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START

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Analytical and Supporting Laboratory

Quality Control Data For

DOE – Hanford North Slope

LEVEL III Deliverable

Prepared by: Environmental Science & Engineering, Inc.
August 1994

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CASE NARRATIVE

DOE –Hanford North Slope Site H–83–1

The following samples were analyzed :

CDM ID	ESE LAB ID	HEIS #
VR–01	CDMHNSS3*1	B0C3B8
VR–02	CDMHNSS3*2	B0C3B9
BKG–01–02	CDMHNSS3*3	B0C3C2
BKG–01–02	CDMHNSS3*4	B0C3C3
BKG–01	CDMHNSS3*5	B0C3C4
BKG–02	CDMHNSS3*6	B0C3C5
SP–01	CDMHNSS3*7	
SP–01	CDMHNSS3*8	
BG1–01	CDMHNSS3*41	B0C3C0
BG1–01	CDMHNSS3*42	B0C3C6
WC1–01	CDMHNSS3*43	B0C3C7
R–01–EB1	CDMHNSW3*3	B0C3C1

WC1–01 (ESE # CDMHNSS3*43) was designated for level IV deliverable and that data is included both in this document and an accompanying deliverable devoted to A03–1–05 level IV data.

The samples were analyzed using the prescribed EPA methods and EPA holding times were met.

In general, the laboratory quality control (QC) requirements have been met and the sample matrix quality control outliers are due to matrix effects. All QC outliers are addressed by the analyst, the department manager and/or the laboratory coordinator in the batch. This information can be found at the end of the batch checklist page.

Sample Date, Cross Reference &

Methodologies Report

9513354.2750

Soils

SAMPLE DATE AND CROSS REFERENCE REPORT FOR CDM - HANFORD NORTH SLOPE LABORATORY ANALYSES

CDM SAMPLE ID	LABORATORY SAMPLE ID	DATE COLLECT	DATE RECEIVED	ANALYSIS DESCRIPTION	DATE EXTRACTED	DATE ANALYZED	DAYS, ACTUAL/HOLD TIME DAYS TO EXTRACTION	DAYS TO ANALYSIS	ESE BATCH
VR-01	CDMHNSS3*1	07/12/94	07/14/94	SCREEN, ALPHA	NA	07/25/94	NA	13/180	G51434
				PERCENT MOISTURE - ASTM D2216	NA	07/15/94	NA	3/180	G51026
				ARSENIC - EPA 7060	NA	07/15/94	NA	3/180	G51058
				SELENIUM - EPA 7740	NA	07/15/94	NA	3/180	G51057
				MERCURY - EPA 7471 (MOD)	NA	07/15/94	NA	3/28	G51050
				ICAP METALS, EPA 6010	NA	07/15/94	NA	3/180	G51056
				VOCS - EPA 8240	NA	07/14/94	NA	2/14	G51029
				SVOCS - EPA 8270/3540 (SOX)	07/14/94	07/16/94	2/14	2/40	G51457
				OCPS/PCBS - EPA 8080/3540 (SOX)	07/14/94	07/18/94	2/14	4/40	G51081
VR-02	CDMHNSS3*2	07/12/94	07/14/94	SCREEN, ALPHA	NA	07/25/94	NA	13/180	G51434
				PERCENT MOISTURE - ASTM D2216	NA	07/15/94	NA	3/180	G51026
				ARSENIC - EPA 7060	NA	07/15/94	NA	3/180	G51058
				SELENIUM - EPA 7740	NA	07/15/94	NA	3/180	G51057
				MERCURY - EPA 7471 (MOD)	NA	07/15/94	NA	3/28	G51050
				ICAP METALS, EPA 6010	NA	07/15/94	NA	3/180	G51056
				VOCS - EPA 8240	NA	07/14/94	NA	2/14	G51029
				SVOCS - EPA 8270/3540 (SOX)	07/14/94	07/16/94	2/14	2/40	G51457
				OCPS/PCBS - EPA 8080/3540 (SOX)	07/14/94	07/18/94	2/14	4/40	G51081
BKG-01-002	CDMHNSS3*3	07/13/94	07/15/94	SCREEN, ALPHA	NA	07/25/94	NA	12/180	G51434
				PERCENT MOISTURE - ASTM D2216	NA	07/18/94	NA	5/180	G51059
				ARSENIC - EPA 7060	NA	07/18/94	NA	5/180	G51098
				SELENIUM - EPA 7740	NA	07/19/94	NA	6/180	G51102
				MERCURY - EPA 7471 (MOD)	NA	07/18/94	NA	5/28	G51092
				ICAP METALS, EPA 6010	NA	07/18/94	NA	5/180	G51090
				VOCS - EPA 8240	NA	07/18/94	NA	5/14	G51168
				SVOCS - EPA 8270/3540 (SOX)	07/15/94	07/18/94	2/14	3/40	G51216
				OCPS/PCBS - EPA 8080/3540 (SOX)	07/15/94	07/19/94	2/14	4/40	G51127
BKG-01-002	CDMHNSS3*4	07/14/94	07/15/94	SCREEN, ALPHA	NA	07/25/94	NA	11/180	G51434
				PERCENT MOISTURE - ASTM D2216	NA	07/18/94	NA	4/180	G51059
				ARSENIC - EPA 7060	NA	07/18/94	NA	4/180	G51098
				SELENIUM - EPA 7740	NA	07/19/94	NA	5/180	G51102
				MERCURY - EPA 7471 (MOD)	NA	07/18/94	NA	4/28	G51092
				ICAP METALS, EPA 6010	NA	07/18/94	NA	4/180	G51090
				VOCS - EPA 8240	NA	07/18/94	NA	4/14	G51168
				SVOCS - EPA 8270/3540 (SOX)	07/15/94	07/18/94	1/14	3/40	G51216
				OCPS/PCBS - EPA 8080/3540 (SOX)	07/15/94	07/19/94	1/14	4/40	G51127
BKG-01	CDMHNSS3*5	07/15/94	07/14/94	SCREEN, ALPHA	NA	07/25/94	NA	10/180	G51434
				PERCENT MOISTURE - ASTM D2216	NA	07/18/94	NA	3/180	G51059
				ARSENIC - EPA 7060	NA	07/18/94	NA	3/180	G51098
				SELENIUM - EPA 7740	NA	07/19/94	NA	4/180	G51102
				MERCURY - EPA 7471 (MOD)	NA	07/18/94	NA	3/28	G51092
				ICAP METALS, EPA 6010	NA	07/18/94	NA	3/180	G51090
				VOCS - EPA 8240	NA	07/18/94	NA	3/14	G51168
				SVOCS - EPA 8270/3540 (SOX)	07/16/94	07/18/94	1/14	2/40	G51215
				OCPS/PCBS - EPA 8080/3540 (SOX)	07/16/94	07/19/94	1/14	3/40	G51184
BKG-02	CDMHNSS3*6	07/15/94	07/14/94	SCREEN, ALPHA	NA	07/25/94	NA	10/180	G51434
				PERCENT MOISTURE - ASTM D2216	NA	07/18/94	NA	3/180	G51059
				ARSENIC - EPA 7060	NA	07/18/94	NA	3/180	G51098
				SELENIUM - EPA 7740	NA	07/19/94	NA	4/180	G51102
				MERCURY - EPA 7471 (MOD)	NA	07/18/94	NA	3/28	G51092
				ICAP METALS, EPA 6010	NA	07/18/94	NA	3/180	G51090

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FOOTNOTES: EEDS CRITERIA ACT = ACTUAL HT = HOLDING TIME

SAMPLE DATE AND CROSS REFERENCE REPORT FOR CDM - HANFORD NORTH SLOPE LABORATORY ANALYSES

CDM SAMPLE ID	LABORATORY SAMPLE ID	DATE COLLECT	DATE RECEIVED	ANALYSIS DESCRIPTION	DATE EXTRACTED	DATE ANALYZED	DAYS, ACTUAL/HOLD TIME DAYS TO EXTRACTION	DAYS TO ANALYSIS	ESE BATCH
				VOCS - EPA 8240	NA	07/18/94	NA	3/14	G51168
				SVOCS - EPA 8270/3540 (SOX)	07/16/94	07/18/94	1/14	2/40	G51215
				OCPS/PCBS - EPA 8080/3540 (SOX)	07/16/94	07/19/94	1/14	3/40	G51184
SP-01	CDMHNSS3*7	07/15/94	07/14/94	SCREEN, ALPHA	NA	07/25/94	NA	10/180	G51434
				PERCENT MOISTURE - ASTM D2216	NA	07/18/94	NA	3/180	G51059
				ARSENIC - EPA 7060	NA	07/18/94	NA	3/180	G51098
				SELENIUM - EPA 7740	NA	07/19/94	NA	4/180	G51102
				MERCURY - EPA 7471 (MOD)	NA	07/18/94	NA	3/28	G51092
				ICAP METALS, EPA 6010	NA	07/18/94	NA	3/180	G51090
SP-01	CDMHNSS3*8	07/15/94	07/14/94	SCREEN, ALPHA	NA	07/25/94	NA	10/180	G51434
				PERCENT MOISTURE - ASTM D2216	NA	07/18/94	NA	3/180	G51059
				ARSENIC - EPA 7060	NA	07/18/94	NA	3/180	G51098
				SELENIUM - EPA 7740	NA	07/19/94	NA	4/180	G51102
				MERCURY - EPA 7471 (MOD)	NA	07/18/94	NA	3/28	G51092
				ICAP METALS, EPA 6010	NA	07/18/94	NA	3/180	G51090
BG1-01	CDMHNSS3*41	07/12/94	07/14/94	SCREEN, ALPHA	NA	07/25/94	NA	13/180	G51434
				PERCENT MOISTURE - ASTM D2216	NA	07/15/94	NA	3/180	G51026
				ARSENIC - EPA 7060	NA	07/15/94	NA	3/180	G51058
				SELENIUM - EPA 7740	NA	07/15/94	NA	3/180	G51057
				MERCURY - EPA 7471 (MOD)	NA	07/15/94	NA	3/28	G51050
				ICAP METALS, EPA 6010	NA	07/15/94	NA	3/180	G51056
				VOCS - EPA 8240	NA	07/14/94	NA	2/14	G51029
				SVOCS - EPA 8270/3540 (SOX)	07/14/94	07/16/94	2/14	2/40	G51457
				OCPS/PCBS - EPA 8080/3540 (SOX)	07/14/94	07/18/94	2/14	4/40	G51081
BG1-01	CDMHNSS3*42	07/15/94	07/14/94	SCREEN, ALPHA	NA	07/25/94	NA	10/180	G51434
				PERCENT MOISTURE - ASTM D2216	NA	07/18/94	NA	3/180	G51059
				ARSENIC - EPA 7060	NA	07/18/94	NA	3/180	G51098
				SELENIUM - EPA 7740	NA	07/19/94	NA	4/180	G51102
				MERCURY - EPA 7471 (MOD)	NA	07/18/94	NA	3/28	G51092
				ICAP METALS, EPA 6010	NA	07/18/94	NA	3/180	G51090
				VOCS - EPA 8240	NA	07/18/94	NA	3/14	G51168
				SVOCS - EPA 8270/3540 (SOX)	07/16/94	07/18/94	1/14	2/40	G51215
				OCPS/PCBS - EPA 8080/3540 (SOX)	07/16/94	07/19/94	1/14	3/40	G51184
WC1-01	CDMHNSS3*43	07/15/94	07/16/94	SCREEN, ALPHA	NA	07/25/94	NA	10/180	G51434
				PERCENT MOISTURE - ASTM D2216	NA	07/18/94	NA	3/180	G51059
				ARSENIC - EPA 7060	NA	07/18/94	NA	3/180	G51098
				SELENIUM - EPA 7740	NA	07/19/94	NA	4/180	G51102
				MERCURY - EPA 7471 (MOD)	NA	07/18/94	NA	3/28	G51092
				ICAP METALS, EPA 6010	NA	07/18/94	NA	3/180	G51090
				VOCS - EPA 8240	NA	07/18/94	NA	3/14	G51168
				VOAS - CLP SOW OLM01.8	NA	07/28/94	NA	13/14	G51586
				SVOCS - CLP SOW OLM01.8	07/27/94	07/28/94	12/14	1/40	G51539
				OCPS/PCBS - CLP SOW OLM01.8	07/18/94	07/22/94	3/14	4/40	G51446

FOOTNOTES: * = EXCEEDS CRITERIA ACT = ACTUAL HT = HOLDING TIME

Waters

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ENVIRONMENTAL SCIENCE & ENGINEERING, INC.

SAMPLE DATE AND CROSS REFERENCE REPORT FOR CDM - HANFORD NORTH SLOPE LABORATORY ANALYSES

CDM SAMPLE ID	LABORATORY SAMPLE ID	DATE COLLECT	DATE RECEIVED	ANALYSIS DESCRIPTION	DATE EXTRACTED	DATE ANALYZED	DAYS, ACTUAL/HOLD TIME DAYS TO EXTRACTION	DAYS TO ANALYSIS	ESE BATCH
VR-01-EB1	CDMHNSW3*3	07/13/94	07/15/94	ARSENIC - EPA 7060	NA	07/18/94	NA	5/180	G51097
				SELENIUM - EPA 7740	NA	07/18/94	NA	5/180	G51096
				MERCURY - EPA 7470	NA	07/18/94	NA	5/28	G51088
				ICAP METALS - EPA 6010	NA	07/18/94	NA	5/180	G51089
				VOCS - EPA 8240	NA	07/17/94	NA	4/14	G51080
				SVOCS - EPA 8270/3520 (CLL)	07/15/94	07/18/94	2/7	3/40	G51218
				OCPS/PCBS - EPA 8080/3520 (CLL)	07/15/94	07/19/94	2/7	4/40	G51107

FOOTNOTES: * = EXCEEDS CRITERIA ACT = ACTUAL HT = HOLDING TIME

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Analytical Data

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Soils – All Data

Environmental Science & Engineering DATE 08/18/94 STATUS : PAGE 1
PROJECT NUMBER 1944022G 0203 PROJECT NAME CDM - HANFORD N. SLOPE
FIELD GROUP CDMHNSS3 PROJECT MANAGER E.H. MANSFIELD
41-42 ALL LAB COORDINATOR EDWARD MANSFIELD

SAMPLE ID'S		VR-01	VR-02	BKG-01-002	BKG-01-002	BKG-01	BKG-02	SP-01	SP-01	BG1-01	BG1-01
PARAMETERS	STORET	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3
UNITS	METHOD	1	2	3	4	5	6	7	8	41	42
DATE		07/12/94	07/12/94	07/13/94	07/14/94	07/15/94	07/15/94	07/15/94	07/15/94	07/12/94	07/15/94
TIME		14:45	15:00	08:15	09:30	08:00	10:30	10:45	11:30	14:20	07:30
FIELD I.D.	29									BOV2	BOC3C0
#	0										
SITE #	96274	94PSN90	94PSN90	94PSN90	94IGL					94BOV2	
	0										
CHAIN OF CUSTODY	96793										
#	0										
SCREEN,GR. ALPHA,	96636	6.3	2.0	25.4	0.0	0.0	6.5	2.6	2.8	5.5	6.3
(ESTIMATE)NCI/KG-WET	R										
SCREEN,GR. BETA,	96637	18.4	16.3	27.8	31.4	37.7	28.1	25.6	22.8	35.1	19.7
(ESTIMATE)NCI/KG-WET	R										
MOISTURE	70320	6.9	3.5	6.0	5.1	3.2	3.2	<0.5	1.3	<0.5	1.8
%WET WT	I										
ARSENIC	1003	4.52	2.41	5.42	3.98	2.76	2.56	1.72	2.85	1.10	1.76
MG/KG-DRY	7060-G										
SELENIUM	1148	<0.265	<0.251	<0.260	<0.252	<0.248	<0.243	<0.251	<0.249	<0.250	<0.243
MG/KG-DRY	7740-G										
MERCURY	71921	<0.107	<0.103	<0.104	<0.095	<0.096	<0.097	<0.097	<0.099	<0.099	<0.094
MG/KG-DRY	7471M-G										
BARIUM	1008	116	79.4	136	131	93.0	96.1	106	127	34.9	74.4
MG/KG-DRY	6010-G										
CADMIUM	1028	<0.525	<0.517	<0.526	<0.522	<0.504	<0.497	<0.494	<0.483	<0.481	<0.496
MG/KG-DRY	6010-G										
CHROMIUM	1029	7.99	19.0	9.06	10.3	12.5	12.2	8.40	8.81	7.73	10.9
MG/KG-DRY	6010-G										
LEAD	1052	<10.5	70.9	<10.5	<10.4	<10.1	<9.94	<9.87	12.0	<9.62	<9.93
MG/KG-DRY	6010-G										
SILVER	1078	<0.525	<0.517	<0.526	<0.522	<0.504	<0.497	<0.494	<0.483	<0.481	<0.496
MG/KG-DRY	6010-G										
ACETONE	75059	<11	<10.0	<11	<11	<10.0	<10.0	NRQ	NRQ	<10.0	<10.0
UG/KG-DRY	8240-G										
BENZENE	34237	<5.4	<5.2	<5.3	<5.3	<5.2	<5.2	NRQ	NRQ	<5.0	<5.1
UG/KG-DRY	8240-G										
BROMODICHLOROMETHANE	34330	<5.4	<5.2	<5.3	<5.3	<5.2	<5.2	NRQ	NRQ	<5.0	<5.1
UG/KG-DRY	8240-G										
BROMOFORM	34290	<5.4	<5.2	<5.3	<5.3	<5.2	<5.2	NRQ	NRQ	<5.0	<5.1
UG/KG-DRY	8240-G										
BROMOMETHANE	34416	<11	<10.0	<11	<11	<10.0	<10.0	NRQ	NRQ	<10.0	<10.0
UG/KG-DRY	8240-G										
CARBON DISULFIDE	78544	<5.4	<5.2	<5.3	<5.3	<5.2	<5.2	NRQ	NRQ	<5.0	<5.1
UG/KG-DRY	8240-G										
CARBON TETRACHLORIDE	34299	<5.4	<5.2	<5.3	<5.3	<5.2	<5.2	NRQ	NRQ	<5.0	<5.1
UG/KG-DRY	8240-G										
CHLOROBENZENE	34304	<5.4	<5.2	<5.3	<5.3	<5.2	<5.2	NRQ	NRQ	<5.0	<5.1
UG/KG-DRY	8240-G										

Environmental Science & Engineering DATE 06/18/94 STATUS : PAGE 2
PROJECT NUMBER 1944022G 0203 PROJECT NAME CDM - HANFORD N. SLOPE
FIELD GROUP CDMHNSS3 PROJECT MANAGER E.H. MANSFIELD
41-42 ALL LAB COORDINATOR EDWARD MANSFIELD

SAMPLE ID'S		VR-01	VR-02	BKG-01-002	BKG-01-002	BKG-01	BKG-02	SP-01	SP-01	BG1-01	BG1-01
PARAMETERS	STORET	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3
UNITS	METHOD	1	2	3	4	5	6	7	8	41	42
DATE		07/12/94	07/12/94	07/13/94	07/14/94	07/15/94	07/15/94	07/15/94	07/15/94	07/12/94	07/15/94
TIME		14:45	15:00	08:15	09:30	08:00	10:30	10:45	11:30	14:20	07:30
CHLOROETHANE	34314	<11	<10.0	<11	<11	<10.0	<10.0	NRQ	NRQ	<10.0	<10.0
UG/KG-DRY	8240-G										
2-CHLOROETHYLVINYL-	34579	<5.4	<5.2	<5.3	<5.3	<5.2	<5.2	NRQ	NRQ	<5.0	<5.1
ETHER UG/KG-DRY	8240-G										
CHLOROFORM	34318	<5.4	<5.2	<5.3	<5.3	<5.2	<5.2	NRQ	NRQ	<5.0	<5.1
UG/KG-DRY	8240-G										
CHLOROMETHANE	34421	<11	<10.0	<11	<11	<10.0	<10.0	NRQ	NRQ	<10.0	<10.0
UG/KG-DRY	8240-G										
DIBROMOCHLOROMETHANE	34309	<5.4	<5.2	<5.3	<5.3	<5.2	<5.2	NRQ	NRQ	<5.0	<5.1
UG/KG-DRY	8240-G										
1,1-DICHLOROETHANE	34499	<5.4	<5.2	<5.3	<5.3	<5.2	<5.2	NRQ	NRQ	<5.0	<5.1
UG/KG-DRY	8240-G										
1,2-DICHLOROETHANE	34534	<5.4	<5.2	<5.3	<5.3	<5.2	<5.2	NRQ	NRQ	<5.0	<5.1
UG/KG-DRY	8240-G										
1,1-DICHLOROETHYLENE	34504	<5.4	<5.2	<5.3	<5.3	<5.2	<5.2	NRQ	NRQ	<5.0	<5.1
UG/KG-DRY	8240-G										
1,2-DICHLOROETHENE(T	96464	<5.4	<5.2	<5.3	<5.3	<5.2	<5.2	NRQ	NRQ	<5.0	<5.1
OTAL) UG/KG-DRY	8240-G										
1,2-DICHLOROPROPANE	34544	<5.4	<5.2	<5.3	<5.3	<5.2	<5.2	NRQ	NRQ	<5.0	<5.1
UG/KG-DRY	8240-G										
CIS-1,3-DICHLORO-	34702	<5.4	<5.2	<5.3	<5.3	<5.2	<5.2	NRQ	NRQ	<5.0	<5.1
PROPENE UG/KG-DRY	8240-G										
TRANS-1,3-DICHLORO-	34697	<5.4	<5.2	<5.3	<5.3	<5.2	<5.2	NRQ	NRQ	<5.0	<5.1
PROPENE UG/KG-DRY	8240-G										
ETHYLBENZENE	34374	<5.4	<5.2	<5.3	<5.3	<5.2	<5.2	NRQ	NRQ	<5.0	<5.1
UG/KG-DRY	8240-G										
2-HEXANONE	75166	<11	<10.0	<11	<11	<10.0	<10.0	NRQ	NRQ	<10.0	<10.0
UG/KG-DRY	8240-G										
METHYLENE CHLORIDE	34426	<5.4	<5.2	<5.3	<5.3	<5.2	<5.2	NRQ	NRQ	<5.0	<5.1
UG/KG-DRY	8240-G										
METHYL ETHYL KETONE	75078	<11	<10.0	<11	<11	<10.0	<10.0	NRQ	NRQ	<10.0	<10.0
UG/KG-DRY	8240-G										
METHYLISOBUTYLKETONE	75169	<11	<10.0	<11	<11	<10.0	<10.0	NRQ	NRQ	<10.0	<10.0
UG/KG-DRY	8240-G										
STYRENE	75192	<5.4	<5.2	<5.3	<5.3	<5.2	<5.2	NRQ	NRQ	<5.0	<5.1
UG/KG-DRY	8240-G										
1,1,2,2-TETRACHLORO-	34519	<5.4	<5.2	<5.3	<5.3	<5.2	<5.2	NRQ	NRQ	<5.0	<5.1
ETHANE UG/KG-DRY	8240-G										
TETRACHLOROETHENE	34478	<5.4	<5.2	<5.3	<5.3	<5.2	<5.2	NRQ	NRQ	<5.0	<5.1
UG/KG-DRY	8240-G										
TOLUENE	34483	<5.4	<5.2	<5.3	<5.3	<5.2	<5.2	NRQ	NRQ	<5.0	<5.1
UG/KG-DRY	8240-G										
1,1,1-TRICHL'ETHANE	34509	<5.4	<5.2	<5.3	<5.3	<5.2	<5.2	NRQ	NRQ	<5.0	<5.1
UG/KG-DRY	8240-G										

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PROJECT NUMBER 1944022G 0203 PROJECT NAME CDM - HANFORD N. SLOPE
FIELD GROUP CDMHNSS3 PROJECT MANAGER E.H. MANSFIELD
41-42 ALL LAB COORDINATOR EDWARD MANSFIELD

SAMPLE ID'S		VR-01	VR-02	BKG-01-002	BKG-01-002	BKG-01	BKG-02	SP-01	SP-01	BG1-01	BG1-01
PARAMETERS	STORET	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3
UNITS	METHOD	1	2	3	4	5	6	7	8	41	42
DATE		07/12/94	07/12/94	07/13/94	07/14/94	07/15/94	07/15/94	07/15/94	07/15/94	07/12/94	07/15/94
TIME		14:45	15:00	08:15	09:30	08:00	10:30	10:45	11:30	14:20	07:30
1,1,2-TRICHL'ETHANE	34514	<5.4	<5.2	<5.3	<5.3	<5.2	<5.2	NRQ	NRQ	<5.0	<5.1
UG/KG-DRY	8240-G										
TRICHLOROETHENE	34487	<5.4	<5.2	<5.3	<5.3	<5.2	<5.2	NRQ	NRQ	<5.0	<5.1
UG/KG-DRY	8240-G										
VINYL CHLORIDE	34495	<11	<10.0	<11	<11	<10.0	<10.0	NRQ	NRQ	<10.0	<10.0
UG/KG-DRY	8240-G										
VINYL ACETATE	98583	<11	<10.0	<11	<11	<10.0	<10.0	NRQ	NRQ	<10.0	<10.0
UG/KG-DRY	8240-G										
XYLENE,TOTAL	45510	<5.4	<5.2	<5.3	<5.3	<5.2	<5.2	NRQ	NRQ	<5.0	<5.1
UG/KG-DRY	8240-G										
ACENAPHTHENE	34208	<75	<360	<74	<74	<72	<72	NRQ	NRQ	<70	<71
UG/KG-DRY	8270/3540-G										
ACENAPHTHYLENE	34203	<160	<780	<160	<160	<150	<150	NRQ	NRQ	<150	<150
UG/KG-DRY	8270/3540-G										
ANTHRACENE	34223	<75	<360	<74	<74	<72	<72	NRQ	NRQ	<70	<71
UG/KG-DRY	8270/3540-G										
BENZYL ALCOHOL	75212	<150	<730	<150	<150	<140	<140	NRQ	NRQ	<140	<140
UG/KG-DRY	8270/3540-G										
BENZOIC ACID	75315	<2900	<14000	<2900	<2800	<2800	<2800	NRQ	NRQ	<2700	<2700
UG/KG-DRY	8270/3540-G										
BENZO(A)ANTHRACENE	34529	<110	<520	<110	<110	<100	<100	NRQ	NRQ	<100	<100
UG/KG-DRY	8270/3540-G										
BENZO(B)FLUORANTHENE	34233	<110	<520	<110	<110	<100	<100	NRQ	NRQ	<100	<100
UG/KG-DRY	8270/3540-G										
BENZO(K)FLUORANTHENE	34245	<110	<520	<110	<110	<100	<100	NRQ	NRQ	<100	<100
UG/KG-DRY	8270/3540-G										
BENZO(A)PYRENE	34250	<150	<730	<150	<150	<140	<140	NRQ	NRQ	<140	<140
UG/KG-DRY	8270/3540-G										
BENZO(GHI)PERYLENE	34524	<170	<830	<170	<170	<170	<170	NRQ	NRQ	<160	<160
UG/KG-DRY	8270/3540-G										
BUTYLBENZYLPHTHALATE	34295	<110	<520	<110	<110	<100	<100	NRQ	NRQ	<100	<100
UG/KG-DRY	8270/3540-G										
BIS(2-CHLOROETHYL)	34276	<75	<360	<74	<74	<72	<72	NRQ	NRQ	<70	<71
ETHER UG/KG-DRY	8270/3540-G										
BIS(2-CHLOROETHOXY)	34281	<150	<730	<150	<150	<140	<140	NRQ	NRQ	<140	<140
METHANE UG/KG-DRY	8270/3540-G										
BIS(2-ETHYLHEXYL)	39102	<110	<520	220	2100	<100	<100	NRQ	NRQ	<100	120
PHTHALATEUG/KG-DRY	8270/3540-G										
BIS(2-CHL'ISOPROPYL)	34286	<75	<360	<74	<74	<72	<72	NRQ	NRQ	<70	<71
ETHER UG/KG-DRY	8270/3540-G										
4-BROMOPHENYL PHENYL	34639	<150	<730	<150	<150	<140	<140	NRQ	NRQ	<140	<140
ETHER UG/KG-DRY	8270/3540-G										
4-CHLOROANILINE	78867	<320	<1600	<320	<320	<310	<310	NRQ	NRQ	<300	<310
UG/KG-DRY	8270/3540-G										

PROJECT NUMBER 1944022G 0203 PROJECT NAME CDM - HANFORD N. SLOPE
FIELD GROUP CDMHNSS3 PROJECT MANAGER E.H. MANSFIELD
41-42 ALL LAB COORDINATOR EDWARD MANSFIELD

SAMPLE ID'S		VR-01	VR-02	BKG-01-002	BKG-01-002	BKG-01	BKG-02	SP-01	SP-01	BG1-01	BG1-01
PARAMETERS	STORET	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3
UNITS	METHOD	1	2	3	4	5	6	7	8	41	42
DATE		07/12/94	07/12/94	07/13/94	07/14/94	07/15/94	07/15/94	07/15/94	07/15/94	07/12/94	07/15/94
TIME		14:45	15:00	08:15	09:30	08:00	10:30	10:45	11:30	14:20	07:30
2-CHLORONAPHTHALENE	34584	<75	<360	<74	<74	<72	<72	NRQ	NRQ	<70	<71
UG/KG-DRY	8270/3540-G										
2-CHLOROPHENOL	34589	<150	<730	<150	<150	<140	<140	NRQ	NRQ	<140	<140
UG/KG-DRY	8270/3540-G										
4-CHLORO-3-METHYL	34455	<150	<730	<150	<150	<140	<140	NRQ	NRQ	<140	<140
PHENOL UG/KG-DRY	8270/3540-G										
4-CHLOROPHENYLPHENYL	34644	<110	<520	<110	<110	<100	<100	NRQ	NRQ	<100	<100
ETHER UG/KG-DRY	8270/3540-G										
CHRYSENE	34323	<110	<520	<110	<110	<100	<100	NRQ	NRQ	<100	<100
UG/KG-DRY	8270/3540-G										
DIBEN(A,H)ANTH'CENE	34559	<170	<830	<170	<170	<170	<170	NRQ	NRQ	<160	<160
UG/KG-DRY	8270/3540-G										
DIBENZOFURAN	75647	<130	<620	<130	<130	<120	<120	NRQ	NRQ	<120	<120
UG/KG-DRY	8270/3540-G										
DI-N-BUTYL PHTHALATE	39112	<75	<360	<74	1800	<72	<72	NRQ	NRQ	<70	<71
UG/KG-DRY	8270/3540-G										
1,3-DICHLOROBENZENE	34569	<75	<360	<74	<74	<72	<72	NRQ	NRQ	<70	<71
UG/KG-DRY	8270/3540-G										
1,2-DICHLOROBENZENE	34539	<75	<360	<74	<74	<72	<72	NRQ	NRQ	<70	<71
UG/KG-DRY	8270/3540-G										
1,4-DICHLOROBENZENE	34574	<75	<360	<74	<74	<72	<72	NRQ	NRQ	<70	<71
UG/KG-DRY	8270/3540-G										
3,3-DICHL'BENZIDINE	34634	<540	<2600	<530	<530	<520	<520	NRQ	NRQ	<500	<510
UG/KG-DRY	8270/3540-G										
2,4-DICHLOROPHENOL	34604	<150	<730	<150	<150	<140	<140	NRQ	NRQ	<140	<140
UG/KG-DRY	8270/3540-G										
DIETHYL PHTHALATE	34339	<75	<360	<74	<74	<72	<72	NRQ	NRQ	<70	<71
UG/KG-DRY	8270/3540-G										
2,4-DIMETHYLPHENOL	34609	<150	<730	<150	<150	<140	<140	NRQ	NRQ	<140	<140
UG/KG-DRY	8270/3540-G										
DIMETHYL PHTHALATE	34344	<110	<520	<110	<110	<100	<100	NRQ	NRQ	<100	<100
UG/KG-DRY	8270/3540-G										
2,4-DINITROPHENOL	34619	<1400	<6700	<1400	<1400	<1300	<1300	NRQ	NRQ	<1300	<1300
UG/KG-DRY	8270/3540-G										
2,4-DINITROTOLUENE	34614	<150	3000	<150	<150	<140	<140	NRQ	NRQ	<140	<140
UG/KG-DRY	8270/3540-G										
2,6-DINITROTOLUENE	34629	<150	<730	<150	<150	<140	<140	NRQ	NRQ	<140	<140
UG/KG-DRY	8270/3540-G										
DI-N-OCTYL PHTHALATE	34599	<150	<730	<150	<150	<140	<140	NRQ	NRQ	<140	<140
UG/KG-DRY	8270/3540-G										
FLUORANTHENE	34379	<75	<360	<74	<74	<72	<72	NRQ	NRQ	<70	<71
UG/KG-DRY	8270/3540-G										
FLUORENE	34384	<75	<360	<74	<74	<72	<72	NRQ	NRQ	<70	<71
UG/KG-DRY	8270/3540-G										

PROJECT NUMBER 1944022G 0203 PROJECT NAME CDM - HANFORD N. SLOPE
FIELD GROUP CDMHNSS3 PROJECT MANAGER E.H. MANSFIELD
41-42 ALL LAB COORDINATOR EDWARD MANSFIELD

SAMPLE ID'S		VR-01	VR-02	BKG-01-002	BKG-01-002	BKG-01	BKG-02	SP-01	SP-01	BG1-01	BG1-01
PARAMETERS	STORET	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3
UNITS	METHOD	1	2	3	4	5	6	7	8	41	42
DATE		07/12/94	07/12/94	07/13/94	07/14/94	07/15/94	07/15/94	07/15/94	07/15/94	07/12/94	07/15/94
TIME		14:45	15:00	08:15	09:30	08:00	10:30	10:45	11:30	14:20	07:30
HEXACHLOROBENZENE	39701	<110	<520	<110	<110	<100	<100	NRQ	NRQ	<100	<100
UG/KG-DRY	8270/3540-G										
HEXACHLOROBUTADIENE	39705	<150	<730	<150	<150	<140	<140	NRQ	NRQ	<140	<140
UG/KG-DRY	8270/3540-G										
HEXACHLOROCYCLOPENTA	34389	<1100	<5200	<1100	<1100	<1000	<1000	NRQ	NRQ	<1000	<1000
DIENE UG/KG-DRY	8270/3540-G										
HEXACHLOROETHANE	34399	<110	<520	<110	<110	<100	<100	NRQ	NRQ	<100	<100
UG/KG-DRY	8270/3540-G										
INDENO(1,2,3-CD)	34406	<170	<830	<170	<170	<170	<170	NRQ	NRQ	<160	<160
PYRENE UG/KG-DRY	8270/3540-G										
ISOPHORONE	34411	<75	<360	<74	<74	<72	<72	NRQ	NRQ	<70	<71
UG/KG-DRY	8270/3540-G										
2-METHYLNAPHTHALENE	78868	<110	<520	<110	<110	<100	<100	NRQ	NRQ	<100	<100
UG/KG-DRY	8270/3540-G										
2-METHYL-4,6-DINITRO	34660	<720	<3500	<710	<710	<690	<690	NRQ	NRQ	<670	<680
PHENOL UG/KG-DRY	8270/3540-G										
2-METHYLPHENOL	78872	<150	<730	<150	<150	<140	<140	NRQ	NRQ	<140	<140
UG/KG-DRY	8270/3540-G										
4-METHYLPHENOL	78803	<150	<730	<150	<150	<140	<140	NRQ	NRQ	<140	<140
UG/KG-DRY	8270/3540-G										
NAPHTHALENE	34445	<75	<360	<74	<74	<72	<72	NRQ	NRQ	<70	<71
UG/KG-DRY	8270/3540-G										
2-NITROANILINE	98588	<320	<1600	<320	<320	<310	<310	NRQ	NRQ	<300	<310
UG/KG-DRY	8270/3540-G										
3-NITROANILINE	78869	<320	<1600	<320	<320	<310	<310	NRQ	NRQ	<300	<310
UG/KG-DRY	8270/3540-G										
4-NITROANILINE	78870	<430	<2100	<430	<420	<410	<410	NRQ	NRQ	<400	<410
UG/KG-DRY	8270/3540-G										
NITROBENZENE	34450	<75	<360	<74	<74	<72	<72	NRQ	NRQ	<70	<71
UG/KG-DRY	8270/3540-G										
2-NITROPHENOL	34594	<150	<730	<150	<150	<140	<140	NRQ	NRQ	<140	<140
UG/KG-DRY	8270/3540-G										
4-NITROPHENOL	34649	<540	<2600	<530	<530	<520	<520	NRQ	NRQ	<500	<510
UG/KG-DRY	8270/3540-G										
N-NITROSODI-N-PROPYL	34431	<110	<520	<110	<110	<100	<100	NRQ	NRQ	<100	<100
AMINE UG/KG-DRY	8270/3540-G										
N-NITROSODIPHE'AMINE	34436	<75	<360	<74	<74	<72	<72	NRQ	NRQ	<70	<71
UG/KG-DRY	8270/3540-G										
PENTACHLOROPHENOL	39061	<270	<1300	<270	<260	<260	<260	NRQ	NRQ	<250	<250
UG/KG-DRY	8270/3540-G										
PHENANTHRENE	34464	<75	<360	<74	<74	<72	<72	NRQ	NRQ	<70	<71
UG/KG-DRY	8270/3540-G										
PHENOL	34695	<150	<730	<150	<150	<140	<140	NRQ	NRQ	<140	<140
UG/KG-DRY	8270/3540-G										

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PROJECT NUMBER 1944022G 0203 PROJECT NAME CDM - HANFORD N. SLOPE
FIELD GROUP CDMHNSS3 PROJECT MANAGER E.H. MANSFIELD
41-42 ALL LAB COORDINATOR EDWARD MANSFIELD

SAMPLE ID'S		VR-01	VR-02	BKG-01-002	BKG-01-002	BKG-01	BKG-02	SP-01	SP-01	BG1-01	BG1-01
PARAMETERS	STORET	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3
UNITS	METHOD	1	2	3	4	5	6	7	8	41	42
DATE		07/12/94	07/12/94	07/13/94	07/14/94	07/15/94	07/15/94	07/15/94	07/15/94	07/12/94	07/15/94
TIME		14:45	15:00	08:15	09:30	08:00	10:30	10:45	11:30	14:20	07:30
PYRENE	34472	<75	<360	<74	<74	<72	<72	NRQ	NRQ	<70	<71
UG/KG-DRY	8270/3540-G										
1,2,4-TRICH'BENZENE	34554	<110	<520	<110	<110	<100	<100	NRQ	NRQ	<100	<100
UG/KG-DRY	8270/3540-G										
2,4,6-TRICH'PHENOL	34624	<180	<880	<180	<180	<180	<180	NRQ	NRQ	<170	<170
UG/KG-DRY	8270/3540-G										
2,4,5-TRICH'PHENOL	98587	<180	<880	<180	<180	<180	<180	NRQ	NRQ	<170	<170
UG/KG-DRY	8270/3540-G										
ALDRIN	39333	<0.716	<0.691	<0.709	<0.702	<0.689	<0.689	NRQ	NRQ	<0.670	<0.679
UG/KG-DRY	8080/3540-G										
BHC,A	39076	<0.716	<0.691	<0.709	<0.702	<0.689	<0.689	NRQ	NRQ	<0.670	<0.679
UG/KG-DRY	8080/3540-G										
BHC,B	34257	<0.716	<0.691	<0.709	<0.702	<0.689	<0.689	NRQ	NRQ	<0.670	<0.679
UG/KG-DRY	8080/3540-G										
BHC,D	34262	<0.716	<0.691	<0.709	<0.702	<0.689	<0.689	NRQ	NRQ	<0.670	<0.679
UG/KG-DRY	8080/3540-G										
BHC,G(LINDANE)	39783	<0.716	5.63	<0.709	<0.702	<0.689	<0.689	NRQ	NRQ	<0.670	<0.679
UG/KG-DRY	8080/3540-G										
CHLORDANE	39351	<3.58	<3.45	<3.55	<3.51	<3.44	<3.44	NRQ	NRQ	<3.35	<3.39
UG/KG-DRY	8080/3540-G										
DDD,PP'	39311	<0.716	41.0	<0.709	<0.702	<0.689	<0.689	NRQ	NRQ	<0.670	<0.679
UG/KG-DRY	8080/3540-G										
DDE,PP'	39321	<0.716	80.3	<0.709	<0.702	<0.689	<0.689	NRQ	NRQ	<0.670	<0.679
UG/KG-DRY	8080/3540-G										
DDT,PP'	39301	<0.716	490	<0.709	<0.702	<0.689	<0.689	NRQ	NRQ	<0.670	<0.679
UG/KG-DRY	8080/3540-G										
DIELDRIN	39383	<0.716	3.22	<0.709	<0.702	<0.689	<0.689	NRQ	NRQ	<0.670	<0.679
UG/KG-DRY	8080/3540-G										
ENDOSULFAN,A	34364	<0.716	<0.691	<0.709	<0.702	<0.689	<0.689	NRQ	NRQ	<0.670	<0.679
UG/KG-DRY	8080/3540-G										
ENDOSULFAN,B	34359	<0.716	<0.691	<0.709	<0.702	<0.689	<0.689	NRQ	NRQ	<0.670	<0.679
UG/KG-DRY	8080/3540-G										
ENDOSULFAN SULFATE	34354	<0.716	<0.691	<0.709	<0.702	<0.689	<0.689	NRQ	NRQ	<0.670	<0.679
UG/KG-DRY	8080/3540-G										
ENDRIN	39393	<0.716	<0.691	<0.709	<0.702	<0.689	<0.689	NRQ	NRQ	<0.670	<0.679
UG/KG-DRY	8080/3540-G										
ENDRIN ALDEHYDE	34369	<0.716	<0.691	<0.709	<0.702	<0.689	<0.689	NRQ	NRQ	<0.670	<0.679
UG/KG-DRY	8080/3540-G										
HEPTACHLOR	39413	<0.716	<0.691	<0.709	<0.702	<0.689	<0.689	NRQ	NRQ	<0.670	<0.679
UG/KG-DRY	8080/3540-G										
HEPTACHLOR EPOXIDE	39423	<0.716	<0.691	<0.709	<0.702	<0.689	<0.689	NRQ	NRQ	<0.670	<0.679
UG/KG-DRY	8080/3540-G										
METHOXYCHLOR	39481	<0.716	<0.691	<0.709	<0.702	<0.689	<0.689	NRQ	NRQ	<0.670	<0.679
UG/KG-DRY	8080/3540-G										

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PROJECT NUMBER 1944022G 0203 PROJECT NAME CDM - HANFORD N. SLOPE
FIELD GROUP CDMHNSS3 PROJECT MANAGER E.H. MANSFIELD
41-42 ALL LAB COORDINATOR EDWARD MANSFIELD

SAMPLE ID'S			VR-01	VR-02	BKG-01-002	BKG-01-002	BKG-01	BKG-02	SP-01	SP-01	BG1-01	BG1-01
PARAMETERS		STORET	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3
	UNITS	METHOD	1	2	3	4	5	6	7	8	41	42
DATE			07/12/94	07/12/94	07/13/94	07/14/94	07/15/94	07/15/94	07/15/94	07/15/94	07/12/94	07/15/94
TIME			14:45	15:00	08:15	09:30	08:00	10:30	10:45	11:30	14:20	07:30
TOXAPHENE		39403	<71.6	<69.1	<70.9	<70.2	<68.9	<68.9	NRQ	NRQ	<67.0	<67.9
	UG/KG-DRY	8080/3540-G										
PCB-1016		39514	<14.3	<13.8	<14.2	<14.0	<13.8	<13.8	NRQ	NRQ	<13.4	<13.6
	UG/KG-DRY	8080/3540-G										
PCB-1221		39491	<14.3	<13.8	<14.2	<14.0	<13.8	<13.8	NRQ	NRQ	<13.4	<13.6
	UG/KG-DRY	8080/3540-G										
PCB-1232		39495	<14.3	<13.8	<14.2	<14.0	<13.8	<13.8	NRQ	NRQ	<13.4	<13.6
	UG/KG-DRY	8080/3540-G										
PCB-1242		39499	<14.3	<13.8	<14.2	<14.0	<13.8	<13.8	NRQ	NRQ	<13.4	<13.6
	UG/KG-DRY	8080/3540-G										
PCB-1248		39503	<14.3	<13.8	<14.2	<14.0	<13.8	<13.8	NRQ	NRQ	<13.4	<13.6
	UG/KG-DRY	8080/3540-G										
PCB-1254		39507	<14.3	<13.8	<14.2	<14.0	<13.8	<13.8	NRQ	NRQ	<13.4	<13.6
	UG/KG-DRY	8080/3540-G										
PCB-1260		39511	<14.3	<13.8	<14.2	<14.0	<13.8	<13.8	NRQ	NRQ	<13.4	<13.6
	UG/KG-DRY	8080/3540-G										

Environmental Science & Engineering DATE 08/18/94 STATUS : PAGE 1
PROJECT NUMBER 1944022G 0203 PROJECT NAME CDM - HANFORD N. SLOPE
FIELD GROUP CDMHNSS3 PROJECT MANAGER E.H. MANSFIELD
43 ALL LAB COORDINATOR EDWARD MANSFIELD

SAMPLE ID'S		WC1-01	
PARAMETERS		STORET	CDMHNSS3
	UNITS	METHOD	43
DATE			07/15/94
TIME			09:00
FIELD I.D.		29	
	#	0	
SITE #		96274	
		0	
CHAIN OF CUSTODY		96793	
	#	0	
SCREEN,GR. ALPHA,		96636	0.0
(ESTIMATE)NCI/KG-WET		R	
SCREEN,GR. BETA,		96637	24.7
(ESTIMATE)NCI/KG-WET		R	
MOISTURE		70320	2.8
	%WET WT	I	
ARSENIC		1003	1.88
	MG/KG-DRY	7060-G	
SELENIUM		1148	<0.254
	MG/KG-DRY	7740-G	
MERCURY		71921	<0.101
	MG/KG-DRY	7471M-G	
BARIUM		1008	219
	MG/KG-DRY	6010-G	
CADMIUM		1028	<0.509
	MG/KG-DRY	6010-G	
CHROMIUM		1029	9.72
	MG/KG-DRY	6010-G	
L"^^		1052	11.8
	MG/KG-DRY	6010-G	
S		1078	<0.509
	MG/KG-DRY	6010-G	
1,1,1-TRICHL'ETHANE		34509	<10.0
	UG/KG-DRY	CLP90-G	
1,1,2,2-TETRACHLORO		34519	<10.0
ETHANE	UG/KG-DRY	CLP90-G	
1,1,2-TRICHL'ETHANE		34514	<10.0
	UG/KG-DRY	CLP90-G	
1,1-DICHLOROETHANE		34499	<10.0
	UG/KG-DRY	CLP90-G	
1,1-DICHLOROETHYLENE		34504	<10.0
	UG/KG-DRY	CLP90-G	
1,2-DICHLOROETHANE		34534	<10.0
	UG/KG-DRY	CLP90-G	
1,2-DICHLOROETHENE(T		96464	<10.0
OTAL)	UG/KG-DRY	CLP90-G	
1,2-DICHLOROPROPANE		34544	<10.0
	UG/KG-DRY	CLP90-G	
2-HEXANONE		75166	<10.0
	UG/KG-DRY	CLP90-G	
ACETONE		75059	<10.0
	UG/KG-DRY	CLP90-G	
BENZENE		34237	<10.0
	UG/KG-DRY	CLP90-G	
BROMODICHLOROMETHANE		34330	<10.0
	UG/KG-DRY	CLP90-G	
BROMOFORM		34290	<10.0
	UG/KG-DRY	CLP90-G	
BROMOMETHANE		34416	<10.0
	UG/KG-DRY	CLP90-G	
CARBON DISULFIDE		78544	<10.0
	UG/KG-DRY	CLP90-G	
CARBON TETRACHLORIDE		34299	<10.0
	UG/KG-DRY	CLP90-G	
(ENZENE		34304	<10.0
	UG/KG-DRY	CLP90-G	
CHL THANE		34314	<10.0
	UG/KG-DRY	CLP90-G	

PROJECT NUMBER 1944022G 0203 PROJECT NAME CDM - HANFORD N. SLOPE
FIELD GROUP CDMHNSS3 PROJECT MANAGER E.H. MANSFIELD
43 ALL LAB COORDINATOR EDWARD MANSFIELD

SAMPLE ID'S		WC1-01
PARAMETERS	STORET	CDMHNSS3
UNITS	METHOD	43
DATE		07/15/94
TIME		09:00
CHLOROFORM	34318	<10.0
UG/KG-DRY	CLP90-G	
CHLOROMETHANE	34421	<10.0
UG/KG-DRY	CLP90-G	
CIS-1,3-DICHLOROPROP	34702	<10.0
ENE UG/KG-DRY	CLP90-G	
DIBROMOCHLOROMETHANE	34309	<10.0
UG/KG-DRY	CLP90-G	
ETHYLBENZENE	34374	<10.0
UG/KG-DRY	CLP90-G	
METHYLENE CHLORIDE	34426	<10.0
UG/KG-DRY	CLP90-G	
2-BUTANONE (MEK)	75078	<10.0
UG/KG-DRY	CLP90-G	
4-METHYL-2-PENTANONE	75169	<10.0
(MIBK) UG/KG-DRY	CLP90-G	
STYRENE	75192	<10.0
UG/KG-DRY	CLP90-G	
TETRACHLOROETHENE	34478	<10.0
UG/KG-DRY	CLP90-G	
TOLUENE	34483	<10.0
UG/KG-DRY	CLP90-G	
TRANS-1,3-DICHLOROPR	34697	<10.0
OPENE UG/KG-DRY	CLP90-G	
TRICHLOROETHENE	34487	<10.0
UG/KG-DRY	CLP90-G	
VINYL CHLORIDE	34495	<10.0
UG/KG-DRY	CLP90-G	
XYLENES, TOTAL	97353	<10.0
UG/KG-DRY	CLP90-G	
1,2,4-TRICH'BENZENE	34554	<21000
UG/KG-DRY	CLP90/SON-G	
1,2-DICHLOROBENZENE	34539	<21000
UG/KG-DRY	CLP90/SON-G	
1,3-DICHLOROBENZENE	34569	<21000
UG/KG-DRY	CLP90/SON-G	
1,4-DICHLOROBENZENE	34574	<21000
UG/KG-DRY	CLP90/SON-G	
2,2'-OXYBIS(1-CHLORO	34286	<21000
PROPANE) UG/KG-DRY	CLP90/SON-G	
2,4,5-TRICH'PHENOL	98587	<51000
UG/KG-DRY	CLP90/SON-G	
2,4,6-TRICH'PHENOL	34624	<21000
UG/KG-DRY	CLP90/SON-G	
2,4-DICHLOROPHENOL	34604	<21000
UG/KG-DRY	CLP90/SON-G	
2,4-DIMETHYLPHENOL	34609	<21000
UG/KG-DRY	CLP90/SON-G	
2,4-DINITROPHENOL	34619	<51000
UG/KG-DRY	CLP90/SON-G	
2,4-DINITROTOLUENE	34614	<21000
UG/KG-DRY	CLP90/SON-G	
2,6-DINITROTOLUENE	34629	<21000
UG/KG-DRY	CLP90/SON-G	
2-CHLORONAPHTHALENE	34584	<21000
UG/KG-DRY	CLP90/SON-G	
2-CHLOROPHENOL	34589	<21000
UG/KG-DRY	CLP90/SON-G	
2-METHYL-4,6-DINITRO	34660	<51000
PHENOL UG/KG-DRY	CLP90/SON-G	
2-METHYLNAPHTHALENE	78868	<21000
UG/KG-DRY	CLP90/SON-G	
2-METHYLPHENOL	78872	<21000
UG/KG-DRY	CLP90/SON-G	

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PROJECT NUMBER 1944022G 0203 PROJECT NAME CDM - HANFORD N. SLOPE
FIELD GROUP CDMHNSS3 PROJECT MANAGER E.H. MANSFIELD
43 ALL LAB COORDINATOR EDWARD MANSFIELD

SAMPLE ID'S		WC1-01
PARAMETERS	STORET	CDMHNSS3
UNITS	METHOD	43
DATE		07/15/94
TIME		09:00
2-NITROANILINE	98588	<51000
UG/KG-DRY	CLP90/SON-G	
2-NITROPHENOL	34594	<21000
UG/KG-DRY	CLP90/SON-G	
3,3-DICHL'BENZIDINE	34634	<21000
UG/KG-DRY	CLP90/SON-G	
3-NITROANILINE	78869	<51000
UG/KG-DRY	CLP90/SON-G	
4-BROMOPHENYL PHENYL	34639	<21000
ETHER UG/KG-DRY	CLP90/SON-G	
4-CHLORO-3-METHYLPHE	34455	<21000
NOL UG/KG-DRY	CLP90/SON-G	
4-CHLOROANILINE	78867	<21000
UG/KG-DRY	CLP90/SON-G	
4-CHLOROPHENYLPHENYL	34644	<21000
ETHER UG/KG-DRY	CLP90/SON-G	
4-METHYLPHENOL	78803	<21000
UG/KG-DRY	CLP90/SON-G	
4-NITROANILINE	78870	<51000
UG/KG-DRY	CLP90/SON-G	
4-NITROPHENOL	34649	<51000
UG/KG-DRY	CLP90/SON-G	
ACENAPHTHENE	34208	<21000
UG/KG-DRY	CLP90/SON-G	
ACENAPHTHYLENE	34203	<21000
UG/KG-DRY	CLP90/SON-G	
Al NE	34223	<21000
UG/KG-DRY	CLP90/SON-G	
BENZO(A)ANTHRACENE	34529	<21000
UG/KG-DRY	CLP90/SON-G	
BENZO(A)PYRENE	34250	<21000
UG/KG-DRY	CLP90/SON-G	
BENZO(B)FLUORANTHENE	34233	<21000
UG/KG-DRY	CLP90/SON-G	
BENZO(GHI)PERYLENE	34524	<21000
UG/KG-DRY	CLP90/SON-G	
BENZO(K)FLUORANTHENE	34245	<21000
UG/KG-DRY	CLP90/SON-G	
BIS(2-CHLOROETHOXY)M	34281	<21000
ETHANE UG/KG-DRY	CLP90/SON-G	
BIS(2-CHLOROETHYL)ET	34276	<21000
HER UG/KG-DRY	CLP90/SON-G	
BIS(2-ETHYLHEXYL)PHT	39102	<21000
HALATE UG/KG-DRY	CLP90/SON-G	
BUTYLBENZYLPHTHALATE	34295	<21000
UG/KG-DRY	CLP90/SON-G	
CARBAZOLE	96242	<21000
UG/KG-DRY	CLP90/SON-G	
CHRYSENE	34323	<21000
UG/KG-DRY	CLP90/SON-G	
DI-N-BUTYL PHTHALATE	39112	<21000
UG/KG-DRY	CLP90/SON-G	
DI-N-OCTYL PHTHALATE	34599	<21000
UG/KG-DRY	CLP90/SON-G	
DIBEN(A,H)ANTHRACENE	34559	<21000
UG/KG-DRY	CLP90/SON-G	
DIBENZOFURAN	75647	<21000
UG/KG-DRY	CLP90/SON-G	
DIETHYL PHTHALATE	34339	<21000
UG/KG-DRY	CLP90/SON-G	
I /L PHTHALATE	34344	<21000
UG/KG-DRY	CLP90/SON-G	
I .HENE	34379	<21000
UG/KG-DRY	CLP90/SON-G	

PROJECT NUMBER 1944022G 0203 PROJECT NAME CDM - HANFORD N. SLOPE
FIELD GROUP CDMHNSS3 PROJECT MANAGER E.H. MANSFIELD
43 ALL LAB COORDINATOR EDWARD MANSFIELD

SAMPLE ID'S			WC1-01
PARAMETERS		STORET	CDMHNSS3
	UNITS	METHOD	43
DATE			07/15/94
TIME			09:00
FLUORENE		34384	<21000
	UG/KG-DRY	CLP90/SON-G	
HEXACHLOROBENZENE		39701	<21000
	UG/KG-DRY	CLP90/SON-G	
HEXACHLOROBUTADIENE		39705	<21000
	UG/KG-DRY	CLP90/SON-G	
HEXACHLOROCYCLOPENTA		34389	<21000
DIENE	UG/KG-DRY	CLP90/SON-G	
HEXACHLOROETHANE		34399	<21000
	UG/KG-DRY	CLP90/SON-G	
INDENO(1,2,3-CD)PYRE		34406	<21000
NE	UG/KG-DRY	CLP90/SON-G	
ISOPHORONE		34411	<21000
	UG/KG-DRY	CLP90/SON-G	
N-NITROSODI-N-PROPYL		34431	<21000
AMINE	UG/KG-DRY	CLP90/SON-G	
N-NITROSODIPHE'AMINE		34436	<21000
	UG/KG-DRY	CLP90/SON-G	
NAPHTHALENE		34445	<21000
	UG/KG-DRY	CLP90/SON-G	
NITROBENZENE		34450	<21000
	UG/KG-DRY	CLP90/SON-G	
PENTACHLPHENOL		39061	<51000
	UG/KG-DRY	CLP90/SON-G	
PHENANTHRENE		34464	<21000
	UG/KG-DRY	CLP90/SON-G	
PHENOL		34695	<21000
	UG/KG-DRY	CLP90/SON-G	
PYRENE		34472	<21000
	UG/KG-DRY	CLP90/SON-G	
Aldrin		39333	6.35
	UG/KG-DRY	CLP90	
alpha-BHC		39076	2.52
	UG/KG-DRY	CLP90	
beta-BHC		34257	<1.71
	UG/KG-DRY	CLP90	
delta-BHC		34262	<1.71
	UG/KG-DRY	CLP90	
gamma-BHC (Lindane)		39783	<1.71
	UG/KG-DRY	CLP90	
gamma-Chlordane		39811	<1.71
	UG/KG-DRY	CLP90	
alpha-Chlordane		97501	<1.71
	UG/KG-DRY	CLP90	
4,4'-DDD		39311	<3.43
	UG/KG-DRY	CLP90	
4,4'-DDE		39321	21.3
	UG/KG-DRY	CLP90	
4,4'-DDT		39301	6.37
	UG/KG-DRY	CLP90	
Dieldrin		39383	<3.43
	UG/KG-DRY	CLP90	
Endosulfan I		34364	<1.71
	UG/KG-DRY	CLP90	
Endosulfan II		34359	<3.43
	UG/KG-DRY	CLP90	
Endosulfan sulfate		34354	<34.3
	UG/KG-DRY	CLP90	
Endrin		39393	194
	UG/KG-DRY	CLP90	
Endrin ketone		98591	39.6
	UG/KG-DRY	CLP90	
Endrin aldehyde		34369	<34.3
	UG/KG-DRY	CLP90	

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PROJECT NUMBER 1944022G 0203 PROJECT NAME CDM - HANFORD N. SLOPE
FIELD GROUP CDMHNSS3 PROJECT MANAGER E.H. MANSFIELD
43 ALL LAB COORDINATOR EDWARD MANSFIELD

SAMPLE ID'S		WC1-01
PARAMETERS	STORET	CDMHNSS3
UNITS	METHOD	43
DATE		07/15/94
TIME		09:00
Heptachlor	39413	26.0
UG/KG-DRY	CLP90	
Heptachlor epoxide	39423	<1.71
UG/KG-DRY	CLP90	
Methoxychlor	39481	<171
UG/KG-DRY	CLP90	
Toxaphene	39403	<171
UG/KG-DRY	CLP90	
Aroclor-1016	39514	<34.3
UG/KG-DRY	CLP90	
Aroclor-1221	39491	<68.6
UG/KG-DRY	CLP90	
Aroclor-1232	39495	<34.3
UG/KG-DRY	CLP90	
Aroclor-1242	39499	<34.3
UG/KG-DRY	CLP90	
Aroclor-1248	39503	<34.3
UG/KG-DRY	CLP90	
Aroclor-1254	39507	<34.3
UG/KG-DRY	CLP90	
Aroclor-1260	39511	<34.3
UG/KG-DRY	CLP90	
ACETONE	75059	17
UG/KG-DRY	8240-G	
BENZENE	34237	<5.1
UG/KG-DRY	8240-G	
BI HLOROMETHANE	34330	<5.1
UG/KG-DRY	8240-G	
BROMOFORM	34290	<5.1
UG/KG-DRY	8240-G	
BROMOMETHANE	34416	<10.0
UG/KG-DRY	8240-G	
CARBON DISULFIDE	78544	<5.1
UG/KG-DRY	8240-G	
CARBON TETRACHLORIDE	34299	<5.1
UG/KG-DRY	8240-G	
CHLOROBENZENE	34304	<5.1
UG/KG-DRY	8240-G	
CHLOROETHANE	34314	<10.0
UG/KG-DRY	8240-G	
2-CHLOROETHYLVINYL-	34579	<5.1
ETHER UG/KG-DRY	8240-G	
CHLOROFORM	34318	<5.1
UG/KG-DRY	8240-G	
CHLOROMETHANE	34421	<10.0
UG/KG-DRY	8240-G	
DIBROMOCHLOROMETHANE	34309	<5.1
UG/KG-DRY	8240-G	
1,1-DICHLOROETHANE	34499	<5.1
UG/KG-DRY	8240-G	
1,2-DICHLOROETHANE	34534	<5.1
UG/KG-DRY	8240-G	
1,1-DICHLOROETHYLENE	34504	<5.1
UG/KG-DRY	8240-G	
1,2-DICHLOROETHENE(T	96464	<5.1
OTAL) UG/KG-DRY	8240-G	
1,2-DICHLOROPROPANE	34544	<5.1
UG/KG-DRY	8240-G	
CIS-1,3-DICHLORO-	34702	<5.1
PROPENE UG/KG-DRY	8240-G	
T ,3-DICHLORO-	34697	<5.1
UG/KG-DRY	8240-G	
ETHY NZENE	34374	<5.1
UG/KG-DRY	8240-G	

PROJECT NUMBER 1944022G 0203 PROJECT NAME CDM - HANFORD N. SLOPE
FIELD GROUP CDMHNSS3 PROJECT MANAGER E.H. MANSFIELD
43 ALL LAB COORDINATOR EDWARD MANSFIELD

SAMPLE ID'S		WC1-01
PARAMETERS	STORET	CDMHNSS3
UNITS	METHOD	43
DATE		07/15/94
TIME		09:00
2-HEXANONE	75166	<10.0
UG/KG-DRY	8240-G	
METHYLENE CHLORIDE	34426	<5.1
UG/KG-DRY	8240-G	
METHYL ETHYL KETONE	75078	<10.0
UG/KG-DRY	8240-G	
METHYLISOBUTYLKETONE	75169	<10.0
UG/KG-DRY	8240-G	
STYRENE	75192	<5.1
UG/KG-DRY	8240-G	
1,1,2,2-TETRACHLORO-	34519	<5.1
ETHANE UG/KG-DRY	8240-G	
TETRACHLOROETHENE	34478	<5.1
UG/KG-DRY	8240-G	
TOLUENE	34483	<5.1
UG/KG-DRY	8240-G	
1,1,1-TRICHL'ETHANE	34509	<5.1
UG/KG-DRY	8240-G	
1,1,2-TRICHL'ETHANE	34514	<5.1
UG/KG-DRY	8240-G	
TRICHLOROETHENE	34487	<5.1
UG/KG-DRY	8240-G	
VINYL CHLORIDE	34495	<10.0
UG/KG-DRY	8240-G	
VINYL ACETATE	98583	<10.0
UG/KG-DRY	8240-G	
XYLENE,TOTAL	45510	<5.1
UG/KG-DRY	8240-G	

9513554.2760

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Environmental Science & Engineering DATE 08/18/94 STATUS : PAGE 1
PROJECT NUMBER 1944022G 0203 PROJECT NAME CDM - HANFORD N. SLOPE
FIELD GROUP CDMHNSS3 PROJECT MANAGER E.H. MANSFIELD
1-8,41-42 ALL LAB COORDINATOR EDWARD MANSFIELD

SAMPLE ID'S		VR-01	VR-02	BKG-01-002	BKG-01-002	BKG-01	BKG-02	SP-01	SP-01	BG1-01	BG1-01
PARAMETERS	STORET	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3	CDMHNSS3
UNITS	METHOD	1	2	3	4	5	6	7	8	41	42
DATE		07/12/94	07/12/94	07/13/94	07/14/94	07/15/94	07/15/94	07/15/94	07/15/94	07/12/94	07/15/94
TIME		14:45	15:00	08:15	09:30	08:00	10:30	10:45	11:30	14:20	07:30
FIELD I.D.	29								BOV2	BOC3	C0
#	0										
SITE #	96274	94PSN90	94PSN90	94PSN90	94IGL					94BOV2	
	0										
CHAIN OF CUSTODY	96793										
#	0										
SCREEN,GR. ALPHA,	96636	6.3	2.0	25.4	0.0	0.0	6.5	2.6	2.8	5.5	6.3
(ESTIMATE)NCI/KG-WET	R										
SCREEN,GR. BETA,	96637	18.4	16.3	27.8	31.4	37.7	28.1	25.6	22.8	35.1	19.7
(ESTIMATE)NCI/KG-WET	R										
MOISTURE	70320	6.9	3.5	6.0	5.1	3.2	3.2	--	1.3	--	1.8
%WET WT	I										
ARSENIC	1003	4.52	2.41	5.42	3.98	2.76	2.56	1.72	2.85	1.10	1.76
MG/KG-DRY	7060-G										
BARIUM	1008	116	79.4	136	131	93.0	96.1	106	127	34.9	74.4
MG/KG-DRY	6010-G										
CHROMIUM	1029	7.99	19.0	9.06	10.3	12.5	12.2	8.40	8.81	7.73	10.9
MG/KG-DRY	6010-G										
LEAD	1052	--	70.9	--	--	--	--	--	12.0	--	--
MG/KG-DRY	6010-G										
BIS(2-ETHYLHEXYL)	39102	--	--	220	2100	--	--	NRQ	NRQ	--	120
PHTHALATEUG/KG-DRY	8270/3540-G										
DI-N-BUTYL PHTHALATE	39112	--	--	--	1800	--	--	NRQ	NRQ	--	--
UG/KG-DRY	8270/3540-G										
2,4-DINITROTOLUENE	34614	--	3000	--	--	--	--	NRQ	NRQ	--	--
UG/KG-DRY	8270/3540-G										
BHC,G(LINDANE)	39783	--	5.63	--	--	--	--	NRQ	NRQ	--	--
UG/KG-DRY	8080/3540-G										
DDD,PP'	39311	--	41.0	--	--	--	--	NRQ	NRQ	--	--
UG/KG-DRY	8080/3540-G										
DDE,PP'	39321	--	80.3	--	--	--	--	NRQ	NRQ	--	--
UG/KG-DRY	8080/3540-G										
DDT,PP'	39301	--	490	--	--	--	--	NRQ	NRQ	--	--
UG/KG-DRY	8080/3540-G										
DIELDRIN	39383	--	3.22	--	--	--	--	NRQ	NRQ	--	--
UG/KG-DRY	8080/3540-G										

000024

Environmental Science & Engineering DATE 08/18/94 STATUS : PAGE 1
PROJECT NUMBER 1944022G 0203 PROJECT NAME CDM - HANFORD N. SLOPE
FIELD GROUP CDMHNSS3 PROJECT MANAGER E.H. MANSFIELD
43 ALL LAB COORDINATOR EDWARD MANSFIELD

SAMPLE ID'S		WC1-01
PARAMETERS	STORET	CDMHNSS3
UNITS	METHOD	43
DATE		07/15/94
TIME		09:00
FIELD I.D.	29	
#	0	
SITE #	96274	
	0	
CHAIN OF CUSTODY	96793	
#	0	
SCREEN,GR. ALPHA,	96636	0.0
(ESTIMATE)NCI/KG-WET	R	
SCREEN,GR. BETA,	96637	24.7
(ESTIMATE)NCI/KG-WET	R	
MOISTURE	70320	2.8
%WET WT	I	
ARSENIC	1003	1.88
MG/KG-DRY	7060-G	
BARIUM	1008	219
MG/KG-DRY	6010-G	
CHROMIUM	1029	9.72
MG/KG-DRY	6010-G	
LEAD	1052	11.8
MG/KG-DRY	6010-G	
Aldrin	39333	6.35
UG/KG-DRY	CLP90	
alpha-BHC	39076	2.52
UG/KG-DRY	CLP90	
4,	39321	21.3
UG/KG-DRY	CLP90	
4,4'-[illegible]	39301	6.37
UG/KG-DRY	CLP90	
Endrin	39393	194
UG/KG-DRY	CLP90	
Endrin ketone	98591	39.6
UG/KG-DRY	CLP90	
Heptachlor	39413	26.0
UG/KG-DRY	CLP90	
ACETONE	75059	17
UG/KG-DRY	8240-G	

Waters – All Data

Environmental Science & Engineering DATE 08/18/94 STATUS : PAGE 1
PROJECT NUMBER 1944022G 0203 PROJECT NAME CDM - HANFORD N. SLOPE
FIELD GROUP CDMHNSW3 PROJECT MANAGER E.H. MANSFIELD
3 ALL LAB COORDINATOR EDWARD MANSFIELD

SAMPLE ID'S		VR-01-EB1
PARAMETERS	STORET	CDMHNSW3
UNITS	METHOD	3
DATE		07/13/94
TIME		15:05
FIELD I.D.	29	
#	0	
SITE #	96274	94PSN90
	0	
CHAIN OF CUSTODY	96793	
#	0	
ARSENIC,TOTAL	1002	<2.5
UG/L	7060-G	
SELENIUM,TOTAL	1147	<2.5
UG/L	7740-G	
MERCURY,TOTAL	71900	<0.20
UG/L	7470-G	
BARIUM,TOTAL	1007	<20.0
UG/L	6010-G	
CADMIUM,TOTAL	1027	<5.0
UG/L	6010-G	
CHROMIUM,TOTAL	1034	<10.0
UG/L	6010-G	
LEAD,TOTAL	1051	<50.0
UG/L	6010-G	
SILVER,TOTAL	1077	<5.0
UG/L	6010-G	
ACETONE	81552	22
UG/L	8240-G	
[illegible]NE	34030	<1.0
UG/L	8240-G	
[illegible]CHLOROMETHANE	32101	<2.2
UG/L	8240-G	
BROMOFORM	32104	<2.6
UG/L	8240-G	
BROMOMETHANE	34413	<3.5
UG/L	8240-G	
CARBON DISULFIDE	77041	<4.4
UG/L	8240-G	
CARBON TETRACHLORIDE	32102	<2.6
UG/L	8240-G	
CHLOROBENZENE	34301	<1.4
UG/L	8240-G	
CHLOROETHANE	34311	<8.2
UG/L	8240-G	
CHLOROFORM	32106	<2.5
UG/L	8240-G	
2-CHLOROETHYLVINYL-	34576	<3.1
ETHER UG/L	8240-G	
CHLOROMETHANE	34418	<4.4
UG/L	8240-G	
DIBROMOCHLOROMETHANE	32105	<2.3
UG/L	8240-G	
1,1-DICHLOROETHANE	34496	<2.5
UG/L	8240-G	
1,2-DICHLOROETHANE	34531	<2.5
UG/L	8240-G	
1,1-DICHLOROETHYLENE	34501	<3.2
UG/L	8240-G	
1,2-DICHLOROETHENE	96463	<2.4
(TOTAL) UG/L	8240-G	
1,2-DICHLOROPROPANE	34541	<2.0
UG/L	8240-G	
CIS-1,3-DICHLORO-	34704	<2.0
[illegible]ENE UG/L	8240-G	
1,3-DICHLORO-	34699	<1.6
[illegible]E UG/L	8240-G	
ETH[illegible]ENZENE	34371	<1.3
UG/L	8240-G	

PROJECT NUMBER 1944022G 0203 PROJECT NAME CDM - HANFORD N. SLOPE
FIELD GROUP CDMHNSW3 PROJECT MANAGER E.H. MANSFIELD
3 ALL LAB COORDINATOR EDWARD MANSFIELD

SAMPLE ID'S		VR-01-EB1
PARAMETERS	STORET	CDMHNSW3
UNITS	METHOD	3
DATE		07/13/94
TIME		15:05
2-HEXANONE	77103	<21
UG/L	8240-G	
METHYLENE CHLORIDE	34423	<6.4
UG/L	8240-G	
METHYL ETHYL KETONE	81595	<10.0
UG/L	8240-G	
METHYL ISOBUT'KETONE	81596	<12
UG/L	8240-G	
STYRENE	77128	<0.50
UG/L	8240-G	
1,1,2,2-TETRACHLORO-	34516	<1.5
ETHANE UG/L	8240-G	
TETRACHLOROETHENE	34475	<1.9
UG/L	8240-G	
TOLUENE	34010	<1.7
UG/L	8240-G	
1,1,1-TRICHL'ETHANE	34506	<2.5
UG/L	8240-G	
1,1,2-TRICHL'ETHANE	34511	<2.8
UG/L	8240-G	
TRICHLOROETHENE	39180	<3.0
UG/L	8240-G	
VINYL CHLORIDE	39175	<4.6
UG/L	8240-G	
VINYL ACETATE	77057	<10.0
UG/L	8240-G	
XYLENES,TOTAL	81551	<3.7
UG/L	8240-G	
ACENAPHTHENE	34205	<1.0
UG/L	8270/3520-G	
ACENAPHTHYLENE	34200	<1.0
UG/L	8270/3520-G	
ANTHRACENE	34220	<1.0
UG/L	8270/3520-G	
BENZO(A)ANTHRACENE	34526	<1.5
UG/L	8270/3520-G	
BENZO(B)FLUORANTHENE	34230	<1.5
UG/L	8270/3520-G	
BENZO(K)FLUORANTHENE	34242	<1.5
UG/L	8270/3520-G	
BENZO(A)PYRENE	34247	<2.0
UG/L	8270/3520-G	
BENZO(GHI)PERYLENE	34521	<2.5
UG/L	8270/3520-G	
BUTYLBENZYLPHTHALATE	34292	<1.5
UG/L	8270/3520-G	
BIS(2-CHLOROETHYL)	34273	<1.5
ETHER UG/L	8270/3520-G	
BIS(2-CHLOROETHOXY)	34278	<1.0
METHANE UG/L	8270/3520-G	
BIS(2-ETHYLHEXYL)	39100	<2.0
PHTHALATEUG/L	8270/3520-G	
BIS(2-CHL'ISOPROPYL)	34283	<1.0
ETHER UG/L	8270/3520-G	
4-BROMOPHENYLPHENYL	34636	<1.0
ETHER UG/L	8270/3520-G	
2-CHLORONAPHTHALENE	34581	<1.0
UG/L	8270/3520-G	
2-CHLOROPHENOL	34586	<2.0
UG/L	8270/3520-G	
4-CHLORO-3-METHYL	34452	<1.5
PHENOL UG/L	8270/3520-G	
4-CHLOROPHENYLPHENYL	34641	<1.0
ETHER UG/L	8270/3520-G	

Environmental Science & Engineering DATE 08/18/94 STATUS : PAGE 3
PROJECT NUMBER 1944022G 0203 PROJECT NAME CDM - HANFORD N. SLOPE
FIELD GROUP CDMHNSW3 PROJECT MANAGER E.H. MANSFIELD
3 ALL LAB COORDINATOR EDWARD MANSFIELD

SAMPLE ID'S		VR-01-EB1
PARAMETERS	STORET	CDMHNSW3
UNITS	METHOD	3
DATE		07/13/94
TIME		15:05
CHRYSENE	34320	<1.5
UG/L	8270/3520-G	
DIBEN'(A,H)ANTH'CENE	34556	<2.5
UG/L	8270/3520-G	
DI-N-BUTYLPHTHALATE	39110	<1.0
UG/L	8270/3520-G	
1,3,DICHLOROBENZENE	34566	<1.0
UG/L	8270/3520-G	
1,2-DICHLOROBENZENE	34536	<1.0
UG/L	8270/3520-G	
1,4-DICHLOROBENZENE	34571	<1.0
UG/L	8270/3520-G	
3,3'-DICHL'BENZIDINE	34631	<5.0
UG/L	8270/3520-G	
2,4-DICHLOROPHENOL	34601	<2.0
UG/L	8270/3520-G	
DIETHYLPHTHALATE	34336	<1.0
UG/L	8270/3520-G	
2,4-DIMETHYLPHENOL	34606	<2.0
UG/L	8270/3520-G	
DIMETHYLPTHALATE	34341	<2.0
UG/L	8270/3520-G	
2,4-DINITROPHENOL	34616	<20
UG/L	8270/3520-G	
2,4-DINITROTOLUENE	34611	<2.0
UG/L	8270/3520-G	
2 TROTOLUENE	34626	<2.0
UG/L	8270/3520-G	
DI-N-OCTYLPHTHALATE	34596	<2.4
UG/L	8270/3520-G	
FLUORANTHENE	34376	<1.0
UG/L	8270/3520-G	
FLUORENE	34381	<1.0
UG/L	8270/3520-G	
HEXACHLOROBENZENE	39700	<2.0
UG/L	8270/3520-G	
HEXACHLOROBUTADIENE	34391	<2.0
UG/L	8270/3520-G	
HEXACHLOROCYCLOPENTA	34386	<14
DIENE UG/L	8270/3520-G	
HEXACHLOROETHANE	34396	<1.5
UG/L	8270/3520-G	
INDENO(1,2,3-CD)	34403	<2.5
PYRENE UG/L	8270/3520-G	
ISOPHORONE	34408	<1.0
UG/L	8270/3520-G	
2-METHYL-4,6-DINITRO	34657	<10.0
PHENOL UG/L	8270/3520-G	
2-METHYL PHENOL	99073	<2.0
UG/L	8270/3520-G	
4-METHYL PHENOL	99074	<2.0
UG/L	8270/3520-G	
NAPHTHALENE	34696	<1.0
UG/L	8270/3520-G	
NITROBENZENE	34447	<1.0
UG/L	8270/3520-G	
2-NITROPHENOL	34591	<2.0
UG/L	8270/3520-G	
4-NITROPHENOL	34646	<10.0
UG/L	8270/3520-G	
N SODI-N-PROPYL	34428	<1.0
A UG/L	8270/3520-G	
N ... ODIPHE'AMINE	34433	<1.0
UG/L	8270/3520-G	

PROJECT NUMBER 1944022G 0203 PROJECT NAME CDM - HANFORD N. SLOPE
FIELD GROUP CDMHNSW3 PROJECT MANAGER E.H. MANSFIELD
3 ALL LAB COORDINATOR EDWARD MANSFIELD

SAMPLE ID'S		VR-01-EB1
PARAMETERS	STORET	CDMHNSW3
UNITS	METHOD	3
DATE		07/13/94
TIME		15:05
PENTACHLOROPHENOL	39032	<3.5
UG/L	8270/3520-G	
PHENANTHRENE	34461	<1.0
UG/L	8270/3520-G	
PHENOL	34694	<2.0
UG/L	8270/3520-G	
PYRENE	34469	<1.0
UG/L	8270/3520-G	
1,2,4-TRICH'BENZENE	34551	<1.0
UG/L	8270/3520-G	
2,4,6-TRICHL'PHENOL	34621	<2.5
UG/L	8270/3520-G	
BENZYL ALCOHOL	77147	<2.0
UG/L	8270/3520-G	
BENZOIC ACID	77247	<5.0
UG/L	8270/3520-G	
4-CHLOROANILINE	99075	<2.0
UG/L	8270/3520-G	
2-NITROANILINE	99077	<2.0
UG/L	8270/3520-G	
3-NITROANILINE	99078	<2.0
UG/L	8270/3520-G	
4-NITROANILINE	99079	<2.0
UG/L	8270/3520-G	
2-METHLYNAPHTHALENE	77416	<1.0
UG/L	8270/3520-G	
2,4,5-TRICHL'PHENOL	77687	<2.5
UG/L	8270/3520-G	
DIBENZOFURAN	81302	<1.0
UG/L	8270/3520-G	
ALDRIN	39330	<0.005
UG/L	8080/3520-G	
BHC,A	39337	<0.005
UG/L	8080/3520-G	
BHC,B	39338	<0.005
UG/L	8080/3520-G	
BHC,D	34259	<0.005
UG/L	8080/3520-G	
BHC,G(LINDANE)	39340	<0.005
UG/L	8080/3520-G	
CHLORDANE	39350	<0.025
UG/L	8080/3520-G	
DDD,PP'	39310	<0.005
UG/L	8080/3520-G	
DDE,PP'	39320	<0.005
UG/L	8080/3520-G	
DDT,PP'	39300	<0.005
UG/L	8080/3520-G	
DIELDRIN	39380	<0.005
UG/L	8080/3520-G	
ENDOSULFAN,A	34361	<0.005
UG/L	8080/3520-G	
ENDOSULFAN,B	34356	<0.005
UG/L	8080/3520-G	
ENDOSULFAN SULFATE	34351	<0.005
UG/L	8080/3520-G	
ENDRIN	39390	<0.005
UG/L	8080/3520-G	
ENDRIN ALDEHYDE	34366	<0.005
UG/L	8080/3520-G	
HEPTACHLOR	39410	<0.005
UG/L	8080/3520-G	
METHOXYCHLOR	39480	<0.005
UG/L	8080/3520-G	

Environmental Science & Engineering DATE 08/18/94 STATUS : PAGE 5
PROJECT NUMBER 1944022G 0203 PROJECT NAME CDM - HANFORD N. SLOPE
FIELD GROUP CDMHNSW3 PROJECT MANAGER E.H. MANSFIELD
3 ALL LAB COORDINATOR EDWARD MANSFIELD

SAMPLE ID'S			VR-01-EB1
PARAMETERS		STORET	CDMHNSW3
	UNITS	METHOD	3
DATE			07/13/94
TIME			15:05
HEPTACHLOR EPOXIDE		39420	<0.005
	UG/L	8080/3520-G	
TOXAPHENE		39400	<0.500
	UG/L	8080/3520-G	
PCB-1016		34671	<0.100
	UG/L	8080/3520-G	
PCB-1221		39488	<0.100
	UG/L	8080/3520-G	
PCB-1232		39492	<0.100
	UG/L	8080/3520-G	
PCB-1242		39496	<0.100
	UG/L	8080/3520-G	
PCB 1248		39500	<0.100
	UG/L	8080/3520-G	
PCB-1254		39504	<0.100
	UG/L	8080/3520-G	
PCB-1260		39508	<0.100
	UG/L	8080/3520-G	

Waters – Hits Only

Environmental Science & Engineering DATE 08/18/94 STATUS : PAGE 1
PROJECT NUMBER 1944022G 0203 PROJECT NAME CDM - HANFORD N. SLOPE
FIELD GROUP CDMHNSW3 PROJECT MANAGER E.H. MANSFIELD
ALL ALL LAB COORDINATOR EDWARD MANSFIELD

SAMPLE ID'S		VR-01-EB1
PARAMETERS	STORET	CDMHNSW3
UNITS	METHOD	3
DATE		07/13/94
TIME		15:05
FIELD I.D.	29	
#	0	
SITE #	96274	94PSN90
	0	
CHAIN OF CUSTODY	96793	
#	0	
ACETONE	81552	22
UG/L	8240-G	

Quality Control Summary Reports

By Analytical Batch

9513554.2766

Soils

Radiation Screening

ESE BATCH : G51434
CLASSIFICATION : SCREEN, ALPHA

QC : FDER/SW
ANALYST : SARAH STEWART
EXTRACTOR :
DATA ENTRY : SARAH STEWART

REPORT DATE/TIME : 08/15/94 12:30:57
ANALYSIS DATE : 07/25/94
EXTRACT DATE :

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSS3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
L17629S*11	94.10363		
CDMHNSS3*1	VR-01		
CDMHNSS3*2	VR-02		
CDMHNSS3*3	BKG-01-002		
CDMHNSS3*4	BKG-01-002		
CDMHNSS3*5	BKG-01		
CDMHNSS3*6	BKG-02		
CDMHNSS3*7	SP-01		
CDMHNSS3*8	SP-01		
CDMHNSS3*41	BG1-01		
CDMHNSS3*42	BG1-01		
CDMHNSS3*43	WC1-01		

ESE BATCH : G51434

HOLDING TIMES CHECK

SAMPLE	ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T.	OVER
L17629S*11	ALPHA(EST)	07/25/94		05/27/94	2	57
L17629S*11	BETA(EST)	07/25/94		05/27/94	2	57
CDMHNSS3*1	ALPHA(EST)	07/25/94		07/12/94	2	11
CDMHNSS3*1	BETA(EST)	07/25/94		07/12/94	2	11
CDMHNSS3*2	ALPHA(EST)	07/25/94		07/12/94	2	11
CDMHNSS3*2	BETA(EST)	07/25/94		07/12/94	2	11
CDMHNSS3*3	ALPHA(EST)	07/25/94		07/13/94	2	10
CDMHNSS3*3	BETA(EST)	07/25/94		07/13/94	2	10
CDMHNSS3*4	ALPHA(EST)	07/25/94		07/14/94	2	9
CDMHNSS3*4	BETA(EST)	07/25/94		07/14/94	2	9
CDMHNSS3*5	ALPHA(EST)	07/25/94		07/15/94	2	8
CDMHNSS3*5	BETA(EST)	07/25/94		07/15/94	2	8
CDMHNSS3*6	ALPHA(EST)	07/25/94		07/15/94	2	8
CDMHNSS3*6	BETA(EST)	07/25/94		07/15/94	2	8
CDMHNSS3*7	ALPHA(EST)	07/25/94		07/15/94	2	8
CDMHNSS3*7	BETA(EST)	07/25/94		07/15/94	2	8
CDMHNSS3*8	ALPHA(EST)	07/25/94		07/15/94	2	8
CDMHNSS3*8	BETA(EST)	07/25/94		07/15/94	2	8
CDMHNSS3*41	ALPHA(EST)	07/25/94		07/12/94	2	11
CDMHNSS3*41	BETA(EST)	07/25/94		07/12/94	2	11
CDMHNSS3*42	ALPHA(EST)	07/25/94		07/15/94	2	8
CDMHNSS3*42	BETA(EST)	07/25/94		07/15/94	2	8
CDMHNSS3*43	ALPHA(EST)	07/25/94		07/15/94	2	8
CDMHNSS3*43	BETA(EST)	07/25/94		07/15/94	2	8

ALL OTHER HOLDING TIMES MET

STORET: 96636 METHOD: R SCREEN,GR. ALPHA, (ESTIMATE), NCI/KG-WET FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=0.0 DATE: 07/25/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 96637 METHOD: R SCREEN,GR. BETA, (ESTIMATE), NCI/KG-WET FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=0.0 DATE: 07/25/94 LARGEST RESP= %RSD= RT WINDOW:

ESE BATCH : G51434

Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/25/94	MB*NONE*1	96636*R	SCREEN,GR. ALPHA, (ESTIMATE)	NCI/KG	2.6
07/25/94	MB*NONE*1	96637*R	SCREEN,GR. BETA, (ESTIMATE)	NCI/KG	ND

Replicate Analysis Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	REP #1	REP #2	RPD	RPD CRIT
07/25/94	RP*L17629S*11	96636*R	SCREEN,GR. ALPHA, (ESTIMATE)	NCI/KG	2.8	32.4	168	N/A
07/25/94	RP*L17629S*11	96637*R	SCREEN,GR. BETA, (ESTIMATE)	NCI/KG	47.6	49.7	4.3	N/A
07/25/94	RP*CDMHNSS3*1	96636*R	SCREEN,GR. ALPHA, (ESTIMATE)	NCI/KG	6.3	26.1	122	N/A
07/25/94	RP*CDMHNSS3*1	96637*R	SCREEN,GR. BETA, (ESTIMATE)	NCI/KG	18.4	29.3	45.7	N/A

ESE BATCH : G51434

UNITS AND EXAMPLE CALCULATIONS

UNITS ENTERED	
FINAL CONCENTRATION	NCI/KG-WET
INJECTION VOLUME	NA
SAMPLE VOLUME	NA
EXTRACT VOLUME	NA
CURVE CONCENTRATION	NA
SPIKE SOLN CONCENTRATION	NA
SPIKE VOLUME	NA
SPIKE SAMPLE VOLUME	NA
TARGET CONCENTRATION	NA
RESPONSE DESCRIPTION	NA
CONVERSION FACTOR	NA

$$\text{FINAL CONC} = \frac{\text{CURV CONC * EXT VOL * DIL}}{\text{INJ VOL * SAMP VOL * ((100 - \%MOISTURE) / 100)}}$$

$$\text{NCI/KG-WET} = \frac{\text{(NA) * (NA)}}{\text{(NA) * (NA)}}$$

$$\text{(\qquad)} = \frac{\text{(\qquad) * (\qquad) * (\qquad)}}{\text{(\qquad) * (\qquad) * ((100 - (\qquad)) / 100)}}$$

$$\text{TARGET CONC} = \frac{\text{SPIKE SOLN CONC * SPIKE VOL}}{\text{SPIKE SAMP VOL * ((100 - \%MOISTURE) / 100)}}$$

$$\text{NA} = \frac{\text{(NA) * (NA)}}{\text{(NA)}}$$

ESE BATCH : G51434

Environmental Science and Engineering Analytical Services

Computer QC Checks

Ba ..: G51434 Analysis Date: 07/25/94 Analyst: SARAH STEWART

	Yes	No	"Exceptions" Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?		X	ALPHA(EST) BETA(EST)
Method blank present?	X		
Method blank within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

OVERRIDE COMMENTS

BATCH OVERRIDE BY: RICHARD KINNEY 2302
PROB.:ANALYSIS HOLDING TIME NOT
WITHIN CRITERIA.
EXPL.:HOLDING TIME ARE NOT APPLICABLE
TO THIS ANALYSIS BUT WERE SET
TO ENCOURAGE EXPEDITING DATA./RMK

FINALIZED BY: DENESE WETHY 2978

ESE BATCH : G51434

TABLE OF ABBREVIATIONS

%RECV : % Recovery for spiked sample. (FOUND/TARGET * 100)
ANLY DATE : Analysis Date
ANLY TIME : Analysis Time
CURVE : Curve Regression Number
DILUTION : Sample Dilution Factor
EXT DATE : Extract Date
EXT VOL : Extract Volume
FOUND : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL : Injection Volume
REL%DIFF : % Difference between current and previous spike.
RESPONSE : Sample Response
R.T. : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
DA -- Data Sample
MB -- Method Blank
RF -- Reference (from commercially known standard)
RP -- Replicate Sample
SP -- Standard Matrix Spike
SPM -- Sample Matrix Spike
STD -- Internal Standard
SUR -- Surrogate Sample
UN -- Unspiked Sample
SAMP VOL : Sample Volume
SPK CONC : Spike Concentration
ST : Sample response explanation or validity. (listed below)
BK -- No sample response.
NA -- Sample not analyzed.
NR -- Not reserved for this batch. Batch containing the response for this sample is listed in the target field.
OK -- Sample response shown is correct.
! -- Sample response shown is invalid.
< -- Sample response < detection limit. Detection limit is shown in the response field.
STORET*MTHD: Storet ID * Method Code
TARGET : Spike Target (SAMPLE LISTING SECTION)
TARGET : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE : Response Type ("FINAL" or empty.)
UNSP CONC : Unspiked Sample Concentration

9513354.2770

% Moisture

ESE BATCH : G51026
CLASSIFICATION : PERCENT MOISTURE - ASTM D2216

QC TYPE : FDER/SW
ANALYST : JULIE HALL
EXTRACTOR : JULIE HALL
DATA ENTRY : BALANCE UPLOAD

REPORT DATE/TIME : 08/15/94 12:26:39
ANALYSIS DATE : 07/18/94
EXTRACT DATE : 07/15/94

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

BATCH NOTES
94-3 PG.42 BALANCE #24, RUN #89

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSS3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSS3*1	VR-01	07/15/94	09:03AM
CDMHNSS3*2	VR-02	07/15/94	09:03AM
CDMHNSS3*41	BG1-01	07/15/94	09:04AM

ESE BATCH : G51026

HOLDING TIMES CHECK

ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T.	OVER

ALL HOLDING TIMES MET

STORET: 96041 METHOD: 0 PAN, GM %M

STORET: 96042 METHOD: 0 PAN+SAMPLE (WET), GM %M

STORET: 96043 METHOD: 0 PAN+SAMPLE (DRY), GM %M

STORET: 70320 METHOD: I MOISTURE, %WET WT %M

CALIBRATION CURVE # 1
DETECTION LIMIT=0.50 DATE: 07/15/94 LARGEST RESP= %RSD= RT WINDOW:

ESE BATCH : G51026

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/15/94	MB*QC*1	96041*0	PAN	GM	1.56510
07/15/94	MB*QC*1	96042*0	PAN+SAMPLE (WET)	GM	1.56520
07/15/94	MB*QC*1	96043*0	PAN+SAMPLE (DRY)	GM	1.56480
07/15/94	MB*QC*1	70320*I	MOISTURE	%WET W	100.0

Replicate Analysis Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	REP #1	REP #2	RPD	RPD CRIT
07/15/94	RP*CDMHNSS3*1	96041*0	PAN	GM	1.57030	1.55160	1.20000	N/A
07/15/94	RP*CDMHNSS3*1	96042*0	PAN+SAMPLE (WET)	GM	12.14340	12.12770	0.10000	N/A
07/15/94	RP*CDMHNSS3*1	96043*0	PAN+SAMPLE (DRY)	GM	11.41570	11.40460	0.10000	N/A
07/15/94	RP*CDMHNSS3*1	70320*I	MOISTURE	%WET W	6.9	6.8	1.5	23

ESE BATCH : G51026

UNITS AND EXAMPLE CALCULATIONS

	UNITS ENTERED
FI NCENTRATION	%
INJECTION VOLUME	NA
SAMPLE VOLUME	NA
EXTRACT VOLUME	NA
CURVE CONCENTRATION	NA
SPIKE SOLN CONCENTRATION	NA
SPIKE VOLUME	NA
SPIKE SAMPLE VOLUME	NA
TARGET CONCENTRATION	NA
RESPONSE DESCRIPTION	GM
CONVERSION FACTOR	NA

FINAL CONC = CURV CONC * EXT VOL * DIL / INJ VOL * SAMP VOL * ((100 - %MOISTURE) / 100)

% = (NA) * (NA) / (NA) * (NA)

( ) = ( ) * ( ) * ( ) / ( ) * ( ) * ((100 - ( )) / 100)

TARGET CONC = SPIKE SOLN CONC * SPIKE VOL / SPIKE SAMP VOL * ((100 - %MOISTURE) / 100)

NA = (NA) * (NA) / (NA)

ESE BATCH : G51026

Environmental Science and Engineering Analytical Services

Computer QC Checks

Batch No.: G51026 Analysis Date: 07/18/94 Analyst: JULIE HALL

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Sample replicate present?	X		
Sample replicate within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

OVERRIDE COMMENTS

BATCH OVERRIDE BY:

FINALIZED BY:

ESE BATCH : G51026

TABLE OF ABBREVIATIONS

%	% Recovery for spiked sample. (FOUND/TARGET * 100)
ANLY DATE	Analysis Date
ANLY TIME	Analysis Time
CURVE	Curve Regression Number
DILUTION	Sample Dilution Factor
EXT DATE	Extract Date
EXT VOL	Extract Volume
FOUND	Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL	Injection Volume
REL%DIFF	% Difference between current and previous spike.
RESPONSE	Sample Response
R.T.	Retention Time
SAMPLE CODE	Sample Type * Sample ID
SAMPLE ID	Field Group * Sequence Number
SAMPLE TYPE	The kind of sample analyzed. (listed below)
DA	-- Data Sample
MB	-- Method Blank
RF	-- Reference (from commercially known standard)
RP	-- Replicate Sample
SP	-- Standard Matrix Spike
SPM	-- Sample Matrix Spike
STD	-- Internal Standard
SUR	-- Surrogate Sample
UN	-- Unspiked Sample
SAMP VOL	Sample Volume
SPK CONC	Spike Concentration
ST	Sample response explanation or validity. (listed below)
BK	-- No sample response.
NA	-- Sample not analyzed.
NR	-- Not reserved for this batch. Batch containing the response for this sample is listed in the target field.
OK	-- Sample response shown is correct.
!	-- Sample response shown is invalid.
<	-- Sample response < detection limit. Detection limit is shown in the response field.
S MTHD	Storet ID * Method Code
TARG	Spike Target (SAMPLE LISTING SECTION)
TARGET	Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE	Response Type ("FINAL" or empty.)
UNSP CONC	Unspiked Sample Concentration

ESE BATCH : G51059
CLASSIFICATION : PERCENT MOISTURE - ASTM D2216

QC TYPE : FDER/SW
ANALYST : JULIE HALL
EXTRACTOR : JULIE HALL
DATA ENTRY : BALANCE UPLOAD

REPORT DATE/TIME : 08/15/94 12:26:54
ANALYSIS DATE : 07/19/94
EXTRACT DATE : 07/18/94

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

BATCH NOTES
94-3 PG.43 BALANCE #24, RUN #90

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSS3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSS3*3	BKG-01-002	07/18/94	09:22AM
CDMHNSS3*4	BKG-01-002	07/18/94	09:23AM
CDMHNSS3*5	BKG-01	07/18/94	09:23AM
CDMHNSS3*6	BKG-02	07/18/94	09:24AM
CDMHNSS3*7	SP-01	07/18/94	09:24AM
CDMHNSS3*8	SP-01	07/18/94	09:25AM
CDMHNSS3*42	BG1-01	07/18/94	09:25AM
CDMHNSS3*43	WC1-01	07/18/94	09:25AM

ESE BATCH : G51059

HOLDING TIMES CHECK

SA	ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T.	OVER

ALL HOLDING TIMES MET

STORET: 96041 METHOD: 0 PAN, GM %M

STORET: 96042 METHOD: 0 PAN+SAMPLE (WET), GM %M

STORET: 96043 METHOD: 0 PAN+SAMPLE (DRY), GM %M

STORET: 70320 METHOD: I MOISTURE, %WET WT %M

CALIBRATION CURVE # 1
DETECTION LIMIT=0.50 DATE: 07/18/94 LARGEST RESP= %RSD= RT WINDOW:

ESE BATCH : G51059

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/18/94	MB*QC*1	96041*0	PAN	GM	1.55070
07/18/94	MB*QC*1	96042*0	PAN+SAMPLE (WET)	GM	1.55050
07/18/94	MB*QC*1	96043*0	PAN+SAMPLE (DRY)	GM	1.55040
07/18/94	MB*QC*1	70320*I	MOISTURE	%WET W	ND

Replicate Analysis Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	REP #1	REP #2	RPD	RPD CRIT
07/18/94	RP*CDMHNSS3*3	96041*0	PAN	GM	1.56920	1.56680	0.20000	N/A
07/18/94	RP*CDMHNSS3*3	96042*0	PAN+SAMPLE (WET)	GM	16.56770	16.27800	1.80000	N/A
07/18/94	RP*CDMHNSS3*3	96043*0	PAN+SAMPLE (DRY)	GM	15.66210	15.37240	1.90000	N/A
07/18/94	RP*CDMHNSS3*3	70320*I	MOISTURE	%WET W	6.0	6.2	3.3	23

ESE BATCH : G51059

UNITS AND EXAMPLE CALCULATIONS

	UNITS ENTERED
F ONCENTRATION	%
INJECTION VOLUME	NA
SAMPLE VOLUME	NA
EXTRACT VOLUME	NA
CURVE CONCENTRATION	NA
SPIKE SOLN CONCENTRATION	NA
SPIKE VOLUME	NA
SPIKE SAMPLE VOLUME	NA
TARGET CONCENTRATION	NA
RESPONSE DESCRIPTION	GM
CONVERSION FACTOR	NA

FINAL CONC = CURV CONC * EXT VOL * DIL / INJ VOL * SAMP VOL * ((100 - %MOISTURE) / 100)

% = (NA) * (NA) / (NA) * (NA)

( ) = ( ) * ( ) * ( ) / ( ) * ( ) * ((100 - ( )) / 100)

TARGET CONC = SPIKE SOLN CONC * SPIKE VOL / SPIKE SAMP VOL * ((100 - %MOISTURE) / 100)

NA = (NA) * (NA) / (NA)

ESE BATCH : G51059

Environmental Science and Engineering Analytical Services

Computer QC Checks

Batch No.: G51059 Analysis Date: 07/19/94 Analyst: JULIE HALL

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Sample replicate present?	X		
Sample replicate within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

OVERRIDE COMMENTS

BATCH OVERRIDE BY:

FINALIZED BY:

ESE BATCH : G51059

TABLE OF ABBREVIATIONS

% : % Recovery for spiked sample. (FOUND/TARGET * 100)
A__ .TE : Analysis Date
ANLY TIME : Analysis Time
CURVE : Curve Regression Number
DILUTION : Sample Dilution Factor
EXT DATE : Extract Date
EXT VOL : Extract Volume
FOUND : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL : Injection Volume
REL%DIFF : % Difference between current and previous spike.
RESPONSE : Sample Response
R.T. : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
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SPM -- Sample Matrix Spike
STD -- Internal Standard
SUR -- Surrogate Sample
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SAMP VOL : Sample Volume
SPK CONC : Spike Concentration
ST : Sample response explanation or validity. (listed below)
BK -- No sample response.
NA -- Sample not analyzed.
NR -- Not reserved for this batch. Batch containing the response for this sample is listed in the target field.
OK -- Sample response shown is correct.
! -- Sample response shown is invalid.
< -- Sample response < detection limit. Detection limit is shown in the response field.
S .THD: Storet ID * Method Code
T.___ : Spike Target (SAMPLE LISTING SECTION)
TARGET : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE : Response Type ("FINAL" or empty.)
UNSP CONC : Unspiked Sample Concentration

Volatile Organic Compounds

ESE BATCH : G51029
CLASSIFICATION : VOCS - EPA 8240

(: FDER/SW
[illegible] : YAEL HOOGLAND
EXTRACTOR :
DATA ENTRY : TODD ROMERO

REPORT DATE/TIME : 08/15/94 12:31:13
ANALYSIS DATE : 07/14/94
EXTRACT DATE :

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

BATCH NOTES
DOWNLOAD FILE CDM3YH1

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSS3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSS3*1	VR-01	07/14/94	02:02PM
CDMHNSS3*2	VR-02	07/14/94	02:33PM
CDMHNSS3*41	BG1-01	07/14/94	03:05PM

ESE BATCH : G51029

HOLDING TIMES CHECK

SAMPLE	ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T. OVER

ALL HOLDING TIMES MET

STORET: 34421 METHOD: 8240-G CHLOROMETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34416 METHOD: 8240-G BROMOMETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34495 METHOD: 8240-G VINYL CHLORIDE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34314 METHOD: 8240-G CHLOROETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34426 METHOD: 8240-G METHYLENE CHLORIDE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 75059 METHOD: 8240-G ACETONE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 78544 METHOD: 8240-G CARBON DISULFIDE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34504 METHOD: 8240-G 1,1-DICHLOROETHYLENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34499 METHOD: 8240-G 1,1-DICHLOROETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 96464 METHOD: 8240-G 1,2-DICHLOROETHENE(TOTAL), UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34318 METHOD: 8240-G CHLOROFORM, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34534 METHOD: 8240-G 1,2-DICHLOROETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 97031 METHOD: SUR 1,2-DICHLOROETHANE-D(4), UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 75078 METHOD: 8240-G METHYL ETHYL KETONE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34509 METHOD: 8240-G 1,1,1-TRICHL'ETHANE, UG/KG-DRY GCMS

ESE BATCH : G51029

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

ST 34299 METHOD: 8240-G CARBON TETRACHLORIDE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 98583 METHOD: 8240-G VINYL ACETATE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34330 METHOD: 8240-G BROMODICHLOROMETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34544 METHOD: 8240-G 1,2-DICHLOROPROPANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34702 METHOD: 8240-G CIS-1,3-DICHLORO- PROPENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34487 METHOD: 8240-G TRICHLOROETHENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34309 METHOD: 8240-G DIBROMOCHLOROMETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
CTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

ST 34237 METHOD: 8240-G BENZENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34514 METHOD: 8240-G 1,1,2-TRICHL'ETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34579 METHOD: 8240-G 2-CHLOROETHYLVINYL- ETHER, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34697 METHOD: 8240-G TRANS-1,3-DICHLORO- PROPENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34290 METHOD: 8240-G BROMOFORM, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 75166 METHOD: 8240-G 2-HEXANONE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 75169 METHOD: 8240-G METHYLISOBUTYLKETONE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
CTION LIMIT=10 DATE: LARGEST RESP= %RSD= RT WINDOW:

ST 1478 METHOD: 8240-G TETRACHLOROETHENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1

ESE BATCH : G51029
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34519 METHOD: 8240-G 1,1,2,2-TETRACHLORO- ETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 97026 METHOD: SUR TOLUENE-D(8), UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34483 METHOD: 8240-G TOLUENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34304 METHOD: 8240-G CHLOROBENZENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34374 METHOD: 8240-G ETHYLBENZENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 97027 METHOD: SUR BROMOFLUOROBENZENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 45510 METHOD: 8240-G XYLENE,TOTAL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 75192 METHOD: 8240-G STYRENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

ESE BATCH : G51029

M[illegible]lank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/14/94	MB*NONE*0714	34421*8240-G	CHLOROMETHANE	UG/KG-	ND
07/14/94	MB*NONE*0714	34416*8240-G	BROMOMETHANE	UG/KG-	ND
07/14/94	MB*NONE*0714	34495*8240-G	VINYL CHLORIDE	UG/KG-	ND
07/14/94	MB*NONE*0714	34314*8240-G	CHLOROETHANE	UG/KG-	ND
07/14/94	MB*NONE*0714	34426*8240-G	METHYLENE CHLORIDE	UG/KG-	1.3
07/14/94	MB*NONE*0714	75059*8240-G	ACETONE	UG/KG-	6.4
07/14/94	MB*NONE*0714	78544*8240-G	CARBON DISULFIDE	UG/KG-	ND
07/14/94	MB*NONE*0714	34504*8240-G	1,1-DICHLOROETHYLENE	UG/KG-	ND
07/14/94	MB*NONE*0714	34499*8240-G	1,1-DICHLOROETHANE	UG/KG-	ND
07/14/94	MB*NONE*0714	96464*8240-G	1,2-DICHLOROETHENE(TOTAL)	UG/KG-	ND
07/14/94	MB*NONE*0714	34318*8240-G	CHLOROFORM	UG/KG-	ND
07/14/94	MB*NONE*0714	34534*8240-G	1,2-DICHLOROETHANE	UG/KG-	ND
07/14/94	MB*NONE*0714	75078*8240-G	METHYL ETHYL KETONE	UG/KG-	ND
07/14/94	MB*NONE*0714	34509*8240-G	1,1,1-TRICHL'ETHANE	UG/KG-	ND
07/14/94	MB*NONE*0714	34299*8240-G	CARBON TETRACHLORIDE	UG/KG-	ND
07/14/94	MB*NONE*0714	98583*8240-G	VINYL ACETATE	UG/KG-	ND
07/14/94	MB*NONE*0714	34330*8240-G	BROMODICHLOROMETHANE	UG/KG-	ND
07/14/94	MB*NONE*0714	34544*8240-G	1,2-DICHLOROPROPANE	UG/KG-	ND
07/14/94	MB*NONE*0714	34702*8240-G	CIS-1,3-DICHLORO- PROPENE	UG/KG-	ND
07/14/94	MB*NONE*0714	34487*8240-G	TRICHLOROETHENE	UG/KG-	ND
07/14/94	MB*NONE*0714	34309*8240-G	DIBROMOCHLOROMETHANE	UG/KG-	ND
07/14/94	MB*NONE*0714	34237*8240-G	BENZENE	UG/KG-	ND
07/14/94	MB*NONE*0714	34514*8240-G	1,1,2-TRICHL'ETHANE	UG/KG-	ND
07/14/94	MB*NONE*0714	34579*8240-G	2-CHLOROETHYLVINYL- ETHER	UG/KG-	ND
07/14/94	MB*NONE*0714	34697*8240-G	TRANS-1,3-DICHLORO- PROPENE	UG/KG-	ND
07/14/94	MB*NONE*0714	34290*8240-G	BROMOFORM	UG/KG-	ND
07/14/94	MB*NONE*0714	75166*8240-G	2-HEXANONE	UG/KG-	ND
07/14/94	MB*NONE*0714	75169*8240-G	METHYLISOBUTYLKETONE	UG/KG-	ND
07/14/94	MB*NONE*0714	34478*8240-G	TETRACHLOROETHENE	UG/KG-	ND
07/14/94	MB*NONE*0714	34519*8240-G	1,1,2,2-TETRACHLORO- ETHANE	UG/KG-	ND
0[illegible]4	MB*NONE*0714	34483*8240-G	TOLUENE	UG/KG-	ND
0[illegible]	MB*NONE*0714	34304*8240-G	CHLOROBENZENE	UG/KG-	ND
0[illegible]	MB*NONE*0714	34374*8240-G	ETHYLBENZENE	UG/KG-	ND
07/14/94	MB*NONE*0714	45510*8240-G	XYLENE,TOTAL	UG/KG-	ND
07/14/94	MB*NONE*0714	75192*8240-G	STYRENE	UG/KG-	ND

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/14/94	SP1*NONE*0714	34504*8240-G	1,1-DICHLOROETHYLENE	114	59-172	UG/KG-	50	57
07/14/94	SP1*NONE*0714	34487*8240-G	TRICHLOROETHENE	98	62-137	UG/KG-	50	49
07/14/94	SP1*NONE*0714	34237*8240-G	BENZENE	96	66-142	UG/KG-	50	48
07/14/94	SP1*NONE*0714	34483*8240-G	TOLUENE	98	59-139	UG/KG-	50	49
07/14/94	SP1*NONE*0714	34304*8240-G	CHLOROBENZENE	106	60-133	UG/KG-	50	53

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
07/14/94	SPM1*CDMHNSS3*41	34504*8240-G	1,1-DICHLOROETHYLENE	104	59-172	0.0	UG/KG-	50	52
07/14/94	SPM1*CDMHNSS3*41	34487*8240-G	TRICHLOROETHENE	96	62-137	0.0	UG/KG-	50	48
07/14/94	SPM1*CDMHNSS3*41	34237*8240-G	BENZENE	96	66-142	0.0	UG/KG-	50	48
07/14/94	SPM1*CDMHNSS3*41	34483*8240-G	TOLUENE	94	59-139	0.0	UG/KG-	50	47
07/14/94	SPM1*CDMHNSS3*41	34304*8240-G	CHLOROBENZENE	102	60-133	0.0	UG/KG-	50	51
07/14/94	SPM2*CDMHNSS3*41	34504*8240-G	1,1-DICHLOROETHYLENE	120	59-172	0.0	UG/KG-	50	60
07/14/94	SPM2*CDMHNSS3*41	34487*8240-G	TRICHLOROETHENE	100	62-137	0.0	UG/KG-	50	50
07/14/94	SPM2*CDMHNSS3*41	34237*8240-G	BENZENE	100	66-142	0.0	UG/KG-	50	50
07/14/94	SPM2*CDMHNSS3*41	34483*8240-G	TOLUENE	100	59-139	0.0	UG/KG-	50	50
07/14/94	SPM2*CDMHNSS3*41	34304*8240-G	CHLOROBENZENE	106	60-133	0.0	UG/KG-	50	53

Surrogate Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/14/94	MB*NONE*0714	97031*SUR	1,2-DICHLOROETHANE-D(4)	UG/KG-	50	51	100	70-121
07/14/94	MB*NONE*0714	97026*SUR	TOLUENE-D(8)	UG/KG-	50	49	98	81-117
07/14/94	MB*NONE*0714	97027*SUR	BROMOFLUOROBENZENE	UG/KG-	50	49	98	74-121
0[illegible]94	DA*CDMHNSS3*1	97031*SUR	1,2-DICHLOROETHANE-D(4)	UG/KG-	50	55	110	70-121
[illegible]4	DA*CDMHNSS3*1	97026*SUR	TOLUENE-D(8)	UG/KG-	50	52	100	81-117
[illegible]	DA*CDMHNSS3*1	97027*SUR	BROMOFLUOROBENZENE	UG/KG-	50	49	98	74-121
07/1[illegible]4	DA*CDMHNSS3*2	97031*SUR	1,2-DICHLOROETHANE-D(4)	UG/KG-	50	56	110	70-121
07/14/94	DA*CDMHNSS3*2	97026*SUR	TOLUENE-D(8)	UG/KG-	50	53	110	81-117
07/14/94	DA*CDMHNSS3*2	97027*SUR	BROMOFLUOROBENZENE	UG/KG-	50	44	88	74-121
07/14/94	DA*CDMHNSS3*41	97031*SUR	1,2-DICHLOROETHANE-D(4)	UG/KG-	50	57	110	70-121
07/14/94	DA*CDMHNSS3*41	97026*SUR	TOLUENE-D(8)	UG/KG-	50	53	110	81-117

ESE BATCH : G51029

Surrogate Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/14/94	DA*CDMHNSS3*41	97027*SUR	BROMOFLUOROBENZENE	UG/KG-	50	48	96	74-121
07/14/94	SPM1*CDMHNSS3*41	97031*SUR	1,2-DICHLOROETHANE-D(4)	UG/KG-	50	56	110	70-121
07/14/94	SPM1*CDMHNSS3*41	97026*SUR	TOLUENE-D(8)	UG/KG-	50	49	98	81-117
07/14/94	SPM1*CDMHNSS3*41	97027*SUR	BROMOFLUOROBENZENE	UG/KG-	50	47	94	74-121
07/14/94	SPM2*CDMHNSS3*41	97031*SUR	1,2-DICHLOROETHANE-D(4)	UG/KG-	50	56	110	70-121
07/14/94	SPM2*CDMHNSS3*41	97026*SUR	TOLUENE-D(8)	UG/KG-	50	52	100	81-117
07/14/94	SPM2*CDMHNSS3*41	97027*SUR	BROMOFLUOROBENZENE	UG/KG-	50	48	96	74-121
07/14/94	SP1*NONE*0714	97031*SUR	1,2-DICHLOROETHANE-D(4)	UG/KG-	50	54	110	70-121
07/14/94	SP1*NONE*0714	97026*SUR	TOLUENE-D(8)	UG/KG-	50	51	100	81-117
07/14/94	SP1*NONE*0714	97027*SUR	BROMOFLUOROBENZENE	UG/KG-	50	50	100	74-121

ESE BATCH : G51029

Environmental Science and Engineering Analytical Services

Computer QC Checks

Ba .: G51029 Analysis Date: 07/14/94 Analyst: YAEL HOOGLAND

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?	X		
Sample matrix spike duplicate present?	X		
Sample matrix spike duplicate within acceptance criteria?	X		
Surrogate present?	X		
Surrogate within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

OVERRIDE COMMENTS

BATCH OVERRIDE BY:

FINALIZED BY:

ESE BATCH : G51029

TABLE OF ABBREVIATIONS

%RECV : % Recovery for spiked sample. (FOUND/TARGET * 100)
ANLY DATE : Analysis Date
ANLY TIME : Analysis Time
CURVE : Curve Regression Number
DILUTION : Sample Dilution Factor
EXT DATE : Extract Date
EXT VOL : Extract Volume
FOUND : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL : Injection Volume
REL%DIFF : % Difference between current and previous spike.
RESPONSE : Sample Response
R.T. : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
DA -- Data Sample
MB -- Method Blank
RF -- Reference (from commercially known standard)
RP -- Replicate Sample
SP -- Standard Matrix Spike
SPM -- Sample Matrix Spike
STD -- Internal Standard
SUR -- Surrogate Sample
UN -- Unspiked Sample
SMP VOL : Sample Volume
SPK CONC : Spike Concentration
ST : Sample response explanation or validity. (listed below)
BK -- No sample response.
NA -- Sample not analyzed.
NR -- Not reserved for this batch. Batch containing the response for this sample is listed in the target field.
OK -- Sample response shown is correct.
! -- Sample response shown is invalid.
< -- Sample response < detection limit. Detection limit is shown in the response field.
STORET*MTHD: Storet ID * Method Code
TARGET : Spike Target (SAMPLE LISTING SECTION)
TARGET : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE : Response Type ("FINAL" or empty.)
UNSP CONC : Unspiked Sample Concentration

ESE BATCH : G51586
CLASSIFICATION : VOAS - CLP SOW OLM01.8

[illegible]	: FDER/SW	REPORT DATE/TIME	: 08/15/94 12:43:54
ANALYST	: YAEL HOOGLAND	ANALYSIS DATE	: 07/28/94
EXTRACTOR	:	EXTRACT DATE	:
DATA ENTRY	: TODD ROMERO		

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

BATCH NOTES
DOWNLOAD FILE OMAYH2

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSS3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSS3*43	WC1-01	07/28/94	12:23PM

ESE BATCH : G51586

HOLDING TIMES CHECK

SAMPLE	ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T.	OVER

ALL HOLDING TIMES MET

STORET: 95042 METHOD: SUR 1,2-DICHLOROETHANE-D4 (CLP90), UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 95040 METHOD: SUR TOLUENE-D8 (CLP90), UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 95041 METHOD: SUR BROMOFLUOROBENZENE (CLP90), UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34509 METHOD: CLP90-G 1,1,1-TRICHL'ETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34519 METHOD: CLP90-G 1,1,2,2-TETRACHLORO ETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34514 METHOD: CLP90-G 1,1,2-TRICHL'ETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34499 METHOD: CLP90-G 1,1-DICHLOROETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34504 METHOD: CLP90-G 1,1-DICHLOROETHYLENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34534 METHOD: CLP90-G 1,2-DICHLOROETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 96464 METHOD: CLP90-G 1,2-DICHLOROETHENE(TOTAL), UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34544 METHOD: CLP90-G 1,2-DICHLOROPROPANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 75166 METHOD: CLP90-G 2-HEXANONE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 75059 METHOD: CLP90-G ACETONE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34237 METHOD: CLP90-G BENZENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34330 METHOD: CLP90-G BROMODICHLOROMETHANE, UG/KG-DRY GCMS

ESE BATCH : G51586

CALIBRATION CURVE # 1
'CTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34290 METHOD: CLP90-G BROMOFORM, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34416 METHOD: CLP90-G BROMOMETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 78544 METHOD: CLP90-G CARBON DISULFIDE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34299 METHOD: CLP90-G CARBON TETRACHLORIDE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34304 METHOD: CLP90-G CHLOROBENZENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34314 METHOD: CLP90-G CHLOROETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34318 METHOD: CLP90-G CHLOROFORM, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
RCTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34421 METHOD: CLP90-G CHLOROMETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34702 METHOD: CLP90-G CIS-1,3-DICHLOROPROPENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34309 METHOD: CLP90-G DIBROMOCHLOROMETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34374 METHOD: CLP90-G ETHYLBENZENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34426 METHOD: CLP90-G METHYLENE CHLORIDE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 75078 METHOD: CLP90-G 2-BUTANONE (MEK), UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 75169 METHOD: CLP90-G 4-METHYL-2-PENTANONE (MIBK), UG/KG-DRY GCMS

CALIBRATION CURVE # 1
RCTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET 75192 METHOD: CLP90-G STYRENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1

ESE BATCH : G51586
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34478 METHOD: CLP90-G TETRACHLOROETHENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34483 METHOD: CLP90-G TOLUENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34697 METHOD: CLP90-G TRANS-1,3-DICHLOROPROPENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34487 METHOD: CLP90-G TRICHLOROETHENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34495 METHOD: CLP90-G VINYL CHLORIDE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 97353 METHOD: CLP90-G XYLENES, TOTAL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/28/94 LARGEST RESP= %RSD= RT WINDOW:

