2.03

VOC SAMPLING RESULTS

SEMS DocID 674453

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 S.H. ESAT Chemist, Joe Montanaro JM, EPA Chemist

TO: Mary Ellen Stanton, EEE

THRU: Dr. William Andrade Elin Duffi For Dr. W.J. 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

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)

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

SAMPLE NO.: 80963
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	96	77-117
Toluene,d8	111	89-109
1,4-Bromofluorobenzene	118	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.: 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			
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.: 80823 - Trip Blank
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	97	77-117
Toluene,d8	107	89-109
1,4-Bromofluorobenzene	122	89-113

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

ME STANTON

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

DATE: 11/26/90

SUBJECT: Harco Properties - Purgeable Organic Analysis
Samples Received:80823 Trip Blank, 80824 Drum Waste 80825 - 80829
Samples Analyzed by GC/MS:Same

FROM: Steven Heller ESAT Chemist, Joseph 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:

Soil: Approximately 4 grams (wet weight) of sample is tared in a 40ml VOA vial. Nine mls of pesticide grade methanol and one ml of fluorobenzene surrogate spiking solution is added to the vial. The sample is then shaken for approximately 2 minutes. A portion of the methanol extract is diluted in organic-free water and then analyzed as per SW-846 3rd revision, Method 8240. Concentration is based on dry weight analyzed.

QUALITY CONTROL:

1. A method 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.

3. Sample 80829 was analyzed in duplicate to determine laboratory precision and accuracy.

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

cc: Mary Jane Cuzzupe, Scott Clifford

ANALYTICAL PARAMETERS
PURGEABLE ORGANIC ANALYSIS

INSTRUMENTS:	Tekmar ALS Tekmar LSC-4000 Finnigan INCOS-50
PURGE CONDITIONS:	
Gas:	Helium
Purge Time and Flow:	11 min.,40 ml/min
Trap:	25 cm stainles 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:	12 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

MATRIX SPIKE DUPLICATE ANALYSIS

Survey: Harco Properties
Sample Number: 80829
Date: 10/9/90

ACCURACY

COMPOUND	AVERAGE % RECOVERY	ACCEPTABLE RANGE *
1,1 Dichloroethylene	246	D-234
Benzene	97	37-151
Trichloroethylene	88	71-157
Toluene	86	47-150
Chlorobenzene	92	37-160

PRECISION

Compound	#1 RECOVERY	#2 RECOVERY	RPD
1,1 Dichloroethylene	233	259	10
Benzene	92	102	10
Trichloroethylene	82	94	14
Toluene	84	89	6
Chlorobenzene	89	94	5

* Acceptance limit from Federal Register Table 5, Method 624

FACILITY SAMPLED: Harco Properities

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

SAMPLE NO.: 80823 Trip Blank
SAMPLE LOCATION:

INSTRUMENT: INCOS-50

DATE OF ANALYSIS: 10/9/90
REFERENCE BOOK: 112
PRESERVATIVE: Cool to 4 C

SAMPLE RESULTS:

CAS NO.	STORET NO.	Compound	ppm 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	1	
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 -SOIL

SAMPLE NO.: 80823
Sample Results Continued:

CAS NO.	STORET NO.	Compound	Conc. (ug/gm)	Det. Limit (ug/gm)	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	122	70-133
Toluene,d8	107	88-98
1,4-Bromofluorobenzene	92	80-107

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 - SOIL

SAMPLE NO.: 80824
SAMPLE LOCATION:
PERCENT DRY WEIGHT: 67%
INSTRUMENT: INCOS-50

DATE OF ANALYSIS: 10/9/90
REFERENCE BOOK: 112
PRESERVATIVE: Cool to 4 C

SAMPLE RESULTS:

CAS NO.	STORET NO.	Compound	ppm Conc. (ug/gm)	Det. Limit (ug/gm)	Comments
		TARGET COMPOUNDS			
74-87-3	34418	Chloromethane	ND	13.20	
74-83-9	34413	Bromomethane	ND	6.60	
75-01-4	39175	Vinyl Chloride	ND	6.60	
75-00-3	34311	Chloroethane	ND	6.60	
75-09-2	34423	Methylene Chloride	21	6.60	
75-69-4	34488	Trichlorofluoromethane	64	6.60	
75-35-4	34501	1,1-Dichloroethylene	ND	6.60	
75-34-3	34496	1,1-Dichloroethane	ND	6.60	
156-60-5	34546	1,2-Dichloroethylene isomers	ND	6.60	
67-66-3	32106	Chloroform	ND	6.60	
107-06-2	34531	1,2-Dichloroethane	ND	6.60	
71-55-6	34506	1,1,1-Trichloroethane	ND	6.60	
56-23-5	32102	Carbon Tetrachloride	ND	6.60	
75-27-4	32101	Bromodichloromethane	ND	6.60	
78-87-5	34541	1,2-Dichloropropane	ND	6.60	
10061-02-6	34699	t-1,3-Dichloropropene	ND	6.60	
79-01-6	39180	Trichloroethylene	ND	6.60	
124-48-1	32105	Dibromochloromethane	ND	6.60	
10061-01-5	34704	c-1,3-Dichloropropene and/or 1,1-Dichloropropene	ND	6.60	
79-00-5	34511	1,1,2-Trichloroethane	ND	6.60	
71-43-2	34030	Benzene	ND	6.60	
110-75-8	34576	2-Chloroethylvinyl ether	ND	26.40	
75-25-2	32104	Bromoform	ND	6.60	
127-18-4	34475	Tetrachloroethylene	ND	6.60	
79-34-5	34516	1,1,2,2-Tetrachloroethane	ND	6.60	
108-88-3	34010	Toluene	21	6.60	
108-90-7	34301	Chlorobenzene	ND	6.60	
100-41-4	34371	Ethylbenzene	ND	6.60	
107-02-8	34210	Acrolein	ND	198.00	
107-13-1	34215	Acrylonitrile	ND	198.00	
		Dichlorobenzene isomers	ND	13.20	
		1,1,2-Trichloro-1,2,2-trifluoroethane	42	6.60	
67-64-1	81552	Acetone	ND	264.00	
75-15-0	77041	Carbon Disulfide	ND	19.80	

(con't)

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

SAMPLE NO.: 80824
Sample Results Continued:

CAS NO.	STORET NO.	Compound	Conc. (ug/gm)	Det. Limit (ug/gm)	Comments
78-93-3	81595	2-Butanone (MEK)		1320.00	
108-05-4	77057	Vinyl Acetate	ND	66.00	
591-10-6	77103	2-Hexanone	ND	6.60	
108-10-1	81596	4-Methyl-2-Pentanone(MIBK)	ND	19.80	
100-42-5	81708	Styrene	ND	6.60	
133-02-7	81551	Xylenes (total)	340	13.20	
		1,2-Dibromoethane	ND	6.60	
		Tetrahydrofuran	ND	66.00	
		Ethyl ether	17	39.60	
		Other Compounds Quantitated			
		1,3,5 - Trimethylbenzene	13	6.60	
		Para-Isopropyltoluene	9.4	6.60	

Sample Recoveries for Surrogate Compounds:	Observed Recoveries	95%Confidence Limits
1,2-Dichloroethane,d4	110	70-133
Toluene,d8	101	88-98
1,4-Bromofluorobenzene	104	80-107
Flurobenzene	76	67-130

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

FACILITY SAMPLED: Harco Properities

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

SAMPLE NO.: 80825
SAMPLE LOCATION:
PERCENT DRY WEIGHT: 74%
INSTRUMENT: INCOS-50

DATE OF ANALYSIS: 10/9/90
REFERENCE BOOK: 112
PRESERVATIVE: Cool to 4 C

SAMPLE RESULTS:

CAS NO.	STORET NO.	Compound	ppm Conc. (ug/gm)	Det. Limit (ug/gm)	Comments
		TARGET COMPOUNDS			
74-87-3	34418	Chloromethane	ND	0.30	
74-83-9	34413	Bromomethane	ND	0.15	
75-01-4	39175	Vinyl Chloride	ND	0.15	
75-00-3	34311	Chloroethane	ND	0.15	
75-09-2	34423	Methylene Chloride	0.58	0.15	
75-69-4	34488	Trichlorofluoromethane	ND	0.15	
75-35-4	34501	1,1-Dichloroethylene	ND	0.15	
75-34-3	34496	1,1-Dichloroethane	ND	0.15	
156-60-5	34546	1,2-Dichloroethylene isomers	ND	0.15	
67-66-3	32106	Chloroform	ND	0.15	
107-06-2	34531	1,2-Dichloroethane	ND	0.15	
71-55-6	34506	1,1,1-Trichloroethane	ND	0.15	
56-23-5	32102	Carbon Tetrachloride	ND	0.15	
75-27-4	32101	Bromodichloromethane	ND	0.15	
78-87-5	34541	1,2-Dichloropropane	ND	0.15	
10061-02-6	34699	t-1,3-Dichloropropene	ND	0.15	
79-01-6	39180	Trichloroethylene	ND	0.15	
124-48-1	32105	Dibromochloromethane	ND	0.15	
10061-01-5	34704	c-1,3-Dichloropropene and/or 1,1-Dichloropropene	ND	0.15	
79-00-5	34511	1,1,2-Trichloroethane	ND	0.15	
71-43-2	34030	Benzene	ND	0.15	
110-75-8	34576	2-Chloroethylvinyl ether	ND	0.60	
75-25-2	32104	Bromoform	ND	0.15	
127-18-4	34475	Tetrachloroethylene	ND	0.15	
79-34-5	34516	1,1,2,2-Tetrachloroethane	ND	0.15	
108-88-3	34010	Toluene	ND	0.15	
108-90-7	34301	Chlorobenzene	ND	0.15	
100-41-4	34371	Ethylbenzene	ND	0.15	
107-02-8	34210	Acrolein	ND	4.50	
107-13-1	34215	Acrylonitrile	ND	4.50	
		Dichlorobenzene isomers	ND	0.30	
		1,1,2-Trichloro-1,2,2-trifluoroethane	0.84	0.15	
67-64-1	81552	Acetone	ND	6.00	
75-15-0	77041	Carbon Disulfide	ND	0.45	

