ME STANTON

US ENVIRONMENTAL PROTECTION AGENCY
60 Westview Street
Lexington, MA. 02173

DATE: 11/26/90

SUBJECT: Harco Properties - Purgeable Organic Analysis
Samples Received: 80830,80963,80823 Trip Blank
Samples Analyzed by GC/MS:Same

FROM: Steven Heller ESAT Chemist, Joe Montanaro, EPA Chemist

TO: Mary Ellen Stanton, EEE

THRU: Dr. William Andrade
Chief, Chemistry Section

PROJECT NUMBER: 900245

DATE(S) SAMPLES RECEIVED BY THE LABORATORY: 9/26/90

ANALYTICAL PROCEDURE:

Method 8240 SW-846 equivalent to
Federal Register, Volume 49, #209, Oct. 26, 1984, Method 624.

QUALITY CONTROL:

1. A laboratory blank was analyzed prior to sample analysis.

2. Each sample was spiked with three surrogate compounds at approximately 30 ppb concentration. The results for the surrogate recoveries are reported for each sample.

NOTE: A spike duplicate was not run accidentally.

DATA FILE: D:\LABRPTS\900245WA.VOA

cc: Mary Jane Cuzzupe, Scott Clifford



SEMS DocID 674454

## ANALYTICAL PARAMETERS
## PURGEABLE ORGANIC ANALYSIS

INSTRUMENTS: Tekmar ALS
Tekmar LSC-2
Finnigan INCOS-50

PURGE CONDITIONS:

| | |
|---|---|
| Gas: | Helium |
| Purge Time and Flow: | 11 min.,40 ml/min |
| Trap: | 25 cm stainless steel (1/8 in.OD) packed with 15 cm 60/80 mesh Tenax-GC plus 8 cm 35/80 mesh Davison type 15 Silica Gel |
| Desorption Time,Flow, Temperature: | 4 min, 20ml/min.,180C |
| Bake out cycle: | 10 min. |

CHROMATOGRAPHIC CONDITIONS:

| | |
|---|---|
| Column: | 30 meter long x 0.5 mm ID DB 624 mega-bore column |
| Program: | Initial 5 C ramped at 2 C/min to 10 C. Hold at 10 C for 5 minutes, then programmed at 6 C/min to 160 C and held for 1 minute. |
| Injector, Separator,and Transfer Temperatures: | 220 C,220 C,220 C |
| Carrier Gas and Flow: | Helium, 30 ml/min |

MASS SPECTROMETER CONDITIONS:

| | |
|---|---|
| Electron Energy: | 70 V |
| Mass Range: | 35,300 |
| Scan Rate: | 1.5 seconds |

FACILITY SAMPLED: Harco Properities
US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS PURGEABLE ORGANIC ANALYSIS - WATER

SAMPLE NO.: 80830
SAMPLE LOCATION:
DATE OF COLLECTION:
INSTRUMENT: INCOS-50

DATE OF ANALYSIS: 10/5/90
REFERENCE BOOK: 98
PRESERVATIVE: Cool to 4 C

SAMPLE RESULTS:

| CAS NO. | STORET NO. | Compound | Conc. (ug/L) | Det. Limit (ug/L) | Comments |
|---|---|---|---|---|---|
| | | TARGET COMPOUNDS | | | |
| 74-87-3 | 34418 | Chloromethane | ND | 2 | |
| 74-83-9 | 34413 | Bromomethane | ND | 1 | |
| 75-01-4 | 39175 | Vinyl Chloride | ND | 1 | |
| 75-00-3 | 34311 | Chloroethane | ND | 1 | |
| 75-09-2 | 34423 | Methylene Chloride | ND | 2 | |
| 75-69-4 | 34488 | Trichlorofluoromethane | ND | 1 | |
| 75-35-4 | 34501 | 1,1-Dichloroethylene | ND | 1 | |
| 75-34-3 | 34496 | 1,1-Dichloroethane | ND | 1 | |
| 156-60-5 | 34546 | 1,2-Dichloroethylene isomers | ND | 1 | |
| 67-66-3 | 32106 | Chloroform | ND | 1 | |
| 107-06-2 | 34531 | 1,2-Dichloroethane | ND | 1 | |
| 71-55-6 | 34506 | 1,1,1-Trichloroethane | ND | 1 | |
| 56-23-5 | 32102 | Carbon Tetrachloride | ND | 1 | |
| 75-27-4 | 32101 | Bromodichloromethane | ND | 1 | |
| 78-87-5 | 34541 | 1,2-Dichloropropane | ND | 1 | |
| 10061-02-6 | 34699 | t-1,3-Dichloropropene | ND | 1 | |
| 79-01-6 | 39180 | Trichloroethylene | ND | 1 | |
| 124-48-1 | 32105 | Dibromochloromethane | ND | 1 | |
| 10061-01-5 | 34704 | c-1,3-Dichloropropene and/or 1,1-Dichloropropene | ND | 1 | |
| 79-00-5 | 34511 | 1,1,2-Trichloroethane | ND | 1 | |
| 71-43-2 | 34030 | Benzene | ND | 1 | |
| 110-75-8 | 34576 | 2-Chloroethylvinyl ether | ND | 4 | |
| 75-25-2 | 32104 | Bromoform | ND | 1 | |
| 127-18-4 | 34475 | Tetrachloroethylene | ND | 1 | |
| 79-34-5 | 34516 | 1,1,2,2-Tetrachloroethane | ND | 1 | |
| 108-88-3 | 34010 | Toluene | ND | 1 | |
| 108-90-7 | 34301 | Chlorobenzene | ND | 1 | |
| 100-41-4 | 34371 | Ethylbenzene | ND | 1 | |
| 107-02-8 | 34210 | Acrolein | ND | 30 | |
| 107-13-1 | 34215 | Acrylonitrile | ND | 30 | |
| | | Dichlorobenzene isomers | ND | 2 | |
| | | 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | 1 | |
| 67-64-1 | 81552 | Acetone | ND | 40 | |
| 75-15-0 | 77041 | Carbon Disulfide | ND | 3 | |