ESE BATCH : G51586

Me ;lank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/28/94	MB*NONE*0728	34509*CLP90-G	1,1,1-TRICHL'ETHANE	UG/KG-	ND
07/28/94	MB*NONE*0728	34519*CLP90-G	1,1,2,2-TETRACHLORO ETHANE	UG/KG-	ND
07/28/94	MB*NONE*0728	34514*CLP90-G	1,1,2-TRICHL'ETHANE	UG/KG-	ND
07/28/94	MB*NONE*0728	34499*CLP90-G	1,1-DICHLOROETHANE	UG/KG-	ND
07/28/94	MB*NONE*0728	34504*CLP90-G	1,1-DICHLOROETHYLENE	UG/KG-	ND
07/28/94	MB*NONE*0728	34534*CLP90-G	1,2-DICHLOROETHANE	UG/KG-	ND
07/28/94	MB*NONE*0728	96464*CLP90-G	1,2-DICHLOROETHENE(TOTAL)	UG/KG-	ND
07/28/94	MB*NONE*0728	34544*CLP90-G	1,2-DICHLOROPROPANE	UG/KG-	ND
07/28/94	MB*NONE*0728	75166*CLP90-G	2-HEXANONE	UG/KG-	ND
07/28/94	MB*NONE*0728	75059*CLP90-G	ACETONE	UG/KG-	3.7
07/28/94	MB*NONE*0728	34237*CLP90-G	BENZENE	UG/KG-	ND
07/28/94	MB*NONE*0728	34330*CLP90-G	BROMODICHLOROMETHANE	UG/KG-	ND
07/28/94	MB*NONE*0728	34290*CLP90-G	BROMOFORM	UG/KG-	ND
07/28/94	MB*NONE*0728	34416*CLP90-G	BROMOMETHANE	UG/KG-	ND
07/28/94	MB*NONE*0728	78544*CLP90-G	CARBON DISULFIDE	UG/KG-	ND
07/28/94	MB*NONE*0728	34299*CLP90-G	CARBON TETRACHLORIDE	UG/KG-	ND
07/28/94	MB*NONE*0728	34304*CLP90-G	CHLOROBENZENE	UG/KG-	ND
07/28/94	MB*NONE*0728	34314*CLP90-G	CHLOROETHANE	UG/KG-	ND
07/28/94	MB*NONE*0728	34318*CLP90-G	CHLOROFORM	UG/KG-	ND
07/28/94	MB*NONE*0728	34421*CLP90-G	CHLOROMETHANE	UG/KG-	ND
07/28/94	MB*NONE*0728	34702*CLP90-G	CIS-1,3-DICHLOROPROPENE	UG/KG-	ND
07/28/94	MB*NONE*0728	34309*CLP90-G	DIBROMOCHLOROMETHANE	UG/KG-	ND
07/28/94	MB*NONE*0728	34374*CLP90-G	ETHYLBENZENE	UG/KG-	ND
07/28/94	MB*NONE*0728	34426*CLP90-G	METHYLENE CHLORIDE	UG/KG-	1.3
07/28/94	MB*NONE*0728	75078*CLP90-G	2-BUTANONE (MEK)	UG/KG-	ND
07/28/94	MB*NONE*0728	75169*CLP90-G	4-METHYL-2-PENTANONE (MIBK)	UG/KG-	ND
07/28/94	MB*NONE*0728	75192*CLP90-G	STYRENE	UG/KG-	ND
07/28/94	MB*NONE*0728	34478*CLP90-G	TETRACHLOROETHENE	UG/KG-	ND
07/28/94	MB*NONE*0728	34483*CLP90-G	TOLUENE	UG/KG-	ND
07/28/94	MB*NONE*0728	34697*CLP90-G	TRANS-1,3-DICHLOROPROPENE	UG/KG-	ND
07/28/94	MB*NONE*0728	34487*CLP90-G	TRICHLOROETHENE	UG/KG-	ND
07 1	MB*NONE*0728	34495*CLP90-G	VINYL CHLORIDE	UG/KG-	ND
07	MB*NONE*0728	97353*CLP90-G	XYLENES, TOTAL	UG/KG-	ND

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/28/94	SP1*NONE*0728	34504*CLP90-G	1,1-DICHLOROETHYLENE	120	80-120	UG/KG-	50	60
07/28/94	SP1*NONE*0728	34237*CLP90-G	BENZENE	106	80-120	UG/KG-	50	53
07/28/94	SP1*NONE*0728	34304*CLP90-G	CHLOROBENZENE	110	80-120	UG/KG-	50	55
07/28/94	SP1*NONE*0728	34483*CLP90-G	TOLUENE	104	80-120	UG/KG-	50	52
07/28/94	SP1*NONE*0728	34487*CLP90-G	TRICHLOROETHENE	104	80-120	UG/KG-	50	52

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
07/28/94	SPM1*CDMHNSS3*43	34504*CLP90-G	1,1-DICHLOROETHYLENE	102	59-172	0.0	UG/KG-	51	52
07/28/94	SPM1*CDMHNSS3*43	34237*CLP90-G	BENZENE	106	66-142	0.0	UG/KG-	51	54
07/28/94	SPM1*CDMHNSS3*43	34304*CLP90-G	CHLOROBENZENE	108	60-133	0.0	UG/KG-	51	55
07/28/94	SPM1*CDMHNSS3*43	34483*CLP90-G	TOLUENE	114	59-139	0.0	UG/KG-	51	58
07/28/94	SPM1*CDMHNSS3*43	34487*CLP90-G	TRICHLOROETHENE	88	62-137	0.0	UG/KG-	51	45
07/28/94	SPM2*CDMHNSS3*43	34504*CLP90-G	1,1-DICHLOROETHYLENE	110	59-172	0.0	UG/KG-	51	56
07/28/94	SPM2*CDMHNSS3*43	34237*CLP90-G	BENZENE	104	66-142	0.0	UG/KG-	51	53
07/28/94	SPM2*CDMHNSS3*43	34304*CLP90-G	CHLOROBENZENE	106	60-133	0.0	UG/KG-	51	54
07/28/94	SPM2*CDMHNSS3*43	34483*CLP90-G	TOLUENE	116	59-139	0.0	UG/KG-	51	59
07/28/94	SPM2*CDMHNSS3*43	34487*CLP90-G	TRICHLOROETHENE	86	62-137	0.0	UG/KG-	51	44

Surrogate Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/28/94	MB*NONE*0728	95042*SUR	1,2-DICHLOROETHANE-D4 (CLP90)	UG/KG-	50	50	100	70-121
07/28/94	MB*NONE*0728	95040*SUR	TOLUENE-D8 (CLP90)	UG/KG-	50	51	100	84-138
07/28/94	MB*NONE*0728	95041*SUR	BROMOFLUOROBENZENE (CLP90)	UG/KG-	50	48	96	59-113
07/28/94	DA*CDMHNSS3*43	95042*SUR	1,2-DICHLOROETHANE-D4 (CLP90)	UG/KG-	50	51	100	70-121
07/28/94	DA*CDMHNSS3*43	95040*SUR	TOLUENE-D8 (CLP90)	UG/KG-	50	57	110	84-138
07/28/94	DA*CDMHNSS3*43	95041*SUR	BROMOFLUOROBENZENE (CLP90)	UG/KG-	50	42	84	59-113
0 1	SPM1*CDMHNSS3*43	95042*SUR	1,2-DICHLOROETHANE-D4 (CLP90)	UG/KG-	50	50	100	70-121
0	SPM1*CDMHNSS3*43	95040*SUR	TOLUENE-D8 (CLP90)	UG/KG-	50	56	110	84-138
0	SPM1*CDMHNSS3*43	95041*SUR	BROMOFLUOROBENZENE (CLP90)	UG/KG-	50	43	86	59-113
07/28/94	SPM2*CDMHNSS3*43	95042*SUR	1,2-DICHLOROETHANE-D4 (CLP90)	UG/KG-	50	50	100	70-121
07/28/94	SPM2*CDMHNSS3*43	95040*SUR	TOLUENE-D8 (CLP90)	UG/KG-	50	59	120	84-138
07/28/94	SPM2*CDMHNSS3*43	95041*SUR	BROMOFLUOROBENZENE (CLP90)	UG/KG-	50	39	78	59-113
07/28/94	SP1*NONE*0728	95042*SUR	1,2-DICHLOROETHANE-D4 (CLP90)	UG/KG-	50	51	100	70-121

ESE BATCH : G51586

Surrogate Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/28/94	SP1*NONE*0728	95040*SUR	TOLUENE-D8 (CLP90)	UG/KG-	50	51	100	84-138
07/28/94	SP1*NONE*0728	95041*SUR	BROMOFLUOROBENZENE (CLP90)	UG/KG-	50	50	100	59-113

ESE BATCH : G51586

SAMPLE RESULTS

SAMPLE ID	95042*SUR 1,2-DICHLOROETHANE-D UG/KG-DRY	95040*SUR TOLUENE-D8 (CLP90) UG/KG-DRY	95041*SUR BROMOFLUOROBENZENE (UG/KG-DRY	09*CLP90-G 1,1,1-TRICHL'ETHANE UG/KG-DRY	19*CLP90-G 1,1,2,2-TETRACHLORO UG/KG-DRY	14*CLP90-G 1,1,2-TRICHL'ETHANE UG/KG-DRY	99*CLP90-G 1,1-DICHLOROETHANE UG/KG-DRY	04*CLP90-G 1,1-DICHLOROETHYLENE UG/KG-DRY	34*CLP90-G 1,2-DICHLOROETHANE UG/KG-DRY	64*CLP90-G 1,2-DICHLOROETHENE(T UG/KG-DRY
MB*NONE*0728	50	51	48	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CDMHNSS3*43	51	57	42	<10	<10	<10	<10	<10	<10	<10

SAMPLE ID	44*CLP90-G 1,2-DICHLOROPROPANE UG/KG-DRY	66*CLP90-G 2-HEXANONE UG/KG-DRY	59*CLP90-G ACETONE UG/KG-DRY	37*CLP90-G BENZENE UG/KG-DRY	30*CLP90-G BROMODICHLOROMETHANE UG/KG-DRY	90*CLP90-G BROMOFORM UG/KG-DRY	16*CLP90-G BROMOMETHANE UG/KG-DRY	44*CLP90-G CARBON DISULFIDE UG/KG-DRY	99*CLP90-G CARBON TETRACHLORIDE UG/KG-DRY	04*CLP90-G CHLOROBENZENE UG/KG-DRY
MB*NONE*0728	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CDMHNSS3*43	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

SAMPLE ID	14*CLP90-G CHLOROETHANE UG/KG-DRY	18*CLP90-G CHLOROFORM UG/KG-DRY	21*CLP90-G CHLOROMETHANE UG/KG-DRY	02*CLP90-G CIS-1,3-DICHLOROPROP UG/KG-DRY	09*CLP90-G DIBROMOCHLOROMETHANE UG/KG-DRY	74*CLP90-G ETHYLBENZENE UG/KG-DRY	26*CLP90-G METHYLENE CHLORIDE UG/KG-DRY	78*CLP90-G 2-BUTANONE (MEK) UG/KG-DRY	69*CLP90-G 4-METHYL-2-PENTANONE UG/KG-DRY	92*CLP90-G STYRENE UG/KG-DRY
MB*NONE*0728	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0
CDMHNSS3*43	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

SAMPLE ID	78*CLP90-G TETRACHLOROETHENE UG/KG-DRY	83*CLP90-G TOLUENE UG/KG-DRY	97*CLP90-G TRANS-1,3-DICHLOROPR UG/KG-DRY	87*CLP90-G TRICHLOROETHENE UG/KG-DRY	95*CLP90-G VINYL CHLORIDE UG/KG-DRY	53*CLP90-G XYLENES, TOTAL UG/KG-DRY
MB*NONE*0728	0.0	0.0	0.0	0.0	0.0	0.0
CDMHNSS3*43	<10	<10	<10	<10	<10	<10

ESE BATCH : G51586

Environmental Science and Engineering Analytical Services

Computer QC Checks

Batch No.: G51586 Analysis Date: 07/28/94 Analyst: YAEL HOOGLAND

		"Exceptions"	
	Yes	No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?	X		
Sample matrix spike duplicate present?	X		
Sample matrix spike duplicate within acceptance criteria?	X		
Surrogate present?	X		
Surrogate within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

OVERRIDE COMMENTS

BATCH OVERRIDE BY:

FINALIZED BY: PAUL HESTER 1958

ESE BATCH : G51586

TABLE OF ABBREVIATIONS

%1 : % Recovery for spiked sample. (FOUND/TARGET * 100)
ANLY DATE : Analysis Date
ANLY TIME : Analysis Time
CURVE : Curve Regression Number
DILUTION : Sample Dilution Factor
EXT DATE : Extract Date
EXT VOL : Extract Volume
FOUND : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL : Injection Volume
REL%DIFF : % Difference between current and previous spike.
RESPONSE : Sample Response
R.T. : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
DA -- Data Sample
MB -- Method Blank
RF -- Reference (from commercially known standard)
RP -- Replicate Sample
SP -- Standard Matrix Spike
SPM -- Sample Matrix Spike
STD -- Internal Standard
SUR -- Surrogate Sample
UN -- Unspiked Sample
SAMP VOL : Sample Volume
SPK CONC : Spike Concentration
ST : Sample response explanation or validity. (listed below)
BK -- No sample response.
NA -- Sample not analyzed.
NR -- Not reserved for this batch. Batch containing the response for this sample is listed in the target field.
OK -- Sample response shown is correct.
! -- Sample response shown is invalid.
- -- Sample response < detection limit. Detection limit is shown in the response field.
ST THD: Storet ID * Method Code
TARGET : Spike Target (SAMPLE LISTING SECTION)
TARGET : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE : Response Type ("FINAL" or empty.)
UNSP CONC : Unspiked Sample Concentration

ESE BATCH : G51168
CLASSIFICATION : VOCS - EPA 8240

QC TYPE : FDER/SW
ANALYST : YAEL HOOGLAND
EXTRACTOR :
DATA ENTRY : TODD ROMERO

REPORT DATE/TIME : 08/15/94 12:32:50
ANALYSIS DATE : 07/18/94
EXTRACT DATE :

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

BATCH NOTES
DOWNLOAD FILE CDM3YH2

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSS3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSS3*4	BKG-01-002	07/18/94	12:51PM
CDMHNSS3*3	BKG-01-002	07/18/94	02:29PM
CDMHNSS3*5	BKG-01	07/18/94	03:01PM
CDMHNSS3*6	BKG-02	07/18/94	03:32PM
CDMHNSS3*42	BG1-01	07/18/94	04:04PM
CDMHNSS3*43	WC1-01	07/18/94	06:08PM

ESE BATCH : G51168

HOLDING TIMES CHECK

S	ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T.	OVER

ALL HOLDING TIMES MET

STORET: 34421 METHOD: 8240-G CHLOROMETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34416 METHOD: 8240-G BROMOMETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34495 METHOD: 8240-G VINYL CHLORIDE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34314 METHOD: 8240-G CHLOROETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34426 METHOD: 8240-G METHYLENE CHLORIDE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 75059 METHOD: 8240-G ACETONE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: LARGEST RESP= %RSD= RT WINDOW:

[illegible]: 78544 METHOD: 8240-G CARBON DISULFIDE, UG/KG-DRY GCMS

[illegible]RATION CURVE # 1
[illegible]ECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34504 METHOD: 8240-G 1,1-DICHLOROETHYLENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34499 METHOD: 8240-G 1,1-DICHLOROETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 96464 METHOD: 8240-G 1,2-DICHLOROETHENE(TOTAL), UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34318 METHOD: 8240-G CHLOROFORM, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34534 METHOD: 8240-G 1,2-DICHLOROETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 97031 METHOD: SUR 1,2-DICHLOROETHANE-D(4), UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

[illegible]: 75078 METHOD: 8240-G METHYL ETHYL KETONE, UG/KG-DRY GCMS

[illegible]RATION CURVE # 1
[illegible]ECTION LIMIT=10 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34509 METHOD: 8240-G 1,1,1-TRICHL'ETHANE, UG/KG-DRY GCMS

ESE BATCH : G51168

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34299 METHOD: 8240-G CARBON TETRACHLORIDE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 98583 METHOD: 8240-G VINYL ACETATE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34330 METHOD: 8240-G BROMODICHLOROMETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34544 METHOD: 8240-G 1,2-DICHLOROPROPANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34702 METHOD: 8240-G CIS-1,3-DICHLORO- PROPENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34487 METHOD: 8240-G TRICHLOROETHENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34309 METHOD: 8240-G DIBROMOCHLOROMETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34237 METHOD: 8240-G BENZENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34514 METHOD: 8240-G 1,1,2-TRICHL'ETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34579 METHOD: 8240-G 2-CHLOROETHYLVINYL- ETHER, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34697 METHOD: 8240-G TRANS-1,3-DICHLORO- PROPENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34290 METHOD: 8240-G BROMOFORM, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 75166 METHOD: 8240-G 2-HEXANONE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 75169 METHOD: 8240-G METHYLISOBUTYLKETONE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34478 METHOD: 8240-G TETRACHLOROETHENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1

ESE BATCH : G51168
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

S 34519 METHOD: 8240-G 1,1,2,2-TETRACHLORO- ETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 97026 METHOD: SUR TOLUENE-D(8), UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34483 METHOD: 8240-G TOLUENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34304 METHOD: 8240-G CHLOROBENZENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34374 METHOD: 8240-G ETHYLBENZENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 97027 METHOD: SUR BROMOFLUOROBENZENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 45510 METHOD: 8240-G XYLENE,TOTAL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

! 75192 METHOD: 8240-G STYRENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: LARGEST RESP= %RSD= RT WINDOW:

ESE BATCH : G51168

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/18/94	MB*NONE*0718	34421*8240-G	CHLOROMETHANE	UG/KG-	ND
07/18/94	MB*NONE*0718	34416*8240-G	BROMOMETHANE	UG/KG-	ND
07/18/94	MB*NONE*0718	34495*8240-G	VINYL CHLORIDE	UG/KG-	ND
07/18/94	MB*NONE*0718	34314*8240-G	CHLOROETHANE	UG/KG-	ND
07/18/94	MB*NONE*0718	34426*8240-G	METHYLENE CHLORIDE	UG/KG-	1.1
07/18/94	MB*NONE*0718	75059*8240-G	ACETONE	UG/KG-	5.8
07/18/94	MB*NONE*0718	78544*8240-G	CARBON DISULFIDE	UG/KG-	ND
07/18/94	MB*NONE*0718	34504*8240-G	1,1-DICHLOROETHYLENE	UG/KG-	ND
07/18/94	MB*NONE*0718	34499*8240-G	1,1-DICHLOROETHANE	UG/KG-	ND
07/18/94	MB*NONE*0718	96464*8240-G	1,2-DICHLOROETHENE(TOTAL)	UG/KG-	ND
07/18/94	MB*NONE*0718	34318*8240-G	CHLOROFORM	UG/KG-	ND
07/18/94	MB*NONE*0718	34534*8240-G	1,2-DICHLOROETHANE	UG/KG-	ND
07/18/94	MB*NONE*0718	75078*8240-G	METHYL ETHYL KETONE	UG/KG-	ND
07/18/94	MB*NONE*0718	34509*8240-G	1,1,1-TRICHL'ETHANE	UG/KG-	ND
07/18/94	MB*NONE*0718	34299*8240-G	CARBON TETRACHLORIDE	UG/KG-	ND
07/18/94	MB*NONE*0718	98583*8240-G	VINYL ACETATE	UG/KG-	ND
07/18/94	MB*NONE*0718	34330*8240-G	BROMODICHLOROMETHANE	UG/KG-	ND
07/18/94	MB*NONE*0718	34544*8240-G	1,2-DICHLOROPROPANE	UG/KG-	ND
07/18/94	MB*NONE*0718	34702*8240-G	CIS-1,3-DICHLORO- PROPENE	UG/KG-	ND
07/18/94	MB*NONE*0718	34487*8240-G	TRICHLOROETHENE	UG/KG-	ND
07/18/94	MB*NONE*0718	34309*8240-G	DIBROMOCHLOROMETHANE	UG/KG-	ND
07/18/94	MB*NONE*0718	34237*8240-G	BENZENE	UG/KG-	ND
07/18/94	MB*NONE*0718	34514*8240-G	1,1,2-TRICHL'ETHANE	UG/KG-	ND
07/18/94	MB*NONE*0718	34579*8240-G	2-CHLOROETHYLVINYL- ETHER	UG/KG-	ND
07/18/94	MB*NONE*0718	34697*8240-G	TRANS-1,3-DICHLORO- PROPENE	UG/KG-	ND
07/18/94	MB*NONE*0718	34290*8240-G	BROMOFORM	UG/KG-	ND
07/18/94	MB*NONE*0718	75166*8240-G	2-HEXANONE	UG/KG-	ND
07/18/94	MB*NONE*0718	75169*8240-G	METHYLISOBUTYLKETONE	UG/KG-	ND
07/18/94	MB*NONE*0718	34478*8240-G	TETRACHLOROETHENE	UG/KG-	ND
07/18/94	MB*NONE*0718	34519*8240-G	1,1,2,2-TETRACHLORO- ETHANE	UG/KG-	ND
07/18/94	MB*NONE*0718	34483*8240-G	TOLUENE	UG/KG-	ND
07/18/94	MB*NONE*0718	34304*8240-G	CHLOROBENZENE	UG/KG-	ND
07/18/94	MB*NONE*0718	34374*8240-G	ETHYLBENZENE	UG/KG-	ND
07/18/94	MB*NONE*0718	45510*8240-G	XYLENE,TOTAL	UG/KG-	ND
07/18/94	MB*NONE*0718	75192*8240-G	STYRENE	UG/KG-	ND

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/18/94	SP1*NONE*0718	34504*8240-G	1,1-DICHLOROETHYLENE	130	59-172	UG/KG-	50	65
07/18/94	SP1*NONE*0718	34487*8240-G	TRICHLOROETHENE	104	62-137	UG/KG-	50	52
07/18/94	SP1*NONE*0718	34237*8240-G	BENZENE	104	66-142	UG/KG-	50	52
07/18/94	SP1*NONE*0718	34483*8240-G	TOLUENE	98	59-139	UG/KG-	50	49
07/18/94	SP1*NONE*0718	34304*8240-G	CHLOROBENZENE	108	60-133	UG/KG-	50	54

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
07/18/94	SPM1*CDMHNSS3*4	34504*8240-G	1,1-DICHLOROETHYLENE	111	59-172	0.0	UG/KG-	53	59
07/18/94	SPM1*CDMHNSS3*4	34487*8240-G	TRICHLOROETHENE	96	62-137	0.0	UG/KG-	53	51
07/18/94	SPM1*CDMHNSS3*4	34237*8240-G	BENZENE	96	66-142	0.0	UG/KG-	53	51
07/18/94	SPM1*CDMHNSS3*4	34483*8240-G	TOLUENE	94	59-139	0.0	UG/KG-	53	50
07/18/94	SPM1*CDMHNSS3*4	34304*8240-G	CHLOROBENZENE	100	60-133	0.0	UG/KG-	53	53
07/18/94	SPM2*CDMHNSS3*4	34504*8240-G	1,1-DICHLOROETHYLENE	128	59-172	0.0	UG/KG-	53	68
07/18/94	SPM2*CDMHNSS3*4	34487*8240-G	TRICHLOROETHENE	98	62-137	0.0	UG/KG-	53	52
07/18/94	SPM2*CDMHNSS3*4	34237*8240-G	BENZENE	96	66-142	0.0	UG/KG-	53	51
07/18/94	SPM2*CDMHNSS3*4	34483*8240-G	TOLUENE	96	59-139	0.0	UG/KG-	53	51
07/18/94	SPM2*CDMHNSS3*4	34304*8240-G	CHLOROBENZENE	106	60-133	0.0	UG/KG-	53	56

Surrogate Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/18/94	MB*NONE*0718	97031*SUR	1,2-DICHLOROETHANE-D(4)	UG/KG-	50	51	100	70-121
07/18/94	MB*NONE*0718	97026*SUR	TOLUENE-D(8)	UG/KG-	50	50	100	81-117
07/18/94	MB*NONE*0718	97027*SUR	BROMOFLUOROBENZENE	UG/KG-	50	48	96	74-121
07/18/94	DA*CDMHNSS3*4	97031*SUR	1,2-DICHLOROETHANE-D(4)	UG/KG-	50	53	110	70-121
07/18/94	DA*CDMHNSS3*4	97026*SUR	TOLUENE-D(8)	UG/KG-	50	50	100	81-117
07/18/94	DA*CDMHNSS3*4	97027*SUR	BROMOFLUOROBENZENE	UG/KG-	50	49	98	74-121
07/18/94	SPM1*CDMHNSS3*4	97031*SUR	1,2-DICHLOROETHANE-D(4)	UG/KG-	50	51	100	70-121
07/18/94	SPM1*CDMHNSS3*4	97026*SUR	TOLUENE-D(8)	UG/KG-	50	48	96	81-117
07/18/94	SPM1*CDMHNSS3*4	97027*SUR	BROMOFLUOROBENZENE	UG/KG-	50	47	94	74-121
07/18/94	SPM2*CDMHNSS3*4	97031*SUR	1,2-DICHLOROETHANE-D(4)	UG/KG-	50	57	110	70-121
07/18/94	SPM2*CDMHNSS3*4	97026*SUR	TOLUENE-D(8)	UG/KG-	50	51	100	81-117

ESE BATCH : G51168

Surrogate Spike Recovery Summary

D	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/18/94	SPM2*CDMHNSS3*4	97027*SUR	BROMOFLUOROBENZENE	UG/KG-	50	49	98	74-121
07/18/94	DA*CDMHNSS3*3	97031*SUR	1,2-DICHLOROETHANE-D(4)	UG/KG-	50	60	120	70-121
07/18/94	DA*CDMHNSS3*3	97026*SUR	TOLUENE-D(8)	UG/KG-	50	51	100	81-117
07/18/94	DA*CDMHNSS3*3	97027*SUR	BROMOFLUOROBENZENE	UG/KG-	50	50	100	74-121
07/18/94	DA*CDMHNSS3*5	97031*SUR	1,2-DICHLOROETHANE-D(4)	UG/KG-	50	54	110	70-121
07/18/94	DA*CDMHNSS3*5	97026*SUR	TOLUENE-D(8)	UG/KG-	50	49	98	81-117
07/18/94	DA*CDMHNSS3*5	97027*SUR	BROMOFLUOROBENZENE	UG/KG-	50	46	92	74-121
07/18/94	DA*CDMHNSS3*6	97031*SUR	1,2-DICHLOROETHANE-D(4)	UG/KG-	50	54	110	70-121
07/18/94	DA*CDMHNSS3*6	97026*SUR	TOLUENE-D(8)	UG/KG-	50	49	98	81-117
07/18/94	DA*CDMHNSS3*6	97027*SUR	BROMOFLUOROBENZENE	UG/KG-	50	46	92	74-121
07/18/94	DA*CDMHNSS3*42	97031*SUR	1,2-DICHLOROETHANE-D(4)	UG/KG-	50	58	120	70-121
07/18/94	DA*CDMHNSS3*42	97026*SUR	TOLUENE-D(8)	UG/KG-	50	52	100	81-117
07/18/94	DA*CDMHNSS3*42	97027*SUR	BROMOFLUOROBENZENE	UG/KG-	50	51	100	74-121
07/18/94	SP1*NONE*0718	97031*SUR	1,2-DICHLOROETHANE-D(4)	UG/KG-	50	50	100	70-121
07/18/94	SP1*NONE*0718	97026*SUR	TOLUENE-D(8)	UG/KG-	50	46	92	81-117
07/18/94	SP1*NONE*0718	97027*SUR	BROMOFLUOROBENZENE	UG/KG-	50	44	88	74-121
07/18/94	DA*CDMHNSS3*43	97031*SUR	1,2-DICHLOROETHANE-D(4)	UG/KG-	50	50	100	70-121
07/18/94	DA*CDMHNSS3*43	97026*SUR	TOLUENE-D(8)	UG/KG-	50	49	98	81-117
07/18/94	DA*CDMHNSS3*43	97027*SUR	BROMOFLUOROBENZENE	UG/KG-	50	44	88	74-121

ESE BATCH : G51168

Environmental Science and Engineering Analytical Services

Computer QC Checks

Batch No.: G51168 Analysis Date: 07/18/94 Analyst: YAEL HOOGLAND

		"Exceptions"	
	Yes	No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?	X		
Sample matrix spike duplicate present?	X		
Sample matrix spike duplicate within acceptance criteria?	X		
Surrogate present?	X		
Surrogate within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

OVERRIDE COMMENTS

BATCH OVERRIDE BY:

FINALIZED BY:

ESE BATCH : G51168

TABLE OF ABBREVIATIONS

%I : % Recovery for spiked sample. (FOUND/TARGET * 100)
AI TE : Analysis Date
ANLY TIME : Analysis Time
CURVE : Curve Regression Number
DILUTION : Sample Dilution Factor
EXT DATE : Extract Date
EXT VOL : Extract Volume
FOUND : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL : Injection Volume
REL%DIFF : % Difference between current and previous spike.
RESPONSE : Sample Response
R.T. : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
DA -- Data Sample
MB -- Method Blank
RF -- Reference (from commercially known standard)
RP -- Replicate Sample
SP -- Standard Matrix Spike
SPM -- Sample Matrix Spike
STD -- Internal Standard
SUR -- Surrogate Sample
UN -- Unspiked Sample
SAMP VOL : Sample Volume
SPK CONC : Spike Concentration
ST : Sample response explanation or validity. (listed below)
BK -- No sample response.
NA -- Sample not analyzed.
NR -- Not reserved for this batch. Batch containing the response for this sample is listed in the target field.
OK -- Sample response shown is correct.
! -- Sample response shown is invalid.
< -- Sample response < detection limit. Detection limit is shown in the response field.
S MTHD: Storet ID * Method Code
T : Spike Target (SAMPLE LISTING SECTION)
TARGET : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE : Response Type ("FINAL" or empty.)
UNSP CONC : Unspiked Sample Concentration

Semivolatile Organic Compounds

ESE BATCH : G51457
CLASSIFICATION : ACID EXTR.-EPA 8270/3540(SOX)

QC : FDER/SW
ANALYST : KEITH CUNNINGHAM
EXTRACTOR : DONNA CREWS
DATA ENTRY : TODD ROMERO

REPORT DATE/TIME : 08/15/94 12:40:45
ANALYSIS DATE : 07/16/94
EXTRACT DATE : 07/12/94

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

BATCH NOTES
DOWNLOAD FILE CDMHNKC2

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSS3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSS3*1	VR-01	07/16/94	04:24PM
CDMHNSS3*2	VR-02	07/16/94	08:04PM
CDMHNSS3*41	BG1-01	07/16/94	05:19PM

ESE BATCH : G51457

HOLDING TIMES CHECK

SAMPLE	ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T.	OVER

ALL HOLDING TIMES MET

STORET: 98325 METHOD: SUR 2-FLUOROPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 98326 METHOD: SUR PHENOL-D(5), UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34695 METHOD: 8270/3540-G PHENOL, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34276 METHOD: 8270/3540-G BIS(2-CHLOROETHYL) ETHER, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34589 METHOD: 8270/3540-G 2-CHLOROPHENOL, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34569 METHOD: 8270/3540-G 1,3-DICHLOROBENZENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34574 METHOD: 8270/3540-G 1,4-DICHLOROBENZENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34539 METHOD: 8270/3540-G 1,2-DICHLOROBENZENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 75212 METHOD: 8270/3540-G BENZYL ALCOHOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 78872 METHOD: 8270/3540-G 2-METHYLPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 78803 METHOD: 8270/3540-G 4-METHYLPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34286 METHOD: 8270/3540-G BIS(2-CHL'ISOPROPYL) ETHER, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34431 METHOD: 8270/3540-G N-NITROSODI-N-PROPYLAMINE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34399 METHOD: 8270/3540-G HEXACHLOROETHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 98327 METHOD: SUR NITROBENZENE-D(5), UG/KG-DRY GCMS

ESE BATCH : G51457

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34450 METHOD: 8270/3540-G NITROBENZENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34411 METHOD: 8270/3540-G ISOPHORONE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34594 METHOD: 8270/3540-G 2-NITROPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34609 METHOD: 8270/3540-G 2,4-DIMETHYLPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 75315 METHOD: 8270/3540-G BENZOIC ACID, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2700 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34281 METHOD: 8270/3540-G BIS(2-CHLOROETHOXY) METHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34604 METHOD: 8270/3540-G 2,4-DICHLOROPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34554 METHOD: 8270/3540-G 1,2,4-TRICH'BENZENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34445 METHOD: 8270/3540-G NAPHTHALENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 78867 METHOD: 8270/3540-G 4-CHLOROANILINE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=300 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 39705 METHOD: 8270/3540-G HEXACHLOROBUTADIENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34455 METHOD: 8270/3540-G 4-CHLORO-3-METHYL PHENOL, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 78868 METHOD: 8270/3540-G 2-METHYLNAPHTHALENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34389 METHOD: 8270/3540-G HEXACHLOROCYCLOPENTADIENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1000 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34624 METHOD: 8270/3540-G 2,4,6-TRICH'PHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1

ESE BATCH : G51457
DETECTION LIMIT=170 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 98587 METHOD: 8270/3540-G 2,4,5-TRICH'PHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=170 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 98330 METHOD: SUR 2-FLUOROBIPHENYL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34584 METHOD: 8270/3540-G 2-CHLORONAPHTHALENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 98588 METHOD: 8270/3540-G 2-NITROANILINE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=300 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34344 METHOD: 8270/3540-G DIMETHYL PHTHALATE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34203 METHOD: 8270/3540-G ACENAPHTHYLENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=150 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34629 METHOD: 8270/3540-G 2,6-DINITROTOLUENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 78869 METHOD: 8270/3540-G 3-NITROANILINE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=300 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34208 METHOD: 8270/3540-G ACENAPHTHENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34619 METHOD: 8270/3540-G 2,4-DINITROPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1300 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34649 METHOD: 8270/3540-G 4-NITROPHENOL, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=500 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 75647 METHOD: 8270/3540-G DIBENZOFURAN, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=120 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34614 METHOD: 8270/3540-G 2,4-DINITROTOLUENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34339 METHOD: 8270/3540-G DIETHYL PHTHALATE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34644 METHOD: 8270/3540-G 4-CHLOROPHENYLPHENYL ETHER, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

ESE BATCH : G51457
STORET: 34384 METHOD: 8270/3540-G FLUORENE, UG/KG-DRY GCMS

RATION CURVE # 1
CTION LIMIT=70 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 78870 METHOD: 8270/3540-G 4-NITROANILINE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=400 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34436 METHOD: 8270/3540-G N-NITROSODIPHE'AMINE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 97448 METHOD: SUR 2,4,6-TRIBROMOPHENOL, UG/KG GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34660 METHOD: 8270/3540-G 2-METHYL-4,6-DINITROPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=670 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34639 METHOD: 8270/3540-G 4-BROMOPHENYL PHENYL ETHER, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 39701 METHOD: 8270/3540-G HEXACHLOROBENZENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 39061 METHOD: 8270/3540-G PENTACHLOROPHENOL, UG/KG-DRY FINAL

RATION CURVE # 1
CTION LIMIT=250 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34464 METHOD: 8270/3540-G PHENANTHRENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34223 METHOD: 8270/3540-G ANTHRACENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 39112 METHOD: 8270/3540-G DI-N-BUTYL PHTHALATE , UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34379 METHOD: 8270/3540-G FLUORANTHENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34472 METHOD: 8270/3540-G PYRENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 97449 METHOD: SUR TERPHENYL-D(14), UG/KG GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34295 METHOD: 8270/3540-G BUTYLBENZYLPHTHALATE, UG/KG-DRY GCMS

RATION CURVE # 1
CTION LIMIT=100 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34634 METHOD: 8270/3540-G 3,3-DICHL'BENZIDINE, UG/KG-DRY GCMS

ESE BATCH : G51457
CALIBRATION CURVE # 1
DETECTION LIMIT=500 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34529 METHOD: 8270/3540-G BENZO(A)ANTHRACENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34323 METHOD: 8270/3540-G CHRYSENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 39102 METHOD: 8270/3540-G BIS(2-ETHYLHEXYL) PHTHALATE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34599 METHOD: 8270/3540-G DI-N-OCTYL PHTHALATE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34233 METHOD: 8270/3540-G BENZO(B)FLUORANTHENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34245 METHOD: 8270/3540-G BENZO(K)FLUORANTHENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34250 METHOD: 8270/3540-G BENZO(A)PYRENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34406 METHOD: 8270/3540-G INDENO(1,2,3-CD) PYRENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=160 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34559 METHOD: 8270/3540-G DIBEN(A,H)ANTH'CENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=160 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34524 METHOD: 8270/3540-G BENZO(GHI)PERYLENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=160 DATE: 07/12/94 LARGEST RESP= %RSD= RT WINDOW:

ESE BATCH : G51457

M 3lank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/16/94	MB*NONE*1	34695*8270/3540-G	PHENOL	UG/KG-	ND
07/16/94	MB*NONE*1	34276*8270/3540-G	BIS(2-CHLOROETHYL) ETHER	UG/KG-	ND
07/16/94	MB*NONE*1	34589*8270/3540-G	2-CHLOROPHENOL	UG/KG-	ND
07/16/94	MB*NONE*1	34569*8270/3540-G	1,3-DICHLOROBENZENE	UG/KG-	ND
07/16/94	MB*NONE*1	34574*8270/3540-G	1,4-DICHLOROBENZENE	UG/KG-	ND
07/16/94	MB*NONE*1	34539*8270/3540-G	1,2-DICHLOROBENZENE	UG/KG-	ND
07/16/94	MB*NONE*1	75212*8270/3540-G	BENZYL ALCOHOL	UG/KG-	ND
07/16/94	MB*NONE*1	78872*8270/3540-G	2-METHYLPHENOL	UG/KG-	ND
07/16/94	MB*NONE*1	78803*8270/3540-G	4-METHYLPHENOL	UG/KG-	ND
07/16/94	MB*NONE*1	34286*8270/3540-G	BIS(2-CHL'ISOPROPYL) ETHER	UG/KG-	ND
07/16/94	MB*NONE*1	34431*8270/3540-G	N-NITROSODI-N-PROPYLAMINE	UG/KG-	ND
07/16/94	MB*NONE*1	34399*8270/3540-G	HEXACHLOROETHANE	UG/KG-	ND
07/16/94	MB*NONE*1	34450*8270/3540-G	NITROBENZENE	UG/KG-	ND
07/16/94	MB*NONE*1	34411*8270/3540-G	ISOPHORONE	UG/KG-	ND
07/16/94	MB*NONE*1	34594*8270/3540-G	2-NITROPHENOL	UG/KG-	ND
07/16/94	MB*NONE*1	34609*8270/3540-G	2,4-DIMETHYLPHENOL	UG/KG-	ND
07/16/94	MB*NONE*1	75315*8270/3540-G	BENZOIC ACID	UG/KG-	ND
07/16/94	MB*NONE*1	34281*8270/3540-G	BIS(2-CHLOROETHOXY) METHANE	UG/KG-	ND
07/16/94	MB*NONE*1	34604*8270/3540-G	2,4-DICHLOROPHENOL	UG/KG-	ND
07/16/94	MB*NONE*1	34554*8270/3540-G	1,2,4-TRICH'BENZENE	UG/KG-	ND
07/16/94	MB*NONE*1	34445*8270/3540-G	NAPHTHALENE	UG/KG-	ND
07/16/94	MB*NONE*1	78867*8270/3540-G	4-CHLOROANILINE	UG/KG-	ND
07/16/94	MB*NONE*1	39705*8270/3540-G	HEXACHLOROBUTADIENE	UG/KG-	ND
07/16/94	MB*NONE*1	34455*8270/3540-G	4-CHLORO-3-METHYL PHENOL	UG/KG-	ND
07/16/94	MB*NONE*1	78868*8270/3540-G	2-METHYLNAPHTHALENE	UG/KG-	ND
07/16/94	MB*NONE*1	34389*8270/3540-G	HEXACHLOROCYCLOPENTADIENE	UG/KG-	ND
07/16/94	MB*NONE*1	34624*8270/3540-G	2,4,6-TRICH'PHENOL	UG/KG-	ND
07/16/94	MB*NONE*1	98587*8270/3540-G	2,4,5-TRICH'PHENOL	UG/KG-	ND
07/16/94	MB*NONE*1	34584*8270/3540-G	2-CHLORONAPHTHALENE	UG/KG-	ND
07/16/94	MB*NONE*1	98588*8270/3540-G	2-NITROANILINE	UG/KG-	ND
0 4	MB*NONE*1	34344*8270/3540-G	DIMETHYL PHTHALATE	UG/KG-	ND
0 4	MB*NONE*1	34203*8270/3540-G	ACENAPHTHYLENE	UG/KG-	ND
0 1	MB*NONE*1	34629*8270/3540-G	2,6-DINITROTOLUENE	UG/KG-	ND
07/1 94	MB*NONE*1	78869*8270/3540-G	3-NITROANILINE	UG/KG-	ND
07/16/94	MB*NONE*1	34208*8270/3540-G	ACENAPHTHENE	UG/KG-	ND
07/16/94	MB*NONE*1	34619*8270/3540-G	2,4-DINITROPHENOL	UG/KG-	ND
07/16/94	MB*NONE*1	34649*8270/3540-G	4-NITROPHENOL	UG/KG-	ND
07/16/94	MB*NONE*1	75647*8270/3540-G	DIBENZOFURAN	UG/KG-	ND
07/16/94	MB*NONE*1	34614*8270/3540-G	2,4-DINITROTOLUENE	UG/KG-	ND
07/16/94	MB*NONE*1	34339*8270/3540-G	DIETHYL PHTHALATE	UG/KG-	ND
07/16/94	MB*NONE*1	34644*8270/3540-G	4-CHLOROPHENYLPHENYL ETHER	UG/KG-	ND
07/16/94	MB*NONE*1	34384*8270/3540-G	FLUORENE	UG/KG-	ND
07/16/94	MB*NONE*1	78870*8270/3540-G	4-NITROANILINE	UG/KG-	ND
07/16/94	MB*NONE*1	34436*8270/3540-G	N-NITROSODIPHE'AMINE	UG/KG-	ND
07/16/94	MB*NONE*1	34660*8270/3540-G	2-METHYL-4,6-DINITROPHENOL	UG/KG-	ND
07/16/94	MB*NONE*1	34639*8270/3540-G	4-BROMOPHENYL PHENYL ETHER	UG/KG-	ND
07/16/94	MB*NONE*1	39701*8270/3540-G	HEXACHLOROBENZENE	UG/KG-	ND
07/16/94	MB*NONE*1	39061*8270/3540-G	PENTACHLOROPHENOL	UG/KG-	ND
07/16/94	MB*NONE*1	34464*8270/3540-G	PHENANTHRENE	UG/KG-	ND
07/16/94	MB*NONE*1	34223*8270/3540-G	ANTHRACENE	UG/KG-	ND
07/16/94	MB*NONE*1	39112*8270/3540-G	DI-N-BUTYL PHTHALATE	UG/KG-	ND
07/16/94	MB*NONE*1	34379*8270/3540-G	FLUORANTHENE	UG/KG-	ND
07/16/94	MB*NONE*1	34472*8270/3540-G	PYRENE	UG/KG-	ND
07/16/94	MB*NONE*1	34295*8270/3540-G	BUTYLBENZYLPHTHALATE	UG/KG-	ND
07/16/94	MB*NONE*1	34634*8270/3540-G	3,3-DICHL'BENZIDINE	UG/KG-	ND
07/16/94	MB*NONE*1	34529*8270/3540-G	BENZO(A)ANTHRACENE	UG/KG-	ND
07/16/94	MB*NONE*1	34323*8270/3540-G	CHRYSENE	UG/KG-	ND
07/16/94	MB*NONE*1	39102*8270/3540-G	BIS(2-ETHYLHEXYL) PHTHALATE	UG/KG-	ND
07/16/94	MB*NONE*1	34599*8270/3540-G	DI-N-OCTYL PHTHALATE	UG/KG-	ND
07/16/94	MB*NONE*1	34233*8270/3540-G	BENZO(B)FLUORANTHENE	UG/KG-	ND
07/16/94	MB*NONE*1	34245*8270/3540-G	BENZO(K)FLUORANTHENE	UG/KG-	ND
07/16/94	MB*NONE*1	34250*8270/3540-G	BENZO(A)PYRENE	UG/KG-	ND
07/16/94	MB*NONE*1	34406*8270/3540-G	INDENO(1,2,3-CD) PYRENE	UG/KG-	ND
07/16/94	MB*NONE*1	34559*8270/3540-G	DIBEN(A,H)ANTH'CENE	UG/KG-	ND
07/16/94	MB*NONE*1	34524*8270/3540-G	BENZO(GHI)PERYLENE	UG/KG-	ND

S d Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/16/94	SP1*NONE*1	34695*8270/3540-G	PHENOL	87	26-90	UG/KG-	6700	5800
07/16/94	SP1*NONE*1	34589*8270/3540-G	2-CHLOROPHENOL	93	25-102	UG/KG-	6700	6200
07/16/94	SP1*NONE*1	34574*8270/3540-G	1,4-DICHLOROBENZENE	103	28-104	UG/KG-	3300	3400
07/16/94	SP1*NONE*1	34431*8270/3540-G	N-NITROSODI-N-PROPYLAMINE	97	41-126	UG/KG-	3300	3200

ESE BATCH : G51457

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/16/94	SP1*NONE*1	34554*8270/3540-G	1,2,4-TRICH'BENZENE	94	38-107	UG/KG-	3300	3100
07/16/94	SP1*NONE*1	34455*8270/3540-G	4-CHLORO-3-METHYL PHENOL	69	26-103	UG/KG-	6700	4600
07/16/94	SP1*NONE*1	34208*8270/3540-G	ACENAPHTHENE	64	31-137	UG/KG-	3300	2100
07/16/94	SP1*NONE*1	34649*8270/3540-G	4-NITROPHENOL	76	11-114	UG/KG-	6700	5100
07/16/94	SP1*NONE*1	34614*8270/3540-G	2,4-DINITROTOLUENE	94	28-89	UG/KG-	3300	3100
07/16/94	SP1*NONE*1	39061*8270/3540-G	PENTACHLOROPHENOL	87	17-109	UG/KG-	6700	5800
07/16/94	SP1*NONE*1	34472*8270/3540-G	PYRENE	73	35-142	UG/KG-	3300	2400

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
07/16/94	SPM1*CDMHNSS3*41	34695*8270/3540-G	PHENOL	69	26-90	0.0	UG/KG-	6700	4600
07/16/94	SPM1*CDMHNSS3*41	34589*8270/3540-G	2-CHLOROPHENOL	90	25-102	0.0	UG/KG-	6700	6000
07/16/94	SPM1*CDMHNSS3*41	34574*8270/3540-G	1,4-DICHLOROBENZENE	112	28-104	0.0	UG/KG-	3300	3700
07/16/94	SPM1*CDMHNSS3*41	34431*8270/3540-G	N-NITROSODI-N-PROPYLAMINE	121	41-126	0.0	UG/KG-	3300	4000
07/16/94	SPM1*CDMHNSS3*41	34554*8270/3540-G	1,2,4-TRICH'BENZENE	103	38-107	0.0	UG/KG-	3300	3400
07/16/94	SPM1*CDMHNSS3*41	34455*8270/3540-G	4-CHLORO-3-METHYL PHENOL	70	26-103	0.0	UG/KG-	6700	4700
07/16/94	SPM1*CDMHNSS3*41	34208*8270/3540-G	ACENAPHTHENE	61	31-137	0.0	UG/KG-	3300	2000
07/16/94	SPM1*CDMHNSS3*41	34649*8270/3540-G	4-NITROPHENOL	54	11-114	0.0	UG/KG-	6700	3600
07/16/94	SPM1*CDMHNSS3*41	34614*8270/3540-G	2,4-DINITROTOLUENE	88	28-89	0.0	UG/KG-	3300	2900
07/16/94	SPM1*CDMHNSS3*41	39061*8270/3540-G	PENTACHLOROPHENOL	70	17-109	0.0	UG/KG-	6700	4700
07/16/94	SPM1*CDMHNSS3*41	34472*8270/3540-G	PYRENE	76	35-142	0.0	UG/KG-	3300	2500
07/16/94	SPM2*CDMHNSS3*41	34695*8270/3540-G	PHENOL	22	26-90	0.0	UG/KG-	6700	1500
07/16/94	SPM2*CDMHNSS3*41	34589*8270/3540-G	2-CHLOROPHENOL	22	25-102	0.0	UG/KG-	6700	1500
07/16/94	SPM2*CDMHNSS3*41	34574*8270/3540-G	1,4-DICHLOROBENZENE	26	28-104	0.0	UG/KG-	3300	870
07/16/94	SPM2*CDMHNSS3*41	34431*8270/3540-G	N-NITROSODI-N-PROPYLAMINE	52	41-126	0.0	UG/KG-	3300	1700
07/16/94	SPM2*CDMHNSS3*41	34554*8270/3540-G	1,2,4-TRICH'BENZENE	33	38-107	0.0	UG/KG-	3300	1100
07/16/94	SPM2*CDMHNSS3*41	34455*8270/3540-G	4-CHLORO-3-METHYL PHENOL	40	26-103	0.0	UG/KG-	6700	2700
07/16/94	SPM2*CDMHNSS3*41	34208*8270/3540-G	ACENAPHTHENE	39	31-137	0.0	UG/KG-	3300	1300
07/16/94	SPM2*CDMHNSS3*41	34649*8270/3540-G	4-NITROPHENOL	69	11-114	0.0	UG/KG-	6700	4600
07/16/94	SPM2*CDMHNSS3*41	34614*8270/3540-G	2,4-DINITROTOLUENE	70	28-89	0.0	UG/KG-	3300	2300
07/16/94	SPM2*CDMHNSS3*41	39061*8270/3540-G	PENTACHLOROPHENOL	75	17-109	0.0	UG/KG-	6700	5000
07/16/94	SPM2*CDMHNSS3*41	34472*8270/3540-G	PYRENE	70	35-142	0.0	UG/KG-	3300	2300

Surrogate Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/16/94	MB*NONE*1	98325*SUR	2-FLUOROPHENOL	UG/KG-	6700	7700	110	25-121
07/16/94	MB*NONE*1	98326*SUR	PHENOL-D(5)	UG/KG-	6670	5700	85.5	24-113
07/16/94	MB*NONE*1	98327*SUR	NITROBENZENE-D(5)	UG/KG-	3300	3100	94	23-120
07/16/94	MB*NONE*1	98330*SUR	2-FLUOROBIPHENYL	UG/KG-	3300	2800	85	30-115
07/16/94	MB*NONE*1	97448*SUR	2,4,6-TRIBROMOPHENOL	UG/KG	6670	6270	94.0	19-122
07/16/94	MB*NONE*1	97449*SUR	TERPHENYL-D(14)	UG/KG	3330	2020	60.7	18-137
07/16/94	SP1*NONE*1	98325*SUR	2-FLUOROPHENOL	UG/KG-	6700	5900	88	25-121
07/16/94	SP1*NONE*1	98326*SUR	PHENOL-D(5)	UG/KG-	6670	5980	89.7	24-113
07/16/94	SP1*NONE*1	98327*SUR	NITROBENZENE-D(5)	UG/KG-	3300	2100	64	23-120
07/16/94	SP1*NONE*1	98330*SUR	2-FLUOROBIPHENYL	UG/KG-	3300	2500	76	30-115
07/16/94	SP1*NONE*1	97448*SUR	2,4,6-TRIBROMOPHENOL	UG/KG	6670	6480	97.2	19-122
07/16/94	SP1*NONE*1	97449*SUR	TERPHENYL-D(14)	UG/KG	3330	2270	68.2	18-137
07/16/94	DA*CDMHNSS3*1	98325*SUR	2-FLUOROPHENOL	UG/KG-	6700	6100	91	25-121
07/16/94	DA*CDMHNSS3*1	98326*SUR	PHENOL-D(5)	UG/KG-	6670	6140	92.1	24-113
07/16/94	DA*CDMHNSS3*1	98327*SUR	NITROBENZENE-D(5)	UG/KG-	3300	2400	73	23-120
07/16/94	DA*CDMHNSS3*1	98330*SUR	2-FLUOROBIPHENYL	UG/KG-	3300	2400	73	30-115
07/16/94	DA*CDMHNSS3*1	97448*SUR	2,4,6-TRIBROMOPHENOL	UG/KG	6670	6650	99.7	19-122
07/16/94	DA*CDMHNSS3*1	97449*SUR	TERPHENYL-D(14)	UG/KG	3330	2470	74.2	18-137
07/16/94	DA*CDMHNSS3*2	98325*SUR	2-FLUOROPHENOL	UG/KG-	6700	4800	72	25-121
07/16/94	DA*CDMHNSS3*2	98326*SUR	PHENOL-D(5)	UG/KG-	6670	4700	70.5	24-113
07/16/94	DA*CDMHNSS3*2	98327*SUR	NITROBENZENE-D(5)	UG/KG-	3300	1700	52	23-120
07/16/94	DA*CDMHNSS3*2	98330*SUR	2-FLUOROBIPHENYL	UG/KG-	3300	2000	61	30-115
07/16/94	DA*CDMHNSS3*2	97448*SUR	2,4,6-TRIBROMOPHENOL	UG/KG	6670	3410	51.1	19-122
07/16/94	DA*CDMHNSS3*2	97449*SUR	TERPHENYL-D(14)	UG/KG	3330	1590	47.7	18-137
07/16/94	DA*CDMHNSS3*41	98325*SUR	2-FLUOROPHENOL	UG/KG-	6700	5900	88	25-121
07/16/94	DA*CDMHNSS3*41	98326*SUR	PHENOL-D(5)	UG/KG-	6670	5930	88.9	24-113
07/16/94	DA*CDMHNSS3*41	98327*SUR	NITROBENZENE-D(5)	UG/KG-	3300	2000	61	23-120
07/16/94	DA*CDMHNSS3*41	98330*SUR	2-FLUOROBIPHENYL	UG/KG-	3300	2300	70	30-115
07/16/94	DA*CDMHNSS3*41	97448*SUR	2,4,6-TRIBROMOPHENOL	UG/KG	6670	5630	84.4	19-122
07/16/94	DA*CDMHNSS3*41	97449*SUR	TERPHENYL-D(14)	UG/KG	3330	2120	63.7	18-137
07/16/94	SPM1*CDMHNSS3*41	98325*SUR	2-FLUOROPHENOL	UG/KG-	6700	6500	97	25-121
07/16/94	SPM1*CDMHNSS3*41	98326*SUR	PHENOL-D(5)	UG/KG-	6670	4860	72.9	24-113
07/16/94	SPM1*CDMHNSS3*41	98327*SUR	NITROBENZENE-D(5)	UG/KG-	3300	2600	79	23-120
07/16/94	SPM1*CDMHNSS3*41	98330*SUR	2-FLUOROBIPHENYL	UG/KG-	3300	2600	79	30-115
07/16/94	SPM1*CDMHNSS3*41	97448*SUR	2,4,6-TRIBROMOPHENOL	UG/KG	6670	5320	79.8	19-122
07/16/94	SPM1*CDMHNSS3*41	97449*SUR	TERPHENYL-D(14)	UG/KG	3330	2370	71.2	18-137

ESE BATCH : G51457

Surrogate Spike Recovery Summary

D	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/16/94	SPM2*CDMHNSS3*41	98325*SUR	2-FLUOROPHENOL	UG/KG-	6700	1000	15	25-121
07/16/94	SPM2*CDMHNSS3*41	98326*SUR	PHENOL-D(5)	UG/KG-	6670	1680	25.2	24-113
07/16/94	SPM2*CDMHNSS3*41	98327*SUR	NITROBENZENE-D(5)	UG/KG-	3300	1000	30	23-120
07/16/94	SPM2*CDMHNSS3*41	98330*SUR	2-FLUOROBIPHENYL	UG/KG-	3300	1300	39	30-115
07/16/94	SPM2*CDMHNSS3*41	97448*SUR	2,4,6-TRIBROMOPHENOL	UG/KG	6670	4510	67.6	19-122
07/16/94	SPM2*CDMHNSS3*41	97449*SUR	TERPHENYL-D(14)	UG/KG	3330	2180	65.5	18-137

ESE BATCH : G51457

Environmental Science and Engineering Analytical Services

Computer QC Checks

Batch No.: G51457 Analysis Date: 07/16/94 Analyst: KEITH CUNNINGHAM

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
Extract holding time within criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?		X	24DINITOL
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?		X	14DICLBEN
Sample matrix spike duplicate present?	X		
Sample matrix spike duplicate within acceptance criteria?		X	PHENOL
			2CHLOROPH
			14DICLBEN
			N-N-N-PRO
			124-TRCLB
			4CL3MEHPH
			ACENAPHEN
Surrogate present?	X		
Surrogate within acceptance criteria?		X	98325*SUR

Note: Any "NO" answer requires a comment.

OVERRIDE COMMENTS

BATCH OVERRIDE BY: DWIGHT ROBERTS 515
PROB.:STANDARD MATRIX SPIKE NOT WITHIN
ACCEPTANCE CRITERIA.
EXPL.:STANDARD MATRIX SPIKE WAS
REANALYZED./KC
PROB.:SAMPLE MATRIX SPIKE NOT WITHIN
ACCEPTANCE CRITERIA.
EXPL.:SAMPLE MATRIX SPIKE WAS REANALYZED./KC
PROB.:SAMPLE MATRIX SPIKE DUPLICATE
NOT WITHIN ACCEPTANCE CRITERIA.
EXPL.:SAMPLE MATRIX SPIKE DUPLICATE HAD
LOW RECOVRIES FOR BOTH ACID AND
BASE/NEUTRAL COMPOUNDS, LEADING
TO % RELATIVE DIFFFERENCES WHICH
EXCEED CRITERIA. SPIKE DUPLICATE
WAS RE-ANALYZED WITH WITH SIMILAR
RESULTS./KC
PROB.:SURROGATE NOT WITHIN ACCEPTANCE
CRITERIA.
EXPL.:2 FLUOROPHENOL RECOVERY (15%) IN
SAMPLE MATRIX SPIKE DUPLICATE
(SPM2*CDMHNSS3*41) BELOW CRITERIA (25%)./KC
CRITERIA ALLOWS FOR THE FAILURE OF
ONE ACID AND/OR BASE NEUTRAL SURROGATE
AS LONG AS > 10%. ADDITIONALLY, MS/MSD
(SPM1/SPM2) SHOULD NOT BE REANALYZED AS
PER SOW./DFR

FINALIZED BY: DENESE WETHY 2978

ESE BATCH : G51457

TABLE OF ABBREVIATIONS

```
%           : % Recovery for spiked sample. (FOUND/TARGET * 100)
A     TE    : Analysis Date
ANLY TIME   : Analysis Time
CURVE       : Curve Regression Number
DILUTION    : Sample Dilution Factor
EXT DATE    : Extract Date
EXT VOL     : Extract Volume
FOUND       : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL     : Injection Volume
REL%DIFF    : % Difference between current and previous spike.
RESPONSE    : Sample Response
R.T.        : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID   : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
      DA  -- Data Sample
      MB  -- Method Blank
      RF  -- Reference (from commercially known standard)
      RP  -- Replicate Sample
      SP  -- Standard Matrix Spike
      SPM -- Sample Matrix Spike
      STD -- Internal Standard
      SUR -- Surrogate Sample
      UN  -- Unspiked Sample
SAMP VOL    : Sample Volume
SPK CONC    : Spike Concentration
ST          : Sample response explanation or validity. (listed below)
      BK  -- No sample response.
      NA  -- Sample not analyzed.
      NR  -- Not reserved for this batch.  Batch containing the response
             for this sample is listed in the target field.
      OK  -- Sample response shown is correct.
      !   -- Sample response shown is invalid.
      <   -- Sample response < detection limit. Detection limit is shown
             in the response field.
      MTHD: Storet ID * Method Code
          : Spike Target (SAMPLE LISTING SECTION)
TARGET      : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE        : Response Type ("FINAL" or empty.)
UNSP CONC   : Unspiked Sample Concentration
```

ESE BATCH : G51216
CLASSIFICATION : ACID EXTR.-EPA 8270/3540(SOX)

QC TYPE : FDER/SW
ANALYST : SCOTT KEERAN
EXTRACTOR : Z. MATHIS
DATA ENTRY : TODD ROMERO

REPORT DATE/TIME : 08/15/94 12:37:49
ANALYSIS DATE : 07/18/94
EXTRACT DATE : 07/15/94

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

BATCH NOTES
DOWNLOAD FILE 10106.UPL

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSS3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSS3*3	BKG-01-002	07/18/94	09:36AM
CDMHNSS3*4	BKG-01-002	07/18/94	10:23AM

ESE BATCH : G51216

HOLDING TIMES CHECK

ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T. OVER

ALL HOLDING TIMES MET

STORET: 98325 METHOD: SUR 2-FLUOROPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 98326 METHOD: SUR PHENOL-D(5), UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34695 METHOD: 8270/3540-G PHENOL, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34276 METHOD: 8270/3540-G BIS(2-CHLOROETHYL) ETHER, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34589 METHOD: 8270/3540-G 2-CHLOROPHENOL, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34569 METHOD: 8270/3540-G 1,3-DICHLOROBENZENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34574 METHOD: 8270/3540-G 1,4-DICHLOROBENZENE, UG/KG-DRY FINAL

RATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 75212 METHOD: 8270/3540-G BENZYL ALCOHOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34539 METHOD: 8270/3540-G 1,2-DICHLOROBENZENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 78872 METHOD: 8270/3540-G 2-METHYLPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34286 METHOD: 8270/3540-G BIS(2-CHL'ISOPROPYL) ETHER, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 78803 METHOD: 8270/3540-G 4-METHYLPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34431 METHOD: 8270/3540-G N-NITROSODI-N-PROPYLAMINE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34399 METHOD: 8270/3540-G HEXACHLOROETHANE, UG/KG-DRY GCMS

RATION CURVE # 1
ECTION LIMIT=100 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 98327 METHOD: SUR NITROBENZENE-D(5), UG/KG-DRY GCMS

ESE BATCH : G51216

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34450 METHOD: 8270/3540-G NITROBENZENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34411 METHOD: 8270/3540-G ISOPHORONE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34594 METHOD: 8270/3540-G 2-NITROPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34609 METHOD: 8270/3540-G 2,4-DIMETHYLPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34281 METHOD: 8270/3540-G BIS(2-CHLOROETHOXY) METHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34604 METHOD: 8270/3540-G 2,4-DICHLOROPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 75315 METHOD: 8270/3540-G BENZOIC ACID, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2700 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34554 METHOD: 8270/3540-G 1,2,4-TRICH'BENZENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34445 METHOD: 8270/3540-G NAPHTHALENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 78867 METHOD: 8270/3540-G 4-CHLOROANILINE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=300 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 39705 METHOD: 8270/3540-G HEXACHLOROBUTADIENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34455 METHOD: 8270/3540-G 4-CHLORO-3-METHYL PHENOL, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 78868 METHOD: 8270/3540-G 2-METHYLNAPHTHALENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34389 METHOD: 8270/3540-G HEXACHLOROCYCLOPENTADIENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1000 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34624 METHOD: 8270/3540-G 2,4,6-TRICH'PHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1

ESE BATCH : G51216
DETECTION LIMIT=170 DATE: LARGEST RESP= %RSD= RT WINDOW:

S 98587 METHOD: 8270/3540-G 2,4,5-TRICH'PHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=170 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 98330 METHOD: SUR 2-FLUOROBIPHENYL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34584 METHOD: 8270/3540-G 2-CHLORONAPHTHALENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 98588 METHOD: 8270/3540-G 2-NITROANILINE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=300 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34344 METHOD: 8270/3540-G DIMETHYL PHTHALATE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34203 METHOD: 8270/3540-G ACENAPHTHYLENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=150 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34629 METHOD: 8270/3540-G 2,6-DINITROTOLUENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

S 78869 METHOD: 8270/3540-G 3-NITROANILINE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=300 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34208 METHOD: 8270/3540-G ACENAPHTHENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34619 METHOD: 8270/3540-G 2,4-DINITROPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1300 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34649 METHOD: 8270/3540-G 4-NITROPHENOL, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=500 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 75647 METHOD: 8270/3540-G DIBENZOFURAN, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=120 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34614 METHOD: 8270/3540-G 2,4-DINITROTOLUENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34339 METHOD: 8270/3540-G DIETHYL PHTHALATE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

S 34384 METHOD: 8270/3540-G FLUORENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

ESE BATCH : G51216
STORET: 34644 METHOD: 8270/3540-G 4-CHLOROPHENYLPHENYL ETHER, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 78870 METHOD: 8270/3540-G 4-NITROANILINE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=400 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34660 METHOD: 8270/3540-G 2-METHYL-4,6-DINITROPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=670 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34436 METHOD: 8270/3540-G N-NITROSODIPHE'AMINE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 97448 METHOD: SUR 2,4,6-TRIBROMOPHENOL, UG/KG GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34639 METHOD: 8270/3540-G 4-BROMOPHENYL PHENYL ETHER, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 39701 METHOD: 8270/3540-G HEXACHLOROBENZENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 39061 METHOD: 8270/3540-G PENTACHLOROPHENOL, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=250 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34464 METHOD: 8270/3540-G PHENANTHRENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34223 METHOD: 8270/3540-G ANTHRACENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 39112 METHOD: 8270/3540-G DI-N-BUTYL PHTHALATE , UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34379 METHOD: 8270/3540-G FLUORANTHENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34472 METHOD: 8270/3540-G PYRENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 97449 METHOD: SUR TERPHENYL-D(14), UG/KG GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34295 METHOD: 8270/3540-G BUTYLBENZYLPHTHALATE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34529 METHOD: 8270/3540-G BENZO(A)ANTHRACENE, UG/KG-DRY GCMS

ESE BATCH : G51216
CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: LARGEST RESP= %RSD= RT WINDOW:

ST 34634 METHOD: 8270/3540-G 3,3-DICHL'BENZIDINE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=500 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34323 METHOD: 8270/3540-G CHRYSENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 39102 METHOD: 8270/3540-G BIS(2-ETHYLHEXYL) PHTHALATE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34599 METHOD: 8270/3540-G DI-N-OCTYL PHTHALATE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34233 METHOD: 8270/3540-G BENZO(B)FLUORANTHENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34245 METHOD: 8270/3540-G BENZO(K)FLUORANTHENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34250 METHOD: 8270/3540-G BENZO(A)PYRENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

S 34406 METHOD: 8270/3540-G INDENO(1,2,3-CD) PYRENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=160 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34559 METHOD: 8270/3540-G DIBEN(A,H)ANTH'CENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=160 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34524 METHOD: 8270/3540-G BENZO(GHI)PERYLENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=160 DATE: LARGEST RESP= %RSD= RT WINDOW:

ESE BATCH : G51216

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/18/94	MB*NONE*1	34695*8270/3540-G	PHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	34276*8270/3540-G	BIS(2-CHLOROETHYL) ETHER	UG/KG-	ND
07/18/94	MB*NONE*1	34589*8270/3540-G	2-CHLOROPHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	34569*8270/3540-G	1,3-DICHLOROBENZENE	UG/KG-	ND
07/18/94	MB*NONE*1	34574*8270/3540-G	1,4-DICHLOROBENZENE	UG/KG-	ND
07/18/94	MB*NONE*1	75212*8270/3540-G	BENZYL ALCOHOL	UG/KG-	ND
07/18/94	MB*NONE*1	34539*8270/3540-G	1,2-DICHLOROBENZENE	UG/KG-	ND
07/18/94	MB*NONE*1	78872*8270/3540-G	2-METHYLPHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	34286*8270/3540-G	BIS(2-CHL'ISOPROPYL) ETHER	UG/KG-	ND
07/18/94	MB*NONE*1	78803*8270/3540-G	4-METHYLPHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	34431*8270/3540-G	N-NITROSODI-N-PROPYLAMINE	UG/KG-	ND
07/18/94	MB*NONE*1	34399*8270/3540-G	HEXACHLOROETHANE	UG/KG-	ND
07/18/94	MB*NONE*1	34450*8270/3540-G	NITROBENZENE	UG/KG-	ND
07/18/94	MB*NONE*1	34411*8270/3540-G	ISOPHORONE	UG/KG-	ND
07/18/94	MB*NONE*1	34594*8270/3540-G	2-NITROPHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	34609*8270/3540-G	2,4-DIMETHYLPHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	34281*8270/3540-G	BIS(2-CHLOROETHOXY) METHANE	UG/KG-	ND
07/18/94	MB*NONE*1	34604*8270/3540-G	2,4-DICHLOROPHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	75315*8270/3540-G	BENZOIC ACID	UG/KG-	ND
07/18/94	MB*NONE*1	34554*8270/3540-G	1,2,4-TRICH'BENZENE	UG/KG-	ND
07/18/94	MB*NONE*1	34445*8270/3540-G	NAPHTHALENE	UG/KG-	ND
07/18/94	MB*NONE*1	78867*8270/3540-G	4-CHLOROANILINE	UG/KG-	ND
07/18/94	MB*NONE*1	39705*8270/3540-G	HEXACHLOROBUTADIENE	UG/KG-	ND
07/18/94	MB*NONE*1	34455*8270/3540-G	4-CHLORO-3-METHYL PHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	78868*8270/3540-G	2-METHYLNAPHTHALENE	UG/KG-	ND
07/18/94	MB*NONE*1	34389*8270/3540-G	HEXACHLOROCYCLOPENTADIENE	UG/KG-	ND
07/18/94	MB*NONE*1	34624*8270/3540-G	2,4,6-TRICH'PHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	98587*8270/3540-G	2,4,5-TRICH'PHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	34584*8270/3540-G	2-CHLORONAPHTHALENE	UG/KG-	ND
07/18/94	MB*NONE*1	98588*8270/3540-G	2-NITROANILINE	UG/KG-	ND
07/18/94	MB*NONE*1	34344*8270/3540-G	DIMETHYL PHTHALATE	UG/KG-	ND
07/18/94	MB*NONE*1	34203*8270/3540-G	ACENAPHTHYLENE	UG/KG-	ND
07/18/94	MB*NONE*1	34629*8270/3540-G	2,6-DINITROTOLUENE	UG/KG-	ND
07/18/94	MB*NONE*1	78869*8270/3540-G	3-NITROANILINE	UG/KG-	ND
07/18/94	MB*NONE*1	34208*8270/3540-G	ACENAPHTHENE	UG/KG-	ND
07/18/94	MB*NONE*1	34619*8270/3540-G	2,4-DINITROPHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	34649*8270/3540-G	4-NITROPHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	75647*8270/3540-G	DIBENZOFURAN	UG/KG-	ND
07/18/94	MB*NONE*1	34614*8270/3540-G	2,4-DINITROTOLUENE	UG/KG-	ND
07/18/94	MB*NONE*1	34339*8270/3540-G	DIETHYL PHTHALATE	UG/KG-	ND
07/18/94	MB*NONE*1	34384*8270/3540-G	FLUORENE	UG/KG-	ND
07/18/94	MB*NONE*1	34644*8270/3540-G	4-CHLOROPHENYLPHENYL ETHER	UG/KG-	ND
07/18/94	MB*NONE*1	78870*8270/3540-G	4-NITROANILINE	UG/KG-	ND
07/18/94	MB*NONE*1	34660*8270/3540-G	2-METHYL-4,6-DINITROPHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	34436*8270/3540-G	N-NITROSODIPHE'AMINE	UG/KG-	ND
07/18/94	MB*NONE*1	34639*8270/3540-G	4-BROMOPHENYL PHENYL ETHER	UG/KG-	ND
07/18/94	MB*NONE*1	39701*8270/3540-G	HEXACHLOROBENZENE	UG/KG-	ND
07/18/94	MB*NONE*1	39061*8270/3540-G	PENTACHLOROPHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	34464*8270/3540-G	PHENANTHRENE	UG/KG-	ND
07/18/94	MB*NONE*1	34223*8270/3540-G	ANTHRACENE	UG/KG-	ND
07/18/94	MB*NONE*1	39112*8270/3540-G	DI-N-BUTYL PHTHALATE	UG/KG-	ND
07/18/94	MB*NONE*1	34379*8270/3540-G	FLUORANTHENE	UG/KG-	ND
07/18/94	MB*NONE*1	34472*8270/3540-G	PYRENE	UG/KG-	ND
07/18/94	MB*NONE*1	34295*8270/3540-G	BUTYLBENZYLPHTHALATE	UG/KG-	ND
07/18/94	MB*NONE*1	34529*8270/3540-G	BENZO(A)ANTHRACENE	UG/KG-	ND
07/18/94	MB*NONE*1	34634*8270/3540-G	3,3-DICHL'BENZIDINE	UG/KG-	ND
07/18/94	MB*NONE*1	34323*8270/3540-G	CHRYSENE	UG/KG-	ND
07/18/94	MB*NONE*1	39102*8270/3540-G	BIS(2-ETHYLHEXYL) PHTHALATE	UG/KG-	150
07/18/94	MB*NONE*1	34599*8270/3540-G	DI-N-OCTYL PHTHALATE	UG/KG-	ND
07/18/94	MB*NONE*1	34233*8270/3540-G	BENZO(B)FLUORANTHENE	UG/KG-	ND
07/18/94	MB*NONE*1	34245*8270/3540-G	BENZO(K)FLUORANTHENE	UG/KG-	ND
07/18/94	MB*NONE*1	34250*8270/3540-G	BENZO(A)PYRENE	UG/KG-	ND
07/18/94	MB*NONE*1	34406*8270/3540-G	INDENO(1,2,3-CD) PYRENE	UG/KG-	ND
07/18/94	MB*NONE*1	34559*8270/3540-G	DIBEN(A,H)ANTH'CENE	UG/KG-	ND
07/18/94	MB*NONE*1	34524*8270/3540-G	BENZO(GHI)PERYLENE	UG/KG-	ND

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/18/94	SP1*NONE*1	34695*8270/3540-G	PHENOL	66	26-90	UG/KG-	6700	4400
07/18/94	SP1*NONE*1	34589*8270/3540-G	2-CHLOROPHENOL	70	25-102	UG/KG-	6700	4700
07/18/94	SP1*NONE*1	34574*8270/3540-G	1,4-DICHLOROBENZENE	73	28-104	UG/KG-	3300	2400
07/18/94	SP1*NONE*1	34431*8270/3540-G	N-NITROSODI-N-PROPYLAMINE	76	41-126	UG/KG-	3300	2500

ESE BATCH : G51216

St-ndard Matrix Spike Recovery Summary

DA	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/18/94	SP1*NONE*1	34554*8270/3540-G	1,2,4-TRICH'BENZENE	76	38-107	UG/KG-	3300	2500
07/18/94	SP1*NONE*1	34455*8270/3540-G	4-CHLORO-3-METHYL PHENOL	72	26-103	UG/KG-	6700	4800
07/18/94	SP1*NONE*1	34208*8270/3540-G	ACENAPHTHENE	73	31-137	UG/KG-	3300	2400
07/18/94	SP1*NONE*1	34649*8270/3540-G	4-NITROPHENOL	67	11-114	UG/KG-	6700	4500
07/18/94	SP1*NONE*1	34614*8270/3540-G	2,4-DINITROTOLUENE	67	28-89	UG/KG-	3300	2200
07/18/94	SP1*NONE*1	39061*8270/3540-G	PENTACHLOROPHENOL	72	17-109	UG/KG-	6700	4800
07/18/94	SP1*NONE*1	34472*8270/3540-G	PYRENE	67	35-142	UG/KG-	3300	2200

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
07/18/94	SPM1*CDMHNSS3*3	34695*8270/3540-G	PHENOL	70	26-90	0.0	UG/KG-	7100	5000
07/18/94	SPM1*CDMHNSS3*3	34589*8270/3540-G	2-CHLOROPHENOL	76	25-102	0.0	UG/KG-	7100	5400
07/18/94	SPM1*CDMHNSS3*3	34574*8270/3540-G	1,4-DICHLOROBENZENE	77	28-104	0.0	UG/KG-	3500	2700
07/18/94	SPM1*CDMHNSS3*3	34431*8270/3540-G	N-NITROSODI-N-PROPYLAMINE	83	41-126	0.0	UG/KG-	3500	2900
07/18/94	SPM1*CDMHNSS3*3	34554*8270/3540-G	1,2,4-TRICH'BENZENE	83	38-107	0.0	UG/KG-	3500	2900
07/18/94	SPM1*CDMHNSS3*3	34455*8270/3540-G	4-CHLORO-3-METHYL PHENOL	77	26-103	0.0	UG/KG-	7100	5500
07/18/94	SPM1*CDMHNSS3*3	34208*8270/3540-G	ACENAPHTHENE	83	31-137	0.0	UG/KG-	3500	2900
07/18/94	SPM1*CDMHNSS3*3	34649*8270/3540-G	4-NITROPHENOL	73	11-114	0.0	UG/KG-	7100	5200
07/18/94	SPM1*CDMHNSS3*3	34614*8270/3540-G	2,4-DINITROTOLUENE	71	28-89	0.0	UG/KG-	3500	2500
07/18/94	SPM1*CDMHNSS3*3	39061*8270/3540-G	PENTACHLOROPHENOL	80	17-109	0.0	UG/KG-	7100	5700
07/18/94	SPM1*CDMHNSS3*3	34472*8270/3540-G	PYRENE	74	35-142	0.0	UG/KG-	3500	2600
07/18/94	SPM2*CDMHNSS3*3	34695*8270/3540-G	PHENOL	69	26-90	0.0	UG/KG-	7100	4900
07/18/94	SPM2*CDMHNSS3*3	34589*8270/3540-G	2-CHLOROPHENOL	73	25-102	0.0	UG/KG-	7100	5200
07/18/94	SPM2*CDMHNSS3*3	34574*8270/3540-G	1,4-DICHLOROBENZENE	74	28-104	0.0	UG/KG-	3500	2600
07/18/94	SPM2*CDMHNSS3*3	34431*8270/3540-G	N-NITROSODI-N-PROPYLAMINE	77	41-126	0.0	UG/KG-	3500	2700
07/18/94	SPM2*CDMHNSS3*3	34554*8270/3540-G	1,2,4-TRICH'BENZENE	80	38-107	0.0	UG/KG-	3500	2800
07/18/94	SPM2*CDMHNSS3*3	34455*8270/3540-G	4-CHLORO-3-METHYL PHENOL	73	26-103	0.0	UG/KG-	7100	5200
07/18/94	SPM2*CDMHNSS3*3	34208*8270/3540-G	ACENAPHTHENE	77	31-137	0.0	UG/KG-	3500	2700
07/18/94	SPM2*CDMHNSS3*3	34649*8270/3540-G	4-NITROPHENOL	70	11-114	0.0	UG/KG-	7100	5000
07/18/94	SPM2*CDMHNSS3*3	34614*8270/3540-G	2,4-DINITROTOLUENE	71	28-89	0.0	UG/KG-	3500	2500
07/18/94	SPM2*CDMHNSS3*3	39061*8270/3540-G	PENTACHLOROPHENOL	73	17-109	0.0	UG/KG-	7100	5200
07/18/94	SPM2*CDMHNSS3*3	34472*8270/3540-G	PYRENE	69	35-142	0.0	UG/KG-	3500	2400

S e Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/18/94	MB*NONE*1	98325*SUR	2-FLUOROPHENOL	UG/KG-	6700	4600	69	25-121
07/18/94	MB*NONE*1	98326*SUR	PHENOL-D(5)	UG/KG-	6670	5080	76.2	24-113
07/18/94	MB*NONE*1	98327*SUR	NITROBENZENE-D(5)	UG/KG-	3300	2500	76	23-120
07/18/94	MB*NONE*1	98330*SUR	2-FLUOROBIPHENYL	UG/KG-	3300	2700	82	30-115
07/18/94	MB*NONE*1	97448*SUR	2,4,6-TRIBROMOPHENOL	UG/KG	6670	5540	83.1	19-122
07/18/94	MB*NONE*1	97449*SUR	TERPHENYL-D(14)	UG/KG	3330	2470	74.2	18-137
07/18/94	DA*CDMHNSS3*3	98325*SUR	2-FLUOROPHENOL	UG/KG-	6700	4500	67	25-121
07/18/94	DA*CDMHNSS3*3	98326*SUR	PHENOL-D(5)	UG/KG-	6670	5110	76.6	24-113
07/18/94	DA*CDMHNSS3*3	98327*SUR	NITROBENZENE-D(5)	UG/KG-	3300	2500	76	23-120
07/18/94	DA*CDMHNSS3*3	98330*SUR	2-FLUOROBIPHENYL	UG/KG-	3300	2600	79	30-115
07/18/94	DA*CDMHNSS3*3	97448*SUR	2,4,6-TRIBROMOPHENOL	UG/KG	6670	5540	83.1	19-122
07/18/94	DA*CDMHNSS3*3	97449*SUR	TERPHENYL-D(14)	UG/KG	3330	2340	70.3	18-137
07/18/94	DA*CDMHNSS3*4	98325*SUR	2-FLUOROPHENOL	UG/KG-	6700	4600	69	25-121
07/18/94	DA*CDMHNSS3*4	98326*SUR	PHENOL-D(5)	UG/KG-	6670	5370	80.5	24-113
07/18/94	DA*CDMHNSS3*4	98327*SUR	NITROBENZENE-D(5)	UG/KG-	3300	2500	76	23-120
07/18/94	DA*CDMHNSS3*4	98330*SUR	2-FLUOROBIPHENYL	UG/KG-	3300	2600	79	30-115
07/18/94	DA*CDMHNSS3*4	97448*SUR	2,4,6-TRIBROMOPHENOL	UG/KG	6670	5900	88.5	19-122
07/18/94	DA*CDMHNSS3*4	97449*SUR	TERPHENYL-D(14)	UG/KG	3330	2490	74.8	18-137
07/18/94	SP1*NONE*1	98325*SUR	2-FLUOROPHENOL	UG/KG-	6700	4600	69	25-121
07/18/94	SP1*NONE*1	98326*SUR	PHENOL-D(5)	UG/KG-	6670	5030	75.4	24-113
07/18/94	SP1*NONE*1	98327*SUR	NITROBENZENE-D(5)	UG/KG-	3300	2400	73	23-120
07/18/94	SP1*NONE*1	98330*SUR	2-FLUOROBIPHENYL	UG/KG-	3300	2400	73	30-115
07/18/94	SP1*NONE*1	97448*SUR	2,4,6-TRIBROMOPHENOL	UG/KG	6670	4930	73.9	19-122
07/18/94	SP1*NONE*1	97449*SUR	TERPHENYL-D(14)	UG/KG	3330	2240	67.3	18-137
07/18/94	SPM1*CDMHNSS3*3	98325*SUR	2-FLUOROPHENOL	UG/KG-	6700	4900	73	25-121
07/18/94	SPM1*CDMHNSS3*3	98326*SUR	PHENOL-D(5)	UG/KG-	6670	5390	80.8	24-113
07/18/94	SPM1*CDMHNSS3*3	98327*SUR	NITROBENZENE-D(5)	UG/KG-	3300	2600	79	23-120
07/18/94	SPM1*CDMHNSS3*3	98330*SUR	2-FLUOROBIPHENYL	UG/KG-	3300	2700	82	30-115
07/18/94	SPM1*CDMHNSS3*3	97448*SUR	2,4,6-TRIBROMOPHENOL	UG/KG	6670	5410	81.1	19-122
07/18/94	SPM1*CDMHNSS3*3	97449*SUR	TERPHENYL-D(14)	UG/KG	3330	2350	70.6	18-137
07/18/94	SPM2*CDMHNSS3*3	98325*SUR	2-FLUOROPHENOL	UG/KG-	6700	4700	70	25-121
(94	SPM2*CDMHNSS3*3	98326*SUR	PHENOL-D(5)	UG/KG-	6670	5150	77.2	24-113
(	SPM2*CDMHNSS3*3	98327*SUR	NITROBENZENE-D(5)	UG/KG-	3300	2400	73	23-120
07/ 4	SPM2*CDMHNSS3*3	98330*SUR	2-FLUOROBIPHENYL	UG/KG-	3300	2400	73	30-115
07/18/94	SPM2*CDMHNSS3*3	97448*SUR	2,4,6-TRIBROMOPHENOL	UG/KG	6670	5050	75.7	19-122
07/18/94	SPM2*CDMHNSS3*3	97449*SUR	TERPHENYL-D(14)	UG/KG	3330	2220	66.7	18-137

ESE BATCH : G51216

Environmental Science and Engineering Analytical Services

Computer QC Checks

Batch No.: G51216 Analysis Date: 07/18/94 Analyst: SCOTT KEERAN

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
Extract holding time within criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?	X		
Sample matrix spike duplicate present?	X		
Sample matrix spike duplicate within acceptance criteria?	X		
Surrogate present?	X		
Surrogate within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

OVERRIDE COMMENTS

BATCH OVERRIDE BY:

FINALIZED BY:

ESE BATCH : G51216

TABLE OF ABBREVIATIONS

%REC. : % Recovery for spiked sample. (FOUND/TARGET * 100)
ANLY DATE : Analysis Date
ANLY TIME : Analysis Time
CURVE : Curve Regression Number
DILUTION : Sample Dilution Factor
EXT DATE : Extract Date
EXT VOL : Extract Volume
FOUND : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL : Injection Volume
REL%DIFF : % Difference between current and previous spike.
RESPONSE : Sample Response
R.T. : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
DA -- Data Sample
MB -- Method Blank
RF -- Reference (from commercially known standard)
RP -- Replicate Sample
SP -- Standard Matrix Spike
SPM -- Sample Matrix Spike
STD -- Internal Standard
SUR -- Surrogate Sample
UN -- Unspiked Sample
SAMP VOL : Sample Volume
SPK CONC : Spike Concentration
ST : Sample response explanation or validity. (listed below)
BK -- No sample response.
NA -- Sample not analyzed.
NR -- Not reserved for this batch. Batch containing the response for this sample is listed in the target field.
OK -- Sample response shown is correct.
! -- Sample response shown is invalid.
< -- Sample response < detection limit. Detection limit is shown in the response field.
STC MTHD: Storet ID * Method Code
TARGET : Spike Target (SAMPLE LISTING SECTION)
TARGET : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE : Response Type ("FINAL" or empty.)
UNSP CONC : Unspiked Sample Concentration

ESE BATCH : G51215
CLASSIFICATION : ACID EXTR.-EPA 8270/3540(SOX)

QC TYPE : FDER/SW
ANALYST : SCOTT KEERAN
EXTRACTOR : FARIS FAKIH
DATA ENTRY : TODD ROMERO

REPORT DATE/TIME : 08/15/94 12:34:44
ANALYSIS DATE : 07/18/94
EXTRACT DATE : 07/16/94

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

BATCH NOTES
DOWNLOAD FILE 10105.UPL

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSS3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSS3*5	BKG-01	07/18/94	02:22PM
CDMHNSS3*6	BKG-02	07/18/94	03:10PM
CDMHNSS3*42	BG1-01	07/18/94	03:58PM

ESE BATCH : G51215

HOLDING TIMES CHECK

SI	ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T. OVER

ALL HOLDING TIMES MET

STORET: 98325 METHOD: SUR 2-FLUOROPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 98326 METHOD: SUR PHENOL-D(5), UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34695 METHOD: 8270/3540-G PHENOL, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34276 METHOD: 8270/3540-G BIS(2-CHLOROETHYL) ETHER, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34589 METHOD: 8270/3540-G 2-CHLOROPHENOL, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34569 METHOD: 8270/3540-G 1,3-DICHLOROBENZENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

S------ 34574 METHOD: 8270/3540-G 1,4-DICHLOROBENZENE, UG/KG-DRY FINAL

ATION CURVE # 1
ECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 75212 METHOD: 8270/3540-G BENZYL ALCOHOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34539 METHOD: 8270/3540-G 1,2-DICHLOROBENZENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 78872 METHOD: 8270/3540-G 2-METHYLPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34286 METHOD: 8270/3540-G BIS(2-CHL'ISOPROPYL) ETHER, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 78803 METHOD: 8270/3540-G 4-METHYLPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34431 METHOD: 8270/3540-G N-NITROSODI-N-PROPYLAMINE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: LARGEST RESP= %RSD= RT WINDOW:

------: 34399 METHOD: 8270/3540-G HEXACHLOROETHANE, UG/KG-DRY GCMS

ATION CURVE # 1
ECTION LIMIT=100 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 98327 METHOD: SUR NITROBENZENE-D(5), UG/KG-DRY GCMS

ESE BATCH : G51215

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34450 METHOD: 8270/3540-G NITROBENZENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34411 METHOD: 8270/3540-G ISOPHORONE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34594 METHOD: 8270/3540-G 2-NITROPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34609 METHOD: 8270/3540-G 2,4-DIMETHYLPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34281 METHOD: 8270/3540-G BIS(2-CHLOROETHOXY) METHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34604 METHOD: 8270/3540-G 2,4-DICHLOROPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 75315 METHOD: 8270/3540-G BENZOIC ACID, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2700 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34554 METHOD: 8270/3540-G 1,2,4-TRICH'BENZENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34445 METHOD: 8270/3540-G NAPHTHALENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 78867 METHOD: 8270/3540-G 4-CHLOROANILINE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=300 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 39705 METHOD: 8270/3540-G HEXACHLOROBUTADIENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34455 METHOD: 8270/3540-G 4-CHLORO-3-METHYL PHENOL, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 78868 METHOD: 8270/3540-G 2-METHYLNAPHTHALENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34389 METHOD: 8270/3540-G HEXACHLOROCYCLOPENTADIENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1000 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34624 METHOD: 8270/3540-G 2,4,6-TRICH'PHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1

ESE BATCH : G51215
DETECTION LIMIT=170 DATE: LARGEST RESP= %RSD= RT WINDOW:

S 98587 METHOD: 8270/3540-G 2,4,5-TRICH'PHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=170 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 98330 METHOD: SUR 2-FLUOROBIPHENYL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34584 METHOD: 8270/3540-G 2-CHLORONAPHTHALENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 98588 METHOD: 8270/3540-G 2-NITROANILINE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=300 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34344 METHOD: 8270/3540-G DIMETHYL PHTHALATE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34203 METHOD: 8270/3540-G ACENAPHTHYLENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=150 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34629 METHOD: 8270/3540-G 2,6-DINITROTOLUENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

: 78869 METHOD: 8270/3540-G 3-NITROANILINE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=300 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34208 METHOD: 8270/3540-G ACENAPHTHENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34619 METHOD: 8270/3540-G 2,4-DINITROPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1300 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34649 METHOD: 8270/3540-G 4-NITROPHENOL, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=500 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 75647 METHOD: 8270/3540-G DIBENZOFURAN, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=120 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34614 METHOD: 8270/3540-G 2,4-DINITROTOLUENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34339 METHOD: 8270/3540-G DIETHYL PHTHALATE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

: 34384 METHOD: 8270/3540-G FLUORENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

ESE BATCH : G51215
STORET: 34644 METHOD: 8270/3540-G 4-CHLOROPHENYLPHENYL ETHER, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 78870 METHOD: 8270/3540-G 4-NITROANILINE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=400 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34660 METHOD: 8270/3540-G 2-METHYL-4,6-DINITROPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=670 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34436 METHOD: 8270/3540-G N-NITROSODIPHE'AMINE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 97448 METHOD: SUR 2,4,6-TRIBROMOPHENOL, UG/KG GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34639 METHOD: 8270/3540-G 4-BROMOPHENYL PHENYL ETHER, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=140 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 39701 METHOD: 8270/3540-G HEXACHLOROBENZENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 39061 METHOD: 8270/3540-G PENTACHLOROPHENOL, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=250 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34464 METHOD: 8270/3540-G PHENANTHRENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34223 METHOD: 8270/3540-G ANTHRACENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 39112 METHOD: 8270/3540-G DI-N-BUTYL PHTHALATE , UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34379 METHOD: 8270/3540-G FLUORANTHENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34472 METHOD: 8270/3540-G PYRENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=70 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 97449 METHOD: SUR TERPHENYL-D(14), UG/KG GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34295 METHOD: 8270/3540-G BUTYLBENZYLPHTHALATE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34529 METHOD: 8270/3540-G BENZO(A)ANTHRACENE, UG/KG-DRY GCMS

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ESE BATCH       : G51215
  CALIBRATION CURVE # 1
      'ECTION LIMIT=100  DATE:   LARGEST RESP= %RSD=  RT WINDOW:

S       34634 METHOD: 8270/3540-G  3,3-DICHL'BENZIDINE, UG/KG-DRY  GCMS

  CALIBRATION CURVE # 1
    DETECTION LIMIT=500  DATE:   LARGEST RESP= %RSD=  RT WINDOW:

STORET: 34323 METHOD: 8270/3540-G  CHRYSENE, UG/KG-DRY  GCMS

  CALIBRATION CURVE # 1
    DETECTION LIMIT=100  DATE:   LARGEST RESP= %RSD=  RT WINDOW:

STORET: 39102 METHOD: 8270/3540-G  BIS(2-ETHYLHEXYL)    PHTHALATE, UG/KG-DRY  GCMS

  CALIBRATION CURVE # 1
    DETECTION LIMIT=100  DATE:   LARGEST RESP= %RSD=  RT WINDOW:

STORET: 34599 METHOD: 8270/3540-G  DI-N-OCTYL PHTHALATE, UG/KG-DRY  GCMS

  CALIBRATION CURVE # 1
    DETECTION LIMIT=140  DATE:   LARGEST RESP= %RSD=  RT WINDOW:

STORET: 34233 METHOD: 8270/3540-G  BENZO(B)FLUORANTHENE, UG/KG-DRY  GCMS

  CALIBRATION CURVE # 1
    DETECTION LIMIT=100  DATE:   LARGEST RESP= %RSD=  RT WINDOW:

STORET: 34245 METHOD: 8270/3540-G  BENZO(K)FLUORANTHENE, UG/KG-DRY  GCMS

  CALIBRATION CURVE # 1
    DETECTION LIMIT=100  DATE:   LARGEST RESP= %RSD=  RT WINDOW:

STORET: 34250 METHOD: 8270/3540-G  BENZO(A)PYRENE, UG/KG-DRY  GCMS

  CALIBRATION CURVE # 1
      TECTION LIMIT=140  DATE:   LARGEST RESP= %RSD=  RT WINDOW:

---    . 34406 METHOD: 8270/3540-G  INDENO(1,2,3-CD)     PYRENE, UG/KG-DRY  GCMS

  CALIBRATION CURVE # 1
    DETECTION LIMIT=160  DATE:   LARGEST RESP= %RSD=  RT WINDOW:

STORET: 34559 METHOD: 8270/3540-G  DIBEN(A,H)ANTH'CENE, UG/KG-DRY  GCMS

  CALIBRATION CURVE # 1
    DETECTION LIMIT=160  DATE:   LARGEST RESP= %RSD=  RT WINDOW:

STORET: 34524 METHOD: 8270/3540-G  BENZO(GHI)PERYLENE, UG/KG-DRY  GCMS

  CALIBRATION CURVE # 1
    DETECTION LIMIT=160  DATE:   LARGEST RESP= %RSD=  RT WINDOW:
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ESE BATCH : G51215

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/18/94	MB*NONE*1	34695*8270/3540-G	PHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	34276*8270/3540-G	BIS(2-CHLOROETHYL) ETHER	UG/KG-	ND
07/18/94	MB*NONE*1	34589*8270/3540-G	2-CHLOROPHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	34569*8270/3540-G	1,3-DICHLOROBENZENE	UG/KG-	ND
07/18/94	MB*NONE*1	34574*8270/3540-G	1,4-DICHLOROBENZENE	UG/KG-	ND
07/18/94	MB*NONE*1	75212*8270/3540-G	BENZYL ALCOHOL	UG/KG-	ND
07/18/94	MB*NONE*1	34539*8270/3540-G	1,2-DICHLOROBENZENE	UG/KG-	ND
07/18/94	MB*NONE*1	78872*8270/3540-G	2-METHYLPHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	34286*8270/3540-G	BIS(2-CHL'ISOPROPYL) ETHER	UG/KG-	ND
07/18/94	MB*NONE*1	78803*8270/3540-G	4-METHYLPHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	34431*8270/3540-G	N-NITROSODI-N-PROPYLAMINE	UG/KG-	ND
07/18/94	MB*NONE*1	34399*8270/3540-G	HEXACHLOROETHANE	UG/KG-	ND
07/18/94	MB*NONE*1	34450*8270/3540-G	NITROBENZENE	UG/KG-	ND
07/18/94	MB*NONE*1	34411*8270/3540-G	ISOPHORONE	UG/KG-	ND
07/18/94	MB*NONE*1	34594*8270/3540-G	2-NITROPHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	34609*8270/3540-G	2,4-DIMETHYLPHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	34281*8270/3540-G	BIS(2-CHLOROETHOXY) METHANE	UG/KG-	ND
07/18/94	MB*NONE*1	34604*8270/3540-G	2,4-DICHLOROPHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	75315*8270/3540-G	BENZOIC ACID	UG/KG-	ND
07/18/94	MB*NONE*1	34554*8270/3540-G	1,2,4-TRICH'BENZENE	UG/KG-	ND
07/18/94	MB*NONE*1	34445*8270/3540-G	NAPHTHALENE	UG/KG-	ND
07/18/94	MB*NONE*1	78867*8270/3540-G	4-CHLOROANILINE	UG/KG-	ND
07/18/94	MB*NONE*1	39705*8270/3540-G	HEXACHLOROBUTADIENE	UG/KG-	ND
07/18/94	MB*NONE*1	34455*8270/3540-G	4-CHLORO-3-METHYL PHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	78868*8270/3540-G	2-METHYLNAPHTHALENE	UG/KG-	ND
07/18/94	MB*NONE*1	34389*8270/3540-G	HEXACHLOROCYCLOPENTADIENE	UG/KG-	ND
07/18/94	MB*NONE*1	34624*8270/3540-G	2,4,6-TRICH'PHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	98587*8270/3540-G	2,4,5-TRICH'PHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	34584*8270/3540-G	2-CHLORONAPHTHALENE	UG/KG-	ND
07/18/94	MB*NONE*1	98588*8270/3540-G	2-NITROANILINE	UG/KG-	ND
07/18/94	MB*NONE*1	34344*8270/3540-G	DIMETHYL PHTHALATE	UG/KG-	ND
07/18/94	MB*NONE*1	34203*8270/3540-G	ACENAPHTHYLENE	UG/KG-	ND
07/18/94	MB*NONE*1	34629*8270/3540-G	2,6-DINITROTOLUENE	UG/KG-	ND
07/18/94	MB*NONE*1	78869*8270/3540-G	3-NITROANILINE	UG/KG-	ND
07/18/94	MB*NONE*1	34208*8270/3540-G	ACENAPHTHENE	UG/KG-	ND
07/18/94	MB*NONE*1	34619*8270/3540-G	2,4-DINITROPHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	34649*8270/3540-G	4-NITROPHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	75647*8270/3540-G	DIBENZOFURAN	UG/KG-	ND
07/18/94	MB*NONE*1	34614*8270/3540-G	2,4-DINITROTOLUENE	UG/KG-	ND
07/18/94	MB*NONE*1	34339*8270/3540-G	DIETHYL PHTHALATE	UG/KG-	ND
07/18/94	MB*NONE*1	34384*8270/3540-G	FLUORENE	UG/KG-	ND
07/18/94	MB*NONE*1	34644*8270/3540-G	4-CHLOROPHENYLPHENYL ETHER	UG/KG-	ND
07/18/94	MB*NONE*1	78870*8270/3540-G	4-NITROANILINE	UG/KG-	ND
07/18/94	MB*NONE*1	34660*8270/3540-G	2-METHYL-4,6-DINITROPHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	34436*8270/3540-G	N-NITROSODIPHE'AMINE	UG/KG-	ND
07/18/94	MB*NONE*1	34639*8270/3540-G	4-BROMOPHENYL PHENYL ETHER	UG/KG-	ND
07/18/94	MB*NONE*1	39701*8270/3540-G	HEXACHLOROBENZENE	UG/KG-	ND
07/18/94	MB*NONE*1	39061*8270/3540-G	PENTACHLOROPHENOL	UG/KG-	ND
07/18/94	MB*NONE*1	34464*8270/3540-G	PHENANTHRENE	UG/KG-	ND
07/18/94	MB*NONE*1	34223*8270/3540-G	ANTHRACENE	UG/KG-	ND
07/18/94	MB*NONE*1	39112*8270/3540-G	DI-N-BUTYL PHTHALATE	UG/KG-	ND
07/18/94	MB*NONE*1	34379*8270/3540-G	FLUORANTHENE	UG/KG-	ND
07/18/94	MB*NONE*1	34472*8270/3540-G	PYRENE	UG/KG-	ND
07/18/94	MB*NONE*1	34295*8270/3540-G	BUTYLBENZYLPHTHALATE	UG/KG-	ND
07/18/94	MB*NONE*1	34529*8270/3540-G	BENZO(A)ANTHRACENE	UG/KG-	ND
07/18/94	MB*NONE*1	34634*8270/3540-G	3,3-DICHL'BENZIDINE	UG/KG-	ND
07/18/94	MB*NONE*1	34323*8270/3540-G	CHRYSENE	UG/KG-	ND
07/18/94	MB*NONE*1	39102*8270/3540-G	BIS(2-ETHYLHEXYL) PHTHALATE	UG/KG-	ND
07/18/94	MB*NONE*1	34599*8270/3540-G	DI-N-OCTYL PHTHALATE	UG/KG-	ND
07/18/94	MB*NONE*1	34233*8270/3540-G	BENZO(B)FLUORANTHENE	UG/KG-	ND
07/18/94	MB*NONE*1	34245*8270/3540-G	BENZO(K)FLUORANTHENE	UG/KG-	ND
07/18/94	MB*NONE*1	34250*8270/3540-G	BENZO(A)PYRENE	UG/KG-	ND
07/18/94	MB*NONE*1	34406*8270/3540-G	INDENO(1,2,3-CD) PYRENE	UG/KG-	ND
07/18/94	MB*NONE*1	34559*8270/3540-G	DIBEN(A,H)ANTH'CENE	UG/KG-	ND
07/18/94	MB*NONE*1	34524*8270/3540-G	BENZO(GHI)PERYLENE	UG/KG-	ND

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/18/94	SP1*NONE*1	34695*8270/3540-G	PHENOL	79	26-90	UG/KG-	6700	5300
07/18/94	SP1*NONE*1	34589*8270/3540-G	2-CHLOROPHENOL	82	25-102	UG/KG-	6700	5500
07/18/94	SP1*NONE*1	34574*8270/3540-G	1,4-DICHLOROBENZENE	109	28-104	UG/KG-	3300	3600
07/18/94	SP1*NONE*1	34431*8270/3540-G	N-NITROSODI-N-PROPYLAMINE	109	41-126	UG/KG-	3300	3600

ESE BATCH : G51215

Standard Matrix Spike Recovery Summary

DA	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/18/94	SP1*NONE*1	34554*8270/3540-G	1,2,4-TRICH'BENZENE	106	38-107	UG/KG-	3300	3500
07/18/94	SP1*NONE*1	34455*8270/3540-G	4-CHLORO-3-METHYL PHENOL	78	26-103	UG/KG-	6700	5200
07/18/94	SP1*NONE*1	34208*8270/3540-G	ACENAPHTHENE	67	31-137	UG/KG-	3300	2200
07/18/94	SP1*NONE*1	34649*8270/3540-G	4-NITROPHENOL	57	11-114	UG/KG-	6700	3800
07/18/94	SP1*NONE*1	34614*8270/3540-G	2,4-DINITROTOLUENE	70	28-89	UG/KG-	3300	2300
07/18/94	SP1*NONE*1	39061*8270/3540-G	PENTACHLOROPHENOL	51	17-109	UG/KG-	6700	3400
07/18/94	SP1*NONE*1	34472*8270/3540-G	PYRENE	45	35-142	UG/KG-	3300	1500

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
07/18/94	SPM1*CDMHNSS3*5	34695*8270/3540-G	PHENOL	72	26-90	0.0	UG/KG-	6900	5000
07/18/94	SPM1*CDMHNSS3*5	34589*8270/3540-G	2-CHLOROPHENOL	74	25-102	0.0	UG/KG-	6900	5100
07/18/94	SPM1*CDMHNSS3*5	34574*8270/3540-G	1,4-DICHLOROBENZENE	103	28-104	0.0	UG/KG-	3400	3500
07/18/94	SPM1*CDMHNSS3*5	34431*8270/3540-G	N-NITROSODI-N-PROPYLAMINE	106	41-126	0.0	UG/KG-	3400	3600
07/18/94	SPM1*CDMHNSS3*5	34554*8270/3540-G	1,2,4-TRICH'BENZENE	100	38-107	0.0	UG/KG-	3400	3400
07/18/94	SPM1*CDMHNSS3*5	34455*8270/3540-G	4-CHLORO-3-METHYL PHENOL	75	26-103	0.0	UG/KG-	6900	5200
07/18/94	SPM1*CDMHNSS3*5	34208*8270/3540-G	ACENAPHTHENE	68	31-137	0.0	UG/KG-	3400	2300
07/18/94	SPM1*CDMHNSS3*5	34649*8270/3540-G	4-NITROPHENOL	65	11-114	0.0	UG/KG-	6900	4500
07/18/94	SPM1*CDMHNSS3*5	34614*8270/3540-G	2,4-DINITROTOLUENE	85	28-89	0.0	UG/KG-	3400	2900
07/18/94	SPM1*CDMHNSS3*5	39061*8270/3540-G	PENTACHLOROPHENOL	75	17-109	0.0	UG/KG-	6900	5200
07/18/94	SPM1*CDMHNSS3*5	34472*8270/3540-G	PYRENE	76	35-142	0.0	UG/KG-	3400	2600
07/18/94	SPM2*CDMHNSS3*5	34695*8270/3540-G	PHENOL	77	26-90	0.0	UG/KG-	6900	5300
07/18/94	SPM2*CDMHNSS3*5	34589*8270/3540-G	2-CHLOROPHENOL	77	25-102	0.0	UG/KG-	6900	5300
07/18/94	SPM2*CDMHNSS3*5	34574*8270/3540-G	1,4-DICHLOROBENZENE	106	28-104	0.0	UG/KG-	3400	3600
07/18/94	SPM2*CDMHNSS3*5	34431*8270/3540-G	N-NITROSODI-N-PROPYLAMINE	109	41-126	0.0	UG/KG-	3400	3700
07/18/94	SPM2*CDMHNSS3*5	34554*8270/3540-G	1,2,4-TRICH'BENZENE	103	38-107	0.0	UG/KG-	3400	3500
07/18/94	SPM2*CDMHNSS3*5	34455*8270/3540-G	4-CHLORO-3-METHYL PHENOL	77	26-103	0.0	UG/KG-	6900	5300
07/18/94	SPM2*CDMHNSS3*5	34208*8270/3540-G	ACENAPHTHENE	71	31-137	0.0	UG/KG-	3400	2400
07/18/94	SPM2*CDMHNSS3*5	34649*8270/3540-G	4-NITROPHENOL	70	11-114	0.0	UG/KG-	6900	4800
07/18/94	SPM2*CDMHNSS3*5	34614*8270/3540-G	2,4-DINITROTOLUENE	91	28-89	0.0	UG/KG-	3400	3100
07/18/94	SPM2*CDMHNSS3*5	39061*8270/3540-G	PENTACHLOROPHENOL	81	17-109	0.0	UG/KG-	6900	5600
07/18/94	SPM2*CDMHNSS3*5	34472*8270/3540-G	PYRENE	79	35-142	0.0	UG/KG-	3400	2700

S[illegible]e Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/18/94	MB*NONE*1	98325*SUR	2-FLUOROPHENOL	UG/KG-	6700	4700	70	25-121
07/18/94	MB*NONE*1	98326*SUR	PHENOL-D(5)	UG/KG-	6670	5280	79.2	24-113
07/18/94	MB*NONE*1	98327*SUR	NITROBENZENE-D(5)	UG/KG-	3300	2300	70	23-120
07/18/94	MB*NONE*1	98330*SUR	2-FLUOROBIPHENYL	UG/KG-	3300	2000	61	30-115
07/18/94	MB*NONE*1	97448*SUR	2,4,6-TRIBROMOPHENOL	UG/KG	6670	2300	34.5	19-122
07/18/94	MB*NONE*1	97449*SUR	TERPHENYL-D(14)	UG/KG	3330	372	11.2	18-137
07/18/94	DA*CDMHNSS3*5	98325*SUR	2-FLUOROPHENOL	UG/KG-	6700	4900	73	25-121
07/18/94	DA*CDMHNSS3*5	98326*SUR	PHENOL-D(5)	UG/KG-	6670	5550	83.2	24-113
07/18/94	DA*CDMHNSS3*5	98327*SUR	NITROBENZENE-D(5)	UG/KG-	3300	2600	79	23-120
07/18/94	DA*CDMHNSS3*5	98330*SUR	2-FLUOROBIPHENYL	UG/KG-	3300	2700	82	30-115
07/18/94	DA*CDMHNSS3*5	97448*SUR	2,4,6-TRIBROMOPHENOL	UG/KG	6670	5540	83.1	19-122
07/18/94	DA*CDMHNSS3*5	97449*SUR	TERPHENYL-D(14)	UG/KG	3330	2630	79.0	18-137
07/18/94	DA*CDMHNSS3*6	98325*SUR	2-FLUOROPHENOL	UG/KG-	6700	4600	69	25-121
07/18/94	DA*CDMHNSS3*6	98326*SUR	PHENOL-D(5)	UG/KG-	6670	5260	78.9	24-113
07/18/94	DA*CDMHNSS3*6	98327*SUR	NITROBENZENE-D(5)	UG/KG-	3300	2400	73	23-120
07/18/94	DA*CDMHNSS3*6	98330*SUR	2-FLUOROBIPHENYL	UG/KG-	3300	2600	79	30-115
07/18/94	DA*CDMHNSS3*6	97448*SUR	2,4,6-TRIBROMOPHENOL	UG/KG	6670	5350	80.2	19-122
07/18/94	DA*CDMHNSS3*6	97449*SUR	TERPHENYL-D(14)	UG/KG	3330	2360	70.9	18-137
07/18/94	DA*CDMHNSS3*42	98325*SUR	2-FLUOROPHENOL	UG/KG-	6700	4700	70	25-121
07/18/94	DA*CDMHNSS3*42	98326*SUR	PHENOL-D(5)	UG/KG-	6670	5310	79.6	24-113
07/18/94	DA*CDMHNSS3*42	98327*SUR	NITROBENZENE-D(5)	UG/KG-	3300	2400	73	23-120
07/18/94	DA*CDMHNSS3*42	98330*SUR	2-FLUOROBIPHENYL	UG/KG-	3300	2600	79	30-115
07/18/94	DA*CDMHNSS3*42	97448*SUR	2,4,6-TRIBROMOPHENOL	UG/KG	6670	5450	81.7	19-122
07/18/94	DA*CDMHNSS3*42	97449*SUR	TERPHENYL-D(14)	UG/KG	3330	2390	71.8	18-137
07/18/94	SP1*NONE*1	98325*SUR	2-FLUOROPHENOL	UG/KG-	6700	5100	76	25-121
07/18/94	SP1*NONE*1	98326*SUR	PHENOL-D(5)	UG/KG-	6670	5490	82.3	24-113
07/18/94	SP1*NONE*1	98327*SUR	NITROBENZENE-D(5)	UG/KG-	3300	2500	76	23-120
07/18/94	SP1*NONE*1	98330*SUR	2-FLUOROBIPHENYL	UG/KG-	3300	2400	73	30-115
07/18/94	SP1*NONE*1	97448*SUR	2,4,6-TRIBROMOPHENOL	UG/KG	6670	4820	72.3	19-122
07/18/94	SP1*NONE*1	97449*SUR	TERPHENYL-D(14)	UG/KG	3330	953	28.6	18-137
07/18/94	SPM1*CDMHNSS3*5	98325*SUR	2-FLUOROPHENOL	UG/KG-	6700	4700	70	25-121
( )4	SPM1*CDMHNSS3*5	98326*SUR	PHENOL-D(5)	UG/KG-	6670	5130	76.9	24-113
(4	SPM1*CDMHNSS3*5	98327*SUR	NITROBENZENE-D(5)	UG/KG-	3300	2400	73	23-120
07/_ 94	SPM1*CDMHNSS3*5	98330*SUR	2-FLUOROBIPHENYL	UG/KG-	3300	2500	76	30-115
07/18/94	SPM1*CDMHNSS3*5	97448*SUR	2,4,6-TRIBROMOPHENOL	UG/KG	6670	5190	77.8	19-122
07/18/94	SPM1*CDMHNSS3*5	97449*SUR	TERPHENYL-D(14)	UG/KG	3330	2260	67.9	18-137

ESE BATCH : G51215

Surrogate Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/18/94	SPM2*CDMHNSS3*5	98325*SUR	2-FLUOROPHENOL	UG/KG-	6700	5100	76	25-121
07/18/94	SPM2*CDMHNSS3*5	98326*SUR	PHENOL-D(5)	UG/KG-	6670	5490	82.3	24-113
07/18/94	SPM2*CDMHNSS3*5	98327*SUR	NITROBENZENE-D(5)	UG/KG-	3300	2500	76	23-120
07/18/94	SPM2*CDMHNSS3*5	98330*SUR	2-FLUOROBIPHENYL	UG/KG-	3300	2600	79	30-115
07/18/94	SPM2*CDMHNSS3*5	97448*SUR	2,4,6-TRIBROMOPHENOL	UG/KG	6670	5590	83.8	19-122
07/18/94	SPM2*CDMHNSS3*5	97449*SUR	TERPHENYL-D(14)	UG/KG	3330	2430	73.0	18-137

ESE BATCH : G51215

Environmental Science and Engineering Analytical Services

Computer QC Checks

B ..: G51215 Analysis Date: 07/18/94 Analyst: SCOTT KEERAN

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
Extract holding time within criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?		X	14DICLBEN
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?	X		
Sample matrix spike duplicate present?	X		
Sample matrix spike duplicate within acceptance criteria?		X	14DICLBEN
			24DINITOL
Surrogate present?	X		
Surrogate within acceptance criteria?		X	97449*SUR

Note: Any "NO" answer requires a comment.

