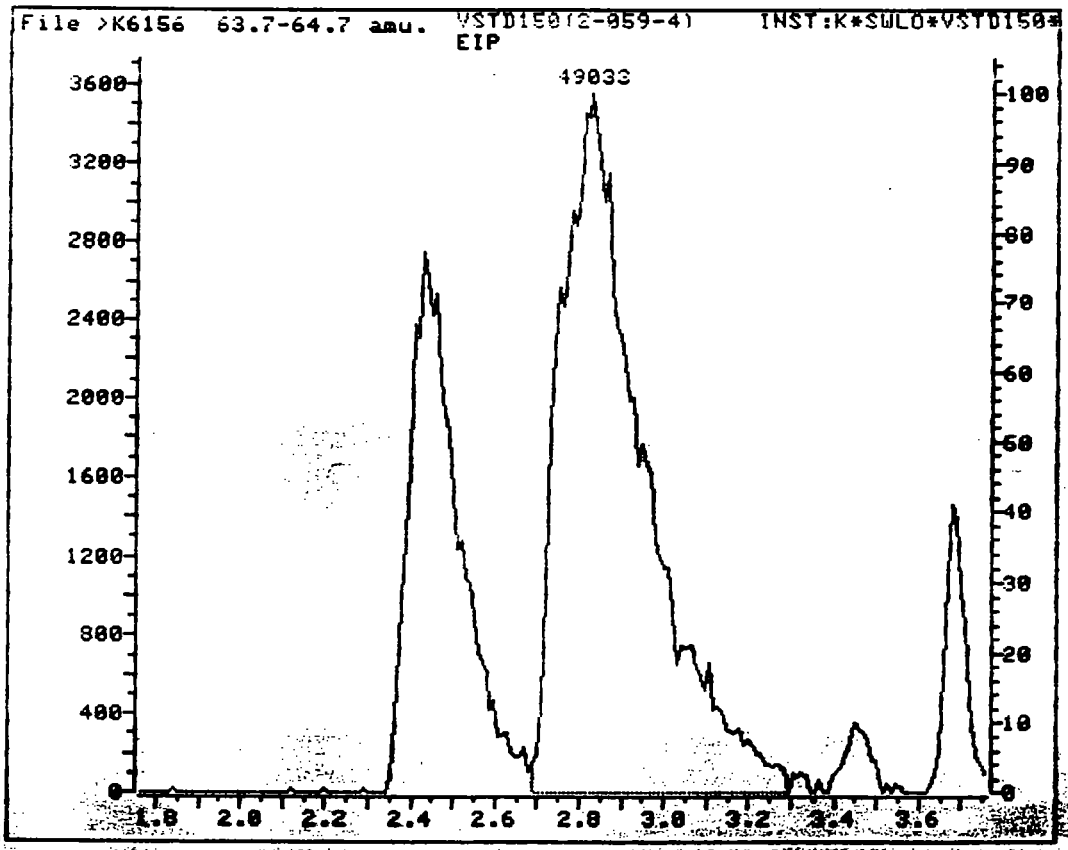
This report was produced by QAREA on: 910729 17:44




Data File: >K6156::D7 Quant Output File: ^K6156::L2
Name: VSTD150(2-059-4)
Misc: INST:K*SWLO*VSTD150*5ML
Quant Time: 910725 13:19 Quant ID File: IDV023::EX
Injected at: 910725 12:57 Last Calibration: 910724 11:03

Compound No: 4
Compound Name: C020 VINYL CHLORIDE
Scan Number: 94
Retention Time: 2.43 min.
Quant Ion: 62.0
Area: 65658M
Concentration: 207.14 ng/mL
q-value: 100

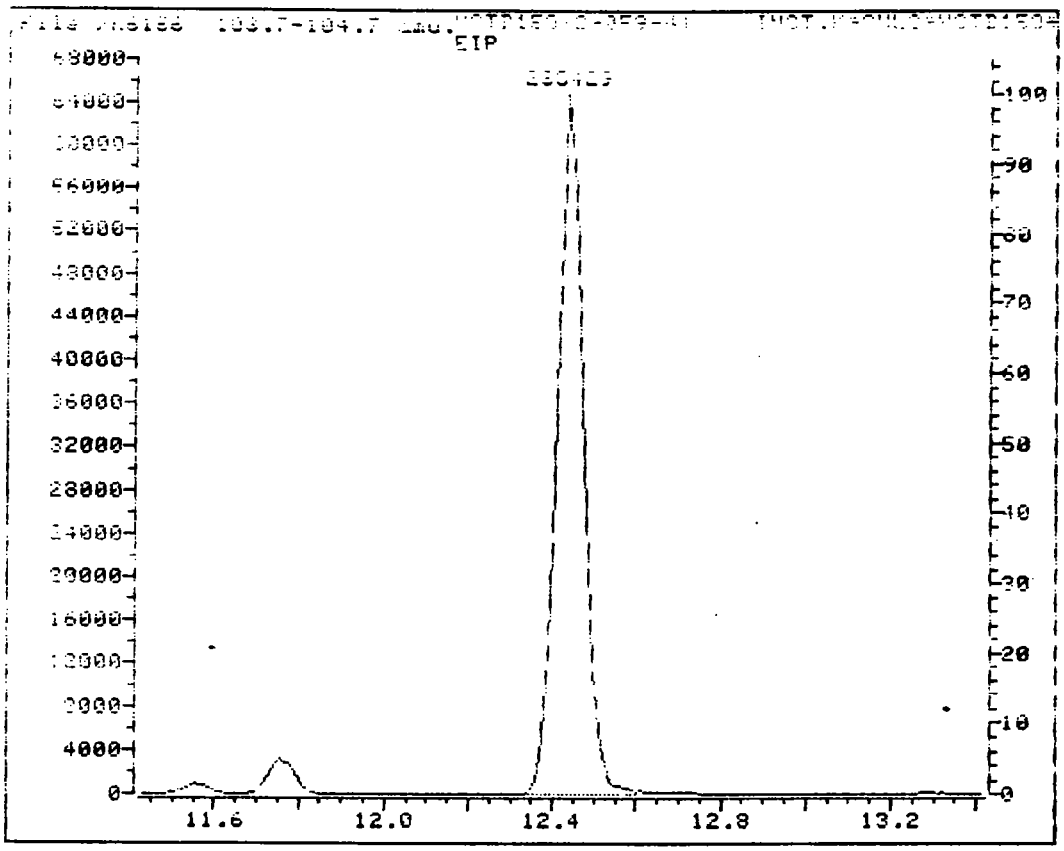
This report was produced by QAREA on: 910729 17:46




Data File: >K6156::D7 Quant Output File: ^K6156::L2
Name: VSTD150(2-059-4)
Misc: INST:K*SWLO*VSTD150*5ML
Quant Time: 910725 13:19 Quant ID File: IDV023::EX
Injected at: 910725 12:57 Last Calibration: 910724 11:03

Compound No: 5
Compound Name: C025 CHLOROETHANE
Scan Number: 134
Retention Time: 2.83 min.
Quant Ion: 64.0
Area: 49033M
Concentration: 487.15 ng/mL
q-value: 100

This report was produced by QAREA on: 910729 17:48



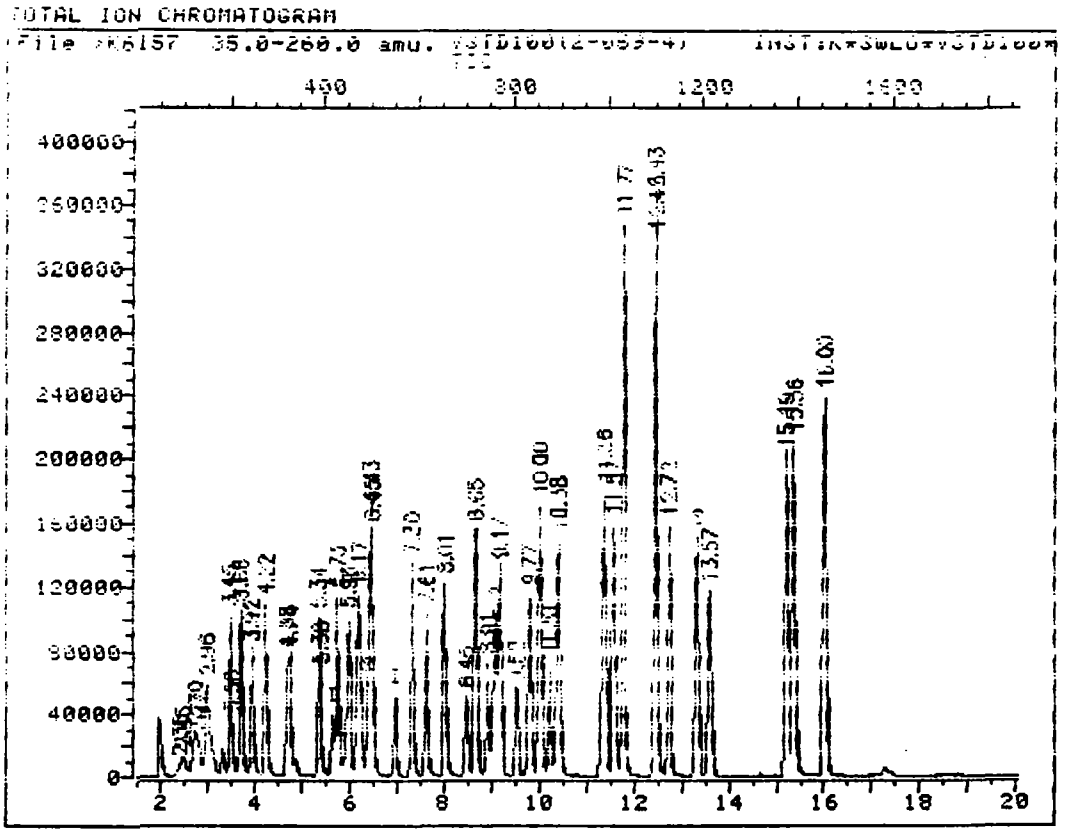

Data File: >K6156::D7
Name: USTD150(2-059-4)
Misc: INST:K*SWLO*USTD150*5ML
Quant Time: 910725 13:19
Injected at: 910725 12:57

Quant Output File: ^K6156::L2

Quant ID File: IDU023::EX
Last Calibration: 910724 11:03

Compound No: 40
Compound Name: C245 STYRENE
Scan Number: 1098
Retention Time: 12.43 min.
Quant Ion: 104.0
Area: 280429M
Concentration: 162.11 ng/mL

This report was produced by QAREA on: 910729 17:49




Data File: >K6157::D7 Quant Output File: ^K6157::L2
Name: VSTD100(2-059-4)
Misc: INST:K*SWLO*VSTD100*5ML

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910724 11:03

Operator ID: DEBBIE
Quant Time: 910725 13:46
Injected at: 910725 13:25

QUANT REPORT

Operator ID: DEBBIE  Quant Pgm: 6  Quant Time: 910725 13:46
Output File: ^K6157::L2  Injected at: 910725 13:25
Data File: >K6157::D7  Dilution Factor: 1.00000
Name: USTD100(2-059-4)
Misc: INST:K*SWLO*USTD100*5ML

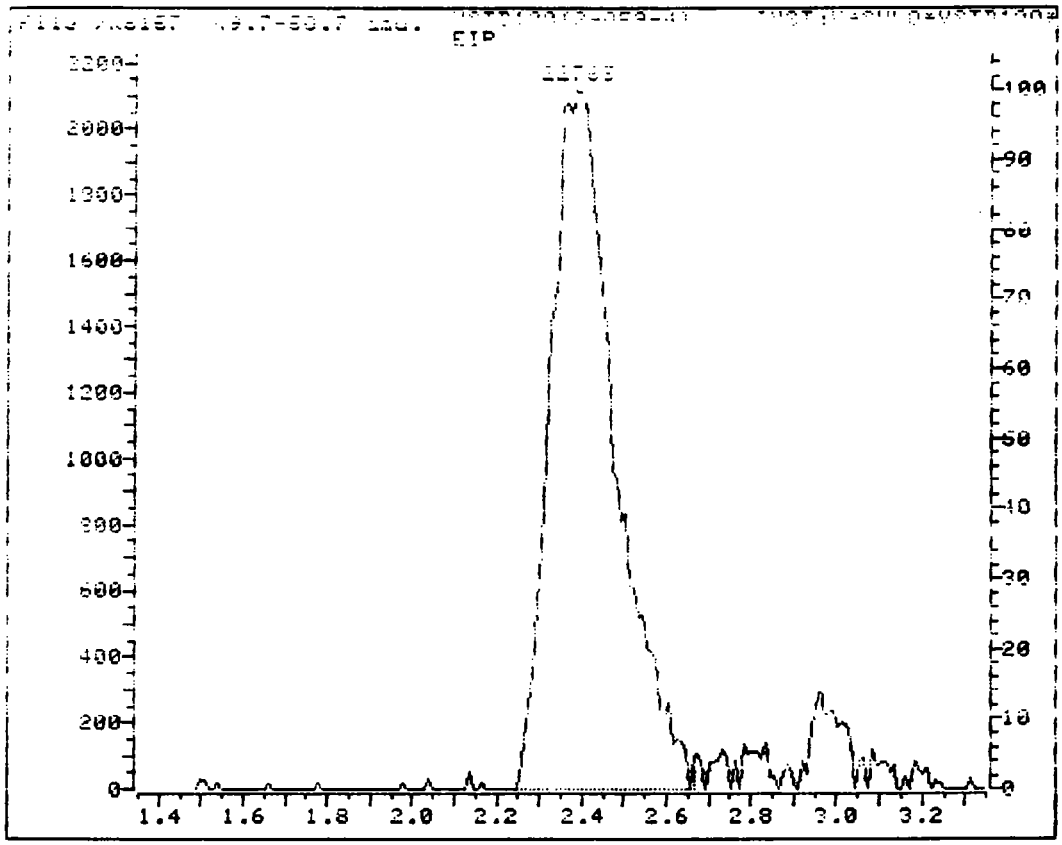
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910724 11:03

| | | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|---|
| 1) | *CI01 | BROMOCHLOROMETHANE | 5.63 | 128.0 | 21750 | 50.00 | ng/mL | 7 |
| 2) | C010 | CHLOROMETHANE | 2.38 | 50.0 | 22765M | 101.61 | ng/mL | 9 |
| 3) | C015 | BROMOMETHANE | 2.70 | 94.0 | 74240 | 306.23 | ng/mL | 8 |
| 4) | C020 | VINYL CHLORIDE | 2.45 | 62.0 | 51199M | 137.77 | ng/mL | 10 |
| 5) | C025 | CHLOROETHANE | 2.80 | 64.0 | 38681M | 327.78 | ng/mL | 10 |
| 6) | C030 | METHYLENE CHLORIDE | 3.92 | 84.0 | 71250 | 116.49 | ng/mL | 9 |
| 7) | C035 | ACETONE | 3.50 | 43.0 | 47977 | 186.52 | ng/mL | 10 |
| 8) | C040 | CARBON DISULFIDE | 3.68 | 76.0 | 267237 | 116.25 | ng/mL | 10 |
| 9) | C255 | TRICHLOROFLUOROMETHANE | 2.96 | 101.0 | 156348 | 115.19 | ng/mL | 9 |
| 10) | C045 | 1,1-DICHLOROETHENE | 3.45 | 96.0 | 72455 | 120.19 | ng/mL | 8 |
| 11) | C050 | 1,1-DICHLOROETHANE | 4.68 | 63.0 | 155021 | 115.03 | ng/mL | 9 |
| 12) | C053 | 1,2-DICHLOROETHENE-TRANS | 4.22 | 96.0 | 76088 | 111.46 | ng/mL | 8 |
| 13) | C055 | 1,2-DICHLOROETHENE-CIS | 5.34 | 96.0 | 79932 | 111.29 | ng/mL | 8 |
| 14) | C060 | CHLOROFORM | 5.73 | 83.0 | 201615 | 117.28 | ng/mL | 9 |
| 15) | C065 | 1,2-DICHLOROETHANE | 6.45 | 62.0 | 158937 | 126.78 | ng/mL | 9 |
| 16) | C110 | 2-BUTANONE | 5.38 | 72.0 | 14499 | 205.90 | ng/mL | 8 |
| 17) | CS15 | 1,2-DICHLOROETHANE-D4 | 6.35 | 65.1 | 110737 | 112.45 | ng/mL | 9 |
| 18) | *CI10 | 1,4-DIFLUOROBENZENE | 6.94 | 114.0 | 87549 | 50.00 | ng/mL | 9 |
| 19) | C115 | 1,1,1-TRICHLOROETHANE | 5.96 | 96.9 | 173977 | 114.19 | ng/mL | 9 |
| 20) | C120 | CARBON TETRACHLORIDE | 6.17 | 117.0 | 185008 | 118.17 | ng/mL | 9 |
| 21) | C125 | VINYL ACETATE | 4.74 | 43.0 | 220366 | 157.33 | ng/mL | 10 |
| 22) | C130 | BROMODICHLOROMETHANE | 8.01 | 83.0 | 204374 | 124.91 | ng/mL | 8 |
| 23) | C140 | 1,2-DICHLOROPROPANE | 7.61 | 63.0 | 82833 | 127.30 | ng/mL | 9 |
| 24) | C172 | TRANS-1,3-DICHLOROPROPENE | 9.52 | 75.0 | 73268 | 94.51 | ng/mL | 8 |
| 25) | C150 | TRICHLOROETHENE | 7.30 | 130.0 | 107699 | 116.77 | ng/mL | 9 |
| 26) | C155 | DIBROMOCHLOROMETHANE | 10.38 | 129.0 | 193296 | 225.46 | ng/mL | 10 |
| 27) | C160 | 1,1,2-TRICHLOROETHANE | 9.77 | 97.0 | 87354 | 139.71 | ng/mL | 10 |
| 28) | C165 | BENZENE | 6.43 | 78.0 | 196659 | 120.56 | ng/mL | 8 |
| 29) | C143 | CIS-1,3-DICHLOROPROPENE | 8.65 | 75.0 | 205184 | 152.61 | ng/mL | 9 |
| 30) | C175 | 2-CHLOROETHYL VINYL ETHER | 8.45 | 63.0 | 53353 | 330.87 | ng/mL | 9 |
| 31) | C180 | BROMOFORM | 12.72 | 172.8 | 202409 | 165.18 | ng/mL | 8 |
| 32) | *CI20 | CHLOROBENZENE-D5 | 11.32 | 117.0 | 69439 | 50.00 | ng/mL | 8 |
| 33) | C205 | 4-METHYL-2-PENTANONE | 8.91 | 43.0 | 76459 | 109.31 | ng/mL | 8 |
| 34) | C210 | 2-HEXANONE | 10.20 | 43.0 | 128748 | 235.90 | ng/mL | 9 |
| 35) | C220 | TETRACHLOROETHENE | 10.00 | 164.0 | 104763 | 104.29 | ng/mL | 8 |
| 36) | C225 | 1,1,2,2-TETRACHLOROETHANE | 13.57 | 83.0 | 102735 | 99.15 | ng/mL | 8 |
| 37) | C230 | TOLUENE | 9.17 | 92.0 | 132583 | 114.25 | ng/mL | 9 |
| 38) | C235 | CHLOROBENZENE | 11.36 | 112.0 | 192778 | 112.60 | ng/mL | 9 |
| 39) | C240 | ETHYLBENZENE | 11.57 | 106.0 | 86902 | 116.93 | ng/mL | 8 |
| 40) | C245 | STYRENE | 12.45 | 104.0 | 230088M | 115.04 | ng/mL | |
| 41) | C250 | o-XYLENE | 12.43 | 106.0 | 134328 | 110.00 | ng/mL | 9 |
| 42) | C299 | m,p-XYLENES | 11.77 | 106.0 | 221492 | 235.24 | ng/mL | 9 |
| 43) | C265 | 1,3-DICHLOROBENZENE | 15.19 | 146.0 | 228660 | 129.14 | ng/mL | 8 |

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 44) | C270 1,4-DICHLOROBENZENE | 15.36 | 146.0 | 218632 | 117.95 | ng/mL | 9[illegible] |
| 45) | C260 1,2-DICHLOROBENZENE | 16.00 | 146.0 | 255445 | 128.62 | ng/mL | 9[illegible] |
| 46) | CS05 TOLUENE-D8 | 9.05 | 98.0 | 172248 | 100.02 | ng/mL | 9[illegible] |
| 47) | CS10 BROMOFLUOROBENZENE | 13.30 | 95.0 | 133397 | 105.29 | ng/mL | 9[illegible] |

* Compound is ISTD

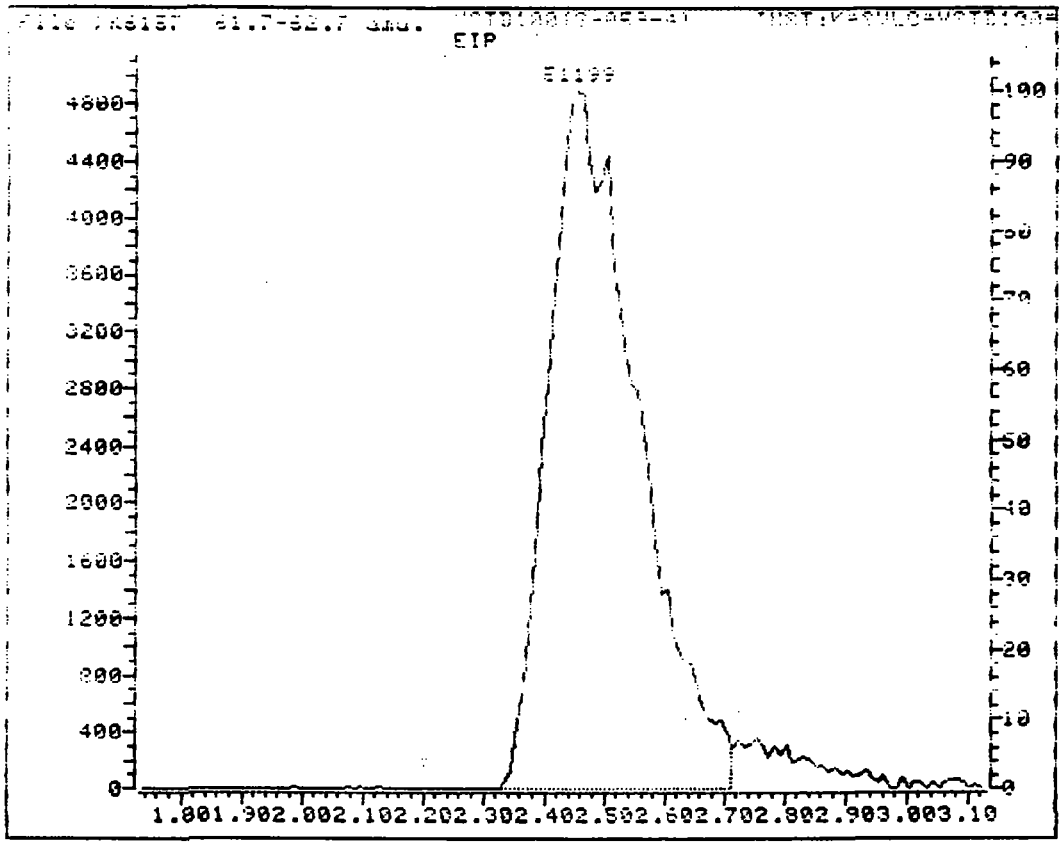
VSTD 100
Inst: K
K 6157
07/25/91
13:25




Data File: >K6157::D7 Quant Output File: ^K6157::L2
Name: VSTD100(2-059-4)
Misc: INST:K*SWLO*VSTD100*5ML
Quant Time: 910725 13:46 Quant ID File: IDV023::EX
Injected at: 910725 13:25 Last Calibration: 910724 11:03

Compound No: 2
Compound Name: C010 CHLOROMETHANE
Scan Number: 91
Retention Time: 2.38 min.
Quant Ion: 50.0
Area: 22765M
Concentration: 101.61 ng/mL
q-value: 93

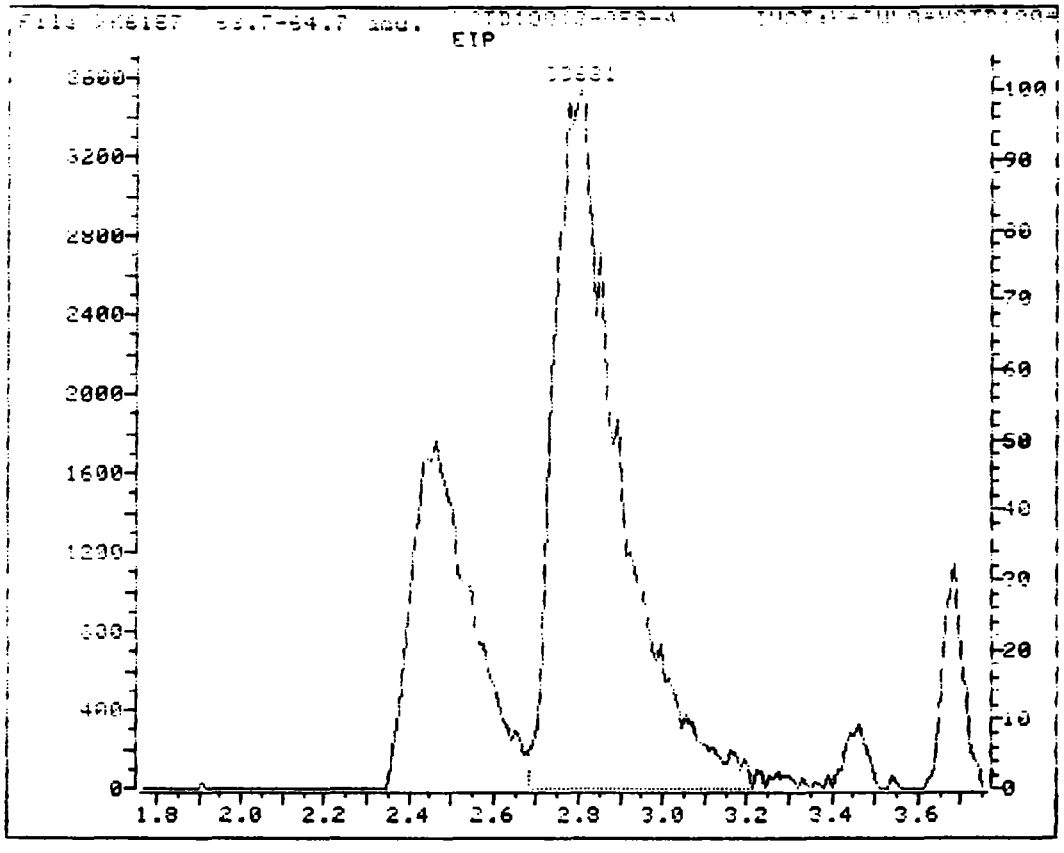
This report was produced by QAREA on: 910729 17:35




Data File: >K6157::D7 Quant Output File: ^K6157::L2
Name: VSTD100(2-059-4)
Misc: INST:K*SWLO*VSTD100*5ML
Quant Time: 910725 13:46 Quant ID File: IDV023::EX
Injected at: 910725 13:25 Last Calibration: 910724 11:03

Compound No: 4
Compound Name: C020 VINYL CHLORIDE
Scan Number: 98
Retention Time: 2.45 min.
Quant Ion: 62.0
Area: 51199M
Concentration: 137.77 ng/mL
q-value: 100

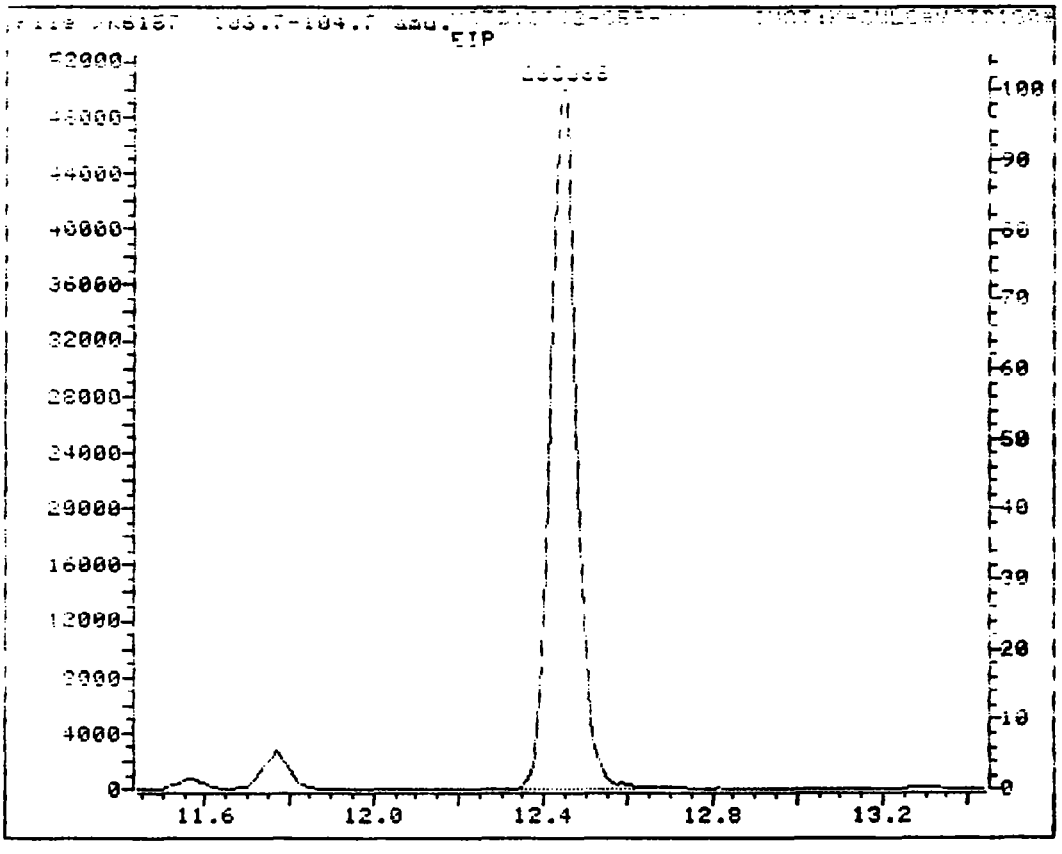
This report was produced by QAREA on: 910729 17:36




Data File: >K6157::D7 Quant Output File: ^K6157::L2
Name: VSTD100(2-059-4)
Misc: INST:K*SWLO*VSTD100*5ML
Quant Time: 910725 13:46 Quant ID File: IDV023::EX
Injected at: 910725 13:25 Last Calibration: 910724 11:03

Compound No: 5
Compound Name: C025 CHLOROETHANE
Scan Number: 133
Retention Time: 2.80 min.
Quant Ion: 64.0
Area: 38681M
Concentration: 327.79 ng/mL
q-value: 100

This report was produced by CAREA on: 910729 17:39

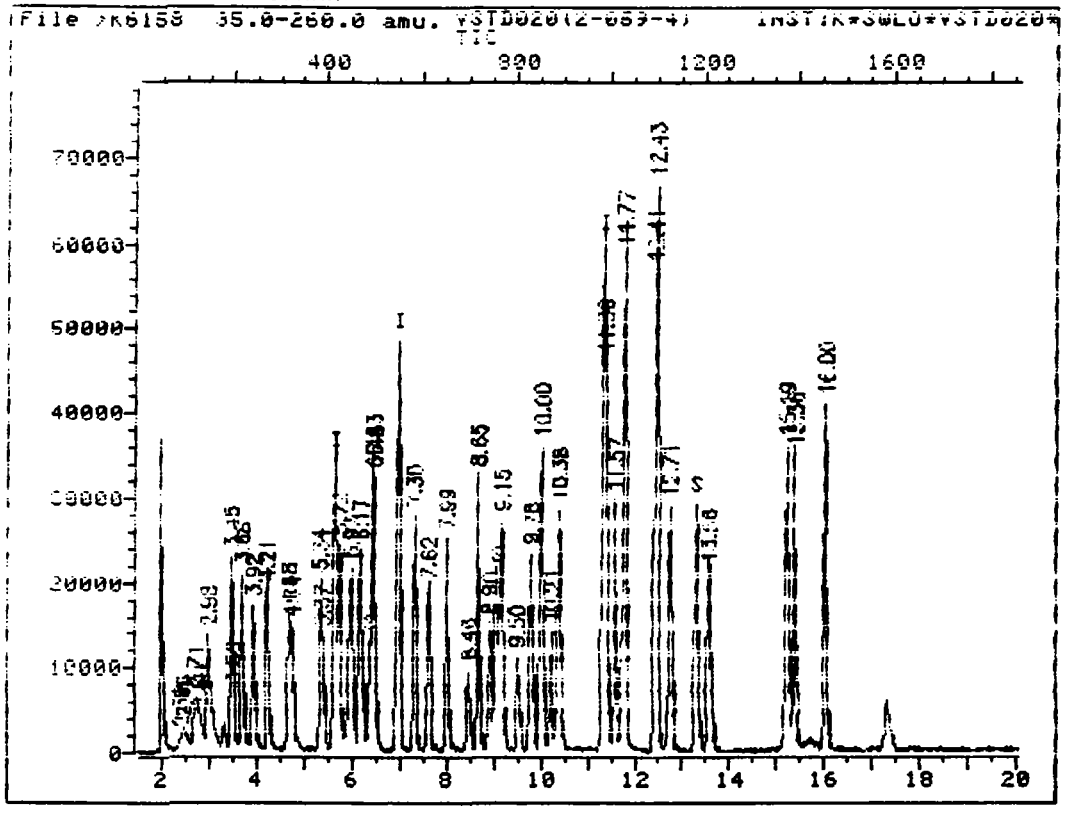



Data File: >K6157::D7 Quant Output File: ^K6157::L2
Name: VSTD100(2-059-4)
Misc: INST:K*SWLO*VSTD100*5ML
Quant Time: 910725 13:46 Quant ID File: IDV023::EX
Injected at: 910725 13:25 Last Calibration: 910724 11:03

Compound No: 40
Compound Name: C245 STYRENE
Scan Number: 1100
Retention Time: 12.45 min.
Quant Ion: 104.0
Area: 230088M
Concentration: 115.04 ng/mL

This report was produced by QAREA on: 910729 17:39

TOTAL ION CHROMATOGRAM




Data File: >K6158::D7 Quant Output File: ^K6158::L2
Name: VSTD020(2-059-4)
Misc: INST:K*SWLO*VSTD020*5ML

Id File: IDV023::EX
Title: WOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910724 11:03

Operator ID: DEBBIE
Quant Time: 910725 14:12
Injected at: 910725 13:50

QUANT REPORT

Operator ID: DEBBIE  Quant Rev: 4  Quant Time: 910725 14:12
Output File: >K6158::L2  Injected at: 910725 13:50
Data File: >K6159::D7  Dilution Factor: 1.00000
Name: USTD020(2-059-4)
Misc: INST:K*SWLO*USTD020*5ML

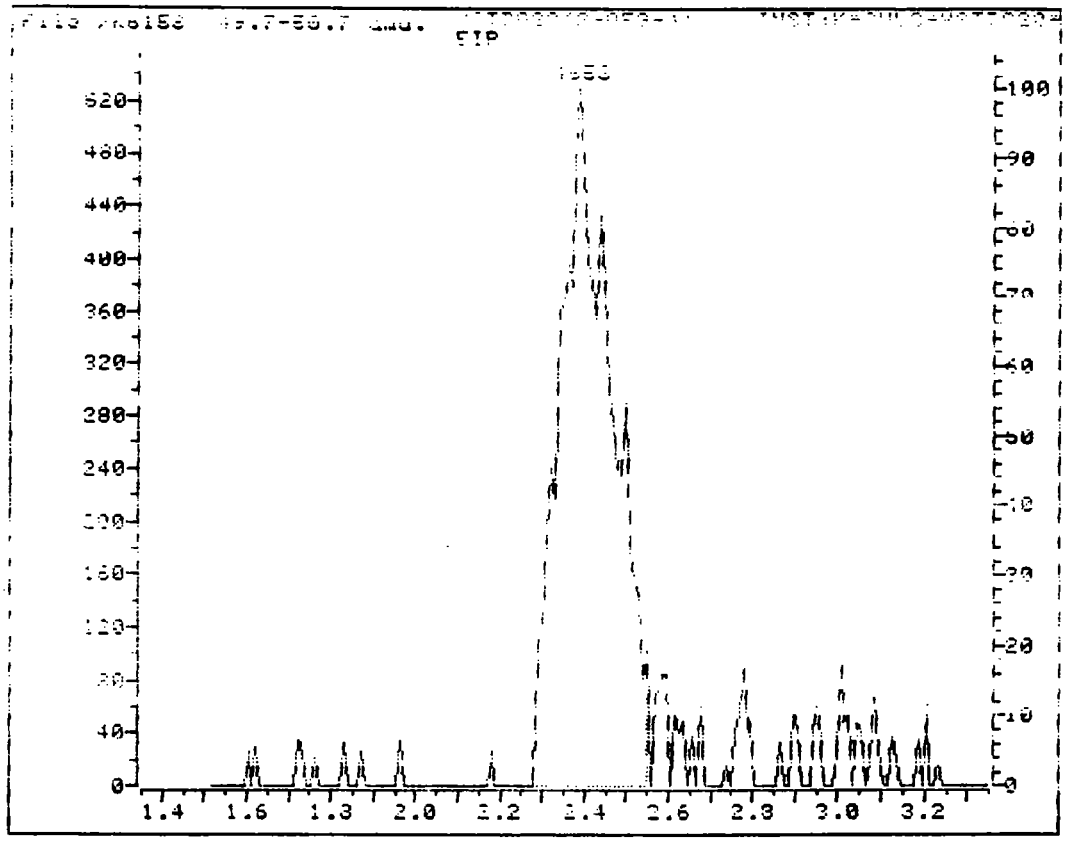
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910724 11:03

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *CI01 BROMOCHLOROMETHANE | 5.63 | 128.0 | 20876 | 50.00 | ng/mL | 91 |
| 2) | C010 CHLOROMETHANE | 2.39 | 50.0 | 4653M | 21.64 | ng/mL | 52 |
| 3) | C015 BROMOMETHANE | 2.71 | 94.0 | 15474M | 44.51 | ng/mL | 79 |
| 4) | C020 VINYL CHLORIDE | 2.46 | 62.0 | 10712M | 30.03 | ng/mL | 100 |
| 5) | C025 CHLOROETHANE | 2.80 | 64.0 | 4207 | 54.80 | ng/mL | 100 |
| 6) | C030 METHYLENE CHLORIDE | 3.92 | 84.0 | 14029 | 23.90 | ng/mL | 90 |
| 7) | C035 ACETONE | 3.50 | 43.0 | 9632 | 39.01 | ng/mL | 100 |
| 8) | C040 CARBON DISULFIDE | 3.68 | 76.0 | 50495 | 22.99 | ng/mL | 100 |
| 9) | C255 TRICHLOROFLUOROMETHANE | 2.98 | 101.0 | 33501 | 25.72 | ng/mL | 95 |
| 10) | C045 1,1-DICHLOROETHENE | 3.45 | 96.0 | 14311 | 24.73 | ng/mL | 82 |
| 11) | C050 1,1-DICHLOROETHANE | 4.68 | 63.0 | 31972 | 24.72 | ng/mL | 93 |
| 12) | C053 1,2-DICHLOROETHENE-TRANS | 4.21 | 96.0 | 15357 | 23.44 | ng/mL | 95 |
| 13) | C055 1,2-DICHLOROETHENE-CIS | 5.34 | 96.0 | 16134 | 23.40 | ng/mL | 93 |
| 14) | C060 CHLOROFORM | 5.72 | 83.0 | 41449 | 25.12 | ng/mL | 92 |
| 15) | C065 1,2-DICHLOROETHANE | 6.45 | 62.0 | 33552 | 27.88 | ng/mL | 95 |
| 16) | C110 2-BUTANONE | 5.37 | 72.0 | 2685 | 39.73 | ng/mL | 82 |
| 17) | CS15 1,2-DICHLOROETHANE-D4 | 6.35 | 65.1 | 23793 | 25.17 | ng/mL | 91 |
| 18) | *CI10 1,4-DIFLUOROBENZENE | 6.95 | 114.0 | 84116 | 50.00 | ng/mL | 97 |
| 19) | C115 1,1,1-TRICHLOROETHANE | 5.97 | 96.9 | 35456 | 24.22 | ng/mL | 95 |
| 20) | C120 CARBON TETRACHLORIDE | 6.17 | 117.0 | 37753 | 25.10 | ng/mL | 97 |
| 21) | C125 VINYL ACETATE | 4.74 | 43.0 | 38689 | 28.75 | ng/mL | 100 |
| 22) | C130 BROMODICHLOROMETHANE | 7.99 | 83.0 | 39601 | 25.19 | ng/mL | 97 |
| 23) | C140 1,2-DICHLOROPROPANE | 7.62 | 63.0 | 16184 | 25.89 | ng/mL | 96 |
| 24) | C172 TRANS-1,3-DICHLOROPROPENE | 9.50 | 75.0 | 14223 | 19.10 | ng/mL | 82 |
| 25) | C150 TRICHLOROETHENE | 7.30 | 130.0 | 21721 | 24.51 | ng/mL | 89 |
| 26) | C155 DIBROMOCHLOROMETHANE | 10.38 | 129.0 | 36494 | 44.30 | ng/mL | 100 |
| 27) | C160 1,1,2-TRICHLOROETHANE | 9.78 | 97.0 | 16957 | 28.23 | ng/mL | 100 |
| 28) | C165 BENZENE | 6.43 | 78.0 | 38484 | 24.56 | ng/mL | 84 |
| 29) | C143 CIS-1,3-DICHLOROPROPENE | 8.65 | 75.0 | 42473 | 32.88 | ng/mL | 88 |
| 30) | C175 2-CHLOROETHYL VINYL ETHER | 8.46 | 63.0 | 9917 | 64.01 | ng/mL | 95 |
| 31) | C180 BROMOFORM | 12.71 | 172.8 | 36185 | 30.73 | ng/mL | 92 |
| 32) | *CI20 CHLOROBENZENE-D5 | 11.31 | 117.0 | 66191 | 50.00 | ng/mL | 98 |
| 33) | C205 4-METHYL-2-PENTANONE | 8.90 | 43.0 | 29798 | 44.69 | ng/mL | 77 |
| 34) | C210 2-HEXANONE | 10.21 | 43.0 | 26333 | 50.62 | ng/mL | 89 |
| 35) | C220 TETRACHLOROETHENE | 10.00 | 164.0 | 22454 | 23.45 | ng/mL | 94 |
| 36) | C225 1,1,2,2-TETRACHLOROETHANE | 13.56 | 83.0 | 17727 | 17.95 | ng/mL | 69 |
| 37) | C230 TOLUENE | 9.15 | 92.0 | 26131 | 23.62 | ng/mL | 98 |
| 38) | C235 CHLOROBENZENE | 11.36 | 112.0 | 37805 | 23.17 | ng/mL | 97 |
| 39) | C240 ETHYLBENZENE | 11.57 | 106.0 | 16750 | 23.64 | ng/mL | 84 |
| 40) | C245 STYRENE | 12.43 | 104.0 | 39908M | 20.93 | ng/mL | |
| 41) | C250 o-XYLENE | 12.41 | 106.0 | 24239 | 20.82 | ng/mL | 91 |
| 42) | C299 m,p-XYLENES | 11.77 | 106.0 | 38612 | 43.02 | ng/mL | 98 |
| 43) | C265 1,3-DICHLOROBENZENE | 15.19 | 146.0 | 37565 | 22.26 | ng/mL | 96 |

| | | Compound | R.T. | Q ion | Area | Conc | Units | Q |
|---|---|---|---|---|---|---|---|---|
| 44) | C270 | 1,4-DICHLOROBENZENE | <15.36 | 146.0 | 38961 | 22.05 | ng/mL | 91 |
| 45) | C260 | 1,2-DICHLOROBENZENE | 16.00 | 146.0 | 45275 | 23.92 | ng/mL | 95 |
| 46) | CS05 | TOLUENE-D8 | 9.05 | 98.0 | 36864 | 22.46 | ng/mL | 78 |
| 47) | CS10 | BROMOFLUOROBENZENE | 13.30 | 95.0 | 26651 | 22.06 | ng/mL | 97 |

* Compound is ISTD

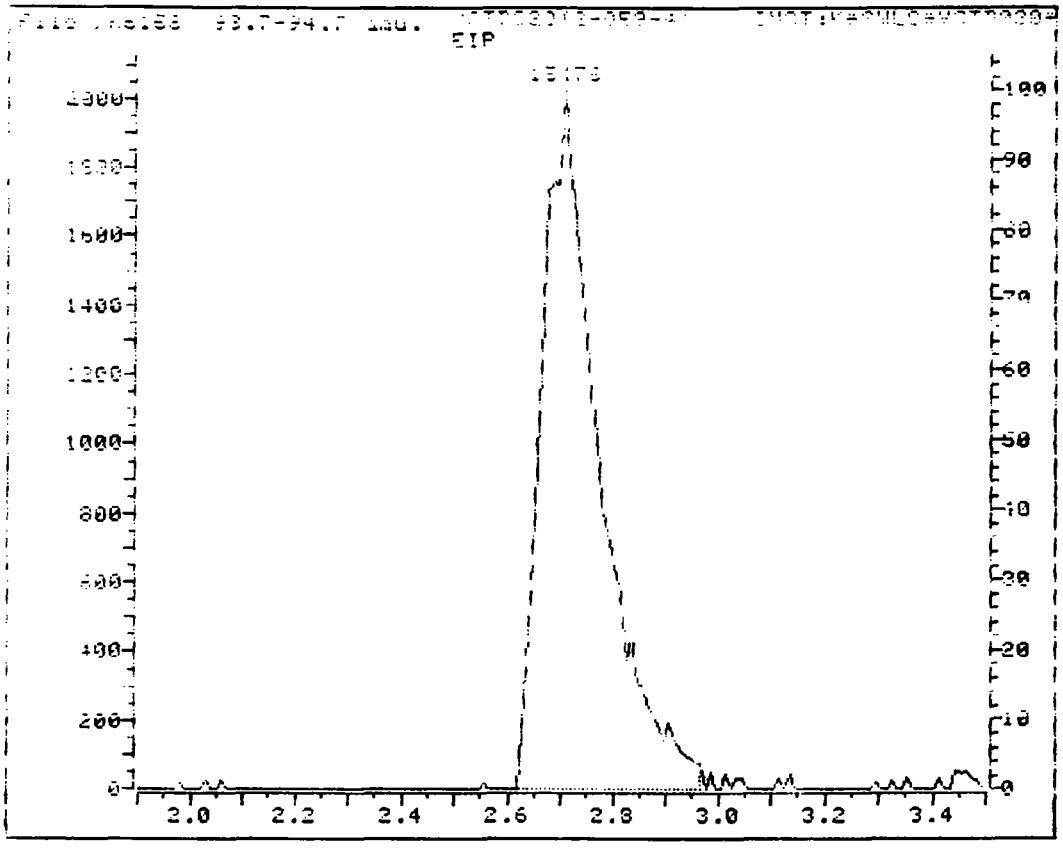
VSTD20
Chmst.K
K6158
07/25/91
13:50




Data File: >K6158::D7 Quant Output File: ^K6158::L2
Name: WSTD020(2-059-4)
Misc: INST:K*SWLO*WSTD020*5ML
Quant Time: 910725 14:12 Quant ID File: IDW023::FX
Injected at: 910725 13:50 Last Calibration: 910724 11:03

Compound No: 2
Compound Name: C010 CHLOROMETHANE
Scan Number: 89
Retention Time: 2.39 min.
Quant Ion: 50.0
Area: 4653M
Concentration: 21.64 ng/mL
q-value: 54

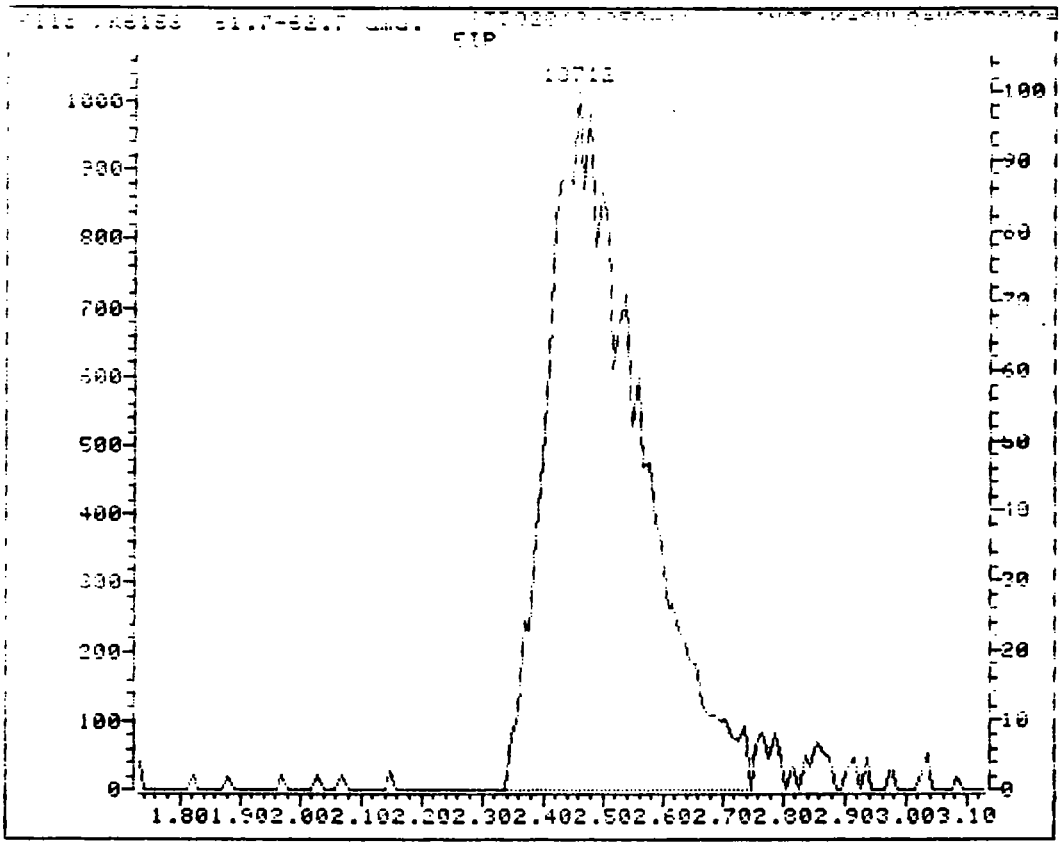
This report was produced by QAPEA on: 910729 17:27




Data File: >K6158::D7 Quant Output File: ^K6158::L2
Name: USTD020(2-059-4)
Misc: INST:K*SWLO*USTD020*5ML
Quant Time: 910725 14:12 Quant ID File: IDU023::EX
Injected at: 910725 13:50 Last Calibration: 910724 11:03

Compound No: 3
Compound Name: C015 BROMOMETHANE
Scan Number: 121
Retention Time: 2.71 min.
Quant Ion: 94.0
Area: 15476M
Concentration: 66.51 ng/mL
q-value: 79

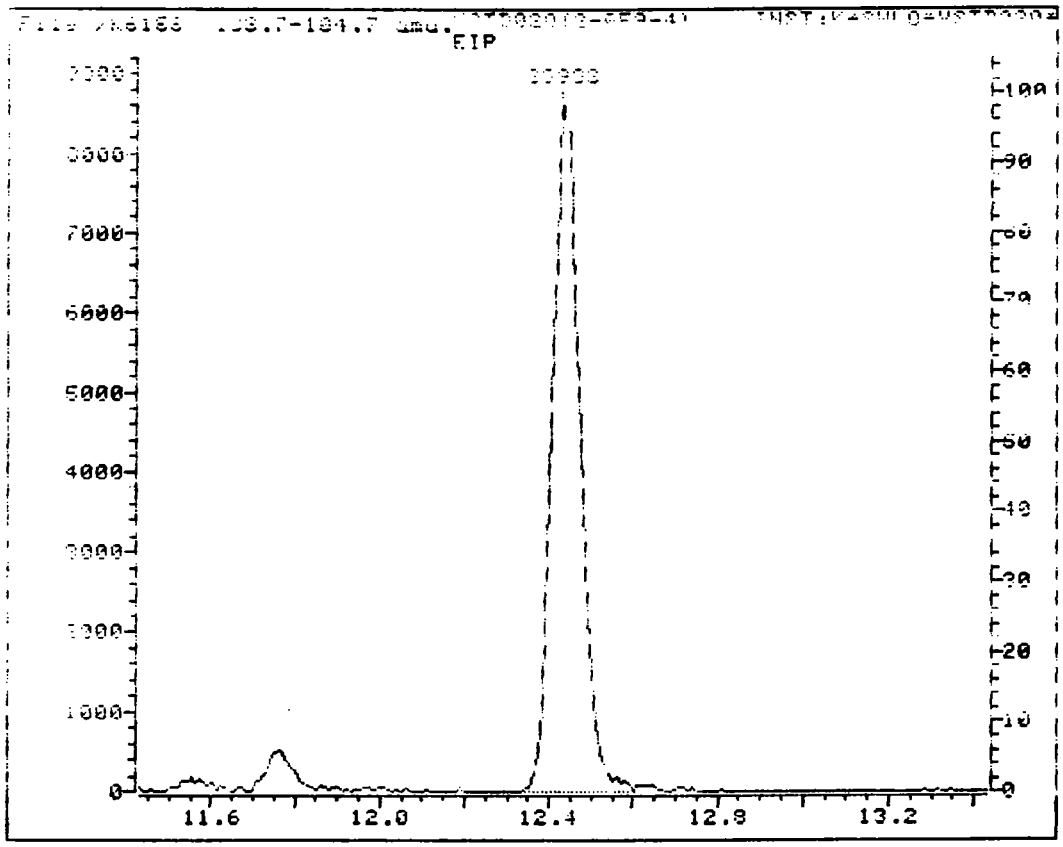
This report was produced by DARE9 on: 910729 17:29




Data File: >K6158::D7 Quant Output File: ^K6158::L2
Name: USTD020(2-059-4)
Misc: INST:K*SWLO*USTD020*5ML
Quant Time: 910725 14:12 Quant ID File: IDU023::EX
Injected at: 910725 13:50 Last Calibration: 910724 11:03

Compound No: 4
Compound Name: C020 VINYL CHLORIDE
Scan Number: 96
Retention Time: 2.46 min.
Quant Ion: 62.0
Area: 10712M
Concentration: 30.03 ng/mL
q-value: 100

This report was produced by QAREA on: 910729 17:29




Data File: >K6158::D7 Quant Output File: ^K6158::L2
Name: USTD020(2-059-4)
Misc: INST:K*SWLO*USTD020*5ML
Quant Time: 910725 14:12 Quant ID File: IDU023::EX
Injected at: 910725 13:50 Last Calibration: 910724 11:03

Compound No: 40
Compound Name: C245 STYRENE
Scan Number: 1097
Retention Time: 12.43 min.
Quant Ion: 104.0
Area: 39908M
Concentration: 20.93 ng/mL

This report was produced by QAREA on: 910729 17:30

6A

# VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Instrument ID: E Calibration Date(s): 07/29/91 07/29/91

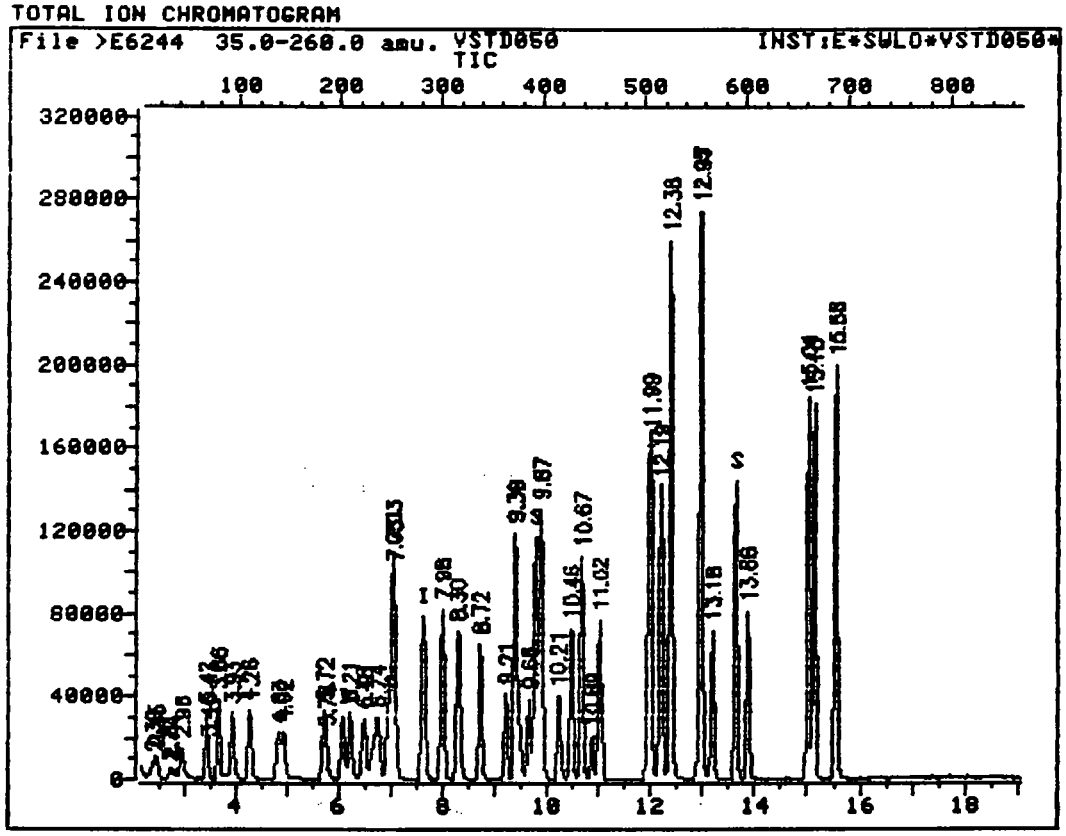
Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

Min RRF for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = E6248 RRF50 = E6244
RRF100= E6247 RRF150= E6246 RRF200= E6249

| COMPOUND | RRF20 | RRF50 | RRF100 | RRF150 | RRF200 | RRF | % RSD |
|---|---|---|---|---|---|---|---|
| Chloromethane # | 1.896 | 1.803 | 1.747 | 2.052 | 2.066 | 1.913 | 7.5# |
| Bromomethane | 0.786 | 0.552 | 0.363 | 0.274 | 0.206 | 0.436 | 53.8 |
| Vinyl Chloride * | 1.630 | 1.468 | 1.385 | 1.542 | 1.512 | 1.507 | 6.0* |
| Chloroethane | 0.680 | 0.656 | 0.454 | 0.373 | 0.308 | 0.494 | 33.8 |
| Methylene Chloride | 1.521 | 1.407 | 1.208 | 1.204 | 1.090 | 1.286 | 13.5 |
| Acetone | 0.335 | 0.349 | 0.320 | 0.325 | 0.160 | 0.298 | 26.1 |
| Carbon Disulfide | 6.622 | 5.925 | 5.197 | 4.930 | 4.396 | 5.414 | 16.1 |
| 1,1-Dichloroethene * | 1.409 | 1.250 | 1.087 | 1.036 | 0.917 | 1.140 | 16.9* |
| 1,1-Dichloroethane # | 3.514 | 3.481 | 3.150 | 3.198 | 3.107 | 3.290 | 5.9# |
| 1,2-Dichloroethene (total) | 1.615 | 1.519 | 1.281 | 1.256 | 1.207 | 1.376 | 13.1 |
| Chloroform * | 3.607 | 3.478 | 3.416 | 3.587 | 3.368 | 3.491 | 3.0* |
| 1,2-Dichloroethane | 4.014 | 4.104 | 3.928 | 4.139 | 3.499 | 3.937 | 6.6 |
| 2-Butanone | 0.028 | 0.101 | 0.119 | 0.125 | 0.082 | 0.091 | 42.9 |
| 1,1,1-Trichloroethane | 0.370 | 0.332 | 0.349 | 0.355 | 0.343 | 0.350 | 4.0 |
| Carbon Tetrachloride | 0.487 | 0.339 | 0.495 | 0.500 | 0.319 | 0.428 | 21.2 |
| Vinyl Acetate | 0.622 | 0.619 | 0.544 | 0.564 | 0.642 | 0.598 | 7.0 |
| Bromodichloromethane | 0.637 | 0.624 | 0.599 | 0.621 | 0.574 | 0.611 | 4.1 |
| 1,2-Dichloropropane * | 0.405 | 0.398 | 0.389 | 0.410 | 0.375 | 0.395 | 3.5* |
| cis-1,3-Dichloropropene | 0.753 | 0.740 | 0.700 | 0.706 | 0.633 | 0.706 | 6.6 |
| Trichloroethene | 0.469 | 0.444 | 0.415 | 0.417 | 0.379 | 0.425 | 8.0 |
| Dibromochloromethane | 0.506 | 0.550 | 0.519 | 0.489 | 0.649 | 0.543 | 11.7 |
| 1,1,2-Trichloroethane | 0.343 | 0.332 | 0.317 | 0.321 | 0.285 | 0.320 | 6.8 |
| Benzene | 1.111 | 1.061 | 0.989 | 0.988 | 0.902 | 1.010 | 7.9 |
| Trans-1,3-Dichloropropene | 0.418 | 0.423 | 0.426 | 0.446 | 0.414 | 0.425 | 2.9 |
| Bromoform # | 0.449 | 0.435 | 0.415 | 0.417 | 0.340 | 0.411 | 10.3# |
| 4-Methyl-2-Pentanone | 0.452 | 0.514 | 0.573 | 0.621 | 0.492 | 0.530 | 12.6 |
| 2-Hexanone | 0.274 | 0.272 | 0.323 | 0.356 | 0.218 | 0.289 | 18.3 |
| Tetrachloroethene | 0.474 | 0.451 | 0.439 | 0.443 | 0.408 | 0.443 | 5.4 |
| 1,1,2,2-Tetrachloroethane # | 0.563 | 0.603 | 0.568 | 0.605 | 0.522 | 0.572 | 6.0# |
| Toluene * | 0.829 | 0.840 | 0.810 | 0.830 | 0.771 | 0.816 | 3.4* |
| Chlorobenzene # | 1.075 | 1.058 | 0.996 | 1.020 | 0.950 | 1.020 | 4.9# |
| Ethylbenzene * | 0.525 | 0.504 | 0.478 | 0.486 | 0.447 | 0.488 | 6.0* |
| Styrene | 1.321 | 1.160 | 0.954 | 0.855 | 0.714 | 1.001 | 24.1 |
| Xylene (total) | 0.754 | 0.665 | 0.548 | 0.491 | 0.415 | 0.575 | 23.6 |
| Toluene-d8 | 1.138 | 1.195 | 1.178 | 1.182 | 1.081 | 1.155 | 4.0 |
| Bromofluorobenzene | 0.644 | 0.619 | 0.589 | 0.580 | 0.509 | 0.588 | 8.7 |
| 1,2-Dichloroethane-d4 | 3.104 | 3.314 | 3.337 | 3.533 | 2.989 | 3.255 | 6.5 |

TOTAL ION CHROMATOGRAM




Data File: >E6244::D6 Quant Output File: ^E6244::D7
Name: VSTD050
Misc: INST:E*SWLO*VSTD050*5ml

Id File: IDVOE1::PS
Title: VOA (EPA CLP) 5ML AMBIENT PURGE (WATER) INST: E
Last Calibration: 910726 10:40

Operator ID: SAM
Quant Time: 910729 12:26
Injected at: 910729 12:05

QUANT REPORT

Operator ID: SAM  Quant Rev: 6  Quant Time: 910729 12:26
Output File: ^E6244::D7  Injected at: 910729 12:05
Data File: >E6244::D6  Dilution Factor: 1.00000
Name: VSTD050
Misc: INST:E*SWLO*VSTD050*5ml

ID File: IDVOE1::PS
Title: VOA (EPA CLP) 5ML AMBIENT PURGE (WATER) INST: E
Last Calibration: 910726 10:40

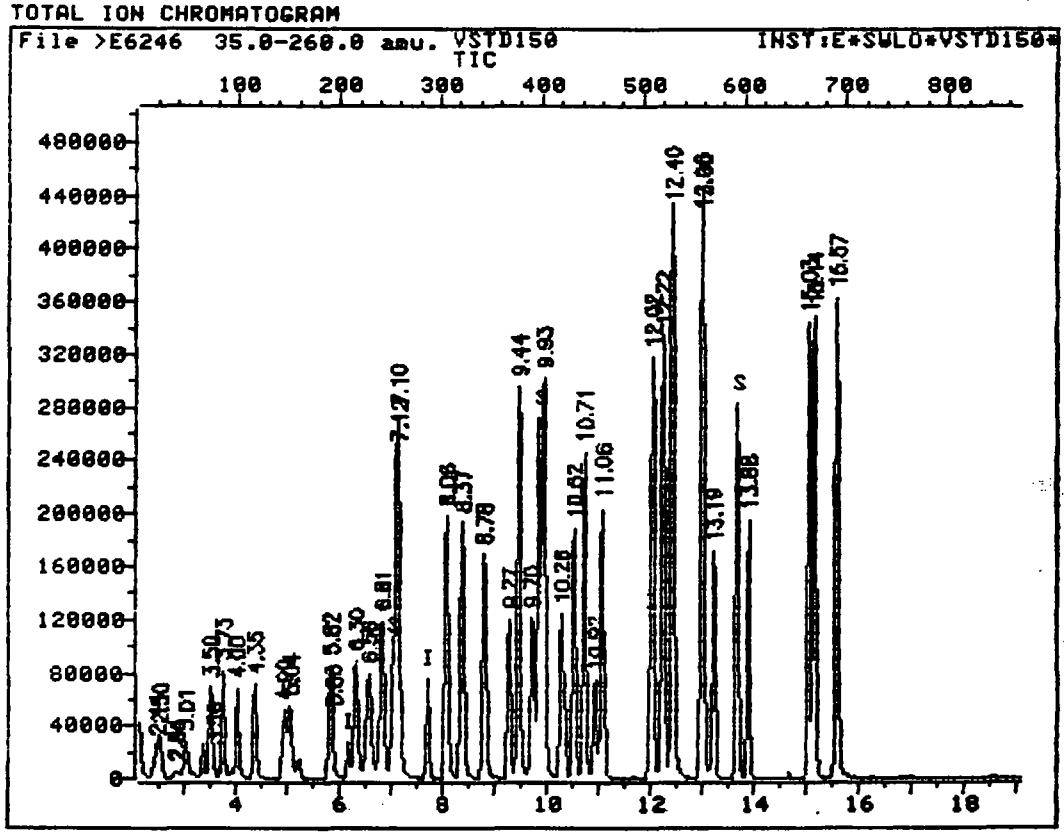
| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *CI01 BROMOCHLOROMETHANE | 6.07 | 128.0 | 19532 | 50.00 | ng/mL | 9 |
| 2) | C010 CHLOROMETHANE | 2.39 | 50.0 | 35165 | 94.86 | ng/mL | 9 |
| 3) | C015 BROMOMETHANE | 2.70 | 94.0 | 10760 | 88.25 | ng/mL | 8 |
| 4) | C020 VINYL CHLORIDE | 2.45 | 62.0 | 28617 | 79.88 | ng/mL | 10 |
| 5) | C025 CHLOROETHANE | 2.74 | 64.0 | 12800 | 93.35 | ng/mL | 10 |
| 6) | C030 METHYLENE CHLORIDE | 3.93 | 84.0 | 27439 | 60.89 | ng/mL | 8 |
| 7) | C035 ACETONE | 3.46 | 43.0 | 6796 | 47.77 | ng/mL | 10 |
| 8) | C040 CARBON DISULFIDE | 3.66 | 76.0 | 115530 | 64.39 | ng/mL | 8 |
| 9) | C255 TRICHLOROFLUOROMETHANE | 2.96 | 101.0 | 38202 | 72.02 | ng/mL | 9 |
| 10) | C045 1,1-DICHLOROETHENE | 3.42 | 96.0 | 24378 | 65.22 | ng/mL | 7 |
| 11) | C050 1,1-DICHLOROETHANE | 4.83 | 63.0 | 67885 | 57.32 | ng/mL | 9 |
| 12) | C053 1,2-DICHLOROETHENE(TRANS) | 4.26 | 96.0 | 29619 | 60.23 | ng/mL | 8 |
| 13) | C055 1,2-DICHLOROETHENE(CIS) | 5.72 | 96.0 | 35204 | 53.64 | ng/mL | 9 |
| 14) | C060 CHLOROFORM | 6.21 | 83.0 | 67813 | 54.04 | ng/mL | 9 |
| 15) | C065 1,2-DICHLOROETHANE | 7.05 | 62.0 | 80027 | 48.60 | ng/mL | 9 |
| 16) | C110 2-BUTANONE | 5.76 | 72.0 | 1977 | 43.30 | ng/mL | 10 |
| 17) | CS15 1,2-DICHLOROETHANE-D4 | 6.93 | 65.0 | 64633 | 47.04 | ng/mL | 9 |
| 18) | *CI10 1,4-DIFLUOROBENZENE | 7.61 | 114.0 | 167055 | 50.00 | ng/mL | 9 |
| 19) | C115 1,1,1-TRICHLOROETHANE | 6.48 | 97.0 | 55391 | 57.77 | ng/mL | 9 |
| 20) | C120 CARBON TETRACHLORIDE | 6.74 | 117.0 | 56605 | 35.18 | ng/mL | 9 |
| 21) | C125 VINYL ACETATE | 4.92 | 43.0 | 103383 | 56.34 | ng/mL | 10 |
| 22) | C130 BROMODICHLOROMETHANE | 8.72 | 83.0 | 104144 | 54.46 | ng/mL | 9 |
| 23) | C140 1,2-DICHLOROPROPANE | 8.30 | 63.0 | 66465 | 49.72 | ng/mL | 9 |
| 24) | C172 TRANS-1,3-DICHLOROPROPENE | 10.21 | 75.0 | 50905 | 40.24 | ng/mL | 9 |
| 25) | C150 TRICHLOROETHENE | 7.98 | 130.0 | 74221 | 51.07 | ng/mL | 8 |
| 26) | C155 DIBROMOCHLOROMETHANE | 11.02 | 129.0 | 91812 | 63.22 | ng/mL | 9 |
| 27) | C160 1,1,2-TRICHLOROETHANE | 10.46 | 97.0 | 55386 | 55.03 | ng/mL | 9 |
| 28) | C165 BENZENE | 7.03 | 78.0 | 177226 | 49.85 | ng/mL | 8 |
| 29) | C143 CIS-1,3-DICHLOROPROPENE | 9.39 | 75.0 | 158232 | 68.34 | ng/mL | 9 |
| 30) | C175 2-CHLOROETHYL VINYL ETHER | 9.21 | 63.0 | 39903 | 98.38 | ng/mL | 10 |
| 31) | C180 BROMOFORM | 13.18 | 173.0 | 72604 | 62.09 | ng/mL | 10 |
| 32) | *CI20 CHLOROBENZENE-D5 | 11.95 | 117.0 | 154296 | 50.00 | ng/mL | 9 |
| 33) | C205 4-METHYL-2-PENTANONE | 9.66 | 43.0 | 79141 | 46.98 | ng/mL | 9 |
| 34) | C210 2-HEXANONE | 10.89 | 43.0 | 41961 | 35.94 | ng/mL | 8 |
| 35) | C220 TETRACHLOROETHENE | 10.67 | 164.0 | 69385 | 50.46 | ng/mL | 9 |
| 36) | C225 1,1,2,2-TETRACHLOROETHANE | 13.86 | 83.0 | 92821 | 54.53 | ng/mL | 9 |
| 37) | C230 TOLUENE | 9.87 | 92.0 | 129330 | 48.86 | ng/mL | 9 |
| 38) | C235 CHLOROBENZENE | 11.99 | 112.0 | 162955 | 49.06 | ng/mL | 8 |
| 39) | C240 ETHYLBENZENE | 12.19 | 106.0 | 77654 | 48.41 | ng/mL | 4 |
| 40) | C245 STYRENE | 12.97 | 104.0 | 178699 | 48.00 | ng/mL | 9 |
| 41) | C299 o-XYLENE | 12.95 | 106.0 | 102384 | 47.12 | ng/mL | 7 |
| 42) | C250 m,p-XYLENE | 12.38 | 106.0 | 179391 | 98.21 | ng/mL | 8 |
| 43) | C265 1,3-DICHLOROBENZENE | 15.01 | 146.0 | 162706 | 52.77 | ng/mL | 9 |

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 44) | C270 1,4-DICHLOROBENZENE | 15.13 | 146.0 | 160710 | 51.28 | ng/mL | 95 |
| 45) | C260 1,2-DICHLOROBENZENE | 15.56 | 146.0 | 177984 | 55.55 | ng/mL | 98 |
| 46) | CS05 TOLUENE-D8 | 9.78 | 98.0 | 183989 | 45.89 | ng/mL | 99 |
| 47) | CS10 BROMOFLUOROBENZENE | 13.65 | 95.0 | 95353 | 47.40 | ng/mL | 94 |