(con't)

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

SAMPLE NO.: 80825
Sample Results Continued:

CAS NO.	STORET NO.	Compound	Conc. (ug/gm)	Det. Limit (ug/gm)	Comments
78-93-3	81595	2-Butanone (MEK)	ND	30.00	
108-05-4	77057	Vinyl Acetate	ND	1.50	
591-10-6	77103	2-Hexanone	ND	0.15	
108-10-1	81596	4-Methyl-2-Pentanone(MIBK)	ND	0.45	
100-42-5	81708	Styrene	ND	0.15	
133-02-7	81551	Xylenes (total)	ND	0.30	
		1,2-Dibromoethane	ND	0.15	
		Tetrahydrofuran	ND	1.50	
		Ethyl ether	ND	0.90	

Other Compounds Tentatively Identified

Other Compounds Quantitated

Sample Recoveries for Surrogate Compounds:	Observed Recoveries	95%Confidence Limits
1,2-Dichloroethane,d4	106	70-133
Toluene,d8	115	88-98
1,4-Bromofluorobenzene	106	80-107
Fluorobenzene	69	67-130

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 - SOIL

SAMPLE NO.: 80826
SAMPLE LOCATION:
PERCENT DRY WEIGHT: 75%
INSTRUMENT: INCOS-50

DATE OF ANALYSIS: 10/9/90
REFERENCE BOOK: 112
PRESERVATIVE: Cool to 4 C

SAMPLE RESULTS:

CAS NO.	STORET NO.	Compound	ppm Conc. (ug/gm)	Det. Limit (ug/gm)	Comments
		TARGET COMPOUNDS			
74-87-3	34418	Chloromethane	ND	0.32	
74-83-9	34413	Bromomethane	ND	0.16	
75-01-4	39175	Vinyl Chloride	ND	0.16	
75-00-3	34311	Chloroethane	0.18	0.16	
75-09-2	34423	Methylene Chloride	0.38	0.16	
75-69-4	34488	Trichlorofluoromethane	0.25	0.16	
75-35-4	34501	1,1-Dichloroethylene	0.28	0.16	
75-34-3	34496	1,1-Dichloroethane	ND	0.16	
156-60-5	34546	1,2-Dichloroethylene isomers	ND	0.16	
67-66-3	32106	Chloroform	ND	0.16	
107-06-2	34531	1,2-Dichloroethane	ND	0.16	
71-55-6	34506	1,1,1-Trichloroethane	ND	0.16	
56-23-5	32102	Carbon Tetrachloride	ND	0.16	
75-27-4	32101	Bromodichloromethane	ND	0.16	
78-87-5	34541	1,2-Dichloropropane	ND	0.16	
10061-02-6	34699	t-1,3-Dichloropropene	ND	0.16	
79-01-6	39180	Trichloroethylene	ND	0.16	
124-48-1	32105	Dibromochloromethane	ND	0.16	
10061-01-5	34704	c-1,3-Dichloropropene and/or 1,1-Dichloropropene	ND	0.16	
79-00-5	34511	1,1,2-Trichloroethane	ND	0.16	
71-43-2	34030	Benzene	ND	0.16	
110-75-8	34576	2-Chloroethylvinyl ether	ND	0.64	
75-25-2	32104	Bromoform	ND	0.16	
127-18-4	34475	Tetrachloroethylene	ND	0.16	
79-34-5	34516	1,1,2,2-Tetrachloroethane	ND	0.16	
108-88-3	34010	Toluene	ND	0.16	
108-90-7	34301	Chlorobenzene	ND	0.16	
100-41-4	34371	Ethylbenzene	ND	0.16	
107-02-8	34210	Acrolein	ND	4.80	
107-13-1	34215	Acrylonitrile	ND	4.80	
		Dichlorobenzene isomers	ND	0.32	
		1,1,2-Trichloro-1,2,2-trifluoroethane	0.40	0.16	
67-64-1	81552	Acetone	ND	6.40	
75-15-0	77041	Carbon Disulfide	ND	0.48	

(con't)

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

SAMPLE NO.: 80826
Sample Results Continued:

CAS NO.	STORET NO.	Compound	Conc. (ug/gm)	Det. Limit (ug/gm)	Comments
78-93-3	81595	2-Butanone (MEK)	ND	32.00	
108-05-4	77057	Vinyl Acetate	ND	1.60	
591-10-6	77103	2-Hexanone	ND	0.16	
108-10-1	81596	4-Methyl-2-Pentanone(MIBK)	ND	0.48	
100-42-5	81708	Styrene	ND	0.16	
133-02-7	81551	Xylenes (total)	ND	0.32	
		1,2-Dibromoethane	ND	0.16	
		Tetrahydrofuran	ND	1.60	
		Ethyl ether	1.2	0.96	

Other Compounds
Tentatively Identified

Other Compounds Quantitated

Sample Recoveries for Surrogate Compounds:	Observed Recoveries	95%Confidence Limits
1,2-Dichloroethane,d4	109	70-133
Toluene,d8	102	88-98
1,4-Bromofluorobenzene	94	80-107
Fluorobenzene	69	67-130

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

FACILITY SAMPLED: Harco Properities

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

SAMPLE NO.: 80827
SAMPLE LOCATION:
PERCENT DRY WEIGHT: 59%
INSTRUMENT: INCOS-50

DATE OF ANALYSIS: 10/9/90
REFERENCE BOOK: 112
PRESERVATIVE: Cool to 4 C

SAMPLE RESULTS:

CAS NO.	STORET NO.	Compound	ppm Conc. (ug/gm)	Det. Limit (ug/gm)	Comments
		TARGET COMPOUNDS			
74-87-3	34418	Chloromethane	ND	0.40	
74-83-9	34413	Bromomethane	ND	0.20	
75-01-4	39175	Vinyl Chloride	ND	0.20	
75-00-3	34311	Chloroethane	ND	0.20	
75-09-2	34423	Methylene Chloride	0.4	0.20	
75-69-4	34488	Trichlorofluoromethane	2.0	0.20	
75-35-4	34501	1,1-Dichloroethylene	ND	0.20	
75-34-3	34496	1,1-Dichloroethane	ND	0.20	
156-60-5	34546	1,2-Dichloroethylene isomers	ND	0.20	
67-66-3	32106	Chloroform	ND	0.20	
107-06-2	34531	1,2-Dichloroethane	ND	0.20	
71-55-6	34506	1,1,1-Trichloroethane	ND	0.20	
56-23-5	32102	Carbon Tetrachloride	ND	0.20	
75-27-4	32101	Bromodichloromethane	ND	0.20	
78-87-5	34541	1,2-Dichloropropane	ND	0.20	
10061-02-6	34699	t-1,3-Dichloropropene	ND	0.20	
79-01-6	39180	Trichloroethylene	ND	0.20	
124-48-1	32105	Dibromochloromethane	ND	0.20	
10061-01-5	34704	c-1,3-Dichloropropene and/or 1,1-Dichloropropene	ND	0.20	
79-00-5	34511	1,1,2-Trichloroethane	ND	0.20	
71-43-2	34030	Benzene	ND	0.20	
110-75-8	34576	2-Chloroethylvinyl ether	ND	0.80	
75-25-2	32104	Bromoform	ND	0.20	
127-18-4	34475	Tetrachloroethylene	ND	0.20	
79-34-5	34516	1,1,2,2-Tetrachloroethane	ND	0.20	
108-88-3	34010	Toluene	ND	0.20	
108-90-7	34301	Chlorobenzene	ND	0.20	
100-41-4	34371	Ethylbenzene	ND	0.20	
107-02-8	34210	Acrolein	ND	6.00	
107-13-1	34215	Acrylonitrile	ND	6.00	
		Dichlorobenzene isomers	ND	0.40	
		1,1,2-Trichloro-1,2,2-trifluoroethane	1.3	0.20	
67-64-1	81552	Acetone	ND	8.00	
75-15-0	77041	Carbon Disulfide	ND	0.60	

(con't)

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

SAMPLE NO.: 80827
Sample Results Continued:

CAS NO.	STORET NO.	Compound	Conc. (ug/gm)	Det. Limit (ug/gm)	Comments
78-93-3	81595	2-Butanone (MEK)	ND	40.00	
108-05-4	77057	Vinyl Acetate	ND	2.00	
591-10-6	77103	2-Hexanone	ND	0.20	
108-10-1	81596	4-Methyl-2-Pentanone(MIBK)	ND	0.60	
100-42-5	81708	Styrene	ND	0.20	
133-02-7	81551	Xylenes (total)	ND	0.40	
		1,2-Dibromoethane	ND	0.20	
		Tetrahydrofuran	ND	2.00	
		Ethyl ether	ND	1.20	