OVERRIDE COMMENTS

I 'ERRIDE BY: DWIGHT ROBERTS 515
PROB. :STANDARD MATRIX SPIKE NOT WITHIN
ACCEPTANCE CRITERIA.
EXPL.:MATRIX SPIKE RECOVERIES FOR 1,4-DICHLORO-
BENZENE AND 2,4-DINITROTOLUENE ARE ABOVE
THE UPPE LIMIT FOR CERTAIN SPIKES YET WERE
WITHIN IN HISTORICAL DATA. FOR THE BLANK,
THE TERPHENYL-D14 RECOVERY WAS LOW. CLP
CRITERIA ALLOW FOR ONE ACID AND ONE BASE
FAILURE./WSK
PROB.:SAMPLE MATRIX SPIKE DUPLICATE NOT WITHIN
ACCEPTANCE CRITERIA.
EXPL.:SEE ABOVE./WSK
PROB.:SURROGATE NOT WITHIN ACCEPTANCE
CRITERIA.
EXPL.:SEE ABOVE./WSK
ONE METHOD BLANK SURROGATE LOW.
ALL SAMPLE SURROGATES PASS CRITERIA.
DATA QUALITY ACCEPTABLE./EHM

FINALIZED BY:

ESE BATCH : G51215

TABLE OF ABBREVIATIONS

%RECV : % Recovery for spiked sample. (FOUND/TARGET * 100)
ANLY DATE : Analysis Date
ANLY TIME : Analysis Time
CURVE : Curve Regression Number
DILUTION : Sample Dilution Factor
EXT DATE : Extract Date
EXT VOL : Extract Volume
FOUND : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL : Injection Volume
REL%DIFF : % Difference between current and previous spike.
RESPONSE : Sample Response
R.T. : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
DA -- Data Sample
MB -- Method Blank
RF -- Reference (from commercially known standard)
RP -- Replicate Sample
SP -- Standard Matrix Spike
SPM -- Sample Matrix Spike
STD -- Internal Standard
SUR -- Surrogate Sample
UN -- Unspiked Sample
SAMP VOL : Sample Volume
SPK CONC : Spike Concentration
ST : Sample response explanation or validity. (listed below)
BK -- No sample response.
NA -- Sample not analyzed.
NR -- Not reserved for this batch. Batch containing the response for this sample is listed in the target field.
OK -- Sample response shown is correct.
! -- Sample response shown is invalid.
< -- Sample response < detection limit. Detection limit is shown in the response field.
STORET*MTHD: Storet ID * Method Code
TARGET : Spike Target (SAMPLE LISTING SECTION)
TARGET : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE : Response Type ("FINAL" or empty.)
UNSP CONC : Unspiked Sample Concentration

ESE BATCH : G51539
CLASSIFICATION : PHENOLICS - CLP SOW OLM01.8

Q	: FDER/SW	REPORT DATE/TIME	: 08/15/94 12:45:15
ANALYST	: ATHANASIOS TOMARAS	ANALYSIS DATE	: 07/28/94
EXTRACTOR	: DANA DECHOW	EXTRACT DATE	: 07/27/94
DATA ENTRY	: TODD ROMERO		

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

BATCH NOTES
DOWNLOAD FILE ATHAN5

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSS3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSS3*43	WC1-01	07/28/94	12:10PM

ESE BATCH : G51539

HOLDING TIMES CHECK

SAMPLE	ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T. OVER

ALL HOLDING TIMES MET

STORET: 95004 METHOD: SUR 2-FLUOROPHENOL (CLP90/SON), UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 95003 METHOD: SUR PHENOL-D(5) (CLP90/SON), UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34695 METHOD: CLP90/SON-G PHENOL, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34276 METHOD: CLP90/SON-G BIS(2-CHLOROETHYL)ETHER, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 95007 METHOD: SUR 2-CHLOROPHENOL-D4 (CLP90/SON), UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34589 METHOD: CLP90/SON-G 2-CHLOROPHENOL, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34569 METHOD: CLP90/SON-G 1,3-DICHLOROBENZENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34574 METHOD: CLP90/SON-G 1,4-DICHLOROBENZENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 95009 METHOD: SUR 1,2-DICHLOROBENZENE-D4 (CLP90/SON), UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34539 METHOD: CLP90/SON-G 1,2-DICHLOROBENZENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 78872 METHOD: CLP90/SON-G 2-METHYLPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 78803 METHOD: CLP90/SON-G 4-METHYLPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34286 METHOD: CLP90/SON-G 2,2'-OXYBIS(1-CHLOROPROPANE), UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34431 METHOD: CLP90/SON-G N-NITROSODI-N-PROPYLAMINE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34399 METHOD: CLP90/SON-G HEXACHLOROETHANE, UG/KG-DRY GCMS

ESE BATCH : G51539

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 95051 METHOD: SUR NITROBENZENE-D(5) (CLP90/SON), UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34450 METHOD: CLP90/SON-G NITROBENZENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34411 METHOD: CLP90/SON-G ISOPHORONE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34594 METHOD: CLP90/SON-G 2-NITROPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34609 METHOD: CLP90/SON-G 2,4-DIMETHYLPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34281 METHOD: CLP90/SON-G BIS(2-CHLOROETHOXY)METHANE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34604 METHOD: CLP90/SON-G 2,4-DICHLOROPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34554 METHOD: CLP90/SON-G 1,2,4-TRICH'BENZENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34445 METHOD: CLP90/SON-G NAPHTHALENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 78867 METHOD: CLP90/SON-G 4-CHLOROANILINE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 39705 METHOD: CLP90/SON-G HEXACHLOROBUTADIENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34455 METHOD: CLP90/SON-G 4-CHLORO-3-METHYLPHENOL, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 78868 METHOD: CLP90/SON-G 2-METHYLNAPHTHALENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34389 METHOD: CLP90/SON-G HEXACHLOROCYCLOPENTADIENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34624 METHOD: CLP90/SON-G 2,4,6-TRICH'PHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1

ESE BATCH : G51539
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 98587 METHOD: CLP90/SON-G 2,4,5-TRICH'PHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=25000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 95052 METHOD: SUR 2-FLUOROBIPHENYL (CLP90/SON), UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34584 METHOD: CLP90/SON-G 2-CHLORONAPHTHALENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 98588 METHOD: CLP90/SON-G 2-NITROANILINE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=25000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34344 METHOD: CLP90/SON-G DIMETHYL PHTHALATE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34203 METHOD: CLP90/SON-G ACENAPHTHYLENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34629 METHOD: CLP90/SON-G 2,6-DINITROTOLUENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 78869 METHOD: CLP90/SON-G 3-NITROANILINE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=25000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34208 METHOD: CLP90/SON-G ACENAPHTHENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34619 METHOD: CLP90/SON-G 2,4-DINITROPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=25000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34649 METHOD: CLP90/SON-G 4-NITROPHENOL, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=25000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 75647 METHOD: CLP90/SON-G DIBENZOFURAN, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34614 METHOD: CLP90/SON-G 2,4-DINITROTOLUENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34339 METHOD: CLP90/SON-G DIETHYL PHTHALATE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34644 METHOD: CLP90/SON-G 4-CHLOROPHENYLPHENYL ETHER, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

ESE BATCH : G51539
STORET: 34384 METHOD: CLP90/SON-G FLUORENE, UG/KG-DRY GCMS

ALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 78870 METHOD: CLP90/SON-G 4-NITROANILINE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=25000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 95005 METHOD: SUR 2,4,6-TRIBROMOPHENOL (CLP90/SON), UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34660 METHOD: CLP90/SON-G 2-METHYL-4,6-DINITROPHENOL, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=25000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34436 METHOD: CLP90/SON-G N-NITROSODIPHE'AMINE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34639 METHOD: CLP90/SON-G 4-BROMOPHENYL PHENYL ETHER, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 39701 METHOD: CLP90/SON-G HEXACHLOROBENZENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 39061 METHOD: CLP90/SON-G PENTACHLPHENOL, UG/KG-DRY FINAL

ALIBRATION CURVE # 1
DETECTION LIMIT=25000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34464 METHOD: CLP90/SON-G PHENANTHRENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34223 METHOD: CLP90/SON-G ANTHRACENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 96242 METHOD: CLP90/SON-G CARBAZOLE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 39112 METHOD: CLP90/SON-G DI-N-BUTYL PHTHALATE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34379 METHOD: CLP90/SON-G FLUORANTHENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34472 METHOD: CLP90/SON-G PYRENE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 95002 METHOD: SUR TERPHENYL-D(14) (CLP90/SON), UG/KG-DRY GCMS

ALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34295 METHOD: CLP90/SON-G BUTYLBENZYLPHTHALATE, UG/KG-DRY GCMS

ESE BATCH : G51539
CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34634 METHOD: CLP90/SON-G 3,3-DICHL'BENZIDINE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34529 METHOD: CLP90/SON-G BENZO(A)ANTHRACENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34323 METHOD: CLP90/SON-G CHRYSENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 39102 METHOD: CLP90/SON-G BIS(2-ETHYLHEXYL)PHTHALATE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34599 METHOD: CLP90/SON-G DI-N-OCTYL PHTHALATE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34233 METHOD: CLP90/SON-G BENZO(B)FLUORANTHENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34245 METHOD: CLP90/SON-G BENZO(K)FLUORANTHENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34250 METHOD: CLP90/SON-G BENZO(A)PYRENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34406 METHOD: CLP90/SON-G INDENO(1,2,3-CD)PYRENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34559 METHOD: CLP90/SON-G DIBEN(A,H)ANTHRACENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 34524 METHOD: CLP90/SON-G BENZO(GHI)PERYLENE, UG/KG-DRY GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10000 DATE: 07/27/94 LARGEST RESP= %RSD= RT WINDOW:

ESE BATCH : G51539

hod Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/28/94	MB*NONE*1	34695*CLP90/SON-G	PHENOL	UG/KG-	ND
07/28/94	MB*NONE*1	34276*CLP90/SON-G	BIS(2-CHLOROETHYL)ETHER	UG/KG-	ND
07/28/94	MB*NONE*1	34589*CLP90/SON-G	2-CHLOROPHENOL	UG/KG-	ND
07/28/94	MB*NONE*1	34569*CLP90/SON-G	1,3-DICHLOROBENZENE	UG/KG-	ND
07/28/94	MB*NONE*1	34574*CLP90/SON-G	1,4-DICHLOROBENZENE	UG/KG-	ND
07/28/94	MB*NONE*1	34539*CLP90/SON-G	1,2-DICHLOROBENZENE	UG/KG-	ND
07/28/94	MB*NONE*1	78872*CLP90/SON-G	2-METHYLPHENOL	UG/KG-	ND
07/28/94	MB*NONE*1	78803*CLP90/SON-G	4-METHYLPHENOL	UG/KG-	ND
07/28/94	MB*NONE*1	34286*CLP90/SON-G	2,2'-OXYBIS(1-CHLOROPROPANE)	UG/KG-	ND
07/28/94	MB*NONE*1	34431*CLP90/SON-G	N-NITROSODI-N-PROPYLAMINE	UG/KG-	ND
07/28/94	MB*NONE*1	34399*CLP90/SON-G	HEXACHLOROETHANE	UG/KG-	ND
07/28/94	MB*NONE*1	34450*CLP90/SON-G	NITROBENZENE	UG/KG-	ND
07/28/94	MB*NONE*1	34411*CLP90/SON-G	ISOPHORONE	UG/KG-	ND
07/28/94	MB*NONE*1	34594*CLP90/SON-G	2-NITROPHENOL	UG/KG-	ND
07/28/94	MB*NONE*1	34609*CLP90/SON-G	2,4-DIMETHYLPHENOL	UG/KG-	ND
07/28/94	MB*NONE*1	34281*CLP90/SON-G	BIS(2-CHLOROETHOXY)METHANE	UG/KG-	ND
07/28/94	MB*NONE*1	34604*CLP90/SON-G	2,4-DICHLOROPHENOL	UG/KG-	ND
07/28/94	MB*NONE*1	34554*CLP90/SON-G	1,2,4-TRICH'BENZENE	UG/KG-	ND
07/28/94	MB*NONE*1	34445*CLP90/SON-G	NAPHTHALENE	UG/KG-	ND
07/28/94	MB*NONE*1	78867*CLP90/SON-G	4-CHLOROANILINE	UG/KG-	ND
07/28/94	MB*NONE*1	39705*CLP90/SON-G	HEXACHLOROBUTADIENE	UG/KG-	ND
07/28/94	MB*NONE*1	34455*CLP90/SON-G	4-CHLORO-3-METHYLPHENOL	UG/KG-	ND
07/28/94	MB*NONE*1	78868*CLP90/SON-G	2-METHYLNAPHTHALENE	UG/KG-	ND
07/28/94	MB*NONE*1	34389*CLP90/SON-G	HEXACHLOROCYCLOPENTADIENE	UG/KG-	ND
07/28/94	MB*NONE*1	34624*CLP90/SON-G	2,4,6-TRICH'PHENOL	UG/KG-	ND
07/28/94	MB*NONE*1	98587*CLP90/SON-G	2,4,5-TRICH'PHENOL	UG/KG-	ND
07/28/94	MB*NONE*1	34584*CLP90/SON-G	2-CHLORONAPHTHALENE	UG/KG-	ND
07/28/94	MB*NONE*1	98588*CLP90/SON-G	2-NITROANILINE	UG/KG-	ND
07/28/94	MB*NONE*1	34344*CLP90/SON-G	DIMETHYL PHTHALATE	UG/KG-	ND
07/28/94	MB*NONE*1	34203*CLP90/SON-G	ACENAPHTHYLENE	UG/KG-	ND
/28/94	MB*NONE*1	34629*CLP90/SON-G	2,6-DINITROTOLUENE	UG/KG-	ND
'28/94	MB*NONE*1	78869*CLP90/SON-G	3-NITROANILINE	UG/KG-	ND
28/94	MB*NONE*1	34208*CLP90/SON-G	ACENAPHTHENE	UG/KG-	ND
07/28/94	MB*NONE*1	34619*CLP90/SON-G	2,4-DINITROPHENOL	UG/KG-	ND
07/28/94	MB*NONE*1	34649*CLP90/SON-G	4-NITROPHENOL	UG/KG-	ND
07/28/94	MB*NONE*1	75647*CLP90/SON-G	DIBENZOFURAN	UG/KG-	ND
07/28/94	MB*NONE*1	34614*CLP90/SON-G	2,4-DINITROTOLUENE	UG/KG-	ND
07/28/94	MB*NONE*1	34339*CLP90/SON-G	DIETHYL PHTHALATE	UG/KG-	ND
07/28/94	MB*NONE*1	34644*CLP90/SON-G	4-CHLOROPHENYLPHENYL ETHER	UG/KG-	ND
07/28/94	MB*NONE*1	34384*CLP90/SON-G	FLUORENE	UG/KG-	ND
07/28/94	MB*NONE*1	78870*CLP90/SON-G	4-NITROANILINE	UG/KG-	ND
07/28/94	MB*NONE*1	34660*CLP90/SON-G	2-METHYL-4,6-DINITROPHENOL	UG/KG-	ND
07/28/94	MB*NONE*1	34436*CLP90/SON-G	N-NITROSODIPHE'AMINE	UG/KG-	ND
07/28/94	MB*NONE*1	34639*CLP90/SON-G	4-BROMOPHENYL PHENYL ETHER	UG/KG-	ND
07/28/94	MB*NONE*1	39701*CLP90/SON-G	HEXACHLOROBENZENE	UG/KG-	ND
07/28/94	MB*NONE*1	39061*CLP90/SON-G	PENTACHLPHENOL	UG/KG-	ND
07/28/94	MB*NONE*1	34464*CLP90/SON-G	PHENANTHRENE	UG/KG-	ND
07/28/94	MB*NONE*1	34223*CLP90/SON-G	ANTHRACENE	UG/KG-	ND
07/28/94	MB*NONE*1	96242*CLP90/SON-G	CARBAZOLE	UG/KG-	ND
07/28/94	MB*NONE*1	39112*CLP90/SON-G	DI-N-BUTYL PHTHALATE	UG/KG-	ND
07/28/94	MB*NONE*1	34379*CLP90/SON-G	FLUORANTHENE	UG/KG-	ND
07/28/94	MB*NONE*1	34472*CLP90/SON-G	PYRENE	UG/KG-	ND
07/28/94	MB*NONE*1	34295*CLP90/SON-G	BUTYLBENZYLPHTHALATE	UG/KG-	ND
07/28/94	MB*NONE*1	34634*CLP90/SON-G	3,3-DICHL'BENZIDINE	UG/KG-	ND
07/28/94	MB*NONE*1	34529*CLP90/SON-G	BENZO(A)ANTHRACENE	UG/KG-	ND
07/28/94	MB*NONE*1	34323*CLP90/SON-G	CHRYSENE	UG/KG-	ND
07/28/94	MB*NONE*1	39102*CLP90/SON-G	BIS(2-ETHYLHEXYL)PHTHALATE	UG/KG-	ND
07/28/94	MB*NONE*1	34599*CLP90/SON-G	DI-N-OCTYL PHTHALATE	UG/KG-	ND
07/28/94	MB*NONE*1	34233*CLP90/SON-G	BENZO(B)FLUORANTHENE	UG/KG-	ND
07/28/94	MB*NONE*1	34245*CLP90/SON-G	BENZO(K)FLUORANTHENE	UG/KG-	ND
07/28/94	MB*NONE*1	34250*CLP90/SON-G	BENZO(A)PYRENE	UG/KG-	ND
07/28/94	MB*NONE*1	34406*CLP90/SON-G	INDENO(1,2,3-CD)PYRENE	UG/KG-	ND
07/28/94	MB*NONE*1	34559*CLP90/SON-G	DIBEN(A,H)ANTHRACENE	UG/KG-	ND
07/28/94	MB*NONE*1	34524*CLP90/SON-G	BENZO(GHI)PERYLENE	UG/KG-	ND

ample Matrix Spike Recovery Summary

E	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
07/28/94	SPM1*CDMHNSS3*43	34695*CLP90/SON-G	PHENOL	113	26-90	0.0	UG/KG-	150000	170000
07/28/94	SPM1*CDMHNSS3*43	34589*CLP90/SON-G	2-CHLOROPHENOL	100	25-102	0.0	UG/KG-	150000	150000
07/28/94	SPM1*CDMHNSS3*43	34574*CLP90/SON-G	1,4-DICHLOROBENZENE	100	28-104	0.0	UG/KG-	100000	100000
07/28/94	SPM1*CDMHNSS3*43	34431*CLP90/SON-G	N-NITROSODI-N-PROPYLAMINE	100	41-126	0.0	UG/KG-	100000	100000
07/28/94	SPM1*CDMHNSS3*43	34554*CLP90/SON-G	1,2,4-TRICH'BENZENE	99	38-107	0.0	UG/KG-	100000	99000

CSE BATCH : G51539

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
07/28/94	SPM1*CDMHNSS3*43	34455*CLP90/SON-G	4-CHLORO-3-METHYLPHENOL	100	26-103	0.0	UG/KG-	150000	150000
07/28/94	SPM1*CDMHNSS3*43	34208*CLP90/SON-G	ACENAPHTHENE	68	31-137	0.0	UG/KG-	100000	68000
07/28/94	SPM1*CDMHNSS3*43	34649*CLP90/SON-G	4-NITROPHENOL	100	11-114	0.0	UG/KG-	150000	150000
07/28/94	SPM1*CDMHNSS3*43	34614*CLP90/SON-G	2,4-DINITROTOLUENE	88	28-89	0.0	UG/KG-	100000	88000
07/28/94	SPM1*CDMHNSS3*43	39061*CLP90/SON-G	PENTACHLPHENOL	127	17-109	0.0	UG/KG-	150000	190000
07/28/94	SPM1*CDMHNSS3*43	34472*CLP90/SON-G	PYRENE	88	35-142	0.0	UG/KG-	100000	88000
07/28/94	SPM2*CDMHNSS3*43	34695*CLP90/SON-G	PHENOL	107	26-90	0.0	UG/KG-	150000	160000
07/28/94	SPM2*CDMHNSS3*43	34589*CLP90/SON-G	2-CHLOROPHENOL	93	25-102	0.0	UG/KG-	150000	140000
07/28/94	SPM2*CDMHNSS3*43	34574*CLP90/SON-G	1,4-DICHLOROBENZENE	97	28-104	0.0	UG/KG-	100000	97000
07/28/94	SPM2*CDMHNSS3*43	34431*CLP90/SON-G	N-NITROSODI-N-PROPYLAMINE	99	41-126	0.0	UG/KG-	100000	99000
07/28/94	SPM2*CDMHNSS3*43	34554*CLP90/SON-G	1,2,4-TRICH'BENZENE	93	38-107	0.0	UG/KG-	100000	93000
07/28/94	SPM2*CDMHNSS3*43	34455*CLP90/SON-G	4-CHLORO-3-METHYLPHENOL	100	26-103	0.0	UG/KG-	150000	150000
07/28/94	SPM2*CDMHNSS3*43	34208*CLP90/SON-G	ACENAPHTHENE	60	31-137	0.0	UG/KG-	100000	60000
07/28/94	SPM2*CDMHNSS3*43	34649*CLP90/SON-G	4-NITROPHENOL	93	11-114	0.0	UG/KG-	150000	140000
07/28/94	SPM2*CDMHNSS3*43	34614*CLP90/SON-G	2,4-DINITROTOLUENE	82	28-89	0.0	UG/KG-	100000	82000
07/28/94	SPM2*CDMHNSS3*43	39061*CLP90/SON-G	PENTACHLPHENOL	133	17-109	0.0	UG/KG-	150000	200000
07/28/94	SPM2*CDMHNSS3*43	34472*CLP90/SON-G	PYRENE	91	35-142	0.0	UG/KG-	100000	91000

Surrogate Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/28/94	MB*NONE*1	95004*SUR	2-FLUOROPHENOL (CLP90/SON)	UG/KG-	75000	52000	69	25-121
07/28/94	MB*NONE*1	95003*SUR	PHENOL-D(5) (CLP90/SON)	UG/KG-	75000	61000	81.3	24-113
07/28/94	MB*NONE*1	95007*SUR	2-CHLOROPHENOL-D4 (CLP90/SON)	UG/KG-	75000	61000	81	20-130
07/28/94	MB*NONE*1	95009*SUR	1,2-DICHLOROBENZENE-D4 (CLP90/	UG/KG-	50000	44000	88	20-130
07/28/94	MB*NONE*1	95051*SUR	NITROBENZENE-D(5) (CLP90/SON)	UG/KG-	50000	43000	86	23-120
07/28/94	MB*NONE*1	95052*SUR	2-FLUOROBIPHENYL (CLP90/SON)	UG/KG-	50000	41000	82	30-115
07/28/94	MB*NONE*1	95005*SUR	2,4,6-TRIBROMOPHENOL (CLP90/SO	UG/KG-	75000	49000	65.3	19-122
07/28/94	MB*NONE*1	95002*SUR	TERPHENYL-D(14) (CLP90/SON)	UG/KG-	50000	43000	86.0	18-137
07/28/94	DA*CDMHNSS3*43	95004*SUR	2-FLUOROPHENOL (CLP90/SON)	UG/KG-	75000	50000	67	25-121
07/28/94	DA*CDMHNSS3*43	95003*SUR	PHENOL-D(5) (CLP90/SON)	UG/KG-	75000	59000	78.7	24-113
07/28/94	DA*CDMHNSS3*43	95007*SUR	2-CHLOROPHENOL-D4 (CLP90/SON)	UG/KG-	75000	58000	77	20-130
07/28/94	DA*CDMHNSS3*43	95009*SUR	1,2-DICHLOROBENZENE-D4 (CLP90/	UG/KG-	50000	41000	82	20-130
07/28/94	DA*CDMHNSS3*43	95051*SUR	NITROBENZENE-D(5) (CLP90/SON)	UG/KG-	50000	47000	94	23-120
07/28/94	DA*CDMHNSS3*43	95052*SUR	2-FLUOROBIPHENYL (CLP90/SON)	UG/KG-	50000	46000	92	30-115
07/28/94	DA*CDMHNSS3*43	95005*SUR	2,4,6-TRIBROMOPHENOL (CLP90/SO	UG/KG-	75000	56000	74.7	19-122
07/28/94	DA*CDMHNSS3*43	95002*SUR	TERPHENYL-D(14) (CLP90/SON)	UG/KG-	50000	46000	92.0	18-137
07/28/94	SPM1*CDMHNSS3*43	95004*SUR	2-FLUOROPHENOL (CLP90/SON)	UG/KG-	75000	53000	71	25-121
07/28/94	SPM1*CDMHNSS3*43	95003*SUR	PHENOL-D(5) (CLP90/SON)	UG/KG-	75000	67000	89.3	24-113
07/28/94	SPM1*CDMHNSS3*43	95007*SUR	2-CHLOROPHENOL-D4 (CLP90/SON)	UG/KG-	75000	65000	87	20-130
07/28/94	SPM1*CDMHNSS3*43	95009*SUR	1,2-DICHLOROBENZENE-D4 (CLP90/	UG/KG-	50000	47000	94	20-130
07/28/94	SPM1*CDMHNSS3*43	95051*SUR	NITROBENZENE-D(5) (CLP90/SON)	UG/KG-	50000	50000	100	23-120
07/28/94	SPM1*CDMHNSS3*43	95052*SUR	2-FLUOROBIPHENYL (CLP90/SON)	UG/KG-	50000	50000	100	30-115
07/28/94	SPM1*CDMHNSS3*43	95005*SUR	2,4,6-TRIBROMOPHENOL (CLP90/SO	UG/KG-	75000	65000	86.7	19-122
07/28/94	SPM1*CDMHNSS3*43	95002*SUR	TERPHENYL-D(14) (CLP90/SON)	UG/KG-	50000	49000	98.0	18-137
07/28/94	SPM2*CDMHNSS3*43	95004*SUR	2-FLUOROPHENOL (CLP90/SON)	UG/KG-	75000	46000	61	25-121
07/28/94	SPM2*CDMHNSS3*43	95003*SUR	PHENOL-D(5) (CLP90/SON)	UG/KG-	75000	62000	82.7	24-113
07/28/94	SPM2*CDMHNSS3*43	95007*SUR	2-CHLOROPHENOL-D4 (CLP90/SON)	UG/KG-	75000	61000	81	20-130
07/28/94	SPM2*CDMHNSS3*43	95009*SUR	1,2-DICHLOROBENZENE-D4 (CLP90/	UG/KG-	50000	43000	86	20-130
07/28/94	SPM2*CDMHNSS3*43	95051*SUR	NITROBENZENE-D(5) (CLP90/SON)	UG/KG-	50000	46000	92	23-120
07/28/94	SPM2*CDMHNSS3*43	95052*SUR	2-FLUOROBIPHENYL (CLP90/SON)	UG/KG-	50000	46000	92	30-115
07/28/94	SPM2*CDMHNSS3*43	95005*SUR	2,4,6-TRIBROMOPHENOL (CLP90/SO	UG/KG-	75000	63000	84.0	19-122
07/28/94	SPM2*CDMHNSS3*43	95002*SUR	TERPHENYL-D(14) (CLP90/SON)	UG/KG-	50000	52000	104	18-137

ESE BATCH : G51539

Environmental Science and Engineering Analytical Services

Computer QC Checks

:h No.: G51539 Analysis Date: 07/28/94 Analyst: ATHANASIOS TOMARAS

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
Extract holding time within criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?		X	PHENOL
			PENTCLPHE
Sample matrix spike duplicate present?	X		
Sample matrix spike duplicate within acceptance criteria?		X	PHENOL
			PENTCLPHE
Surrogate present?	X		
Surrogate within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

OVERRIDE COMMENTS

CH OVERRIDE BY: DWIGHT ROBERTS 515
ℸ.:SAMPLE MATRIX SPIKE NOT
WITHIN ACCEPTANCE CRITERIA.
EXPL.:THE MATRIX SPIKE/MATRIX SPIKE DUPLICATE
RECOVERIES WERE ABOVE THE UPPER LIMIT
FOR PHENOL AND PENTACHLOROPHENOL. THESE
RECOVERIES ARE GOOD FOR THIS METHOD.
FOLLOWING THE CLP 3/90 SOW MATRIX SPIKE
RECOVERIES ARE ONLY ADVISORY AND THEIR
FAILURE DOES NOT INDICATE A QC PROBLEM./AT
PROB.:SAMPLE MATRIX SPIKE DUPLICATE NOT WITHIN
ACCEPTANCE CRITERIA.
EXPL.:SEE ABOVE./AT

FINALIZED BY: DENESE WETHY 2978

ESE BATCH : G51539

TABLE OF ABBREVIATIONS

%RECV : % Recovery for spiked sample. (FOUND/TARGET * 100)
ANLY DATE : Analysis Date
ANLY TIME : Analysis Time
CURVE : Curve Regression Number
DILUTION : Sample Dilution Factor
EXT DATE : Extract Date
EXT VOL : Extract Volume
FOUND : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL : Injection Volume
REL%DIFF : % Difference between current and previous spike.
RESPONSE : Sample Response
R.T. : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
DA -- Data Sample
MB -- Method Blank
RF -- Reference (from commercially known standard)
RP -- Replicate Sample
SP -- Standard Matrix Spike
SPM -- Sample Matrix Spike
STD -- Internal Standard
SUR -- Surrogate Sample
UN -- Unspiked Sample
SAMP VOL : Sample Volume
SPK CONC : Spike Concentration
ST : Sample response explanation or validity. (listed below)
BK -- No sample response.
NA -- Sample not analyzed.
NR -- Not reserved for this batch. Batch containing the response for this sample is listed in the target field.
OK -- Sample response shown is correct.
! -- Sample response shown is invalid.
< -- Sample response < detection limit. Detection limit is shown in the response field.
STORET*MTHD: Storet ID * Method Code
TARGET : Spike Target (SAMPLE LISTING SECTION)
TARGET : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE : Response Type ("FINAL" or empty.)
UNSP CONC : Unspiked Sample Concentration

9513354.2811

Organochlorine Pesticides

& PCBs

ESE BATCH : G51081
CLASSIFICATION : CHL. PESTS - EPA 8080/3540 (SOX)

QC TYPE : FDER/SW
ANALYST : GREG AYOUB
EXTRACTOR : DONNA CREWS
DATA ENTRY : GREG AYOUB

REPORT DATE/TIME : 08/15/94 12:47:21
ANALYSIS DATE : 07/17/94
EXTRACT DATE : 07/14/94

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSS3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSS3*1	VR-01	07/18/94	02:21PM
CDMHNSS3*2	VR-02	07/18/94	03:04PM
CDMHNSS3*41	BG1-01	07/18/94	03:45PM

ESE BATCH : G51081

HOLDING TIMES CHECK

PLE	ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T.	OVER

ALL HOLDING TIMES MET

STORET: 96471 METHOD: SUR TETRACHLORO-M-XYLENE, UG/G QUAD

CALIBRATION CURVE # 1 (NG/ML)
DETECTION LIMIT=.004 DATE: 07/18/94 LARGEST RESP=2202656 %RSD=4.8524 RT WINDOW:

CONC :	0	.004	.020	.040	.100	.200	.400
RESP :	0	20441	105720	225412	567473	1166599	2202656
CONC':	0.002	0.005	0.019	0.039	0.097	0.203	0.399
R.T.:		12.459	12.457	12.456	12.454	12.452	12.450

CONC = 1.7196E-03+ 1.6332E-07*RESP+ 7.8231E-15*RESP**2+ *RESP**3
95% C.I.= 2.7749E-03 9.0402E-09 4.1022E-15
CORRELATION COEFFICIENT = .9999

STORET: 39076 METHOD: 8080/3540-G BHC,A, UG/KG-DRY QUAD

CALIBRATION CURVE # 1 (NG/ML)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=595218 %RSD=14.8969 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	4447	21181	42179	105923	254636	595218
CONC':	0.496	1.49	5.18	9.74	23.1	51.2	99.8
R.T.:		15.376	15.378	15.379	15.379	15.378	15.376

CONC = 4.9648E-01+ 2.2310E-04*RESP+ -9.4395E-11*RESP**2+ *RESP**3
95% C.I.= 1.2988E+00 1.7699E-05 2.9317E-11
CORRELATION COEFFICIENT = .9996

STORET: 39783 METHOD: 8080/3540-G BHC,G(LINDANE), UG/KG-DRY QUAD

CALIBRATION CURVE # 1 (NG/ML)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=534572 %RSD=12.4020 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	4166	20245	40171	99845	235301	534572
CONC':	0.403	1.40	5.19	9.83	23.2	51.1	99.9
R.T.:		17.054	17.056	17.055	17.057	17.056	17.054

CONC = 4.0297E-01+ 2.3854E-04*RESP+ -9.8216E-11*RESP**2+ *RESP**3
95% C.I.= 1.1826E+00 1.7611E-05 3.2515E-11
CORRELATION COEFFICIENT = .9997

STORET: 34257 METHOD: 8080/3540-G BHC,B, UG/KG-DRY QUAD

CALIBRATION CURVE # 1 (NG/ML)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=275489 %RSD=3.9204 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	2497	13060	25914	62581	134621	275489
CONC':	0.116	1.08	5.16	10.1	24.0	50.6	99.9
R.T.:		17.349	17.349	17.350	17.349	17.346	17.344

CONC = 1.1550E-01+ 3.8765E-04*RESP+ -9.2334E-11*RESP**2+ *RESP**3
95% C.I.= 6.7099E-01 1.8076E-05 6.5058E-11
CORRELATION COEFFICIENT = .9999

STORET: 39413 METHOD: 8080/3540-G HEPTACHLOR, UG/KG-DRY QUAD

CALIBRATION CURVE # 1 (NG/ML)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=753617 %RSD=6.7520 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	6514	33283	65008	157445	352767	753617
CONC':	0.174	1.17	5.25	10.0	23.7	50.8	99.9
R.T.:		18.435	18.437	18.437	18.437	18.438	18.436

CONC = 1.7415E-01+ 1.5356E-04*RESP+ -2.8215E-11*RESP**2+ *RESP**3
95% C.I.= 9.0418E-01 9.1592E-06 1.2022E-11
CORRELATION COEFFICIENT = .9998

STORET: 34262 METHOD: 8080/3540-G BHC,D, UG/KG-DRY QUAD

CALIBRATION CURVE # 1 (NG/ML)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=330887 %RSD=8.7389 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	2885	13767	27013	64956	146934	330887

```
ESE BATCH       : G51081
   CONC':     0.079      1.17      5.25      10.1      23.7      50.7      99.9
    R.T.:               18.914    18.915    18.914    18.914    18.914    18.911

    CONC     =   7.8932E-02+  3.7908E-04*RESP+ -2.3388E-10*RESP**2+            *RESP**3
    95% C.I.=   8.4018E-01   1.9852E-05        5.9117E-11
    CORRELATION COEFFICIENT = .9999
```

STORET: 39333 METHOD: 8080/3540-G ALDRIN, UG/KG-DRY QUAD

```
  CALIBRATION CURVE # 1   (NG/ML)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=743665 %RSD=14.5352  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0      6578     27530     52200    132818    324907    743665
   CONC':     0.545      1.69      5.31      9.50      22.7      51.4      99.8
    R.T.:               19.839    19.841    19.842    19.845    19.844    19.843

    CONC     =   5.4506E-01+  1.7445E-04*RESP+ -5.5104E-11*RESP**2+            *RESP**3
    95% C.I.=   1.5574E+00   1.6908E-05        2.2446E-11
    CORRELATION COEFFICIENT = .9995
```

STORET: 39423 METHOD: 8080/3540-G HEPTACHLOR EPOXIDE, UG/KG-DRY QUAD

```
  CALIBRATION CURVE # 1   (NG/ML)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=610337 %RSD=9.3552  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0      5310     24812     49308    119812    278070    610337
   CONC':     0.300      1.35      5.20      9.96      23.3      51.1      99.8
    R.T.:               22.189    22.192    22.193    22.195    22.195    22.194

    CONC     =   2.9956E-01+  1.9883E-04*RESP+ -5.8540E-11*RESP**2+            *RESP**3
    95% C.I.=   1.1490E+00   1.4685E-05        2.3778E-11
    CORRELATION COEFFICIENT = .9997
```

STORET: 34364 METHOD: 8080/3540-G ENDOSULFAN,A, UG/KG-DRY QUAD

```
  CALIBRATION CURVE # 1   (NG/ML)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=498035 %RSD=9.4111  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0      4292     20096     40488     99190    232079    498035
   CONC':     0.431      1.44      5.14      9.86      23.1      51.2      99.8
    R.T.:               23.557    23.561    23.562    23.563    23.563    23.562

    CONC     =   4.3068E-01+  2.3573E-04*RESP+ -7.2666E-11*RESP**2+            *RESP**3
    95% C.I.=   1.2976E+00   2.0210E-05        4.0194E-11
    CORRELATION COEFFICIENT = .9997
```

STORET: 39321 METHOD: 8080/3540-G DDE,PP', UG/KG-DRY QUAD

```
  CALIBRATION CURVE # 1   (NG/ML)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=413034 %RSD=9.3042  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0      3579     16752     33595     83042    194434    413034
   CONC':     0.477      1.48      5.14      9.77      23.1      51.3      99.8
    R.T.:               24.134    24.140    24.144    24.141    24.139    24.140

    CONC     =   4.7723E-01+  2.7984E-04*RESP+ -9.5332E-11*RESP**2+            *RESP**3
    95% C.I.=   1.3444E+00   2.5174E-05        6.0428E-11
    CORRELATION COEFFICIENT = .9996
```

STORET: 39383 METHOD: 8080/3540-G DIELDRIN, UG/KG-DRY QUAD

```
  CALIBRATION CURVE # 1   (NG/ML)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=511457 %RSD=14.3183  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0      3970     18140     37620     93978    230982    511457
   CONC':     0.712      1.67      5.06      9.67      22.6      51.5      99.8
    R.T.:               24.381    24.390    24.391    24.395    24.392    24.394

    CONC     =   7.1239E-01+  2.4161E-04*RESP+ -9.3706E-11*RESP**2+            *RESP**3
    95% C.I.=   1.6464E+00   2.5674E-05        4.9718E-11
    CORRELATION COEFFICIENT = .9994
```

STORET: 39393 METHOD: 8080/3540-G ENDRIN, UG/KG-DRY QUAD

```
  CALIBRATION CURVE # 1   (NG/ML)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=227890 %RSD=9.3670  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
```

```
ESE BATCH       : G51081
   RESP :          0      2328      9822     19404     46147    103785    227890
     ':        0.026      1.26      5.20      10.2      23.7      50.8      99.9
      :               25.337    25.346    25.348    25.348    25.348    25.350

    CONC     =   2.5758E-02+  5.3123E-04*RESP+ -4.0809E-10*RESP**2+            *RESP**3
    95% C.I.=    8.7924E-01   2.9767E-05        1.2884E-10
    CORRELATION COEFFICIENT = .9998
```

STORET: 39311 METHOD: 8080/3540-G DDD,PP', UG/KG-DRY QUAD

```
  CALIBRATION CURVE # 1   (NG/ML)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=217743 %RSD=5.9855  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0      2110      9769     19226     46994    105226    217743
   CONC':      0.258      1.32      5.17      9.89      23.5      51.0      99.8
    R.T.:               25.521    25.531    25.532    25.530    25.528    25.528

    CONC     =   2.5755E-01+  5.0541E-04*RESP+ -2.2082E-10*RESP**2+            *RESP**3
    95% C.I.=    1.0283E+00   3.5656E-05        1.6238E-10
    CORRELATION COEFFICIENT = .9998
```

STORET: 34359 METHOD: 8080/3540-G ENDOSULFAN,B, UG/KG-DRY QUAD

```
  CALIBRATION CURVE # 1   (NG/ML)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=328458 %RSD=5.8204  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0      3018     14700     29458     70033    159072    328458
   CONC':      0.279      1.29      5.18      10.1      23.3      51.1      99.8
    R.T.:               25.781    25.789    25.790    25.791    25.789    25.790

    CONC     =   2.7936E-01+  3.3497E-04*RESP+ -9.7193E-11*RESP**2+            *RESP**3
    95% C.I.=    1.1766E+00   2.7092E-05        8.1802E-11
    CORRELATION COEFFICIENT = .9997
```

STORET: 39301 METHOD: 8080/3540-G DDT,PP', UG/KG-DRY QUAD

```
      IRATION CURVE # 1   (NG/ML)
      'ECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=227899 %RSD=8.5184  RT WINDOW:
       :          0         1         5        10        25        50       100
   RESP :          0      1871      9475     19282     48190    108980    227899
   CONC':      0.429      1.35      5.05      9.79      23.5      51.0      99.8
    R.T.:               26.268    26.279    26.279    26.280    26.277    26.279

    CONC     =   4.2863E-01+  4.9034E-04*RESP+ -2.3770E-10*RESP**2+            *RESP**3
    95% C.I.=    1.0602E+00   3.5449E-05        1.5437E-10
    CORRELATION COEFFICIENT = .9998
```

STORET: 34369 METHOD: 8080/3540-G ENDRIN ALDEHYDE, UG/KG-DRY QUAD

```
  CALIBRATION CURVE # 1   (NG/ML)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=330572 %RSD=11.8109  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0      3490     13638     28095     65314    141879    330572
   CONC':      -.291      1.09      5.05      10.6      24.4      50.2     100.0
    R.T.:               26.604    26.617    26.618    26.619    26.616    26.616

    CONC     =  -2.9077E-01+  3.9556E-04*RESP+ -2.7900E-10*RESP**2+            *RESP**3
    95% C.I.=    5.3467E-01   1.2664E-05        3.7585E-11
    CORRELATION COEFFICIENT = .9999
```

STORET: 34354 METHOD: 8080/3540-G ENDOSULFAN SULFATE, UG/KG-DRY QUAD

```
  CALIBRATION CURVE # 1   (NG/ML)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=271586 %RSD=4.9329  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0      2750     12633     25439     60889    135671    271586
   CONC':      0.286      1.34      5.11      9.98      23.4      51.1      99.8
    R.T.:               26.915    26.924    26.926    26.926    26.925    26.928

    CONC     =   2.8588E-01+  3.8274E-04*RESP+ -6.0020E-11*RESP**2+            *RESP**3
    95% C.I.=    1.1380E+00   3.1198E-05        1.1415E-10
      RRELATION COEFFICIENT = .9997
```

[illegible] 39481 METHOD: 8080/3540-G METHOXYCHLOR, UG/KG-DRY QUAD

```
  CALIBRATION CURVE # 1   (NG/ML)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=108688 %RSD=3.8119  RT WINDOW:
```

```
ESE BATCH       : G51081
   CONC :          0         1         5        10        25        50       100
   RESP :          0      1079      5144     10525     27064     57551    108688
   CONC':      0.546      1.45      4.88      9.46      23.8      51.1      99.8
    R.T.:                28.491    28.503    28.507    28.504    28.502    28.503

    CONC     =   5.4555E-01+  8.4010E-04*RESP+  6.7005E-10*RESP**2+            *RESP**3
    95% C.I.=    1.0640E+00   7.1116E-05        6.5428E-10
    CORRELATION COEFFICIENT = .9998
```

STORET: 96343 METHOD: SUR DECACHLOROBIPHENYL, UG/G QUAD

```
  CALIBRATION CURVE # 1    (NG/ML)
    DETECTION LIMIT=.004  DATE: 07/18/94  LARGEST RESP=1161600 %RSD=7.7391  RT WINDOW:
   CONC :          0      .004      .020      .040      .100      .200      .400
   RESP :          0     13927     58800    117253    286260    628599   1161600
   CONC':      0.002     0.006     0.020     0.038     0.092     0.206     0.399
    R.T.:                33.204    33.218    33.221    33.224    33.218    33.222

    CONC     =   2.0710E-03+  3.0570E-07*RESP+  3.0721E-14*RESP**2+            *RESP**3
    95% C.I.=    6.1266E-03   3.8311E-08        3.2977E-14
    CORRELATION COEFFICIENT = .9995
```

STORET: 39351 METHOD: 8080/3540-G CHLORDANE, UG/KG-DRY FINAL

```
  CALIBRATION CURVE # 1
    DETECTION LIMIT=5  DATE: 07/18/94  LARGEST RESP= %RSD=  RT WINDOW:
```

STORET: 39403 METHOD: 8080/3540-G TOXAPHENE, UG/KG-DRY FINAL

```
  CALIBRATION CURVE # 1
    DETECTION LIMIT=100  DATE: 07/18/94  LARGEST RESP= %RSD=  RT WINDOW:
```

STORET: 39514 METHOD: 8080/3540-G PCB-1016, UG/KG-DRY FINAL

```
  CALIBRATION CURVE # 1
    DETECTION LIMIT=20  DATE: 07/18/94  LARGEST RESP=(USER DEFINED)  %RSD=6.8928  RT WINDOW:
```

STORET: 39491 METHOD: 8080/3540-G PCB-1221, UG/KG-DRY FINAL

```
  CALIBRATION CURVE # 1
    DETECTION LIMIT=20  DATE: 07/18/94  LARGEST RESP= %RSD=  RT WINDOW:
```

STORET: 39495 METHOD: 8080/3540-G PCB-1232, UG/KG-DRY FINAL

```
  CALIBRATION CURVE # 1
    DETECTION LIMIT=20  DATE: 07/18/94  LARGEST RESP= %RSD=  RT WINDOW:
```

STORET: 39499 METHOD: 8080/3540-G PCB-1242, UG/KG-DRY FINAL

```
  CALIBRATION CURVE # 1
    DETECTION LIMIT=20  DATE: 07/18/94  LARGEST RESP= %RSD=  RT WINDOW:
```

STORET: 39503 METHOD: 8080/3540-G PCB-1248, UG/KG-DRY FINAL

```
  CALIBRATION CURVE # 1
    DETECTION LIMIT=20  DATE: 07/18/94  LARGEST RESP=(USER DEFINED)  %RSD=  RT WINDOW:
```

STORET: 39507 METHOD: 8080/3540-G PCB-1254, UG/KG-DRY FINAL

```
  CALIBRATION CURVE # 1
    DETECTION LIMIT=20  DATE: 07/18/94  LARGEST RESP=(USER DEFINED)  %RSD=  RT WINDOW:
```

STORET: 39511 METHOD: 8080/3540-G PCB-1260, UG/KG-DRY FINAL

```
  CALIBRATION CURVE # 1
    DETECTION LIMIT=20  DATE: 07/18/94  LARGEST RESP=(USER DEFINED)  %RSD=7.9936  RT WINDOW:
```

ESE BATCH : G51081

Co ng Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/18/94	CCS*IND6*1	39076*8080/3540-G	BHC,A	UG/KG-	595000	625000	105	80-120
07/18/94	CCS*IND6*1	39783*8080/3540-G	BHC,G(LINDANE)	UG/KG-	535000	558000	104	80-120
07/18/94	CCS*IND6*1	34257*8080/3540-G	BHC,B	UG/KG-	275000	297000	108	80-120
07/18/94	CCS*IND6*1	39413*8080/3540-G	HEPTACHLOR	UG/KG-	754000	749000	99.3	80-120
07/18/94	CCS*IND6*1	34262*8080/3540-G	BHC,D	UG/KG-	331000	359000	108	80-120
07/18/94	CCS*IND6*1	39333*8080/3540-G	ALDRIN	UG/KG-	744000	749000	101	80-120
07/18/94	CCS*IND6*1	39423*8080/3540-G	HEPTACHLOR EPOXIDE	UG/KG-	610000	609000	99.8	80-120
07/18/94	CCS*IND6*1	34364*8080/3540-G	ENDOSULFAN,A	UG/KG-	498000	487000	97.8	80-120
07/18/94	CCS*IND6*1	39321*8080/3540-G	DDE,PP'	UG/KG-	413000	400000	96.9	80-120
07/18/94	CCS*IND6*1	39383*8080/3540-G	DIELDRIN	UG/KG-	511000	480000	93.9	80-120
07/18/94	CCS*IND6*1	39393*8080/3540-G	ENDRIN	UG/KG-	228000	208000	91.2	80-120
07/18/94	CCS*IND6*1	39311*8080/3540-G	DDD,PP'	UG/KG-	218000	220000	101	80-120
07/18/94	CCS*IND6*1	34359*8080/3540-G	ENDOSULFAN,B	UG/KG-	328000	315000	96.0	80-120
07/18/94	CCS*IND6*1	39301*8080/3540-G	DDT,PP'	UG/KG-	228000	192000	84.2	80-120
07/18/94	CCS*IND6*1	34369*8080/3540-G	ENDRIN ALDEHYDE	UG/KG-	331000	327000	98.8	80-120
07/18/94	CCS*IND6*1	34354*8080/3540-G	ENDOSULFAN SULFATE	UG/KG-	272000	275000	101	80-120
07/18/94	CCS*IND6*1	39481*8080/3540-G	METHOXYCHLOR	UG/KG-	109000	103000	94.5	80-120
07/18/94	CCS*IND6*1	39351*8080/3540-G	CHLORDANE	UG/KG-		T*1		80-120
07/18/94	CCS*IND6*1	39403*8080/3540-G	TOXAPHENE	UG/KG-		T*1		80-120
07/18/94	CCS*IND6*1	39514*8080/3540-G	PCB-1016	UG/KG-		T*1		80-120
07/18/94	CCS*IND6*1	39491*8080/3540-G	PCB-1221	UG/KG-		T*1		80-120
07/18/94	CCS*IND6*1	39495*8080/3540-G	PCB-1232	UG/KG-		T*1		80-120
07/18/94	CCS*IND6*1	39499*8080/3540-G	PCB-1242	UG/KG-		T*1		80-120
07/18/94	CCS*IND6*1	39503*8080/3540-G	PCB-1248	UG/KG-		T*1		80-120
07/18/94	CCS*IND6*1	39507*8080/3540-G	PCB-1254	UG/KG-		T*1		80-120
07/18/94	CCS*IND6*1	39511*8080/3540-G	PCB-1260	UG/KG-		T*1		80-120
07/18/94	CCS*IND6*2	39076*8080/3540-G	BHC,A	UG/KG-	595000	643000	108	80-120
07/18/94	CCS*IND6*2	39783*8080/3540-G	BHC,G(LINDANE)	UG/KG-	535000	575000	107	80-120
07/18/94	CCS*IND6*2	34257*8080/3540-G	BHC,B	UG/KG-	275000	306000	111	80-120
07/18/94	CCS*IND6*2	39413*8080/3540-G	HEPTACHLOR	UG/KG-	754000	785000	104	80-120
07/18/94	CCS*IND6*2	34262*8080/3540-G	BHC,D	UG/KG-	331000	370000	112	80-120
07/18/94	CCS*IND6*2	39333*8080/3540-G	ALDRIN	UG/KG-	744000	787000	106	80-120
07/18/94	CCS*IND6*2	39423*8080/3540-G	HEPTACHLOR EPOXIDE	UG/KG-	610000	652000	107	80-120
07/18/94	CCS*IND6*2	34364*8080/3540-G	ENDOSULFAN,A	UG/KG-	498000	526000	106	80-120
07/18/94	CCS*IND6*2	39321*8080/3540-G	DDE,PP'	UG/KG-	413000	469000	114	80-120
07/18/94	CCS*IND6*2	39383*8080/3540-G	DIELDRIN	UG/KG-	511000	532000	104	80-120
07/18/94	CCS*IND6*2	39393*8080/3540-G	ENDRIN	UG/KG-	228000	221000	96.9	80-120
07/18/94	CCS*IND6*2	39311*8080/3540-G	DDD,PP'	UG/KG-	218000	248000	114	80-120
07/18/94	CCS*IND6*2	34359*8080/3540-G	ENDOSULFAN,B	UG/KG-	328000	346000	105	80-120
07/18/94	CCS*IND6*2	39301*8080/3540-G	DDT,PP'	UG/KG-	228000	213000	93.4	80-120
07/18/94	CCS*IND6*2	34369*8080/3540-G	ENDRIN ALDEHYDE	UG/KG-	331000	273000	82.5	80-120
07/18/94	CCS*IND6*2	34354*8080/3540-G	ENDOSULFAN SULFATE	UG/KG-	272000	291000	107	80-120
07/18/94	CCS*IND6*2	39481*8080/3540-G	METHOXYCHLOR	UG/KG-	109000	104000	95.4	80-120
07/18/94	CCS*IND6*2	39351*8080/3540-G	CHLORDANE	UG/KG-		T*1		80-120
07/18/94	CCS*IND6*2	39403*8080/3540-G	TOXAPHENE	UG/KG-		T*1		80-120
07/18/94	CCS*IND6*2	39514*8080/3540-G	PCB-1016	UG/KG-		T*1		80-120
07/18/94	CCS*IND6*2	39491*8080/3540-G	PCB-1221	UG/KG-		T*1		80-120
07/18/94	CCS*IND6*2	39495*8080/3540-G	PCB-1232	UG/KG-		T*1		80-120
07/18/94	CCS*IND6*2	39499*8080/3540-G	PCB-1242	UG/KG-		T*1		80-120
07/18/94	CCS*IND6*2	39503*8080/3540-G	PCB-1248	UG/KG-		T*1		80-120
07/18/94	CCS*IND6*2	39507*8080/3540-G	PCB-1254	UG/KG-		T*1		80-120
07/18/94	CCS*IND6*2	39511*8080/3540-G	PCB-1260	UG/KG-		T*1		80-120

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/18/94	MB*QC*1	39076*8080/3540-G	BHC,A	UG/KG-	ND
07/18/94	MB*QC*1	39783*8080/3540-G	BHC,G(LINDANE)	UG/KG-	ND
07/18/94	MB*QC*1	34257*8080/3540-G	BHC,B	UG/KG-	ND
07/18/94	MB*QC*1	39413*8080/3540-G	HEPTACHLOR	UG/KG-	ND
07/18/94	MB*QC*1	34262*8080/3540-G	BHC,D	UG/KG-	ND
07/18/94	MB*QC*1	39333*8080/3540-G	ALDRIN	UG/KG-	ND
07/18/94	MB*QC*1	39423*8080/3540-G	HEPTACHLOR EPOXIDE	UG/KG-	ND
07/18/94	MB*QC*1	34364*8080/3540-G	ENDOSULFAN,A	UG/KG-	ND
07/18/94	MB*QC*1	39321*8080/3540-G	DDE,PP'	UG/KG-	ND
07/18/94	MB*QC*1	39383*8080/3540-G	DIELDRIN	UG/KG-	ND
07/18/94	MB*QC*1	39393*8080/3540-G	ENDRIN	UG/KG-	ND
07/18/94	MB*QC*1	39311*8080/3540-G	DDD,PP'	UG/KG-	ND
07/18/94	MB*QC*1	34359*8080/3540-G	ENDOSULFAN,B	UG/KG-	ND
07/18/94	MB*QC*1	39301*8080/3540-G	DDT,PP'	UG/KG-	ND
07/18/94	MB*QC*1	34369*8080/3540-G	ENDRIN ALDEHYDE	UG/KG-	ND
07/18/94	MB*QC*1	34354*8080/3540-G	ENDOSULFAN SULFATE	UG/KG-	ND
07/18/94	MB*QC*1	39481*8080/3540-G	METHOXYCHLOR	UG/KG-	ND

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Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/18/94	MB*QC*1	39351*8080/3540-G	CHLORDANE	UG/KG-	ND
07/18/94	MB*QC*1	39403*8080/3540-G	TOXAPHENE	UG/KG-	ND
07/18/94	MB*QC*1	39514*8080/3540-G	PCB-1016	UG/KG-	ND
07/18/94	MB*QC*1	39491*8080/3540-G	PCB-1221	UG/KG-	ND
07/18/94	MB*QC*1	39495*8080/3540-G	PCB-1232	UG/KG-	ND
07/18/94	MB*QC*1	39499*8080/3540-G	PCB-1242	UG/KG-	ND
07/18/94	MB*QC*1	39503*8080/3540-G	PCB-1248	UG/KG-	ND
07/18/94	MB*QC*1	39507*8080/3540-G	PCB-1254	UG/KG-	ND
07/18/94	MB*QC*1	39511*8080/3540-G	PCB-1260	UG/KG-	ND

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/18/94	SP1*QC*1	39076*8080/3540-G	BHC,A		80-120	UG/KG-		ND
07/18/94	SP1*QC*1	39783*8080/3540-G	BHC,G(LINDANE)	76.8	45-129	UG/KG-	26.7	20.5
07/18/94	SP1*QC*1	34257*8080/3540-G	BHC,B		80-120	UG/KG-		ND
07/18/94	SP1*QC*1	39413*8080/3540-G	HEPTACHLOR	101.5	30-148	UG/KG-	26.7	27.1
07/18/94	SP1*QC*1	34262*8080/3540-G	BHC,D		80-120	UG/KG-		ND
07/18/94	SP1*QC*1	39333*8080/3540-G	ALDRIN	98.5	53-133	UG/KG-	26.7	26.3
07/18/94	SP1*QC*1	39423*8080/3540-G	HEPTACHLOR EPOXIDE		80-120	UG/KG-		ND
07/18/94	SP1*QC*1	34364*8080/3540-G	ENDOSULFAN,A		80-120	UG/KG-		ND
07/18/94	SP1*QC*1	39321*8080/3540-G	DDE,PP'		80-120	UG/KG-		ND
07/18/94	SP1*QC*1	39383*8080/3540-G	DIELDRIN	92.9	46-140	UG/KG-	26.7	24.8
07/18/94	SP1*QC*1	39393*8080/3540-G	ENDRIN	98.5	52-126	UG/KG-	26.7	26.3
07/18/94	SP1*QC*1	39311*8080/3540-G	DDD,PP'		80-120	UG/KG-		ND
07/18/94	SP1*QC*1	34359*8080/3540-G	ENDOSULFAN,B		80-120	UG/KG-		ND
07/18/94	SP1*QC*1	39301*8080/3540-G	DDT,PP'	104.5	37-155	UG/KG-	26.7	27.9
07/18/94	SP1*QC*1	34369*8080/3540-G	ENDRIN ALDEHYDE		80-120	UG/KG-		ND
07/18/94	SP1*QC*1	34354*8080/3540-G	ENDOSULFAN SULFATE		80-120	UG/KG-		ND
07/18/94	SP1*QC*1	39481*8080/3540-G	METHOXYCHLOR		80-120	UG/KG-		ND
07/18/94	SP1*QC*1	39351*8080/3540-G	CHLORDANE		80-120	UG/KG-		ND
07/18/94	SP1*QC*1	39403*8080/3540-G	TOXAPHENE		80-120	UG/KG-		ND
07/18/94	SP1*QC*1	39514*8080/3540-G	PCB-1016		80-120	UG/KG-		ND
07/18/94	SP1*QC*1	39491*8080/3540-G	PCB-1221		80-120	UG/KG-		ND
07/18/94	SP1*QC*1	39495*8080/3540-G	PCB-1232		80-120	UG/KG-		ND
07/18/94	SP1*QC*1	39499*8080/3540-G	PCB-1242		80-120	UG/KG-		ND
07/18/94	SP1*QC*1	39503*8080/3540-G	PCB-1248		80-120	UG/KG-		ND
07/18/94	SP1*QC*1	39507*8080/3540-G	PCB-1254		80-120	UG/KG-		ND
07/18/94	SP1*QC*1	39511*8080/3540-G	PCB-1260		80-120	UG/KG-		ND

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
07/18/94	SPM1*CDMHNSS3*41	39076*8080/3540-G	BHC,A		80-120	0.0	UG/KG-		ND
07/18/94	SPM1*CDMHNSS3*41	39783*8080/3540-G	BHC,G(LINDANE)	71.3	45-129	0.270	UG/KG-	26.8	19.1
07/18/94	SPM1*CDMHNSS3*41	34257*8080/3540-G	BHC,B		80-120	0.0	UG/KG-		ND
07/18/94	SPM1*CDMHNSS3*41	39413*8080/3540-G	HEPTACHLOR	94.0	30-148	0.117	UG/KG-	26.8	25.2
07/18/94	SPM1*CDMHNSS3*41	34262*8080/3540-G	BHC,D		80-120	0.0	UG/KG-		ND
07/18/94	SPM1*CDMHNSS3*41	39333*8080/3540-G	ALDRIN	81.7	53-133	0.365	UG/KG-	26.8	21.9
07/18/94	SPM1*CDMHNSS3*41	39423*8080/3540-G	HEPTACHLOR EPOXIDE		80-120	0.0	UG/KG-		ND
07/18/94	SPM1*CDMHNSS3*41	34364*8080/3540-G	ENDOSULFAN,A		80-120	0.0	UG/KG-		ND
07/18/94	SPM1*CDMHNSS3*41	39321*8080/3540-G	DDE,PP'		80-120	0.0	UG/KG-		ND
07/18/94	SPM1*CDMHNSS3*41	39383*8080/3540-G	DIELDRIN	81.3	46-140	0.477	UG/KG-	26.8	21.8
07/18/94	SPM1*CDMHNSS3*41	39393*8080/3540-G	ENDRIN	89.6	52-126	0.017	UG/KG-	26.8	24.0
07/18/94	SPM1*CDMHNSS3*41	39311*8080/3540-G	DDD,PP'		80-120	0.0	UG/KG-		ND
07/18/94	SPM1*CDMHNSS3*41	34359*8080/3540-G	ENDOSULFAN,B		80-120	0.0	UG/KG-		ND
07/18/94	SPM1*CDMHNSS3*41	39301*8080/3540-G	DDT,PP'	97.0	37-155	0.287	UG/KG-	26.8	26.0
07/18/94	SPM1*CDMHNSS3*41	34369*8080/3540-G	ENDRIN ALDEHYDE		80-120	0.0	UG/KG-		ND
07/18/94	SPM1*CDMHNSS3*41	34354*8080/3540-G	ENDOSULFAN SULFATE		80-120	0.0	UG/KG-		ND
07/18/94	SPM1*CDMHNSS3*41	39481*8080/3540-G	METHOXYCHLOR		80-120	0.0	UG/KG-		ND
07/18/94	SPM1*CDMHNSS3*41	39351*8080/3540-G	CHLORDANE		80-120	0.0	UG/KG-		ND
07/18/94	SPM1*CDMHNSS3*41	39403*8080/3540-G	TOXAPHENE		80-120	0.0	UG/KG-		ND
07/18/94	SPM1*CDMHNSS3*41	39514*8080/3540-G	PCB-1016		80-120	0.0	UG/KG-		ND
07/18/94	SPM1*CDMHNSS3*41	39491*8080/3540-G	PCB-1221		80-120	0.0	UG/KG-		ND
07/18/94	SPM1*CDMHNSS3*41	39495*8080/3540-G	PCB-1232		80-120	0.0	UG/KG-		ND
07/18/94	SPM1*CDMHNSS3*41	39499*8080/3540-G	PCB-1242		80-120	0.0	UG/KG-		ND
07/18/94	SPM1*CDMHNSS3*41	39503*8080/3540-G	PCB-1248		80-120	0.0	UG/KG-		ND
07/18/94	SPM1*CDMHNSS3*41	39507*8080/3540-G	PCB-1254		80-120	0.0	UG/KG-		ND
07/18/94	SPM1*CDMHNSS3*41	39511*8080/3540-G	PCB-1260		80-120	0.0	UG/KG-		ND
07/18/94	SPM2*CDMHNSS3*41	39076*8080/3540-G	BHC,A		80-120	0.0	UG/KG-		ND
07/18/94	SPM2*CDMHNSS3*41	39783*8080/3540-G	BHC,G(LINDANE)	76.9	45-129	0.270	UG/KG-	26.8	20.6
07/18/94	SPM2*CDMHNSS3*41	34257*8080/3540-G	BHC,B		80-120	0.0	UG/KG-		ND
07/18/94	SPM2*CDMHNSS3*41	39413*8080/3540-G	HEPTACHLOR	101.5	30-148	0.117	UG/KG-	26.8	27.2

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Sample Matrix Spike Recovery Summary

I	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
07/18/94	SPM2*CDMHNSS3*41	34262*8080/3540-G	BHC,D		80-120	0.0	UG/KG-		ND
07/18/94	SPM2*CDMHNSS3*41	39333*8080/3540-G	ALDRIN	94.8	53-133	0.365	UG/KG-	26.8	25.4
07/18/94	SPM2*CDMHNSS3*41	39423*8080/3540-G	HEPTACHLOR EPOXIDE		80-120	0.0	UG/KG-		ND
07/18/94	SPM2*CDMHNSS3*41	34364*8080/3540-G	ENDOSULFAN,A		80-120	0.0	UG/KG-		ND
07/18/94	SPM2*CDMHNSS3*41	39321*8080/3540-G	DDE,PP'		80-120	0.0	UG/KG-		ND
07/18/94	SPM2*CDMHNSS3*41	39383*8080/3540-G	DIELDRIN	93.3	46-140	0.477	UG/KG-	26.8	25.0
07/18/94	SPM2*CDMHNSS3*41	39393*8080/3540-G	ENDRIN	93.7	52-126	0.017	UG/KG-	26.8	25.1
07/18/94	SPM2*CDMHNSS3*41	39311*8080/3540-G	DDD,PP'		80-120	0.0	UG/KG-		ND
07/18/94	SPM2*CDMHNSS3*41	34359*8080/3540-G	ENDOSULFAN,B		80-120	0.0	UG/KG-		ND
07/18/94	SPM2*CDMHNSS3*41	39301*8080/3540-G	DDT,PP'	98.9	37-155	0.287	UG/KG-	26.8	26.5
07/18/94	SPM2*CDMHNSS3*41	34369*8080/3540-G	ENDRIN ALDEHYDE		80-120	0.0	UG/KG-		ND
07/18/94	SPM2*CDMHNSS3*41	34354*8080/3540-G	ENDOSULFAN SULFATE		80-120	0.0	UG/KG-		ND
07/18/94	SPM2*CDMHNSS3*41	39481*8080/3540-G	METHOXYCHLOR		80-120	0.0	UG/KG-		ND
07/18/94	SPM2*CDMHNSS3*41	39351*8080/3540-G	CHLORDANE		80-120	0.0	UG/KG-		ND
07/18/94	SPM2*CDMHNSS3*41	39403*8080/3540-G	TOXAPHENE		80-120	0.0	UG/KG-		ND
07/18/94	SPM2*CDMHNSS3*41	39514*8080/3540-G	PCB-1016		80-120	0.0	UG/KG-		ND
07/18/94	SPM2*CDMHNSS3*41	39491*8080/3540-G	PCB-1221		80-120	0.0	UG/KG-		ND
07/18/94	SPM2*CDMHNSS3*41	39495*8080/3540-G	PCB-1232		80-120	0.0	UG/KG-		ND
07/18/94	SPM2*CDMHNSS3*41	39499*8080/3540-G	PCB-1242		80-120	0.0	UG/KG-		ND
07/18/94	SPM2*CDMHNSS3*41	39503*8080/3540-G	PCB-1248		80-120	0.0	UG/KG-		ND
07/18/94	SPM2*CDMHNSS3*41	39507*8080/3540-G	PCB-1254		80-120	0.0	UG/KG-		ND
07/18/94	SPM2*CDMHNSS3*41	39511*8080/3540-G	PCB-1260		80-120	0.0	UG/KG-		ND

Surrogate Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/18/94	MB*QC*1	96471*SUR	TETRACHLORO-M-XYLENE	UG/G	0.067	0.060	89.6	67-119
07/18/94	MB*QC*1	96343*SUR	DECACHLOROBIPHENYL	UG/G	0.067	0.059	88.1	51-169
07/18/94	SP1*QC*1	96471*SUR	TETRACHLORO-M-XYLENE	UG/G	0.067	0.063	94.0	67-119
07/18/94	SP1*QC*1	96343*SUR	DECACHLOROBIPHENYL	UG/G	0.067	0.066	98.5	51-169
07/18/94	SPM1*CDMHNSS3*41	96471*SUR	TETRACHLORO-M-XYLENE	UG/G	0.067	0.061	91.0	67-119
07/18/94	SPM1*CDMHNSS3*41	96343*SUR	DECACHLOROBIPHENYL	UG/G	0.067	0.065	97.0	51-169
07/18/94	SPM2*CDMHNSS3*41	96471*SUR	TETRACHLORO-M-XYLENE	UG/G	0.067	0.065	97.0	67-119
94	SPM2*CDMHNSS3*41	96343*SUR	DECACHLOROBIPHENYL	UG/G	0.067	0.063	94.0	51-169
4	DA*CDMHNSS3*1	96471*SUR	TETRACHLORO-M-XYLENE	UG/G	0.067	0.063	94.0	67-119
07/1[illegible],94	DA*CDMHNSS3*1	96343*SUR	DECACHLOROBIPHENYL	UG/G	0.067	0.071	106	51-169
07/18/94	DA*CDMHNSS3*2	96471*SUR	TETRACHLORO-M-XYLENE	UG/G	0.067	0.057	85.1	67-119
07/18/94	DA*CDMHNSS3*2	96343*SUR	DECACHLOROBIPHENYL	UG/G	0.067	0.081	121	51-169
07/18/94	DA*CDMHNSS3*41	96471*SUR	TETRACHLORO-M-XYLENE	UG/G	0.067	0.061	91.0	67-119
07/18/94	DA*CDMHNSS3*41	96343*SUR	DECACHLOROBIPHENYL	UG/G	0.067	0.066	98.5	51-169
07/18/94	CCS*IND6*1	96471*SUR	TETRACHLORO-M-XYLENE	UG/G	2200000	2240000	102	67-119
07/18/94	CCS*IND6*1	96343*SUR	DECACHLOROBIPHENYL	UG/G	1160000	1170000	101	51-169
07/18/94	CCS*IND6*2	96471*SUR	TETRACHLORO-M-XYLENE	UG/G	2200000	2280000	104	67-119
07/18/94	CCS*IND6*2	96343*SUR	DECACHLOROBIPHENYL	UG/G	1160000	1220000	105	51-169

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UNITS AND EXAMPLE CALCULATIONS

	UNITS ENTERED
FINAL CONCENTRATION	NG/G
INJECTION VOLUME	NA
SAMPLE VOLUME	G
EXTRACT VOLUME	ML
CURVE CONCENTRATION	NG/ML
SPIKE SOLN CONCENTRATION	NG/ML
SPIKE VOLUME	ML
SPIKE SAMPLE VOLUME	ML
TARGET CONCENTRATION	NG/G
RESPONSE DESCRIPTION	PEAK AREA
CONVERSION FACTOR	NA

$$\text{FINAL CONC} = \frac{\text{CURV CONC * EXT VOL * DIL}}{\text{INJ VOL * SAMP VOL * ((100 - \%MOISTURE) / 100)}}$$

$$\text{NG/G} = \frac{\text{(NG/ML) * (ML)}}{\text{(NA) * (G)}}$$

$$\text{(\qquad)} = \frac{\text{(\qquad) * (\qquad) * (\qquad)}}{\text{(\qquad) * (\qquad) * ((100 - (\qquad)) / 100)}}$$

$$\text{TARGET CONC} = \frac{\text{SPIKE SOLN CONC * SPIKE VOL}}{\text{SPIKE SAMP VOL * ((100 - \%MOISTURE) / 100)}}$$

$$\text{NG/G} = \frac{\text{(NG/ML) * (ML)}}{\text{(ML)}}$$

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Environmental Science and Engineering Analytical Services

Computer QC Checks

B. .: G51081 Analysis Date: 07/17/94 Analyst: GREG AYOUB

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
Extract holding time within criteria?	X		
No. of calibration standards present acceptable?	X		
Curve correlation coefficient >= 0.995?	X		
Calibration curve y-intercept < curve detection limit?	X		
Sample responses within highest standard response?	X		
Sample retention times within retention time window?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?	X		
Sample matrix spike duplicate present?	X		
Sample matrix spike duplicate within acceptance criteria?	X		
Surrogate present?	X		
S[illegible]te within acceptance criteria?	X		

N .y "NO" answer requires a comment.

OVERRIDE COMMENTS

BATCH OVERRIDE BY:

FINALIZED BY:

ESE BATCH : G51081

TABLE OF ABBREVIATIONS

%RECV : % Recovery for spiked sample. (FOUND/TARGET * 100)
ANLY DATE : Analysis Date
ANLY TIME : Analysis Time
CURVE : Curve Regression Number
DILUTION : Sample Dilution Factor
EXT DATE : Extract Date
EXT VOL : Extract Volume
FOUND : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL : Injection Volume
REL%DIFF : % Difference between current and previous spike.
RESPONSE : Sample Response
R.T. : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
DA -- Data Sample
MB -- Method Blank
RF -- Reference (from commercially known standard)
RP -- Replicate Sample
SP -- Standard Matrix Spike
SPM -- Sample Matrix Spike
STD -- Internal Standard
SUR -- Surrogate Sample
UN -- Unspiked Sample
SAMP VOL : Sample Volume
SPK CONC : Spike Concentration
ST : Sample response explanation or validity. (listed below)
BK -- No sample response.
NA -- Sample not analyzed.
NR -- Not reserved for this batch. Batch containing the response for this sample is listed in the target field.
OK -- Sample response shown is correct.
! -- Sample response shown is invalid.
< -- Sample response < detection limit. Detection limit is shown in the response field.
STORET*MTHD: Storet ID * Method Code
TARGET : Spike Target (SAMPLE LISTING SECTION)
TARGET : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE : Response Type ("FINAL" or empty.)
UNSP CONC : Unspiked Sample Concentration

ESE BATCH : G51127
CLASSIFICATION : CHL. PESTS - EPA 8080/3540 (SOX)

QC : FDER/SW
ANALYST : JOE KOSTELNIK
EXTRACTOR : Z. MATHIS
DATA ENTRY : HP UPLOAD

REPORT DATE/TIME : 08/15/94 12:48:48
ANALYSIS DATE : 07/18/94
EXTRACT DATE : 07/15/94

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSS3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSS3*3	BKG-01-002	07/19/94	08:36AM
CDMHNSS3*4	BKG-01-002	07/19/94	09:36AM

ESE BATCH : G51127

HOLDING TIMES CHECK

SAMPLE	ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T.	OVER

ALL HOLDING TIMES MET

STORET: 96471 METHOD: SUR TETRACHLORO-M-XYLENE, UG/G QUAD

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=.004 DATE: 07/18/94 LARGEST RESP=3859569 %RSD=9.0672 RT WINDOW:

CONC :	0	.004	.020	.040	.100	.200	.400
RESP :	0	42379	230150	495411	1200747	2150185	3859569
CONC':	0.0005	0.004	0.019	0.040	0.103	0.198	0.400
R.T.:		11.649	11.648	11.646	11.646	11.642	11.654

CONC = 4.6835E-04+ 7.6886E-08*RESP+ 6.9275E-15*RESP**2+ *RESP**3
95% C.I.= 2.2587E-03 3.9422E-09 1.0226E-15
CORRELATION COEFFICIENT = .9999

STORET: 39076 METHOD: 8080/3540-G BHC,A, UG/KG-DRY QUAD

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=1015762 %RSD=12.8373 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	7690	36185	76558	198763	432091	1015762
CONC':	0.200	1.19	4.83	9.90	24.6	50.3	100.0
R.T.:		14.494	14.494	14.496	14.500	14.496	14.500

CONC = 2.0020E-01+ 1.2899E-04*RESP+ -3.0294E-11*RESP**2+ *RESP**3
95% C.I.= 3.1107E-01 2.4294E-06 2.3542E-12
CORRELATION COEFFICIENT = 1.0000

STORET: 39783 METHOD: 8080/3540-G BHC,G(LINDANE), UG/KG-DRY QUAD

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=1004433 %RSD=11.9956 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	7581	36672	77996	205044	436486	1004433
CONC':	0.195	1.15	4.78	9.86	24.9	50.1	100.0
R.T.:		16.141	16.142	16.139	16.146	16.142	16.146

CONC = 1.9523E-01+ 1.2597E-04*RESP+ -2.6503E-11*RESP**2+ *RESP**3
95% C.I.= 2.1502E-01 1.6730E-06 1.6418E-12
CORRELATION COEFFICIENT = 1.0000

STORET: 34257 METHOD: 8080/3540-G BHC,B, UG/KG-DRY QUAD

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=640577 %RSD=2.6622 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	6053	30067	62889	152660	300559	640577
CONC':	-.274	0.773	4.91	10.5	25.6	49.4	100
R.T.:		16.438	16.438	16.436	16.442	16.438	16.442

CONC = -2.7381E-01+ 1.7311E-04*RESP+ -2.5663E-11*RESP**2+ *RESP**3
95% C.I.= 5.7221E-01 6.5521E-06 1.0096E-11
CORRELATION COEFFICIENT = .9999

STORET: 39413 METHOD: 8080/3540-G HEPTACHLOR, UG/KG-DRY QUAD

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=1655138 %RSD=4.8085 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	14945	73192	159441	407502	788772	1655138
CONC':	-.057	0.908	4.66	10.2	25.9	49.4	100
R.T.:		17.499	17.504	17.500	17.504	17.496	17.500

CONC = -5.6830E-02+ 6.4601E-05*RESP+ -2.4730E-12*RESP**2+ *RESP**3
95% C.I.= 6.4317E-01 2.8328E-06 1.6946E-12
CORRELATION COEFFICIENT = .9999

STORET: 34262 METHOD: 8080/3540-G BHC,D, UG/KG-DRY QUAD

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=852260 %RSD=11.3332 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	6925	32149	65518	162061	345590	852260

```
ESE BATCH       : G51127
   CONC':      -.183     0.949      5.03      10.3      24.9      49.9       100
    R.T.:               17.977    17.983    17.979    17.983    17.979    17.983

       :    =  -1.8301E-01+  1.6380E-04*RESP+ -5.4253E-11*RESP**2+            *RESP**3
    95% C.I.=   2.0892E-01   1.9723E-06        2.2660E-12
    CORRELATION COEFFICIENT = 1.0000
```

STORET: 39333 METHOD: 8080/3540-G ALDRIN, UG/KG-DRY QUAD

```
  CALIBRATION CURVE # 1    (UG/KG)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=1640597 %RSD=9.9447  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0     16696     64941    137055    357987    748988   1640597
   CONC':      0.104      1.30      4.74      9.81      24.9      50.1     100.0
    R.T.:               18.875    18.883    18.883    18.888    18.883    18.883

    CONC     =   1.0441E-01+  7.1751E-05*RESP+ -6.6282E-12*RESP**2+            *RESP**3
    95% C.I.=   2.6300E-01   1.2192E-06        7.3420E-13
    CORRELATION COEFFICIENT = 1.0000
```

STORET: 39423 METHOD: 8080/3540-G HEPTACHLOR EPOXIDE, UG/KG-DRY QUAD

```
  CALIBRATION CURVE # 1    (UG/KG)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=1488471 %RSD=7.7091  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0     12261     61188    133976    347830    695092   1488471
   CONC':      0.081     0.999      4.65      10.0      25.5      49.7       100
    R.T.:               21.221    21.225    21.221    21.225    21.217    21.225

    CONC     =   8.0543E-02+  7.4992E-05*RESP+ -5.2627E-12*RESP**2+            *RESP**3
    95% C.I.=   4.0253E-01   2.0102E-06        1.3366E-12
    CORRELATION COEFFICIENT = 1.0000
```

STORET: 34364 METHOD: 8080/3540-G ENDOSULFAN,A, UG/KG-DRY QUAD

```
  CALIBRATION CURVE # 1    (UG/KG)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=1272468 %RSD=6.2612  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0     11083     52882    115321    292135    589646   1272468
   CONC':     -.0004     0.988      4.70      10.2      25.4      49.7       100
    R.T.:               22.683    22.683    22.683    22.683    22.679    22.683

    CONC     =  -3.8930E-04+  8.9275E-05*RESP+ -8.3753E-12*RESP**2+            *RESP**3
    95% C.I.=   3.2198E-01   1.8886E-06        1.4670E-12
    CORRELATION COEFFICIENT = 1.0000
```

STORET: 39321 METHOD: 8080/3540-G DDE,PP', UG/KG-DRY QUAD

```
  CALIBRATION CURVE # 1    (UG/KG)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=1357566 %RSD=6.8670  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0     11412     56356    119637    297484    615504   1357566
   CONC':     -.040     0.956      4.85      10.3      25.0      49.9       100
    R.T.:               23.582    23.592    23.588    23.588    23.583    23.588

    CONC     =  -3.9524E-02+  8.7321E-05*RESP+ -1.0032E-11*RESP**2+            *RESP**3
    95% C.I.=   1.8197E-01   1.0154E-06        7.3785E-13
    CORRELATION COEFFICIENT = 1.0000
```

STORET: 39383 METHOD: 8080/3540-G DIELDRIN, UG/KG-DRY QUAD

```
  CALIBRATION CURVE # 1    (UG/KG)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=1515054 %RSD=14.0868  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0     10570     53452    117237    311452    664475   1515054
   CONC':      0.310      1.18      4.68      9.81      24.9      50.2     100.0
    R.T.:               23.940    23.945    23.950    23.950    23.946    23.950

    CONC     =   3.0990E-01+  8.2281E-05*RESP+ -1.0890E-11*RESP**2+            *RESP**3
    95% C.I.=   3.0683E-01   1.5791E-06        1.0288E-12
    CORRELATION COEFFICIENT = 1.0000
```

39393 METHOD: 8080/3540-G ENDRIN, UG/KG-DRY QUAD

```
  CALIBRATION CURVE # 1    (UG/KG)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=1158925 %RSD=11.9240  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
```

ESE BATCH : G51127

RESP :	0	8573	42458	93279	238996	504694	1158925
CONC':	0.131	1.06	4.71	10.1	25.0	50.0	100.0
R.T.:		25.447	25.452	25.454	25.454	25.450	25.458

CONC = 1.3131E-01+ 1.0863E-04*RESP+ -1.9380E-11*RESP**2+ *RESP**3
95% C.I.= 1.8681E-01 1.2539E-06 1.0661E-12
CORRELATION COEFFICIENT = 1.0000

STORET: 39311 METHOD: 8080/3540-G DDD,PP', UG/KG-DRY QUAD

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=625968 %RSD=5.0009 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	6465	31143	63060	143812	286692	625968
CONC':	-.579	0.620	5.17	11.0	25.3	49.4	100
R.T.:		25.847	25.850	25.854	25.850	25.846	25.854

CONC = -5.7926E-01+ 1.8577E-04*RESP+ -3.9827E-11*RESP**2+ *RESP**3
95% C.I.= 7.8890E-01 9.3122E-06 1.4624E-11
CORRELATION COEFFICIENT = .9999

STORET: 34359 METHOD: 8080/3540-G ENDOSULFAN,B, UG/KG-DRY QUAD

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=911572 %RSD=2.8274 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	8950	43102	86594	213304	425173	911572
CONC':	-.265	0.840	5.03	10.3	25.4	49.6	100
R.T.:		26.178	26.182	26.183	26.183	26.179	26.183

CONC = -2.6451E-01+ 1.2355E-04*RESP+ -1.4794E-11*RESP**2+ *RESP**3
95% C.I.= 4.1635E-01 3.3732E-06 3.6510E-12
CORRELATION COEFFICIENT = 1.0000

STORET: 39301 METHOD: 8080/3540-G DDT,PP', UG/KG-DRY QUAD

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=1015571 %RSD=6.2948 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	8752	42922	90783	218372	454485	1015571
CONC':	-.164	0.879	4.92	10.5	24.9	49.9	100
R.T.:		27.071	27.070	27.071	27.071	27.067	27.071

CONC = -1.6431E-01+ 1.1943E-04*RESP+ -2.0466E-11*RESP**2+ *RESP**3
95% C.I.= 3.1699E-01 2.3753E-06 2.3031E-12
CORRELATION COEFFICIENT = 1.0000

STORET: 34369 METHOD: 8080/3540-G ENDRIN ALDEHYDE, UG/KG-DRY QUAD

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=851645 %RSD=3.0852 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	8207	39603	86227	206382	407347	851645
CONC':	-.207	0.827	4.77	10.6	25.4	49.5	100
R.T.:		27.513	27.510	27.508	27.508	27.504	27.508

CONC = -2.0701E-01+ 1.2611E-04*RESP+ -9.8101E-12*RESP**2+ *RESP**3
95% C.I.= 5.2410E-01 4.4814E-06 5.2026E-12
CORRELATION COEFFICIENT = .9999

STORET: 34354 METHOD: 8080/3540-G ENDOSULFAN SULFATE, UG/KG-DRY QUAD

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=1204955 %RSD=9.2337 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	9293	48612	101823	255843	536447	1204955
CONC':	0.015	0.956	4.91	10.2	24.9	50.0	100
R.T.:		28.004	28.004	28.004	28.004	28.000	28.004

CONC = 1.5428E-02+ 1.0135E-04*RESP+ -1.5245E-11*RESP**2+ *RESP**3
95% C.I.= 1.1758E-01 7.4848E-07 6.1235E-13
CORRELATION COEFFICIENT = 1.0000

STORET: 39481 METHOD: 8080/3540-G METHOXYCHLOR, UG/KG-DRY QUAD

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=396092 %RSD=8.4701 RT WINDOW:

ESE BATCH : G51127

CONC :	0	1	5	10	25	50	100
:	0	4269	23058	48895	105705	198626	396092
':	-.611	0.434	5.05	11.4	25.5	49.0	100
.:		30.554	30.558	30.554	30.550	30.550	30.554

CONC = -6.1149E-01+ 2.4480E-04*RESP+ 2.4505E-11*RESP**2+ *RESP**3
95% C.I.= 1.1722E+00 2.0591E-05 5.1363E-11
CORRELATION COEFFICIENT = .9997

STORET: 96343 METHOD: SUR DECACHLOROBIPHENYL, UG/G QUAD

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=.004 DATE: 07/18/94 LARGEST RESP=3869602 %RSD=11.1276 RT WINDOW:

CONC :	0	.004	.020	.040	.100	.200	.400
RESP :	0	42100	245492	521440	1162419	2109408	3869602
CONC':	-.0009	0.003	0.020	0.043	0.102	0.197	0.401
R.T.:		37.125	37.122	37.119	37.117	37.108	37.121

CONC = -9.3206E-04+ 8.1907E-08*RESP+ 5.6529E-15*RESP**2+ *RESP**3
95% C.I.= 3.0627E-03 5.3239E-09 1.3705E-15
CORRELATION COEFFICIENT = .9999

STORET: 39351 METHOD: 8080/3540-G CHLORDANE, UG/KG-DRY FINAL

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=5 DATE: 07/18/94 LARGEST RESP=837409 %RSD=4.9111 RT WINDOW:

CONC :	0	5	10	20	50	100	200
RESP :							
CONC':	0.086	5.63	10.2	19.3	49.2	101	200

CONC = 8.6323E-02+ 2.4407E-04*RESP+ -6.5680E-12*RESP**2+ *RESP**3
95% C.I.= 8.7137E-01 7.5805E-06 8.9428E-12
CORRELATION COEFFICIENT = 1.0000

STORET: 39403 METHOD: 8080/3540-G TOXAPHENE, UG/KG-DRY FINAL

RATION CURVE # 1
ECTION LIMIT=100 DATE: 07/18/94 LARGEST RESP= %RSD= RT WINDOW:

STOR.. 39514 METHOD: 8080/3540-G PCB-1016, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=20 DATE: 07/18/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 39491 METHOD: 8080/3540-G PCB-1221, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=20 DATE: 07/18/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 39495 METHOD: 8080/3540-G PCB-1232, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=20 DATE: 07/18/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 39499 METHOD: 8080/3540-G PCB-1242, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=20 DATE: 07/18/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 39503 METHOD: 8080/3540-G PCB-1248, UG/KG-DRY FINAL

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=20 DATE: 07/18/94 LARGEST RESP=3612712 %RSD=14.9674 RT WINDOW:

CONC :	0	20	50	100	500	1000
RESP :						
CONC':	-.649	22.0	52.1	95.7	501	1000

CONC = -6.4884E-01+ 2.1235E-04*RESP+ 1.7868E-11*RESP**2+ *RESP**3
95% C.I.= 3.6985E+00 8.0321E-06 2.2294E-12
CORRELATION COEFFICIENT = 1.0000

: 39507 METHOD: 8080/3540-G PCB-1254, UG/KG-DRY FINAL

ATION CURVE # 1
ECTION LIMIT=20 DATE: 07/18/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 39511 METHOD: 8080/3540-G PCB-1260, UG/KG-DRY FINAL

ESE BATCH : G51127

CALIBRATION CURVE # 1 (UG/KG)

DETECTION LIMIT=20 DATE: 07/18/94 LARGEST RESP=11653779 %RSD=8.3104 RT WINDOW:

CONC :	0	20	50	100	500	1000	2000
RESP :							
CONC':	-6.27	16.7	49.9	106	514	988	2000

CONC = -6.2735E+00+ 1.6203E-04*RESP+ 8.8416E-13*RESP**2+ *RESP**3

95% C.I.= 1.1106E+01 6.9730E-06 6.0373E-13

CORRELATION COEFFICIENT = .9999

ESE BATCH : G51127

C .ng Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/19/94	CCS*NONE*1	39076*8080/3540-G	BHC,A	UG/KG-	1020000	1130000	111	80-120
07/19/94	CCS*NONE*1	39783*8080/3540-G	BHC,G(LINDANE)	UG/KG-	1000000	1090000	109	80-120
07/19/94	CCS*NONE*1	34257*8080/3540-G	BHC,B	UG/KG-	641000	665000	104	80-120
07/19/94	CCS*NONE*1	39413*8080/3540-G	HEPTACHLOR	UG/KG-	1660000	1730000	104	80-120
07/19/94	CCS*NONE*1	34262*8080/3540-G	BHC,D	UG/KG-	852000	928000	109	80-120
07/19/94	CCS*NONE*1	39333*8080/3540-G	ALDRIN	UG/KG-	1640000	1640000	100.0	80-120
07/19/94	CCS*NONE*1	39423*8080/3540-G	HEPTACHLOR EPOXIDE	UG/KG-	1490000	1500000	101	80-120
07/19/94	CCS*NONE*1	34364*8080/3540-G	ENDOSULFAN,A	UG/KG-	1270000	1300000	102	80-120
07/19/94	CCS*NONE*1	39321*8080/3540-G	DDE,PP'	UG/KG-	1360000	1350000	99.3	80-120
07/19/94	CCS*NONE*1	39383*8080/3540-G	DIELDRIN	UG/KG-	1520000	1480000	97.4	80-120
07/19/94	CCS*NONE*1	39393*8080/3540-G	ENDRIN	UG/KG-	1160000	1160000	100.0	80-120
07/19/94	CCS*NONE*1	39311*8080/3540-G	DDD,PP'	UG/KG-	626000	660000	105	80-120
07/19/94	CCS*NONE*1	34359*8080/3540-G	ENDOSULFAN,B	UG/KG-	912000	960000	105	80-120
07/19/94	CCS*NONE*1	39301*8080/3540-G	DDT,PP'	UG/KG-	1020000	1020000	100.0	80-120
07/19/94	CCS*NONE*1	34369*8080/3540-G	ENDRIN ALDEHYDE	UG/KG-	852000	868000	102	80-120
07/19/94	CCS*NONE*1	34354*8080/3540-G	ENDOSULFAN SULFATE	UG/KG-	1200000	1170000	97.5	80-120
07/19/94	CCS*NONE*1	39481*8080/3540-G	METHOXYCHLOR	UG/KG-	396000	438000	111	80-120
07/19/94	CCS*NONE*1	39351*8080/3540-G	CHLORDANE	UG/KG-		ND		80-120
07/19/94	CCS*NONE*1	39403*8080/3540-G	TOXAPHENE	UG/KG-		ND		80-120
07/19/94	CCS*NONE*1	39514*8080/3540-G	PCB-1016	UG/KG-		ND		80-120
07/19/94	CCS*NONE*1	39491*8080/3540-G	PCB-1221	UG/KG-		ND		80-120
07/19/94	CCS*NONE*1	39495*8080/3540-G	PCB-1232	UG/KG-		ND		80-120
07/19/94	CCS*NONE*1	39499*8080/3540-G	PCB-1242	UG/KG-		ND		80-120
07/19/94	CCS*NONE*1	39503*8080/3540-G	PCB-1248	UG/KG-		ND		80-120
07/19/94	CCS*NONE*1	39507*8080/3540-G	PCB-1254	UG/KG-		ND		80-120
07/19/94	CCS*NONE*1	39511*8080/3540-G	PCB-1260	UG/KG-		ND		80-120

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/19/94	MB*QC*1	39076*8080/3540-G	BHC,A	UG/KG-	ND
07	MB*QC*1	39783*8080/3540-G	BHC,G(LINDANE)	UG/KG-	ND
07	MB*QC*1	34257*8080/3540-G	BHC,B	UG/KG-	ND
07	MB*QC*1	39413*8080/3540-G	HEPTACHLOR	UG/KG-	ND
07/19/94	MB*QC*1	34262*8080/3540-G	BHC,D	UG/KG-	ND
07/19/94	MB*QC*1	39333*8080/3540-G	ALDRIN	UG/KG-	ND
07/19/94	MB*QC*1	39423*8080/3540-G	HEPTACHLOR EPOXIDE	UG/KG-	ND
07/19/94	MB*QC*1	34364*8080/3540-G	ENDOSULFAN,A	UG/KG-	ND
07/19/94	MB*QC*1	39321*8080/3540-G	DDE,PP'	UG/KG-	ND
07/19/94	MB*QC*1	39383*8080/3540-G	DIELDRIN	UG/KG-	ND
07/19/94	MB*QC*1	39393*8080/3540-G	ENDRIN	UG/KG-	ND
07/19/94	MB*QC*1	39311*8080/3540-G	DDD,PP'	UG/KG-	ND
07/19/94	MB*QC*1	34359*8080/3540-G	ENDOSULFAN,B	UG/KG-	ND
07/19/94	MB*QC*1	39301*8080/3540-G	DDT,PP'	UG/KG-	ND
07/19/94	MB*QC*1	34369*8080/3540-G	ENDRIN ALDEHYDE	UG/KG-	ND
07/19/94	MB*QC*1	34354*8080/3540-G	ENDOSULFAN SULFATE	UG/KG-	ND
07/19/94	MB*QC*1	39481*8080/3540-G	METHOXYCHLOR	UG/KG-	ND
07/19/94	MB*QC*1	39351*8080/3540-G	CHLORDANE	UG/KG-	ND
07/19/94	MB*QC*1	39403*8080/3540-G	TOXAPHENE	UG/KG-	ND
07/19/94	MB*QC*1	39514*8080/3540-G	PCB-1016	UG/KG-	ND
07/19/94	MB*QC*1	39491*8080/3540-G	PCB-1221	UG/KG-	ND
07/19/94	MB*QC*1	39495*8080/3540-G	PCB-1232	UG/KG-	ND
07/19/94	MB*QC*1	39499*8080/3540-G	PCB-1242	UG/KG-	ND
07/19/94	MB*QC*1	39503*8080/3540-G	PCB-1248	UG/KG-	ND
07/19/94	MB*QC*1	39507*8080/3540-G	PCB-1254	UG/KG-	ND
07/19/94	MB*QC*1	39511*8080/3540-G	PCB-1260	UG/KG-	ND

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/19/94	SP1*QC*1	39076*8080/3540-G	BHC,A		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39783*8080/3540-G	BHC,G(LINDANE)	87.6	45-129	UG/KG-	26.7	23.4
07/19/94	SP1*QC*1	34257*8080/3540-G	BHC,B		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39413*8080/3540-G	HEPTACHLOR	109.7	30-148	UG/KG-	26.7	29.3
07/19/94	SP1*QC*1	34262*8080/3540-G	BHC,D		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39333*8080/3540-G	ALDRIN	100.7	53-133	UG/KG-	26.7	26.9
07	SP1*QC*1	39423*8080/3540-G	HEPTACHLOR EPOXIDE		80-120	UG/KG-		ND
07	SP1*QC*1	34364*8080/3540-G	ENDOSULFAN,A		80-120	UG/KG-		ND
07	SP1*QC*1	39321*8080/3540-G	DDE,PP'		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39383*8080/3540-G	DIELDRIN	101.5	46-140	UG/KG-	26.7	27.1
07/19/94	SP1*QC*1	39393*8080/3540-G	ENDRIN	100.0	52-126	UG/KG-	26.7	26.7
07/19/94	SP1*QC*1	39311*8080/3540-G	DDD,PP'		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	34359*8080/3540-G	ENDOSULFAN,B		80-120	UG/KG-		ND

ESE BATCH : G51127

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/19/94	SP1*QC*1	39301*8080/3540-G	DDT,PP'	112.0	37-155	UG/KG-	26.7	29.9
07/19/94	SP1*QC*1	34369*8080/3540-G	ENDRIN ALDEHYDE		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	34354*8080/3540-G	ENDOSULFAN SULFATE		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39481*8080/3540-G	METHOXYCHLOR		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39351*8080/3540-G	CHLORDANE		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39403*8080/3540-G	TOXAPHENE		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39514*8080/3540-G	PCB-1016		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39491*8080/3540-G	PCB-1221		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39495*8080/3540-G	PCB-1232		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39499*8080/3540-G	PCB-1242		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39503*8080/3540-G	PCB-1248		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39507*8080/3540-G	PCB-1254		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39511*8080/3540-G	PCB-1260		80-120	UG/KG-		ND

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
07/19/94	SPM1*CDMHNSS3*4	39076*8080/3540-G	BHC,A		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*4	39783*8080/3540-G	BHC,G(LINDANE)	72.2	45-129	0.137	UG/KG-	28.1	20.3
07/19/94	SPM1*CDMHNSS3*4	34257*8080/3540-G	BHC,B		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*4	39413*8080/3540-G	HEPTACHLOR	94.0	30-148	0.0	UG/KG-	28.1	26.4
07/19/94	SPM1*CDMHNSS3*4	34262*8080/3540-G	BHC,D		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*4	39333*8080/3540-G	ALDRIN	86.1	53-133	0.073	UG/KG-	28.1	24.2
07/19/94	SPM1*CDMHNSS3*4	39423*8080/3540-G	HEPTACHLOR EPOXIDE		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*4	34364*8080/3540-G	ENDOSULFAN,A		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*4	39321*8080/3540-G	DDE,PP'		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*4	39383*8080/3540-G	DIELDRIN	85.4	46-140	0.218	UG/KG-	28.1	24.0
07/19/94	SPM1*CDMHNSS3*4	39393*8080/3540-G	ENDRIN	87.9	52-126	0.092	UG/KG-	28.1	24.7
07/19/94	SPM1*CDMHNSS3*4	39311*8080/3540-G	DDD,PP'		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*4	34359*8080/3540-G	ENDOSULFAN,B		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*4	39301*8080/3540-G	DDT,PP'	95.0	37-155	0.0	UG/KG-	28.1	26.7
07/19/94	SPM1*CDMHNSS3*4	34369*8080/3540-G	ENDRIN ALDEHYDE		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*4	34354*8080/3540-G	ENDOSULFAN SULFATE		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*4	39481*8080/3540-G	METHOXYCHLOR		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*4	39351*8080/3540-G	CHLORDANE		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*4	39403*8080/3540-G	TOXAPHENE		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*4	39514*8080/3540-G	PCB-1016		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*4	39491*8080/3540-G	PCB-1221		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*4	39495*8080/3540-G	PCB-1232		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*4	39499*8080/3540-G	PCB-1242		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*4	39503*8080/3540-G	PCB-1248		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*4	39507*8080/3540-G	PCB-1254		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*4	39511*8080/3540-G	PCB-1260		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*4	39076*8080/3540-G	BHC,A		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*4	39783*8080/3540-G	BHC,G(LINDANE)	89.7	45-129	0.137	UG/KG-	28.1	25.2
07/19/94	SPM2*CDMHNSS3*4	34257*8080/3540-G	BHC,B		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*4	39413*8080/3540-G	HEPTACHLOR	116.4	30-148	0.0	UG/KG-	28.1	32.7
07/19/94	SPM2*CDMHNSS3*4	34262*8080/3540-G	BHC,D		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*4	39333*8080/3540-G	ALDRIN	105.0	53-133	0.073	UG/KG-	28.1	29.5
07/19/94	SPM2*CDMHNSS3*4	39423*8080/3540-G	HEPTACHLOR EPOXIDE		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*4	34364*8080/3540-G	ENDOSULFAN,A		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*4	39321*8080/3540-G	DDE,PP'		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*4	39383*8080/3540-G	DIELDRIN	103.9	46-140	0.218	UG/KG-	28.1	29.2
07/19/94	SPM2*CDMHNSS3*4	39393*8080/3540-G	ENDRIN	108.5	52-126	0.092	UG/KG-	28.1	30.5
07/19/94	SPM2*CDMHNSS3*4	39311*8080/3540-G	DDD,PP'		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*4	34359*8080/3540-G	ENDOSULFAN,B		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*4	39301*8080/3540-G	DDT,PP'	114.6	37-155	0.0	UG/KG-	28.1	32.2
07/19/94	SPM2*CDMHNSS3*4	34369*8080/3540-G	ENDRIN ALDEHYDE		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*4	34354*8080/3540-G	ENDOSULFAN SULFATE		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*4	39481*8080/3540-G	METHOXYCHLOR		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*4	39351*8080/3540-G	CHLORDANE		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*4	39403*8080/3540-G	TOXAPHENE		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*4	39514*8080/3540-G	PCB-1016		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*4	39491*8080/3540-G	PCB-1221		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*4	39495*8080/3540-G	PCB-1232		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*4	39499*8080/3540-G	PCB-1242		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*4	39503*8080/3540-G	PCB-1248		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*4	39507*8080/3540-G	PCB-1254		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*4	39511*8080/3540-G	PCB-1260		80-120	0.0	UG/KG-		ND

ESE BATCH : G51127

S ite Spike Recovery Summary

I	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT

Surrogate Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/19/94	MB*QC*1	96471*SUR	TETRACHLORO-M-XYLENE	UG/G	0.067	0.060	89.6	67-119
07/19/94	MB*QC*1	96343*SUR	DECACHLOROBIPHENYL	UG/G	0.067	0.074	110	51-169
07/19/94	SP1*QC*1	96471*SUR	TETRACHLORO-M-XYLENE	UG/G	0.067	0.063	94.0	67-119
07/19/94	SP1*QC*1	96343*SUR	DECACHLOROBIPHENYL	UG/G	0.067	0.078	116	51-169
07/19/94	SPM1*CDMHNSS3*4	96471*SUR	TETRACHLORO-M-XYLENE	UG/G	0.067	0.055	82.1	67-119
07/19/94	SPM1*CDMHNSS3*4	96343*SUR	DECACHLOROBIPHENYL	UG/G	0.067	0.066	98.5	51-169
07/19/94	SPM2*CDMHNSS3*4	96471*SUR	TETRACHLORO-M-XYLENE	UG/G	0.067	0.067	100.0	67-119
07/19/94	SPM2*CDMHNSS3*4	96343*SUR	DECACHLOROBIPHENYL	UG/G	0.067	0.077	115	51-169
07/19/94	DA*CDMHNSS3*3	96471*SUR	TETRACHLORO-M-XYLENE	UG/G	0.067	0.065	97.0	67-119
07/19/94	DA*CDMHNSS3*3	96343*SUR	DECACHLOROBIPHENYL	UG/G	0.067	0.078	116	51-169
07/19/94	DA*CDMHNSS3*4	96471*SUR	TETRACHLORO-M-XYLENE	UG/G	0.067	0.066	98.5	67-119
07/19/94	DA*CDMHNSS3*4	96343*SUR	DECACHLOROBIPHENYL	UG/G	0.067	0.074	110	51-169
07/19/94	CCS*NONE*1	96471*SUR	TETRACHLORO-M-XYLENE	UG/G	3860000	3870000	100	67-119
07/19/94	CCS*NONE*1	96343*SUR	DECACHLOROBIPHENYL	UG/G	3870000	4000000	103	51-169

ESE BATCH : G51127

UNITS AND EXAMPLE CALCULATIONS

	UNITS ENTERED
FINAL CONCENTRATION	UG/KG
INJECTION VOLUME	NA
SAMPLE VOLUME	G
EXTRACT VOLUME	ML
CURVE CONCENTRATION	UG/KG
SPIKE SOLN CONCENTRATION	UG/KG
SPIKE VOLUME	ML
SPIKE SAMPLE VOLUME	ML
TARGET CONCENTRATION	UG/KG
RESPONSE DESCRIPTION	AREA
CONVERSION FACTOR	NA

$$\text{FINAL CONC} = \frac{\text{CURV CONC * EXT VOL * DIL}}{\text{INJ VOL * SAMP VOL * ((100 - \%MOISTURE) / 100)}}$$

$$\text{UG/KG} = \frac{\text{(UG/KG) * (ML)}}{\text{(NA) * (G)}}$$

$$\text{(\qquad)} = \frac{\text{(\qquad) * (\qquad) * (\qquad)}}{\text{(\qquad) * (\qquad) * ((100 - (\qquad)) / 100)}}$$

$$\text{TARGET CONC} = \frac{\text{SPIKE SOLN CONC * SPIKE VOL}}{\text{SPIKE SAMP VOL * ((100 - \%MOISTURE) / 100)}}$$

$$\text{UG/KG} = \frac{\text{(UG/KG) * (ML)}}{\text{(ML)}}$$

ESE BATCH : G51127

Environmental Science and Engineering Analytical Services

Computer QC Checks

Ba ..: G51127 Analysis Date: 07/18/94 Analyst: JOE KOSTELNIK

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
Extract holding time within criteria?	X		
No. of calibration standards present acceptable?	X		
Curve correlation coefficient >= 0.995?	X		
Calibration curve y-intercept < curve detection limit?	X		
Sample responses within highest standard response?	X		
Sample retention times within retention time window?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?	X		
Sample matrix spike duplicate present?	X		
Sample matrix spike duplicate within acceptance criteria?	X		
Surrogate present?	X		
Su--------e within acceptance criteria?	X		

Nc y "NO" answer requires a comment.

OVERRIDE COMMENTS

BATCH OVERRIDE BY:

FINALIZED BY:

ESE BATCH : G51127

TABLE OF ABBREVIATIONS

```
%RECV       : % Recovery for spiked sample. (FOUND/TARGET * 100)
ANLY DATE   : Analysis Date
ANLY TIME   : Analysis Time
CURVE       : Curve Regression Number
DILUTION    : Sample Dilution Factor
EXT DATE    : Extract Date
EXT VOL     : Extract Volume
FOUND       : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL     : Injection Volume
REL%DIFF    : % Difference between current and previous spike.
RESPONSE    : Sample Response
R.T.        : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID   : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
      DA  -- Data Sample
      MB  -- Method Blank
      RF  -- Reference (from commercially known standard)
      RP  -- Replicate Sample
      SP  -- Standard Matrix Spike
      SPM -- Sample Matrix Spike
      STD -- Internal Standard
      SUR -- Surrogate Sample
      UN  -- Unspiked Sample
SAMP VOL    : Sample Volume
SPK CONC    : Spike Concentration
ST          : Sample response explanation or validity. (listed below)
      BK  -- No sample response.
      NA  -- Sample not analyzed.
      NR  -- Not reserved for this batch.  Batch containing the response
             for this sample is listed in the target field.
      OK  -- Sample response shown is correct.
      !   -- Sample response shown is invalid.
      <   -- Sample response < detection limit. Detection limit is shown
             in the response field.
STORET*MTHD: Storet ID * Method Code
TARGET      : Spike Target (SAMPLE LISTING SECTION)
TARGET      : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE        : Response Type ("FINAL" or empty.)
UNSP CONC   : Unspiked Sample Concentration
```

ESE BATCH : G51184
CLASSIFICATION : CHL. PESTS - EPA 8080/3540 (SOX)

QC : FDER/SW
ANALYST : JOE KOSTELNIK
EXTRACTOR : FARIS FAKIH
DATA ENTRY : HP UPLOAD

REPORT DATE/TIME : 08/15/94 12:49:59
ANALYSIS DATE : 07/18/94
EXTRACT DATE : 07/16/94

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSS3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSS3*5	BKG-01	07/19/94	03:18PM
CDMHNSS3*6	BKG-02	07/19/94	04:11PM
CDMHNSS3*42	BG1-01	07/19/94	04:11PM

ESE BATCH : G51184

HOLDING TIMES CHECK

SAMPLE	ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T.	OVER

ALL HOLDING TIMES MET

STORET: 96471 METHOD: SUR TETRACHLORO-M-XYLENE, UG/G QUAD

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=.004 DATE: 07/18/94 LARGEST RESP=3859569 %RSD=9.0672 RT WINDOW:

CONC :	0	.004	.020	.040	.100	.200	.400
RESP :	0	42379	230150	495411	1200747	2150185	3859569
CONC':	0.0005	0.004	0.019	0.040	0.103	0.198	0.400
R.T.:		11.649	11.648	11.646	11.646	11.642	11.654

CONC = 4.6835E-04+ 7.6886E-08*RESP+ 6.9275E-15*RESP**2+ *RESP**3
95% C.I.= 2.2587E-03 3.9422E-09 1.0226E-15
CORRELATION COEFFICIENT = .9999

STORET: 39076 METHOD: 8080/3540-G BHC,A, UG/KG-DRY QUAD

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=1015762 %RSD=12.8373 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	7690	36185	76558	198763	432091	1015762
CONC':	0.200	1.19	4.83	9.90	24.6	50.3	100.0
R.T.:		14.494	14.494	14.496	14.500	14.496	14.500

CONC = 2.0020E-01+ 1.2899E-04*RESP+ -3.0294E-11*RESP**2+ *RESP**3
95% C.I.= 3.1107E-01 2.4294E-06 2.3542E-12
CORRELATION COEFFICIENT = 1.0000

STORET: 39783 METHOD: 8080/3540-G BHC,G(LINDANE), UG/KG-DRY QUAD

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=1004433 %RSD=11.9956 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	7581	36672	77996	205044	436486	1004433
CONC':	0.195	1.15	4.78	9.86	24.9	50.1	100.0
R.T.:		16.141	16.142	16.139	16.146	16.142	16.146

CONC = 1.9523E-01+ 1.2597E-04*RESP+ -2.6503E-11*RESP**2+ *RESP**3
95% C.I.= 2.1502E-01 1.6730E-06 1.6418E-12
CORRELATION COEFFICIENT = 1.0000

STORET: 34257 METHOD: 8080/3540-G BHC,B, UG/KG-DRY QUAD

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=640577 %RSD=2.6622 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	6053	30067	62889	152660	300559	640577
CONC':	-.274	0.773	4.91	10.5	25.6	49.4	100
R.T.:		16.438	16.438	16.436	16.442	16.438	16.442

CONC = -2.7381E-01+ 1.7311E-04*RESP+ -2.5663E-11*RESP**2+ *RESP**3
95% C.I.= 5.7221E-01 6.5521E-06 1.0096E-11
CORRELATION COEFFICIENT = .9999

STORET: 39413 METHOD: 8080/3540-G HEPTACHLOR, UG/KG-DRY QUAD

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=1655138 %RSD=4.8085 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	14945	73192	159441	407502	788772	1655138
CONC':	-.057	0.908	4.66	10.2	25.9	49.4	100
R.T.:		17.499	17.504	17.500	17.504	17.496	17.500

CONC = -5.6830E-02+ 6.4601E-05*RESP+ -2.4730E-12*RESP**2+ *RESP**3
95% C.I.= 6.4317E-01 2.8328E-06 1.6946E-12
CORRELATION COEFFICIENT = .9999

STORET: 34262 METHOD: 8080/3540-G BHC,D, UG/KG-DRY QUAD

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=852260 %RSD=11.3332 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	6925	32149	65518	162061	345590	852260

ESE BATCH : G51184

CONC':	-.183	0.949	5.03	10.3	24.9	49.9	100
R.T.:		17.977	17.983	17.979	17.983	17.979	17.983

= -1.8301E-01+ 1.6380E-04*RESP+ -5.4253E-11*RESP**2+ *RESP**3
95% C.I.= 2.0892E-01 1.9723E-06 2.2660E-12
CORRELATION COEFFICIENT = 1.0000

STORET: 39333 METHOD: 8080/3540-G ALDRIN, UG/KG-DRY QUAD

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=1640597 %RSD=9.9447 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	16696	64941	137055	357987	748988	1640597
CONC':	0.104	1.30	4.74	9.81	24.9	50.1	100.0
R.T.:		18.875	18.883	18.883	18.888	18.883	18.883

CONC = 1.0441E-01+ 7.1751E-05*RESP+ -6.6282E-12*RESP**2+ *RESP**3
95% C.I.= 2.6300E-01 1.2192E-06 7.3420E-13
CORRELATION COEFFICIENT = 1.0000

STORET: 39423 METHOD: 8080/3540-G HEPTACHLOR EPOXIDE, UG/KG-DRY QUAD

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=1488471 %RSD=7.7091 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	12261	61188	133976	347830	695092	1488471
CONC':	0.081	0.999	4.65	10.0	25.5	49.7	100
R.T.:		21.221	21.225	21.221	21.225	21.217	21.225

CONC = 8.0543E-02+ 7.4992E-05*RESP+ -5.2627E-12*RESP**2+ *RESP**3
95% C.I.= 4.0253E-01 2.0102E-06 1.3366E-12
CORRELATION COEFFICIENT = 1.0000

STORET: 34364 METHOD: 8080/3540-G ENDOSULFAN,A, UG/KG-DRY QUAD

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=1272468 %RSD=6.2612 RT WINDOW:

[illegible] :	0	1	5	10	25	50	100
[illegible] :	0	11083	52882	115321	292135	589646	1272468
C[illegible] :	-.0004	0.988	4.70	10.2	25.4	49.7	100
R.T.:		22.683	22.683	22.683	22.683	22.679	22.683

CONC = -3.8930E-04+ 8.9275E-05*RESP+ -8.3753E-12*RESP**2+ *RESP**3
95% C.I.= 3.2198E-01 1.8886E-06 1.4670E-12
CORRELATION COEFFICIENT = 1.0000

STORET: 39321 METHOD: 8080/3540-G DDE,PP', UG/KG-DRY QUAD

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=1357566 %RSD=6.8670 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	11412	56356	119637	297484	615504	1357566
CONC':	-.040	0.956	4.85	10.3	25.0	49.9	100
R.T.:		23.582	23.592	23.588	23.588	23.583	23.588

CONC = -3.9524E-02+ 8.7321E-05*RESP+ -1.0032E-11*RESP**2+ *RESP**3
95% C.I.= 1.8197E-01 1.0154E-06 7.3785E-13
CORRELATION COEFFICIENT = 1.0000

STORET: 39383 METHOD: 8080/3540-G DIELDRIN, UG/KG-DRY QUAD

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=1515054 %RSD=14.0868 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	10570	53452	117237	311452	664475	1515054
CONC':	0.310	1.18	4.68	9.81	24.9	50.2	100.0
R.T.:		23.940	23.945	23.950	23.950	23.946	23.950

CONC = 3.0990E-01+ 8.2281E-05*RESP+ -1.0890E-11*RESP**2+ *RESP**3
95% C.I.= 3.0683E-01 1.5791E-06 1.0288E-12
CORRELATION COEFFICIENT = 1.0000

S 39393 METHOD: 8080/3540-G ENDRIN, UG/KG-DRY QUAD

CA ATION CURVE # 1 (UG/KG)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=1158925 %RSD=11.9240 RT WINDOW:

CONC :	0	1	5	10	25	50	100

```
ESE BATCH       : G51184
   RESP :          0      8573     42458     93279    238996    504694   1158925
   CONC':      0.131      1.06      4.71      10.1      25.0      50.0     100.0
    R.T.:               25.447    25.452    25.454    25.454    25.450    25.458

    CONC     =   1.3131E-01+  1.0863E-04*RESP+ -1.9380E-11*RESP**2+            *RESP**3
    95% C.I.=   1.8681E-01   1.2539E-06        1.0661E-12
    CORRELATION COEFFICIENT = 1.0000
```

STORET: 39311 METHOD: 8080/3540-G DDD,PP', UG/KG-DRY QUAD

```
  CALIBRATION CURVE # 1   (UG/KG)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=625968 %RSD=5.0009  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0      6465     31143     63060    143812    286692    625968
   CONC':      -.579     0.620      5.17      11.0      25.3      49.4       100
    R.T.:               25.847    25.850    25.854    25.850    25.846    25.854

    CONC     =  -5.7926E-01+  1.8577E-04*RESP+ -3.9827E-11*RESP**2+            *RESP**3
    95% C.I.=   7.8890E-01   9.3122E-06        1.4624E-11
    CORRELATION COEFFICIENT = .9999
```

STORET: 34359 METHOD: 8080/3540-G ENDOSULFAN,B, UG/KG-DRY QUAD

```
  CALIBRATION CURVE # 1   (UG/KG)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=911572 %RSD=2.8274  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0      8950     43102     86594    213304    425173    911572
   CONC':      -.265     0.840      5.03      10.3      25.4      49.6       100
    R.T.:               26.178    26.182    26.183    26.183    26.179    26.183

    CONC     =  -2.6451E-01+  1.2355E-04*RESP+ -1.4794E-11*RESP**2+            *RESP**3
    95% C.I.=   4.1635E-01   3.3732E-06        3.6510E-12
    CORRELATION COEFFICIENT = 1.0000
```

STORET: 39301 METHOD: 8080/3540-G DDT,PP', UG/KG-DRY QUAD

```
  CALIBRATION CURVE # 1   (UG/KG)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=1015571 %RSD=6.2948  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0      8752     42922     90783    218372    454485   1015571
   CONC':      -.164     0.879      4.92      10.5      24.9      49.9       100
    R.T.:               27.071    27.070    27.071    27.071    27.067    27.071

    CONC     =  -1.6431E-01+  1.1943E-04*RESP+ -2.0466E-11*RESP**2+            *RESP**3
    95% C.I.=   3.1699E-01   2.3753E-06        2.3031E-12
    CORRELATION COEFFICIENT = 1.0000
```

STORET: 34369 METHOD: 8080/3540-G ENDRIN ALDEHYDE, UG/KG-DRY QUAD

```
  CALIBRATION CURVE # 1   (UG/KG)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=851645 %RSD=3.0852  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0      8207     39603     86227    206382    407347    851645
   CONC':      -.207     0.827      4.77      10.6      25.4      49.5       100
    R.T.:               27.513    27.510    27.508    27.508    27.504    27.508

    CONC     =  -2.0701E-01+  1.2611E-04*RESP+ -9.8101E-12*RESP**2+            *RESP**3
    95% C.I.=   5.2410E-01   4.4814E-06        5.2026E-12
    CORRELATION COEFFICIENT = .9999
```

STORET: 34354 METHOD: 8080/3540-G ENDOSULFAN SULFATE, UG/KG-DRY QUAD

```
  CALIBRATION CURVE # 1   (UG/KG)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=1204955 %RSD=9.2337  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0      9293     48612    101823    255843    536447   1204955
   CONC':      0.015     0.956      4.91      10.2      24.9      50.0       100
    R.T.:               28.004    28.004    28.004    28.004    28.000    28.004

    CONC     =   1.5428E-02+  1.0135E-04*RESP+ -1.5245E-11*RESP**2+            *RESP**3
    95% C.I.=   1.1758E-01   7.4848E-07        6.1235E-13
    CORRELATION COEFFICIENT = 1.0000
```

STORET: 39481 METHOD: 8080/3540-G METHOXYCHLOR, UG/KG-DRY QUAD

```
  CALIBRATION CURVE # 1   (UG/KG)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=396092 %RSD=8.4701  RT WINDOW:
```

```
ESE BATCH       : G51184
   CONC :          0         1         5        10        25        50       100
   RESP :          0      4269     23058     48895    105705    198626    396092
        .       -.611     0.434      5.05      11.4      25.5      49.0       100
        .                30.554    30.558    30.554    30.550    30.550    30.554

    CONC     =  -6.1149E-01+  2.4480E-04*RESP+  2.4505E-11*RESP**2+            *RESP**3
    95% C.I.=   1.1722E+00   2.0591E-05         5.1363E-11
    CORRELATION COEFFICIENT = .9997
```

STORET: 96343 METHOD: SUR DECACHLOROBIPHENYL, UG/G QUAD

```
  CALIBRATION CURVE # 1   (UG/KG)
    DETECTION LIMIT=.004  DATE: 07/18/94  LARGEST RESP=3869602 %RSD=11.1276  RT WINDOW:
   CONC :          0      .004      .020      .040      .100      .200      .400
   RESP :          0     42100    245492    521440   1162419   2109408   3869602
   CONC':     -.0009     0.003     0.020     0.043     0.102     0.197     0.401
    R.T.:               37.125    37.122    37.119    37.117    37.108    37.121

    CONC     =  -9.3206E-04+  8.1907E-08*RESP+  5.6529E-15*RESP**2+            *RESP**3
    95% C.I.=   3.0627E-03   5.3239E-09         1.3705E-15
    CORRELATION COEFFICIENT = .9999
```

STORET: 39351 METHOD: 8080/3540-G CHLORDANE, UG/KG-DRY FINAL

```
  CALIBRATION CURVE # 1   (UG/KG)
    DETECTION LIMIT=5  DATE: 07/18/94  LARGEST RESP=837409 %RSD=4.9111  RT WINDOW:
   CONC :          0         5        10        20        50       100       200
   RESP :
   CONC':      0.086      5.63      10.2      19.3      49.2       101       200

    CONC     =   8.6323E-02+  2.4407E-04*RESP+ -6.5680E-12*RESP**2+            *RESP**3
    95% C.I.=   8.7137E-01   7.5805E-06         8.9428E-12
    CORRELATION COEFFICIENT = 1.0000
```

STORET: 39403 METHOD: 8080/3540-G TOXAPHENE, UG/KG-DRY FINAL

```
  ATION CURVE # 1
     CTION LIMIT=100  DATE: 07/18/94  LARGEST RESP= %RSD=  RT WINDOW:
```

STORE 39514 METHOD: 8080/3540-G PCB-1016, UG/KG-DRY FINAL

```
  CALIBRATION CURVE # 1
    DETECTION LIMIT=20  DATE: 07/18/94  LARGEST RESP= %RSD=  RT WINDOW:
```

STORET: 39491 METHOD: 8080/3540-G PCB-1221, UG/KG-DRY FINAL

```
  CALIBRATION CURVE # 1
    DETECTION LIMIT=20  DATE: 07/18/94  LARGEST RESP= %RSD=  RT WINDOW:
```

STORET: 39495 METHOD: 8080/3540-G PCB-1232, UG/KG-DRY FINAL

```
  CALIBRATION CURVE # 1
    DETECTION LIMIT=20  DATE: 07/18/94  LARGEST RESP= %RSD=  RT WINDOW:
```

STORET: 39499 METHOD: 8080/3540-G PCB-1242, UG/KG-DRY FINAL

```
  CALIBRATION CURVE # 1
    DETECTION LIMIT=20  DATE: 07/18/94  LARGEST RESP= %RSD=  RT WINDOW:
```

STORET: 39503 METHOD: 8080/3540-G PCB-1248, UG/KG-DRY FINAL

```
  CALIBRATION CURVE # 1   (UG/KG)
    DETECTION LIMIT=20  DATE: 07/18/94  LARGEST RESP=3612712 %RSD=14.9674  RT WINDOW:
   CONC :          0        20        50       100       500      1000
   RESP :
   CONC':      -.649      22.0      52.1      95.7       501      1000

    CONC     =  -6.4884E-01+  2.1235E-04*RESP+  1.7868E-11*RESP**2+            *RESP**3
    95% C.I.=   3.6985E+00   8.0321E-06         2.2294E-12
    CORRELATION COEFFICIENT = 1.0000
```

ST 39507 METHOD: 8080/3540-G PCB-1254, UG/KG-DRY FINAL

```
        TION CURVE # 1
   L   TION LIMIT=20  DATE: 07/18/94  LARGEST RESP= %RSD=  RT WINDOW:
```

STORET: 39511 METHOD: 8080/3540-G PCB-1260, UG/KG-DRY FINAL

ESE BATCH : G51184

CALIBRATION CURVE # 1 (UG/KG)
DETECTION LIMIT=20 DATE: 07/18/94 LARGEST RESP=11653779 %RSD=8.3104 RT WINDOW:

CONC :	0	20	50	100	500	1000	2000
RESP :							
CONC':	-6.27	16.7	49.9	106	514	988	2000

CONC = -6.2735E+00+ 1.6203E-04*RESP+ 8.8416E-13*RESP**2+ *RESP**3
95% C.I.= 1.1106E+01 6.9730E-06 6.0373E-13
CORRELATION COEFFICIENT = .9999

9513554.2826

ESE BATCH : G51184

C ing Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/19/94	CCS*NONE*1	39076*8080/3540-G	BHC,A	UG/KG-	1020000	1190000	117	80-120
07/19/94	CCS*NONE*1	39783*8080/3540-G	BHC,G(LINDANE)	UG/KG-	1000000	1140000	114	80-120
07/19/94	CCS*NONE*1	34257*8080/3540-G	BHC,B	UG/KG-	641000	683000	107	80-120
07/19/94	CCS*NONE*1	39413*8080/3540-G	HEPTACHLOR	UG/KG-	1660000	1780000	107	80-120
07/19/94	CCS*NONE*1	34262*8080/3540-G	BHC,D	UG/KG-	852000	964000	113	80-120
07/19/94	CCS*NONE*1	39333*8080/3540-G	ALDRIN	UG/KG-	1640000	1680000	102	80-120
07/19/94	CCS*NONE*1	39423*8080/3540-G	HEPTACHLOR EPOXIDE	UG/KG-	1490000	1520000	102	80-120
07/19/94	CCS*NONE*1	34364*8080/3540-G	ENDOSULFAN,A	UG/KG-	1270000	1320000	104	80-120
07/19/94	CCS*NONE*1	39321*8080/3540-G	DDE,PP'	UG/KG-	1360000	1340000	98.5	80-120
07/19/94	CCS*NONE*1	39383*8080/3540-G	DIELDRIN	UG/KG-	1520000	1490000	98.0	80-120
07/19/94	CCS*NONE*1	39393*8080/3540-G	ENDRIN	UG/KG-	1160000	1190000	103	80-120
07/19/94	CCS*NONE*1	39311*8080/3540-G	DDD,PP'	UG/KG-	626000	686000	110	80-120
07/19/94	CCS*NONE*1	34359*8080/3540-G	ENDOSULFAN,B	UG/KG-	912000	974000	107	80-120
07/19/94	CCS*NONE*1	39301*8080/3540-G	DDT,PP'	UG/KG-	1020000	1040000	102	80-120
07/19/94	CCS*NONE*1	34369*8080/3540-G	ENDRIN ALDEHYDE	UG/KG-	852000	907000	106	80-120
07/19/94	CCS*NONE*1	34354*8080/3540-G	ENDOSULFAN SULFATE	UG/KG-	1200000	1160000	96.7	80-120
07/19/94	CCS*NONE*1	39481*8080/3540-G	METHOXYCHLOR	UG/KG-	396000	479000	121	80-120
07/19/94	CCS*NONE*1	39351*8080/3540-G	CHLORDANE	UG/KG-		ND		80-120
07/19/94	CCS*NONE*1	39403*8080/3540-G	TOXAPHENE	UG/KG-		ND		80-120
07/19/94	CCS*NONE*1	39514*8080/3540-G	PCB-1016	UG/KG-		ND		80-120
07/19/94	CCS*NONE*1	39491*8080/3540-G	PCB-1221	UG/KG-		ND		80-120
07/19/94	CCS*NONE*1	39495*8080/3540-G	PCB-1232	UG/KG-		ND		80-120
07/19/94	CCS*NONE*1	39499*8080/3540-G	PCB-1242	UG/KG-		ND		80-120
07/19/94	CCS*NONE*1	39503*8080/3540-G	PCB-1248	UG/KG-		ND		80-120
07/19/94	CCS*NONE*1	39507*8080/3540-G	PCB-1254	UG/KG-		ND		80-120
07/19/94	CCS*NONE*1	39511*8080/3540-G	PCB-1260	UG/KG-		ND		80-120
07/19/94	CCS*NONE*2	39076*8080/3540-G	BHC,A	UG/KG-	1020000	1200000	118	80-120
07/19/94	CCS*NONE*2	39783*8080/3540-G	BHC,G(LINDANE)	UG/KG-	1000000	1150000	115	80-120
07/19/94	CCS*NONE*2	34257*8080/3540-G	BHC,B	UG/KG-	641000	689000	107	80-120
07/19/94	CCS*NONE*2	39413*8080/3540-G	HEPTACHLOR	UG/KG-	1660000	1730000	104	80-120
07/19/94	CCS*NONE*2	34262*8080/3540-G	BHC,D	UG/KG-	852000	973000	114	80-120
0 4	CCS*NONE*2	39333*8080/3540-G	ALDRIN	UG/KG-	1640000	1680000	102	80-120
0	CCS*NONE*2	39423*8080/3540-G	HEPTACHLOR EPOXIDE	UG/KG-	1490000	1540000	103	80-120
07/19/94	CCS*NONE*2	34364*8080/3540-G	ENDOSULFAN,A	UG/KG-	1270000	1340000	106	80-120
07/19/94	CCS*NONE*2	39321*8080/3540-G	DDE,PP'	UG/KG-	1360000	1370000	101	80-120
07/19/94	CCS*NONE*2	39383*8080/3540-G	DIELDRIN	UG/KG-	1520000	1510000	99.3	80-120
07/19/94	CCS*NONE*2	39393*8080/3540-G	ENDRIN	UG/KG-	1160000	1170000	101	80-120
07/19/94	CCS*NONE*2	39311*8080/3540-G	DDD,PP'	UG/KG-	626000	693000	111	80-120
07/19/94	CCS*NONE*2	34359*8080/3540-G	ENDOSULFAN,B	UG/KG-	912000	1000000	110	80-120
07/19/94	CCS*NONE*2	39301*8080/3540-G	DDT,PP'	UG/KG-	1020000	1050000	103	80-120
07/19/94	CCS*NONE*2	34369*8080/3540-G	ENDRIN ALDEHYDE	UG/KG-	852000	909000	107	80-120
07/19/94	CCS*NONE*2	34354*8080/3540-G	ENDOSULFAN SULFATE	UG/KG-	1200000	1190000	99.2	80-120
07/19/94	CCS*NONE*2	39481*8080/3540-G	METHOXYCHLOR	UG/KG-	396000	469000	118	80-120
07/19/94	CCS*NONE*2	39351*8080/3540-G	CHLORDANE	UG/KG-		ND		80-120
07/19/94	CCS*NONE*2	39403*8080/3540-G	TOXAPHENE	UG/KG-		ND		80-120
07/19/94	CCS*NONE*2	39514*8080/3540-G	PCB-1016	UG/KG-		ND		80-120
07/19/94	CCS*NONE*2	39491*8080/3540-G	PCB-1221	UG/KG-		ND		80-120
07/19/94	CCS*NONE*2	39495*8080/3540-G	PCB-1232	UG/KG-		ND		80-120
07/19/94	CCS*NONE*2	39499*8080/3540-G	PCB-1242	UG/KG-		ND		80-120
07/19/94	CCS*NONE*2	39503*8080/3540-G	PCB-1248	UG/KG-		ND		80-120
07/19/94	CCS*NONE*2	39507*8080/3540-G	PCB-1254	UG/KG-		ND		80-120
07/19/94	CCS*NONE*2	39511*8080/3540-G	PCB-1260	UG/KG-		ND		80-120

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/19/94	MB*QC*1	39076*8080/3540-G	BHC,A	UG/KG-	ND
07/19/94	MB*QC*1	39783*8080/3540-G	BHC,G(LINDANE)	UG/KG-	ND
07/19/94	MB*QC*1	34257*8080/3540-G	BHC,B	UG/KG-	ND
07/19/94	MB*QC*1	39413*8080/3540-G	HEPTACHLOR	UG/KG-	ND
07/19/94	MB*QC*1	34262*8080/3540-G	BHC,D	UG/KG-	ND
07/19/94	MB*QC*1	39333*8080/3540-G	ALDRIN	UG/KG-	ND
07/19/94	MB*QC*1	39423*8080/3540-G	HEPTACHLOR EPOXIDE	UG/KG-	ND
07/19/94	MB*QC*1	34364*8080/3540-G	ENDOSULFAN,A	UG/KG-	ND
07/19/94	MB*QC*1	39321*8080/3540-G	DDE,PP'	UG/KG-	ND
07/19/94	MB*QC*1	39383*8080/3540-G	DIELDRIN	UG/KG-	ND
0 4	MB*QC*1	39393*8080/3540-G	ENDRIN	UG/KG-	ND
0	MB*QC*1	39311*8080/3540-G	DDD,PP'	UG/KG-	ND
07/19/94	MB*QC*1	34359*8080/3540-G	ENDOSULFAN,B	UG/KG-	ND
07/19/94	MB*QC*1	39301*8080/3540-G	DDT,PP'	UG/KG-	ND
07/19/94	MB*QC*1	34369*8080/3540-G	ENDRIN ALDEHYDE	UG/KG-	ND
07/19/94	MB*QC*1	34354*8080/3540-G	ENDOSULFAN SULFATE	UG/KG-	ND
07/19/94	MB*QC*1	39481*8080/3540-G	METHOXYCHLOR	UG/KG-	ND

ESE BATCH : G51184

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/19/94	MB*QC*1	39351*8080/3540-G	CHLORDANE	UG/KG-	ND
07/19/94	MB*QC*1	39403*8080/3540-G	TOXAPHENE	UG/KG-	ND
07/19/94	MB*QC*1	39514*8080/3540-G	PCB-1016	UG/KG-	ND
07/19/94	MB*QC*1	39491*8080/3540-G	PCB-1221	UG/KG-	ND
07/19/94	MB*QC*1	39495*8080/3540-G	PCB-1232	UG/KG-	ND
07/19/94	MB*QC*1	39499*8080/3540-G	PCB-1242	UG/KG-	ND
07/19/94	MB*QC*1	39503*8080/3540-G	PCB-1248	UG/KG-	ND
07/19/94	MB*QC*1	39507*8080/3540-G	PCB-1254	UG/KG-	ND
07/19/94	MB*QC*1	39511*8080/3540-G	PCB-1260	UG/KG-	ND

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/19/94	SP1*QC*1	39076*8080/3540-G	BHC,A		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39783*8080/3540-G	BHC,G(LINDANE)	83.5	45-129	UG/KG-	26.7	22.3
07/19/94	SP1*QC*1	34257*8080/3540-G	BHC,B		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39413*8080/3540-G	HEPTACHLOR	109.4	30-148	UG/KG-	26.7	29.2
07/19/94	SP1*QC*1	34262*8080/3540-G	BHC,D		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39333*8080/3540-G	ALDRIN	100.4	53-133	UG/KG-	26.7	26.8
07/19/94	SP1*QC*1	39423*8080/3540-G	HEPTACHLOR EPOXIDE		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	34364*8080/3540-G	ENDOSULFAN,A		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39321*8080/3540-G	DDE,PP'		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39383*8080/3540-G	DIELDRIN	100.0	46-140	UG/KG-	26.7	26.7
07/19/94	SP1*QC*1	39393*8080/3540-G	ENDRIN	105.6	52-126	UG/KG-	26.7	28.2
07/19/94	SP1*QC*1	39311*8080/3540-G	DDD,PP'		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	34359*8080/3540-G	ENDOSULFAN,B		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39301*8080/3540-G	DDT,PP'	107.1	37-155	UG/KG-	26.7	28.6
07/19/94	SP1*QC*1	34369*8080/3540-G	ENDRIN ALDEHYDE		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	34354*8080/3540-G	ENDOSULFAN SULFATE		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39481*8080/3540-G	METHOXYCHLOR		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39351*8080/3540-G	CHLORDANE		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39403*8080/3540-G	TOXAPHENE		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39514*8080/3540-G	PCB-1016		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39491*8080/3540-G	PCB-1221		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39495*8080/3540-G	PCB-1232		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39499*8080/3540-G	PCB-1242		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39503*8080/3540-G	PCB-1248		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39507*8080/3540-G	PCB-1254		80-120	UG/KG-		ND
07/19/94	SP1*QC*1	39511*8080/3540-G	PCB-1260		80-120	UG/KG-		ND

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
07/19/94	SPM1*CDMHNSS3*6	39076*8080/3540-G	BHC,A		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*6	39783*8080/3540-G	BHC,G(LINDANE)	86.9	45-129	0.134	UG/KG-	27.5	23.9
07/19/94	SPM1*CDMHNSS3*6	34257*8080/3540-G	BHC,B		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*6	39413*8080/3540-G	HEPTACHLOR	113.5	30-148	0.0	UG/KG-	27.5	31.2
07/19/94	SPM1*CDMHNSS3*6	34262*8080/3540-G	BHC,D		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*6	39333*8080/3540-G	ALDRIN	106.2	53-133	0.072	UG/KG-	27.5	29.2
07/19/94	SPM1*CDMHNSS3*6	39423*8080/3540-G	HEPTACHLOR EPOXIDE		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*6	34364*8080/3540-G	ENDOSULFAN,A		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*6	39321*8080/3540-G	DDE,PP'		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*6	39383*8080/3540-G	DIELDRIN	102.5	46-140	0.213	UG/KG-	27.5	28.2
07/19/94	SPM1*CDMHNSS3*6	39393*8080/3540-G	ENDRIN	106.9	52-126	0.090	UG/KG-	27.5	29.4
07/19/94	SPM1*CDMHNSS3*6	39311*8080/3540-G	DDD,PP'		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*6	34359*8080/3540-G	ENDOSULFAN,B		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*6	39301*8080/3540-G	DDT,PP'	117.8	37-155	0.0	UG/KG-	27.5	32.4
07/19/94	SPM1*CDMHNSS3*6	34369*8080/3540-G	ENDRIN ALDEHYDE		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*6	34354*8080/3540-G	ENDOSULFAN SULFATE		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*6	39481*8080/3540-G	METHOXYCHLOR		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*6	39351*8080/3540-G	CHLORDANE		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*6	39403*8080/3540-G	TOXAPHENE		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*6	39514*8080/3540-G	PCB-1016		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*6	39491*8080/3540-G	PCB-1221		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*6	39495*8080/3540-G	PCB-1232		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*6	39499*8080/3540-G	PCB-1242		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*6	39503*8080/3540-G	PCB-1248		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*6	39507*8080/3540-G	PCB-1254		80-120	0.0	UG/KG-		ND
07/19/94	SPM1*CDMHNSS3*6	39511*8080/3540-G	PCB-1260		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*6	39076*8080/3540-G	BHC,A		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*6	39783*8080/3540-G	BHC,G(LINDANE)	82.9	45-129	0.134	UG/KG-	27.5	22.8
07/19/94	SPM2*CDMHNSS3*6	34257*8080/3540-G	BHC,B		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*6	39413*8080/3540-G	HEPTACHLOR	108.7	30-148	0.0	UG/KG-	27.5	29.9

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S Matrix Spike Recovery Summary

D	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
07/19/94	SPM2*CDMHNSS3*6	34262*8080/3540-G	BHC,D		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*6	39333*8080/3540-G	ALDRIN	100.7	53-133	0.072	UG/KG-	27.5	27.7
07/19/94	SPM2*CDMHNSS3*6	39423*8080/3540-G	HEPTACHLOR EPOXIDE		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*6	34364*8080/3540-G	ENDOSULFAN,A		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*6	39321*8080/3540-G	DDE,PP'		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*6	39383*8080/3540-G	DIELDRIN	97.8	46-140	0.213	UG/KG-	27.5	26.9
07/19/94	SPM2*CDMHNSS3*6	39393*8080/3540-G	ENDRIN	102.9	52-126	0.090	UG/KG-	27.5	28.3
07/19/94	SPM2*CDMHNSS3*6	39311*8080/3540-G	DDD,PP'		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*6	34359*8080/3540-G	ENDOSULFAN,B		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*6	39301*8080/3540-G	DDT,PP'	106.2	37-155	0.0	UG/KG-	27.5	29.2
07/19/94	SPM2*CDMHNSS3*6	34369*8080/3540-G	ENDRIN ALDEHYDE		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*6	34354*8080/3540-G	ENDOSULFAN SULFATE		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*6	39481*8080/3540-G	METHOXYCHLOR		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*6	39351*8080/3540-G	CHLORDANE		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*6	39403*8080/3540-G	TOXAPHENE		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*6	39514*8080/3540-G	PCB-1016		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*6	39491*8080/3540-G	PCB-1221		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*6	39495*8080/3540-G	PCB-1232		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*6	39499*8080/3540-G	PCB-1242		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*6	39503*8080/3540-G	PCB-1248		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*6	39507*8080/3540-G	PCB-1254		80-120	0.0	UG/KG-		ND
07/19/94	SPM2*CDMHNSS3*6	39511*8080/3540-G	PCB-1260		80-120	0.0	UG/KG-		ND

Surrogate Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/19/94	MB*QC*1	96471*SUR	TETRACHLORO-M-XYLENE	UG/G	0.067	0.067	100.0	67-119
07/19/94	MB*QC*1	96343*SUR	DECACHLOROBIPHENYL	UG/G	0.067	0.076	113	51-169
07/19/94	SP1*QC*1	96471*SUR	TETRACHLORO-M-XYLENE	UG/G	0.067	0.066	98.5	67-119
07/19/94	SP1*QC*1	96343*SUR	DECACHLOROBIPHENYL	UG/G	0.067	0.083	124	51-169
07/19/94	SPM1*CDMHNSS3*6	96471*SUR	TETRACHLORO-M-XYLENE	UG/G	0.067	0.069	103	67-119
07/19/94	SPM1*CDMHNSS3*6	96343*SUR	DECACHLOROBIPHENYL	UG/G	0.067	0.081	121	51-169
0 4	SPM2*CDMHNSS3*6	96471*SUR	TETRACHLORO-M-XYLENE	UG/G	0.067	0.065	97.0	67-119
0 4	SPM2*CDMHNSS3*6	96343*SUR	DECACHLOROBIPHENYL	UG/G	0.067	0.079	118	51-169
0 1	DA*CDMHNSS3*5	96471*SUR	TETRACHLORO-M-XYLENE	UG/G	0.067	0.078	116	67-119
07/19/94	DA*CDMHNSS3*5	96343*SUR	DECACHLOROBIPHENYL	UG/G	0.067	0.092	137	51-169
07/19/94	DA*CDMHNSS3*6	96471*SUR	TETRACHLORO-M-XYLENE	UG/G	0.067	0.062	92.5	67-119
07/19/94	DA*CDMHNSS3*6	96343*SUR	DECACHLOROBIPHENYL	UG/G	0.067	0.077	115	51-169
07/19/94	DA*CDMHNSS3*42	96471*SUR	TETRACHLORO-M-XYLENE	UG/G	0.067	0.062	92.5	67-119
07/19/94	DA*CDMHNSS3*42	96343*SUR	DECACHLOROBIPHENYL	UG/G	0.067	0.077	115	51-169
07/19/94	CCS*NONE*1	96471*SUR	TETRACHLORO-M-XYLENE	UG/G	3860000	3980000	103	67-119
07/19/94	CCS*NONE*1	96343*SUR	DECACHLOROBIPHENYL	UG/G	3870000	4160000	107	51-169
07/19/94	CCS*NONE*2	96471*SUR	TETRACHLORO-M-XYLENE	UG/G	3860000	3960000	103	67-119
07/19/94	CCS*NONE*2	96343*SUR	DECACHLOROBIPHENYL	UG/G	3870000	4210000	109	51-169

ESE BATCH : G51184

UNITS AND EXAMPLE CALCULATIONS

	UNITS ENTERED
FINAL CONCENTRATION	UG/KG
INJECTION VOLUME	NA
SAMPLE VOLUME	G
EXTRACT VOLUME	ML
CURVE CONCENTRATION	UG/KG
SPIKE SOLN CONCENTRATION	UG/KG
SPIKE VOLUME	ML
SPIKE SAMPLE VOLUME	ML
TARGET CONCENTRATION	UG/KG
RESPONSE DESCRIPTION	AREA
CONVERSION FACTOR	NA

$$\text{FINAL CONC} = \frac{\text{CURV CONC * EXT VOL * DIL}}{\text{INJ VOL * SAMP VOL * ((100 - \%MOISTURE) / 100)}}$$

$$\text{UG/KG} = \frac{\text{(UG/KG) * (ML)}}{\text{(NA) * (G)}}$$

$$(\qquad\qquad) = \frac{(\qquad\qquad) * (\qquad\qquad) * (\qquad\qquad)}{(\qquad\qquad) * (\qquad\qquad) * ((100 - (\qquad\qquad)) / 100)}$$

$$\text{TARGET CONC} = \frac{\text{SPIKE SOLN CONC * SPIKE VOL}}{\text{SPIKE SAMP VOL * ((100 - \%MOISTURE) / 100)}}$$

$$\text{UG/KG} = \frac{\text{(UG/KG) * (ML)}}{\text{(ML)}}$$

ESE BATCH : G51184

Environmental Science and Engineering Analytical Services

Computer QC Checks

B ɔ.: G51184 Analysis Date: 07/18/94 Analyst: JOE KOSTELNIK

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
Extract holding time within criteria?	X		
No. of calibration standards present acceptable?	X		
Curve correlation coefficient >= 0.995?	X		
Calibration curve y-intercept < curve detection limit?	X		
Sample responses within highest standard response?	X		
Sample retention times within retention time window?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?	X		
Sample matrix spike duplicate present?	X		
Sample matrix spike duplicate within acceptance criteria?	X		
Surrogate present?	X		
Surrogate within acceptance criteria?	X		

N ıy "NO" answer requires a comment.