* Compound is ISTD

VSTD50
dnstiE
E6244
07/29/91
12:05

TOTAL ION CHROMATOGRAM




Data File: >E6246::D6 Quant Output File: ^E6246::D7
Name: VSTD150
Misc: INST:E*SWLO*VSTD150*5ml

Id File: IDVOE1::PS
Title: VOA (EPA CLP) 5ML AMBIENT PURGE (WATER) INST: E
Last Calibration: 910726 10:40

Operator ID: SAM
Quant Time: 910729 13:24
Injected at: 910729 13:04

QUANT REPORT

Operator ID: SAM  Quant Rev: 6  Quant Time: 910729 13:24
Output File: ^E6246::D7  Injected at: 910729 13:04
Data File: >E6246::D6  Dilution Factor: 1.00000
Name: VSTD150
Misc: INST:E*SWLO*VSTD150*5ml

ID File: IDVOE1::PS
Title: VOA (EPA CLP) 5ML AMBIENT PURGE (WATER) INST: E
Last Calibration: 910726 10:40

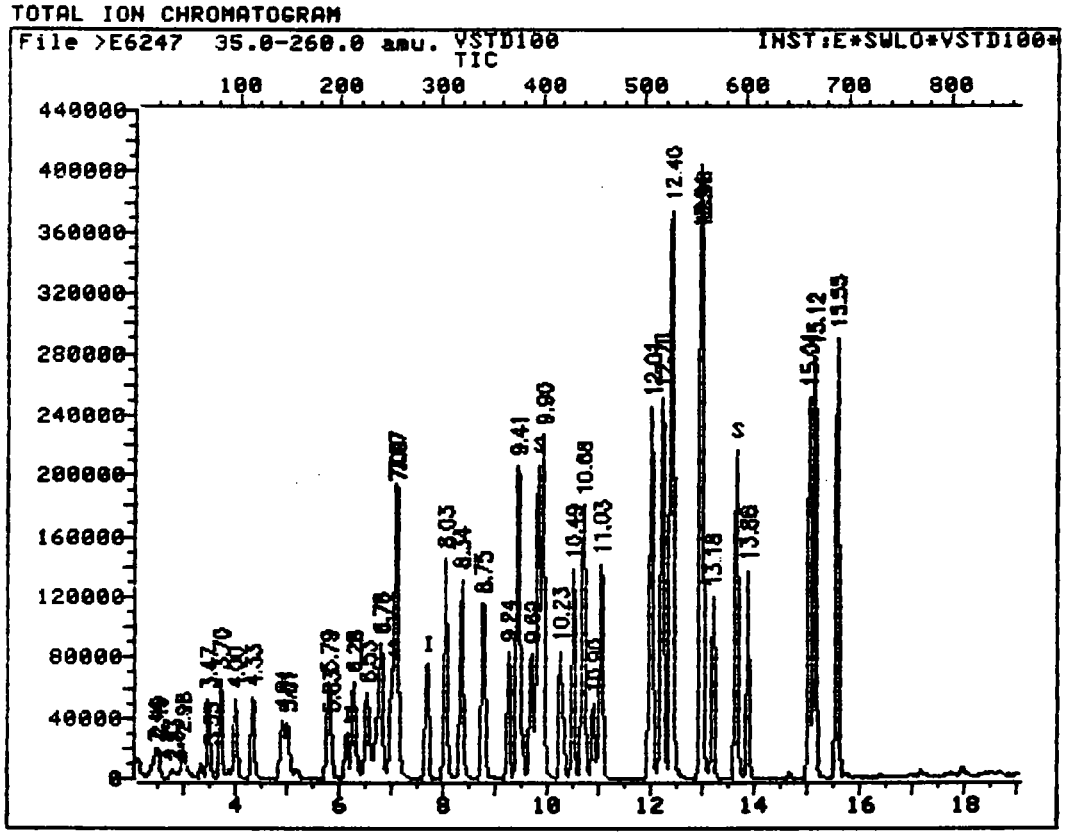
| | | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|---|
| 1) | *CI01 | BROMOCHLOROMETHANE | 6.15 | 128.0 | 17233 | 50.00 | ng/mL | 98 |
| 2) | C010 | CHLOROMETHANE | 2.44 | 50.0 | 105888 | 323.75 | ng/mL | 95 |
| 3) | C015 | BROMOMETHANE | 2.81 | 94.0 | 14146 | 131.49 | ng/mL | 83 |
| 4) | C020 | VINYL CHLORIDE | 2.50 | 62.0 | 79586 | 251.78 | ng/mL | 100 |
| 5) | C025 | CHLOROETHANE | 2.85 | 64.0 | 19261 | 159.21 | ng/mL | 100 |
| 6) | C030 | METHYLENE CHLORIDE | 4.00 | 84.0 | 62132 | 156.26 | ng/mL | 79 |
| 7) | C035 | ACETONE | 3.56 | 43.0 | 16769 | 133.59 | ng/mL | 100 |
| 8) | C040 | CARBON DISULFIDE | 3.73 | 76.0 | 254415 | 160.71 | ng/mL | 84 |
| 9) | C255 | TRICHLOROFLUOROMETHANE | 3.01 | 101.0 | 80311 | 171.59 | ng/mL | 99 |
| 10) | C045 | 1,1-DICHLOROETHENE | 3.50 | 96.0 | 53474 | 162.14 | ng/mL | 66 |
| 11) | C050 | 1,1-DICHLOROETHANE | 4.92 | 63.0 | 165012 | 157.91 | ng/mL | 96 |
| 12) | C053 | 1,2-DICHLOROETHENE(TRANS) | 4.35 | 96.0 | 64830 | 149.41 | ng/mL | 82 |
| 13) | C055 | 1,2-DICHLOROETHENE(CIS) | 5.82 | 96.0 | 91374 | 157.80 | ng/mL | 88 |
| 14) | C060 | CHLOROFORM | 6.30 | 83.0 | 185089 | 167.19 | ng/mL | 98 |
| 15) | C065 | 1,2-DICHLOROETHANE | 7.12 | 62.0 | 213550 | 146.99 | ng/mL | 97 |
| 16) | C110 | 2-BUTANONE | 5.86 | 72.0 | 6463 | 160.43 | ng/mL | 100 |
| 17) | CS15 | 1,2-DICHLOROETHANE-D4 | 7.01 | 65.0 | 182281 | 150.38 | ng/mL | 93 |
| 18) | *CI10 | 1,4-DIFLUOROBENZENE | 7.69 | 114.0 | 147881 | 50.00 | ng/mL | 97 |
| 19) | C115 | 1,1,1-TRICHLOROETHANE | 6.56 | 97.0 | 157469 | 185.52 | ng/mL | 94 |
| 20) | C120 | CARBON TETRACHLORIDE | 6.81 | 117.0 | 222122 | 155.94 | ng/mL | 95 |
| 21) | C125 | VINYL ACETATE | 5.04 | 43.0 | 250380 | 154.15 | ng/mL | 100 |
| 22) | C130 | BROMODICHLOROMETHANE | 8.78 | 83.0 | 275807 | 162.93 | ng/mL | 98 |
| 23) | C140 | 1,2-DICHLOROPROPANE | 8.37 | 63.0 | 182254 | 154.02 | ng/mL | 96 |
| 24) | C172 | TRANS-1,3-DICHLOROPROPENE | 10.26 | 75.0 | 142566 | 127.31 | ng/mL | 87 |
| 25) | C150 | TRICHLOROETHENE | 8.06 | 130.0 | 185203 | 143.95 | ng/mL | 94 |
| 26) | C155 | DIBROMOCHLOROMETHANE | 11.06 | 129.0 | 217239 | 168.98 | ng/mL | 93 |
| 27) | C160 | 1,1,2-TRICHLOROETHANE | 10.52 | 97.0 | 142355 | 159.78 | ng/mL | 96 |
| 28) | C165 | BENZENE | 7.10 | 78.0 | 438797 | 139.44 | ng/mL | 82 |
| 29) | C143 | CIS-1,3-DICHLOROPROPENE | 9.44 | 75.0 | 401514 | 195.89 | ng/mL | 96 |
| 30) | C175 | 2-CHLOROETHYL VINYL ETHER | 9.27 | 63.0 | 117116 | 326.19 | ng/mL | 100 |
| 31) | C180 | BROMOFORM | 13.19 | 173.0 | 185313 | 179.01 | ng/mL | 100 |
| 32) | *CI20 | CHLOROBENZENE-D5 | 11.97 | 117.0 | 126152 | 50.00 | ng/mL | 91 |
| 33) | C205 | 4-METHYL-2-PENTANONE | 9.70 | 43.0 | 234640 | 170.35 | ng/mL | 91 |
| 34) | C210 | 2-HEXANONE | 10.92 | 43.0 | 134404 | 140.79 | ng/mL | 79 |
| 35) | C220 | TETRACHLOROETHENE | 10.71 | 164.0 | 167439 | 148.92 | ng/mL | 89 |
| 36) | C225 | 1,1,2,2-TETRACHLOROETHANE | 13.88 | 83.0 | 228546 | 164.21 | ng/mL | 96 |
| 37) | C230 | TOLUENE | 9.93 | 92.0 | 313798 | 144.99 | ng/mL | 98 |
| 38) | C235 | CHLOROBENZENE | 12.02 | 112.0 | 385741 | 142.03 | ng/mL | 90 |
| 39) | C240 | ETHYLBENZENE | 12.22 | 106.0 | 183643 | 140.03 | ng/mL | 41 |
| 40) | C245 | STYRENE | 13.00 | 104.0 | 323143 | 106.16 | ng/mL | 92 |
| 41) | C299 | o-XYLENE | 12.96 | 106.0 | 185574 | 104.47 | ng/mL | 77 |
| 42) | C250 | m,p-XYLENE | 12.40 | 106.0 | 337822 | 226.20 | ng/mL | 78 |
| 43) | C265 | 1,3-DICHLOROBENZENE | 15.03 | 146.0 | 333191 | 132.18 | ng/mL | 98 |

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 44) | C270 1,4-DICHLOROBENZENE | 15.14 | 146.0 | 320761 | 125.20 | ng/mL | 96 |
| 45) | C260 1,2-DICHLOROBENZENE | 15.57 | 146.0 | 344028 | 131.32 | ng/mL | 97 |
| 46) | CS05 TOLUENE-D8 | 9.83 | 98.0 | 446882 | 136.33 | ng/mL | 97 |
| 47) | CS10 BROMOFLUOROBENZENE | 13.66 | 95.0 | 219247 | 133.31 | ng/mL | 95 |

* Compound is ISTD

VSTD150
Inst E
F6246
07/29/91
13:04

TOTAL ION CHROMATOGRAM




Data File: >E6247::D6 Quant Output File: ^E6247::D7
Name: VSTD100
Misc: INST:E*SWLO*VSTD100*5ml

Id File: IDVOE1::PS
Title: VOA (EPA CLP) 5ML AMBIENT PURGE (WATER) INST: E
Last Calibration: 910726 10:40

Operator ID: SAM
Quant Time: 910729 13:53
Injected at: 910729 13:32

QUANT REPORT

Operator ID: SAM  Quant Rev: 6  Quant Time: 910729 13:53
Output File: ^E6247::D7  Injected at: 910729 13:32
Data File: >E6247::D6  Dilution Factor: 1.00000
Name: VSTD100
Misc: INST:E*SWLO*VSTD100*5ml

ID File: IDVOE1::PS
Title: VOA (EPA CLP) 5ML AMBIENT PURGE (WATER) INST: E
Last Calibration: 910726 10:40

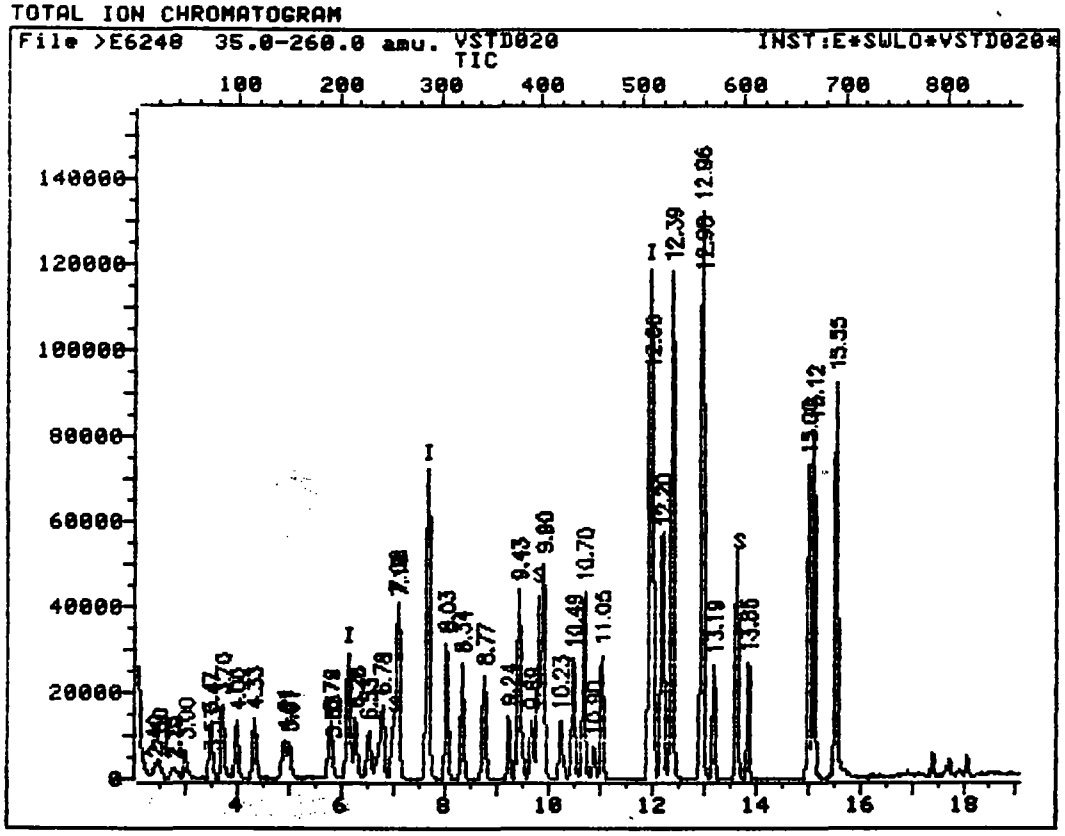
| | | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|---|
| 1) | *CI01 | BROMOCHLOROMETHANE | 6.12 | 128.0 | 18990 | 50.00 | ng/mL | 99 |
| 2) | C010 | CHLOROMETHANE | 2.44 | 50.0 | 66384 | 184.19 | ng/mL | 93 |
| 3) | C015 | BROMOMETHANE | 2.77 | 94.0 | 13792 | 116.34 | ng/mL | 91 |
| 4) | C020 | VINYL CHLORIDE | 2.49 | 62.0 | 52614 | 151.05 | ng/mL | 100 |
| 5) | C025 | CHLOROETHANE | 2.83 | 64.0 | 17239 | 129.31 | ng/mL | 100 |
| 6) | C030 | METHYLENE CHLORIDE | 4.00 | 84.0 | 45890 | 104.74 | ng/mL | 77 |
| 7) | C035 | ACETONE | 3.53 | 43.0 | 12143 | 87.78 | ng/mL | 100 |
| 8) | C040 | CARBON DISULFIDE | 3.70 | 76.0 | 197482 | 113.21 | ng/mL | 86 |
| 9) | C255 | TRICHLOROFLUOROMETHANE | 2.98 | 101.0 | 62550 | 121.28 | ng/mL | 98 |
| 10) | C045 | 1,1-DICHLOROETHENE | 3.47 | 96.0 | 41311 | 113.67 | ng/mL | 69 |
| 11) | C050 | 1,1-DICHLOROETHANE | 4.91 | 63.0 | 119718 | 103.97 | ng/mL | 96 |
| 12) | C053 | 1,2-DICHLOROETHENE(TRANS) | 4.33 | 96.0 | 48682 | 101.81 | ng/mL | 84 |
| 13) | C055 | 1,2-DICHLOROETHENE(CIS) | 5.79 | 96.0 | 65534 | 102.71 | ng/mL | 88 |
| 14) | C060 | CHLOROFORM | 6.28 | 83.0 | 129812 | 106.41 | ng/mL | 97 |
| 15) | C065 | 1,2-DICHLOROETHANE | 7.09 | 62.0 | 149273 | 93.24 | ng/mL | 97 |
| 16) | C110 | 2-BUTANONE | 5.83 | 72.0 | 4537 | 102.20 | ng/mL | 100 |
| 17) | CS15 | 1,2-DICHLOROETHANE-D4 | 7.00 | 65.0 | 126820 | 94.94 | ng/mL | 93 |
| 18) | *CI10 | 1,4-DIFLUOROBENZENE | 7.66 | 114.0 | 157601 | 50.00 | ng/mL | 96 |
| 19) | C115 | 1,1,1-TRICHLOROETHANE | 6.53 | 97.0 | 110430 | 122.07 | ng/mL | 95 |
| 20) | C120 | CARBON TETRACHLORIDE | 6.78 | 117.0 | 156271 | 102.94 | ng/mL | 95 |
| 21) | C125 | VINYL ACETATE | 5.01 | 43.0 | 171859 | 99.28 | ng/mL | 100 |
| 22) | C130 | BROMODICHLOROMETHANE | 8.75 | 83.0 | 189168 | 104.86 | ng/mL | 99 |
| 23) | C140 | 1,2-DICHLOROPROPANE | 8.34 | 63.0 | 123037 | 97.57 | ng/mL | 96 |
| 24) | C172 | TRANS-1,3-DICHLOROPROPENE | 10.23 | 75.0 | 96830 | 81.14 | ng/mL | 90 |
| 25) | C150 | TRICHLOROETHENE | 8.03 | 130.0 | 131258 | 95.73 | ng/mL | 90 |
| 26) | C155 | DIBROMOCHLOROMETHANE | 11.03 | 129.0 | 163961 | 119.67 | ng/mL | 93 |
| 27) | C160 | 1,1,2-TRICHLOROETHANE | 10.49 | 97.0 | 100142 | 105.47 | ng/mL | 98 |
| 28) | C165 | BENZENE | 7.07 | 78.0 | 312606 | 93.21 | ng/mL | 82 |
| 29) | C143 | CIS-1,3-DICHLOROPROPENE | 9.41 | 75.0 | 282958 | 129.54 | ng/mL | 97 |
| 30) | C175 | 2-CHLOROETHYL VINYL ETHER | 9.24 | 63.0 | 80783 | 211.12 | ng/mL | 100 |
| 31) | C180 | BROMOFORM | 13.18 | 173.0 | 131082 | 118.82 | ng/mL | 100 |
| 32) | *CI20 | CHLOROBENZENE-D5 | 11.95 | 117.0 | 138941 | 50.00 | ng/mL | 90 |
| 33) | C205 | 4-METHYL-2-PENTANONE | 9.69 | 43.0 | 159302 | 105.01 | ng/mL | 90 |
| 34) | C210 | 2-HEXANONE | 10.90 | 43.0 | 89869 | 85.48 | ng/mL | 78 |
| 35) | C220 | TETRACHLOROETHENE | 10.68 | 164.0 | 122134 | 98.63 | ng/mL | 94 |
| 36) | C225 | 1,1,2,2-TETRACHLOROETHANE | 13.86 | 83.0 | 157971 | 103.05 | ng/mL | 97 |
| 37) | C230 | TOLUENE | 9.90 | 92.0 | 225282 | 94.51 | ng/mL | 98 |
| 38) | C235 | CHLOROBENZENE | 12.01 | 112.0 | 276944 | 92.58 | ng/mL | 90 |
| 39) | C240 | ETHYLBENZENE | 12.20 | 106.0 | 132771 | 91.92 | ng/mL | 42 |
| 40) | C245 | STYRENE | 12.98 | 104.0 | 265105 | 79.08 | ng/mL | 93 |
| 41) | C299 | o-XYLENE | 12.94 | 106.0 | 152276 | 77.83 | ng/mL | 78 |
| 42) | C250 | m,p-XYLENE | 12.40 | 106.0 | 275448 | 167.46 | ng/mL | 79 |
| 43) | C265 | 1,3-DICHLOROBENZENE | 15.01 | 146.0 | 240258 | 86.54 | ng/mL | 96 |

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 44) | C270 1,4-DICHLOROBENZENE | 15.12 | 146.0 | 242030 | 85.77 | ng/mL | 95 |
| 45) | C260 1,2-DICHLOROBENZENE | 15.55 | 146.0 | 255583 | 88.58 | ng/mL | 98 |
| 46) | CS05 TOLUENE-D8 | 9.81 | 98.0 | 327518 | 90.72 | ng/mL | 97 |
| 47) | CS10 BROMOFLUOROBENZENE | 13.64 | 95.0 | 163825 | 90.44 | ng/mL | 90 |

* Compound is ISTD

VSTD100
Inst; E
E6247
07/29/91
13:32

TOTAL ION CHROMATOGRAM




Data File: >E6248::D6 Quant Output File: ^E6248::D7
Name: VSTD020
Misc: INST:E*SWLO*VSTD020*5ml

Id File: IDVOE1::PS
Title: VOA (EPA CLP) 5ML AMBIENT PURGE (WATER) INST: E
Last Calibration: 910726 10:40

Operator ID: SAM
Quant Time: 910729 14:21
Injected at: 910729 14:01

QUANT REPORT

Operator ID: SAM  Quant Rev: 6  Quant Time: 910729 14:21
Output File: ^E6248::D7  Injected at: 910729 14:01
Data File: >E6248::D6  Dilution Factor: 1.00000
Name: VSTD020
Misc: INST:E*SWLO*VSTD020*5ml

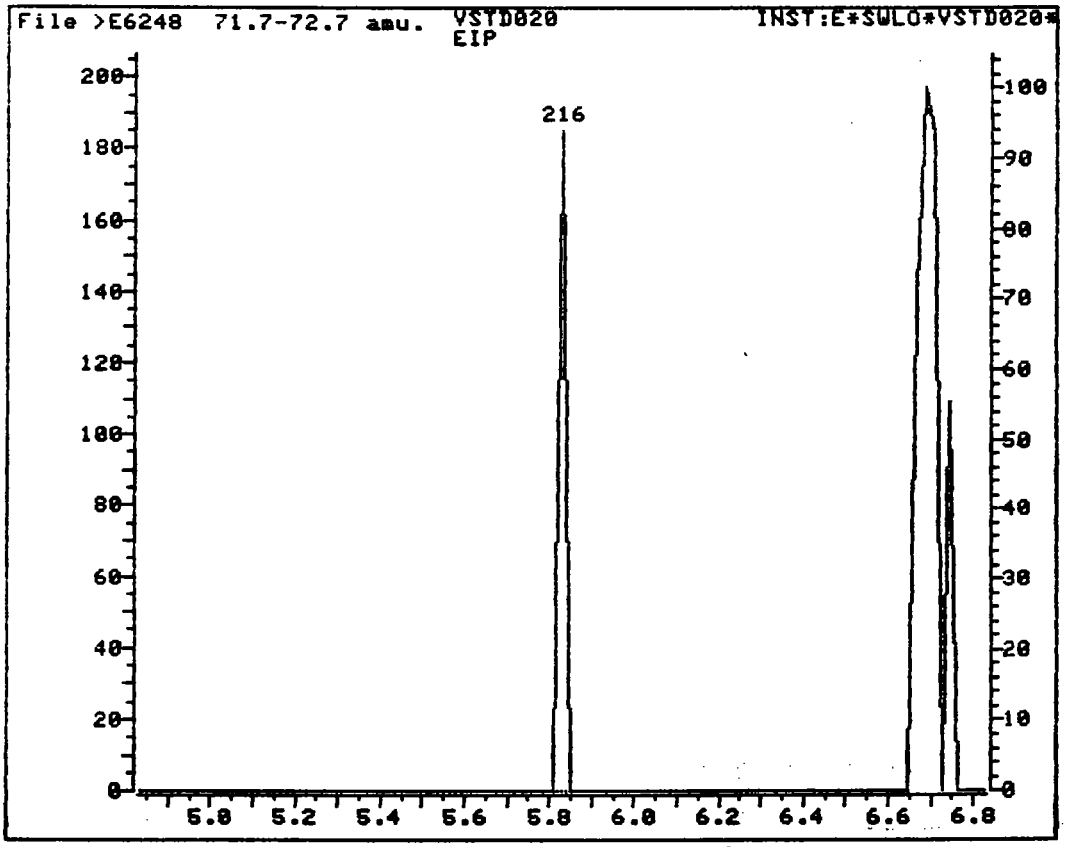
ID File: IDVOE1::PS
Title: VOA (EPA CLP) 5ML AMBIENT PURGE (WATER) INST: E
Last Calibration: 910726 10:40

| | | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|---|
| 1) | *CI01 | BROMOCHLOROMETHANE | 6.12 | 128.0 | 19137 | 50.00 | ng/mL | 98 |
| 2) | C010 | CHLOROMETHANE | 2.40 | 50.0 | 14487 | 39.89 | ng/mL | 94 |
| 3) | C015 | BROMOMETHANE | 2.75 | 94.0 | 6007 | 50.28 | ng/mL | 98 |
| 4) | C020 | VINYL CHLORIDE | 2.50 | 62.0 | 12453 | 35.48 | ng/mL | 100 |
| 5) | C025 | CHLOROETHANE | 2.79 | 64.0 | 5195 | 38.67 | ng/mL | 100 |
| 6) | C030 | METHYLENE CHLORIDE | 4.00 | 84.0 | 11621 | 26.32 | ng/mL | 81 |
| 7) | C035 | ACETONE | 3.53 | 43.0 | 2563 | 18.39 | ng/mL | 100 |
| 8) | C040 | CARBON DISULFIDE | 3.70 | 76.0 | 50591 | 28.78 | ng/mL | 92 |
| 9) | C255 | TRICHLOROFLUOROMETHANE | 3.00 | 101.0 | 17073 | 32.85 | ng/mL | 99 |
| 10) | C045 | 1,1-DICHLOROETHENE | 3.47 | 96.0 | 10766 | 29.40 | ng/mL | 74 |
| 11) | C050 | 1,1-DICHLOROETHANE | 4.91 | 63.0 | 26843 | 23.13 | ng/mL | 95 |
| 12) | C053 | 1,2-DICHLOROETHENE(TRANS) | 4.33 | 96.0 | 12338 | 25.61 | ng/mL | 86 |
| 13) | C055 | 1,2-DICHLOROETHENE(CIS) | 5.79 | 96.0 | 13955 | 21.70 | ng/mL | 97 |
| 14) | C060 | CHLOROFORM | 6.28 | 83.0 | 27559 | 22.42 | ng/mL | 97 |
| 15) | C065 | 1,2-DICHLOROETHANE | 7.10 | 62.0 | 30665 | 19.01 | ng/mL | 95 |
| 16) | C110 | 2-BUTANONE | 5.83 | 72.0 | 216M | 4.83 | ng/mL | [illegible] |
| 17) | CS15 | 1,2-DICHLOROETHANE-D4 | 7.00 | 65.0 | 23716 | 17.62 | ng/mL | 94 |
| 18) | *CI10 | 1,4-DIFLUOROBENZENE | 7.66 | 114.0 | 148655 | 50.00 | ng/mL | 96 |
| 19) | C115 | 1,1,1-TRICHLOROETHANE | 6.53 | 97.0 | 22070 | 25.87 | ng/mL | 96 |
| 20) | C120 | CARBON TETRACHLORIDE | 6.78 | 117.0 | 29001 | 20.25 | ng/mL | 95 |
| 21) | C125 | VINYL ACETATE | 5.01 | 43.0 | 37091 | 22.72 | ng/mL | 100 |
| 22) | C130 | BROMODICHLOROMETHANE | 8.77 | 83.0 | 37979 | 22.32 | ng/mL | 97 |
| 23) | C140 | 1,2-DICHLOROPROPANE | 8.34 | 63.0 | 24131 | 20.29 | ng/mL | 97 |
| 24) | C172 | TRANS-1,3-DICHLOROPROPENE | 10.23 | 75.0 | 17922 | 15.92 | ng/mL | 91 |
| 25) | C150 | TRICHLOROETHENE | 8.03 | 130.0 | 27923 | 21.59 | ng/mL | 89 |
| 26) | C155 | DIBROMOCHLOROMETHANE | 11.05 | 129.0 | 30147 | 23.33 | ng/mL | 93 |
| 27) | C160 | 1,1,2-TRICHLOROETHANE | 10.49 | 97.0 | 20461 | 22.85 | ng/mL | 95 |
| 28) | C165 | BENZENE | 7.08 | 78.0 | 66198 | 20.93 | ng/mL | 82 |
| 29) | C143 | CIS-1,3-DICHLOROPROPENE | 9.43 | 75.0 | 57417 | 27.87 | ng/mL | 97 |
| 30) | C175 | 2-CHLOROETHYL VINYL ETHER | 9.24 | 63.0 | 14429 | 39.98 | ng/mL | 100 |
| 31) | C180 | BROMOFORM | 13.19 | 173.0 | 26787 | 25.74 | ng/mL | 100 |
| 32) | *CI20 | CHLOROBENZENE-D5 | 11.96 | 117.0 | 144034 | 50.00 | ng/mL | 93 |
| 33) | C205 | 4-METHYL-2-PENTANONE | 9.69 | 43.0 | 26057 | 16.57 | ng/mL | 93 |
| 34) | C210 | 2-HEXANONE | 10.90 | 43.0 | 15755 | 14.46 | ng/mL | 79 |
| 35) | C220 | TETRACHLOROETHENE | 10.70 | 164.0 | 27310 | 21.27 | ng/mL | 96 |
| 36) | C225 | 1,1,2,2-TETRACHLOROETHANE | 13.85 | 83.0 | 32415 | 20.40 | ng/mL | 97 |
| 37) | C230 | TOLUENE | 9.90 | 92.0 | 47742 | 19.32 | ng/mL | 97 |
| 38) | C235 | CHLOROBENZENE | 12.00 | 112.0 | 61940 | 19.97 | ng/mL | 86 |
| 39) | C240 | ETHYLBENZENE | 12.20 | 106.0 | 30258 | 20.21 | ng/mL | 42 |
| 40) | C245 | STYRENE | 12.98 | 104.0 | 76103 | 21.90 | ng/mL | 94 |
| 41) | C299 | o-XYLENE | 12.96 | 106.0 | 43450 | 21.42 | ng/mL | 76 |
| 42) | C250 | m,p-XYLENE | 12.39 | 106.0 | 75099 | 44.04 | ng/mL | 80 |
| 43) | C265 | 1,3-DICHLOROBENZENE | 15.00 | 146.0 | 65609 | 22.80 | ng/mL | 95 |

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 44) | C270 1,4-DICHLOROBENZENE | 15.12 | 146.0 | 67201 | 22.97 | ng/mL | 95 |
| 45) | C260 1,2-DICHLOROBENZENE | 15.55 | 146.0 | 74964 | 25.06 | ng/mL | 98 |
| 46) | CS05 TOLUENE-D8 | 9.80 | 98.0 | 65534 | 17.51 | ng/mL | 99 |
| 47) | CS10 BROMOFLUOROBENZENE | 13.66 | 95.0 | 37114 | 19.76 | ng/mL | 93 |

* Compound is ISTD

VSTD20
Const'F
E6248
07/09/91
14:01

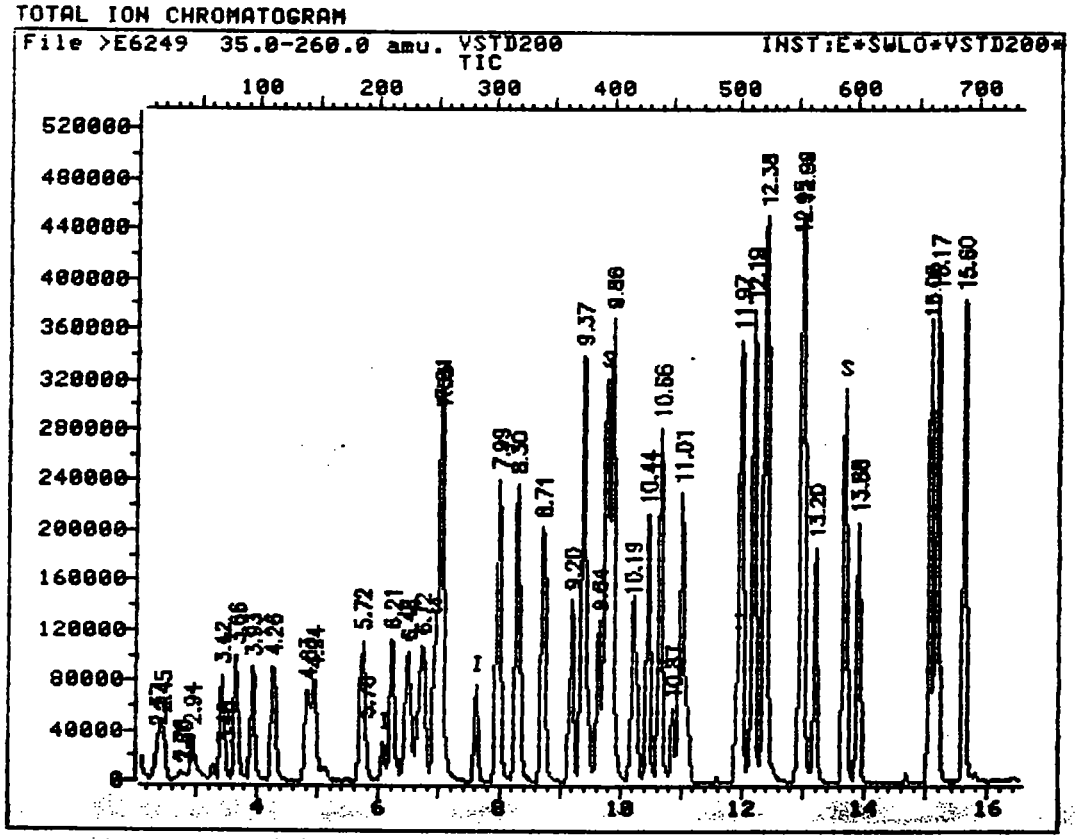



Data File: >E6248::D6 Quant Output File: ^E6248::D7
Name: VSTD020
Misc: INST:E*SWLO*VSTD020*5ml
Quant Time: 910729 14:21 Quant ID File: IDVOE1::PS
Injected at: 910729 14:01 Last Calibration: 910726 10:40

Compound No: 16
Compound Name: C110 2-BUTANONE
Scan Number: 193
Retention Time: 5.83 min.
Quant Ion: 72.0
Area: 216M
Concentration: 4.83 ng/mL

This report was produced by QAREA on: 910729 14:34

TOTAL ION CHROMATOGRAM




Data File: >E6249::D6 Quant Output File: ^E6249::D7
Name: VSTD200
Misc: INST:E*SWLO*VSTD200*5ml

Id File: IDVOE1::PS
Title: VOA (EPA CLP) 5ML AMBIENT PURGE (WATER) INST: E
Last Calibration: 910729 14:39

Operator ID: SAM
Quant Time: 910729 15:24
Injected at: 910729 15:06

QUANT REPORT

Operator ID: SAM  Quant Rev: 6  Quant Time: 910729 15:24
Output File: ^E6249::D7  Injected at: 910729 15:06
Data File: >E6249::D6  Dilution Factor: 1.00000
Name: VSTD200
Misc: INST:E*SWLO*VSTD200*5ml

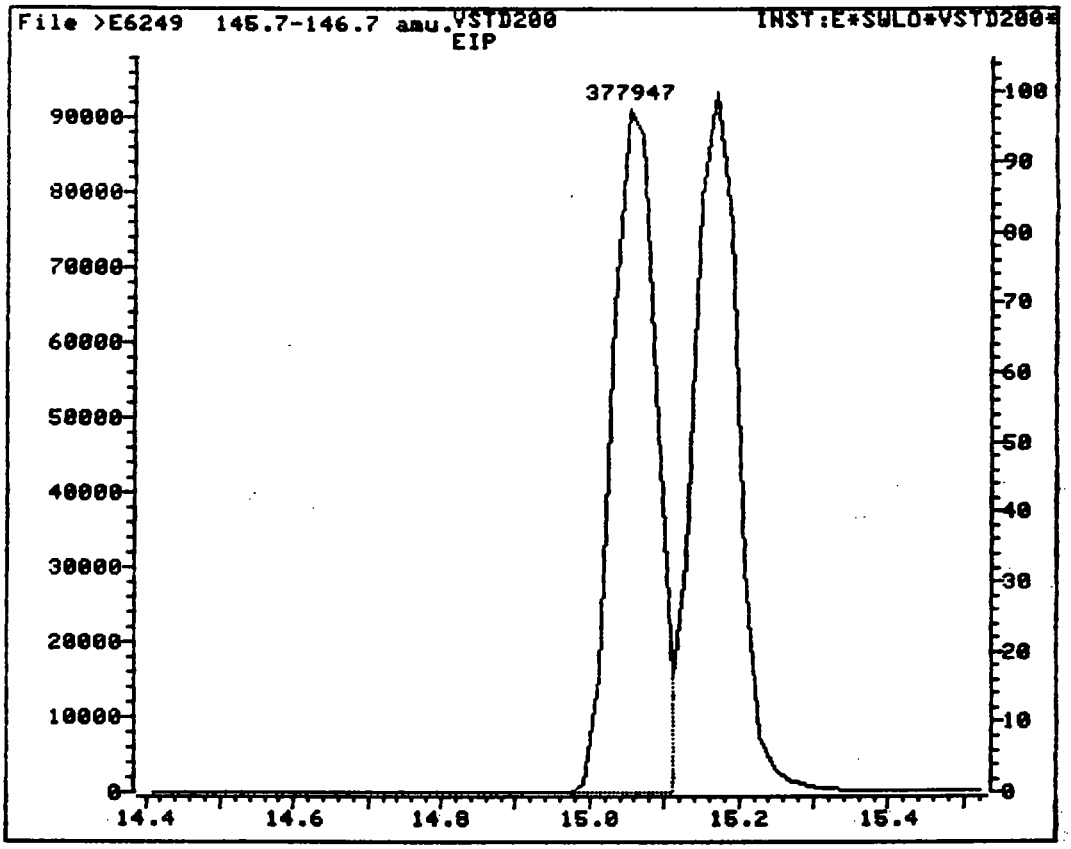
ID File: IDVOE1::PS
Title: VOA (EPA CLP) 5ML AMBIENT PURGE (WATER) INST: E
Last Calibration: 910729 14:39

| | | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|---|
| 1) | *CI01 | BROMOCHLOROMETHANE | 6.08 | 128.0 | 18358 | 50.00 | ng/mL | 97 |
| 2) | C010 | CHLOROMETHANE | 2.37 | 50.0 | 152086 | 218.43 | ng/mL | 94 |
| 3) | C015 | BROMOMETHANE | 2.76 | 94.0 | 15153 | 96.60 | ng/mL | 93 |
| 4) | C020 | VINYL CHLORIDE | 2.45 | 62.0 | 111287 | 202.34 | ng/mL | 100 |
| 5) | C025 | CHLOROETHANE | 2.80 | 64.0 | 22670 | 127.95 | ng/mL | 100 |
| 6) | C030 | METHYLENE CHLORIDE | 3.93 | 84.0 | 80190 | 173.79 | ng/mL | 77 |
| 7) | C035 | ACETONE | 3.48 | 43.0 | 11803 | 103.91 | ng/mL | 100 |
| 8) | C040 | CARBON DISULFIDE | 3.66 | 76.0 | 323581 | 165.71 | ng/mL | 82 |
| 9) | C255 | TRICHLOROFLUOROMETHANE | 2.94 | 101.0 | 97896 | 155.56 | ng/mL | 96 |
| 10) | C045 | 1,1-DICHLOROETHENE | 3.42 | 96.0 | 67495 | 164.32 | ng/mL | 66 |
| 11) | C050 | 1,1-DICHLOROETHANE | 4.83 | 63.0 | 228691 | 192.93 | ng/mL | 95 |
| 12) | C053 | 1,2-DICHLOROETHENE(TRANS) | 4.26 | 96.0 | 188848 | 179.94 | ng/mL | 85 |
| 13) | C055 | 1,2-DICHLOROETHENE(CIS) | 5.72 | 96.0 | 124878 | 195.44 | ng/mL | 85 |
| 14) | C060 | CHLOROFORM | 6.21 | 83.0 | 247916 | 195.34 | ng/mL | 95 |
| 15) | C065 | 1,2-DICHLOROETHANE | 7.05 | 62.0 | 257525 | 176.50 | ng/mL | 96 |
| 16) | C110 | 2-BUTANONE | 5.78 | 72.0 | 216041 | 173.80 | ng/mL | 100 |
| 17) | CS15 | 1,2-DICHLOROETHANE-D4 | 6.93 | 65.0 | 219997 | 180.52 | ng/mL | 92 |
| 18) | *CI10 | 1,4-DIFLUOROBENZENE | 7.62 | 114.0 | 150687 | 50.00 | ng/mL | 98 |
| 19) | C115 | 1,1,1-TRICHLOROETHANE | 6.48 | 97.0 | 207371 | 193.27 | ng/mL | 94 |
| 20) | C120 | CARBON TETRACHLORIDE | 6.72 | 117.0 | 192766 | 140.88 | ng/mL | 97 |
| 21) | C125 | VINYL ACETATE | 4.94 | 43.0 | 387918 | 218.01 | ng/mL | 100 |
| 22) | C130 | BROMODICHLOROMETHANE | 8.71 | 83.0 | 346962 | 189.41 | ng/mL | 96 |
| 23) | C140 | 1,2-DICHLOROPROPANE | 8.30 | 63.0 | 226611 | 190.81 | ng/mL | 96 |
| 24) | C172 | TRANS-1,3-DICHLOROPROPENE | 10.19 | 75.0 | 179871 | 140.79 | ng/mL | 91 |
| 25) | C150 | TRICHLOROETHENE | 7.99 | 130.0 | 228858 | 179.19 | ng/mL | 95 |
| 26) | C155 | DIBROMOCHLOROMETHANE | 11.01 | 129.0 | 392018 | 261.09 | ng/mL | 90 |
| 27) | C160 | 1,1,2-TRICHLOROETHANE | 10.44 | 97.0 | 172058 | 178.55 | ng/mL | 99 |
| 28) | C165 | BENZENE | 7.01 | 78.0 | 545036 | 179.86 | ng/mL | 82 |
| 29) | C143 | CIS-1,3-DICHLOROPROPENE | 9.37 | 75.0 | 489706 | 230.84 | ng/mL | 97 |
| 30) | C175 | 2-CHLOROETHYL VINYL ETHER | 9.20 | 63.0 | 140620 | 187.05 | ng/mL | 100 |
| 31) | C180 | BROMOFORM | 13.20 | 173.0 | 205108 | 164.16 | ng/mL | 100 |
| 32) | *CI20 | CHLOROBENZENE-D5 | 11.91 | 117.0 | 124231 | 50.00 | ng/mL | 91 |
| 33) | C205 | 4-METHYL-2-PENTANONE | 9.64 | 43.0 | 243986 | 177.90 | ng/mL | 91 |
| 34) | C210 | 2-HEXANONE | 10.87 | 43.0 | 107888 | 139.23 | ng/mL | 76 |
| 35) | C220 | TETRACHLOROETHENE | 10.66 | 164.0 | 202438 | 184.32 | ng/mL | 88 |
| 36) | C225 | 1,1,2,2-TETRACHLOROETHANE | 13.88 | 83.0 | 258889 | 179.72 | ng/mL | 95 |
| 37) | C230 | TOLUENE | 9.86 | 92.0 | 382484 | 189.08 | ng/mL | 97 |
| 38) | C235 | CHLOROBENZENE | 11.97 | 112.0 | 471424 | 186.87 | ng/mL | 90 |
| 39) | C240 | ETHYLBENZENE | 12.19 | 106.0 | 221686 | 184.00 | ng/mL | 41 |
| 40) | C245 | STYRENE | 12.99 | 104.0 | 354220 | 143.22 | ng/mL | 91 |
| 41) | C299 | o-XYLENE | 12.95 | 106.0 | 205820 | 145.15 | ng/mL | 77 |
| 42) | C250 | m,p-XYLENE | 12.38 | 106.0 | 391899 | 309.48 | ng/mL | 77 |
| 43) | C265 | 1,3-DICHLOROBENZENE | 15.05 | 146.0 | 377947M | 161.97 | ng/mL | [illegible] |

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 44) | C270 1,4-DICHLOROBENZENE | 15.17 | 146.0 | 377567M | 162.83 | ng/mL | 94 |
| 45) | C260 1,2-DICHLOROBENZENE | 15.60 | 146.0 | 389422 | 154.94 | ng/mL | 97 |
| 46) | CS05 TOLUENE-D8 | 9.76 | 98.0 | 536360 | 186.57 | ng/mL | 98 |
| 47) | CS10 BROMOFLUOROBENZENE | 13.67 | 95.0 | 252300 | 172.58 | ng/mL | 94 |

* Compound is ISTD

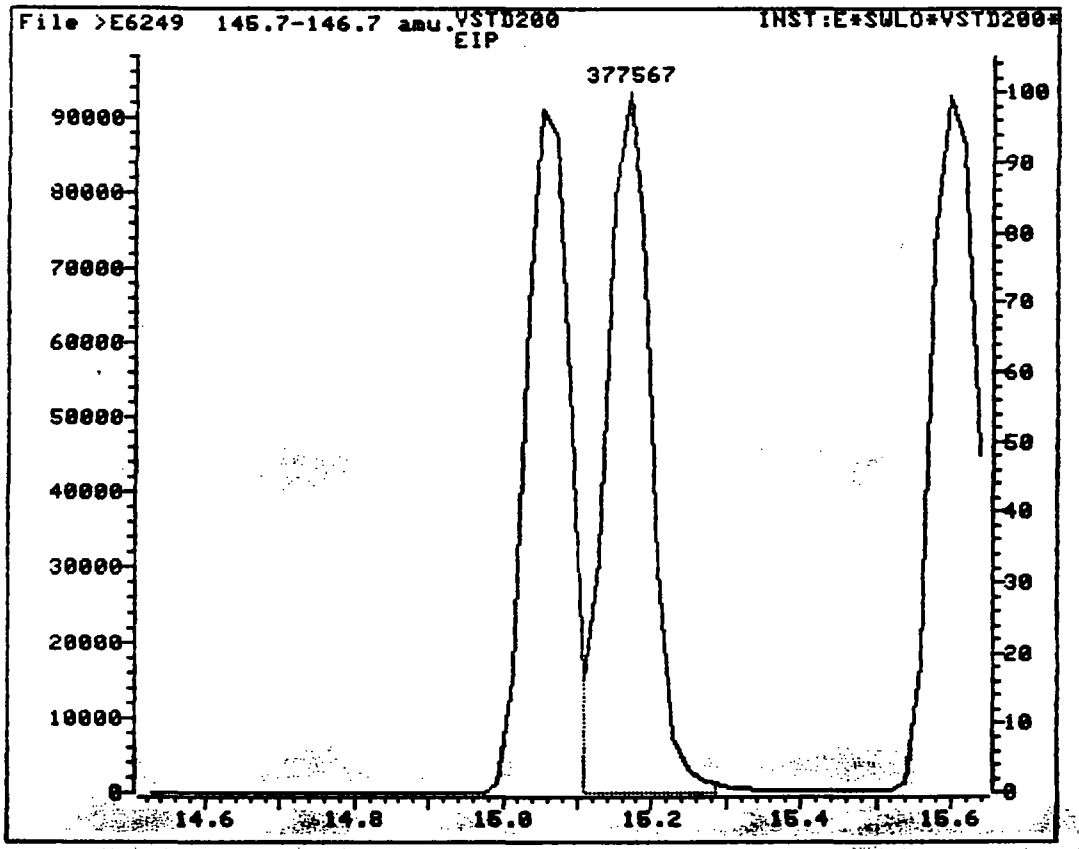
VSTD 200
Onsite
E6249
07/29/91
15:06




Data File: >E6249::D6 Quant Output File: ^E6249::D7
Name: VSTD200
Misc: INST:E*SWLO*VSTD200*5ml
Quant Time: 910729 15:24 Quant ID File: IDVOE1::PS
Injected at: 910729 15:06 Last Calibration: 910729 14:39

Compound No: 43
Compound Name: C265 1,3-DICHLOROBENZENE
Scan Number: 661
Retention Time: 15.05 min.
Quant Ion: 146.0
Area: 377947M
Concentration: 161.97 ng/mL

This report was produced by QAREA on: 910729 17:01




Data File: >E6249::D6 Quant Output File: ^E6249::D7
Name: VSTD200
Misc: INST:E*SWLO*VSTD200*5ml
Quant Time: 910729 15:24 Quant ID File: IDVOE1::PS
Injected at: 910729 15:06 Last Calibration: 910729 14:39

Compound No: 44
Compound Name: C270 1,4-DICHLOROBENZENE
Scan Number: 667
Retention Time: 15.17 min.
Quant Ion: 146.0
Area: 377567M
Concentration: 162.83 ng/mL
q-value: 94

This report was produced by QAREA on: 910729 17:02

7A

# VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

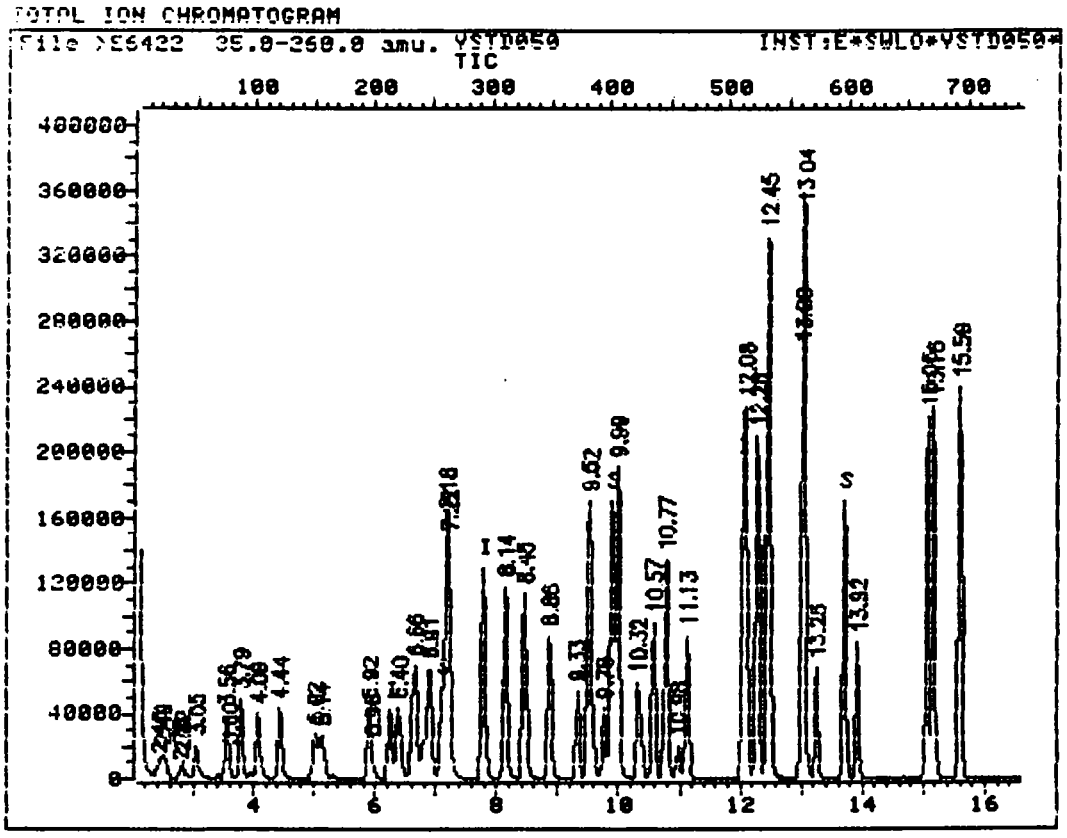
Instrument ID: E Calibration date: 08/08/91 Time: 0859

Lab File ID: E6422 Init. Calib. Date(s): 07/29/91 07/29/91

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

| COMPOUND | | RRF | RRF50 | %D | |
|---|---|---|---|---|---|
| Chloromethane | # | 1.913 | 1.658 | 13.3 | # |
| Bromomethane | | 0.436 | 0.498 | -14.2 | |
| Vinyl Chloride | * | 1.507 | 1.487 | 1.3 | * |
| Chloroethane | | 0.494 | 0.546 | -10.5 | |
| Methylene Chloride | | 1.286 | 1.314 | -2.2 | |
| Acetone | | 0.298 | 0.249 | 16.4 | |
| Carbon Disulfide | | 5.414 | 5.476 | -1.1 | |
| 1,1-Dichloroethene | * | 1.140 | 1.159 | -1.7 | * |
| 1,1-Dichloroethane | # | 3.290 | 3.237 | 1.6 | # |
| 1,2-Dichloroethene (total) | | 1.376 | 1.480 | -7.6 | |
| Chloroform | * | 3.491 | 3.310 | 5.2 | * |
| 1,2-Dichloroethane | | 3.937 | 3.813 | 3.2 | |
| 2-Butanone | | 0.091 | 0.050 | 45.0 | |
| 1,1,1-Trichloroethane | | 0.350 | 0.513 | -46.6 | |
| Carbon Tetrachloride | | 0.428 | 0.477 | -11.4 | |
| Vinyl Acetate | | 0.598 | 0.470 | 21.4 | |
| Bromodichloromethane | | 0.611 | 0.541 | 11.5 | |
| 1,2-Dichloropropane | * | 0.395 | 0.413 | -4.6 | * |
| cis-1,3-Dichloropropene | | 0.706 | 0.661 | 6.4 | |
| Trichloroethene | | 0.425 | 0.418 | 1.6 | |
| Dibromochloromethane | | 0.543 | 0.402 | 26.0 | |
| 1,1,2-Trichloroethane | | 0.320 | 0.269 | 15.9 | |
| Benzene | | 1.010 | 1.144 | -13.3 | |
| Trans-1,3-Dichloropropene | | 0.425 | 0.355 | 16.5 | |
| Bromoform | # | 0.411 | 0.258 | 37.2 | # |
| 4-Methyl-2-Pentanone | | 0.530 | 0.417 | 21.3 | |
| 2-Hexanone | | 0.289 | 0.180 | 37.7 | |
| Tetrachloroethene | | 0.443 | 0.418 | 5.6 | |
| 1,1,2,2-Tetrachloroethane | # | 0.572 | 0.462 | 19.2 | # |
| Toluene | * | 0.816 | 0.893 | -9.4 | * |
| Chlorobenzene | # | 1.020 | 1.062 | -4.1 | # |
| Ethylbenzene | * | 0.488 | 0.535 | -9.6 | * |
| Styrene | | 1.001 | 1.146 | -14.5 | |
| Xylene (total) | | 0.575 | 0.586 | -1.9 | |
| Toluene-d8 | | 1.155 | 1.294 | -12.0 | |
| Bromofluorobenzene | | 0.588 | 0.611 | -3.9 | |
| 1,2-Dichloroethane-d4 | | 3.255 | 3.297 | -1.3 | |




Data File: >E6422::D5 Quant Output File: ^E6422::D7
Name: VSTD050
Misc: INST:E*SWLO*VSTD050*5mL

Id File: IDVOE1::PS
Title: VOA (EPA CLP) 5ML AMBIENT PURGE (WATER) INST: E
Last Calibration: 910807 09:10

Operator ID: SAM
Quant Time: 910808 09:17
Injected at: 910808 08:59

QUANT REPORT

Operator ID: SAM  Quant Rev: 6  Quant Time: 910808 09:17
Output File: ^E6422::D7  Injected at: 910808 08:59
Data File: >E6422::D5  Dilution Factor: 1.00000
Name: VSTD050
Misc: INST:E*SWLO*VSTD050*5mL

ID File: IDVOE1::PS
Title: VOA (EPA CLP) 5ML AMBIENT PURGE (WATER) INST: E
Last Calibration: 910807 09:10

| | | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|---|
| 1) | *CI01 | BROMOCHLOROMETHANE | 6.25 | 128.0 | 27450 | 50.00 | ng/mL | 9 |
| 2) | C010 | CHLOROMETHANE | 2.43 | 50.0 | 45425 | 44.48 | ng/mL | 9 |
| 3) | C015 | BROMOMETHANE | 2.78 | 94.0 | 13633 | 48.38 | ng/mL | 9 |
| 4) | C020 | VINYL CHLORIDE | 2.49 | 62.0 | 40754 | 44.64 | ng/mL | 10 |
| 5) | C025 | CHLOROETHANE | 2.82 | 64.0 | 14972 | 47.92 | ng/mL | 10 |
| 6) | C030 | METHYLENE CHLORIDE | 4.09 | 84.0 | 36001 | 46.28 | ng/mL | 7 |
| 7) | C035 | ACETONE | 3.60 | 43.0 | 6826 | 34.67 | ng/mL | 10 |
| 8) | C040 | CARBON DISULFIDE | 3.79 | 76.0 | 150054 | 47.18 | ng/mL | 9 |
| 9) | C255 | TRICHLOROFLUOROMETHANE | 3.05 | 101.0 | 48010 | 45.86 | ng/mL | 9 |
| 10) | C045 | 1,1-DICHLOROETHENE | 3.56 | 96.0 | 31767 | 46.75 | ng/mL | 6 |
| 11) | C050 | 1,1-DICHLOROETHANE | 5.02 | 63.0 | 88694 | 45.08 | ng/mL | 9 |
| 12) | C053 | 1,2-DICHLOROETHENE(TRANS) | 4.44 | 96.0 | 40542 | 46.46 | ng/mL | 8 |
| 13) | C055 | 1,2-DICHLOROETHENE(CIS) | 5.92 | 96.0 | 45667 | 44.12 | ng/mL | 8 |
| 14) | C060 | CHLOROFORM | 6.40 | 83.0 | 90680 | 47.89 | ng/mL | 9 |
| 15) | C065 | 1,2-DICHLOROETHANE | 7.22 | 62.0 | 104470 | 47.72 | ng/mL | 9 |
| 16) | C110 | 2-BUTANONE | 5.96 | 72.0 | 1381 | 36.24 | ng/mL | 10 |
| 17) | CS15 | 1,2-DICHLOROETHANE-D4 | 7.11 | 65.0 | 90329 | 59.78 | ng/mL | 9 |
| 18) | *CI10 | 1,4-DIFLUOROBENZENE | 7.79 | 114.0 | 252024 | 50.00 | ng/mL | 9 |
| 19) | C115 | 1,1,1-TRICHLOROETHANE | 6.66 | 97.0 | 129155 | 45.38 | ng/mL | 9 |
| 20) | C120 | CARBON TETRACHLORIDE | 6.91 | 117.0 | 120170 | 44.78 | ng/mL | 9 |
| 21) | C125 | VINYL ACETATE | 5.14 | 43.0 | 118504 | 44.09 | ng/mL | 10 |
| 22) | C130 | BROMODICHLOROMETHANE | 8.86 | 83.0 | 136307 | 45.74 | ng/mL | 9 |
| 23) | C140 | 1,2-DICHLOROPROPANE | 8.45 | 63.0 | 104179 | 45.86 | ng/mL | 9 |
| 24) | C172 | TRANS-1,3-DICHLOROPROPENE | 10.32 | 75.0 | 64442 | 33.09 | ng/mL | 8 |
| 25) | C150 | TRICHLOROETHENE | 8.14 | 130.0 | 105449 | 45.57 | ng/mL | 8 |
| 26) | C155 | DIBROMOCHLOROMETHANE | 11.13 | 129.0 | 101429 | 45.07 | ng/mL | 9 |
| 27) | C160 | 1,1,2-TRICHLOROETHANE | 10.57 | 97.0 | 67896 | 45.72 | ng/mL | 9 |
| 28) | C165 | BENZENE | 7.18 | 78.0 | 288158 | 45.92 | ng/mL | 8 |
| 29) | C143 | CIS-1,3-DICHLOROPROPENE | 9.52 | 75.0 | 213137 | 58.64 | ng/mL | 9 |
| 30) | C175 | 2-CHLOROETHYL VINYL ETHER | 9.33 | 63.0 | 50464 | 45.14 | ng/mL | 10 |
| 31) | C180 | BROMOFORM | 13.25 | 173.0 | 64943 | 45.06 | ng/mL | 10 |
| 32) | *CI20 | CHLOROBENZENE-D5 | 12.04 | 117.0 | 203833 | 50.00 | ng/mL | 9 |
| 33) | C205 | 4-METHYL-2-PENTANONE | 9.78 | 43.0 | 85021 | 46.25 | ng/mL | 8 |
| 34) | C210 | 2-HEXANONE | 10.98 | 43.0 | 36621 | 52.36 | ng/mL | 8 |
| 35) | C220 | TETRACHLOROETHENE | 10.77 | 164.0 | 85342 | 47.14 | ng/mL | 96 |
| 36) | C225 | 1,1,2,2-TETRACHLOROETHANE | 13.92 | 83.0 | 94316 | 44.30 | ng/mL | 9 |
| 37) | C230 | TOLUENE | 9.99 | 92.0 | 182210 | 46.16 | ng/mL | 9 |
| 38) | C235 | CHLOROBENZENE | 12.08 | 112.0 | 216708 | 46.51 | ng/mL | 8 |
| 39) | C240 | ETHYLBENZENE | 12.28 | 106.0 | 109178 | 46.63 | ng/mL | 43 |
| 40) | C245 | STYRENE | 13.04 | 104.0 | 233788 | 47.75 | ng/mL | 96 |
| 41) | C299 | o-XYLENE | 13.00 | 106.0 | 132236 | 45.55 | ng/mL | 79 |
| 42) | C250 | m,p-XYLENE | 12.45 | 106.0 | 238935 | 93.38 | ng/mL | 82 |
| 43) | C265 | 1,3-DICHLOROBENZENE | 15.06 | 146.0 | 191275 | 45.25 | ng/mL | 9 |

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 44) | C270 1,4-DICHLOROBENZENE | 15.16 | 146.0 | 195169 | 47.00 | ng/mL | 9 |
| 45) | C260 1,2-DICHLOROBENZENE | 15.59 | 146.0 | 199783 | 44.25 | ng/mL | 9 |
| 46) | CS05 TOLUENE-D8 | 9.89 | 98.0 | 263883 | 57.56 | ng/mL | 9 |
| 47) | CS10 BROMOFLUOROBENZENE | 13.70 | 95.0 | 124678 | 55.52 | ng/mL | 9 |

* Compound is ISTD

E6422
VSTD50
8/8/91 08:59
INST. E

7A

# VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Instrument ID: K Calibration date: 08/08/91 Time: 1103

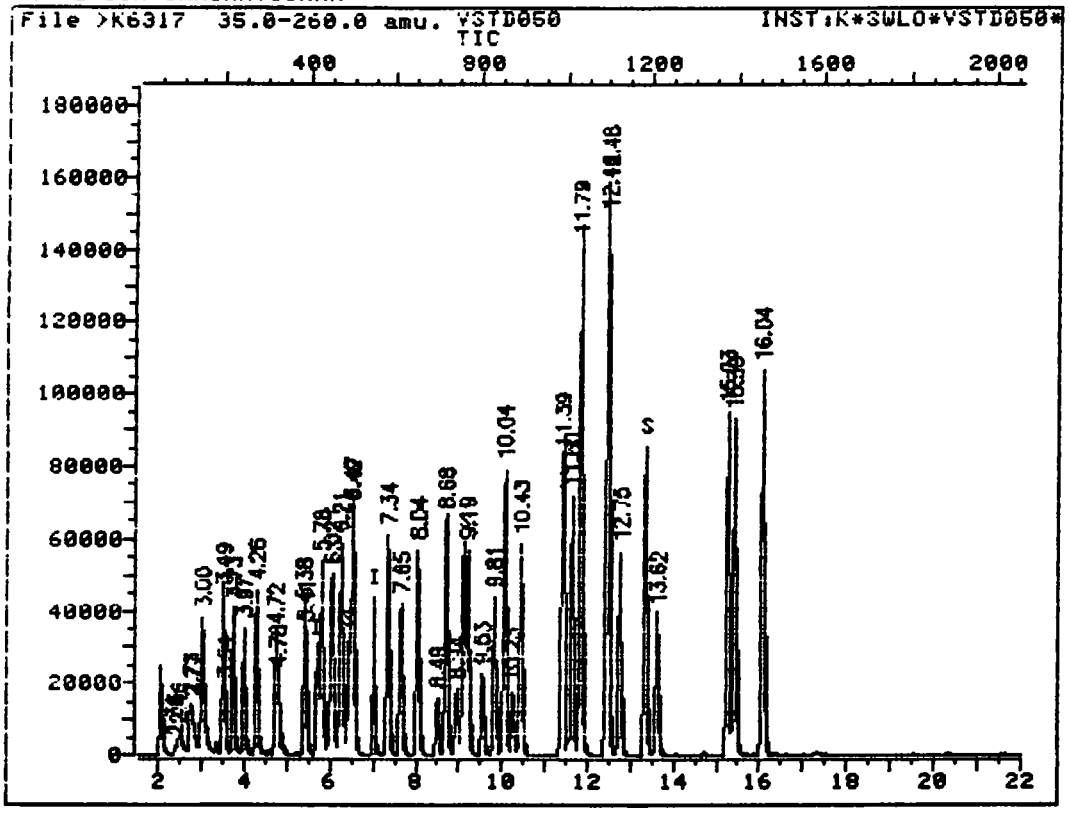
Lab File ID: K6317 Init. Calib. Date(s): 07/25/91 07/25/91

Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) CAP

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

| COMPOUND | | RRF | RRF50 | %D | |
|---|---|---|---|---|---|
| Chloromethane | # | 0.620 | 0.636 | -2.6 | # |
| Bromomethane | | 1.759 | 1.808 | -2.8 | |
| Vinyl Chloride | * | 1.231 | 1.041 | 15.4 | * |
| Chloroethane | | 0.865 | 0.800 | 7.5 | |
| Methylene Chloride | | 1.621 | 1.676 | -3.4 | |
| Acetone | | 1.117 | 0.881 | 21.1 | |
| Carbon Disulfide | | 6.112 | 5.547 | 9.2 | |
| 1,1-Dichloroethene | * | 1.666 | 1.705 | -2.3 | * |
| 1,1-Dichloroethane | # | 3.623 | 3.616 | 0.2 | # |
| 1,2-Dichloroethene (total) | | 1.779 | 1.755 | 1.3 | |
| Chloroform | * | 4.607 | 5.138 | -11.5 | * |
| 1,2-Dichloroethane | | 3.643 | 4.001 | -9.8 | |
| 2-Butanone | | 0.312 | 0.214 | 31.4 | |
| 1,1,1-Trichloroethane | | 1.010 | 1.269 | -25.6 | |
| Carbon Tetrachloride | | 1.059 | 1.322 | -24.8 | |
| Vinyl Acetate | | 1.063 | 0.712 | 33.0 | |
| Bromodichloromethane | | 1.138 | 1.269 | -11.5 | |
| 1,2-Dichloropropane | * | 0.458 | 0.414 | 9.6 | * |
| cis-1,3-Dichloropropene | | 0.932 | 0.938 | -0.6 | |
| Trichloroethene | | 0.610 | 0.630 | -3.3 | |
| Dibromochloromethane | | 1.064 | 1.092 | -2.6 | |
| 1,1,2-Trichloroethane | | 0.469 | 0.431 | 8.1 | |
| Benzene | | 1.113 | 1.023 | 8.1 | |
| Trans-1,3-Dichloropropene | | 0.567 | 0.564 | 0.5 | |
| Bromoform | # | 1.020 | 0.931 | 8.7 | # |
| 4-Methyl-2-Pentanone | | 0.779 | 0.541 | 30.6 | |
| 2-Hexanone | | 0.850 | 0.525 | 38.2 | |
| Tetrachloroethene | | 0.770 | 0.789 | -2.5 | |
| 1,1,2,2-Tetrachloroethane | # | 0.875 | 0.807 | 7.8 | # |
| Toluene | * | 0.953 | 0.888 | 6.8 | * |
| Chlorobenzene | # | 1.397 | 1.324 | 5.2 | # |
| Ethylbenzene | * | 0.625 | 0.615 | 1.6 | * |
| Styrene | | 1.609 | 1.606 | 0.2 | |
| Xylene (total) | | 0.948 | 0.926 | 2.3 | |
| Toluene-d8 | | 1.292 | 1.590 | -23.1 | |
| Bromofluorobenzene | | 1.005 | 1.258 | -25.2 | |
| 1,2-Dichloroethane-d4 | | 2.566 | 3.571 | -39.2 | |

TOTAL ION CHROMATOGRAM




Data File: >K6317::L2 Quant Output File: ^K6317::D6
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910807 11:06

Operator ID: DEBBIE
Quant Time: 910808 11:27
Injected at: 910808 11:03

QUANT REPORT

Operator ID: DEBBIE  Quant Rev: 6  Quant Time: 910808 11:27
Output File: ^K6317::D6  Injected at: 910808 11:03
Data File: >K6317::L2  Dilution Factor: 1.00000
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL

ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910807 11:06

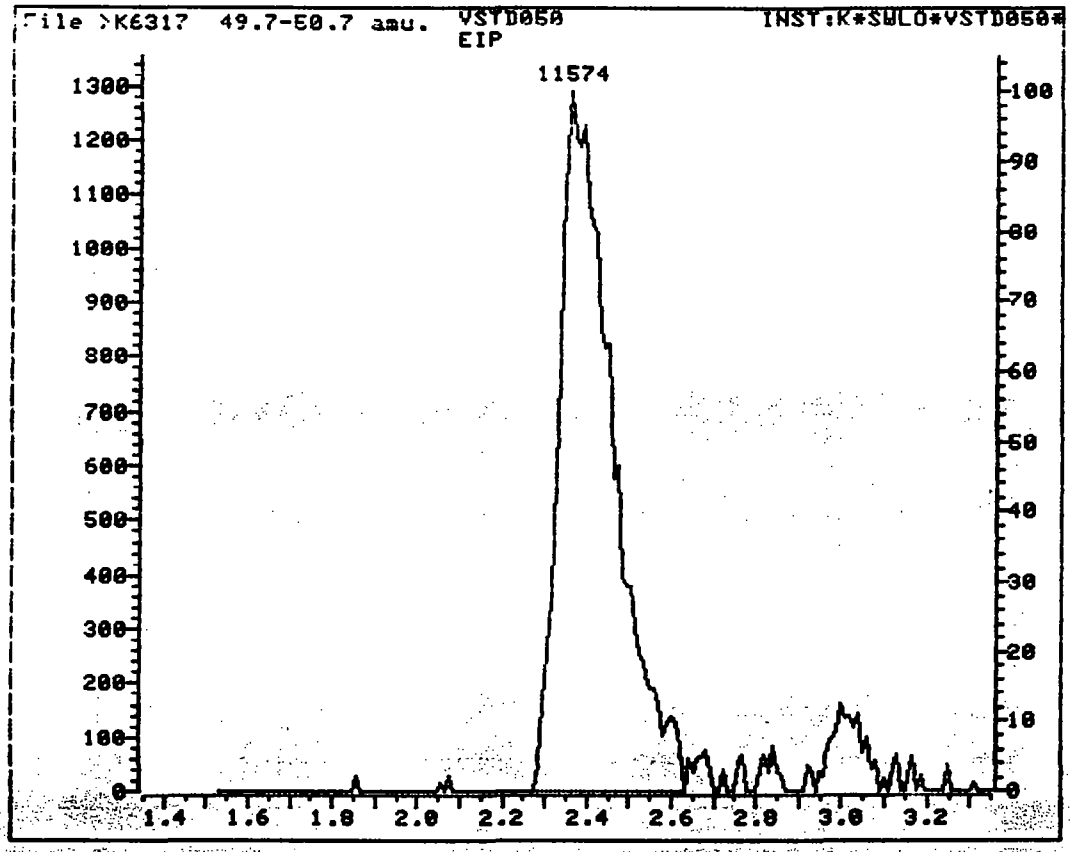
| | | Compound | R.T. | Q ion | Area | Conc | Units | |
|---|---|---|---|---|---|---|---|---|
| 1) | *CI01 | BROMOCHLOROMETHANE | 5.66 | 128.0 | 18168 | 50.00 | ng/mL | |
| 2) | C010 | CHLOROMETHANE | 2.36 | 50.0 | 11574M | 47.33 | ng/mL | 9 |
| 3) | C015 | BROMOMETHANE | 2.73 | 94.0 | 32907M | 55.01 | ng/mL | 9 |
| 4) | C020 | VINYL CHLORIDE | 2.46 | 62.0 | 18953M | 48.97 | ng/mL | 1 |
| 5) | C025 | CHLOROETHANE | 2.77 | 64.0 | 14562M | 51.89 | ng/mL | 1 |
| 6) | C030 | METHYLENE CHLORIDE | 3.97 | 84.0 | 30501 | 55.01 | ng/mL | 8 |
| 7) | C035 | ACETONE | 3.54 | 43.0 | 16038 | 57.07 | ng/mL | 1 |
| 8) | C040 | CARBON DISULFIDE | 3.73 | 76.0 | 100949 | 51.05 | ng/mL | 1 |
| 9) | C255 | TRICHLOROFLUOROMETHANE | 3.00 | 101.0 | 87602 | 58.55 | ng/mL | 9 |
| 10) | C045 | 1,1-DICHLOROETHENE | 3.49 | 96.0 | 31031 | 55.26 | ng/mL | 9 |
| 11) | C050 | 1,1-DICHLOROETHANE | 4.72 | 63.0 | 65819 | 50.92 | ng/mL | 9 |
| 12) | C053 | 1,2-DICHLOROETHENE-TRANS | 4.26 | 96.0 | 31940 | 49.68 | ng/mL | 9 |
| 13) | C055 | 1,2-DICHLOROETHENE-CIS | 5.38 | 96.0 | 34267 | 49.35 | ng/mL | 9 |
| 14) | C060 | CHLOROFORM | 5.78 | 83.0 | 93518 | 54.42 | ng/mL | 9 |
| 15) | C065 | 1,2-DICHLOROETHANE | 6.49 | 62.0 | 72816 | 55.10 | ng/mL | 8 |
| 16) | C110 | 2-BUTANONE | 5.41 | 72.0 | 3889 | 50.26 | ng/mL | 8 |
| 17) | CS15 | 1,2-DICHLOROETHANE-D4 | 6.40 | 65.1 | 64987 | 68.26 | ng/mL | 8 |
| 18) | *CI10 | 1,4-DIFLUOROBENZENE | 6.99 | 114.0 | 71629 | 50.00 | ng/mL | 9 |
| 19) | C115 | 1,1,1-TRICHLOROETHANE | 6.02 | 96.9 | 90876 | 59.01 | ng/mL | 9 |
| 20) | C120 | CARBON TETRACHLORIDE | 6.21 | 117.0 | 94665 | 60.77 | ng/mL | 9 |
| 21) | C125 | VINYL ACETATE | 4.78 | 43.0 | 50980 | 49.41 | ng/mL | 1 |
| 22) | C130 | BROMODICHLOROMETHANE | 8.04 | 83.0 | 90869 | 55.35 | ng/mL | 9 |
| 23) | C140 | 1,2-DICHLOROPROPANE | 7.65 | 63.0 | 29630 | 48.31 | ng/mL | 9 |
| 24) | C172 | TRANS-1,3-DICHLOROPROPENE | 9.53 | 75.0 | 29091 | 36.85 | ng/mL | 8 |
| 25) | C150 | TRICHLOROETHENE | 7.34 | 130.0 | 45113 | 51.71 | ng/mL | 9 |
| 26) | C155 | DIBROMOCHLOROMETHANE | 10.43 | 129.0 | 78207 | 53.26 | ng/mL | 1 |
| 27) | C160 | 1,1,2-TRICHLOROETHANE | 9.81 | 97.0 | 30842 | 81.81 | ng/mL | 1 |
| 28) | C165 | BENZENE | 6.47 | 78.0 | 73263 | 48.22 | ng/mL | 8 |
| 29) | C143 | CIS-1,3-DICHLOROPROPENE | 8.68 | 75.0 | 85927 | 67.07 | ng/mL | 9 |
| 30) | C175 | 2-CHLOROETHYL VINYL ETHER | 8.49 | 63.0 | 15092 | 46.86 | ng/mL | 9 |
| 31) | C180 | BROMOFORM | 12.75 | 172.8 | 66650 | 53.92 | ng/mL | 9 |
| 32) | *CI20 | CHLOROBENZENE-D5 | 11.35 | 117.0 | 58981 | 50.00 | ng/mL | 9 |
| 33) | C205 | 4-METHYL-2-PENTANONE | 8.94 | 43.0 | 31900 | 45.57 | ng/mL | 7 |
| 34) | C210 | 2-HEXANONE | 10.23 | 43.0 | 30959 | 46.33 | ng/mL | 8 |
| 35) | C220 | TETRACHLOROETHENE | 10.04 | 164.0 | 46532 | 51.78 | ng/mL | 9 |
| 36) | C225 | 1,1,2,2-TETRACHLOROETHANE | 13.62 | 83.0 | 47587 | 47.03 | ng/mL | 9 |
| 37) | C230 | TOLUENE | 9.19 | 92.0 | 52376 | 46.58 | ng/mL | 9 |
| 38) | C235 | CHLOROBENZENE | 11.39 | 112.0 | 78121 | 47.80 | ng/mL | 9 |
| 39) | C240 | ETHYLBENZENE | 11.60 | 106.0 | 36305 | 49.52 | ng/mL | 8 |
| 40) | C245 | STYRENE | 12.48 | 104.0 | 94747M | 47.35 | ng/mL | |
| 41) | C250 | o-XYLENE | 12.46 | 106.0 | 54613 | 47.71 | ng/mL | 9 |
| 42) | C299 | m,p-XYLENES | 11.79 | 106.0 | 92041 | 97.38 | ng/mL | 9 |
| 43) | C265 | 1,3-DICHLOROBENZENE | 15.23 | 146.0 | 97239 | 49.65 | ng/mL | 9 |

0150

| | Compound | R.T. | Q ion | Area | Conc | Units |
|---|---|---|---|---|---|---|
| 44) | C270 1,4-DICHLOROBENZENE | 15.39 | 146.0 | 96019 | 50.48 | ng/mL |
| 45) | C260 1,2-DICHLOROBENZENE | 16.04 | 146.0 | 112537 | 51.06 | ng/mL |
| 46) | CS05 TOLUENE-D8 | 9.09 | 98.0 | 93789 | 58.52 | ng/mL |
| 47) | CS10 BROMOFLUOROBENZENE | 13.33 | 95.0 | 74196 | 64.29 | ng/mL |

* Compound is ISTD

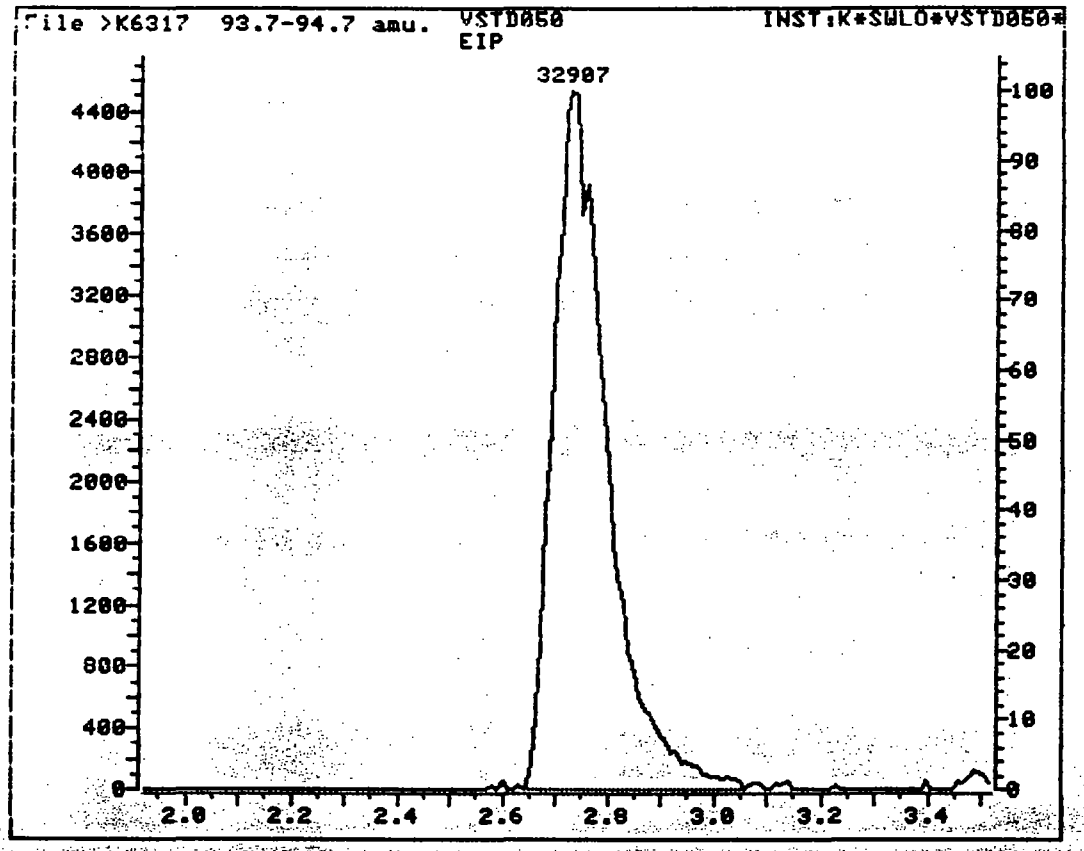
K6317
V5T050
8/8/91 11:03
INST: K




Data File: >K6317::L2 Quant Output File: ^K6317::D6
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL
Quant Time: 910808 11:27 Quant ID File: IDV023::EX
Injected at: 910808 11:03 Last Calibration: 910807 11:06

Compound No: 2
Compound Name: C010 CHLOROMETHANE
Scan Number: 85
Retention Time: 2.36 min.
Quant Ion: 50.0
Area: 11574M
Concentration: 47.33 ng/mL
q-value: 91

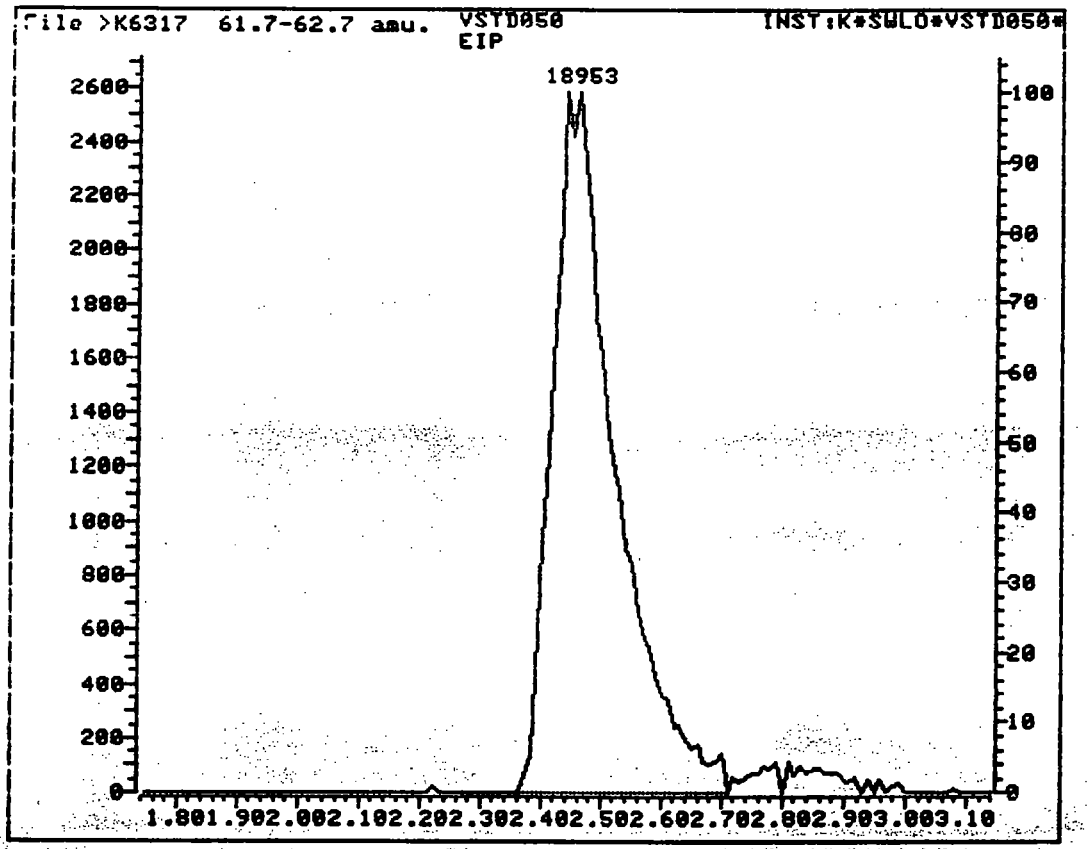
This report was produced by QAREA on: 910808 12:45




Data File: >K6317::L2 Quant Output File: ^K6317::D6
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL
Quant Time: 910808 11:27 Quant ID File: IDV023::EX
Injected at: 910808 11:03 Last Calibration: 910807 11:06

Compound No: 3
Compound Name: C015 BROMOMETHANE
Scan Number: 122
Retention Time: 2.73 min.
Quant Ion: 94.0
Area: 32907M
Concentration: 55.01 ng/mL
q-value: 93

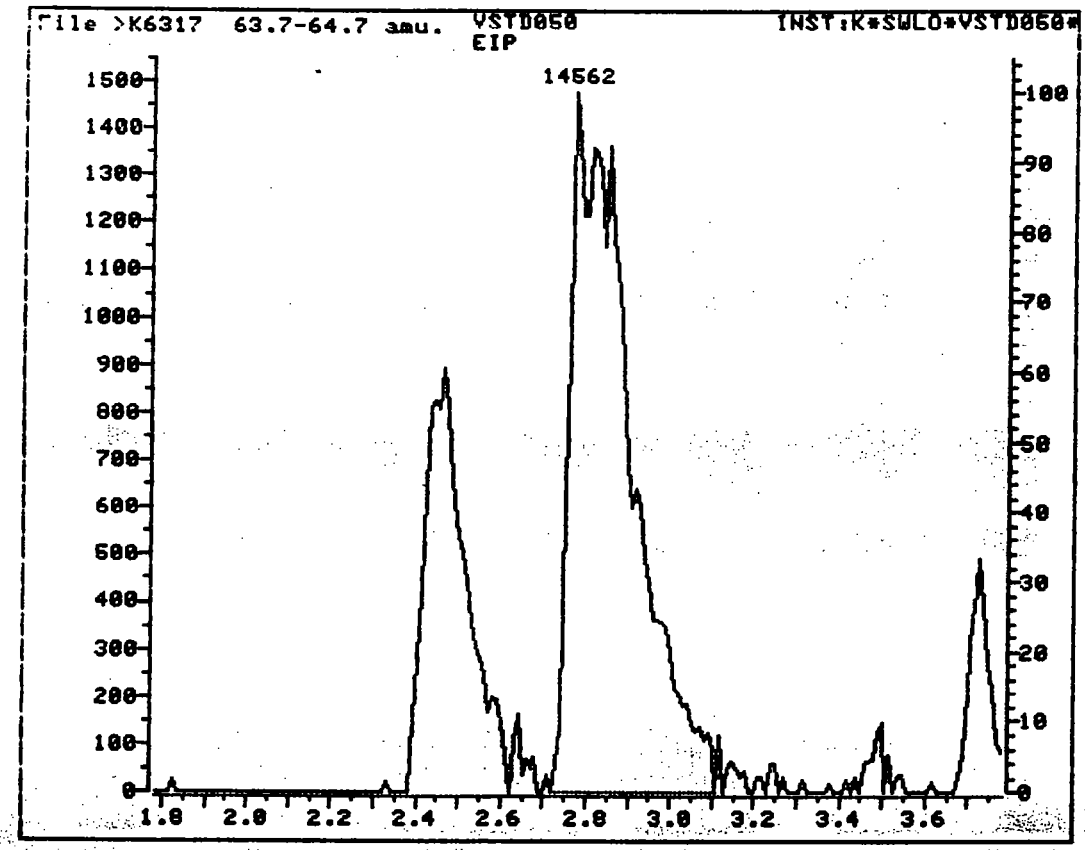
This report was produced by QAREA on: 910808 12:46




Data File: >K6317::L2 Quant Output File: ^K6317::D6
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL
Quant Time: 910808 11:27 Quant ID File: IDV023::EX
Injected at: 910808 11:03 Last Calibration: 910807 11:06

Compound No: 4
Compound Name: C020 VINYL CHLORIDE
Scan Number: 95
Retention Time: 2.46 min.
Quant Ion: 62.0
Area: 18953M
Concentration: 48.97 ng/mL
q-value: 100

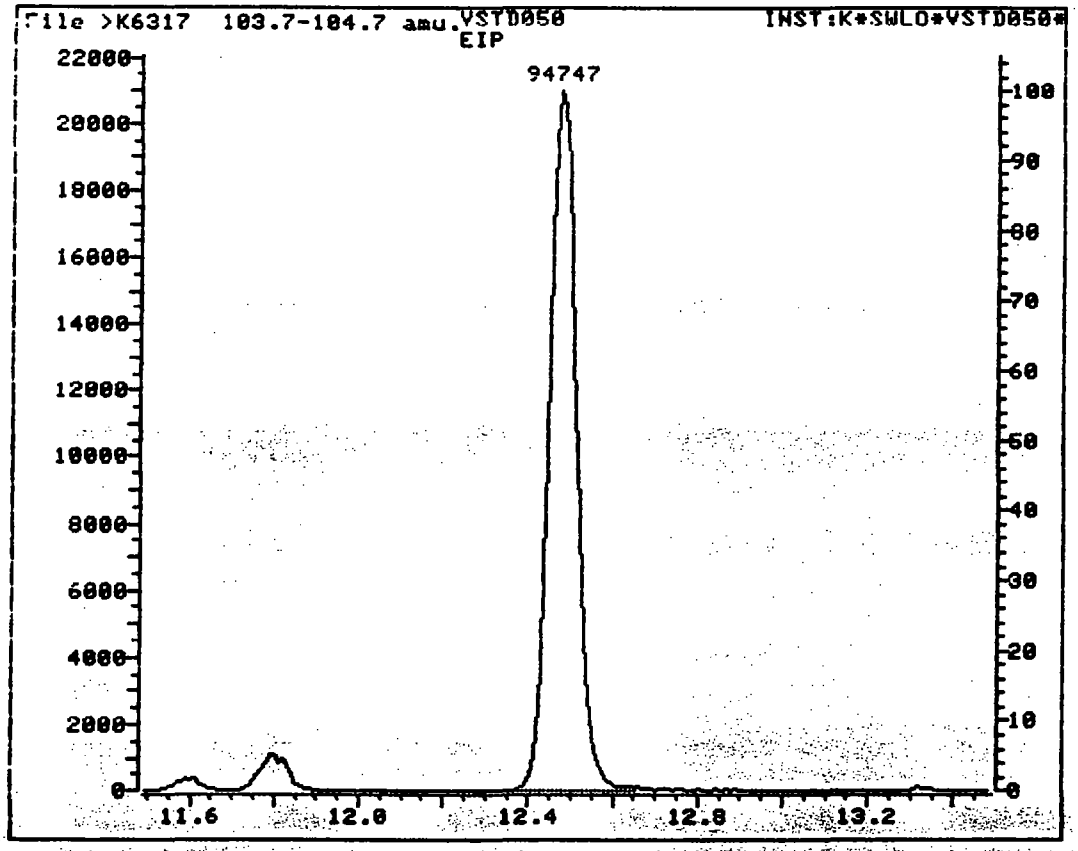
This report was produced by QAREA on: 910808 12:47




Data File: >K6317::L2 Quant Output File: ^K6317::D6
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL
Quant Time: 910808 11:27 Quant ID File: IDV023::EX
Injected at: 910808 11:03 Last Calibration: 910807 11:06

Compound No: 5
Compound Name: C025 CHLOROETHANE
Scan Number: 126
Retention Time: 2.77 min.
Quant Ion: 64.0
Area: 14562M
Concentration: 51.89 ng/mL
q-value: 100

This report was produced by QAREA on: 910808 12:48




Data File: >K6317::L2 Quant Output File: ^K6317::D6
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL
Quant Time: 910808 11:27 Quant ID File: IDV023::EX
Injected at: 910808 11:03 Last Calibration: 910807 11:06

Compound No: 40
Compound Name: C245 STYRENE
Scan Number: 1100
Retention Time: 12.48 min.
Quant Ion: 104.0
Area: 94747M
Concentration: 47.35 ng/mL

This report was produced by QAREA on: 910808 12:49

# VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Instrument ID: C Calibration date: 08/09/91 Time: 1116

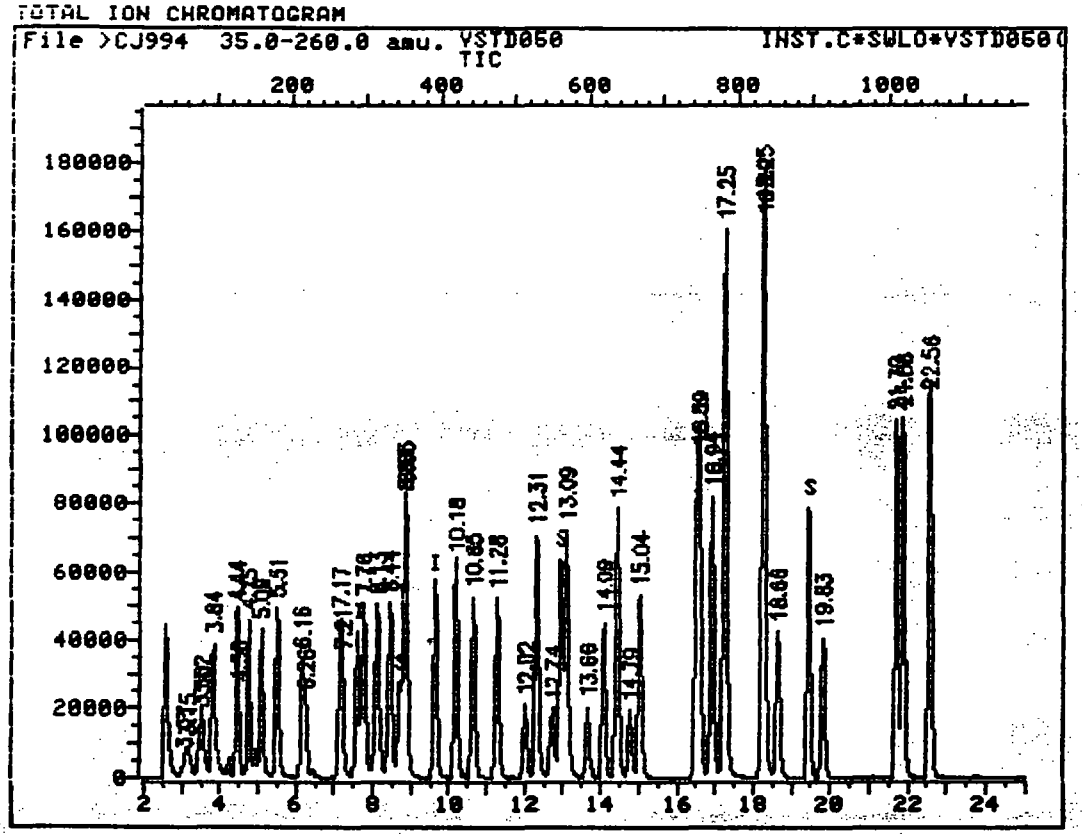
Lab File ID: CJ994 Init. Calib. Date(s): 05/26/91 05/26/91

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

| COMPOUND | | RRF | RRF50 | %D | |
|---|---|---|---|---|---|
| Chloromethane | # | 1.542 | 0.833 | 46.0 | # |
| Bromomethane | | 1.547 | 1.409 | 8.9 | |
| Vinyl Chloride | * | 1.479 | 1.140 | 22.9 | * |
| Chloroethane | | 0.974 | 0.749 | 23.1 | |
| Methylene Chloride | | 2.398 | 1.485 | 38.1 | |
| Acetone | | 0.355 | 0.360 | -1.4 | |
| Carbon Disulfide | | 5.880 | 4.912 | 16.5 | |
| 1,1-Dichloroethene | * | 1.472 | 1.430 | 2.9 | * |
| 1,1-Dichloroethane | # | 3.390 | 3.170 | 6.5 | # |
| 1,2-Dichloroethene (total) | | 1.566 | 1.577 | -0.7 | |
| Chloroform | * | 3.474 | 3.710 | -6.8 | * |
| 1,2-Dichloroethane | | 2.122 | 2.451 | -15.5 | |
| 2-Butanone | | 0.111 | 0.108 | 2.7 | |
| 1,1,1-Trichloroethane | | 0.676 | 0.755 | -11.7 | |
| Carbon Tetrachloride | | 0.686 | 0.719 | -4.8 | |
| Vinyl Acetate | | 0.924 | 0.506 | 45.2 | |
| Bromodichloromethane | | 0.680 | 0.777 | -14.3 | |
| 1,2-Dichloropropane | * | 0.477 | 0.444 | 6.9 | * |
| cis-1,3-Dichloropropene | | 0.836 | 0.692 | 17.2 | |
| Trichloroethene | | 0.632 | 0.487 | 22.9 | |
| Dibromochloromethane | | 0.559 | 0.667 | -19.3 | |
| 1,1,2-Trichloroethane | | 0.290 | 0.343 | -18.3 | |
| Benzene | | 1.010 | 0.983 | 2.7 | |
| Trans-1,3-Dichloropropene | | 0.220 | 0.358 | -62.7 | |
| Bromoform | # | 0.358 | 0.411 | -14.8 | # |
| 4-Methyl-2-Pentanone | | 0.544 | 0.511 | 6.1 | |
| 2-Hexanone | | 0.397 | 0.471 | -18.6 | |
| Tetrachloroethene | | 0.547 | 0.545 | 0.4 | |
| 1,1,2,2-Tetrachloroethane | # | 0.567 | 0.611 | -7.8 | # |
| Toluene | * | 0.812 | 0.817 | -0.6 | * |
| Chlorobenzene | # | 1.015 | 1.117 | -10.0 | # |
| Ethylbenzene | * | 0.496 | 0.521 | -5.0 | * |
| Styrene | | 1.217 | 1.298 | -6.7 | |
| Xylene (total) | | 0.715 | 0.661 | 7.6 | |
| Toluene-d8 | | 1.178 | 1.221 | -3.6 | |
| Bromofluorobenzene | | 0.633 | 0.744 | -17.5 | |
| 1,2-Dichloroethane-d4 | | 1.695 | 1.986 | -17.2 | |

TOTAL ION CHROMATOGRAM




Data File: >CJ994::D4 Quant Output File: ^CJ994::D4
Name: VSTD050
Misc: INST.C*SWLO*VSTD050(2-059-4)*5mL

Id File: IDV012::PS
Title: VOA (EPA CLP) 5mL AMBIENT PURGE (WATERS) INST:C
Last Calibration: 910808 08:43

Operator ID: GINA
Quant Time: 910809 11:42
Injected at: 910809 11:16

QUANT REPORT

Operator ID: GINA  Quant Rev: 6  Quant Time: 910809 11:42
Output File: ^CJ994::D4  Injected at: 910809 11:16
Data File: >CJ994::D4  Dilution Factor: 1.00000
Name: VSTD050
Misc: INST.C*SWLO*VSTD050(2-059-4)*5mL

ID File: IDV012::PS
Title: VOA (EPA CLP) 5mL AMBIENT PURGE (WATERS) INST:C
Last Calibration: 910808 08:43

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *CI01 BROMOCHLOROMETHANE | 7.60 | 128.0 | 36067 | 50.00 | NG/ML | 65 |
| 2) | C010 CHLOROMETHANE | 3.07 | 50.0 | 30068 | 41.47 | NG/ML | 95 |
| 3) | C015 BROMOMETHANE | 3.50 | 94.0 | 50859 | 50.75 | NG/ML | 93 |
| 4) | C020 VINYL CHLORIDE | 3.15 | 62.0 | 41165 | 48.07 | NG/ML | 100 |
| 5) | C025 CHLOROETHANE | 3.52 | 64.0 | 27026 | 48.30 | NG/ML | 100 |
| 6) | C030 METHYLENE CHLORIDE | 5.09 | 84.0 | 53620 | 52.87 | NG/ML | 67 |
| 7) | C035 ACETONE | 4.50 | 43.0 | 12985 | 55.39 | NG/ML | 100 |
| 8) | C040 CARBON DISULFIDE | 4.75 | 76.0 | 177318 | 50.70 | NG/ML | 92 |
| 9) | C255 TRICHLOROFLUOROMETHANE | 3.84 | 101.0 | 113979 | 50.72 | NG/ML | 98 |
| 10) | C045 1,1-DICHLOROETHENE | 4.44 | 96.0 | 51626 | 50.79 | NG/ML | 87 |
| 11) | C050 1,1-DICHLOROETHANE | 6.16 | 63.0 | 114449 | 52.18 | NG/ML | 97 |
| 12) | C053 1,2-DICHLOROETHENE(TRANS) | 5.51 | 96.0 | 56935 | 50.79 | NG/ML | 90 |
| 13) | C055 1,2-DICHLOROETHENE (CIS) | 7.17 | 96.0 | 62052 | 53.14 | NG/ML | 96 |
| 14) | C060 CHLOROFORM | 7.76 | 83.0 | 133930 | 53.87 | NG/ML | 97 |
| 15) | C065 1,2-DICHLOROETHANE | 8.85 | 62.0 | 88490 | 54.44 | NG/ML | 95 |
| 16) | C110 2-BUTANONE | 7.21 | 72.0 | 3910 | 53.51 | NG/ML | 73 |
| 17) | CS15 1,2-DICHLOROETHANE-D4 | 8.70 | 65.1 | 71687 | 49.42 | NG/ML | 94 |
| 18) | *CI10 1,4-DIFLUOROBENZENE | 9.63 | 114.0 | 163137 | 50.00 | NG/ML | 96 |
| 19) | C115 1,1,1-TRICHLOROETHANE | 8.13 | 96.9 | 123124 | 57.26 | NG/ML | 95 |
| 20) | C120 CARBON TETRACHLORIDE | 8.44 | 117.0 | 117177 | 55.14 | NG/ML | 94 |
| 21) | C125 VINYL ACETATE | 6.26 | 43.0 | 82555 | 57.53 | NG/ML | 100 |
| 22) | C130 BROMODICHLOROMETHANE | 11.28 | 83.0 | 126690 | 54.62 | NG/ML | 99 |
| 23) | C140 1,2-DICHLOROPROPANE | 10.65 | 63.0 | 72296 | 54.41 | NG/ML | 97 |
| 24) | C172 TRANS-1,3-DICHLOROPROPENE | 13.66 | 75.0 | 41975 | 41.73 | NG/ML | 99 |
| 25) | C150 TRICHLOROETHENE | 10.18 | 130.0 | 79382 | 54.40 | NG/ML | 96 |
| 26) | C155 DIBROMOCHLOROMETHANE | 15.04 | 129.0 | 108661 | 56.91 | NG/ML | 93 |
| 27) | C160 1,1,2-TRICHLOROETHANE | 14.09 | 97.0 | 55923 | 55.71 | NG/ML | 98 |
| 28) | C165 BENZENE | 8.83 | 78.0 | 160212 | 53.72 | NG/ML | 81 |
| 29) | C143 CIS-1,3-DICHLOROPROPENE | 12.31 | 75.0 | 144347 | 70.75 | NG/ML | 96 |
| 30) | C175 2-CHLOROETHYL VINYL ETHER | 12.02 | 63.0 | 31306 | 53.85 | NG/ML | 100 |
| 31) | C180 BROMOFORM | 18.66 | 172.8 | 66938 | 56.95 | NG/ML | 95 |
| 32) | *CI20 CHLOROBENZENE-D5 | 16.51 | 117.0 | 131327 | 50.00 | NG/ML | 96 |
| 33) | C205 4-METHYL-2-PENTANONE | 12.74 | 43.0 | 66915 | 64.00 | NG/ML | 84 |
| 34) | C210 2-HEXANONE | 14.79 | 43.0 | 61662 | 64.68 | NG/ML | 92 |
| 35) | C220 TETRACHLOROETHENE | 14.44 | 164.0 | 71364 | 54.92 | NG/ML | 98 |
| 36) | C225 1,1,2,2-TETRACHLOROETHANE | 19.83 | 83.0 | 79980 | 59.39 | NG/ML | 95 |
| 37) | C230 TOLUENE | 13.09 | 92.0 | 107019 | 55.38 | NG/ML | 97 |
| 38) | C235 CHLOROBENZENE | 16.59 | 112.0 | 146346 | 55.18 | NG/ML | 93 |
| 39) | C240 ETHYLBENZENE | 16.94 | 106.0 | 68268 | 54.39 | NG/ML | 41 |
| 40) | C245 STYRENE | 18.29 | 104.0 | 170025 | 55.92 | NG/ML | 88 |
| 41) | C299 o-XYLENE | 18.25 | 106.0 | 99952 | 53.91 | NG/ML | 73 |
| 42) | C250 m,p-XYLENE (TOTAL) | 17.25 | 106.0 | 173074 | 110.27 | NG/ML | 76 |
| 43) | C265 1,3-DICHLOROBENZENE | 21.70 | 146.0 | 137115 | 53.18 | NG/ML | 99 |

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 44) | C270 1,4-DICHLOROBENZENE | 21.88 | 146.0 | 142946 | 55.59 | NG/ML | 9 |
| 45) | C260 1,2-DICHLOROBENZENE | 22.56 | 146.0 | 154692 | 55.28 | NG/ML | 9 |
| 46) | CS05 TOLUENE-D8 | 12.94 | 98.0 | 159962 | 49.77 | NG/ML | 9 |
| 47) | CS10 BROMOFLUOROBENZENE | 19.44 | 95.0 | 97523 | 50.38 | NG/ML | 9 |

* Compound is ISTD

VSTD 50
elnstic
CJ 994
08/09/91
11:16

8A

# VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Lab File ID (Standard): E6422 Date Analyzed: 08/08/91

Instrument ID: E Time Analyzed: 0859

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

| | | IS1(BCM) AREA # | RT | IS2(DFB) AREA # | RT | IS3(CBZ) AREA # | RT |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 27400 | 6.25 | 252000 | 7.78 | 204000 | 12.04 |
| | UPPER LIMIT | 54800 | | 504000 | | 408000 | |
| | LOWER LIMIT | 13700 | | 126000 | | 102000 | |
| | EPA SAMPLE NO. | | | | | | |
| 01 | 6568G-016 | 23900 | 6.22 | 174000 | 7.73 | 160000 | 12.02 |
| 02 | VBLK1 | 28200 | 6.20 | 234000 | 7.73 | 205000 | 12.02 |

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

# Column used to flag internal standard area values with an asterisk

8A

# VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Lab File ID (Standard): K6317 Date Analyzed: 08/08/91

Instrument ID: K Time Analyzed: 1103

Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) CAP

| | | IS1(BCM) AREA # | RT | IS2(DFB) AREA # | RT | IS3(CBZ) AREA # | RT |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 18200 | 5.67 | 71600 | 6.98 | 59000 | 11.35 |
| | UPPER LIMIT | 36400 | | 143200 | | 118000 | |
| | LOWER LIMIT | 9100 | | 35800 | | 29500 | |
| | EPA SAMPLE NO. | | | | | | |
| 01 | 6568G-010 | 13200 | 5.73 | 49900 | 7.05 | 40700 | 11.42 |
| 02 | VBLK2 | 18600 | 5.67 | 69100 | 6.98 | 54100 | 11.35 |

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

# Column used to flag internal standard area values with an asterisk

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Lab File ID (Standard): CJ994 Date Analyzed: 08/09/91

Instrument ID: C Time Analyzed: 1116

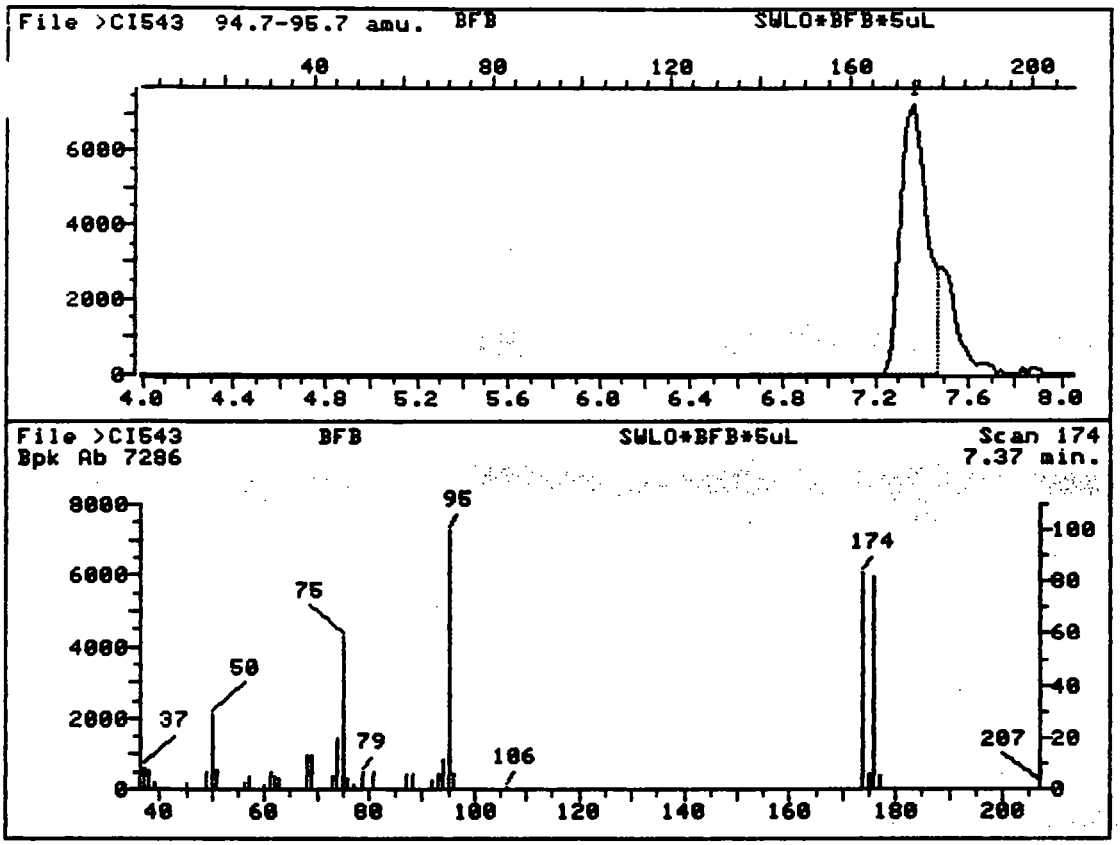
Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

| | | IS1(BCM) AREA # | RT | IS2(DFB) AREA # | RT | IS3(CBZ) AREA # | RT |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 36100 | 7.60 | 163000 | 9.64 | 131000 | 16.52 |
| | UPPER LIMIT | 72200 | | 326000 | | 262000 | |
| | LOWER LIMIT | 18050 | | 81500 | | 65500 | |
| | EPA SAMPLE NO. | | | | | | |
| 01 | 6568G-012 | 28700 | 7.72 | 138000 | 9.80 | 113000 | 16.72 |
| 02 | 6568G-013 | 30900 | 7.63 | 139000 | 9.72 | 114000 | 16.59 |
| 03 | 6568G-014 | 30500 | 7.73 | 143000 | 9.79 | 120000 | 16.69 |
| 04 | 6568G-015 | 32900 | 7.73 | 153000 | 9.80 | 128000 | 16.72 |
| 05 | 6568G-012MS | 28100 | 7.90 | 135000 | 9.97 | 108000 | 16.89 |
| 06 | 6568G-012MSD | 30000 | 7.88 | 141000 | 9.97 | 118000 | 16.87 |
| 07 | VBLK3 | 32100 | 7.58 | 148000 | 9.67 | 126000 | 16.54 |

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

# Column used to flag internal standard area values with an asterisk




## GC/MS PERFORMANCE STANDARD

### Bromofluorobenzene (BFB)

| m/z | Ion Abundance Criteria | % Relative Abundance Base Peak | % Relative Abundance Appropriate Peak | Status |
|---|---|---|---|---|
| 50 | 15-40% of mass 95 | 28.96 | 28.96 | Ok |
| 75 | 30-60% of mass 95 | 58.56 | 58.56 | Ok |
| 95 | Base peak, 100% relative abundance | 100.00 | 100.00 | Ok |
| 96 | 5-9% of mass 95 | 6.07 | 6.07 | Ok |
| 173 | Less than 2% of mass 174 | 0.00 | 0.00 | Ok |
| 174 | Greater than 50% of mass 95 | 83.19 | 83.19 | Ok |
| 175 | 5-9% of mass 174 | 5.76 | 6.93 | Ok |
| 176 | 95-101% of mass 174 | 81.75 | 98.27 | Ok |
| 177 | 5-9% of mass 176 | 5.13 | 6.28 | Ok |

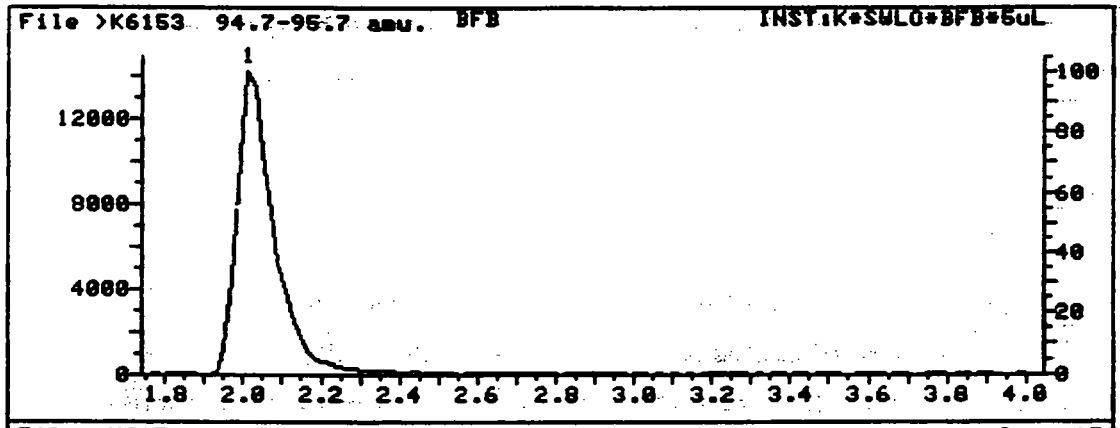
Injection Date: 05/26/91
Injection Time: 14:16
Data File: >CI543
Scan: 174

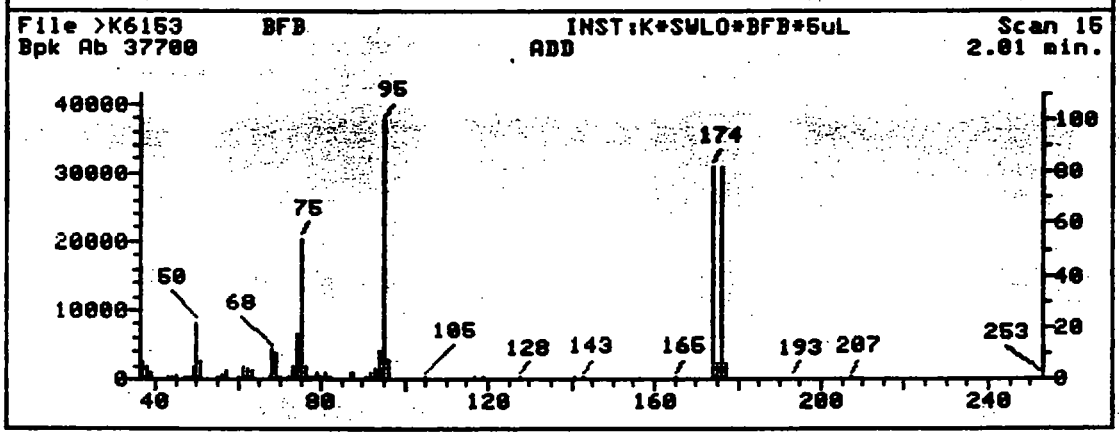
05/26/91
14:16

>CI543 BFB SWLO*BFB*5uL
174 NRM

File: >CI543 Scan #: 174 Retn. time: 7.37

| m/z | Int. | m/z | Int. | m/z | Int. | m/z | Int. | m/z | Int. |
|---|---|---|---|---|---|---|---|---|---|
| 36.00 | 1.976 | 56.10 | 2.745 | 69.10 | 12.956 | 80.95 | 6.602 | 96.15 | 6.066 |
| 37.00 | 8.496 | 57.00 | 4.666 | 73.10 | 5.133 | 87.05 | 5.559 | 106.15 | .810 |
| 38.00 | 7.631 | 60.00 | 1.345 | 74.00 | 19.984 | 88.05 | 6.176 | 173.95 | 83.187 |
| 39.10 | 2.429 | 61.00 | 6.931 | 75.10 | 58.564 | 92.05 | 3.390 | 174.95 | 5.764 |
| 45.00 | 2.320 | 62.10 | 5.202 | 76.10 | 4.543 | 93.05 | 6.012 | 175.95 | 81.746 |
| 49.00 | 6.574 | 63.00 | 3.925 | 77.00 | 1.688 | 94.05 | 11.460 | 177.05 | 5.133 |
| 50.00 | 28.960 | 68.00 | 13.601 | 78.95 | 6.602 | 95.15 | 100.000 | 206.95 | 1.455 |
| 51.00 | 7.809 | | | | | | | | |




## GC/MS PERFORMANCE STANDARD

### Bromofluorobenzene (BFB)

| m/z | Ion Abundance Criteria | % Relative Abundance Base Peak | Appropriate Peak | Status |
|---|---|---|---|---|
| 50 | 15-40% of mass 95 | 21.61 | 21.61 | Ok |
| 75 | 30-60% of mass 95 | 54.08 | 54.08 | Ok |
| 95 | Base peak, 100% relative abundance | 100.00 | 100.00 | Ok |
| 96 | 5-9% of mass 95 | 7.21 | 7.21 | Ok |
| 173 | Less than 2% of mass 174 | 0.00 | 0.00 | Ok |
| 174 | Greater than 50% of mass 95 | 82.18 | 82.18 | Ok |
| 175 | 5-9% of mass 174 | 6.23 | 7.58 | Ok |
| 176 | 95-101% of mass 174 | 82.11 | 99.91 | Ok |
| 177 | 5-9% of mass 176 | 5.83 | 7.10 | Ok |

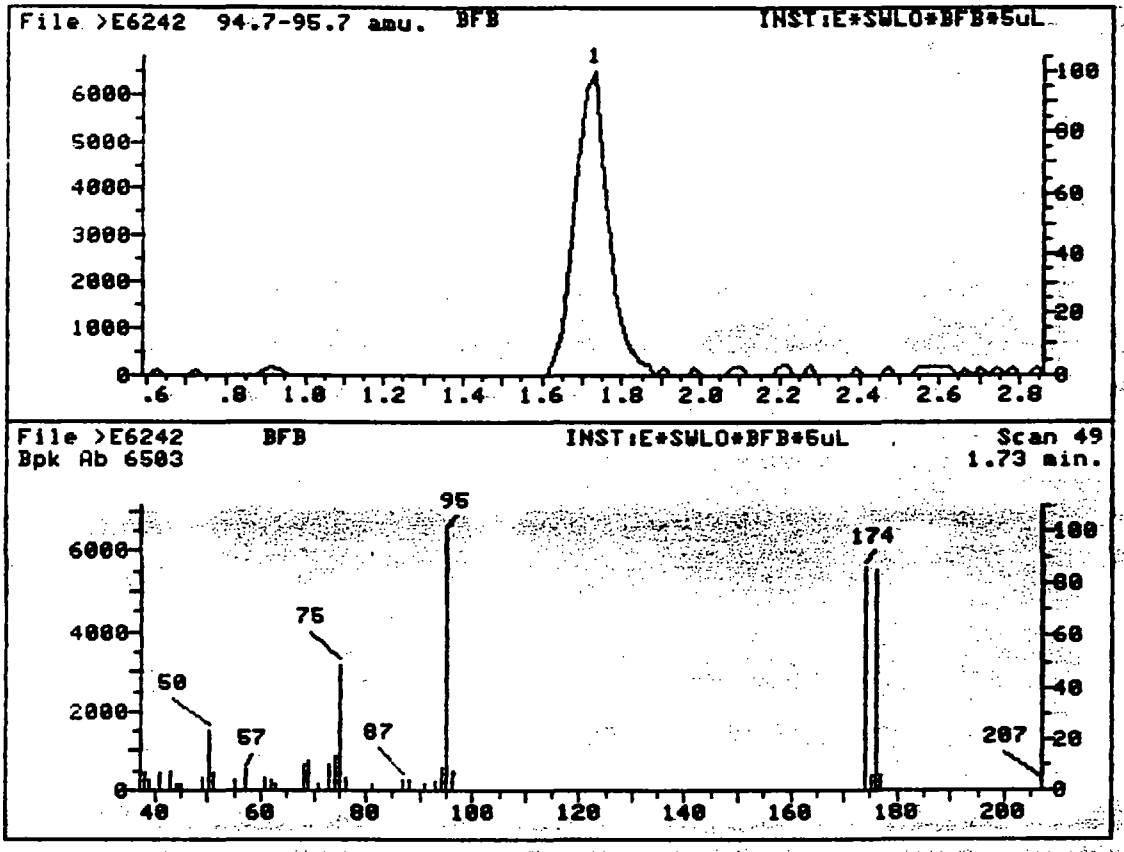
Injection Date: 07/25/91
Injection Time: 10:01
Data File: >K6153
Scan: 15

>K6153 BFB INST:K*SWLO*BFB*5uL
15 ADD NRM

07/25/91
10:01

File: >K6153 Scan #: 15 Retn. time: 2.01

| m/z | Int. | m/z | Int. | m/z | Int. | m/z | Int. | m/z | Int. |
|---|---|---|---|---|---|---|---|---|---|
| 36.00 | 1.011 | 61.00 | 5.011 | 84.05 | .064 | 115.95 | .361 | 151.10 | .114 |
| 37.00 | 6.401 | 62.00 | 4.631 | 85.05 | .146 | 116.95 | .549 | 152.00 | .093 |
| 38.00 | 4.989 | 63.10 | 3.363 | 85.95 | .050 | 117.95 | .416 | 155.10 | .183 |
| 39.00 | 2.223 | 65.00 | .058 | 87.05 | 2.592 | 119.05 | .536 | 157.00 | .180 |
| 41.10 | .430 | 67.20 | .867 | 87.95 | 2.692 | 121.05 | .093 | 161.00 | .082 |
| 43.00 | .740 | 68.00 | 11.525 | 88.75 | .095 | 122.90 | .056 | 165.10 | .549 |
| 44.10 | 1.313 | 69.10 | 10.411 | 91.05 | 1.029 | 125.10 | .077 | 166.20 | .204 |
| 45.00 | 1.499 | 70.00 | 1.058 | 92.05 | 2.751 | 127.90 | .509 | 167.10 | .318 |
| 47.10 | .698 | 71.20 | .101 | 93.05 | 3.830 | 128.90 | .188 | 170.85 | .069 |
| 48.00 | .775 | 72.00 | .692 | 94.05 | 10.873 | 129.90 | .279 | 171.95 | .095 |
| 49.00 | 5.204 | 72.95 | 5.141 | 95.05 | 100.000 | 130.90 | .109 | 172.35 | .125 |
| 50.00 | 21.610 | 74.05 | 17.080 | 96.05 | 7.210 | 135.00 | .149 | 173.95 | 82.183 |
| 51.00 | 6.740 | 75.05 | 54.077 | 97.15 | .143 | 136.00 | .204 | 174.95 | 6.233 |
| 52.00 | .257 | 76.05 | 4.857 | 102.85 | .058 | 136.90 | .231 | 175.95 | 82.106 |
| 53.50 | .066 | 77.05 | .666 | 103.95 | .316 | 137.10 | .074 | 176.95 | 5.828 |
| 55.10 | 1.069 | 77.95 | .586 | 105.05 | .618 | 140.90 | .695 | 177.95 | .215 |
| 56.00 | 1.833 | 78.95 | 2.820 | 105.95 | .284 | 143.00 | .719 | 182.15 | .416 |
| 57.00 | 3.154 | 79.85 | .655 | 106.95 | .077 | 145.90 | .064 | 190.95 | .098 |
| 58.10 | .130 | 80.95 | 2.706 | 109.15 | .098 | 146.90 | .093 | 193.05 | .191 |
| 59.00 | .408 | 81.95 | .698 | 110.75 | .064 | 147.90 | .215 | 207.05 | .796 |
| 60.00 | .992 | 82.85 | .172 | 112.95 | .056 | 148.90 | .170 | 253.10 | .103 |




## GC/MS PERFORMANCE STANDARD

### Bromofluorobenzene (BFB)

| m/z | Ion Abundance Criteria | % Relative Abundance Base Peak | Appropriate Peak | Status |
|---|---|---|---|---|
| 50 | 15-40% of mass 95 | 23.62 | 23.62 | Ok |
| 75 | 30-60% of mass 95 | 48.95 | 48.95 | Ok |
| 95 | Base peak, 100% relative abundance | 100.00 | 100.00 | Ok |
| 96 | 5-9% of mass 95 | 7.15 | 7.15 | Ok |
| 173 | Less than 2% of mass 174 | 0.00 | 0.00 | Ok |
| 174 | Greater than 50% of mass 95 | 86.33 | 86.33 | Ok |
| 175 | 5-9% of mass 174 | 6.01 | 6.96 | Ok |
| 176 | 95-101% of mass 174 | 84.95 | 98.40 | Ok |
| 177 | 5-9% of mass 176 | 5.67 | 6.68 | Ok |

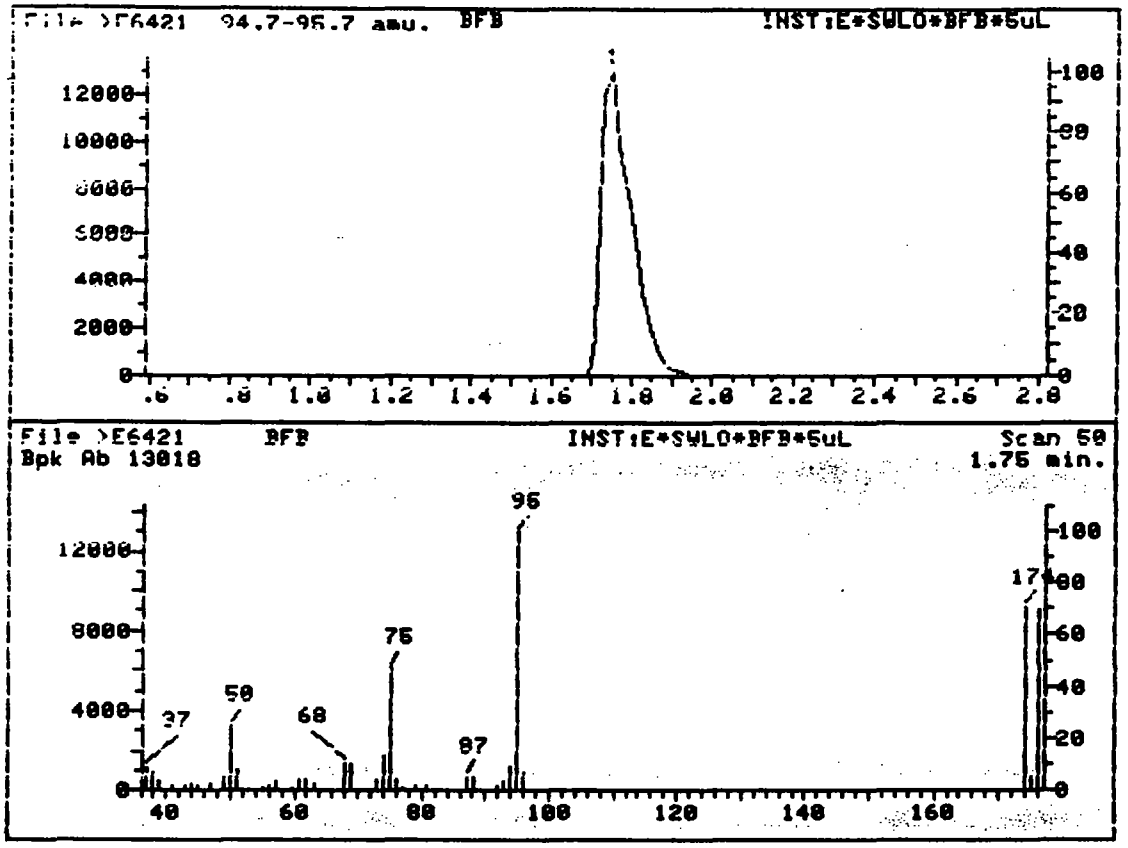
Injection Date: 07/29/91
Injection Time: 08:42
Data File: >E6242
Scan: 49

07/29/9
08:42

>E6242 BFB INST:E*SWLO*BFB*5uL
49 NRM

File: >E6242 Scan #: 49 Retn. time: 1.73

| m/z | Int. | m/z | Int. | m/z | Int. | m/z | Int. | m/z | Int. |
|---|---|---|---|---|---|---|---|---|---|
| 37.00 | 7.720 | 49.05 | 5.028 | 63.05 | 2.906 | 76.10 | 4.675 | 95.05 | 100.000 |
| 38.00 | 6.981 | 50.05 | 23.620 | 68.05 | 10.303 | 81.00 | 2.952 | 96.05 | 7.151 |
| 39.00 | 4.398 | 51.05 | 6.843 | 69.10 | 11.656 | 87.00 | 4.306 | 174.05 | 86.329 |
| 41.00 | 6.336 | 55.05 | 4.613 | 71.10 | 2.614 | 88.05 | 4.244 | 175.05 | 6.013 |
| 43.00 | 7.335 | 57.05 | 8.150 | 73.10 | 9.626 | 91.05 | 2.753 | 176.05 | 84.945 |
| 44.00 | 2.952 | 60.95 | 4.890 | 74.10 | 13.425 | 93.05 | 3.614 | 177.05 | 5.674 |
| 45.00 | 2.691 | 62.05 | 4.290 | 75.10 | 48.947 | 94.05 | 9.396 | 207.05 | 2.783 |




## GC/MS PERFORMANCE STANDARD

### Bromofluorobenzene (BFB)

| m/z | Ion Abundance Criteria | % Relative Abundance Base Peak | % Relative Abundance Appropriate Peak | Status |
|---|---|---|---|---|
| 50 | 15-40% of mass 95 | 24.61 | 24.61 | Ok |
| 75 | 30-60% of mass 95 | 46.93 | 46.93 | Ok |
| 95 | Base peak, 100% relative abundance | 100.00 | 100.00 | Ok |
| 96 | 5-9% of mass 95 | 6.78 | 6.78 | Ok |
| 173 | Less than 2% of mass 174 | 0.00 | 0.00 | Ok |
| 174 | Greater than 50% of mass 95 | 70.60 | 70.60 | Ok |
| 175 | 5-9% of mass 174 | 5.16 | 7.31 | Ok |
| 176 | 95-101% of mass 174 | 69.07 | 97.83 | Ok |
| 177 | 5-9% of mass 176 | 4.54 | 6.57 | Ok |

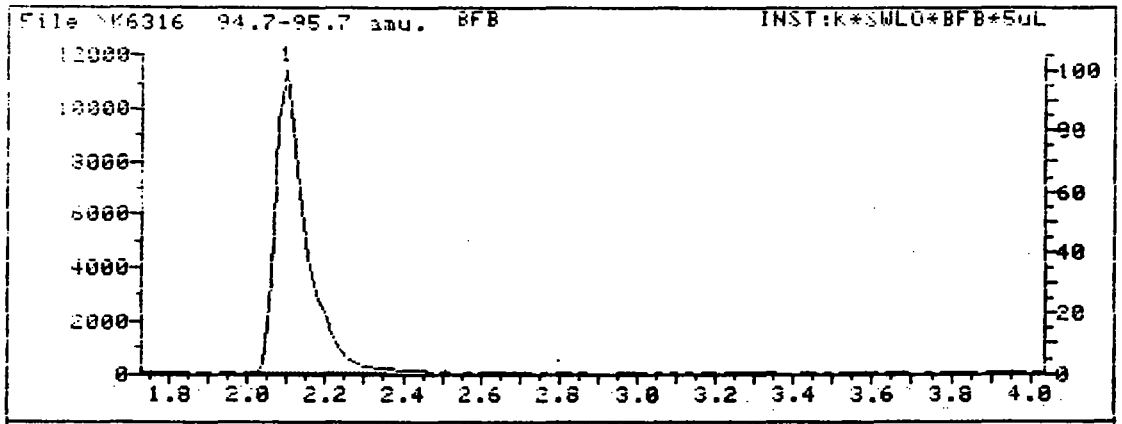
Injection Date: 08/08/91
Injection Time: 08:37
Data File: >E6421
Scan: 50

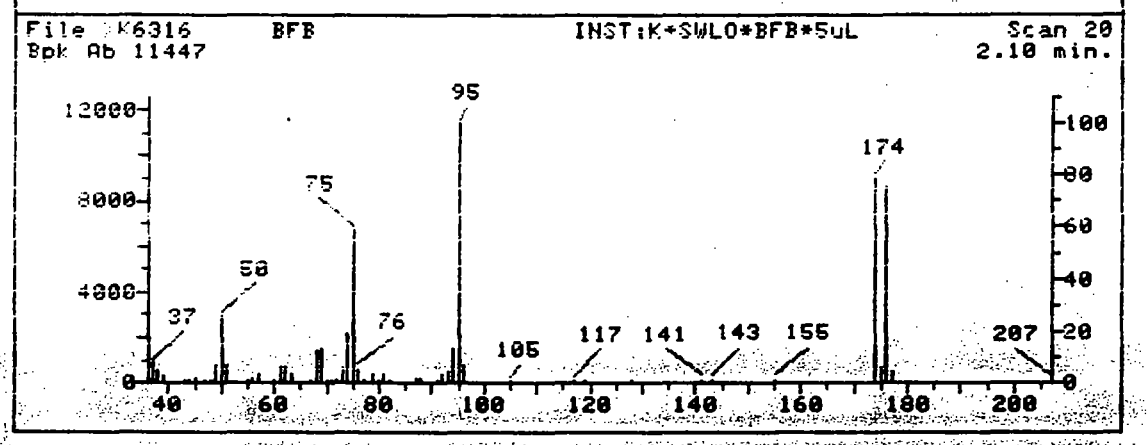
8/8/91 08:37

>E6421 BFB INST:E*SWLO*BFB*5uL
50 NRM

File: >E6421 Scan #: 50 Retn. time: 1.75

| m/z | Int. | m/z | Int. | m/z | Int. | m/z | Int. | m/z | Int. |
|---|---|---|---|---|---|---|---|---|---|
| 36.00 | 1.644 | 47.00 | 2.543 | 60.95 | 4.448 | 76.00 | 3.918 | 94.05 | 9.118 |
| 37.00 | 8.473 | 49.05 | 5.162 | 61.95 | 4.163 | 77.00 | .906 | 95.05 | 100.000 |
| 38.00 | 6.729 | 50.05 | 24.612 | 63.05 | 2.911 | 79.00 | 1.890 | 96.05 | 6.775 |
| 39.00 | 3.257 | 51.05 | 7.144 | 67.95 | 10.332 | 80.90 | 2.036 | 174.05 | 70.602 |
| 41.00 | 1.567 | 54.95 | 1.237 | 69.00 | 9.717 | 87.00 | 5.446 | 175.05 | 5.162 |
| 43.00 | 1.436 | 55.95 | 1.567 | 73.00 | 4.571 | 88.05 | 5.024 | 175.95 | 69.074 |
| 44.00 | 2.343 | 57.05 | 3.626 | 74.00 | 13.458 | 92.05 | 2.120 | 177.05 | 4.540 |
| 45.00 | 1.890 | 59.95 | 1.045 | 75.00 | 46.927 | 93.05 | 3.303 | | |




## GC/MS PERFORMANCE STANDARD

### Bromofluorobenzene (BFB)

| m/z | Ion Abundance Criteria | % Relative Abundance Base Peak | % Relative Abundance Appropriate Peak | Status |
|---|---|---|---|---|
| 50 | 15-40% of mass 95 | 25.69 | 25.69 | Ok |
| 75 | 30-60% of mass 95 | 58.57 | 58.57 | Ok |
| 95 | Base peak, 100% relative abundance | 100.00 | 100.00 | Ok |
| 96 | 5-9% of mass 95 | 6.41 | 6.41 | Ok |
| 173 | Less than 2% of mass 174 | 0.00 | 0.00 | Ok |
| 174 | Greater than 50% of mass 95 | 78.60 | 78.60 | Ok |
| 175 | 5-9% of mass 174 | 5.65 | 7.19 | Ok |
| 176 | 95-101% of mass 174 | 75.16 | 95.62 | Ok |
| 177 | 5-9% of mass 176 | 4.46 | 5.94 | Ok |

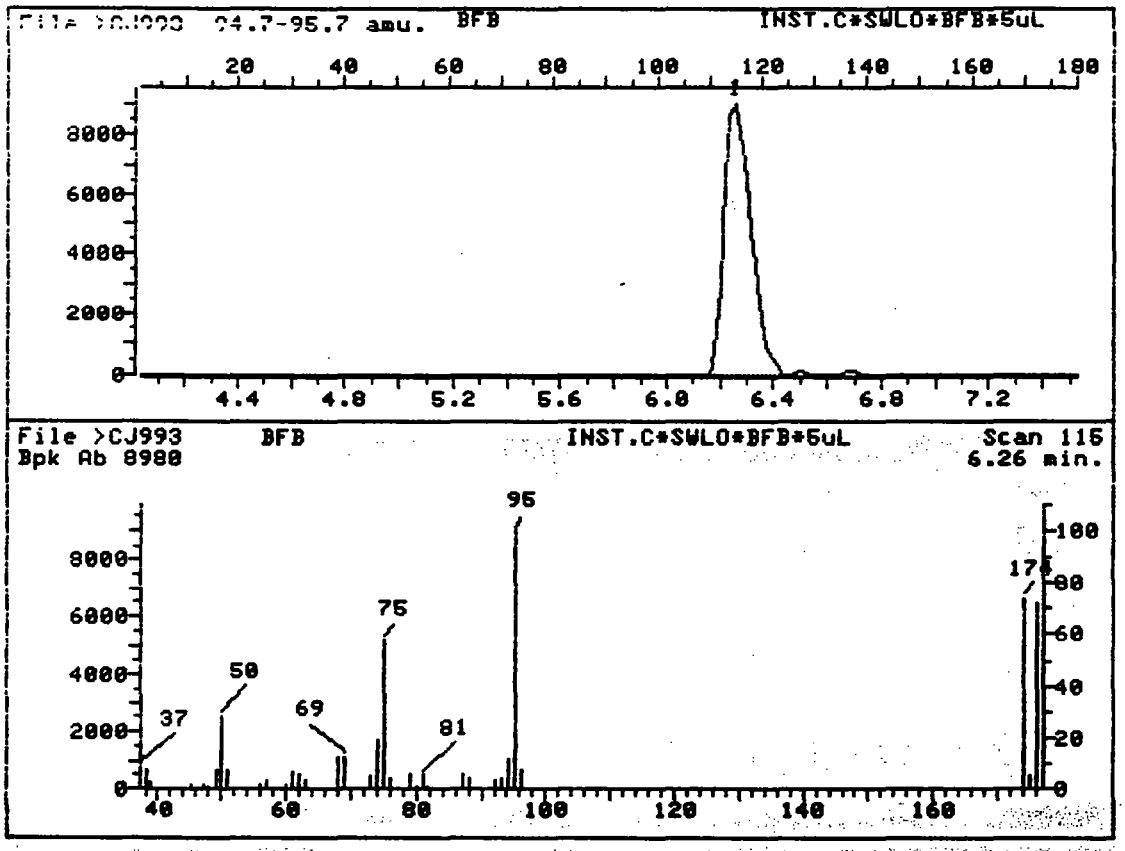
Injection Date: 08/08/91
Injection Time: 09:53
Data File: >K6316
Scan: 20

K6316 BFB INST:K*SWLO*BFB*5uL
20 NRM

8/8/91 09:53

File: K6316 Scan #: 20 Retn. time: 2.10

| m/z | Int. | m/z | Int. | m/z | Int. | m/z | Int. | m/z | Int. |
|---|---|---|---|---|---|---|---|---|---|
| 36.00 | 1.284 | 57.10 | 3.774 | 77.05 | .708 | 103.95 | .437 | 148.80 | .175 |
| 37.00 | 7.469 | 60.10 | 1.249 | 78.15 | .437 | 105.05 | .568 | 152.00 | .236 |
| 38.00 | 5.364 | 61.00 | 5.801 | 78.85 | 3.293 | 105.95 | .411 | 153.00 | .367 |
| 39.10 | 2.193 | 62.00 | 6.194 | 80.05 | 1.040 | 111.15 | .236 | 155.00 | 1.040 |
| 43.00 | 1.057 | 63.10 | 3.503 | 80.95 | 3.564 | 116.95 | .664 | 155.90 | .288 |
| 44.00 | 1.179 | 67.10 | .777 | 81.95 | .777 | 117.95 | .480 | 157.00 | .393 |
| 45.00 | 1.389 | 68.00 | 12.344 | 83.05 | .393 | 118.95 | .629 | 166.10 | .210 |
| 47.00 | .882 | 69.10 | 13.602 | 87.05 | 2.105 | 128.00 | .646 | 170.05 | .498 |
| 48.00 | .926 | 70.10 | .891 | 87.95 | 1.948 | 129.00 | .297 | 170.95 | .166 |
| 49.00 | 6.377 | 71.10 | .594 | 91.05 | 1.153 | 129.90 | .280 | 173.95 | 78.597 |
| 50.00 | 25.692 | 72.00 | .699 | 91.95 | 3.180 | 131.00 | .314 | 174.95 | 5.652 |
| 51.10 | 6.971 | 73.05 | 6.264 | 93.05 | 4.429 | 132.90 | .175 | 175.95 | 75.155 |
| 52.00 | .498 | 73.95 | 19.306 | 94.05 | 13.148 | 141.00 | .926 | 176.95 | 4.464 |
| 55.00 | 1.013 | 75.05 | 58.566 | 95.05 | 100.000 | 143.00 | .996 | 207.05 | .638 |
| 56.00 | 2.097 | 76.05 | 5.364 | 96.05 | 6.412 | 147.90 | .236 | | |




## GC/MS PERFORMANCE STANDARD

### Bromofluorobenzene (BFB)

| m/z | Ion Abundance Criteria | % Relative Abundance Base Peak | % Relative Abundance Appropriate Peak | Status |
|---|---|---|---|---|
| 50 | 15-40% of mass 95 | 27.97 | 27.97 | Ok |
| 75 | 30-60% of mass 95 | 57.68 | 57.68 | Ok |
| 95 | Base peak, 100% relative abundance | 100.00 | 100.00 | Ok |
| 96 | 5-9% of mass 95 | 7.24 | 7.24 | Ok |
| 173 | Less than 2% of mass 174 | 0.00 | 0.00 | Ok |
| 174 | Greater than 50% of mass 95 | 73.88 | 73.88 | Ok |
| 175 | 5-9% of mass 174 | 5.16 | 6.98 | Ok |
| 176 | 95-101% of mass 174 | 71.67 | 97.02 | Ok |
| 177 | 5-9% of mass 176 | 4.68 | 6.53 | Ok |

Injection Date: 08/09/91
Injection Time: 10:58
Data File: >CJ993
Scan: 115

08/09/91
10:38

..J993 BFB INST.C*SWLO*BFB*5uL
115 NRM

ile: >CJ993 Scan #: 115 Retn. time: 6.26

| m/z | Int. | m/z | Int. | m/z | Int. | m/z | Int. | m/z | Int. |
|---|---|---|---|---|---|---|---|---|---|
| 37.00 | 8.820 | 51.00 | 7.918 | 68.10 | 12.829 | 79.95 | 1.247 | 94.15 | 11.860 |
| 38.10 | 7.739 | 56.00 | 1.737 | 69.00 | 12.895 | 80.95 | 5.869 | 95.15 | 100.000 |
| 39.00 | 2.829 | 57.10 | 3.775 | 73.10 | 5.078 | 81.85 | 1.225 | 96.15 | 7.238 |
| 45.10 | 2.149 | 60.00 | 1.359 | 74.10 | 19.009 | 87.05 | 5.490 | 174.05 | 73.875 |
| 47.10 | 1.648 | 61.00 | 6.347 | 75.10 | 57.684 | 88.05 | 3.864 | 175.05 | 5.156 |
| 48.00 | .813 | 62.00 | 6.169 | 76.00 | 4.365 | 92.05 | 3.073 | 176.05 | 71.670 |
| 49.10 | 7.517 | 63.00 | 3.708 | 78.95 | 5.690 | 93.15 | 4.165 | 177.05 | 4.677 |
| 50.00 | 27.973 | | | | | | | | |

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: VBLK1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E6423

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 08/08/91

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 5 | U |
| 67-64-1 | Acetone | 10 | U |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 0.8 | J |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK1

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: VBLK1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E6423