Other Compounds
Tentatively Identified

Other Compounds Quantitated

Sample Recoveries for Surrogate Compounds:	Observed Recoveries	95%Confidence Limits
1,2-Dichloroethane,d4	101	70-133
Toluene,d8	107	88-98
1,4-Bromofluorobenzene	93	80-107
Fluorobenzene	74	67-130

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 - SOIL

SAMPLE NO.: 80828
SAMPLE LOCATION:
PERCENT DRY WEIGHT:80%
INSTRUMENT: INCOS-50

DATE OF ANALYSIS: 10/9/90
REFERENCE BOOK: 112
PRESERVATIVE: Cool to 4 C

SAMPLE RESULTS:

CAS NO.	STORET NO.	Compound	ppm Conc. (ug/gm)	Det. Limit (ug/gm)	Comments
		TARGET COMPOUNDS			
74-87-3	34418	Chloromethane	ND	0.32	
74-83-9	34413	Bromomethane	ND	0.16	
75-01-4	39175	Vinyl Chloride	ND	0.16	
75-00-3	34311	Chloroethane	ND	0.16	
75-09-2	34423	Methylene Chloride	.30	0.16	
75-69-4	34488	Trichlorofluoromethane	ND	0.16	
75-35-4	34501	1,1-Dichloroethylene	ND	0.16	
75-34-3	34496	1,1-Dichloroethane	ND	0.16	
156-60-5	34546	1,2-Dichloroethylene isomers	ND	0.16	
67-66-3	32106	Chloroform	ND	0.16	
107-06-2	34531	1,2-Dichloroethane	ND	0.16	
71-55-6	34506	1,1,1-Trichloroethane	ND	0.16	
56-23-5	32102	Carbon Tetrachloride	ND	0.16	
75-27-4	32101	Bromodichloromethane	ND	0.16	
78-87-5	34541	1,2-Dichloropropane	ND	0.16	
10061-02-6	34699	t-1,3-Dichloropropene	ND	0.16	
79-01-6	39180	Trichloroethylene	ND	0.16	
124-48-1	32105	Dibromochloromethane	ND	0.16	
10061-01-5	34704	c-1,3-Dichloropropene and/or 1,1-Dichloropropene	ND	0.16	
79-00-5	34511	1,1,2-Trichloroethane	ND	0.16	
71-43-2	34030	Benzene	ND	0.16	
110-75-8	34576	2-Chloroethylvinyl ether	ND	0.64	
75-25-2	32104	Bromoform	ND	0.16	
127-18-4	34475	Tetrachloroethylene	ND	0.16	
79-34-5	34516	1,1,2,2-Tetrachloroethane	ND	0.16	
108-88-3	34010	Toluene	ND	0.16	
108-90-7	34301	Chlorobenzene	ND	0.16	
100-41-4	34371	Ethylbenzene	ND	0.16	
107-02-8	34210	Acrolein	ND	4.80	
107-13-1	34215	Acrylonitrile	ND	4.80	
		Dichlorobenzene isomers	ND	0.32	
		1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.16	
67-64-1	81552	Acetone	ND	6.40	
75-15-0	77041	Carbon Disulfide	ND	0.48	

(con't)

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

SAMPLE NO.: 80828
Sample Results Continued:

CAS NO.	STORET NO.	Compound	Conc. (ug/gm)	Det. Limit (ug/gm)	Comments
78-93-3	81595	2-Butanone (MEK)	ND	32.00	
108-05-4	77057	Vinyl Acetate	ND	1.60	
591-10-6	77103	2-Hexanone	ND	0.16	
108-10-1	81596	4-Methyl-2-Pentanone(MIBK)	ND	0.48	
100-42-5	81708	Styrene	ND	0.16	
133-02-7	81551	Xylenes (total)	ND	0.32	
		1,2-Dibromoethane	ND	0.16	
		Tetrahydrofuran	ND	1.60	
		Ethyl ether	ND	0.96	

Other Compounds
Tentatively Identified

Other Compounds Quantitated

Sample Recoveries for Surrogate Compounds:	Observed Recoveries	95%Confidence Limits
1,2-Dichloroethane,d4	109	70-133
Toluene,d8	99	88-98
1,4-Bromofluorobenzene	104	80-107
Fluorobenzene	86	67-130

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

FACILITY SAMPLED: Harco Properities

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

SAMPLE NO.: 80829
SAMPLE LOCATION:
PERCENT DRY WEIGHT: 88%
INSTRUMENT: INCOS-50

DATE OF ANALYSIS: 10/9/90
REFERENCE BOOK: 112
PRESERVATIVE: Cool to 4 C

SAMPLE RESULTS:

CAS NO.	STORET NO.	Compound	ppm Conc. (ug/gm)	Det. Limit (ug/gm)	Comments
		TARGET COMPOUNDS			
74-87-3	34418	Chloromethane	ND	0.28	
74-83-9	34413	Bromomethane	ND	0.14	
75-01-4	39175	Vinyl Chloride	ND	0.14	
75-00-3	34311	Chloroethane	ND	0.14	
75-09-2	34423	Methylene Chloride	0.50	0.14	
75-69-4	34488	Trichlorofluoromethane	ND	0.14	
75-35-4	34501	1,1-Dichloroethylene	ND	0.14	
75-34-3	34496	1,1-Dichloroethane	ND	0.14	
156-60-5	34546	1,2-Dichloroethylene isomers	ND	0.14	
67-66-3	32106	Chloroform	ND	0.14	
107-06-2	34531	1,2-Dichloroethane	ND	0.14	
71-55-6	34506	1,1,1-Trichloroethane	ND	0.14	
56-23-5	32102	Carbon Tetrachloride	ND	0.14	
75-27-4	32101	Bromodichloromethane	ND	0.14	
78-87-5	34541	1,2-Dichloropropane	ND	0.14	
10061-02-6	34699	t-1,3-Dichloropropene	ND	0.14	
79-01-6	39180	Trichloroethylene	ND	0.14	
124-48-1	32105	Dibromochloromethane	ND	0.14	
10061-01-5	34704	c-1,3-Dichloropropene and/or 1,1-Dichloropropene	ND	0.14	
79-00-5	34511	1,1,2-Trichloroethane	ND	0.14	
71-43-2	34030	Benzene	ND	0.14	
110-75-8	34576	2-Chloroethylvinyl ether	ND	0.56	
75-25-2	32104	Bromoform	ND	0.14	
127-18-4	34475	Tetrachloroethylene	ND	0.14	
79-34-5	34516	1,1,2,2-Tetrachloroethane	ND	0.14	
108-88-3	34010	Toluene	ND	0.14	
108-90-7	34301	Chlorobenzene	ND	0.14	
100-41-4	34371	Ethylbenzene	ND	0.14	
107-02-8	34210	Acrolein	ND	4.20	
107-13-1	34215	Acrylonitrile	ND	4.20	
		Dichlorobenzene isomers	ND	0.28	
		1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.14	
67-64-1	81552	Acetone	ND	5.60	
75-15-0	77041	Carbon Disulfide	ND	0.42	

(con't)

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

SAMPLE NO.: 80829
Sample Results Continued:

CAS NO.	STORET NO.	Compound	Conc. (ug/gm)	Det. Limit (ug/gm)	Comments
78-93-3	81595	2-Butanone (MEK)	ND	28.00	
108-05-4	77057	Vinyl Acetate	ND	1.40	
591-10-6	77103	2-Hexanone	ND	0.14	
108-10-1	81596	4-Methyl-2-Pentanone(MIBK)	ND	0.42	
100-42-5	81708	Styrene	ND	0.14	
133-02-7	81551	Xylenes (total)	ND	0.28	
		1,2-Dibromoethane	ND	0.14	
		Tetrahydrofuran	ND	1.40	
		Ethyl ether	ND	0.84	

Other Compounds Tentatively Identified

Other Compounds Quantitated

Sample Recoveries for Surrogate Compounds:	Observed Recoveries	95%Confidence Limits
1,2-Dichloroethane,d4	113	70-133
Toluene,d8	87	88-98
1,4-Bromofluorobenzene	52	80-107
Fluorobenzene	125	67-130

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

METALS SAMPLING RESULTS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
60 WESTVIEW STREET, LEXINGTON, MASSACHUSETTS 02173

MEMORANDUM

PN: 900245

DATE: October 31, 1990

SUBJ: HARCO Property

FROM: Elio Goffi
Chemist

TO: Mary Ellen Stanton
Response and Prevention Section

THRU: Dr. William J. Andrade
Chief, Chemistry Section

Two water samples and six soil samples were submitted for chemical analysis. The water samples were not of sufficient volume to permit full Q.C. analysis; sample numbers 80963 and 80830.

The soil samples were completely inhomogeneous. Samples within the jars submitted were different in texture, color, composition, etc.; sample numbers 80824 - 80829.

Date Samples Received by Laboratory: 9/20/90

Date Samples Analyzed by Laboratory: 10/26/90

Documentation: ICAP Methods Book #81
Opened 6/25/90

Analytical Method: Digestion for water and soil samples was used as described in the U.S. EPA Contract Laboratory Program - document number 1LT701.0 - Exhibit D.

The samples for inorganic analysis were analyzed by inductively coupled plasma-atomic emission as described in the above document (1LT701.0 - Exhibit D).