OVERRIDE COMMENTS

BATCH OVERRIDE BY:

FINALIZED BY:

ESE BATCH : G51184

TABLE OF ABBREVIATIONS

%RECV : % Recovery for spiked sample. (FOUND/TARGET * 100)
ANLY DATE : Analysis Date
ANLY TIME : Analysis Time
CURVE : Curve Regression Number
DILUTION : Sample Dilution Factor
EXT DATE : Extract Date
EXT VOL : Extract Volume
FOUND : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL : Injection Volume
REL%DIFF : % Difference between current and previous spike.
RESPONSE : Sample Response
R.T. : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
DA -- Data Sample
MB -- Method Blank
RF -- Reference (from commercially known standard)
RP -- Replicate Sample
SP -- Standard Matrix Spike
SPM -- Sample Matrix Spike
STD -- Internal Standard
SUR -- Surrogate Sample
UN -- Unspiked Sample
SAMP VOL : Sample Volume
SPK CONC : Spike Concentration
ST : Sample response explanation or validity. (listed below)
BK -- No sample response.
NA -- Sample not analyzed.
NR -- Not reserved for this batch. Batch containing the response for this sample is listed in the target field.
OK -- Sample response shown is correct.
! -- Sample response shown is invalid.
< -- Sample response < detection limit. Detection limit is shown in the response field.
STORET*MTHD: Storet ID * Method Code
TARGET : Spike Target (SAMPLE LISTING SECTION)
TARGET : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE : Response Type ("FINAL" or empty.)
UNSP CONC : Unspiked Sample Concentration

ESE BATCH : G51446
CLASSIFICATION : CHL. PESTS - CLP SOW OLM01.8

QC : FDER/SW
ANALYST : VICTOR BAUDER
EXTRACTOR : Z. MATHIS
DATA ENTRY : CLP UPLOAD

REPORT DATE/TIME : 08/15/94 12:51:27
ANALYSIS DATE : 07/21/94
EXTRACT DATE : 07/18/94

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSS3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSS3*43	WC1-01	07/22/94	10:53AM

ESE BATCH : G51446

HOLDING TIMES CHECK

SAMPLE	ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T.	OVER

ALL HOLDING TIMES MET

STORET: 39076 METHOD: CLP90 alpha-BHC, UG/KG-DRY MRF

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: 07/21/94 LARGEST RESP=1084672 %RSD= RT WINDOW:

CONC :	5	20	80
RESP :	13060	62549	407067
CONC':			
R.T.:	6.821	6.821	6.819

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

CALIBRATION CURVE # 2
DETECTION LIMIT=5 DATE: 07/21/94 LARGEST RESP=793595.50 %RSD= RT WINDOW:

CONC :	5	20	80
RESP :	62132	279488	1260844
CONC':			
R.T.:	4.926	4.927	4.928

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

STORET: 34257 METHOD: CLP90 beta-BHC, UG/KG-DRY MRF

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: 07/21/94 LARGEST RESP=566292 %RSD= RT WINDOW:

CONC :	5	20	80
RESP :	8854	46388	207448
CONC':			
R.T.:	8.167	8.165	8.162

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

CALIBRATION CURVE # 2
DETECTION LIMIT=5 DATE: 07/21/94 LARGEST RESP=150994(USER DEFINED) %RSD= RT WINDOW:

CONC :	5	20	80
RESP :	39217	145546	597486
CONC':			
R.T.:	7.496	7.496	7.496

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

STORET: 34262 METHOD: CLP90 delta-BHC, UG/KG-DRY MRF

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: 07/21/94 LARGEST RESP=1019397 %RSD= RT WINDOW:

CONC :	5	20	80
RESP :	10808	51654	327500
CONC':			
R.T.:	9.393	9.392	9.390

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

CALIBRATION CURVE # 2
DETECTION LIMIT=5 DATE: 07/21/94 LARGEST RESP=212357(USER DEFINED) %RSD= RT WINDOW:

CONC :	5	20	80
RESP :	52624	234090	1128267
CONC':			
R.T.:	8.161	8.162	8.164

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

ESE BATCH : G51446

STORET: 39783 METHOD: CLP90 gamma-BHC (Lindane), UG/KG-DRY MRF

ATION CURVE # 1
DETECTION LIMIT=5 DATE: 07/21/94 LARGEST RESP=420690.50 %RSD= RT WINDOW:

CONC :	5	20	80
RESP :	13994	65861	390601
CONC':			
R.T.:	7.948	7.948	7.945

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

CALIBRATION CURVE # 2
DETECTION LIMIT=5 DATE: 07/21/94 LARGEST RESP=760314.50 %RSD= RT WINDOW:

CONC :	5	20	80
RESP :	63105	279333	1206267
CONC':			
R.T.:	5.681	5.682	5.683

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

STORET: 39413 METHOD: CLP90 Heptachlor, UG/KG-DRY MRF

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: 07/21/94 LARGEST RESP=433933.00 %RSD= RT WINDOW:

CONC :	5	20	80
RESP :	26382	104766	450353
CONC':			
R.T.:	8.997	8.995	8.993

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

ATION CURVE # 2
ECTION LIMIT=5 DATE: 07/21/94 LARGEST RESP=765681.50 %RSD= RT WINDOW:

CONC :	5	20	80
RESP :	79255	311752	1244213
CONC':			
R.T.:	6.134	6.134	6.134

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

STORET: 39333 METHOD: CLP90 Aldrin, UG/KG-DRY MRF

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: 07/21/94 LARGEST RESP=1032530 %RSD= RT WINDOW:

CONC :	5	20	80
RESP :	16856	69553	348609
CONC':			
R.T.:	10.150	10.149	10.148

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

CALIBRATION CURVE # 2
DETECTION LIMIT=5 DATE: 07/21/94 LARGEST RESP=238381(USER DEFINED) %RSD= RT WINDOW:

CONC :	5	20	80
RESP :	59848	248201	1120409
CONC':			
R.T.:	6.772	6.773	6.775

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

S 39423 METHOD: CLP90 Heptachlor epoxide, UG/KG-DRY MRF

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: 07/21/94 LARGEST RESP=432320.06 %RSD= RT WINDOW:

ESE BATCH : G51446

CONC :	5	20	80
RESP :	22668	88995	385637
CONC':			
R.T.:	12.384	12.380	12.380

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

CALIBRATION CURVE # 2
DETECTION LIMIT=5 DATE: 07/21/94 LARGEST RESP=269363(USER DEFINED) %RSD= RT WINDOW:

CONC :	5	20	80
RESP :	64456	253437	1069785
CONC':			
R.T.:	8.642	8.643	8.644

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

STORET: 34364 METHOD: CLP90 Endosulfan I, UG/KG-DRY MRF

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: 07/21/94 LARGEST RESP=350246.50 %RSD= RT WINDOW:

CONC :	5	20	80
RESP :	19462	78458	340784
CONC':			
R.T.:	13.881	13.879	13.881

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

CALIBRATION CURVE # 2
DETECTION LIMIT=5 DATE: 07/21/94 LARGEST RESP=643625.50 %RSD= RT WINDOW:

CONC :	5	20	80
RESP :	59851	235883	982928
CONC':			
R.T.:	9.485	9.485	9.486

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

STORET: 39383 METHOD: CLP90 Dieldrin, UG/KG-DRY MRF

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/21/94 LARGEST RESP=735074.00 %RSD= RT WINDOW:

CONC :	10	40	160
RESP :	34285	141808	680977
CONC':			
R.T.:	15.112	15.109	15.111

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

CALIBRATION CURVE # 2
DETECTION LIMIT=10 DATE: 07/21/94 LARGEST RESP=1326938.50 %RSD= RT WINDOW:

CONC :	10	40	160
RESP :	112740	472673	2001223
CONC':			
R.T.:	10.771	10.773	10.774

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

STORET: 39321 METHOD: CLP90 4,4'-DDE, UG/KG-DRY MRF

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/21/94 LARGEST RESP=786312.50 %RSD= RT WINDOW:

CONC :	10	40	160
RESP :	26131	115356	583227
CONC':			
R.T.:	14.950	14.946	14.945

ESE BATCH : G51446

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
RELATION COEFFICIENT =

CALIBRATION CURVE # 2
DETECTION LIMIT=10 DATE: 07/21/94 LARGEST RESP=452598(USER DEFINED) %RSD= RT WINDOW:

CONC :	10	40	160
RESP :	90190	392781	1862978
CONC':			
R.T.:	10.353	10.355	10.356

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

STORET: 39393 METHOD: CLP90 Endrin, UG/KG-DRY MRF

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/21/94 LARGEST RESP=746274.75 %RSD= RT WINDOW:

CONC :	10	40	160
RESP :	30827	128411	608653
CONC':			
R.T.:	16.401	16.400	16.400

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

CALIBRATION CURVE # 2
DETECTION LIMIT=10 DATE: 07/21/94 LARGEST RESP=1361522.00 %RSD= RT WINDOW:

CONC :	10	40	160
RESP :	105229	438467	1843376
CONC':			
R.T.:	11.490	11.493	11.492

CONC = + *RESP+ *RESP**2+ *RESP**3
% C.I.=
RRELATION COEFFICIENT =

STC : 34359 METHOD: CLP90 Endosulfan II, UG/KG-DRY MRF

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/21/94 LARGEST RESP=1372087 %RSD= RT WINDOW:

CONC :	10	40	160
RESP :	35953	139889	641885
CONC':			
R.T.:	17.028	17.025	17.025

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

CALIBRATION CURVE # 2
DETECTION LIMIT=10 DATE: 07/21/94 LARGEST RESP=1417602(USER DEFINED) %RSD= RT WINDOW:

CONC :	10	40	160
RESP :	110596	418813	1795328
CONC':			
R.T.:	13.476	13.479	13.478

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

STORET: 39311 METHOD: CLP90 4,4'-DDD, UG/KG-DRY MRF

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/21/94 LARGEST RESP=506672.00 %RSD= RT WINDOW:

CONC :	10	40	160
RESP :	18703	82844	435648
CONC':			
R.T.:	16.927	16.923	16.921

NC = + *RESP+ *RESP**2+ *RESP**3
C.I.=
RELATION COEFFICIENT =

CALIBRATION CURVE # 2

ESE BATCH : G51446

DETECTION LIMIT=10 DATE: 07/21/94 LARGEST RESP=339752(USER DEFINED) %RSD= RT WINDOW:

CONC :	10	40	160
RESP :	73755	310706	1465409
CONC':			
R.T.:	13.479	13.482	13.480

CONC = + *RESP+ *RESP**2+ *RESP**3

95% C.I.=

CORRELATION COEFFICIENT =

STORET: 34354 METHOD: CLP90 Endosulfan sulfate, UG/KG-DRY MRF

CALIBRATION CURVE # 1

DETECTION LIMIT=10 DATE: 07/21/94 LARGEST RESP=675025.44 %RSD= RT WINDOW:

CONC :	10	40	160
RESP :	34037	136542	589337
CONC':			
R.T.:	18.446	18.442	18.441

CONC = + *RESP+ *RESP**2+ *RESP**3

95% C.I.=

CORRELATION COEFFICIENT =

CALIBRATION CURVE # 2

DETECTION LIMIT=10 DATE: 07/21/94 LARGEST RESP=1253101(USER DEFINED) %RSD= RT WINDOW:

CONC :	10	40	160
RESP :	83993	343905	1418099
CONC':			
R.T.:	16.107	16.108	16.107

CONC = + *RESP+ *RESP**2+ *RESP**3

95% C.I.=

CORRELATION COEFFICIENT =

STORET: 39301 METHOD: CLP90 4,4'-DDT, UG/KG-DRY MRF

CALIBRATION CURVE # 1

DETECTION LIMIT=10 DATE: 07/21/94 LARGEST RESP=628171.13 %RSD= RT WINDOW:

CONC :	10	40	160
RESP :	25057	111276	536481
CONC':			
R.T.:	17.853	17.850	17.849

CONC = + *RESP+ *RESP**2+ *RESP**3

95% C.I.=

CORRELATION COEFFICIENT =

CALIBRATION CURVE # 2

DETECTION LIMIT=10 DATE: 07/21/94 LARGEST RESP=920446.50 %RSD= RT WINDOW:

CONC :	10	40	160
RESP :	86816	378253	1667988
CONC':			
R.T.:	14.142	14.145	14.147

CONC = + *RESP+ *RESP**2+ *RESP**3

95% C.I.=

CORRELATION COEFFICIENT =

STORET: 39481 METHOD: CLP90 Methoxychlor, UG/KG-DRY MRF

CALIBRATION CURVE # 1

DETECTION LIMIT=50 DATE: 07/21/94 LARGEST RESP=1684549.00 %RSD= RT WINDOW:

CONC :	50	200	800
RESP :	94673	382022	1458882
CONC':			
R.T.:	20.358	20.353	20.353

CONC = + *RESP+ *RESP**2+ *RESP**3

95% C.I.=

CORRELATION COEFFICIENT =

CALIBRATION CURVE # 2

DETECTION LIMIT=50 DATE: 07/21/94 LARGEST RESP=3130260.75 %RSD= RT WINDOW:

CONC :	50	200	800
RESP :	266122	995267	3567997
CONC':			
R.T.:	16.418	16.417	16.413

ESE BATCH : G51446

CONC = + *RESP+ *RESP**2+ *RESP**3
C.I.=
RELATION COEFFICIENT =

STORET: 98591 METHOD: CLP90 Endrin ketone, UG/KG-DRY MRF

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/21/94 LARGEST RESP=812739.38 %RSD= RT WINDOW:

CONC :	10	40	160
RESP :	33730	144849	658966
CONC':			
R.T.:	20.551	20.548	20.547

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

CALIBRATION CURVE # 2
DETECTION LIMIT=10 DATE: 07/21/94 LARGEST RESP=1362709(USER DEFINED) %RSD= RT WINDOW:

CONC :	10	40	160
RESP :	85668	365483	1546450
CONC':			
R.T.:	17.240	17.242	17.242

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

STORET: 34369 METHOD: CLP90 Endrin aldehyde, UG/KG-DRY MRF

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/21/94 LARGEST RESP=520752.91 %RSD= RT WINDOW:

CONC :	10	40	160
RESP :	28570	109462	439933
CONC':			
R.T.:	18.071	18.067	18.067

C = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

CALIBRATION CURVE # 2
DETECTION LIMIT=10 DATE: 07/21/94 LARGEST RESP=932645(USER DEFINED) %RSD= RT WINDOW:

CONC :	10	40	160
RESP :	60636	262274	1214494
CONC':			
R.T.:	15.048	15.050	15.048

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

STORET: 97501 METHOD: CLP90 alpha-Chlordane, UG/KG-DRY MRF

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: 07/21/94 LARGEST RESP=327195 %RSD= RT WINDOW:

CONC :	5	20	80
RESP :	21532	86320	380011
CONC':			
R.T.:	13.797	13.795	13.793

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

CALIBRATION CURVE # 2
DETECTION LIMIT=5 DATE: 07/21/94 LARGEST RESP=345818(USER DEFINED) %RSD= RT WINDOW:

CONC :	5	20	80
RESP :	69636	269311	1099784
CONC':			
R.T.:	9.909	9.910	9.910

C = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

ESE BATCH : G51446

STORET: 39811 METHOD: CLP90 gamma-Chlordane, UG/KG-DRY MRF

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: 07/21/94 LARGEST RESP=329703(USER DEFINED) %RSD= RT WINDOW:

CONC :	5	20	80
RESP :	21998	86274	370702
CONC':			
R.T.:	13.082	13.080	13.079

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

CALIBRATION CURVE # 2
DETECTION LIMIT=5 DATE: 07/21/94 LARGEST RESP=277097(USER DEFINED) %RSD= RT WINDOW:

CONC :	5	20	80
RESP :	67501	260152	1078492
CONC':			
R.T.:	9.717	9.719	9.718

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

STORET: 39403 METHOD: CLP90 Toxaphene, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=500 DATE: 07/21/94 LARGEST RESP= %RSD= RT WINDOW:

CALIBRATION CURVE # 2
DETECTION LIMIT=500 DATE: 07/21/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 39514 METHOD: CLP90 Aroclor-1016, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: 07/21/94 LARGEST RESP= %RSD= RT WINDOW:

CALIBRATION CURVE # 2
DETECTION LIMIT=100 DATE: 07/21/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 39491 METHOD: CLP90 Aroclor-1221, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=200 DATE: 07/21/94 LARGEST RESP= %RSD= RT WINDOW:

CALIBRATION CURVE # 2
DETECTION LIMIT=200 DATE: 07/21/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 39495 METHOD: CLP90 Aroclor-1232, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: 07/21/94 LARGEST RESP= %RSD= RT WINDOW:

CALIBRATION CURVE # 2
DETECTION LIMIT=100 DATE: 07/21/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 39499 METHOD: CLP90 Aroclor-1242, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: 07/21/94 LARGEST RESP= %RSD= RT WINDOW:

CALIBRATION CURVE # 2
DETECTION LIMIT=100 DATE: 07/21/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 39503 METHOD: CLP90 Aroclor-1248, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: 07/21/94 LARGEST RESP= %RSD= RT WINDOW:

CALIBRATION CURVE # 2
DETECTION LIMIT=100 DATE: 07/21/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 39507 METHOD: CLP90 Aroclor-1254, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: 07/21/94 LARGEST RESP= %RSD= RT WINDOW:

ESE BATCH : G51446
CALIBRATION CURVE # 2
ECTION LIMIT=100 DATE: 07/21/94 LARGEST RESP= %RSD= RT WINDOW:

S..... 39511 METHOD: CLP90 Aroclor-1260, UG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=100 DATE: 07/21/94 LARGEST RESP= %RSD= RT WINDOW:

CALIBRATION CURVE # 2
DETECTION LIMIT=100 DATE: 07/21/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 96999 METHOD: SUR TETRACHLORO-M-XYLENE {CLP90}, UG/KG MRF

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: 07/21/94 LARGEST RESP=331778(USER DEFINED) %RSD= RT WINDOW:

CONC :	5	5	20	20	80	80
RESP :	17792	17708	74391	74192	325140	331778
CONC':						
R.T.:	5.199	5.199	5.197	5.197	5.195	5.194

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

CALIBRATION CURVE # 2
DETECTION LIMIT=5 DATE: 07/21/94 LARGEST RESP=848582(USER DEFINED) %RSD= RT WINDOW:

CONC :	5	5	20	20	80	80
RESP :	58145	57084	222260	212847	846965	848582
CONC':						
R.T.:	3.606	3.605	3.606	3.605	3.605	3.605

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

STORET: 95000 METHOD: SUR DECACHLOROBIPHENYL, UG/KG MRF

ATION CURVE # 1
ECTION LIMIT=10 DATE: 07/21/94 LARGEST RESP=796055(USER DEFINED) %RSD= RT WINDOW:

CONC :	10	10	40	40	160	160
RESP :	60955	61005	222524	222323	780190	796055
CONC':						
R.T.:	24.550	24.551	24.552	24.550	24.550	24.551

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

CALIBRATION CURVE # 2
DETECTION LIMIT=10 DATE: 07/21/94 LARGEST RESP=1512280(USER DEFINED) %RSD= RT WINDOW:

CONC :	10	10	40	40	160	160
RESP :	109003	108226	407325	406413	1479714	1512280
CONC':						
R.T.:	19.522	19.521	19.521	19.520	19.520	19.521

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

ESE BATCH : G51446

Continuing Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/22/94	CCS*INDAM*2	39076*CLP90	alpha-BHC	UG/KG-	20.0	20.6	103	80-120
07/22/94	CCS*INDAM*2	34257*CLP90	beta-BHC	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2	34262*CLP90	delta-BHC	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2	39783*CLP90	gamma-BHC (Lindane)	UG/KG-	20.0	20.5	103	80-120
07/22/94	CCS*INDAM*2	39413*CLP90	Heptachlor	UG/KG-	20.0	19.1	95.5	80-120
07/22/94	CCS*INDAM*2	39333*CLP90	Aldrin	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2	39423*CLP90	Heptachlor epoxide	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2	34364*CLP90	Endosulfan I	UG/KG-	20.0	18.6	93.0	80-120
07/22/94	CCS*INDAM*2	39383*CLP90	Dieldrin	UG/KG-	40.0	37.4	93.5	80-120
07/22/94	CCS*INDAM*2	39321*CLP90	4,4'-DDE	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2	39393*CLP90	Endrin	UG/KG-	40.0	37.4	93.5	80-120
07/22/94	CCS*INDAM*2	34359*CLP90	Endosulfan II	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2	39311*CLP90	4,4'-DDD	UG/KG-	40.0	39.4	98.5	80-120
07/22/94	CCS*INDAM*2	34354*CLP90	Endosulfan sulfate	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2	39301*CLP90	4,4'-DDT	UG/KG-	40.0	38.6	96.5	80-120
07/22/94	CCS*INDAM*2	39481*CLP90	Methoxychlor	UG/KG-	200	191	95.5	80-120
07/22/94	CCS*INDAM*2	98591*CLP90	Endrin ketone	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2	34369*CLP90	Endrin aldehyde	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2	97501*CLP90	alpha-Chlordane	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2	39811*CLP90	gamma-Chlordane	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2	39403*CLP90	Toxaphene	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2	39514*CLP90	Aroclor-1016	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2	39491*CLP90	Aroclor-1221	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2	39495*CLP90	Aroclor-1232	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2	39499*CLP90	Aroclor-1242	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2	39503*CLP90	Aroclor-1248	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2	39507*CLP90	Aroclor-1254	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2	39511*CLP90	Aroclor-1260	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2*C	39076*CLP90	alpha-BHC	UG/KG-	20.0	20.9	105	80-120
07/22/94	CCS*INDAM*2*C	34257*CLP90	beta-BHC	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2*C	34262*CLP90	delta-BHC	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2*C	39783*CLP90	gamma-BHC (Lindane)	UG/KG-	20.0	20.6	103	80-120
07/22/94	CCS*INDAM*2*C	39413*CLP90	Heptachlor	UG/KG-	20.0	20.3	102	80-120
07/22/94	CCS*INDAM*2*C	39333*CLP90	Aldrin	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2*C	39423*CLP90	Heptachlor epoxide	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2*C	34364*CLP90	Endosulfan I	UG/KG-	20.0	20.2	101	80-120
07/22/94	CCS*INDAM*2*C	39383*CLP90	Dieldrin	UG/KG-	40.0	40.1	100	80-120
07/22/94	CCS*INDAM*2*C	39321*CLP90	4,4'-DDE	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2*C	39393*CLP90	Endrin	UG/KG-	40.0	40.0	100.0	80-120
07/22/94	CCS*INDAM*2*C	34359*CLP90	Endosulfan II	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2*C	39311*CLP90	4,4'-DDD	UG/KG-	40.0	40.1	100	80-120
07/22/94	CCS*INDAM*2*C	34354*CLP90	Endosulfan sulfate	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2*C	39301*CLP90	4,4'-DDT	UG/KG-	40.0	39.2	98.0	80-120
07/22/94	CCS*INDAM*2*C	39481*CLP90	Methoxychlor	UG/KG-	200	191	95.5	80-120
07/22/94	CCS*INDAM*2*C	98591*CLP90	Endrin ketone	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2*C	34369*CLP90	Endrin aldehyde	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2*C	97501*CLP90	alpha-Chlordane	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2*C	39811*CLP90	gamma-Chlordane	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2*C	39403*CLP90	Toxaphene	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2*C	39514*CLP90	Aroclor-1016	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2*C	39491*CLP90	Aroclor-1221	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2*C	39495*CLP90	Aroclor-1232	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2*C	39499*CLP90	Aroclor-1242	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2*C	39503*CLP90	Aroclor-1248	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2*C	39507*CLP90	Aroclor-1254	UG/KG-		ND		80-120
07/22/94	CCS*INDAM*2*C	39511*CLP90	Aroclor-1260	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2	39076*CLP90	alpha-BHC	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2	34257*CLP90	beta-BHC	UG/KG-	20.0	19.7	98.5	80-120
07/22/94	CCS*INDBM*2	34262*CLP90	delta-BHC	UG/KG-	20.0	20.5	103	80-120
07/22/94	CCS*INDBM*2	39783*CLP90	gamma-BHC (Lindane)	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2	39413*CLP90	Heptachlor	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2	39333*CLP90	Aldrin	UG/KG-	20.0	19.8	99.0	80-120
07/22/94	CCS*INDBM*2	39423*CLP90	Heptachlor epoxide	UG/KG-	20.0	19.0	95.0	80-120
07/22/94	CCS*INDBM*2	34364*CLP90	Endosulfan I	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2	39383*CLP90	Dieldrin	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2	39321*CLP90	4,4'-DDE	UG/KG-	40.0	38.4	96.0	80-120
07/22/94	CCS*INDBM*2	39393*CLP90	Endrin	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2	34359*CLP90	Endosulfan II	UG/KG-	40.0	36.2	90.5	80-120
07/22/94	CCS*INDBM*2	39311*CLP90	4,4'-DDD	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2	34354*CLP90	Endosulfan sulfate	UG/KG-	40.0	36.0	90.0	80-120
07/22/94	CCS*INDBM*2	39301*CLP90	4,4'-DDT	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2	39481*CLP90	Methoxychlor	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2	98591*CLP90	Endrin ketone	UG/KG-	40.0	41.0	103	80-120

ESE BATCH : G51446

Continuing Calibration Verification Sample Summary

D	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/22/94	CCS*INDBM*2	34369*CLP90	Endrin aldehyde	UG/KG-	40.0	34.8	87.0	80-120
07/22/94	CCS*INDBM*2	97501*CLP90	alpha-Chlordane	UG/KG-	20.0	18.2	91.0	80-120
07/22/94	CCS*INDBM*2	39811*CLP90	gamma-Chlordane	UG/KG-	20.0	19.0	95.0	80-120
07/22/94	CCS*INDBM*2	39403*CLP90	Toxaphene	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2	39514*CLP90	Aroclor-1016	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2	39491*CLP90	Aroclor-1221	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2	39495*CLP90	Aroclor-1232	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2	39499*CLP90	Aroclor-1242	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2	39503*CLP90	Aroclor-1248	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2	39507*CLP90	Aroclor-1254	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2	39511*CLP90	Aroclor-1260	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2*C	39076*CLP90	alpha-BHC	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2*C	34257*CLP90	beta-BHC	UG/KG-	20.0	20.6	103	80-120
07/22/94	CCS*INDBM*2*C	34262*CLP90	delta-BHC	UG/KG-	20.0	21.0	105	80-120
07/22/94	CCS*INDBM*2*C	39783*CLP90	gamma-BHC (Lindane)	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2*C	39413*CLP90	Heptachlor	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2*C	39333*CLP90	Aldrin	UG/KG-	20.0	20.7	104	80-120
07/22/94	CCS*INDBM*2*C	39423*CLP90	Heptachlor epoxide	UG/KG-	20.0	20.7	104	80-120
07/22/94	CCS*INDBM*2*C	34364*CLP90	Endosulfan I	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2*C	39383*CLP90	Dieldrin	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2*C	39321*CLP90	4,4'-DDE	UG/KG-	40.0	42.3	106	80-120
07/22/94	CCS*INDBM*2*C	39393*CLP90	Endrin	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2*C	34359*CLP90	Endosulfan II	UG/KG-	40.0	40.5	101	80-120
07/22/94	CCS*INDBM*2*C	39311*CLP90	4,4'-DDD	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2*C	34354*CLP90	Endosulfan sulfate	UG/KG-	40.0	38.4	96.0	80-120
07/22/94	CCS*INDBM*2*C	39301*CLP90	4,4'-DDT	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2*C	39481*CLP90	Methoxychlor	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2*C	98591*CLP90	Endrin ketone	UG/KG-	40.0	37.9	94.8	80-120
07/22/94	CCS*INDBM*2*C	34369*CLP90	Endrin aldehyde	UG/KG-	40.0	38.4	96.0	80-120
07/22/94	CCS*INDBM*2*C	97501*CLP90	alpha-Chlordane	UG/KG-	20.0	20.4	102	80-120
07/22/94	CCS*INDBM*2*C	39811*CLP90	gamma-Chlordane	UG/KG-	20.0	21.4	107	80-120
07/22/94	CCS*INDBM*2*C	39403*CLP90	Toxaphene	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2*C	39514*CLP90	Aroclor-1016	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2*C	39491*CLP90	Aroclor-1221	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2*C	39495*CLP90	Aroclor-1232	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2*C	39499*CLP90	Aroclor-1242	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2*C	39503*CLP90	Aroclor-1248	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2*C	39507*CLP90	Aroclor-1254	UG/KG-		ND		80-120
07/22/94	CCS*INDBM*2*C	39511*CLP90	Aroclor-1260	UG/KG-		ND		80-120

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/22/94	MB*QC*1	39076*CLP90	alpha-BHC	UG/KG-	ND
07/22/94	MB*QC*1	34257*CLP90	beta-BHC	UG/KG-	ND
07/22/94	MB*QC*1	34262*CLP90	delta-BHC	UG/KG-	ND
07/22/94	MB*QC*1	39783*CLP90	gamma-BHC (Lindane)	UG/KG-	ND
07/22/94	MB*QC*1	39413*CLP90	Heptachlor	UG/KG-	ND
07/22/94	MB*QC*1	39333*CLP90	Aldrin	UG/KG-	ND
07/22/94	MB*QC*1	39423*CLP90	Heptachlor epoxide	UG/KG-	ND
07/22/94	MB*QC*1	34364*CLP90	Endosulfan I	UG/KG-	ND
07/22/94	MB*QC*1	39383*CLP90	Dieldrin	UG/KG-	ND
07/22/94	MB*QC*1	39321*CLP90	4,4'-DDE	UG/KG-	ND
07/22/94	MB*QC*1	39393*CLP90	Endrin	UG/KG-	ND
07/22/94	MB*QC*1	34359*CLP90	Endosulfan II	UG/KG-	ND
07/22/94	MB*QC*1	39311*CLP90	4,4'-DDD	UG/KG-	ND
07/22/94	MB*QC*1	34354*CLP90	Endosulfan sulfate	UG/KG-	ND
07/22/94	MB*QC*1	39301*CLP90	4,4'-DDT	UG/KG-	ND
07/22/94	MB*QC*1	39481*CLP90	Methoxychlor	UG/KG-	ND
07/22/94	MB*QC*1	98591*CLP90	Endrin ketone	UG/KG-	ND
07/22/94	MB*QC*1	34369*CLP90	Endrin aldehyde	UG/KG-	ND
07/22/94	MB*QC*1	97501*CLP90	alpha-Chlordane	UG/KG-	ND
07/22/94	MB*QC*1	39811*CLP90	gamma-Chlordane	UG/KG-	ND
07/22/94	MB*QC*1	39403*CLP90	Toxaphene	UG/KG-	ND
07/22/94	MB*QC*1	39514*CLP90	Aroclor-1016	UG/KG-	ND
07/22/94	MB*QC*1	39491*CLP90	Aroclor-1221	UG/KG-	ND
07/22/94	MB*QC*1	39495*CLP90	Aroclor-1232	UG/KG-	ND
07/22/94	MB*QC*1	39499*CLP90	Aroclor-1242	UG/KG-	ND
07/22/94	MB*QC*1	39503*CLP90	Aroclor-1248	UG/KG-	ND
07/22/94	MB*QC*1	39507*CLP90	Aroclor-1254	UG/KG-	ND
07/22/94	MB*QC*1	39511*CLP90	Aroclor-1260	UG/KG-	ND

ESE BATCH : G51446

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
07/22/94	SPM1*CDMHNSS3*43	39076*CLP90	alpha-BHC		80-120	0.0	UG/KG-		ND
07/22/94	SPM1*CDMHNSS3*43	34257*CLP90	beta-BHC		80-120	0.0	UG/KG-		ND
07/22/94	SPM1*CDMHNSS3*43	34262*CLP90	delta-BHC		80-120	0.0	UG/KG-		ND
07/22/94	SPM1*CDMHNSS3*43	39783*CLP90	gamma-BHC (Lindane)	204.7	46.5-126.	50.0	UG/KG-	17.1	35.0
07/22/94	SPM1*CDMHNSS3*43	39413*CLP90	Heptachlor	40.9	35.5-129.	526.0	UG/KG-	17.1	7.00
07/22/94	SPM1*CDMHNSS3*43	39333*CLP90	Aldrin	53.5	34-132	6.35	UG/KG-	17.1	9.15
07/22/94	SPM1*CDMHNSS3*43	39423*CLP90	Heptachlor epoxide		80-120	0.0	UG/KG-		ND
07/22/94	SPM1*CDMHNSS3*43	34364*CLP90	Endosulfan I		80-120	0.0	UG/KG-		ND
07/22/94	SPM1*CDMHNSS3*43	39383*CLP90	Dieldrin	47.2	31.5-133.	50.0	UG/KG-	34.3	16.2
07/22/94	SPM1*CDMHNSS3*43	39321*CLP90	4,4'-DDE		80-120	0.0	UG/KG-		ND
07/22/94	SPM1*CDMHNSS3*43	39393*CLP90	Endrin	-75.8	42.5-138.	5194	UG/KG-	34.3	-26.0
07/22/94	SPM1*CDMHNSS3*43	34359*CLP90	Endosulfan II		80-120	0.0	UG/KG-		ND
07/22/94	SPM1*CDMHNSS3*43	39311*CLP90	4,4'-DDD		80-120	0.0	UG/KG-		ND
07/22/94	SPM1*CDMHNSS3*43	34354*CLP90	Endosulfan sulfate		80-120	0.0	UG/KG-		ND
07/22/94	SPM1*CDMHNSS3*43	39301*CLP90	4,4'-DDT	25.7	23.5-133.	56.37	UG/KG-	34.3	8.83
07/22/94	SPM1*CDMHNSS3*43	39481*CLP90	Methoxychlor		80-120	0.0	UG/KG-		ND
07/22/94	SPM1*CDMHNSS3*43	98591*CLP90	Endrin ketone		80-120	0.0	UG/KG-		ND
07/22/94	SPM1*CDMHNSS3*43	34369*CLP90	Endrin aldehyde		80-120	0.0	UG/KG-		ND
07/22/94	SPM1*CDMHNSS3*43	97501*CLP90	alpha-Chlordane		80-120	0.0	UG/KG-		ND
07/22/94	SPM1*CDMHNSS3*43	39811*CLP90	gamma-Chlordane		80-120	0.0	UG/KG-		ND
07/22/94	SPM1*CDMHNSS3*43	39403*CLP90	Toxaphene		80-120	0.0	UG/KG-		ND
07/22/94	SPM1*CDMHNSS3*43	39514*CLP90	Aroclor-1016		80-120	0.0	UG/KG-		ND
07/22/94	SPM1*CDMHNSS3*43	39491*CLP90	Aroclor-1221		80-120	0.0	UG/KG-		ND
07/22/94	SPM1*CDMHNSS3*43	39495*CLP90	Aroclor-1232		80-120	0.0	UG/KG-		ND
07/22/94	SPM1*CDMHNSS3*43	39499*CLP90	Aroclor-1242		80-120	0.0	UG/KG-		ND
07/22/94	SPM1*CDMHNSS3*43	39503*CLP90	Aroclor-1248		80-120	0.0	UG/KG-		ND
07/22/94	SPM1*CDMHNSS3*43	39507*CLP90	Aroclor-1254		80-120	0.0	UG/KG-		ND
07/22/94	SPM1*CDMHNSS3*43	39511*CLP90	Aroclor-1260		80-120	0.0	UG/KG-		ND
07/22/94	SPM2*CDMHNSS3*43	39076*CLP90	alpha-BHC		80-120	0.0	UG/KG-		ND
07/22/94	SPM2*CDMHNSS3*43	34257*CLP90	beta-BHC		80-120	0.0	UG/KG-		ND
07/22/94	SPM2*CDMHNSS3*43	34262*CLP90	delta-BHC		80-120	0.0	UG/KG-		ND
07/22/94	SPM2*CDMHNSS3*43	39783*CLP90	gamma-BHC (Lindane)	115.2	46.5-126.	50.0	UG/KG-	17.1	19.7
07/22/94	SPM2*CDMHNSS3*43	39413*CLP90	Heptachlor	2.92	35.5-129.	526.0	UG/KG-	17.1	0.500
07/22/94	SPM2*CDMHNSS3*43	39333*CLP90	Aldrin	-21.9	34-132	6.35	UG/KG-	17.1	-3.75
07/22/94	SPM2*CDMHNSS3*43	39423*CLP90	Heptachlor epoxide		80-120	0.0	UG/KG-		ND
07/22/94	SPM2*CDMHNSS3*43	34364*CLP90	Endosulfan I		80-120	0.0	UG/KG-		ND
07/22/94	SPM2*CDMHNSS3*43	39383*CLP90	Dieldrin	34.1	31.5-133.	50.0	UG/KG-	34.3	11.7
07/22/94	SPM2*CDMHNSS3*43	39321*CLP90	4,4'-DDE		80-120	0.0	UG/KG-		ND
07/22/94	SPM2*CDMHNSS3*43	39393*CLP90	Endrin	-152	42.5-138.	5194	UG/KG-	34.3	-52.0
07/22/94	SPM2*CDMHNSS3*43	34359*CLP90	Endosulfan II		80-120	0.0	UG/KG-		ND
07/22/94	SPM2*CDMHNSS3*43	39311*CLP90	4,4'-DDD		80-120	0.0	UG/KG-		ND
07/22/94	SPM2*CDMHNSS3*43	34354*CLP90	Endosulfan sulfate		80-120	0.0	UG/KG-		ND
07/22/94	SPM2*CDMHNSS3*43	39301*CLP90	4,4'-DDT	69.4	23.5-133.	56.37	UG/KG-	34.3	23.8
07/22/94	SPM2*CDMHNSS3*43	39481*CLP90	Methoxychlor		80-120	0.0	UG/KG-		ND
07/22/94	SPM2*CDMHNSS3*43	98591*CLP90	Endrin ketone		80-120	0.0	UG/KG-		ND
07/22/94	SPM2*CDMHNSS3*43	34369*CLP90	Endrin aldehyde		80-120	0.0	UG/KG-		ND
07/22/94	SPM2*CDMHNSS3*43	97501*CLP90	alpha-Chlordane		80-120	0.0	UG/KG-		ND
07/22/94	SPM2*CDMHNSS3*43	39811*CLP90	gamma-Chlordane		80-120	0.0	UG/KG-		ND
07/22/94	SPM2*CDMHNSS3*43	39403*CLP90	Toxaphene		80-120	0.0	UG/KG-		ND
07/22/94	SPM2*CDMHNSS3*43	39514*CLP90	Aroclor-1016		80-120	0.0	UG/KG-		ND
07/22/94	SPM2*CDMHNSS3*43	39491*CLP90	Aroclor-1221		80-120	0.0	UG/KG-		ND
07/22/94	SPM2*CDMHNSS3*43	39495*CLP90	Aroclor-1232		80-120	0.0	UG/KG-		ND
07/22/94	SPM2*CDMHNSS3*43	39499*CLP90	Aroclor-1242		80-120	0.0	UG/KG-		ND
07/22/94	SPM2*CDMHNSS3*43	39503*CLP90	Aroclor-1248		80-120	0.0	UG/KG-		ND
07/22/94	SPM2*CDMHNSS3*43	39507*CLP90	Aroclor-1254		80-120	0.0	UG/KG-		ND
07/22/94	SPM2*CDMHNSS3*43	39511*CLP90	Aroclor-1260		80-120	0.0	UG/KG-		ND

Surrogate Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/22/94	MB*QC*1	96999*SUR	TETRACHLORO-M-XYLENE {CLP90}	UG/KG	13.3	12.8	96.2	60-150
07/22/94	MB*QC*1	95000*SUR	DECACHLOROBIPHENYL	UG/KG	13.3	14.0	105	60-150
07/22/94	DA*CDMHNSS3*43	96999*SUR	TETRACHLORO-M-XYLENE {CLP90}	UG/KG	13.3	7.59	57.1	60-150
07/22/94	DA*CDMHNSS3*43	95000*SUR	DECACHLOROBIPHENYL	UG/KG	13.3	ND		60-150
07/22/94	SPM1*CDMHNSS3*43	96999*SUR	TETRACHLORO-M-XYLENE {CLP90}	UG/KG	13.3	6.75	50.8	60-150
07/22/94	SPM1*CDMHNSS3*43	95000*SUR	DECACHLOROBIPHENYL	UG/KG	13.3	ND		60-150
07/22/94	SPM2*CDMHNSS3*43	96999*SUR	TETRACHLORO-M-XYLENE {CLP90}	UG/KG	13.3	6.60	49.6	60-150
07/22/94	SPM2*CDMHNSS3*43	95000*SUR	DECACHLOROBIPHENYL	UG/KG	13.3	0.275	2.07	60-150
07/22/94	CCS*INDAM*2	96999*SUR	TETRACHLORO-M-XYLENE {CLP90}	UG/KG	20.0	20.5	103	60-150

ESE BATCH : G51446

S[illegible]te Spike Recovery Summary

D	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/22/94	CCS*INDAM*2	95000*SUR	DECACHLOROBIPHENYL	UG/KG	40.0	32.2	80.5	60-150
07/22/94	CCS*INDAM*2*C	96999*SUR	TETRACHLORO-M-XYLENE {CLP90}	UG/KG	20.0	20.7	104	60-150
07/22/94	CCS*INDAM*2*C	95000*SUR	DECACHLOROBIPHENYL	UG/KG	40.0	35.6	89.0	60-150
07/22/94	CCS*INDBM*2	96999*SUR	TETRACHLORO-M-XYLENE {CLP90}	UG/KG	20.0	20.4	102	60-150
07/22/94	CCS*INDBM*2	95000*SUR	DECACHLOROBIPHENYL	UG/KG	40.0	32.8	82.0	60-150
07/22/94	CCS*INDBM*2*C	96999*SUR	TETRACHLORO-M-XYLENE {CLP90}	UG/KG	20.0	20.0	100.0	60-150
07/22/94	CCS*INDBM*2*C	95000*SUR	DECACHLOROBIPHENYL	UG/KG	40.0	36.4	91.0	60-150

ESE BATCH : G51446

UNITS AND EXAMPLE CALCULATIONS

UNITS ENTERED	
FINAL CONCENTRATION	UG/KG-DRY
INJECTION VOLUME	NA
SAMPLE VOLUME	G
EXTRACT VOLUME	ML
CURVE CONCENTRATION	NG/ML
SPIKE SOLN CONCENTRATION	NG/ML
SPIKE VOLUME	ML
SPIKE SAMPLE VOLUME	G
TARGET CONCENTRATION	NG/G
RESPONSE DESCRIPTION	PK AREA
CONVERSION FACTOR	NA

$$\text{FINAL CONC} = \frac{\text{CURV CONC * EXT VOL * DIL}}{\text{INJ VOL * SAMP VOL * ((100 - \%MOISTURE) / 100)}}$$

$$\text{UG/KG-DRY} = \frac{\text{(NG/ML) * (ML)}}{\text{(NA) * (G)}}$$

$$(\qquad\qquad) = \frac{(\qquad\qquad\qquad) * (\qquad\qquad\qquad) * (\qquad\qquad)}{(\qquad\qquad\qquad) * (\qquad\qquad\qquad) * ((100 - (\qquad\qquad)) / 100)}$$

$$\text{TARGET CONC} = \frac{\text{SPIKE SOLN CONC * SPIKE VOL}}{\text{SPIKE SAMP VOL * ((100 - \%MOISTURE) / 100)}}$$

$$\text{NG/G} = \frac{\text{(NG/ML) * (ML)}}{\text{(G)}}$$

ESE BATCH : G51446
Environmental Science and Engineering Analytical Services
Computer QC Checks

B o.: G51446 Analysis Date: 07/21/94 Analyst: VICTOR BAUDER

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
Extract holding time within criteria?	X		
Sample retention times within retention time window?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?		X	
Standard matrix spike within acceptance criteria?			
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?		X	gamma-BHC
			Endrin
Sample matrix spike duplicate present?	X		
Sample matrix spike duplicate within acceptance criteria?		X	gamma-BHC
			Heptachlor
			Aldrin
			Endrin
			4,4'-DDT
Surrogate present?	X		
Surrogate within acceptance criteria?		X	TCX
			DCBP

Note: Any "NO" answer requires a comment.

OVERRIDE COMMENTS

BATCH OVERRIDE BY: BRAD WEICHERT 1569
PROB.:STANDARD MATRIX SPIKE NOT PRESENT.
EXPL.:NA./VSB
PROB.:SAMPLE MATRIX SPIKE NOT WITHIN ACCEPTANCE CRITERIA.
EXPL.:THE HIGH MATRIX COMPLEXITY CAUSED SPIKE AND SURROGATE RECOVERIES TO BE OUT OF CRITERIA. THE MB*QC*1 SURROGATE RECOVERIES ARE WITHIN CRITERIA. THE RESULTS ARE ACCEPTABLE./VSB
PROB.:SAMPLE MATRIX SPIKE DUPLICATE NOT WITHIN ACCEPTANCE CRITERIA.
EXPL.:SEE ABOVE./VSB
PROB.:SURROGATE NOT WITHIN ACCEPTANCE CRITERIA.
EXPL.:SEE ABOVE./VSB

FINALIZED BY: DENESE WETHY 2978

ESE BATCH : G51446

TABLE OF ABBREVIATIONS

%RECV : % Recovery for spiked sample. (FOUND/TARGET * 100)
ANLY DATE : Analysis Date
ANLY TIME : Analysis Time
CURVE : Curve Regression Number
DILUTION : Sample Dilution Factor
EXT DATE : Extract Date
EXT VOL : Extract Volume
FOUND : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL : Injection Volume
REL%DIFF : % Difference between current and previous spike.
RESPONSE : Sample Response
R.T. : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
DA -- Data Sample
MB -- Method Blank
RF -- Reference (from commercially known standard)
RP -- Replicate Sample
SP -- Standard Matrix Spike
SPM -- Sample Matrix Spike
STD -- Internal Standard
SUR -- Surrogate Sample
UN -- Unspiked Sample
SAMP VOL : Sample Volume
SPK CONC : Spike Concentration
ST : Sample response explanation or validity. (listed below)
BK -- No sample response.
NA -- Sample not analyzed.
NR -- Not reserved for this batch. Batch containing the response for this sample is listed in the target field.
OK -- Sample response shown is correct.
! -- Sample response shown is invalid.
< -- Sample response < detection limit. Detection limit is shown in the response field.
STORET*MTHD: Storet ID * Method Code
TARGET : Spike Target (SAMPLE LISTING SECTION)
TARGET : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE : Response Type ("FINAL" or empty.)
UNSP CONC : Unspiked Sample Concentration

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ICAP Metals

ESE BATCH : G51056
CLASSIFICATION : PR. POLL. ICAP METALS - EPA 6010

QC TYPE : FDER/SW
ANALYST : GARRY PRICE
EXTRACTOR : DAVID NICHOLS
DATA ENTRY : ICAP UPLOAD

REPORT DATE/TIME : 08/15/94 12:27:10
ANALYSIS DATE : 07/15/94
EXTRACT DATE : 07/15/94

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSS3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSS3*1	VR-01	07/15/94	04:18PM
CDMHNSS3*2	VR-02	07/15/94	04:21PM
CDMHNSS3*41	BG1-01	07/15/94	04:23PM

ESE BATCH : G51056

HOLDING TIMES CHECK

ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T. OVER

ALL HOLDING TIMES MET

STORET: 1078 METHOD: 6010-G SILVER, MG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=.005 DATE: 07/15/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 1008 METHOD: 6010-G BARIUM, MG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=.02 DATE: 07/15/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 1028 METHOD: 6010-G CADMIUM, MG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=.005 DATE: 07/15/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 1029 METHOD: 6010-G CHROMIUM, MG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=.01 DATE: 07/15/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 1052 METHOD: 6010-G LEAD, MG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=.1 DATE: 07/15/94 LARGEST RESP= %RSD= RT WINDOW:

ESE BATCH : G51056

Continuing Calibration Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/15/94	CCB*QC*1	1078*6010-G	SILVER	MG/KG-	0.002
07/15/94	CCB*QC*1	1008*6010-G	BARIUM	MG/KG-	0.0002
07/15/94	CCB*QC*1	1028*6010-G	CADMIUM	MG/KG-	0.001
07/15/94	CCB*QC*1	1029*6010-G	CHROMIUM	MG/KG-	ND
07/15/94	CCB*QC*1	1052*6010-G	LEAD	MG/KG-	0.005

Continuing Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/15/94	CCV*STD2*1	1078*6010-G	SILVER	MG/KG-		ND		90-110
07/15/94	CCV*STD2*1	1008*6010-G	BARIUM	MG/KG-	1.00	1.01	101	90-110
07/15/94	CCV*STD2*1	1028*6010-G	CADMIUM	MG/KG-	1.00	0.986	98.6	90-110
07/15/94	CCV*STD2*1	1029*6010-G	CHROMIUM	MG/KG-	1.00	0.994	99.4	90-110
07/15/94	CCV*STD2*1	1052*6010-G	LEAD	MG/KG-	1.00	0.998	99.8	90-110
07/15/94	CCV*STD4*1	1078*6010-G	SILVER	MG/KG-	1.00	0.986	98.6	90-110
07/15/94	CCV*STD4*1	1008*6010-G	BARIUM	MG/KG-		ND		90-110
07/15/94	CCV*STD4*1	1028*6010-G	CADMIUM	MG/KG-		ND		90-110
07/15/94	CCV*STD4*1	1029*6010-G	CHROMIUM	MG/KG-		ND		90-110
07/15/94	CCV*STD4*1	1052*6010-G	LEAD	MG/KG-		ND		90-110
07/15/94	CCV*QC*1	1078*6010-G	SILVER	MG/KG-	0.500	0.515	103	90-110
07/15/94	CCV*QC*1	1008*6010-G	BARIUM	MG/KG-	0.500	0.509	102	90-110
07/15/94	CCV*QC*1	1028*6010-G	CADMIUM	MG/KG-	0.500	0.509	102	90-110
07/15/94	CCV*QC*1	1029*6010-G	CHROMIUM	MG/KG-	0.500	0.507	101	90-110
07/15/94	CCV*QC*1	1052*6010-G	LEAD	MG/KG-	0.500	0.506	101	90-110

Interference Check Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/15/94	ICS*A*1	1078*6010-G	SILVER	MG/KG-		ND		80-120
07/15/94	ICS*A*1	1008*6010-G	BARIUM	MG/KG-		ND		80-120
07/15/94	ICS*A*1	1028*6010-G	CADMIUM	MG/KG-		ND		80-120
07/15/94	ICS*A*1	1029*6010-G	CHROMIUM	MG/KG-		ND		80-120
07/15/94	ICS*A*1	1052*6010-G	LEAD	MG/KG-		ND		80-120
07/15/94	ICS*AB*1	1078*6010-G	SILVER	MG/KG-	1.00	0.976	97.6	80-120
07/15/94	ICS*AB*1	1008*6010-G	BARIUM	MG/KG-	0.500	0.493	98.6	80-120
07/15/94	ICS*AB*1	1028*6010-G	CADMIUM	MG/KG-	1.00	0.955	95.5	80-120
07/15/94	ICS*AB*1	1029*6010-G	CHROMIUM	MG/KG-	0.500	0.462	92.4	80-120
07/15/94	ICS*AB*1	1052*6010-G	LEAD	MG/KG-	1.00	0.907	90.7	80-120
07/15/94	ICS*A*2	1078*6010-G	SILVER	MG/KG-		ND		80-120
07/15/94	ICS*A*2	1008*6010-G	BARIUM	MG/KG-		ND		80-120
07/15/94	ICS*A*2	1028*6010-G	CADMIUM	MG/KG-		ND		80-120
07/15/94	ICS*A*2	1029*6010-G	CHROMIUM	MG/KG-		ND		80-120
07/15/94	ICS*A*2	1052*6010-G	LEAD	MG/KG-		ND		80-120
07/15/94	ICS*AB*2	1078*6010-G	SILVER	MG/KG-	1.00	0.999	99.9	80-120
07/15/94	ICS*AB*2	1008*6010-G	BARIUM	MG/KG-	0.500	0.503	101	80-120
07/15/94	ICS*AB*2	1028*6010-G	CADMIUM	MG/KG-	1.00	0.995	99.5	80-120
07/15/94	ICS*AB*2	1029*6010-G	CHROMIUM	MG/KG-	0.500	0.475	95.0	80-120
07/15/94	ICS*AB*2	1052*6010-G	LEAD	MG/KG-	1.00	0.927	92.7	80-120

Initial Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/15/94	ICV*ICAP19*1	1078*6010-G	SILVER	MG/KG-		ND		90-110
07/15/94	ICV*ICAP19*1	1008*6010-G	BARIUM	MG/KG-		ND		90-110
07/15/94	ICV*ICAP19*1	1028*6010-G	CADMIUM	MG/KG-	1.00	0.995	99.5	90-110
07/15/94	ICV*ICAP19*1	1029*6010-G	CHROMIUM	MG/KG-	1.00	1.00	100.0	90-110
07/15/94	ICV*ICAP19*1	1052*6010-G	LEAD	MG/KG-	1.00	0.999	99.9	90-110
07/15/94	ICV*ICAP7*1	1078*6010-G	SILVER	MG/KG-	1.00	1.01	101	90-110
07/15/94	ICV*ICAP7*1	1008*6010-G	BARIUM	MG/KG-	1.00	1.00	100.0	90-110
07/15/94	ICV*ICAP7*1	1028*6010-G	CADMIUM	MG/KG-		ND		90-110
07/15/94	ICV*ICAP7*1	1029*6010-G	CHROMIUM	MG/KG-		ND		90-110
07/15/94	ICV*ICAP7*1	1052*6010-G	LEAD	MG/KG-		ND		90-110

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/15/94	MB*REAGENTS*1	1078*6010-G	SILVER	MG/KG-	0.001
07/15/94	MB*REAGENTS*1	1008*6010-G	BARIUM	MG/KG-	0.0002
07/15/94	MB*REAGENTS*1	1028*6010-G	CADMIUM	MG/KG-	ND
07/15/94	MB*REAGENTS*1	1029*6010-G	CHROMIUM	MG/KG-	ND
07/15/94	MB*REAGENTS*1	1052*6010-G	LEAD	MG/KG-	0.007
07/15/94	MB*QC*1	1078*6010-G	SILVER	MG/KG-	ND
07/15/94	MB*QC*1	1008*6010-G	BARIUM	MG/KG-	ND

ESE BATCH : G51056

Blank Sample Summary

	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/15/94	MB*QC*1	1028*6010-G	CADMIUM	MG/KG-	ND
07/15/94	MB*QC*1	1029*6010-G	CHROMIUM	MG/KG-	ND
07/15/94	MB*QC*1	1052*6010-G	LEAD	MG/KG-	ND

Serial Dilution Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	REP #1	REP #2	RPD	RPD CRIT
07/15/94	SD*CDMHNSS3*41	1078*6010-G	SILVER	MG/KG-	0.0	0.510	NC	10
07/15/94	SD*CDMHNSS3*41	1008*6010-G	BARIUM	MG/KG-	34.9	35.4	1.40	10
07/15/94	SD*CDMHNSS3*41	1028*6010-G	CADMIUM	MG/KG-	0.0	ND	NC	10
07/15/94	SD*CDMHNSS3*41	1029*6010-G	CHROMIUM	MG/KG-	7.73	7.10	8.50	10
07/15/94	SD*CDMHNSS3*41	1052*6010-G	LEAD	MG/KG-	0.0	2.95	NC	10

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/15/94	SP*QC*1	1078*6010-G	SILVER	102.9	73-107	MG/KG-	4.89	5.03
07/15/94	SP*QC*1	1008*6010-G	BARIUM	99.0	86-106	MG/KG-	196	194
07/15/94	SP*QC*1	1028*6010-G	CADMIUM	100.2	80-108	MG/KG-	4.89	4.90
07/15/94	SP*QC*1	1029*6010-G	CHROMIUM	98.5	79-109	MG/KG-	19.6	19.3
07/15/94	SP*QC*1	1052*6010-G	LEAD	99.4	79-109	MG/KG-	48.9	48.6

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
07/15/94	SPM1*CDMHNSS3*41	1078*6010-G	SILVER	99.2	73-107	0.0	MG/KG-	4.90	4.86
07/15/94	SPM1*CDMHNSS3*41	1008*6010-G	BARIUM	97.4	86-106	34.9	MG/KG-	196	191
07/15/94	SPM1*CDMHNSS3*41	1028*6010-G	CADMIUM	100.6	80-108	0.0	MG/KG-	4.90	4.93
07/15/94	SPM1*CDMHNSS3*41	1029*6010-G	CHROMIUM	96.9	79-109	7.73	MG/KG-	19.6	19.0
07/15/94	SPM1*CDMHNSS3*41	1052*6010-G	LEAD	103.5	79-109	0.0	MG/KG-	49.0	50.7
07/15/94	SPM2*CDMHNSS3*41	1078*6010-G	SILVER	106.0	73-107	0.0	MG/KG-	4.97	5.27
07/15/94	SPM2*CDMHNSS3*41	1008*6010-G	BARIUM	98.5	86-106	34.9	MG/KG-	199	196
07/15/94	SPM2*CDMHNSS3*41	1028*6010-G	CADMIUM	97.4	80-108	0.0	MG/KG-	4.97	4.84
07/15/94	SPM2*CDMHNSS3*41	1029*6010-G	CHROMIUM	97.0	79-109	7.73	MG/KG-	19.9	19.3
07/15/94	SPM2*CDMHNSS3*41	1052*6010-G	LEAD	106.0	79-109	0.0	MG/KG-	49.7	52.7

Spike into Matrix Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/15/94	SPX*CDMHNSS3*41	1078*6010-G	SILVER	100.6	85-115	MG/KG-	48.1	48.4
07/15/94	SPX*CDMHNSS3*41	1008*6010-G	BARIUM	100.2	85-115	MG/KG-	48.1	48.2
07/15/94	SPX*CDMHNSS3*41	1028*6010-G	CADMIUM	101.0	85-115	MG/KG-	48.1	48.6
07/15/94	SPX*CDMHNSS3*41	1029*6010-G	CHROMIUM	99.0	85-115	MG/KG-	48.1	47.6
07/15/94	SPX*CDMHNSS3*41	1052*6010-G	LEAD	108.5	85-115	MG/KG-	48.1	52.2

ESE BATCH : G51056

UNITS AND EXAMPLE CALCULATIONS

	UNITS ENTERED
FINAL CONCENTRATION	MG/KG-DRY
INJECTION VOLUME	NA
SAMPLE VOLUME	GRAMS
EXTRACT VOLUME	ML
CURVE CONCENTRATION	UG/ML
SPIKE SOLN CONCENTRATION	UG/ML
SPIKE VOLUME	NA
SPIKE SAMPLE VOLUME	NA
TARGET CONCENTRATION	UG/ML
RESPONSE DESCRIPTION	UG/ML
CONVERSION FACTOR	1

$$\text{FINAL CONC} = \frac{\text{CURV CONC * EXT VOL * DIL * 1}}{\text{INJ VOL * SAMP VOL * ((100 - \%MOISTURE) / 100)}}$$

$$\text{MG/KG-DRY} = \frac{\text{(UG/ML) * (ML) * 1}}{\text{(NA) * (GRAMS)}}$$

$$(\qquad\qquad) = \frac{(\qquad\qquad) * (\qquad\qquad) * (\qquad\qquad)}{(\qquad\qquad) * (\qquad\qquad) * ((100 - (\qquad\qquad)) / 100)}$$

$$\text{TARGET CONC} = \frac{\text{SPIKE SOLN CONC * SPIKE VOL}}{\text{SPIKE SAMP VOL * ((100 - \%MOISTURE) / 100)}}$$

$$\text{UG/ML} = \frac{\text{(UG/ML) * (NA)}}{\text{(NA)}}$$

ESE BATCH : G51056

Environmental Science and Engineering Analytical Services

Computer QC Checks

B o.: G51056 Analysis Date: 07/15/94 Analyst: GARRY PRICE

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
CCV present?	X		
CCV within acceptance criteria?	X		
ICS present?	X		
ICS within acceptance criteria?	X		
ICV present?	X		
ICV within acceptance criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?	X		
Sample matrix spike duplicate present?	X		
Sample matrix spike duplicate within acceptance criteria?	X		
Analytical spike present?	X		
Analytical spike within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

C E COMMENTS

BATCH OVERRIDE BY:

FINALIZED BY:

ESE BATCH : G51056

TABLE OF ABBREVIATIONS

%RECV : % Recovery for spiked sample. (FOUND/TARGET * 100)
ANLY DATE : Analysis Date
ANLY TIME : Analysis Time
CURVE : Curve Regression Number
DILUTION : Sample Dilution Factor
EXT DATE : Extract Date
EXT VOL : Extract Volume
FOUND : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL : Injection Volume
REL%DIFF : % Difference between current and previous spike.
RESPONSE : Sample Response
R.T. : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
DA -- Data Sample
MB -- Method Blank
RF -- Reference (from commercially known standard)
RP -- Replicate Sample
SP -- Standard Matrix Spike
SPM -- Sample Matrix Spike
STD -- Internal Standard
SUR -- Surrogate Sample
UN -- Unspiked Sample
SAMP VOL : Sample Volume
SPK CONC : Spike Concentration
ST : Sample response explanation or validity. (listed below)
BK -- No sample response.
NA -- Sample not analyzed.
NR -- Not reserved for this batch. Batch containing the response for this sample is listed in the target field.
OK -- Sample response shown is correct.
! -- Sample response shown is invalid.
< -- Sample response < detection limit. Detection limit is shown in the response field.
STORET*MTHD: Storet ID * Method Code
TARGET : Spike Target (SAMPLE LISTING SECTION)
TARGET : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE : Response Type ("FINAL" or empty.)
UNSP CONC : Unspiked Sample Concentration

ESE BATCH : G51090
CLASSIFICATION : PR. POLL. ICAP METALS - EPA 6010

Q : FDER/SW
ANALYST : GARRY PRICE
EXTRACTOR : DAVID NICHOLS
DATA ENTRY : ICAP UPLOAD

REPORT DATE/TIME : 08/15/94 12:27:58
ANALYSIS DATE : 07/18/94
EXTRACT DATE : 07/18/94

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSS3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSS3*3	BKG-01-002	07/18/94	04:27PM
CDMHNSS3*4	BKG-01-002	07/18/94	04:29PM
CDMHNSS3*5	BKG-01	07/18/94	04:31PM
CDMHNSS3*6	BKG-02	07/18/94	04:33PM
CDMHNSS3*7	SP-01	07/18/94	04:35PM
CDMHNSS3*8	SP-01	07/18/94	04:37PM
CDMHNSS3*42	BG1-01	07/18/94	04:41PM
CDMHNSS3*43	WC1-01	07/18/94	04:49PM

ESE BATCH : G51090

HOLDING TIMES CHECK

SAMPLE	ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T. OVER

ALL HOLDING TIMES MET

STORET: 1078 METHOD: 6010-G SILVER, MG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=.005 DATE: 07/18/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 1008 METHOD: 6010-G BARIUM, MG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=.02 DATE: 07/18/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 1028 METHOD: 6010-G CADMIUM, MG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=.005 DATE: 07/18/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 1029 METHOD: 6010-G CHROMIUM, MG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=.01 DATE: 07/18/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 1052 METHOD: 6010-G LEAD, MG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=.1 DATE: 07/18/94 LARGEST RESP= %RSD= RT WINDOW:

ESE BATCH : G51090

(.ing Calibration Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/18/94	CCB*QC*1	1078*6010-G	SILVER	MG/KG-	0.001
07/18/94	CCB*QC*1	1008*6010-G	BARIUM	MG/KG-	0.0006
07/18/94	CCB*QC*1	1028*6010-G	CADMIUM	MG/KG-	ND
07/18/94	CCB*QC*1	1029*6010-G	CHROMIUM	MG/KG-	ND
07/18/94	CCB*QC*1	1052*6010-G	LEAD	MG/KG-	0.016
07/18/94	CCB*QC*2	1078*6010-G	SILVER	MG/KG-	0.0004
07/18/94	CCB*QC*2	1008*6010-G	BARIUM	MG/KG-	0.0002
07/18/94	CCB*QC*2	1028*6010-G	CADMIUM	MG/KG-	0.0004
07/18/94	CCB*QC*2	1029*6010-G	CHROMIUM	MG/KG-	ND
07/18/94	CCB*QC*2	1052*6010-G	LEAD	MG/KG-	0.014

Continuing Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/18/94	CCV*STD2*1	1078*6010-G	SILVER	MG/KG-		ND		90-110
07/18/94	CCV*STD2*1	1008*6010-G	BARIUM	MG/KG-	1.00	0.987	98.7	90-110
07/18/94	CCV*STD2*1	1028*6010-G	CADMIUM	MG/KG-	1.00	0.970	97.0	90-110
07/18/94	CCV*STD2*1	1029*6010-G	CHROMIUM	MG/KG-	1.00	0.986	98.6	90-110
07/18/94	CCV*STD2*1	1052*6010-G	LEAD	MG/KG-	1.00	0.983	98.3	90-110
07/18/94	CCV*STD4*1	1078*6010-G	SILVER	MG/KG-	1.00	0.998	99.8	90-110
07/18/94	CCV*STD4*1	1008*6010-G	BARIUM	MG/KG-		ND		90-110
07/18/94	CCV*STD4*1	1028*6010-G	CADMIUM	MG/KG-		ND		90-110
07/18/94	CCV*STD4*1	1029*6010-G	CHROMIUM	MG/KG-		ND		90-110
07/18/94	CCV*STD4*1	1052*6010-G	LEAD	MG/KG-		ND		90-110
07/18/94	CCV*QC*1	1078*6010-G	SILVER	MG/KG-	0.500	0.514	103	90-110
07/18/94	CCV*QC*1	1008*6010-G	BARIUM	MG/KG-	0.500	0.504	101	90-110
07/18/94	CCV*QC*1	1028*6010-G	CADMIUM	MG/KG-	0.500	0.505	101	90-110
07/18/94	CCV*QC*1	1029*6010-G	CHROMIUM	MG/KG-	0.500	0.510	102	90-110
07/18/94	CCV*QC*1	1052*6010-G	LEAD	MG/KG-	0.500	0.504	101	90-110
07/18/94	CCV*QC*2	1078*6010-G	SILVER	MG/KG-	0.500	0.510	102	90-110
07/18/94	CCV*QC*2	1008*6010-G	BARIUM	MG/KG-	0.500	0.502	100	90-110
[illegible]	CCV*QC*2	1028*6010-G	CADMIUM	MG/KG-	0.500	0.497	99.4	90-110
[illegible]	CCV*QC*2	1029*6010-G	CHROMIUM	MG/KG-	0.500	0.505	101	90-110
07/[illegible]94	CCV*QC*2	1052*6010-G	LEAD	MG/KG-	0.500	0.505	101	90-110

Interference Check Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/18/94	ICS*A*1	1078*6010-G	SILVER	MG/KG-		ND		80-120
07/18/94	ICS*A*1	1008*6010-G	BARIUM	MG/KG-		ND		80-120
07/18/94	ICS*A*1	1028*6010-G	CADMIUM	MG/KG-		ND		80-120
07/18/94	ICS*A*1	1029*6010-G	CHROMIUM	MG/KG-		ND		80-120
07/18/94	ICS*A*1	1052*6010-G	LEAD	MG/KG-		T*1		80-120
07/18/94	ICS*AB*1	1078*6010-G	SILVER	MG/KG-	1.00	0.988	98.8	80-120
07/18/94	ICS*AB*1	1008*6010-G	BARIUM	MG/KG-	0.500	0.490	98.0	80-120
07/18/94	ICS*AB*1	1028*6010-G	CADMIUM	MG/KG-	1.00	0.972	97.2	80-120
07/18/94	ICS*AB*1	1029*6010-G	CHROMIUM	MG/KG-	0.500	0.466	93.2	80-120
07/18/94	ICS*AB*1	1052*6010-G	LEAD	MG/KG-	1.00	0.921	92.1	80-120
07/18/94	ICS*A*2	1078*6010-G	SILVER	MG/KG-		ND		80-120
07/18/94	ICS*A*2	1008*6010-G	BARIUM	MG/KG-		ND		80-120
07/18/94	ICS*A*2	1028*6010-G	CADMIUM	MG/KG-		ND		80-120
07/18/94	ICS*A*2	1029*6010-G	CHROMIUM	MG/KG-		ND		80-120
07/18/94	ICS*A*2	1052*6010-G	LEAD	MG/KG-		ND		80-120
07/18/94	ICS*AB*2	1078*6010-G	SILVER	MG/KG-	1.00	1.01	101	80-120
07/18/94	ICS*AB*2	1008*6010-G	BARIUM	MG/KG-	0.500	0.503	101	80-120
07/18/94	ICS*AB*2	1028*6010-G	CADMIUM	MG/KG-	1.00	0.990	99.0	80-120
07/18/94	ICS*AB*2	1029*6010-G	CHROMIUM	MG/KG-	0.500	0.478	95.6	80-120
07/18/94	ICS*AB*2	1052*6010-G	LEAD	MG/KG-	1.00	0.950	95.0	80-120

Initial Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/18/94	ICV*ICAP19*1	1078*6010-G	SILVER	MG/KG-		ND		90-110
07/18/94	ICV*ICAP19*1	1008*6010-G	BARIUM	MG/KG-		ND		90-110
07/18/94	ICV*ICAP19*1	1028*6010-G	CADMIUM	MG/KG-	1.00	1.00	100.0	90-110
[illegible]/94	ICV*ICAP19*1	1029*6010-G	CHROMIUM	MG/KG-	1.00	1.01	101	90-110
[illegible]94	ICV*ICAP19*1	1052*6010-G	LEAD	MG/KG-	1.00	1.01	101	90-110
[illegible]	ICV*ICAP7*1	1078*6010-G	SILVER	MG/KG-	1.00	1.02	102	90-110
07/[illegible]94	ICV*ICAP7*1	1008*6010-G	BARIUM	MG/KG-	1.00	0.994	99.4	90-110
07/18/94	ICV*ICAP7*1	1028*6010-G	CADMIUM	MG/KG-		ND		90-110
07/18/94	ICV*ICAP7*1	1029*6010-G	CHROMIUM	MG/KG-		ND		90-110
07/18/94	ICV*ICAP7*1	1052*6010-G	LEAD	MG/KG-		ND		90-110

ESE BATCH : G51090

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/18/94	MB*REAGENTS*1	1078*6010-G	SILVER	MG/KG-	ND
07/18/94	MB*REAGENTS*1	1008*6010-G	BARIUM	MG/KG-	ND
07/18/94	MB*REAGENTS*1	1028*6010-G	CADMIUM	MG/KG-	ND
07/18/94	MB*REAGENTS*1	1029*6010-G	CHROMIUM	MG/KG-	ND
07/18/94	MB*REAGENTS*1	1052*6010-G	LEAD	MG/KG-	0.012
07/18/94	MB*QC*1	1078*6010-G	SILVER	MG/KG-	ND
07/18/94	MB*QC*1	1008*6010-G	BARIUM	MG/KG-	ND
07/18/94	MB*QC*1	1028*6010-G	CADMIUM	MG/KG-	ND
07/18/94	MB*QC*1	1029*6010-G	CHROMIUM	MG/KG-	ND
07/18/94	MB*QC*1	1052*6010-G	LEAD	MG/KG-	ND

Serial Dilution Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	REP #1	REP #2	RPD	RPD CRIT
07/18/94	SD*CDMHNSS3*43	1078*6010-G	SILVER	MG/KG-	0.0	0.356	NC	10
07/18/94	SD*CDMHNSS3*43	1008*6010-G	BARIUM	MG/KG-	219	232	5.80	10
07/18/94	SD*CDMHNSS3*43	1028*6010-G	CADMIUM	MG/KG-	0.0	ND	NC	10
07/18/94	SD*CDMHNSS3*43	1029*6010-G	CHROMIUM	MG/KG-	9.72	10.2	4.80	10
07/18/94	SD*CDMHNSS3*43	1052*6010-G	LEAD	MG/KG-	11.8	16.8	35.0	10

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/18/94	SP*QC*1	1078*6010-G	SILVER	95.3	73-107	MG/KG-	4.90	4.67
07/18/94	SP*QC*1	1008*6010-G	BARIUM	93.9	86-106	MG/KG-	196	184
07/18/94	SP*QC*1	1028*6010-G	CADMIUM	97.8	80-108	MG/KG-	4.90	4.79
07/18/94	SP*QC*1	1029*6010-G	CHROMIUM	92.9	79-109	MG/KG-	19.6	18.2
07/18/94	SP*QC*1	1052*6010-G	LEAD	94.9	79-109	MG/KG-	49.0	46.5

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
07/18/94	SPM1*CDMHNSS3*43	1078*6010-G	SILVER	98.2	73-107	0.0	MG/KG-	4.87	4.78
07/18/94	SPM1*CDMHNSS3*43	1008*6010-G	BARIUM	42.1	86-106	219	MG/KG-	195	82.0
07/18/94	SPM1*CDMHNSS3*43	1028*6010-G	CADMIUM	99.8	80-108	0.0	MG/KG-	4.87	4.86
07/18/94	SPM1*CDMHNSS3*43	1029*6010-G	CHROMIUM	93.8	79-109	9.72	MG/KG-	19.5	18.3
07/18/94	SPM1*CDMHNSS3*43	1052*6010-G	LEAD	157.7	79-109	11.8	MG/KG-	48.7	76.8
07/18/94	SPM2*CDMHNSS3*43	1078*6010-G	SILVER	96.0	73-107	0.0	MG/KG-	4.99	4.79
07/18/94	SPM2*CDMHNSS3*43	1008*6010-G	BARIUM	33.0	86-106	219	MG/KG-	200	66.0
07/18/94	SPM2*CDMHNSS3*43	1028*6010-G	CADMIUM	100.0	80-108	0.0	MG/KG-	4.99	4.99
07/18/94	SPM2*CDMHNSS3*43	1029*6010-G	CHROMIUM	70.0	79-109	9.72	MG/KG-	20.0	14.0
07/18/94	SPM2*CDMHNSS3*43	1052*6010-G	LEAD	109.0	79-109	11.8	MG/KG-	49.9	54.4

Spike into Matrix Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/18/94	SPX*CDMHNSS3*43	1078*6010-G	SILVER	103.5	85-115	MG/KG-	50.9	52.7
07/18/94	SPX*CDMHNSS3*43	1008*6010-G	BARIUM	107.7	85-115	MG/KG-	50.9	54.8
07/18/94	SPX*CDMHNSS3*43	1028*6010-G	CADMIUM	100.8	85-115	MG/KG-	50.9	51.3
07/18/94	SPX*CDMHNSS3*43	1029*6010-G	CHROMIUM	102.0	85-115	MG/KG-	50.9	51.9
07/18/94	SPX*CDMHNSS3*43	1052*6010-G	LEAD	105.1	85-115	MG/KG-	50.9	53.5

ESE BATCH : G51090

UNITS AND EXAMPLE CALCULATIONS

	UNITS ENTERED
CONCENTRATION	MG/KG-DRY
INJECTION VOLUME	NA
SAMPLE VOLUME	GRAMS
EXTRACT VOLUME	ML
CURVE CONCENTRATION	UG/ML
SPIKE SOLN CONCENTRATION	UG/ML
SPIKE VOLUME	NA
SPIKE SAMPLE VOLUME	NA
TARGET CONCENTRATION	UG/ML
RESPONSE DESCRIPTION	UG/ML
CONVERSION FACTOR	1

FINAL CONC = CURV CONC * EXT VOL * DIL * 1 / INJ VOL * SAMP VOL * ((100 - %MOISTURE) / 100)

MG/KG-DRY = (UG/ML) * (ML) * 1 / (NA) * (GRAMS)

( ) = ( ) * ( ) * ( ) / ( ) * ( ) * ((100 - ( )) / 100)

TARGET CONC = SPIKE SOLN CONC * SPIKE VOL / SPIKE SAMP VOL * ((100 - %MOISTURE) / 100)

UG/ML = (UG/ML) * (NA) / (NA)

ESE BATCH : G51090

Environmental Science and Engineering Analytical Services

Computer QC Checks

Batch No.: G51090 Analysis Date: 07/18/94 Analyst: GARRY PRICE

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
CCV present?	X		
CCV within acceptance criteria?	X		
ICS present?	X		
ICS within acceptance criteria?	X		
ICV present?	X		
ICV within acceptance criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?		X	BA _____
			PB _____
Sample matrix spike duplicate present?	X		
Sample matrix spike duplicate within acceptance criteria?		X	BA _____
			CR _____
			PB _____
Analytical spike present?	X		
Analytical spike within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

OVERRIDE COMMENTS

BATCH OVERRIDE BY: KATHY BARRY 1708
PROB: MS, MSD NOT WITHIN ACCEPTANCE CRITERIA.
EXPL: LACK OF HOMOGENITY./GLP

FINALIZED BY:

ESE BATCH : G51090

TABLE OF ABBREVIATIONS

%R : % Recovery for spiked sample. (FOUND/TARGET * 100)
AN E : Analysis Date
ANLY TIME : Analysis Time
CURVE : Curve Regression Number
DILUTION : Sample Dilution Factor
EXT DATE : Extract Date
EXT VOL : Extract Volume
FOUND : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL : Injection Volume
REL%DIFF : % Difference between current and previous spike.
RESPONSE : Sample Response
R.T. : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
DA -- Data Sample
MB -- Method Blank
RF -- Reference (from commercially known standard)
RP -- Replicate Sample
SP -- Standard Matrix Spike
SPM -- Sample Matrix Spike
STD -- Internal Standard
SUR -- Surrogate Sample
UN -- Unspiked Sample
SAMP VOL : Sample Volume
SPK CONC : Spike Concentration
ST : Sample response explanation or validity. (listed below)
BK -- No sample response.
NA -- Sample not analyzed.
NR -- Not reserved for this batch. Batch containing the response for this sample is listed in the target field.
OK -- Sample response shown is correct.
! -- Sample response shown is invalid.
< -- Sample response < detection limit. Detection limit is shown in the response field.
S THD: Storet ID * Method Code
T : Spike Target (SAMPLE LISTING SECTION)
TARGET : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE : Response Type ("FINAL" or empty.)
UNSP CONC : Unspiked Sample Concentration

GFAA Metals – Arsenic

ESE BATCH : G51058
CLASSIFICATION : ARSENIC - EPA 7060

E : FDER/SW
ANALYST : RICK MCCAULEY
EXTRACTOR : DAVID NICHOLS
DATA ENTRY : LISA SWAYZE

REPORT DATE/TIME : 08/15/94 12:28:51
ANALYSIS DATE : 07/15/94
EXTRACT DATE : 07/15/94

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSS3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSS3*1	VR-01	07/15/94	07:35PM
CDMHNSS3*2	VR-02	07/15/94	07:40PM
CDMHNSS3*41	BG1-01	07/15/94	07:45PM

ESE BATCH : G51058

HOLDING TIMES CHECK

SAMPLE	ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T.	OVER

ALL HOLDING TIMES MET

STORET: 1003 METHOD: 7060-G ARSENIC, MG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=2.5 DATE: 07/15/94 LARGEST RESP= %RSD= RT WINDOW:

CONC :	0	2.5	5	10	25	50	100
RESP :	.002	.011	.024	.051	.121	.255	.477
CONC':							

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

ESE BATCH : G51058

Co ng Calibration Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/15/94	CCB*QC*1	1003*7060-G	ARSENIC	MG/KG-	ND
07/15/94	CCB*QC*2	1003*7060-G	ARSENIC	MG/KG-	0.300

Continuing Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/15/94	CCV*QC*1	1003*7060-G	ARSENIC	MG/KG-	50.0	54.0	108	80-120
07/15/94	CCV*QC*2	1003*7060-G	ARSENIC	MG/KG-	50.0	52.3	105	80-120

Initial Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/15/94	ICV*SPEX*1	1003*7060-G	ARSENIC	MG/KG-	50.0	50.8	102	90-110

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/15/94	MB*REAGENT*1	1003*7060-G	ARSENIC	MG/KG-	0.300
07/15/94	MB*QC*1	1003*7060-G	ARSENIC	MG/KG-	ND

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/15/94	SP*QC*1	1003*7060-G	ARSENIC	105.1	80-122	MG/KG-	3.90	4.10

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
07/15/94	SPM1*CDMHNSS3*41	1003*7060-G	ARSENIC	72.5	80-122	1.10	MG/KG-	3.93	2.85
07/15/94	SPM2*CDMHNSS3*41	1003*7060-G	ARSENIC	71.5	80-122	1.10	MG/KG-	3.90	2.79

Sp ito Matrix Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/15/94	SPX*CDMHNSS3*41	1003*7060-G	ARSENIC	85.0	85-115	MG/KG-	9.99	8.49

ESE BATCH : G51058

UNITS AND EXAMPLE CALCULATIONS

UNITS ENTERED	
FINAL CONCENTRATION	UG/G DRY
INJECTION VOLUME	NA
SAMPLE VOLUME	G
EXTRACT VOLUME	L
CURVE CONCENTRATION	UG/L
SPIKE SOLN CONCENTRATION	UG/L
SPIKE VOLUME	NA
SPIKE SAMPLE VOLUME	NA
TARGET CONCENTRATION	UG/L
RESPONSE DESCRIPTION	UG/L
CONVERSION FACTOR	1

$$\text{FINAL CONC} = \frac{\text{CURV CONC * EXT VOL * DIL * 1}}{\text{INJ VOL * SAMP VOL * ((100 - \%MOISTURE) / 100)}}$$

$$\text{UG/G DRY} = \frac{\text{(UG/L) * (L) * 1}}{\text{(NA) * (G)}}$$

$$(\qquad\qquad) = \frac{(\qquad\qquad) * (\qquad\qquad) * (\qquad\qquad)}{(\qquad\qquad) * (\qquad\qquad) * ((100 - (\qquad\qquad)) / 100)}$$

$$\text{TARGET CONC} = \frac{\text{SPIKE SOLN CONC * SPIKE VOL}}{\text{SPIKE SAMP VOL * ((100 - \%MOISTURE) / 100)}}$$

$$\text{UG/L} = \frac{\text{(UG/L) * (NA)}}{\text{(NA)}}$$

ESE BATCH : G51058

Environmental Science and Engineering Analytical Services
Computer QC Checks

Ba .: G51058 Analysis Date: 07/15/94 Analyst: RICK MCCAULEY

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
CCV present?	X		
CCV within acceptance criteria?	X		
ICV present?	X		
ICV within acceptance criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?		X	AS
Sample matrix spike duplicate present?	X		
Sample matrix spike duplicate within acceptance criteria?		X	AS
Analytical spike present?	X		
Analytical spike within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

OV : COMMENTS

BATCH OVERRIDE BY: KATHY BARRY 1708
PROB:SAMPLE MATRIX SPIKE NOT WITHIN ACCEPTANCE CRITERIA.
EXPL:POSSIBLE MATRIX INTERFERENCE./MS./07-18-94.
PROB:SAMPLE MATRIX SPIKE DUPLICATE NOT WITHIN ACCEPTANCE CRITERIA.
EXPL:SAME AS ABOVE.
EM./07-18-94.

FINALIZED BY:

ESE BATCH : G51058

TABLE OF ABBREVIATIONS

%RECV : % Recovery for spiked sample. (FOUND/TARGET * 100)
ANLY DATE : Analysis Date
ANLY TIME : Analysis Time
CURVE : Curve Regression Number
DILUTION : Sample Dilution Factor
EXT DATE : Extract Date
EXT VOL : Extract Volume
FOUND : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL : Injection Volume
REL%DIFF : % Difference between current and previous spike.
RESPONSE : Sample Response
R.T. : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
DA -- Data Sample
MB -- Method Blank
RF -- Reference (from commercially known standard)
RP -- Replicate Sample
SP -- Standard Matrix Spike
SPM -- Sample Matrix Spike
STD -- Internal Standard
SUR -- Surrogate Sample
UN -- Unspiked Sample
SAMP VOL : Sample Volume
SPK CONC : Spike Concentration
ST : Sample response explanation or validity. (listed below)
BK -- No sample response.
NA -- Sample not analyzed.
NR -- Not reserved for this batch. Batch containing the response for this sample is listed in the target field.
OK -- Sample response shown is correct.
! -- Sample response shown is invalid.
< -- Sample response < detection limit. Detection limit is shown in the response field.
STORET*MTHD: Storet ID * Method Code
TARGET : Spike Target (SAMPLE LISTING SECTION)
TARGET : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE : Response Type ("FINAL" or empty.)
UNSP CONC : Unspiked Sample Concentration

ESE BATCH : G51098
C------ICATION : ARSENIC - EPA 7060

Q : FDER/SW
ANALYST : RICK MCCAULEY
EXTRACTOR : DAVID NICHOLS
DATA ENTRY : RICK MCCAULEY

REPORT DATE/TIME : 08/15/94 12:29:06
ANALYSIS DATE : 07/18/94
EXTRACT DATE : 07/18/94

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSS3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSS3*3	BKG-01-002	07/18/94	07:39PM
CDMHNSS3*4	BKG-01-002	07/18/94	07:44PM
CDMHNSS3*5	BKG-01	07/18/94	07:49PM
CDMHNSS3*6	BKG-02	07/18/94	07:53PM
CDMHNSS3*7	SP-01	07/18/94	07:58PM
CDMHNSS3*8	SP-01	07/18/94	08:03PM
CDMHNSS3*42	BG1-01	07/18/94	08:18PM
CDMHNSS3*43	WC1-01	07/18/94	08:22PM

ESE BATCH : G51098

HOLDING TIMES CHECK

SAMPLE	ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T.	OVER

ALL HOLDING TIMES MET

STORET: 1003 METHOD: 7060-G ARSENIC, MG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=2.5 DATE: 07/18/94 LARGEST RESP= %RSD= RT WINDOW:

CONC :	0	2.5	5	10	25	50	100
RESP :	0	.01	.027	.046	.097	.213	.404
CONC':							

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

ESE BATCH : G51098

C ing Calibration Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/18/94	CCB*QC*1	1003*7060-G	ARSENIC	MG/KG-	0.500
07/18/94	CCB*QC*2	1003*7060-G	ARSENIC	MG/KG-	0.600
07/18/94	CCB*QC*3	1003*7060-G	ARSENIC	MG/KG-	1.30
07/18/94	CCB*QC*4	1003*7060-G	ARSENIC	MG/KG-	1.80

Continuing Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/18/94	CCV*QC*1	1003*7060-G	ARSENIC	MG/KG-	50.0	50.8	102	80-120
07/18/94	CCV*QC*2	1003*7060-G	ARSENIC	MG/KG-	50.0	52.0	104	80-120
07/18/94	CCV*QC*3	1003*7060-G	ARSENIC	MG/KG-	50.0	50.7	101	80-120
07/18/94	CCV*QC*4	1003*7060-G	ARSENIC	MG/KG-	50.0	53.2	106	80-120

Initial Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/18/94	ICV*SPEX*1	1003*7060-G	ARSENIC	MG/KG-	50.0	54.5	109	90-110

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/18/94	MB*REAGENT*1	1003*7060-G	ARSENIC	MG/KG-	0.300
07/18/94	MB*QC*1	1003*7060-G	ARSENIC	MG/KG-	ND

Standard Addition (SA) Sample Summary

DATE	SAMPLE	STORET	PARAMETER	KNOWN CNC	RESP	UNC CNC	FINAL CNC	CORR
07/18/94	SA0*CDMHNSS3*3	1003*7060-G	ARSENIC	0.0	.114	26.1	5.42	.9987
07/18/94	SA1*CDMHNSS3*3	1003*7060-G	ARSENIC	20.0	.19			
07/18/94	SA2*CDMHNSS3*3	1003*7060-G	ARSENIC	40.0	.288			
0 4	SA3*CDMHNSS3*3	1003*7060-G	ARSENIC	60.0	.365			
0	SA0*CDMHNSS3*4	1003*7060-G	ARSENIC	0.0	.087	19.7	3.98	.9992
0	SA1*CDMHNSS3*4	1003*7060-G	ARSENIC	20.0	.181			
07/18/94	SA2*CDMHNSS3*4	1003*7060-G	ARSENIC	40.0	.277			
07/18/94	SA3*CDMHNSS3*4	1003*7060-G	ARSENIC	60.0	.357			
07/18/94	SA0*CDMHNSS3*5	1003*7060-G	ARSENIC	0.0	.095	27.9	2.76	.9983
07/18/94	SA1*CDMHNSS3*5	1003*7060-G	ARSENIC	20.0	.166			
07/18/94	SA2*CDMHNSS3*5	1003*7060-G	ARSENIC	40.0	.243			
07/18/94	SA3*CDMHNSS3*5	1003*7060-G	ARSENIC	60.0	.3			
07/18/94	SA0*CDMHNSS3*6	1003*7060-G	ARSENIC	0.0	.092	26.3	2.56	.9999
07/18/94	SA1*CDMHNSS3*6	1003*7060-G	ARSENIC	20.0	.162			
07/18/94	SA2*CDMHNSS3*6	1003*7060-G	ARSENIC	40.0	.23			
07/18/94	SA3*CDMHNSS3*6	1003*7060-G	ARSENIC	60.0	.302			
07/18/94	SA0*CDMHNSS3*7	1003*7060-G	ARSENIC	0.0	.063	17.2	1.72	.9990
07/18/94	SA1*CDMHNSS3*7	1003*7060-G	ARSENIC	20.0	.149			
07/18/94	SA2*CDMHNSS3*7	1003*7060-G	ARSENIC	40.0	.216			
07/18/94	SA3*CDMHNSS3*7	1003*7060-G	ARSENIC	60.0	.296			
07/18/94	SA0*CDMHNSS3*8	1003*7060-G	ARSENIC	0.0	.114	28.6	2.85	.9994
07/18/94	SA1*CDMHNSS3*8	1003*7060-G	ARSENIC	20.0	.184			
07/18/94	SA2*CDMHNSS3*8	1003*7060-G	ARSENIC	40.0	.263			
07/18/94	SA3*CDMHNSS3*8	1003*7060-G	ARSENIC	60.0	.345			
07/18/94	SA0*CDMHNSS3*42	1003*7060-G	ARSENIC	0.0	.075	18.1	1.76	.9981
07/18/94	SA1*CDMHNSS3*42	1003*7060-G	ARSENIC	20.0	.162			
07/18/94	SA2*CDMHNSS3*42	1003*7060-G	ARSENIC	40.0	.23			
07/18/94	SA3*CDMHNSS3*42	1003*7060-G	ARSENIC	60.0	.326			
07/18/94	SA0*CDMHNSS3*43	1003*7060-G	ARSENIC	0.0	.082	18.5	1.88	.9998
07/18/94	SA1*CDMHNSS3*43	1003*7060-G	ARSENIC	20.0	.179			
07/18/94	SA2*CDMHNSS3*43	1003*7060-G	ARSENIC	40.0	.268			
07/18/94	SA3*CDMHNSS3*43	1003*7060-G	ARSENIC	60.0	.357			

Serial Dilution Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	REP #1	REP #2	RPD	RPD CRIT
07/18/94	SD*CDMHNSS3*3	1003*7060-G	ARSENIC	MG/KG-	5.46	6.13	NC	10

: rd Matrix Spike Recovery Summary

L....	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/18/94	SP*QC*1	1003*7060-G	ARSENIC	101.1	80-122	MG/KG-	3.76	3.80

ESE BATCH : G51098

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
07/18/94	SPM2*CDMHNSS3*43	1003*7060-G	ARSENIC	63.3	80-122	1.88	MG/KG-	3.92	2.48
07/18/94	SPM1*CDMHNSS3*43	1003*7060-G	ARSENIC	61.0	80-122	1.88	MG/KG-	4.03	2.46

ESE BATCH : G51098

UNITS AND EXAMPLE CALCULATIONS

	UNITS ENTERED
F____ ONCENTRATION	UG/G DRY
INJECTION VOLUME	NA
SAMPLE VOLUME	G
EXTRACT VOLUME	L
CURVE CONCENTRATION	UG/L
SPIKE SOLN CONCENTRATION	UG/L
SPIKE VOLUME	NA
SPIKE SAMPLE VOLUME	NA
TARGET CONCENTRATION	UG/L
RESPONSE DESCRIPTION	UG/L
CONVERSION FACTOR	1

$$\text{FINAL CONC} = \frac{\text{CURV CONC * EXT VOL * DIL * 1}}{\text{INJ VOL * SAMP VOL * ((100 - \%MOISTURE) / 100)}}$$

$$\text{UG/G DRY} = \frac{\text{(UG/L) * (L) * 1}}{\text{(NA) * (G)}}$$

$$\text{(\qquad)} = \frac{\text{(\qquad) * (\qquad) * (\qquad)}}{\text{(\qquad) * (\qquad) * ((100 - (\qquad)) / 100)}}$$

$$\text{TARGET CONC} = \frac{\text{SPIKE SOLN CONC * SPIKE VOL}}{\text{SPIKE SAMP VOL * ((100 - \%MOISTURE) / 100)}}$$

$$\text{UG/L} = \frac{\text{(UG/L) * (NA)}}{\text{(NA)}}$$

ESE BATCH : G51098

Environmental Science and Engineering Analytical Services

Computer QC Checks

Batch No.: G51098 Analysis Date: 07/18/94 Analyst: RICK MCCAULEY

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
CCV present?	X		
CCV within acceptance criteria?	X		
ICV present?	X		
ICV within acceptance criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?		X	AS
Sample matrix spike duplicate present?	X		
Sample matrix spike duplicate within acceptance criteria?		X	AS
Analytical spike present?		X	
Analytical spike within acceptance criteria?			

Note: Any "NO" answer requires a comment.

OVERRIDE COMMENTS

BATCH OVERRIDE BY: KATHY BARRY 1708
PROB: MS.MSD NOT WITHIN ACCEPTANCE CRITERIA.
EXPL: POSSIBLE MATRIX INTERFERENCES.
PROB: ANALYTICAL SPIKE NOT PRESENT.
EXPL: NA/ SD WAS DONE AS PER SOP./MFB

FINALIZED BY:

ESE BATCH : G51098

TABLE OF ABBREVIATIONS

```
           : % Recovery for spiked sample. (FOUND/TARGET * 100)
ANLY DATE  : Analysis Date
ANLY TIME  : Analysis Time
CURVE      : Curve Regression Number
DILUTION   : Sample Dilution Factor
EXT DATE   : Extract Date
EXT VOL    : Extract Volume
FOUND      : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL    : Injection Volume
REL%DIFF   : % Difference between current and previous spike.
RESPONSE   : Sample Response
R.T.       : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID  : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
      DA  -- Data Sample
      MB  -- Method Blank
      RF  -- Reference (from commercially known standard)
      RP  -- Replicate Sample
      SP  -- Standard Matrix Spike
      SPM -- Sample Matrix Spike
      STD -- Internal Standard
      SUR -- Surrogate Sample
      UN  -- Unspiked Sample
SAMP VOL   : Sample Volume
SPK CONC   : Spike Concentration
ST         : Sample response explanation or validity. (listed below)
      BK  -- No sample response.
      NA  -- Sample not analyzed.
      NR  -- Not reserved for this batch.  Batch containing the response
             for this sample is listed in the target field.
      OK  -- Sample response shown is correct.
      !   -- Sample response shown is invalid.
      <   -- Sample response < detection limit. Detection limit is shown
             in the response field.
       MTHD: Storet ID * Method Code
TARG...    : Spike Target (SAMPLE LISTING SECTION)
TARGET     : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE       : Response Type ("FINAL" or empty.)
UNSP CONC  : Unspiked Sample Concentration
```

GFAA Metals – Selenium

ESE BATCH : G51057
C ICATION : SELENIUM - EPA 7740

Q : FDER/SW
ANALYST : RICK MCCAULEY
EXTRACTOR : DAVID NICHOLS
DATA ENTRY : MARLENE BANNER

REPORT DATE/TIME : 08/15/94 12:30:16
ANALYSIS DATE : 07/15/94
EXTRACT DATE : 07/15/94

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSS3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSS3*1	VR-01	07/15/94	09:19PM
CDMHNSS3*2	VR-02	07/15/94	09:25PM
CDMHNSS3*41	BG1-01	07/15/94	09:30PM

ESE BATCH : G51057

HOLDING TIMES CHECK

SAMPLE	ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T.	OVER

ALL HOLDING TIMES MET

STORET: 1148 METHOD: 7740-G SELENIUM, MG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=2.5 DATE: 07/15/94 LARGEST RESP= %RSD= RT WINDOW:

CONC :	0	2.5	5	10	25	50	100
RESP :	.002	.01	.02	.039	.1	.189	.363
CONC':							

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

ESE BATCH : G51057

C[illegible]ng Calibration Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/15/94	CCB*QC*1	1148*7740-G	SELENIUM	MG/KG-	ND
07/15/94	CCB*QC*2	1148*7740-G	SELENIUM	MG/KG-	ND

Continuing Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/15/94	CCV*QC*1	1148*7740-G	SELENIUM	MG/KG-	50.0	48.9	97.8	80-120
07/15/94	CCV*QC*2	1148*7740-G	SELENIUM	MG/KG-	50.0	48.3	96.6	80-120

Initial Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/15/94	ICV*SPEX*1	1148*7740-G	SELENIUM	MG/KG-	50.0	50.7	101	90-110

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/15/94	MB*REAGENT*1	1148*7740-G	SELENIUM	MG/KG-	0.300
07/15/94	MB*QC*1	1148*7740-G	SELENIUM	MG/KG-	ND

Standard Addition (SA) Sample Summary

DATE	SAMPLE	STORET	PARAMETER	KNOWN CNC	RESP	UNC CNC	FINAL CNC	CORR
07/15/94	SA0*CDMHNSS3*1	1148*7740-G	SELENIUM	0.0	0	2.50	<0.265	.9993
07/15/94	SA1*CDMHNSS3*1	1148*7740-G	SELENIUM	20.0	.038			
07/15/94	SA2*CDMHNSS3*1	1148*7740-G	SELENIUM	40.0	.07			
07/15/94	SA3*CDMHNSS3*1	1148*7740-G	SELENIUM	60.0	.108			
07/15/94	SA0*CDMHNSS3*2	1148*7740-G	SELENIUM	0.0	0	2.50	<0.251	.9997
07/15/94	SA1*CDMHNSS3*2	1148*7740-G	SELENIUM	20.0	.036			
07/15/94	SA2*CDMHNSS3*2	1148*7740-G	SELENIUM	40.0	.076			
0[illegible]4	SA3*CDMHNSS3*2	1148*7740-G	SELENIUM	60.0	.111			
0	SA0*CDMHNSS3*41	1148*7740-G	SELENIUM	0.0	0	2.50	<0.250	.9988
0	SA1*CDMHNSS3*41	1148*7740-G	SELENIUM	20.0	.048			
07/15/94	SA2*CDMHNSS3*41	1148*7740-G	SELENIUM	40.0	.096			
07/15/94	SA3*CDMHNSS3*41	1148*7740-G	SELENIUM	60.0	.135			

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/15/94	SP*QC*1	1148*7740-G	SELENIUM	99.0	75-123	MG/KG-	0.976	0.966

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
07/15/94	SPM1*CDMHNSS3*41	1148*7740-G	SELENIUM	46.6	75-123	0.072	MG/KG-	0.982	0.458
07/15/94	SPM2*CDMHNSS3*41	1148*7740-G	SELENIUM	53.6	75-123	0.072	MG/KG-	0.974	0.522

Spike into Matrix Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/15/94	SPX*CDMHNSS3*41	1148*7740-G	SELENIUM	79.2	85-115	MG/KG-	9.99	7.91

ESE BATCH : G51057

UNITS AND EXAMPLE CALCULATIONS

	UNITS ENTERED
FINAL CONCENTRATION	MG/KG
INJECTION VOLUME	NA
SAMPLE VOLUME	G
EXTRACT VOLUME	L
CURVE CONCENTRATION	UG/L
SPIKE SOLN CONCENTRATION	UG/L
SPIKE VOLUME	NA
SPIKE SAMPLE VOLUME	NA
TARGET CONCENTRATION	UG/L
RESPONSE DESCRIPTION	UG/L
CONVERSION FACTOR	1

$$\text{FINAL CONC} = \frac{\text{CURV CONC * EXT VOL * DIL * 1}}{\text{INJ VOL * SAMP VOL * ((100 - \%MOISTURE) / 100)}}$$

$$\text{MG/KG} = \frac{\text{(UG/L) * (L) * 1}}{\text{(NA) * (G)}}$$

$$(\qquad\qquad) = \frac{(\qquad\qquad) * (\qquad\qquad) * (\qquad\qquad)}{(\qquad\qquad) * (\qquad\qquad) * ((100 - (\qquad\qquad)) / 100)}$$

$$\text{TARGET CONC} = \frac{\text{SPIKE SOLN CONC * SPIKE VOL}}{\text{SPIKE SAMP VOL * ((100 - \%MOISTURE) / 100)}}$$

$$\text{UG/L} = \frac{\text{(UG/L) * (NA)}}{\text{(NA)}}$$

ESE BATCH : G51057

Environmental Science and Engineering Analytical Services

Computer QC Checks

E o.: G51057 Analysis Date: 07/15/94 Analyst: RICK MCCAULEY

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
CCV present?	X		
CCV within acceptance criteria?	X		
ICV present?	X		
ICV within acceptance criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?		X	SE
Sample matrix spike duplicate present?	X		
Sample matrix spike duplicate within acceptance criteria?		X	SE
Analytical spike present?	X		
Analytical spike within acceptance criteria?		X	SE

Note: Any "NO" answer requires a comment.

(E COMMENTS

BATCH OVERRIDE BY: KATHY BARRY 1708
PROB:SAMPLE MATRIX SPIKE NOT WITHIN ACCEPTANCE CRITERIA.
EXPL:POSSIBLE MATRIX INTERFERENCE./07-18-94.
EM./07-18-94.