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 08/08/91

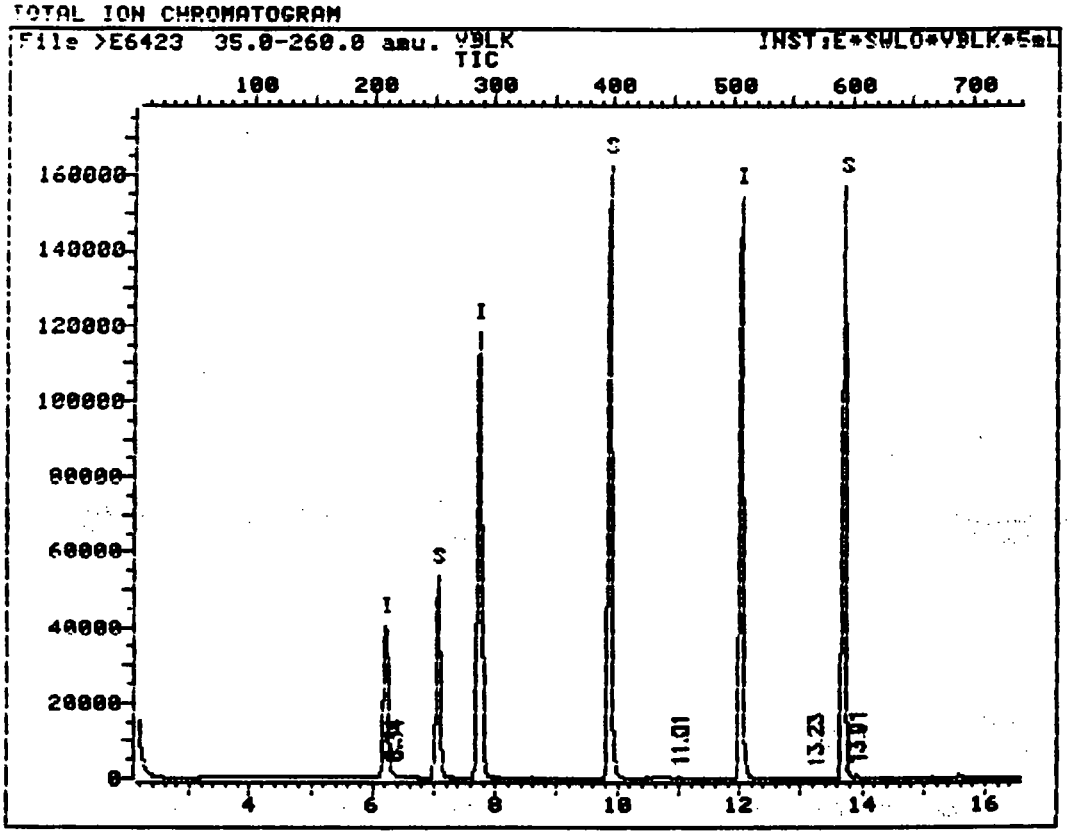
Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |

TOTAL ION CHROMATOGRAM




Data File: >E6423::D5 Quant Output File: ^E6423::D7
Name: VBLK
Misc: INST:E*SWLO*VBLK*5mL

Id File: IDVOE1::PS
Title: VOA (EPA CLP) 5ML AMBIENT PURGE (WATER) INST: E
Last Calibration: 910808 09:25

Operator ID: SAM
Quant Time: 910808 09:52
Injected at: 910808 09:34

QUANT REPORT

Operator ID: SAM
Output File: ^E6423::D7
Data File: >E6423::D5
Name: VBLK
Misc: INST:E*SWLO*VBLK*5mL

Quant Rev: 6
Quant Time: 910808 09:52
Injected at: 910808 09:34
Dilution Factor: 1.00000

ID File: IDVOE1::PS
Title: VOA (EPA CLP) 5ML AMBIENT PURGE (WATER) INST: E
Last Calibration: 910808 09:25

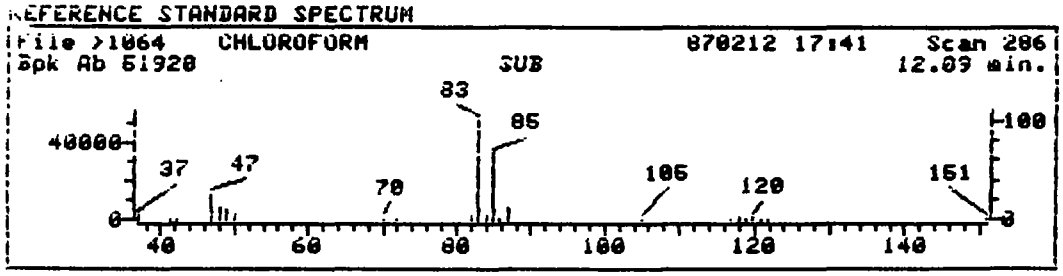
| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *CI01 BROMOCHLOROMETHANE | 6.20 | 128.0 | 28218 | 50.00 | ng/mL | 9 |
| 14) | C060 CHLOROFORM | 6.34 | 83.0 | 1432 | .77 | ng/mL | 9 |
| 17) | CS15 1,2-DICHLOROETHANE-D4 | 7.06 | 65.0 | 89168 | 48.01 | ng/mL | 9 |
| 18) | *CI10 1,4-DIFLUOROBENZENE | 7.74 | 114.0 | 233758 | 50.00 | ng/mL | 9 |
| ~~31)~~ | ~~C180 BROMOFORM~~ | ~~13.23~~ | ~~173.0~~ | ~~471~~ | ~~.39~~ | ~~ng/mL~~ | ~~10~~ |
| 32) | *CI20 CHLOROBENZENE-D5 | 12.02 | 117.0 | 205256 | 50.00 | ng/mL | 9 |
| ~~34)~~ | ~~C210 2-HEXANONE~~ | ~~11.01~~ | ~~43.0~~ | ~~1170~~ | ~~1.59~~ | ~~ng/mL~~ | ~~8~~ |
| ~~36)~~ | ~~C225 1,1,2,2-TETRACHLOROETHANE~~ | ~~13.91~~ | ~~83.0~~ | ~~2641~~ | ~~1.39~~ | ~~ng/mL~~ | ~~9~~ |
| 46) | CS05 TOLUENE-D8 | 9.86 | 98.0 | 253053 | 47.62 | ng/mL | 9 |
| 47) | CS10 BROMOFLUOROBENZENE | 13.70 | 95.0 | 123728 | 49.28 | ng/mL | 8 |

FP

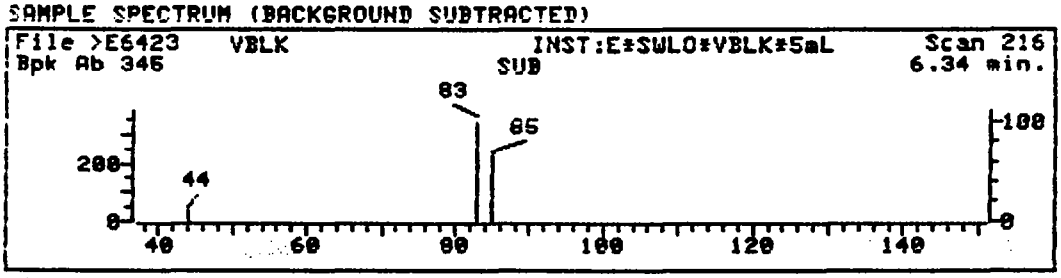
* Compound is ISTD

FP = FALSE POSITIVE

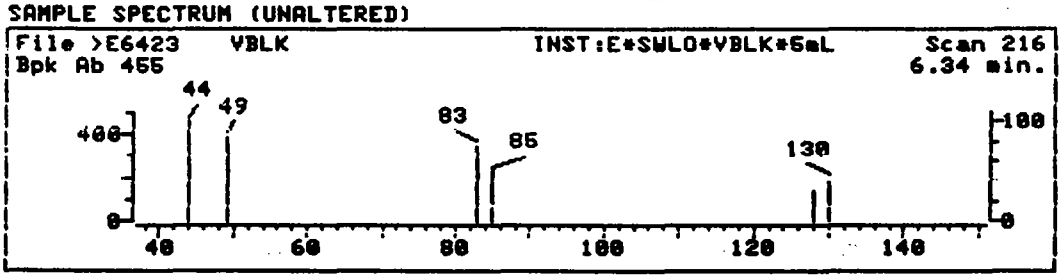
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)




SAMPLE SPECTRUM (UNALTERED)




Data File: >E6423::D5
Name: VBLK
Misc: INST:E*SWLO*VBLK*5mL
Quant Time: 910808 09:52
Injected at: 910808 09:34

Quant Output File: ^E6423::D7
Quant ID File: IDVOE1::PS
Last Calibration: 910808 09:25

Compound No: 14
Compound Name: C060 CHLOROFORM
Scan Number: 216
Retention Time: 6.34 min.
Quant Ion: 83.0
Area: 1432
Concentration: .77 ng/mL
q-value: 99

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK2

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) SOIL Lab Sample ID: VBLK2

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6318

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 08/08/91

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 5 | U |
| 67-64-1 | Acetone | 1 | J |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 0.9 | J |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK2

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) SOIL Lab Sample ID: VBLK2

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6318

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 08/08/91

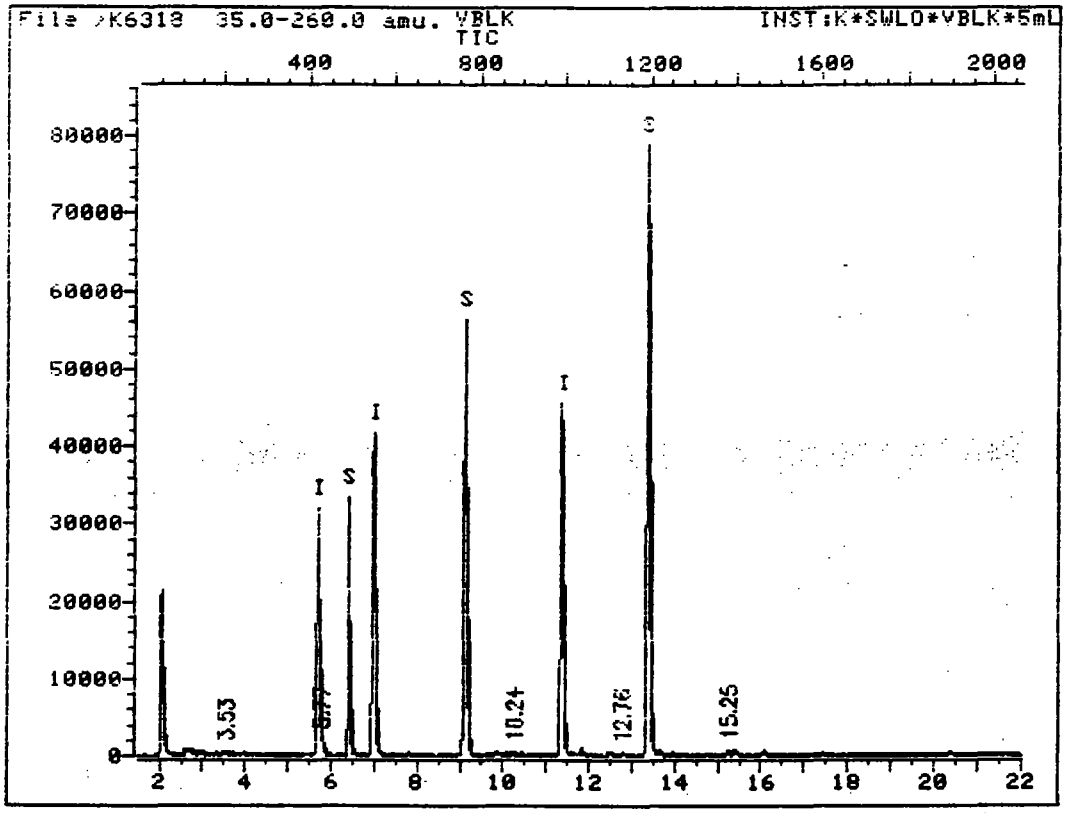
Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |

TOTAL ION CHROMATOGRAM




Data File: >K6318::L2 Quant Output File: ^K6318::D6
Name: VBLK2
Misc: INST:K*SWLO*VBLK*5mL

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910808 11:48

Operator ID: DEBBIE
Quant Time: 910808 12:13
Injected at: 910808 11:50

QUANT REPORT

Operator ID: DEBBIE  Quant Rev: 6  Quant Time: 910808 12:13
Output File: ^K6318::D6  Injected at: 910808 11:50
Data File: >K6318::L2  Dilution Factor: 1.00000
Name: VBLK 2
Misc: INST:K*SWLO*VBLK*5mL

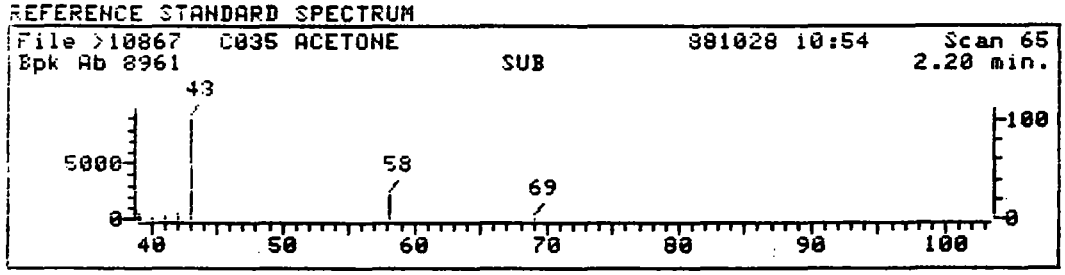
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910808 11:48

| | Compound | R.T. | Q ion | Area | Conc | Units | |
|---|---|---|---|---|---|---|---|
| 1) | *CI01 BROMOCHLOROMETHANE | 5.66 | 128.0 | 18573 | 50.00 | ng/mL | |
| 7) | C035 ACETONE | 3.53 | 43.0 | 419 | 1.28 | ng/mL | 1 |
| 14) | C060 CHLOROFORM | 5.77 | 83.0 | 1639 | .86 | ng/mL | |
| 17) | CS15 1,2-DICHLOROETHANE-D4 | 6.39 | 65.1 | 66552 | 50.09 | ng/mL | |
| 18) | *CI10 1,4-DIFLUOROBENZENE | 6.99 | 114.0 | 69105 | 50.00 | ng/mL | |
| ~~31)~~ | ~~C180 BROMOFORM~~ | ~~12.76~~ | ~~172.8~~ | ~~326~~ | ~~.25~~ | ~~ng/mL~~ | |
| 32) | *CI20 CHLOROBENZENE-D5 | 11.35 | 117.0 | 54145 | 50.00 | ng/mL | FP |
| ~~34)~~ | ~~C210 2-HEXANONE~~ | ~~10.24~~ | ~~43.0~~ | ~~858~~ | ~~1.51~~ | ~~ng/mL~~ | |
| ~~43)~~ | ~~C265 1,3-DICHLOROBENZENE~~ | ~~15.25~~ | ~~146.0~~ | ~~508~~ | ~~.28~~ | ~~ng/mL~~ | FP |
| ~~44)~~ | ~~C270 1,4-DICHLOROBENZENE~~ | ~~15.25~~ | ~~146.0~~ | ~~508~~ | ~~.29~~ | ~~ng/mL~~ | |
| 46) | CS05 TOLUENE-D8 | 9.09 | 98.0 | 91924 | 53.38 | ng/mL | |
| 47) | CS10 BROMOFLUOROBENZENE | 13.33 | 95.0 | 69803 | 51.24 | ng/mL | |

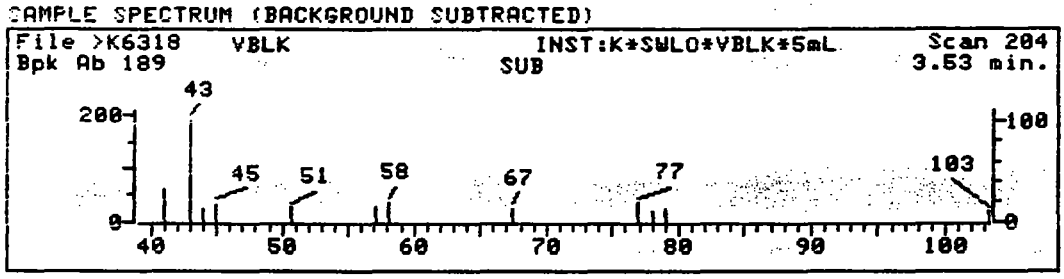
* Compound is ISTD

FP = FALSE POSITIVE

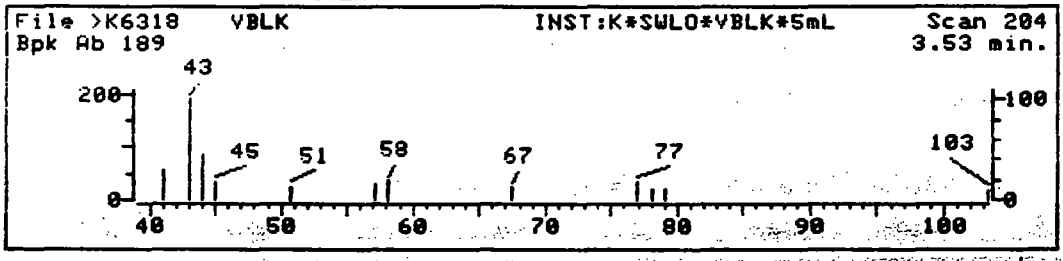
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



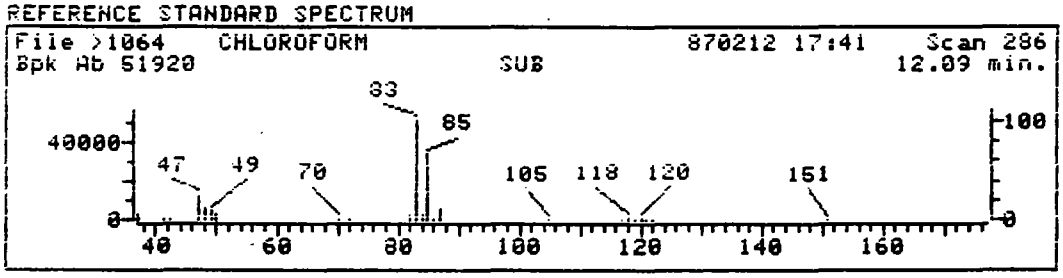

SAMPLE SPECTRUM (UNALTERED)



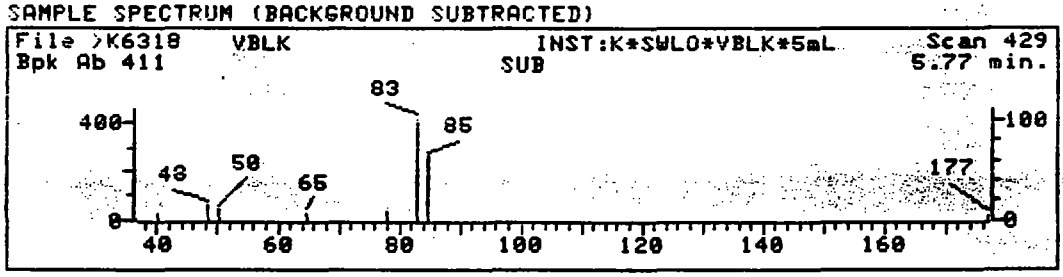

Data File: >K6318::L2 Quant Output File: ^K6318::D6
Name: VBLK2
Misc: INST:K*SWLO*VBLK*5mL
Quant Time: 910808 12:13 Quant ID File: IDV023::EX
Injected at: 910808 11:50 Last Calibration: 910808 11:48

Compound No: 7
Compound Name: C035 ACETONE
Scan Number: 204
Retention Time: 3.53 min.
Quant Ion: 43.0
Area: 419
Concentration: 1.28 ng/mL
q-value: 100

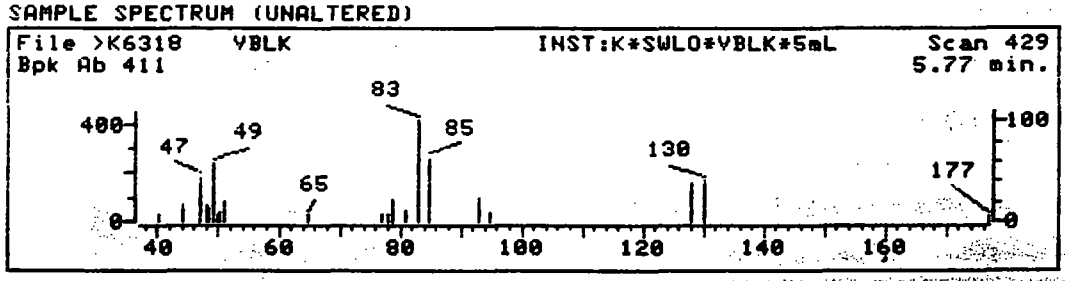
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)




SAMPLE SPECTRUM (UNALTERED)




Data File: >K6318::L2 Quant Output File: ^K6318::D6
Name: VBLK2
Misc: INST:K*SWLO*VBLK*5mL
Quant Time: 910808 12:13 Quant ID File: IDV023::EX
Injected at: 910808 11:50 Last Calibration: 910808 11:48

Compound No: 14
Compound Name: C060 CHLOROFORM
Scan Number: 429
Retention Time: 5.77 min.
Quant Ion: 83.0
Area: 1639
Concentration: .86 ng/mL
q-value: 96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK3

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: VBLK3

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CJ995

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ Date Analyzed: 08/09/91

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 2 | J |
| 67-64-1 | Acetone | 10 | U |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 0.9 | J |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK3

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: VBLK3

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CJ995

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 08/09/91

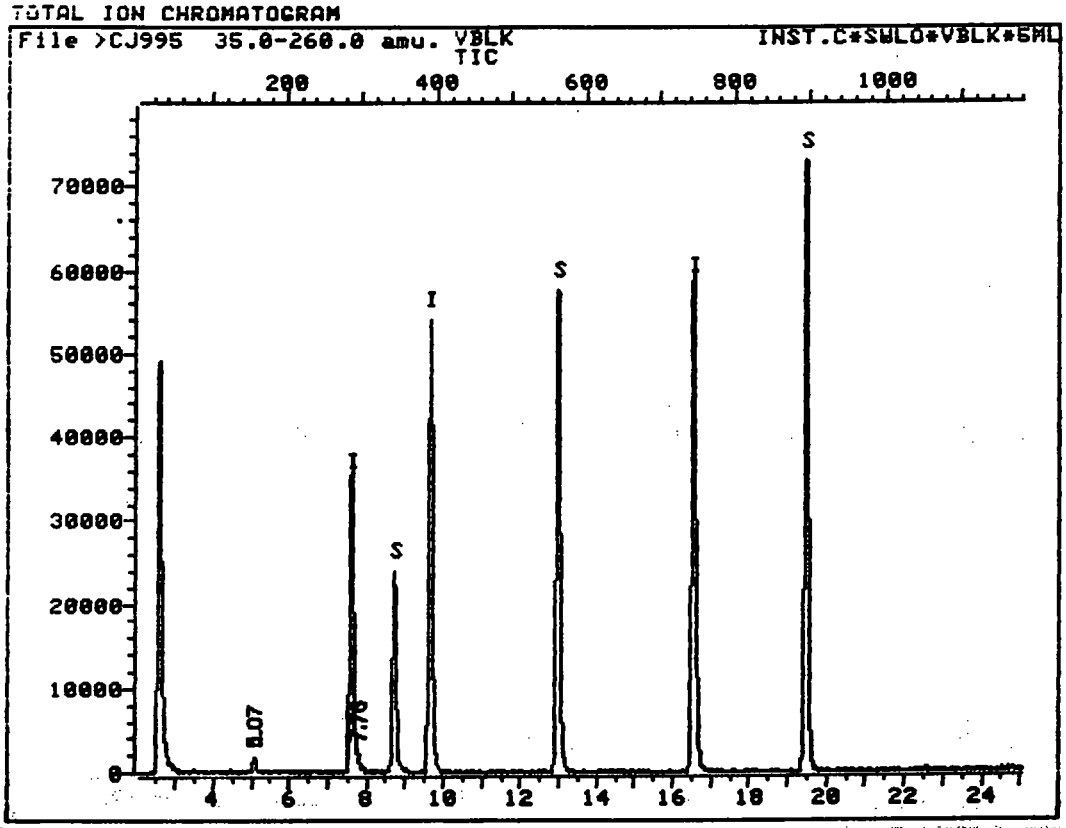
Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |

TOTAL ION CHROMATOGRAM




Data File: >CJ995::D4 Quant Output File: ^CJ995::D4
Name: VBLK3
Misc: INST.C*SWLO*VBLK*5ML

Id File: IDV012::PS
Title: VOA (EPA CLP) 5mL AMBIENT PURGE (WATERS) INST:C
Last Calibration: 910809 12:23

Operator ID: GINA
Quant Time: 910809 12:23
Injected at: 910809 11:55

QUANT REPORT

Operator ID: GINA
Output File: ^CJ995::D4
Data File: >CJ995::D4
Name: VBLK3
Misc: INST.C*SWLO*VBLK*5ML

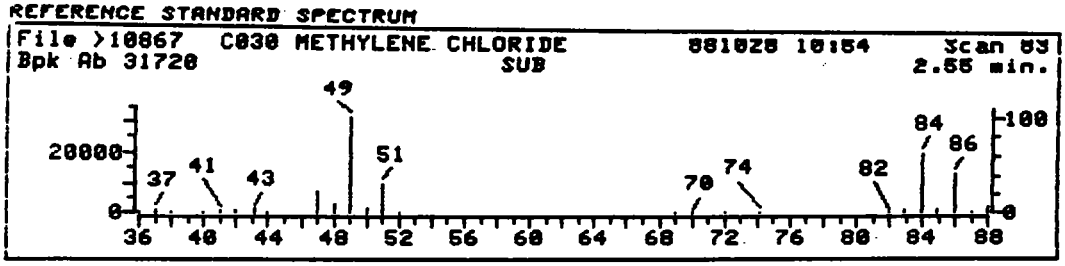
Quant Rev: 6
Quant Time: 910809 12:23
Injected at: 910809 11:55
Dilution Factor: 1.00000

ID File: IDV012::PS
Title: VOA (EPA CLP) 5mL AMBIENT PURGE (WATERS) INST:C
Last Calibration: 910809 12:23

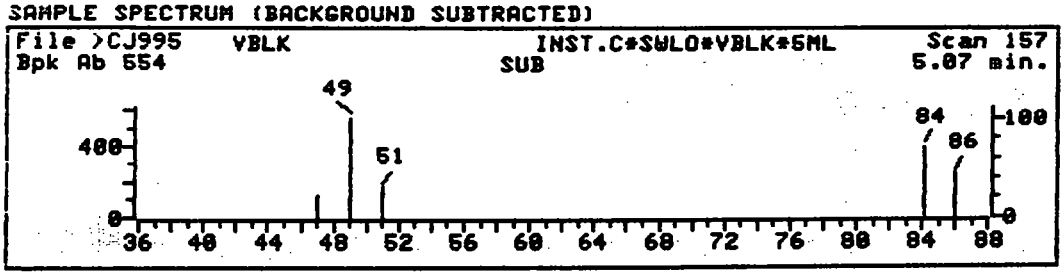
| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *CI01 BROMOCHLOROMETHANE | 7.59 | 128.0 | 32052 | 50.00 | NG/ML | 6 |
| 6) | C030 METHYLENE CHLORIDE | 5.07 | 84.0 | 1510 | 1.58 | NG/ML | 9 |
| 14) | C060 CHLOROFORM | 7.76 | 83.0 | 2044 | .86 | NG/ML | 9 |
| 17) | CS15 1,2-DICHLOROETHANE-D4 | 8.72 | 65.1 | 59890 | 47.00 | NG/ML | 9 |
| 18) | *CI10 1,4-DIFLUOROBENZENE | 9.66 | 114.0 | 148267 | 50.00 | NG/ML | 9 |
| 32) | *CI20 CHLOROBENZENE-D5 | 16.53 | 117.0 | 125514 | 50.00 | NG/ML | 9 |
| 46) | CS05 TOLUENE-D8 | 12.96 | 98.0 | 147989 | 48.40 | NG/ML | 9 |
| 47) | CS10 BROMOFLUOROBENZENE | 19.48 | 95.0 | 91613 | 49.15 | NG/ML | 9 |

* Compound is ISTD

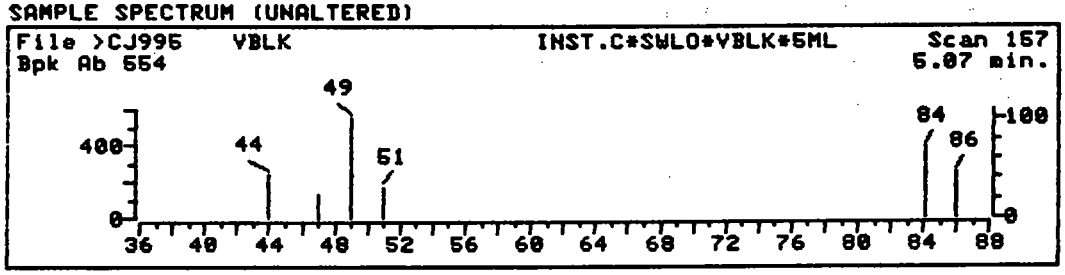
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



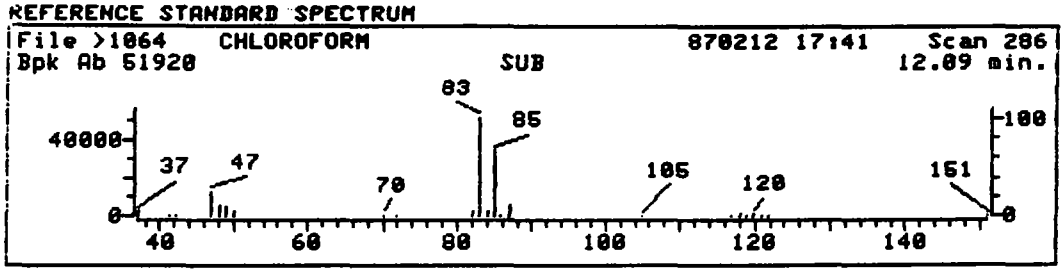

SAMPLE SPECTRUM (UNALTERED)



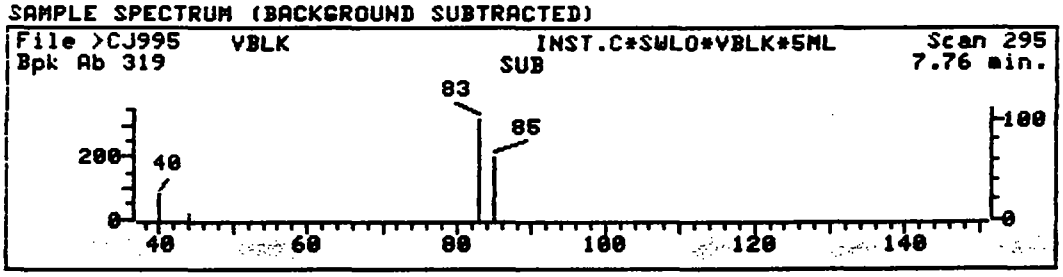

Data File: >CJ995::D4 Quant Output File: ^CJ995::D4
Name: VBLK3
Misc: INST.C*SWLO*VBLK*5ML
Quant Time: 910809 12:23 Quant ID File: IDV012::PS
Injected at: 910809 11:55 Last Calibration: 910809 12:23

Compound No: 6
Compound Name: C030 METHYLENE CHLORIDE
Scan Number: 157
Retention Time: 5.07 min.
Quant Ion: 84.0
Area: 1510
Concentration: 1.58 NG/ML
q-value: 92

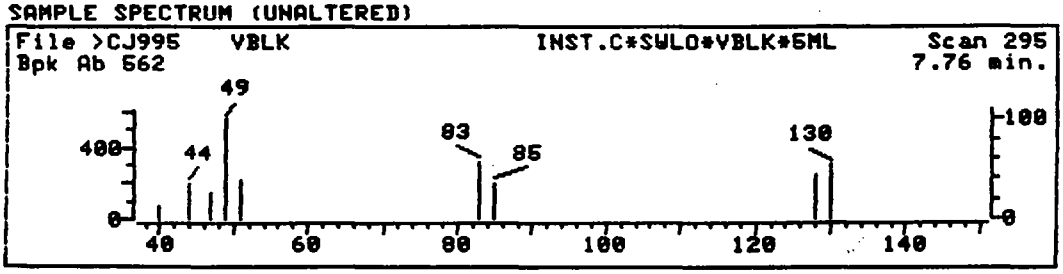
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)




SAMPLE SPECTRUM (UNALTERED)




Data File: >CJ995::D4
Name: VBLK3
Misc: INST.C*SWLO*VBLK*5ML
Quant Time: 910809 12:23
Injected at: 910809 11:55

Quant Output File: ^CJ995::D4
Quant ID File: IDV012::PS
Last Calibration: 910809 12:23

Compound No: 14
Compound Name: C060 CHLOROFORM
Scan Number: 295
Retention Time: 7.76 min.
Quant Ion: 83.0
Area: 2044
Concentration: .86 NG/ML
q-value: 96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-012MS

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 684312MS

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CK006

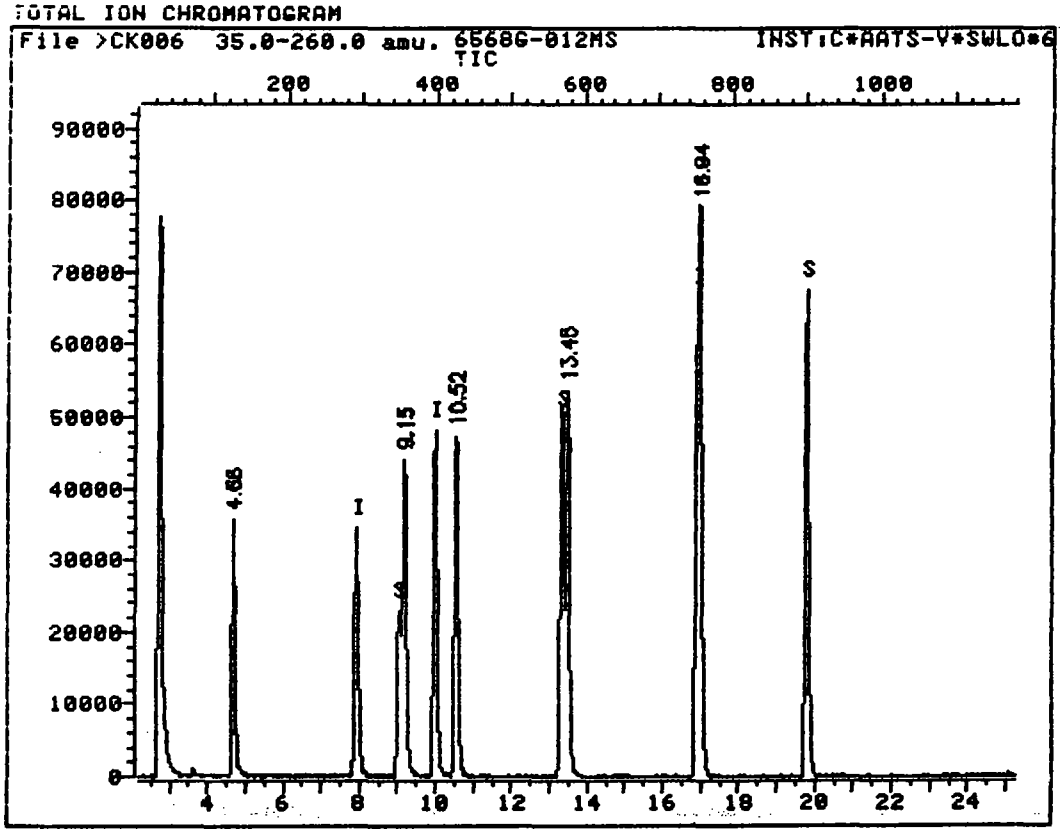
Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. _____ Date Analyzed: 08/09/91

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 5 | U |
| 67-64-1 | Acetone | 10 | U |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

TOTAL ION CHROMATOGRAM




Data File: >CK006::D5 Quant Output File: ^CK006::D4
Name: 6568G-012MS
Misc: INST:C*AATS-V*SWLO#6843.12MS*5mL

Id File: IDV012::PS
Title: VOA (EPA CLP) 5mL AMBIENT PURGE (WATERS) INST:C
Last Calibration: 910809 12:23

Operator ID: GINA
Quant Time: 910809 17:21
Injected at: 910809 16:55

QUANT REPORT

Operator ID: GINA  Quant Rev: 6  Quant Time: 910809 17:21
Output File: ^CK006::D4  Injected at: 910809 16:55
Data File: >CK006::D5  Dilution Factor: 1.00000
Name: 6568G-012MS
Misc: INST:C*AATS-V*SWLO#6843.12MS*5mL

ID File: IDV012::PS
Title: VOA (EPA CLP) 5mL AMBIENT PURGE (WATERS) INST:C
Last Calibration: 910809 12:23

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *CI01 BROMOCHLOROMETHANE | 7.90 | 128.0 | 28115 | 50.00 | NG/ML | 57 |
| 10) | C045 1,1-DICHLOROETHENE | 4.66 | 96.0 | 37539 | 46.64 | NG/ML | 88 |
| 17) | CS15 1,2-DICHLOROETHANE-D4 | 9.02 | 65.1 | 58633 | 52.46 | NG/ML | 92 |
| 18) | *CI10 1,4-DIFLUOROBENZENE | 9.97 | 114.0 | 134845 | 50.00 | NG/ML | 98 |
| 25) | C150 TRICHLOROETHENE | 10.52 | 130.0 | 56052 | 42.71 | NG/ML | 95 |
| 28) | C165 BENZENE | 9.15 | 78.0 | 121015 | 45.69 | NG/ML | 82 |
| 32) | *CI20 CHLOROBENZENE-D5 | 16.89 | 117.0 | 107736 | 50.00 | NG/ML | 99 |
| 37) | C230 TOLUENE | 13.45 | 92.0 | 78298 | 44.59 | NG/ML | 94 |
| 38) | C235 CHLOROBENZENE | 16.94 | 112.0 | 108227 | 45.07 | NG/ML | 98 |
| 46) | CS05 TOLUENE-D8 | 13.31 | 98.0 | 127613 | 48.62 | NG/ML | 96 |
| 47) | CS10 BROMOFLUOROBENZENE | 19.78 | 95.0 | 81642 | 51.02 | NG/ML | 88 |

* Compound is ISTD

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-012MSD

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 684312MSD

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CK007

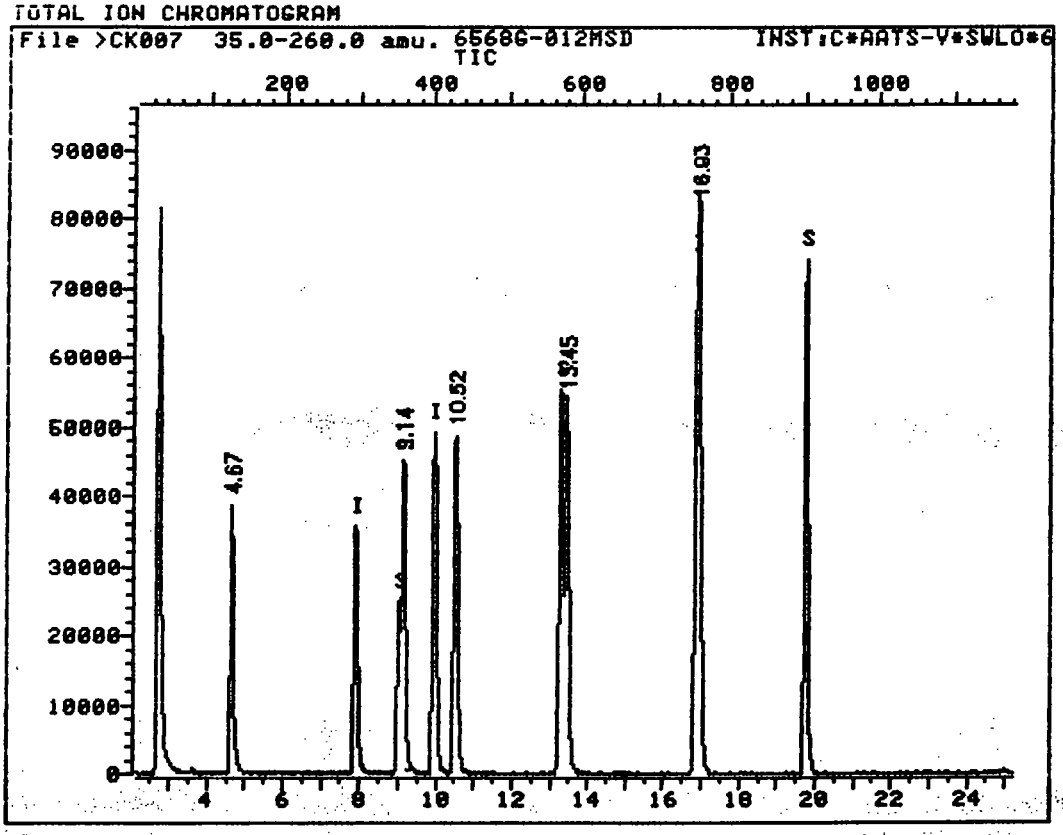
Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. ____ Date Analyzed: 08/09/91

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 5 | U |
| 67-64-1 | Acetone | 10 | U |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | Trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

TOTAL ION CHROMATOGRAM




Data File: >CK007::D5 Quant Output File: ^CK007::D4
Name: 6568G-012MSD
Misc: INST:C*AATS-V*SWLO#6843.12MSD*5mL

Id File: IDV012::PS
Title: VOA (EPA CLP) 5mL AMBIENT PURGE (WATERS) INST:C
Last Calibration: 910809 12:23

Operator ID: GINA
Quant Time: 910809 17:50
Injected at: 910809 17:24

QUANT REPORT

Operator ID: GINA
Output File: ^CK007::D4
Data File: >CK007::D5
Name: 6568G-012MSD
Misc: INST:C*AATS-V*SWLO#6843.12MSD*5mL

Quant Rev: 6
Quant Time: 910809 17:50
Injected at: 910809 17:24
Dilution Factor: 1.00000

ID File: IDV012::PS
Title: VOA (EPA CLP) 5mL AMBIENT PURGE (WATERS) INST:C
Last Calibration: 910809 12:23

| | | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|---|
| 1) | *CI01 | BROMOCHLOROMETHANE | 7.89 | 128.0 | 30007 | 50.00 | NG/ML | 61 |
| 10) | C045 | 1,1-DICHLOROETHENE | 4.67 | 96.0 | 40103 | 46.68 | NG/ML | 84 |
| 17) | CS15 | 1,2-DICHLOROETHANE-D4 | 9.02 | 65.1 | 62675 | 52.54 | NG/ML | 98 |
| 18) | *CI10 | 1,4-DIFLUOROBENZENE | 9.96 | 114.0 | 141264 | 50.00 | NG/ML | 97 |
| 25) | C150 | TRICHLOROETHENE | 10.52 | 130.0 | 59163 | 43.03 | NG/ML | 98 |
| 28) | C165 | BENZENE | 9.14 | 78.0 | 122639 | 44.20 | NG/ML | 80 |
| 32) | *CI20 | CHLOROBENZENE-D5 | 16.87 | 117.0 | 117900 | 50.00 | NG/ML | 98 |
| 37) | C230 | TOLUENE | 13.45 | 92.0 | 81176 | 42.25 | NG/ML | 99 |
| 38) | C235 | CHLOROBENZENE | 16.93 | 112.0 | 113726 | 43.28 | NG/ML | 97 |
| 46) | CS05 | TOLUENE-D8 | 13.28 | 98.0 | 139632 | 48.62 | NG/ML | 98 |
| 47) | CS10 | BROMOFLUOROBENZENE | 19.76 | 95.0 | 90168 | 51.49 | NG/ML | 88 |

* Compound is ISTD

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

| | EPA SAMPLE NO. | S1 (NBZ)# | S2 (FBP)# | S3 (TPH)# | S4 (PHL)# | S5 (2FP)# | S6 (TBP)# | OTHER | TOT OUT |
|---|---|---|---|---|---|---|---|---|---|
| 01 | 6568G-027 | 56 | 55 | 62 | 44 | 39 | 37 | 0 | 0 |
| 02 | 6568G-028 | 56 | 58 | 71 | 42 | 45 | 44 | 0 | 0 |
| 03 | 6568G-029 | 48 | 48 | 56 | 29 | 32 | 36 | 0 | 0 |
| 04 | 6568G-030 | 63 | 68 | 92 | 32 | 44 | 64 | 0 | 0 |
| 05 | 6568G-027MS | 64 | 58 | 67 | 42 | 33 | 32 | 0 | 0 |
| 06 | 6568G-027MSD | 60 | 58 | 67 | 36 | 49 | 45 | 0 | 0 |
| 07 | SBLK1 | 59 | 58 | 69 | 33 | 33 | 40 | 0 | 0 |

| | | QC LIMITS |
|---|---|---|
| S1 (NBZ) | = Nitrobenzene-d5 | ( 35-114) |
| S2 (FBP) | = 2-Fluorobiphenyl | ( 43-116) |
| S3 (TPH) | = Terphenyl | ( 33-141) |
| S4 (PHL) | = Phenol-d5 | ( 10-94 ) |
| S5 (2FP) | = 2-Fluorophenol | ( 21-100) |
| S6 (TBP) | = 2,4,6-Tribromophenol | ( 10-123) |

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

3C

# WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix Spike - EPA Sample No.: 6568G-027

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC # | QC LIMITS REC. |
|---|---|---|---|---|---|
| Phenol | 400 | 0 | 190 | 48 | 12- 89 |
| 2-Chlorophenol | 400 | 0 | 197 | 49 | 27-123 |
| 1,4-Dichlorobenzene | 200 | 0 | 126 | 63 | 36 97 |
| N-Nitroso-di-n-prop.(1) | 200 | 0 | 152 | 76 | 41 116 |
| 1,2,4-Trichlorobenzene | 200 | 0 | 117 | 58 | 39 98 |
| 4-Chloro-3-methylphenol | 400 | 0 | 228 | 57 | 23 97 |
| Acenaphthene | 200 | 0 | 134 | 67 | 46-118 |
| 4-Nitrophenol | 400 | 0 | 92.2 | 23 | 10- 80 |
| 2,4-Dinitrotoluene | 200 | 0 | 145 | 72 | 24- 96 |
| Pentachlorophenol | 400 | 0 | 111 | 28 | 9-103 |
| Pyrene | 200 | 0 | 163 | 82 | 26-127 |

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Phenol | 400 | 192 | 48 | 0 | 42 | 12- 89 |
| 2-Chlorophenol | 400 | 240 | 60 | -20 | 40 | 27-123 |
| 1,4-Dichlorobenzene | 200 | 124 | 62 | 2 | 28 | 36 97 |
| N-Nitroso-di-n-prop.(1) | 200 | 153 | 76 | 0 | 38 | 41 116 |
| 1,2,4-Trichlorobenzene | 200 | 114 | 57 | 2 | 28 | 39 98 |
| 4-Chloro-3-methylphenol | 400 | 234 | 58 | -2 | 42 | 23 97 |
| Acenaphthene | 200 | 132 | 66 | 2 | 31 | 46-118 |
| 4-Nitrophenol | 400 | 122 | 30 | -26 | 50 | 10- 80 |
| 2,4-Dinitrotoluene | 200 | 140 | 70 | 3 | 38 | 24- 96 |
| Pentachlorophenol | 400 | 165 | 41 | -38 | 50 | 9-103 |
| Pyrene | 200 | 160 | 80 | 2 | 31 | 26-127 |

(1) N-Nitroso-di-n-propylamine

# Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS:

4B
SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Lab File ID: FE957 Lab Sample ID: SBLK1

Date Extracted: 08/02/91 Extraction:(SepF/Cont/Sonc) SEPF

Date Analyzed: 08/05/91 Time Analyzed: 1414

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: F

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|---|
| 01 | 6568G-027 | 684327 | FE958 | 08/05/91 |
| 02 | 6568G-028 | 684328 | FE961 | 08/05/91 |
| 03 | 6568G-029 | 684329 | FE962 | 08/05/91 |
| 04 | 6568G-030 | 684330 | FE976 | 08/06/91 |
| 05 | 6568G-027MS | 684327MS | FE959 | 08/05/91 |
| 06 | 6568G-027MSD | 684327MSD | FE960 | 08/05/91 |

COMMENTS: SBLK AATS
INST:F SBLK080206



FORM IV SV

0211 Rev.

5B

# SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Lab File ID: FE922 DFTPP Injection Date: 08/01/91

Instrument ID: F DFTPP Injection Time: 0947

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 51 | 30.0 - 60.0% of mass 198 | 56.9 |
| 68 | Less than 2.0% of mass 69 | 0.0 ( 0.0)1 |
| 69 | Mass 69 relative abundance | 59.2 |
| 70 | Less than 2.0% of mass 69 | 0.2 ( 0.4)1 |
| 127 | 40.0 - 60.0% of mass 198 | 40.3 |
| 197 | Less than 1.0% of mass 198 | 0.6 |
| 198 | Base peak, 100% relative abundance | 100.0 |
| 199 | 5.0 to 9.0% of mass 198 | 6.7 |
| 275 | 10.0 - 30.0% of mass 198 | 21.9 |
| 365 | Greater than 1.00% of mass 198 | 2.39 |
| 441 | Present, but less than mass 443 | 9.1 |
| 442 | Greater than 40.0% of mass 198 | 61.5 |
| 443 | 17.0 - 23.0% of mass 442 | 12.1 ( 19.7)2 |

1-Value is % mass 69 2-Value is % mass 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | SSTD50 | SSTD50 | FE923 | 08/01/91 | 1027 |
| 02 | SSTD20 | SSTD20 | FE924 | 08/01/91 | 1115 |
| 03 | SSTD80 | SSTD80 | FE925 | 08/01/91 | 1156 |
| 04 | SSTD120 | SSTD120 | FE926 | 08/01/91 | 1237 |
| 05 | SSTD160 | SSTD160 | FE927 | 08/01/91 | 1318 |

5B

# SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Lab File ID: FE954 DFTPP Injection Date: 08/05/91

Instrument ID: F DFTPP Injection Time: 1106

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 51 | 30.0 - 60.0% of mass 198 | 59.9 |
| 68 | Less than 2.0% of mass 69 | 0.0 ( 0.0)1 |
| 69 | Mass 69 relative abundance | 62.3 |
| 70 | Less than 2.0% of mass 69 | 0.2 ( 0.4)1 |
| 127 | 40.0 - 60.0% of mass 198 | 41.1 |
| 197 | Less than 1.0% of mass 198 | 0.0 |
| 198 | Base peak, 100% relative abundance | 100.0 |
| 199 | 5.0 to 9.0% of mass 198 | 6.6 |
| 275 | 10.0 - 30.0% of mass 198 | 21.2 |
| 365 | Greater than 1.00% of mass 198 | 2.39 |
| 441 | Present, but less than mass 443 | 8.0 |
| 442 | Greater than 40.0% of mass 198 | 54.3 |
| 443 | 17.0 - 23.0% of mass 442 | 10.3 ( 18.9)2 |

1-Value is % mass 69 2-Value is % mass 442

HIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | SSTD50 | SSTD50 | FE955 | 08/05/91 | 1140 |
| 02 | SBLK1 | SBLK1 | FE957 | 08/05/91 | 1414 |
| 03 | 6568G-027 | 684327 | FE958 | 08/05/91 | 1455 |
| 04 | 6568G-027MS | 684327MS | FE959 | 08/05/91 | 1536 |
| 05 | 6568G-027MSD | 684327MSD | FE960 | 08/05/91 | 1618 |
| 06 | 6568G-028 | 684328 | FE961 | 08/05/91 | 1659 |
| 07 | 6568G-029 | 684329 | FE962 | 08/05/91 | 1741 |

5B

# SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Lab File ID: FE973 DFTPP Injection Date: 08/06/91

Instrument ID: F DFTPP Injection Time: 0800

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 51 | 30.0 - 60.0% of mass 198 | 59.5 |
| 68 | Less than 2.0% of mass 69 | 0.0 ( 0.0)1 |
| 69 | Mass 69 relative abundance | 64.1 |
| 70 | Less than 2.0% of mass 69 | 0.2 ( 0.3)1 |
| 127 | 40.0 - 60.0% of mass 198 | 41.9 |
| 197 | Less than 1.0% of mass 198 | 0.0 |
| 198 | Base peak, 100% relative abundance | 100.0 |
| 199 | 5.0 to 9.0% of mass 198 | 6.6 |
| 275 | 10.0 - 30.0% of mass 198 | 21.1 |
| 365 | Greater than 1.00% of mass 198 | 2.27 |
| 441 | Present, but less than mass 443 | 8.5 |
| 442 | Greater than 40.0% of mass 198 | 57.6 |
| 443 | 17.0 - 23.0% of mass 442 | 10.9 ( 19.0)2 |

1-Value is % mass 69 2-Value is % mass 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| | EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|---|
| 01 | SSTD50 | SSTD50 | FE974 | 08/06/91 | 0825 |
| 02 | 6568G-030 | 684330 | FE976 | 08/06/91 | 0947 |

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-027

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 684327

Sample wt/vol: 500 (g/mL) ML Lab File ID: FE958

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/05/91

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

| CAS NO. | COMPOUND | Q |
|---|---|---|
| 108-95-2 | Phenol | 20 U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 20 U |
| 95-57-8 | 2-Chlorophenol | 20 U |
| 541-73-1 | 1,3-Dichlorobenzene | 20 U |
| 106-46-7 | 1,4-Dichlorobenzene | 20 U |
| 100-51-6 | Benzyl Alcohol | 20 U |
| 95-50-1 | 1,2-Dichlorobenzene | 20 U |
| 95-48-7 | 2-Methylphenol | 20 U |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 20 U |
| 106-44-5 | 4-Methylphenol | 20 U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 20 U |
| 67-72-1 | Hexachloroethane | 20 U |
| 98-95-3 | Nitrobenzene | 20 U |
| 78-59-1 | Isophorone | 20 U |
| 88-75-5 | 2-Nitrophenol | 20 U |
| 105-67-9 | 2,4-Dimethylphenol | 20 U |
| 65-85-0 | Benzoic Acid | 100 U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 20 U |
| 120-83-2 | 2,4-Dichlorophenol | 20 U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 20 U |
| 91-20-3 | Naphthalene | 20 U |
| 106-47-8 | 4-Chloroaniline | 20 U |
| 87-68-3 | Hexachlorobutadiene | 20 U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 20 U |
| 91-57-6 | 2-Methylnaphthalene | 20 U |
| 77-47-4 | Hexachlorocyclopentadiene | 20 U |
| 88-06-2 | 2,4,6-Trichlorophenol | 20 U |
| 95-95-4 | 2,4,5-Trichlorophenol | 100 U |
| 91-58-7 | 2-Chloronaphthalene | 20 U |
| 88-74-4 | 2-Nitroaniline | 100 U |
| 131-11-3 | Dimethyl Phthalate | 20 U |
| 208-96-8 | Acenaphthylene | 20 U |
| 606-20-2 | 2,6-Dinitrotoluene | 20 U |

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-027

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 684327

Sample wt/vol: 500 (g/mL) ML Lab File ID: FE958

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/05/91

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 100 | U |
| 83-32-9 | Acenaphthene | 20 | U |
| 51-28-5 | 2,4-Dinitrophenol | 100 | U |
| 100-02-7 | 4-Nitrophenol | 100 | U |
| 132-64-9 | Dibenzofuran | 20 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 20 | U |
| 84-66-2 | Diethylphthalate | 20 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 20 | U |
| 86-73-7 | Fluorene | 20 | U |
| 100-01-6 | 4-Nitroaniline | 100 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 100 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 20 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 20 | U |
| 118-74-1 | Hexachlorobenzene | 20 | U |
| 87-86-5 | Pentachlorophenol | 100 | U |
| 85-01-8 | Phenanthrene | 20 | U |
| 120-12-7 | Anthracene | 20 | U |
| 84-74-2 | Di-n-Butylphthalate | 20 | U |
| 206-44-0 | Fluoranthene | 20 | U |
| 129-00-0 | Pyrene | 20 | U |
| 85-68-7 | Butylbenzylphthalate | 20 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 40 | U |
| 56-55-3 | Benzo(a)Anthracene | 20 | U |
| 218-01-9 | Chrysene | 20 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 20 | U |
| 117-84-0 | Di-n-Octyl Phthalate | 20 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 20 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 20 | U |
| 50-32-8 | Benzo(a)Pyrene | 20 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 20 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 20 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 20 | U |

(1) - Cannot be separated from Diphenylamine

1F

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE

6568G-027

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 684327

Sample wt/vol: 500 (g/mL) ML Lab File ID: FE958

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/05/91

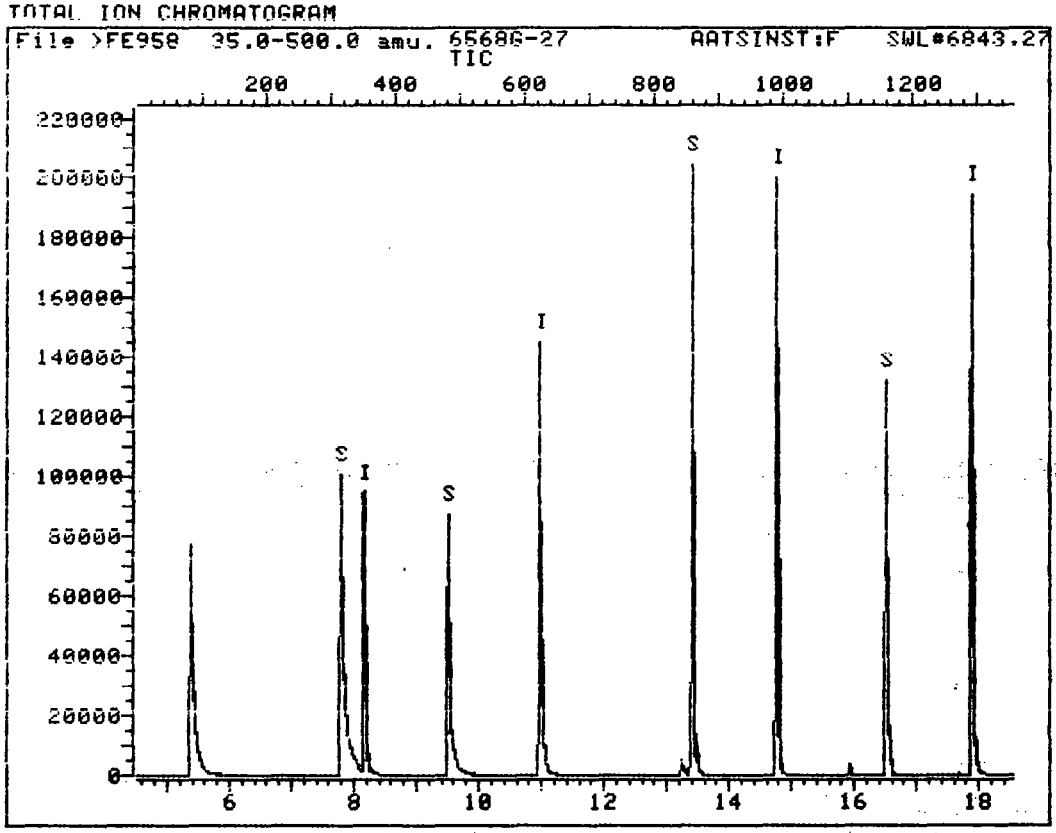
GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |

TOTAL ION CHROMATOGRAM



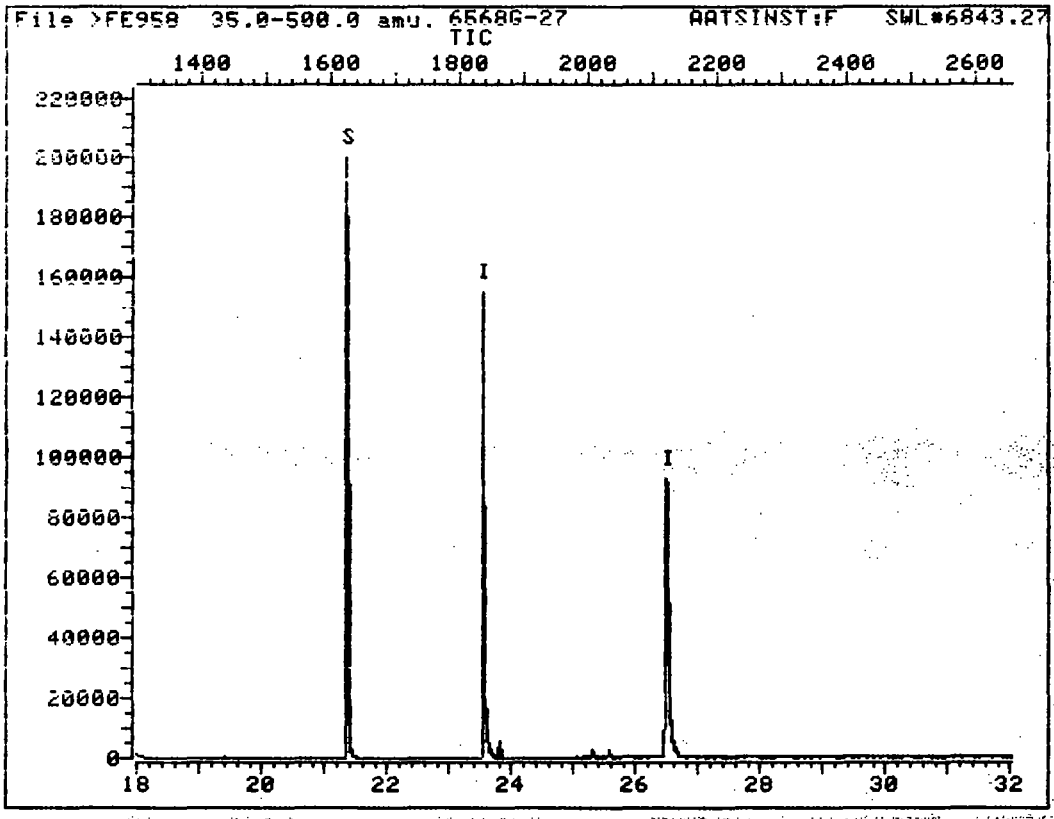

Data File: >FE958::D7 Quant Output File: ^FE958::L1
Name: 6568G-27 AATS
Misc: INST:F SWL#6843.27 500ML/1ML/1UL BTL# 1

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910805 15:07

Operator ID: LINDA
Quant Time: 910805 15:31
Injected at: 910805 14:55

TIC page 1 of 2

TOTAL ION CHROMATOGRAM




Data File: >FE958::D7 Quant Output File: ^FE958::L1
Name: 6568G-27 AATS
Misc: INST:F SWL#6843.27 500ML/1ML/1UL BTL# 1

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910805 15:07

Operator ID: LINDA
Quant Time: 910805 15:31
Injected at: 910805 14:55

TIC page 2 of 2

QUANT REPORT

Operator ID: LINDA  Quant Rev: 6  Quant Time: 910805 15:31
Output File: ^FE958::L1  Injected at: 910805 14:55
Data File: >FE958::D7  Dilution Factor: 1.00000
Name: 6568G-27  AATS
Misc: INST:F  SWL#6843.27  500ML/1ML/1UL  BTL# 1

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910805 15:07

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *CI30 1,4-DICHLOROBENZENE-D4 | 8.15 | 152.0 | 30431 | 40.00 | NG/UL | 97 |
| 15) | CS50 2-FLUOROPHENOL | 5.36 | 112.0 | 68617M | 78.64 | NG/UL | |
| 16) | CS45 PHENOL-D5 | 7.78 | 99.0 | 114345 | 87.46 | NG/UL | 93 |
| 17) | *CI40 NAPHTHALENE-D8 | 10.97 | 136.0 | 133384 | 40.00 | NG/UL | 87 |
| 31) | CS20 NITROBENZENE-D5 | 9.49 | 82.0 | 77338 | 56.37 | NG/UL | 88 |
| 32) | *CI50 ACENAPHTHENE-D10 | 14.76 | 164.0 | 73528 | 40.00 | NG/UL | 96 |
| 51) | CS25 2-FLUOROBIPHENYL | 13.40 | 172.0 | 113698 | 55.17 | NG/UL | 96 |
| 52) | CS55 2,4,6-TRIBROMOPHENOL | 16.48 | 329.8 | 27471 | 74.74 | NG/UL | 93 |
| 53) | *CI60 PHENANTHRENE-D10 | 17.88 | 188.0 | 138054 | 40.00 | NG/UL | 85 |
| 63) | *CI70 CHRYSENE-D12 | 23.53 | 240.0 | 112614 | 40.00 | NG/UL | 94 |
| 70) | CS30 TERPHENYL-D14 | 21.35 | 244.0 | 133338 | 62.28 | NG/UL | 91 |
| 1) | *CI75 PERYLENE-D12 | 26.48 | 264.0 | 86332 | 40.00 | NG/UL | 98 |

* Compound is ISTD

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-028

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 684328

Sample wt/vol: 1000 (g/mL) ML Lab File ID: FE961

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/05/91

GPC Cleanup: (Y/N) N pH: 6.9 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 10 | U |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-028

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 684328

Sample wt/vol: 1000 (g/mL) ML Lab File ID: FE961

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/05/91

GPC Cleanup: (Y/N) N pH: 6.9 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U |
| 83-32-9 | Acenaphthene | 10 | U |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U |
| 100-02-7 | 4-Nitrophenol | 50 | U |
| 132-64-9 | Dibenzofuran | 10 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U |
| 84-66-2 | Diethylphthalate | 10 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U |
| 86-73-7 | Fluorene | 10 | U |
| 100-01-6 | 4-Nitroaniline | 50 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U |
| 118-74-1 | Hexachlorobenzene | 10 | U |
| 87-86-5 | Pentachlorophenol | 50 | U |
| 85-01-8 | Phenanthrene | 10 | U |
| 120-12-7 | Anthracene | 10 | U |
| 84-74-2 | Di-n-Butylphthalate | 10 | U |
| 206-44-0 | Fluoranthene | 10 | U |
| 129-00-0 | Pyrene | 10 | U |
| 85-68-7 | Butylbenzylphthalate | 10 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U |
| 56-55-3 | Benzo(a)Anthracene | 10 | U |
| 218-01-9 | Chrysene | 10 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 10 | U |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)Pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U |

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
6568G-028

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 684328

Sample wt/vol: 1000 (g/mL) ML Lab File ID: FE961

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/05/91

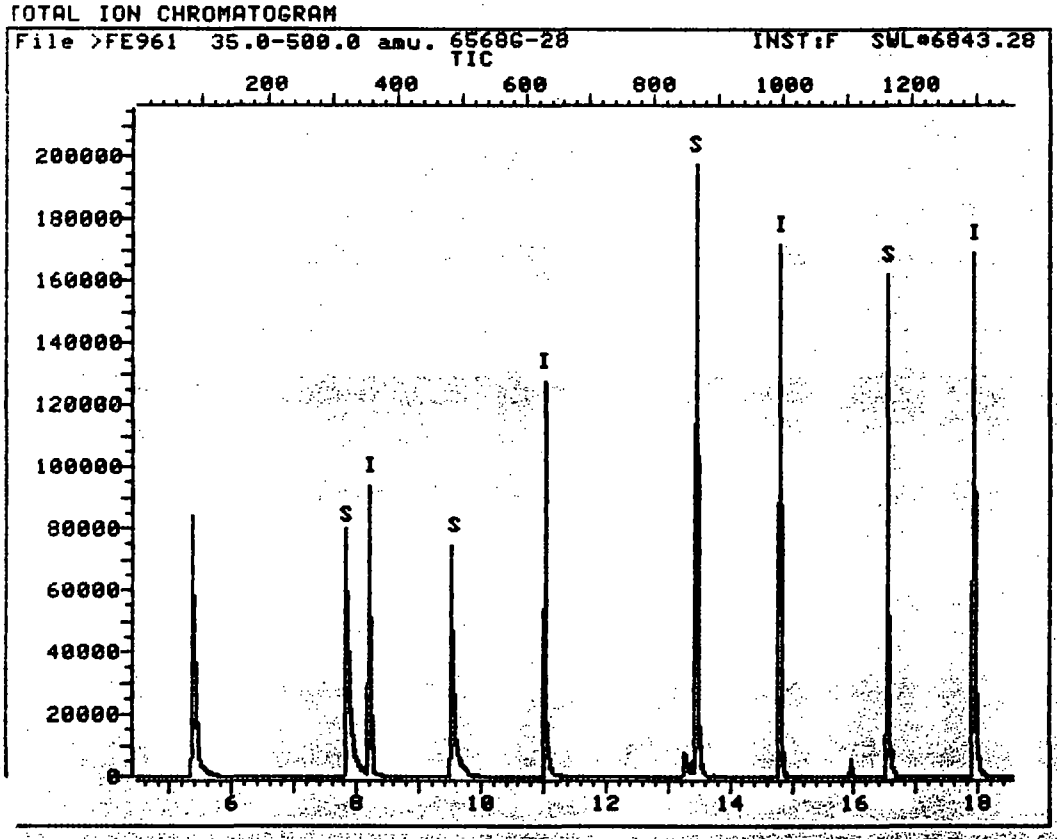
GPC Cleanup: (Y/N) N pH: 6.9 Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN COMPOUND | 13.27 | 3.0 | J |

TOTAL ION CHROMATOGRAM



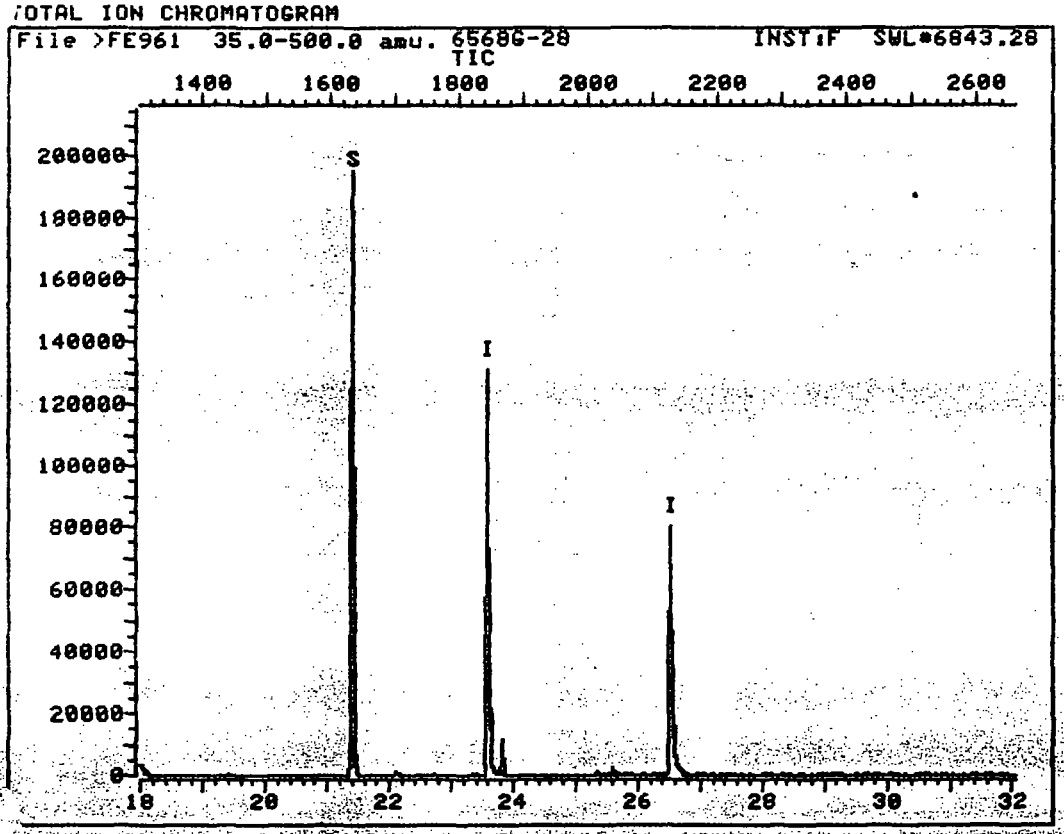

Data File: >FE961::D7 Quant Output File: ^FE961::L1
Name: 6568G-28
Misc: INST:F SWL#6843.28 1000ML/1ML/1UL BTL# 3

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910805 15:07

Operator ID: LINDA
Quant Time: 910805 17:34
Injected at: 910805 16:59

TIC page 1 of 2

TOTAL ION CHROMATOGRAM




Data File: >FE961::D7 Quant Output File: ^FE961::L1
Name: 6568G-28
Misc: INST:F SWL#6843.28 1000ML/1ML/1UL BTL# 3

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910805 15:07

Operator ID: LINDA
Quant Time: 910805 17:34
Injected at: 910805 16:59

TIC page 2 of 2

QUANT REPORT

Operator ID: LINDA  Quant Rev: 6  Quant Time: 910805 17:34
Output File: ^FE961::L1  Injected at: 910805 16:59
Data File: >FE961::D7  Dilution Factor: 1.00000
Name: 6568G-28
Misc: INST:F SWL#6843.28 1000ML/1ML/1UL  BTL# 3

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910805 15:07

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *CI30 1,4-DICHLOROBENZENE-D4 | 8.18 | 152.0 | 27203 | 40.00 | NG/UL | 98 |
| 15) | CS50 2-FLUOROPHENOL | 5.35 | 112.0 | 69968M | 89.70 | NG/UL | |
| 16) | CS45 PHENOL-D5 | 7.81 | 99.0 | 97709 | 83.60 | NG/UL | 92 |
| 17) | *CI40 NAPHTHALENE-D8 | 11.00 | 136.0 | 123409 | 40.00 | NG/UL | 89 |
| 31) | CS20 NITROBENZENE-D5 | 9.52 | 82.0 | 71118 | 56.03 | NG/UL | 92 |
| 32) | *CI50 ACENAPHTHENE-D10 | 14.79 | 164.0 | 66332 | 40.00 | NG/UL | 97 |
| 51) | CS25 2-FLUOROBIPHENYL | 13.42 | 172.0 | 108410 | 58.32 | NG/UL | 94 |
| 52) | CS55 2,4,6-TRIBROMOPHENOL | 16.52 | 329.8 | 29477 | 88.90 | NG/UL | 91 |
| 53) | *CI60 PHENANTHRENE-D10 | 17.91 | 188.0 | 121630 | 40.00 | NG/UL | 83 |
| 63) | *CI70 CHRYSENE-D12 | 23.57 | 240.0 | 93999 | 40.00 | NG/UL | 92 |
| 70) | CS30 TERPHENYL-D14 | 21.38 | 244.0 | 127432 | 71.31 | NG/UL | 91 |
| 1) | *CI75 PERYLENE-D12 | 26.51 | 264.0 | 72813 | 40.00 | NG/UL | 98 |

* Compound is ISTD

data file header from : >FE961

Sample: 6568G-28 Operator: LINDA MS 8/05/91 16:59
Misc : INST:F SWL#6843.28 1000ML/1ML/1UL BTL# 3
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: #STDF Tuning file: F2TUNE No. of extra records: 2
Source temp.: 0 Analyzer temp.: 300 Transfer line temp. : 0

| | | | | | |
|---|---|---|---|---|---|
| Chromatographic temperatures : | 45. | 300. | 0. | 0. | 0. |
| Chromatographic times, min. : | 4.0 | 9.0 | 0.0 | 0.0 | 0.0 |
| Chromatographic rate, deg/min: | 12.0 | 0.0 | 0.0 | 0.0 | 0.0 |

>FE961 6568G-28 INST:F SWL#6843.28 1000ML/1ML/1UL
35.0| 500.0 CLP ADC TIC
Upslope: .20 Area Reject: 18722. Max Peaks: 2 Bunching: 1
Dnslope: 0.00 Results File IFE961 Sorted by Time/Area INT

| Peak # | R.T. min. | first scan | max scan | last scan | peak height | raw area | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| ~~1~~ | ~~5.35~~ | ~~84~~ | ~~86~~ | ~~113~~ | ~~84332~~ | ~~285245~~ | ~~285245~~ | ~~100.00~~ | ~~91.970~~ |
| 2 | 13.26 | 843 | 846 | 853 | 7670 | 24906 | 24906 | 8.73 | 8.030 |

Sum of corrected areas: 310151.