File name: 900245WA.ICP

Results - MG/Kg

Sample #	Zn	Cd	Pb	Ni	Ba	Cr	Cu	Ag	Sn
80963	9.07	K.008	0.981	K.033	0.142	K.017	K.042	K.033	K.042
80963 MS % Recovery	125	97	110	97	96	96	101	94	---
80830	0.751	K.004	0.181	0.024	0.274	0.036	0.019	K.016	K.020
80824	120	5.99	1290	33.4	17500	273	15.6	K1.86	K2.33
80825	47600	58.9	8520	12.5	99.2	21.6	113	K1.70	K2.12
80825 MS (Sn)									79%
80826	9870	3.97	1280	83.2	146	44.0	940	K1.74	13.9
80827	912	K1.17	373	6.37	32.6	8.12	7.13	K2.34	K2.92
80828	46200	19.6	84500	23.6	110	21.7	286	K1.53	K1.92
80829	989	K.740	4430	18.6	108	30.2	35.9	K1.47	K1.86
80829 MS % Recovery	*	105	*	99	108	97	110	35	---
80829 MSD % Recovery	*	112	*	100	96	107	110	37	---
RPD		6.4	*	1.0	11.8	9.8	1.0	5.6	---

*Spl. concentration too high.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
Environmental Services Division
60 Westview Street, Lexington, MA 02173-3185

PN:: 900245

MEMORANDUM

DATE: October 23, 1990

SUBJ: Harco Property

FROM: Michael E. Dowling MED
Chemist

TO: Mary Ellen Stanton
Enforcement & Prevention Section

THRU: Dr. William J. Andrade
Chief, Chemistry Section WJA 10/25/90

Analytical Procedure

Samples 80830 and 80963 were analyzed for arsenic and selenium. Methods 206.2 (As) and 270.2 (Se) as stated in "The U.S. EPA Contract Laboratory Program, SOW 788, Revised 7/88" were followed for the analysis.

Date Samples Received by Laboratory: 9/26/90

Date Samples Analyzed by Laboratory: 10/17 - 10/18/90

Reference Book: Metals 79

File Name: 900245wa.aa

Results (ug/l)

	Arsenic	Selenium
80830	K10	K5
80963	K10	K5

Matrix Spike Results

Sample	Parameter	Accuracy %Recovery
80963	As	84
80963	Se	<75

Note: Due to the fact that only 200ml sample volume was submitted for analysis, only a minimum amount of QC could be performed. This volume is insufficient to perform graphite furnace, ICP and mercury analyses.

CYANIDE SAMPLING RESULTS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
Environmental Services Division
60 Westview Street, Lexington, MA 02173-3185
PN::900245

MEMORANDUM

DATE: October 10, 1990

SUBJ: Harco Property

FROM: Kathleen M. Polgar KMP
Chemist

TO: Albert Pratt
Environmental Studies Section

THRU: Dr. William J. Andrade
Chief, Chemistry Section

Analytical Procedure: Total cyanides were determined in 5 samples of soil and 2 samples of water.

Method followed in analysis:

Method 335.2 CLP-M*" Method for Total Cyanide Analysis in Water" and "Method for Total Cyanide Analysis in Soil/Sediment, Inorganic Analysis SOW 7/87, REV. 12/87."

Reference Book: CN analysis Book IX

Samples Received by Laboratory: 9/26/90
Samples Analyzed by Laboratory: 10/5/90

Results:

Sample #	80825	80826	80827	80828	80829
soils			ug/g sample		
Total cyanides	K1	K1	K1	K1	K1
spk	99%				

Sample #	80830	80963
waters		
Total cyanides mg/l	K.01	K.01
spk		98%

File Name: 900245so.cn

BNA SAMPLING RESULTS

Mary

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

60 WESTVIEW STREET, LEXINGTON, MASSACHUSETTS 02173

DATE: November 14, 1990

SUBJ: Gas Chromatography-Mass Spectrometry Analysis of Extractable Organics in Soils and Sediments - **Harco Property**

FROM: Elayne Lee, ESAT, Suresh Srivastava and Dick Siscanaw, Chemistry Section

THRU: Dr. William J. Andrade, Chief, Chemistry Section

TO: Mary Ellen Stanton

PROJECT NUMBER: 900245

ANALYTICAL PROCEDURE:

EPA Consensus Protocol, Organic Analysis, Multi-Media, Multi-Concentration, Medium Level Preparation for Screening and Analysis of Semivolatiles (BNA), 1/87 (IFB WA 84-A266). All samples were screened on a gas chromatograph prior to the gas chromatograph-mass spectrometer analysis. All values are reported out on a dry weight basis.

Date(s) Samples Received by the Laboratory: 9/26/90

Date Samples Analyzed: 10/3-13/90

File: K:\CHEMSTRY\REPORTS\FINAL\900245SO.BNA

US ENVIRONMENTAL PROTECTION AGENCY
60 Westview Street
Lexington, MA 02173

QUALITY CONTROL:

1. A laboratory blank was analyzed before the sample analysis.

2. Each sample was spiked with several surrogate compounds at approximately 200 mg/kg concentration. The results for the surrogate recoveries are reported out for each sample.

3. One sample, 80829 was spiked twice as a matrix spike duplicate with the following compounds at approximately 200 mg/kg concentration.

Compound	Rec. (%)	Rec. (%)	QC Range (%)	Comments
Acenaphthene	66	73	31-137	
4-Chloro-3-methylphenol	76	82	26-103	
2-Chlorophenol	75	85	25-102	
Di-n-butylphthalate	44	49	29-135	
1,4-Dichlorobenzene	67	76	28-104	
2,4-Dinitrotoluene	53	56	28-89	
4-Nitrophenol	47	62	11-114	
N-Nitrosodipropylamine	81	95	41-126	
Pentachlorophenol	35	52	17-109	
Phenol	77	86	26-90	
Pyrene	87	97	35-142	
1,2,4-Trichlorobenzene	65	74	38-107	

(Cont.)

US ENVIRONMENTAL PROTECTION AGENCY
60 Westview Street
Lexington, MA 02173

COMPOUNDS NOT IN THE SPIKING SOLUTION:

Target Compounds	Conc. (ug/L)	Conc. (ug/L)
None		

Tentatively Identified Compounds	Conc. (ug/L)	Conc. (ug/L)
None		

SAMPLE(S) ANALYZED: 80825 80826 80827 80828 80829

US ENVIRONMENTAL PROTECTION AGENCY
60 Westview Street
Lexington, MA 02173

ANALYTICAL PARAMETERS

INSTRUMENTS:

Hewlett Packard 5880 Gas Chromatograph
Hewlett Packard 5987 Gas Chromatograph-Mass Spectrometer

GC/FID Screening Conditions:

Gas:	Hydrogen
Capillary Column:	DB-5, 30m, 25mm ID, 0.25 micron film thickness
Injection Mode:	Splitless
Temperature Program:	Isothermal for 3 min at 40°C, programmed at 20°C/min to 350°C

GC-MS Conditions:

Gas:	Helium
Capillary Column:	DB-5, 60m, 25mm ID, 0.25 micron film thickness
Injection Mode:	Splitless
Temperature Program:	Isothermal for 4 min at 40°C, programmed at 7°C/min to 300°C
Injector, Transfer Temperatures:	300°C, 290°C
Electron Energy:	70 V
Mass Range:	35-550
Scan Rate:	0.9 seconds

FACILITY SAMPLED: HARCO PROPERTY

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 80824
SAMPLE LOCATION:
DATE OF COLLECTION:
TIME OF COLLECTION:
SAMPLE RESULTS:

Dilution Factor: 110
Percent Moisture:
Sample pH: 6.1

CAS NO.	STORET NO.	Compound	Conc. (mg/kg)	Det. Limit (mg/kg)	Comments
		Priority Pollutants			
83-32-9	34205	Acenaphthene	ND	1100	
208-96-8	34200	Acenaphthylene	ND	1100	
120-12-7	34220	Anthracene	ND	1100	
309-00-2	39330	Aldrin	ND	1100	
56-55-3	34526	Benzo(a)anthracene	ND	1100	
205-99-2	34230	Benzo(b)fluoranthene	ND	1100	
207-08-9	34242	Benzo(k)fluoranthene	ND	1100	
50-32-8	34247	Benzo(a)pyrene	ND	1100	
191-24-2	34521	Benzo(ghi)perylene	ND	1100	
85-68-7	34292	Benzyl butyl phthalate	ND	1100	
319-85-7	39338	beta-BHC	ND	1100	
319-86-8	34259	delta-BHC	ND	1100	
111-44-4	34273	Bis(2-chloroethyl)ether	ND	1100	
111-91-1	34278	Bis(2-chloroethoxy)methane	ND	1100	
117-81-7	39100	Bis(2-ethylhexyl)phthalate	ND	1100	
108-60-1	34283	Bis(2-chloroisopropyl)ether	ND	1100	
101-55-3	34636	4-Bromophenylphenyl ether	ND	1100	
59-50-7	34452	4-Chloro-3-methylphenol	ND	1100	
91-58-7	34581	2-Chloronaphthalene	ND	1100	
95-57-8	34586	2-Chlorophenol	ND	1100	
7005-72-3	34641	4-Chlorophenylphenyl ether	ND	1100	
218-01-9	34320	Chrysene	ND	1100	
72-54-8	39310	4,4'-DDD	ND	1100	
72-55-9	39320	4,4'-DDE	ND	1100	
50-29-3	39300	4,4'-DDT	ND	1100	
53-70-3	34556	Dibenzo(a,h)anthracene	ND	1100	
84-74-2	39110	Di-n-butylphtalate	ND	1100	
541-73-1	34566	1,3-Dichlorobenzene	ND	1100	