FINALIZED BY:

ESE BATCH : G51057

TABLE OF ABBREVIATIONS

%RECV : % Recovery for spiked sample. (FOUND/TARGET * 100)
ANLY DATE : Analysis Date
ANLY TIME : Analysis Time
CURVE : Curve Regression Number
DILUTION : Sample Dilution Factor
EXT DATE : Extract Date
EXT VOL : Extract Volume
FOUND : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL : Injection Volume
REL%DIFF : % Difference between current and previous spike.
RESPONSE : Sample Response
R.T. : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
DA -- Data Sample
MB -- Method Blank
RF -- Reference (from commercially known standard)
RP -- Replicate Sample
SP -- Standard Matrix Spike
SPM -- Sample Matrix Spike
STD -- Internal Standard
SUR -- Surrogate Sample
UN -- Unspiked Sample
SAMP VOL : Sample Volume
SPK CONC : Spike Concentration
ST : Sample response explanation or validity. (listed below)
BK -- No sample response.
NA -- Sample not analyzed.
NR -- Not reserved for this batch. Batch containing the response for this sample is listed in the target field.
OK -- Sample response shown is correct.
! -- Sample response shown is invalid.
< -- Sample response < detection limit. Detection limit is shown in the response field.
STORET*MTHD: Storet ID * Method Code
TARGET : Spike Target (SAMPLE LISTING SECTION)
TARGET : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE : Response Type ("FINAL" or empty.)
UNSP CONC : Unspiked Sample Concentration

ESE BATCH : G51102
CLASSIFICATION : SELENIUM - EPA 7740

QC : FDER/SW
AN____ : JERI ROPERO
EXTRACTOR : DAVID NICHOLS
DATA ENTRY : LISA SWAYZE

REPORT DATE/TIME : 08/15/94 12:30:37
ANALYSIS DATE : 07/18/94
EXTRACT DATE : 07/18/94

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSS3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSS3*3	BKG-01-002	07/19/94	12:33AM
CDMHNSS3*4	BKG-01-002	07/19/94	12:39AM
CDMHNSS3*5	BKG-01	07/19/94	01:34AM
CDMHNSS3*6	BKG-02	07/19/94	01:39AM
CDMHNSS3*7	SP-01	07/19/94	01:45AM
CDMHNSS3*8	SP-01	07/19/94	01:51AM
CDMHNSS3*42	BG1-01	07/19/94	01:56AM
CDMHNSS3*43	WC1-01	07/19/94	02:02AM

ESE BATCH : G51102

HOLDING TIMES CHECK

SAMPLE	ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T.	OVER

ALL HOLDING TIMES MET

STORET: 1148 METHOD: 7740-G SELENIUM, MG/KG-DRY FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=2.5 DATE: 07/18/94 LARGEST RESP= %RSD= RT WINDOW:

CONC :	0	2.5	10	25	50	100
RESP :	.002	.01	.024	.062	.127	.229
CONC':						

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

ESE BATCH : G51102

ing Calibration Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/19/94	CCB*QC*1	1148*7740-G	SELENIUM	MG/KG-	0.300
07/19/94	CCB*QC*2	1148*7740-G	SELENIUM	MG/KG-	ND
07/19/94	CCB*QC*3	1148*7740-G	SELENIUM	MG/KG-	0.100
07/19/94	CCB*QC*4	1148*7740-G	SELENIUM	MG/KG-	ND

Continuing Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/19/94	CCV*QC*1	1148*7740-G	SELENIUM	MG/KG-	50.0	49.6	99.2	80-120
07/19/94	CCV*QC*2	1148*7740-G	SELENIUM	MG/KG-	50.0	50.1	100	80-120
07/19/94	CCV*QC*3	1148*7740-G	SELENIUM	MG/KG-	50.0	49.5	99.0	80-120
07/19/94	CCV*QC*4	1148*7740-G	SELENIUM	MG/KG-	50.0	49.2	98.4	80-120

Initial Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/19/94	ICV*PEPURE*1	1148*7740-G	SELENIUM	MG/KG-	80.0	80.6	101	90-110

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/19/94	MB*REAGENT*1	1148*7740-G	SELENIUM	MG/KG-	1.20
07/19/94	MB*QC*1	1148*7740-G	SELENIUM	MG/KG-	ND

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/19/94	SP*QC*1	1148*7740-G	SELENIUM	105.0	75-123	MG/KG-	0.941	0.988

Sample Matrix Spike Recovery Summary

!	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
[illegible]	SPM1*CDMHNSS3*43	1148*7740-G	SELENIUM	34.8	75-123	0.031	MG/KG-	1.01	0.351
07/1[illegible]/94	SPM2*CDMHNSS3*43	1148*7740-G	SELENIUM	38.8	75-123	0.031	MG/KG-	1.02	0.396

Spike into Matrix Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/19/94	SPX*CDMHNSS3*5	1148*7740-G	SELENIUM	99.0	85-115	MG/KG-	9.91	9.81

ESE BATCH : G51102

SAMPLE RESULTS

148*7740-G
SELENIUM

SAMPLE ID	MG/KG-DRY
MB*REAGENT*1	1.20
MB*QC*1	0.0
CDMHNSS3*3	<0.260
CDMHNSS3*4	<0.252
CDMHNSS3*5	<0.248
CDMHNSS3*6	<0.243
CDMHNSS3*7	<0.251
CDMHNSS3*8	<0.249
CDMHNSS3*42	<0.243
CDMHNSS3*43	<0.254

ESE BATCH : G51102

UNITS AND EXAMPLE CALCULATIONS

	UNITS ENTERED
FI ONCENTRATION	UG/G DRY
INJECTION VOLUME	NA
SAMPLE VOLUME	G
EXTRACT VOLUME	L
CURVE CONCENTRATION	UG/L
SPIKE SOLN CONCENTRATION	UG/L
SPIKE VOLUME	NA
SPIKE SAMPLE VOLUME	NA
TARGET CONCENTRATION	UG/L
RESPONSE DESCRIPTION	UG/L
CONVERSION FACTOR	1

FINAL CONC = CURV CONC * EXT VOL * DIL * 1 / INJ VOL * SAMP VOL * ((100 - %MOISTURE) / 100)

UG/G DRY = (UG/L) * (L) * 1 / (NA) * (G)

( ) = ( ) * ( ) * ( ) / ( ) * ( ) * ((100 - ( )) / 100)

TARGET CONC = SPIKE SOLN CONC * SPIKE VOL / SPIKE SAMP VOL * ((100 - %MOISTURE) / 100)

UG/L = (UG/L) * (NA) / (NA)

ESE BATCH : G51102

Environmental Science and Engineering Analytical Services

Computer QC Checks

Batch No.: G51102 Analysis Date: 07/18/94 Analyst: JERI ROPERO

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
CCV present?	X		
CCV within acceptance criteria?	X		
ICV present?	X		
ICV within acceptance criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?		X	SE
Sample matrix spike duplicate present?	X		
Sample matrix spike duplicate within acceptance criteria?		X	SE
Analytical spike present?	X		
Analytical spike within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

OVERRIDE COMMENTS

BATCH OVERRIDE BY: KATHY BARRY 1708
PROB: MS,MSD NOT WITHIN ACCEPTANCE CRITERIA.
EXPL: POSSIBLE MATRIX INTERFERENCE.

FINALIZED BY:

ESE BATCH : G51102

TABLE OF ABBREVIATIONS

%I : % Recovery for spiked sample. (FOUND/TARGET * 100)
ANLY DATE : Analysis Date
ANLY TIME : Analysis Time
CURVE : Curve Regression Number
DILUTION : Sample Dilution Factor
EXT DATE : Extract Date
EXT VOL : Extract Volume
FOUND : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL : Injection Volume
REL%DIFF : % Difference between current and previous spike.
RESPONSE : Sample Response
R.T. : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
DA -- Data Sample
MB -- Method Blank
RF -- Reference (from commercially known standard)
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SPM -- Sample Matrix Spike
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SUR -- Surrogate Sample
UN -- Unspiked Sample
SAMP VOL : Sample Volume
SPK CONC : Spike Concentration
ST : Sample response explanation or validity. (listed below)
BK -- No sample response.
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OK -- Sample response shown is correct.
! -- Sample response shown is invalid.
< -- Sample response < detection limit. Detection limit is shown in the response field.
S THD: Storet ID * Method Code
TARGET : Spike Target (SAMPLE LISTING SECTION)
TARGET : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE : Response Type ("FINAL" or empty.)
UNSP CONC : Unspiked Sample Concentration

Mercury

ESE BATCH : G51050
CLASSIFICATION : MERCURY - EPA 7471 (MOD)

C : FDER/SW
A[illegible] : MARSHALL SEIGLER
EXTRACTOR : MARSHALL SEIGLER
DATA ENTRY : MARSHALL SEIGLER

REPORT DATE/TIME : 08/15/94 12:29:44
ANALYSIS DATE : 07/15/94
EXTRACT DATE : 07/15/94

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSS3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSS3*1	VR-01		
CDMHNSS3*2	VR-02		
CDMHNSS3*41	BG1-01		

ESE BATCH : G51050

HOLDING TIMES CHECK

SAMPLE	ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T.	OVER

ALL HOLDING TIMES MET

STORET: 71921 METHOD: 7471M-G MERCURY, MG/KG-DRY QUAD

CALIBRATION CURVE # 1 (UG/L)
DETECTION LIMIT=0.2 DATE: 07/15/94 LARGEST RESP=76.0 %RSD=11.6974 RT WINDOW:

CONC :	0.0	0.2	0.5	1.0	2.0	5.0	7.0	10.0
RESP :	0.25	2.0	5.25	9.5	17.75	41.5	57.25	76.0
CONC':	0.005	0.190	0.539	1.01	1.95	4.93	7.12	9.95

CONC = -2.1324E-02+ 1.0501E-01*RESP+ 3.4532E-04*RESP**2+ *RESP**3
95% C.I.= 8.4817E-02 7.4742E-03 1.0083E-04
CORRELATION COEFFICIENT = .9999

ESE BATCH : G51050

Cc ng Calibration Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/15/94	CCB*QC*1	71921*7471M-G	MERCURY	MG/KG-	0.005

Continuing Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/15/94	CCV*QC*1	71921*7471M-G	MERCURY	MG/KG-	5.00	5.17	103	80-120

Initial Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/15/94	ICV*PE-PURE*1	71921*7471M-G	MERCURY	MG/KG-	5.00	4.70	94.0	80-120

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/15/94	MB*QC*1	71921*7471M-G	MERCURY	MG/KG-	ND

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/15/94	SP*QC*1	71921*7471M-G	MERCURY	97.2	85-125	MG/KG-	2.47	2.40

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
07/15/94	SPM1*CDMHNSS3*41	71921*7471M-G	MERCURY	93.2	85-125	0.0	MG/KG-	2.51	2.34
07/15/94	SPM2*CDMHNSS3*41	71921*7471M-G	MERCURY	91.9	85-125	0.0	MG/KG-	2.48	2.28

ESE BATCH : G51050

UNITS AND EXAMPLE CALCULATIONS

	UNITS ENTERED
FINAL CONCENTRATION	UG/L
INJECTION VOLUME	NA
SAMPLE VOLUME	NA
EXTRACT VOLUME	NA
CURVE CONCENTRATION	UG/L
SPIKE SOLN CONCENTRATION	NA
SPIKE VOLUME	NA
SPIKE SAMPLE VOLUME	NA
TARGET CONCENTRATION	UG/L
RESPONSE DESCRIPTION	PEAK HGT
CONVERSION FACTOR	1

$$\text{FINAL CONC} = \frac{\text{CURV CONC * EXT VOL * DIL * 1}}{\text{INJ VOL * SAMP VOL * ((100 - \%MOISTURE) / 100)}}$$

$$\text{UG/L} = \frac{\text{(UG/L) * (NA) * 1}}{\text{(NA) * (NA)}}$$

$$(\qquad\qquad) = \frac{(\qquad\qquad\qquad) * (\qquad\qquad\qquad) * (\qquad\qquad)}{(\qquad\qquad\qquad) * (\qquad\qquad\qquad) * ((100 - (\qquad\qquad\qquad)) / 100)}$$

$$\text{TARGET CONC} = \frac{\text{SPIKE SOLN CONC * SPIKE VOL}}{\text{SPIKE SAMP VOL * ((100 - \%MOISTURE) / 100)}}$$

$$\text{UG/L} = \frac{\text{(NA) * (NA)}}{\text{(NA)}}$$

ESE BATCH : G51050

Environmental Science and Engineering Analytical Services

Computer QC Checks

No.: G51050 Analysis Date: 07/15/94 Analyst: MARSHALL SEIGLER

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
No. of calibration standards present acceptable?	X		
Curve correlation coefficient >= 0.995?	X		
Calibration curve y-intercept < curve detection limit?	X		
Sample responses within highest standard response?	X		
CCV present?	X		
CCV within acceptance criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?	X		
Sample matrix spike duplicate present?	X		
Sample matrix spike duplicate within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

IDE COMMENTS

OVERRIDE BY:

FINALIZED BY:

ESE BATCH : G51050

TABLE OF ABBREVIATIONS

%RECV : % Recovery for spiked sample. (FOUND/TARGET * 100)
ANLY DATE : Analysis Date
ANLY TIME : Analysis Time
CURVE : Curve Regression Number
DILUTION : Sample Dilution Factor
EXT DATE : Extract Date
EXT VOL : Extract Volume
FOUND : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL : Injection Volume
REL%DIFF : % Difference between current and previous spike.
RESPONSE : Sample Response
R.T. : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
DA -- Data Sample
MB -- Method Blank
RF -- Reference (from commercially known standard)
RP -- Replicate Sample
SP -- Standard Matrix Spike
SPM -- Sample Matrix Spike
STD -- Internal Standard
SUR -- Surrogate Sample
UN -- Unspiked Sample
SAMP VOL : Sample Volume
SPK CONC : Spike Concentration
ST : Sample response explanation or validity. (listed below)
BK -- No sample response.
NA -- Sample not analyzed.
NR -- Not reserved for this batch. Batch containing the response for this sample is listed in the target field.
OK -- Sample response shown is correct.
! -- Sample response shown is invalid.
< -- Sample response < detection limit. Detection limit is shown in the response field.
STORET*MTHD: Storet ID * Method Code
TARGET : Spike Target (SAMPLE LISTING SECTION)
TARGET : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE : Response Type ("FINAL" or empty.)
UNSP CONC : Unspiked Sample Concentration

ESE BATCH : G51092
CLASSIFICATION : MERCURY - EPA 7471 (MOD)

E	: FDER/SW	REPORT DATE/TIME	: 08/15/94 12:29:58
ANALYST	: KENT BRAKEFIELD	ANALYSIS DATE	: 07/18/94
EXTRACTOR	: KENT BRAKEFIELD	EXTRACT DATE	: 07/18/94
DATA ENTRY	: KENT BRAKEFIELD		

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSS3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSS3*3	BKG-01-002		
CDMHNSS3*4	BKG-01-002		
CDMHNSS3*5	BKG-01		
CDMHNSS3*6	BKG-02		
CDMHNSS3*7	SP-01		
CDMHNSS3*8	SP-01		
CDMHNSS3*42	BG1-01		
CDMHNSS3*43	WC1-01		

ESE BATCH : G51092

HOLDING TIMES CHECK

SAMPLE	ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T. OVER

ALL HOLDING TIMES MET

STORET: 71921 METHOD: 7471M-G MERCURY, MG/KG-DRY QUAD

CALIBRATION CURVE # 1 (UG/L)
DETECTION LIMIT=0.2 DATE: 07/18/94 LARGEST RESP=74.0 %RSD=14.9087 RT WINDOW:

CONC :	0.0	0.2	0.5	1.0	2.0	5.0	7.0	10.0
RESP :	0.5	2.25	5.25	10.0	18.75	44.0	55.25	74.0
CONC':	0.042	0.206	0.494	0.973	1.92	5.18	6.87	10.0

CONC = -3.9088E-03+ 9.1792E-02*RESP+ 5.8954E-04*RESP**2+ *RESP**3
95% C.I.= 1.2867E-01 1.1505E-02 1.5973E-04
CORRELATION COEFFICIENT = .9997

ESE BATCH : G51092

tinuing Calibration Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/18/94	CCB*QC*1	71921*7471M-G	MERCURY	MG/KG-	ND
07/18/94	CCB*QC*2	71921*7471M-G	MERCURY	MG/KG-	ND

Continuing Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/18/94	CCV*QC*1	71921*7471M-G	MERCURY	MG/KG-	5.00	4.75	95.0	80-120
07/18/94	CCV*QC*2	71921*7471M-G	MERCURY	MG/KG-	5.00	4.40	88.0	80-120

Initial Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/18/94	ICV*PE-PURE*1	71921*7471M-G	MERCURY	MG/KG-	5.00	4.82	96.4	80-120

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/18/94	MB*REAGENT*1	71921*7471M-G	MERCURY	MG/KG-	0.042
07/18/94	MB*QC*1	71921*7471M-G	MERCURY	MG/KG-	ND

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/18/94	SP*QC*1	71921*7471M-G	MERCURY	106.4	85-125	MG/KG-	2.49	2.65

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
07/18/94	SPM1*CDMHNSS3*43	71921*7471M-G	MERCURY	56.1	85-125	0.0	MG/KG-	2.55	1.43
07/18/94	SPM2*CDMHNSS3*43	71921*7471M-G	MERCURY	49.8	85-125	0.0	MG/KG-	2.41	1.20

ESE BATCH : G51092

UNITS AND EXAMPLE CALCULATIONS

UNITS ENTERED	
FINAL CONCENTRATION	MG/KG-DRY
INJECTION VOLUME	NA
SAMPLE VOLUME	GRAMS
EXTRACT VOLUME	LITERS
CURVE CONCENTRATION	UG/L
SPIKE SOLN CONCENTRATION	NA
SPIKE VOLUME	NA
SPIKE SAMPLE VOLUME	NA
TARGET CONCENTRATION	UG/L
RESPONSE DESCRIPTION	PEAK HGT
CONVERSION FACTOR	1

$$\text{FINAL CONC} = \frac{\text{CURV CONC * EXT VOL * DIL * 1}}{\text{INJ VOL * SAMP VOL * ((100 - \%MOISTURE) / 100)}}$$

$$\text{MG/KG-DRY} = \frac{\text{(UG/L) * (LITERS) * 1}}{\text{(NA) * (GRAMS)}}$$

$$(\qquad\qquad) = \frac{(\qquad\qquad\qquad) * (\qquad\qquad\qquad) * (\qquad\qquad)}{(\qquad\qquad\qquad) * (\qquad\qquad\qquad) * ((100 - (\qquad\qquad\qquad)) / 100)}$$

$$\text{TARGET CONC} = \frac{\text{SPIKE SOLN CONC * SPIKE VOL}}{\text{SPIKE SAMP VOL * ((100 - \%MOISTURE) / 100)}}$$

$$\text{UG/L} = \frac{\text{(NA) * (NA)}}{\text{(NA)}}$$

ESE BATCH : G51092

Environmental Science and Engineering Analytical Services
Computer QC Checks

:ch No.: G51092 Analysis Date: 07/18/94 Analyst: KENT BRAKEFIELD

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
No. of calibration standards present acceptable?	X		
Curve correlation coefficient >= 0.995?	X		
Calibration curve y-intercept < curve detection limit?	X		
Sample responses within highest standard response?	X		
CCV present?	X		
CCV within acceptance criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?		X	HG
Sample matrix spike duplicate present?	X		
Sample matrix spike duplicate within acceptance criteria?		X	HG

Note: Any "NO" answer requires a comment.

ERRIDE COMMENTS

BATCH OVERRIDE BY: KATHY BARRY 1708
PROB: MS,MSD NOT WITHIN ACCEPTANCE CRITERIA.
EXPL: POSSIBLE MATRIX INTERFERENCES.

FINALIZED BY:

ESE BATCH : G51092

TABLE OF ABBREVIATIONS

%RECV : % Recovery for spiked sample. (FOUND/TARGET * 100)
ANLY DATE : Analysis Date
ANLY TIME : Analysis Time
CURVE : Curve Regression Number
DILUTION : Sample Dilution Factor
EXT DATE : Extract Date
EXT VOL : Extract Volume
FOUND : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL : Injection Volume
REL%DIFF : % Difference between current and previous spike.
RESPONSE : Sample Response
R.T. : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
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SP -- Standard Matrix Spike
SPM -- Sample Matrix Spike
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SUR -- Surrogate Sample
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SPK CONC : Spike Concentration
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NA -- Sample not analyzed.
NR -- Not reserved for this batch. Batch containing the response for this sample is listed in the target field.
OK -- Sample response shown is correct.
! -- Sample response shown is invalid.
< -- Sample response < detection limit. Detection limit is shown in the response field.
STORET*MTHD: Storet ID * Method Code
TARGET : Spike Target (SAMPLE LISTING SECTION)
TARGET : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE : Response Type ("FINAL" or empty.)
UNSP CONC : Unspiked Sample Concentration

9513554.2865

Waters

Volatile Organic Compounds

ESE BATCH : G51080
CLASSIFICATION : VOCS - EPA 8240

TYPE : FDER/SW
LYST : DOUG DABNEY
EXTRACTOR :
DATA ENTRY : TODD ROMERO

REPORT DATE/TIME : 08/18/94 14:42:37
ANALYSIS DATE : 07/17/94
EXTRACT DATE :

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

BATCH NOTES
DOWNLOAD FILE DD071794

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSW3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD
IMEM9407	FDER	7944001 0207	MEMC ELECTRONICS	JEFF SHAMIS

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
IMEM9407*2	ASIN	07/17/94	05:04PM
CDMHNSW3*3	VR-01-EB1	07/17/94	06:31PM

ESE BATCH : G51080

HOLDING TIMES CHECK

SAMPLE	ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T. OVER

ALL HOLDING TIMES MET

STORET: 34418 METHOD: 8240-G CHLOROMETHANE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=4.4 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34413 METHOD: 8240-G BROMOMETHANE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=3.5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 39175 METHOD: 8240-G VINYL CHLORIDE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=4.6 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34311 METHOD: 8240-G CHLOROETHANE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=8.2 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34423 METHOD: 8240-G METHYLENE CHLORIDE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=6.4 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 81552 METHOD: 8240-G ACETONE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=9.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 77041 METHOD: 8240-G CARBON DISULFIDE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=4.4 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34501 METHOD: 8240-G 1,1-DICHLOROETHYLENE, UG/L FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=3.2 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34496 METHOD: 8240-G 1,1-DICHLOROETHANE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 96463 METHOD: 8240-G 1,2-DICHLOROETHENE (TOTAL), UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.4 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 77652 METHOD: 8240-G 112-TRICL-122-TRIFL-ETHANE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=15 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 32106 METHOD: 8240-G CHLOROFORM, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34531 METHOD: 8240-G 1,2-DICHLOROETHANE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 98812 METHOD: SUR 1,2-DICHLOROETHANE-D(4), UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 81595 METHOD: 8240-G METHYL ETHYL KETONE, UG/L GCMS

ESE BATCH : G51080

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34506 METHOD: 8240-G 1,1,1-TRICHL'ETHANE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 32102 METHOD: 8240-G CARBON TETRACHLORIDE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.6 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 77057 METHOD: 8240-G VINYL ACETATE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 32101 METHOD: 8240-G BROMODICHLOROMETHANE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.2 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34541 METHOD: 8240-G 1,2-DICHLOROPROPANE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34704 METHOD: 8240-G CIS-1,3-DICHLORO- PROPENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 39180 METHOD: 8240-G TRICHLOROETHENE, UG/L FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=3.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 32105 METHOD: 8240-G DIBROMOCHLOROMETHANE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.3 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34030 METHOD: 8240-G BENZENE, UG/L FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=1.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34511 METHOD: 8240-G 1,1,2-TRICHL'ETHANE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.8 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34576 METHOD: 8240-G 2-CHLOROETHYLVINYL- ETHER, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=3.1 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34699 METHOD: 8240-G TRANS-1,3-DICHLORO- PROPENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.6 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 32104 METHOD: 8240-G BROMOFORM, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.6 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 81596 METHOD: 8240-G METHYL ISOBUT'KETONE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=12.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 77103 METHOD: 8240-G 2-HEXANONE, UG/L GCMS

CALIBRATION CURVE # 1

ESE BATCH : G51080
DETECTION LIMIT=21.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34475 METHOD: 8240-G TETRACHLOROETHENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.9 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34516 METHOD: 8240-G 1,1,2,2-TETRACHLORO- ETHANE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 98810 METHOD: SUR TOLUENE-D(8), UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34010 METHOD: 8240-G TOLUENE, UG/L FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=1.7 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34301 METHOD: 8240-G CHLOROBENZENE, UG/L FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=1.4 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34371 METHOD: 8240-G ETHYLBENZENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.3 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 97947 METHOD: SUR BROMOFLUOROBENZENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 81551 METHOD: 8240-G XYLENES,TOTAL, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=3.72 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 77128 METHOD: 8240-G STYRENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=0.5 DATE: LARGEST RESP= %RSD= RT WINDOW:

ESE BATCH : G51080

M Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/17/94	MB*NONE*0717	34418*8240-G	CHLOROMETHANE	UG/L	ND
07/17/94	MB*NONE*0717	34413*8240-G	BROMOMETHANE	UG/L	ND
07/17/94	MB*NONE*0717	39175*8240-G	VINYL CHLORIDE	UG/L	ND
07/17/94	MB*NONE*0717	34311*8240-G	CHLOROETHANE	UG/L	ND
07/17/94	MB*NONE*0717	34423*8240-G	METHYLENE CHLORIDE	UG/L	ND
07/17/94	MB*NONE*0717	81552*8240-G	ACETONE	UG/L	ND
07/17/94	MB*NONE*0717	77041*8240-G	CARBON DISULFIDE	UG/L	ND
07/17/94	MB*NONE*0717	34501*8240-G	1,1-DICHLOROETHYLENE	UG/L	ND
07/17/94	MB*NONE*0717	34496*8240-G	1,1-DICHLOROETHANE	UG/L	ND
07/17/94	MB*NONE*0717	96463*8240-G	1,2-DICHLOROETHENE (TOTAL)	UG/L	ND
07/17/94	MB*NONE*0717	77652*8240-G	112-TRICL-122-TRIFL-ETHANE	UG/L	ND
07/17/94	MB*NONE*0717	32106*8240-G	CHLOROFORM	UG/L	ND
07/17/94	MB*NONE*0717	34531*8240-G	1,2-DICHLOROETHANE	UG/L	ND
07/17/94	MB*NONE*0717	81595*8240-G	METHYL ETHYL KETONE	UG/L	ND
07/17/94	MB*NONE*0717	34506*8240-G	1,1,1-TRICHL'ETHANE	UG/L	ND
07/17/94	MB*NONE*0717	32102*8240-G	CARBON TETRACHLORIDE	UG/L	ND
07/17/94	MB*NONE*0717	77057*8240-G	VINYL ACETATE	UG/L	ND
07/17/94	MB*NONE*0717	32101*8240-G	BROMODICHLOROMETHANE	UG/L	ND
07/17/94	MB*NONE*0717	34541*8240-G	1,2-DICHLOROPROPANE	UG/L	ND
07/17/94	MB*NONE*0717	34704*8240-G	CIS-1,3-DICHLORO- PROPENE	UG/L	ND
07/17/94	MB*NONE*0717	39180*8240-G	TRICHLOROETHENE	UG/L	ND
07/17/94	MB*NONE*0717	32105*8240-G	DIBROMOCHLOROMETHANE	UG/L	ND
07/17/94	MB*NONE*0717	34030*8240-G	BENZENE	UG/L	ND
07/17/94	MB*NONE*0717	34511*8240-G	1,1,2-TRICHL'ETHANE	UG/L	ND
07/17/94	MB*NONE*0717	34576*8240-G	2-CHLOROETHYLVINYL- ETHER	UG/L	ND
07/17/94	MB*NONE*0717	34699*8240-G	TRANS-1,3-DICHLORO- PROPENE	UG/L	ND
07/17/94	MB*NONE*0717	32104*8240-G	BROMOFORM	UG/L	ND
07/17/94	MB*NONE*0717	81596*8240-G	METHYL ISOBUT'KETONE	UG/L	ND
07/17/94	MB*NONE*0717	77103*8240-G	2-HEXANONE	UG/L	ND
07/17/94	MB*NONE*0717	34475*8240-G	TETRACHLOROETHENE	UG/L	ND
07/17/94	MB*NONE*0717	34516*8240-G	1,1,2,2-TETRACHLORO- ETHANE	UG/L	ND
[illegible]	MB*NONE*0717	34010*8240-G	TOLUENE	UG/L	ND
[illegible]	MB*NONE*0717	34301*8240-G	CHLOROBENZENE	UG/L	ND
07/[illegible]	MB*NONE*0717	34371*8240-G	ETHYLBENZENE	UG/L	ND
07/17/94	MB*NONE*0717	81551*8240-G	XYLENES,TOTAL	UG/L	ND
07/17/94	MB*NONE*0717	77128*8240-G	STYRENE	UG/L	ND

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/17/94	SP1*NONE*0717	34501*8240-G	1,1-DICHLOROETHYLENE	116	61-145	UG/L	50	58
07/17/94	SP1*NONE*0717	39180*8240-G	TRICHLOROETHENE	112	71-120	UG/L	50	56
07/17/94	SP1*NONE*0717	34030*8240-G	BENZENE	108	76-127	UG/L	50	54
07/17/94	SP1*NONE*0717	34010*8240-G	TOLUENE	104	76-125	UG/L	50	52
07/17/94	SP1*NONE*0717	34301*8240-G	CHLOROBENZENE	124	75-130	UG/L	50	62

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
07/17/94	SPM1*CDMHNSW3*3	34501*8240-G	1,1-DICHLOROETHYLENE	108	61-145	0.0	UG/L	50	54
07/17/94	SPM1*CDMHNSW3*3	39180*8240-G	TRICHLOROETHENE	112	71-120	0.0	UG/L	50	56
07/17/94	SPM1*CDMHNSW3*3	34030*8240-G	BENZENE	104	76-127	0.0	UG/L	50	52
07/17/94	SPM1*CDMHNSW3*3	34010*8240-G	TOLUENE	96	76-125	0.0	UG/L	50	48
07/17/94	SPM1*CDMHNSW3*3	34301*8240-G	CHLOROBENZENE	122	75-130	0.0	UG/L	50	61
07/17/94	SPM2*CDMHNSW3*3	34501*8240-G	1,1-DICHLOROETHYLENE	112	61-145	0.0	UG/L	50	56
07/17/94	SPM2*CDMHNSW3*3	39180*8240-G	TRICHLOROETHENE	110	71-120	0.0	UG/L	50	55
07/17/94	SPM2*CDMHNSW3*3	34030*8240-G	BENZENE	106	76-127	0.0	UG/L	50	53
07/17/94	SPM2*CDMHNSW3*3	34010*8240-G	TOLUENE	102	76-125	0.0	UG/L	50	51
07/17/94	SPM2*CDMHNSW3*3	34301*8240-G	CHLOROBENZENE	124	75-130	0.0	UG/L	50	62

Surrogate Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/17/94	MB*NONE*0717	98812*SUR	1,2-DICHLOROETHANE-D(4)	UG/L	50	48	96	76-114
07/17/94	MB*NONE*0717	98810*SUR	TOLUENE-D(8)	UG/L	50	52	100	85-115
07/17/94	MB*NONE*0717	97947*SUR	BROMOFLUOROBENZENE	UG/L	50	53	110	86-115
[illegible]94	SP1*NONE*0717	98812*SUR	1,2-DICHLOROETHANE-D(4)	UG/L	50	46	92	76-114
[illegible]1	SP1*NONE*0717	98810*SUR	TOLUENE-D(8)	UG/L	50	52	100	85-115
07/[illegible]4	SP1*NONE*0717	97947*SUR	BROMOFLUOROBENZENE	UG/L	50	53	110	86-115
07/17/94	SPM1*CDMHNSW3*3	98812*SUR	1,2-DICHLOROETHANE-D(4)	UG/L	50	47	94	76-114
07/17/94	SPM1*CDMHNSW3*3	98810*SUR	TOLUENE-D(8)	UG/L	50	51	100	85-115
07/17/94	SPM1*CDMHNSW3*3	97947*SUR	BROMOFLUOROBENZENE	UG/L	50	53	110	86-115
07/17/94	SPM2*CDMHNSW3*3	98812*SUR	1,2-DICHLOROETHANE-D(4)	UG/L	50	46	92	76-114

ESE BATCH : G51080

Surrogate Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/17/94	SPM2*CDMHNSW3*3	98810*SUR	TOLUENE-D(8)	UG/L	50	51	100	85-115
07/17/94	SPM2*CDMHNSW3*3	97947*SUR	BROMOFLUOROBENZENE	UG/L	50	55	110	86-115
07/17/94	DA*IMEM9407*2	98812*SUR	1,2-DICHLOROETHANE-D(4)	UG/L	50	46	92	76-114
07/17/94	DA*IMEM9407*2	98810*SUR	TOLUENE-D(8)	UG/L	50	52	100	85-115
07/17/94	DA*IMEM9407*2	97947*SUR	BROMOFLUOROBENZENE	UG/L	50	55	110	86-115
07/17/94	DA*CDMHNSW3*3	98812*SUR	1,2-DICHLOROETHANE-D(4)	UG/L	50	47	94	76-114
07/17/94	DA*CDMHNSW3*3	98810*SUR	TOLUENE-D(8)	UG/L	50	52	100	85-115
07/17/94	DA*CDMHNSW3*3	97947*SUR	BROMOFLUOROBENZENE	UG/L	50	54	110	86-115

ESE BATCH : G51080

Environmental Science and Engineering Analytical Services

Computer QC Checks

B o.: G51080 Analysis Date: 07/17/94 Analyst: DOUG DABNEY

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?	X		
Sample matrix spike duplicate present?	X		
Sample matrix spike duplicate within acceptance criteria?	X		
Surrogate present?	X		
Surrogate within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

OVERRIDE COMMENTS

BATCH OVERRIDE BY:

FINALIZED BY:

ESE BATCH : G51080

TABLE OF ABBREVIATIONS

%RECV : % Recovery for spiked sample. (FOUND/TARGET * 100)
ANLY DATE : Analysis Date
ANLY TIME : Analysis Time
CURVE : Curve Regression Number
DILUTION : Sample Dilution Factor
EXT DATE : Extract Date
EXT VOL : Extract Volume
FOUND : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL : Injection Volume
REL%DIFF : % Difference between current and previous spike.
RESPONSE : Sample Response
R.T. : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
DA -- Data Sample
MB -- Method Blank
RF -- Reference (from commercially known standard)
RP -- Replicate Sample
SP -- Standard Matrix Spike
SPM -- Sample Matrix Spike
STD -- Internal Standard
SUR -- Surrogate Sample
UN -- Unspiked Sample
SAMP VOL : Sample Volume
SPK CONC : Spike Concentration
ST : Sample response explanation or validity. (listed below)
BK -- No sample response.
NA -- Sample not analyzed.
NR -- Not reserved for this batch. Batch containing the response for this sample is listed in the target field.
OK -- Sample response shown is correct.
! -- Sample response shown is invalid.
< -- Sample response < detection limit. Detection limit is shown in the response field.
STORET*MTHD: Storet ID * Method Code
TARGET : Spike Target (SAMPLE LISTING SECTION)
TARGET : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE : Response Type ("FINAL" or empty.)
UNSP CONC : Unspiked Sample Concentration

9513354.2870

Semivolatile Organic Compounds

ESE BATCH : G51218
CLASSIFICATION : ACID EXTR. - EPA 8270/3520 (CLL)

QC TYPE : FDER/SW
ANALYST : SCOTT KEERAN
EXTRACTOR : Z. MATHIS
DATA ENTRY : TODD ROMERO

REPORT DATE/TIME : 08/18/94 14:44:03
ANALYSIS DATE : 07/18/94
EXTRACT DATE : 07/15/94

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

BATCH NOTES
DOWNLOAD FILE 10120.UPL

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSW3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSW3*3	VR-01-EB1	07/18/94	09:15PM

ESE BATCH : G51218

HOLDING TIMES CHECK

SI	ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T. OVER

AI DING TIMES MET

STORET: 98316 METHOD: SUR 2-FLUOROPHENOL, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 98317 METHOD: SUR PHENOL-D(5), UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34694 METHOD: 8270/3520-G PHENOL, UG/L FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=2.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34273 METHOD: 8270/3520-G BIS(2-CHLOROETHYL) ETHER, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34586 METHOD: 8270/3520-G 2-CHLOROPHENOL, UG/L FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=2.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34566 METHOD: 8270/3520-G 1,3,DICHLOROBENZENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34571 METHOD: 8270/3520-G 1,4-DICHLOROBENZENE, UG/L FINAL

RATION CURVE # 1
CTION LIMIT=1.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 77147 METHOD: 8270/3520-G BENZYL ALCOHOL, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34536 METHOD: 8270/3520-G 1,2-DICHLOROBENZENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 99073 METHOD: 8270/3520-G 2-METHYL PHENOL, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34283 METHOD: 8270/3520-G BIS(2-CHL'ISOPROPYL) ETHER, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 99074 METHOD: 8270/3520-G 4-METHYL PHENOL, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34428 METHOD: 8270/3520-G N-NITROSODI-N-PROPYLAMINE, UG/L FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=1.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34396 METHOD: 8270/3520-G HEXACHLOROETHANE, UG/L GCMS

ATION CURVE # 1
CTION LIMIT=1.5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 98318 METHOD: SUR NITROBENZENE-D(5), UG/L GCMS

ESE BATCH : G51218

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34447 METHOD: 8270/3520-G NITROBENZENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34408 METHOD: 8270/3520-G ISOPHORONE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34591 METHOD: 8270/3520-G 2-NITROPHENOL, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34606 METHOD: 8270/3520-G 2,4-DIMETHYLPHENOL, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34278 METHOD: 8270/3520-G BIS(2-CHLOROETHOXY) METHANE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34601 METHOD: 8270/3520-G 2,4-DICHLOROPHENOL, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 77247 METHOD: 8270/3520-G BENZOIC ACID, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34551 METHOD: 8270/3520-G 1,2,4-TRICH'BENZENE, UG/L FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=1.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34696 METHOD: 8270/3520-G NAPHTHALENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 99075 METHOD: 8270/3520-G 4-CHLOROANILINE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34391 METHOD: 8270/3520-G HEXACHLOROBUTADIENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34452 METHOD: 8270/3520-G 4-CHLORO-3-METHYL PHENOL, UG/L FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=1.5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 77416 METHOD: 8270/3520-G 2-METHLYNAPHTHALENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34386 METHOD: 8270/3520-G HEXACHLOROCYCLOPENTADIENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=14 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34621 METHOD: 8270/3520-G 2,4,6-TRICHL'PHENOL, UG/L GCMS

CALIBRATION CURVE # 1

ESE BATCH : G51218
DETECTION LIMIT=2.5 DATE: LARGEST RESP= %RSD= RT WINDOW:

S' 77687 METHOD: 8270/3520-G 2,4,5-TRICHL'PHENOL, UG/L GCMS

RATION CURVE # 1
DETECTION LIMIT=2.5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 98321 METHOD: SUR 2-FLUOROBIPHENYL, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34581 METHOD: 8270/3520-G 2-CHLORONAPHTHALENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 99077 METHOD: 8270/3520-G 2-NITROANILINE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34341 METHOD: 8270/3520-G DIMETHYLPTHALATE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34200 METHOD: 8270/3520-G ACENAPHTHYLENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34626 METHOD: 8270/3520-G 2,6-DINITROTOLUENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

S 99078 METHOD: 8270/3520-G 3-NITROANILINE, UG/L GCMS

RATION CURVE # 1
DETECTION LIMIT=2.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34205 METHOD: 8270/3520-G ACENAPHTHENE, UG/L FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=1.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34616 METHOD: 8270/3520-G 2,4-DINITROPHENOL, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=20 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34646 METHOD: 8270/3520-G 4-NITROPHENOL, UG/L FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 81302 METHOD: 8270/3520-G DIBENZOFURAN, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34611 METHOD: 8270/3520-G 2,4-DINITROTOLUENE, UG/L FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=2.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34336 METHOD: 8270/3520-G DIETHYLPHTHALATE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

S : 34381 METHOD: 8270/3520-G FLUORENE, UG/L GCMS

ATION CURVE # 1
DETECTION LIMIT=1.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

ESE BATCH : G51218
STORET: 34641 METHOD: 8270/3520-G 4-CHLOROPHENYLPHENYL ETHER, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 99079 METHOD: 8270/3520-G 4-NITROANILINE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34657 METHOD: 8270/3520-G 2-METHYL-4,6-DINITROPHENOL, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34433 METHOD: 8270/3520-G N-NITROSODIPHE'AMINE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 97446 METHOD: SUR 2,4,6-TRIBROMOPHENOL, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34636 METHOD: 8270/3520-G 4-BROMOPHENYLPHENYL ETHER, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 39700 METHOD: 8270/3520-G HEXACHLOROBENZENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 39032 METHOD: 8270/3520-G PENTACHLOROPHENOL, UG/L FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=3.5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34461 METHOD: 8270/3520-G PHENANTHRENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34220 METHOD: 8270/3520-G ANTHRACENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 39110 METHOD: 8270/3520-G DI-N-BUTYLPHTHALATE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34376 METHOD: 8270/3520-G FLUORANTHENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34469 METHOD: 8270/3520-G PYRENE, UG/L FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=1.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 97447 METHOD: SUR TERPHENYL-D(14), UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT= DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34292 METHOD: 8270/3520-G BUTYLBENZYLPHTHALATE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34526 METHOD: 8270/3520-G BENZO(A)ANTHRACENE, UG/L GCMS

ESE BATCH : G51218
CALIBRATION CURVE # 1
DETECTION LIMIT=1.5 DATE: LARGEST RESP= %RSD= RT WINDOW:

: 34631 METHOD: 8270/3520-G 3,3'-DICHL'BENZIDINE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=5.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34320 METHOD: 8270/3520-G CHRYSENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 39100 METHOD: 8270/3520-G BIS(2-ETHYLHEXYL) PHTHALATE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34596 METHOD: 8270/3520-G DI-N-OCTYLPHTHALATE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.4 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34230 METHOD: 8270/3520-G BENZO(B)FLUORANTHENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34242 METHOD: 8270/3520-G BENZO(K)FLUORANTHENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=1.5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34247 METHOD: 8270/3520-G BENZO(A)PYRENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.0 DATE: LARGEST RESP= %RSD= RT WINDOW:

34403 METHOD: 8270/3520-G INDENO(1,2,3-CD) PYRENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34556 METHOD: 8270/3520-G DIBEN'(A,H)ANTH'CENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.5 DATE: LARGEST RESP= %RSD= RT WINDOW:

STORET: 34521 METHOD: 8270/3520-G BENZO(GHI)PERYLENE, UG/L GCMS

CALIBRATION CURVE # 1
DETECTION LIMIT=2.5 DATE: LARGEST RESP= %RSD= RT WINDOW:

ESE BATCH : G51218

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/18/94	MB*NONE*1	34694*8270/3520-G	PHENOL	UG/L	ND
07/18/94	MB*NONE*1	34273*8270/3520-G	BIS(2-CHLOROETHYL) ETHER	UG/L	ND
07/18/94	MB*NONE*1	34586*8270/3520-G	2-CHLOROPHENOL	UG/L	ND
07/18/94	MB*NONE*1	34566*8270/3520-G	1,3,DICHLOROBENZENE	UG/L	ND
07/18/94	MB*NONE*1	34571*8270/3520-G	1,4-DICHLOROBENZENE	UG/L	ND
07/18/94	MB*NONE*1	77147*8270/3520-G	BENZYL ALCOHOL	UG/L	ND
07/18/94	MB*NONE*1	34536*8270/3520-G	1,2-DICHLOROBENZENE	UG/L	ND
07/18/94	MB*NONE*1	99073*8270/3520-G	2-METHYL PHENOL	UG/L	ND
07/18/94	MB*NONE*1	34283*8270/3520-G	BIS(2-CHL'ISOPROPYL) ETHER	UG/L	ND
07/18/94	MB*NONE*1	99074*8270/3520-G	4-METHYL PHENOL	UG/L	ND
07/18/94	MB*NONE*1	34428*8270/3520-G	N-NITROSODI-N-PROPYLAMINE	UG/L	ND
07/18/94	MB*NONE*1	34396*8270/3520-G	HEXACHLOROETHANE	UG/L	ND
07/18/94	MB*NONE*1	34447*8270/3520-G	NITROBENZENE	UG/L	ND
07/18/94	MB*NONE*1	34408*8270/3520-G	ISOPHORONE	UG/L	ND
07/18/94	MB*NONE*1	34591*8270/3520-G	2-NITROPHENOL	UG/L	ND
07/18/94	MB*NONE*1	34606*8270/3520-G	2,4-DIMETHYLPHENOL	UG/L	ND
07/18/94	MB*NONE*1	34278*8270/3520-G	BIS(2-CHLOROETHOXY) METHANE	UG/L	ND
07/18/94	MB*NONE*1	34601*8270/3520-G	2,4-DICHLOROPHENOL	UG/L	ND
07/18/94	MB*NONE*1	77247*8270/3520-G	BENZOIC ACID	UG/L	ND
07/18/94	MB*NONE*1	34551*8270/3520-G	1,2,4-TRICH'BENZENE	UG/L	ND
07/18/94	MB*NONE*1	34696*8270/3520-G	NAPHTHALENE	UG/L	ND
07/18/94	MB*NONE*1	99075*8270/3520-G	4-CHLOROANILINE	UG/L	ND
07/18/94	MB*NONE*1	34391*8270/3520-G	HEXACHLOROBUTADIENE	UG/L	ND
07/18/94	MB*NONE*1	34452*8270/3520-G	4-CHLORO-3-METHYL PHENOL	UG/L	ND
07/18/94	MB*NONE*1	77416*8270/3520-G	2-METHLYNAPHTHALENE	UG/L	ND
07/18/94	MB*NONE*1	34386*8270/3520-G	HEXACHLOROCYCLOPENTADIENE	UG/L	ND
07/18/94	MB*NONE*1	34621*8270/3520-G	2,4,6-TRICHL'PHENOL	UG/L	ND
07/18/94	MB*NONE*1	77687*8270/3520-G	2,4,5-TRICHL'PHENOL	UG/L	ND
07/18/94	MB*NONE*1	34581*8270/3520-G	2-CHLORONAPHTHALENE	UG/L	ND
07/18/94	MB*NONE*1	99077*8270/3520-G	2-NITROANILINE	UG/L	ND
07/18/94	MB*NONE*1	34341*8270/3520-G	DIMETHYLPTHALATE	UG/L	ND
07/18/94	MB*NONE*1	34200*8270/3520-G	ACENAPHTHYLENE	UG/L	ND
07/18/94	MB*NONE*1	34626*8270/3520-G	2,6-DINITROTOLUENE	UG/L	ND
07/18/94	MB*NONE*1	99078*8270/3520-G	3-NITROANILINE	UG/L	ND
07/18/94	MB*NONE*1	34205*8270/3520-G	ACENAPHTHENE	UG/L	ND
07/18/94	MB*NONE*1	34616*8270/3520-G	2,4-DINITROPHENOL	UG/L	ND
07/18/94	MB*NONE*1	34646*8270/3520-G	4-NITROPHENOL	UG/L	ND
07/18/94	MB*NONE*1	81302*8270/3520-G	DIBENZOFURAN	UG/L	ND
07/18/94	MB*NONE*1	34611*8270/3520-G	2,4-DINITROTOLUENE	UG/L	ND
07/18/94	MB*NONE*1	34336*8270/3520-G	DIETHYLPHTHALATE	UG/L	ND
07/18/94	MB*NONE*1	34381*8270/3520-G	FLUORENE	UG/L	ND
07/18/94	MB*NONE*1	34641*8270/3520-G	4-CHLOROPHENYLPHENYL ETHER	UG/L	ND
07/18/94	MB*NONE*1	99079*8270/3520-G	4-NITROANILINE	UG/L	ND
07/18/94	MB*NONE*1	34657*8270/3520-G	2-METHYL-4,6-DINITROPHENOL	UG/L	ND
07/18/94	MB*NONE*1	34433*8270/3520-G	N-NITROSODIPHE'AMINE	UG/L	ND
07/18/94	MB*NONE*1	34636*8270/3520-G	4-BROMOPHENYLPHENYL ETHER	UG/L	ND
07/18/94	MB*NONE*1	39700*8270/3520-G	HEXACHLOROBENZENE	UG/L	ND
07/18/94	MB*NONE*1	39032*8270/3520-G	PENTACHLOROPHENOL	UG/L	ND
07/18/94	MB*NONE*1	34461*8270/3520-G	PHENANTHRENE	UG/L	ND
07/18/94	MB*NONE*1	34220*8270/3520-G	ANTHRACENE	UG/L	ND
07/18/94	MB*NONE*1	39110*8270/3520-G	DI-N-BUTYLPHTHALATE	UG/L	ND
07/18/94	MB*NONE*1	34376*8270/3520-G	FLUORANTHENE	UG/L	ND
07/18/94	MB*NONE*1	34469*8270/3520-G	PYRENE	UG/L	ND
07/18/94	MB*NONE*1	34292*8270/3520-G	BUTYLBENZYLPHTHALATE	UG/L	ND
07/18/94	MB*NONE*1	34526*8270/3520-G	BENZO(A)ANTHRACENE	UG/L	ND
07/18/94	MB*NONE*1	34631*8270/3520-G	3,3'-DICHL'BENZIDINE	UG/L	ND
07/18/94	MB*NONE*1	34320*8270/3520-G	CHRYSENE	UG/L	ND
07/18/94	MB*NONE*1	39100*8270/3520-G	BIS(2-ETHYLHEXYL) PHTHALATE	UG/L	5.4
07/18/94	MB*NONE*1	34596*8270/3520-G	DI-N-OCTYLPHTHALATE	UG/L	ND
07/18/94	MB*NONE*1	34230*8270/3520-G	BENZO(B)FLUORANTHENE	UG/L	ND
07/18/94	MB*NONE*1	34242*8270/3520-G	BENZO(K)FLUORANTHENE	UG/L	ND
07/18/94	MB*NONE*1	34247*8270/3520-G	BENZO(A)PYRENE	UG/L	ND
07/18/94	MB*NONE*1	34403*8270/3520-G	INDENO(1,2,3-CD) PYRENE	UG/L	ND
07/18/94	MB*NONE*1	34556*8270/3520-G	DIBEN'(A,H)ANTH'CENE	UG/L	ND
07/18/94	MB*NONE*1	34521*8270/3520-G	BENZO(GHI)PERYLENE	UG/L	ND

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/18/94	SP1*NONE*1	34694*8270/3520-G	PHENOL	68	12-89	UG/L	100	68
07/18/94	SP1*NONE*1	34586*8270/3520-G	2-CHLOROPHENOL	71	27-123	UG/L	100	71
07/18/94	SP1*NONE*1	34571*8270/3520-G	1,4-DICHLOROBENZENE	66	36-97	UG/L	50	33
07/18/94	SP1*NONE*1	34428*8270/3520-G	N-NITROSODI-N-PROPYLAMINE	72	41-116	UG/L	50	36

ESE BATCH : G51218

Standard Matrix Spike Recovery Summary

D	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
0 4	SP1*NONE*1	34551*8270/3520-G	1,2,4-TRICH'BENZENE	72	39-98	UG/L	50	36
07/18/94	SP1*NONE*1	34452*8270/3520-G	4-CHLORO-3-METHYL PHENOL	77	23-97	UG/L	100	77
07/18/94	SP1*NONE*1	34205*8270/3520-G	ACENAPHTHENE	72	46-118	UG/L	50	36
07/18/94	SP1*NONE*1	34646*8270/3520-G	4-NITROPHENOL	71	10-80	UG/L	100	71
07/18/94	SP1*NONE*1	34611*8270/3520-G	2,4-DINITROTOLUENE	72	24-96	UG/L	50	36
07/18/94	SP1*NONE*1	39032*8270/3520-G	PENTACHLOROPHENOL	72	9-103	UG/L	100	72
07/18/94	SP1*NONE*1	34469*8270/3520-G	PYRENE	66	26-127	UG/L	50	33

Surrogate Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/18/94	MB*NONE*1	98316*SUR	2-FLUOROPHENOL	UG/L	100	59	59	21-100
07/18/94	MB*NONE*1	98317*SUR	PHENOL-D(5)	UG/L	100	63	63	10-94
07/18/94	MB*NONE*1	98318*SUR	NITROBENZENE-D(5)	UG/L	50	33	66	35-114
07/18/94	MB*NONE*1	98321*SUR	2-FLUOROBIPHENYL	UG/L	50	35	70	43-116
07/18/94	MB*NONE*1	97446*SUR	2,4,6-TRIBROMOPHENOL	UG/L	100	70	70	10-123
07/18/94	MB*NONE*1	97447*SUR	TERPHENYL-D(14)	UG/L	50	32	64	33-141
07/18/94	DA*CDMHNSW3*3	98316*SUR	2-FLUOROPHENOL	UG/L	100	57	57	21-100
07/18/94	DA*CDMHNSW3*3	98317*SUR	PHENOL-D(5)	UG/L	100	54	54	10-94
07/18/94	DA*CDMHNSW3*3	98318*SUR	NITROBENZENE-D(5)	UG/L	50	30	60	35-114
07/18/94	DA*CDMHNSW3*3	98321*SUR	2-FLUOROBIPHENYL	UG/L	50	31	62	43-116
07/18/94	DA*CDMHNSW3*3	97446*SUR	2,4,6-TRIBROMOPHENOL	UG/L	100	63	63	10-123
07/18/94	DA*CDMHNSW3*3	97447*SUR	TERPHENYL-D(14)	UG/L	50	29	58	33-141
07/18/94	SP1*NONE*1	98316*SUR	2-FLUOROPHENOL	UG/L	100	70	70	21-100
07/18/94	SP1*NONE*1	98317*SUR	PHENOL-D(5)	UG/L	100	72	72	10-94
07/18/94	SP1*NONE*1	98318*SUR	NITROBENZENE-D(5)	UG/L	50	35	70	35-114
07/18/94	SP1*NONE*1	98321*SUR	2-FLUOROBIPHENYL	UG/L	50	35	70	43-116
07/18/94	SP1*NONE*1	97446*SUR	2,4,6-TRIBROMOPHENOL	UG/L	100	73	73	10-123
07/18/94	SP1*NONE*1	97447*SUR	TERPHENYL-D(14)	UG/L	50	33	66	33-141

ESE BATCH : G51218

Environmental Science and Engineering Analytical Services

Computer QC Checks

Batch No.: G51218 Analysis Date: 07/18/94 Analyst: SCOTT KEERAN

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
Extract holding time within criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?		X	
Sample matrix spike within acceptance criteria?			
Surrogate present?	X		
Surrogate within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

OVERRIDE COMMENTS

BATCH OVERRIDE BY: DWIGHT ROBERTS 515
PROB.:SAMPLE MATRIX SPIKE NOT PRESENT.
EXPL.:A MATRIX SPIKE WAS NOT REQUIRED
FOR THE PRESENT BATCH./WSK

FINALIZED BY:

ESE BATCH : G51218

TABLE OF ABBREVIATIONS

```
%           : % Recovery for spiked sample. (FOUND/TARGET * 100)
ANLY DATE   : Analysis Date
ANLY TIME   : Analysis Time
CURVE       : Curve Regression Number
DILUTION    : Sample Dilution Factor
EXT DATE    : Extract Date
EXT VOL     : Extract Volume
FOUND       : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL     : Injection Volume
REL%DIFF    : % Difference between current and previous spike.
RESPONSE    : Sample Response
R.T.        : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID   : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
      DA  -- Data Sample
      MB  -- Method Blank
      RF  -- Reference (from commercially known standard)
      RP  -- Replicate Sample
      SP  -- Standard Matrix Spike
      SPM -- Sample Matrix Spike
      STD -- Internal Standard
      SUR -- Surrogate Sample
      UN  -- Unspiked Sample
SAMP VOL    : Sample Volume
SPK CONC    : Spike Concentration
ST          : Sample response explanation or validity. (listed below)
      BK  -- No sample response.
      NA  -- Sample not analyzed.
      NR  -- Not reserved for this batch.  Batch containing the response
             for this sample is listed in the target field.
      OK  -- Sample response shown is correct.
      !   -- Sample response shown is invalid.
      <   -- Sample response < detection limit. Detection limit is shown
             in the response field.
S       MTHD: Storet ID * Method Code
Tgt         : Spike Target (SAMPLE LISTING SECTION)
TARGET      : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE        : Response Type ("FINAL" or empty.)
UNSP CONC   : Unspiked Sample Concentration
```

Organochlorine Pesticides

& PCBs

ESE BATCH : G51107
CLASSIFICATION : CHL. PESTS EPA 8080/3520 (CLL)

E : FDER/SW
ANALYST : JOE KOSTELNIK
EXTRACTOR : Z. MATHIS
DATA ENTRY : HP UPLOAD

REPORT DATE/TIME : 08/18/94 14:45:24
ANALYSIS DATE : 07/18/94
EXTRACT DATE : 07/15/94

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSW3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSW3*3	VR-01-EB1	07/19/94	03:19AM

ESE BATCH : G51107

HOLDING TIMES CHECK

SAMPLE	ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T.	OVER

ALL HOLDING TIMES MET

STORET: 96997 METHOD: SUR TETRACHLORO-M-XYLENE, UG/L QUAD

CALIBRATION CURVE # 1 (UG/L)
DETECTION LIMIT=4 DATE: 07/18/94 LARGEST RESP=3859569 %RSD=9.0672 RT WINDOW:

CONC :	0	4	20	40	100	200	400
RESP :	0	42379	230150	495411	1200747	2150185	3859569
CONC':	0.468	3.74	18.5	40.3	103	198	400
R.T.:		11.649	11.648	11.646	11.646	11.642	11.654

CONC = 4.6835E-01+ 7.6886E-05*RESP+ 6.9275E-12*RESP**2+ *RESP**3
95% C.I.= 2.2587E+00 3.9422E-06 1.0226E-12
CORRELATION COEFFICIENT = .9999

STORET: 39337 METHOD: 8080/3520-G BHC,A, UG/L QUAD

CALIBRATION CURVE # 1 (UG/L)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=1015762 %RSD=12.8373 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	7690	36185	76558	198763	432091	1015762
CONC':	0.200	1.19	4.83	9.90	24.6	50.3	100.0
R.T.:		14.494	14.494	14.496	14.500	14.496	14.500

CONC = 2.0020E-01+ 1.2899E-04*RESP+ -3.0294E-11*RESP**2+ *RESP**3
95% C.I.= 3.1107E-01 2.4294E-06 2.3542E-12
CORRELATION COEFFICIENT = 1.0000

STORET: 39340 METHOD: 8080/3520-G BHC,G(LINDANE), UG/L QUAD

CALIBRATION CURVE # 1 (UG/L)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=1004433 %RSD=11.9956 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	7581	36672	77996	205044	436486	1004433
CONC':	0.195	1.15	4.78	9.86	24.9	50.1	100.0
R.T.:		16.141	16.142	16.139	16.146	16.142	16.146

CONC = 1.9523E-01+ 1.2597E-04*RESP+ -2.6503E-11*RESP**2+ *RESP**3
95% C.I.= 2.1502E-01 1.6730E-06 1.6418E-12
CORRELATION COEFFICIENT = 1.0000

STORET: 39338 METHOD: 8080/3520-G BHC,B, UG/L QUAD

CALIBRATION CURVE # 1 (UG/L)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=640577 %RSD=2.6622 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	6053	30067	62889	152660	300559	640577
CONC':	-.274	0.773	4.91	10.5	25.6	49.4	100
R.T.:		16.438	16.438	16.436	16.442	16.438	16.442

CONC = -2.7381E-01+ 1.7311E-04*RESP+ -2.5663E-11*RESP**2+ *RESP**3
95% C.I.= 5.7221E-01 6.5521E-06 1.0096E-11
CORRELATION COEFFICIENT = .9999

STORET: 39410 METHOD: 8080/3520-G HEPTACHLOR, UG/L QUAD

CALIBRATION CURVE # 1 (UG/L)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=1655138 %RSD=4.8085 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	14945	73192	159441	407502	788772	1655138
CONC':	-.057	0.908	4.66	10.2	25.9	49.4	100
R.T.:		17.499	17.504	17.500	17.504	17.496	17.500

CONC = -5.6830E-02+ 6.4601E-05*RESP+ -2.4730E-12*RESP**2+ *RESP**3
95% C.I.= 6.4317E-01 2.8328E-06 1.6946E-12
CORRELATION COEFFICIENT = .9999

STORET: 34259 METHOD: 8080/3520-G BHC,D, UG/L QUAD

CALIBRATION CURVE # 1 (UG/L)
DETECTION LIMIT=1 DATE: 07/18/94 LARGEST RESP=852260 %RSD=11.3332 RT WINDOW:

CONC :	0	1	5	10	25	50	100
RESP :	0	6925	32149	65518	162061	345590	852260

```
ESE BATCH       : G51107
   CONC':      -.183     0.949      5.03      10.3      24.9      49.9       100
    R.T.:               17.977    17.983    17.979    17.983    17.979    17.983

       :    =  -1.8301E-01+  1.6380E-04*RESP+ -5.4253E-11*RESP**2+            *RESP**3
        C.I.=   2.0892E-01   1.9723E-06        2.2660E-12
    CORRELATION COEFFICIENT = 1.0000
```

STORET: 39330 METHOD: 8080/3520-G ALDRIN, UG/L QUAD

```
  CALIBRATION CURVE # 1    (UG/L)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=1640597 %RSD=9.9447  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0     16696     64941    137055    357987    748988   1640597
   CONC':      0.104      1.30      4.74      9.81      24.9      50.1     100.0
    R.T.:               18.875    18.883    18.883    18.888    18.883    18.883

    CONC     =   1.0441E-01+  7.1751E-05*RESP+ -6.6282E-12*RESP**2+            *RESP**3
    95% C.I.=   2.6300E-01   1.2192E-06        7.3420E-13
    CORRELATION COEFFICIENT = 1.0000
```

STORET: 39420 METHOD: 8080/3520-G HEPTACHLOR EPOXIDE, UG/L QUAD

```
  CALIBRATION CURVE # 1    (UG/L)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=1488471 %RSD=7.7091  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0     12261     61188    133976    347830    695092   1488471
   CONC':      0.081     0.999      4.65      10.0      25.5      49.7       100
    R.T.:               21.221    21.225    21.221    21.225    21.217    21.225

    CONC     =   8.0543E-02+  7.4992E-05*RESP+ -5.2627E-12*RESP**2+            *RESP**3
    95% C.I.=   4.0253E-01   2.0102E-06        1.3366E-12
    CORRELATION COEFFICIENT = 1.0000
```

STORET: 34361 METHOD: 8080/3520-G ENDOSULFAN,A, UG/L QUAD

```
  CALIBRATION CURVE # 1    (UG/L)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=1272468 %RSD=6.2612  RT WINDOW:
      ! :          0         1         5        10        25        50       100
       :          0     11083     52882    115321    292135    589646   1272468
       :     -.0004     0.988      4.70      10.2      25.4      49.7       100
    R.T.:               22.683    22.683    22.683    22.683    22.679    22.683

    CONC     =  -3.8930E-04+  8.9275E-05*RESP+ -8.3753E-12*RESP**2+            *RESP**3
    95% C.I.=   3.2198E-01   1.8886E-06        1.4670E-12
    CORRELATION COEFFICIENT = 1.0000
```

STORET: 39320 METHOD: 8080/3520-G DDE,PP', UG/L QUAD

```
  CALIBRATION CURVE # 1    (UG/L)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=1357566 %RSD=6.8670  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0     11412     56356    119637    297484    615504   1357566
   CONC':      -.040     0.956      4.85      10.3      25.0      49.9       100
    R.T.:               23.582    23.592    23.588    23.588    23.583    23.588

    CONC     =  -3.9524E-02+  8.7321E-05*RESP+ -1.0032E-11*RESP**2+            *RESP**3
    95% C.I.=   1.8197E-01   1.0154E-06        7.3785E-13
    CORRELATION COEFFICIENT = 1.0000
```

STORET: 39380 METHOD: 8080/3520-G DIELDRIN, UG/L QUAD

```
  CALIBRATION CURVE # 1    (UG/L)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=1515054 %RSD=14.0868  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0     10570     53452    117237    311452    664475   1515054
   CONC':      0.310      1.18      4.68      9.81      24.9      50.2     100.0
    R.T.:               23.940    23.945    23.950    23.950    23.946    23.950

    CONC     =   3.0990E-01+  8.2281E-05*RESP+ -1.0890E-11*RESP**2+            *RESP**3
    95% C.I.=   3.0683E-01   1.5791E-06        1.0288E-12
    CORRELATION COEFFICIENT = 1.0000
```

S 39390 METHOD: 8080/3520-G ENDRIN, UG/L QUAD

```
        ATION CURVE # 1    (UG/L)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=1158925 %RSD=11.9240  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
```

```
ESE BATCH       : G51107
   RESP :          0      8573     42458     93279    238996    504694   1158925
   CONC':      0.131      1.06      4.71      10.1      25.0      50.0     100.0
    R.T.:               25.447    25.452    25.454    25.454    25.450    25.458

    CONC     =   1.3131E-01+  1.0863E-04*RESP+ -1.9380E-11*RESP**2+            *RESP**3
    95% C.I.=   1.8681E-01   1.2539E-06        1.0661E-12
    CORRELATION COEFFICIENT = 1.0000
```

STORET: 39310 METHOD: 8080/3520-G DDD,PP', UG/L QUAD

```
  CALIBRATION CURVE # 1    (UG/L)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=625968 %RSD=5.0009  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0      6465     31143     63060    143812    286692    625968
   CONC':      -.579     0.620      5.17      11.0      25.3      49.4       100
    R.T.:               25.847    25.850    25.854    25.850    25.846    25.854

    CONC     =  -5.7926E-01+  1.8577E-04*RESP+ -3.9827E-11*RESP**2+            *RESP**3
    95% C.I.=   7.8890E-01   9.3122E-06        1.4624E-11
    CORRELATION COEFFICIENT = .9999
```

STORET: 34356 METHOD: 8080/3520-G ENDOSULFAN,B, UG/L QUAD

```
  CALIBRATION CURVE # 1    (UG/L)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=911572 %RSD=2.8274  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0      8950     43102     86594    213304    425173    911572
   CONC':      -.265     0.840      5.03      10.3      25.4      49.6       100
    R.T.:               26.178    26.182    26.183    26.183    26.179    26.183

    CONC     =  -2.6451E-01+  1.2355E-04*RESP+ -1.4794E-11*RESP**2+            *RESP**3
    95% C.I.=   4.1635E-01   3.3732E-06        3.6510E-12
    CORRELATION COEFFICIENT = 1.0000
```

STORET: 39300 METHOD: 8080/3520-G DDT,PP', UG/L QUAD

```
  CALIBRATION CURVE # 1    (UG/L)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=1015571 %RSD=6.2948  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0      8752     42922     90783    218372    454485   1015571
   CONC':      -.164     0.879      4.92      10.5      24.9      49.9       100
    R.T.:               27.071    27.070    27.071    27.071    27.067    27.071

    CONC     =  -1.6431E-01+  1.1943E-04*RESP+ -2.0466E-11*RESP**2+            *RESP**3
    95% C.I.=   3.1699E-01   2.3753E-06        2.3031E-12
    CORRELATION COEFFICIENT = 1.0000
```

STORET: 34366 METHOD: 8080/3520-G ENDRIN ALDEHYDE, UG/L QUAD

```
  CALIBRATION CURVE # 1    (UG/L)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=851645 %RSD=3.0852  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0      8207     39603     86227    206382    407347    851645
   CONC':      -.207     0.827      4.77      10.6      25.4      49.5       100
    R.T.:               27.513    27.510    27.508    27.508    27.504    27.508

    CONC     =  -2.0701E-01+  1.2611E-04*RESP+ -9.8101E-12*RESP**2+            *RESP**3
    95% C.I.=   5.2410E-01   4.4814E-06        5.2026E-12
    CORRELATION COEFFICIENT = .9999
```

STORET: 34351 METHOD: 8080/3520-G ENDOSULFAN SULFATE, UG/L QUAD

```
  CALIBRATION CURVE # 1    (UG/L)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=1204955(USER DEFINED)  %RSD=9.2337  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
   RESP :          0      9293     48612    101823    255843    536447   1204955
   CONC':      0.015     0.956      4.91      10.2      24.9      50.0       100

    CONC     =   1.5428E-02+  1.0135E-04*RESP+ -1.5245E-11*RESP**2+            *RESP**3
    95% C.I.=   1.1758E-01   7.4848E-07        6.1235E-13
    CORRELATION COEFFICIENT = 1.0000
```

STORET: 39480 METHOD: 8080/3520-G METHOXYCHLOR, UG/L QUAD

```
  CALIBRATION CURVE # 1    (UG/L)
    DETECTION LIMIT=1  DATE: 07/18/94  LARGEST RESP=396092 %RSD=8.4701  RT WINDOW:
   CONC :          0         1         5        10        25        50       100
```

```
ESE BATCH       : G51107
  RESP :          0      4269     23058     48895    105705    198626    396092
  CONC':       -.611     0.434      5.05      11.4      25.5      49.0       100
     :               30.554    30.558    30.554    30.550    30.550    30.554

   CONC    =  -6.1149E-01+  2.4480E-04*RESP+  2.4505E-11*RESP**2+            *RESP**3
   95% C.I.=   1.1722E+00   2.0591E-05        5.1363E-11
   CORRELATION COEFFICIENT = .9997
```

STORET: 96342 METHOD: SUR DECACHLOROBIPHENYL, UG/L QUAD

```
  CALIBRATION CURVE # 1    (UG/L)
    DETECTION LIMIT=4  DATE: 07/18/94  LARGEST RESP=3869602 %RSD=11.1276  RT WINDOW:
   CONC :          0          4        20        40       100       200       400
   RESP :          0      42100    245492    521440   1162419   2109408   3869602
   CONC':       -.932       2.53      19.5      43.3       102       197       401
    R.T.:               37.125    37.122    37.119    37.117    37.108    37.121

   CONC    =  -9.3206E-01+  8.1907E-05*RESP+  5.6529E-12*RESP**2+            *RESP**3
   95% C.I.=   3.0627E+00   5.3239E-06        1.3705E-12
   CORRELATION COEFFICIENT = .9999
```

STORET: 39350 METHOD: 8080/3520-G CHLORDANE, UG/L FINAL

```
  CALIBRATION CURVE # 1
    DETECTION LIMIT=5  DATE: 07/18/94  LARGEST RESP= %RSD=  RT WINDOW:
```

STORET: 39400 METHOD: 8080/3520-G TOXAPHENE, UG/L FINAL

```
  CALIBRATION CURVE # 1
    DETECTION LIMIT=100  DATE: 07/18/94  LARGEST RESP= %RSD=  RT WINDOW:
```

STORET: 34671 METHOD: 8080/3520-G PCB-1016, UG/L FINAL

```
  CALIBRATION CURVE # 1
    DETECTION LIMIT=20  DATE: 07/18/94  LARGEST RESP= %RSD=  RT WINDOW:
```

STORET: 39488 METHOD: 8080/3520-G PCB-1221, UG/L FINAL

```
        ATION CURVE # 1
       ECTION LIMIT=20  DATE: 07/18/94  LARGEST RESP= %RSD=  RT WINDOW:
```

STORET: 39492 METHOD: 8080/3520-G PCB-1232, UG/L FINAL

```
  CALIBRATION CURVE # 1
    DETECTION LIMIT=20  DATE: 07/18/94  LARGEST RESP= %RSD=  RT WINDOW:
```

STORET: 39496 METHOD: 8080/3520-G PCB-1242, UG/L FINAL

```
  CALIBRATION CURVE # 1
    DETECTION LIMIT=20  DATE: 07/18/94  LARGEST RESP= %RSD=  RT WINDOW:
```

STORET: 39500 METHOD: 8080/3520-G PCB 1248, UG/L FINAL

```
  CALIBRATION CURVE # 1
    DETECTION LIMIT=20  DATE: 07/18/94  LARGEST RESP= %RSD=  RT WINDOW:
```

STORET: 39504 METHOD: 8080/3520-G PCB-1254, UG/L FINAL

```
  CALIBRATION CURVE # 1
    DETECTION LIMIT=20  DATE: 07/18/94  LARGEST RESP= %RSD=  RT WINDOW:
```

STORET: 39508 METHOD: 8080/3520-G PCB-1260, UG/L FINAL

```
  CALIBRATION CURVE # 1
    DETECTION LIMIT=20  DATE: 07/18/94  LARGEST RESP= %RSD=  RT WINDOW:
```

ESE BATCH : G51107

Continuing Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/19/94	CCS*NONE*1	39337*8080/3520-G	BHC,A	UG/L	1020000	1160000	114	80-120
07/19/94	CCS*NONE*1	39340*8080/3520-G	BHC,G(LINDANE)	UG/L	1000000	1120000	112	80-120
07/19/94	CCS*NONE*1	39338*8080/3520-G	BHC,B	UG/L	641000	689000	107	80-120
07/19/94	CCS*NONE*1	39410*8080/3520-G	HEPTACHLOR	UG/L	1660000	1790000	108	80-120
07/19/94	CCS*NONE*1	34259*8080/3520-G	BHC,D	UG/L	852000	958000	112	80-120
07/19/94	CCS*NONE*1	39330*8080/3520-G	ALDRIN	UG/L	1640000	1730000	105	80-120
07/19/94	CCS*NONE*1	39420*8080/3520-G	HEPTACHLOR EPOXIDE	UG/L	1490000	1580000	106	80-120
07/19/94	CCS*NONE*1	34361*8080/3520-G	ENDOSULFAN,A	UG/L	1270000	1380000	109	80-120
07/19/94	CCS*NONE*1	39320*8080/3520-G	DDE,PP'	UG/L	1360000	1410000	104	80-120
07/19/94	CCS*NONE*1	39380*8080/3520-G	DIELDRIN	UG/L	1520000	1590000	105	80-120
07/19/94	CCS*NONE*1	39390*8080/3520-G	ENDRIN	UG/L	1160000	1230000	106	80-120
07/19/94	CCS*NONE*1	39310*8080/3520-G	DDD,PP'	UG/L	626000	687000	110	80-120
07/19/94	CCS*NONE*1	34356*8080/3520-G	ENDOSULFAN,B	UG/L	912000	1010000	111	80-120
07/19/94	CCS*NONE*1	39300*8080/3520-G	DDT,PP'	UG/L	1020000	1080000	106	80-120
07/19/94	CCS*NONE*1	34366*8080/3520-G	ENDRIN ALDEHYDE	UG/L	852000	928000	109	80-120
07/19/94	CCS*NONE*1	34351*8080/3520-G	ENDOSULFAN SULFATE	UG/L	1200000	1270000	106	80-120
07/19/94	CCS*NONE*1	39480*8080/3520-G	METHOXYCHLOR	UG/L	396000	463000	117	80-120
07/19/94	CCS*NONE*1	39350*8080/3520-G	CHLORDANE	UG/L		ND		80-120
07/19/94	CCS*NONE*1	39400*8080/3520-G	TOXAPHENE	UG/L		ND		80-120
07/19/94	CCS*NONE*1	34671*8080/3520-G	PCB-1016	UG/L		ND		80-120
07/19/94	CCS*NONE*1	39488*8080/3520-G	PCB-1221	UG/L		ND		80-120
07/19/94	CCS*NONE*1	39492*8080/3520-G	PCB-1232	UG/L		ND		80-120
07/19/94	CCS*NONE*1	39496*8080/3520-G	PCB-1242	UG/L		ND		80-120
07/19/94	CCS*NONE*1	39500*8080/3520-G	PCB 1248	UG/L		ND		80-120
07/19/94	CCS*NONE*1	39504*8080/3520-G	PCB-1254	UG/L		ND		80-120
07/19/94	CCS*NONE*1	39508*8080/3520-G	PCB-1260	UG/L		ND		80-120

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/19/94	MB*QC*1	39337*8080/3520-G	BHC,A	UG/L	ND
07/19/94	MB*QC*1	39340*8080/3520-G	BHC,G(LINDANE)	UG/L	ND
07/19/94	MB*QC*1	39338*8080/3520-G	BHC,B	UG/L	ND
07/19/94	MB*QC*1	39410*8080/3520-G	HEPTACHLOR	UG/L	ND
07/19/94	MB*QC*1	34259*8080/3520-G	BHC,D	UG/L	ND
07/19/94	MB*QC*1	39330*8080/3520-G	ALDRIN	UG/L	ND
07/19/94	MB*QC*1	39420*8080/3520-G	HEPTACHLOR EPOXIDE	UG/L	ND
07/19/94	MB*QC*1	34361*8080/3520-G	ENDOSULFAN,A	UG/L	ND
07/19/94	MB*QC*1	39320*8080/3520-G	DDE,PP'	UG/L	ND
07/19/94	MB*QC*1	39380*8080/3520-G	DIELDRIN	UG/L	ND
07/19/94	MB*QC*1	39390*8080/3520-G	ENDRIN	UG/L	ND
07/19/94	MB*QC*1	39310*8080/3520-G	DDD,PP'	UG/L	ND
07/19/94	MB*QC*1	34356*8080/3520-G	ENDOSULFAN,B	UG/L	ND
07/19/94	MB*QC*1	39300*8080/3520-G	DDT,PP'	UG/L	ND
07/19/94	MB*QC*1	34366*8080/3520-G	ENDRIN ALDEHYDE	UG/L	ND
07/19/94	MB*QC*1	34351*8080/3520-G	ENDOSULFAN SULFATE	UG/L	ND
07/19/94	MB*QC*1	39480*8080/3520-G	METHOXYCHLOR	UG/L	ND
07/19/94	MB*QC*1	39350*8080/3520-G	CHLORDANE	UG/L	ND
07/19/94	MB*QC*1	39400*8080/3520-G	TOXAPHENE	UG/L	ND
07/19/94	MB*QC*1	34671*8080/3520-G	PCB-1016	UG/L	ND
07/19/94	MB*QC*1	39488*8080/3520-G	PCB-1221	UG/L	ND
07/19/94	MB*QC*1	39492*8080/3520-G	PCB-1232	UG/L	ND
07/19/94	MB*QC*1	39496*8080/3520-G	PCB-1242	UG/L	ND
07/19/94	MB*QC*1	39500*8080/3520-G	PCB 1248	UG/L	ND
07/19/94	MB*QC*1	39504*8080/3520-G	PCB-1254	UG/L	ND
07/19/94	MB*QC*1	39508*8080/3520-G	PCB-1260	UG/L	ND

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/19/94	SP1*QC*1	39337*8080/3520-G	BHC,A		80-120	UG/L		ND
07/19/94	SP1*QC*1	39340*8080/3520-G	BHC,G(LINDANE)	72.5	43-145	UG/L	0.200	0.145
07/19/94	SP1*QC*1	39338*8080/3520-G	BHC,B		80-120	UG/L		ND
07/19/94	SP1*QC*1	39410*8080/3520-G	HEPTACHLOR	88.5	48-124	UG/L	0.200	0.177
07/19/94	SP1*QC*1	34259*8080/3520-G	BHC,D		80-120	UG/L		ND
07/19/94	SP1*QC*1	39330*8080/3520-G	ALDRIN	83.0	37-127	UG/L	0.200	0.166
07/19/94	SP1*QC*1	39420*8080/3520-G	HEPTACHLOR EPOXIDE		80-120	UG/L		ND
07/19/94	SP1*QC*1	34361*8080/3520-G	ENDOSULFAN,A		80-120	UG/L		ND
07/19/94	SP1*QC*1	39320*8080/3520-G	DDE,PP'		80-120	UG/L		ND
07/19/94	SP1*QC*1	39380*8080/3520-G	DIELDRIN	84.0	56-142	UG/L	0.200	0.168
07/19/94	SP1*QC*1	39390*8080/3520-G	ENDRIN	74.0	35-155	UG/L	0.200	0.148
07/19/94	SP1*QC*1	39310*8080/3520-G	DDD,PP'		80-120	UG/L		ND
07/19/94	SP1*QC*1	34356*8080/3520-G	ENDOSULFAN,B		80-120	UG/L		ND

ESE BATCH : G51107

Standard Matrix Spike Recovery Summary

D	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/19/94	SP1*QC*1	39300*8080/3520-G	DDT,PP'	76.0	46-152	UG/L	0.200	0.152
07/19/94	SP1*QC*1	34366*8080/3520-G	ENDRIN ALDEHYDE		80-120	UG/L		ND
07/19/94	SP1*QC*1	34351*8080/3520-G	ENDOSULFAN SULFATE		80-120	UG/L		ND
07/19/94	SP1*QC*1	39480*8080/3520-G	METHOXYCHLOR		80-120	UG/L		ND
07/19/94	SP1*QC*1	39350*8080/3520-G	CHLORDANE		80-120	UG/L		ND
07/19/94	SP1*QC*1	39400*8080/3520-G	TOXAPHENE		80-120	UG/L		ND
07/19/94	SP1*QC*1	34671*8080/3520-G	PCB-1016		80-120	UG/L		ND
07/19/94	SP1*QC*1	39488*8080/3520-G	PCB-1221		80-120	UG/L		ND
07/19/94	SP1*QC*1	39492*8080/3520-G	PCB-1232		80-120	UG/L		ND
07/19/94	SP1*QC*1	39496*8080/3520-G	PCB-1242		80-120	UG/L		ND
07/19/94	SP1*QC*1	39500*8080/3520-G	PCB 1248		80-120	UG/L		ND
07/19/94	SP1*QC*1	39504*8080/3520-G	PCB-1254		80-120	UG/L		ND
07/19/94	SP1*QC*1	39508*8080/3520-G	PCB-1260		80-120	UG/L		ND

Surrogate Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/19/94	MB*QC*1	96997*SUR	TETRACHLORO-M-XYLENE	UG/L	1.00	0.877	87.7	60-150
07/19/94	MB*QC*1	96342*SUR	DECACHLOROBIPHENYL	UG/L	1.00	0.798	79.8	31-145
07/19/94	SP1*QC*1	96997*SUR	TETRACHLORO-M-XYLENE	UG/L	1.00	0.851	85.1	60-150
07/19/94	SP1*QC*1	96342*SUR	DECACHLOROBIPHENYL	UG/L	1.00	0.574	57.4	31-145
07/19/94	DA*CDMHNSW3*3	96997*SUR	TETRACHLORO-M-XYLENE	UG/L	1.00	0.862	86.2	60-150
07/19/94	DA*CDMHNSW3*3	96342*SUR	DECACHLOROBIPHENYL	UG/L	1.00	0.543	54.3	31-145
07/19/94	CCS*NONE*1	96997*SUR	TETRACHLORO-M-XYLENE	UG/L	3860000	4000000	104	60-150
07/19/94	CCS*NONE*1	96342*SUR	DECACHLOROBIPHENYL	UG/L	3870000	4330000	112	31-145

ESE BATCH : G51107

UNITS AND EXAMPLE CALCULATIONS

	UNITS ENTERED
FINAL CONCENTRATION	UG/L
INJECTION VOLUME	UL
SAMPLE VOLUME	ML
EXTRACT VOLUME	ML
CURVE CONCENTRATION	UG/L
SPIKE SOLN CONCENTRATION	UG/L
SPIKE VOLUME	ML
SPIKE SAMPLE VOLUME	ML
TARGET CONCENTRATION	UG
RESPONSE DESCRIPTION	A
CONVERSION FACTOR	NA

$$\text{FINAL CONC} = \frac{\text{CURV CONC * EXT VOL * DIL}}{\text{INJ VOL * SAMP VOL * ((100 - \%MOISTURE) / 100)}}$$

$$\text{UG/L} = \frac{\text{(UG/L) * (ML)}}{\text{(UL) * (ML)}}$$

$$(\qquad\qquad) = \frac{(\qquad\qquad) * (\qquad\qquad) * (\qquad\qquad)}{(\qquad\qquad) * (\qquad\qquad) * ((100 - (\qquad\qquad)) / 100)}$$

$$\text{TARGET CONC} = \frac{\text{SPIKE SOLN CONC * SPIKE VOL}}{\text{SPIKE SAMP VOL * ((100 - \%MOISTURE) / 100)}}$$

$$\text{UG} = \frac{\text{(UG/L) * (ML)}}{\text{(ML)}}$$

ESE BATCH : G51107

Environmental Science and Engineering Analytical Services
Computer QC Checks

B). : G51107 Analysis Date: 07/18/94 Analyst: JOE KOSTELNIK

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
Extract holding time within criteria?	X		
No. of calibration standards present acceptable?	X		
Curve correlation coefficient >= 0.995?	X		
Calibration curve y-intercept < curve detection limit?	X		
Sample responses within highest standard response?	X		
Sample retention times within retention time window?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?		X	
Sample matrix spike within acceptance criteria?			
Surrogate present?	X		
Surrogate within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

O' ` COMMENTS

BATCH OVERRIDE BY: BRAD WEICHERT 1569
PROB: SPM NOT PRESENT.
EXPL: NR.

FINALIZED BY:

ESE BATCH : G51107

TABLE OF ABBREVIATIONS

%RECV : % Recovery for spiked sample. (FOUND/TARGET * 100)
ANLY DATE : Analysis Date
ANLY TIME : Analysis Time
CURVE : Curve Regression Number
DILUTION : Sample Dilution Factor
EXT DATE : Extract Date
EXT VOL : Extract Volume
FOUND : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL : Injection Volume
REL%DIFF : % Difference between current and previous spike.
RESPONSE : Sample Response
R.T. : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
DA -- Data Sample
MB -- Method Blank
RF -- Reference (from commercially known standard)
RP -- Replicate Sample
SP -- Standard Matrix Spike
SPM -- Sample Matrix Spike
STD -- Internal Standard
SUR -- Surrogate Sample
UN -- Unspiked Sample
SAMP VOL : Sample Volume
SPK CONC : Spike Concentration
ST : Sample response explanation or validity. (listed below)
BK -- No sample response.
NA -- Sample not analyzed.
NR -- Not reserved for this batch. Batch containing the response for this sample is listed in the target field.
OK -- Sample response shown is correct.
! -- Sample response shown is invalid.
< -- Sample response < detection limit. Detection limit is shown in the response field.
STORET*MTHD: Storet ID * Method Code
TARGET : Spike Target (SAMPLE LISTING SECTION)
TARGET : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE : Response Type ("FINAL" or empty.)
UNSP CONC : Unspiked Sample Concentration

9513554.2881

ICAP Metals

ESE BATCH : G51089
CLASSIFICATION : ICAP METALS - EPA 6010

QC TYPE : FDER/SW
ANALYST : GARRY PRICE
EXTRACTOR : DAVID NICHOLS
DATA ENTRY : ICAP UPLOAD

REPORT DATE/TIME : 08/18/94 14:41:46
ANALYSIS DATE : 07/18/94
EXTRACT DATE : 07/18/94

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSW3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSW3*3	VR-01-EB1	07/18/94	03:00PM

ESE BATCH : G51089

HOLDING TIMES CHECK

S	ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T.	OVER

ALL HOLDING TIMES MET

STORET: 1077 METHOD: 6010-G SILVER,TOTAL, UG/L FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: 07/18/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 1007 METHOD: 6010-G BARIUM,TOTAL, UG/L FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=20 DATE: 07/18/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 1027 METHOD: 6010-G CADMIUM,TOTAL, UG/L FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=5 DATE: 07/18/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 1034 METHOD: 6010-G CHROMIUM,TOTAL, UG/L FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=10 DATE: 07/18/94 LARGEST RESP= %RSD= RT WINDOW:

STORET: 1051 METHOD: 6010-G LEAD,TOTAL, UG/L FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=50 DATE: 07/18/94 LARGEST RESP= %RSD= RT WINDOW:

ESE BATCH : G51089

Continuing Calibration Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/18/94	CCB*QC*1	1077*6010-G	SILVER,TOTAL	UG/L	ND
07/18/94	CCB*QC*1	1007*6010-G	BARIUM,TOTAL	UG/L	0.2
07/18/94	CCB*QC*1	1027*6010-G	CADMIUM,TOTAL	UG/L	0.3
07/18/94	CCB*QC*1	1034*6010-G	CHROMIUM,TOTAL	UG/L	ND
07/18/94	CCB*QC*1	1051*6010-G	LEAD,TOTAL	UG/L	7.9

Continuing Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/18/94	CCV*STD2*1	1077*6010-G	SILVER,TOTAL	UG/L		ND		90-110
07/18/94	CCV*STD2*1	1007*6010-G	BARIUM,TOTAL	UG/L	1000	995	99.5	90-110
07/18/94	CCV*STD2*1	1027*6010-G	CADMIUM,TOTAL	UG/L	1000	976	97.6	90-110
07/18/94	CCV*STD2*1	1034*6010-G	CHROMIUM,TOTAL	UG/L	1000	990	99.0	90-110
07/18/94	CCV*STD2*1	1051*6010-G	LEAD,TOTAL	UG/L	1000	993	99.3	90-110
07/18/94	CCV*STD4*1	1077*6010-G	SILVER,TOTAL	UG/L	1000	1010	101	90-110
07/18/94	CCV*STD4*1	1007*6010-G	BARIUM,TOTAL	UG/L		ND		90-110
07/18/94	CCV*STD4*1	1027*6010-G	CADMIUM,TOTAL	UG/L		ND		90-110
07/18/94	CCV*STD4*1	1034*6010-G	CHROMIUM,TOTAL	UG/L		ND		90-110
07/18/94	CCV*STD4*1	1051*6010-G	LEAD,TOTAL	UG/L		ND		90-110
07/18/94	CCV*QC*1	1077*6010-G	SILVER,TOTAL	UG/L	500	511	102	90-110
07/18/94	CCV*QC*1	1007*6010-G	BARIUM,TOTAL	UG/L	500	499	99.8	90-110
07/18/94	CCV*QC*1	1027*6010-G	CADMIUM,TOTAL	UG/L	500	488	97.6	90-110
07/18/94	CCV*QC*1	1034*6010-G	CHROMIUM,TOTAL	UG/L	500	499	99.8	90-110
07/18/94	CCV*QC*1	1051*6010-G	LEAD,TOTAL	UG/L	500	500	100.0	90-110

Interference Check Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/18/94	ICS*A*1	1077*6010-G	SILVER,TOTAL	UG/L		ND		80-120
07/18/94	ICS*A*1	1007*6010-G	BARIUM,TOTAL	UG/L		ND		80-120
07/18/94	ICS*A*1	1027*6010-G	CADMIUM,TOTAL	UG/L		ND		80-120
07/18/94	ICS*A*1	1034*6010-G	CHROMIUM,TOTAL	UG/L		ND		80-120
07/18/94	ICS*A*1	1051*6010-G	LEAD,TOTAL	UG/L		ND		80-120
07/18/94	ICS*AB*1	1077*6010-G	SILVER,TOTAL	UG/L	1000	983	98.3	80-120
07/18/94	ICS*AB*1	1007*6010-G	BARIUM,TOTAL	UG/L	500	488	97.6	80-120
07/18/94	ICS*AB*1	1027*6010-G	CADMIUM,TOTAL	UG/L	1000	940	94.0	80-120
07/18/94	ICS*AB*1	1034*6010-G	CHROMIUM,TOTAL	UG/L	500	460	92.0	80-120
07/18/94	ICS*AB*1	1051*6010-G	LEAD,TOTAL	UG/L	1000	907	90.7	80-120
07/18/94	ICS*A*2	1077*6010-G	SILVER,TOTAL	UG/L		ND		80-120
07/18/94	ICS*A*2	1007*6010-G	BARIUM,TOTAL	UG/L		ND		80-120
07/18/94	ICS*A*2	1027*6010-G	CADMIUM,TOTAL	UG/L		ND		80-120
07/18/94	ICS*A*2	1034*6010-G	CHROMIUM,TOTAL	UG/L		ND		80-120
07/18/94	ICS*A*2	1051*6010-G	LEAD,TOTAL	UG/L		ND		80-120
07/18/94	ICS*AB*2	1077*6010-G	SILVER,TOTAL	UG/L	1000	991	99.1	80-120
07/18/94	ICS*AB*2	1007*6010-G	BARIUM,TOTAL	UG/L	500	490	98.0	80-120
07/18/94	ICS*AB*2	1027*6010-G	CADMIUM,TOTAL	UG/L	1000	950	95.0	80-120
07/18/94	ICS*AB*2	1034*6010-G	CHROMIUM,TOTAL	UG/L	500	464	92.8	80-120
07/18/94	ICS*AB*2	1051*6010-G	LEAD,TOTAL	UG/L	1000	924	92.4	80-120

Initial Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/18/94	ICV*ICAP19*1	1077*6010-G	SILVER,TOTAL	UG/L		ND		90-110
07/18/94	ICV*ICAP19*1	1007*6010-G	BARIUM,TOTAL	UG/L		ND		90-110
07/18/94	ICV*ICAP19*1	1027*6010-G	CADMIUM,TOTAL	UG/L	1000	980	98.0	90-110
07/18/94	ICV*ICAP19*1	1034*6010-G	CHROMIUM,TOTAL	UG/L	1000	1000	100.0	90-110
07/18/94	ICV*ICAP19*1	1051*6010-G	LEAD,TOTAL	UG/L	1000	991	99.1	90-110
07/18/94	ICV*ICAP7*1	1077*6010-G	SILVER,TOTAL	UG/L	1000	1020	102	90-110
07/18/94	ICV*ICAP7*1	1007*6010-G	BARIUM,TOTAL	UG/L	1000	996	99.6	90-110
07/18/94	ICV*ICAP7*1	1027*6010-G	CADMIUM,TOTAL	UG/L		ND		90-110
07/18/94	ICV*ICAP7*1	1034*6010-G	CHROMIUM,TOTAL	UG/L		ND		90-110
07/18/94	ICV*ICAP7*1	1051*6010-G	LEAD,TOTAL	UG/L		ND		90-110

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/18/94	MB*QC*1	1077*6010-G	SILVER,TOTAL	UG/L	ND
07/18/94	MB*QC*1	1007*6010-G	BARIUM,TOTAL	UG/L	ND
07/18/94	MB*QC*1	1027*6010-G	CADMIUM,TOTAL	UG/L	ND
07/18/94	MB*QC*1	1034*6010-G	CHROMIUM,TOTAL	UG/L	ND
07/18/94	MB*QC*1	1051*6010-G	LEAD,TOTAL	UG/L	ND

ESE BATCH : G51089

Serial Dilution Sample Summary

Di	SAMPLE	STORET	PARAMETER	UNITS	REP #1	REP #2	RPD	RPD CRIT

Serial Dilution Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	REP #1	REP #2	RPD	RPD CRIT
07/18/94	SD*CDMHNSW3*3	1077*6010-G	SILVER,TOTAL	UG/L	0.0	4.7	NC	10
07/18/94	SD*CDMHNSW3*3	1007*6010-G	BARIUM,TOTAL	UG/L	0.0	1.5	NC	10
07/18/94	SD*CDMHNSW3*3	1027*6010-G	CADMIUM,TOTAL	UG/L	0.0	0.5	NC	10
07/18/94	SD*CDMHNSW3*3	1034*6010-G	CHROMIUM,TOTAL	UG/L	0.0	ND	NC	10
07/18/94	SD*CDMHNSW3*3	1051*6010-G	LEAD,TOTAL	UG/L	0.0	89.6	NC	10

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/18/94	SP*QC*1	1077*6010-G	SILVER,TOTAL	99.2	73-107	UG/L	50.0	49.6
07/18/94	SP*QC*1	1007*6010-G	BARIUM,TOTAL	97.5	86-106	UG/L	2000	1950
07/18/94	SP*QC*1	1027*6010-G	CADMIUM,TOTAL	97.0	80-108	UG/L	50.0	48.5
07/18/94	SP*QC*1	1034*6010-G	CHROMIUM,TOTAL	96.5	79-109	UG/L	200	193
07/18/94	SP*QC*1	1051*6010-G	LEAD,TOTAL	97.0	79-109	UG/L	500	485

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
07/18/94	SPM1*CDMHNSW3*3	1077*6010-G	SILVER,TOTAL	98.8	73-107	0.0	UG/L	50.0	49.4
07/18/94	SPM1*CDMHNSW3*3	1007*6010-G	BARIUM,TOTAL	98.5	86-106	0.0	UG/L	2000	1970
07/18/94	SPM1*CDMHNSW3*3	1027*6010-G	CADMIUM,TOTAL	95.0	80-108	0.0	UG/L	50.0	47.5
07/18/94	SPM1*CDMHNSW3*3	1034*6010-G	CHROMIUM,TOTAL	97.5	79-109	0.0	UG/L	200	195
07/18/94	SPM1*CDMHNSW3*3	1051*6010-G	LEAD,TOTAL	98.4	79-109	0.0	UG/L	500	492
07/18/94	SPM2*CDMHNSW3*3	1077*6010-G	SILVER,TOTAL	99.2	73-107	0.0	UG/L	50.0	49.6
07/18/94	SPM2*CDMHNSW3*3	1007*6010-G	BARIUM,TOTAL	99.5	86-106	0.0	UG/L	2000	1990
07/18/94	SPM2*CDMHNSW3*3	1027*6010-G	CADMIUM,TOTAL	96.0	80-108	0.0	UG/L	50.0	48.0
07/18/94	SPM2*CDMHNSW3*3	1034*6010-G	CHROMIUM,TOTAL	97.5	79-109	0.0	UG/L	200	195
07/18/94	SPM2*CDMHNSW3*3	1051*6010-G	LEAD,TOTAL	97.6	79-109	0.0	UG/L	500	488

Sp ito Matrix Recovery Summary

DA	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/18/94	SPX*CDMHNSW3*3	1077*6010-G	SILVER,TOTAL	100.0	85-115	UG/L	500	500
07/18/94	SPX*CDMHNSW3*3	1007*6010-G	BARIUM,TOTAL	99.4	85-115	UG/L	500	497
07/18/94	SPX*CDMHNSW3*3	1027*6010-G	CADMIUM,TOTAL	96.6	85-115	UG/L	500	483
07/18/94	SPX*CDMHNSW3*3	1034*6010-G	CHROMIUM,TOTAL	98.2	85-115	UG/L	500	491
07/18/94	SPX*CDMHNSW3*3	1051*6010-G	LEAD,TOTAL	100.6	85-115	UG/L	500	503

ESE BATCH : G51089

UNITS AND EXAMPLE CALCULATIONS

	UNITS ENTERED
FINAL CONCENTRATION	UG/L
INJECTION VOLUME	NA
SAMPLE VOLUME	NA
EXTRACT VOLUME	NA
CURVE CONCENTRATION	UG/ML
SPIKE SOLN CONCENTRATION	NA
SPIKE VOLUME	NA
SPIKE SAMPLE VOLUME	NA
TARGET CONCENTRATION	UG/L
RESPONSE DESCRIPTION	NA
CONVERSION FACTOR	1000

$$\text{FINAL CONC} = \frac{\text{CURV CONC * EXT VOL * DIL * 1000}}{\text{INJ VOL * SAMP VOL * ((100 - \%MOISTURE) / 100)}}$$

$$\text{UG/L} = \frac{\text{(UG/ML) * (NA) * 1000}}{\text{(NA) * (NA)}}$$

$$(\qquad) = \frac{(\qquad\qquad) * (\qquad\qquad) * (\qquad)}{(\qquad\qquad) * (\qquad\qquad) * ((100 - (\qquad\qquad)) / 100)}$$

$$\text{TARGET CONC} = \frac{\text{SPIKE SOLN CONC * SPIKE VOL}}{\text{SPIKE SAMP VOL * ((100 - \%MOISTURE) / 100)}}$$

$$\text{UG/L} = \frac{\text{(NA) * (NA)}}{\text{(NA)}}$$

ESE BATCH : G51089

Environmental Science and Engineering Analytical Services

Computer QC Checks

B. .: G51089 Analysis Date: 07/18/94 Analyst: GARRY PRICE

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
CCV present?	X		
CCV within acceptance criteria?	X		
ICS present?	X		
ICS within acceptance criteria?	X		
ICV present?	X		
ICV within acceptance criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?	X		
Sample matrix spike duplicate present?	X		
Sample matrix spike duplicate within acceptance criteria?	X		
Analytical spike present?	X		
Analytical spike within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

C ? COMMENTS

BATCH OVERRIDE BY:

FINALIZED BY:

ESE BATCH : G51089

TABLE OF ABBREVIATIONS

%RECV : % Recovery for spiked sample. (FOUND/TARGET * 100)
ANLY DATE : Analysis Date
ANLY TIME : Analysis Time
CURVE : Curve Regression Number
DILUTION : Sample Dilution Factor
EXT DATE : Extract Date
EXT VOL : Extract Volume
FOUND : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL : Injection Volume
REL%DIFF : % Difference between current and previous spike.
RESPONSE : Sample Response
R.T. : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
DA -- Data Sample
MB -- Method Blank
RF -- Reference (from commercially known standard)
RP -- Replicate Sample
SP -- Standard Matrix Spike
SPM -- Sample Matrix Spike
STD -- Internal Standard
SUR -- Surrogate Sample
UN -- Unspiked Sample
SAMP VOL : Sample Volume
SPK CONC : Spike Concentration
ST : Sample response explanation or validity. (listed below)
BK -- No sample response.
NA -- Sample not analyzed.
NR -- Not reserved for this batch. Batch containing the response for this sample is listed in the target field.
OK -- Sample response shown is correct.
! -- Sample response shown is invalid.
< -- Sample response < detection limit. Detection limit is shown in the response field.
STORET*MTHD: Storet ID * Method Code
TARGET : Spike Target (SAMPLE LISTING SECTION)
TARGET : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE : Response Type ("FINAL" or empty.)
UNSP CONC : Unspiked Sample Concentration

95135554.2B85

GFAA Metals – Arsenic

ESE BATCH : G51097
CLASSIFICATION : ARSENIC - EPA 7060

QC TYPE : FDER/SW
ANALYST : RICK MCCAULEY
EXTRACTOR : DAVID NICHOLS
DATA ENTRY : RICK MCCAULEY

REPORT DATE/TIME : 08/18/94 14:40:52
ANALYSIS DATE : 07/18/94
EXTRACT DATE : 07/18/94

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSW3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSW3*3	VR-01-EB1	07/18/94	06:04PM

ESE BATCH : G51097

HOLDING TIMES CHECK

ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T. OVER

DING TIMES MET

STORET: 1002 METHOD: 7060-G ARSENIC,TOTAL, UG/L FINAL

CALIBRATION CURVE # 1
DETECTION LIMIT=2.5 DATE: 07/18/94 LARGEST RESP= %RSD= RT WINDOW:

CONC :	0	2.5	5	10	25	50	100
RESP :	.002	.01	.018	.038	.107	.205	.369
CONC':							

CONC = + *RESP+ *RESP**2+ *RESP**3
95% C.I.=
CORRELATION COEFFICIENT =

ESE BATCH : G51097

Continuing Calibration Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/18/94	CCB*QC*1	1002*7060-G	ARSENIC,TOTAL	UG/L	0.6

Continuing Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/18/94	CCV*QC*1	1002*7060-G	ARSENIC,TOTAL	UG/L	50.0	54.9	110	80-120

Initial Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/18/94	ICV*SPEX*1	1002*7060-G	ARSENIC,TOTAL	UG/L	50.0	52.6	105	90-110

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/18/94	MB*QC*1	1002*7060-G	ARSENIC,TOTAL	UG/L	ND

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/18/94	SP*QC*1	1002*7060-G	ARSENIC,TOTAL	107.8	75-117	UG/L	40.0	43.1

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
07/18/94	SPM1*CDMHNSW3*3	1002*7060-G	ARSENIC,TOTAL	104.8	75-117	0.0	UG/L	40.0	41.9
07/18/94	SPM2*CDMHNSW3*3	1002*7060-G	ARSENIC,TOTAL	106.0	75-117	0.0	UG/L	40.0	42.4

Spike into Matrix Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/18/94	SPX*CDMHNSW3*3	1002*7060-G	ARSENIC,TOTAL	110.0	85-115	UG/L	100.0	110

ESE BATCH : G51097

UNITS AND EXAMPLE CALCULATIONS

	UNITS ENTERED
ONCENTRATION	UG/L
ION VOLUME	NA
SAMPLE VOLUME	NA
EXTRACT VOLUME	NA
CURVE CONCENTRATION	UG/L
SPIKE SOLN CONCENTRATION	UG/L
SPIKE VOLUME	NA
SPIKE SAMPLE VOLUME	NA
TARGET CONCENTRATION	UG/L
RESPONSE DESCRIPTION	UG/L
CONVERSION FACTOR	1

$$\text{FINAL CONC} = \frac{\text{CURV CONC} * \text{EXT VOL} * \text{DIL} * 1}{\text{INJ VOL} * \text{SAMP VOL} * ((100 - \%\text{MOISTURE}) / 100)}$$

$$\text{UG/L} = \frac{(\text{UG/L}) * (\text{NA}) * 1}{(\text{NA}) * (\text{NA})}$$

$$(\qquad) = \frac{(\qquad) * (\qquad) * (\qquad)}{(\qquad) * (\qquad) * ((100 - (\qquad)) / 100)}$$

$$\text{TARGET CONC} = \frac{\text{SPIKE SOLN CONC} * \text{SPIKE VOL}}{\text{SPIKE SAMP VOL} * ((100 - \%\text{MOISTURE}) / 100)}$$

$$\text{UG/L} = \frac{(\text{UG/L}) * (\text{NA})}{(\text{NA})}$$

ESE BATCH : G51097

Environmental Science and Engineering Analytical Services

Computer QC Checks

Batch No.: G51097 Analysis Date: 07/18/94 Analyst: RICK MCCAULEY

		"Exceptions"	
	Yes	No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
CCV present?	X		
CCV within acceptance criteria?	X		
ICV present?	X		
ICV within acceptance criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?	X		
Sample matrix spike duplicate present?	X		
Sample matrix spike duplicate within acceptance criteria?	X		
Analytical spike present?	X		
Analytical spike within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

OVERRIDE COMMENTS

BATCH OVERRIDE BY:

FINALIZED BY:

ESE BATCH : G51097

TABLE OF ABBREVIATIONS

```
%           : % Recovery for spiked sample. (FOUND/TARGET * 100)
A     ATE   : Analysis Date
ANLY TIME   : Analysis Time
CURVE       : Curve Regression Number
DILUTION    : Sample Dilution Factor
EXT DATE    : Extract Date
EXT VOL     : Extract Volume
FOUND       : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL     : Injection Volume
REL%DIFF    : % Difference between current and previous spike.
RESPONSE    : Sample Response
R.T.        : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID   : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
      DA  -- Data Sample
      MB  -- Method Blank
      RF  -- Reference (from commercially known standard)
      RP  -- Replicate Sample
      SP  -- Standard Matrix Spike
      SPM -- Sample Matrix Spike
      STD -- Internal Standard
      SUR -- Surrogate Sample
      UN  -- Unspiked Sample
SAMP VOL    : Sample Volume
SPK CONC    : Spike Concentration
ST          : Sample response explanation or validity. (listed below)
      BK  -- No sample response.
      NA  -- Sample not analyzed.
      NR  -- Not reserved for this batch.  Batch containing the response
             for this sample is listed in the target field.
      OK  -- Sample response shown is correct.
      !   -- Sample response shown is invalid.
      <   -- Sample response < detection limit. Detection limit is shown
             in the response field.
       MTHD: Storet ID * Method Code
            : Spike Target (SAMPLE LISTING SECTION)
TARGET      : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE        : Response Type ("FINAL" or empty.)
UNSP CONC   : Unspiked Sample Concentration
```

GFAA Metals – Selenium

9513554.2889

ESE BATCH : G51096
CLASSIFICATION : SELENIUM - EPA 7740

QC : FDER/SW
AN : JERI ROPERO
EXTRACTOR : DAVID NICHOLS
DATA ENTRY : JERI ROPERO

REPORT DATE/TIME : 08/18/94 14:41:11
ANALYSIS DATE : 07/18/94
EXTRACT DATE : 07/18/94

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSW3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSW3*3	VR-01-EB1	07/18/94	07:00PM

ESE BATCH : G51096

HOLDING TIMES CHECK

SAMPLE	ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T.	OVER

ALL HOLDING TIMES MET

STORET: 1147 METHOD: 7740-G SELENIUM,TOTAL, UG/L FINAL

CALIBRATION CURVE # 1

DETECTION LIMIT=2.5 DATE: 07/18/94 LARGEST RESP= %RSD= RT WINDOW:

CONC :	0	2.5	10	25	50	100
RESP :	.002	.01	.035	.083	.157	.269
CONC':						

CONC = + *RESP+ *RESP**2+ *RESP**3

95% C.I.=

CORRELATION COEFFICIENT =

ESE BATCH : G51096

Co ng Calibration Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/18/94	CCB*QC*1	1147*7740-G	SELENIUM,TOTAL	UG/L	0.4

Continuing Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/18/94	CCV*QC*1	1147*7740-G	SELENIUM,TOTAL	UG/L	50.0	45.9	91.8	80-120

Initial Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/18/94	ICV*PEPURE*1	1147*7740-G	SELENIUM,TOTAL	UG/L	75.0	73.5	98.0	90-110

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/18/94	MB*QC*1	1147*7740-G	SELENIUM,TOTAL	UG/L	ND

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/18/94	SP*QC*1	1147*7740-G	SELENIUM,TOTAL	96.0	76-122	UG/L	10.0	9.6

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
07/18/94	SPM1*CDMHNSW3*3	1147*7740-G	SELENIUM,TOTAL	92.0	76-122	0.0	UG/L	10.0	9.2
07/18/94	SPM2*CDMHNSW3*3	1147*7740-G	SELENIUM,TOTAL	105.0	76-122	0.0	UG/L	10.0	10.5

Spike into Matrix Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07	SPX*CDMHNSW3*3	1147*7740-G	SELENIUM,TOTAL	91.2	85-115	UG/L	100.0	91.2

ESE BATCH : G51096

UNITS AND EXAMPLE CALCULATIONS

	UNITS ENTERED
FINAL CONCENTRATION	UG/L
INJECTION VOLUME	NA
SAMPLE VOLUME	NA
EXTRACT VOLUME	NA
CURVE CONCENTRATION	UG/L
SPIKE SOLN CONCENTRATION	UG/L
SPIKE VOLUME	NA
SPIKE SAMPLE VOLUME	NA
TARGET CONCENTRATION	UG/L
RESPONSE DESCRIPTION	UG/L
CONVERSION FACTOR	1

$$\text{FINAL CONC} = \frac{\text{CURV CONC} * \text{EXT VOL} * \text{DIL} * 1}{\text{INJ VOL} * \text{SAMP VOL} * ((100 - \%\text{MOISTURE}) / 100)}$$

$$\text{UG/L} = \frac{(\text{UG/L}) * (\text{NA}) * 1}{(\text{NA}) * (\text{NA})}$$

$$(\qquad) = \frac{(\qquad\qquad) * (\qquad\qquad) * (\qquad)}{(\qquad\qquad) * (\qquad\qquad) * ((100 - (\qquad\qquad)) / 100)}$$

$$\text{TARGET CONC} = \frac{\text{SPIKE SOLN CONC} * \text{SPIKE VOL}}{\text{SPIKE SAMP VOL} * ((100 - \%\text{MOISTURE}) / 100)}$$

$$\text{UG/L} = \frac{(\text{UG/L}) * (\text{NA})}{(\text{NA})}$$

ESE BATCH : G51096

Environmental Science and Engineering Analytical Services

Computer QC Checks

B).: G51096 Analysis Date: 07/18/94 Analyst: JERI ROPERO

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
CCV present?	X		
CCV within acceptance criteria?	X		
ICV present?	X		
ICV within acceptance criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?	X		
Sample matrix spike duplicate present?	X		
Sample matrix spike duplicate within acceptance criteria?	X		
Analytical spike present?	X		
Analytical spike within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

OVERRIDE COMMENTS

E)VERRIDE BY:

FINALIZED BY:

ESE BATCH : G51096

TABLE OF ABBREVIATIONS

%RECV : % Recovery for spiked sample. (FOUND/TARGET * 100)
ANLY DATE : Analysis Date
ANLY TIME : Analysis Time
CURVE : Curve Regression Number
DILUTION : Sample Dilution Factor
EXT DATE : Extract Date
EXT VOL : Extract Volume
FOUND : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL : Injection Volume
REL%DIFF : % Difference between current and previous spike.
RESPONSE : Sample Response
R.T. : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
DA -- Data Sample
MB -- Method Blank
RF -- Reference (from commercially known standard)
RP -- Replicate Sample
SP -- Standard Matrix Spike
SPM -- Sample Matrix Spike
STD -- Internal Standard
SUR -- Surrogate Sample
UN -- Unspiked Sample
SAMP VOL : Sample Volume
SPK CONC : Spike Concentration
ST : Sample response explanation or validity. (listed below)
BK -- No sample response.
NA -- Sample not analyzed.
NR -- Not reserved for this batch. Batch containing the response for this sample is listed in the target field.
OK -- Sample response shown is correct.
! -- Sample response shown is invalid.
< -- Sample response < detection limit. Detection limit is shown in the response field.
STORET*MTHD: Storet ID * Method Code
TARGET : Spike Target (SAMPLE LISTING SECTION)
TARGET : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE : Response Type ("FINAL" or empty.)
UNSP CONC : Unspiked Sample Concentration

95133542892

Mercury

ESE BATCH : G51088
CLASSIFICATION : MERCURY - EPA 7470

QC TYPE : FDER/SW
ANALYST : KENT BRAKEFIELD
EXTRACTOR : KENT BRAKEFIELD
DATA ENTRY : KENT BRAKEFIELD

REPORT DATE/TIME : 08/18/94 14:41:26
ANALYSIS DATE : 07/18/94
EXTRACT DATE : 07/18/94

STATUS : FINAL

METHOD BLANK CORRECTION METHOD : NONE

FIELD GRP	QC TYPE	PROJECT NUMBER	PROJECT NAME	LAB COORDINATOR
CDMHNSW3	FDER	1944022G 0203	CDM - HANFORD N. SLOPE	EDWARD MANSFIELD
XECT1AL	FDER	7934001V L248	ECT - DRILTECH	BARBARA RITTER

SAMPLE CODE	CLIENT ID	DATE ANALYZED	TIME ANALYZED
CDMHNSW3*3	VR-01-EB1		
XECT1AL*1	FILTER		
XECT1AL*2	SWEEPINGS		
XECT1AL*3	SEP.WATER		

ESE BATCH : G51088

HOLDING TIMES CHECK

SI	ANALYTE	ANL DATE	EXT DATE	SMP DATE	H.T.	OVER

AL DING TIMES MET

STORET: 71900 METHOD: 7470-G MERCURY,TOTAL, UG/L QUAD

CALIBRATION CURVE # 1 (UG/L)
DETECTION LIMIT=0.2 DATE: 07/18/94 LARGEST RESP=73.75 %RSD=14.4069 RT WINDOW:

CONC :	0.0	0.2	0.5	1.0	2.0	5.0	7.0	10.0
RESP :	0.5	2.25	5.0	9.25	18.75	42	55.75	73.75
CONC':	0.04	0.21	0.49	0.94	2.00	5.00	7.03	9.98

CONC = -1.0300E-02+ 9.7863E-02*RESP+ 5.1029E-04*RESP**2+ *RESP**3
95% C.I.= 4.4035E-02 3.9651E-03 5.5147E-05
CORRELATION COEFFICIENT = 1.0000

STORET: 71900 METHOD: TCLP MERCURY, UG/L QUAD

CALIBRATION CURVE # 1 (UG/L)
DETECTION LIMIT=0.2 DATE: 07/18/94 LARGEST RESP=73.75 %RSD=14.4069 RT WINDOW:

CONC :	0.0	0.2	0.5	1.0	2.0	5.0	7.0	10.0
RESP :	0.5	2.25	5.0	9.25	18.75	42	55.75	73.75
CONC':	0.04	0.2	0.5	0.9	2.0	5.0	7.0	10.0

CONC = -1.0300E-02+ 9.7863E-02*RESP+ 5.1029E-04*RESP**2+ *RESP**3
95% C.I.= 4.4035E-02 3.9651E-03 5.5147E-05
CORRELATION COEFFICIENT = 1.0000

ESE BATCH : G51088

Continuing Calibration Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/18/94	CCB*QC*1	71900*7470-G	MERCURY,TOTAL	UG/L	0.01
07/18/94	CCB*QC*1	71900*TCLP	MERCURY	UG/L	0.01

Continuing Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/18/94	CCV*QC*1	71900*7470-G	MERCURY,TOTAL	UG/L	5.00	4.72	94.4	80-120
07/18/94	CCV*QC*1	71900*TCLP	MERCURY	UG/L	5.0	4.7	94	80-120

Initial Calibration Verification Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	TARGET	FOUND	%RECV	RECV CRIT
07/18/94	ICV*PE-PURE*1	71900*7470-G	MERCURY,TOTAL	UG/L	5.00	4.86	97.2	80-120
07/18/94	ICV*PE-PURE*1	71900*TCLP	MERCURY	UG/L	5.0	4.9	98	80-120

Method Blank Sample Summary

DATE	SAMPLE	STORET	PARAMETER	UNITS	FOUND
07/18/94	MB*QC*1	71900*7470-G	MERCURY,TOTAL	UG/L	ND
07/18/94	MB*QC*1	71900*TCLP	MERCURY	UG/L	ND
07/18/94	MB*TCLP*1	71900*7470-G	MERCURY,TOTAL	UG/L	NA
07/18/94	MB*TCLP*1	71900*TCLP	MERCURY	UG/L	0.04

Standard Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNITS	TARGET	FOUND
07/18/94	SP*QC*1	71900*7470-G	MERCURY,TOTAL	99.2	85-127	UG/L	5.00	4.96
07/18/94	SP*QC*1	71900*TCLP	MERCURY	100	83-125	UG/L	5.0	5.0

Sample Matrix Spike Recovery Summary

DATE	SAMPLE	STORET	PARAMETER	%RECV	RECV CRIT	UNSPIKED	UNITS	TARGET	FOUND
07/18/94	SPM1*CDMHNSW3*3	71900*7470-G	MERCURY,TOTAL	91.6	85-127	0.0	UG/L	5.00	4.58
07/18/94	SPM1*CDMHNSW3*3	71900*TCLP	MERCURY		83-125	0.0	UG/L		ND
07/18/94	SPM2*CDMHNSW3*3	71900*7470-G	MERCURY,TOTAL	97.2	85-127	0.0	UG/L	5.00	4.86
07/18/94	SPM2*CDMHNSW3*3	71900*TCLP	MERCURY		83-125	0.0	UG/L		ND
07/18/94	SPM*XECT1AL*1	71900*7470-G	MERCURY,TOTAL		85-127	0.0	UG/L		ND
07/18/94	SPM*XECT1AL*1	71900*TCLP	MERCURY	90	83-125	0.0	UG/L	5.0	4.5

ESE BATCH : G51088

UNITS AND EXAMPLE CALCULATIONS

	UNITS ENTERED
F[illegible]ONCENTRATION	UG/L
INJECTION VOLUME	NA
SAMPLE VOLUME	NA
EXTRACT VOLUME	NA
CURVE CONCENTRATION	UG/L
SPIKE SOLN CONCENTRATION	UG/L
SPIKE VOLUME	NA
SPIKE SAMPLE VOLUME	NA
TARGET CONCENTRATION	UG/L
RESPONSE DESCRIPTION	PK HT
CONVERSION FACTOR	1

FINAL CONC = CURV CONC * EXT VOL * DIL * 1 / INJ VOL * SAMP VOL * ((100 - %MOISTURE) / 100)

UG/L = (UG/L) * (NA) * 1 / (NA) * (NA)

( ) = ( ) * ( ) * ( ) / ( ) * ( ) * ((100 - ( )) / 100)

TARGET CONC = SPIKE SOLN CONC * SPIKE VOL / SPIKE SAMP VOL * ((100 - %MOISTURE) / 100)

UG/L = (UG/L) * (NA) / (NA)

ESE BATCH : G51088

Environmental Science and Engineering Analytical Services

Computer QC Checks

Batch No.: G51088 Analysis Date: 07/18/94 Analyst: KENT BRAKEFIELD

	Yes	"Exceptions" No	Comment / Corrective Action
Are ALL units documented in batch?	X		
Analysis holding time within criteria?	X		
No. of calibration standards present acceptable?	X		
Curve correlation coefficient >= 0.995?	X		
Calibration curve y-intercept < curve detection limit?	X		
Sample responses within highest standard response?	X		
CCV present?	X		
CCV within acceptance criteria?	X		
ICV present?	X		
ICV within acceptance criteria?	X		
Method blank present?	X		
Method blank within acceptance criteria?	X		
Standard matrix spike present?	X		
Standard matrix spike within acceptance criteria?	X		
Sample matrix spike present?	X		
Sample matrix spike within acceptance criteria?	X		
Sample matrix spike duplicate present?	X		
Sample matrix spike duplicate within acceptance criteria?	X		

Note: Any "NO" answer requires a comment.