Summary of Unknowns PBM Library Search and Quantitation

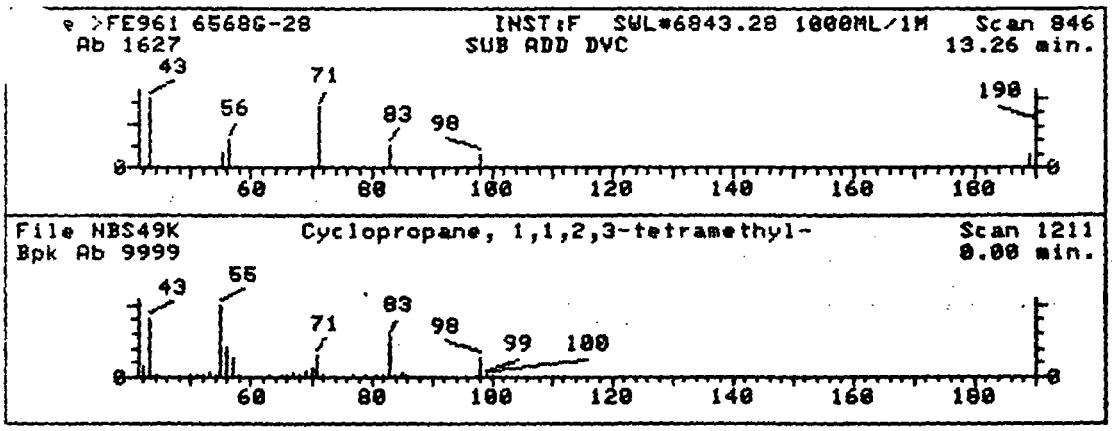
| Standard | Concentration | Area | Retention Time | Unknown Window |
|---|---|---|---|---|
| 1 | 40.0 | 187218. | 8.18 | 4.47 - 9.59 |
| 2 | 40.0 | 275769. | 11.00 | 9.59 - 12.90 |
| 3 | 40.0 | 323128. | 14.79 | 12.90 - 16.35 |
| 4 | 40.0 | 341052. | 17.91 | 16.35 - 20.74 |
| 5 | 40.0 | 291747. | 23.57 | 20.74 - 25.04 |
| 6 | 40.0 | 226636. | 26.51 | 25.04 - 32.05 |

Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

Correction Factor = 1.00 = (AM / AU) / (DF * FS)

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unk} * \text{Correction Factor}$$

11:56 PM MON., 5 AUG., 1991




**UNKNOWN**

Sample: 6568G-28 Operator: LINDA MS 8/05/91 16:59

. Unknown #,2
Area = 24906.00 Tentative Concentration is 3.00

1. Cyclopropane, 1,1,2,3-tetramethyl- 98 C7H14

Sample file: >FE961 Spectrum #: 846
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_IV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 20* | 74752935 | 9452 | NBS49K | 22 | 79 | 3 | 0 | 52 | 51 | 5 | 12 |

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-029

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 684329

Sample wt/vol: 1000 (g/mL) ML Lab File ID: FE962

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/05/91

GPC Cleanup: (Y/N) N pH: 6.8 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 10 | U |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-029

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 684329

Sample wt/vol: 1000 (g/mL) ML Lab File ID: FE962

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/05/91

GPC Cleanup: (Y/N) N pH: 6.8 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U |
| 83-32-9 | Acenaphthene | 10 | U |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U |
| 100-02-7 | 4-Nitrophenol | 50 | U |
| 132-64-9 | Dibenzofuran | 10 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U |
| 84-66-2 | Diethylphthalate | 10 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U |
| 86-73-7 | Fluorene | 10 | U |
| 100-01-6 | 4-Nitroaniline | 50 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U |
| 118-74-1 | Hexachlorobenzene | 10 | U |
| 87-86-5 | Pentachlorophenol | 50 | U |
| 85-01-8 | Phenanthrene | 10 | U |
| 120-12-7 | Anthracene | 10 | U |
| 84-74-2 | Di-n-Butylphthalate | 10 | U |
| 206-44-0 | Fluoranthene | 10 | U |
| 129-00-0 | Pyrene | 10 | U |
| 85-68-7 | Butylbenzylphthalate | 10 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U |
| 56-55-3 | Benzo(a)Anthracene | 10 | U |
| 218-01-9 | Chrysene | 10 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 10 | U |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)Pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U |

(1) - Cannot be separated from Diphenylamine

1E

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
6568G-029

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 684329

Sample wt/vol: 1000 (g/mL) ML Lab File ID: FE962

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/05/91

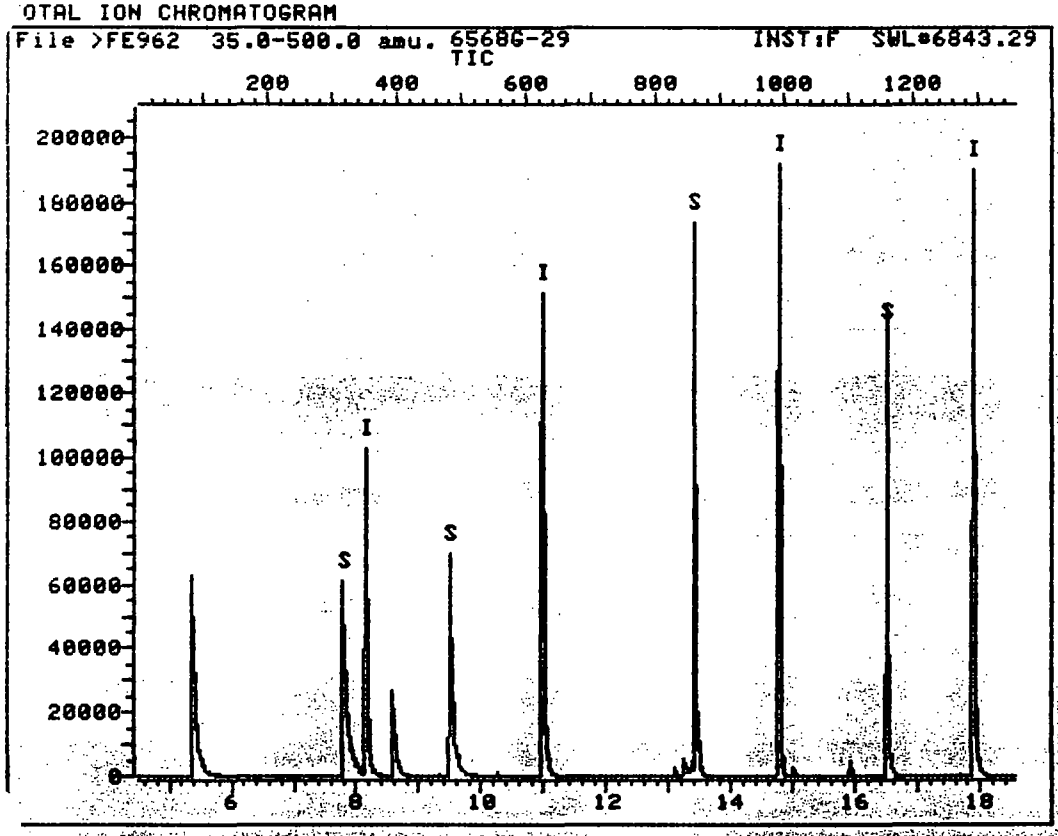
GPC Cleanup: (Y/N) N pH: 6.8 Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN COMPOUND | 8.57 | 15 | J |

OTAL ION CHROMATOGRAM



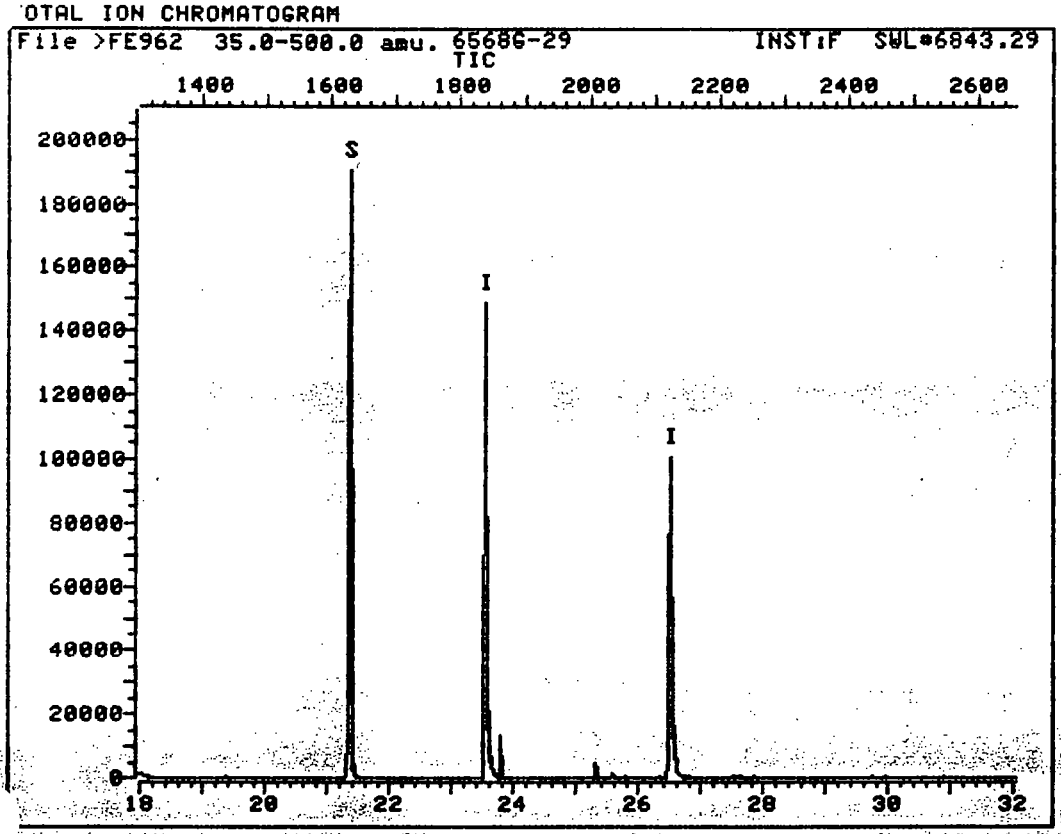

Data File: >FE962::D7 Quant Output File: ^FE962::L1
Name: 6568G-29
Misc: INST:F SWL#6843.29 1000ML/1ML/1UL BTL# 4

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910805 15:07

Operator ID: LINDA
Quant Time: 910805 18:16
Injected at: 910805 17:41

TIC page 1 of 2

OTAL ION CHROMATOGRAM




Data File: >FE962::D7 Quant Output File: ^FE962::L1
Name: 6568G-29
Misc: INST:F SWL#6843.29 1000ML/1ML/1UL BTL# 4

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910805 15:07

Operator ID: LINDA
Quant Time: 910805 18:16
Injected at: 910805 17:41

TIC page 2 of 2

QUANT REPORT

Operator ID: LINDA  Quant Rev: 6  Quant Time: 910805 18:16
Output File: ^FE962::L1  Injected at: 910805 17:41
Data File: >FE962::D7  Dilution Factor: 1.00000
Name: 6568G-29
Misc: INST:F SWL#6843.29 1000ML/1ML/1UL  BTL# 4

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910805 15:07

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *CI30 1,4-DICHLOROBENZENE-D4 | 8.15 | 152.0 | 30762 | 40.00 | NG/UL | 98 |
| 15) | CS50 2-FLUOROPHENOL | 5.36 | 112.0 | 57214M | 64.86 | NG/UL | |
| 16) | CS45 PHENOL-D5 | 7.79 | 99.0 | 76530 | 57.91 | NG/UL | 92 |
| 17) | *CI40 NAPHTHALENE-D8 | 10.97 | 136.0 | 137125 | 40.00 | NG/UL | 88 |
| 31) | CS20 NITROBENZENE-D5 | 9.49 | 82.0 | 67495 | 47.86 | NG/UL | 91 |
| 32) | *CI50 ACENAPHTHENE-D10 | 14.76 | 164.0 | 73924 | 40.00 | NG/UL | 99 |
| 51) | CS25 2-FLUOROBIPHENYL | 13.39 | 172.0 | 98925 | 47.75 | NG/UL | 95 |
| 52) | CS55 2,4,6-TRIBROMOPHENOL | 16.48 | 329.8 | 26580 | 71.93 | NG/UL | 93 |
| 53) | *CI60 PHENANTHRENE-D10 | 17.88 | 188.0 | 133950 | 40.00 | NG/UL | 82 |
| 63) | *CI70 CHRYSENE-D12 | 23.54 | 240.0 | 106453 | 40.00 | NG/UL | 92 |
| 70) | CS30 TERPHENYL-D14 | 21.35 | 244.0 | 113996 | 56.33 | NG/UL | 85 |
| 1) | *CI75 PERYLENE-D12 | 26.48 | 264.0 | 87919 | 40.00 | NG/UL | 98 |

* Compound is ISTD

data file header from : >FE962

Sample: 6568G-29 Operator: LINDA MS 8/05/91 17:41
Misc : INST:F SWL#6843.29 1000ML/1ML/1UL BTL# 4
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: #STDF Tuning file: F2TUNE No. of extra records: 2
Source temp.: 0 Analyzer temp.: 300 Transfer line temp. : 0

| | | | | | |
|---|---|---|---|---|---|
| Chromatographic temperatures : | 45. | 300. | 0. | 0. | 0. |
| Chromatographic times, min. : | 4.0 | 9.0 | 0.0 | 0.0 | 0.0 |
| Chromatographic rate, deg/min: | 12.0 | 0.0 | 0.0 | 0.0 | 0.0 |

>FE962 6568G-29 INST:F SWL#6843.29 1000ML/1ML/1UL
35.01 500.0 CLP ADC TIC
Upslope: .20 Area Reject: 20350. Max Peaks: 3 Bunching: 1
Dnslope: 0.00 Results File IFE962 Sorted by Time/Area INT

| Peak # | R.T. min. | first scan | max scan | last scan | peak height | raw area | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| ~~1~~ | ~~5.36~~ | ~~82~~ | ~~84~~ | ~~109~~ | ~~62748~~ | ~~232293~~ | ~~232293~~ | ~~100.00~~ | ~~70.246~~ |
| 2 | 8.57 | 391 | 393 | 409 | 26602 | 77692 | 77692 | 33.45 | 23.494 |
| ~~3~~ | ~~23.77~~ | ~~1859~~ | ~~1861~~ | ~~1865~~ | ~~13350~~ | ~~20702~~ | ~~20702~~ | ~~8.91~~ | ~~6.260~~ |

Sum of corrected areas: 330687.

Summary of Unknowns PBM Library Search and Quantitation

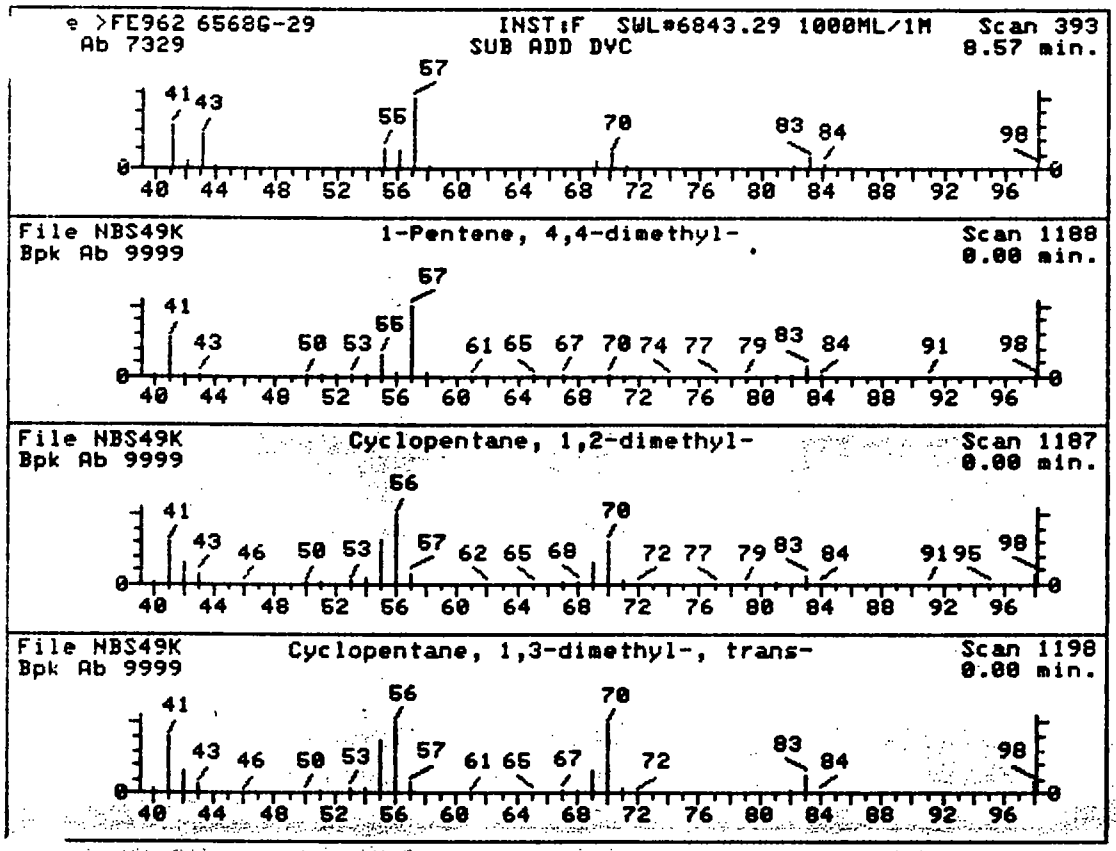
| Standard | Concentration | Area | Retention Time | Unknown Window |
|---|---|---|---|---|
| 1 | 40.0 | 203497. | 8.15 | 4.50 - 9.56 |
| 2 | 40.0 | 319086. | 10.97 | 9.56 - 12.87 |
| 3 | 40.0 | 359369. | 14.76 | 12.87 - 16.32 |
| 4 | 40.0 | 379352. | 17.88 | 16.32 - 20.71 |
| 5 | 40.0 | 338148. | 23.54 | 20.71 - 25.01 |
| 6 | 40.0 | 279376. | 26.48 | 25.01 - 32.02 |

Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

Correction Factor = 1.00 = (AM / AU) / (DF * FS)

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unk} * \text{Correction Factor}$$

12:05 AM TUE., 6 AUG., 1991




**UNKNOWN**

Sample: 6568G-29 Operator: LINDA MS 8/05/91 17:41

. Unknown #,2
Area = 77692.00 Tentative Concentration is 15.00

1. 1-Pentene, 4,4-dimethyl- 98 C7H14
2. Cyclopentane, 1,2-dimethyl- 98 C7H14
3. Cyclopentane, 1,3-dimethyl-, trans- 98 C7H14
4. 1-Hexene, 4-methyl- 98 C7H14
5. 1-Pentene, 3,4-dimethyl- 98 C7H14
6. Cyclopentane, 1,3-dimethyl-, cis- 98 C7H14

Sample file: >FE962 Spectrum #: 393
Search speed: 1 Tilting option: N No. of ion ranges searched: 43

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_IV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| . | 30* | 762629 | 1234 | NBS49K | 21 | 55 | 2 | 0 | 73 | 35 | 12 | 13 |
| 2. | 15* | 2452995 | 3847 | NBS49K | 25 | 41 | 2 | 0 | 24 | 60 | 3 | 14 |
| 3. | 15* | 1759586 | 3850 | NBS49K | 26 | 46 | 2 | 0 | 21 | 58 | 3 | 14 |
| 4. | 15* | 3769231 | 1042 | NBS49K | 27 | 66 | 2 | 0 | 59 | 58 | 3 | 14 |
| 5. | 15* | 7385786 | 3854 | NBS49K | 27 | 77 | 3 | 0 | 62 | 58 | 3 | 14 |
| 6. | 11* | 2532583 | 3856 | NBS49K | 22 | 54 | 2 | 0 | 21 | 63 | 2 | 13 |

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-030

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 684330

Sample wt/vol: 1000 (g/mL) ML Lab File ID: FE976

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/06/91

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 2.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 20 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 20 | U |
| 95-57-8 | 2-Chlorophenol | 26 | |
| 541-73-1 | 1,3-Dichlorobenzene | 20 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 20 | U |
| 100-51-6 | Benzyl Alcohol | 20 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 20 | U |
| 95-48-7 | 2-Methylphenol | 20 | U |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 20 | U |
| 106-44-5 | 4-Methylphenol | 20 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 20 | U |
| 67-72-1 | Hexachloroethane | 20 | U |
| 98-95-3 | Nitrobenzene | 20 | U |
| 78-59-1 | Isophorone | 20 | U |
| 88-75-5 | 2-Nitrophenol | 35 | |
| 105-67-9 | 2,4-Dimethylphenol | 20 | |
| 65-85-0 | Benzoic Acid | 100 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 20 | U |
| 120-83-2 | 2,4-Dichlorophenol | 40 | |
| 120-82-1 | 1,2,4-Trichlorobenzene | 20 | U |
| 91-20-3 | Naphthalene | 20 | U |
| 106-47-8 | 4-Chloroaniline | 20 | U |
| 87-68-3 | Hexachlorobutadiene | 20 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 61 | |
| 91-57-6 | 2-Methylnaphthalene | 20 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 20 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 18 | J |
| 95-95-4 | 2,4,5-Trichlorophenol | 100 | U |
| 91-58-7 | 2-Chloronaphthalene | 20 | U |
| 88-74-4 | 2-Nitroaniline | 100 | U |
| 131-11-3 | Dimethyl Phthalate | 20 | U |
| 208-96-8 | Acenaphthylene | 20 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 20 | U |

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-030

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 684330

Sample wt/vol: 1000 (g/mL) ML Lab File ID: FE976

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/06/91

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 2.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 100 | U |
| 83-32-9 | Acenaphthene | 20 | U |
| 51-28-5 | 2,4-Dinitrophenol | 100 | U |
| 100-02-7 | 4-Nitrophenol | 100 | U |
| 132-64-9 | Dibenzofuran | 20 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 20 | U |
| 84-66-2 | Diethylphthalate | 20 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 20 | U |
| 86-73-7 | Fluorene | 20 | U |
| 100-01-6 | 4-Nitroaniline | 100 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 170 | |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 20 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 20 | U |
| 118-74-1 | Hexachlorobenzene | 20 | U |
| 87-86-5 | Pentachlorophenol | 35 | J |
| 85-01-8 | Phenanthrene | 20 | U |
| 120-12-7 | Anthracene | 20 | U |
| 84-74-2 | Di-n-Butylphthalate | 20 | U |
| 206-44-0 | Fluoranthene | 20 | U |
| 129-00-0 | Pyrene | 20 | U |
| 85-68-7 | Butylbenzylphthalate | 20 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 40 | U |
| 56-55-3 | Benzo(a)Anthracene | 20 | U |
| 218-01-9 | Chrysene | 20 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 290 | |
| 117-84-0 | Di-n-Octyl Phthalate | 20 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 20 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 20 | U |
| 50-32-8 | Benzo(a)Pyrene | 20 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 20 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 20 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 20 | U |

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

6568G-030

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 684330

Sample wt/vol: 1000 (g/mL) ML Lab File ID: FE976

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/06/91

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 2.0

Number TICs found: 0

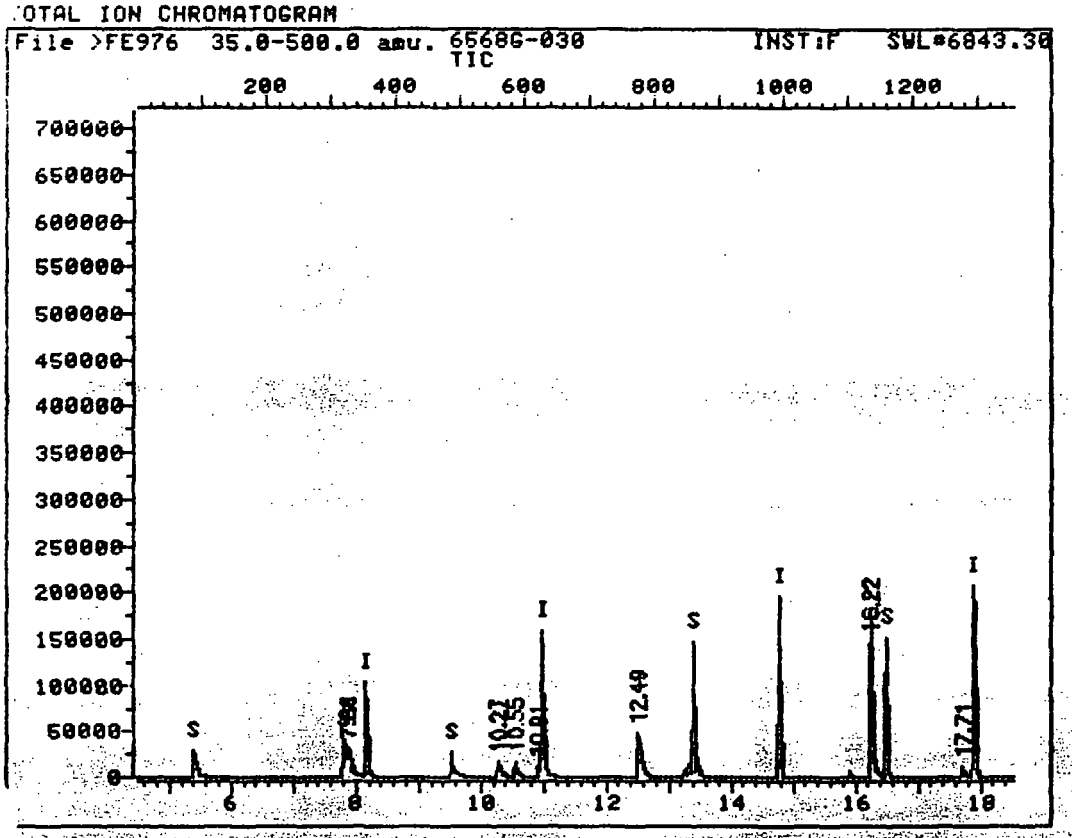
CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| | | | | |

FORM I SV-TIC

1/87 Rev.

TOTAL ION CHROMATOGRAM



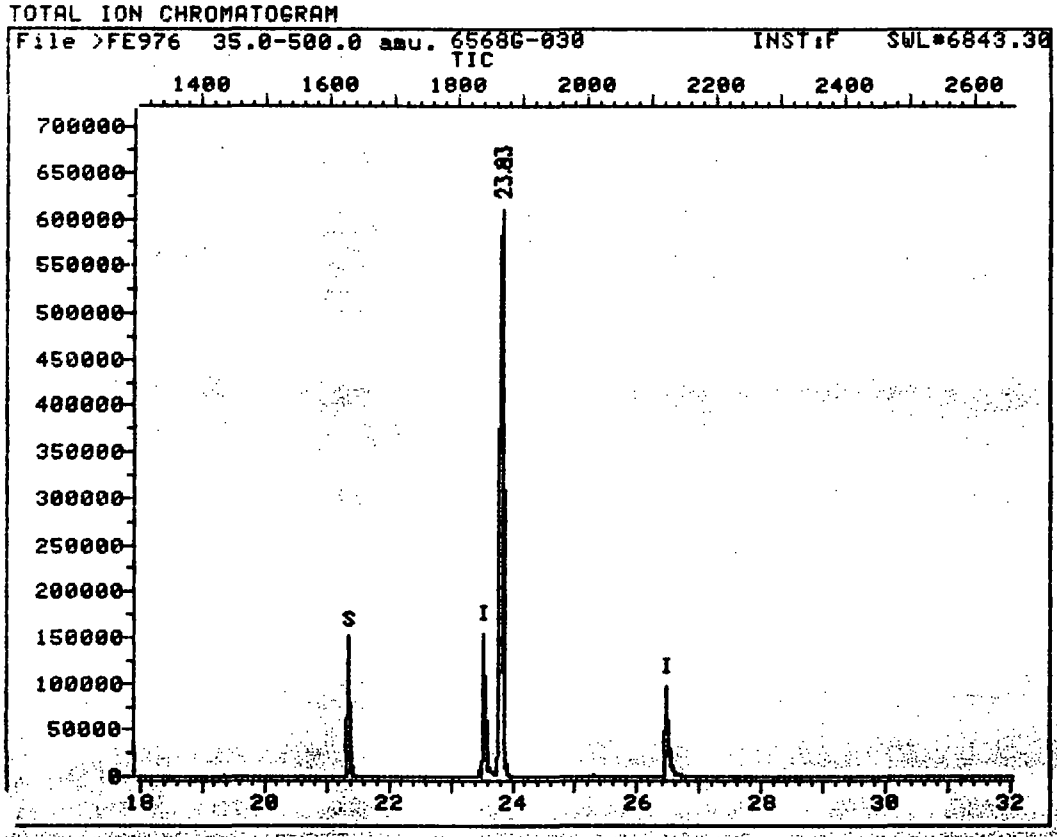

Data File: >FE976::D7 Quant Output File: ^FE976::L1
Name: 6568G-030
Misc: INST:F SWL#6843.30· 1000ML/1ML/1UL 1:1 DIL BTL# 1

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910806 09:39

Operator ID: LINDA
Quant Time: 910806 10:21
Injected at: 910806 09:47

TIC page 1 of 2

TOTAL ION CHROMATOGRAM




Data File: >FE976::D7 Quant Output File: ^FE976::L1
Name: 6568G-030
Misc: INST:F SWL#6843.30 1000ML/1ML/1UL 1:1 DIL BTL# 1

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910806 09:39

Operator ID: LINDA
Quant Time: 910806 10:21
Injected at: 910806 09:47

TIC page 2 of 2

QUANT REPORT

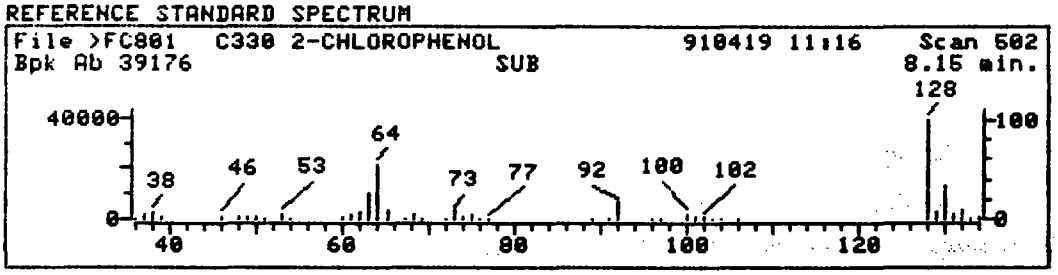
Operator ID: LINDA  Quant Rev: 6  Quant Time: 910806 10:21
Output File: ^FE976::L1  Injected at: 910806 09:47
Data File: >FE976::D7  Dilution Factor: 1.00000
Name: 6568G-030
Misc: INST:F  SWL#6843.30  1000ML/1ML/1UL  1:1 DIL  BTL# 1

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910806 09:39

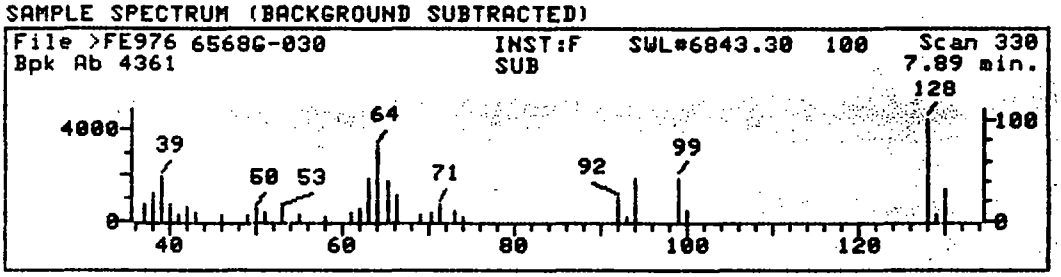
| | | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|---|
| 1) | *CI30 | 1,4-DICHLOROBENZENE-D4 | 8.14 | 152.0 | 31892 | 40.00 | NG/UL | 97 |
| ~~4)~~ | ~~C325~~ | ~~BIS(2-CHLOROETHYL)ETHER~~ | ~~7.86~~ | ~~93.0~~ | ~~202~~ | ~~.18~~ | ~~NG/UL~~ EP | 85 |
| 5) | C330 | 2-CHLOROPHENOL | 7.89 | 128.0 | 11596M | 13.09 | NG/UL | |
| 15) | CS50 | 2-FLUOROPHENOL | 5.38 | 112.0 | 37041M | 44.18 | NG/UL | |
| 16) | CS45 | PHENOL-D5 | 7.79 | 99.0 | 43249 | 32.49 | NG/UL | 93 |
| 17) | *CI40 | NAPHTHALENE-D8 | 10.96 | 136.0 | 137020 | 40.00 | NG/UL | 91 |
| 20) | C420 | 2-NITROPHENOL | 10.27 | 139.0 | 13025 | 17.30 | NG/UL | 75 |
| 21) | C425 | 2,4-DIMETHYLPHENOL | 10.55 | 107.0 | 12948 | 9.87 | NG/UL | 90 |
| 24) | C440 | 2,4-DICHLOROPHENOL | 10.91 | 162.0 | 19763M | 20.15 | NG/UL | 89 |
| 29) | C465 | 4-CHLORO-3-METHYLPHENOL | 12.49 | 107.0 | 44501 | 30.66 | NG/UL | 91 |
| ) | CS20 | NITROBENZENE-D5 | 9.50 | 82.0 | 43148 | 31.74 | NG/UL | 89 |
| ) | *CI50 | ACENAPHTHENE-D10 | 14.75 | 164.0 | 81600 | 40.00 | NG/UL | 97 |
| 34) | C515 | 2,4,6-TRICHLOROPHENOL | 13.31 | 196.0 | 7039M | 9.06 | NG/UL | |
| 51) | CS25 | 2-FLUOROBIPHENYL | 13.39 | 172.0 | 78728 | 34.13 | NG/UL | 95 |
| 52) | CS55 | 2,4,6-TRIBROMOPHENOL | 16.48 | 329.8 | 26180 | 63.81 | NG/UL | 92 |
| 53) | *CI60 | PHENANTHRENE-D10 | 17.87 | 188.0 | 147268 | 40.00 | NG/UL | 87 |
| 54) | C610 | 4,6-DINITRO-2-METHYLPHENO | 16.22 | 198.0 | 52409 | 85.62 | NG/UL | 100 |
| 58) | C635 | PENTACHLOROPHENOL | 17.71 | 266.0 | 5786 | 17.45 | NG/UL | 96 |
| 63) | *CI70 | CHRYSENE-D12 | 23.53 | 240.0 | 120302 | 40.00 | NG/UL | 94 |
| 69) | C745 | BIS(2-ETHYLHEXYL)PHTHALAT | 23.83 | 149.0 | 514877M | 143.40 | NG/UL | 91 |
| 70) | CS30 | TERPHENYL-D14 | 21.33 | 244.0 | 98462 | 45.97 | NG/UL | 90 |
| 71) | *CI75 | PERYLENE-D12 | 26.47 | 264.0 | 95951 | 40.00 | NG/UL | 98 |

* Compound is ISTD

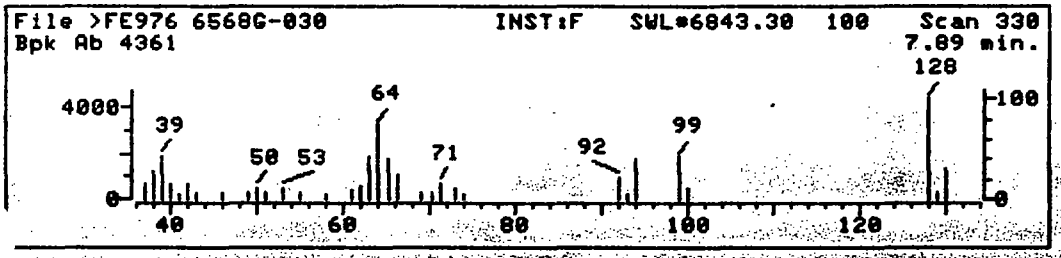
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



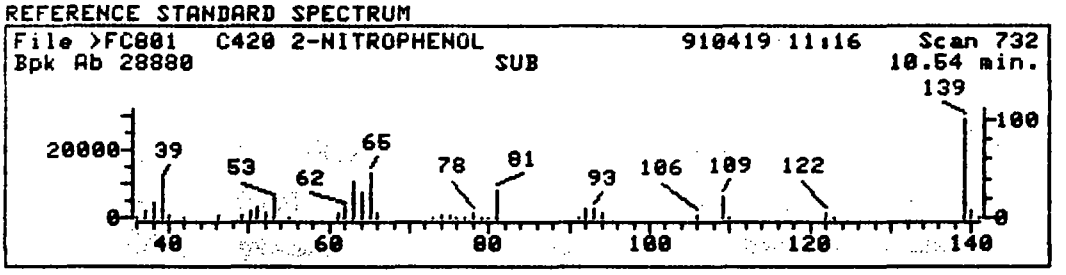

SAMPLE SPECTRUM (UNALTERED)



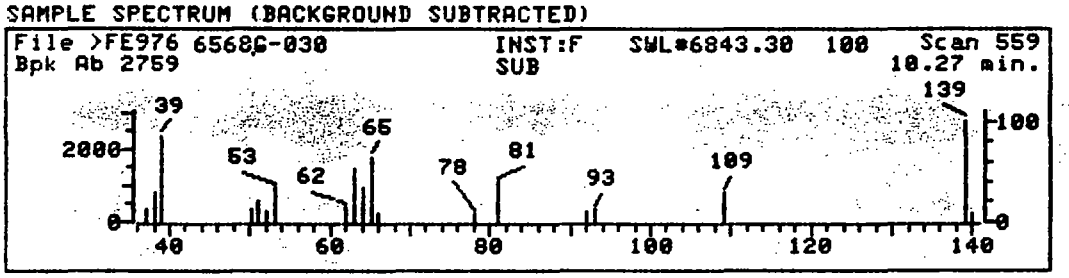

Data File: >FE976::D7 Quant Output File: ^FE976::L1
Name: 6568G-030
Misc: INST:F SWL#6843.30 1000ML/1ML/1UL 1:1 DIL BTL# 1
Quant Time: 910806 10:21 Quant ID File: ID_BN2::EX
Injected at: 910806 09:47 Last Calibration: 910806 09:39

Compound No: 5
Compound Name: C330 2-CHLOROPHENOL
Scan Number: 330
Retention Time: 7.89 min.
Quant Ion: 128.0
Area: 11596M
Concentration: 13.09 NG/UL

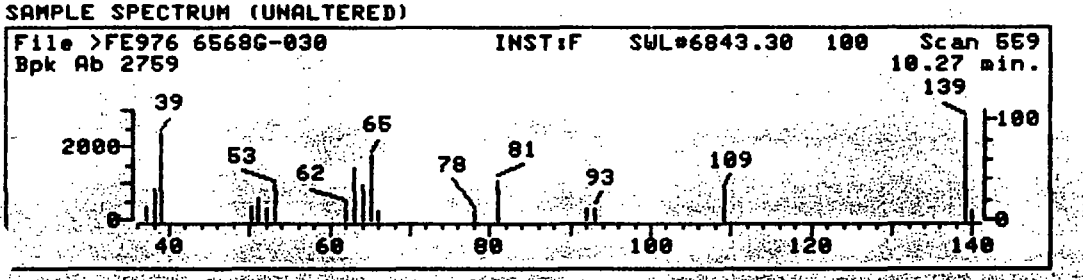
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



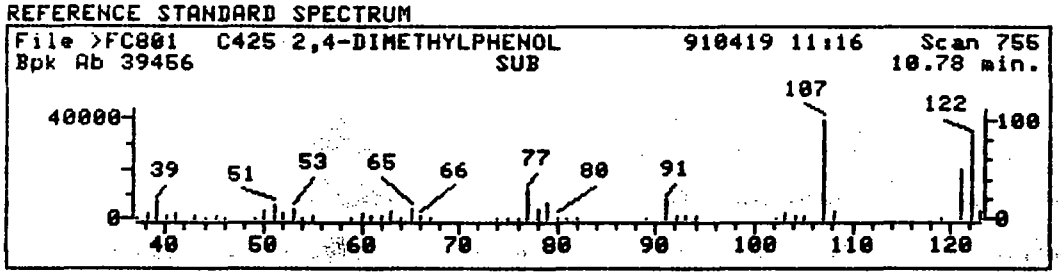

SAMPLE SPECTRUM (UNALTERED)



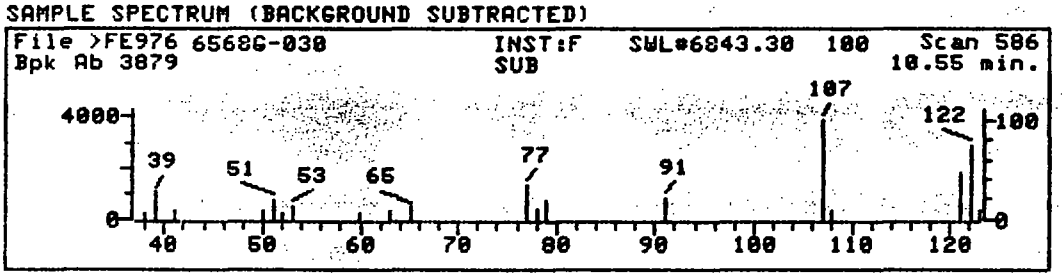

Data File: >FE976::D7 Quant Output File: ^FE976::L1
Name: 6568G-030
Misc: INST:F SWL#6843.30 1000ML/1ML/1UL 1:1 DIL BTL# 1
Quant Time: 910806 10:21 Quant ID File: ID_BN2::EX
Injected at: 910806 09:47 Last Calibration: 910806 09:39

Compound No: 20
Compound Name: C420 2-NITROPHENOL
Scan Number: 559
Retention Time: 10.27 min.
Quant Ion: 139.0
Area: 13025
Concentration: 17.30 NG/UL
q-value: 75

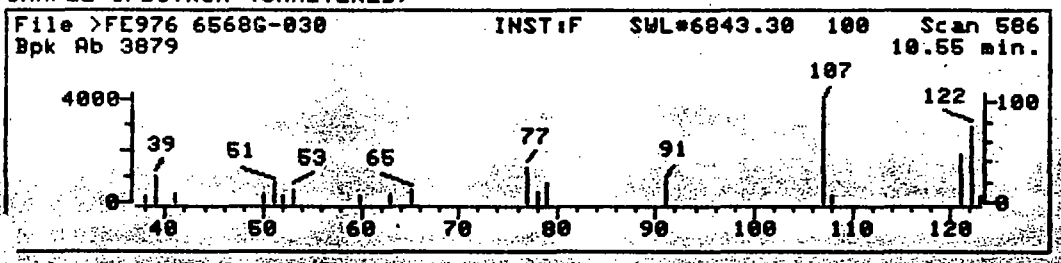
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



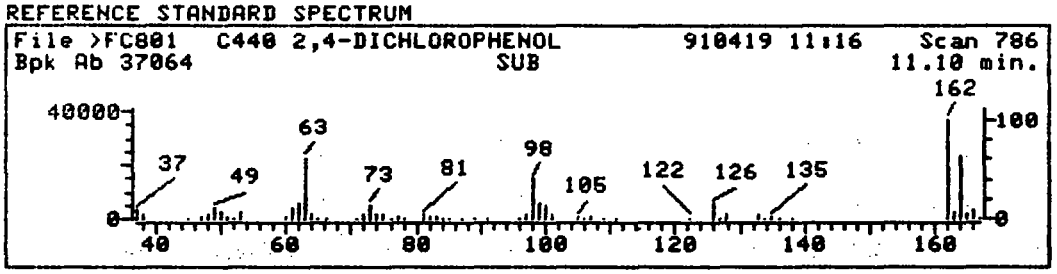

SAMPLE SPECTRUM (UNALTERED)



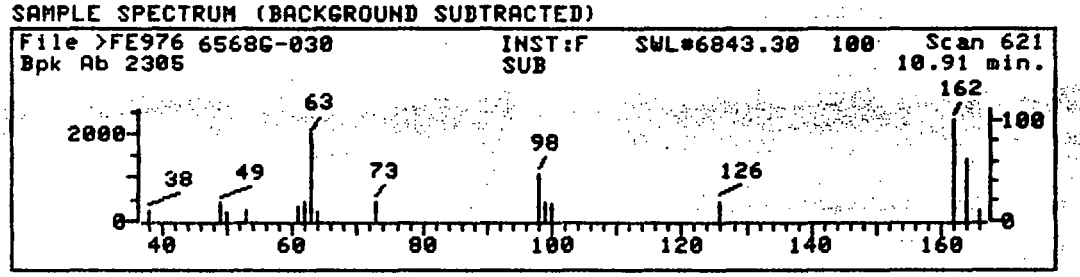

Data File: >FE976::D7 Quant Output File: ^FE976::L1
Name: 6568G-030
Misc: INST:F SWL#6843.30 1000ML/1ML/1UL 1:1 DIL BTL# 1
Quant Time: 910806 10:21 Quant ID File: ID_BN2::EX
Injected at: 910806 09:47 Last Calibration: 910806 09:39

Compound No: 21
Compound Name: C425 2,4-DIMETHYLPHENOL
Scan Number: 586
Retention Time: 10.55 min.
Quant Ion: 107.0
Area: 12948
Concentration: 9.87 NG/UL
q-value: 90

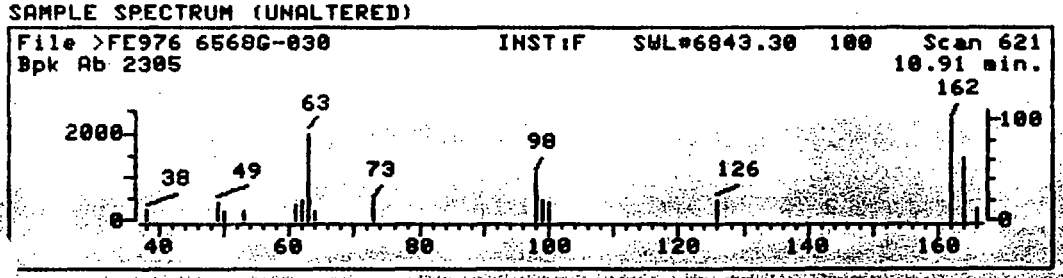
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



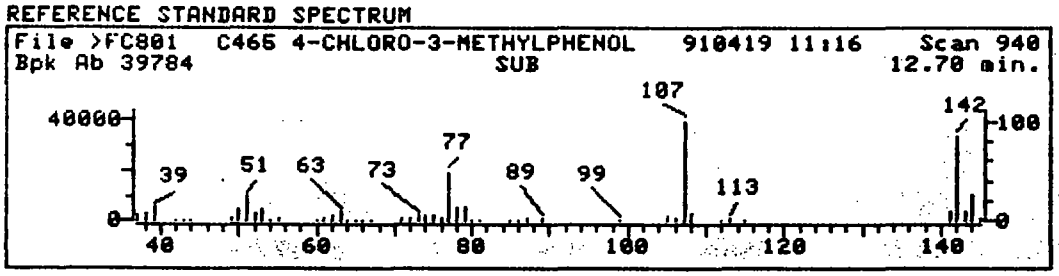

SAMPLE SPECTRUM (UNALTERED)



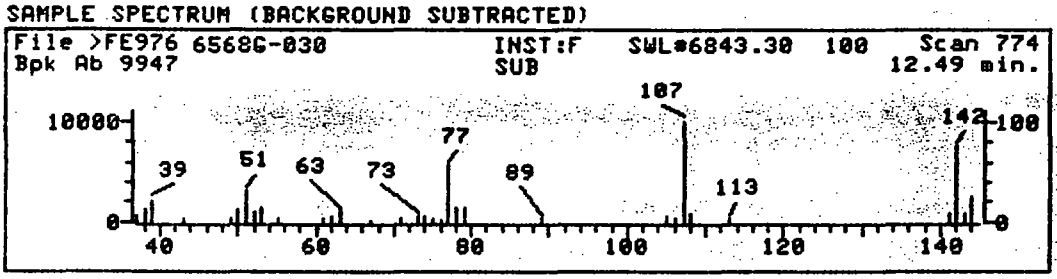

Data File: >FE976::D7 Quant Output File: ^FE976::L1
Name: 6568G-030
Misc: INST:F SWL#6843.30 1000ML/1ML/1UL 1:1 DIL BTL# 1
Quant Time: 910806 10:21 Quant ID File: ID_BN2::EX
Injected at: 910806 09:47 Last Calibration: 910806 09:39

Compound No: 24
Compound Name: C440 2,4-DICHLOROPHENOL
Scan Number: 621
Retention Time: 10.91 min.
Quant Ion: 162.0
Area: 19763M
Concentration: 20.15 NG/UL
q-value: 89

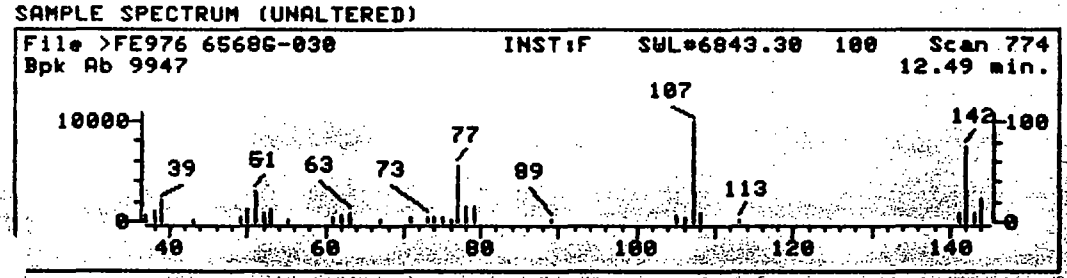
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



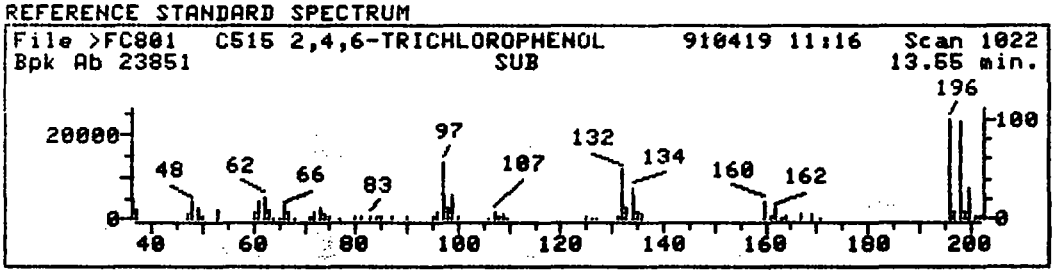

SAMPLE SPECTRUM (UNALTERED)



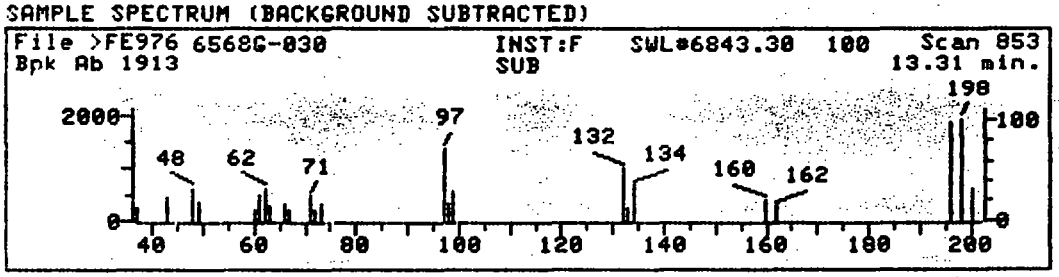

Data File: >FE976::D7 Quant Output File: ^FE976::L1
Name: 6568G-030
Misc: INST:F SWL#6843.30 1000ML/1ML/1UL 1:1 DIL BTL# 1
Quant Time: 910806 10:21 Quant ID File: ID_BN2::EX
Injected at: 910806 09:47 Last Calibration: 910806 09:39

Compound No: 29
Compound Name: C465 4-CHLORO-3-METHYLPHENOL
Scan Number: 774
Retention Time: 12.49 min.
Quant Ion: 107.0
Area: 44501
Concentration: 30.66 NG/UL
q-value: 91

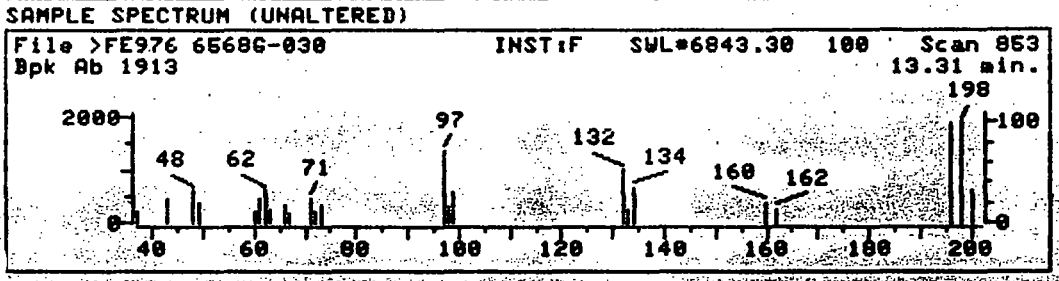
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



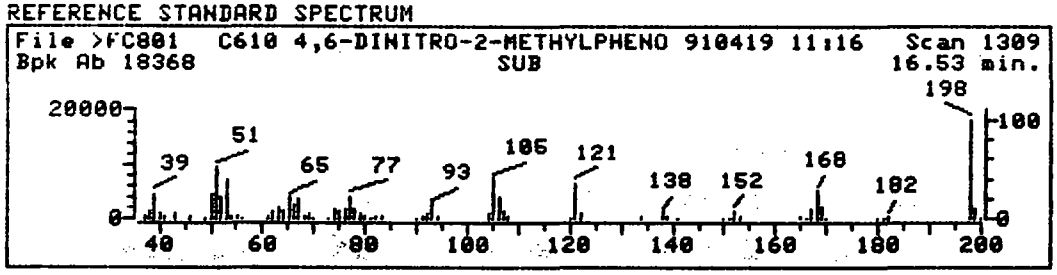

SAMPLE SPECTRUM (UNALTERED)



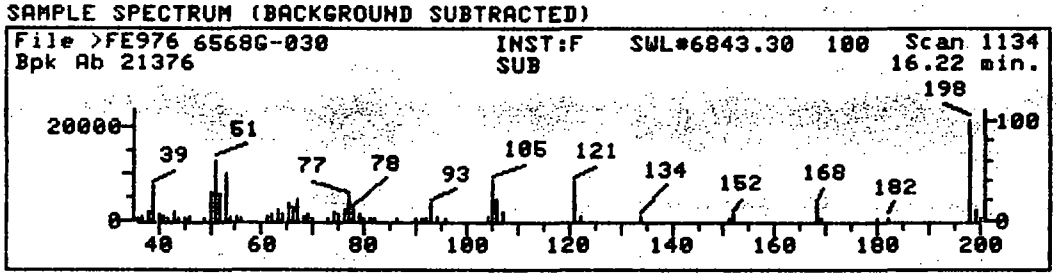

Data File: >FE976::D7 Quant Output File: ^FE976::L1
Name: 6568G-030
Misc: INST:F SWL#6843.30 1000ML/1ML/1UL 1:1 DIL BTL# 1
Quant Time: 910806 10:21 Quant ID File: ID_BN2::EX
Injected at: 910806 09:47 Last Calibration: 910806 09:39

Compound No: 34
Compound Name: C515 2,4,6-TRICHLOROPHENOL
Scan Number: 853
Retention Time: 13.31 min.
Quant Ion: 196.0
Area: 7039M
Concentration: 9.06 NG/UL

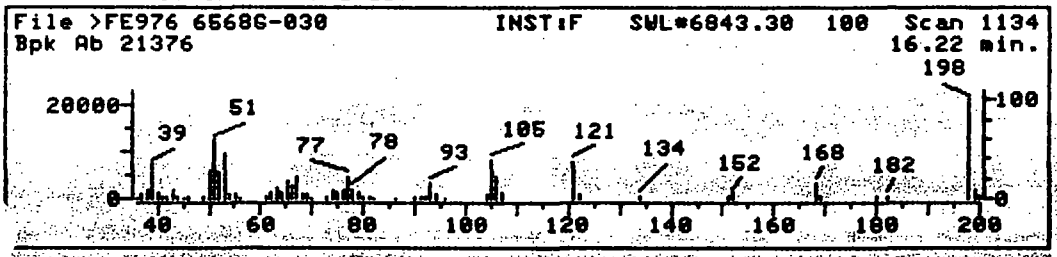
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



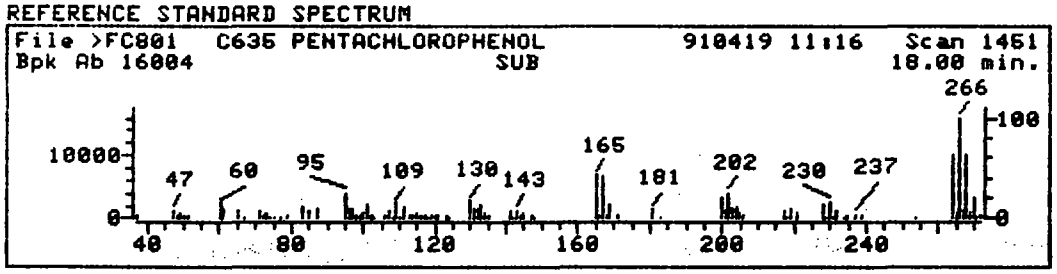

SAMPLE SPECTRUM (UNALTERED)



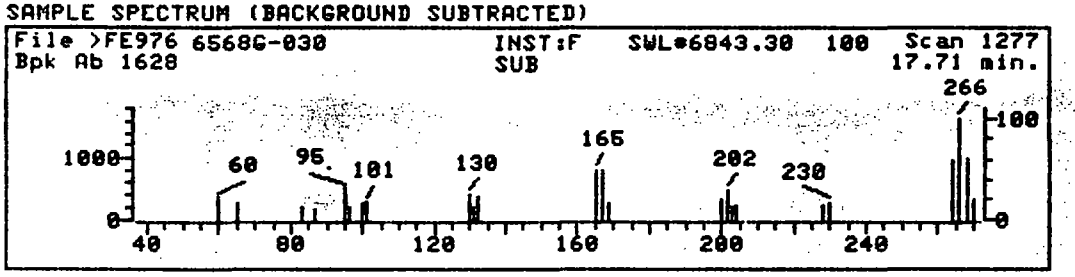

Data File: >FE976::D7 Quant Output File: ^FE976::L1
Name: 6568G-030
Misc: INST:F SWL#6843.30 1000ML/1ML/1UL 1:1 DIL BTL# 1
Quant Time: 910806 10:21 Quant ID File: ID_BN2::EX
Injected at: 910806 09:47 Last Calibration: 910806 09:39

Compound No: 54
Compound Name: C610 4,6-DINITRO-2-METHYLPHENO
Scan Number: 1134
Retention Time: 16.22 min.
Quant Ion: 198.0
Area: 52409
Concentration: 85.62 NG/UL
q-value: 100

REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

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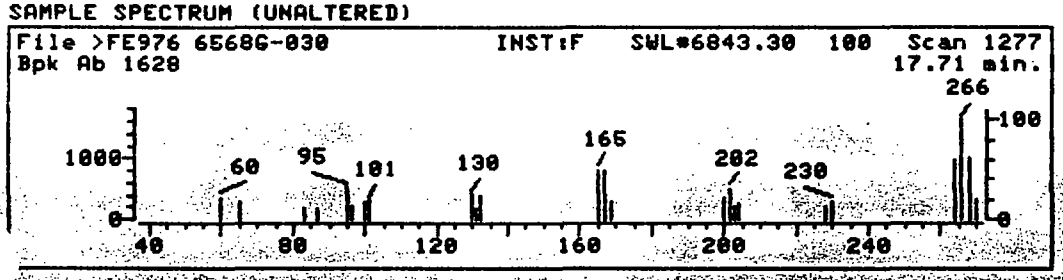
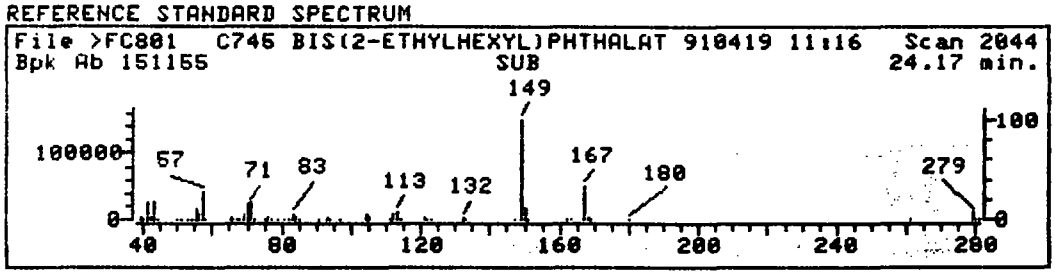


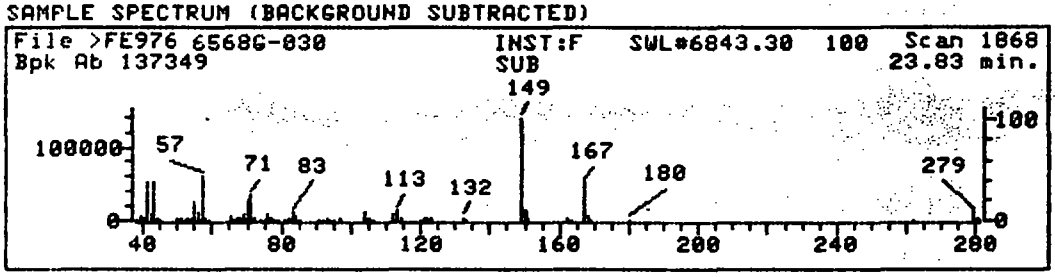

Data File: >FE976::D7 Quant Output File: ^FE976::L1
Name: 6568G-030
Misc: INST:F SWL#6843.30 1000ML/1ML/1UL 1:1 DIL BTL# 1
Quant Time: 910806 10:21 Quant ID File: ID_BN2::EX
Injected at: 910806 09:47 Last Calibration: 910806 09:39

Compound No: 58
Compound Name: C635 PENTACHLOROPHENOL
Scan Number: 1277
Retention Time: 17.71 min.
Quant Ion: 266.0
Area: 5786
Concentration: 17.45 NG/UL
q-value: 96

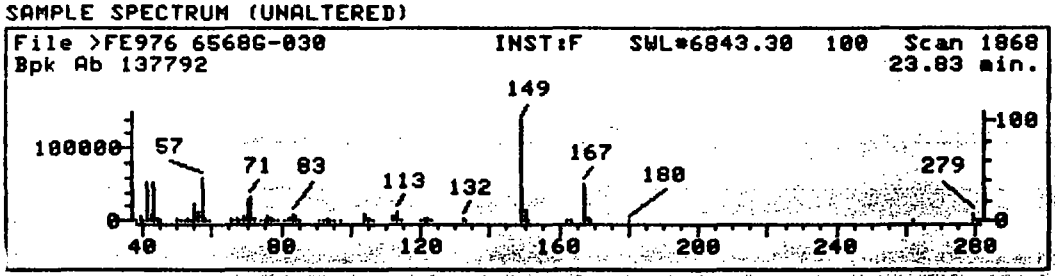
REFERENCE STANDARD SPECTRUM




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)




SAMPLE SPECTRUM (UNALTERED)




Data File: >FE976::D7 Quant Output File: ^FE976::L1
Name: 6568G-030
Misc: INST:F SWL#6843.30 1000ML/1ML/1UL 1:1 DIL BTL# 1
Quant Time: 910806 10:21 Quant ID File: ID_BN2::EX
Injected at: 910806 09:47 Last Calibration: 910806 09:39

Compound No: 69
Compound Name: C745 BIS(2-ETHYLHEXYL)PHTHALAT
Scan Number: 1868
Retention Time: 23.83 min.
Quant Ion: 149.0
Area: 514877M
Concentration: 143.40 NG/UL
q-value: 91

6B
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Instrument ID: F Calibration Date(s): 08/01/91 08/01/91

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = FE924 RRF50 = FE923
RRF80 = FE925 RRF120= FE926 RRF160= FE927

| COMPOUND | RRF20 | RRF50 | RRF80 | RRF120 | RRF160 | $\overline{RRF}$ | % RSD |
|---|---|---|---|---|---|---|---|
| Phenol * | 1.475 | 1.461 | 1.576 | 1.450 | 1.323 | 1.457 | 6.2* |
| bis(2-Chloroethyl)Ether | 1.490 | 1.463 | 1.518 | 1.398 | 1.235 | 1.421 | 8.0 |
| 2-Chlorophenol | 1.166 | 1.100 | 1.144 | 1.051 | 0.939 | 1.080 | 8.4 |
| 1,3-Dichlorobenzene | 1.371 | 1.293 | 1.351 | 1.307 | 1.222 | 1.309 | 4.4 |
| 1,4-Dichlorobenzene * | 1.507 | 1.347 | 1.498 | 1.452 | 1.308 | 1.422 | 6.3* |
| Benzyl Alcohol | 0.632 | 0.714 | 0.891 | 0.932 | 0.901 | 0.814 | 16.3 |
| 1,2-Dichlorobenzene | 1.468 | 1.246 | 1.300 | 1.232 | 1.004 | 1.250 | 13.3 |
| 2-Methylphenol | 1.248 | 1.274 | 1.386 | 1.384 | 1.311 | 1.321 | 4.8 |
| bis(2-Chloroisopropyl)ether | 3.940 | 3.778 | 4.049 | 4.040 | 3.752 | 3.912 | 3.6 |
| 4-Methylphenol | 1.286 | 1.318 | 1.422 | 1.401 | 1.203 | 1.326 | 6.7 |
| N-Nitroso-Di-n-Propylamine # | 1.365 | 1.340 | 1.351 | 1.260 | 1.180 | 1.299 | 6.0# |
| Hexachloroethane | 0.681 | 0.642 | 0.674 | 0.639 | 0.580 | 0.643 | 6.2 |
| Nitrobenzene | 0.502 | 0.494 | 0.458 | 0.460 | 0.434 | 0.470 | 6.0 |
| Isophorone | 0.893 | 0.957 | 0.902 | 0.917 | 0.702 | 0.874 | 11.4 |
| 2-Nitrophenol * | 0.163 | 0.214 | 0.205 | 0.206 | 0.205 | 0.199 | 10.2* |
| 2,4-Dimethylphenol | 0.309 | 0.384 | 0.358 | 0.305 | 0.277 | 0.327 | 13.3 |
| Benzoic Acid | | 0.152 | 0.102 | 0.141 | 0.200 | 0.149 | 27.1 |
| bis(2-Chloroethoxy)Methane | 0.480 | 0.547 | 0.504 | 0.517 | 0.393 | 0.488 | 12.0 |
| 2,4-Dichlorophenol * | 0.230 | 0.260 | 0.287 | 0.276 | 0.260 | 0.263 | 8.2* |
| 1,2,4-Trichlorobenzene | 0.324 | 0.332 | 0.301 | 0.304 | 0.286 | 0.309 | 6.0 |
| Naphthalene | 1.042 | 1.005 | 0.898 | 0.866 | 0.807 | 0.924 | 10.6 |
| 4-Chloroaniline | 0.042 | 0.120 | 0.132 | 0.146 | 0.121 | 0.112 | 36.3 |
| Hexachlorobutadiene * | 0.200 | 0.201 | 0.178 | 0.175 | 0.159 | 0.183 | 9.8* |
| 4-Chloro-3-Methylphenol * | 0.369 | 0.396 | 0.392 | 0.360 | 0.329 | 0.369 | 7.3* |
| 2-Methylnaphthalene | 0.880 | 0.935 | 0.846 | 0.789 | 0.720 | 0.834 | 9.9 |
| Hexachlorocyclopentadiene # | 0.075 | 0.185 | 0.209 | 0.245 | 0.229 | 0.189 | 35.6# |
| 2,4,6-Trichlorophenol * | 0.359 | 0.390 | 0.369 | 0.349 | 0.328 | 0.359 | 6.4* |
| 2,4,5-Trichlorophenol | | 0.350 | 0.348 | 0.353 | 0.348 | 0.350 | 0.7 |
| 2-Chloronaphthalene | 1.027 | 1.073 | 1.028 | 0.982 | 0.873 | 0.997 | 7.6 |
| 2-Nitroaniline | | 0.553 | 0.527 | 0.534 | 0.518 | 0.533 | 2.8 |
| Dimethyl Phthalate | 1.456 | 1.137 | 1.049 | 0.935 | 1.018 | 1.119 | 18.0 |
| Acenaphthylene | 1.927 | 1.653 | 1.438 | 1.259 | 1.062 | 1.468 | 23.0 |
| 2,6-Dinitrotoluene | 0.353 | 0.340 | 0.334 | 0.324 | 0.298 | 0.330 | 6.3 |
| 3-Nitroaniline | | 0.159 | 0.145 | 0.104 | 0.124 | 0.133 | 18.1 |
| Acenaphthene * | 1.269 | 1.108 | 1.042 | 0.997 | 0.897 | 1.063 | 13.0* |
| 2,4-Dinitrophenol # | | 0.163 | 0.181 | 0.223 | 0.222 | 0.197 | 15.3# |
| 4-Nitrophenol # | | 0.069 | 0.088 | 0.092 | 0.102 | 0.088 | 15.7# |