(con't)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS PURGEABLE ORGANIC ANALYSIS - WATER

SAMPLE NO.: 80830
Sample Results Continued:

| CAS NO. | STORET NO. | Compound | Conc. (ug/L) | Det. Limit (ug/L) | Comments |
|---|---|---|---|---|---|
| 78-93-3 | 81595 | 2-Butanone (MEK) | ND | 100 | |
| 108-05-4 | 77057 | Vinyl Acetate | ND | 10 | |
| 591-10-6 | 77103 | 2-Hexanone | ND | 1 | |
| 108-10-1 | 81596 | 4-Methyl-2-Pentanone(MIBK) | ND | 3 | |
| 100-42-5 | 81708 | Styrene | ND | 1 | |
| 133-02-7 | 81551 | Xylenes (total) | ND | 2 | |
| | | 1,2-Dibromoethane | ND | 1 | |
| | | Tetrahydrofuran | ND | 10 | |
| | | Ethyl ether | ND | 3 | |

Other Compounds
Tentatively Identified

Other Compounds Quantitated

| Sample Recoveries for Surrogate Compounds: | Observed Recoveries | 95%Confidence Limits |
|---|---|---|
| 1,2-Dichloroethane,d4 | 95 | 77-117 |
| Toluene,d8 | 114 | 89-109 |
| 1,4-Bromofluorobenzene | 122 | 89-113 |

Notes:
ND=none detected
~=approximate
<=less than
>=greater than

FACILITY SAMPLED: Harco Properties

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS PURGEABLE ORGANIC ANALYSIS - WATER

SAMPLE NO.: 80963
SAMPLE LOCATION:
DATE OF COLLECTION:
INSTRUMENT: INCOS-50

DATE OF ANALYSIS: 10/5/90
REFERENCE BOOK: 98
PRESERVATIVE: Cool to 4 C

SAMPLE RESULTS:

| CAS NO. | STORET NO. | Compound | Conc. (ug/L) | Det. Limit (ug/L) | Comments |
|---|---|---|---|---|---|
| | | TARGET COMPOUNDS | | | |
| 74-87-3 | 34418 | Chloromethane | ND | 2 | |
| 74-83-9 | 34413 | Bromomethane | ND | 1 | |
| 75-01-4 | 39175 | Vinyl Chloride | ND | 1 | |
| 75-00-3 | 34311 | Chloroethane | ND | 1 | |
| 75-09-2 | 34423 | Methylene Chloride | ND | 2 | |
| 75-69-4 | 34488 | Trichlorofluoromethane | ND | 1 | |
| 75-35-4 | 34501 | 1,1-Dichloroethylene | ND | 1 | |
| 75-34-3 | 34496 | 1,1-Dichloroethane | ND | 1 | |
| 156-60-5 | 34546 | 1,2-Dichloroethylene isomers | ND | 1 | |
| 67-66-3 | 32106 | Chloroform | ND | 1 | |
| 107-06-2 | 34531 | 1,2-Dichloroethane | ND | 1 | |
| 71-55-6 | 34506 | 1,1,1-Trichloroethane | ND | 1 | |
| 56-23-5 | 32102 | Carbon Tetrachloride | ND | 1 | |
| 75-27-4 | 32101 | Bromodichloromethane | ND | 1 | |
| 78-87-5 | 34541 | 1,2-Dichloropropane | ND | 1 | |
| 10061-02-6 | 34699 | t-1,3-Dichloropropene | ND | 1 | |
| 79-01-6 | 39180 | Trichloroethylene | ND | 1 | |
| 124-48-1 | 32105 | Dibromochloromethane | ND | 1 | |
| 10061-01-5 | 34704 | c-1,3-Dichloropropene and/or 1,1-Dichloropropene | ND | 1 | |
| 79-00-5 | 34511 | 1,1,2-Trichloroethane | ND | 1 | |
| 71-43-2 | 34030 | Benzene | ND | 1 | |
| 110-75-8 | 34576 | 2-Chloroethylvinyl ether | ND | 4 | |
| 75-25-2 | 32104 | Bromoform | ND | 1 | |
| 127-18-4 | 34475 | Tetrachloroethylene | ND | 1 | |
| 79-34-5 | 34516 | 1,1,2,2-Tetrachloroethane | ND | 1 | |
| 108-88-3 | 34010 | Toluene | ND | 1 | |
| 108-90-7 | 34301 | Chlorobenzene | ND | 1 | |
| 100-41-4 | 34371 | Ethylbenzene | ND | 1 | |
| 107-02-8 | 34210 | Acrolein | ND | 30 | |
| 107-13-1 | 34215 | Acrylonitrile | ND | 30 | |
| | | Dichlorobenzene isomers | ND | 2 | |
| | | 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | 1 | |
| 67-64-1 | 81552 | Acetone | ND | 40 | |
| 75-15-0 | 77041 | Carbon Disulfide | ND | 3 | |

(con't)

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GC/MS PURGEABLE ORGANIC ANALYSIS - WATER

SAMPLE NO.: 80963
Sample Results Continued:

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|---|---|---|---|---|---|
| 78-93-3 | 81595 | 2-Butanone (MEK) | ND | 100 | |
| 108-05-4 | 77057 | Vinyl Acetate | ND | 10 | |
| 591-10-6 | 77103 | 2-Hexanone | ND | 1 | |
| 108-10-1 | 81596 | 4-Methyl-2-Pentanone(MIBK) | ND | 3 | |
| 100-42-5 | 81708 | Styrene | ND | 1 | |
| 133-02-7 | 81551 | Xylenes (total) | ND | 2 | |
| | | 1,2-Dibromoethane | ND | 1 | |
| | | Tetrahydrofuran | ND | 10 | |
| | | Ethyl ether | ND | 3 | |

Other Compounds
Tentatively Identified

Other Compounds Quantitated

| Sample Recoveries for Surrogate Compounds: | Observed Recoveries | 95%Confidence Limits |
|---|---|---|
| 1,2-Dichloroethane,d4 | 96 | 77-117 |
| Toluene,d8 | 111 | 89-109 |
| 1,4-Bromofluorobenzene | 118 | 89-113 |

Notes:
ND=none detected
~=approximate
<=less than
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FACILITY SAMPLED: Harco Properties

US ENVIRONMENTAL PROTECTION AGENCY
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GC/MS PURGEABLE ORGANIC ANALYSIS - WATER

SAMPLE NO.: 80823 - Trip Blank
SAMPLE LOCATION:
DATE OF COLLECTION:
INSTRUMENT: INCOS-50

DATE OF ANALYSIS: 10/5/90
REFERENCE BOOK: 98
PRESERVATIVE: Cool to 4 C

SAMPLE RESULTS:

| CAS NO. | STORET NO. | Compound | Conc. (ug/L) | Det. Limit (ug/L) | Comments |
|---|---|---|---|---|---|
| | | TARGET COMPOUNDS | | | |
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| 107-06-2 | 34531 | 1,2-Dichloroethane | ND | 1 | |
| 71-55-6 | 34506 | 1,1,1-Trichloroethane | ND | 1 | |
| 56-23-5 | 32102 | Carbon Tetrachloride | ND | 1 | |
| 75-27-4 | 32101 | Bromodichloromethane | ND | 1 | |
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| 108-88-3 | 34010 | Toluene | ND | 1 | |
| 108-90-7 | 34301 | Chlorobenzene | ND | 1 | |
| 100-41-4 | 34371 | Ethylbenzene | ND | 1 | |
| 107-02-8 | 34210 | Acrolein | ND | 30 | |
| 107-13-1 | 34215 | Acrylonitrile | ND | 30 | |
| | | Dichlorobenzene isomers | ND | 2 | |
| | | 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | 1 | |
| 67-64-1 | 81552 | Acetone | ND | 40 | |
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