OVERRIDE COMMENTS

BATCH OVERRIDE BY: KATHY BARRY 1708
PROB: MB NOT WITHIN ACCEPTANCE CRITERIA.
EXPL: STORET ERROR./KSB

FINALIZED BY:

ESE BATCH : G51088

TABLE OF ABBREVIATIONS

%R : % Recovery for spiked sample. (FOUND/TARGET * 100)
AN :E : Analysis Date
ANLY TIME : Analysis Time
CURVE : Curve Regression Number
DILUTION : Sample Dilution Factor
EXT DATE : Extract Date
EXT VOL : Extract Volume
FOUND : Spiked Sample Conc. - Unspiked Sample Conc.
INJ VOL : Injection Volume
REL%DIFF : % Difference between current and previous spike.
RESPONSE : Sample Response
R.T. : Retention Time
SAMPLE CODE: Sample Type * Sample ID
SAMPLE ID : Field Group * Sequence Number
SAMPLE TYPE: The kind of sample analyzed. (listed below)
DA -- Data Sample
MB -- Method Blank
RF -- Reference (from commercially known standard)
RP -- Replicate Sample
SP -- Standard Matrix Spike
SPM -- Sample Matrix Spike
STD -- Internal Standard
SUR -- Surrogate Sample
UN -- Unspiked Sample
SAMP VOL : Sample Volume
SPK CONC : Spike Concentration
ST : Sample response explanation or validity. (listed below)
BK -- No sample response.
NA -- Sample not analyzed.
NR -- Not reserved for this batch. Batch containing the response for this sample is listed in the target field.
OK -- Sample response shown is correct.
! -- Sample response shown is invalid.
< -- Sample response < detection limit. Detection limit is shown in the response field.
ST TTHD: Storet ID * Method Code
TI : Spike Target (SAMPLE LISTING SECTION)
TARGET : Spike Target Concentration (SPIKED SAMPLE SECTION)
TYPE : Response Type ("FINAL" or empty.)
UNSP CONC : Unspiked Sample Concentration

Holding Time & Dilution Factor Report

SAMPLE	BATCH	STORET*METHOD	STORET NAME	FAILURE
CDMHNSS3*1	ALL	HOLDING TIMES MET		
CDMHNSS3*2	ALL	HOLDING TIMES MET		
CDMHNSS3*3	ALL	HOLDING TIMES MET		
CDMHNSS3*4	ALL	HOLDING TIMES MET		
CDMHNSS3*5	ALL	HOLDING TIMES MET		
CDMHNSS3*6	ALL	HOLDING TIMES MET		
CDMHNSS3*7	ALL	HOLDING TIMES MET		
CDMHNSS3*8	ALL	HOLDING TIMES MET		
CDMHNSS3*41	ALL	HOLDING TIMES MET		
CDMHNSS3*42	ALL	HOLDING TIMES MET		
CDMHNSS3*43	ALL	HOLDING TIMES MET		
CDMHNSW3*3	ALL	HOLDING TIMES MET		

LAB SAMPLE	CDM SAMPLE	NAME	DIL	BATCH	PAGE
CDMHNSS3*2	VR-02	DDE,PP'	10	G51081	
		DDD,PP'	10		
		DDT,PP'	10		
		PHENOL	5	G51457	
		BIS(2-CHLOROETHYL)	5		
		2-CHLOROPHENOL	5		
		1,3-DICHLOROBENZENE	5		
		1,4-DICHLOROBENZENE	5		
		1,2-DICHLOROBENZENE	5		
		BENZYL ALCOHOL	5		
		2-METHYLPHENOL	5		
		4-METHYLPHENOL	5		
		BIS(2-CHL'ISOPROPYL)	5		
		N-NITROSODI-N-PROPYL	5		
		HEXACHLOROETHANE	5		
		NITROBENZENE	5		
		ISOPHORONE	5		
		2-NITROPHENOL	5		
		2,4-DIMETHYLPHENOL	5		
		BENZOIC ACID	5		
		BIS(2-CHLOROETHOXY)	5		
		2,4-DICHLOROPHENOL	5		
		1,2,4-TRICH'BENZENE	5		
		NAPHTHALENE	5		
		4-CHLOROANILINE	5		
		HEXACHLOROBUTADIENE	5		
		4-CHLORO-3-METHYL	5		
		2-METHYLNAPHTHALENE	5		
		HEXACHLOROCYCLOPENTA	5		
		2,4,6-TRICH'PHENOL	5		
		2,4,5-TRICH'PHENOL	5		
		2-CHLORONAPHTHALENE	5		
		2-NITROANILINE	5		
		DIMETHYL PHTHALATE	5		
		ACENAPHTHYLENE	5		
		2,6-DINITROTOLUENE	5		
		3-NITROANILINE	5		
		ACENAPHTHENE	5		
		2,4-DINITROPHENOL	5		
		4-NITROPHENOL	5		
		DIBENZOFURAN	5		
		DIETHYL PHTHALATE	5		
		4-CHLOROPHENYLPHENYL	5		
		FLUORENE	5		
		4-NITROANILINE	5		
		N-NITROSODIPHE'AMINE	5		
		2-METHYL-4,6-DINITRO	5		
		4-BROMOPHENYL PHENYL	5		
		HEXACHLOROBENZENE	5		
		PENTACHLOROPHENOL	5		
		PHENANTHRENE	5		
		ANTHRACENE	5		
		DI-N-BUTYL PHTHALATE	5		

LAB SAMPLE	CDM SAMPLE	NAME	DIL	BATCH	PAGE 2
		FLUORANTHENE	5		
		PYRENE	5		
		BUTYLBENZYLPHTHALATE	5		
		3,3-DICHL'BENZIDINE	5		
		BENZO(A)ANTHRACENE	5		
		CHRYSENE	5		
		BIS(2-ETHYLHEXYL)	5		
		DI-N-OCTYL PHTHALATE	5		
		BENZO(B)FLUORANTHENE	5		
		BENZO(K)FLUORANTHENE	5		
		BENZO(A)PYRENE	5		
		INDENO(1,2,3-CD)	5		
		DIBEN(A,H)ANTH'CENE	5		
		BENZO(GHI)PERYLENE	5		
CDMHNSS3*43	WC1-01	Heptachlor	10	G51446	
		Endrin	10		
		Endosulfan sulfate	10		
		Methoxychlor	10		
		Endrin ketone	10		
		Endrin aldehyde	10		
		PHENOL	2	G51539	
		BIS(2-CHLOROETHYL)ET	2		
		2-CHLOROPHENOL	2		
		1,3-DICHLOROBENZENE	2		
		1,4-DICHLOROBENZENE	2		
		1,2-DICHLOROBENZENE	2		
		2-METHYLPHENOL	2		
		4-METHYLPHENOL	2		
		2,2'-OXYBIS(1-CHLORO	2		
		N-NITROSODI-N-PROPYL	2		
		HEXACHLOROETHANE	2		
		NITROBENZENE	2		
		ISOPHORONE	2		
		2-NITROPHENOL	2		
		2,4-DIMETHYLPHENOL	2		
		BIS(2-CHLOROETHOXY)M	2		
		2,4-DICHLOROPHENOL	2		
		1,2,4-TRICH'BENZENE	2		
		NAPHTHALENE	2		
		4-CHLOROANILINE	2		
		HEXACHLOROBUTADIENE	2		
		4-CHLORO-3-METHYLPHE	2		
		2-METHYLNAPHTHALENE	2		
		HEXACHLOROCYCLOPENTA	2		
		2,4,6-TRICH'PHENOL	2		
		2,4,5-TRICH'PHENOL	2		
		2-CHLORONAPHTHALENE	2		
		2-NITROANILINE	2		
		DIMETHYL PHTHALATE	2		
		ACENAPHTHYLENE	2		
		2,6-DINITROTOLUENE	2		
		3-NITROANILINE	2		
		ACENAPHTHENE	2		
		2,4-DINITROPHENOL	2		
		4-NITROPHENOL	2		
		DIBENZOFURAN	2		

LAB SAMPLE	CDM SAMPLE	NAME	DIL	BATCH	PAGE
		2,4-DINITROTOLUENE	2		
		DIETHYL PHTHALATE	2		
		4-CHLOROPHENYLPHENYL	2		
		FLUORENE	2		
		4-NITROANILINE	2		
		2-METHYL-4,6-DINITRO	2		
		N-NITROSODIPHE'AMINE	2		
		4-BROMOPHENYL PHENYL	2		
		HEXACHLOROBENZENE	2		
		PENTACHLPHENOL	2		
		PHENANTHRENE	2		
		ANTHRACENE	2		
		CARBAZOLE	2		
		DI-N-BUTYL PHTHALATE	2		
		FLUORANTHENE	2		
		PYRENE	2		
		BUTYLBENZYLPHTHALATE	2		
		3,3-DICHL'BENZIDINE	2		
		BENZO(A)ANTHRACENE	2		
		CHRYSENE	2		
		BIS(2-ETHYLHEXYL)PHT	2		
		DI-N-OCTYL PHTHALATE	2		
		BENZO(B)FLUORANTHENE	2		
		BENZO(K)FLUORANTHENE	2		
		BENZO(A)PYRENE	2		
		INDENO(1,2,3-CD)PYRE	2		
		DIBEN(A,H)ANTHRACENE	2		
		BENZO(GHI)PERYLENE	2		

95133554.2898

Tentatively Identified Compounds

Volatile Organic Compounds

95133554.2899

Data file header from : 900174

Sample: CDMHNSS3*1 Operator: USER96 MS 7/14/94 14:07
Misc : 07/14/94
Sys. #: 1 MS model 96 SW/HW rev.: IA ALS # : 3
Method file: MF968 Tuning file: MT8201 No. of extra records 1
Source temp.: 200 Analyzer temp.: 200 Transfer line temp. : 230

Chromatographic temperatures :	10.	170.	0.	0.	0.
Chromatographic times, min. :	3.0	5.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	0.0	0.0

No peaks found.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	826250.	9.59	1.57 - 10.36
2	50.0	1248813.	11.13	10.36 - 13.28
3	50.0	1355150.	15.42	13.28 - 24.04

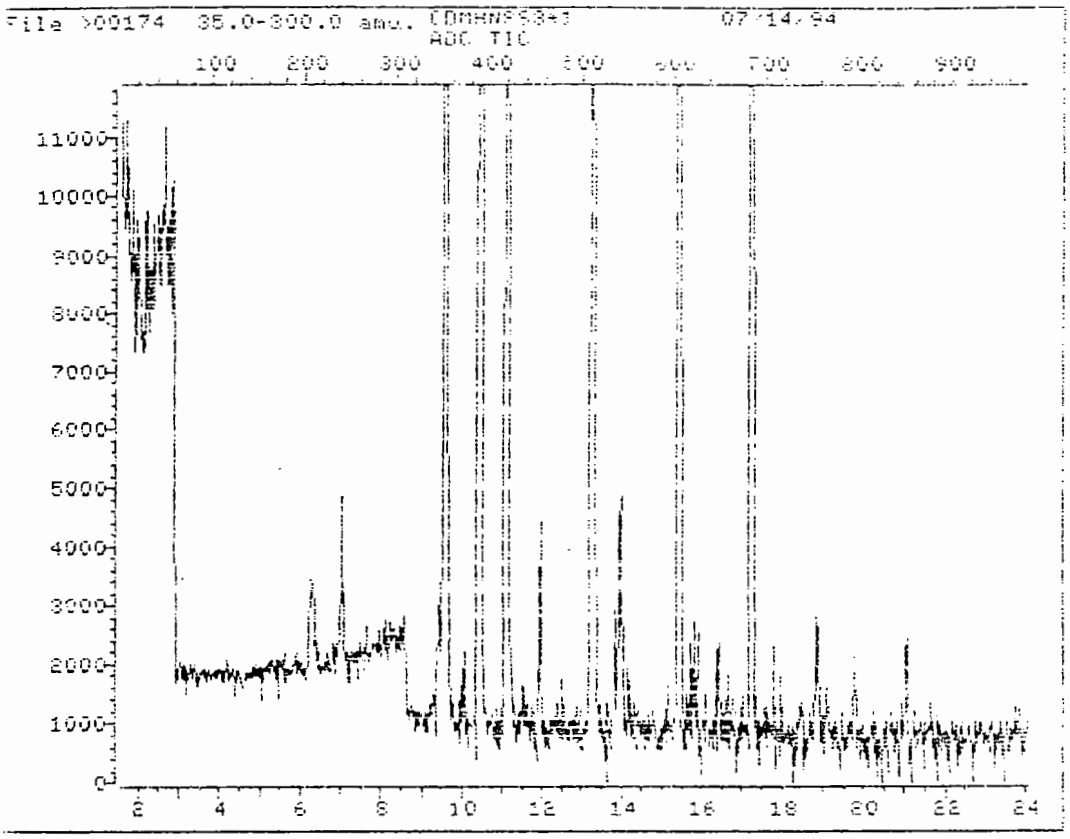
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

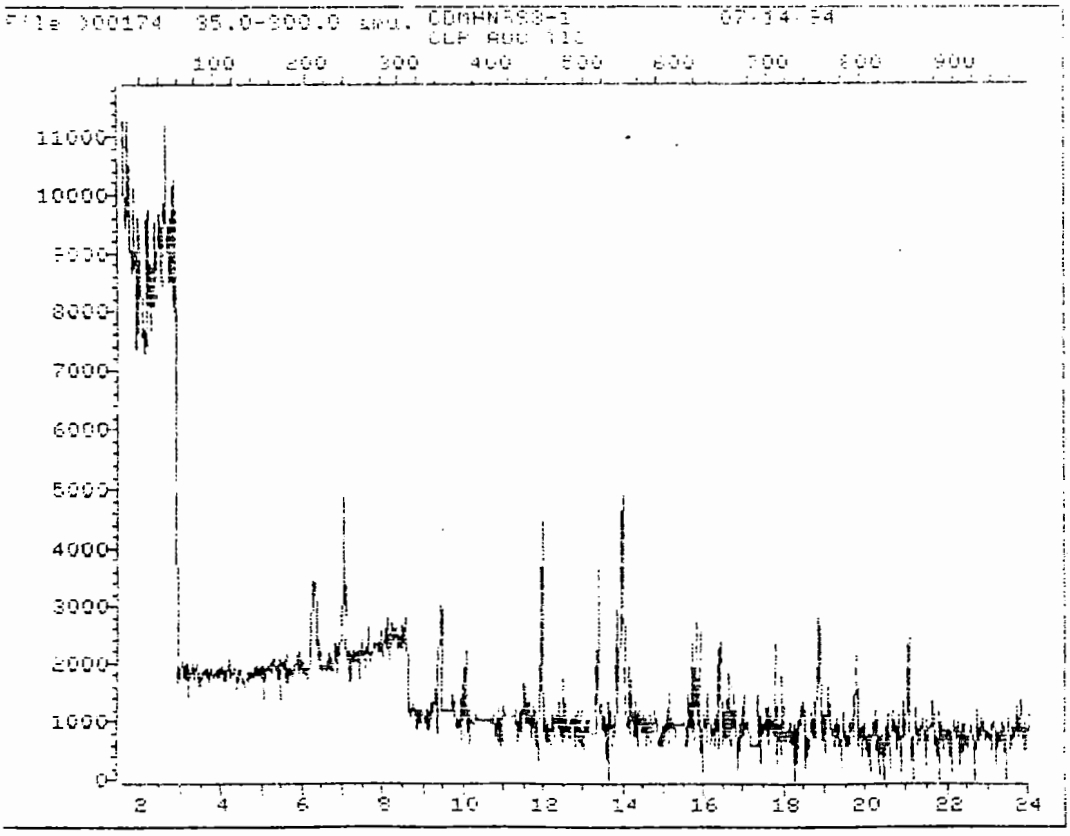
Correction Factor = ******** = (AM / AU) / (DF * FS)

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

4:44 PM THU., 14 JULY, 1994

000301


File >00174 35.0-900.0 amu. CDMHN?S3+1 07/14/94
ADC TIC
100 200 300 400 500 600 700 800 900
11000
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
2 4 6 8 10 12 14 16 18 20 22 24


File >00174 35.0-900.0 amu. CDMHN?S3-1 07/14/94
CLP ADC TIC
100 200 300 400 500 600 700 800 900
11000
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
2 4 6 8 10 12 14 16 18 20 22 24

```
working...
draw complete...

working...
    There were no UNKNOWNS
    Creating the .RR file
QN  00174
                    960107149414O2R   35  300 1.375  9
                    Bromochloromethane
                      1 176  351   9.5938  1  108615.ug/Kg    50.0000
                    1,2-Dichloroethane-d4
                      2  85  389  10.4655  1  283806.ug/Kg    54.7515
                    1,4-Difluorobenzene
                      3 114  418  11.1307  3  458101.ug/Kg    50.0000
                    Chlorobenzene-d5
                      4 117  605  15.4193  4  363608.ug/Kg    50.0000
                    Toluene-d8
                      5  98  511  13.2638  4  458930.ug/Kg    51.6625
                    Bromofluorobenzene
                      6  95  585  17.2548  4  368282.ug/Kg    48.9048
PBM results file is for MS data file 990681 not 00174
ENDFILE

Reduced results file: P00174 summary
     QUANT data from: 00174
```

MS data file header from : 00175

Sample: CDMHNSS3*2 Operator: USER96 MS 7/14/94 14:33
Misc : 07/14/94
Sys. #: 1 MS model: 96 SW/HW rev.: IR ALS # : 0
Method file: MF96S Tuning file: MT9201 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 200 Transfer line temp. : 230

Chromatographic temperatures :	10.	170.	0.	0.	0.
Chromatographic times, min. :	3.0	5.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	0.0	0.0

No peaks found.

Summary of Unknowns PBM Library Search and Quantitation

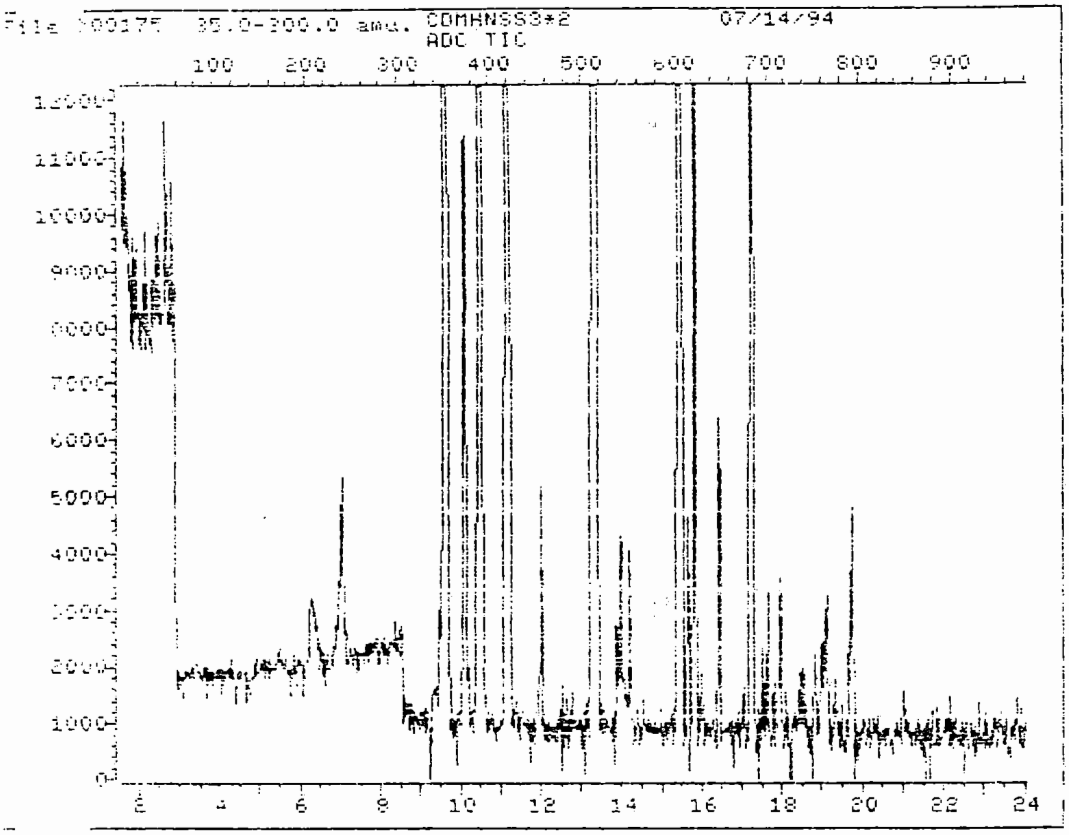
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	906210.	9.62	1.57 - 10.39
2	50.0	1204768.	11.16	10.39 - 13.29
3	50.0	1166197.	15.42	13.29 - 24.07

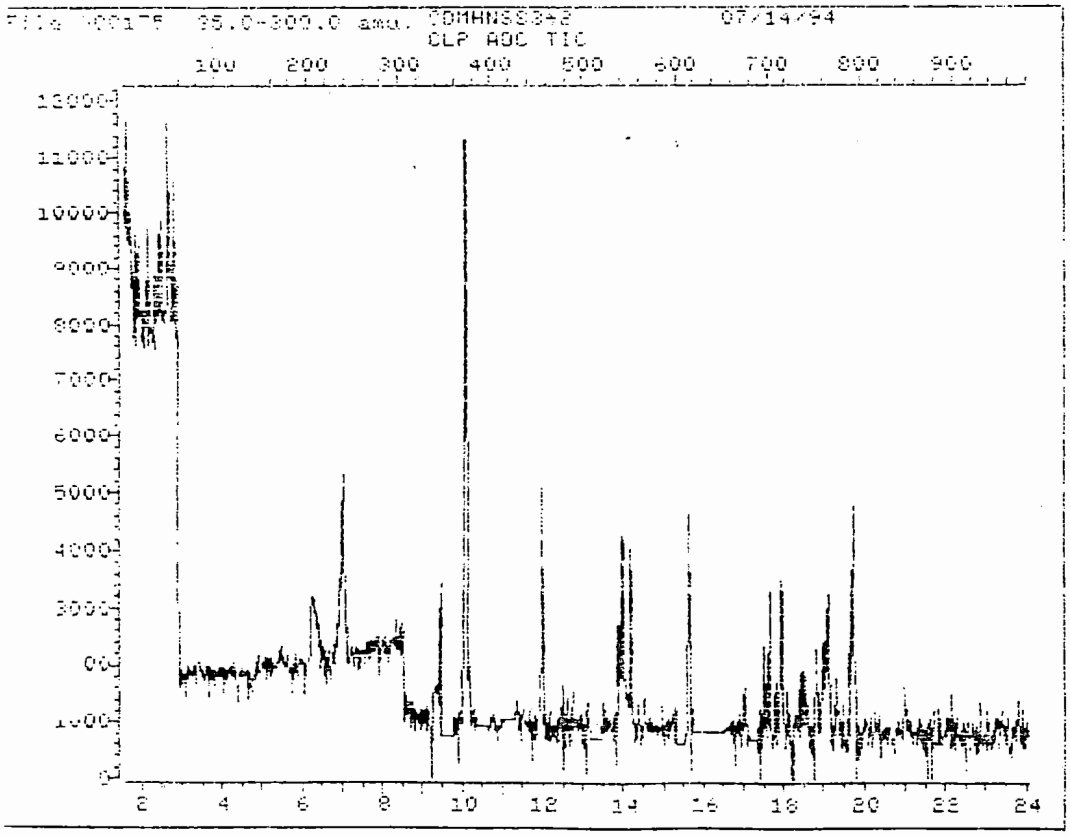
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 0.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

Correction Factor = ******* = (AM / AU) / (DF * FS)

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

4:54 PM THU., 14 JULY, 1994


File 00175 35.0-300.0 amu. CDMHNSS3*2 07/14/94
ADC TIC
100 200 300 400 500 600 700 800 900
12000 11000 10000 9000 8000 7000 6000 5000 4000 3000 2000 1000 0
2 4 6 8 10 12 14 16 18 20 22 24


File 00175 35.0-300.0 amu. CDMHNSS3*2 07/14/94
CLP ADC TIC
100 200 300 400 500 600 700 800 900
13000 11000 10000 9000 8000 7000 6000 5000 4000 3000 2000 1000 0
2 4 6 8 10 12 14 16 18 20 22 24

```
working...
draw complete...
```

```
working...
.    There were no UNKNOWNS
.    Creating the .RR file

error code      -6 on open of file ^00175
 PBM results file is for MS data file .39661 not .00175
ENDFILE
```

```
Reduced results file: R00175 summary
```

MS data file header from : >00209

Sample: CDMHNSS3*3 Operator: USER96 MS 7/18/94 14:29
Misc : 07/18/94
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: MF96S Tuning file: MT9201 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 200 Transfer line temp. : 230

Chromatographic temperatures :	10.	170.	0.	0.	0.
Chromatographic times, min. :	3.0	5.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	0.0	0.0

No peaks found.

Summary of Unknowns PBM Library Search and Quantitation

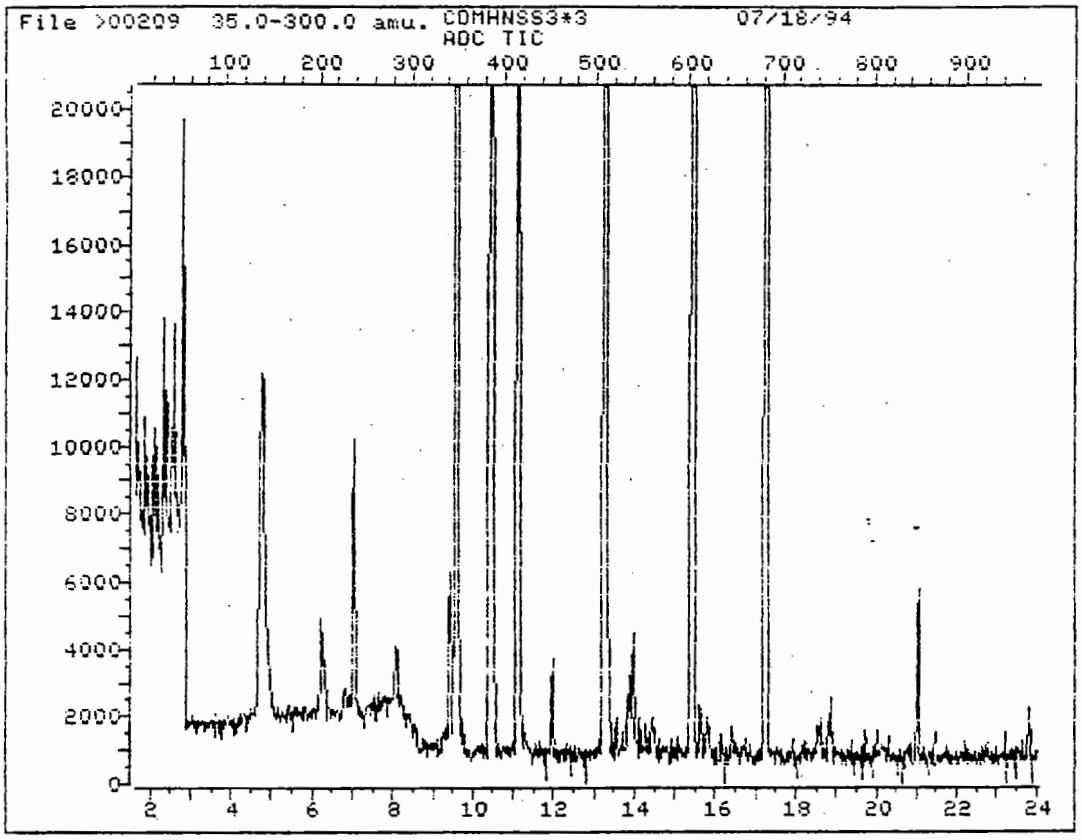
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	753720.	9.59	1.63 - 10.36
2	50.0	1169320.	11.13	10.36 - 13.28
3	50.0	1299034.	15.44	13.28 - 24.06

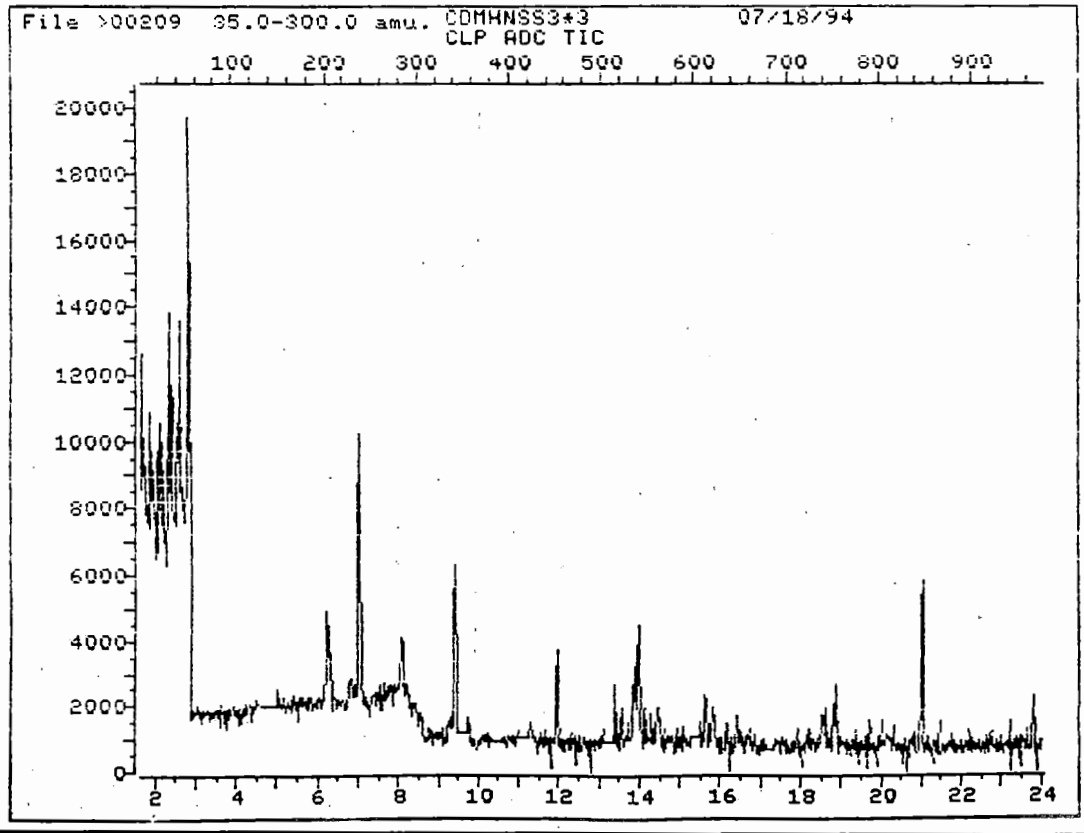
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 0.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

Correction Factor = ******** = (AM / AU) / (DF * FS)

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

11:22 AM TUE., 19 JULY, 1994


File >00209 35.0-300.0 amu. COMHNSS3*3 07/18/94
ADC TIC
100 200 300 400 500 600 700 800 900
20000 18000 16000 14000 12000 10000 8000 6000 4000 2000 0
2 4 6 8 10 12 14 16 18 20 22 24


File >00209 35.0-300.0 amu. COMHNSS3*3 07/18/94
CLP ADC TIC
100 200 300 400 500 600 700 800 900
20000 18000 16000 14000 12000 10000 8000 6000 4000 2000 0
2 4 6 8 10 12 14 16 18 20 22 24

```
draw complete...


working...
   There were no UNKNOWNS
   Creating the RR file
QN  00209                                                                  00150BC
                 96010718941429R   35  300 1.375  9                        0020C5A
                 Bromochloromethane                                         0036807
                   1 128  348   9.5916  1   95664.ug/Kg   50.0000          0044C1E
                 Trichlorofluoromethane                                     0050FA7
                   2 101  138   4.7755  1   46439.ug/Kg   14.1234          006481B
                 1,2-Dichloroethane-d4                                      0070AC6
                   3  65  386  10.4632  1  274766.ug/Kg   59.7740          0086D20
                 1,4-Difluorobenzene                                        0093699
                   4 114  415  11.1285  4  429324.ug/Kg   50.0000          010650F
                 Chlorobenzene-d5                                           0110555
                   5 117  603  15.4410  5  345945.ug/Kg   50.0000          0126219
                 Toluene-d8                                                 0133377
                   6  98  508  13.2620  5  425192.ug/Kg   51.3374          0146622
                 Bromofluorobenzene                                         0157E06
                   7  95  682  17.2529  5  264648.ug/Kg   50.2904          0166330
 PBM results file is for MS data file >99681 not >00209
ENDFILE                                                                    0177BE0

 Reduced results file: R00209 summary
      QUANT data from: ^00209
```

MS data file header from : >00206

Sample: CDMHNSS3*4 Operator: USER96 MS 7/18/94 12:51
Misc : 07/18/94
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: MF96S Tuning file: MT9201 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 200 Transfer line temp. : 230

Chromatographic temperatures :	10.	170.	0.	0.	0.
Chromatographic times, min. :	3.0	5.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	0.0	0.0

No peaks found

Summary of Unknowns PBM Library Search and Quantitation

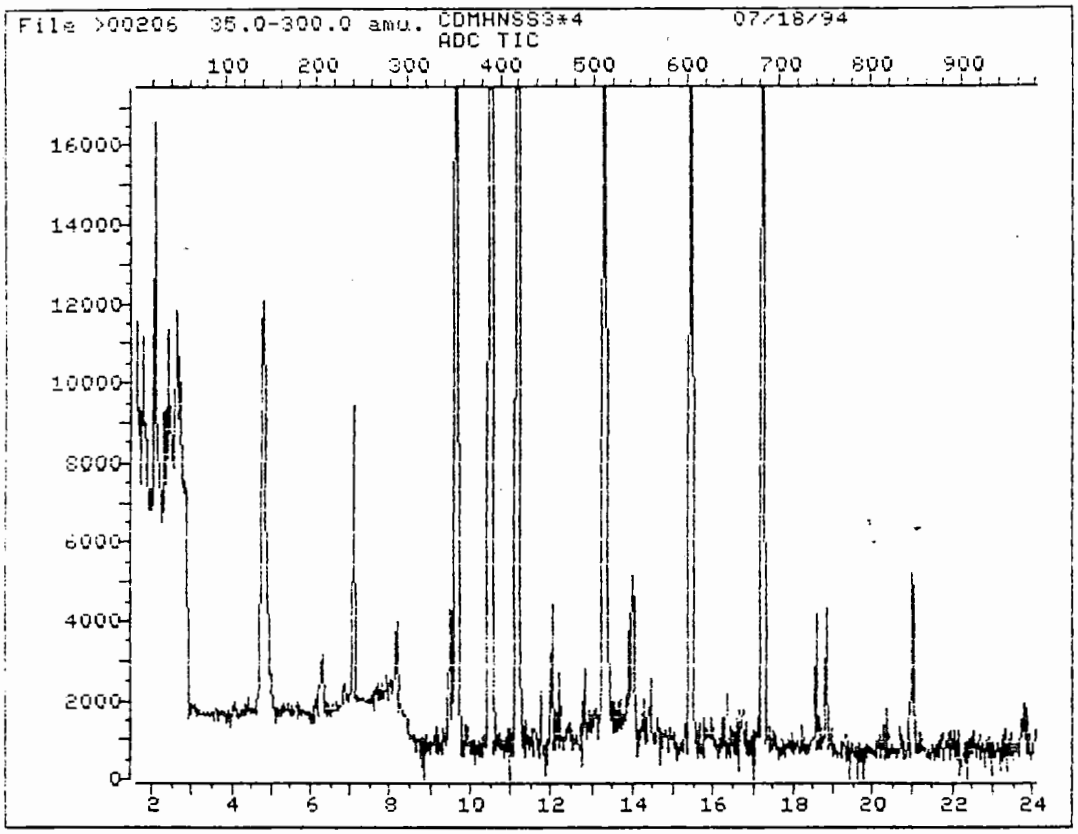
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	773296.	9.64	1.61 - 10.41
2	50.0	1153954.	11.17	10.41 - 13.31
3	50.0	1296709.	15.44	13.31 - 24.09

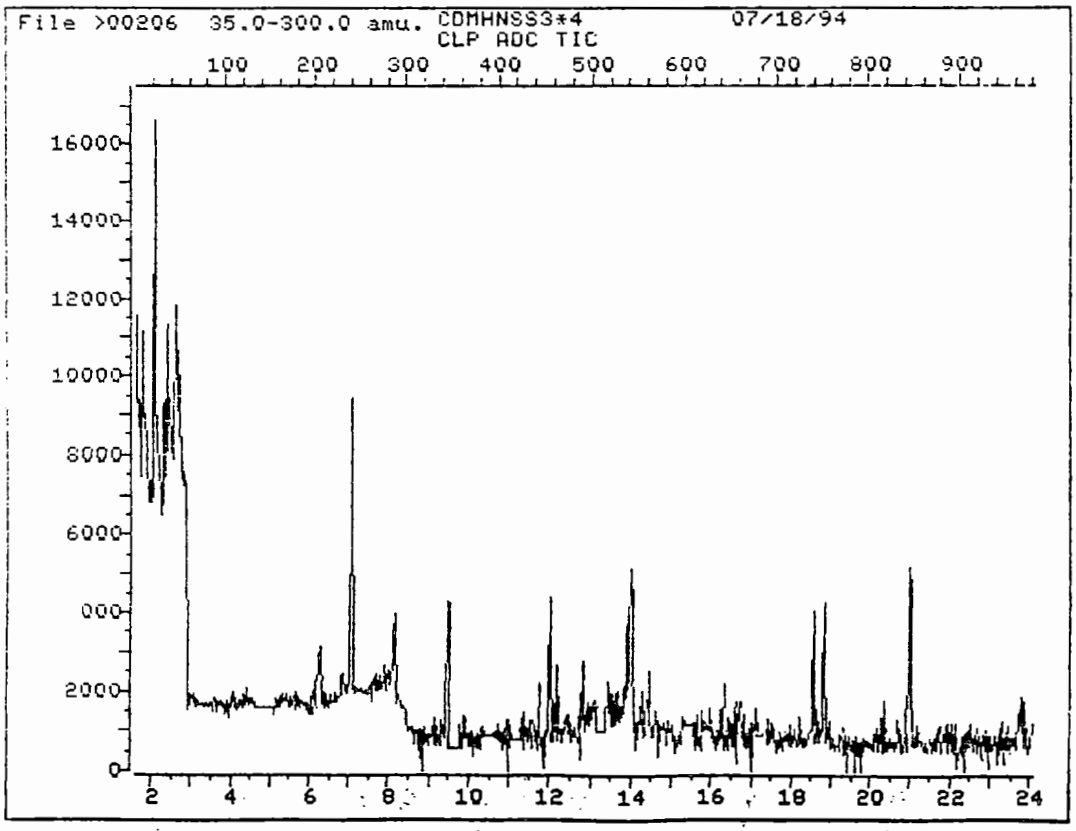
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 0.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

Correction Factor = ******** = (AM / AU) / (DF * FS)

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

11:16 AM TUE., 19 JULY, 1994


File >00206 35.0-300.0 amu. CDMHNSS3*4 07/18/94
ADC TIC
100 200 300 400 500 600 700 800 900
16000
14000
12000
10000
8000
6000
4000
2000
0
2 4 6 8 10 12 14 16 18 20 22 24


File >00206 35.0-300.0 amu. CDMHNSS3*4 07/18/94
CLP ADC TIC
100 200 300 400 500 600 700 800 900
16000
14000
12000
10000
8000
6000
000
2000
0
2 4 6 8 10 12 14 16 18 20 22 24

draw complete...

```
working...
.   There were no UNKNOWNS
.   Creating the .RR file
.QN  00206                                                                  0014DBC
                 96010718941251R   35  300 1.375  9                        0020F50
                 Bromochloromethane                                         0036807
                   1 128  351   9.6384  1  100169.ug/Kg   50.0000          004511F
                 Trichlorofluoromethane                                     0050FA
                   2 101  140   4.7972  1   45501.ug/Kg   13.2158          006461D
                 1,2-Dichloroethane-d4                                      0070AC6
                   3  65  389  10.5100  1  256079.ug/Kg   53.2033          0085D17
                 1,4-Difluorobenzene                                        0093699
                   4 114  418  11.1752  4  424381.ug/Kg   50.0000          010680C
                 Chlorobenzene-d5                                           0110555
                   5 117  604  15.4425  5  350709.ug/Kg   50.0000          0125E1E
                 Toluene-d8                                                 0133377
                   6  98  511  13.3085  5  422893.ug/Kg   50.4251          0146120
                 Bromofluorobenzene                                         0157E06
                   7  95  683  17.2551  5  264035.ug/Kg   49.4923          0166729
 PBM results file is for MS data file >99681 not >00206
ENDFILE                                                                     0177BE0

 Reduced results file: R00206 summary
      QUANT data from: ^00206
```

MS data file header from : >00210

Sample: CDMHNSS3*5 Operator: USER96 MS 7/18/94 15:01
Misc : 07/18/94
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: MF96S Tuning file: MT9201 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 200 Transfer line temp. : 230

Chromatographic temperatures :	10.	170.	0.	0.	0.
Chromatographic times, min. :	3.0	5.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	0.0	0.0

No peaks found

Summary of Unknowns PBM Library Search and Quantitation

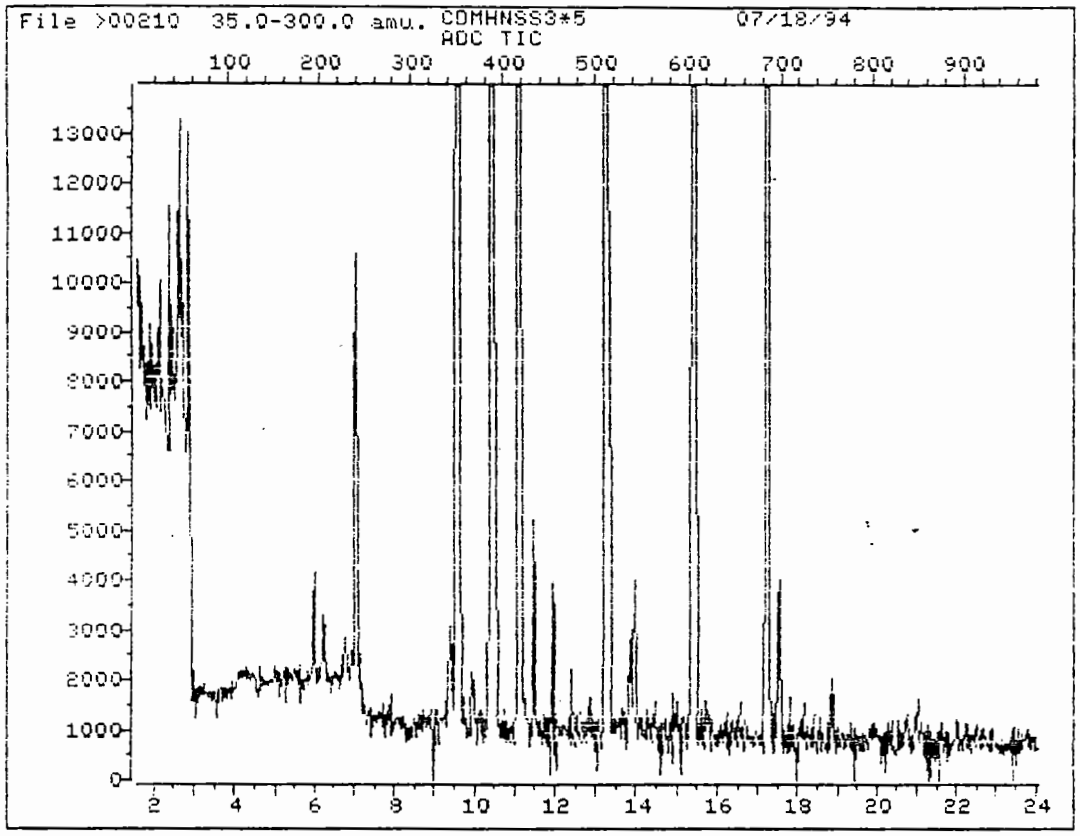
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	837060.	9.57	1.57 - 10.34
2	50.0	1256242.	11.11	10.34 - 13.26
3	50.0	1416014.	15.42	13.26 - 24.07

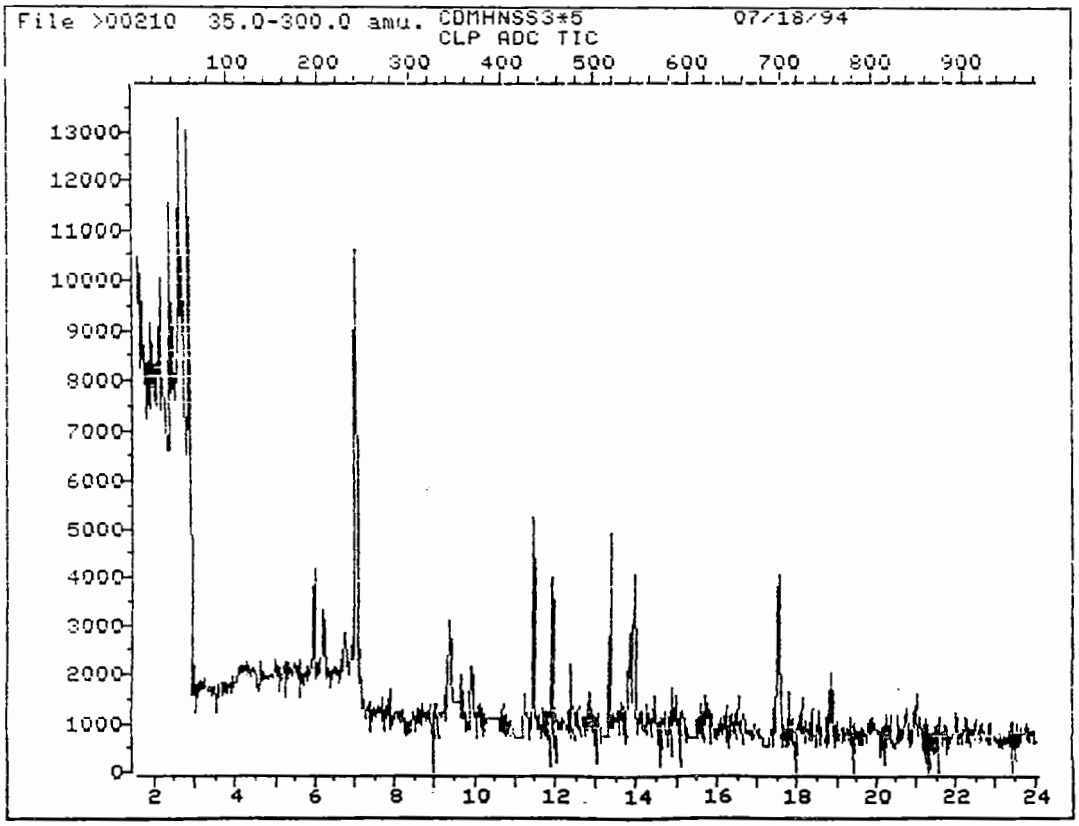
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 0.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

Correction Factor = ******** = (AM / AU) / (DF * FS)

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

11:27 AM TUE., 19 JULY, 1994


File >00210 35.0-300.0 amu. CDMHNSS3*5 07/18/94
ADC TIC
100 200 300 400 500 600 700 800 900
13000 12000 11000 10000 9000 8000 7000 6000 5000 4000 3000 2000 1000 0
2 4 6 8 10 12 14 16 18 20 22 24


File >00210 35.0-300.0 amu. CDMHNSS3*5 07/18/94
CLP ADC TIC
100 200 300 400 500 600 700 800 900
13000 12000 11000 10000 9000 8000 7000 6000 5000 4000 3000 2000 1000 0
2 4 6 8 10 12 14 16 18 20 22 24

```
working...
draw complete...
```

```
working...
   There were no UNKNOWNS !
   Creating the .RR file
.QN  00210
                    96010718941501R   35  300 1.375  9                          00147BD
                                                                                 0020A53
                                                                                 0036807
                    Bromochloromethane                                           004620C
                      1 128  350   9.5707  1  108189.ug/Kg   50.0000             0050AC6
                    1,2-Dichloroethane-d4                                        0066921
                      2  65  388  10.4424  1  279007.ug/Kg   53.6697             0073699
                    1,4-Difluorobenzene                                          0085B16
                      3 114  417  11.1076  3  462416.ug/Kg   50.0000             0090555
                    Chlorobenzene-d5                                             0105E24
                      4 117  605  15.4197  4  372409.ug/Kg   50.0000             0113377
                    Toluene-d8                                                   0126D1B
                      5  98  511  13.2637  4  437555.ug/Kg   49.1333             0137E06
                    Bromofluorobenzene                                           0146231
                      6  95  685  17.2547  4  262805.ug/Kg   46.3913
 PBM results file is for MS data file >99681 not >00210                          0157BE0
ENDFILE

 Reduced results file: R00210 summary
      QUANT data from: ^00210
```

MS data file header from : >00211

Sample: CDMHNSS3*6 Operator: USER96 MS 7/18/94 15:32
Misc : 07/18/94
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: MF96S Tuning file: MT9201 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 200 Transfer line temp. : 230

Chromatographic temperatures :	10.	170.	0.	0.	0.
Chromatographic times, min. :	3.0	5.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	0.0	0.0

No peaks found

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	852450.	9.59	1.57 - 10.36
2	50.0	1284039.	11.13	10.36 - 13.27
3	50.0	1444835.	15.42	13.27 - 24.07

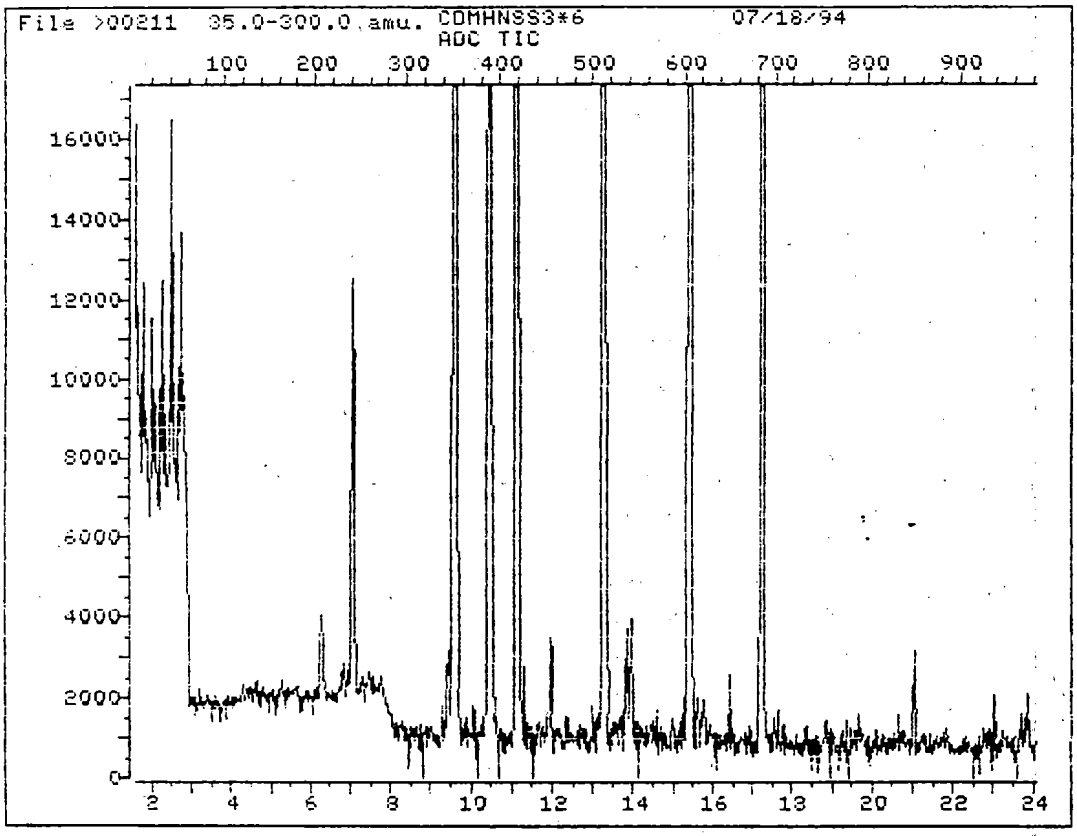
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 0.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

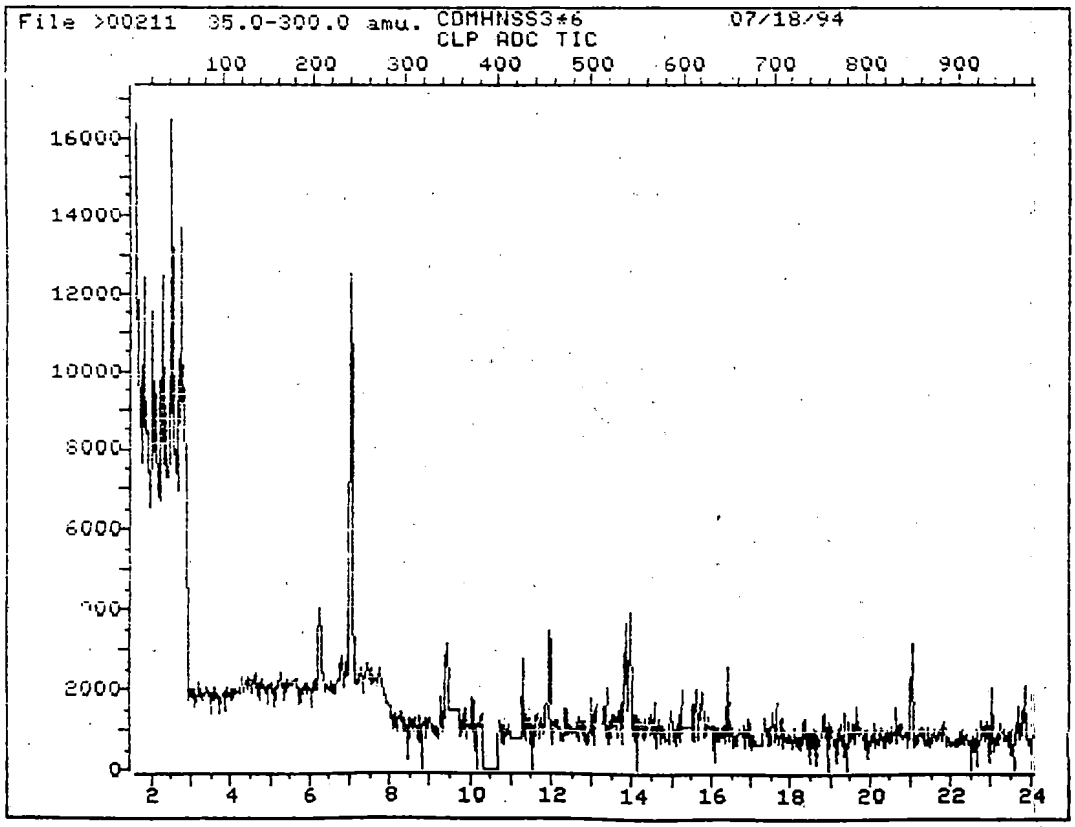
Correction Factor = ******** = (AM / AU) / (DF * FS)

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

11:34 AM TUE., 19 JULY, 1994

9513554.2907





```
working...
draw complete...
```

```
working...
   There were no UNKNOWNS
   Creating the .RR file
.QN  00211
                                                                                00148BD
                 96010718941532R   35  300 1.375  9                            0020D54
                 Bromochloromethane                                             003680
                   1 128  351   9.5930  1  111342.ug/Kg   50.0000              004520
                 1,2-Dichloroethane-d4                                          0050ACC
                   2  65  388  10.4417  1  287723.ug/Kg   53.7790              0066D1E
                 1,4-Difluorobenzene                                            0073699
                   3 114  418  11.1301  3  470454.ug/Kg   50.0000              0085B0F
                 Chlorobenzene-d5                                               0090555
                   4 117  605  15.4192  4  388906.ug/Kg   50.0000              0105F27
                 Toluene-d8                                                     0113377
                   5  98  511  13.2633  4  451728.ug/Kg   48.5731              0126324
                 Bromofluorobenzene                                             0137E06
                   6  95  685  17.2542  4  270608.ug/Kg   45.7424              0145F2F
 PBM results file is for MS data file >99681 not >00211
ENDFILE                                                                         0157BE0

 Reduced results file: R00211 summary
      QUANT data from: ^00211
```

Data file header from : >00176

Sample: CDMHNSS3+41 Operator: USER96 MS 7/14/94 15:05
Misc : 07/14/94
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: MF96S Tuning file: MT9201 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 200 Transfer line temp.: 230

Chromatographic temperatures :	10.	170.	0.	0.	0.
Chromatographic times, min. :	3.0	5.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	0.0	0.0

No peaks found.

Summary of Unknowns PBM Library Search and Quantitation

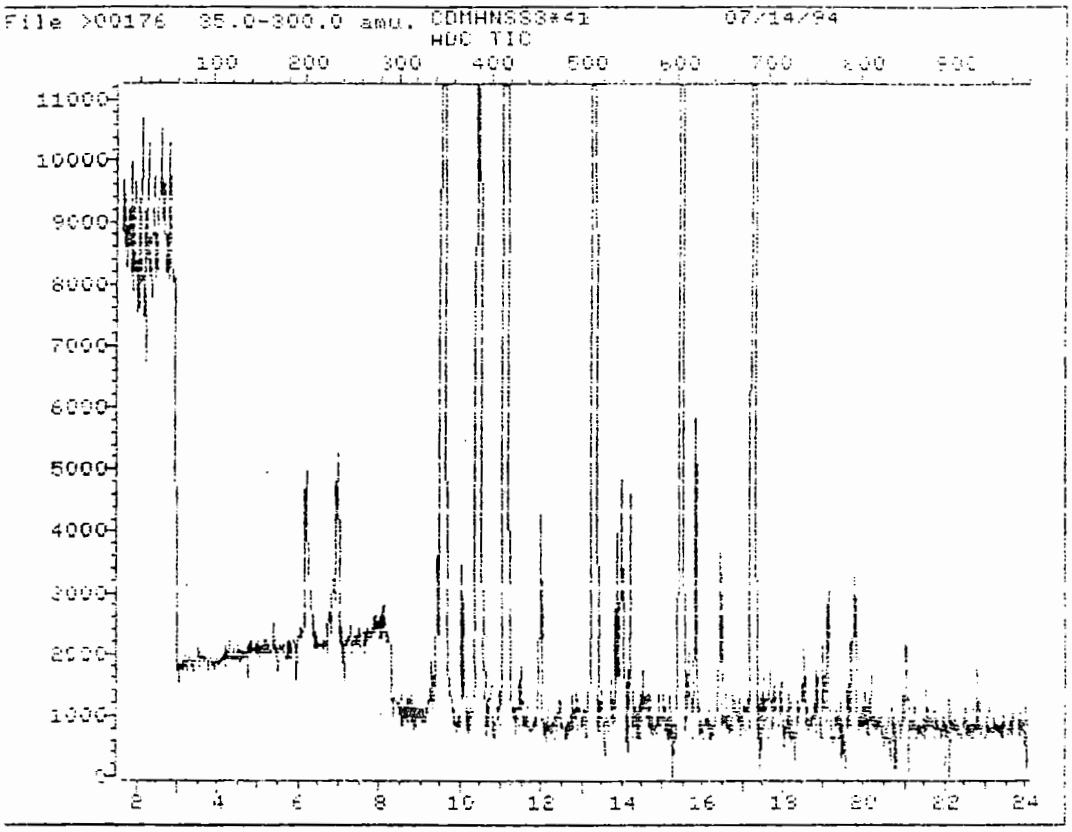
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	905405.	9.58	1.63 - 10.37
2	50.0	1349147.	11.15	10.37 - 13.30
3	50.0	1464107.	15.46	13.30 - 24.08

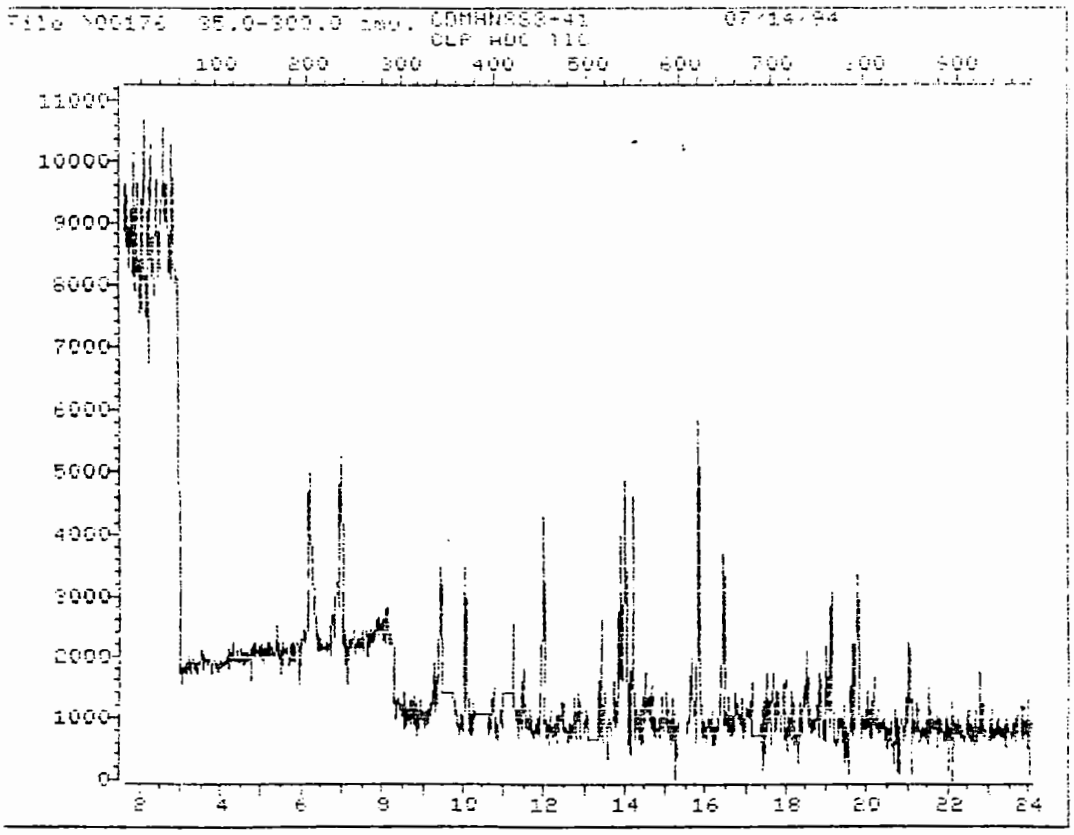
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 0.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

Correction Factor = ******** = (AM / AU) * (DF * FS)

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

5:03 PM THU., 14 JULY, 1994


File >00176 35.0-300.0 amu. COMHNSS3#41 07/14/94
HDC TIC
100 200 300 400 500 600 700 800 900
11000
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
2 4 6 8 10 12 14 16 18 20 22 24


File >00176 35.0-300.0 amu. COMHNSS3#41 07/14/94
CLP HDC TIC
100 200 300 400 500 600 700 800 900
11000
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
2 4 6 8 10 12 14 16 18 20 22 24

```
working...
draw complete...
```

```
working...
.   There were no UNKNOWNS
.   Creating the .RE file
.QN  00176                                                                  0014CC3
                 960107149415058   35  300 1.375  9                          0020A53
                                                                             0036807
                 Bromochloromethane                                          0045D14
                   1 128  348   4.5854  1  115480 ug/Kg    50.0000          0050AC6
                 1,2-Dichloroethane-d4                                       0066321
                   2  65  386  10.4573  1  314429.ug/Kg    56.5634          0073659
                 1,4-Difluorobenzene                                         0086609
                   3 114  416  11.1455  3  502185.ug/Kg    50.0000          0090555
                 Chlorobenzene-d5                                            0105F25
                   4 117  604  15.4583  4  390737.ug/Kg    50.0000          0113377
                 Toluene-d8                                                  0126F34
                   5  98  509  13.2787  4  499953.ug/Kg    52.5960          0137E06
                 Bromofluorobenzene                                          0147022
                   6  95  583  17.2204  4  282642.ug/Kg    47.9452
 PBM results file is for MS data file >99681 not >00176                      0157BE0
ENDFILE

 Reduced results file: R00176 summary
     .QUANT data from: 00176
```

MS data file header from : >00212

Sample: CDMHNSS3*42 Operator: USER96 MS 7/18/94 16:04
Misc : 07/18/94
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: MF96S Tuning file: MT9201 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 200 Transfer line temp. : 230

Chromatographic temperatures :	10.	170.	0.	0.	0.
Chromatographic times, min. :	3.0	5.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	0.0	0.0

No peaks found.

Summary of Unknowns PBM Library Search and Quantitation

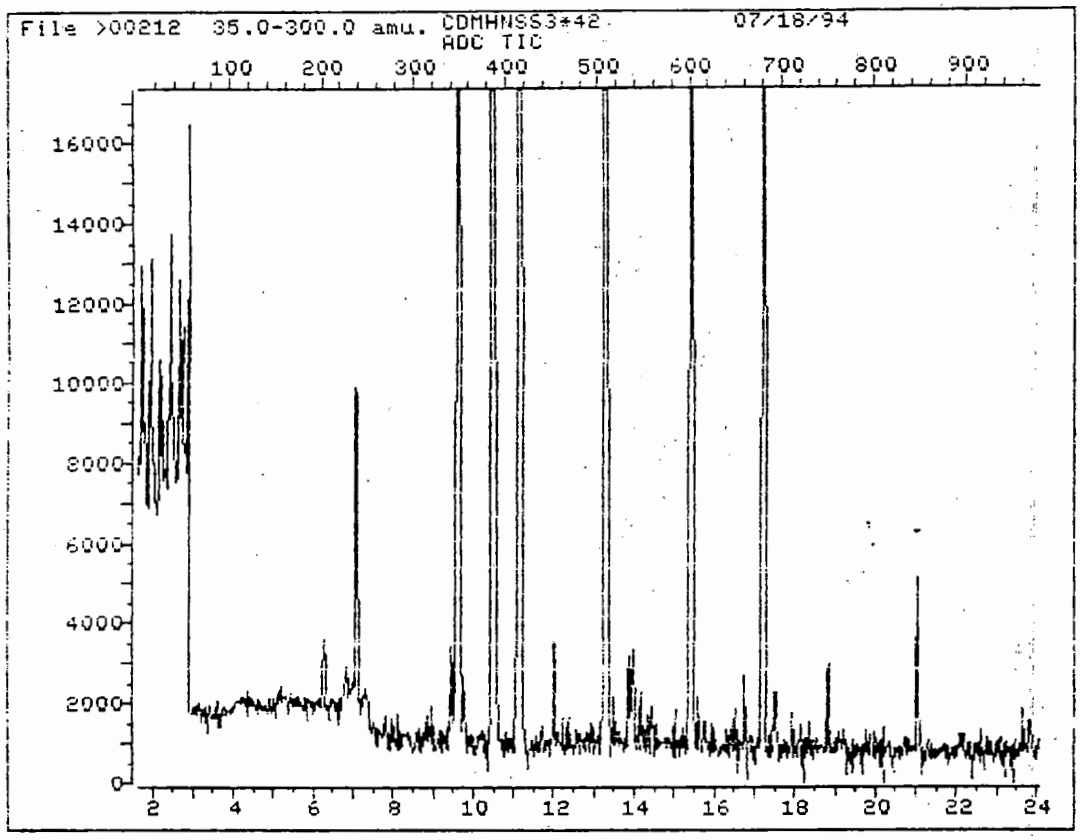
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	760233.	9.62	1.64 - 10.39
2	50.0	1161488.	11.16	10.39 - 13.29
3	50.0	1288019.	15.42	13.29 - 24.05

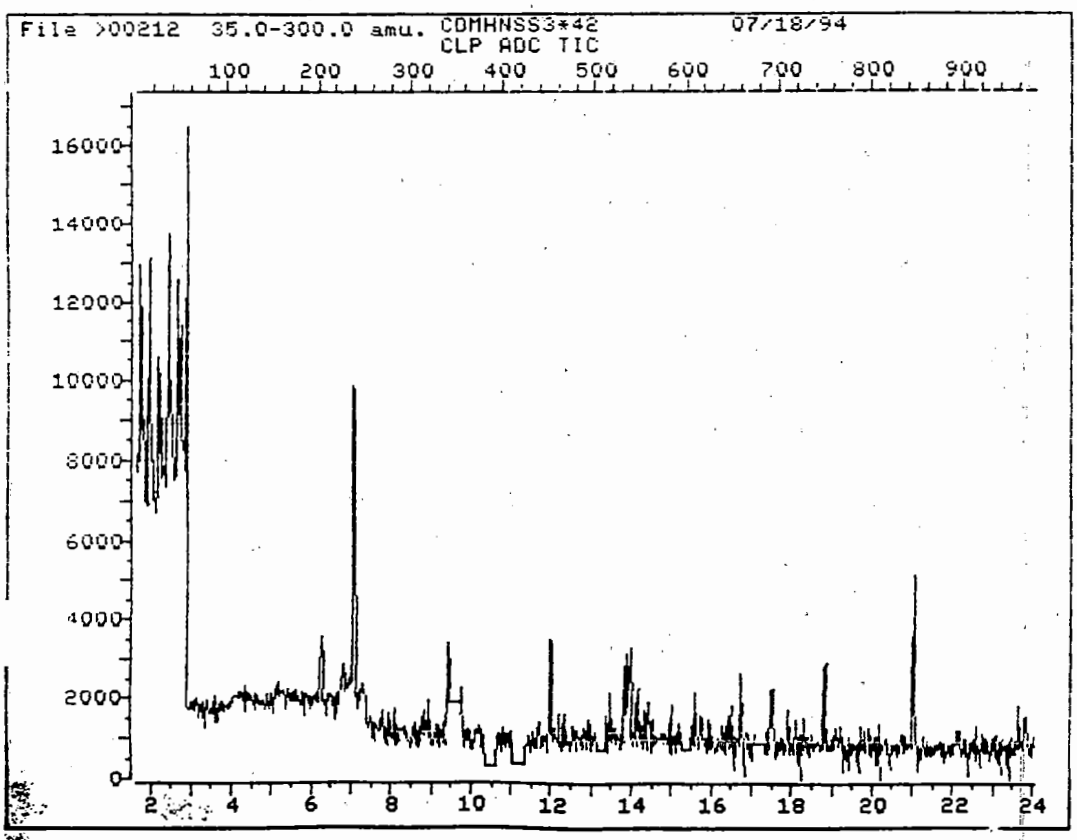
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 0.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

Correction Factor = ******** = (AM / AU) / (DF * FS)

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

11:44 AM TUE., 19 JULY, 1994


File >00212 35.0-300.0 amu. CDMHNSS3*42 07/18/94
ADC TIC
100 200 300 400 500 600 700 800 900
16000
14000
12000
10000
8000
6000
4000
2000
0
2 4 6 8 10 12 14 16 18 20 22 24


File >00212 35.0-300.0 amu. CDMHNSS3*42 07/18/94
CLP ADC TIC
100 200 300 400 500 600 700 800 900
16000
14000
12000
10000
8000
6000
4000
2000
0
2 4 6 8 10 12 14 16 18 20 22 24

```
working...
draw complete...
```

```
working...
There were no UNKNOWNS
Creating the .RR file
QN  00212
                    9601071894160 4R   35  300 1.375  9
                    Bromochloromethane
                      1 128  349   9.6197  1   98771.ug/Kg   50.0000
                    1,2-Dichloroethane-d4
                      2  65  387  10.4913  1  276673.ug/Kg   58.2955
                    1,4-Difluorobenzene
                      3 114  416  11.1566  3  426499.ug/Kg   50.0000
                    Chlorobenzene-d5
                      4 117  602  15.4227  4  338811.ug/Kg   50.0000
                    Toluene-d8
                      5  98  508  13.2668  4  422283.ug/Kg   52.1206
                    Bromofluorobenzene
                      6  95  681  17.2347  4  264409.ug/Kg   51.3029
PBM results file is for MS data file >99681 not >00212
ENDFILE

Reduced results file: R00212 summary
     QUANT data from: ^00212
```

00149BD
0020A57
00368
00449
0050A
0066E2
0073699
0086C13
0090555
0106612
0113377
0126122
0137E06
0145E2B
0157BE0

MS data file header from : >00215

Sample: CDMHNSS3*43 Operator: USER96 MS 7/18/94 18:08
Misc : 07/18/94
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: MF96S Tuning file: MT9201 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 200 Transfer line temp. : 230

Chromatographic temperatures :	10.	170.	0.	0.	0.
Chromatographic times, min. :	3.0	5.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	0.0	0.0

>00215 CDMHNSS3*43 07/18/94
35.01 300.0 CLP ADC TIC
Upslope: .20 Area Reject: 71874. Max Peaks: 10 Bunching: 1
Dnslope: 0.00 Results File I00215 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	16.86	659	663	667	19571	109532	80535	15.58	4.282
2	17.55	688	693	696	22396	146662	104860	20.29	5.575
3	17.71	696	700	701	76405	322007	291810	56.46	15.515
4	17.78	701	703	705	122972	544597	516870	100.00	27.480
5	17.87	705	707	710	68601	378435	341241	66.02	18.143
6	18.08	714	716	722	28223	204573	135575	26.23	7.208
7	18.84	744	749	751	13133	202774	81311	15.73	4.323
8	19.39	771	773	779	17887	213120	116865	22.61	6.213
9	19.75	783	789	794	18405	284291	115541	22.35	6.143
10	21.66	868	872	877	18080	137067	96259	18.62	5.118

Sum of corrected areas: 1880867.

Summary of Unknowns PBM Library Search and Quantitation

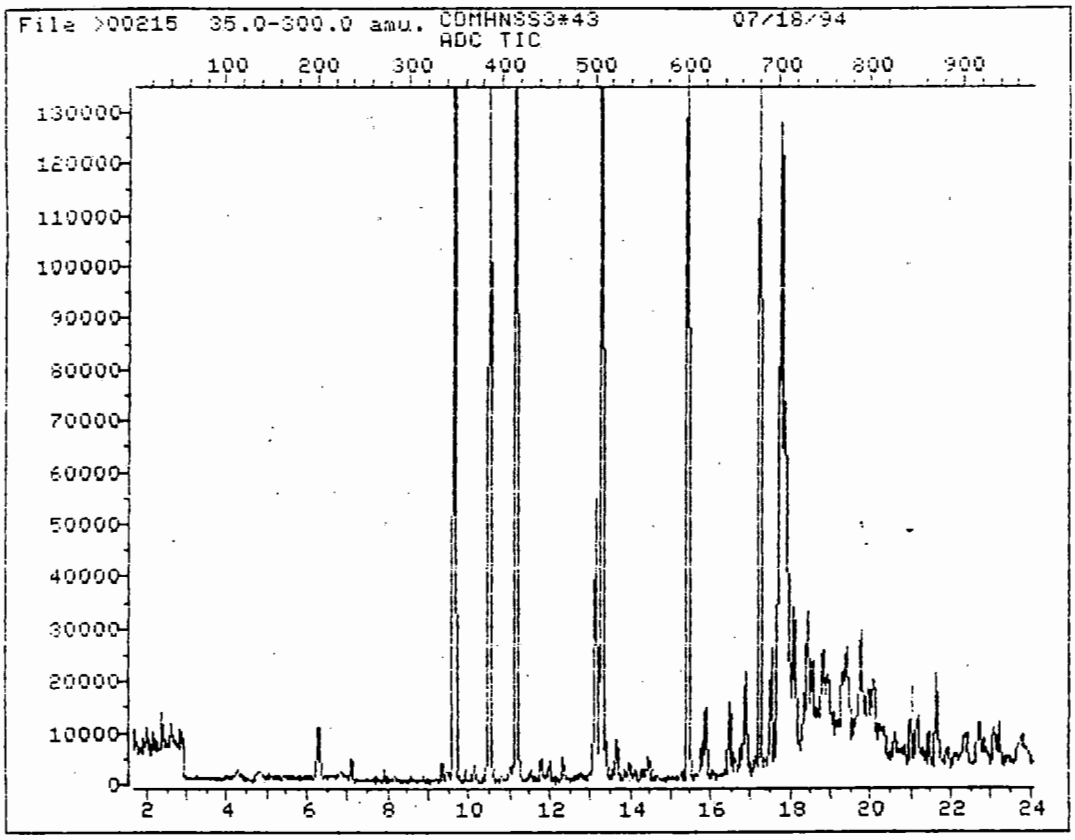
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	718743.	9.63	1.67 - 10.40
2	50.0	895302.	11.17	10.40 - 13.29
3	50.0	878217.	15.42	13.29 - 24.07

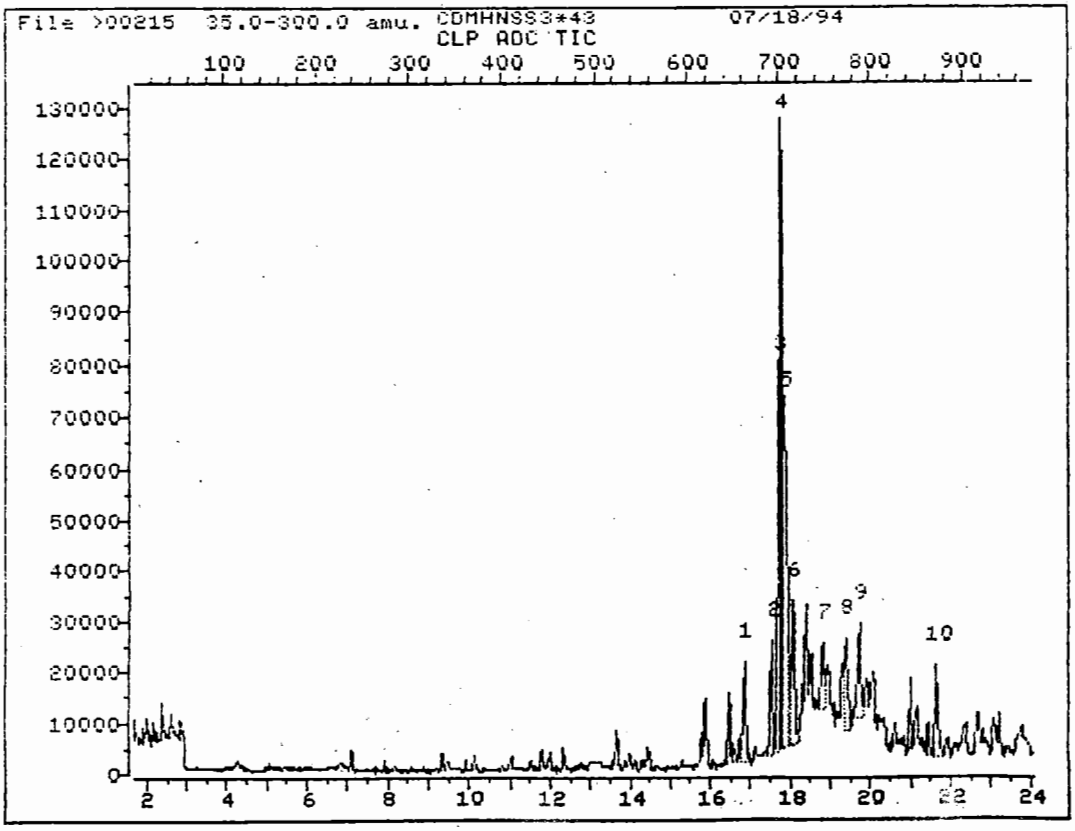
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 0.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

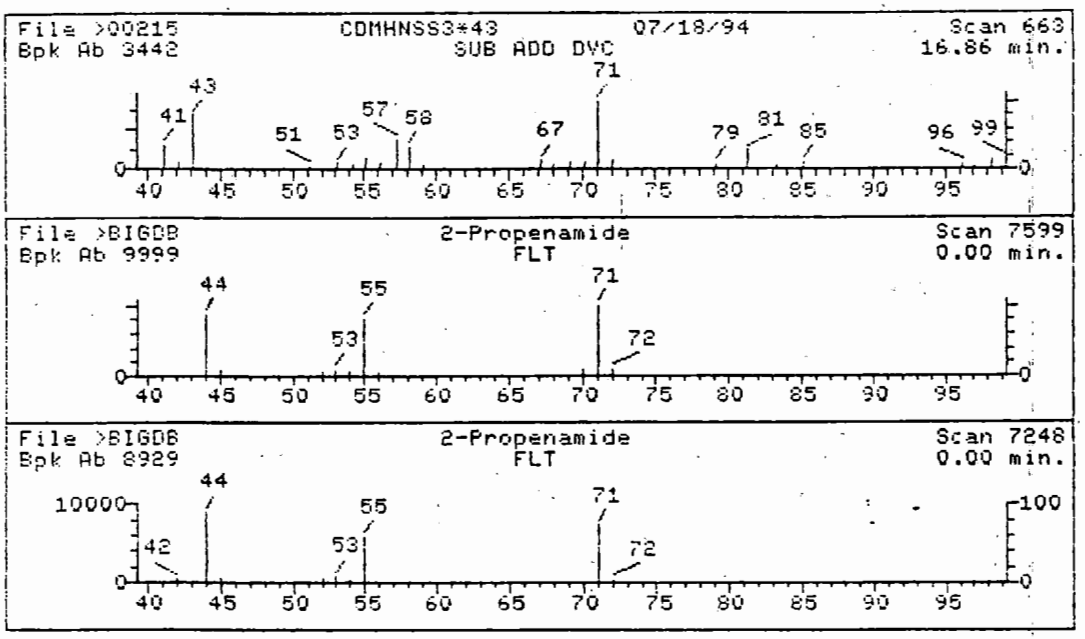
Correction Factor = ******** = (AM / AU) / (DF * FS)

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

12:19 PM TUE., 19 JULY, 1994


File >00215 35.0-300.0 amu. CDMHNSS3*43 07/18/94
ADC TIC
100 200 300 400 500 600 700 800 900
130000
120000
110000
100000
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
2 4 6 8 10 12 14 16 18 20 22 24


File >00215 35.0-300.0 amu. CDMHNSS3*43 07/18/94
CLP ADC TIC
100 200 300 400 500 600 700 800 900
130000
120000
110000
100000
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
1
2
3
4
5
6
7
8
9
10
2 4 6 8 10 12 14 16 18 20 22 24



Unknown # 1
Area = 80535.00 Tentative Concentration is 5.00

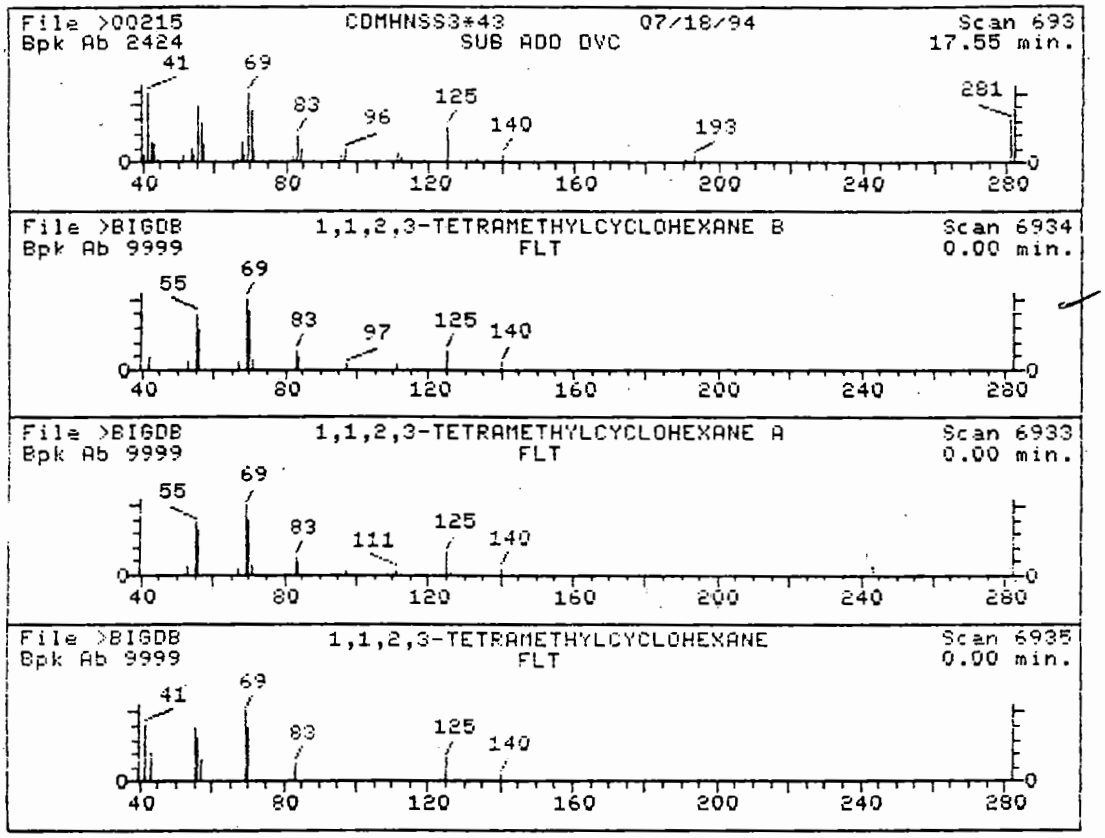
1. 2-Propenamide 71 C3H5NO
2. 2-Propenamide 71 C3H5NO

Sample file: >00215 Spectrum #: 663
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*	79061	7599	"BIGDB	29	75	3	0	100	41	8	13
2.	25*	79061	7248	"BIGDB	22	76	3	0	138	50	7	12

Unknown

yah 7/19/94



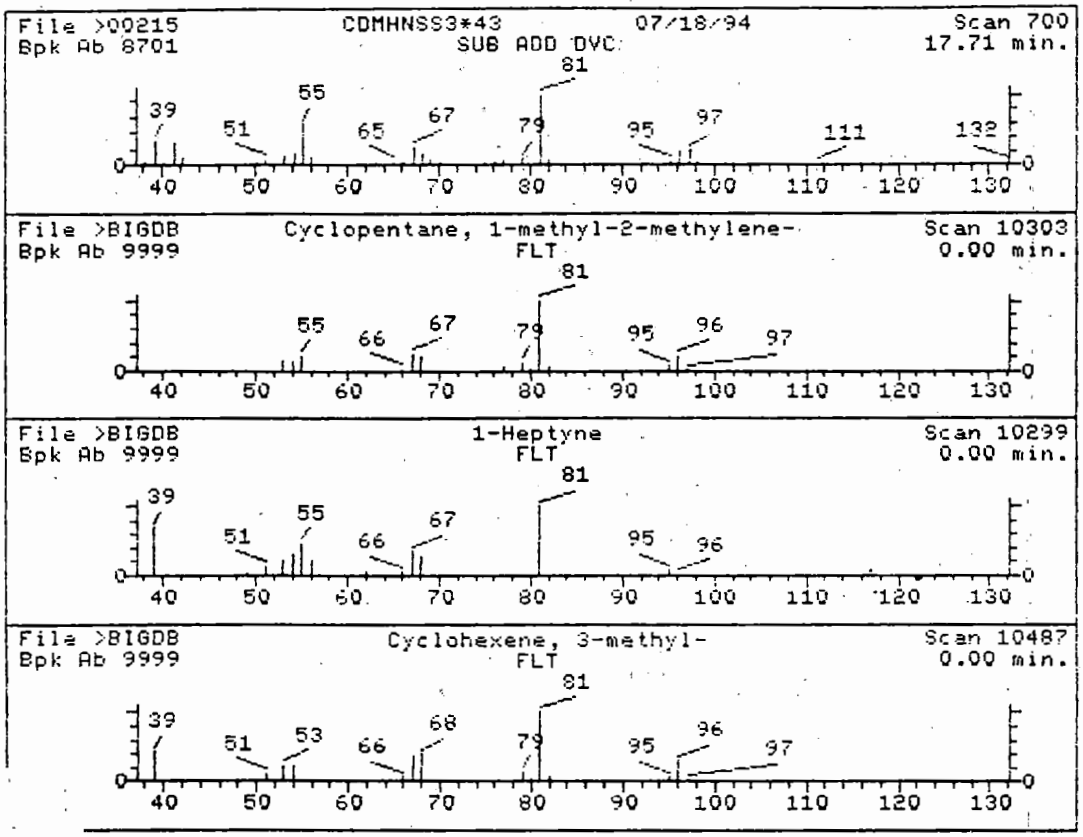
Unknown #,2
Area = 104860.0 Tentative Concentration is 6.00

1.	1,1,2,3-TETRAMETHYLCYCLOHEXANE B	140	C10H20
2.	1,1,2,3-TETRAMETHYLCYCLOHEXANE A	140	C10H20
3.	1,1,2,3-TETRAMETHYLCYCLOHEXANE	140	C10H20
4.	2-Nonenal, (E)-	140	C9H16O
5.	Cyclopropane, 1-methyl-2-(3-methylpentyl)-	140	C10H20
6.	CYCLOPENTANE, 1,2,3-TRIMETHYL-, CIS,CIS,TRANS	112	C8H16
7.	1-Heptene, 5-methyl-	112	C8H16

Sample file: >00215 Spectrum #: 693
Search speed: 1 Tilting option: N No. of ion ranges searched: 43

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	65*	0	6934	"BIGDB	61	54	1	0	89	31	24	57
2.	48*	0	6933	"BIGDB	55	58	2	0	87	31	20	32
3.	48*	0	6935	"BIGDB	47	35	1	0	81	31	20	32
4.	25	18829566	7204	"BIGDB	48	30	3	0	76	50	7	14
5.	20*	62238077	6937	"BIGDB	26	85	2	0	52	52	5	14
6.	15*	0	6852	"BIGDB	24	77	2	0	62	60	3	14
7.	11*	13151047	6847	"BIGDB	23	75	1	0	75	64	2	14

YAH 7/19/94



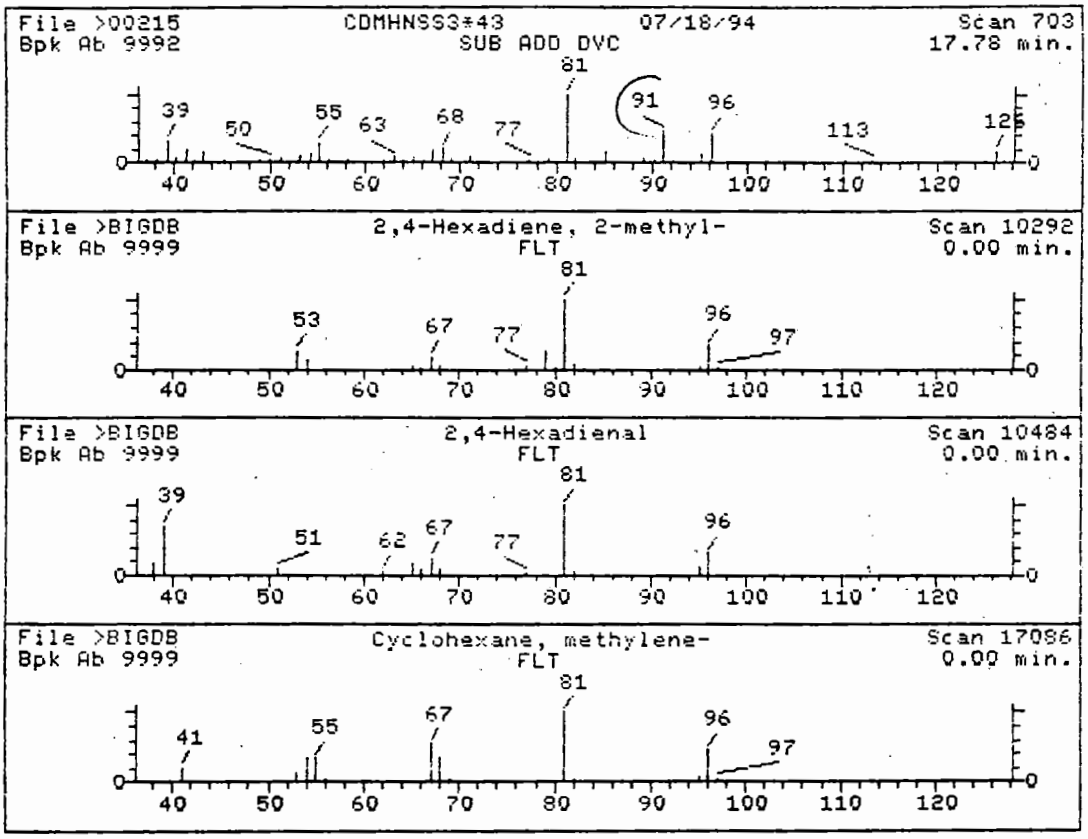
Unknown # 3
Area = 291810.0 Tentative Concentration is 17.00

1.	Cyclopentane, 1-methyl-2-methylene-	96	C7H12
2.	1-Heptyne	96	C7H12
3.	Cyclohexene, 3-methyl-	96	C7H12
4.	Cyclohexene, 3-methyl-	96	C7H12
5.	Cyclopentene, 4,4-dimethyl-	96	C7H12
6.	Cyclohexene, 4-methyl-	96	C7H12
7.	2,4-Hexadienal, (E,E)-	96	C6H8O

Sample file: >00215 Spectrum #: 700
Search speed: 1 Tilting option: N No. of ion ranges searched: 41

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	80*	41158412	10303	"BIGDB	63	34	0	0	69	21	41	76
2.	65*	628717	10299	"BIGDB	59	32	0	0	48	44	24	72
3.	61*	591480	10487	"BIGDB	72	34	1	0	59	46	20	71
4.	61*	591480	10295	"BIGDB	72	34	1	0	59	46	20	71
5.	59*	19037720	10294	"BIGDB	55	36	1	0	67	33	22	44
6.	55*	591479	10296	"BIGDB	51	32	0	0	47	46	14	65
7.	54*	4488486	10290	"BIGDB	36	55	0	0	71	32	20	38

ysH 7/19/94



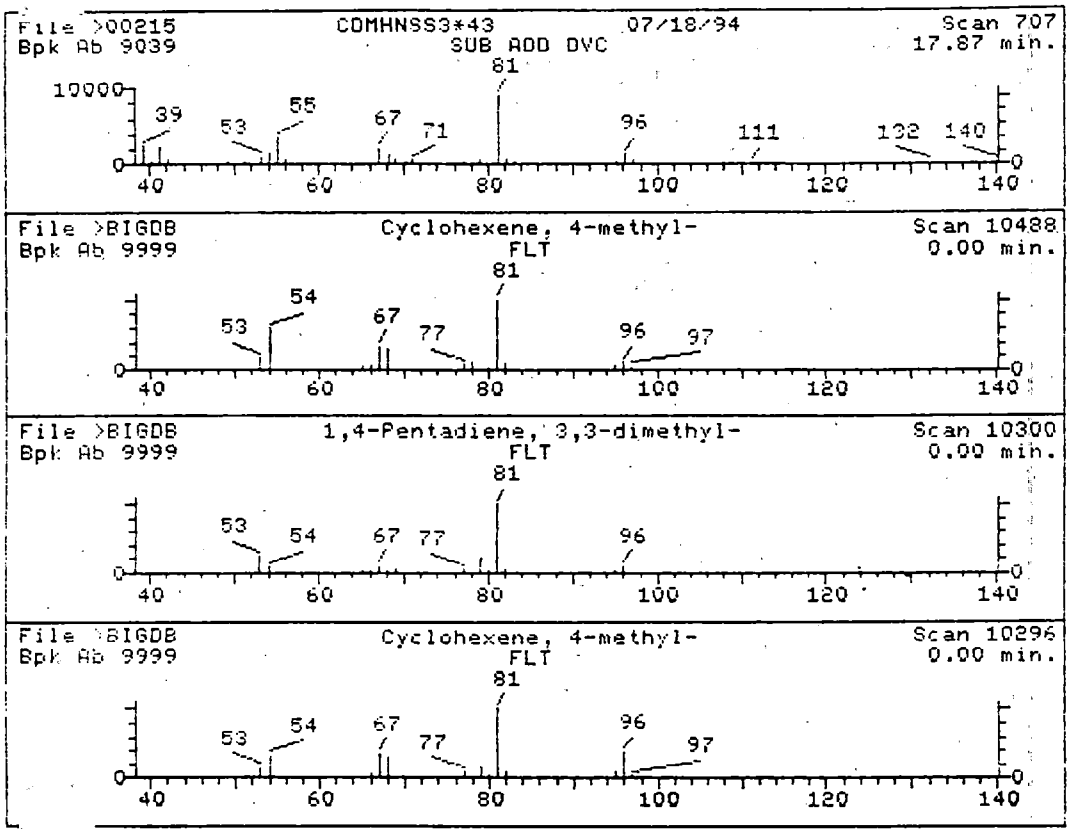
Unknown #,4
Area = 516870.0 Tentative Concentration is 29.00

1.	2,4-Hexadiene, 2-methyl-	96	C7H12
2.	2,4-Hexadienal	96	C6H8O
3.	Cyclohexane, methylene-	96	C7H12
4.	1,3-PENTADIENE, 2,3-DIMETHYL-	96	C7H12
5.	2,4-Hexadienal, (E,E)-	96	C6H8O
6.	Cyclohexane, methylene-	96	C7H12
7.	1H-Imidazole-4-ethanamine, 1-methyl-	125	C6H11N3

Sample file: >00215 Spectrum #: 703
Search speed: 1 Tilting option: N No. of ion ranges searched: 41

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IO
1.	45*	28823418	10292	"BIGDB	45	50	2	0	94	29	19	23
2.	36*	142836	10484	"BIGDB	27	77	3	0	100	26	14	13
3.	31*	1192376	17086	"BIGDB	32	52	3	0	95	32	12	14
4.	31*	0	16733	"BIGDB	36	67	2	0	97	32	12	14
5.	30*	4488486	10290	"BIGDB	39	52	1	0	86	46	10	22
6.	30*	1192376	17085	"BIGDB	33	71	3	0	100	32	12	13
7.	27*	501757	16779	"BIGDB	25	61	3	0	250	40	10	13

Unknown 7/19/94



Unknown #,5
Area = 341241.0 Tentative Concentration is 19.00

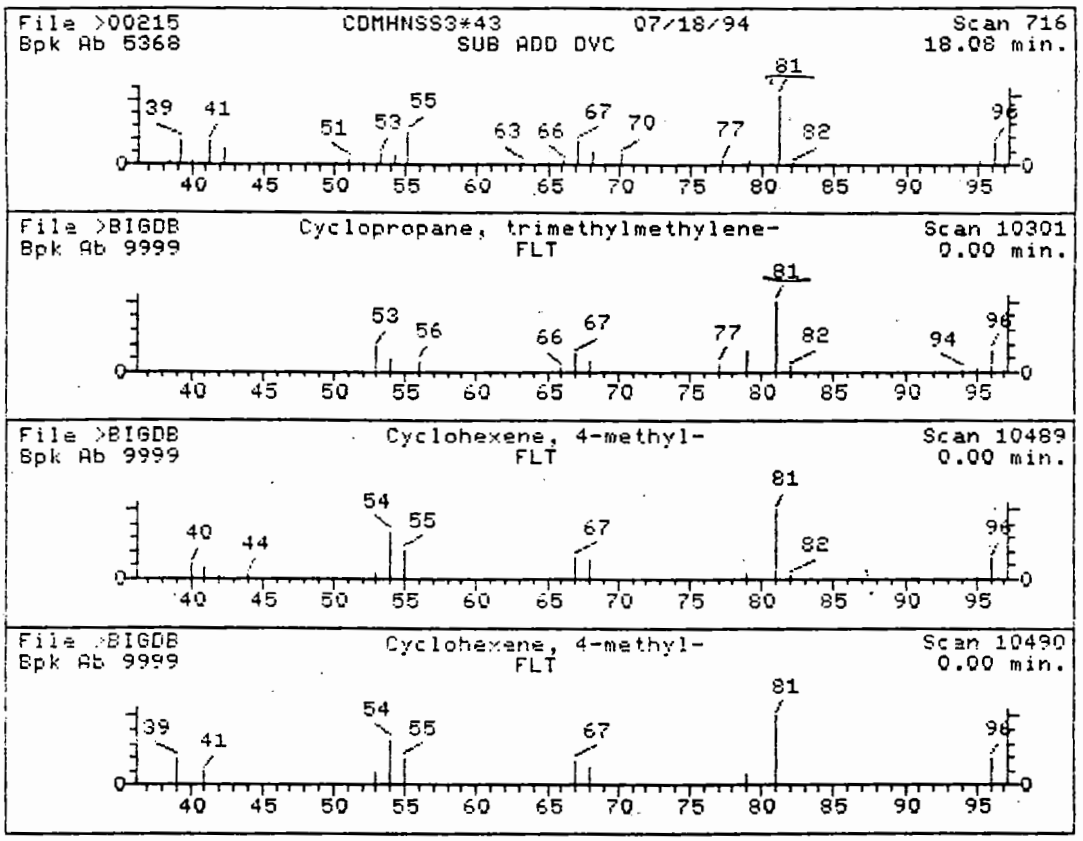
1.	Cyclohexene, 4-methyl-	96	C7H12
2.	1,4-Pentadiene, 3,3-dimethyl-	96	C7H12
3.	Cyclohexene, 4-methyl-	96	C7H12
4.	CYCLOBUTANE, ISOPROPYLIDEN-	96	C7H12
5.	Cyclopentane, 1-methyl-2-methylene-	96	C7H12
6.	Silane, difluorodimethyl-	96	C2H6F2Si
7.	1H-Pyrrole, 1-methyl-	81	C5H7N

Sample file: >00215 Spectrum #: 707
Search speed: 1 Tilting option: N No. of ion ranges searched: 42

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	78*	591479	10488	"BIGDB	25	73	3	0	100	5	55	13
2.	42*	1112352	10300	"BIGDB	27	61	3	0	100	22	17	13
3.	39*	591479	10296	"BIGDB	46	37	2	0	40	40	14	26
4.	38*	0	10304	"BIGDB	33	59	2	0	69	28	14	15
5.	31*	41158412	10303	"BIGDB	37	60	1	0	56	45	8	19
6.	30*	353662	10288	"BIGDB	26	60	3	0	100	32	12	13
7.	30*	96548	10483	"BIGDB	30	67	3	0	100	33	12	13

unknown

yoH 7/19/94



no 55

no 54

no 54

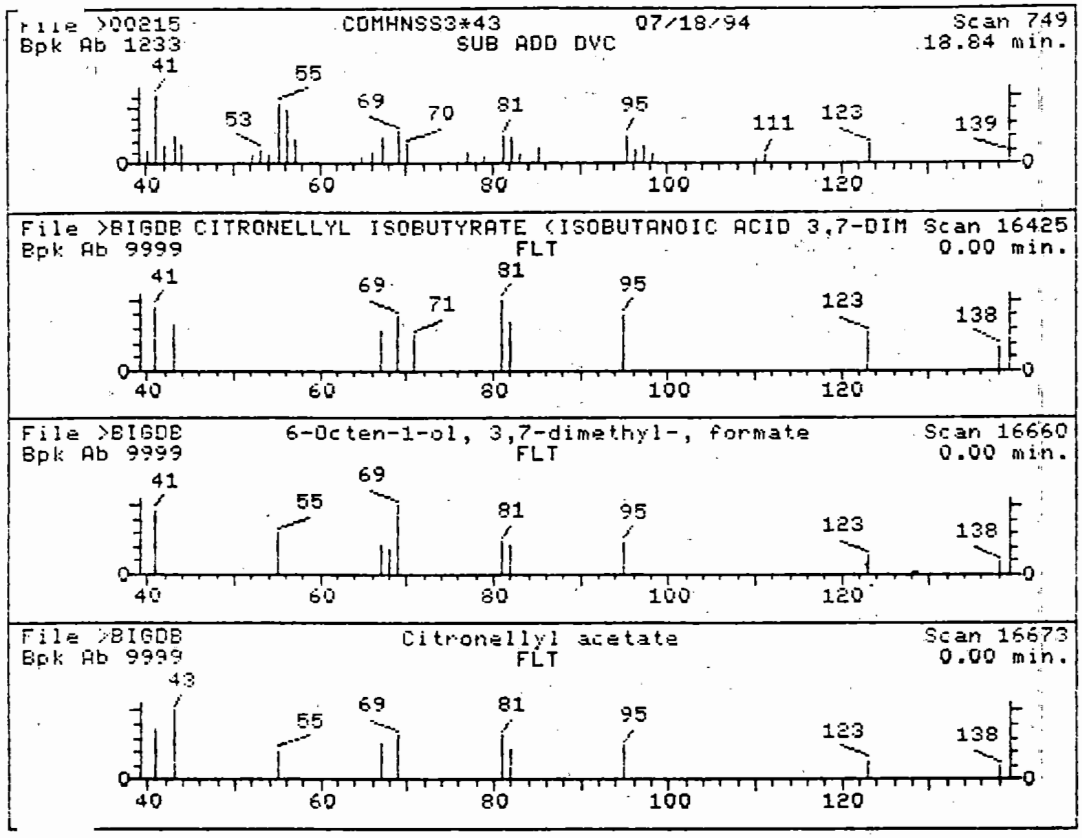
Unknown #,6
Area = 135575.0 Tentative Concentration is 8.00

1.	Cyclopropane, trimethylmethylene-	96	C7H12
2.	Cyclohexene, 4-methyl-	96	C7H12
3.	Cyclohexene, 4-methyl-	96	C7H12
4.	Cyclopentane, 1-methyl-2-methylene-	96	C7H12
5.	Cyclohexene, 4-methyl-	96	C7H12
6.	Cyclohexene, 3-methyl-	96	C7H12
7.	Cyclohexene, 3-methyl-	96	C7H12

Sample file: >00215 Spectrum #: 716
Search speed: 1 Tilting option: N No. of ion ranges searched: 40

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	70*	34462287	10301	"BIGDB	43	60	3	0	100	8	42	13
2.	63*	591479	10489	"BIGDB	55	40	2	0	77	18	30	35
3.	59*	591479	10490	"BIGDB	54	20	2	0	83	21	27	39
4.	55*	41158412	10303	"BIGDB	45	52	1	0	67	21	22	27
5.	52*	591479	10488	"BIGDB	34	64	3	0	100	18	20	13
6.	45*	591480	10295	"BIGDB	51	55	1	0	52	36	17	34
7.	45*	591480	10487	"BIGDB	51	55	1	0	52	36	17	34

unknown
yM 7/8/94



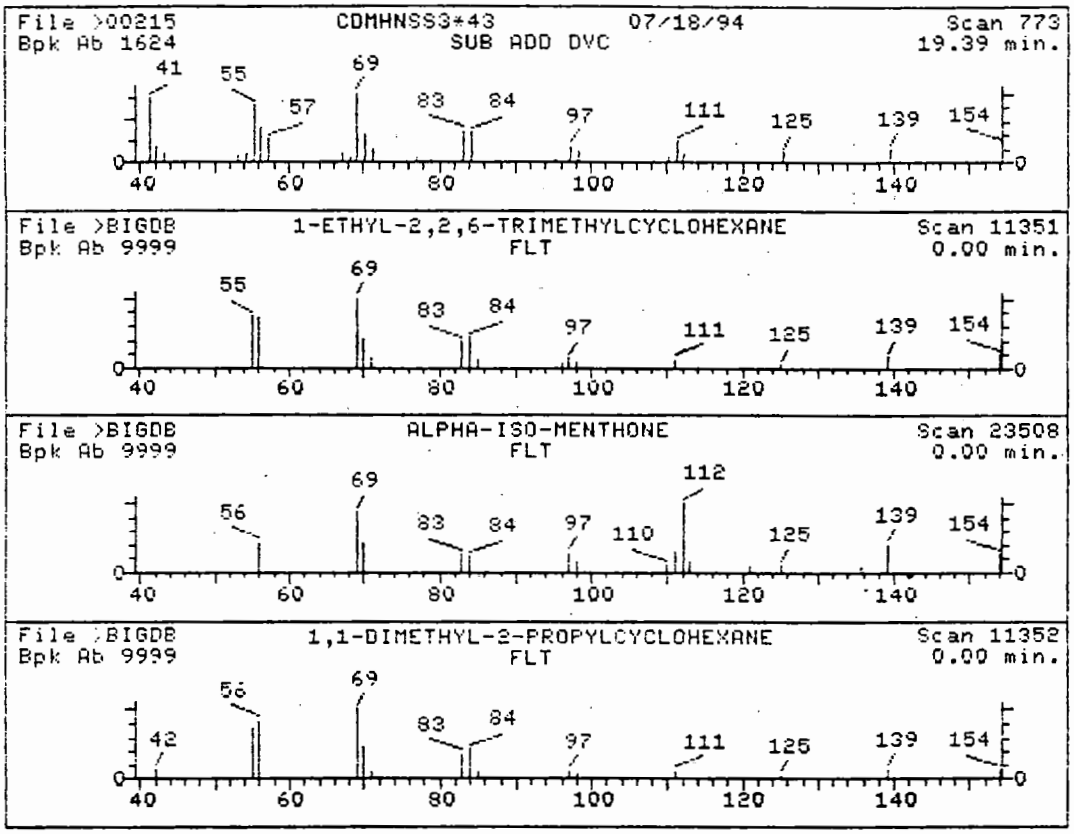
Unknown #,7
Area = 81311.00 Tentative Concentration is 5.00

1.	CITRONELLYL ISOBUTYRATE (ISOBUTANOIC ACID 3,7-DIMETHYL-6-OCTEN-1-OL ESTER)	226	C14H26O2
2.	6-Octen-1-ol, 3,7-dimethyl-, formate	184	C11H20O2
3.	Citronellyl acetate	198	C12H22O2
4.	4-Pentenal, 2-methyl-	98	C6H10O
5.	Citronellyl propionate	212	C13H24O2

Sample file: >00215 Spectrum #: 749
Search speed: 1 Tilting option: N No. of ion ranges searched: 49

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	20	0	16425	"BIGDB	52	35	3	0	53	54	5	14
2.	20	105851	16660	"BIGDB	48	33	3	0	82	54	5	14
3.	15	150845	16673	"BIGDB	39	37	2	0	61	58	3	13
4.	11*	5187713	2178	"BIGDB	23	64	3	0	223	64	2	12
5.	11	141140	16682	"BIGDB	42	36	2	0	39	61	2	14

unknown
yd+ 7/19/94



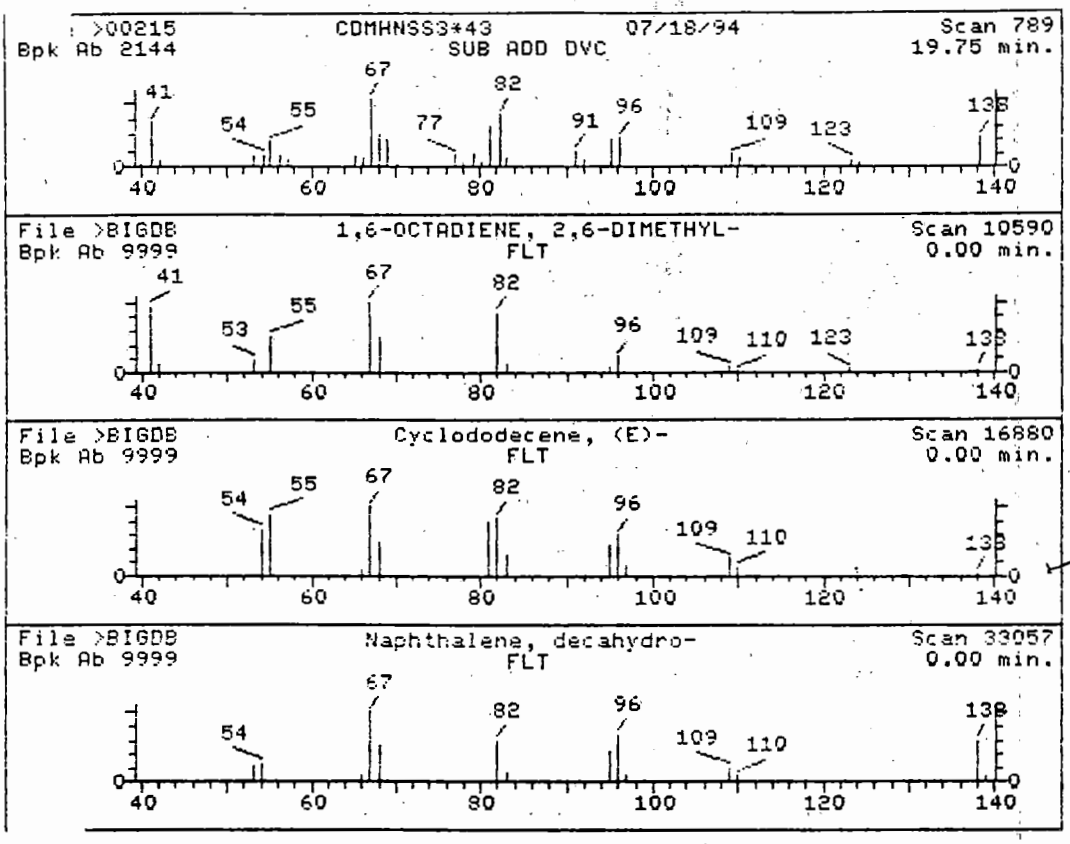
Unknown #,8
Area = 116865.0 Tentative Concentration is 7.00

1.	1-ETHYL-2,2,6-TRIMETHYLCYCLOHEXANE	154 C11H22
2.	ALPHA-ISO-MENTHONE	154 C10H18O
3.	1,1-DIMETHYL-2-PROPYLCYCLOHEXANE	154 C11H22
4.	Cyclohexanone, 5-methyl-2-(1-methylethyl)-, cis-	154 C10H18O
5.	p-Menthone	154 C10H18O
6.	Cyclohexanone, 5-methyl-2-(1-methylethyl)-, cis-	154 C10H18O
7.	5-Undecene	154 C11H22

Sample file: >00215 Spectrum #: 773
Search speed: 1 Tilting option: N No. of ion ranges searched: 49

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	71*	0	11351	"BIGDB	66	53	3	0	98	11	38	33
2.	58*	0	23508	"BIGDB	59	71	3	0	97	16	25	25
3.	52*	0	11352	"BIGDB	42	76	2	0	93	18	20	14
4.	51*	491076	23718	"BIGDB	64	63	3	0	88	30	24	31
5.	49*	89805	23510	"BIGDB	66	64	3	0	84	33	20	33
6.	43*	491076	23511	"BIGDB	51	74	3	0	100	25	17	14
7.	41*	4941531	37872	"BIGDB	56	58	2	0	74	44	14	33

JDH 7/19/94



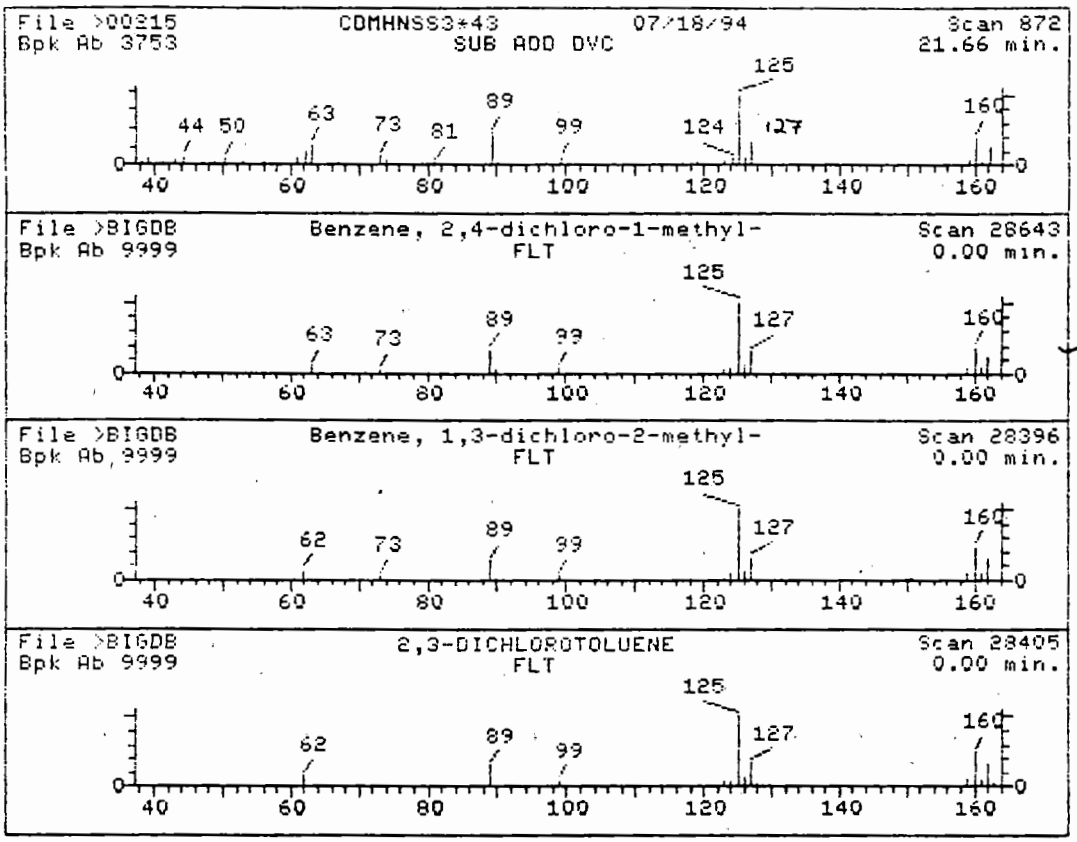
Unknown #,9
Area = 115541.0 Tentative Concentration is 7.00

1.	1,6-OCTADIENE, 2,6-DIMETHYL-	138	C10H18
2.	Cyclododecene, (E)-	166	C12H22
3.	Naphthalene, decahydro-	138	C10H18
4.	1,1'-Bicyclopentyl	138	C10H18
5.	Cyclododecene, (Z)-	166	C12H22
6.	Naphthalene, decahydro-	138	C10H18
7.	1H-Indene, octahydro-5-methyl-	138	C10H18

Sample file: >00215 Spectrum #: 789
Search speed: 1 Tilting option: N No. of ion ranges searched: 43

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	68*	0	10590	"BIGDB	59	49	0	0	69	39	28	72
2.	60	1486755	16880	"BIGDB	79	50	3	0	72	15	30	14
3.	59*	91178	33057	"BIGDB	65	59	2	0	63	35	22	44
4.	58*	1636391	17106	"BIGDB	69	47	2	0	79	40	19	49
5.	52	1129891	16879	"BIGDB	79	50	3	0	70	16	20	14
6.	45*	91178	33058	"BIGDB	57	55	2	0	49	40	17	34
7.	44*	19744640	16808	"BIGDB	52	65	3	0	151	25	17	15

yu 7/19/



Unknown #,10
Area = 96259.00 Tentative Concentration is 5.00

1.	Benzene, 2,4-dichloro-1-methyl-	160	C7H6Cl2
2.	Benzene, 1,3-dichloro-2-methyl-	160	C7H6Cl2
3.	2,3-DICHLOROTOLUENE	160	C7H6Cl2
4.	Benzene, 2,4-dichloro-1-methyl-	160	C7H6Cl2
5.	Benzene, 1,2-dichloro-4-methyl-	160	C7H6Cl2
6.	Benzene, 1-chloro-4-(chloromethyl)-	160	C7H6Cl2
7.	Benzene, 1-chloro-4-(chloromethyl)-	160	C7H6Cl2

Sample file: >00215 Spectrum #: 872
Search speed: 1 Tilting option: N No. of ion ranges searched: 41

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	94*	95738	28643	"BIGDB	79	29	0	0	82	17	60	94
2.	92*	118694	28396	"BIGDB	74	37	0	0	81	15	64	92
3.	76*	0	28405	"BIGDB	74	39	2	0	73	13	40	56
4.	63*	95738	28397	"BIGDB	55	60	2	0	85	19	30	32
5.	59*	95750	28395	"BIGDB	53	56	1	0	68	25	27	37
6.	36*	104836	28401	"BIGDB	37	72	1	0	87	32	12	19
7.	34*	104836	28644	"BIGDB	40	57	2	0	100	34	12	17

YDH 7/19/94

95135554.2917

Semivolatile Organic Compounds

:**TR
:DU,U53693,1

GC/MS SEMIVOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Name: CDMHNSS3*1 0714 Injected: 940716 16:24
Misc: 07/16/94 KEC/PHC BTL# 6
Data File: >53693::N8

*Phenanthrene-d10 RT= 22.445

COMPOUND NAME	TIC#	RT	CAS	ug/kg
3-Penten-2-one, 4-methyl-	2	5.81	141797	300.00

:RU,CRT,FF

9513354.2918

MS data file header from : >53693

Sample: CDMHNSS3*1 0714 Operator: PHC MS 7/16/94 16:24
: 07/16/94 KEC/PHC BTL# 6
#: 2 MS model: 88 SW/HW rev.: IA ALS # : 0
Method file: CLPPC2 Tuning file: MT7802 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 305 Transfer line temp. : 0

Chromatographic temperatures :	40.	300.	0.	0.	0.
Chromatographic times, min. :	4.0	15.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	.3	0.0

>53693 CDMHNSS3*1 071407/16/94 KEC/PHC
35.01 500.0 CLP ADC TIC
Upslope: .20 Area Reject: 30598. Max Peaks: 5 Bunching: 1
Dnslope: 0.00 Results File I53693 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
X	4.94	102	106	109	21144	149605	42920	24.38	12.205
2	5.81	204	209	215	83068	326923	176076	100.00	50.072
3	6.97	342	346	351	22130	126452	43091	24.47	12.254
4	7.93	459	460	469	11763	107907	33203	18.86	9.442
5	24.00	2361	2366	2370	30406	62588	56355	32.01	16.026

<10% IS PHC 7-19-94

Sum of corrected areas: 351645.