6C

# SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Instrument ID: F Calibration Date(s): 08/01/91 08/01/91

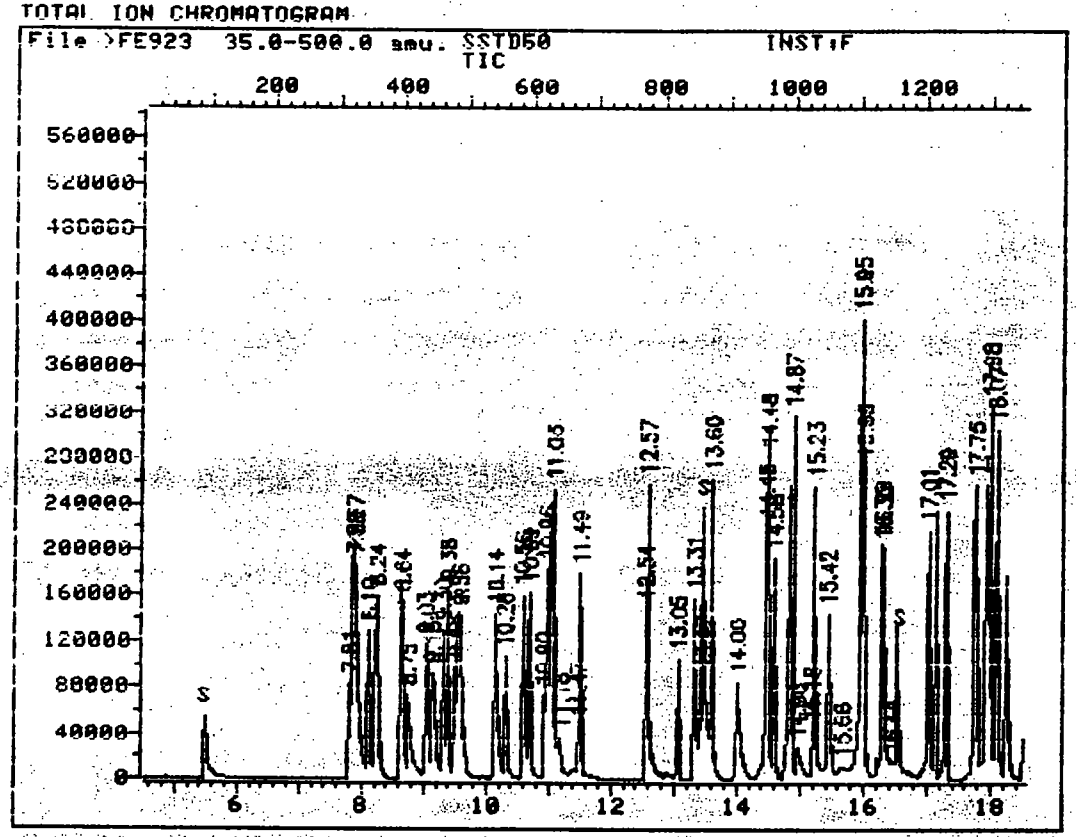
Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = FE924 RRF50 = FE923
RRF80 = FE925 RRF120= FE926 RRF160= FE927

| COMPOUND | RRF20 | RRF50 | RRF80 | RRF120 | RRF160 | $\overline{RRF}$ | % RSD |
|---|---|---|---|---|---|---|---|
| Dibenzofuran | 1.726 | 1.599 | 1.492 | 1.412 | 1.224 | 1.491 | 12.7 |
| 2,4-Dinitrotoluene | 0.466 | 0.556 | 0.502 | 0.557 | 0.500 | 0.516 | 7.6 |
| Diethylphthalate | 1.471 | 1.095 | 1.003 | 0.881 | 0.856 | 1.061 | 23.4 |
| 4-Chlorophenyl-phenylether | 0.634 | 0.550 | 0.507 | 0.414 | 0.392 | 0.499 | 19.9 |
| Fluorene | 1.279 | 0.854 | 0.903 | 0.861 | 0.769 | 0.933 | 21.4 |
| 4-Nitroaniline | | 0.277 | 0.310 | 0.330 | 0.282 | 0.300 | 8.3 |
| 4,6-Dinitro-2-Methylphenol | | 0.161 | 0.141 | 0.141 | 0.139 | 0.146 | 7.1 |
| N-Nitrosodiphenylamine (1) * | 0.353 | 0.308 | 0.300 | 0.264 | 0.225 | 0.290 | 16.6* |
| 4-Bromophenyl-phenylether | 0.205 | 0.198 | 0.187 | 0.176 | 0.163 | 0.186 | 9.1 |
| Hexachlorobenzene | 0.275 | 0.246 | 0.234 | 0.234 | 0.210 | 0.240 | 9.8 |
| Pentachlorophenol * | | 0.077 | 0.083 | 0.091 | 0.085 | 0.084 | 6.9* |
| Phenanthrene | 1.165 | 1.028 | 0.951 | 0.884 | 0.812 | 0.968 | 14.1 |
| Anthracene | 1.205 | 1.068 | 0.982 | 0.818 | 0.718 | 0.958 | 20.3 |
| Di-n-Butylphthalate | 1.873 | 1.546 | 1.396 | 1.215 | 1.086 | 1.423 | 21.5 |
| Fluoranthene * | 1.322 | 1.154 | 1.059 | 0.934 | 0.862 | 1.066 | 17.1* |
| Pyrene | 1.362 | 1.202 | 1.067 | 0.941 | 0.826 | 1.080 | 19.6 |
| Butylbenzylphthalate | 0.908 | 0.824 | 0.803 | 0.738 | 0.681 | 0.791 | 10.9 |
| 3,3'-Dichlorobenzidine | 0.111 | 0.085 | 0.081 | 0.053 | 0.047 | 0.075 | 34.6 |
| Benzo(a)Anthracene | 1.082 | 1.067 | 1.023 | 0.953 | 0.579 | 0.941 | 22.1 |
| Chrysene | 1.169 | 1.069 | 1.045 | 1.046 | 0.896 | 1.045 | 9.3 |
| bis(2-Ethylhexyl)Phthalate | 1.301 | 1.120 | 1.049 | 0.958 | 0.859 | 1.057 | 15.9 |
| Di-n-Octyl Phthalate * | 2.630 | 2.317 | 2.318 | 1.890 | 1.746 | 2.180 | 16.4* |
| Benzo(b)Fluoranthene | 0.878 | 1.172 | 1.227 | 1.236 | 1.198 | 1.142 | 13.1 |
| Benzo(k)Fluoranthene | 1.261 | 1.110 | 1.000 | 0.666 | 0.613 | 0.930 | 30.3 |
| Benzo(a)Pyrene * | 0.932 | 0.974 | 0.989 | 0.922 | 0.895 | 0.942 | 4.1* |
| Indeno(1,2,3-cd)Pyrene | 0.740 | 0.758 | 0.751 | 0.745 | 0.694 | 0.738 | 3.4 |
| Dibenz(a,h)Anthracene | 0.541 | 0.569 | 0.578 | 0.570 | 0.532 | 0.558 | 3.6 |
| Benzo(g,h,i)Perylene | 0.642 | 0.616 | 0.580 | 0.611 | 0.583 | 0.606 | 4.2 |
| Nitrobenzene-d5 | 0.330 | 0.383 | 0.369 | 0.394 | 0.375 | 0.370 | 6.6 |
| 2-Fluorobiphenyl | 1.234 | 1.163 | 1.071 | 0.952 | 0.836 | 1.051 | 15.2 |
| Terphenyl-d14 | 0.792 | 0.749 | 0.672 | 0.597 | 0.530 | 0.668 | 16.1 |
| Phenol-d5 | 1.620 | 1.606 | 1.638 | 1.502 | 1.192 | 1.512 | 12.3 |
| 2-Fluorophenol | 0.923 | 1.092 | 1.130 | 1.181 | 1.204 | 1.106 | 10.1 |
| 2,4,6-Tribromophenol | 0.176 | 0.216 | 0.214 | 0.204 | 0.173 | 0.197 | 10.5 |

(1) Cannot be separated from Diphenylamine

TOTAL ION CHROMATOGRAM



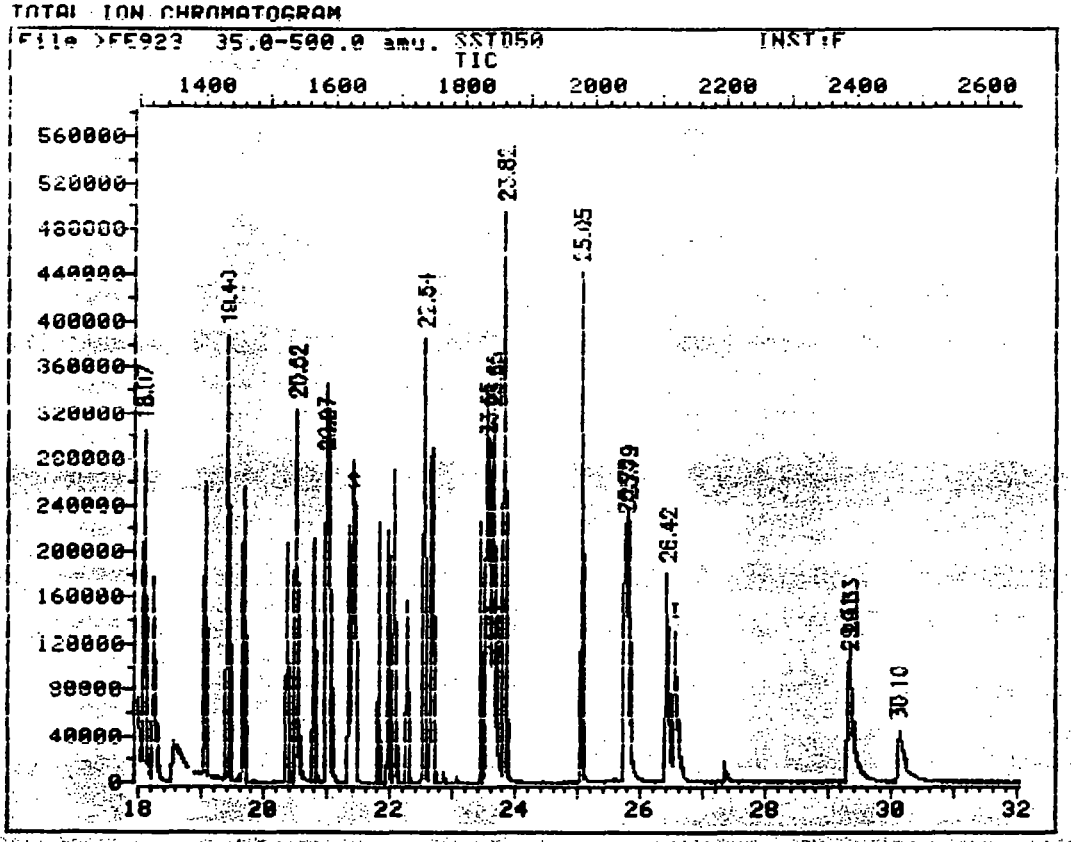

Data File: >FE923::D7 Quant Output File: ^FE923::L1
Name: SSTD50
Misc: INST:F BTL# 1

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910731 11:09

Operator ID: LINDA
Quant Time: 910801 11:02
Injected at: 910801 10:27

TIC page 1 of 2

TOTAL ION CHROMATOGRAM




Data File: >FE923::D7 Quant Output File: ^FE923::L1
Name: SSTD50
Misc: INST:F BTL# 1

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910731 11:09

Operator ID: LINDA
Quant Time: 910801 11:02
Injected at: 910801 10:27

TIC page 2 of 2

QUANT REPORT

Operator ID: LINDA  Quant Rev: 6  Quant Time: 910801 11:02
Output File: ^FE923::L1  Injected at: 910801 10:77
Data File: >FE923::D7  Dilution Factor: 1.00000
Name: 5STD50
Misc: INST:F  BTL# 1

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910731 11:09

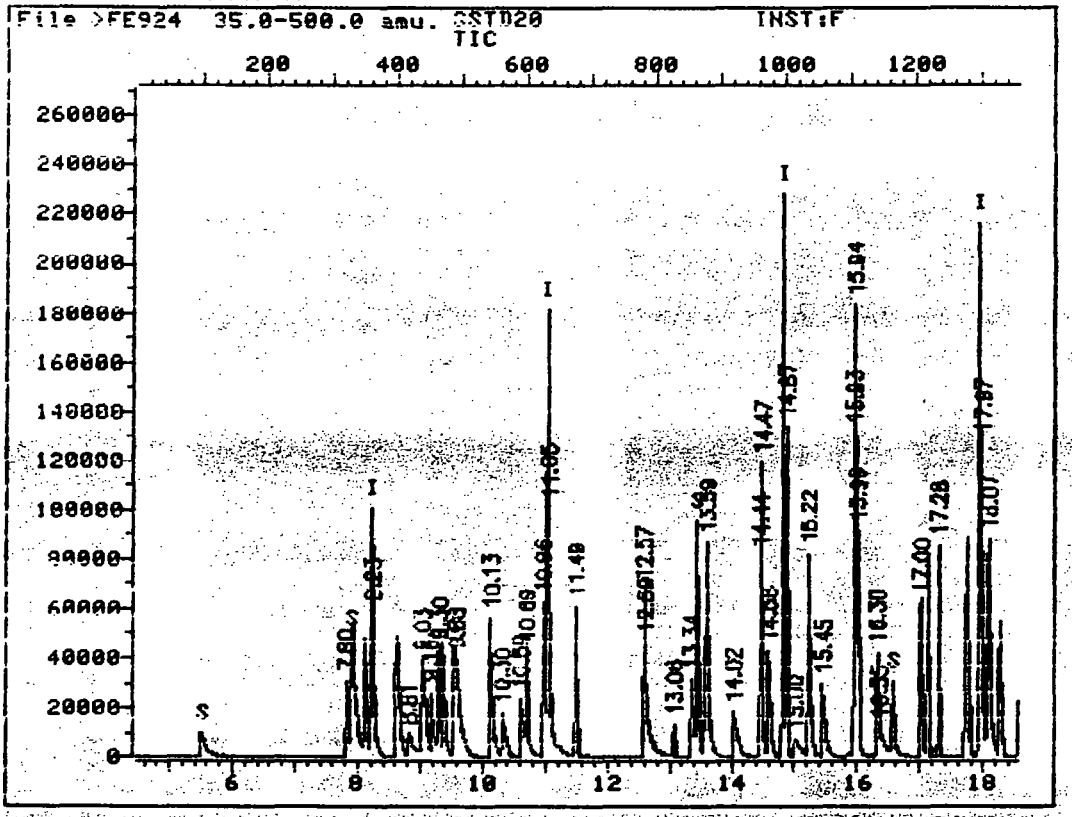
| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *CI30 1,4-DICHLOROBENZENE-D4 | 8.61 | 152.0 | 46281 | 40.00 | NG/UL | 9 |
| 3) | C315 PHENOL | 7.87 | 94.0 | 84580M | 53.73 | NG/UL | |
| 4) | C325 BIS(2-CHLOROETHYL)ETHER | 7.81 | 93.0 | 84694 | 52.40 | NG/UL | 9 |
| 5) | C330 2-CHLOROPHENOL | 7.88 | 128.0 | 63682M | 50.38 | NG/UL | |
| 6) | C335 1,3-DICHLOROBENZENE | 8.10 | 146.0 | 74811 | 50.01 | NG/UL | 9 |
| 7) | C340 1,4-DICHLOROBENZENE | 8.24 | 146.0 | 77936 | 47.70 | NG/UL | 9 |
| 8) | C345 BENZYL ALCOHOL | 8.75 | 108.0 | 41306 | 43.82 | NG/UL | 9 |
| 9) | C350 1,2-DICHLOROBENZENE | 8.64 | 146.0 | 72143 | 49.51 | NG/UL | 9 |
| 10) | C355 2-METHYLPHENOL | 9.13 | 108.0 | 73713M | 52.26 | NG/UL | 9 |
| 11) | C360 BIS(2-CHLOROISOPROPYL)ETH | 9.03 | 45.0 | 218660 | 55.19 | NG/UL | 10 |
| 12) | C365 4-METHYLPHENOL | 9.48 | 108.0 | 76261 | 53.88 | NG/UL | 9 |
| 13) | C370 N-NITROSO-DI-N-PROPYLAMIN | 9.38 | 70.0 | 77533 | 52.28 | NG/UL | 8 |
| 14) | C375 HEXACHLOROETHANE | 9.30 | 117.0 | 37160 | 51.33 | NG/UL | 9 |
| 15) | CS50 2-FLUOROPHENOL | 5.46 | 112.0 | 63207 | 48.63 | NG/UL | 8 |
| 16) | CS45 PHENOL-D5 | 7.84 | 99.0 | 92955 | 53.99 | NG/UL | 9 |
| 17) | *CI40 NAPHTHALENE-D8 | 11.02 | 136.0 | 170142 | 40.00 | NG/UL | 8 |
| 18) | C410 NITROBENZENE | 9.58 | 77.0 | 105021 | 53.94 | NG/UL | 8 |
| 19) | C415 ISOPHORONE | 10.14 | 82.0 | 203437 | 52.95 | NG/UL | 9 |
| 20) | C420 2-NITROPHENOL | 10.28 | 139.0 | 45413 | 48.40 | NG/UL | 8 |
| 21) | C425 2,4-DIMETHYLPHENOL | 10.56 | 107.0 | 81707 | 53.89 | NG/UL | 9 |
| 22) | C430 BENZOIC ACID | 11.18 | 122.0 | 32220 | 44.46 | NG/UL | 8 |
| 23) | C435 BIS(2-CHLOROETHOXY)METHAN | 10.69 | 93.0 | 116176 | 51.90 | NG/UL | 9 |
| 24) | C440 2,4-DICHLOROPHENOL | 10.90 | 162.0 | 55335 | 49.39 | NG/UL | 9 |
| 25) | C445 1,2,4-TRICHLOROBENZENE | 10.96 | 180.0 | 70470 | 48.73 | NG/UL | 9 |
| 26) | C450 NAPHTHALENE | 11.06 | 128.0 | 213642 | 53.19 | NG/UL | 9 |
| 27) | C455 4-CHLOROANILINE | 11.47 | 127.0 | 25577M | 48.50 | NG/UL | 9 |
| 28) | C460 HEXACHLOROBUTADIENE | 11.49 | 225.0 | 42723 | 47.17 | NG/UL | 9 |
| 29) | C465 4-CHLORO-3-METHYLPHENOL | 12.54 | 107.0 | 84153 | 50.56 | NG/UL | 9 |
| 30) | C470 2-METHYLNAPHTHALENE | 12.57 | 142.0 | 198732 | 53.60 | NG/UL | 9 |
| 31) | CS20 NITROBENZENE-D5 | 9.54 | 82.0 | 81445 | 53.16 | NG/UL | 9 |
| 32) | *CI50 ACENAPHTHENE-D10 | 14.80 | 164.0 | 112402 | 40.00 | NG/UL | 9 |
| 33) | C510 HEXACHLOROCYCLOPENTADIENE | 13.05 | 237.0 | 25876 | 44.05 | NG/UL | 9 |
| 34) | C515 2,4,6-TRICHLOROPHENOL | 13.31 | 196.0 | 54530 | 46.68 | NG/UL | 9 |
| 35) | C520 2,4,5-TRICHLOROPHENOL | 13.47 | 196.0 | 48931 | 44.70 | NG/UL | 9 |
| 36) | C525 2-CHLORONAPHTHALENE | 13.60 | 162.0 | 150264 | 49.23 | NG/UL | 9 |
| 37) | C530 2-NITROANILINE | 14.00 | 65.0 | 77458 | 49.94 | NG/UL | 8 |
| 38) | C535 DIMETHYLPHTHALATE | 14.45 | 163.0 | 159236 | 47.32 | NG/UL | 8 |
| 39) | C540 ACENAPHTHYLENE | 14.48 | 152.0 | 231378 | 51.94 | NG/UL | 9 |
| 40) | C543 2,6-DINITROTOLUENE | 14.58 | 165.0 | 47571 | 45.36 | NG/UL | 9 |
| 41) | C545 3-NITROANILINE | 14.96 | 138.0 | 22230 | 54.64 | NG/UL | 8 |
| 42) | C550 ACENAPHTHENE | 14.87 | 153.0 | 155081 | 49.67 | NG/UL | 9 |
| 43) | C555 2,4-DINITROPHENOL | 15.18 | 184.0 | 22779M | 42.89 | NG/UL | |
| 44) | C560 4-NITROPHENOL | 15.66 | 109.0 | 9668M | 54.96 | NG/UL | 8 |

| | | Compound | R.T. | Q ion | Area | Conc | Units | c |
|---|---|---|---|---|---|---|---|---|
| 45) | C565 | DIBENZOFURAN | 15.23 | 168.0 | 223879 | 48.02 | NG/UL | 8 |
| 46) | C570 | 2,4-DINITROTOLUENE | 15.42 | 165.0 | 77833M | 45.41 | NG/UL | |
| 47) | C580 | DIETHYLPHTHALATE | 15.95 | 149.0 | 153314 | 49.62 | NG/UL | 9 |
| 48) | C585 | 4-CHLOROPHENYL-PHENYLETHE | 15.99 | 204.0 | 77046 | 48.93 | NG/UL | 9 |
| 49) | C590 | FLUORENE | 15.95 | 166.0 | 119506 | 42.74 | NG/UL | 9 |
| 50) | C595 | 4-NITROANILINE | 16.44 | 138.0 | 38739M | 37.11 | NG/UL | |
| 51) | CS25 | 2-FLUOROBIPHENYL | 13.43 | 172.0 | 162852 | 49.28 | NG/UL | 9 |
| 52) | CS55 | 2,4,6-TRIBROMOPHENOL | 16.53 | 329.8 | 30296 | 39.55 | NG/UL | 9 |
| 53) | *CI60 | PHENANTHRENE-D10 | 17.93 | 188.0 | 195910 | 40.00 | NG/UL | 8 |
| 54) | C610 | 4,6-DINITRO-2-METHYLPHENO | 16.30 | 198.0 | 39406 | 48.00 | NG/UL | 10 |
| 55) | C615 | N-NITROSODIPHENYLAMINE | 16.29 | 169.0 | 75510 | 49.89 | NG/UL | 9 |
| 56) | C625 | 4-BROMOPHENYLPHENYLETHER | 17.01 | 248.0 | 48494 | 43.73 | NG/UL | 9 |
| 57) | C630 | HEXACHLOROBENZENE | 17.29 | 284.0 | 60380 | 39.92 | NG/UL | 8 |
| 58) | C635 | PENTACHLOROPHENOL | 17.75 | 266.0 | 18931 | 45.82 | NG/UL | 9 |
| 59) | C640 | PHENANTHRENE | 17.98 | 178.0 | 251729 | 51.05 | NG/UL | 9 |
| 60) | C645 | ANTHRACENE | 18.07 | 178.0 | 261554 | 51.69 | NG/UL | 9 |
| 61) | C650 | DI-N-BUTYLPHTHALATE | 19.40 | 149.0 | 378788 | 51.46 | NG/UL | 8 |
| 62) | C655 | FLUORANTHENE | 20.52 | 202.0 | 282841 | 47.01 | NG/UL | 9 |
| 63) | *CI70 | CHRYSENE-D12 | 23.59 | 240.0 | 177488 | 40.00 | NG/UL | 9 |
| 64) | C715 | PYRENE | 20.97 | 202.0 | 265965 | 53.45 | NG/UL | 9 |
| 65) | C720 | BUTYLBENZYLPHTHALATE | 22.54 | 149.0 | 182294 | 52.51 | NG/UL | 9 |
| 66) | C725 | 3,3'-DICHLOROBENZIDINE | 23.61 | 252.0 | 18769 | 91.06 | NG/UL | 9 |
| 67) | C730 | BENZO(A)ANTHRACENE | 23.55 | 228.0 | 235989 | 50.10 | NG/UL | 9 |
| 68) | C740 | CHRYSENE | 23.65 | 228.0 | 236522 | 45.83 | NG/UL | 9 |
| 69) | C745 | BIS(2-ETHYLHEXYL)PHTHALAT | 23.82 | 149.0 | 247846 | 53.46 | NG/UL | 9 |
| 70) | CS30 | TERPHENYL-D14 | 21.39 | 244.0 | 165655 | 50.29 | NG/UL | 9 |
| 71) | *CI75 | PERYLENE-D12 | 26.53 | 264.0 | 149642 | 40.00 | NG/UL | 9 |
| 72) | C760 | DI-N-OCTYLPHTHALATE | 25.05 | 149.0 | 434477 | 66.70 | NG/UL | 10 |
| 73) | C765 | BENZO(B)FLUORANTHENE | 25.75 | 252.0 | 219656 | 53.99 | NG/UL | 9 |
| 74) | C770 | BENZO(K)FLUORANTHENE | 25.79 | 252.0 | 208047M | 52.83 | NG/UL | 9 |
| 75) | C775 | BENZO(A)PYRENE | 26.42 | 252.0 | 182560 | 50.75 | NG/UL | 8 |
| 76) | C780 | INDENO(1,2,3-CD)PYRENE | 29.31 | 276.0 | 142197 | 45.40 | NG/UL | 8 |
| 77) | C785 | DIBENZ(A,H)ANTHRACENE | 29.33 | 278.0 | 106723 | 45.83 | NG/UL | 8 |
| 78) | C790 | BENZO(G,H,I)PERYLENE | 30.10 | 276.0 | 115519 | 44.32 | NG/UL | 8 |

* Compound is ISTD

File: FE923
SSTD50
Inst. F
8/01/91 10:2

TOTAL ION CHROMATOGRAM

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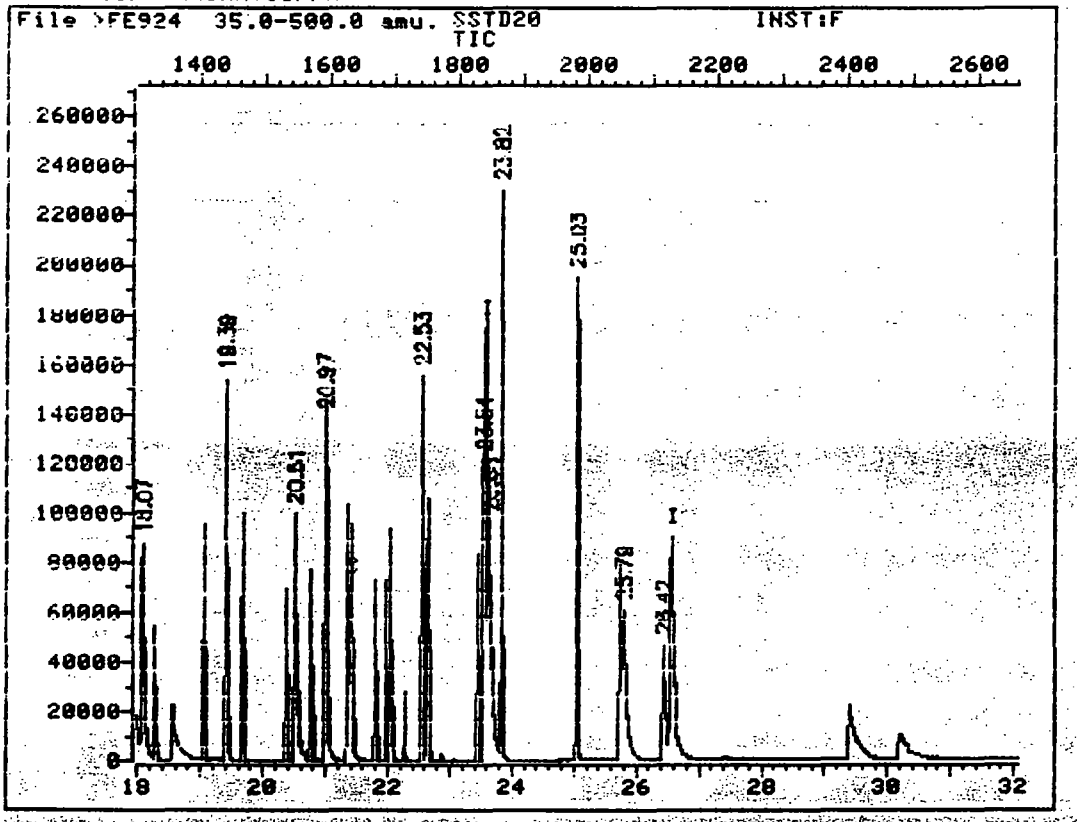
Last Calibration: 910731 11:09

Operator ID: LINDA
Quant Time: 910801 11:50
Injected at: 910801 11:15

TIC page 1 of 2

TOTAL ION CHROMATOGRAM

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Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910731 11:09

Operator ID: LINDA
Quant Time: 910801 11:50
Injected at: 910801 11:15

TIC page 2 of 2

QUANT REPORT

Operator ID: LINDA  Quant Rev: 6  Quant Time: 910801 11:50
Output File: ^FE924::L1  Injected at: 910801 11:15
Data File: >FE924::D7  Dilution Factor: 1.00000
Name: SSTD20
Misc: INST:F  BTL# 1

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910731 11:09

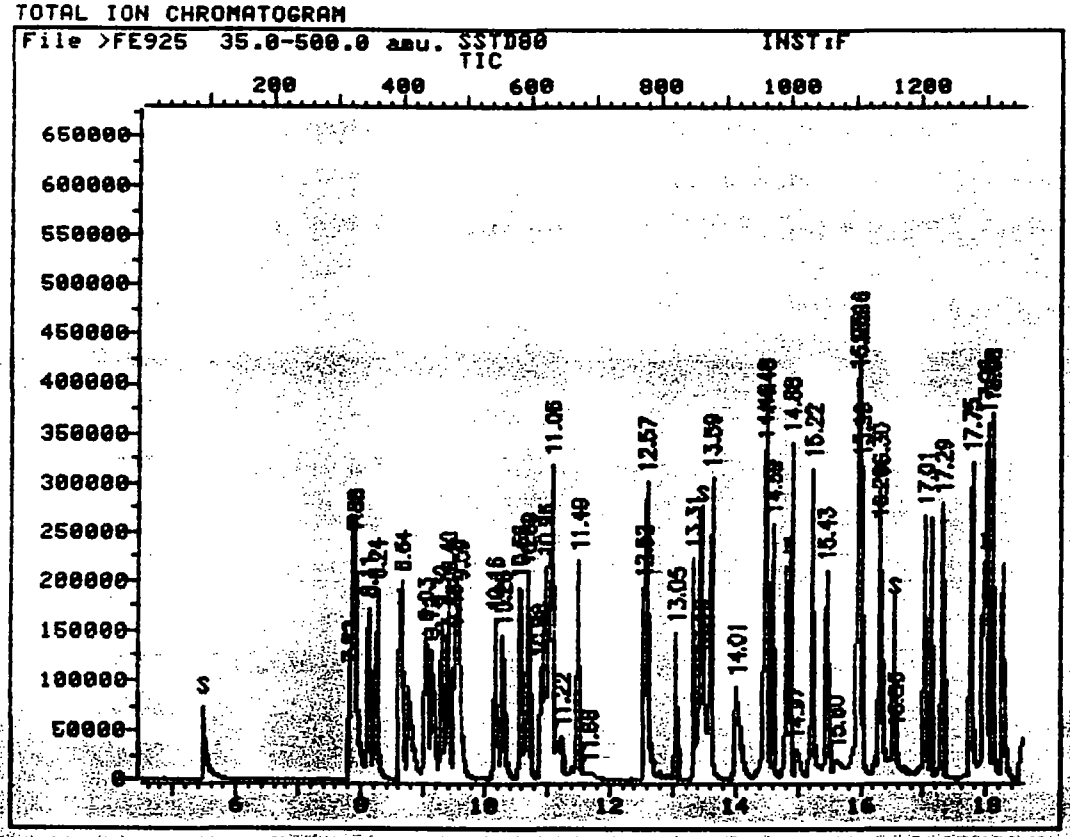
| | | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|---|
| 1) | *CI30 | 1,4-DICHLOROBENZENE-D4 | 8.20 | 152.0 | 35249 | 40.00 | NG/UL | 97 |
| 2) | C332 | ANILINE | 7.80 | 93.1 | 26449M | 25.71 | NG/UL | |
| 3) | C315 | PHENOL | 7.92 | 94.0 | 25956M | 21.65 | NG/UL | |
| 4) | C325 | BIS(2-CHLOROETHYL)ETHER | 7.80 | 93.0 | 26218 | 21.30 | NG/UL | 96 |
| 5) | C330 | 2-CHLOROPHENOL | 7.90 | 128.0 | 20512M | 21.31 | NG/UL | |
| 6) | C335 | 1,3-DICHLOROBENZENE | 8.10 | 146.0 | 24128M | 21.18 | NG/UL | |
| 7) | C340 | 1,4-DICHLOROBENZENE | 8.23 | 146.0 | 26519M | 21.31 | NG/UL | |
| 8) | C345 | BENZYL ALCOHOL | 8.81 | 108.0 | 11121M | 15.49 | NG/UL | 88 |
| 9) | C350 | 1,2-DICHLOROBENZENE | 8.64 | 146.0 | 25829M | 23.27 | NG/UL | 96 |
| 10) | C355 | 2-METHYLPHENOL | 9.16 | 108.0 | 21964 | 20.45 | NG/UL | 90 |
| 11) | C360 | BIS(2-CHLOROISOPROPYL)ETH | 9.03 | 45.0 | 69337M | 22.98 | NG/UL | 100 |
| 12) | C365 | 4-METHYLPHENOL | 9.53 | 108.0 | 22632M | 20.99 | NG/UL | |
| 13) | C370 | N-NITROSO-DI-N-PROPYLAMIN | 9.35 | 70.0 | 24022M | 21.27 | NG/UL | |
| 14) | C375 | HEXACHLOROETHANE | 9.30 | 117.0 | 11981 | 21.73 | NG/UL | 86 |
| 15) | CS50 | 2-FLUOROPHENOL | 5.49 | 112.0 | 16237M | 16.40 | NG/UL | 86 |
| 16) | CS45 | PHENOL-D5 | 7.87 | 99.0 | 28503 | 21.74 | NG/UL | 96 |
| 17) | *CI40 | NAPHTHALENE-D8 | 11.01 | 136.0 | 142868 | 40.00 | NG/UL | 89 |
| 18) | C410 | NITROBENZENE | 9.58 | 77.0 | 35898 | 21.96 | NG/UL | 77 |
| 19) | C415 | ISOPHORONE | 10.13 | 82.0 | 63858 | 19.79 | NG/UL | 92 |
| 20) | C420 | 2-NITROPHENOL | 10.30 | 139.0 | 11632 | 14.76 | NG/UL | 82 |
| 21) | C425 | 2,4-DIMETHYLPHENOL | 10.59 | 107.0 | 22091 | 17.35 | NG/UL | 95 |
| 23) | C435 | BIS(2-CHLOROETHOXY)METHAN | 10.69 | 93.0 | 34328 | 18.26 | NG/UL | 98 |
| 24) | C440 | 2,4-DICHLOROPHENOL | 11.03 | 162.0 | 16420M | 17.45 | NG/UL | |
| 25) | C445 | 1,2,4-TRICHLOROBENZENE | 10.96 | 180.0 | 23149 | 19.06 | NG/UL | 95 |
| 26) | C450 | NAPHTHALENE | 11.05 | 128.0 | 74477 | 22.08 | NG/UL | 99 |
| 27) | C455 | 4-CHLOROANILINE | 11.51 | 127.0 | 3029M | 6.84 | NG/UL | |
| 28) | C460 | HEXACHLOROBUTADIENE | 11.49 | 225.0 | 14301 | 18.80 | NG/UL | 99 |
| 29) | C465 | 4-CHLORO-3-METHYLPHENOL | 12.59 | 107.0 | 26382 | 18.88 | NG/UL | 93 |
| 30) | C470 | 2-METHYLNAPHTHALENE | 12.57 | 142.0 | 62945 | 20.22 | NG/UL | 97 |
| 31) | CS20 | NITROBENZENE-D5 | 9.55 | 82.0 | 23617 | 18.36 | NG/UL | 89 |
| 32) | *CI50 | ACENAPHTHENE-D10 | 14.80 | 164.0 | 89243 | 40.00 | NG/UL | 96 |
| 33) | C510 | HEXACHLOROCYCLOPENTADIENE | 13.06 | 237.0 | 3345 | 7.17 | NG/UL | 98 |
| 34) | C515 | 2,4,6-TRICHLOROPHENOL | 13.34 | 196.0 | 15992 | 17.24 | NG/UL | 95 |
| 36) | C525 | 2-CHLORONAPHTHALENE | 13.59 | 162.0 | 45796 | 18.90 | NG/UL | 93 |
| 38) | C535 | DIMETHYLPHTHALATE | 14.44 | 163.0 | 64955 | 24.31 | NG/UL | 86 |
| 39) | C540 | ACENAPHTHYLENE | 14.47 | 152.0 | 85956 | 24.30 | NG/UL | 98 |
| 0) | C543 | 2,6-DINITROTOLUENE | 14.58 | 165.0 | 15760 | 18.93 | NG/UL | 96 |
| 42) | C550 | ACENAPHTHENE | 14.87 | 153.0 | 56594 | 22.83 | NG/UL | 98 |
| 45) | C565 | DIBENZOFURAN | 15.22 | 168.0 | 76961 | 20.79 | NG/UL | 87 |
| 46) | C570 | 2,4-DINITROTOLUENE | 15.45 | 165.0 | 20783 | 15.27 | NG/UL | 79 |
| 47) | C580 | DIETHYLPHTHALATE | 15.93 | 149.0 | 65594 | 26.74 | NG/UL | 97 |
| 48) | C585 | 4-CHLOROPHENYL-PHENYLETHE | 15.99 | 204.0 | 28265 | 22.61 | NG/UL | 89 |
| 49) | C590 | FLUORENE | 15.94 | 166.0 | 57044 | 25.69 | NG/UL | 98 |

| | | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|---|
| 51) | CS25 | 2-FLUOROBIPHENYL | 13.42 | 172.0 | 55043 | 20.98 | NG/UL | 96 |
| 52) | CS55 | 2,4,6-TRIBROMOPHENOL | 16.55 | 329.8 | 7835 | 12.88 | NG/UL | 93 |
| 53) | *CI60 | PHENANTHRENE-D10 | 17.92 | 188.0 | 153831 | 40.00 | NG/UL | 89 |
| 55) | C615 | N-NITROSODIPHENYLAMINE | 16.30 | 169.0 | 27200 | 22.89 | NG/UL | 99 |
| 56) | C625 | 4-BROMOPHENYLPHENYLETHER | 17.00 | 248.0 | 15821 | 18.17 | NG/UL | 99 |
| 57) | C630 | HEXACHLOROBENZENE | 17.28 | 284.0 | 21158 | 17.82 | NG/UL | 83 |
| 59) | C640 | PHENANTHRENE | 17.97 | 178.0 | 89686 | 23.16 | NG/UL | 97 |
| 60) | C645 | ANTHRACENE | 18.07 | 178.0 | 92806 | 23.36 | NG/UL | 94 |
| 61) | C650 | DI-N-BUTYLPHTHALATE | 19.39 | 149.0 | 144213 | 24.95 | NG/UL | 87 |
| 62) | C655 | FLUORANTHENE | 20.51 | 202.0 | 101754 | 21.54 | NG/UL | 90 |
| 63) | *CI70 | CHRYSENE-D12 | 23.57 | 240.0 | 145200 | 40.00 | NG/UL | 96 |
| 64) | C715 | PYRENE | 20.97 | 202.0 | 98772 | 24.26 | NG/UL | 88 |
| 65) | C720 | BUTYLBENZYLPHTHALATE | 22.53 | 149.0 | 65827 | 23.18 | NG/UL | 88 |
| 66) | C725 | 3,3'-DICHLOROBENZIDINE | 23.63 | 252.0 | 8014 | 47.53 | NG/UL | 96 |
| 67) | C730 | BENZO(A)ANTHRACENE | 23.54 | 228.0 | 78476 | 20.36 | NG/UL | 93 |
| 68) | C740 | CHRYSENE | 23.63 | 228.0 | 84770 | 20.08 | NG/UL | 96 |
| 69) | C745 | BIS(2-ETHYLHEXYL)PHTHALAT | 23.82 | 149.0 | 94343 | 24.87 | NG/UL | 84 |
| 70) | CS30 | TERPHENYL-D14 | 21.38 | 244.0 | 57384 | 21.30 | NG/UL | 94 |
| 71) | *CI75 | PERYLENE-D12 | 26.53 | 264.0 | 119360 | 40.00 | NG/UL | 97 |
| 72) | C760 | DI-N-OCTYLPHTHALATE | 25.03 | 149.0 | 156475 | 30.12 | NG/UL | 100 |
| 73) | C765 | BENZO(B)FLUORANTHENE | 25.73 | 252.0 | 52231M | 16.10 | NG/UL | 82 |
| 74) | C770 | BENZO(K)FLUORANTHENE | 25.79 | 252.0 | 75010 | 23.88 | NG/UL | 82 |
| 75) | C775 | BENZO(A)PYRENE | 26.42 | 252.0 | 55449 | 19.32 | NG/UL | 86 |
| 76) | C780 | INDENO(1,2,3-CD)PYRENE | 29.37 | 276.0 | 44022M | 17.62 | NG/UL | |
| 77) | C785 | DIBENZ(A,H)ANTHRACENE | 29.39 | 278.0 | 32162M | 17.31 | NG/UL | |
| 78) | C790 | BENZO(G,H,I)PERYLENE | 30.19 | 276.0 | 38173M | 18.36 | NG/UL | |

* Compound is ISTD

File: FE924
SSTD20
Inst: F
8/01/91 11:15

TOTAL ION CHROMATOGRAM

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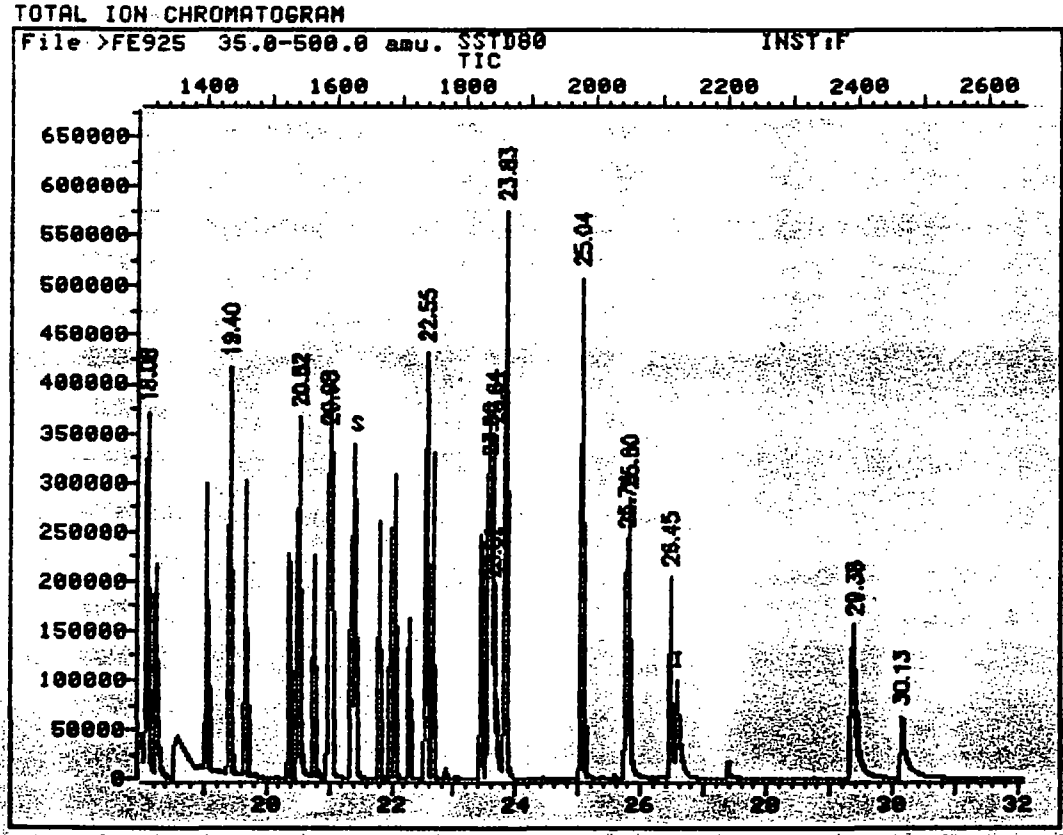
Last Calibration: 910731 11:09

Operator ID: LINDA
Quant Time: 910801 12:31
Injected at: 910801 11:56

TIC page 1 of 2

TOTAL ION CHROMATOGRAM

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Last Calibration: 910731 11:09

Operator ID: LINDA
Quant Time: 910801 12:31
Injected at: 910801 11:56

TIC page 2 of 2

QUANT REPORT

Operator ID: LINDA  Quant Rev: 6  Quant Time: 910801 12:31
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Misc: INST:F  BTL# 1

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910731 11:09

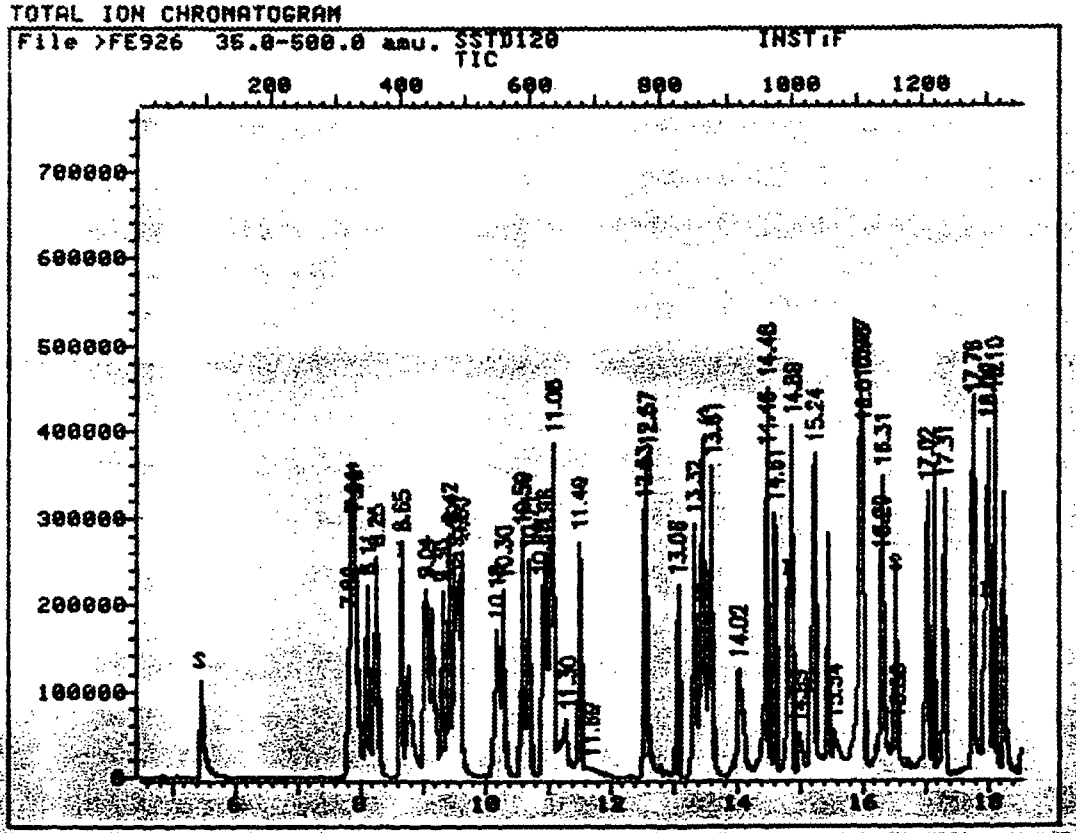
| | | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|---|
| 1) | *CI30 | 1,4-DICHLOROBENZENE-D4 | 8.21 | 152.0 | 35894M | 40.00 | NG/UL | 98 |
| 3) | C315 | PHENOL | 7.86 | 94.0 | 113170M | 92.70 | NG/UL | |
| 4) | C325 | BIS(2-CHLOROETHYL)ETHER | 7.82 | 93.0 | 108958 | 86.91 | NG/UL | 98 |
| 5) | C330 | 2-CHLOROPHENOL | 7.88 | 128.0 | 82134 | 83.78 | NG/UL | 83 |
| 6) | C335 | 1,3-DICHLOROBENZENE | 8.11 | 146.0 | 96981 | 83.58 | NG/UL | 97 |
| 7) | C340 | 1,4-DICHLOROBENZENE | 8.24 | 146.0 | 107523 | 84.86 | NG/UL | 92 |
| 8) | C345 | BENZYL ALCOHOL | 8.75 | 108.0 | 63981M | 87.52 | NG/UL | |
| 9) | C350 | 1,2-DICHLOROBENZENE | 8.64 | 146.0 | 93345 | 82.60 | NG/UL | 95 |
| 10) | C355 | 2-METHYLPHENOL | 9.12 | 108.0 | 99520M | 90.98 | NG/UL | 89 |
| 1) | C360 | BIS(2-CHLOROISOPROPYL)ETH | 9.03 | 45.0 | 290701 | 94.61 | NG/UL | 100 |
| 2) | C365 | 4-METHYLPHENOL | 9.48 | 108.0 | 102134 | 93.03 | NG/UL | 99 |
| 13) | C370 | N-NITROSO-DI-N-PROPYLAMIN | 9.40 | 70.0 | 97014 | 84.35 | NG/UL | 84 |
| 14) | C375 | HEXACHLOROETHANE | 9.30 | 117.0 | 48377 | 86.17 | NG/UL | 94 |
| 15) | CS50 | 2-FLUOROPHENOL | 5.45 | 112.0 | 81123 | 80.48 | NG/UL | 82 |
| 16) | CS45 | PHENOL-D5 | 7.84 | 99.0 | 117569 | 88.05 | NG/UL | 96 |
| 17) | *CI40 | NAPHTHALENE-D8 | 11.02 | 136.0 | 148962 | 40.00 | NG/UL | 89 |
| 18) | C410 | NITROBENZENE | 9.59 | 77.0 | 136511 | 80.08 | NG/UL | 83 |
| 19) | C415 | ISOPHORONE | 10.16 | 82.0 | 268872 | 79.93 | NG/UL | 91 |
| 20) | C420 | 2-NITROPHENOL | 10.28 | 139.0 | 61202 | 74.50 | NG/UL | 84 |
| 21) | C425 | 2,4-DIMETHYLPHENOL | 10:56 | 107.0 | 106734 | 80.40 | NG/UL | 93 |
| 22) | C430 | BENZOIC ACID | 11.22 | 122.0 | 45505 | 71.71 | NG/UL | 83 |
| 23) | C435 | BIS(2-CHLOROETHOXY)METHAN | 10.69 | 93.0 | 150330 | 76.70 | NG/UL | 98 |
| 24) | C440 | 2,4-DICHLOROPHENOL | 10.88 | 162.0 | 85516M | 87.18 | NG/UL | 89 |
| 25) | C445 | 1,2,4-TRICHLOROBENZENE | 10.96 | 180.0 | 89720 | 70.86 | NG/UL | 97 |
| 26) | C450 | NAPHTHALENE | 11.06 | 128.0 | 267566 | 76.09 | NG/UL | 99 |
| 27) | C455 | 4-CHLOROANILINE | 11.53 | 127.0 | 39432M | 85.40 | NG/UL | 89 |
| 28) | C460 | HEXACHLOROBUTADIENE | 11.49 | 225.0 | 52985 | 66.82 | NG/UL | 98 |
| 29) | C465 | 4-CHLORO-3-METHYLPHENOL | 12.52 | 107.0 | 116818M | 80.17 | NG/UL | 90 |
| 30) | C470 | 2-METHYLNAPHTHALENE | 12.57 | 142.0 | 252053 | 77.65 | NG/UL | 94 |
| 31) | CS20 | NITROBENZENE-D5 | 9.55 | 82.0 | 109818 | 81.88 | NG/UL | 90 |
| 32) | *CI50 | ACENAPHTHENE-D10 | 14.80 | 164.0 | 94243 | 40.00 | NG/UL | 97 |
| 33) | C510 | HEXACHLOROCYCLOPENTADIENE | 13.05 | 237.0 | 39400 | 80.00 | NG/UL | 97 |
| 34) | C515 | 2,4,6-TRICHLOROPHENOL | 13.31 | 196.0 | 69573 | 71.03 | NG/UL | 98 |
| 35) | C520 | 2,4,5-TRICHLOROPHENOL | 13.46 | 196.0 | 65648 | 71.53 | NG/UL | 99 |
| 6) | C525 | 2-CHLORONAPHTHALENE | 13.59 | 162.0 | 193663 | 75.68 | NG/UL | 92 |
| 7) | C530 | 2-NITROANILINE | 14.01 | 65.0 | 99288 | 76.35 | NG/UL | 86 |
| 38) | C535 | DIMETHYLPHTHALATE | 14.46 | 163.0 | 197568 | 70.02 | NG/UL | 83 |
| 39) | C540 | ACENAPHTHYLENE | 14.48 | 152.0 | 270864 | 72.51 | NG/UL | 98 |
| 40) | C543 | 2,6-DINITROTOLUENE | 14.59 | 165.0 | 62951 | 71.58 | NG/UL | 93 |
| 41) | C545 | 3-NITROANILINE | 14.97 | 138.0 | 27357M | 80.20 | NG/UL | 94 |
| 42) | C550 | ACENAPHTHENE | 14.88 | 153.0 | 196382 | 75.02 | NG/UL | 97 |
| 43) | C555 | 2,4-DINITROPHENOL | 15.16 | 184.0 | 34129M | 76.64 | NG/UL | |
| 44) | C560 | 4-NITROPHENOL | 15.60 | 109.0 | 16622M | 112.71 | NG/UL | 85 |

| | | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|---|
| 45) | C565 | DIBENZOFURAN | 15.22 | 168.0 | 281078 | 71.90 | NG/UL | 85 |
| 46) | C570 | 2,4-DINITROTOLUENE | 15.43 | 165.0 | 94629 | 65.84 | NG/UL | 76 |
| 47) | C580 | DIETHYLPHTHALATE | 15.96 | 149.0 | 188991 | 72.95 | NG/UL | 97 |
| 48) | C585 | 4-CHLOROPHENYL-PHENYLETHE | 15.99 | 204.0 | 95517 | 72.35 | NG/UL | 90 |
| 49) | C590 | FLUORENE | 15.95 | 166.0 | 170035 | 72.53 | NG/UL | 99 |
| 50) | C595 | 4-NITROANILINE | 16.46 | 138.0 | 58439M | 66.76 | NG/UL | 77 |
| 51) | CS25 | 2-FLUOROBIPHENYL | 13.43 | 172.0 | 201785 | 72.83 | NG/UL | 96 |
| 52) | CS55 | 2,4,6-TRIBROMOPHENOL | 16.52 | 329.8 | 40380 | 62.87 | NG/UL | 96 |
| 53) | *CI60 | PHENANTHRENE-D10 | 17.93 | 188.0 | 170285 | 40.00 | NG/UL | 87 |
| 54) | C610 | 4,6-DINITRO-2-METHYLPHENO | 16.30 | 198.0 | 48107 | 67.42 | NG/UL | 100 |
| 55) | C615 | N-NITROSODIPHENYLAMINE | 16.29 | 169.0 | 101984 | 77.52 | NG/UL | 96 |
| 56) | C625 | 4-BROMOPHENYLPHENYLETHER | 17.01 | 248.0 | 63583 | 65.97 | NG/UL | 96 |
| 57) | C630 | HEXACHLOROBENZENE | 17.29 | 284.0 | 79535 | 60.50 | NG/UL | 90 |
| 58) | C635 | PENTACHLOROPHENOL | 17.75 | 266.0 | 28316 | 78.85 | NG/UL | 99 |
| 59) | C640 | PHENANTHRENE | 17.99 | 178.0 | 323487 | 75.47 | NG/UL | 97 |
| 60) | C645 | ANTHRACENE | 18.08 | 178.0 | 333746 | 75.89 | NG/UL | 95 |
| 61) | C650 | DI-N-BUTYLPHTHALATE | 19.40 | 149.0 | 474495 | 74.16 | NG/UL | 87 |
| 62) | C655 | FLUORANTHENE | 20.52 | 202.0 | 360213 | 68.88 | NG/UL | 95 |
| 63) | *CI70 | CHRYSENE-D12 | 23.59 | 240.0 | 145039 | 40.00 | NG/UL | 95 |
| 64) | C715 | PYRENE | 20.98 | 202.0 | 309318 | 76.07 | NG/UL | 97 |
| 65) | C720 | BUTYLBENZYLPHTHALATE | 22.55 | 149.0 | 232775 | 82.05 | NG/UL | 91 |
| 6) | C725 | 3,3'-DICHLOROBENZIDINE | 23.62 | 252.0 | 23541 | 139.76 | NG/UL | 96 |
| 7) | C730 | BENZO(A)ANTHRACENE | 23.56 | 228.0 | 296691 | 77.07 | NG/UL | 95 |
| 68) | C740 | CHRYSENE | 23.64 | 228.0 | 303072 | 71.86 | NG/UL | 97 |
| 69) | C745 | BIS(2-ETHYLHEXYL)PHTHALAT | 23.83 | 149.0 | 304100 | 80.27 | NG/UL | 89 |
| 70) | CS30 | TERPHENYL-D14 | 21.40 | 244.0 | 194738 | 72.35 | NG/UL | 98 |
| 71) | *CI75 | PERYLENE-D12 | 26.56 | 264.0 | 116494 | 40.00 | NG/UL | 98 |
| 72) | C760 | DI-N-OCTYLPHTHALATE | 25.04 | 149.0 | 537785 | 106.05 | NG/UL | 100 |
| 73) | C765 | BENZO(B)FLUORANTHENE | 25.76 | 252.0 | 284615 | 89.87 | NG/UL | 93 |
| 74) | C770 | BENZO(K)FLUORANTHENE | 25.80 | 252.0 | 231938 | 75.66 | NG/UL | 91 |
| 75) | C775 | BENZO(A)PYRENE | 26.45 | 252.0 | 229409 | 81.91 | NG/UL | 90 |
| 76) | C780 | INDENO(1,2,3-CD)PYRENE | 29.36 | 276.0 | 174149M | 71.42 | NG/UL | |
| 77) | C785 | DIBENZ(A,H)ANTHRACENE | 29.38 | 278.0 | 134105 | 73.97 | NG/UL | 86 |
| 78) | C790 | BENZO(G,H,I)PERYLENE | 30.13 | 276.0 | 134527 | 66.30 | NG/UL | 81 |

* Compound is ISTD

File: FE925
SSTD80
Inst: F
8/01/91 11:56

TOTAL ION CHROMATOGRAM

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Misc: INST:F BTL# 2

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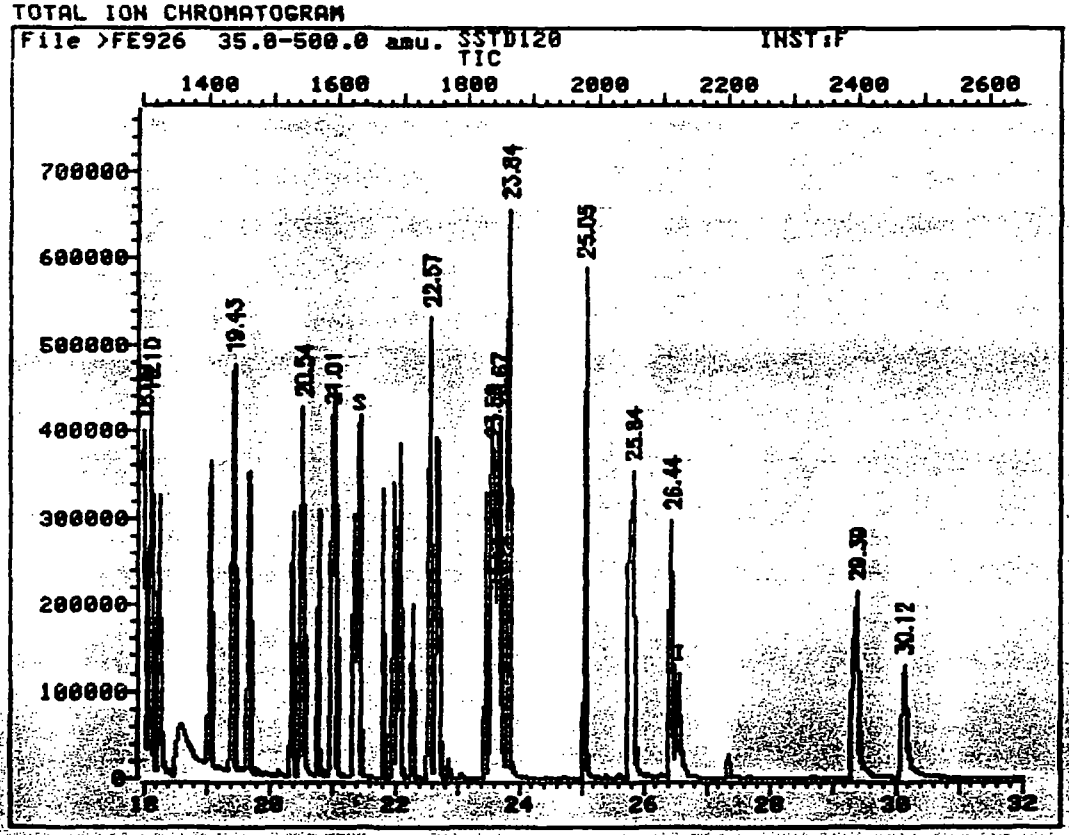
Last Calibration: 910731 11:09

Operator ID: LINDA
Quant Time: 910801 13:12
Injected at: 910801 12:37

TIC page 1 of 2

TOTAL ION CHROMATOGRAM

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Name: SSTD120
Misc: INST:F BTL# 2

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910731 11:09

Operator ID: LINDA
Quant Time: 910801 13:12
Injected at: 910801 12:37

TIC page 2 of 2

QUANT REPORT

Operator ID: LINDA  Quant Rev: 6  Quant Time: 910801 13:12
Output File: ^FE926::L1  Injected at: 910801 12:37
Data File: >FE926::D7  Dilution Factor: 1.00000
Name: SSTD120
Misc: INST:F  BTL# 2

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910731 11:09

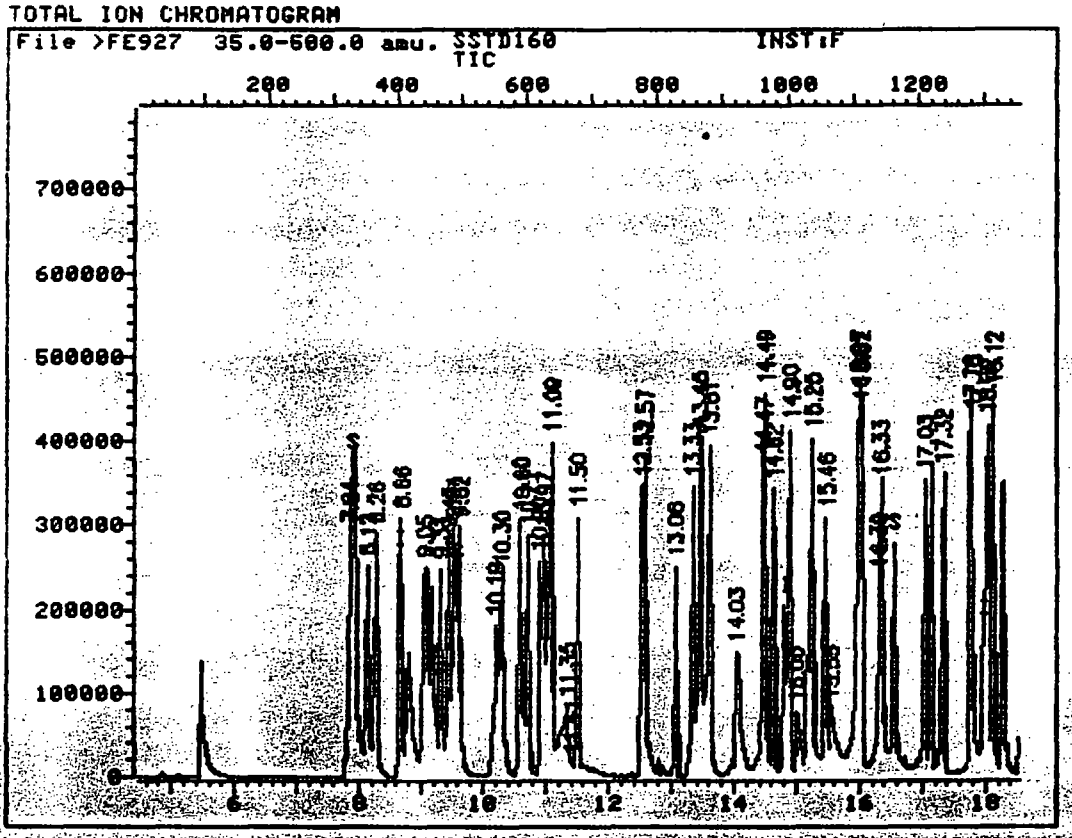
| | | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|---|
| 1) | *CI30 | 1,4-DICHLOROBENZENE-D4 | 8.21 | 152.0 | 36175M | 40.00 | NG/UL | 98 |
| 3) | C315 | PHENOL | 7.87 | 94.0 | 157526M | 128.03 | NG/UL | |
| 4) | C325 | BIS(2-CHLOROETHYL)ETHER | 7.82 | 93.0 | 151861 | 120.20 | NG/UL | 95 |
| 5) | C330 | 2-CHLOROPHENOL | 7.90 | 128.0 | 114153 | 115.54 | NG/UL | 82 |
| 6) | C335 | 1,3-DICHLOROBENZENE | 8.11 | 146.0 | 141917 | 121.36 | NG/UL | 97 |
| 7) | C340 | 1,4-DICHLOROBENZENE | 8.25 | 146.0 | 157634 | 123.44 | NG/UL | 92 |
| 8) | C345 | BENZYL ALCOHOL | 8.77 | 108.0 | 101241M | 137.41 | NG/UL | |
| 9) | C350 | 1,2-DICHLOROBENZENE | 8.65 | 146.0 | 133782 | 117.46 | NG/UL | 94 |
| 10) | C355 | 2-METHYLPHENOL | 9.13 | 108.0 | 150292M | 136.32 | NG/UL | |
| 1) | C360 | BIS(2-CHLOROISOPROPYL)ETH | 9.04 | 45.0 | 438706 | 141.67 | NG/UL | 100 |
| 2) | C365 | 4-METHYLPHENOL | 9.50 | 108.0 | 152130 | 137.50 | NG/UL | 97 |
| 13) | C370 | N-NITROSO-DI-N-PROPYLAMIN | 9.42 | 70.0 | 136876 | 118.08 | NG/UL | 86 |
| 14) | C375 | HEXACHLOROETHANE | 9.30 | 117.0 | 69410 | 122.67 | NG/UL | 99 |
| 15) | CS50 | 2-FLUOROPHENOL | 5.43 | 112.0 | 128249 | 126.24 | NG/UL | 83 |
| 16) | CS45 | PHENOL-D5 | 7.85 | 99.0 | 163145 | 121.24 | NG/UL | 92 |
| 17) | *CI40 | NAPHTHALENE-D8 | 11.02 | 136.0 | 147009 | 40.00 | NG/UL | 90 |
| 18) | C410 | NITROBENZENE | 9.60 | 77.0 | 202730 | 120.51 | NG/UL | 86 |
| 19) | C415 | ISOPHORONE | 10.18 | 82.0 | 404566 | 121.86 | NG/UL | 91 |
| 20) | C420 | 2-NITROPHENOL | 10.30 | 139.0 | 90886 | 112.10 | NG/UL | 87 |
| 21) | C425 | 2,4-DIMETHYLPHENOL | 10.59 | 107.0 | 134326 | 102.53 | NG/UL | 90 |
| 22) | C430 | BENZOIC ACID | 11.30 | 122.0 | 82964 | 132.49 | NG/UL | 86 |
| 23) | C435 | BIS(2-CHLOROETHOXY)METHAN | 10.71 | 93.0 | 228046 | 117.90 | NG/UL | 99 |
| 24) | C440 | 2,4-DICHLOROPHENOL | 10.89 | 162.0 | 121523 | 125.53 | NG/UL | 92 |
| 25) | C445 | 1,2,4-TRICHLOROBENZENE | 10.96 | 180.0 | 134213 | 107.40 | NG/UL | 97 |
| 26) | C450 | NAPHTHALENE | 11.08 | 128.0 | 382111 | 110.11 | NG/UL | 99 |
| 27) | C455 | 4-CHLOROANILINE | 11.61 | 127.0 | 64201M | 140.89 | NG/UL | 92 |
| 28) | C460 | HEXACHLOROBUTADIENE | 11.49 | 225.0 | 77264 | 98.73 | NG/UL | 99 |
| 29) | C465 | 4-CHLORO-3-METHYLPHENOL | 12.53 | 107.0 | 158634M | 110.31 | NG/UL | 88 |
| 30) | C470 | 2-METHYLNAPHTHALENE | 12.57 | 142.0 | 347915 | 108.61 | NG/UL | 96 |
| 31) | CS20 | NITROBENZENE-D5 | 9.56 | 82.0 | 173695 | 131.22 | NG/UL | 86 |
| 32) | *CI50 | ACENAPHTHENE-D10 | 14.80 | 164.0 | 95415 | 40.00 | NG/UL | 97 |
| 33) | C510 | HEXACHLOROCYCLOPENTADIENE | 13.06 | 237.0 | 70249 | 140.89 | NG/UL | 98 |
| 34) | C515 | 2,4,6-TRICHLOROPHENOL | 13.32 | 196.0 | 100010 | 100.85 | NG/UL | 99 |
| 35) | C520 | 2,4,5-TRICHLOROPHENOL | 13.46 | 196.0 | 100972 | 108.67 | NG/UL | 99 |
| 36) | C525 | 2-CHLORONAPHTHALENE | 13.61 | 162.0 | 281053 | 108.48 | NG/UL | 91 |
| 37) | C530 | 2-NITROANILINE | 14.02 | 65.0 | 152817 | 116.08 | NG/UL | 86 |
| 38) | C535 | DIMETHYLPHTHALATE | 14.46 | 163.0 | 267538 | 93.66 | NG/UL | 84 |
| 39) | C540 | ACENAPHTHYLENE | 14.48 | 152.0 | 360218 | 95.25 | NG/UL | 97 |
| 40) | C543 | 2,6-DINITROTOLUENE | 14.61 | 165.0 | 92676 | 104.09 | NG/UL | 96 |
| 41) | C545 | 3-NITROANILINE | 14.99 | 138.0 | 29621 | 85.77 | NG/UL | 84 |
| 42) | C550 | ACENAPHTHENE | 14.89 | 153.0 | 285471 | 107.71 | NG/UL | 98 |
| 43) | C555 | 2,4-DINITROPHENOL | 15.16 | 184.0 | 63871M | 141.67 | NG/UL | |
| 44) | C560 | 4-NITROPHENOL | 15.54 | 109.0 | 26426 | 176.98 | NG/UL | 89 |

| | | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|---|
| 45) | C565 | DIBENZOFURAN | 15.24 | 168.0 | 403986 | 102.08 | NG/UL | 83 |
| 46) | C570 | 2,4-DINITROTOLUENE | 15.45 | 165.0 | 159334M | 109.50 | NG/UL | |
| 47) | C580 | DIETHYLPHTHALATE | 15.98 | 149.0 | 252095 | 96.11 | NG/UL | 99 |
| 48) | C585 | 4-CHLOROPHENYL-PHENYLETHE | 16.01 | 204.0 | 118519 | 88.67 | NG/UL | 92 |
| 49) | C590 | FLUORENE | 15.97 | 166.0 | 246389 | 103.80 | NG/UL | 98 |
| 50) | C595 | 4-NITROANILINE | 16.49 | 138.0 | 94380M | 106.50 | NG/UL | 85 |
| 51) | CS25 | 2-FLUOROBIPHENYL | 13.44 | 172.0 | 272406 | 97.11 | NG/UL | 95 |
| 52) | CS55 | 2,4,6-TRIBROMOPHENOL | 16.53 | 329.8 | 58284 | 89.63 | NG/UL | 97 |
| 53) | *CI60 | PHENANTHRENE-D10 | 17.94 | 188.0 | 177155 | 40.00 | NG/UL | 86 |
| 54) | C610 | 4,6-DINITRO-2-METHYLPHENO | 16.31 | 198.0 | 74861 | 100.85 | NG/UL | 100 |
| 55) | C615 | N-NITROSODIPHENYLAMINE | 16.29 | 169.0 | 139940 | 102.25 | NG/UL | 98 |
| 56) | C625 | 4-BROMOPHENYLPHENYLETHER | 17.02 | 248.0 | 93295 | 93.05 | NG/UL | 97 |
| 57) | C630 | HEXACHLOROBENZENE | 17.31 | 284.0 | 124167 | 90.79 | NG/UL | 88 |
| 58) | C635 | PENTACHLOROPHENOL | 17.76 | 266.0 | 48073 | 128.67 | NG/UL | 98 |
| 59) | C640 | PHENANTHRENE | 18.00 | 178.0 | 469145 | 105.21 | NG/UL | 98 |
| 60) | C645 | ANTHRACENE | 18.10 | 178.0 | 434599 | 94.99 | NG/UL | 95 |
| 61) | C650 | DI-N-BUTYLPHTHALATE | 19.43 | 149.0 | 645313 | 96.95 | NG/UL | 86 |
| 62) | C655 | FLUORANTHENE | 20.54 | 202.0 | 496143 | 91.19 | NG/UL | 98 |
| 63) | *CI70 | CHRYSENE-D12 | 23.61 | 240.0 | 141473 | 40.00 | NG/UL | 96 |
| 64) | C715 | PYRENE | 21.01 | 202.0 | 397846 | 100.31 | NG/UL | 97 |
| 65) | C720 | BUTYLBENZYLPHTHALATE | 22.57 | 149.0 | 312116 | 112.80 | NG/UL | 93 |
| 6) | C725 | 3,3'-DICHLOROBENZIDINE | 23.63 | 252.0 | 22361 | 136.10 | NG/UL | 99 |
| ,7) | C730 | BENZO(A)ANTHRACENE | 23.58 | 228.0 | 403297 | 107.40 | NG/UL | 95 |
| 68) | C740 | CHRYSENE | 23.67 | 228.0 | 442628M | 107.59 | NG/UL | 98 |
| 69) | C745 | BIS(2-ETHYLHEXYL)PHTHALAT | 23.84 | 149.0 | 405247 | 109.66 | NG/UL | 91 |
| 70) | CS30 | TERPHENYL-D14 | 21.41 | 244.0 | 252564 | 96.20 | NG/UL | 93 |
| 71) | *CI75 | PERYLENE-D12 | 26.54 | 264.0 | 122878 | 40.00 | NG/UL | 98 |
| 72) | C760 | DI-N-OCTYLPHTHALATE | 25.05 | 149.0 | 697345 | 130.37 | NG/UL | 100 |
| 73) | C765 | BENZO(B)FLUORANTHENE | 25.79 | 252.0 | 456141M | 136.55 | NG/UL | |
| 74) | C770 | BENZO(K)FLUORANTHENE | 25.84 | 252.0 | 245881 | 76.04 | NG/UL | 94 |
| 75) | C775 | BENZO(A)PYRENE | 26.44 | 252.0 | 340204 | 115.16 | NG/UL | 93 |
| 76) | C780 | INDENO(1,2,3-CD)PYRENE | 29.38 | 276.0 | 274821M | 106.85 | NG/UL | |
| 77) | C785 | DIBENZ(A,H)ANTHRACENE | 29.39 | 278.0 | 210334 | 109.99 | NG/UL | 89 |
| 78) | C790 | BENZO(G,H,I)PERYLENE | 30.12 | 276.0 | 225357 | 105.30 | NG/UL | 84 |