(con't)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 80824 (Drum Sample)
Sample Results Continued:

CAS NO.	STORET NO.	Compound	Conc. (mg/kg)	Det. Limit (mg/kg)	Comments
95-50-1	34536	1,2-Dichlorobenzene	ND	1100	
106-46-7	34571	1,4-Dichlorobenzene	ND	1100	
91-94-1	34631	3,3'-Dichlorobenzidine	ND	2200	
120-83-2	34601	2,4-Dichlorophenol	ND	1100	
60-57-1	39380	Dieldrin	ND	1100	
84-66-2	34336	Diethylphtalate	ND	1100	
105-67-9	34606	2-4-Dimethylphenol	ND	1100	
131-11-3	34341	Dimethylphthalate	ND	1100	
51-28-5	34616	2,4-Dinitrophenol	ND	5500	
121-14-2	34611	2,4-Dinitrotoluene	ND	1100	
606-20-2	34626	2,6-Dinitrotoluene	ND	1100	
117-84-0	34596	Di-n-octylphthalate	ND	1100	
206-44-0	34376	Fluoranthene	ND	1100	
86-73-7	34381	Fluorene	ND	1100	
76-44-8	39410	Heptachlor	ND	1100	
1024-57-3	39420	Heptachlor epoxide	ND	1100	
118-74-1	39700	Hexachlorobenzene	ND	1100	
87-68-3	34391	Hexachlorobutadiene	ND	1100	
77-47-4	34386	Hexachlorocyclopentadiene	ND	1100	
67-72-1	34396	Hexachloroethane	ND	1100	
193-39-5	34403	Indeno(1,2,3-cd)pyrene	ND	1100	
78-59-1	34408	Isophorone	ND	1100	
534-52-1	34657	2-methyl-4,6-dinitrophenol	ND	5500	
91-20-3	34696	Naphthalene	ND	1100	
98-95-3	34447	Nitrobenzene	ND	1100	
88-75-5	34591	2-Nitrophenol	ND	1100	
100-02-7	34646	4-Nitrophenol	ND	5500	
86-30-3	34433	N-nitrosodiphenylamine	ND	1100	
621-64-7	34428	N-Nitrosodi-n-propylamine	ND	1100	
87-86-5	39032	Pentachlorophenol	ND	5500	
85-01-8	34461	Phenanthrene	ND	1100	
108-95-2	34694	Phenol	ND	1100	
129-00-0	34469	Pyrene	ND	1100	

(con't)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 80824
Sample Results Continued:

CAS NO.	STORET NO.	Compound	Conc. (mg/kg)	Det. Limit (mg/kg)	Comments
120-82-1	34551	1,2,4--Trichlorobenzene	ND	1100	
88-06-2	34621	2,4,6-Trichlorophenol	ND	1100	
		Hazardous Substances			
65-53-3	77089	Aniline	ND	1100	
65-85-0	77247	Benzoic Acid	ND	5500	
100-51-6	77147	Benzyl Alcohol	ND	1100	
106-47-8		4-Chloroaniline	ND	1100	
132-64-9	81302	Dibenzofuran	ND	1100	
534-52-1		4,6-Dinitro-2-methylphenol	ND	5500	
91-57-6		2-Methylnaphthalene	ND	1100	
95-48-7		2-Methylphenol	ND	1100	
106-44-5		4-Methylphenol	ND	1100	
88-74-4		2-Nitroaniline	ND	5500	
99-09-2		3-Nitroaniline	ND	5500	
100-01-6		4-Nitroaniline	ND	5500	
95-95-4	34621	2,4,5-Trichlorophenol	ND	5500	
		Other Compounds Quantitated			
		None			
		Tentatively Identified Compounds			
		Decanedioic acid, didecyl ester	~36% w/w		

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 80824
Sample Results Continued:

Sample Recoveries For Surrogate Compounds:	Recoveries (%)	QC Range (%)
2-Fluorophenol	NA	30-115
Phenol,d5	NA	24-113
Nitrobenzene,d5	NA	23-120
Fluorobiphenyl	NA	30-115
2,4,6-Tribromophenol	NA	19-122
p-Terphenyl,d14	NA	18-137

Notes:

ND = none detected
~ = approximate
< = less than
> = greater than
NA = not available, due to sample dilution or interference

FACILITY SAMPLED: HARCO PROPERTY

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 80825
SAMPLE LOCATION:
DATE OF COLLECTION:
TIME OF COLLECTION:
SAMPLE RESULTS:

Dilution Factor: 0.4
Percent Moisture: 34
Sample pH: 7.6

CAS NO.	STORET NO.	Compound	Conc. (mg/kg)	Det. Limit (mg/kg)	Comments
		Priority Pollutants			
83-32-9	34205	Acenaphthene	ND	4	
208-96-8	34200	Acenaphthylene	ND	4	
120-12-7	34220	Anthracene	ND	4	
309-00-2	39330	Aldrin	ND	4	
56-55-3	34526	Benzo(a)anthracene	ND	4	
205-99-2	34230	Benzo(b)fluoranthene	ND	4	
207-08-9	34242	Benzo(k)fluoranthene	ND	4	
50-32-8	34247	Benzo(a)pyrene	ND	4	
191-24-2	34521	Benzo(ghi)perylene	ND	4	
85-68-7	34292	Benzyl butyl phthalate	ND	4	
319-85-7	39338	beta-BHC	ND	4	
319-86-8	34259	delta-BHC	ND	4	
111-44-4	34273	Bis(2-chloroethyl)ether	ND	4	
111-91-1	34278	Bis(2-chloroethoxy)methane	ND	4	
117-81-7	39100	Bis(2-ethylhexyl)phthalate	ND	4	
108-60-1	34283	Bis(2-chloroisopropyl)ether	ND	4	
101-55-3	34636	4-Bromophenylphenyl ether	ND	4	
59-50-7	34452	4-Chloro-3-methylphenol	ND	4	
91-58-7	34581	2-Chloronaphthalene	ND	4	
95-57-8	34586	2-Chlorophenol	ND	4	
7005-72-3	34641	4-Chlorophenylphenyl ether	ND	4	
218-01-9	34320	Chrysene	ND	4	
72-54-8	39310	4,4'-DDD	ND	4	
72-55-9	39320	4,4'-DDE	ND	4	
50-29-3	39300	4,4'-DDT	ND	4	
53-70-3	34556	Dibenzo(a,h)anthracene	ND	4	
84-74-2	39110	Di-n-butylphtalate	ND	4	
541-73-1	34566	1,3-Dichlorobenzene	ND	4	

(con't)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 80825
Sample Results Continued:

CAS NO.	STORET NO.	Compound	Conc. (mg/kg)	Det. Limit (mg/kg)	Comments
95-50-1	34536	1,2-Dichlorobenzene	ND	4	
106-46-7	34571	1,4-Dichlorobenzene	ND	4	
91-94-1	34631	3,3'-Dichlorobenzidine	ND	8	
120-83-2	34601	2,4-Dichlorophenol	ND	4	
60-57-1	39380	Dieldrin	ND	4	
84-66-2	34336	Diethylphtalate	ND	4	
105-67-9	34606	2-4-Dimethylphenol	ND	4	
131-11-3	34341	Dimethylphthalate	ND	4	
51-28-5	34616	2,4-Dinitrophenol	ND	20	
121-14-2	34611	2,4-Dinitrotoluene	ND	4	
606-20-2	34626	2,6-Dinitrotoluene	ND	4	
117-84-0	34596	Di-n-octylphthalate	ND	4	
206-44-0	34376	Fluoranthene	ND	4	
86-73-7	34381	Fluorene	ND	4	
76-44-8	39410	Heptachlor	ND	4	
1024-57-3	39420	Heptachlor epoxide	ND	4	
118-74-1	39700	Hexachlorobenzene	ND	4	
87-68-3	34391	Hexachlorobutadiene	ND	4	
77-47-4	34386	Hexachlorocyclopentadiene	ND	4	
67-72-1	34396	Hexachloroethane	ND	4	
193-39-5	34403	Indeno(1,2,3-cd)pyrene	ND	4	
78-59-1	34408	Isophorone	ND	4	
534-52-1	34657	2-methyl-4,6-dinitrophenol	ND	20	
91-20-3	34696	Naphthalene	ND	4	
98-95-3	34447	Nitrobenzene	ND	4	
88-75-5	34591	2-Nitrophenol	ND	4	
100-02-7	34646	4-Nitrophenol	ND	20	
86-30-3	34433	N-nitrosodiphenylamine	ND	4	
621-64-7	34428	N-Nitrosodi-n-propylamine	ND	4	
87-86-5	39032	Pentachlorophenol	ND	20	
85-01-8	34461	Phenanthrene	ND	4	
108-95-2	34694	Phenol	ND	4	
129-00-0	34469	Pyrene	ND	4	

(cont't)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 80825
Sample Results Continued:

CAS NO.	STORET NO.	Compound	Conc. (mg/kg)	Det. Limit (mg/kg)	Comments
120-82-1	34551	1,2,4--Trichlorobenzene	ND	4	
88-06-2	34621	2,4,6-Trichlorophenol	ND	4	
		Hazardous Substances			
65-53-3	77089	Aniline	ND	4	
65-85-0	77247	Benzoic Acid	ND	20	
100-51-6	77147	Benzyl Alcohol	ND	4	
106-47-8		4-Chloroaniline	ND	4	
132-64-9	81302	Dibenzofuran	ND	4	
534-52-1		4,6-Dinitro-2-methylphenol	ND	20	
91-57-6		2-Methylnaphthalene	ND	4	
95-48-7		2-Methylphenol	ND	4	
106-44-5		4-Methylphenol	ND	4	
88-74-4		2-Nitroaniline	ND	20	
99-09-2		3-Nitroaniline	ND	20	
100-01-6		4-Nitroaniline	ND	20	
95-95-4	34621	2,4,5-Trichlorophenol	ND	20	
		Other Compounds Quantitated			
		None			
		Tentatively Identified Compounds			
		Triazole-carboxaldehyde	4		
		Unknown	5		

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 80825
Sample Results Continued:

Sample Recoveries For Surrogate Compounds:	Recoveries (%)	QC Range (%)
2-Fluorophenol	84	30-115
Phenol,d5	86	24-113
Nitrobenzene,d5	76	23-120
Fluorobiphenyl	72	30-115
2,4,6-Tribromophenol	82	19-122
p-Terphenyl,d14	88	18-137

Notes:

ND = none detected
~ = approximate
< = less than
> = greater than
NA = not available, due to sample dilution or interference

FACILITY SAMPLED: HARCO PROPERTY

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 80826
SAMPLE LOCATION:
DATE OF COLLECTION:
TIME OF COLLECTION:
SAMPLE RESULTS:

Dilution Factor: 0.39
Percent Moisture: 32
Sample pH: 7.3

CAS NO.	STORET NO.	Compound	Conc. (mg/kg)	Det. Limit (mg/kg)	Comments
		Priority Pollutants			
83-32-9	34205	Acenaphthene	ND	3.9	
208-96-8	34200	Acenaphthylene	ND	3.9	
120-12-7	34220	Anthracene	ND	3.9	
309-00-2	39330	Aldrin	ND	3.9	
56-55-3	34526	Benzo(a)anthracene	ND	3.9	
205-99-2	34230	Benzo(b)fluoranthene	ND	3.9	
207-08-9	34242	Benzo(k)fluoranthene	ND	3.9	
50-32-8	34247	Benzo(a)pyrene	ND	3.9	
191-24-2	34521	Benzo(ghi)perylene	ND	3.9	
85-68-7	34292	Benzyl butyl phthalate	ND	3.9	
319-85-7	39338	beta-BHC	ND	3.9	
319-86-8	34259	delta-BHC	ND	3.9	
111-44-4	34273	Bis(2-chloroethyl)ether	ND	3.9	
111-91-1	34278	Bis(2-chloroethoxy)methane	ND	3.9	
117-81-7	39100	Bis(2-ethylhexyl)phthalate	ND	3.9	
108-60-1	34283	Bis(2-chloroisopropyl)ether	ND	3.9	
101-55-3	34636	4-Bromophenylphenyl ether	ND	3.9	
59-50-7	34452	4-Chloro-3-methylphenol	ND	3.9	
91-58-7	34581	2-Chloronaphthalene	ND	3.9	
95-57-8	34586	2-Chlorophenol	ND	3.9	
7005-72-3	34641	4-Chlorophenylphenyl ether	ND	3.9	
218-01-9	34320	Chrysene	ND	3.9	
72-54-8	39310	4,4'-DDD	ND	3.9	
72-55-9	39320	4,4'-DDE	ND	3.9	
50-29-3	39300	4,4'-DDT	ND	3.9	
53-70-3	34556	Dibenzo(a,h)anthracene	ND	3.9	
84-74-2	39110	Di-n-butylphtalate	ND	3.9	
541-73-1	34566	1,3-Dichlorobenzene	ND	3.9	

(con't)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 80826
Sample Results Continued:

CAS NO.	STORET NO.	Compound	Conc. (mg/kg)	Det. Limit (mg/kg)	Comments
95-50-1	34536	1,2-Dichlorobenzene	ND	3.9	
106-46-7	34571	1,4-Dichlorobenzene	ND	3.9	
91-94-1	34631	3,3'-Dichlorobenzidine	ND	7.8	
120-83-2	34601	2,4-Dichlorophenol	ND	3.9	
60-57-1	39380	Dieldrin	ND	3.9	
84-66-2	34336	Diethylphtalate	ND	3.9	
105-67-9	34606	2-4-Dimethylphenol	ND	3.9	
131-11-3	34341	Dimethylphthalate	ND	3.9	
51-28-5	34616	2,4-Dinitrophenol	ND	19.5	
121-14-2	34611	2,4-Dinitrotoluene	ND	3.9	
606-20-2	34626	2,6-Dinitrotoluene	ND	3.9	
117-84-0	34596	Di-n-octylphthalate	ND	3.9	
206-44-0	**34376**	**Fluoranthene**	**~0.9**	**3.9**	
86-73-7	34381	Fluorene	ND	3.9	
76-44-8	39410	Heptachlor	ND	3.9	
1024-57-3	39420	Heptachlor epoxide	ND	3.9	
118-74-1	39700	Hexachlorobenzene	ND	3.9	
87-68-3	34391	Hexachlorobutadiene	ND	3.9	
77-47-4	34386	Hexachlorocyclopentadiene	ND	3.9	
67-72-1	34396	Hexachloroethane	ND	3.9	
193-39-5	34403	Indeno(1,2,3-cd)pyrene	ND	3.9	
78-59-1	34408	Isophorone	ND	3.9	
534-52-1	34657	2-methyl-4,6-dinitrophenol	ND	19.5	
91-20-3	34696	Naphthalene	ND	3.9	
98-95-3	34447	Nitrobenzene	ND	3.9	
88-75-5	34591	2-Nitrophenol	ND	3.9	
100-02-7	34646	4-Nitrophenol	ND	19.5	
86-30-3	34433	N-nitrosodiphenylamine	ND	3.9	
621-64-7	34428	N-Nitrosodi-n-propylamine	ND	3.9	
87-86-5	39032	Pentachlorophenol	ND	19.5	
85-01-8	34461	Phenanthrene	ND	3.9	
108-95-2	34694	Phenol	ND	3.9	
129-00-0	**34469**	**Pyrene**	**~0.9**	**3.9**	

(cont't)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 80826
Sample Results Continued:

CAS NO.	STORET NO.	Compound	Conc. (mg/kg)	Det. Limit (mg/kg)	Comments
120-82-1	34551	1,2,4--Trichlorobenzene	ND	3.9	
88-06-2	34621	2,4,6-Trichlorophenol	ND	3.9	
		Hazardous Substances			
65-53-3	77089	Aniline	ND	3.9	
65-85-0	77247	Benzoic Acid	ND	19.5	
100-51-6	77147	Benzyl Alcohol	ND	3.9	
106-47-8		4-Chloroaniline	ND	3.9	
132-64-9	81302	Dibenzofuran	ND	3.9	
534-52-1		4,6-Dinitro-2-methylphenol	ND	19.5	
91-57-6		2-Methylnaphthalene	ND	3.9	
95-48-7		2-Methylphenol	ND	3.9	
106-44-5		4-Methylphenol	ND	3.9	
88-74-4		2-Nitroaniline	ND	19.5	
99-09-2		3-Nitroaniline	ND	19.5	
100-01-6		4-Nitroaniline	ND	19.5	
95-95-4	34621	2,4,5-Trichlorophenol	ND	19.5	
		Other Compounds Quantitated			
		None			
		Tentatively Identified Compounds			
		None			

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 80826
Sample Results Continued:

Sample Recoveries For Surrogate Compounds:	Recoveries (%)	QC Range (%)
2-Fluorophenol	69	30-115
Phenol,d5	87	24-113
Nitrobenzene,d5	82	23-120
Fluorobiphenyl	77	30-115
2,4,6-Tribromophenol	49	19-122
p-Terphenyl,d14	101	18-137

Notes:

ND = none detected
~ = approximate
< = less than
> = greater than
NA = not available, due to sample dilution or interference

FACILITY SAMPLED: HARCO PROPERTY

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 80827
SAMPLE LOCATION:
DATE OF COLLECTION:
TIME OF COLLECTION:
SAMPLE RESULTS:

Dilution Factor: 1.4
Percent Moisture: 46
Sample pH: 7.2

CAS NO.	STORET NO.	Compound	Conc. (mg/kg)	Det. Limit (mg/kg)	Comments
		Priority Pollutants			
83-32-9	34205	Acenaphthene	ND	14	
208-96-8	34200	Acenaphthylene	ND	14	
120-12-7	34220	Anthracene	ND	14	
309-00-2	39330	Aldrin	ND	14	
56-55-3	34526	Benzo(a)anthracene	ND	14	
205-99-2	34230	Benzo(b)fluoranthene	ND	14	
207-08-9	34242	Benzo(k)fluoranthene	ND	14	
50-32-8	34247	Benzo(a)pyrene	ND	14	
191-24-2	34521	Benzo(ghi)perylene	ND	14	
85-68-7	34292	Benzyl butyl phthalate	ND	14	
319-85-7	39338	beta-BHC	ND	14	
319-86-8	34259	delta-BHC	ND	14	
111-44-4	34273	Bis(2-chloroethyl)ether	ND	14	
111-91-1	34278	Bis(2-chloroethoxy)methane	ND	14	
117-81-7	39100	Bis(2-ethylhexyl)phthalate	ND	14	
108-60-1	34283	Bis(2-chloroisopropyl)ether	ND	14	
101-55-3	34636	4-Bromophenylphenyl ether	ND	14	
59-50-7	34452	4-Chloro-3-methylphenol	ND	14	
91-58-7	34581	2-Chloronaphthalene	ND	14	
95-57-8	34586	2-Chlorophenol	ND	14	
7005-72-3	34641	4-Chlorophenylphenyl ether	ND	14	
218-01-9	34320	Chrysene	ND	14	
72-54-8	39310	4,4'-DDD	ND	14	
72-55-9	39320	4,4'-DDE	ND	14	
50-29-3	39300	4,4'-DDT	ND	14	
53-70-3	34556	Dibenzo(a,h)anthracene	ND	14	
84-74-2	39110	Di-n-butylphtalate	ND	14	
541-73-1	34566	1,3-Dichlorobenzene	ND	14	

(con't)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 80827
Sample Results Continued:

CAS NO.	STORET NO.	Compound	Conc. (mg/kg)	Det. Limit (mg/kg)	Comments
95-50-1	34536	1,2-Dichlorobenzene	ND	14	
106-46-7	34571	1,4-Dichlorobenzene	ND	14	
91-94-1	34631	3,3'-Dichlorobenzidine	ND	28	
120-83-2	34601	2,4-Dichlorophenol	ND	14	
60-57-1	39380	Dieldrin	ND	14	
84-66-2	34336	Diethylphtalate	ND	14	
105-67-9	34606	2-4-Dimethylphenol	ND	14	
131-11-3	34341	Dimethylphthalate	ND	14	
51-28-5	34616	2,4-Dinitrophenol	ND	70	
121-14-2	34611	2,4-Dinitrotoluene	ND	14	
606-20-2	34626	2,6-Dinitrotoluene	ND	14	
117-84-0	34596	Di-n-octylphthalate	ND	14	
206-44-0	34376	Fluoranthene	ND	14	
86-73-7	34381	Fluorene	ND	14	
76-44-8	39410	Heptachlor	ND	14	
1024-57-3	39420	Heptachlor epoxide	ND	14	
118-74-1	39700	Hexachlorobenzene	ND	14	
87-68-3	34391	Hexachlorobutadiene	ND	14	
77-47-4	34386	Hexachlorocyclopentadiene	ND	14	
67-72-1	34396	Hexachloroethane	ND	14	
193-39-5	34403	Indeno(1,2,3-cd)pyrene	ND	14	
78-59-1	34408	Isophorone	ND	14	
534-52-1	34657	2-methyl-4,6-dinitrophenol	ND	70	
91-20-3	34696	Naphthalene	ND	14	
98-95-3	34447	Nitrobenzene	ND	14	
88-75-5	34591	2-Nitrophenol	ND	14	
100-02-7	34646	4-Nitrophenol	ND	70	
86-30-3	34433	N-nitrosodiphenylamine	ND	14	
621-64-7	34428	N-Nitrosodi-n-propylamine	ND	14	
87-86-5	39032	Pentachlorophenol	ND	70	
85-01-8	34461	Phenanthrene	ND	14	
108-95-2	34694	Phenol	ND	14	
129-00-0	34469	Pyrene	ND	14	

(cont't)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 80827
Sample Results Continued:

CAS NO.	STORET NO.	Compound	Conc. (mg/kg)	Det. Limit (mg/kg)	Comments
120-82-1	34551	1,2,4--Trichlorobenzene	ND	14	
88-06-2	34621	2,4,6-Trichlorophenol	ND	14	
		Hazardous Substances			
65-53-3	77089	Aniline	ND	14	
65-85-0	77247	Benzoic Acid	ND	70	
100-51-6	77147	Benzyl Alcohol	ND	14	
106-47-8		4-Chloroaniline	ND	14	
132-64-9	81302	Dibenzofuran	ND	14	
534-52-1		4,6-Dinitro-2-methylphenol	ND	70	
91-57-6		2-Methylnaphthalene	ND	14	
95-48-7		2-Methylphenol	ND	14	
106-44-5		4-Methylphenol	ND	14	
88-74-4		2-Nitroaniline	ND	70	
99-09-2		3-Nitroaniline	ND	70	
100-01-6		4-Nitroaniline	ND	70	
95-95-4	34621	2,4,5-Trichlorophenol	ND	70	
		Other Compounds Quantitated			
		None			

Tentatively Identified Compounds

Hexane dioic acid, dioctyl ester	40
Aliphatic hydrocarbon, C-9	9
Aliphatic hydrocarbon, C-16	7
Aliphatic hydrocarbon, C-21	9
Unknown	7

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 80827
Sample Results Continued:

Sample Recoveries For Surrogate Compounds:	Recoveries (%)	QC Range (%)
2-Fluorophenol	100	30-115
Phenol,d5	93	24-113
Nitrobenzene,d5	78	23-120
Fluorobiphenyl	67	30-115
2,4,6-Tribromophenol	96	19-122
p-Terphenyl,d14	91	18-137

Notes:

ND = none detected
~ = approximate
< = less than
> = greater than
NA = not available, due to sample dilution or interference

FACILITY SAMPLED: HARCO PROPERTY

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 80828
SAMPLE LOCATION:
DATE OF COLLECTION:
TIME OF COLLECTION:
SAMPLE RESULTS:

Dilution Factor: 0.78
Percent Moisture: 19
Sample pH: 6.5

CAS NO.	STORET NO.	Compound	Conc. (mg/kg)	Det. Limit (mg/kg)	Comments
		Priority Pollutants			
83-32-9	34205	Acenaphthene	ND	7.8	
208-96-8	34200	Acenaphthylene	ND	7.8	
120-12-7	34220	Anthracene	ND	7.8	
309-00-2	39330	Aldrin	ND	7.8	
56-55-3	34526	Benzo(a)anthracene	ND	7.8	
205-99-2	34230	Benzo(b)fluoranthene	ND	7.8	
207-08-9	34242	Benzo(k)fluoranthene	ND	7.8	
50-32-8	34247	Benzo(a)pyrene	ND	7.8	
191-24-2	34521	Benzo(ghi)perylene	ND	7.8	
85-68-7	34292	Benzyl butyl phthalate	ND	7.8	
319-85-7	39338	beta-BHC	ND	7.8	
319-86-8	34259	delta-BHC	ND	7.8	
111-44-4	34273	Bis(2-chloroethyl)ether	ND	7.8	
111-91-1	34278	Bis(2-chloroethoxy)methane	ND	7.8	
117-81-7	39100	Bis(2-ethylhexyl)phthalate	ND	7.8	
108-60-1	34283	Bis(2-chloroisopropyl)ether	ND	7.8	
101-55-3	34636	4-Bromophenylphenyl ether	ND	7.8	
59-50-7	34452	4-Chloro-3-methylphenol	ND	7.8	
91-58-7	34581	2-Chloronaphthalene	ND	7.8	
95-57-8	34586	2-Chlorophenol	ND	7.8	
7005-72-3	34641	4-Chlorophenylphenyl ether	ND	7.8	
218-01-9	34320	Chrysene	ND	7.8	
72-54-8	39310	4,4'-DDD	ND	7.8	
72-55-9	39320	4,4'-DDE	ND	7.8	
50-29-3	39300	4,4'-DDT	ND	7.8	
53-70-3	34556	Dibenzo(a,h)anthracene	ND	7.8	
84-74-2	39110	Di-n-butylphtalate	ND	7.8	
541-73-1	34566	1,3-Dichlorobenzene	ND	7.8	

(con't)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 80828
Sample Results Continued:

CAS NO.	STORET NO.	Compound	Conc. (mg/kg)	Det. Limit (mg/kg)	Comments
95-50-1	34536	1,2-Dichlorobenzene	ND	7.8	
106-46-7	34571	1,4-Dichlorobenzene	ND	7.8	
91-94-1	34631	3,3'-Dichlorobenzidine	ND	15.6	
120-83-2	34601	2,4-Dichlorophenol	ND	7.8	
60-57-1	39380	Dieldrin	ND	7.8	
84-66-2	34336	Diethylphtalate	ND	7.8	
105-67-9	34606	2-4-Dimethylphenol	ND	7.8	
131-11-3	34341	Dimethylphthalate	ND	7.8	
51-28-5	34616	2,4-Dinitrophenol	ND	39	
121-14-2	34611	2,4-Dinitrotoluene	ND	7.8	
606-20-2	34626	2,6-Dinitrotoluene	ND	7.8	
117-84-0	34596	Di-n-octylphthalate	ND	7.8	
206-44-0	34376	Fluoranthene	ND	7.8	
86-73-7	34381	Fluorene	ND	7.8	
76-44-8	39410	Heptachlor	ND	7.8	
1024-57-3	39420	Heptachlor epoxide	ND	7.8	
118-74-1	39700	Hexachlorobenzene	ND	7.8	
87-68-3	34391	Hexachlorobutadiene	ND	7.8	
77-47-4	34386	Hexachlorocyclopentadiene	ND	7.8	
67-72-1	34396	Hexachloroethane	ND	7.8	
193-39-5	34403	Indeno(1,2,3-cd)pyrene	ND	7.8	
78-59-1	34408	Isophorone	ND	7.8	
534-52-1	34657	2-methyl-4,6-dinitrophenol	ND	39	
91-20-3	34696	Naphthalene	ND	7.8	
98-95-3	34447	Nitrobenzene	ND	7.8	
88-75-5	34591	2-Nitrophenol	ND	7.8	
100-02-7	34646	4-Nitrophenol	ND	39	
86-30-3	34433	N-nitrosodiphenylamine	ND	7.8	
621-64-7	34428	N-Nitrosodi-n-propylamine	ND	7.8	
87-86-5	39032	Pentachlorophenol	ND	39	
85-01-8	34461	Phenanthrene	ND	7.8	
108-95-2	34694	Phenol	ND	7.8	
129-00-0	34469	Pyrene	ND	7.8	