Summary of Unknowns PBM Library Search and Quantitation

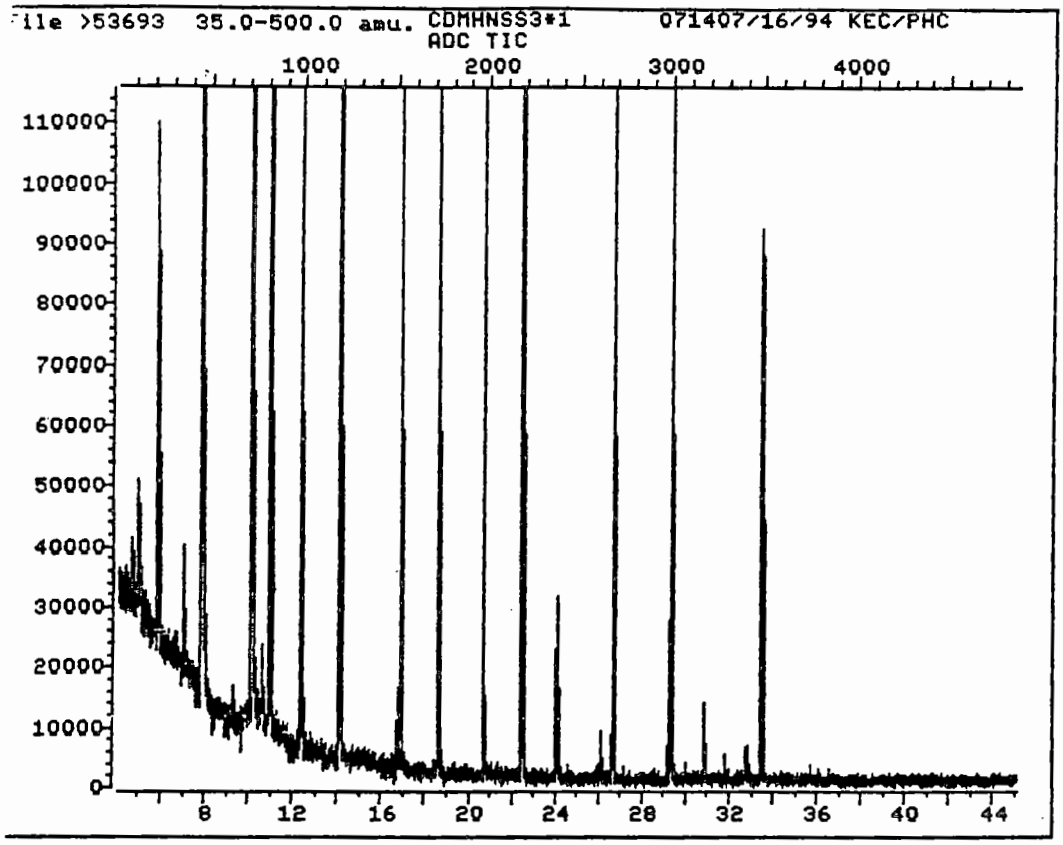
Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	1588629.	10.90	4.05 - 12.49
2	40.0	1703021.	14.08	12.49 - 16.33
3	40.0	1491725.	18.59	16.33 - 20.52
4	40.0	1503070.	22.44	20.52 - 25.87
5	40.0	657171.	29.30	25.87 - 31.37
6	40.0	305983.	33.43	31.37 - 45.09

Dilution Factor (DF) = .02 Fractional Solids (FS) = 1.00
Amount Method (AM) = 15.00 Amount Used (AU) = 15.00

Correction Factor = 66.67 = (AM / AU) / (DF * FS)

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

6:46 PM SAT., 16 JULY, 1994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ADC TIC
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3000
4000
110000
100000
90000
80000
70000
60000
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20000
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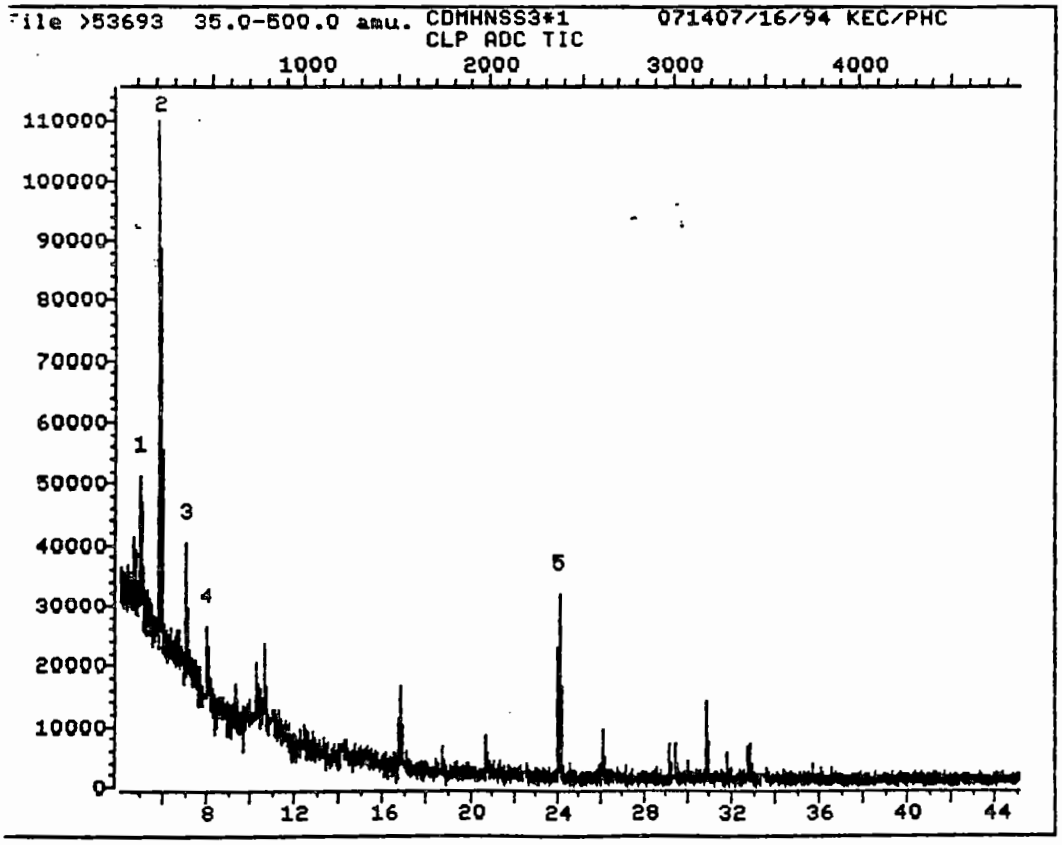
44


File >53693 35.0-500.0 amu. CDMHNSS3*1 071407/16/94 KEC/PHC
CLP ADC TIC
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4
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110000
100000
90000
80000
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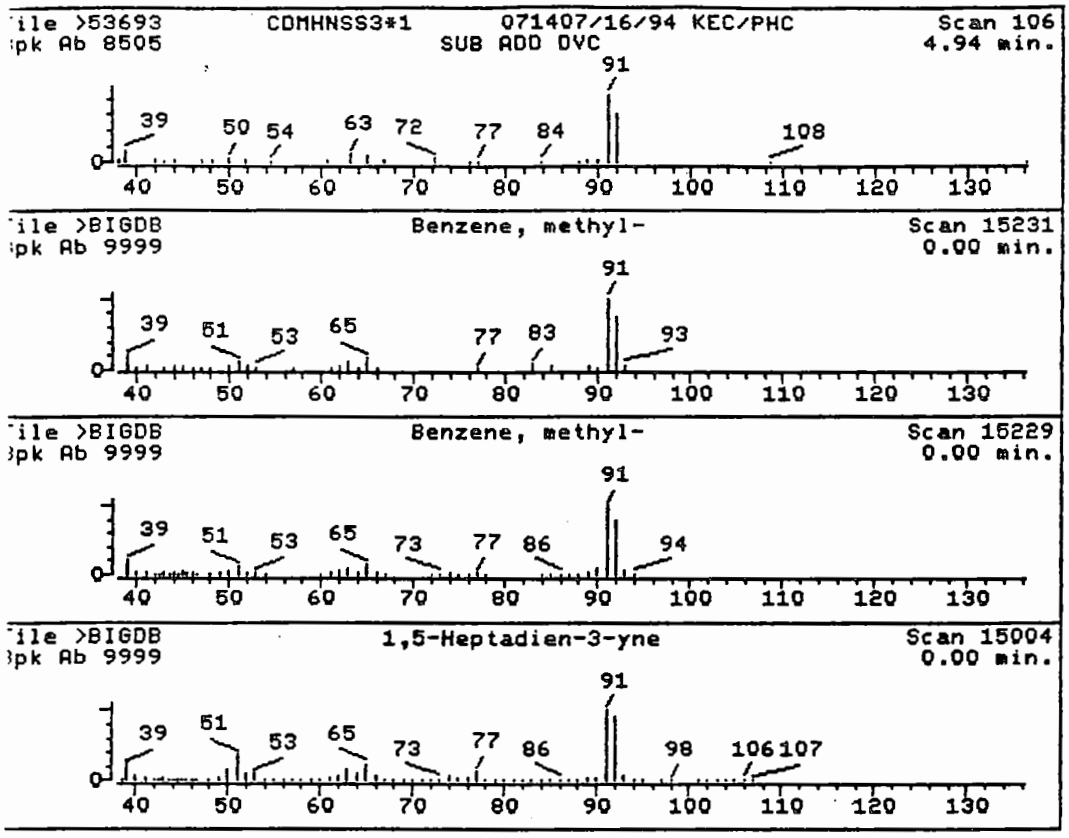


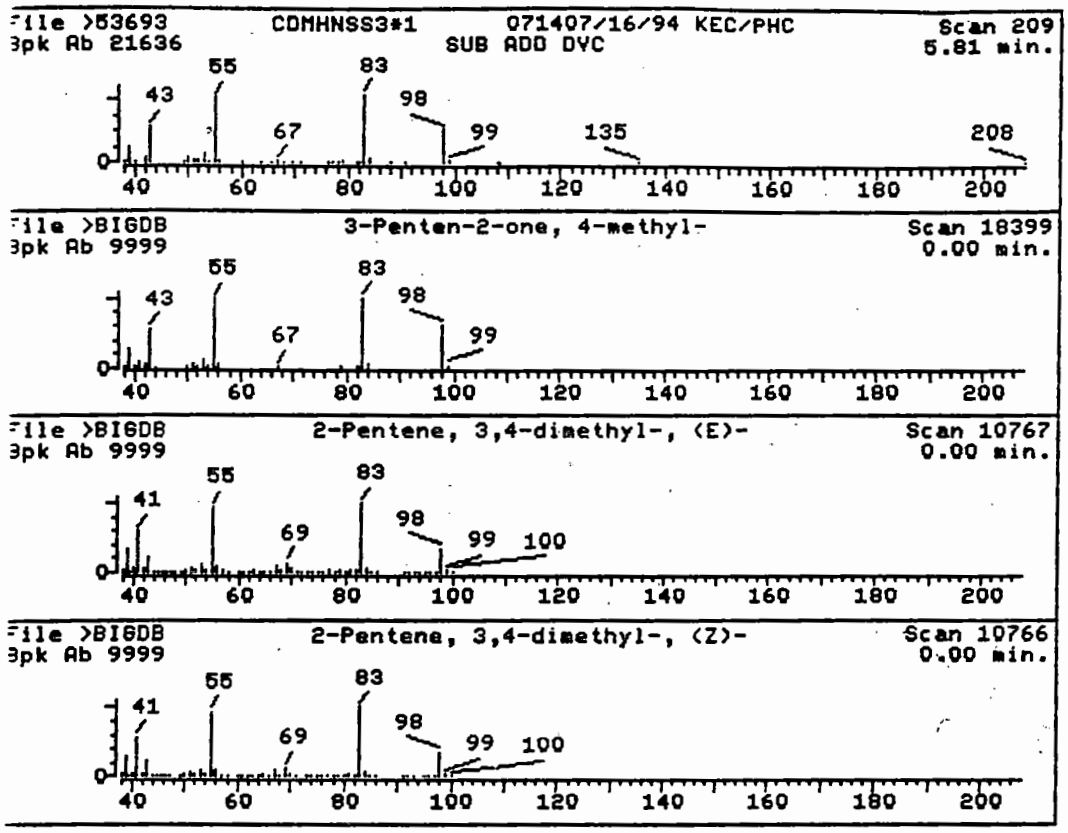
Sample: CDMHNSS3*1 0714 Injected: 7/16/94 16:24

TIC # 1 . Area = 42920.00 Tentative Conc = 72.00

1.	Benzene, methyl-	92 C7H8
2.	Benzene, methyl-	92 C7H8
3.	1,5-Heptadien-3-yne	92 C7H8
4.	Benzene, methyl-	92 C7H8
5.	Benzene, methyl-	92 C7H8
6.	1,3,5-Cycloheptatriene	92 C7H8
7.	Benzene, methyl-	92 C7H8

Sample file: >53693 Spectrum #: 106
Search speed: 1 Tilting option: N No. of ion ranges searched: 42

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	70*	108883	15231	"BIGDB	40	56	3	0	95	9	42	13
2.	70*	108883	15229	"BIGDB	39	56	3	0	89	10	42	13
.	70*	3511271	15004	"BIGDB	41	63	3	0	76	10	42	13
	70*	108883	15010	"BIGDB	33	57	3	0	97	10	42	13
.	60*	108883	15230	"BIGDB	38	46	2	0	100	12	30	19
6.	60*	544252	15235	"BIGDB	36	49	3	0	100	13	30	14
7.	52*	108883	15228	"BIGDB	25	53	2	0	100	16	20	14



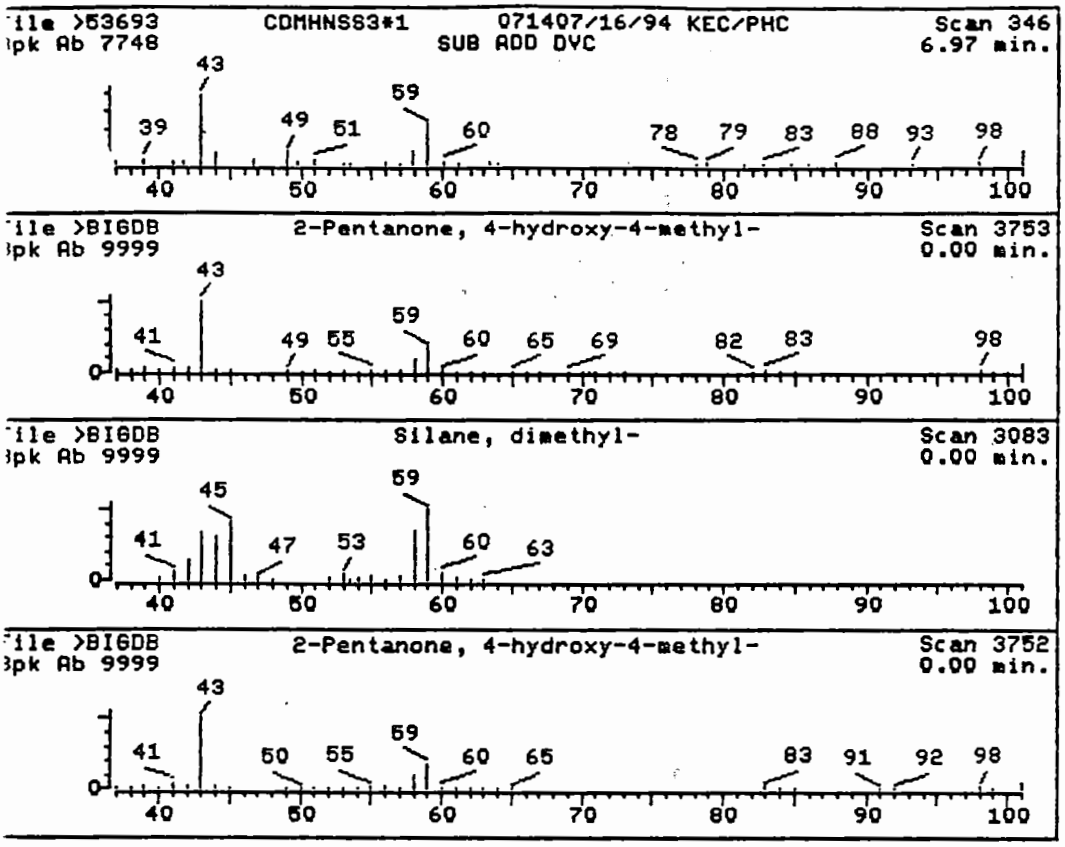
Sample: CDMHNSS3*1 0714 Injected: 7/16/94 16:24

TIC # 2 . Area = 176076.0 Tentative Conc = 300.00

1.	3-Penten-2-one, 4-methyl-	98 C6H10O
2.	2-Pentene, 3,4-dimethyl-, (E)-	98 C7H14
3.	2-Pentene, 3,4-dimethyl-, (Z)-	98 C7H14
4.	3-Penten-2-one, 4-methyl-	98 C6H10O
5.	3-Penten-2-one, 4-methyl-	98 C6H10O
6.	3-Penten-2-one, 4-methyl-	98 C6H10O
7.	3-Penten-2-one, 4-methyl-	98 C6H10O

Sample file: >53693 Spectrum #: 209
Search speed: 1 Tilting option: N No. of ion ranges searched: 42

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	83*	141797	18399	"BIGDB	58	31	0	0	72	12	51	71
2.	76*	4914925	10767	"BIGDB	46	50	2	0	100	6	45	23
3.	76*	4914914	10766	"BIGDB	46	52	2	0	100	10	45	21
4.	76*	141797	18396	"BIGDB	61	29	1	0	77	12	40	57
5.	76*	141797	10758	"BIGDB	52	40	3	0	94	8	45	23
6.	71*	141797	18404	"BIGDB	49	21	1	0	77	13	38	37
7.	71*	141797	18402	"BIGDB	53	27	2	0	100	12	38	36



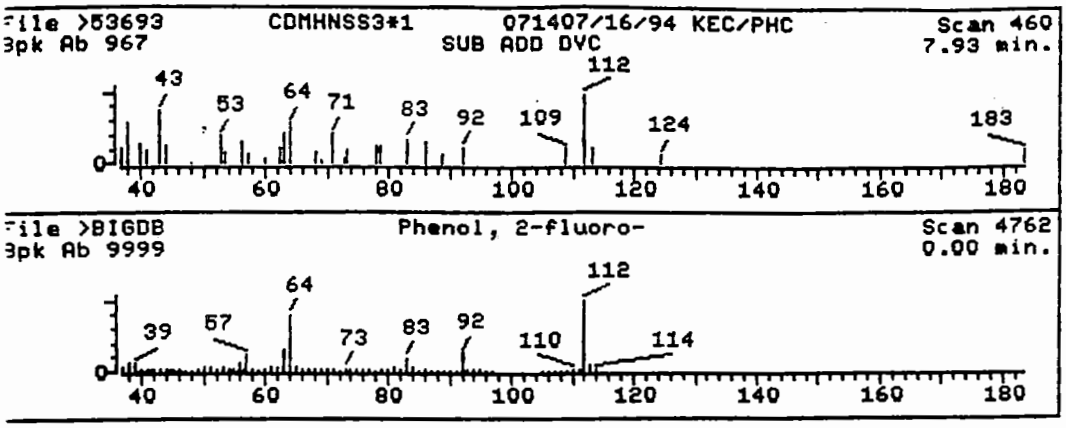
Sample: CDMHNSS3*1 0714 Injected: 7/16/94 16:24

TIC # 3 . Area = 43091.00 Tentative Conc = 72.00

1. 2-Pentanone, 4-hydroxy-4-methyl- 116 C6H12O2
2. Silane, dimethyl- 60 C2H8Si
3. 2-Pentanone, 4-hydroxy-4-methyl- 116 C6H12O2

Sample file: >53693 Spectrum #: 346
Search speed: 1 Tilting option: N No. of ion ranges searched: 41

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	15	123422	3753	"BIGDB	33	45	1	0	82	60	3	12
2.	15*	1111746	3083	"BIGDB	23	56	2	0	24	60	3	13
3.	11	123422	3752	"BIGDB	34	47	1	0	79	62	2	12



Sample: CDMHNSS3*1 0714 Injected: 7/16/94 16:24

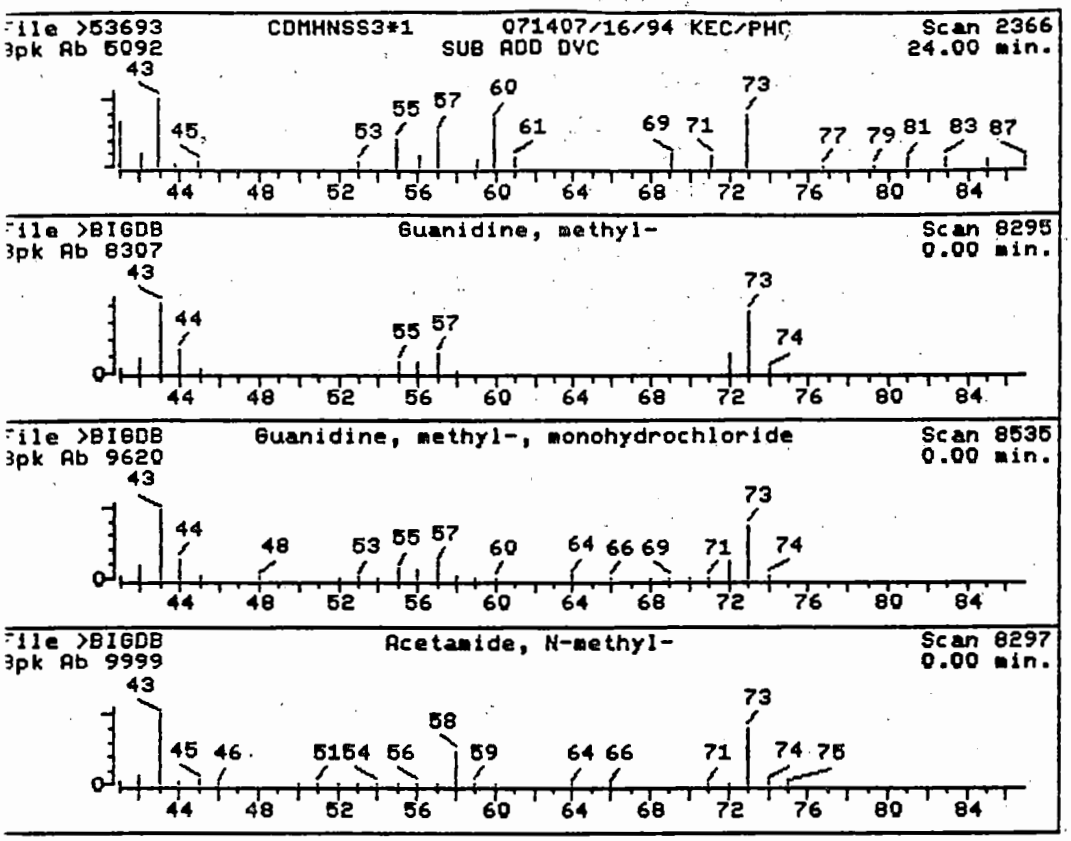
TIC # 4 . Area = 33203.00 Tentative Conc = 56.00

1. Phenol, 2-fluoro- 112 C6H5FO

Sample file: >53693 Spectrum #: 460
Search speed: 1 Tilting option: N No. of ion ranges searched: 42

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	20*	367124	4762	"BIGDB	30	79	2	0	73	52	5	14

9513554.2921



Sample: CDMHNSS3*1 0714 Injected: 7/16/94 16:24

TIC # 5 . Area = 56355.00 Tentative Conc = 100.00

1. Guanidine, methyl- 73 C2H7N3
2. Guanidine, methyl-, monohydrochloride 73 C2H7N3
3. Acetamide, N-methyl- 73 C3H7NO
4. Acetamide, N-methyl- 73 C3H7NO

Sample file: >53693 Spectrum #: 2366
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*	471294	8295	"BIGDB	27	74	3	0	106	55	5	13
2.	20*	21770810	8535	"BIGDB	27	79	3	0	103	55	5	13
3.	15*	79163	8297	"BIGDB	23	63	3	0	97	58	3	12
4.	15*	79163	8539	"BIGDB	23	69	3	0	78	58	3	12

:**TR
:DU,U53697,1

GC/MS SEMIVOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Name: CDMHNSS3*2 0714 Injected: 940716 20:04
Misc: 07/16/94 5xdil KEC/PHC BTL#10
Data File: >53697::N8

*Phenanthrene-d10 RT= 22.384

COMPOUND NAME TIC#	RT	CAS	ug/kg
Unknown 2	4.98		1600.00
Total oil	31.00 (median ret. time)		1700000.00

:RU,CRT,FF

9513554 2922

MS data file header from : >53697

Sample: CDMHNSS3*2 0714 Operator: PHC MS 7/16/94 20:04
: 07/16/94 5xdil KEC/PHC BTL#10
#: 2 MS model: 88 SW/HW rev.: IA ALS # : 0
Method file: CLPPC2 Tuning file: MT7802 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 305 Transfer line temp. : 0

Chromatographic temperatures : 40. 300. 0. 0. 0.
Chromatographic times, min. : 4.0 15.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 10.0 0.0 0.0 .3 0.0

>53697 CDMHNSS3*2 071407/16/94 5xdil KEC/PHC
35.01 500.0 CLP ADC TIC
Upslope: .20 Area Reject: 9555. Max Peaks: 20 Bunching: 1
Dnslope: 0.00 Results File I53697 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
X	4.93	111	115	117	18714	126495	37733	14.48	3.182
2	4.98	117	121	128	103240	384216	215354	82.66	18.163
3	5.58	188	192	195	11811	109814	24836	9.53	2.095
4	5.79	213	217	221	24134	139405	47204	18.12	3.981
5	5.91	227	231	233	9259	93417	22140	8.50	1.867
6	8.46	530	534	537	11547	58075	22829	8.76	1.925
7	9.60	665	669	675	21930	88095	49760	19.10	4.197
8	16.03	1426	1431	1433	18059	61691	36044	13.84	3.040
	19.82	1870	1879	1880	7965	46407	26437	10.15	2.230
	21.08	2025	2029	2030	16516	55041	27469	10.54	2.317
11	21.11	2030	2032	2038	16693	70542	33304	12.78	2.809
12	21.89	2122	2125	2130	8543	83442	22395	8.60	1.889
13	22.25	2160	2167	2169	26074	166876	71457	27.43	6.027
14	22.34	2171	2178	2180	108900	370939	260521	100.00	21.973
15	23.36	2295	2298	2301	15473	99558	22060	8.47	1.861
16	23.97	2368	2371	2378	39696	267733	70025	26.88	5.906
17	24.41	2421	2423	2426	15067	122084	24144	9.27	2.036
18	26.03	2610	2613	2616	19789	279575	38776	14.88	3.270
19	33.32	3465	3469	3471	40501	498281	95549	36.68	8.059
20	40.67	4331	4337	4339	12026	77188	37616	14.44	3.173

X...<10% IS PHC 7-19-94

Sum of corrected areas: 1185653.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	1798430.	10.86	3.96 - 12.44
2	40.0	2474336.	14.03	12.44 - 16.28
3	40.0	1743897.	18.54	16.28 - 20.46
4	40.0	895569.	22.38	20.46 - 25.82
5	40.0	647815.	29.26	25.82 - 31.34
6	40.0	~~95550.~~ 647815	33.41	31.34 - 45.03

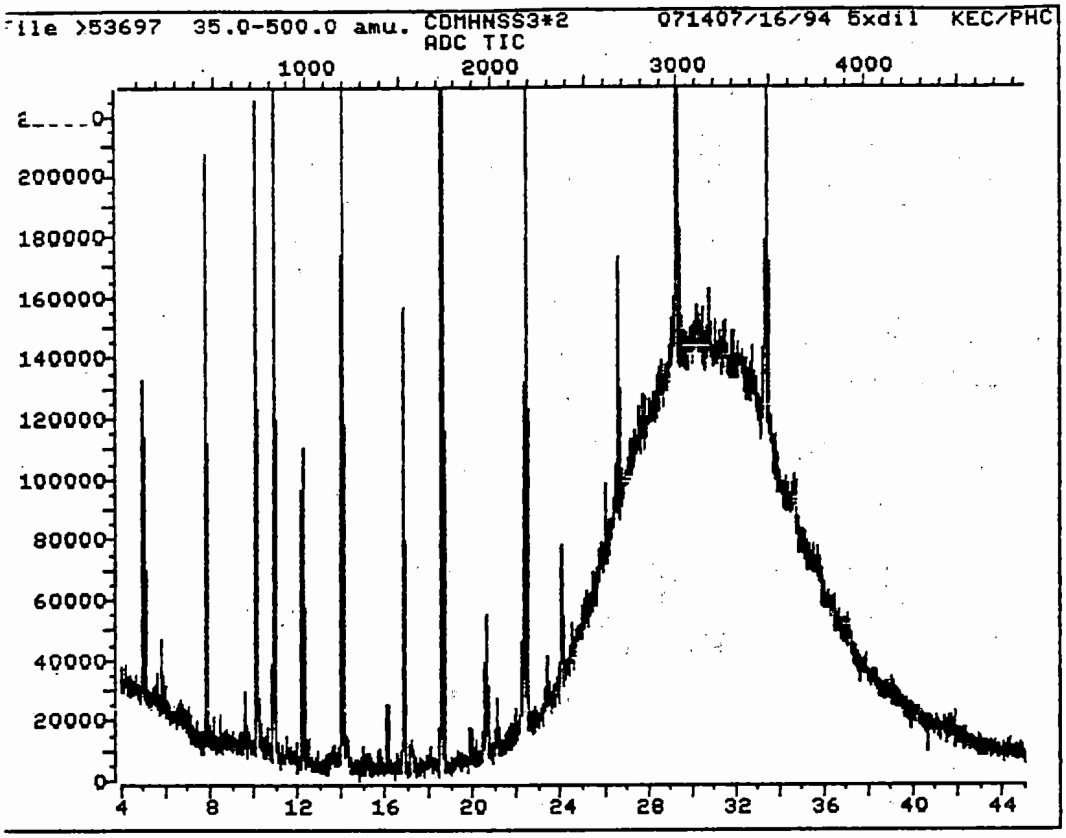
PHC 7-19-94

Dilution Factor (DF) = .00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 15.00 Amount Used (AU) = 15.00

Correction Factor = 333.33 = (AM / AU) / (DF * FS)

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

8:33 AM SUN., 17 JULY, 1994


File >53697 35.0-500.0 amu. CDMHNSS3*2 071407/16/94 5xdil KEC/PHC
ADC TIC
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2000
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4000
200000
180000
160000
140000
120000
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40000
20000
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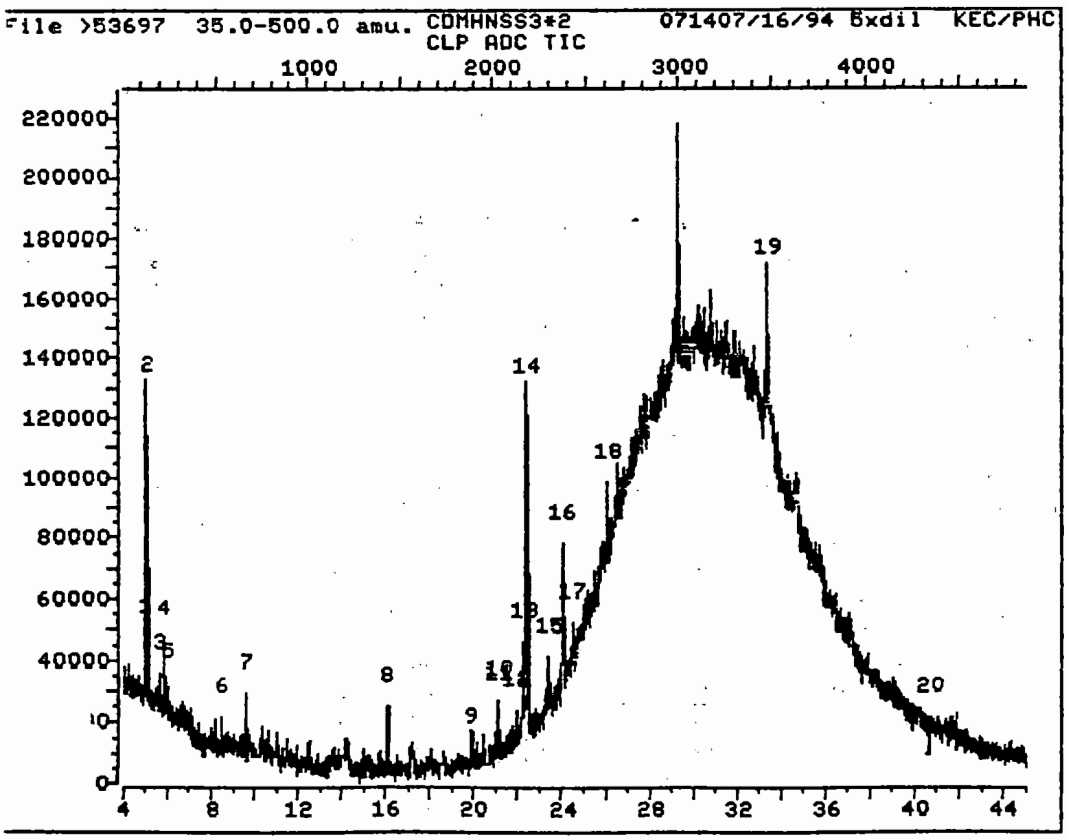
44


File >53697 35.0-500.0 amu. CDMHNSS3*2 071407/16/94 5xdil KEC/PHC
CLP ADC TIC
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4000
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200000
180000
160000
140000
120000
100000
80000
60000
40000
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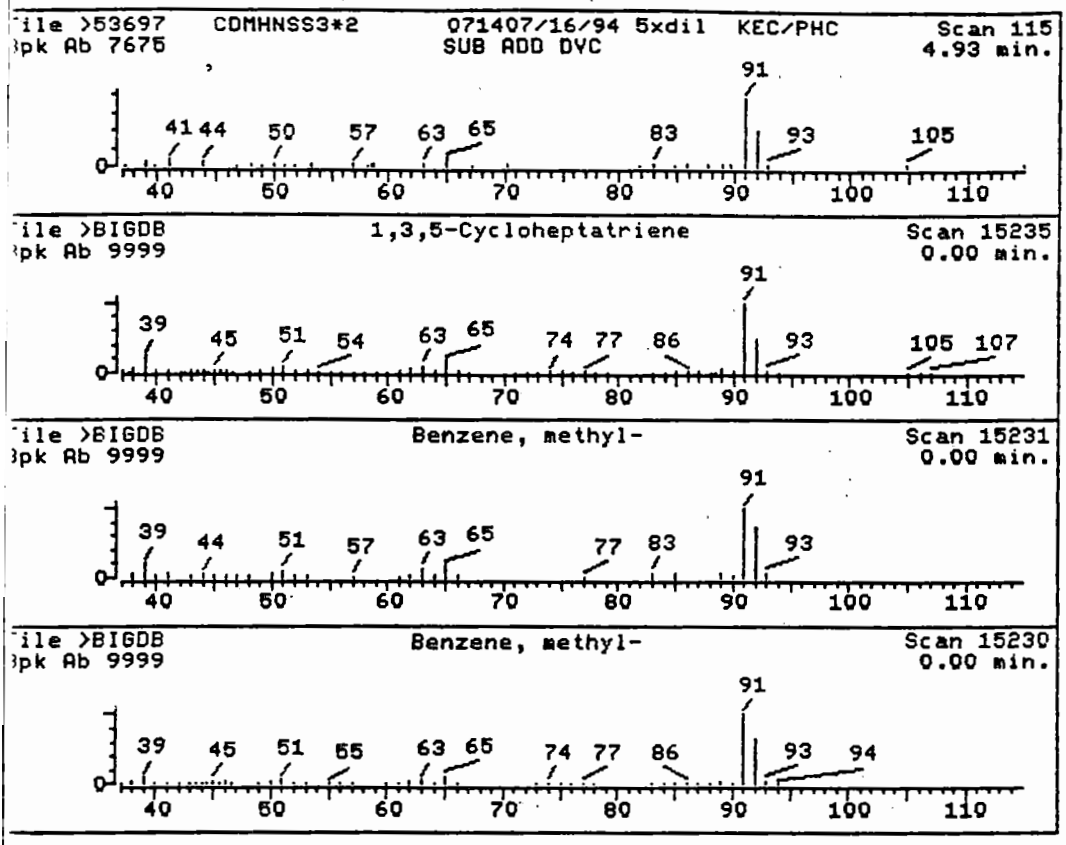


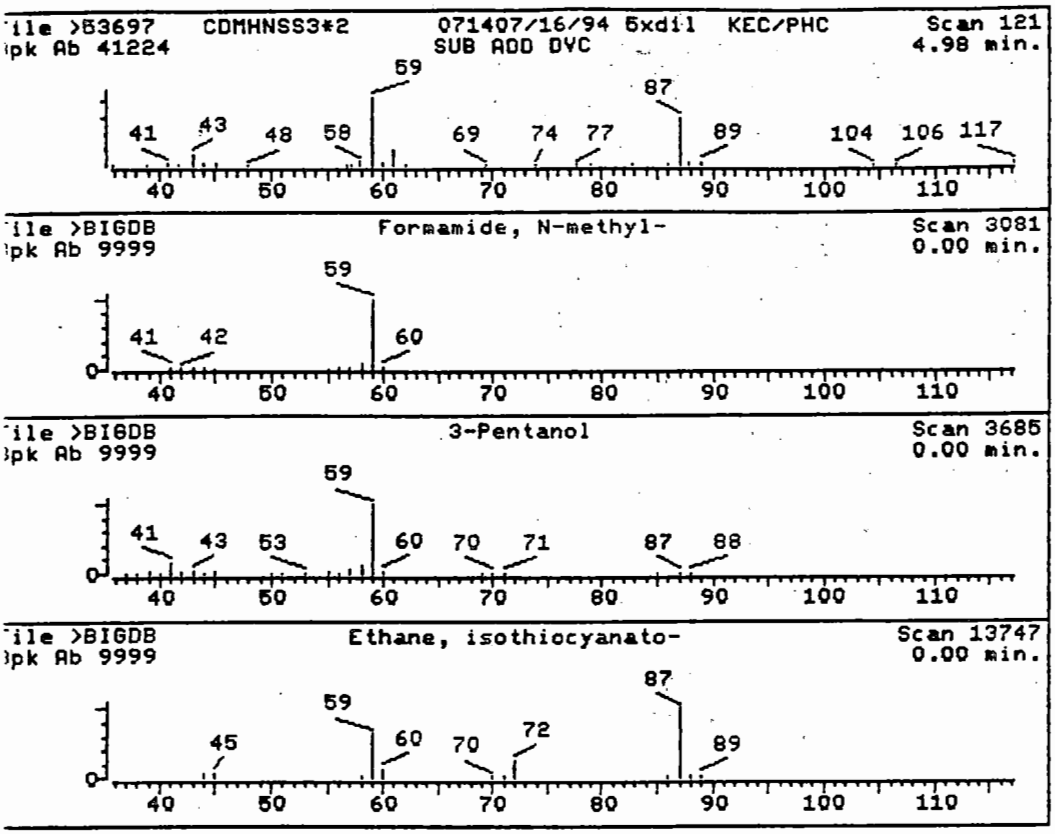
Sample: CDMHNSS3*2 0714 Injected: 7/16/94 20:04

TIC # 1 . Area = 37733.00 Tentative Conc = 280.00

1.	1,3,5-Cycloheptatriene	92 C7H8
2.	Benzene, methyl-	92 C7H8
3.	Benzene, methyl-	92 C7H8
4.	Benzene, methyl-	92 C7H8
5.	Benzene, methyl-	92 C7H8
6.	Benzene, methyl-	92 C7H8
7.	TRICYCLO(4.1.0.0**2,7)HEPT-3-ENE	92 C7H8

Sample file: >53697 Spectrum #: 115
Search speed: 1 Tilting option: N No. of ion ranges searched: 41

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	60*	544252	15235	"BIGDB	31	54	3	0	100	13	30	13
2.	58*	108883	15231	"BIGDB	44	52	2	0	69	16	25	21
3.	58*	108883	15230	"BIGDB	42	42	2	0	83	16	25	22
4.	52*	108883	15229	"BIGDB	39	56	2	0	69	16	20	17
5.	52*	108883	15010	"BIGDB	33	57	2	0	74	16	20	16
6.	52*	108883	15228	"BIGDB	39	39	2	0	87	18	20	19
7.	45*	0	15013	"BIGDB	22	0	0	0	98	22	17	16



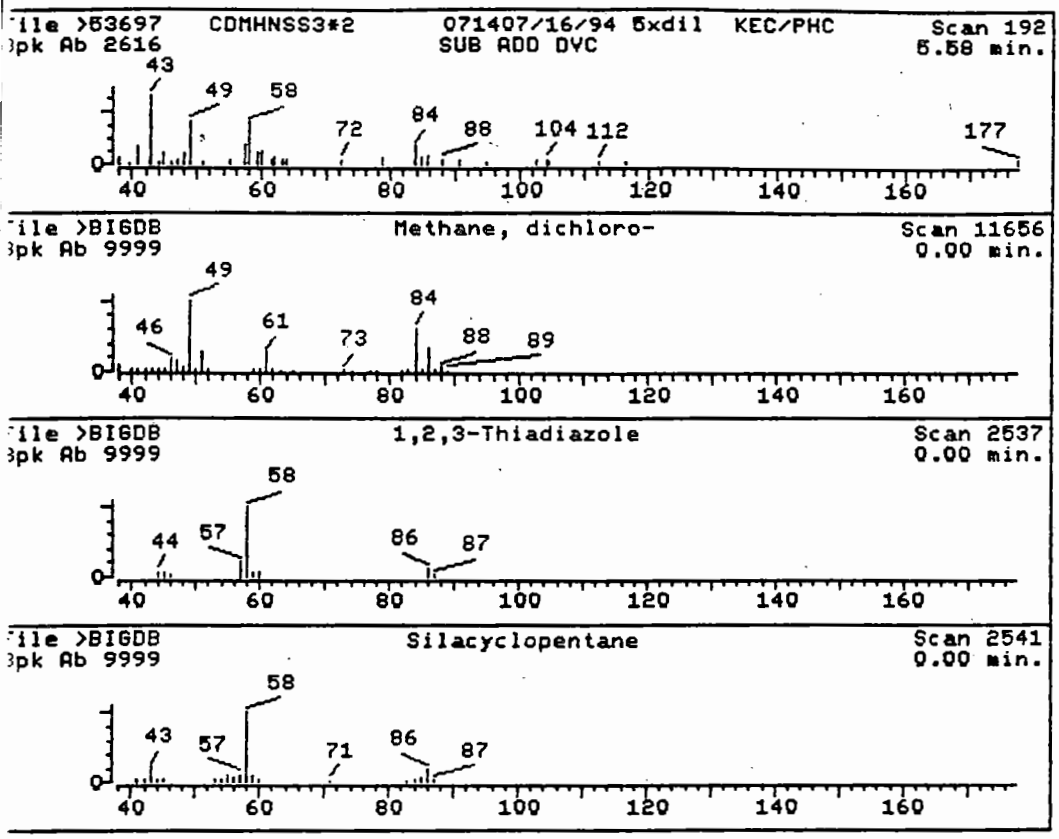
Sample: CDMHNSS3*2 0714 Injected: 7/16/94 20:04

TIC # 2 . Area = 215354.0 Tentative Conc = 1600.00

1. Formamide, N-methyl- 59 C2H5NO
2. 3-Pentanol 88 C5H12O
3. Ethane, isothiocyanato- 87 C3H5NS
4. Ethane, isothiocyanato- 87 C3H5NS

Sample file: >53697 Spectrum #: 121
Search speed: 1 Tilting option: N No. of ion ranges searched: 40

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	25*	123397	3081	"BIGDB	21	44	1	0	71	47	7	14
2.	25*	584021	3685	"BIGDB	22	55	2	0	100	44	8	13
3.	25*	542858	13747	"BIGDB	25	69	3	0	69	41	8	13
4.	25*	542858	13746	"BIGDB	20	91	2	0	69	42	8	13



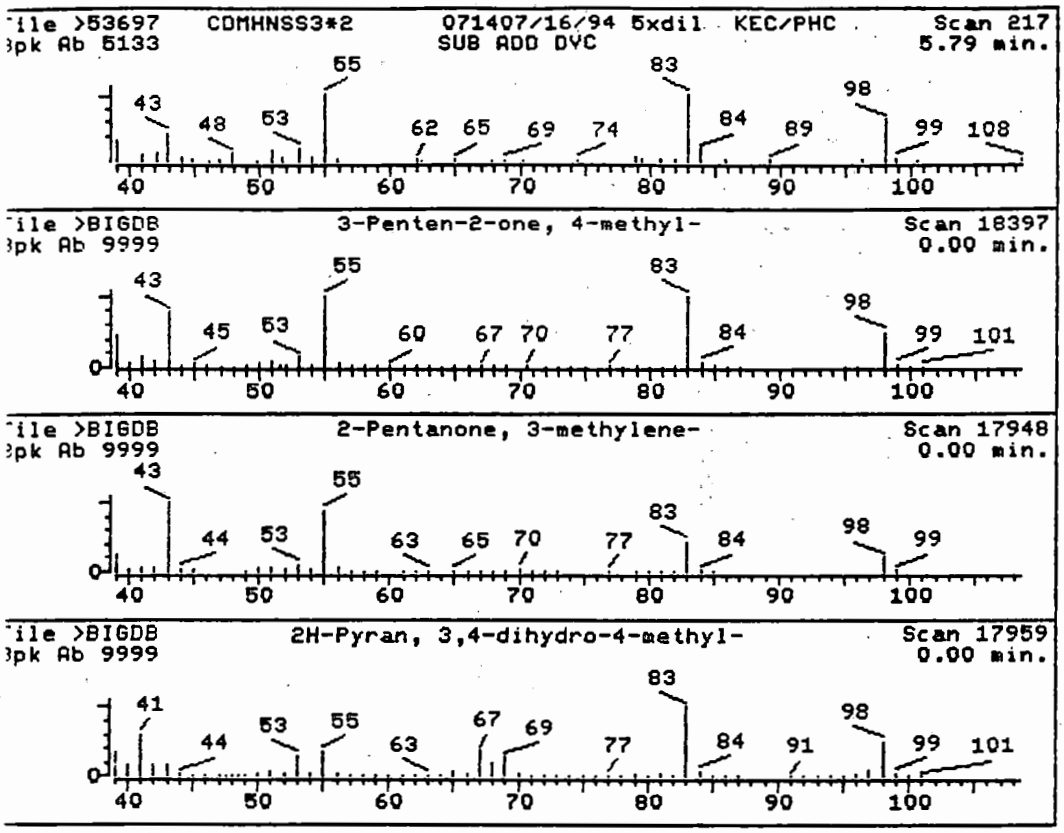
Sample: CDMHNSS3*2 0714 Injected: 7/16/94 20:04

TIC # 3 . Area = 24836.00 Tentative Conc = 180.00

1.	Methane, dichloro-	84 CH2Cl2
2.	1,2,3-Thiadiazole	86 C2H2N2S
3.	Silacyclopentane	86 C4H10Si
4.	Methane, dichloro-	84 CH2Cl2

Sample file: >53697 Spectrum #: 192
Search speed: 1 Tilting option: N No. of ion ranges searched: 42

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	25*	75092	11656	"BIGDB	21	84	2	0	41	50	7	13
2.	11*	288482	2537	"BIGDB	25	38	1	0	62	62	2	14
3.	11*	288062	2541	"BIGDB	20	61	2	0	62	64	2	13
4.	11*	75092	11657	"BIGDB	21	67	2	0	36	64	2	13



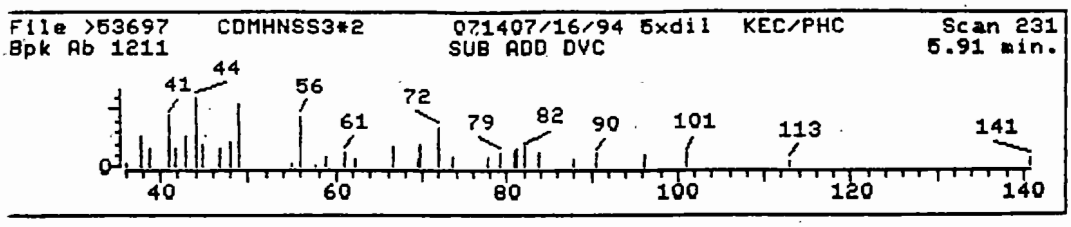
Sample: CDMHNSS3*2 0714 Injected: 7/16/94 20:04

TIC # 4 . Area = 47204.00 Tentative Conc = 350.00

1.	3-Penten-2-one, 4-methyl-	98	C6H10O
2.	2-Pentanone, 3-methylene-	98	C6H10O
3.	2H-Pyran, 3,4-dihydro-4-methyl-	98	C6H10O
4.	2-Pentene, 2,3-dimethyl-	98	C7H14
5.	3-Penten-2-one, 4-methyl-	98	C6H10O
6.	Cyclopropane, 1,1,2,3-tetramethyl-	98	C7H14
7.	3-Penten-2-one, 4-methyl-	98	C6H10O

Sample file: >53697 Spectrum #: 217
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.	60*	141797	18397	"BIGDB	37	61	3	0	99	14	30	13
2.	60*	4359777	17948	"BIGDB	26	66	3	0	228	14	30	13
3.	60*	2270613	17959	"BIGDB	28	73	3	0	99	12	30	13
4.	60*	10574375	17979	"BIGDB	27	74	3	0	99	14	30	13
	58*	141797	18403	"BIGDB	47	40	2	0	79	20	25	27
	52*	74752935	17985	"BIGDB	30	56	3	0	192	20	20	13
7.	52*	141797	18396	"BIGDB	25	65	2	0	99	20	20	14

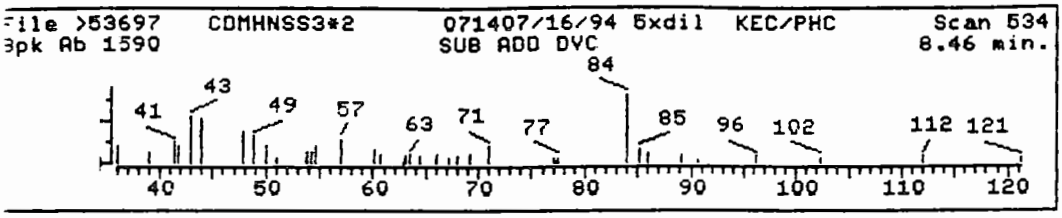


Sample: CDMHNSS3*2 0714 Injected: 7/16/94 20:04

TIC # 5 . Area = 22140.00 Tentative Conc = 160.00

Sample file: >53697 Spectrum #: 231

No data base entries were retrieved.

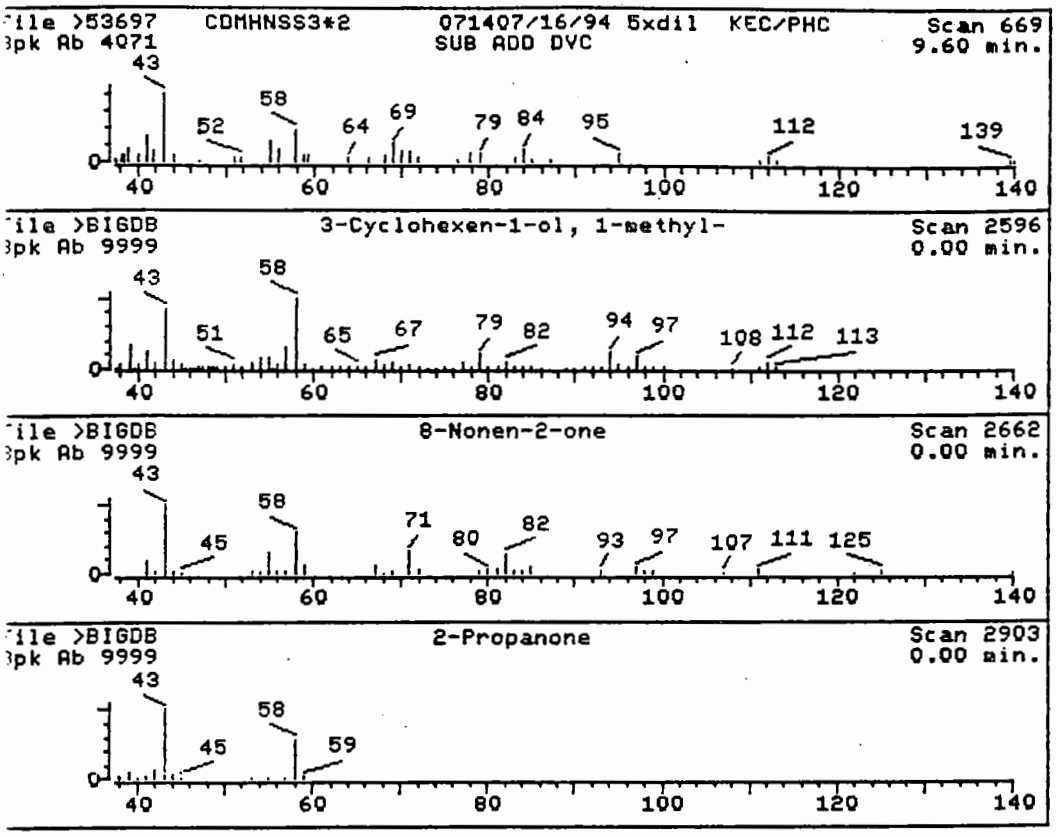


Sample: CDMHNSS3*2 0714 Injected: 7/16/94 20:04

TIC # 6 . Area = 22829.00 Tentative Conc = 170.00

Sample file: >53697 Spectrum #: 534

No data base entries were retrieved.



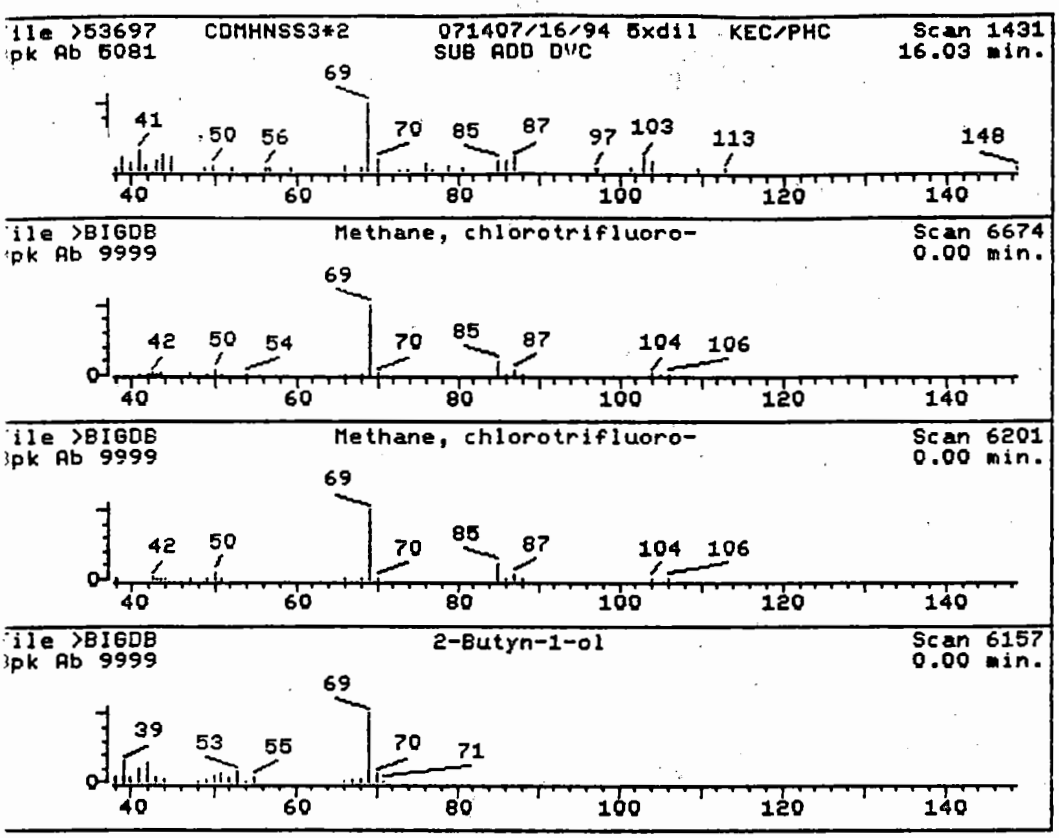
Sample: CDMHNSS3*2 0714 Injected: 7/16/94 20:04

TIC # 7 . Area = 49760.00 Tentative Conc = 370.00

1. 3-Cyclohexen-1-ol, 1-methyl-	112	C7H12O
2. 8-Nonen-2-one	140	C9H16O
3. 2-Propanone	58	C3H6O
4. 2-Propen-1-ol	58	C3H6O

Sample file: >53697 Spectrum #: 669
Search speed: 1 Tilting option: N No. of ion ranges searched: 41

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	25*	33061164	2596	"BIGDB	23	68	3	0	48	50	7	12
2.	20*	5009325	2662	"BIGDB	32	64	3	0	80	52	5	13
3.	15*	67641	2903	"BIGDB	25	55	1	0	85	57	3	14
4.	15*	0	2907	"BIGDB	29	72	2	0	152	57	3	14



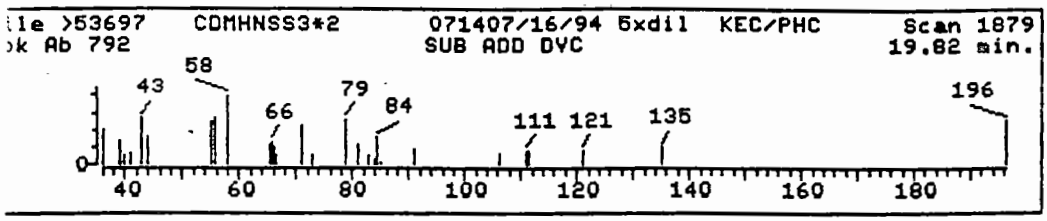
Sample: CDMHNSS3*2 0714 Injected: 7/16/94 20:04

TIC # 8 . Area = 36044.00 Tentative Conc = 190.00

1. Methane, chlorotrifluoro- 104 CClF3
2. Methane, chlorotrifluoro- 104 CClF3
3. 2-Butyn-1-ol 70 C4H6O

Sample file: >53697 Spectrum #: 1431
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.	26*	75729	6674	"BIGDB	20	48	1	0	81	43	8	14
2.	26*	75729	6201	"BIGDB	22	60	1	0	69	42	8	14
3.	20*	764012	6157	"BIGDB	24	71	3	0	100	52	5	12



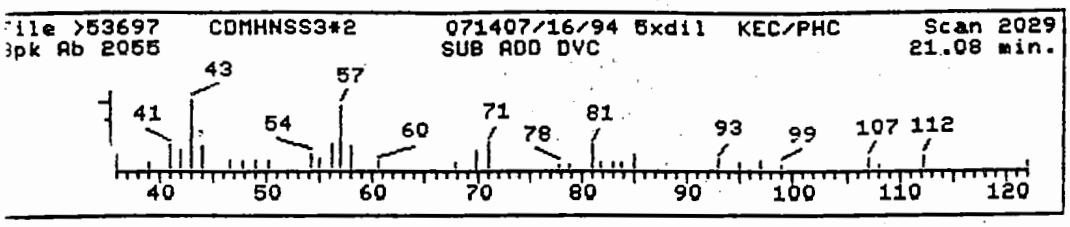
Sample: CDMHNSS3*2 0714 Injected: 7/16/94 20:04

TIC # 9 . Area = 26437.00 Tentative Conc = 200.00

Sample file: >53697 Spectrum #: 1879

No data base entries were retrieved.

9513354.2928

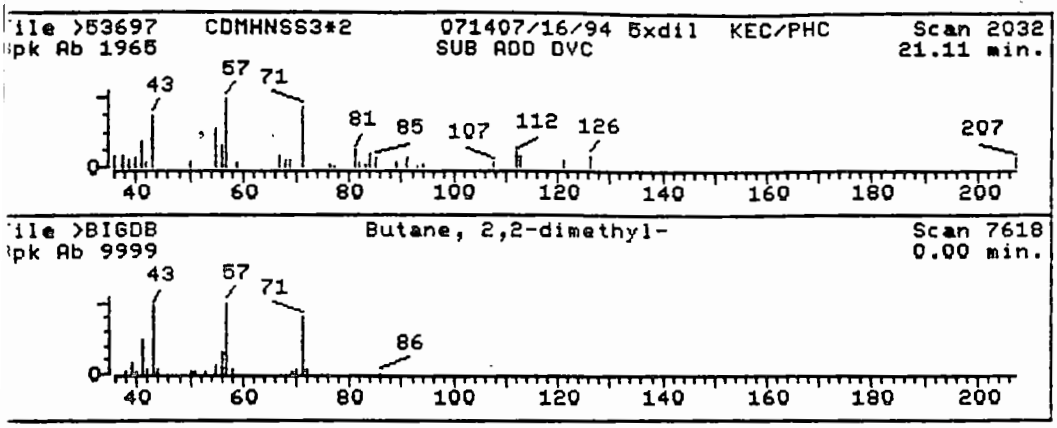


Sample: CDMHNSS3*2 0714 Injected: 7/16/94 20:04

TIC # 10 . Area = 27469.00 Tentative Conc = 410.00

Sample file: >53697 Spectrum #: 2029

No data base entries were retrieved.



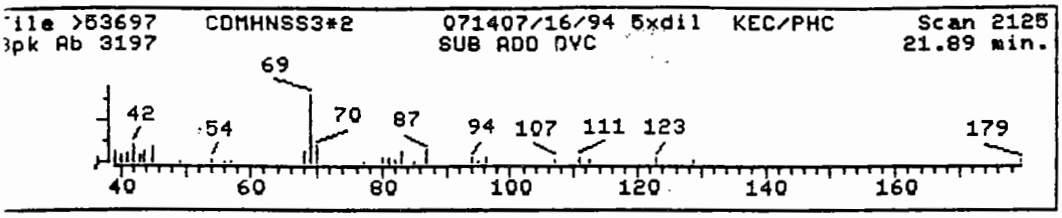
Sample: CDMHNSS3*2 0714 Injected: 7/16/94 20:04

TIC # 11 . Area = 33304.00 Tentative Conc = 500.00

1. Butane, 2,2-dimethyl- 86 C6H14

Sample file: >53697 Spectrum #: 2032
Search speed: 1 Tilting option: N No. of ion ranges searched: 40

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	15	75832	7618	"BIGDB	41	46	2	0	77	56	3	13

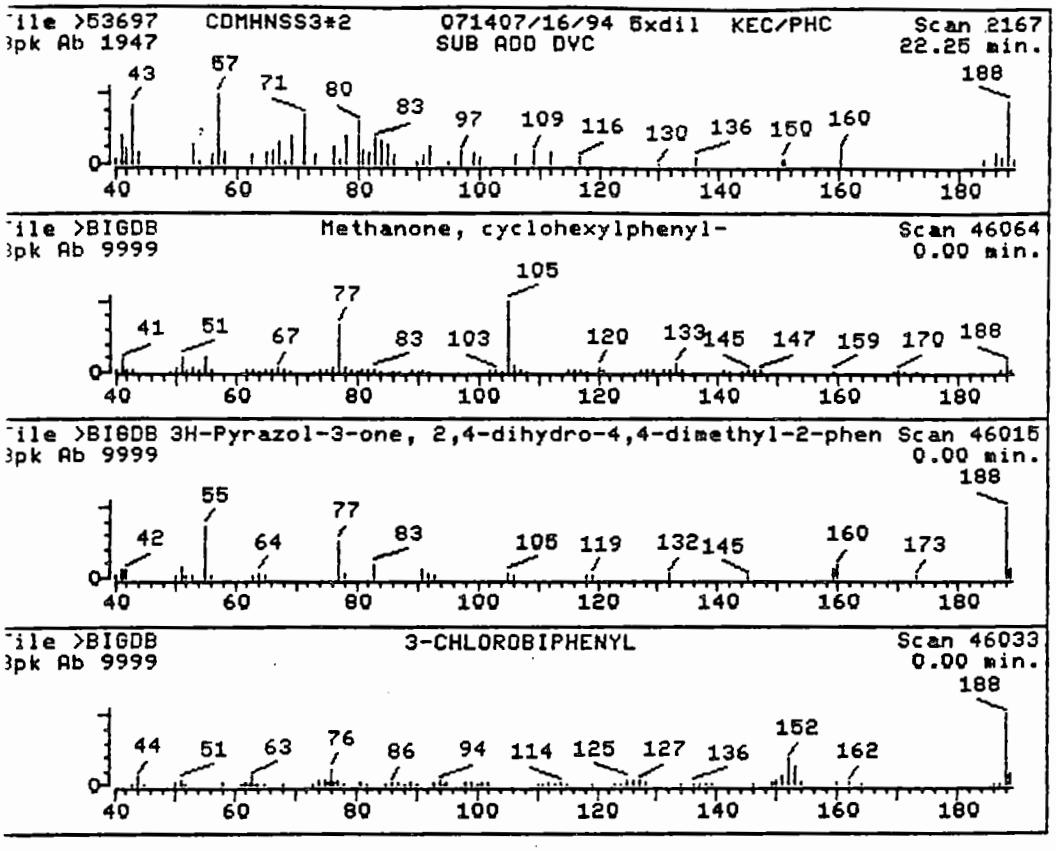


Sample: CDMHNSS3*2 0714 Injected: 7/16/94 20:04

TIC # 12 . Area = 22395.00 Tentative Conc = 330.00

Sample file: >53697 Spectrum #: 2125

No data base entries were retrieved.



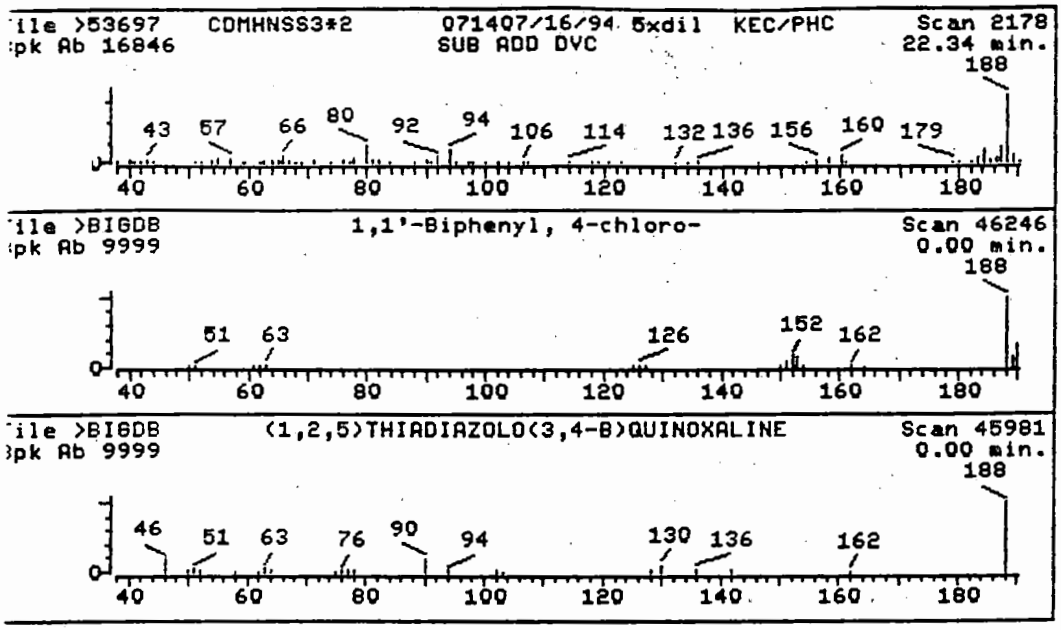
Sample: CDMHNSS3*2 0714 Injected: 7/16/94 20:04

TIC # 13 . Area = 71457.00 Tentative Conc = 1100.00

1. Methanone, cyclohexylphenyl- 188 C13H16O
2. 3H-Pyrazol-3-one, 2,4-dihydro-4,4-dimethyl-2-phenyl- 188 C11H12N2O
3. 3-CHLOROBIPHENYL 188 C12H9Cl

Sample file: >53697 Spectrum #: 2167
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.	27*	712505	46064	"BIGDB	25	78	3	0	649	38	10	13
2.	15*	17694063	46015	"BIGDB	24	93	3	0	90	59	3	12
3.	11*	2051618	46033	"BIGDB	24	97	3	0	90	64	2	12



IS

PHL
7-19-94

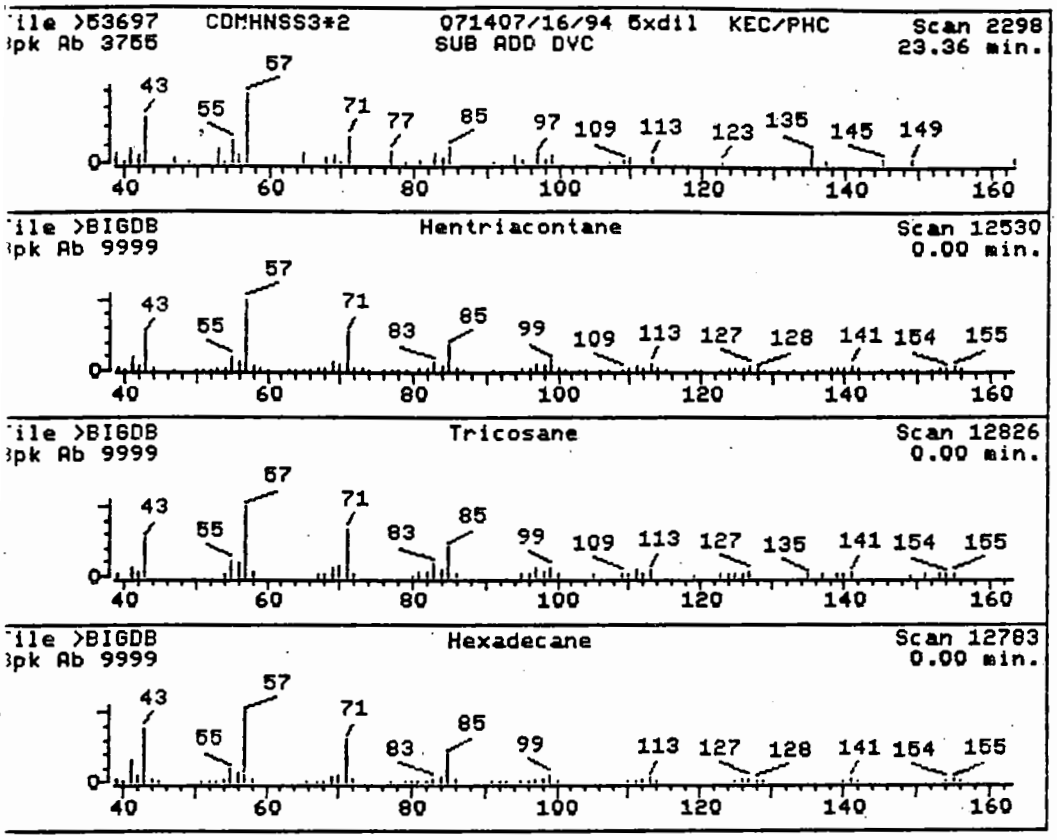
Sample: CDMHNSS3*2 0714 Injected: 7/16/94 20:04

TIC # 14 . Area = 260521.0 Tentative Conc = 3900.00

1. 1,1'-Biphenyl, 4-chloro- 188 C12H9Cl
2. (1,2,5)THIADIAZOLO(3,4-B)QUINOXALINE 188 C8H4N4S

Sample file: >53697 Spectrum #: 2178
Search speed: 1 Tilting option: N No. of ion ranges searched: 42

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	20*	2051629	46246	"BIGDB	22	76	3	0	100	55	5	12
2.	15*	0	45981	"BIGDB	24	76	3	0	100	58	3	12



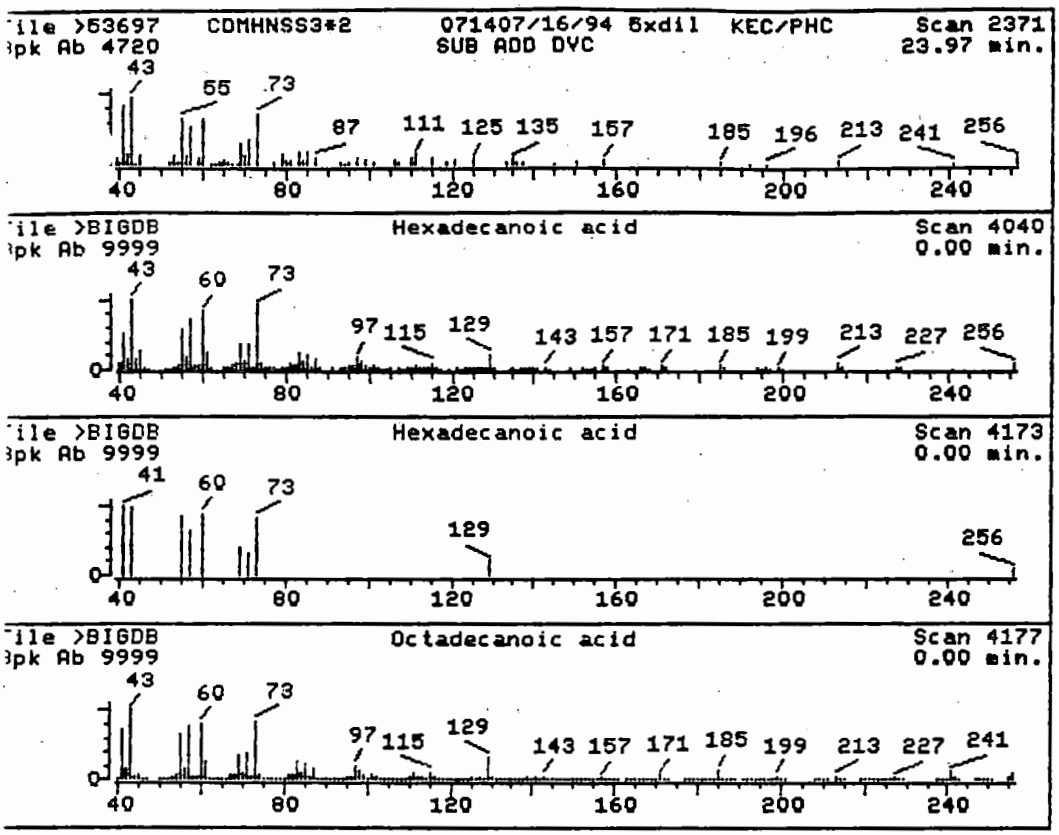
Sample: CDMHNSS3*2 0714 Injected: 7/16/94 20:04

TIC # 15 . Area = 22060.00 Tentative Conc = 330.00

1. Hentriacontane	436	C31H64
2. Tricosane	324	C23H48
3. Hexadecane	226	C16H34

Sample file: >53697 Spectrum #: 2298
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.	35	630046	12530	"BIGDB	74	73	2	0	67	33	12	18
2.	29	638675	12826	"BIGDB	61	84	2	0	55	33	12	12
3.	24	544763	12783	"BIGDB	60	60	2	0	58	41	8	12



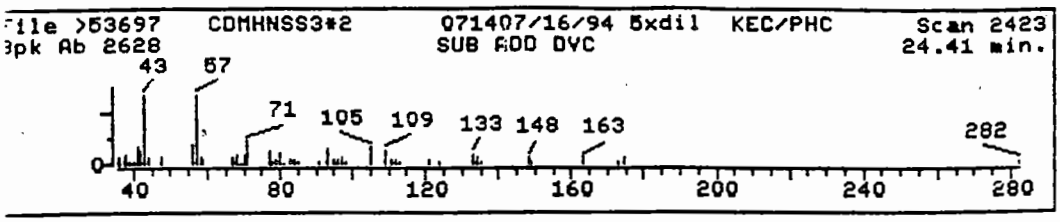
Sample: CDMHNSS3*2 0714 Injected: 7/16/94 20:04

TIC # 16 . Area = 70025.00 Tentative Conc = 1000.00

1.	Hexadecanoic acid	256	C16H32O2
2.	Hexadecanoic acid	256	C16H32O2
3.	Octadecanoic acid	284	C18H36O2
4.	Decanoic acid	172	C10H20O2
5.	Dodecanoic acid	200	C12H24O2
6.	Octanoic acid	144	C8H16O2
7.	Octanoic acid	144	C8H16O2

Sample file: >53697 Spectrum #: 2371
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.	71*	57103	4040	"BIGDB	69	82	3	0	80	14	38	35
2.	55*	57103	4173	"BIGDB	59	17	1	0	77	46	14	65
3.	52	57114	4177	"BIGDB	70	95	3	0	74	20	20	12
4.	35	334485	4160	"BIGDB	72	46	3	0	68	26	14	12
	20	143077	4168	"BIGDB	40	37	2	0	68	51	5	14
	15*	124072	4149	"BIGDB	26	78	2	0	68	59	3	14
5.	15*	124072	3963	"BIGDB	22	85	2	0	68	59	3	13



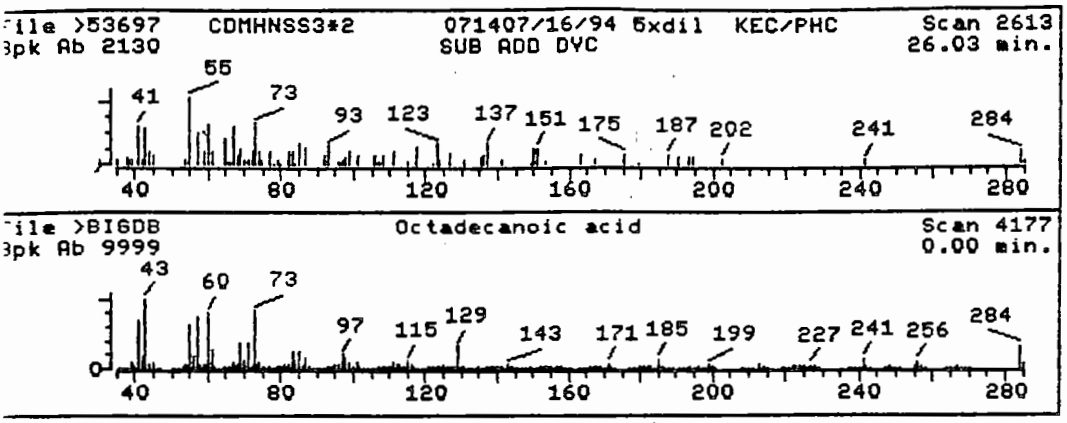
Sample: CDMHNSS3*2 0714 Injected: 7/16/94 20:04

TIC # 17 . Area = 24144.00 Tentative Conc = 360.00

Sample file: >53697 Spectrum #: 2423

No data base entries were retrieved.

9513554.2932



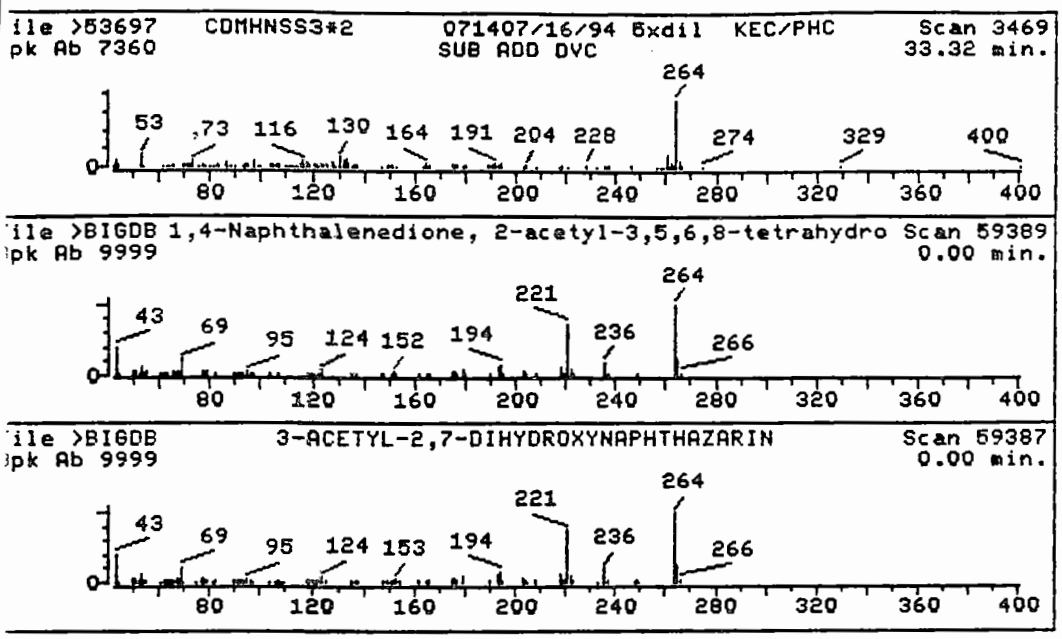
Sample: CDMHNSS3*2 0714 Injected: 7/16/94 20:04

TIC # 18 . Area = 38776.00 Tentative Conc = 800.00

1. Octadecanoic acid 284 C18H36O2

Sample file: >53697 Spectrum #: 2613
Search speed: 1 Tilting option: N No. of ion ranges searched: 49

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	15*	57114	4177	"BIGDB	79	86	3	0	53	64	3	44



IS
PHC
7-19-94

Sample: CDMHNSS3*2 0714 Injected: 7/16/94 20:04

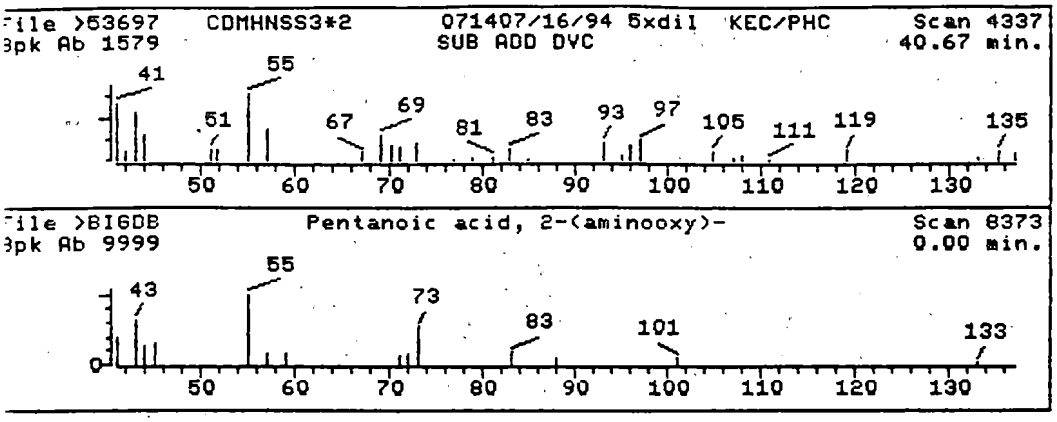
TIC # 19 . Area = 95549.00 Tentative Conc = 13000.00

1. 1,4-Naphthalenedione, 2-acetyl-3,5,6,8-tetrahydroxy- 264 C12H8O7
2. 3-ACETYL-2,7-DIHYDROXYNAPHTHAZARIN 264 C12H8O7

Sample file: >53697 Spectrum #: 3469
Search speed: 1 Tilting option: N No. of ion ranges searched: 46

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	36*	3718807	59389	"BIGDB	27	116	3	0	100	28	14	13
2.	35*	0	59387	"BIGDB	22	126	3	0	100	28	14	12

95135541:2955



Oil background
PHC
7-19-94

Sample: CDMHNSS3*2 0714 Injected: 7/16/94 20:04

TIC # 20 . Area = 37616.00 Tentative Conc = 5200.00

1. Pentanoic acid, 2-(aminooxy)- 133 C5H11NO3

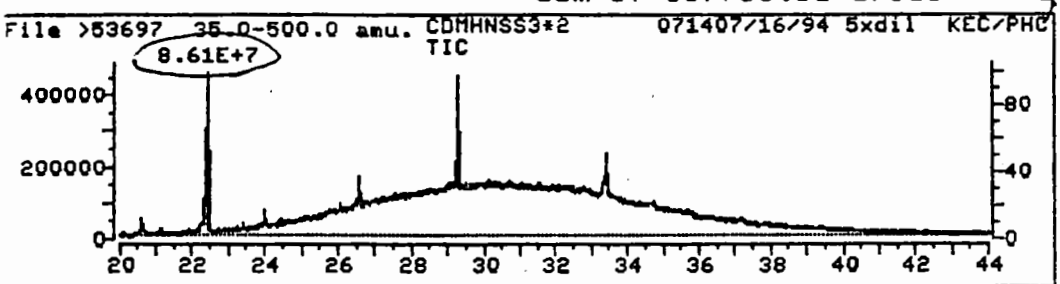
Sample file: >53697 Spectrum #: 4337
Search speed: 1 Tilting option: N No. of ion ranges searched: 51

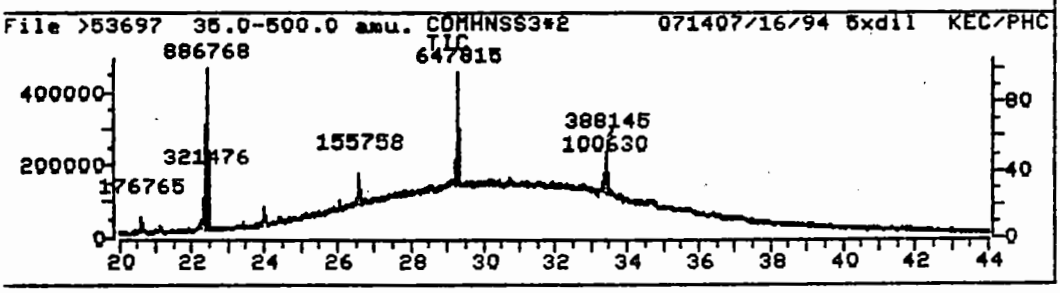
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	11*	5699558	8373	"BIGDB	26	76	3	0	100	62	2	13

>53697 CDMHNSS3*2 071407/16/94 5xdil KEC/PHC
35.0| 500.0 TIC
Upslope: .20 Area Reject: 5.00 % Max Peaks: 7 Bunching: 1
Dnslope: 0.00 Results File VDIR81 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	20.59	1959	1971	1982	46056	319727	176765	19.93	6.602
2	22.34	2171	2178	2180	111692	429633	321476	36.25	12.007
3	22.39	2180	2184	2190	442888	1000353	886768	100.00	33.121
4	26.58	2674	2678	2682	84541	530791	155758	17.56	5.818
5	29.26	2989	2993	3000	313427	1448375	647815	73.05	24.196
6	33.32	3465	3469	3471	43808	507909	100630	11.35	3.759
7	33.41	3475	3480	3487	115021	1138827	388145	43.77	14.497

Sum of corrected areas: 2677357.





Total area due to oil
$(86.1 - 2.7) \times 10^6 = 83.4 \times 10^6$

Conc. of oil:

$$\frac{83.4 \times 10^6}{0.648 \times 10^6} \times \frac{40\ \mu g}{0.025\ kg} \times 5 = 1.7 \times 10^6\ \mu g/kg$$

Median Rt: 31.0 PHC
7-19-94

9513554.2934

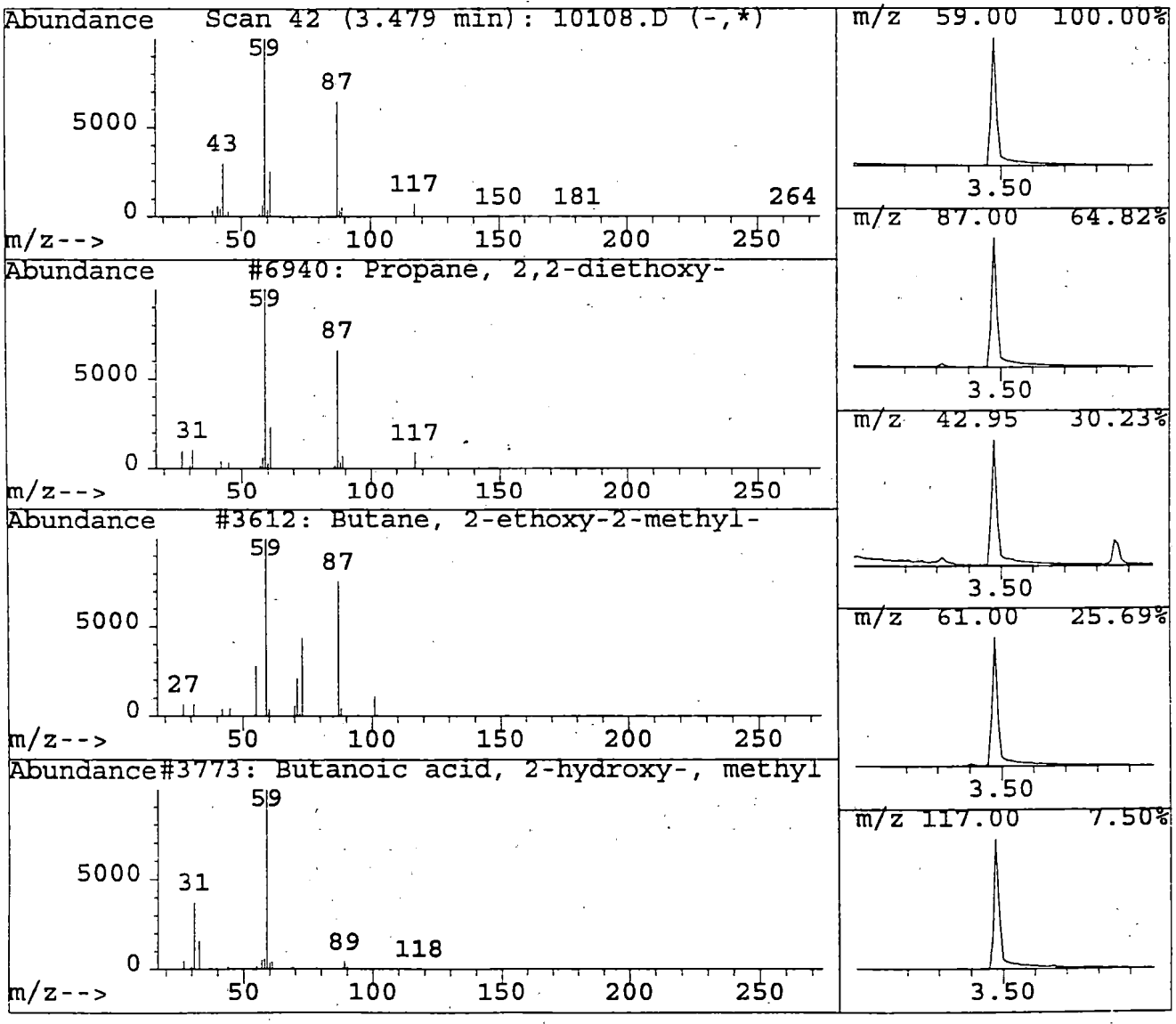
Library Search Compound Report

Data File : c:\hpchem\1\data\8270\non-epc\10108.d Vial: 4
Acq On : 18 Jul 94 9:36 am Operator: PHC\WSK
Sample : CDMHNSS3*3 Inst : NVO6
Misc : Multiplr: 66.67

Method : c:\HPCHEM\1\METHODS\CLPBNAS.M
Title : 8270 NON-EPC CALIBRATION
Library : C:\DATABASE\WILEY138.L

R.T.	Conc	Area	Relative to ISTD	R.T.
3.48	746.09 ug/Kg	1835717	1,4-Dichlorobenzene-d4	7.30

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
✓1	Propane, 2,2-diethoxy-	6940	000126-84-1	83
2	Butane, 2-ethoxy-2-methyl-	3612	000919-94-8	45
3	Butanoic acid, 2-hydroxy-, methyl e	3773	029674-47-3	38
4	2,3-Butanediol, 2,3-dimethyl-	3828	000076-09-5	25
5	Morpholine	142	000110-91-8	9



Library Search Compound Report

Data File : c:\hpchem\1\data\8270\non-epc\10108.d
Acq On : 18 Jul 94 9:36 am
Sample : CDMHNSS3*3
Misc :

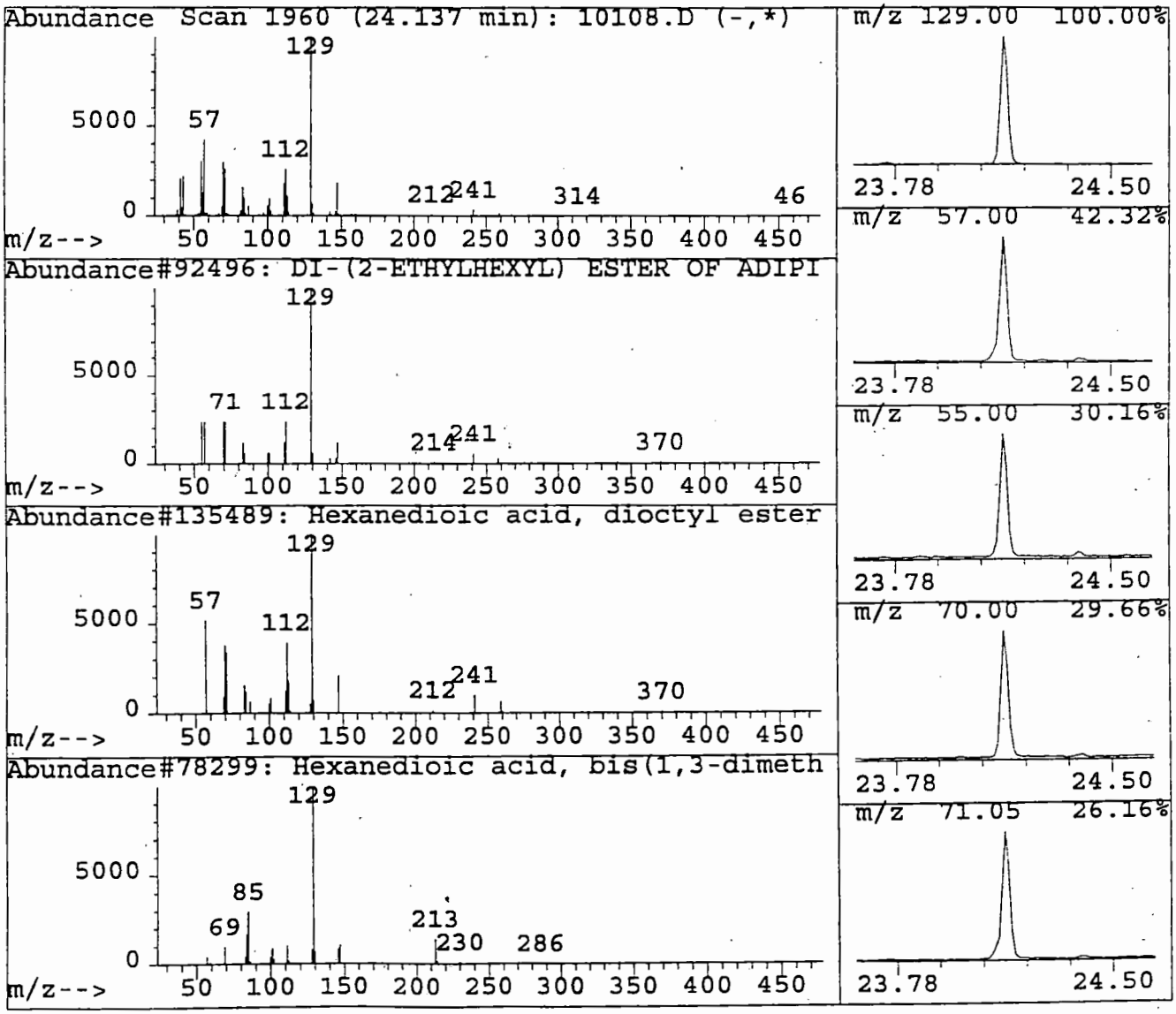
Vial: 4
Operator: PHC\WSK
Inst : NVO6
Multiplr: 66.67

Method : c:\HPCHEM\1\METHODS\CLPBNAS.M
Title : 8270 NON-EPC CALIBRATION
Library : C:\DATABASE\WILEY138.L

R.T.	Conc	Area	Relative to ISTD	R.T.
24.14	281.80 ug/Kg	1008291	Chyrsene-d12	25.04

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	DI-(2-ETHYLHEXYL) ESTER OF ADIPIC ACID	92496	000000-00-0	78
2	Hexanedioic acid, dioctyl ester	135489	000123-79-5	64
3	Hexanedioic acid, bis(1,3-dimethylb	78299	055125-22-9	38
4	Hexanedioic acid, dihexyl ester	78298	000110-33-8	37
5	5-ETHYL-4-HYDRO-3-MERCAPTO-1,2,4-TR	120954	007271-45-6	32

PHC 1-28-94



000372

9513554.2935

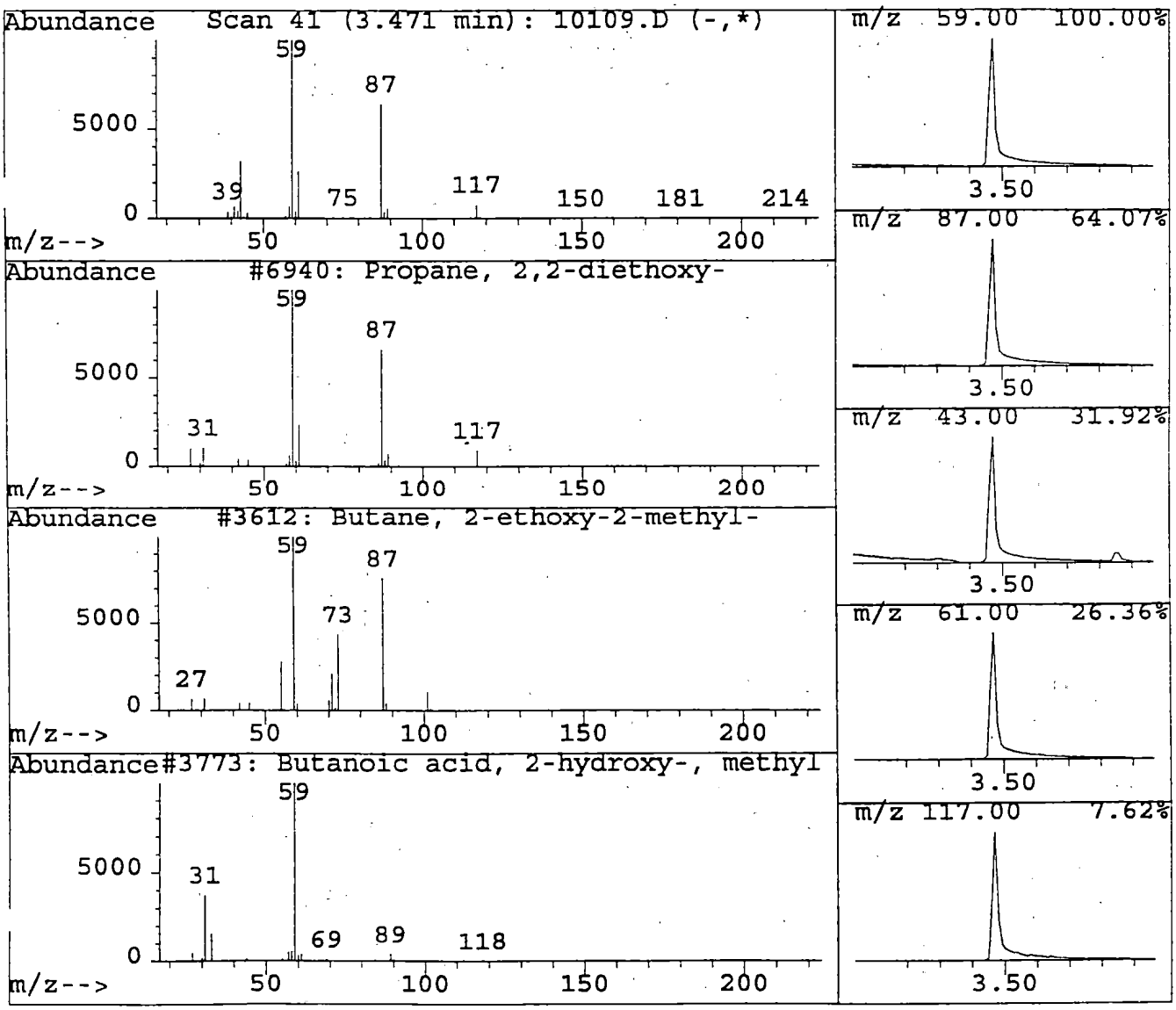
Library Search Compound Report

Data File : c:\hpchem\1\data\8270\non-epc\10109.d Vial: 5
Acq On : 18 Jul 94 10:23 am Operator: PHC\WSK
Sample : CDMHNSS3*4 Inst : NVO6
Misc : Multiplr: 66.67

Method : c:\HPCHEM\1\METHODS\CLPBNAS.M
Title : 8270 NON-EPC CALIBRATION
Library : C:\DATABASE\WILEY138.L

R.T.	Conc	Area	Relative to ISTD	R.T.
3.47	2657.93 ug/Kg	5689724	1,4-Dichlorobenzene-d4	7.29

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
✓1	Propane, 2,2-diethoxy-	6940	000126-84-1	83
2	Butane, 2-ethoxy-2-methyl-	3612	000919-94-8	45
3	Butanoic acid, 2-hydroxy-, methyl e	3773	029674-47-3	38
4	2,3-Butanediol, 2,3-dimethyl-	3828	000076-09-5	25
5	Morpholine	142	000110-91-8	9



Library Search Compound Report

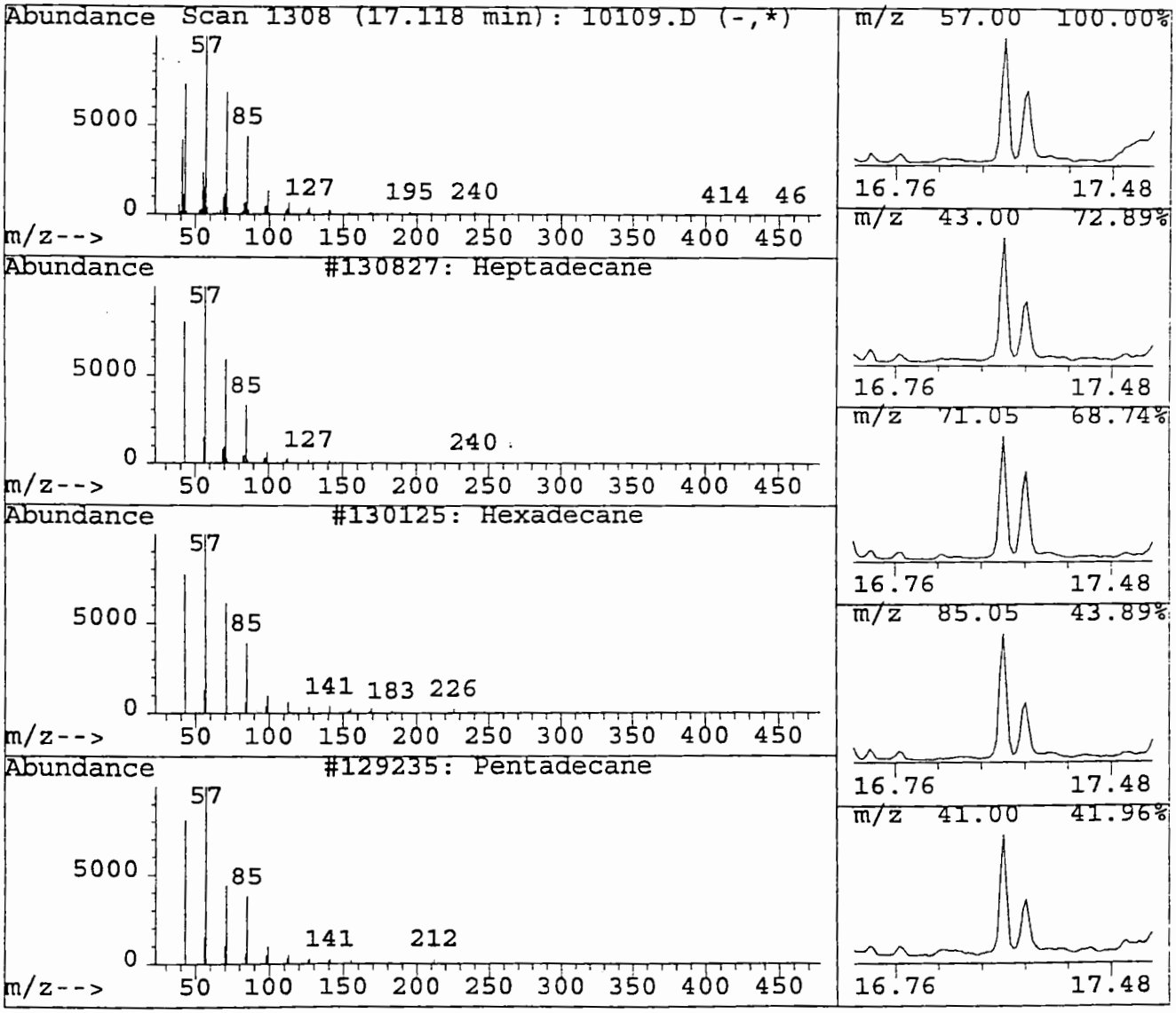
Data File : c:\hpchem\1\data\8270\non-epc\10109.d
Acq On : 18 Jul 94 10:23 am
Sample : CDMHNSS3*4
Misc :

Vial: 5
Operator: PHC\WSK
Inst : NVO6
Multiplr: 66.67

Method : c:\HPCHEM\1\METHODS\CLPBNAS.M
Title : 8270 NON-EPC CALIBRATION
Library : C:\DATABASE\WILEY138.L

R.T.	Conc	Area	Relative to ISTD	R.T.
17.12	307.70 ug/Kg	1030865	Phenanthrene-d10	18.29

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Heptadecane	130827	000629-78-7	91
2	Hexadecane	130125	000544-76-3	91
3	Pentadecane	129235	000629-62-9	90
4	Tetradecane	128276	000629-59-4	90
5	Tetracosane	134673	000646-31-1	90



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Library Search Compound Report

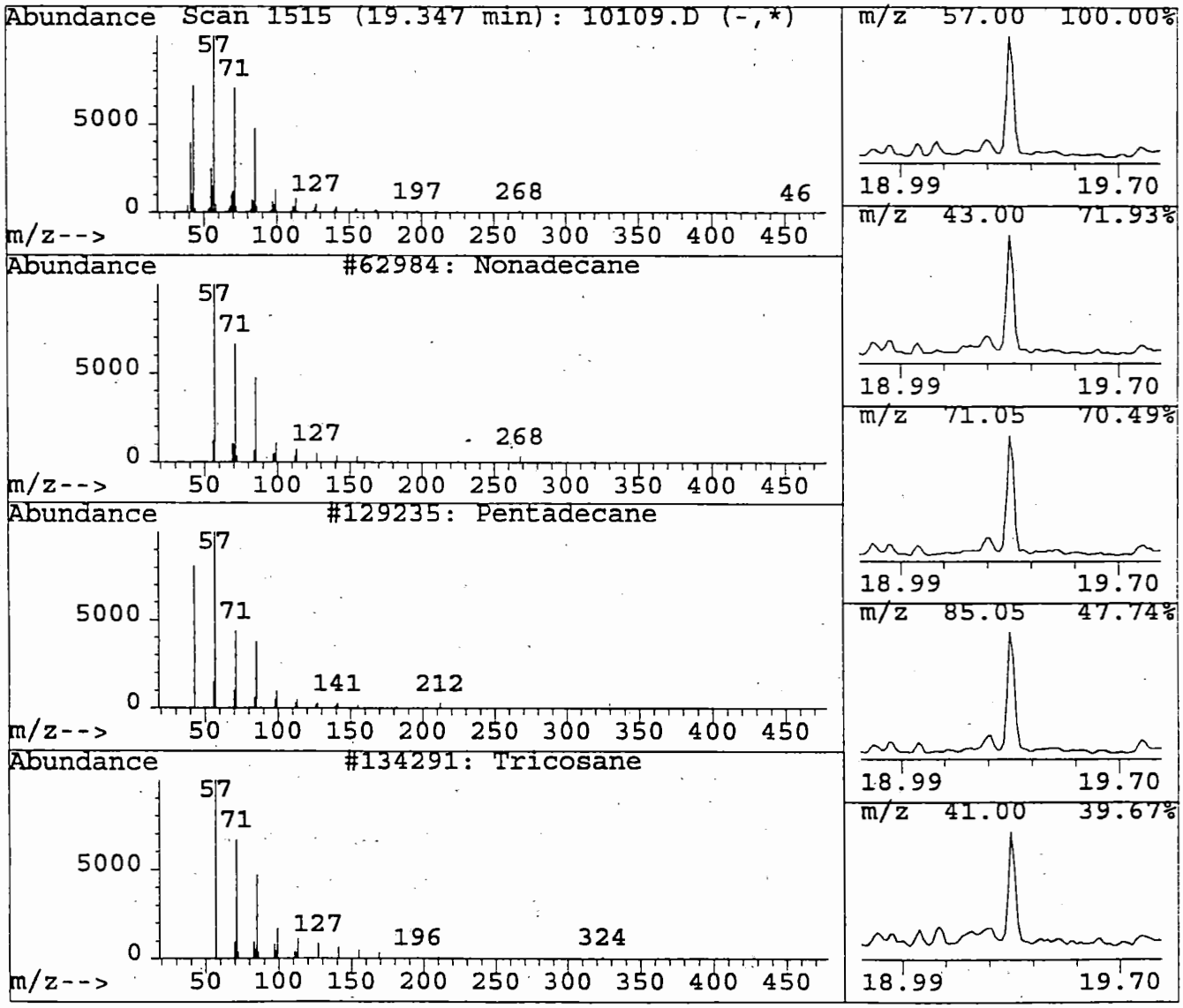
Data File : c:\hpchem\1\data\8270\non-epc\10109.d
Acq On : 18 Jul 94 10:23 am
Sample : CDMHNSS3*4
Misc :

Vial: 5
Operator: PHC\WSK
Inst : NVO6
Multiplr: 66.67

Method : c:\HPCHEM\1\METHODS\CLPBNAS.M
Title : 8270 NON-EPC CALIBRATION
Library : C:\DATABASE\WILEY138.L

R.T.	Conc	Area	Relative to ISTD	R.T.
19.35	313.68 ug/Kg	1050912	Phenanthrene-d10	18.29

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Nonadecane	62984	000629-92-5	96
2	Pentadecane	129235	000629-62-9	93
3	Tricosane	134291	000638-67-5	91
4	Octadecane	131491	000593-45-3	91
5	Heptadecane	130827	000629-78-7	90



Library Search Compound Report

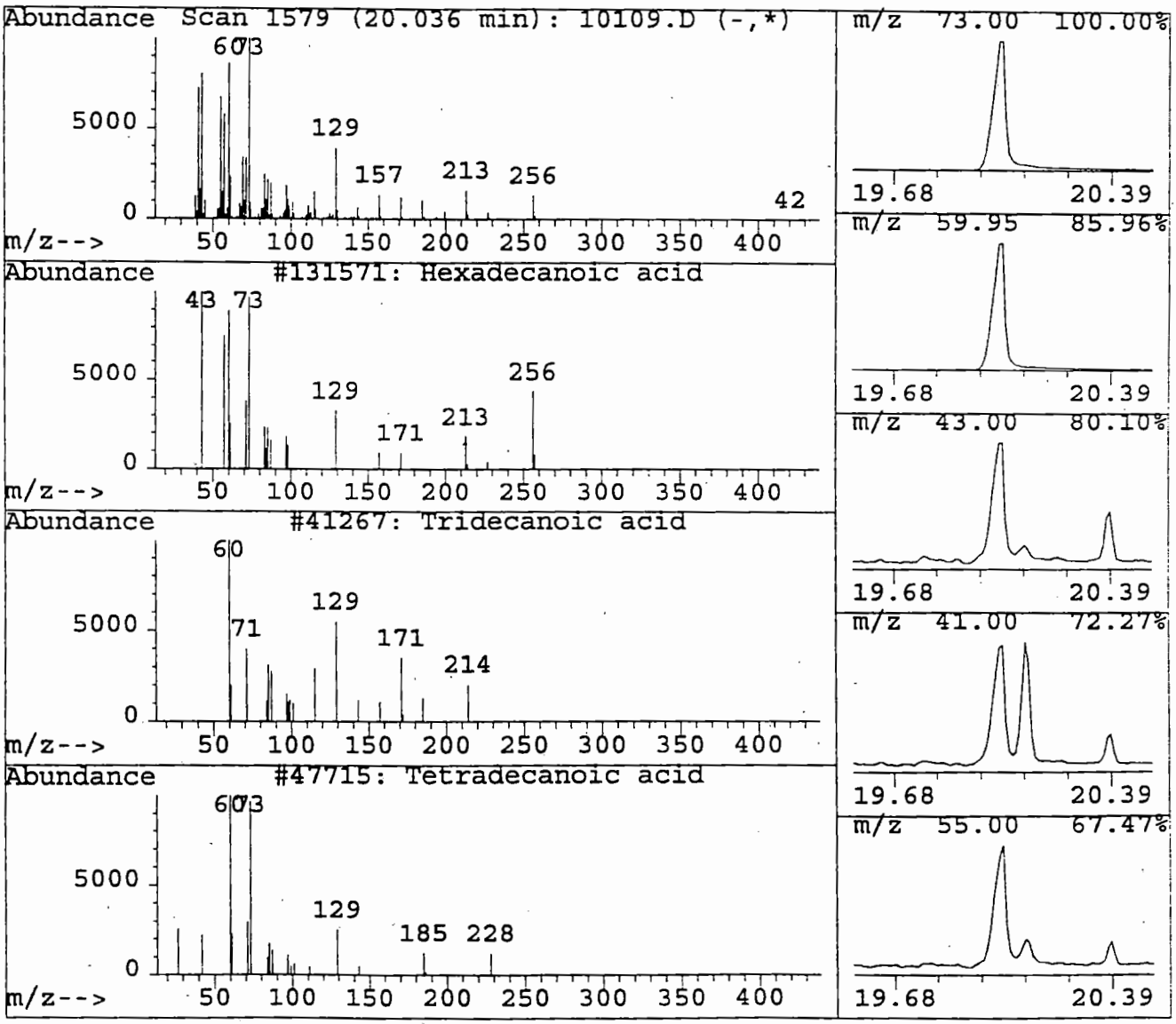
Data File : c:\hpchem\1\data\8270\non-epc\10109.d
Acq On : 18 Jul 94 10:23 am
Sample : CDMHNSS3*4
Misc :

Vial: 5
Operator: PHC\WSK
Inst : NVO6
Multiplr: 66.67

Method : c:\HPCHEM\1\METHODS\CLPBNAS.M
Title : 8270 NON-EPC CALIBRATION
Library : C:\DATABASE\WILEY138.L

R.T.	Conc	Area	Relative to ISTD	R.T.
20.04	1509.03 ug/Kg	5055651	Phenanthrene-d10	18.29

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexadecanoic acid	131571	000057-10-3	99
2	Tridecanoic acid	41267	000638-53-9	97
3	Tetradecanoic acid	47715	000544-63-8	96
4	Pentadecanoic acid	130902	001002-84-2	93
5	Dodecanamide, N,N-bis(2-hydroxyethy	69540	000120-40-1	74



000376

Library Search Compound Report

Data File : c:\hpchem\1\data\8270\non-epc\10109.d
Acq On : 18 Jul 94 10:23 am
Sample : CDMHNSS3*4
Misc :

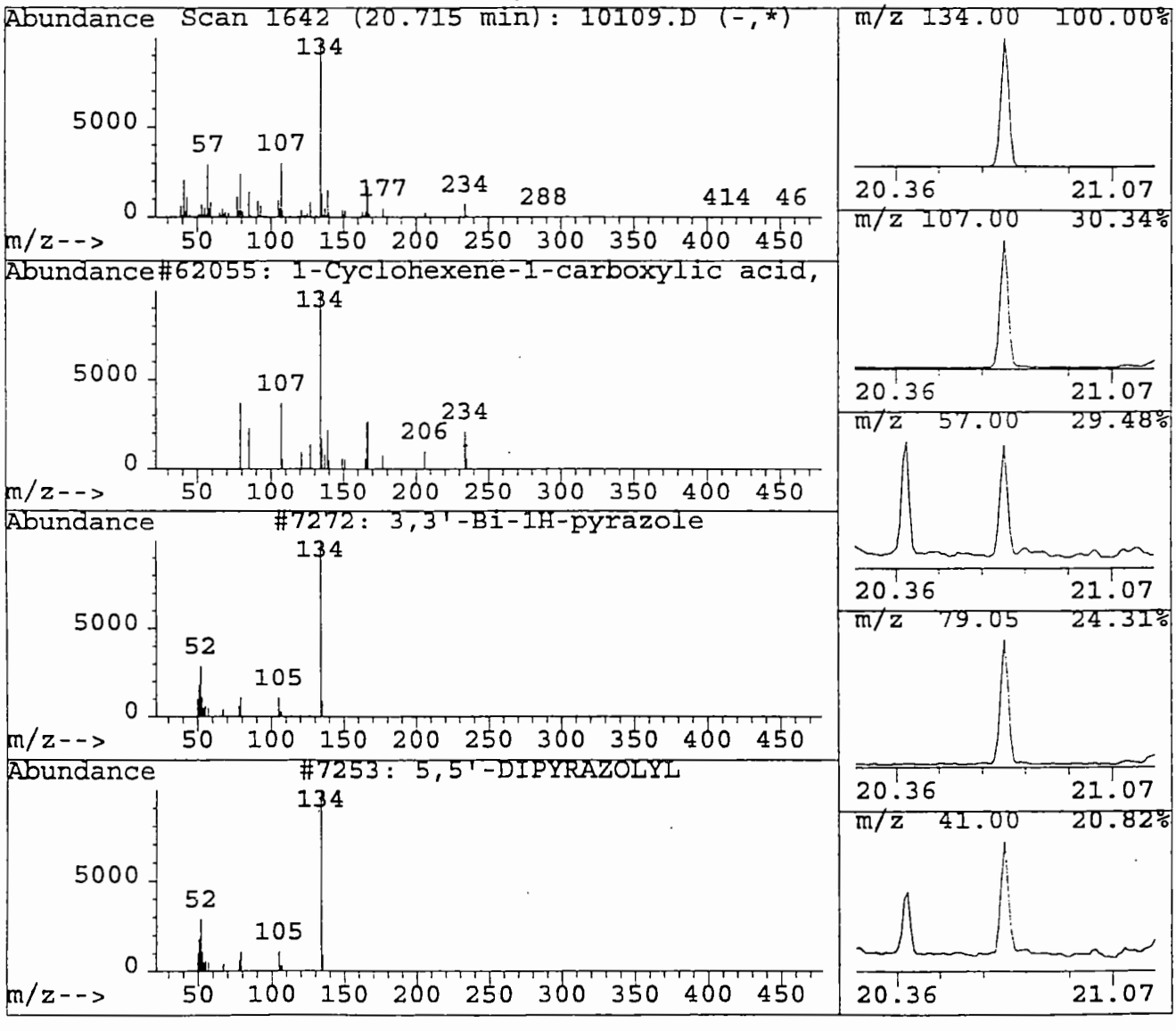
Vial: 5
Operator: PHC\WSK
Inst : NVO6
Multiplr: 66.67

Method : c:\HPCHEM\1\METHODS\CLPBNAS.M
Title : 8270 NON-EPC CALIBRATION
Library : C:\DATABASE\WILEY138.L

R.T.	Conc	Area	Relative to ISTD	R.T.
20.72	684.80 ug/Kg	2294281	Phenanthrene-d10	18.29

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
✓ 1	1-Cyclohexene-1-carboxylic acid, 4-	62055	017904-27-7	53
2	3,3'-Bi-1H-pyrazole	7272	002384-02-3	50
3	5,5'-DIPYRAZOLYL	7253	016267-26-8	50
4	EPIJUVABIONE	62056	026462-72-6	47
5	(E)-3-(1-Propenyl)phenol	7396	066921-90-2	47

Please give CAS # because the name is not complete. PHC 7-29-94



Library Search Compound Report

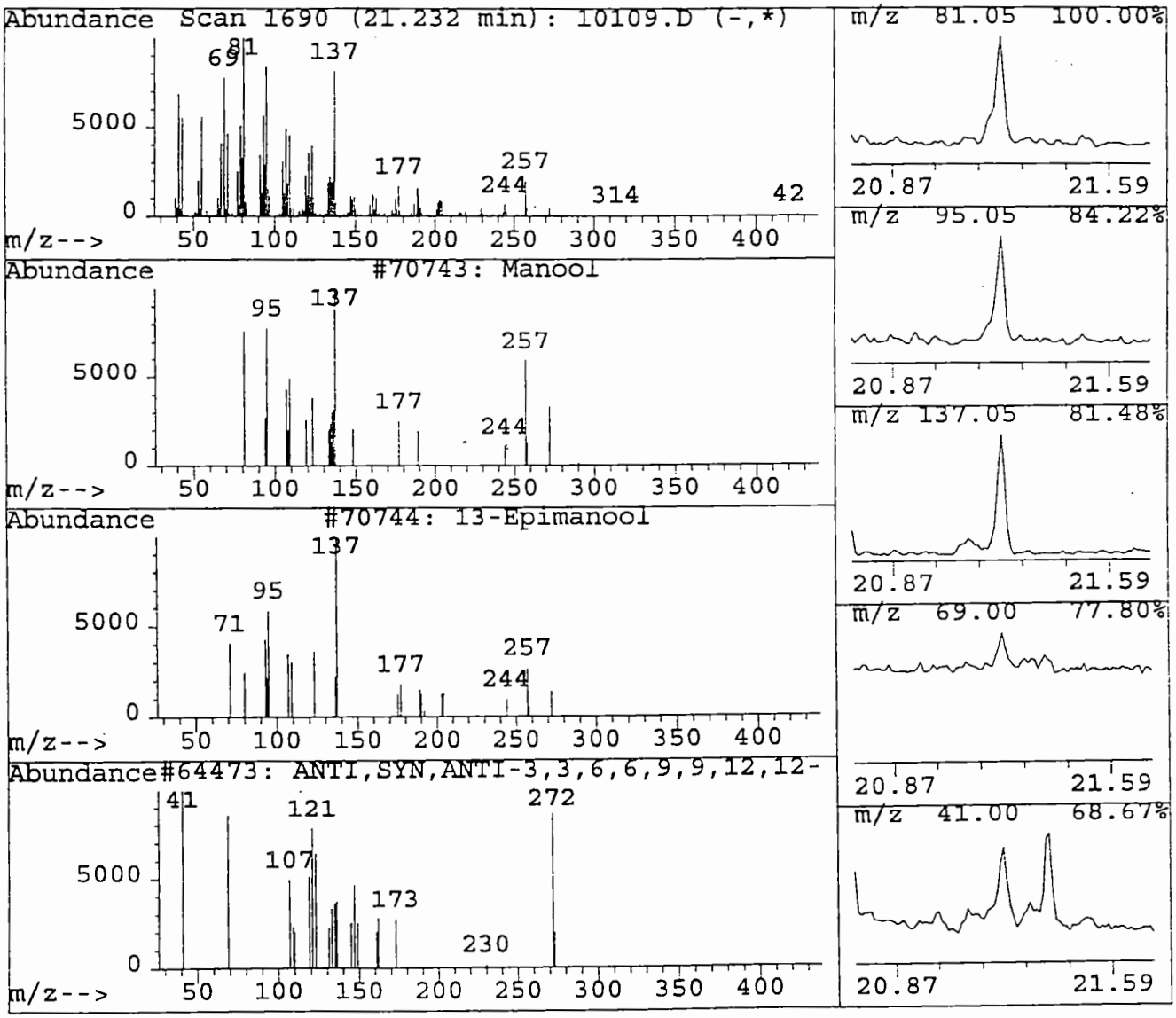
Data File : c:\hpchem\1\data\8270\non-epc\10109.d
Acq On : 18 Jul 94 10:23 am
Sample : CDMHNSS3*4
Misc :