* Compound is ISTD

File: FE926
SSTD120
Inst: F
8/01/91 12:37

TOTAL ION CHROMATOGRAM

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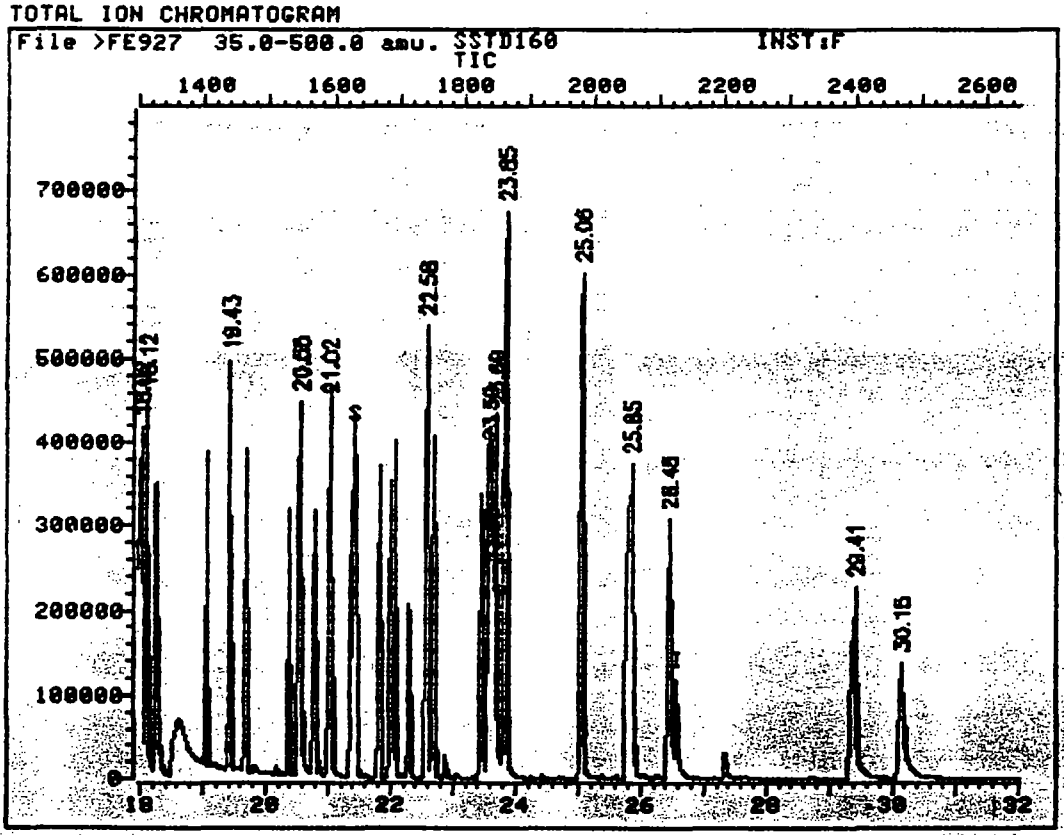
Last Calibration: 910731 11:09

Operator ID: LINDA
Quant Time: 910801 13:52
Injected at: 910801 13:18

TIC page 1 of 2

TOTAL ION CHROMATOGRAM

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Last Calibration: 910731 11:09

Operator ID: LINDA
Quant Time: 910801 13:52
Injected at: 910801 13:18

TIC page 2 of 2

QUANT REPORT

Operator ID: LINDA  Quant Rev: 6  Quant Time: 910801 13:52
Output File: ^FE927::L1  Injected at: 910801 13:18
Data File: >FE927::D7  Dilution Factor: 1.00000
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Misc: INST:F  BTL# 3

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910731 11:09

| | | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|---|
| 1) | *CI30 | 1,4-DICHLOROBENZENE-D4 | 8.22 | 152.0 | 34401M | 40.00 | NG/UL | 99 |
| 2) | C332 | ANILINE | 7.84 | 93.1 | 169922 | 169.24 | NG/UL | 73 |
| 3) | C315 | PHENOL | 7.90 | 94.0 | 181996M | 155.54 | NG/UL | |
| 4) | C325 | BIS(2-CHLOROETHYL)ETHER | 7.84 | 93.0 | 169922 | 141.43 | NG/UL | 93 |
| 5) | C330 | 2-CHLOROPHENOL | 7.92 | 128.0 | 129172M | 137.49 | NG/UL | |
| 6) | C335 | 1,3-DICHLOROBENZENE | 8.12 | 146.0 | 168195 | 151.25 | NG/UL | 97 |
| 7) | C340 | 1,4-DICHLOROBENZENE | 8.26 | 146.0 | 180047 | 148.26 | NG/UL | 92 |
| 8) | C345 | BENZYL ALCOHOL | 8.78 | 108.0 | 123958M | 176.92 | NG/UL | |
| 9) | C350 | 1,2-DICHLOROBENZENE | 8.66 | 146.0 | 138086 | 127.50 | NG/UL | 94 |
| 0) | C355 | 2-METHYLPHENOL | 9.14 | 108.0 | 180433M | 172.10 | NG/UL | |
| 1) | C360 | BIS(2-CHLOROISOPROPYL)ETH | 9.05 | 45.0 | 516261 | 175.31 | NG/UL | 100 |
| 12) | C365 | 4-METHYLPHENOL | 9.51 | 108.0 | 165494 | 157.29 | NG/UL | 97 |
| 13) | C370 | N-NITROSO-DI-N-PROPYLAMIN | 9.43 | 70.0 | 162420 | 147.35 | NG/UL | 88 |
| 14) | C375 | HEXACHLOROETHANE | 9.31 | 117.0 | 79775 | 148.26 | NG/UL | 97 |
| 15) | CS50 | 2-FLUOROPHENOL | 5.45 | 112.0 | 165644M | 171.46 | NG/UL | |
| 16) | CS45 | PHENOL-D5 | 7.87 | 99.0 | 163965 | 128.13 | NG/UL | 93 |
| 17) | *CI40 | NAPHTHALENE-D8 | 11.02 | 136.0 | 137073 | 40.00 | NG/UL | 90 |
| 18) | C410 | NITROBENZENE | 9.62 | 77.0 | 237801 | 151.61 | NG/UL | 83 |
| 19) | C415 | ISOPHORONE | 10.19 | 82.0 | 384885 | 124.34 | NG/UL | 93 |
| 20) | C420 | 2-NITROPHENOL | 10.30 | 139.0 | 112094 | 148.28 | NG/UL | 89 |
| 21) | C425 | 2,4-DIMETHYLPHENOL | 10.60 | 107.0 | 151700 | 124.18 | NG/UL | 92 |
| 22) | C430 | BENZOIC ACID | 11.35 | 122.0 | 109816 | 188.08 | NG/UL | 82 |
| 23) | C435 | BIS(2-CHLOROETHOXY)METHAN | 10.71 | 93.0 | 215430 | 119.45 | NG/UL | 98 |
| 24) | C440 | 2,4-DICHLOROPHENOL | 10.90 | 162.0 | 142608 | 157.99 | NG/UL | 92 |
| 25) | C445 | 1,2,4-TRICHLOROBENZENE | 10.97 | 180.0 | 156979 | 134.73 | NG/UL | 96 |
| 26) | C450 | NAPHTHALENE | 11.09 | 128.0 | 442416 | 136.73 | NG/UL | 99 |
| 27) | C455 | 4-CHLOROANILINE | 11.59 | 127.0 | 66204M | 155.82 | NG/UL | 87 |
| 28) | C460 | HEXACHLOROBUTADIENE | 11.50 | 225.0 | 87399 | 119.78 | NG/UL | 99 |
| 29) | C465 | 4-CHLORO-3-METHYLPHENOL | 12.53 | 107.0 | 180560M | 134.66 | NG/UL | 88 |
| 30) | C470 | 2-METHYLNAPHTHALENE | 12.57 | 142.0 | 394661 | 132.13 | NG/UL | 97 |
| 31) | CS20 | NITROBENZENE-D5 | 9.57 | 82.0 | 205274 | 166.32 | NG/UL | 89 |
| 32) | *CI50 | ACENAPHTHENE-D10 | 14.81 | 164.0 | 92119 | 40.00 | NG/UL | 98 |
| 33) | C510 | HEXACHLOROCYCLOPENTADIENE | 13.06 | 237.0 | 84360 | 175.25 | NG/UL | 97 |
| 34) | C515 | 2,4,6-TRICHLOROPHENOL | 13.33 | 196.0 | 120795 | 126.17 | NG/UL | 98 |
| 35) | C520 | 2,4,5-TRICHLOROPHENOL | 13.45 | 196.0 | 128168M | 142.87 | NG/UL | 97 |
| 36) | C525 | 2-CHLORONAPHTHALENE | 13.61 | 162.0 | 321648 | 128.58 | NG/UL | 91 |
| 37) | C530 | 2-NITROANILINE | 14.03 | 65.0 | 190676 | 150.02 | NG/UL | 90 |
| 38) | C535 | DIMETHYLPHTHALATE | 14.47 | 163.0 | 374866M | 135.92 | NG/UL | 85 |
| 39) | C540 | ACENAPHTHYLENE | 14.49 | 152.0 | 391162 | 107.13 | NG/UL | 96 |
| 40) | C543 | 2,6-DINITROTOLUENE | 14.62 | 165.0 | 109836 | 127.78 | NG/UL | 96 |
| 41) | C545 | 3-NITROANILINE | 15.00 | 138.0 | 45605 | 136.78 | NG/UL | 85 |
| 42) | C550 | ACENAPHTHENE | 14.90 | 153.0 | 330306 | 129.08 | NG/UL | 97 |
| 43) | C555 | 2,4-DINITROPHENOL | 15.16 | 184.0 | 91832M | 188.00 | NG/UL | |

| | | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|---|
| 44) | C560 | 4-NITROPHENOL | 15.55 | 109.0 | 37649 | 261.17 | NG/UL | 85 |
| 45) | C565 | DIBENZOFURAN | 15.25 | 168.0 | 450845 | 117.99 | NG/UL | 84 |
| 46) | C570 | 2,4-DINITROTOLUENE | 15.46 | 165.0 | 184234 | 131.14 | NG/UL | 77 |
| 47) | C580 | DIETHYLPHTHALATE | 16.00 | 149.0 | 315447M | 124.56 | NG/UL | 98 |
| 48) | C585 | 4-CHLOROPHENYL-PHENYLETHE | 16.02 | 204.0 | 144292M | 111.81 | NG/UL | 91 |
| 49) | C590 | FLUORENE | 15.97 | 166.0 | 283478 | 123.70 | NG/UL | 99 |
| 50) | C595 | 4-NITROANILINE | 16.36 | 138.0 | 103978M | 121.53 | NG/UL | |
| 51) | CS25 | 2-FLUOROBIPHENYL | 13.46 | 172.0 | 308164 | 113.79 | NG/UL | 95 |
| 52) | CS55 | 2,4,6-TRIBROMOPHENOL | 16.55 | 329.8 | 63868 | 101.73 | NG/UL | 97 |
| 53) | *CI60 | PHENANTHRENE-D10 | 17.94 | 188.0 | 171078 | 40.00 | NG/UL | 84 |
| 54) | C610 | 4,6-DINITRO-2-METHYLPHENO | 16.33 | 198.0 | 95039 | 132.58 | NG/UL | 100 |
| 55) | C615 | N-NITROSODIPHENYLAMINE | 16.30 | 169.0 | 153789 | 116.36 | NG/UL | 98 |
| 56) | C625 | 4-BROMOPHENYLPHENYLETHER | 17.03 | 248.0 | 111641 | 115.30 | NG/UL | 99 |
| 57) | C630 | HEXACHLOROBENZENE | 17.32 | 284.0 | 143691M | 108.80 | NG/UL | 93 |
| 58) | C635 | PENTACHLOROPHENOL | 17.78 | 266.0 | 58384 | 161.82 | NG/UL | 99 |
| 59) | C640 | PHENANTHRENE | 18.02 | 178.0 | 555662 | 129.04 | NG/UL | 98 |
| 60) | C645 | ANTHRACENE | 18.12 | 178.0 | 490928 | 111.11 | NG/UL | 97 |
| 61) | C650 | DI-N-BUTYLPHTHALATE | 19.43 | 149.0 | 742755 | 115.55 | NG/UL | 88 |
| 62) | C655 | FLUORANTHENE | 20.55 | 202.0 | 589524 | 112.20 | NG/UL | 99 |
| 63) | *CI70 | CHRYSENE-D12 | 23.62 | 240.0 | 131425 | 40.00 | NG/UL | 97 |
| 64) | C715 | PYRENE | 21.02 | 202.0 | 432615 | 117.42 | NG/UL | 95 |
| 5) | C720 | BUTYLBENZYLPHTHALATE | 22.58 | 149.0 | 356967 | 138.87 | NG/UL | 93 |
| 66) | C725 | 3,3'-DICHLOROBENZIDINE | 23.63 | 252.0 | 24797 | 162.47 | NG/UL | 99 |
| 67) | C730 | BENZO(A)ANTHRACENE | 23.59 | 228.0 | 303173 | 86.91 | NG/UL | 97 |
| 68) | C740 | CHRYSENE | 23.69 | 228.0 | 469627 | 122.88 | NG/UL | 96 |
| 69) | C745 | BIS(2-ETHYLHEXYL)PHTHALAT | 23.85 | 149.0 | 450189 | 131.14 | NG/UL | 92 |
| 70) | CS30 | TERPHENYL-D14 | 21.42 | 244.0 | 277552 | 113.80 | NG/UL | 97 |
| 71) | *CI75 | PERYLENE-D12 | 26.55 | 264.0 | 109812 | 40.00 | NG/UL | 98 |
| 72) | C760 | DI-N-OCTYLPHTHALATE | 25.06 | 149.0 | 768037 | 160.67 | NG/UL | 100 |
| 73) | C765 | BENZO(B)FLUORANTHENE | 25.81 | 252.0 | 527050M | 176.55 | NG/UL | |
| 74) | C770 | BENZO(K)FLUORANTHENE | 25.85 | 252.0 | 269640 | 93.31 | NG/UL | 93 |
| 75) | C775 | BENZO(A)PYRENE | 26.45 | 252.0 | 393707 | 149.13 | NG/UL | 92 |
| 76) | C780 | INDENO(1,2,3-CD)PYRENE | 29.41 | 276.0 | 305405M | 132.87 | NG/UL | 79 |
| 77) | C785 | DIBENZ(A,H)ANTHRACENE | 29.41 | 278.0 | 234275 | 137.09 | NG/UL | 90 |
| 78) | C790 | BENZO(G,H,I)PERYLENE | 30.15 | 276.0 | 256529 | 134.13 | NG/UL | 83 |

* Compound is ISTD

File: FE927
SSTD160
Inst: F
8/01/91 13:18

7B

# SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Instrument ID: F Calibration date: 08/05/91 Time: 1140

Lab File ID: FE955 Init. Calib. Date(s): 08/01/91 08/01/91

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

| COMPOUND | | RRF | RRF50 | %D | |
|---|---|---|---|---|---|
| Phenol | * | 1.457 | 1.564 | -7.3 | * |
| bis(2-Chloroethyl)Ether | | 1.421 | 1.464 | -3.0 | |
| 2-Chlorophenol | | 1.080 | 1.151 | -6.6 | |
| 1,3-Dichlorobenzene | | 1.309 | 1.292 | 1.3 | |
| 1,4-Dichlorobenzene | * | 1.422 | 1.423 | -0.1 | * |
| Benzyl Alcohol | | 0.814 | 0.882 | -8.4 | |
| 1,2-Dichlorobenzene | | 1.250 | 1.259 | -0.7 | |
| 2-Methylphenol | | 1.321 | 1.309 | 0.9 | |
| bis(2-Chloroisopropyl)ether | | 3.912 | 4.020 | -2.8 | |
| 4-Methylphenol | | 1.326 | 1.353 | -2.0 | |
| N-Nitroso-Di-n-Propylamine | # | 1.299 | 1.522 | -17.2 | # |
| Hexachloroethane | | 0.643 | 0.657 | -2.2 | |
| Nitrobenzene | | 0.470 | 0.531 | -13.0 | |
| Isophorone | | 0.874 | 0.991 | -13.4 | |
| 2-Nitrophenol | * | 0.199 | 0.202 | -1.5 | * |
| 2,4-Dimethylphenol | | 0.327 | 0.389 | -19.0 | |
| Benzoic Acid | | 0.149 | 0.197 | -32.2 | |
| bis(2-Chloroethoxy)Methane | | 0.488 | 0.545 | -11.7 | |
| 2,4-Dichlorophenol | * | 0.263 | 0.283 | -7.6 | * |
| 1,2,4-Trichlorobenzene | | 0.309 | 0.329 | -6.5 | |
| Naphthalene | | 0.924 | 0.999 | -8.1 | |
| 4-Chloroaniline | | 0.112 | 0.061 | 45.5 | |
| Hexachlorobutadiene | * | 0.183 | 0.210 | -14.8 | * |
| 4-Chloro-3-Methylphehol | * | 0.369 | 0.416 | -12.7 | * |
| 2-Methylnaphthalene | | 0.834 | 0.933 | -11.9 | |
| Hexachlorocyclopentadiene | # | 0.189 | 0.200 | -5.8 | # |
| 2,4,6-Trichlorophenol | * | 0.359 | 0.388 | -8.1 | * |
| 2,4,5-Trichlorophenol | | 0.350 | 0.414 | -18.3 | |
| 2-Chloronaphthalene | | 0.997 | 1.077 | -8.0 | |
| 2-Nitroaniline | | 0.533 | 0.600 | -12.6 | |
| Dimethyl Phthalate | | 1.119 | 1.139 | -1.8 | |
| Acenaphthylene | | 1.468 | 1.633 | -11.2 | |
| 2,6-Dinitrotoluene | | 0.330 | 0.321 | 2.7 | |
| 3-Nitroaniline | | 0.133 | 0.193 | -45.1 | |
| Acenaphthene | * | 1.063 | 1.137 | -7.0 | * |
| 2,4-Dinitrophenol | # | 0.197 | 0.194 | 1.5 | # |
| 4-Nitrophenol | # | 0.088 | 0.110 | -25.0 | # |
| | | | | | |

7C
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Instrument ID: F Calibration date: 08/05/91 Time: 1140

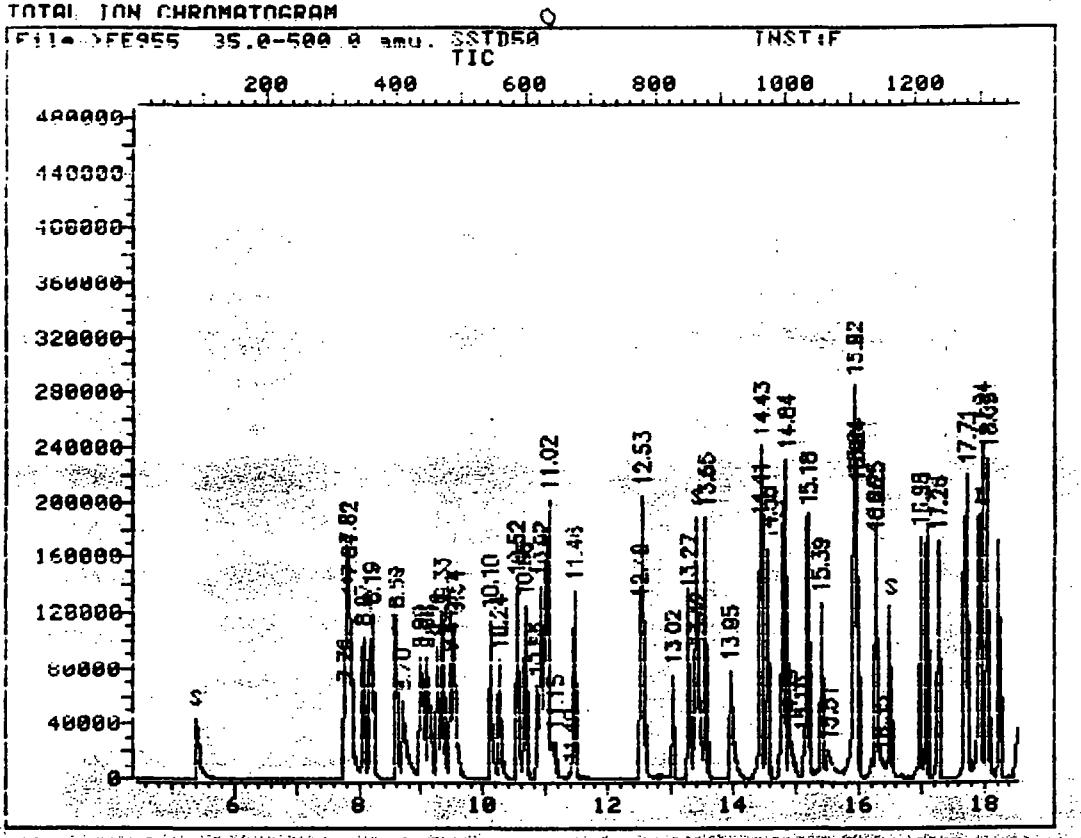
Lab File ID: FE955 Init. Calib. Date(s): 08/01/91 08/01/91

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

| COMPOUND | RRF | RRF50 | %D |
|---|---|---|---|
| Dibenzofuran | 1.491 | 1.563 | -4.8 |
| 2,4-Dinitrotoluene | 0.516 | 0.517 | -0.2 |
| Diethylphthalate | 1.061 | 1.216 | -14.6 |
| 4-Chlorophenyl-phenylether | 0.499 | 0.531 | -6.4 |
| Fluorene | 0.933 | 0.945 | -1.3 |
| 4-Nitroaniline | 0.300 | 0.225 | 25.0 |
| 4,6-Dinitro-2-Methylphenol | 0.146 | 0.160 | -9.6 |
| N-Nitrosodiphenylamine (1) * | 0.290 | 0.310 | -6.9 * |
| 4-Bromophenyl-phenylether | 0.186 | 0.188 | -1.1 |
| Hexachlorobenzene | 0.240 | 0.256 | -6.7 |
| Pentachlorophenol * | 0.084 | 0.085 | -1.2 * |
| Phenanthrene | 0.968 | 1.072 | -10.7 |
| Anthracene | 0.958 | 1.015 | -6.0 |
| Di-n-Butylphthalate | 1.423 | 1.585 | -11.4 |
| Fluoranthene * | 1.066 | 1.126 | -5.6 * |
| Pyrene | 1.080 | 1.252 | -15.9 |
| Butylbenzylphthalate | 0.791 | 0.884 | -11.8 |
| 3,3'-Dichlorobenzidine | 0.075 | 0.098 | -30.7 |
| Benzo(a)Anthracene | 0.941 | 1.093 | -16.2 |
| Chrysene | 1.045 | 1.072 | -2.6 |
| bis(2-Ethylhexyl)Phthalate | 1.057 | 1.209 | -14.4 |
| Di-n-Octyl Phthalate * | 2.180 | 2.390 | -9.6 * |
| Benzo(b)Fluoranthene | 1.142 | 1.105 | 3.2 |
| Benzo(k)Fluoranthene | 0.930 | 1.140 | -22.6 |
| Benzo(a)Pyrene * | 0.942 | 0.993 | -5.4 * |
| Indeno(1,2,3-cd)Pyrene | 0.738 | 0.884 | -19.8 |
| Dibenz(a,h)Anthracene | 0.558 | 0.677 | -21.3 |
| Benzo(g,h,i)Perylene | 0.606 | 0.752 | -24.1 |
| Nitrobenzene-d5 | 0.370 | 0.410 | -10.8 |
| 2-Fluorobiphenyl | 1.051 | 1.121 | -6.7 |
| Terphenyl-d14 | 0.668 | 0.758 | -13.5 |
| Phenol-d5 | 1.512 | 1.717 | -13.6 |
| 2-Fluorophenol | 1.106 | 1.146 | -3.6 |
| 2,4,6-Tribromophenol | 0.197 | 0.200 | -1.5 |

(1) Cannot be separated from Diphenylamine

TOTAL ION CHROMATOGRAM



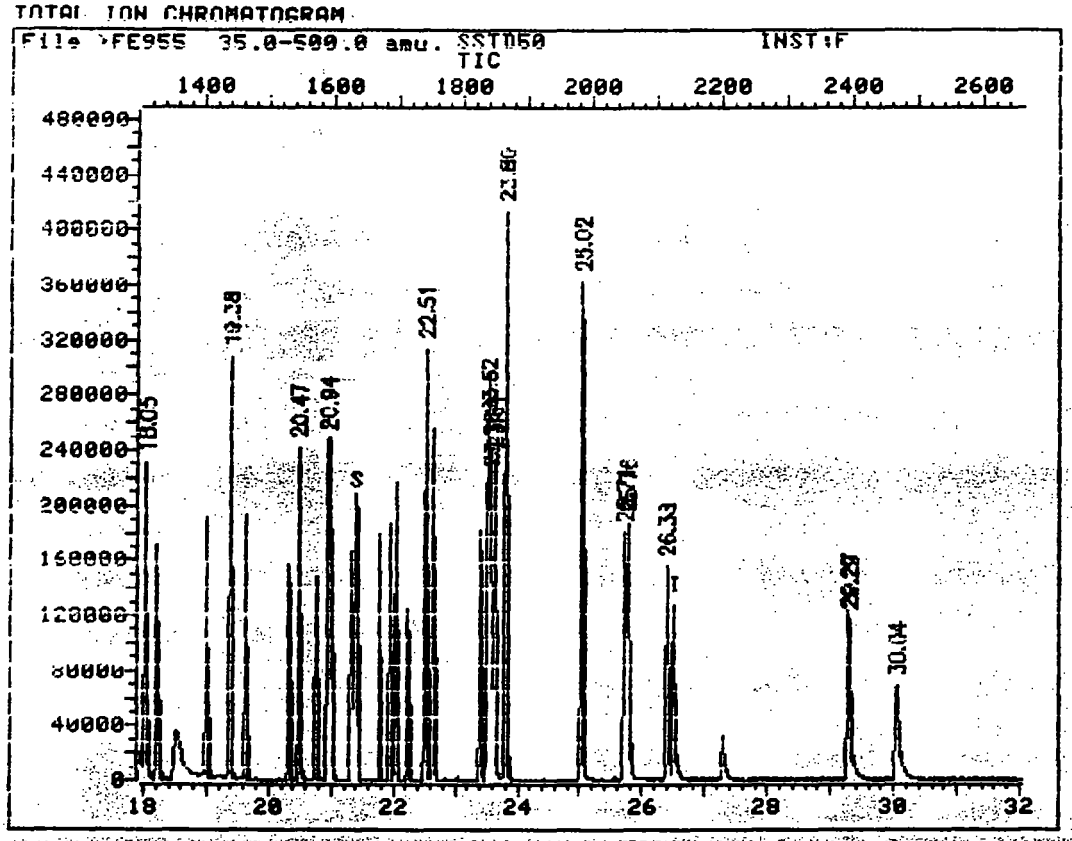

Data File: >FE955::D7 Quant Output File: ^FE955::L1
Name: SSTD50
Misc: INST:F BTL# 1

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910802 10:32

Operator ID: AUTO
Quant Time: 910805 12:14
Injected at: 910805 11:40

TIC page 1 of 2

TOTAL ION CHROMATOGRAM




Data File: >FE955::D7 Quant Output File: ^FE955::L1
Name: SSTD50
Misc: INST:F BTL# 1

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910802 10:32

Operator ID: AUTO
Quant Time: 910805 12:14
Injected at: 910805 11:40

TIC page 2 of 2

QUANT REPORT

Operator ID: AUTO  Quant Rev: 6  Quant Time: 910805 12:14
Output File: ^FE955::L1  Injected at: 910805 11:40
Data File: >FE955::D7  Dilution Factor: 1.00000
Name: SSTD50
Misc: INST:F  BTL# 1

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910802 10:32

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *CI30 1,4-DICHLOROBENZENE-D4 | 8.56 | 152.0 | 32175 | 40.00 | NG/UL | 9 |
| 3) | C315 PHENOL | 7.82 | 94.0 | 62967M | 54.75 | NG/UL | |
| 4) | C325 BIS(2-CHLOROETHYL)ETHER | 7.76 | 93.0 | 58938 | 53.34 | NG/UL | 9 |
| 5) | C330 2-CHLOROPHENOL | 7.84 | 128.0 | 46318M | 52.93 | NG/UL | |
| 6) | C335 1,3-DICHLOROBENZENE | 8.07 | 146.0 | 51995 | 51.12 | NG/UL | 9 |
| 7) | C340 1,4-DICHLOROBENZENE | 8.19 | 146.0 | 57292 | 51.31 | NG/UL | 9 |
| 8) | C345 BENZYL ALCOHOL | 8.70 | 108.0 | 35494M | 57.35 | NG/UL | |
| 9) | C350 1,2-DICHLOROBENZENE | 8.59 | 146.0 | 50660 | 50.46 | NG/UL | 9 |
| 10) | C355 2-METHYLPHENOL | 9.08 | 108.0 | 52687M | 56.95 | NG/UL | 9 |
| 11) | C360 BIS(2-CHLOROISOPROPYL)ETH | 8.99 | 45.0 | 161823 | 55.34 | NG/UL | 10 |
| 12) | C365 4-METHYLPHENOL | 9.44 | 108.0 | 54447 | 54.56 | NG/UL | 9 |
| 13) | C370 N-NITROSO-DI-N-PROPYLAMIN | 9.33 | 70.0 | 61279 | 57.39 | NG/UL | 8 |
| 14) | C375 HEXACHLOROETHANE | 9.26 | 117.0 | 26452 | 53.00 | NG/UL | 8 |
| 15) | CS50 2-FLUOROPHENOL | 5.38 | 112.0 | 46130M | 57.83 | NG/UL | |
| 16) | CS45 PHENOL-D5 | 7.78 | 99.0 | 69116 | 55.03 | NG/UL | 9 |
| 17) | *CI40 NAPHTHALENE-D8 | 10.98 | 136.0 | 121691 | 40.00 | NG/UL | 8 |
| 18) | C410 NITROBENZENE | 9.54 | 77.0 | 80917 | 54.22 | NG/UL | 7 |
| 19) | C415 ISOPHORONE | 10.10 | 82.0 | 151105 | 53.25 | NG/UL | 9 |
| 20) | C420 2-NITROPHENOL | 10.24 | 139.0 | 30732 | 48.00 | NG/UL | 7 |
| 21) | C425 2,4-DIMETHYLPHENOL | 10.52 | 107.0 | 59335 | 51.96 | NG/UL | 9 |
| 22) | C430 BENZOIC ACID | 11.15 | 122.0 | 29980 | 71.38 | NG/UL | 8 |
| 23) | C435 BIS(2-CHLOROETHOXY)METHAN | 10.65 | 93.0 | 83102 | 52.09 | NG/UL | 9 |
| 24) | C440 2,4-DICHLOROPHENOL | 10.85 | 162.0 | 43153 | 48.80 | NG/UL | 9 |
| 25) | C445 1,2,4-TRICHLOROBENZENE | 10.92 | 180.0 | 50232 | 50.34 | NG/UL | 9 |
| 26) | C450 NAPHTHALENE | 11.02 | 128.0 | 152383 | 49.56 | NG/UL | 9 |
| 27) | C455 4-CHLOROANILINE | 11.40 | 127.0 | 9286M | 27.00 | NG/UL | 7 |
| 28) | C460 HEXACHLOROBUTADIENE | 11.46 | 225.0 | 32082 | 51.16 | NG/UL | 9 |
| 29) | C465 4-CHLORO-3-METHYLPHENOL | 12.49 | 107.0 | 63387 | 52.40 | NG/UL | 8 |
| 30) | C470 2-METHYLNAPHTHALENE | 12.53 | 142.0 | 142253 | 53.49 | NG/UL | 9 |
| 31) | CS20 NITROBENZENE-D5 | 9.50 | 82.0 | 62581 | 55.52 | NG/UL | 9 |
| 32) | *CI50 ACENAPHTHENE-D10 | 14.77 | 164.0 | 80072 | 40.00 | NG/UL | 9 |
| 33) | C510 HEXACHLOROCYCLOPENTADIENE | 13.02 | 237.0 | 20072 | 62.00 | NG/UL | 9 |
| 34) | C515 2,4,6-TRICHLOROPHENOL | 13.27 | 196.0 | 38800 | 52.95 | NG/UL | 9 |
| 35) | C520 2,4,5-TRICHLOROPHENOL | 13.42 | 196.0 | 41425 | 53.37 | NG/UL | 9 |
| 36) | C525 2-CHLORONAPHTHALENE | 13.55 | 162.0 | 107822 | 49.04 | NG/UL | 9 |
| 37) | C530 2-NITROANILINE | 13.95 | 65.0 | 60121M | 55.21 | NG/UL | |
| 38) | C535 DIMETHYLPHTHALATE | 14.41 | 163.0 | 114018 | 45.83 | NG/UL | 8 |
| 39) | C540 ACENAPHTHYLENE | 14.43 | 152.0 | 163499 | 48.65 | NG/UL | 9 |
| 40) | C543 2,6-DINITROTOLUENE | 14.55 | 165.0 | 32106 | 45.22 | NG/UL | 8 |
| 41) | C545 3-NITROANILINE | 14.89 | 138.0 | 19329M | 42.68 | NG/UL | |
| 42) | C550 ACENAPHTHENE | 14.84 | 153.0 | 113855 | 49.79 | NG/UL | 9 |
| 43) | C555 2,4-DINITROPHENOL | 15.10 | 184.0 | 19417M | 62.97 | NG/UL | |
| 44) | C560 4-NITROPHENOL | 15.51 | 109.0 | 11044M | 84.43 | NG/UL | 8 |

| | | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|---|
| 45) | C565 | DIBENZOFURAN | 15.18 | 168.0 | 156488 | 48.94 | NG/UL | 8 |
| 46) | C570 | 2,4-DINITROTOLUENE | 15.39 | 165.0 | 51789 | 50.57 | NG/UL | 8 |
| 47) | C580 | DIETHYLPHTHALATE | 15.94 | 149.0 | 121803 | 51.01 | NG/UL | 9 |
| 48) | C585 | 4-CHLOROPHENYL-PHENYLETHE | 15.96 | 204.0 | 53123 | 46.02 | NG/UL | 9 |
| 49) | C590 | FLUORENE | 15.92 | 166.0 | 94602 | 42.99 | NG/UL | 9 |
| 50) | C595 | 4-NITROANILINE | 16.35 | 138.0 | 22537M | 42.30 | NG/UL | 8 |
| 51) | CS25 | 2-FLUOROBIPHENYL | 13.40 | 172.0 | 112205 | 48.94 | NG/UL | 9 |
| 52) | CS55 | 2,4,6-TRIBROMOPHENOL | 16.49 | 329.8 | 20013 | 51.39 | NG/UL | 9 |
| 53) | *CI60 | PHENANTHRENE-D10 | 17.89 | 188.0 | 139150 | 40.00 | NG/UL | 8 |
| 54) | C610 | 4,6-DINITRO-2-METHYLPHENO | 16.25 | 198.0 | 27884 | 50.22 | NG/UL | 10 |
| 55) | C615 | N-NITROSODIPHENYLAMINE | 16.26 | 169.0 | 53855 | 49.50 | NG/UL | 9 |
| 56) | C625 | 4-BROMOPHENYLPHENYLETHER | 16.98 | 248.0 | 32741 | 50.61 | NG/UL | 9 |
| 57) | C630 | HEXACHLOROBENZENE | 17.26 | 284.0 | 44461 | 51.03 | NG/UL | 8 |
| 58) | C635 | PENTACHLOROPHENOL | 17.71 | 266.0 | 14759 | 62.68 | NG/UL | 9 |
| 59) | C640 | PHENANTHRENE | 17.94 | 178.0 | 186353 | 51.30 | NG/UL | 9 |
| 60) | C645 | ANTHRACENE | 18.05 | 178.0 | 176322 | 47.79 | NG/UL | 9 |
| 61) | C650 | DI-N-BUTYLPHTHALATE | 19.38 | 149.0 | 275348 | 50.10 | NG/UL | 8 |
| 62) | C655 | FLUORANTHENE | 20.47 | 202.0 | 195638 | 47.46 | NG/UL | 9 |
| 63) | *CI70 | CHRYSENE-D12 | 23.56 | 240.0 | 122538 | 40.00 | NG/UL | 9 |
| 64) | C715 | PYRENE | 20.94 | 202.0 | 192575 | 50.97 | NG/UL | 9 |
| 65) | C720 | BUTYLBENZYLPHTHALATE | 22.51 | 149.0 | 135945 | 51.53 | NG/UL | 9 |
| 66) | C725 | 3,3'-DICHLOROBENZIDINE | 23.56 | 252.0 | 15107 | 47.29 | NG/UL | 9 |
| 67) | C730 | BENZO(A)ANTHRACENE | 23.52 | 228.0 | 168040 | 51.08 | NG/UL | 9 |
| 68) | C740 | CHRYSENE | 23.61 | 228.0 | 164738 | 48.98 | NG/UL | 9 |
| 69) | C745 | BIS(2-ETHYLHEXYL)PHTHALAT | 23.80 | 149.0 | 185925 | 51.55 | NG/UL | 8 |
| 70) | CS30 | TERPHENYL-D14 | 21.36 | 244.0 | 116480 | 50.18 | NG/UL | 9 |
| 71) | *CI75 | PERYLENE-D12 | 26.49 | 264.0 | 107058 | 40.00 | NG/UL | 9 |
| 72) | C760 | DI-N-OCTYLPHTHALATE | 25.02 | 149.0 | 319708 | 49.66 | NG/UL | 10 |
| 73) | C765 | BENZO(B)FLUORANTHENE | 25.71 | 252.0 | 147815 | 45.66 | NG/UL | 9 |
| 74) | C770 | BENZO(K)FLUORANTHENE | 25.76 | 252.0 | 152473 | 51.81 | NG/UL | 9 |
| 75) | C775 | BENZO(A)PYRENE | 26.38 | 252.0 | 132845 | 50.93 | NG/UL | 8 |
| 76) | C780 | INDENO(1,2,3-CD)PYRENE | 29.27 | 276.0 | 118252M | 56.50 | NG/UL | |
| 77) | C785 | DIBENZ(A,H)ANTHRACENE | 29.29 | 278.0 | 90520 | 58.10 | NG/UL | 8 |
| 78) | C790 | BENZO(G,H,I)PERYLENE | 30.04 | 276.0 | 100591 | 56.42 | NG/UL | 8 |

* Compound is ISTD

File: FE955
SSTD50
Inst: F
8/05/91 11:40

7B
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Instrument ID: F Calibration date: 08/06/91 Time: 0825

Lab File ID: FE974 Init. Calib. Date(s): 08/01/91 08/01/91

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

| COMPOUND | | RRF | RRF50 | %D | |
|---|---|---|---|---|---|
| Phenol | * | 1.457 | 1.517 | -4.1 | * |
| bis(2-Chloroethyl)Ether | | 1.421 | 1.408 | 0.9 | |
| 2-Chlorophenol | | 1.080 | 1.112 | -3.0 | |
| 1,3-Dichlorobenzene | | 1.309 | 1.262 | 3.6 | |
| 1,4-Dichlorobenzene | * | 1.422 | 1.399 | 1.6 | * |
| Benzyl Alcohol | | 0.814 | 0.816 | -0.2 | |
| 1,2-Dichlorobenzene | | 1.250 | 1.240 | 0.8 | |
| 2-Methylphenol | | 1.321 | 1.308 | 1.0 | |
| bis(2-Chloroisopropyl)ether | | 3.912 | 3.845 | 1.7 | |
| 4-Methylphenol | | 1.326 | 1.390 | -4.8 | |
| N-Nitroso-Di-n-Propylamine | # | 1.299 | 1.455 | -12.0 | # |
| Hexachloroethane | | 0.643 | 0.650 | -1.1 | |
| Nitrobenzene | | 0.470 | 0.511 | -8.7 | |
| Isophorone | | 0.874 | 0.980 | -12.1 | |
| 2-Nitrophenol | * | 0.199 | 0.220 | -10.6 | * |
| 2,4-Dimethylphenol | | 0.327 | 0.384 | -17.4 | |
| Benzoic Acid | | 0.149 | 0.186 | -24.8 | |
| bis(2-Chloroethoxy)Methane | | 0.488 | 0.548 | -12.3 | |
| 2,4-Dichlorophenol | * | 0.263 | 0.287 | -9.1 | * |
| 1,2,4-Trichlorobenzene | | 0.309 | 0.330 | -6.8 | |
| Naphthalene | | 0.924 | 0.990 | -7.1 | |
| 4-Chloroaniline | | 0.112 | 0.101 | 9.8 | |
| Hexachlorobutadiene | * | 0.183 | 0.207 | -13.1 | * |
| 4-Chloro-3-Methylphenol | * | 0.369 | 0.424 | -14.9 | * |
| 2-Methylnaphthalene | | 0.834 | 0.948 | -13.7 | |
| Hexachlorocyclopentadiene | # | 0.189 | 0.187 | 1.1 | # |
| 2,4,6-Trichlorophenol | * | 0.359 | 0.381 | -6.1 | * |
| 2,4,5-Trichlorophenol | | 0.350 | 0.420 | -20.0 | |
| 2-Chloronaphthalene | | 0.997 | 1.101 | -10.4 | |
| 2-Nitroaniline | | 0.533 | 0.613 | -15.0 | |
| Dimethyl Phthalate | | 1.119 | 1.150 | -2.8 | |
| Acenaphthylene | | 1.468 | 1.644 | -12.0 | |
| 2,6-Dinitrotoluene | | 0.330 | 0.328 | 0.6 | |
| 3-Nitroaniline | | 0.133 | 0.223 | -67.7 | |
| Acenaphthene | * | 1.063 | 1.007 | 5.3 | * |
| 2,4-Dinitrophenol | # | 0.197 | 0.220 | -11.7 | # |
| 4-Nitrophenol | # | 0.088 | 0.131 | -48.9 | # |
| | | | | | |

7C

# SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Instrument ID: F Calibration date: 08/06/91 Time: 0825

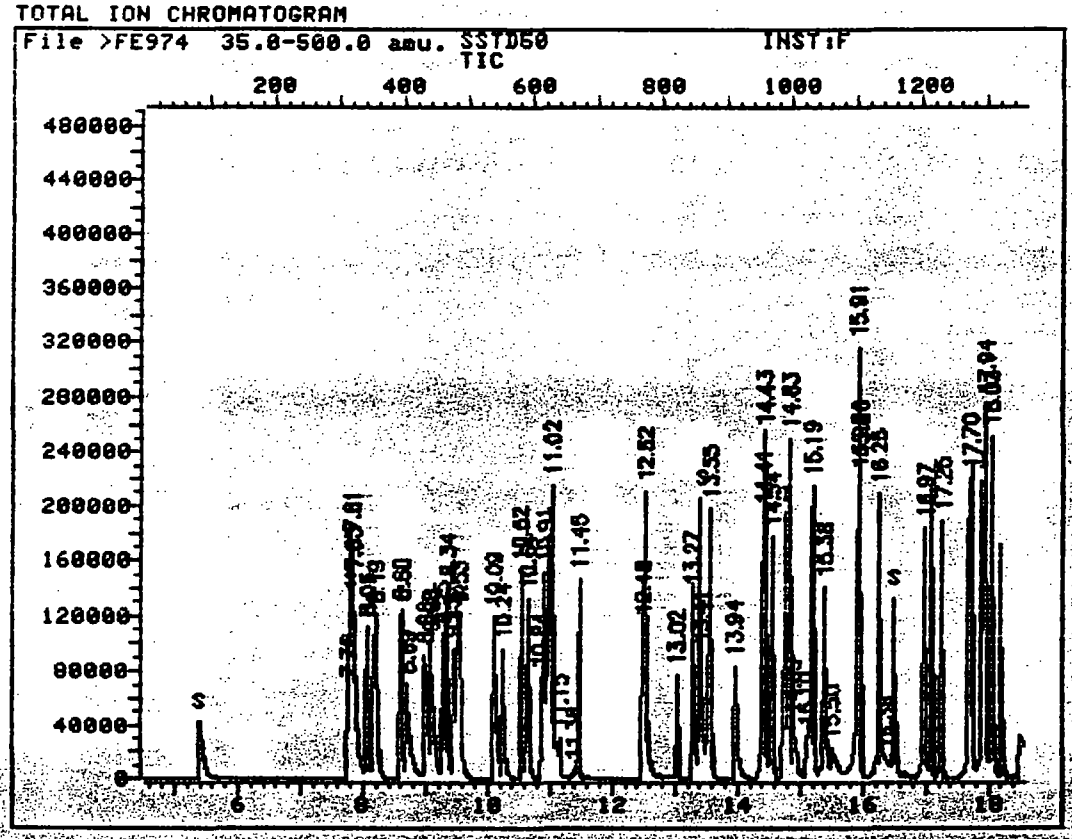
Lab File ID: FE974 Init. Calib. Date(s): 08/01/91 08/01/91

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

| COMPOUND | RRF | RRF50 | %D |
|---|---|---|---|
| Dibenzofuran | 1.491 | 1.603 | -7.5 |
| 2,4-Dinitrotoluene | 0.516 | 0.544 | -5.4 |
| Diethylphthalate | 1.061 | 1.224 | -15.4 |
| 4-Chlorophenyl-phenylether | 0.499 | 0.528 | -5.8 |
| Fluorene | 0.933 | 0.967 | -3.6 |
| 4-Nitroaniline | 0.300 | 0.254 | 15.3 |
| 4,6-Dinitro-2-Methylphenol | 0.146 | 0.167 | -14.4 |
| N-Nitrosodiphenylamine (1) * | 0.290 | 0.273 | 5.9 * |
| 4-Bromophenyl-phenylether | 0.186 | 0.181 | 2.7 |
| Hexachlorobenzene | 0.240 | 0.226 | 5.8 |
| Pentachlorophenol * | 0.084 | 0.090 | -7.1 * |
| Phenanthrene | 0.968 | 1.154 | -19.2 |
| Anthracene | 0.958 | 1.007 | -5.1 |
| Di-n-Butylphthalate | 1.423 | 1.561 | -9.7 |
| Fluoranthene * | 1.066 | 1.121 | -5.2 * |
| Pyrene | 1.080 | 1.234 | -14.3 |
| Butylbenzylphthalate | 0.791 | 0.889 | -12.4 |
| 3,3'-Dichlorobenzidine | 0.075 | 0.106 | -41.3 |
| Benzo(a)Anthracene | 0.941 | 1.076 | -14.4 |
| Chrysene | 1.045 | 1.060 | -1.4 |
| bis(2-Ethylhexyl)Phthalate | 1.057 | 1.198 | -13.3 |
| Di-n-Octyl Phthalate * | 2.180 | 2.234 | -2.5 * |
| Benzo(b)Fluoranthene | 1.142 | 1.217 | -6.6 |
| Benzo(k)Fluoranthene | 0.930 | 1.018 | -9.5 |
| Benzo(a)Pyrene * | 0.942 | 0.978 | -3.8 * |
| Indeno(1,2,3-cd)Pyrene | 0.738 | 0.882 | -19.5 |
| Dibenz(a,h)Anthracene | 0.558 | 0.670 | -20.1 |
| Benzo(g,h,i)Perylene | 0.606 | 0.741 | -22.3 |
| Nitrobenzene-d5 | 0.370 | 0.398 | -7.6 |
| 2-Fluorobiphenyl | 1.051 | 1.131 | -7.6 |
| Terphenyl-d14 | 0.668 | 0.715 | -7.0 |
| Phenol-d5 | 1.512 | 1.670 | -10.4 |
| 2-Fluorophenol | 1.106 | 1.052 | 4.9 |
| 2,4,6-Tribromophenol | 0.197 | 0.201 | -2.0 |

(1) Cannot be separated from Diphenylamine

TOTAL ION CHROMATOGRAM

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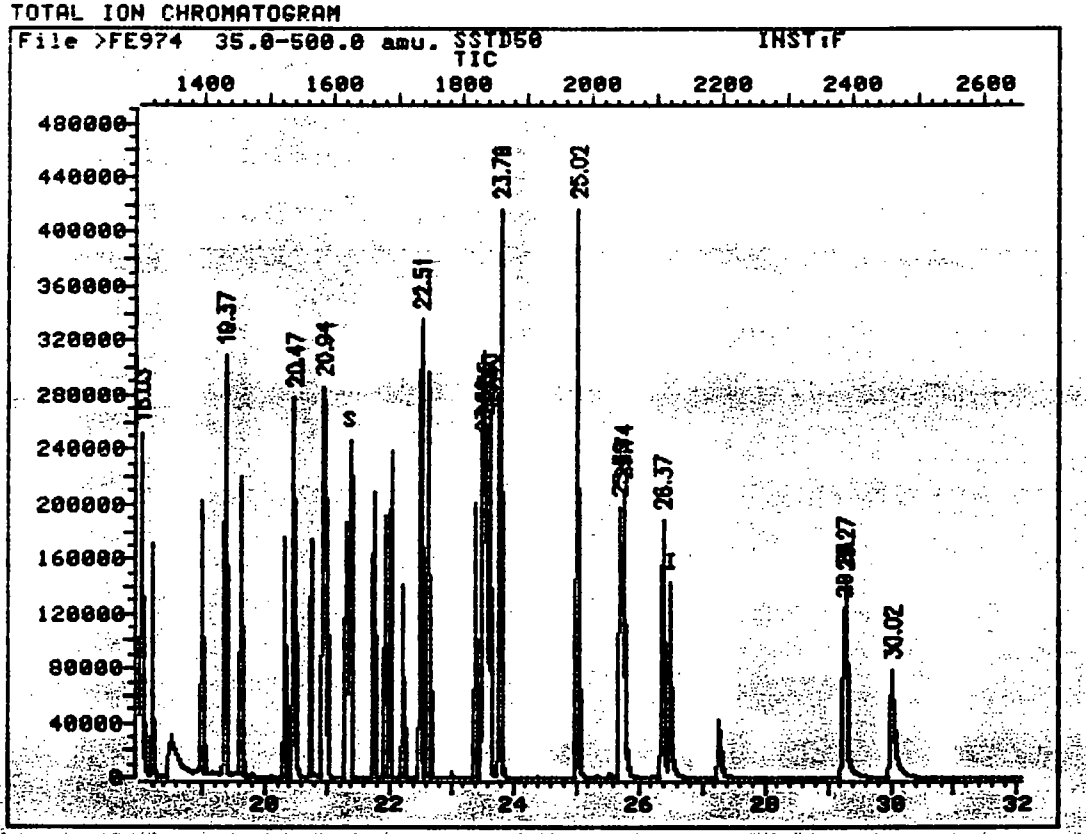
Name: SSTD50
Misc: INST:F BTL# 1

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910805 15:07

Operator ID: LINDA
Quant Time: 910806 09:00
Injected at: 910806 08:25

TIC page 1 of 2

TOTAL ION CHROMATOGRAM




Data File: >FE974::D7 Quant Output File: ^FE974::L1
Name: SSTD50
Misc: INST:F BTL# 1

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910805 15:07

Operator ID: LINDA
Quant Time: 910806 09:00
Injected at: 910806 08:25

TIC page 2 of 2

QUANT REPORT

Operator ID: LINDA  Quant Rev: 6  Quant Time: 910806 09:00
Output File: ^FE974::L1  Injected at: 910806 08:25
Data File: >FE974::D7  Dilution Factor: 1.00000
Name: SSTD50
Misc: INST:F  BTL# 1

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910805 15:07

| | | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|---|
| 1) | *CI30 | 1,4-DICHLOROBENZENE-D4 | 8.57 | 152.0 | 35111 | 40.00 | NG/UL | 99 |
| 3) | C315 | PHENOL | 7.81 | 94.0 | 66569M | 48.44 | NG/UL | |
| 4) | C325 | BIS(2-CHLOROETHYL)ETHER | 7.76 | 93.0 | 61760 | 48.01 | NG/UL | 95 |
| 5) | C330 | 2-CHLOROPHENOL | 7.83 | 128.0 | 48769 | 48.24 | NG/UL | 85 |
| 6) | C335 | 1,3-DICHLOROBENZENE | 8.06 | 146.0 | 55366 | 48.79 | NG/UL | 97 |
| 7) | C340 | 1,4-DICHLOROBENZENE | 8.19 | 146.0 | 61362 | 49.07 | NG/UL | 91 |
| 8) | C345 | BENZYL ALCOHOL | 8.69 | 108.0 | 35821 | 46.24 | NG/UL | 92 |
| 9) | C350 | 1,2-DICHLOROBENZENE | 8.60 | 146.0 | 54390 | 49.19 | NG/UL | 92 |
| 10) | C355 | 2-METHYLPHENOL | 9.08 | 108.0 | 57381M | 49.90 | NG/UL | 91 |
| 11) | C360 | BIS(2-CHLOROISOPROPYL)ETH | 8.98 | 45.0 | 168688 | 47.76 | NG/UL | 100 |
| 12) | C365 | 4-METHYLPHENOL | 9.43 | 108.0 | 60998 | 51.33 | NG/UL | 95 |
| 3) | C370 | N-NITROSO-DI-N-PROPYLAMIN | 9.34 | 70.0 | 63845 | 47.74 | NG/UL | 84 |
| 4) | C375 | HEXACHLOROETHANE | 9.25 | 117.0 | 28521 | 49.40 | NG/UL | 90 |
| 15) | CS50 | 2-FLUOROPHENOL | 5.38 | 112.0 | 46157 | 45.85 | NG/UL | 85 |
| 16) | CS45 | PHENOL-D5 | 7.78 | 99.0 | 73281 | 48.58 | NG/UL | 91 |
| 17) | *CI40 | NAPHTHALENE-D8 | 10.98 | 136.0 | 132238 | 40.00 | NG/UL | 90 |
| 18) | C410 | NITROBENZENE | 9.53 | 77.0 | 84354 | 47.97 | NG/UL | 80 |
| 19) | C415 | ISOPHORONE | 10.09 | 82.0 | 161619 | 49.21 | NG/UL | 92 |
| 20) | C420 | 2-NITROPHENOL | 10.24 | 139.0 | 36339 | 54.41 | NG/UL | 82 |
| 21) | C425 | 2,4-DIMETHYLPHENOL | 10.52 | 107.0 | 63302 | 49.09 | NG/UL | 89 |
| 22) | C430 | BENZOIC ACID | 11.15 | 122.0 | 30720 | 47.15 | NG/UL | 82 |
| 23) | C435 | BIS(2-CHLOROETHOXY)METHAN | 10.64 | 93.0 | 90435 | 50.07 | NG/UL | 98 |
| 24) | C440 | 2,4-DICHLOROPHENOL | 10.84 | 162.0 | 47322 | 50.46 | NG/UL | 90 |
| 25) | C445 | 1,2,4-TRICHLOROBENZENE | 10.91 | 180.0 | 54496 | 49.92 | NG/UL | 97 |
| 26) | C450 | NAPHTHALENE | 11.02 | 128.0 | 163358 | 49.33 | NG/UL | 99 |
| 27) | C455 | 4-CHLOROANILINE | 11.38 | 127.0 | 16701M | 82.75 | NG/UL | 77 |
| 28) | C460 | HEXACHLOROBUTADIENE | 11.45 | 225.0 | 34082 | 48.88 | NG/UL | 99 |
| 29) | C465 | 4-CHLORO-3-METHYLPHENOL | 12.48 | 107.0 | 70037 | 50.84 | NG/UL | 89 |
| 30) | C470 | 2-METHYLNAPHTHALENE | 12.52 | 142.0 | 156381 | 50.58 | NG/UL | 95 |
| 31) | CS20 | NITROBENZENE-D5 | 9.49 | 82.0 | 65600 | 48.23 | NG/UL | 88 |
| 32) | *CI50 | ACENAPHTHENE-D10 | 14.76 | 164.0 | 86620 | 40.00 | NG/UL | 97 |
| 33) | C510 | HEXACHLOROCYCLOPENTADIENE | 13.02 | 237.0 | 20286 | 46.71 | NG/UL | 97 |
| 34) | C515 | 2,4,6-TRICHLOROPHENOL | 13.27 | 196.0 | 41226 | 49.11 | NG/UL | 97 |
| 35) | C520 | 2,4,5-TRICHLOROPHENOL | 13.41 | 196.0 | 45515 | 50.78 | NG/UL | 98 |
| 36) | C525 | 2-CHLORONAPHTHALENE | 13.55 | 162.0 | 119174 | 51.09 | NG/UL | 92 |
| 37) | C530 | 2-NITROANILINE | 13.94 | 65.0 | 66325 | 50.99 | NG/UL | 87 |
| 38) | C535 | DIMETHYLPHTHALATE | 14.41 | 163.0 | 124429 | 50.44 | NG/UL | 86 |
| 9) | C540 | ACENAPHTHYLENE | 14.43 | 152.0 | 177908 | 50.29 | NG/UL | 97 |
| 40) | C543 | 2,6-DINITROTOLUENE | 14.54 | 165.0 | 35555 | 51.19 | NG/UL | 87 |
| 41) | C545 | 3-NITROANILINE | 14.89 | 138.0 | 24175M | 57.81 | NG/UL | |
| 42) | C550 | ACENAPHTHENE | 14.83 | 153.0 | 109030 | 44.26 | NG/UL | 97 |
| 43) | C555 | 2,4-DINITROPHENOL | 15.10 | 184.0 | 23848M | 56.77 | NG/UL | |
| 44) | C560 | 4-NITROPHENOL | 15.50 | 109.0 | 14216M | 59.50 | NG/UL | 96 |

| | | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|---|
| 45) | C565 | DIBENZOFURAN | 15.19 | 168.0 | 173514 | 51.25 | NG/UL | 79 |
| 46) | C570 | 2,4-DINITROTOLUENE | 15.38 | 165.0 | 58920 | 52.58 | NG/UL | 86 |
| 47) | C580 | DIETHYLPHTHALATE | 15.93 | 149.0 | 132508 | 50.28 | NG/UL | 96 |
| 48) | C585 | 4-CHLOROPHENYL-PHENYLETHE | 15.96 | 204.0 | 57137 | 49.71 | NG/UL | 96 |
| 49) | C590 | FLUORENE | 15.91 | 166.0 | 104692 | 51.15 | NG/UL | 99 |
| 50) | C595 | 4-NITROANILINE | 16.36 | 138.0 | 27502M | 56.40 | NG/UL | |
| 51) | CS25 | 2-FLUOROBIPHENYL | 13.39 | 172.0 | 122424 | 50.43 | NG/UL | 95 |
| 52) | CS55 | 2,4,6-TRIBROMOPHENOL | 16.49 | 329.8 | 21776 | 50.29 | NG/UL | 90 |
| 53) | *CI60 | PHENANTHRENE-D10 | 17.89 | 188.0 | 156488 | 40.00 | NG/UL | 88 |
| 54) | C610 | 4,6-DINITRO-2-METHYLPHENO | 16.25 | 198.0 | 32521 | 51.85 | NG/UL | 100 |
| 55) | C615 | N-NITROSODIPHENYLAMINE | 16.25 | 169.0 | 53251 | 43.96 | NG/UL | 91 |
| 56) | C625 | 4-BROMOPHENYLPHENYLETHER | 16.97 | 248.0 | 35267 | 47.89 | NG/UL | 91 |
| 57) | C630 | HEXACHLOROBENZENE | 17.25 | 284.0 | 44090 | 44.09 | NG/UL | 79 |
| 58) | C635 | PENTACHLOROPHENOL | 17.70 | 266.0 | 17617 | 53.07 | NG/UL | 98 |
| 59) | C640 | PHENANTHRENE | 17.94 | 178.0 | 224966 | 53.67 | NG/UL | 97 |
| 60) | C645 | ANTHRACENE | 18.03 | 178.0 | 196417 | 49.53 | NG/UL | 95 |
| 61) | C650 | DI-N-BUTYLPHTHALATE | 19.37 | 149.0 | 304441 | 49.16 | NG/UL | 86 |
| 62) | C655 | FLUORANTHENE | 20.47 | 202.0 | 218541 | 49.67 | NG/UL | 96 |
| 63) | *CI70 | CHRYSENE-D12 | 23.55 | 240.0 | 138447 | 40.00 | NG/UL | 97 |
| 64) | C715 | PYRENE | 20.94 | 202.0 | 212776 | 48.90 | NG/UL | 93 |
| 65) | C720 | BUTYLBENZYLPHTHALATE | 22.51 | 149.0 | 153427 | 49.95 | NG/UL | 91 |
| 66) | C725 | 3,3'-DICHLOROBENZIDINE | 23.55 | 252.0 | 18287 | 53.57 | NG/UL | 99 |
| 7) | C730 | BENZO(A)ANTHRACENE | 23.52 | 228.0 | 185702 | 48.91 | NG/UL | 95 |
| 8) | C740 | CHRYSENE | 23.60 | 228.0 | 182858 | 49.12 | NG/UL | 97 |
| 69) | C745 | BIS(2-ETHYLHEXYL)PHTHALAT | 23.79 | 149.0 | 206605 | 49.18 | NG/UL | 87 |
| 70) | CS30 | TERPHENYL-D14 | 21.36 | 244.0 | 123259 | 46.83 | NG/UL | 97 |
| 71) | *CI75 | PERYLENE-D12 | 26.48 | 264.0 | 124065 | 40.00 | NG/UL | 99 |
| 72) | C760 | DI-N-OCTYLPHTHALATE | 25.02 | 149.0 | 346259 | 46.73 | NG/UL | 100 |
| 73) | C765 | BENZO(B)FLUORANTHENE | 25.69 | 252.0 | 188651 | 55.07 | NG/UL | 93 |
| 74) | C770 | BENZO(K)FLUORANTHENE | 25.74 | 252.0 | 157723 | 44.63 | NG/UL | 90 |
| 75) | C775 | BENZO(A)PYRENE | 26.37 | 252.0 | 151534 | 49.22 | NG/UL | 89 |
| 76) | C780 | INDENO(1,2,3-CD)PYRENE | 29.25 | 276.0 | 136759M | 49.90 | NG/UL | |
| 77) | C785 | DIBENZ(A,H)ANTHRACENE | 29.27 | 278.0 | 103865 | 49.51 | NG/UL | 85 |
| 78) | C790 | BENZO(G,H,I)PERYLENE | 30.02 | 276.0 | 114915 | 49.29 | NG/UL | 82 |

* Compound is ISTD

File: FE974
SSTD50
Inst: F
8/06/91 08:25

8B

# SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Lab File ID (Standard): FE955 Date Analyzed: 08/05/91

Instrument ID: F Time Analyzed: 1140

| | | IS1(DCB) AREA # | RT | IS2(NPT) AREA # | RT | IS3(ANT) AREA # | RT |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 32200 | 8.57 | 122000 | 10.99 | 80100 | 14.77 |
| | UPPER LIMIT | 64400 | | 244000 | | 160200 | |
| | LOWER LIMIT | 16100 | | 61000 | | 40050 | |
| | EPA SAMPLE NO. | | | | | | |
| 01 | 6568G-027 | 30400 | 8.15 | 133000 | 10.97 | 73500 | 14.77 |
| 02 | 6568G-028 | 27200 | 8.18 | 123000 | 11.00 | 66300 | 14.79 |
| 03 | 6568G-029 | 30800 | 8.15 | 137000 | 10.97 | 73900 | 14.77 |
| 04 | 6568G-027MS | 29200 | 8.15 | 126000 | 10.97 | 73500 | 14.77 |
| 05 | 6568G-027MSD | 29000 | 8.17 | 128000 | 10.99 | 74100 | 14.77 |
| 06 | SBLK1 | 29600 | 8.13 | 130000 | 10.97 | 73100 | 14.77 |

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

# Column used to flag internal standard area values with an asterisk



FORM VIII SV-1

8C
SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Lab File ID (Standard): FE955 Date Analyzed: 08/05/91

Instrument ID: F Time Analyzed: 1140

| | | IS4(PHN) AREA # | RT | IS5(CRY) AREA # | RT | IS6(PRY) AREA # | RT |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 139000 | 17.89 | 123000 | 23.57 | 107000 | 26.49 |
| | UPPER LIMIT | 278000 | | 246000 | | 214000 | |
| | LOWER LIMIT | 69500 | | 61500 | | 53500 | |
| | EPA SAMPLE NO. | | | | | | |
| 01 | 6568G-027 | 138000 | 17.89 | 113000 | 23.54 | 86300 | 26.49 |
| 02 | 6568G-028 | 122000 | 17.92 | 94000 | 23.57 | 72800 | 26.52 |
| 03 | 6568G-029 | 134000 | 17.89 | 106000 | 23.54 | 87900 | 26.49 |
| 04 | 6568G-027MS | 132000 | 17.89 | 110000 | 23.54 | 86300 | 26.47 |
| 05 | 6568G-027MSD | 132000 | 17.89 | 108000 | 23.54 | 82600 | 26.49 |
| 06 | SBLK1 | 135000 | 17.89 | 112000 | 23.54 | 93600 | 26.49 |

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

# Column used to flag internal standard area values with an asterisk

8B
SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Lab File ID (Standard): FE974 Date Analyzed: 08/06/91

Instrument ID: F Time Analyzed: 0825

| | | IS1(DCB) AREA # | RT | IS2(NPT) AREA # | RT | IS3(ANT) AREA # | RT |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 35100 | 8.57 | 132000 | 10.99 | 86600 | 14.77 |
| | UPPER LIMIT | 70200 | | 264000 | | 173200 | |
| | LOWER LIMIT | 17550 | | 66000 | | 43300 | |
| | EPA SAMPLE NO. | | | | | | |
| 01 | 6568G-030 | 31900 | 8.13 | 137000 | 10.97 | 81600 | 14.75 |

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

# Column used to flag internal standard area values with an asterisk

8C

# SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Lab File ID (Standard): FE974 Date Analyzed: 08/06/91

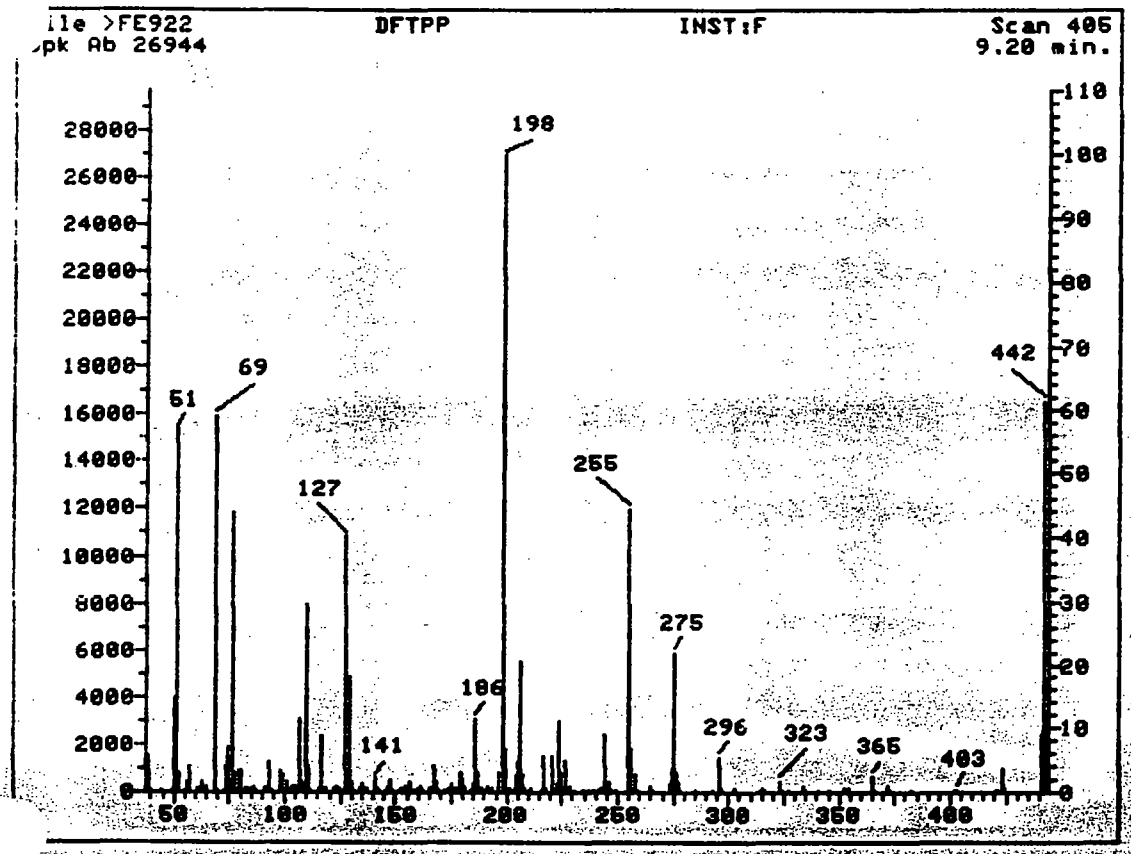
Instrument ID: F Time Analyzed: 0825

| | | IS4(PHN) AREA # | RT | IS5(CRY) AREA # | RT | IS6(PRY) AREA # | RT |
|---|---|---|---|---|---|---|---|
| | 12 HOUR STD | 156000 | 17.89 | 138000 | 23.55 | 124000 | 26.49 |
| | UPPER LIMIT | 312000 | | 276000 | | 248000 | |
| | LOWER LIMIT | 78000 | | 69000 | | 62000 | |
| | EPA SAMPLE NO. | | | | | | |
| 01 | 6568G-030 | 147000 | 17.87 | 120000 | 23.54 | 96000 | 26.47 |