(cont't)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 80828
Sample Results Continued:

CAS NO.	STORET NO.	Compound	Conc. (mg/kg)	Det. Limit (mg/kg)	Comments
120-82-1	34551	1,2,4--Trichlorobenzene	ND	7.8	
88-06-2	34621	2,4,6-Trichlorophenol	ND	7.8	
		Hazardous Substances			
65-53-3	77089	Aniline	ND	7.8	
65-85-0	77247	Benzoic Acid	ND	39	
100-51-6	77147	Benzyl Alcohol	ND	7.8	
106-47-8		4-Chloroaniline	ND	7.8	
132-64-9	81302	Dibenzofuran	ND	7.8	
534-52-1		4,6-Dinitro-2-methylphenol	ND	39	
91-57-6		2-Methylnaphthalene	ND	7.8	
95-48-7		2-Methylphenol	ND	7.8	
106-44-5		4-Methylphenol	ND	7.8	
88-74-4		2-Nitroaniline	ND	39	
99-09-2		3-Nitroaniline	ND	39	
100-01-6		4-Nitroaniline	ND	39	
95-95-4	34621	2,4,5-Trichlorophenol	ND	39	
		Other Compounds Quantitated			
		None			
		Tentatively Identified Compounds			
		None			

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 80828
Sample Results Continued:

Sample Recoveries For Surrogate Compounds:	Recoveries (%)	QC Range (%)
2-Fluorophenol	92	30-115
Phenol,d5	89	24-113
Nitrobenzene,d5	78	23-120
Fluorobiphenyl	70	30-115
2,4,6-Tribromophenol	79	19-122
p-Terphenyl,d14	96	18-137

Notes:

ND = none detected
~ = approximate
< = less than
> = greater than
NA = not available, due to sample dilution or interference

FACILITY SAMPLED: HARCO PROPERTY

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 80829
SAMPLE LOCATION:
DATE OF COLLECTION:
TIME OF COLLECTION:
SAMPLE RESULTS:

Dilution Factor: 0.85
Percent Moisture: 13
Sample pH: 7.8

CAS NO.	STORET NO.	Compound	Conc. (mg/kg)	Det. Limit (mg/kg)	Comments
		Priority Pollutants			
83-32-9	34205	Acenaphthene	ND	8.5	
208-96-8	34200	Acenaphthylene	ND	8.5	
120-12-7	34220	Anthracene	ND	8.5	
309-00-2	39330	Aldrin	ND	8.5	
56-55-3	34526	Benzo(a)anthracene	ND	8.5	
205-99-2	34230	Benzo(b)fluoranthene	ND	8.5	
207-08-9	34242	Benzo(k)fluoranthene	ND	8.5	
50-32-8	34247	Benzo(a)pyrene	ND	8.5	
191-24-2	34521	Benzo(ghi)perylene	ND	8.5	
85-68-7	34292	Benzyl butyl phthalate	ND	8.5	
319-85-7	39338	beta-BHC	ND	8.5	
319-86-8	34259	delta-BHC	ND	8.5	
111-44-4	34273	Bis(2-chloroethyl)ether	ND	8.5	
111-91-1	34278	Bis(2-chloroethoxy)methane	ND	8.5	
117-81-7	39100	Bis(2-ethylhexyl)phthalate	ND	8.5	
108-60-1	34283	Bis(2-chloroisopropyl)ether	ND	8.5	
101-55-3	34636	4-Bromophenylphenyl ether	ND	8.5	
59-50-7	34452	4-Chloro-3-methylphenol	ND	8.5	
91-58-7	34581	2-Chloronaphthalene	ND	8.5	
95-57-8	34586	2-Chlorophenol	ND	8.5	
7005-72-3	34641	4-Chlorophenylphenyl ether	ND	8.5	
218-01-9	34320	Chrysene	ND	8.5	
72-54-8	39310	4,4'-DDD	ND	8.5	
72-55-9	39320	4,4'-DDE	ND	8.5	
50-29-3	39300	4,4'-DDT	ND	8.5	
53-70-3	34556	Dibenzo(a,h)anthracene	ND	8.5	
84-74-2	39110	Di-n-butylphtalate	ND	8.5	
541-73-1	34566	1,3-Dichlorobenzene	ND	8.5	

(con't)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 80829
Sample Results Continued:

CAS NO.	STORET NO.	Compound	Conc. (mg/kg)	Det. Limit (mg/kg)	Comments
95-50-1	34536	1,2-Dichlorobenzene	ND	8.5	
106-46-7	34571	1,4-Dichlorobenzene	ND	8.5	
91-94-1	34631	3,3'-Dichlorobenzidine	ND	17	
120-83-2	34601	2,4-Dichlorophenol	ND	8.5	
60-57-1	39380	Dieldrin	ND	8.5	
84-66-2	34336	Diethylphtalate	ND	8.5	
105-67-9	34606	2-4-Dimethylphenol	ND	8.5	
131-11-3	34341	Dimethylphthalate	ND	8.5	
51-28-5	34616	2,4-Dinitrophenol	ND	42.5	
121-14-2	34611	2,4-Dinitrotoluene	ND	8.5	
606-20-2	34626	2,6-Dinitrotoluene	ND	8.5	
117-84-0	34596	Di-n-octylphthalate	ND	8.5	
206-44-0	34376	Fluoranthene	ND	8.5	
86-73-7	34381	Fluorene	ND	8.5	
76-44-8	39410	Heptachlor	ND	8.5	
1024-57-3	39420	Heptachlor epoxide	ND	8.5	
118-74-1	39700	Hexachlorobenzene	ND	8.5	
87-68-3	34391	Hexachlorobutadiene	ND	8.5	
77-47-4	34386	Hexachlorocyclopentadiene	ND	8.5	
67-72-1	34396	Hexachloroethane	ND	8.5	
193-39-5	34403	Indeno(1,2,3-cd)pyrene	ND	8.5	
78-59-1	34408	Isophorone	ND	8.5	
534-52-1	34657	2-methyl-4,6-dinitrophenol	ND	42.5	
91-20-3	34696	Naphthalene	ND	8.5	
98-95-3	34447	Nitrobenzene	ND	8.5	
88-75-5	34591	2-Nitrophenol	ND	8.5	
100-02-7	34646	4-Nitrophenol	ND	42.5	
86-30-3	34433	N-nitrosodiphenylamine	ND	8.5	
621-64-7	34428	N-Nitrosodi-n-propylamine	ND	8.5	
87-86-5	39032	Pentachlorophenol	ND	42.5	
85-01-8	34461	Phenanthrene	ND	8.5	
108-95-2	34694	Phenol	ND	8.5	
129-00-0	34469	Pyrene	ND	8.5	

(cont't)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 80829
Sample Results Continued:

CAS NO.	STORET NO.	Compound	Conc. (mg/kg)	Det. Limit (mg/kg)	Comments
120-82-1	34551	1,2,4--Trichlorobenzene	ND	8.5	
88-06-2	34621	2,4,6-Trichlorophenol	ND	8.5	
		Hazardous Substances			
65-53-3	77089	Aniline	ND	8.5	
65-85-0	77247	Benzoic Acid	ND	42.5	
100-51-6	77147	Benzyl Alcohol	ND	8.5	
106-47-8		4-Chloroaniline	ND	8.5	
132-64-9	81302	Dibenzofuran	ND	8.5	
534-52-1		4,6-Dinitro-2-methylphenol	ND	42.5	
91-57-6		2-Methylnaphthalene	ND	8.5	
95-48-7		2-Methylphenol	ND	8.5	
106-44-5		4-Methylphenol	ND	8.5	
88-74-4		2-Nitroaniline	ND	42.5	
99-09-2		3-Nitroaniline	ND	42.5	
100-01-6		4-Nitroaniline	ND	42.5	
95-95-4	34621	2,4,5-Trichlorophenol	ND	42.5	
		Other Compounds Quantitated			
		None			
		Tentatively Identified Compounds			
		None			

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 80829
Sample Results Continued:

Sample Recoveries For Surrogate Compounds:	Recoveries (%)	QC Range (%)
2-Fluorophenol	87	30-115
Phenol,d5	84	24-113
Nitrobenzene,d5	72	23-120
Fluorobiphenyl	66	30-115
2,4,6-Tribromophenol	79	19-122
p-Terphenyl,d14	86	18-137

Notes:

ND = none detected
~ = approximate
< = less than
> = greater than
NA = not available, due to sample dilution or interference