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

# Column used to flag internal standard area values with an asterisk




## GC/MS PERFORMANCE STANDARD

### Decafluorotriphenylphospine (DFTPP)

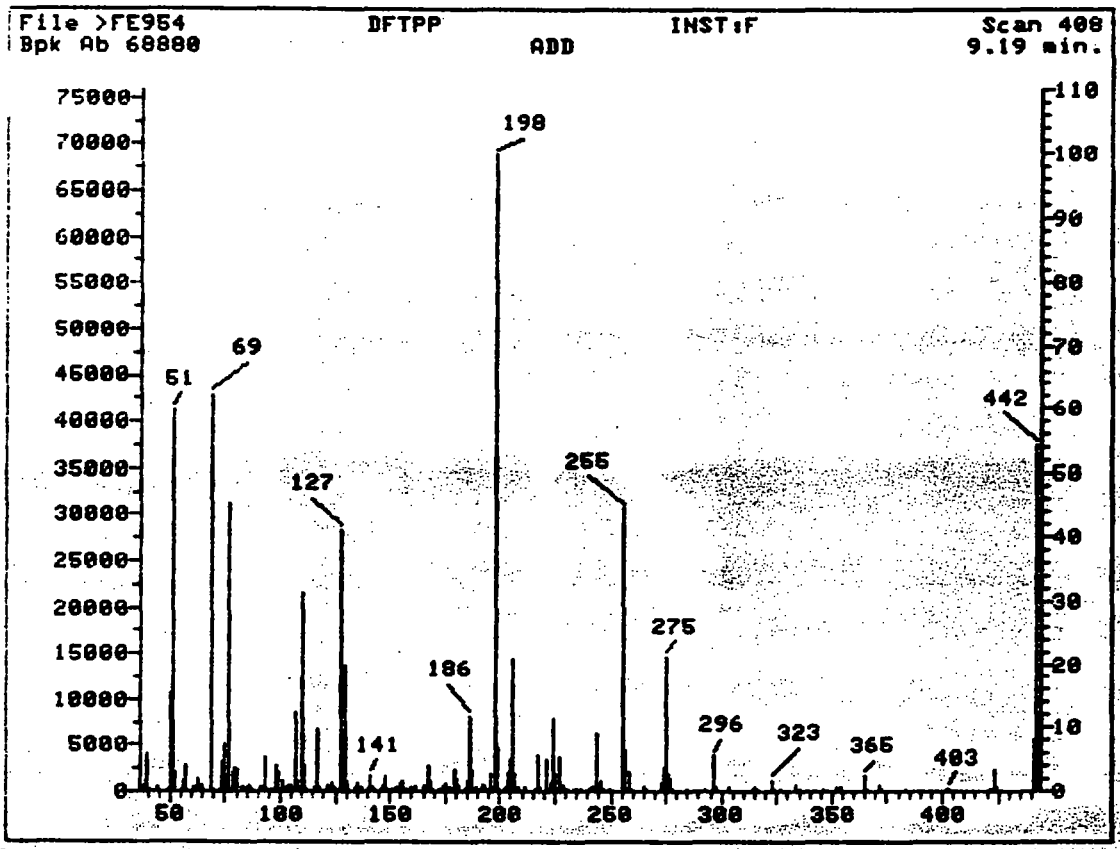
| m/z | Ion Abundance Criteria | % Relative Abundance Base Peak | Appropriate Peak | Status |
|---|---|---|---|---|
| 51 | 30-60% of mass 198 | 56.94 | 56.94 | Ok |
| 68 | Less than 2% of mass 69 | 0.00 | 0.00 | Ok |
| 69 | (reference only) | 59.20 | 59.20 | Ok |
| 70 | Less than 2% of mass 69 | .22 | .38 | Ok |
| 127 | 40-60% of mass 198 | 40.27 | 40.27 | Ok |
| 197 | Less than 1% of mass 198 | .59 | .59 | Ok |
| 198 | Base peak, 100% relative abundance | 100.00 | 100.00 | Ok |
| 199 | 5-9% of mass 198 | 6.66 | 6.66 | Ok |
| 275 | 10-30% of mass 198 | 21.93 | 21.93 | Ok |
| 365 | Greater than 1% of mass 198 | 2.39 | 2.39 | Ok |
| 441 | 0-100% of mass 443 | 9.14 | 75.28 | Ok |
| 442 | Greater than 40% of mass 198 | 61.52 | 61.52 | Ok |
| 443 | 17-23% of mass 442 | 12.15 | 19.75 | Ok |

Injection Date: 08/01/91
Injection Time: 09:47
Data File: >FE922
Scan: 405

>FE922 DFTPP INST:F 8-1-91
405 NRM 09:47

File: >FE922 Scan #: 405 Retn. time: 9.20

| m/z | Int. | m/z | Int. | m/z | Int. | m/z | Int. | m/z | Int. |
|---|---|---|---|---|---|---|---|---|---|
| 37.10 | .360 | 99.95 | .308 | 157.95 | .475 | 207.95 | .672 | 276.95 | 1.804 |
| 38.00 | 1.010 | 101.00 | 1.570 | 159.05 | .289 | 208.95 | .200 | 277.95 | .241 |
| 39.00 | 5.612 | 103.00 | .609 | 159.95 | .705 | 210.20 | .382 | 283.00 | .197 |
| 40.00 | .345 | 103.90 | 1.043 | 160.95 | .998 | 211.00 | .798 | 283.90 | .186 |
| 41.00 | .200 | 105.00 | 1.039 | 161.85 | .212 | 214.90 | .186 | 285.00 | .345 |
| 44.00 | .460 | 107.00 | 11.572 | 164.05 | .156 | 216.00 | .405 | 293.00 | .412 |
| 49.05 | .401 | 108.00 | 1.640 | 164.95 | .854 | 216.90 | 5.690 | 295.90 | 5.571 |
| 50.05 | 14.801 | 110.00 | 29.513 | 165.95 | .627 | 217.90 | .713 | 296.90 | .772 |
| 51.05 | 56.944 | 111.00 | 4.019 | 166.95 | 4.131 | 221.00 | 5.857 | 301.85 | .122 |
| 52.05 | 3.121 | 112.00 | .412 | 167.95 | 1.585 | 223.00 | 1.258 | 302.95 | .679 |
| 55.05 | .315 | 112.90 | .115 | 168.95 | .360 | 224.00 | 11.138 | 303.95 | .193 |
| 55.95 | 1.629 | 116.00 | .698 | 170.05 | .171 | 225.00 | 2.977 | 313.95 | .282 |
| 56.95 | 3.953 | 116.90 | 8.770 | 171.95 | .338 | 225.90 | .278 | 314.95 | .653 |
| 57.95 | .167 | 118.00 | .612 | 173.10 | .460 | 226.90 | 5.033 | 315.95 | .360 |
| 60.95 | .720 | 119.95 | .130 | 174.00 | .820 | 228.05 | .713 | 321.00 | .189 |
| 61.95 | .620 | 121.95 | .776 | 175.00 | 1.436 | 228.95 | .984 | 323.00 | 1.845 |
| 63.05 | 1.807 | 123.05 | 1.154 | 176.00 | .531 | 229.95 | .182 | 324.00 | .386 |
| 64.05 | .241 | 123.95 | .560 | 177.00 | .817 | 230.95 | .434 | 326.90 | .349 |
| 65.00 | .965 | 124.95 | .468 | 178.00 | .264 | 233.95 | .275 | 327.90 | .204 |
| 69.00 | 59.197 | 126.95 | 40.272 | 179.00 | 3.010 | 234.95 | .379 | 333.00 | .204 |
| 70.00 | .223 | 127.95 | 3.184 | 180.00 | 2.075 | 235.85 | .174 | 334.00 | 1.177 |
| 72.90 | .315 | 128.95 | 18.297 | 181.00 | .991 | 236.95 | .345 | 335.00 | .304 |
| 73.10 | .312 | 129.95 | 1.577 | 182.00 | .152 | 238.95 | .215 | 341.05 | .215 |
| 74.00 | 4.131 | 130.95 | .267 | 184.00 | .341 | 240.85 | .241 | 345.95 | .330 |
| 75.00 | 6.955 | 133.95 | .579 | 185.00 | 1.525 | 241.95 | .557 | 351.95 | .560 |
| 76.00 | 2.216 | 134.95 | 1.392 | 186.00 | 11.535 | 243.05 | .638 | 352.95 | .386 |
| 77.00 | 44.080 | 136.05 | .516 | 187.00 | 3.129 | 243.95 | 9.238 | 353.95 | .590 |
| 78.00 | 2.951 | 137.00 | .590 | 188.10 | .672 | 244.95 | 1.177 | 364.90 | 2.390 |
| 79.00 | 3.518 | 137.90 | .134 | 188.90 | .842 | 245.90 | 1.767 | 365.90 | .338 |
| 80.00 | 2.327 | 138.10 | .130 | 191.00 | .330 | 247.00 | .408 | 371.00 | .141 |
| 80.90 | 3.359 | 140.00 | .178 | 191.95 | .876 | 248.90 | .275 | 372.00 | .972 |
| 81.90 | .817 | 141.00 | 2.331 | 193.05 | .872 | 253.00 | .186 | 372.95 | .234 |
| 83.05 | .720 | 142.00 | .690 | 193.95 | .230 | 254.90 | 44.370 | 382.95 | .267 |
| 83.95 | .093 | 143.00 | .468 | 194.95 | .156 | 256.00 | 6.666 | 402.00 | .375 |
| 84.95 | .557 | 146.00 | .356 | 195.95 | 2.899 | 256.90 | .538 | 403.00 | .531 |
| 86.05 | .917 | 147.00 | 1.117 | 196.75 | .590 | 257.90 | 2.776 | 403.90 | .193 |
| 87.05 | .445 | 147.90 | 2.205 | 197.95 | 100.000 | 259.00 | .416 | 420.95 | .497 |
| 90.95 | .731 | 148.90 | .475 | 198.95 | 6.662 | 263.80 | .204 | 421.95 | .412 |
| 92.05 | .820 | 149.90 | .130 | 199.95 | .497 | 264.95 | 1.084 | 422.95 | 3.693 |
| 92.95 | 4.628 | 151.10 | .293 | 201.55 | .557 | 265.95 | .367 | 423.95 | .753 |
| 93.95 | .327 | 152.90 | .713 | 202.95 | .523 | 267.75 | .137 | 441.00 | 9.145 |
| 94.95 | .126 | 154.00 | .497 | 203.95 | 2.724 | 272.95 | 1.410 | 442.00 | 61.520 |
| 97.05 | .108 | 154.95 | 1.158 | 204.95 | 4.606 | 273.95 | 3.786 | 442.90 | 12.147 |
| 97.95 | 3.537 | 155.95 | 1.633 | 205.95 | 20.483 | 274.95 | 21.931 | 444.00 | 1.058 |
| 98.95 | 2.798 | 156.95 | .353 | 206.95 | 2.620 | 275.95 | 2.928 | | |




GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

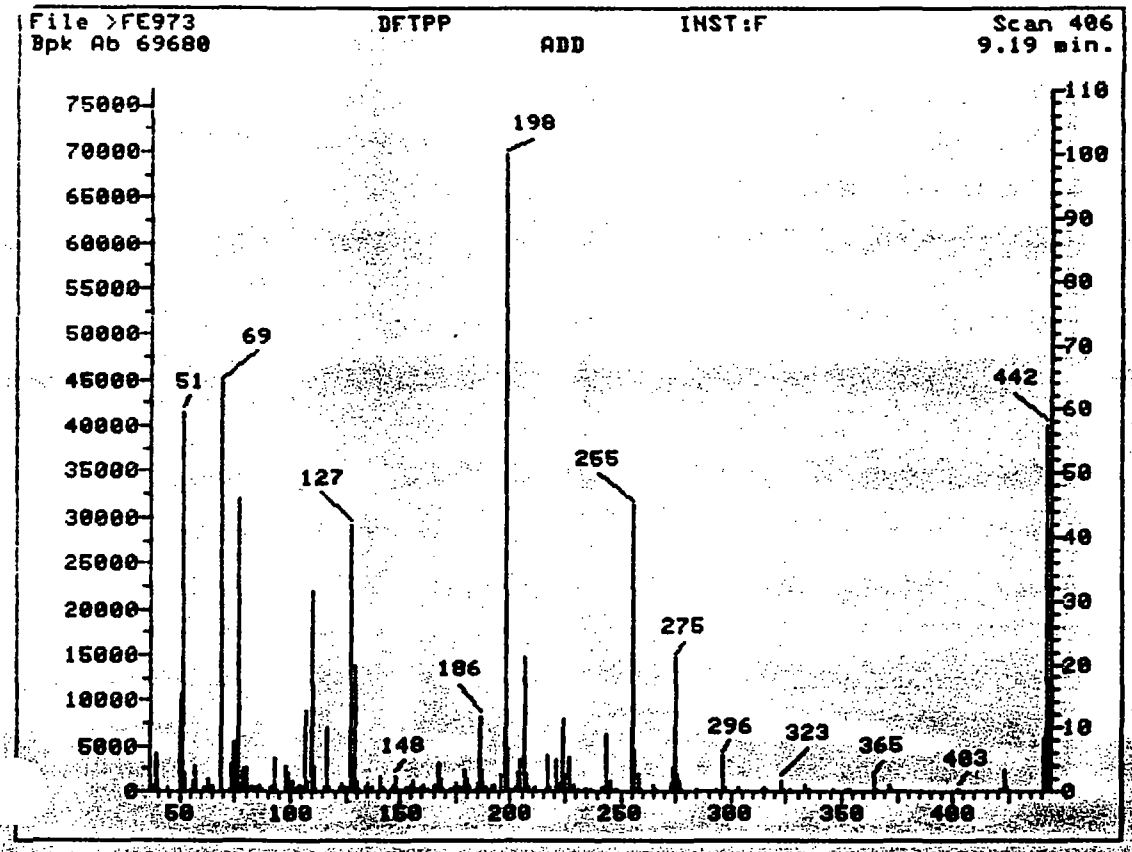
| m/z | Ion Abundance Criteria | % Relative Abundance Base Peak | Appropriate Peak | Status |
|---|---|---|---|---|
| 51 | 30-60% of mass 198 | 59.86 | 59.86 | Ok |
| 68 | Less than 2% of mass 69 | 0.00 | 0.00 | Ok |
| 69 | (reference only) | 62.28 | 62.28 | Ok |
| 70 | Less than 2% of mass 69 | .26 | .42 | Ok |
| 127 | 40-60% of mass 198 | 41.12 | 41.12 | Ok |
| 197 | Less than 1% of mass 198 | 0.00 | 0.00 | Ok |
| 198 | Base peak, 100% relative abundance | 100.00 | 100.00 | Ok |
| 199 | 5-9% of mass 198 | 6.64 | 6.64 | Ok |
| 275 | 10-30% of mass 198 | 21.24 | 21.24 | Ok |
| 365 | Greater than 1% of mass 198 | 2.39 | 2.39 | Ok |
| 441 | 0-100% of mass 443 | 8.05 | 78.42 | Ok |
| 442 | Greater than 40% of mass 198 | 54.30 | 54.30 | Ok |
| 443 | 17-23% of mass 442 | 10.26 | 18.90 | Ok |

Injection Date: 08/05/91
Injection Time: 11:06
Data File: >FE954
Scan: 408

>FE954 DFTPP INST:F 8/05/91
408 ADD NRM 11:06

File: >FE954 Scan #: 408 Retn. time: 9.19

| m/z | Int. | m/z | Int. | m/z | Int. | m/z | Int. | m/z | Int. |
|---|---|---|---|---|---|---|---|---|---|
| 36.00 | .256 | 99.95 | .298 | 159.05 | .119 | 210.10 | .147 | 283.00 | .080 |
| 37.00 | .338 | 101.00 | 1.738 | 159.95 | .755 | 211.00 | .814 | 284.00 | .113 |
| 38.00 | .993 | 102.90 | .655 | 161.05 | .980 | 215.00 | .196 | 285.00 | .309 |
| 39.00 | 6.222 | 104.00 | 1.141 | 161.95 | .279 | 215.90 | .456 | 292.00 | .049 |
| 40.00 | .242 | 105.00 | 1.025 | 164.95 | .920 | 216.90 | 5.768 | 292.90 | .360 |
| 40.90 | .071 | 106.00 | .112 | 165.95 | .682 | 218.00 | .749 | 294.00 | .049 |
| 44.00 | .645 | 107.00 | 12.493 | 166.95 | 4.191 | 221.00 | 5.139 | 295.90 | 5.665 |
| 49.05 | .322 | 108.00 | 1.854 | 167.95 | 1.677 | 222.90 | 1.251 | 297.00 | .787 |
| 50.05 | 15.575 | 110.00 | 31.283 | 168.95 | .363 | 224.00 | 11.427 | 302.95 | .652 |
| 51.05 | 59.856 | 111.00 | 4.052 | 169.85 | .155 | 225.00 | 2.769 | 303.95 | .131 |
| 52.05 | 2.991 | 112.00 | .463 | 170.95 | .164 | 226.00 | .274 | 313.95 | .289 |
| 53.05 | .045 | 116.00 | .761 | 171.95 | .428 | 226.90 | 5.242 | 314.95 | .639 |
| 55.05 | .295 | 116.90 | 9.882 | 172.85 | .508 | 227.95 | .751 | 315.95 | .245 |
| 55.95 | 1.726 | 117.90 | .706 | 174.00 | .928 | 228.95 | 1.025 | 320.90 | .154 |
| 57.05 | 3.982 | 119.95 | .106 | 175.00 | 1.462 | 229.95 | .044 | 322.10 | .051 |
| 57.95 | .147 | 121.95 | .922 | 176.00 | .521 | 231.05 | .404 | 323.00 | 1.796 |
| 60.95 | .745 | 122.95 | 1.352 | 177.00 | .832 | 233.95 | .361 | 324.00 | .282 |
| 62.05 | .735 | 123.95 | .646 | 177.90 | .332 | 234.95 | .306 | 326.90 | .299 |
| 63.05 | 1.963 | 124.95 | .539 | 178.90 | 3.336 | 235.95 | .070 | 327.90 | .068 |
| 63.95 | .267 | 126.95 | 41.118 | 180.00 | 2.076 | 237.05 | .369 | 332.00 | .113 |
| 65.10 | .919 | 127.95 | 3.127 | 181.00 | .993 | 238.95 | .080 | 332.90 | .151 |
| 67.20 | .051 | 128.95 | 19.909 | 182.00 | .087 | 240.95 | .299 | 333.90 | 1.127 |
| 69.00 | 62.279 | 129.95 | 1.619 | 182.80 | .042 | 241.95 | .591 | 335.00 | .301 |
| 70.00 | .261 | 130.95 | .321 | 184.00 | .305 | 242.95 | .613 | 340.95 | .181 |
| 73.00 | .385 | 131.85 | .118 | 185.00 | 1.601 | 243.95 | 9.170 | 345.85 | .356 |
| 74.00 | 4.636 | 133.95 | .540 | 186.00 | 11.857 | 244.95 | 1.189 | 351.95 | .565 |
| 75.00 | 7.455 | 134.95 | 1.459 | 187.00 | 3.341 | 246.00 | 1.873 | 352.95 | .359 |
| 76.00 | 2.333 | 135.95 | .617 | 188.00 | .456 | 247.00 | .364 | 353.95 | .556 |
| 77.00 | 45.218 | 137.00 | .655 | 189.00 | .836 | 249.00 | .325 | 364.90 | 2.393 |
| 78.00 | 2.972 | 137.80 | .068 | 191.00 | .372 | 252.90 | .135 | 365.90 | .348 |
| 79.00 | 3.695 | 140.00 | .224 | 191.95 | 1.021 | 253.10 | .077 | 371.00 | .115 |
| 80.00 | 2.625 | 141.00 | 2.541 | 192.95 | 1.089 | 255.00 | 44.620 | 371.90 | .899 |
| 80.90 | 3.542 | 142.00 | .861 | 194.05 | .248 | 256.00 | 6.385 | 373.05 | .212 |
| 82.00 | .809 | 143.00 | .511 | 194.95 | .160 | 257.00 | .467 | 382.95 | .216 |
| 83.05 | .746 | 143.90 | .054 | 195.95 | 2.771 | 258.00 | 2.912 | 389.85 | .068 |
| 84.05 | .038 | 146.00 | .414 | 197.95 | 100.000 | 258.90 | .433 | 391.00 | .045 |
| 85.05 | .661 | 146.90 | 1.163 | 198.95 | 6.642 | 263.80 | .125 | 401.80 | .363 |
| 85.95 | .891 | 147.90 | 2.445 | 199.95 | .483 | 264.95 | 1.121 | 402.90 | .539 |
| 87.05 | .453 | 149.00 | .453 | 201.35 | .440 | 265.95 | .350 | 403.90 | .170 |
| 87.95 | .203 | 150.00 | .064 | 202.95 | .620 | 267.85 | .105 | 420.95 | .452 |
| 90.95 | .846 | 150.90 | .293 | 203.95 | 3.044 | 271.95 | .074 | 421.95 | .385 |
| 91.95 | .859 | 151.80 | .144 | 204.95 | 4.948 | 272.95 | 1.401 | 422.95 | 3.309 |
| 92.95 | 5.363 | 152.90 | .832 | 205.95 | 20.800 | 273.95 | 3.688 | 423.95 | .675 |
| 93.95 | .402 | 154.00 | .594 | 206.95 | 2.692 | 274.95 | 21.238 | 441.00 | 8.046 |
| 95.95 | .235 | 154.95 | 1.253 | 207.95 | .820 | 275.95 | 2.822 | 442.00 | 54.299 |
| 97.05 | .052 | 155.95 | 1.732 | 208.85 | .161 | 276.95 | 1.893 | 443.00 | 10.260 |
| 97.95 | 4.024 | 157.05 | .373 | 209.05 | .060 | 277.95 | .283 | 444.00 | .961 |
| 98.95 | 2.979 | 157.95 | .420 | | | | | | |




## GC/MS PERFORMANCE STANDARD

### Decafluorotriphenylphospine (DFTPP)

| m/z | Ion Abundance Criteria | % Relative Abundance Base Peak | Appropriate Peak | Status |
|---|---|---|---|---|
| 51 | 30-60% of mass 198 | 59.54 | 59.54 | Ok |
| 68 | Less than 2% of mass 69 | 0.00 | 0.00 | Ok |
| 69 | (reference only) | 64.12 | 64.12 | Ok |
| 70 | Less than 2% of mass 69 | .16 | .26 | Ok |
| 127 | 40-60% of mass 198 | 41.86 | 41.86 | Ok |
| 197 | Less than 1% of mass 198 | 0.00 | 0.00 | Ok |
| 198 | Base peak, 100% relative abundance | 100.00 | 100.00 | Ok |
| 199 | 5-9% of mass 198 | 6.61 | 6.61 | Ok |
| 275 | 10-30% of mass 198 | 21.06 | 21.06 | Ok |
| 365 | Greater than 1% of mass 198 | 2.27 | 2.27 | Ok |
| 441 | 0-100% of mass 443 | 8.52 | 77.84 | Ok |
| 442 | Greater than 40% of mass 198 | 57.58 | 57.58 | Ok |
| 443 | 17-23% of mass 442 | 10.94 | 19.00 | Ok |

Injection Date: 08/06/91
Injection Time: 08:00
Data File: >FE973
Scan: 406

8/06/91
08:00

>FE973 DFTPP INST:F
406 ADD NRM

File: >FE973 Scan #: 406 Retn. time: 9.19

| m/z | Int. | m/z | Int. | m/z | Int. | m/z | Int. | m/z | Int. |
|---|---|---|---|---|---|---|---|---|---|
| 36.00 | .059 | 101.00 | 1.693 | 159.05 | .342 | 210.30 | .070 | 275.95 | 2.694 |
| 37.00 | .314 | 102.90 | .639 | 159.95 | .726 | 211.00 | .857 | 276.95 | 1.851 |
| 38.00 | .939 | 103.90 | 1.167 | 160.95 | 1.035 | 211.00 | .109 | 277.95 | .263 |
| 39.00 | 6.104 | 105.00 | 1.039 | 162.05 | .294 | 215.00 | .161 | 282.90 | .076 |
| 40.00 | .255 | 105.80 | .154 | 164.05 | .052 | 216.00 | .475 | 283.90 | .063 |
| 43.90 | .735 | 107.00 | 12.629 | 164.95 | .987 | 216.90 | 5.831 | 285.00 | .221 |
| 49.05 | .169 | 108.00 | 1.864 | 166.05 | .634 | 217.90 | .692 | 292.90 | .347 |
| 50.05 | 15.581 | 109.90 | 31.757 | 166.95 | 4.338 | 220.90 | 5.141 | 295.90 | 5.580 |
| 51.05 | 59.536 | 110.90 | 4.122 | 167.85 | 1.896 | 222.90 | 1.243 | 296.90 | .776 |
| 51.95 | 3.136 | 111.90 | .497 | 168.95 | .357 | 223.90 | 11.282 | 302.95 | .639 |
| 54.95 | .234 | 112.90 | .052 | 170.85 | .142 | 224.90 | 2.873 | 303.95 | .100 |
| 55.95 | 1.861 | 115.90 | .798 | 171.95 | .409 | 226.00 | .306 | 313.95 | .280 |
| 56.95 | 4.126 | 116.90 | 9.967 | 172.95 | .395 | 226.90 | 5.286 | 314.85 | .558 |
| 57.95 | .089 | 117.90 | .720 | 173.90 | .838 | 227.95 | .697 | 315.85 | .350 |
| 61.05 | .763 | 121.95 | .840 | 175.00 | 1.480 | 228.95 | .995 | 320.90 | .103 |
| 61.95 | .709 | 122.95 | 1.361 | 176.00 | .489 | 229.95 | .050 | 322.90 | 1.768 |
| 62.95 | 2.025 | 123.95 | .596 | 176.90 | .842 | 230.95 | .349 | 324.00 | .304 |
| 63.95 | .231 | 125.05 | .544 | 178.00 | .311 | 233.95 | .274 | 326.90 | .296 |
| 65.00 | .979 | 126.95 | 41.864 | 178.90 | 3.284 | 234.95 | .234 | 327.90 | .132 |
| 68.90 | 64.125 | 127.95 | 3.274 | 180.00 | 2.044 | 235.95 | .149 | 332.90 | .131 |
| 69.90 | .164 | 128.95 | 19.869 | 181.00 | .969 | 236.95 | .240 | 333.90 | 1.068 |
| 73.00 | .416 | 129.95 | 1.669 | 183.90 | .294 | 238.85 | .066 | 334.90 | .224 |
| 74.00 | 4.535 | 130.95 | .273 | 185.00 | 1.493 | 239.85 | .126 | 340.95 | .164 |
| 75.00 | 7.659 | 133.85 | .561 | 186.00 | 11.833 | 240.85 | .177 | 345.85 | .316 |
| 76.00 | 2.440 | 134.95 | 1.518 | 186.90 | 3.335 | 241.95 | .578 | 351.85 | .465 |
| 77.00 | 46.099 | 135.95 | .525 | 188.00 | .649 | 242.95 | .606 | 352.85 | .347 |
| 78.00 | 3.140 | 137.00 | .720 | 188.90 | .842 | 243.95 | 9.106 | 353.85 | .520 |
| 79.00 | 3.665 | 137.80 | .066 | 191.00 | .382 | 244.95 | 1.195 | 355.00 | .042 |
| 80.00 | 2.669 | 140.00 | .063 | 191.95 | .993 | 245.90 | 1.823 | 364.90 | 2.269 |
| 80.90 | 3.766 | 140.90 | 2.354 | 192.95 | .982 | 247.00 | .290 | 365.90 | .319 |
| 81.90 | .858 | 142.00 | .751 | 193.95 | .172 | 248.90 | .255 | 371.90 | 1.030 |
| 83.05 | .798 | 142.90 | .530 | 194.95 | .049 | 252.90 | .138 | 372.95 | .241 |
| 85.05 | .642 | 146.00 | .428 | 195.95 | 2.720 | 254.90 | 44.937 | 382.95 | .191 |
| 86.05 | .934 | 146.90 | 1.187 | 197.85 | 100.000 | 255.90 | 6.487 | 389.85 | .049 |
| 87.05 | .462 | 147.90 | 2.430 | 198.85 | 6.609 | 256.90 | .449 | 401.80 | .336 |
| 87.85 | .053 | 149.00 | .451 | 199.95 | .466 | 257.90 | 2.799 | 402.90 | .494 |
| 90.95 | .821 | 151.00 | .228 | 201.25 | .443 | 258.90 | .403 | 403.90 | .090 |
| 91.95 | .880 | 151.10 | .049 | 201.45 | .142 | 263.80 | .177 | 420.85 | .443 |
| 92.95 | 5.360 | 151.80 | .128 | 202.85 | .650 | 264.95 | 1.091 | 421.95 | .446 |
| 93.95 | .431 | 152.90 | .788 | 203.95 | 3.001 | 265.95 | .403 | 422.95 | 3.420 |
| 96.05 | .151 | 153.90 | .527 | 204.95 | 5.020 | 265.85 | .052 | 423.95 | .682 |
| 96.85 | .044 | 154.95 | 1.208 | 205.95 | 21.026 | 267.65 | .043 | 440.90 | 8.516 |
| 97.05 | .046 | 156.05 | 1.724 | 206.95 | 2.666 | 272.95 | 1.317 | 441.90 | 57.580 |
| 97.95 | 3.977 | 157.05 | .425 | 207.95 | .730 | 273.95 | 3.694 | 442.90 | 10.940 |
| 98.95 | 3.143 | 157.95 | .443 | 208.95 | .156 | 274.95 | 21.063 | 443.90 | .979 |
| 99.95 | .339 | 158.05 | .089 | 210.10 | .212 | | | | |

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: SBLK1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: FE957

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/05/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 10 | U |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: SBLK1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: FE957

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ dec. _____ Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/05/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

| CAS NO. | COMPOUND | | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U |
| 83-32-9 | Acenaphthene | 10 | U |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U |
| 100-02-7 | 4-Nitrophenol | 50 | U |
| 132-64-9 | Dibenzofuran | 10 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U |
| 84-66-2 | Diethylphthalate | 10 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U |
| 86-73-7 | Fluorene | 10 | U |
| 100-01-6 | 4-Nitroaniline | 50 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U |
| 118-74-1 | Hexachlorobenzene | 10 | U |
| 87-86-5 | Pentachlorophenol | 50 | U |
| 85-01-8 | Phenanthrene | 10 | U |
| 120-12-7 | Anthracene | 10 | U |
| 84-74-2 | Di-n-Butylphthalate | 10 | U |
| 206-44-0 | Fluoranthene | 10 | U |
| 129-00-0 | Pyrene | 10 | U |
| 85-68-7 | Butylbenzylphthalate | 10 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U |
| 56-55-3 | Benzo(a)Anthracene | 10 | U |
| 218-01-9 | Chrysene | 10 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 10 | U |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)Pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U |

(1) - Cannot be separated from Diphenylamine

1F

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK1

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 65686 SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: SBLK1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: FE957

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ dec. _____ Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/05/91

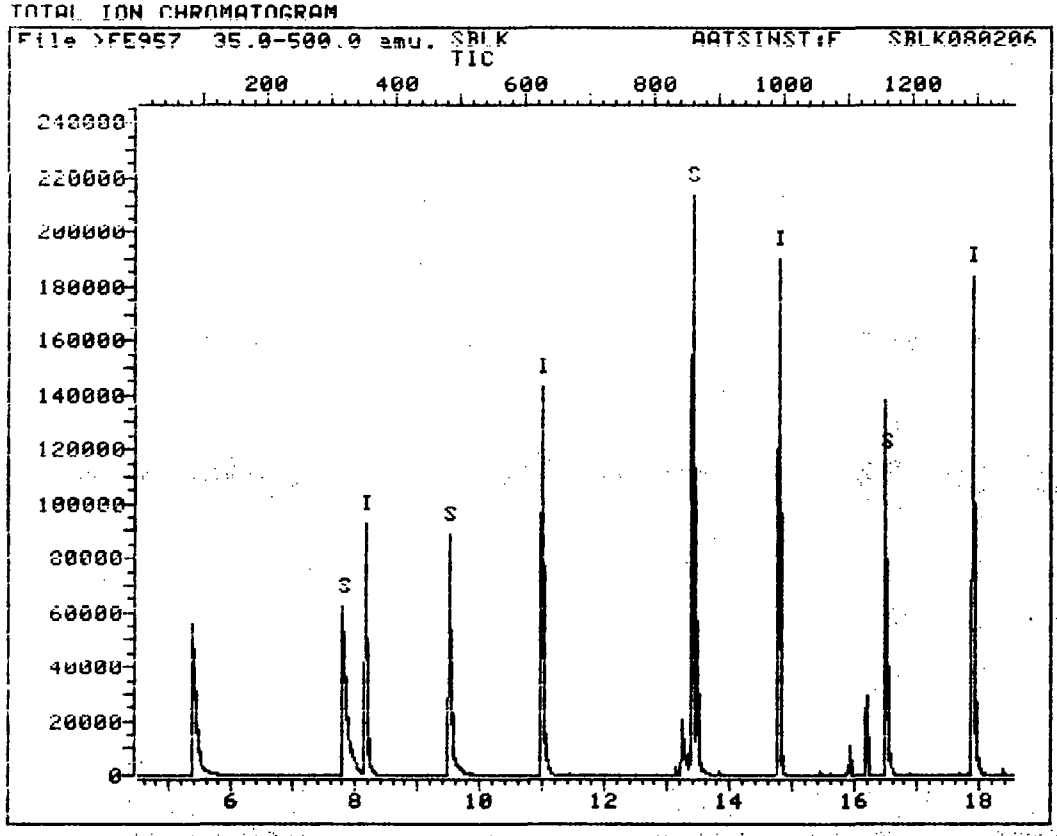
GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

Number TICs found: 3

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|---|
| 1. | UNKNOWN COMPOUND | 13.22 | 7.0 | J |
| 2. | UNKNOWN COMPOUND | 16.19 | 5.0 | J |
| 3. | UNKNOWN COMPOUND | 25.31 | 3.0 | J |

TOTAL ION CHROMATOGRAM



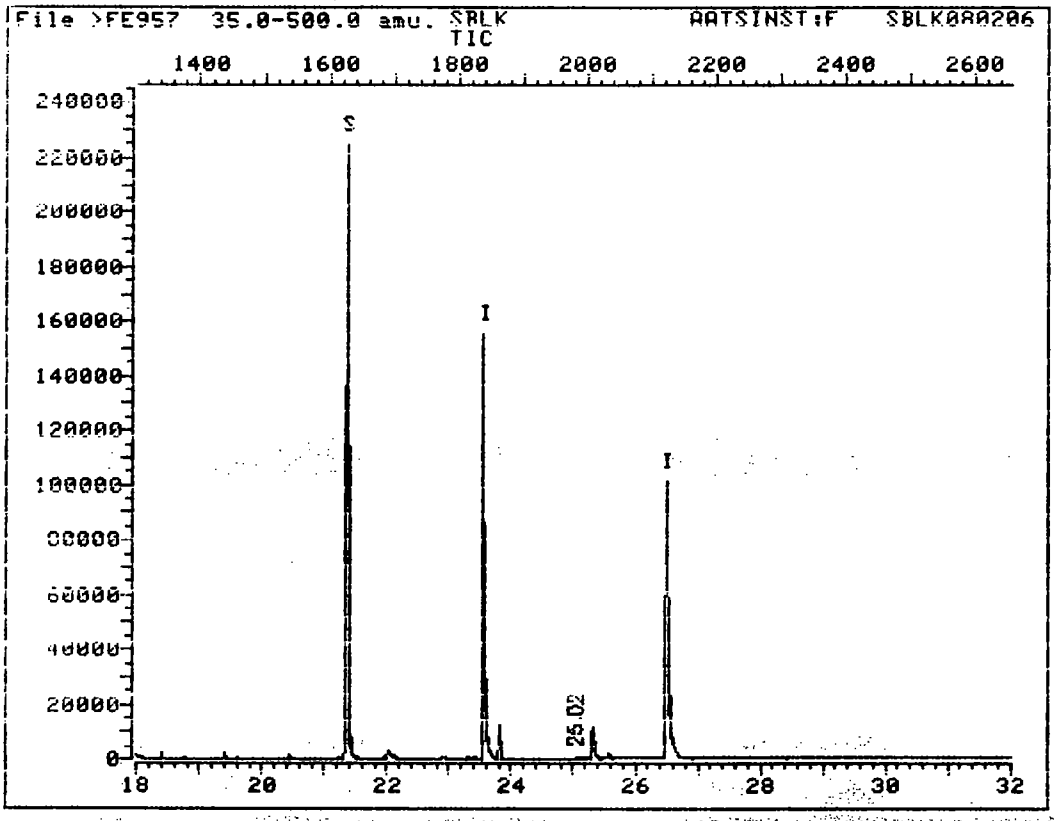

Data File: >FE957::D7 Quant Output File: ^FE957::L1
Name: SBLK AATS
Misc: INST:F SBLK080206 1000ML/1ML/1UL BTL# 1

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910805 15:07

Operator ID: AUTO
Quant Time: 910805 15:26
Injected at: 910805 14:14

TIC page 1 of 2

TOTAL ION CHROMATOGRAM




Data File: >FE957::D7 Quant Output File: ^FE957::L1
Name: SBLK AATS
Misc: INST:F SBLK080206 1000ML/1ML/1UL BTL# 1

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910805 15:07

Operator ID: AUTO
Quant Time: 910805 15:26
Injected at: 910805 14:14

TIC page 2 of 2

QUANT REPORT

Operator ID: AUTO  Quant Rev: 6  Quant Time: 910805 15:26
Output File: ^FE957::L1  Injected at: 910805 14:14
Data File: >FE957::D7  Dilution Factor: 1.00000
Name: SBLK1  AATS
Misc: INST:F  SBLK080206  1000ML/1ML/1UL  BTL# 1

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910805 15:07

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *CI30 1,4-DICHLOROBENZENE-D4 | 8.14 | 152.0 | 29603 | 40.00 | NG/UL | 96 |
| 15) | CS50 2-FLUOROPHENOL | 5.37 | 112.0 | 55609M | 65.51 | NG/UL | |
| 16) | CS45 PHENOL-D5 | 7.79 | 99.0 | 82736 | 65.05 | NG/UL | 92 |
| 17) | *CI40 NAPHTHALENE-D8 | 10.97 | 136.0 | 130004 | 40.00 | NG/UL | 88 |
| 31) | CS20 NITROBENZENE-D5 | 9.49 | 82.0 | 78387 | 58.62 | NG/UL | 88 |
| 32) | *CI50 ACENAPHTHENE-D10 | 14.76 | 164.0 | 73072 | 40.00 | NG/UL | 96 |
| 51) | CS25 2-FLUOROBIPHENYL | 13.39 | 172.0 | 118504 | 57.87 | NG/UL | 94 |
| 52) | CS55 2,4,6-TRIBROMOPHENOL | 16.48 | 329.8 | 29026 | 79.46 | NG/UL | 95 |
| 53) | *CI60 PHENANTHRENE-D10 | 17.88 | 188.0 | 134621 | 40.00 | NG/UL | 85 |
| 63) | *CI70 CHRYSENE-D12 | 23.54 | 240.0 | 112345 | 40.00 | NG/UL | 95 |
| 70) | CS30 TERPHENYL-D14 | 21.36 | 244.0 | 148283 | 69.43 | NG/UL | 91 |
| 1) | *CI75 PERYLENE-D12 | 26.49 | 264.0 | 93633 | 40.00 | NG/UL | 99 |
| ~~2)~~ | ~~C760 DI-N-OCTYLPHTHALATE~~ | ~~25.02~~ | ~~149.0~~ | ~~292~~ | ~~.05~~ | ~~NG/UL~~ FP | ~~100~~ |

* Compound is ISTD

FP = FALSE POSITIVE

data file header from : >FE957

Sample: SBLK{ AATS Operator: AUTO MS 8/05/91 14:14
Misc : INST:F SBLK080206 1000ML/1ML/1UL BTL# 1
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: #STDF Tuning file: F2TUNE No. of extra records: 2
Source temp.: 0 Analyzer temp.: 300 Transfer line temp. : 0

| | | | | | |
|---|---|---|---|---|---|
| Chromatographic temperatures : | 45. | 300. | 0. | 0. | 0. |
| Chromatographic times, min. : | 4.0 | 9.0 | 0.0 | 0.0 | 0.0 |
| Chromatographic rate, deg/min: | 12.0 | 0.0 | 0.0 | 0.0 | 0.0 |

>FE957 SBLK AATSINST:F SBLK080206 1000ML/1ML/1UL
35.01 500.0 CLP ADC TIC
Upslope: .20 Area Reject: 20261. Max Peaks: 4 Bunching: 1
Dnslope: 0.00 Results File IFE957 Sorted by Time/Area INT

| Peak # | R.T. min. | first scan | max scan | last scan | peak height | raw area | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| ~~1~~ | ~~5.37~~ | ~~82~~ | ~~84~~ | ~~102~~ | ~~56120~~ | ~~209584~~ | ~~209584~~ | ~~100.00~~ | ~~61.327~~ |
| 2 | 13.22 | 839 | 842 | 852 | 20284 | 61591 | 61591 | 29.39 | 18.022 |
| 3 | 16.19 | 1126 | 1129 | 1134 | 29255 | 47802 | 47802 | 22.81 | 13.988 |
| 4 | 25.30 | 2005 | 2008 | 2013 | 11173 | 24421 | 22769 | 10.86 | 6.663 |

Sum of corrected areas: 341746.

Summary of Unknowns PBM Library Search and Quantitation

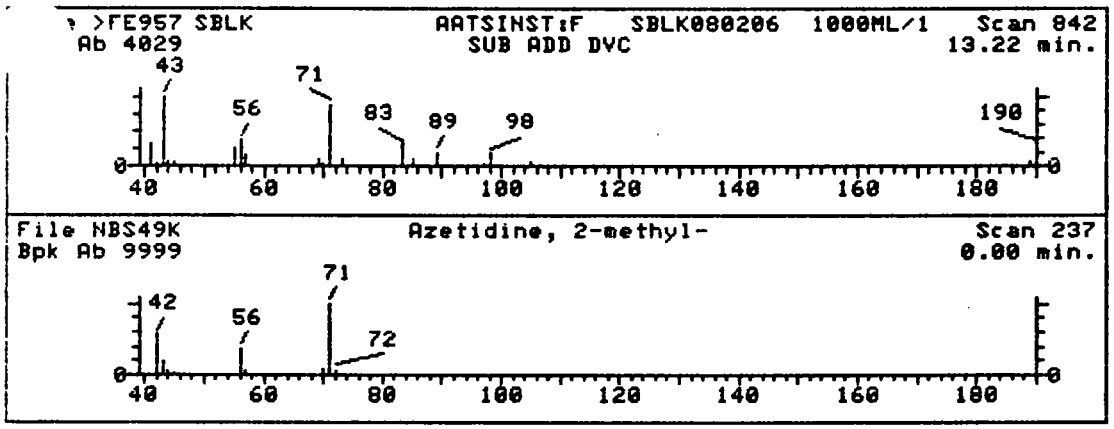
| Standard | Concentration | Area | Retention Time | Unknown Window |
|---|---|---|---|---|
| 1 | 40.0 | 202606. | 8.14 | 4.51 - 9.56 |
| 2 | 40.0 | 298283. | 10.97 | 9.56 - 12.87 |
| 3 | 40.0 | 358527. | 14.76 | 12.87 - 16.32 |
| 4 | 40.0 | 370373. | 17.88 | 16.32 - 20.71 |
| 5 | 40.0 | 337350. | 23.54 | 20.71 - 25.02 |
| 6 | 40.0 | 286915. | 26.49 | 25.02 - 32.01 |

Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

Correction Factor = 1.00 = (AM / AU) / (DF * FS)

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unk} * \text{Correction Factor}$$

6:35 PM MON., 5 AUG., 1991




# UNKNOWN

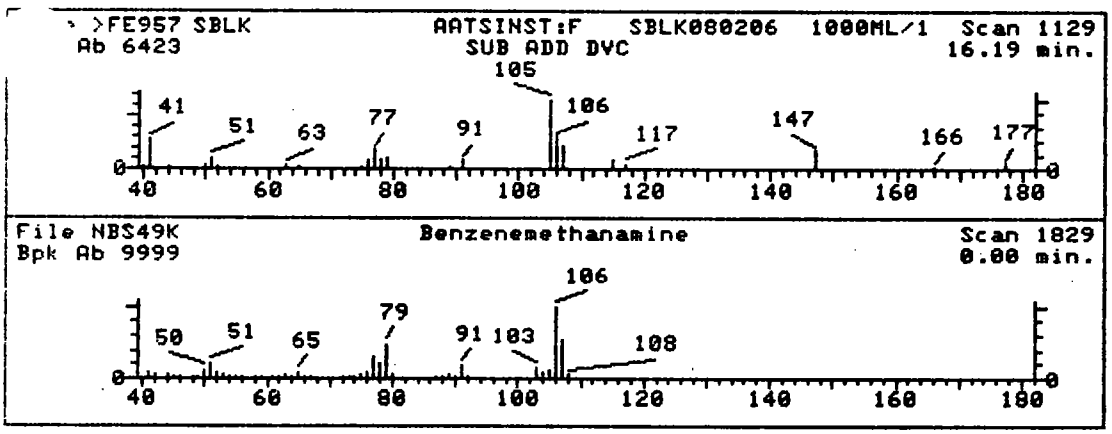
Sample: SBLK | AATS Operator: AUTO MS 8/05/91 14:14

. Unknown #,2
Area = 61591.00 Tentative Concentration is 7.00

1. Azetidine, 2-methyl- 71 C4H9N

Sample file: >FE957 Spectrum #: 842
Search speed: 1 Tilting option: N No. of ion ranges searched: 43

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_IV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 25* | 19812498 | 4253 | NBS49K | 20 | 42 | 2 | 0 | 87 | 44 | 8 | 13 |




UNKNOWN

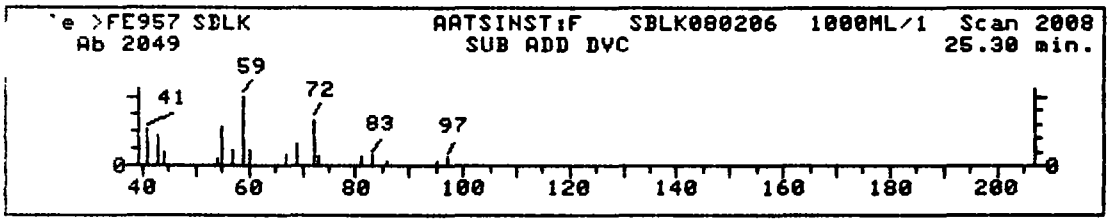
Sample: SBLK | AATS Operator: AUTO MS 8/05/91 14:14

. Unknown #,3
Area = 47802.00 Tentative Concentration is 5.00

1. Benzenemethanamine 107 C7H9N

Sample file: >FE957 Spectrum #: 1129
Search speed: 1 Tilting option: N No. of ion ranges searched: 44

| | Prob. | CAS # | CON # | ROOT | K | DK | #FLG | TILT | % | CON | C_I | R_IV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 11* | 100469 | 11012 | NBS49K | 27 | 72 | 3 | 0 | 45 | 64 | 2 | 13 |




NO LIBRARY MATCH
FOUND - UNKNOWN

Sample: SBLK | AATS Operator: AUTO MS 8/05/91 14:14

. Unknown #,4
Area = 22769.00 Tentative Concentration is 3.00

Sample file: >FE957 Spectrum #: 2008

No data base entries were retrieved.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-027MS

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 684327MS

Sample wt/vol: 500 (g/mL) ML Lab File ID: FE959

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/05/91

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 20 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 20 | U |
| 95-57-8 | 2-Chlorophenol | 20 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 20 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 20 | U |
| 100-51-6 | Benzyl Alcohol | 20 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 20 | U |
| 95-48-7 | 2-Methylphenol | 20 | U |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 20 | U |
| 106-44-5 | 4-Methylphenol | 20 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 20 | U |
| 67-72-1 | Hexachloroethane | 20 | U |
| 98-95-3 | Nitrobenzene | 20 | U |
| 78-59-1 | Isophorone | 20 | U |
| 88-75-5 | 2-Nitrophenol | 20 | U |
| 105-67-9 | 2,4-Dimethylphenol | 20 | U |
| 65-85-0 | Benzoic Acid | 100 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 20 | U |
| 120-83-2 | 2,4-Dichlorophenol | 20 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 20 | U |
| 91-20-3 | Naphthalene | 20 | U |
| 106-47-8 | 4-Chloroaniline | 20 | U |
| 87-68-3 | Hexachlorobutadiene | 20 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 20 | U |
| 91-57-6 | 2-Methylnaphthalene | 20 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 20 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 20 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 100 | U |
| 91-58-7 | 2-Chloronaphthalene | 20 | U |
| 88-74-4 | 2-Nitroaniline | 100 | U |
| 131-11-3 | Dimethyl Phthalate | 20 | U |
| 208-96-8 | Acenaphthylene | 20 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 20 | U |

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-027MS

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 684327MS

Sample wt/vol: 500 (g/mL) ML Lab File ID: FE959

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. _____ dec. _____ Date Extracted: 08/02/91

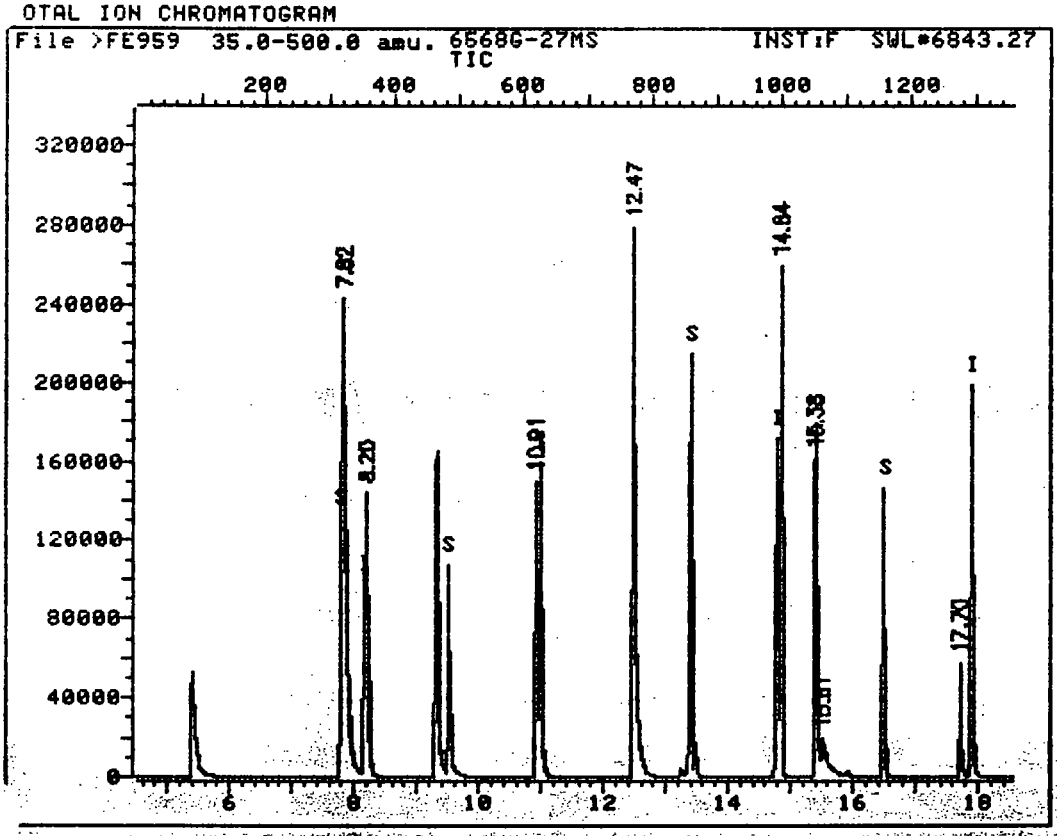
Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/05/91

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 100 | U |
| 83-32-9 | Acenaphthene | 20 | U |
| 51-28-5 | 2,4-Dinitrophenol | 100 | U |
| 100-02-7 | 4-Nitrophenol | 100 | U |
| 132-64-9 | Dibenzofuran | 20 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 20 | U |
| 84-66-2 | Diethylphthalate | 20 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 20 | U |
| 86-73-7 | Fluorene | 20 | U |
| 100-01-6 | 4-Nitroaniline | 100 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 100 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 20 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 20 | U |
| 118-74-1 | Hexachlorobenzene | 20 | U |
| 87-86-5 | Pentachlorophenol | 100 | U |
| 85-01-8 | Phenanthrene | 20 | U |
| 120-12-7 | Anthracene | 20 | U |
| 84-74-2 | Di-n-Butylphthalate | 110 | |
| 206-44-0 | Fluoranthene | 20 | U |
| 129-00-0 | Pyrene | 20 | U |
| 85-68-7 | Butylbenzylphthalate | 20 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 40 | U |
| 56-55-3 | Benzo(a)Anthracene | 20 | U |
| 218-01-9 | Chrysene | 20 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 20 | U |
| 117-84-0 | Di-n-Octyl Phthalate | 20 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 20 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 20 | U |
| 50-32-8 | Benzo(a)Pyrene | 20 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 20 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 20 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 20 | U |

(1) - Cannot be separated from Diphenylamine

OTAL ION CHROMATOGRAM



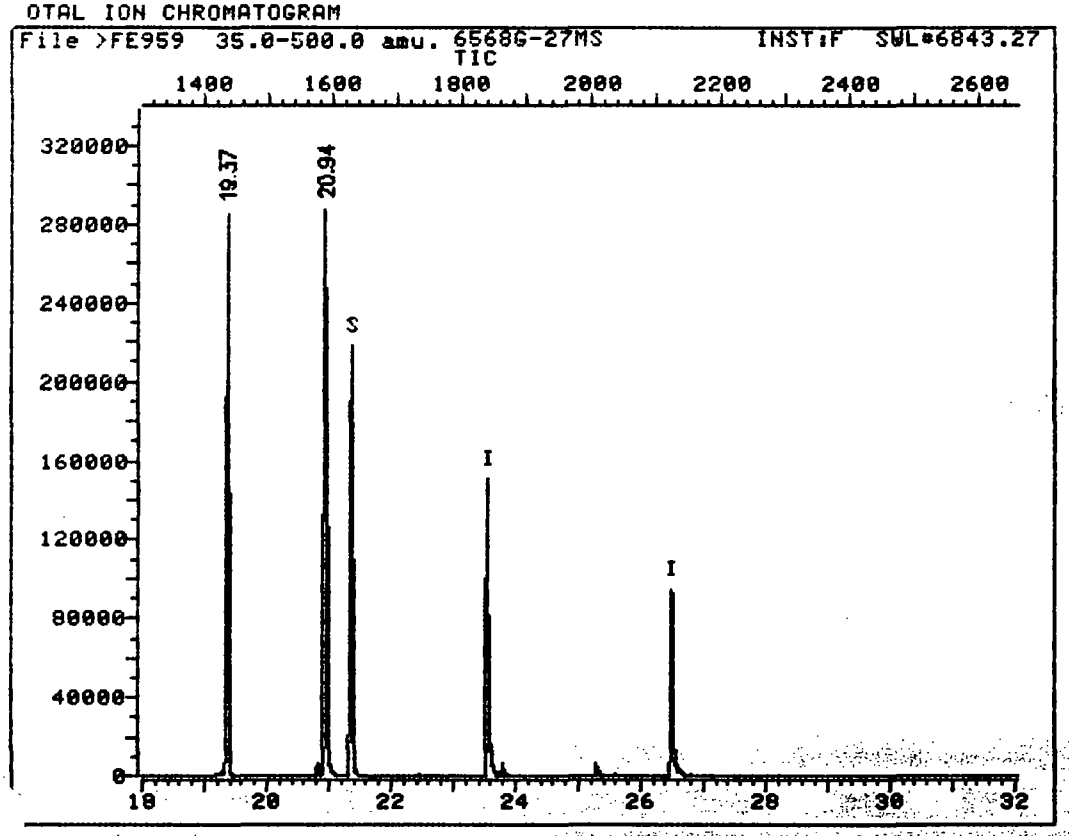

Data File: >FE959::D7 Quant Output File: ^FE959::L1
Name: 6568G-27MS
Misc: INST:F SWL#6843.27 500ML/1ML/1UL BTL# 1

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910805 15:07

Operator ID: LINDA
Quant Time: 910805 16:11
Injected at: 910805 15:36

TIC page 1 of 2

OTAL ION CHROMATOGRAM




Data File: >FE959::D7 Quant Output File: ^FE959::L1
Name: 6568G-27MS
Misc: INST:F SWL#6843.27 500ML/1ML/1UL BTL# 1

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910805 15:07

Operator ID: LINDA
Quant Time: 910805 16:11
Injected at: 910805 15:36

TIC page 2 of 2

QUANT REPORT

Operator ID: LINDA  Quant Rev: 6  Quant Time: 910805 16:11
Output File: ^FE959::L1  Injected at: 910805 15:36
Data File: >FE959::D7  Dilution Factor: 1.00000
Name: 6568G-27MS
Misc: INST:F SWL#6843.27 500ML/1ML/1UL  BTL# 1

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910805 15:07

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *CI30 1,4-DICHLOROBENZENE-D4 | 8.15 | 152.0 | 29168 | 40.00 | NG/UL | 98 |
| 3) | C315 PHENOL | 7.81 | 94.0 | 108600M | 95.13 | NG/UL | |
| 5) | C330 2-CHLOROPHENOL | 7.82 | 128.0 | 82623 | 98.39 | NG/UL | 82 |
| 7) | C340 1,4-DICHLOROBENZENE | 8.20 | 146.0 | 65363M | 62.92 | NG/UL | |
| ~~9)~~ | ~~C350 1,2-DICHLOROBENZENE~~ | ~~8.20~~ | ~~146.0~~ | ~~65561~~ | ~~71.38~~ | ~~NG/UL~~ FP | ~~95~~ |
| 13) | C370 N-NITROSO-DI-N-PROPYLAMIN | 9.31 | 70.0 | 84351M | 75.92 | NG/UL | |
| 15) | CS50 2-FLUOROPHENOL | 5.38 | 112.0 | 55134M | 65.92 | NG/UL | |
| 16) | CS45 PHENOL-D5 | 7.78 | 99.0 | 105564 | 84.24 | NG/UL | 92 |
| 17) | *CI40 NAPHTHALENE-D8 | 10.97 | 136.0 | 126167 | 40.00 | NG/UL | 89 |
| 25) | C445 1,2,4-TRICHLOROBENZENE | 10.91 | 180.0 | 60998 | 58.56 | NG/UL | 96 |
| 29) | C465 4-CHLORO-3-METHYLPHENOL | 12.47 | 107.0 | 149498 | 113.74 | NG/UL | 85 |
| 1) | CS20 NITROBENZENE-D5 | 9.50 | 82.0 | 82389 | 63.49 | NG/UL | 88 |
| 2) | *CI50 ACENAPHTHENE-D10 | 14.76 | 164.0 | 73479 | 40.00 | NG/UL | 98 |
| 42) | C550 ACENAPHTHENE | 14.84 | 153.0 | 140279 | 67.13 | NG/UL | 97 |
| 44) | C560 4-NITROPHENOL | 15.51 | 109.0 | 9342 | 46.09 | NG/UL | 92 |
| 46) | C570 2,4-DINITROTOLUENE | 15.38 | 165.0 | 68874 | 72.46 | NG/UL | 82 |
| 51) | CS25 2-FLUOROBIPHENYL | 13.40 | 172.0 | 119427 | 57.99 | NG/UL | 96 |
| 52) | CS55 2,4,6-TRIBROMOPHENOL | 16.48 | 329.8 | 23144 | 63.01 | NG/UL | 92 |
| 53) | *CI60 PHENANTHRENE-D10 | 17.88 | 188.0 | 132367 | 40.00 | NG/UL | 83 |
| 58) | C635 PENTACHLOROPHENOL | 17.70 | 266.0 | 15641 | 55.70 | NG/UL | 96 |
| 61) | C650 DI-N-BUTYLPHTHALATE | 19.37 | 149.0 | 288531 | 55.08 | NG/UL | 87 |
| 63) | *CI70 CHRYSENE-D12 | 23.53 | 240.0 | 110236 | 40.00 | NG/UL | 94 |
| 64) | C715 PYRENE | 20.94 | 202.0 | 282183 | 81.44 | NG/UL | 96 |
| 70) | CS30 TERPHENYL-D14 | 21.36 | 244.0 | 139777 | 66.70 | NG/UL | 91 |
| 71) | *CI75 PERYLENE-D12 | 26.47 | 264.0 | 86344 | 40.00 | NG/UL | 97 |

* Compound is ISTD

FP = FALSE POSITIVE

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-027MSD

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 684327MSD

Sample wt/vol: 500 (g/mL) ML Lab File ID: FE960

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. _____ dec. _____ Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/05/91

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 20 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 20 | U |
| 95-57-8 | 2-Chlorophenol | 20 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 20 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 20 | U |
| 100-51-6 | Benzyl Alcohol | 20 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 20 | U |
| 95-48-7 | 2-Methylphenol | 20 | U |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 20 | U |
| 106-44-5 | 4-Methylphenol | 20 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 20 | U |
| 67-72-1 | Hexachloroethane | 20 | U |
| 98-95-3 | Nitrobenzene | 20 | U |
| 78-59-1 | Isophorone | 20 | U |
| 88-75-5 | 2-Nitrophenol | 20 | U |
| 105-67-9 | 2,4-Dimethylphenol | 20 | U |
| 65-85-0 | Benzoic Acid | 100 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 20 | U |
| 120-83-2 | 2,4-Dichlorophenol | 20 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 20 | U |
| 91-20-3 | Naphthalene | 20 | U |
| 106-47-8 | 4-Chloroaniline | 20 | U |
| 87-68-3 | Hexachlorobutadiene | 20 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 20 | U |
| 91-57-6 | 2-Methylnaphthalene | 20 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 20 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 20 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 100 | U |
| 91-58-7 | 2-Chloronaphthalene | 20 | U |
| 88-74-4 | 2-Nitroaniline | 100 | U |
| 131-11-3 | Dimethyl Phthalate | 20 | U |
| 208-96-8 | Acenaphthylene | 20 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 20 | U |

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-027MSD

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -010

Matrix: (soil/water) WATER Lab Sample ID: 684327MSD

Sample wt/vol: 500 (g/mL) ML Lab File ID: FE960

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. _____ dec. _____ Date Extracted: 08/02/91

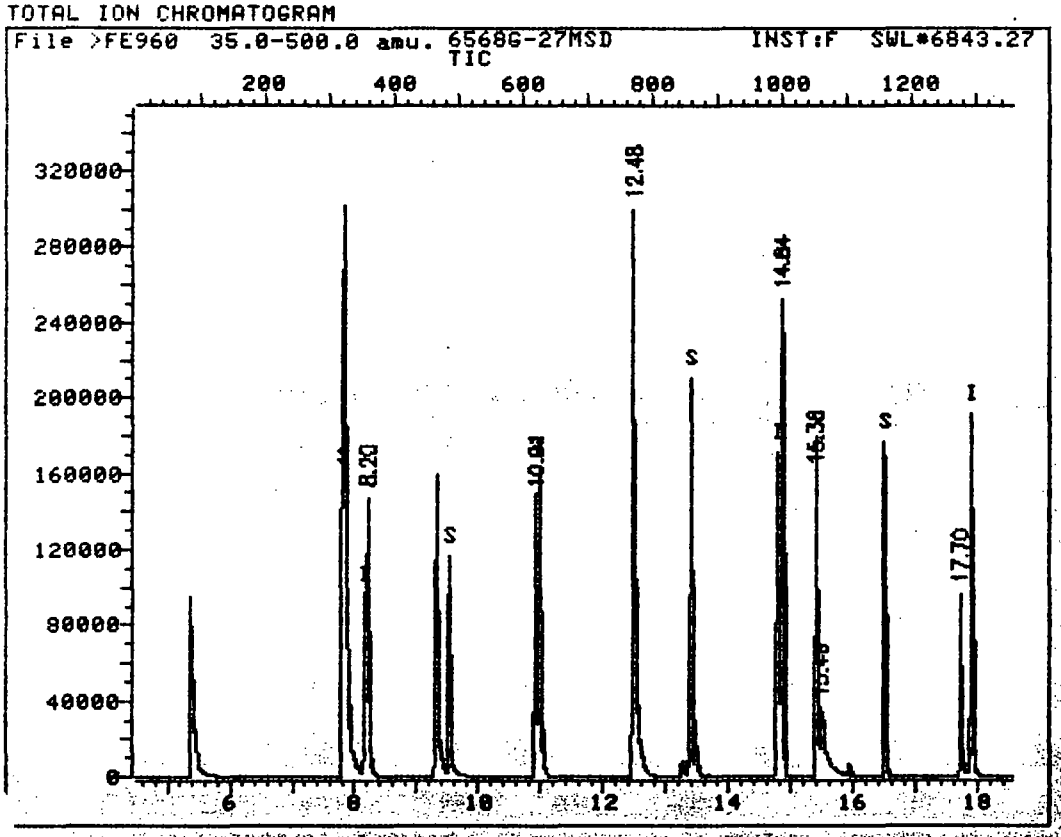
Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 08/05/91

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 100 | U |
| 83-32-9 | Acenaphthene | 20 | U |
| 51-28-5 | 2,4-Dinitrophenol | 100 | U |
| 100-02-7 | 4-Nitrophenol | 100 | U |
| 132-64-9 | Dibenzofuran | 20 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 20 | U |
| 84-66-2 | Diethylphthalate | 20 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 20 | U |
| 86-73-7 | Fluorene | 20 | U |
| 100-01-6 | 4-Nitroaniline | 100 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 100 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 20 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 20 | U |
| 118-74-1 | Hexachlorobenzene | 20 | U |
| 87-86-5 | Pentachlorophenol | 100 | U |
| 85-01-8 | Phenanthrene | 20 | U |
| 120-12-7 | Anthracene | 20 | U |
| 84-74-2 | Di-n-Butylphthalate | 110 | |
| 206-44-0 | Fluoranthene | 20 | U |
| 129-00-0 | Pyrene | 20 | U |
| 85-68-7 | Butylbenzylphthalate | 20 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 40 | U |
| 56-55-3 | Benzo(a)Anthracene | 20 | U |
| 218-01-9 | Chrysene | 20 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 20 | U |
| 117-84-0 | Di-n-Octyl Phthalate | 20 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 20 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 20 | U |
| 50-32-8 | Benzo(a)Pyrene | 20 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 20 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 20 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 20 | U |

(1) - Cannot be separated from Diphenylamine

TOTAL ION CHROMATOGRAM



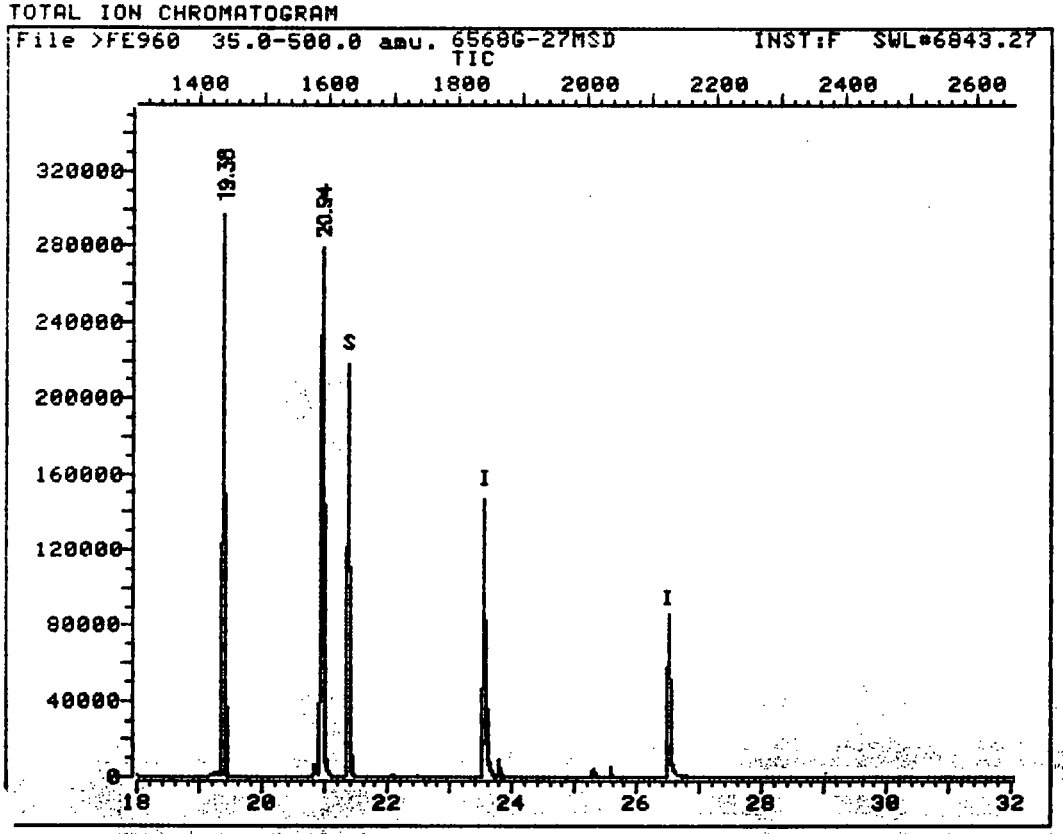

Data File: >FE960::D7 Quant Output File: ^FE960::L1
Name: 6568G-27MSD
Misc: INST:F SWL#6843.27 500ML/1ML/1UL BTL# 2

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910805 15:07

Operator ID: LINDA
Quant Time: 910805 16:53
Injected at: 910805 16:18

TIC page 1 of 2

TOTAL ION CHROMATOGRAM




Data File: >FE960::D7 Quant Output File: ^FE960::L1
Name: 6568G-27MSD
Misc: INST:F SWL#6843.27 500ML/1ML/1UL BTL# 2

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910805 15:07

Operator ID: LINDA
Quant Time: 910805 16:53
Injected at: 910805 16:18

TIC page 2 of 2

QUANT REPORT

Operator ID: LINDA  Quant Rev: 6  Quant Time: 910805 16:53
Output File: ^FE960::L1  Injected at: 910805 16:18
Data File: >FE960::D7  Dilution Factor: 1.00000
Name: 6568G-27MSD
Misc: INST:F SWL#6843.27 500ML/1ML/1UL  BTL# 2

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910805 15:07

| | Compound | R.T. | Q ion | Area | Conc | Units | q |
|---|---|---|---|---|---|---|---|
| 1) | *CI30 1,4-DICHLOROBENZENE-D4 | 8.16 | 152.0 | 29031 | 40.00 | NG/UL | 96 |
| 3) | C315 PHENOL | 7.82 | 94.0 | 109069M | 95.99 | NG/UL | |
| 5) | C330 2-CHLOROPHENOL | 7.82 | 128.0 | 100501M | 120.24 | NG/UL | |
| 7) | C340 1,4-DICHLOROBENZENE | 8.20 | 146.0 | 64354M | 62.25 | NG/UL | |
| ~~9)~~ | ~~C350 1,2-DICHLOROBENZENE~~ | ~~8.20~~ | ~~146.0~~ | ~~64669~~ | ~~70.74~~ | ~~NG/UL~~ | ~~96~~ |
| 13) | C370 N-NITROSO-DI-N-PROPYLAMIN | 9.33 | 70.0 | 84527M | 76.44 | NG/UL | |
| 15) | CS50 2-FLUOROPHENOL | 5.36 | 112.0 | 81861M | 98.34 | NG/UL | |
| 16) | CS45 PHENOL-D5 | 7.79 | 99.0 | 88721 | 71.13 | NG/UL | 92 |
| 17) | *CI40 NAPHTHALENE-D8 | 10.98 | 136.0 | 128360 | 40.00 | NG/UL | 90 |
| 25) | C445 1,2,4-TRICHLOROBENZENE | 10.91 | 180.0 | 60193 | 56.80 | NG/UL | 96 |
| 29) | C465 4-CHLORO-3-METHYLPHENOL | 12.48 | 107.0 | 156134 | 116.76 | NG/UL | 86 |
| 1) | CS20 NITROBENZENE-D5 | 9.50 | 82.0 | 79105 | 59.92 | NG/UL | 89 |
| 2) | *CI50 ACENAPHTHENE-D10 | 14.77 | 164.0 | 74127 | 40.00 | NG/UL | 97 |
| 42) | C550 ACENAPHTHENE | 14.84 | 153.0 | 138893 | 65.89 | NG/UL | 96 |
| 44) | C560 4-NITROPHENOL | 15.46 | 109.0 | 12444 | 60.86 | NG/UL | 85 |
| 46) | C570 2,4-DINITROTOLUENE | 15.38 | 165.0 | 67320 | 70.21 | NG/UL | 82 |
| 51) | CS25 2-FLUOROBIPHENYL | 13.40 | 172.0 | 121210 | 58.34 | NG/UL | 93 |
| 52) | CS55 2,4,6-TRIBROMOPHENOL | 16.49 | 329.8 | 33225 | 89.67 | NG/UL | 92 |
| 53) | *CI60 PHENANTHRENE-D10 | 17.89 | 188.0 | 132197 | 40.00 | NG/UL | 84 |
| 58) | C635 PENTACHLOROPHENOL | 17.70 | 266.0 | 23119 | 82.44 | NG/UL | 99 |
| 61) | C650 DI-N-BUTYLPHTHALATE | 19.38 | 149.0 | 294741 | 56.34 | NG/UL | 86 |
| 63) | *CI70 CHRYSENE-D12 | 23.53 | 240.0 | 108022 | 40.00 | NG/UL | 94 |
| 64) | C715 PYRENE | 20.94 | 202.0 | 270773 | 79.75 | NG/UL | 97 |
| 70) | CS30 TERPHENYL-D14 | 21.36 | 244.0 | 137141 | 66.78 | NG/UL | 90 |
| 71) | *CI75 PERYLENE-D12 | 26.48 | 264.0 | 82596 | 40.00 | NG/UL | 98 |

* Compound is ISTD

FALSE POSITIVE