Vial: 5
Operator: PHC\WSK
Inst : NVO6
Multiplr: 66.67

Method : c:\HPCHEM\1\METHODS\CLPBNAS.M
Title : 8270 NON-EPC CALIBRATION
Library : C:\DATABASE\WILEY138.L

R.T.	Conc	Area	Relative to ISTD	R.T.
21.23	274.62 ug/Kg	920040	Phenanthrene-d10	18.29

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Manool	70743	000596-85-0	74
2	13-Epimanool	70744	001438-62-6	55
3	ANTI,SYN,ANTI-3,3,6,6,9,9,12,12-OCT	64473	000000-00-0	44
4	CIS-1-ETHINYL-2-METHYL-1-CYCLOHEXAN	8632	036144-41-9	43
5	Z-ISOMER, 2-(2-HYDROXYETHYLIDENE)-3	20497	059518-13-7	43



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Library Search Compound Report

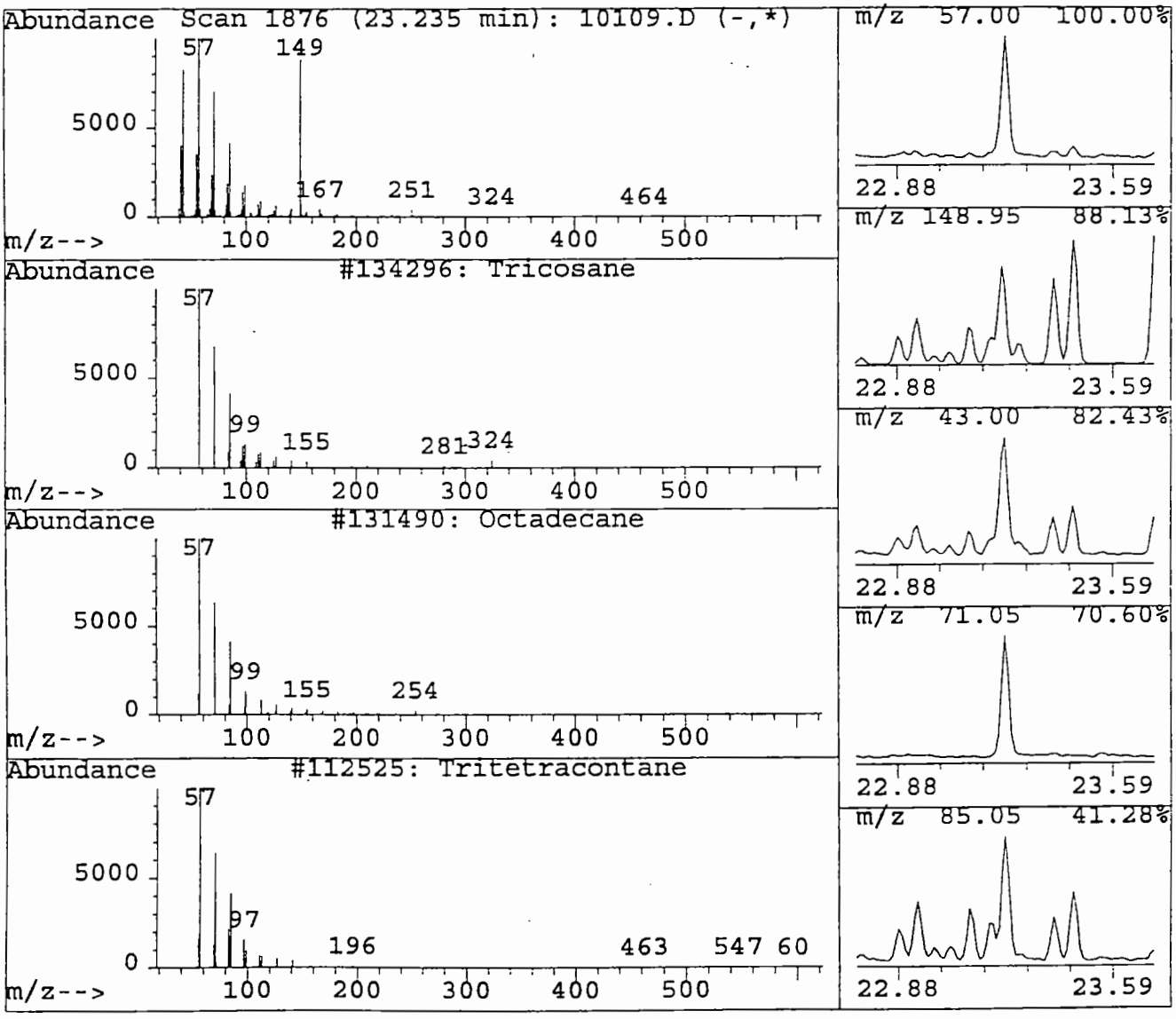
Data File : c:\hpchem\1\data\8270\non-epc\10109.d Vial: 5
Acq On : 18 Jul 94 10:23 am Operator: PHC\WSK
Sample : CDMHNSS3*4 Inst : NVO6
Misc : Multiplr: 66.67

Method : c:\HPCHEM\1\METHODS\CLPBNAS.M
Title : 8270 NON-EPC CALIBRATION
Library : C:\DATABASE\WILEY138.L

R.T.	Conc	Area	Relative to ISTD	R.T.
23.24	385.95 ug/Kg	1101390	Chyrsene-d12	25.03

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
✓ 1	Tricosane and other phthalate ester	134296	000638-67-5	70
2	Octadecane	131490	000593-45-3	64
3	Tritetracontane	112525	007098-21-7	60
4	Hexatriacontane	136998	000630-06-8	60
5	Dotriacontane	136643	000544-85-4	60

PHL
7-29-94



Library Search Compound Report

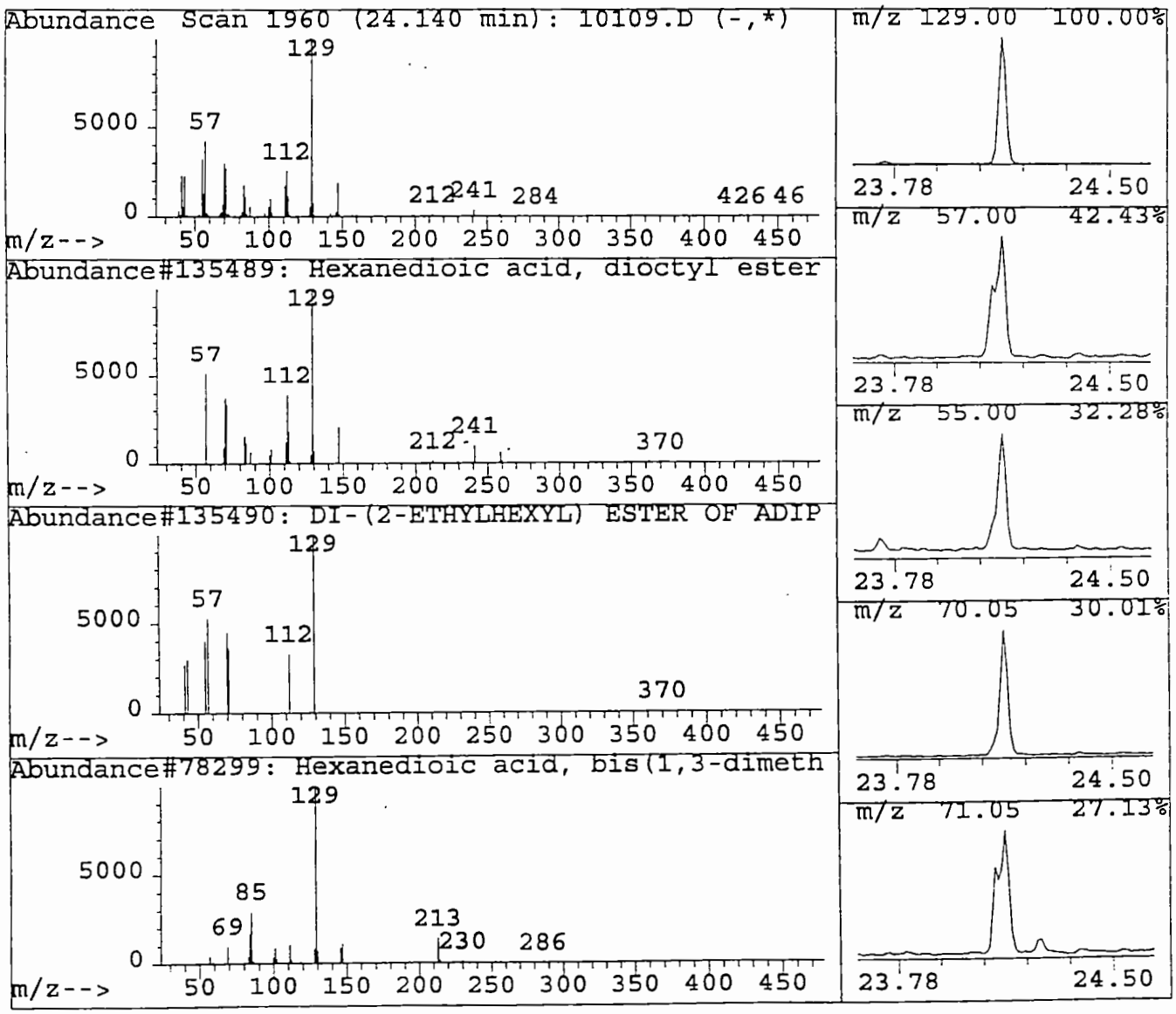
Data File : c:\hpchem\1\data\8270\non-epc\10109.d
Acq On : 18 Jul 94 10:23 am
Sample : CDMHNSS3*4
Misc :

Vial: 5
Operator: PHC\WSK
Inst : NVO6
Multiplr: 66.67

Method : c:\HPCHEM\1\METHODS\CLPBNAS.M
Title : 8270 NON-EPC CALIBRATION
Library : C:\DATABASE\WILEY138.L

R.T.	Conc	Area	Relative to ISTD	R.T.
24.14	762.68 ug/Kg	2176462	Chyrsene-d12	25.03

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Hexanedioic acid, dioctyl ester	135489	000123-79-5	64
✓2	DI-(2-ETHYLHEXYL) ESTER OF ADIPIC Acid	135490	000000-00-0	38
3	Hexanedioic acid, bis(1,3-dimethylb PHC	78299	055125-22-9	37
4	5-ETHYL-4-HYDRO-3-MERCAPTO-1,2,4-TR	120954	007271-45-6	23
5	Hexanedioic acid, dicyclohexyl este	133762	000849-99-0	17



9513554.2939

Library Search Compound Report

Data File : c:\hpchem\1\data\8270\non-epc\10109.d Vial: 5
Acq On : 18 Jul 94 10:23 am Operator: PHC\WSK
Sample : CDMHNSS3*4 Inst : NV06
Misc : Multiplr: 66.67

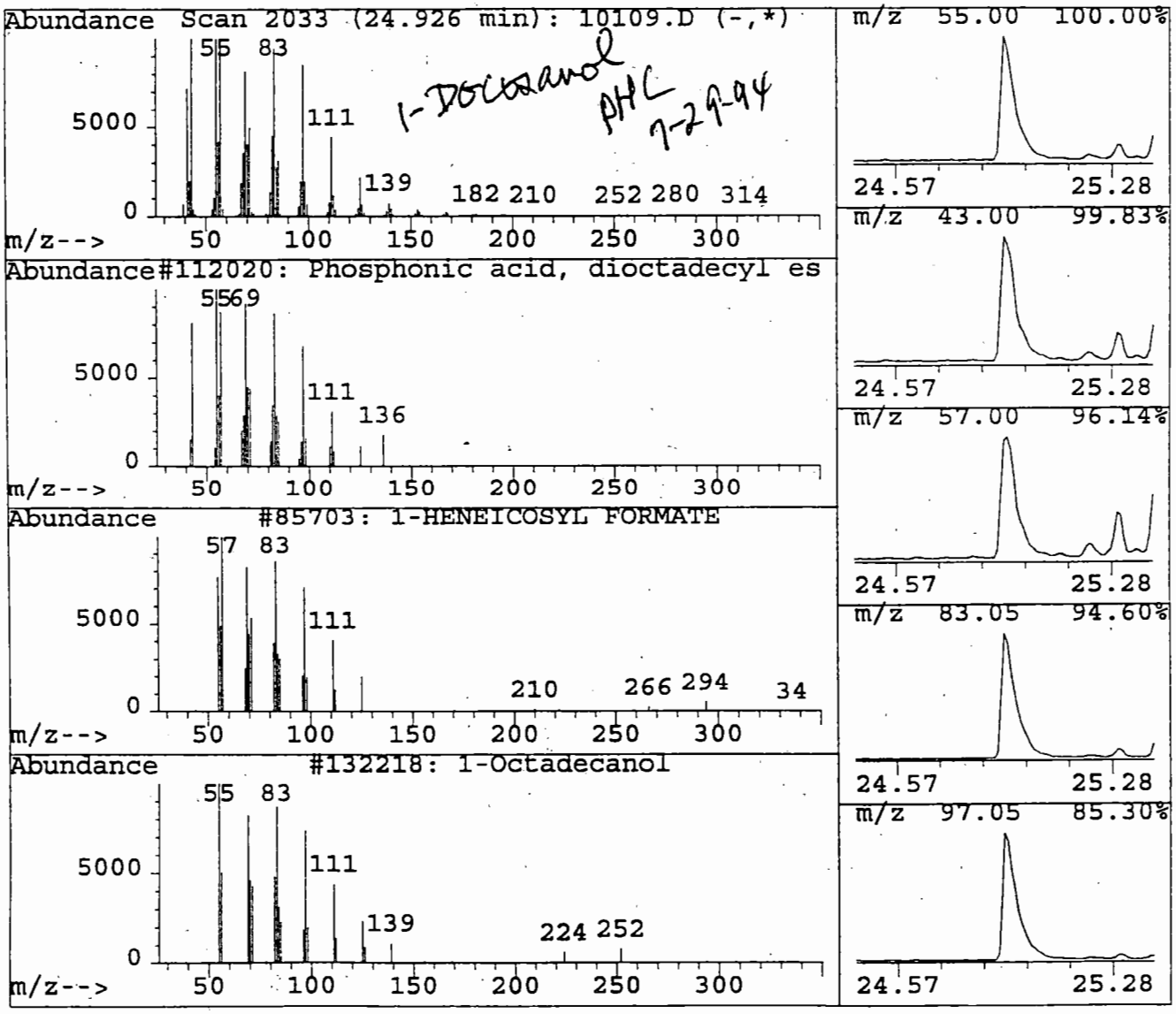
Method : c:\HPCHEM\1\METHODS\CLPBNAS.M
Title : 8270 NON-EPC CALIBRATION
Library : C:\DATABASE\WILEY138.L

R.T.	Conc	Area	Relative to ISTD	R.T.
24.93	1424.19 ug/Kg	4064189	Chyrsene-d12	25.03

rom → 24.95 742.53
xt
sage
21.167 – Total Conc

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Phosphonic acid, dioctadecyl ester	112020	019047-85-9	93
2	1-HENEICOSYL FORMATE	85703	077899-03-7	91
3	1-Octadecanol	132218	000112-92-5	91
4	3-Eicosene, (E)-	67216	074685-33-9	90
5	Silane, trichloroeicosyl-	99977	018733-57-8	87

PHC
7-29-94



000381

Library Search Compound Report

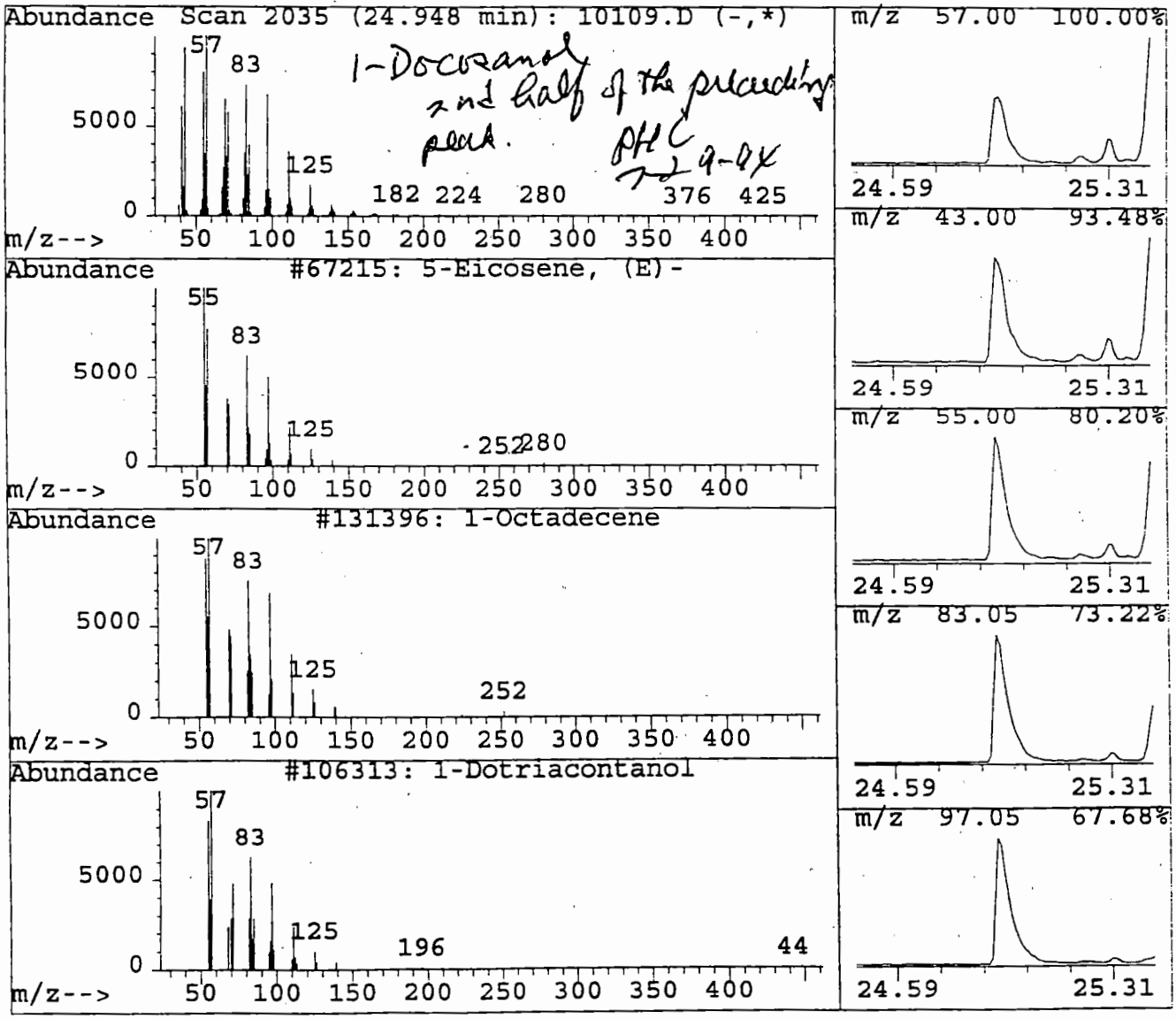
Data File : c:\hpchem\1\data\8270\non-epc\10109.d
Acq On : 18 Jul 94 10:23 am
Sample : CDMHNSS3*4
Misc :

Vial: 5
Operator: PHC\WSK
Inst : NVO6
Multiplr: 66.67

Method : c:\HPCHEM\1\METHODS\CLPBNAS.M
Title : 8270 NON-EPC CALIBRATION
Library : C:\DATABASE\WILEY138.L

R.T.	Conc	Area	Relative to ISTD	R.T.
24.95	742.83 ug/Kg	2119814	Chyrsene-d12	25.03

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	5-Eicosene, (E)-	67215	074685-30-6	96
2	1-Octadecene	131396	000112-88-9	94
3	1-Dotriacontanol	106313	006624-79-9	87
4	1-Hentetracontanol	112195	040710-42-7	87
5	Silane, trichloroeicosyl-	99977	018733-57-8	83



000382

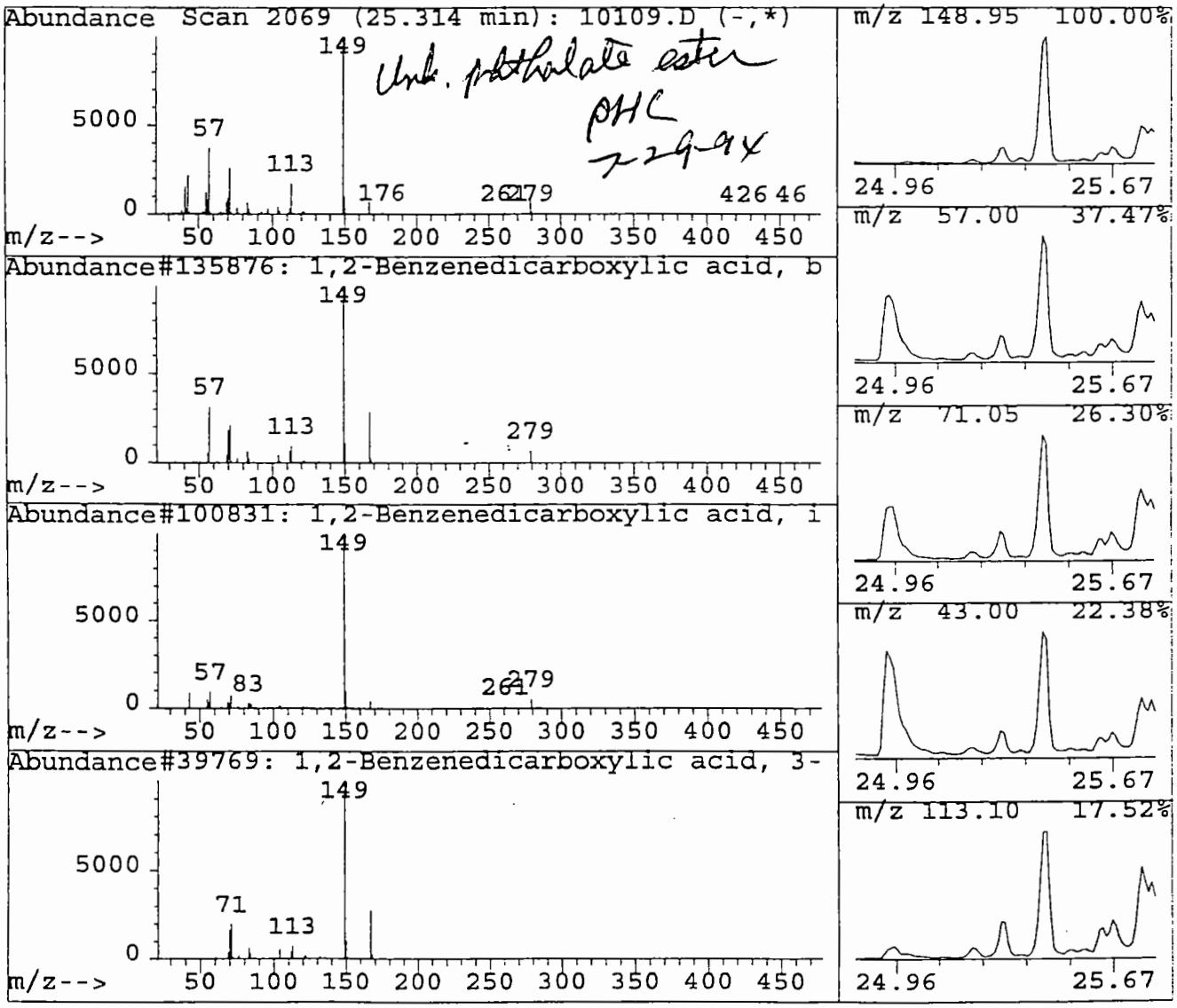
Library Search Compound Report

Data File : c:\hpchem\1\data\8270\non-epc\10109.d Vial: 5
Acq On : 18 Jul 94 10:23 am Operator: PHC\WSK
Sample : CDMHNSS3*4 Inst : NVO6
Misc : Multiplr: 66.67

Method : c:\HPCHEM\1\METHODS\CLPBNAS.M
Title : 8270 NON-EPC CALIBRATION
Library : C:\DATABASE\WILEY138.L

R.T.	Conc	Area	Relative to ISTD	R.T.
25.31	377.96 ug/Kg	1078576	Chyrsene-d12	25.03

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1,2-Benzenedicarboxylic acid, bis(2	135876	000117-81-7	86
2	1,2-Benzenedicarboxylic acid, isode	100831	001330-96-7	59
3	1,2-Benzenedicarboxylic acid, 3-nit	39769	000603-11-2	56
4	1,2-Benzenedicarboxylic acid, butyl	90782	000089-18-9	53
5	1,2-Benzenedicarboxylic acid, dipen	133653	000131-18-0	53



Library Search Compound Report

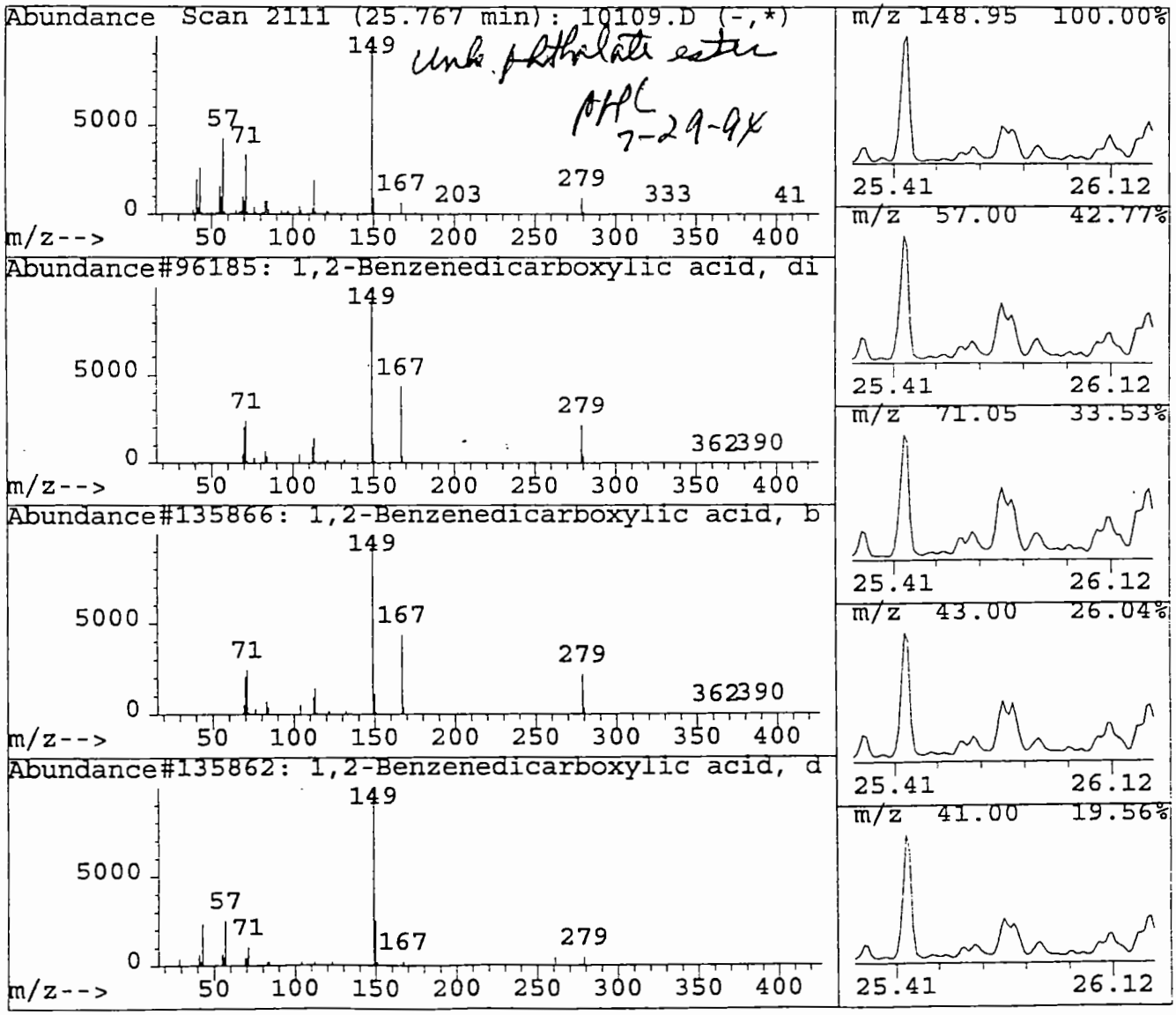
Data File : c:\hpchem\1\data\8270\non-epc\10109.d
Acq On : 18 Jul 94 10:23 am
Sample : CDMHNSS3*4
Misc :

Vial: 5
Operator: PHC\WSK
Inst : NVO6
Multiplr: 66.67

Method : c:\HPCHEM\1\METHODS\CLPBNAS.M
Title : 8270 NON-EPC CALIBRATION
Library : C:\DATABASE\WILEY138.L

R.T.	Conc	Area	Relative to ISTD	R.T.
25.77	983.93 ug/Kg	2807822	Chyrsene-d12	25.03

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1,2-Benzenedicarboxylic acid, diiso	96185	027554-26-3	72
2	1,2-Benzenedicarboxylic acid, bis(2	135866	000117-81-7	72
3	1,2-Benzenedicarboxylic acid, dioct	135862	000117-84-0	53
4	1,2-Benzenedicarboxylic acid, decyl	100829	000119-07-3	53
5	1,2-Benzenedicarboxylic acid, butyl	90782	000089-18-9	50



000384

Library Search Compound Report

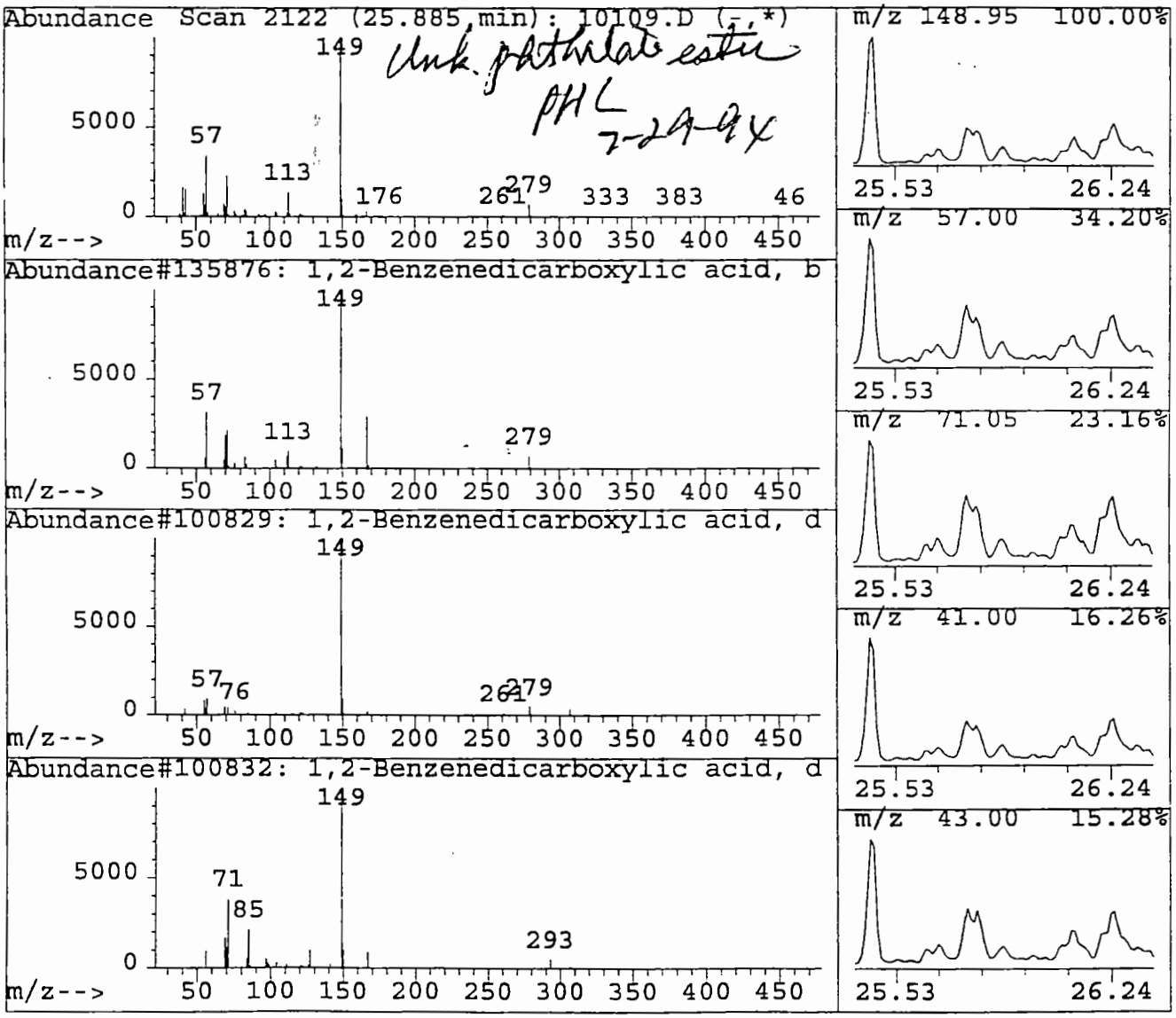
Data File : c:\hpchem\1\data\8270\non-epc\10109.d
Acq On : 18 Jul 94 10:23 am
Sample : CDMHNSS3*4
Misc :

Vial: 5
Operator: PHC\WSK
Inst : NV06
Multiplr: 66.67

Method : c:\HPCHEM\1\METHODS\CLPBNAS.M
Title : 8270 NON-EPC CALIBRATION
Library : C:\DATABASE\WILEY138.L

R.T.	Conc	Area	Relative to ISTD	R.T.
25.89	317.22 ug/Kg	905247	Chyrsene-d12	25.03

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1,2-Benzenedicarboxylic acid, bis(2	135876	000117-81-7	86
2	1,2-Benzenedicarboxylic acid, decyl	100829	000119-07-3	64
3	1,2-Benzenedicarboxylic acid, diiso	100832	028553-12-0	64
4	1,2-Benzenedicarboxylic acid, isode	100831	001330-96-7	59
5	1,2-Benzenedicarboxylic acid, butyl	90782	000089-18-9	53



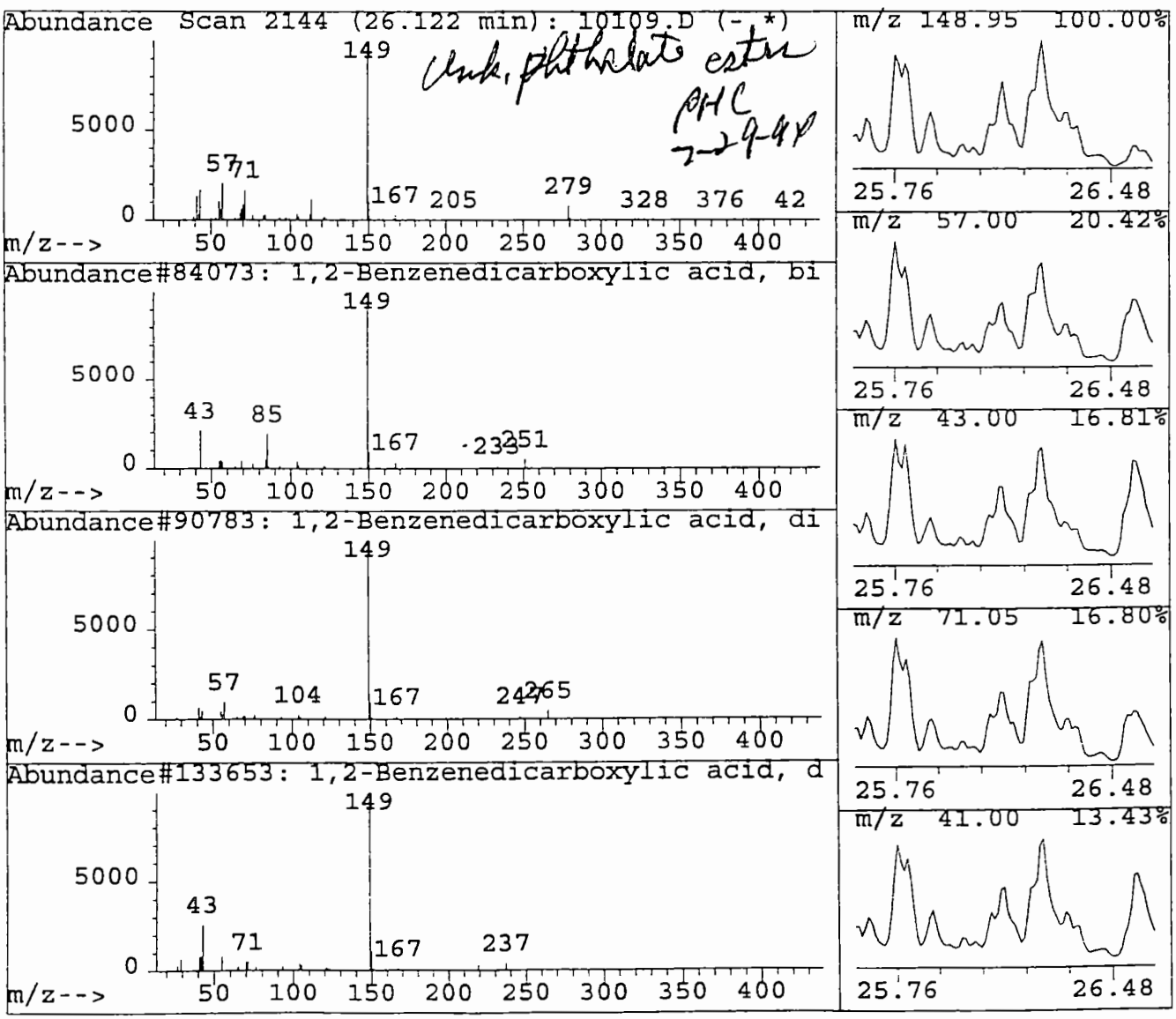
Library Search Compound Report

Data File : c:\hpchem\1\data\8270\non-epc\10109.d Vial: 5
Acq On : 18 Jul 94 10:23 am Operator: PHC\WSK
Sample : CDMHNSS3*4 Inst : NVO6
Misc : Multiplr: 66.67

Method : c:\HPCHEM\1\METHODS\CLPBNAS.M
Title : 8270 NON-EPC CALIBRATION
Library : C:\DATABASE\WILEY138.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.12	590.41 ug/Kg	1684836	Chyrsene-d12	25.03

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1,2-Benzenedicarboxylic acid, bis(4	84073	000146-50-9	64
2	1,2-Benzenedicarboxylic acid, dihep	90783	003648-21-3	59
3	1,2-Benzenedicarboxylic acid, dipen	133653	000131-18-0	59
4	1,2-Benzenedicarboxylic acid, bis(2	66362	000084-69-5	59
5	1,2-Benzenedicarboxylic acid, butyl	75219	000084-64-0	59



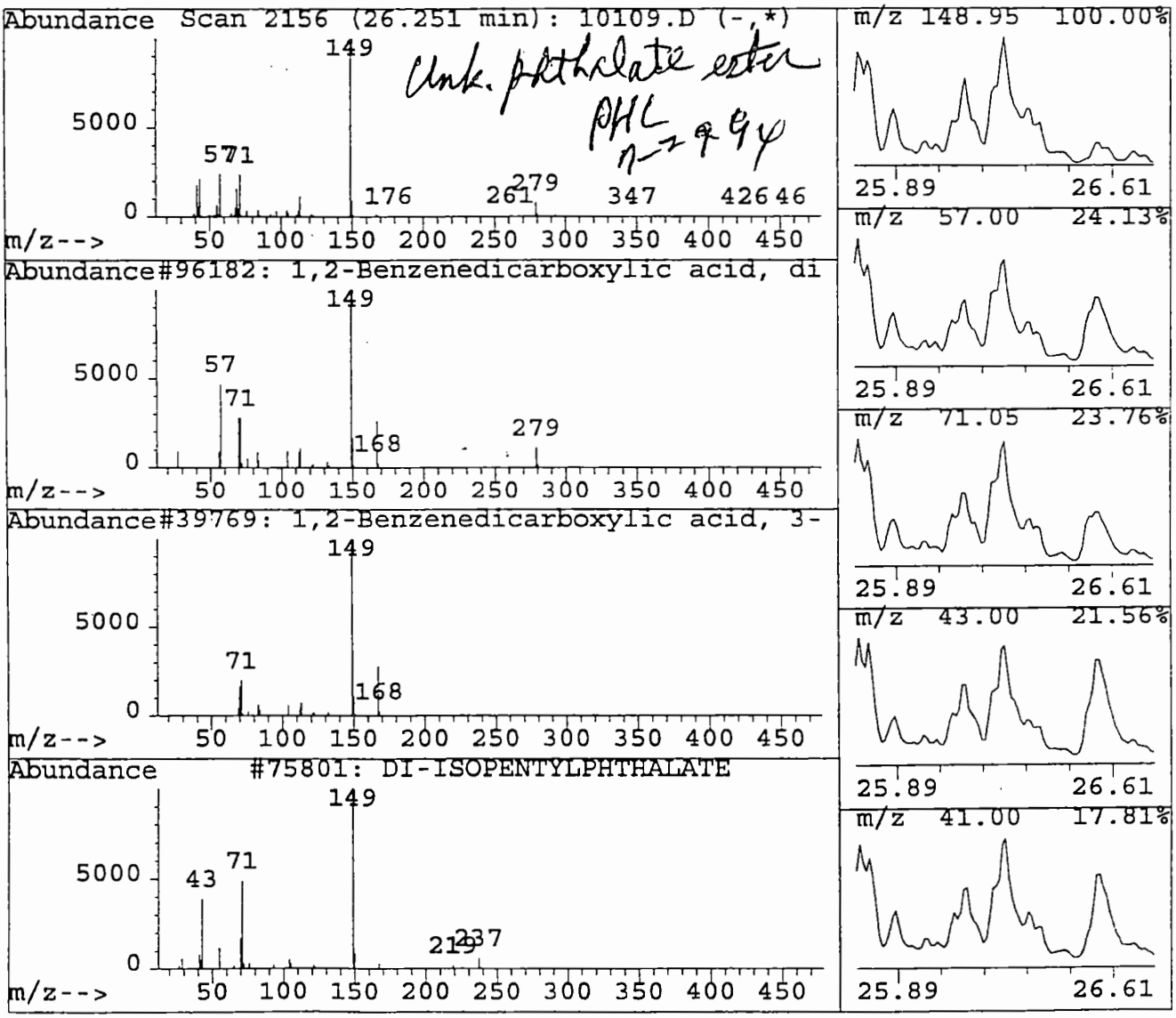
Library Search Compound Report

Data File : c:\hpchem\1\data\8270\non-epc\10109.d Vial: 5
Acq On : 18 Jul 94 10:23 am Operator: PHC\WSK
Sample : CDMHNSS3*4 Inst : NVO6
Misc : Multiplr: 66.67

Method : c:\HPCHEM\1\METHODS\CLPBNAS.M
Title : 8270 NON-EPC CALIBRATION
Library : C:\DATABASE\WILEY138.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.25	946.58 ug/Kg	2701245	Chyrsene-d12	25.03

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1,2-Benzenedicarboxylic acid, dioct	96182	000117-84-0	72
2	1,2-Benzenedicarboxylic acid, 3-nit	39769	000603-11-2	64
3	DI-ISOPENTYLPHTHALATE	75801	000000-00-0	64
4	1,2-Benzenedicarboxylic acid, diiso	100832	028553-12-0	59
5	1,2-Benzenedicarboxylic acid, butyl	90782	000089-18-9	59



Library Search Compound Report

Data File : c:\hpchem\1\data\8270\non-epc\10109.d
Acq On : 18 Jul 94 10:23 am
Sample : CDMHNSS3*4
Misc :

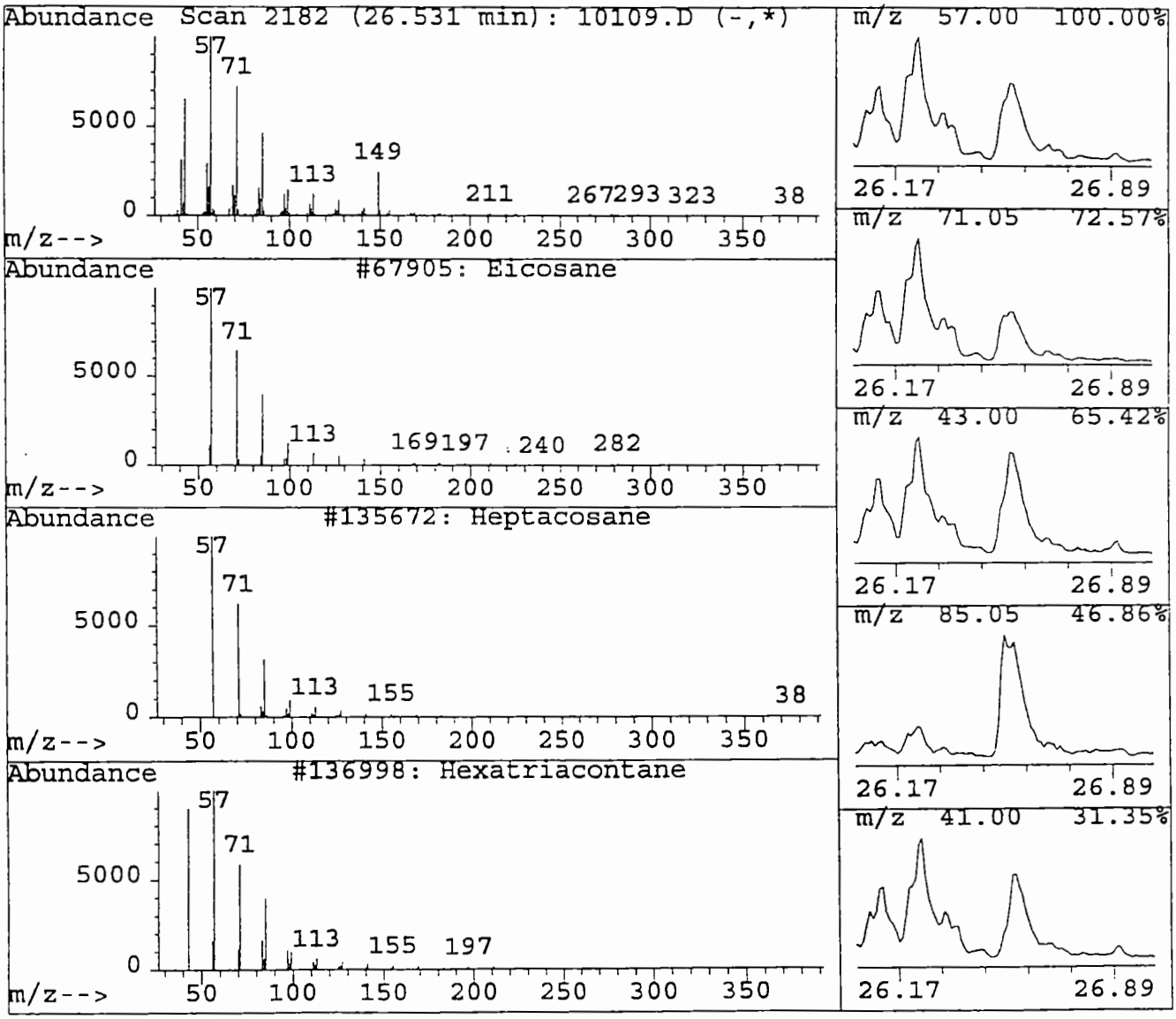
Vial: 5
Operator: PHC\WSK
Inst : NVO6
Multiplr: 66.67

Method : c:\HPCHEM\1\METHODS\CLPBNAS.M
Title : 8270 NON-EPC CALIBRATION
Library : C:\DATABASE\WILEY138.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.53	351.08 ug/Kg	1001886	Chyrsene-d12	25.03

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Eicosane	67905	000112-95-8	96
2	Heptacosane	135672	000593-49-7	87
3	Hexatriacontane	136998	000630-06-8	87
4	Tetratetracontane	112899	007098-22-8	87
5	Tricosane	134293	000638-67-5	83

Chk. alkane
PHC
7-29-94



000388

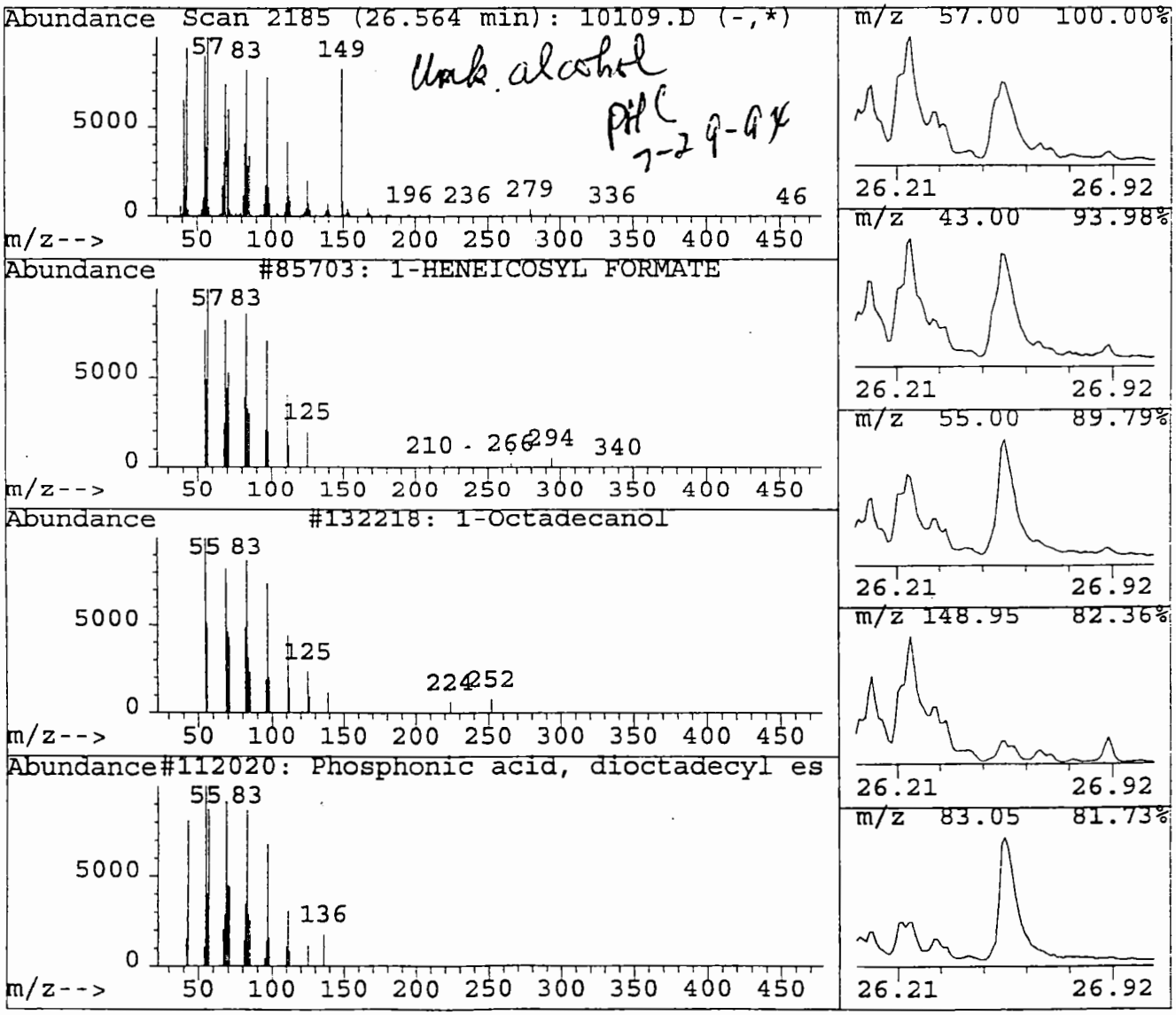
Library Search Compound Report

Data File : c:\hpchem\1\data\8270\non-epc\10109.d Vial: 5
Acq On : 18 Jul 94 10:23 am Operator: PHC\WSK
Sample : CDMHNSS3*4 Inst : NVO6
Misc : Multiplr: 66.67

Method : c:\HPCHEM\1\METHODS\CLPBNAS.M
Title : 8270 NON-EPC CALIBRATION
Library : C:\DATABASE\WILEY138.L

R.T.	Conc	Area	Relative to ISTD	R.T.
26.56	988.93 ug/Kg	2822111	Chyrsene-d12	25.03

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	1-HENEICOSYL FORMATE	85703	077899-03-7	90
2	1-Octadecanol	132218	000112-92-5	70
3	Phosphonic acid, dioctadecyl ester	112020	019047-85-9	70
4	Cyclohexadecane	46076	000295-65-8	68
5	3-Eicosene, (E)-	67216	074685-33-9	58



Library Search Compound Report

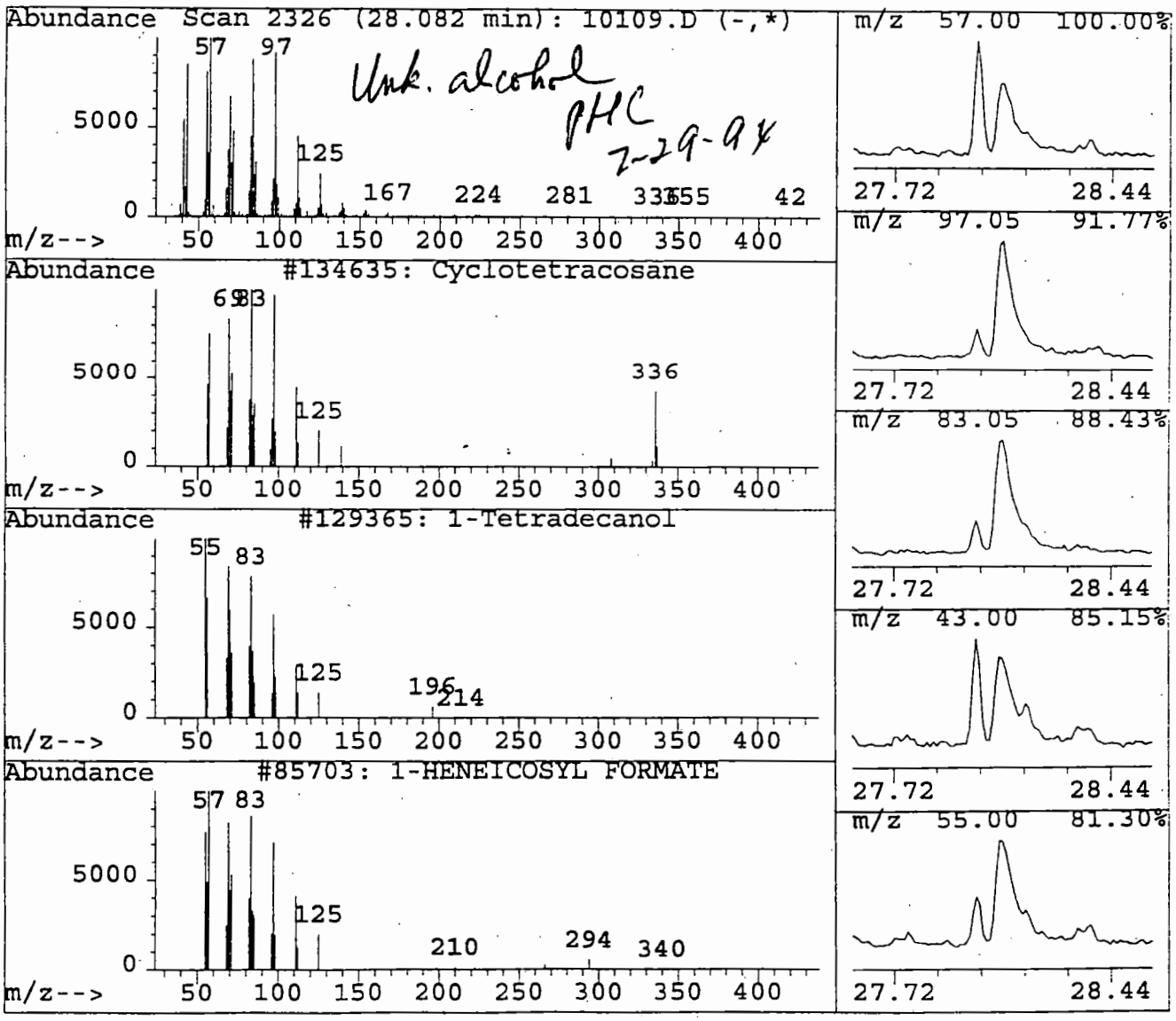
Data File : c:\hpchem\1\data\8270\non-epc\10109.d
Acq On : 18 Jul 94 10:23 am
Sample : CDMHNSS3*4
Misc :

Vial: 5
Operator: PHC\WSK
Inst : NVO6
Multiplr: 66.67

Method : c:\HPCHEM\1\METHODS\CLPBNAS.M
Title : 8270 NON-EPC CALIBRATION
Library : C:\DATABASE\WILEY138.L

R.T.	Conc	Area	Relative to ISTD	R.T.
28.08	474.03 ug/Kg	1154090	Perylene-d12	28.41

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Cyclotetracosane	134635	000297-03-0	98
2	1-Tetradecanol	129365	000112-72-1	86
3	1-HENEICOSYL FORMATE	85703	077899-03-7	68
4	1-Hentetracontanol	112195	040710-42-7	64
5	Nonacosanol	101559	025154-56-7	62



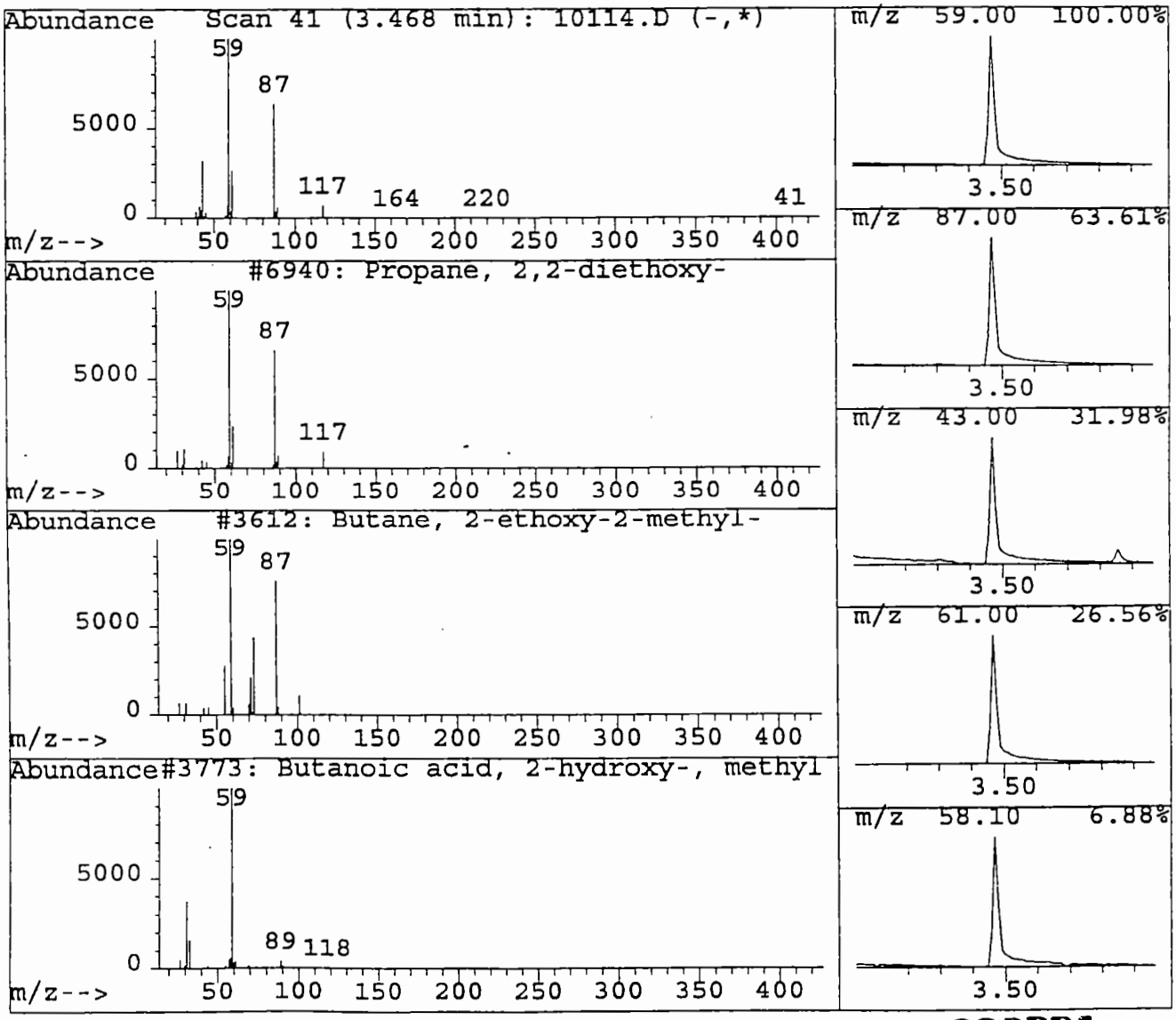
Library Search Compound Report

Data File : c:\hpchem\1\data\8270\non-epc\10114.d Vial: 10
Acq On : 18 Jul 94 2:22 pm Operator: PHC\WSK
Sample : CDMHNSS3*5 Inst : NVO6
Misc : Multiplr: 66.67

Method : c:\HPCHEM\1\METHODS\CLPBNAS.M
Title : 8270 NON-EPC CALIBRATION
Library : C:\DATABASE\WILEY138.L

R.T.	Conc	Area	Relative to ISTD	R.T.
3.47	2265.62 ug/Kg	4640628	1,4-Dichlorobenzene-d4	7.30

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
✓ 1	Propane, 2,2-diethoxy-	6940	000126-84-1	83
2	Butane, 2-ethoxy-2-methyl-	3612	000919-94-8	45
3	Butanoic acid, 2-hydroxy-, methyl e	3773	029674-47-3	43
4	2,3-Butanediol, 2,3-dimethyl-	3828	000076-09-5	25
5	2-Butanone, 3-hydroxy-3-methyl-	1376	000115-22-0	23



Library Search Compound Report

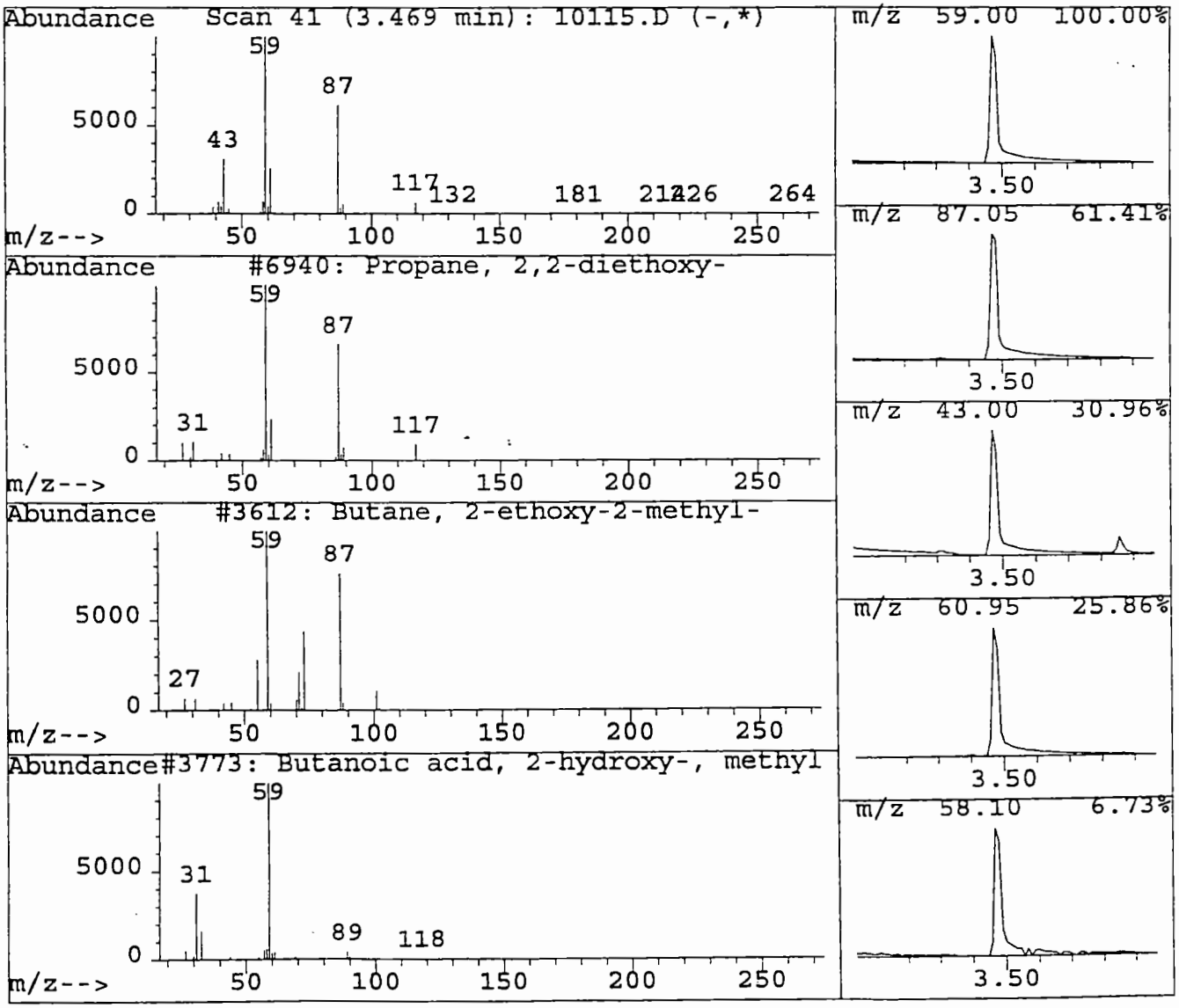
Data File : c:\hpchem\1\data\8270\non-epc\10115.d
Acq On : 18 Jul 94 3:10 pm
Sample : CDMHNSS3*6
Misc :

Vial: 11
Operator: PHC\WSK
Inst : NVO6
Multiplr: 66.67

Method : c:\HPCHEM\1\METHODS\CLPBNAS.M
Title : 8270 NON-EPC CALIBRATION
Library : C:\DATABASE\WILEY138.L

R.T.	Conc	Area	Relative to ISTD	R.T.
3.47	1466.52 ug/Kg	2895069	1,4-Dichlorobenzene-d4	7.30

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Propane, 2,2-diethoxy-	6940	000126-84-1	83
2	Butane, 2-ethoxy-2-methyl-	3612	000919-94-8	45
3	Butanoic acid, 2-hydroxy-, methyl e	3773	029674-47-3	38
4	2,3-Butanediol, 2,3-dimethyl-	3828	000076-09-5	25
5	1,3-Dioxane	117220	000505-22-6	9



000392

9513554.2945

:**IR
:DU,U53694,1

GC/MS SEMIVOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

...e: CDMHNSS3*41 0714 Injected: 940716 17:19
...sc: 07/16/94 KEC/PHC BTL# 7
Data File: >53694::N8

*Phenanthrene-d10 RT= 22.427

COMPOUND NAME	TIC#	RT	CAS	ug/kg
3-Penten-2-one, 4-methyl-	2	5.81	141797	360.00
Nonacosane	4	32.79	630035	310.00

:RU,CRT,FF

MS data file header from : >53694

Sample: CDMHNSS3*41 0714 Operator: PHC MS 7/16/94 17:19
Misc : 07/16/94 KEC/PHC BTL# 7
Sys. #: 2 MS model: 88 SW/HW rev.: IA ALS # : 0
Method file: CLPPC2 Tuning file: MT7802 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 305 Transfer line temp. : 0

Chromatographic temperatures :	40.	300.	0.	0.	0.
Chromatographic times, min. :	4.0	15.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	.3	0.0

>53694 CDMHNSS3*41 071407/16/94 KEC/PHC
35.01 500.0 CLP ADC TIC
Upslope: .20 Area Reject: 33007. Max Peaks: 4 Bunching: 1
Dnslope: 0.00 Results File I53694 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	4.94	107	111	114	21924	149070	37950	20.35	11.936
2	5.81	209	214	220	94819	334187	186506	100.00	58.660
3	9.73	675	679	688	31626	131158	55531	29.77	17.466
4	32.79	3407	3414	3420	15859	46087	37956	20.35	11.938

Sum of corrected areas: 317943.

Summary of Unknowns PBM Library Search and Quantitation

PHL 7-19-94

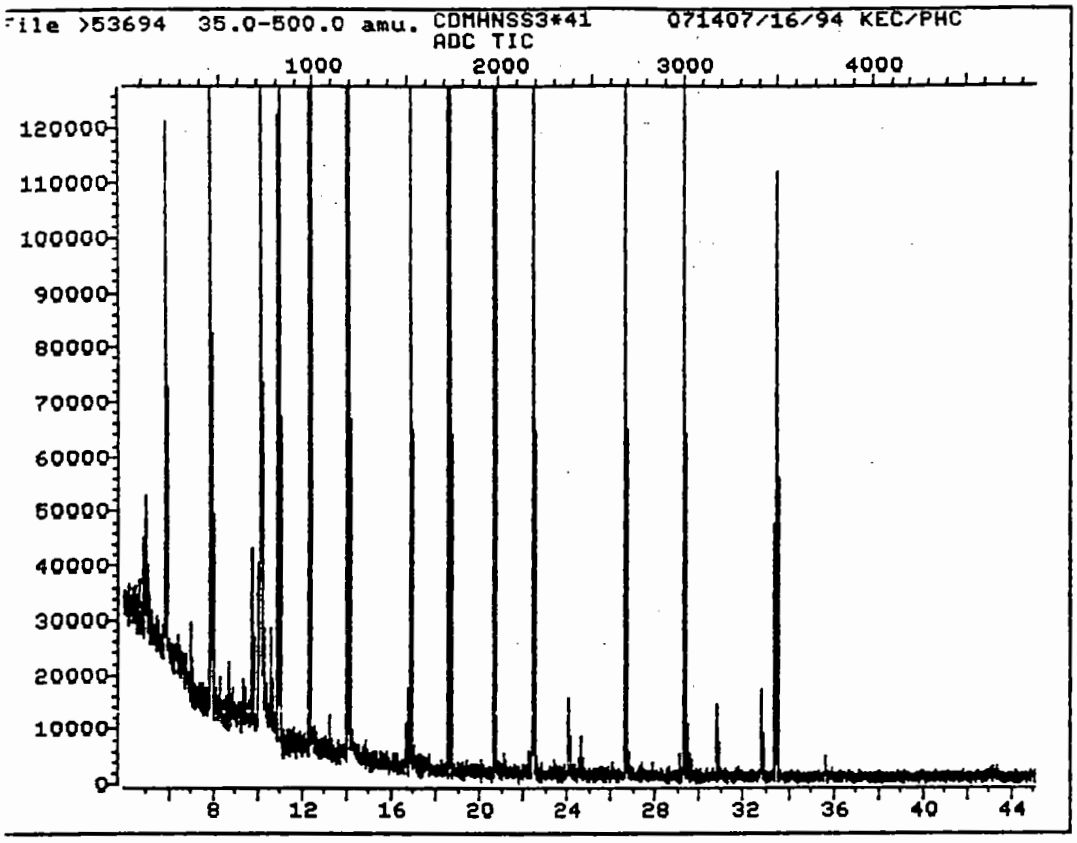
Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	1374823.	10.89	4.01 - 12.47
2	40.0	2048467.	14.06	12.47 - 16.32
3	40.0	1459801.	18.58	16.32 - 20.50
4	40.0	1348670.	22.43	20.50 - 25.86
5	40.0	684410.	29.29	25.86 - 31.36
6	40.0	330069.	33.43	31.36 - 45.05

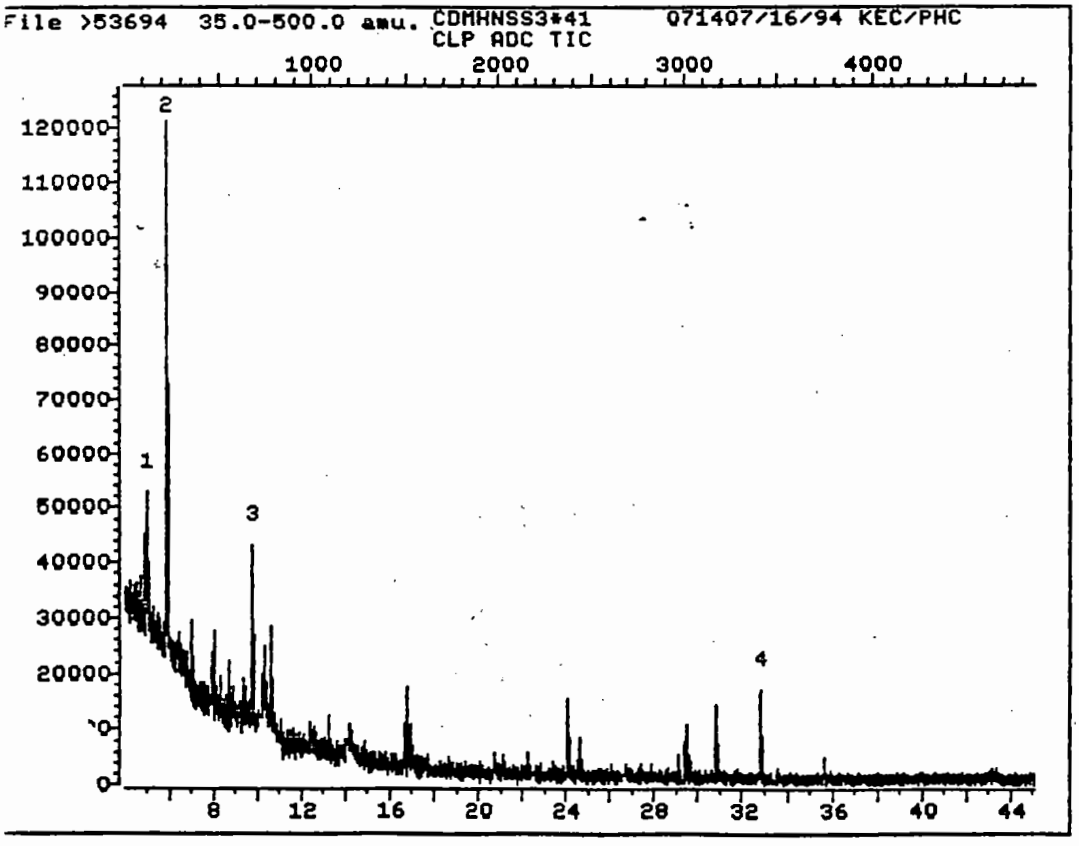
Dilution Factor (DF) = .02 Fractional Solids (FS) = 1.00
Amount Method (AM) = 15.00 Amount Used (AU) = 15.00

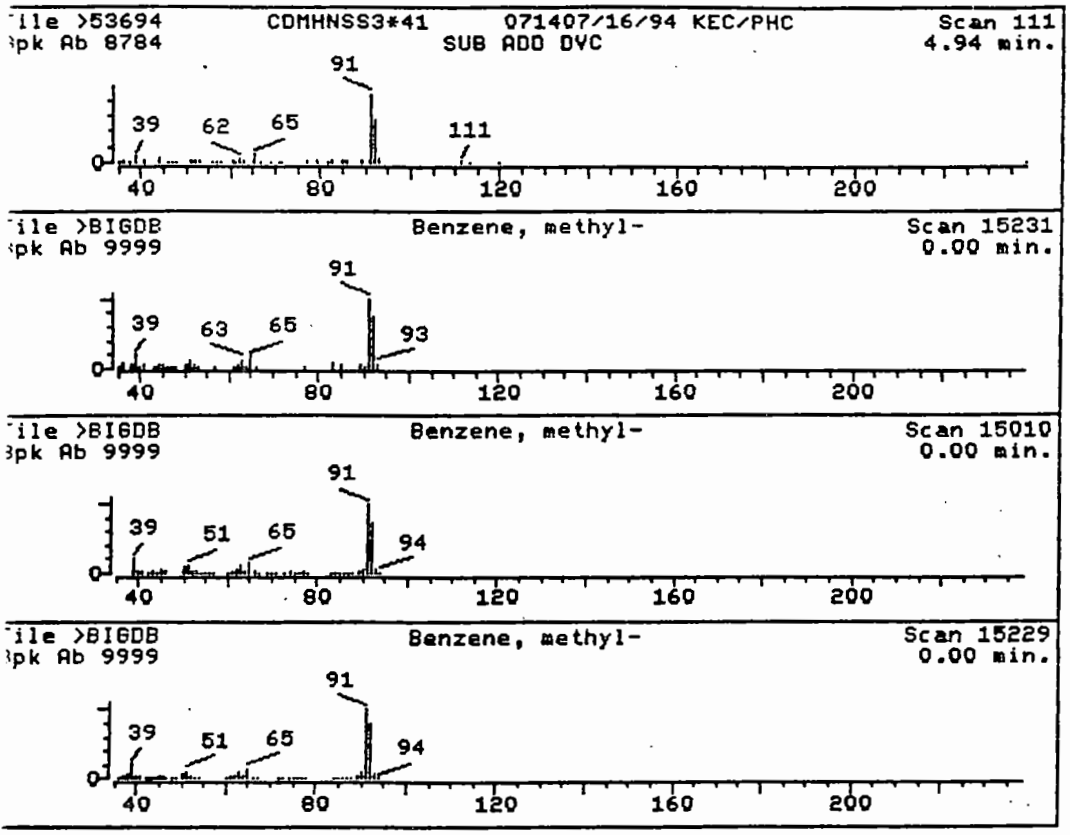
Correction Factor = 66.67 = (AM / AU) / (DF * FS)

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

7:02 PM SAT., 16 JULY, 1994


File >53694 35.0-500.0 amu. CDMHNSS3*41 071407/16/94 KEC/PHC
ADC TIC
1000
2000
3000
4000
120000
110000
100000
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
8
12
16
20
24
28
32
36
40
44


File >53694 35.0-500.0 amu. CDMHNSS3*41 071407/16/94 KEC/PHC
CLP ADC TIC
1000
2000
3000
4000
1
2
3
4
120000
110000
100000
90000
80000
70000
60000
50000
40000
30000
20000
0
8
12
16
20
24
28
32
36
40
44



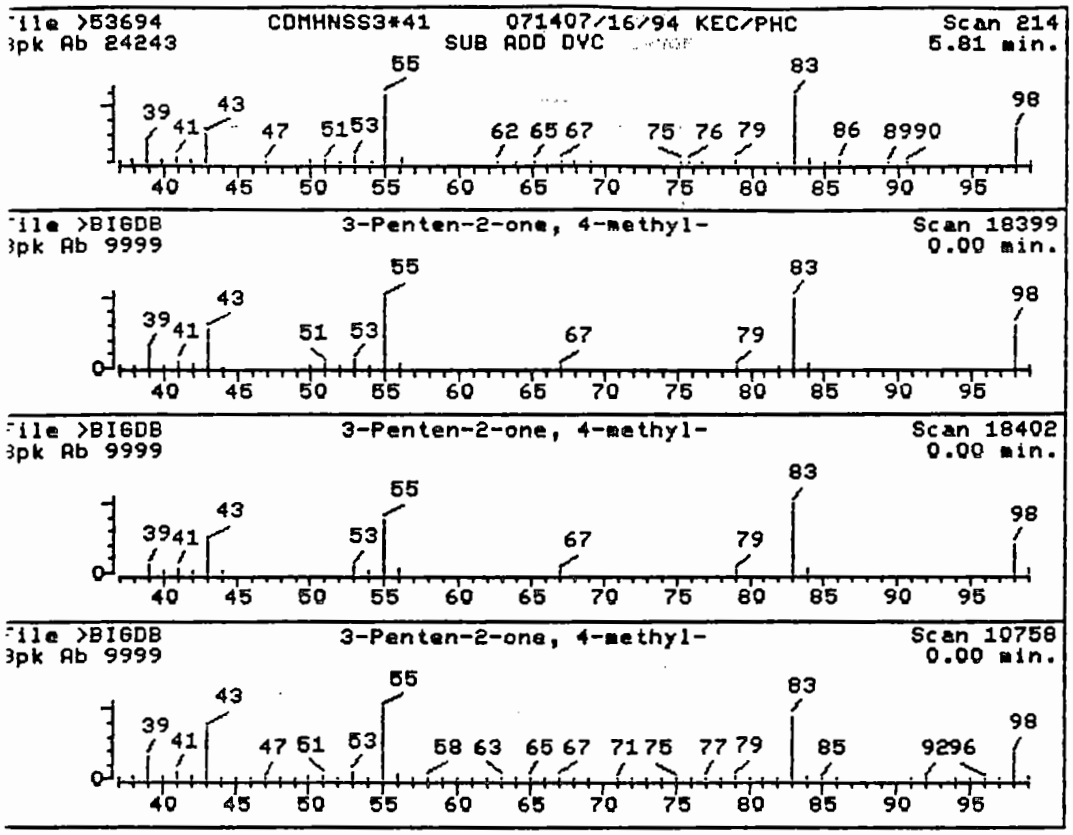
Sample: CDMHNSS3*41 0714 Injected: 7/16/94 17:19

TIC # 1 . Area = 37950.00 Tentative Conc = 74.00

1.	Benzene, methyl-	92 C7H8
2.	Benzene, methyl-	92 C7H8
3.	Benzene, methyl-	92 C7H8
4.	1,3,5-Cycloheptatriene	92 C7H8
5.	Benzene, methyl-	92 C7H8
6.	Benzene, methyl-	92 C7H8
7.	Benzene, methyl-	92 C7H8

Sample file: >53694 Spectrum #: 111
Search speed: 1 Tilting option: N No. of ion ranges searched: 39

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	76*	108883	15231	"BIGDB	46	50	2	0	70	8	45	23
2.	70*	108883	15010	"BIGDB	39	51	2	0	85	10	42	19
3.	70*	108883	15229	"BIGDB	40	55	3	0	78	10	42	13
4.	70*	544252	15012	"BIGDB	32	53	3	0	100	10	42	14
5.	60*	108883	15228	"BIGDB	34	44	2	0	99	11	30	17
6.	60*	108883	15230	"BIGDB	33	51	2	0	94	11	30	16
7.	60*	108883	15232	"BIGDB	27	60	2	0	68	11	30	14



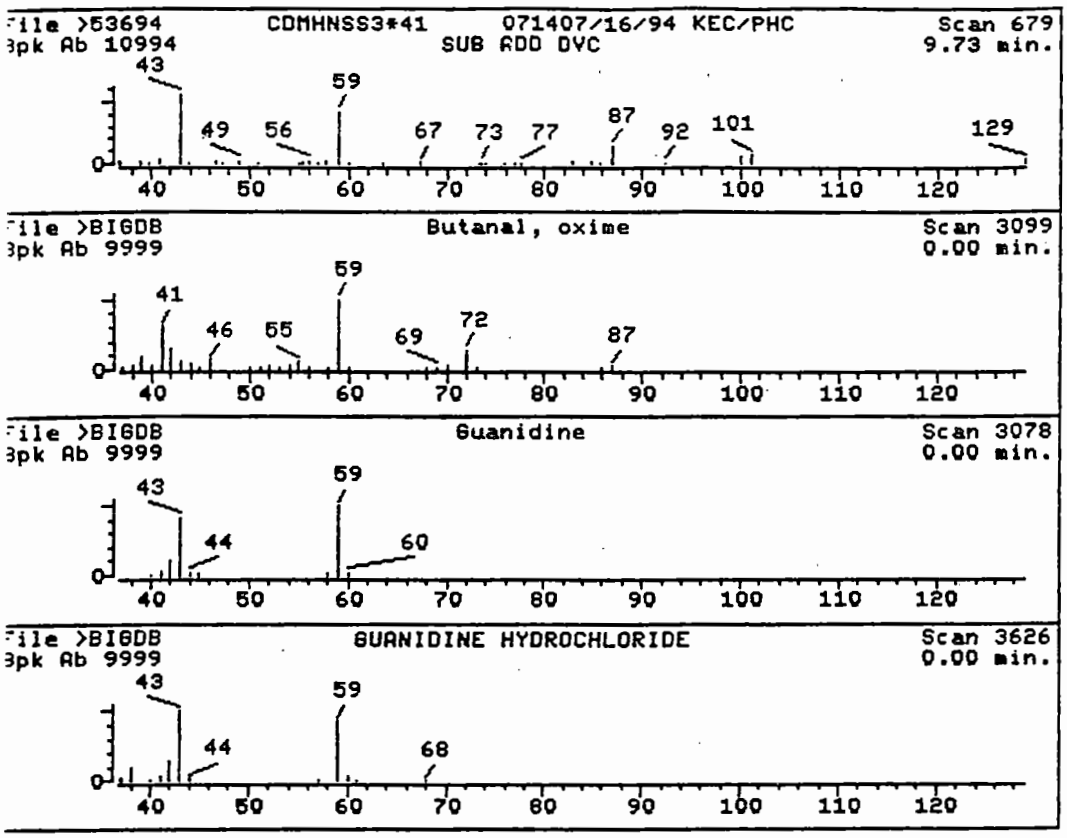
Sample: CDMHNSS3*41 0714 Injected: 7/16/94 17:19

TIC # 2 . Area = 186506.0 Tentative Conc = 360.00

1.	3-Penten-2-one, 4-methyl-	98	C6H10O
2.	3-Penten-2-one, 4-methyl-	98	C6H10O
3.	3-Penten-2-one, 4-methyl-	98	C6H10O
4.	3-Penten-2-one, 4-methyl-	98	C6H10O
5.	3-Penten-2-one, 4-methyl-	98	C6H10O
6.	3-Hexen-2-one	98	C6H10O
7.	2-Pentene, 3,4-dimethyl-, (Z)-	98	C7H14

Sample file: >53694 Spectrum #: 214
Search speed: 1 Tilting option: N No. of ion ranges searched: 41

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	94*	141797	18399	"BIGDB	72	17	0	0	75	10	68	93
2.	74*	141797	18402	"BIGDB	62	18	2	0	92	13	39	49
3.	73*	141797	10758	"BIGDB	62	30	1	0	82	24	32	60
4.	71*	141797	18404	"BIGDB	49	21	1	0	76	13	38	37
	67*	141797	18396	"BIGDB	51	39	3	0	81	12	34	23
	65*	763939	11060	"BIGDB	41	42	0	0	66	31	24	53
	60*	4914914	18417	"BIGDB	39	53	3	0	100	12	30	14



Sample: CDMHNSS3*41 0714 Injected: 7/16/94 17:19

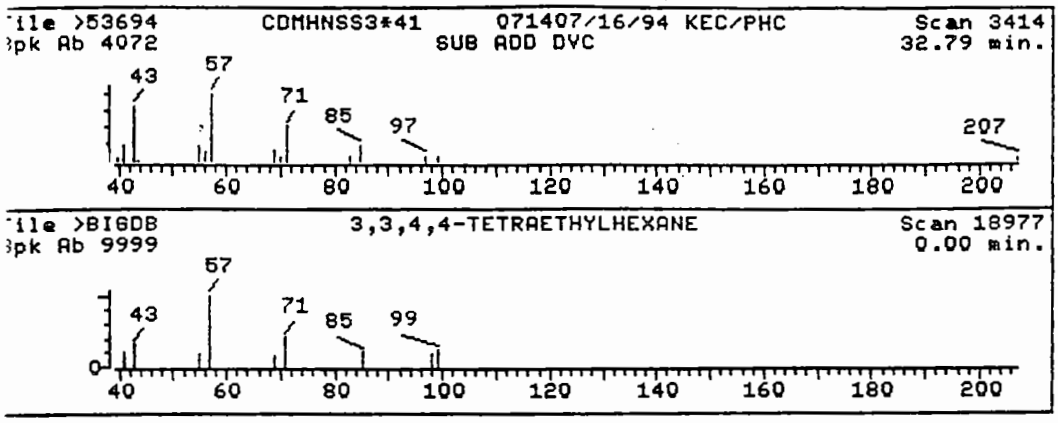
TIC # 3 . Area = 55531.00 Tentative Conc = 110.00

1. Butanal, oxime 87 C4H9NO
2. Guanidine 59 CH5N3
3. GUANIDINE HYDROCHLORIDE 59 CH5N3

Sample file: >53694 Spectrum #: 679
Search speed: 1 Tilting option: N No. of ion ranges searched: 41

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	26*	110690	3099	"BIGDB	23	71	3	0	75	39	10	12
2.	25*	113008	3078	"BIGDB	21	46	2	0	75	41	8	13
3.	25*	113008	3626	"BIGDB	23	57	2	0	88	41	8	13

9513554.2948



Sample: CDMHNSS3*41 0714 Injected: 7/16/94 17:19

TIC # 4 . Area = 37956.00 Tentative Conc = 310.00

1. 3,3,4,4-TETRAETHYLHEXANE 198 C14H30

Sample file: >53694 Spectrum #: 3414
Search speed: 1 Tilting option: N No. of ion ranges searched: 43

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	28	0	18977	"BIGDB	40	22	2	0	100	37	10	14

Library Search Compound Report

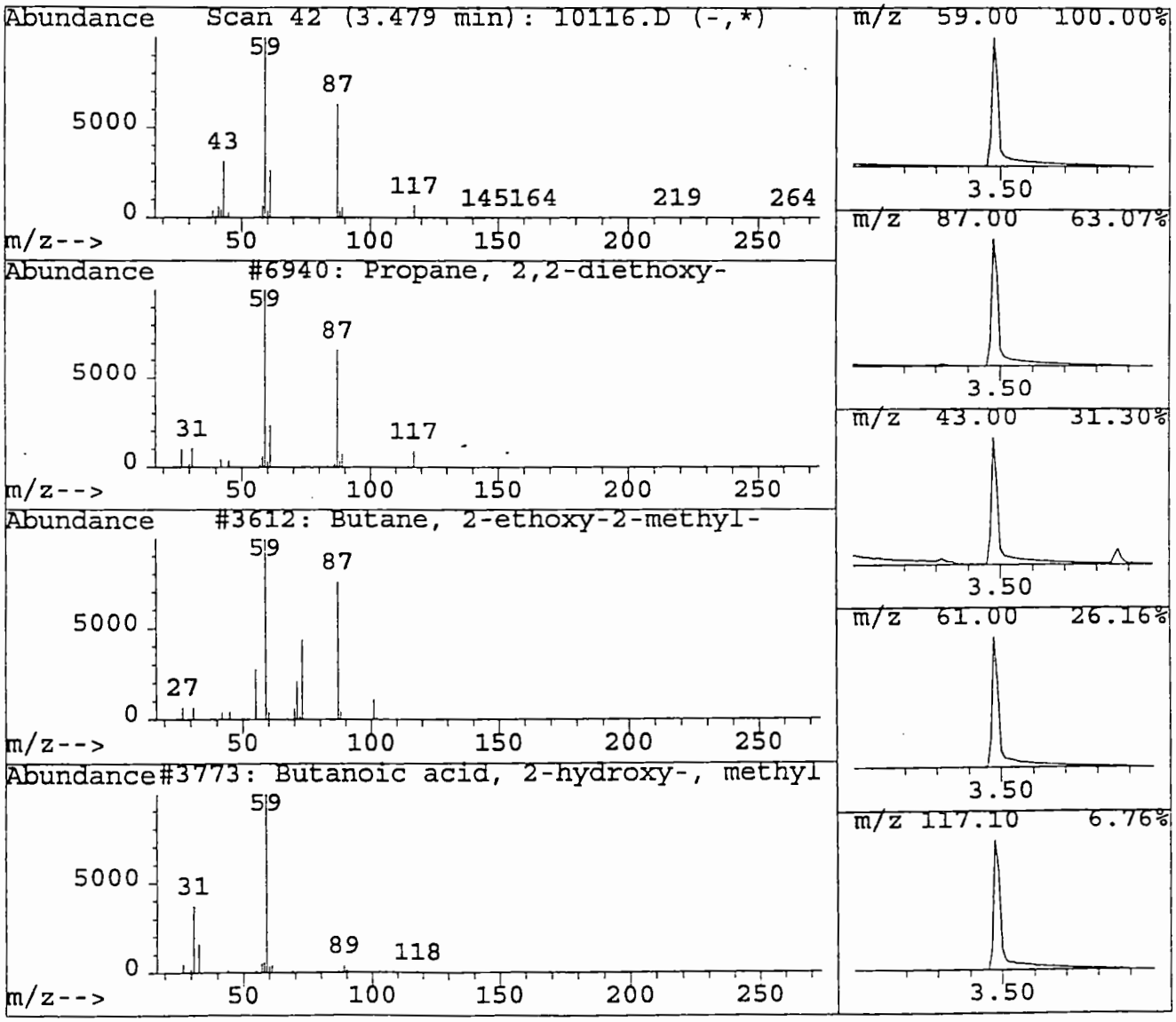
Data File : c:\hpchem\1\data\8270\non-epc\10116.d
Acq On : 18 Jul 94 3:58 pm
Sample : CDMHNSS3*42
Misc :

Vial: 12
Operator: PHC\WSK
Inst : NVO6
Multiplr: 66.67

Method : c:\HPCHEM\1\METHODS\CLPBNAS.M
Title : 8270 NON-EPC CALIBRATION
Library : C:\DATABASE\WILEY138.L

R.T.	Conc	Area	Relative to ISTD	R.T.
3.48	1489.13 ug/Kg	3132232	1,4-Dichlorobenzene-d4	7.30

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Propane, 2,2-diethoxy-	6940	000126-84-1	83
2	Butane, 2-ethoxy-2-methyl-	3612	000919-94-8	45
3	Butanoic acid, 2-hydroxy-, methyl e	3773	029674-47-3	38
4	2,3-Butanediol, 2,3-dimethyl-	3828	000076-09-5	25
5	Morpholine	142	000110-91-8	9



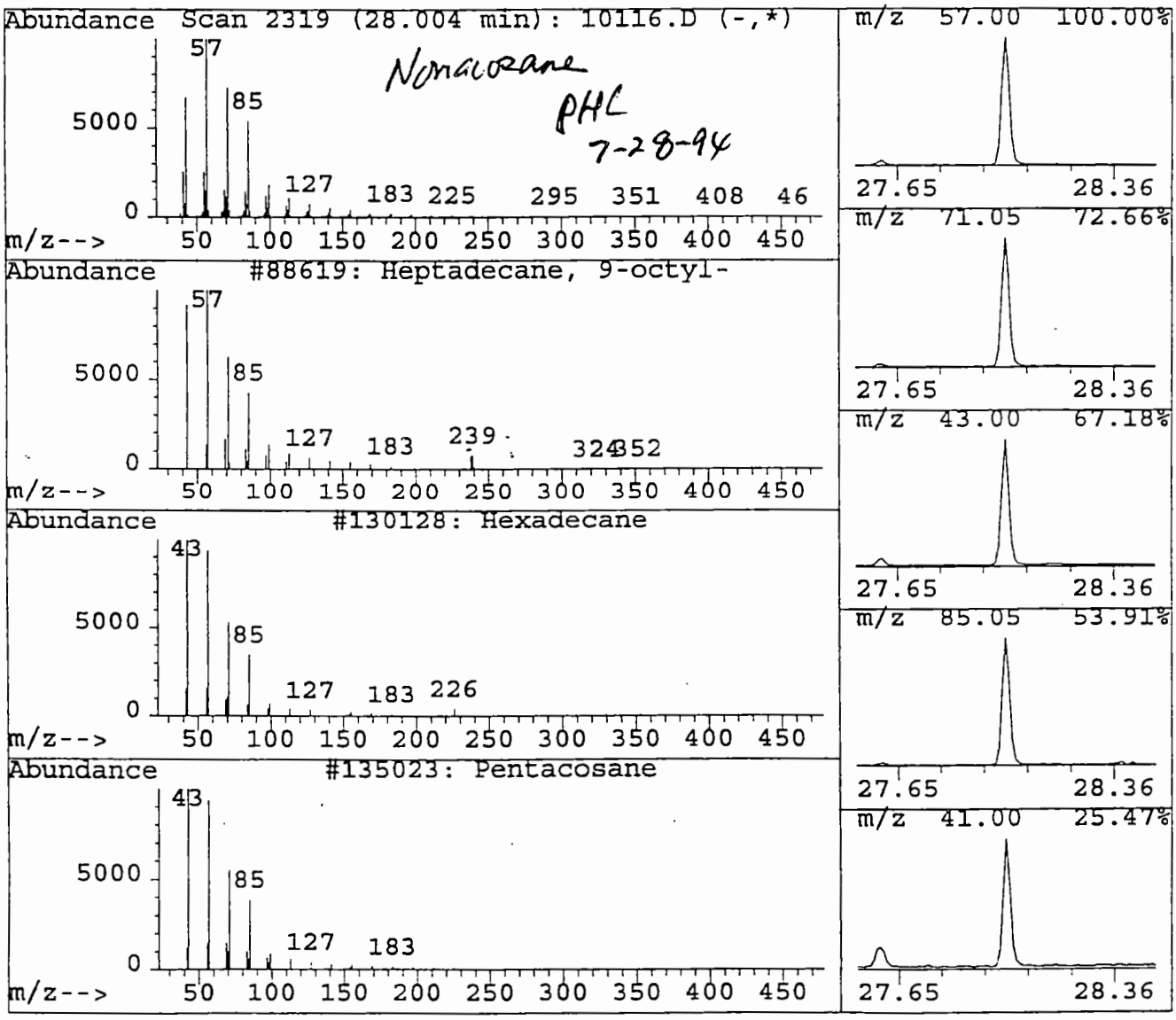
Library Search Compound Report

Data File : c:\hpchem\1\data\8270\non-epc\10116.d Vial: 12
Acq On : 18 Jul 94 3:58 pm Operator: PHC\WSK
Sample : CDMHNSS3*42 Inst : NVO6
Misc : Multiplr: 66.67

Method : c:\HPCHEM\1\METHODS\CLPBNAS.M
Title : 8270 NON-EPC CALIBRATION
Library : C:\DATABASE\WILEY138.L

R.T.	Conc	Area	Relative to ISTD	R.T.
28.00	654.47 ug/Kg	1812137	Perylene-d12	28.41

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Heptadecane, 9-octyl-	88619	007225-64-1	95
2	Hexadecane	130128	000544-76-3	95
3	Pentacosane	135023	000629-99-2	91
4	Docosane	133781	000629-97-0	91
5	Octacosane	135948	000630-02-4	91



Library Search Compound Report

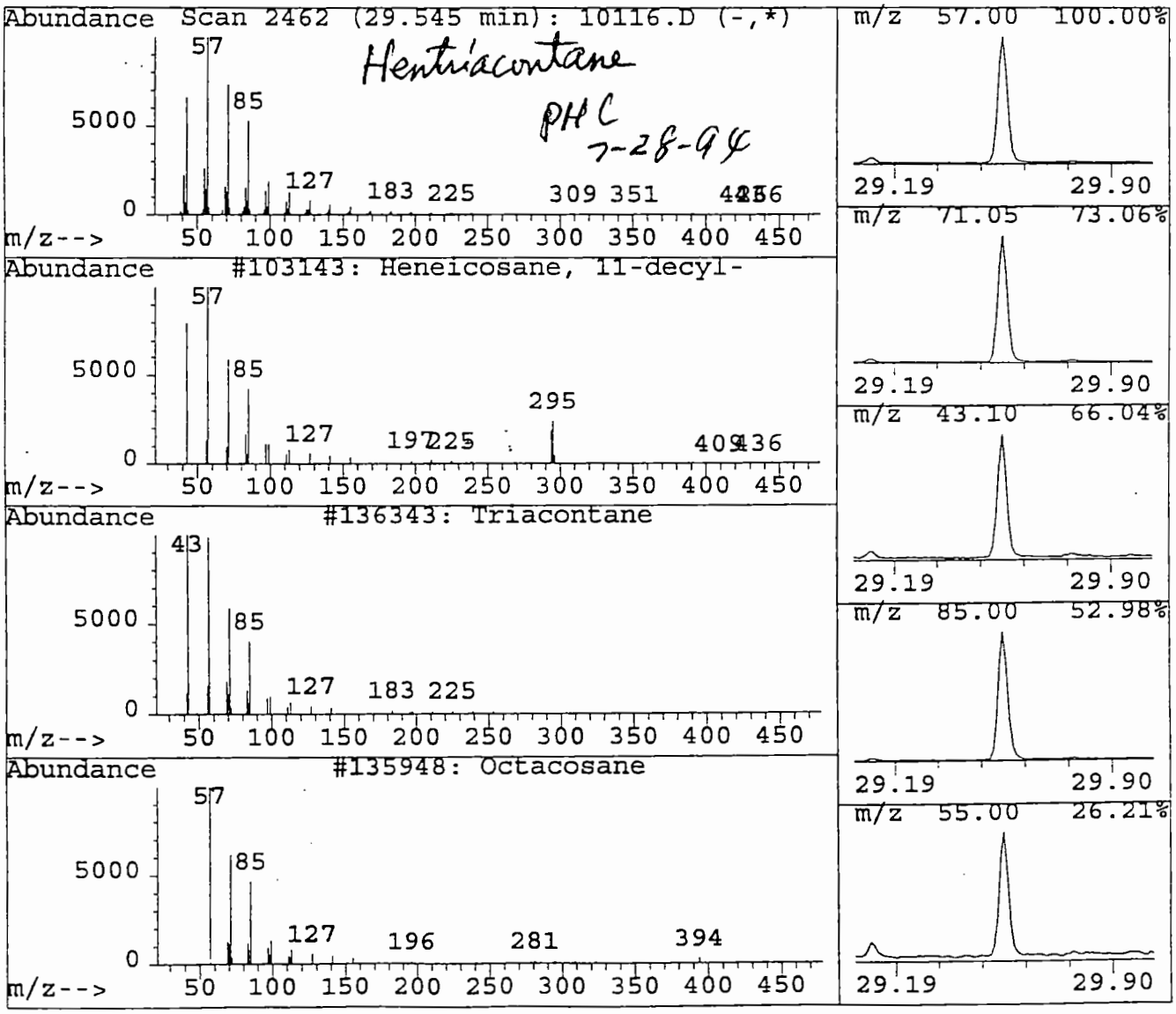
Data File : c:\hpchem\1\data\8270\non-epc\10116.d
Acq On : 18 Jul 94 3:58 pm
Sample : CDMHNSS3*42
Misc :

Vial: 12
Operator: PHC\WSK
Inst : NVO6
Multiplr: 66.67

Method : c:\HPCHEM\1\METHODS\CLPBNAS.M
Title : 8270 NON-EPC CALIBRATION
Library : C:\DATABASE\WILEY138.L

R.T.	Conc	Area	Relative to ISTD	R.T.
29.54	512.29 ug/Kg	1418458	Perylene-d12	28.41

Hit# of 20	Tentative ID	Ref#	CAS#	Qual
1	Heneicosane, 11-decyl-	103143	055320-06-4	94
2	Triacontane	136343	000638-68-6	91
3	Octacosane	135948	000630-02-4	91
4	Docosane	133781	000629-97-0	91
5	Pentacosane	135023	000629-99-2	91



000402

9513354.2950

1E

EPA SAMPLE NO.

WC1-01

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

L ame:ESE Contract:CDM-HANFORD

Lab Code:ESE Case No.:51586 SAS No.: SDG No.:51586

Matrix: (soil/water) SOIL Lab Sample ID:CDMHNSS3*43

Sample wt/vol: 5.00 (g/ml) G Lab File ID: 00298

Level: (low/med) LOW Date Received: 7/15/94

% Moisture: not dec. 3 Date Analyzed: 7/28/94

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 11

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	75-69-4	Trichlorofluoromethane	4.82	6.	JN
2.	0	1,1,2,3-TETRAMETHYLCYCLOHEXA	17.52	11.	JN
3.	0	Unknown	17.78	70.	J
4.	0	Unknown	17.87	24.	J
5.	591-48-0	Cyclohexene, 3-methyl-	18.08	14.	JN
6.	17302-28-2	Nonane, 2,6-dimethyl-	18.42	13.	JN
7.		Unknown	18.79	11.	J
	0	1-ETHYL-2,2,6-TRIMETHYLCYCLO	19.39	22.	JN
	91-17-8	Naphthalene, decahydro-	19.75	22.	JN
10.	0	Unknown	20.10	13.	J
11.	95-73-8	Benzene, 2,4-dichloro-1-meth	21.66	11.	JN
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

MS data file header from : >00298

Sample: CDMHNSS3*43 Operator: USER96 MS 7/28/94 12:23
Misc : 07/28/94
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: MF96S Tuning file: MT9201 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 200 Transfer line temp. : 230

Chromatographic temperatures :	10.	170.	0.	0.	0.
Chromatographic times, min. :	3.0	5.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	10.0	0.0	0.0	0.0	0.0

>00298 CDMHNSS3*43 07/28/94
35.01 300.0 CLP ADC TIC
Upslope: .20 Area Reject: 57410. Max Peaks: 10 Bunching: 1
Dnslope: 0.00 Results File I00298 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	17.52	690	694	698	28549	177166	129461	16.02	5.364
2	17.78	698	705	707	123099	865391	808076	100.00	33.481
3	17.87	707	709	711	63358	318277	274846	34.01	11.388
4	18.08	716	718	724	29264	231908	157385	19.48	6.521
5	18.42	731	733	736	35067	229892	144107	17.83	5.971
6	18.79	746	749	753	19279	270639	121718	15.06	5.043
7	19.39	768	775	782	27056	499936	250235	30.97	10.368
8	19.75	786	791	796	34872	405375	254481	31.49	10.544
9	20.10	801	806	809	21646	251851	144524	17.88	5.988
10	21.66	870	874	879	25323	179855	128705	15.93	5.333

Sum of corrected areas: 2413538.

Summary of Unknowns PBM Library Search and Quantitation

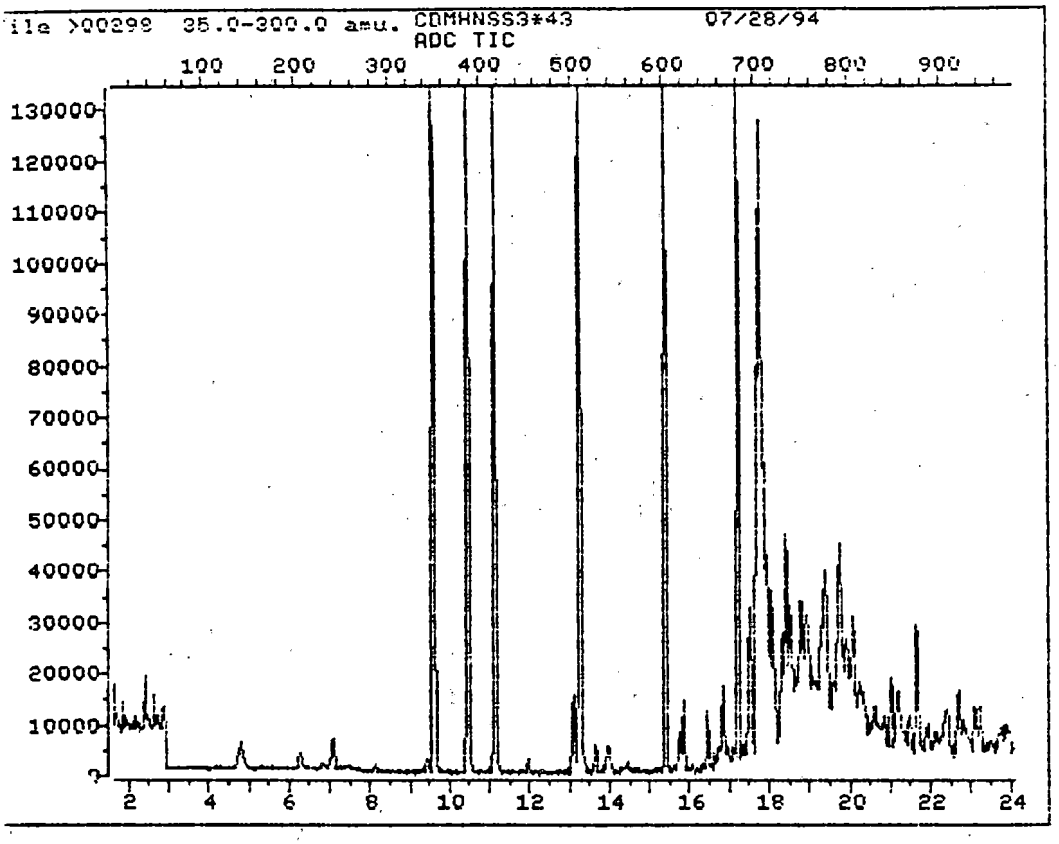
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	655928.	9.61	1.63 - 10.38
2	50.0	739379.	11.15	10.38 - 13.28
3	50.0	574104.	15.41	13.28 - 24.07

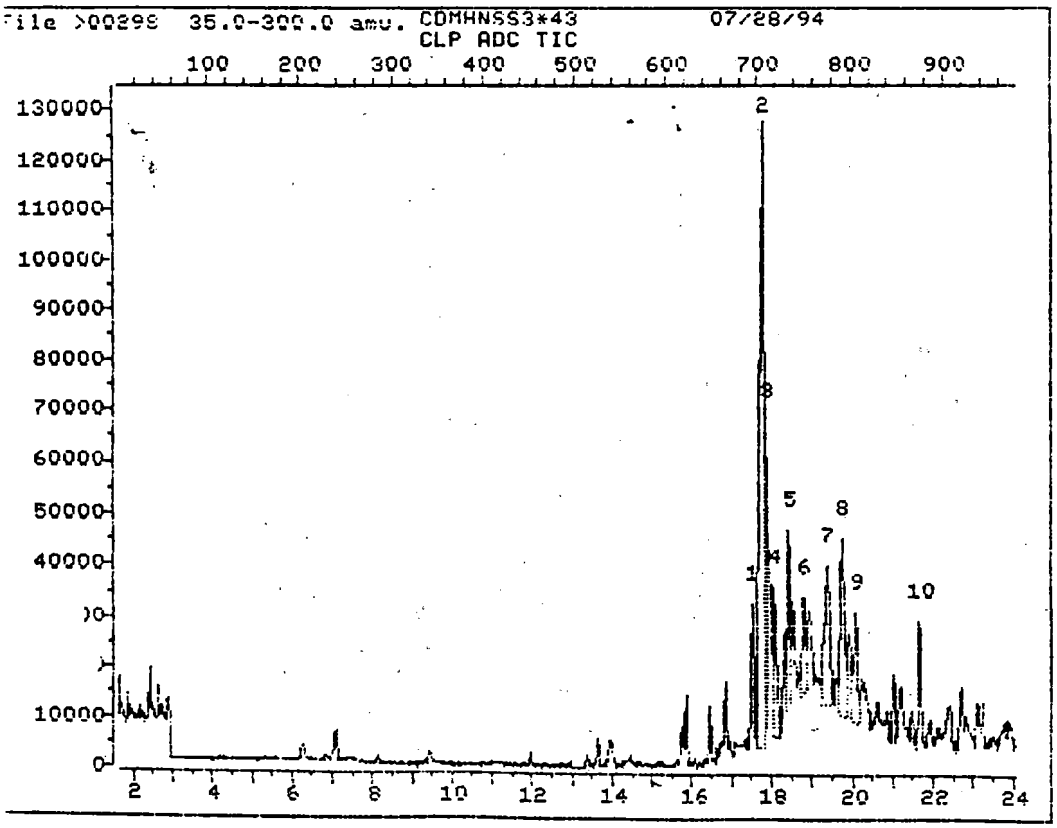
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 0.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

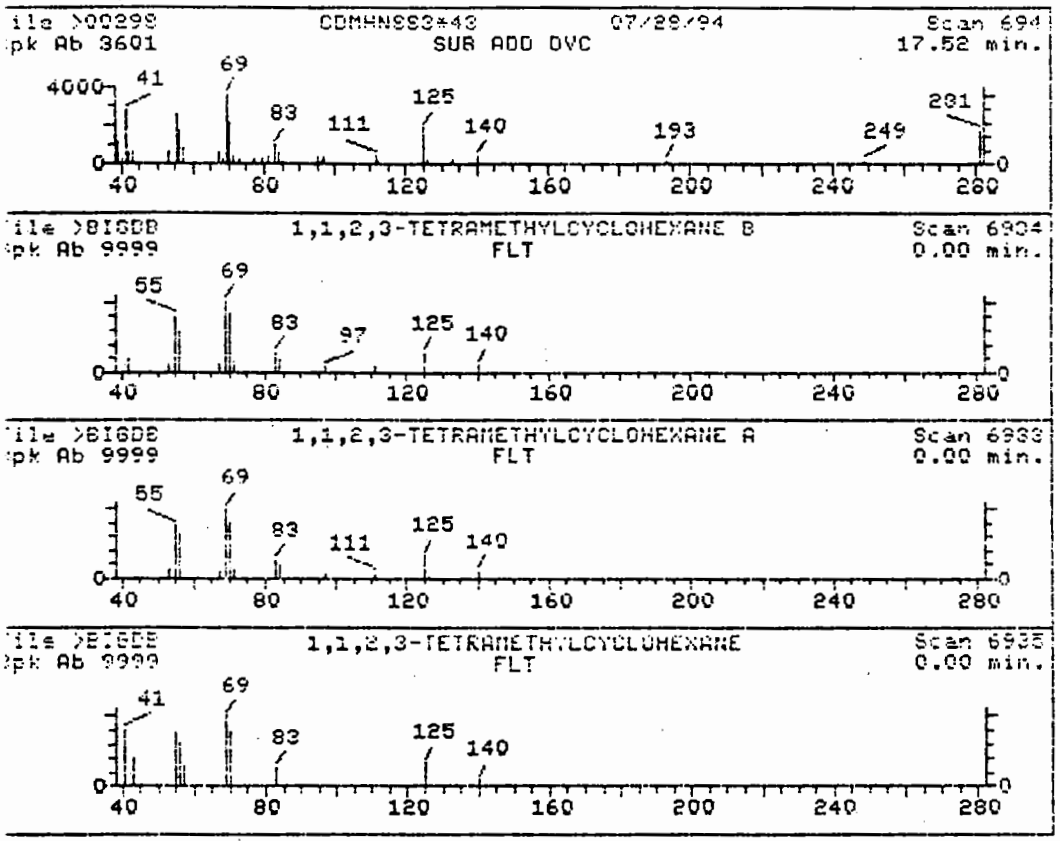
Correction Factor = ******** = (AM / AU) / (DF * FS)

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

3:53 PM THU., 28 JULY, 1994


File >00299 35.0-300.0 amu. CDMHNSS3*43 07/28/94
ADC TIC
100 200 300 400 500 600 700 800 900
130000
120000
110000
100000
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
2 4 6 8 10 12 14 16 18 20 22 24


File >00298 35.0-300.0 amu. CDMHNSS3*43 07/28/94
CLP ADC TIC
100 200 300 400 500 600 700 800 900
130000
120000
110000
100000
90000
80000
70000
60000
50000
40000
10000
0
2 4 6 8 10 12 14 16 18 20 22 24
2
3
4
5
6
7
8
9
10



Unknown #.1
Area = 129461.0 Tentative Concentration is 11.00

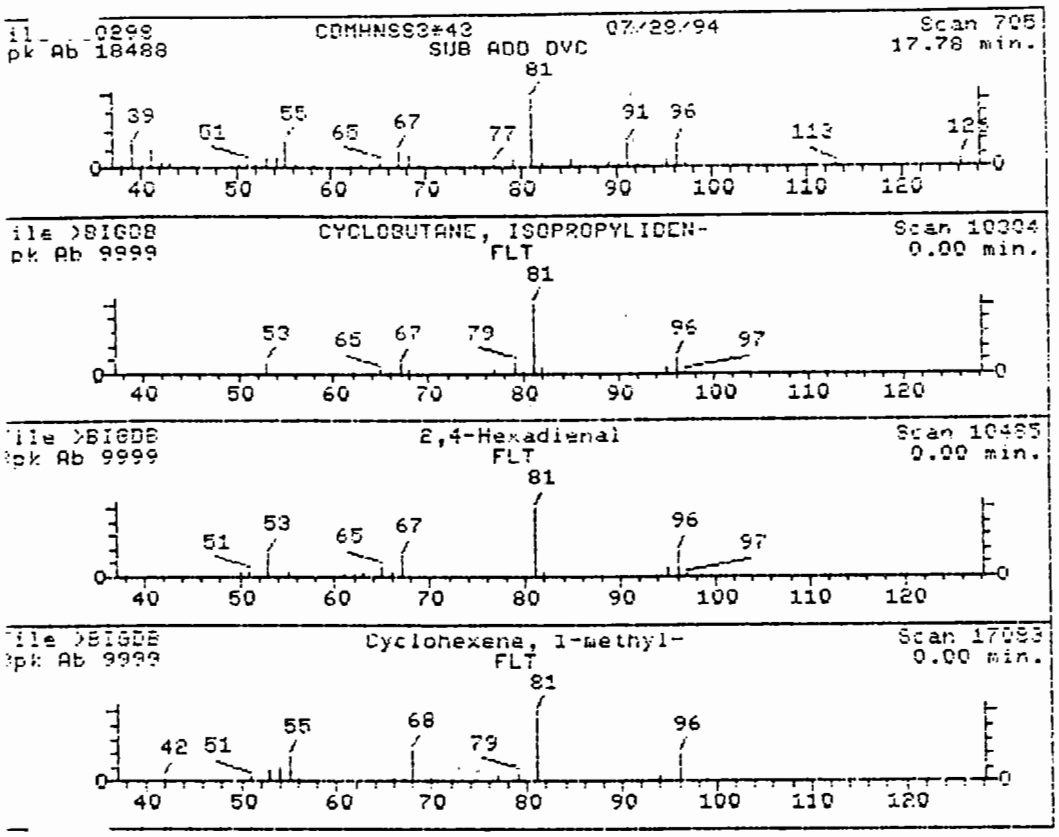
1.	1,1,2,3-TETRAMETHYLCYCLOHEXANE B	140 C10H20
2.	1,1,2,3-TETRAMETHYLCYCLOHEXANE A	140 C10H20
3.	1,1,2,3-TETRAMETHYLCYCLOHEXANE	140 C10H20
4.	4-Octene, 2,6-dimethyl-, [S-(Z)]-	140 C10H20
5.	CYCLOHEXANE, 1,1,4,4-TETRAMETHYL-	140 C10H20
6.	1H-1,2,4-Triazole, 1-butyl-	125 C8H11N3
7.	3-DECENE, CIS=TRANS	140 C10H20

Sample file: >00298 Spectrum #: 694
Search speed: 1 Tilting option: N No. of ion ranges searched: 42

	Prob.	CAS #	CON #	ROOT	K	DK	*FLG	TILT	%	CON	C_I	R_IU
1.	91*	0	6934	"BIGDB	77	38	0	0	71	30	57	93
2.	88*	0	6933	"BIGDB	70	43	0	0	74	29	43	89
3.	62*	0	6935	"BIGDB	54	28	1	0	72	30	25	49
4.	30	62960774	6932	"BIGDB	57	42	2	0	126	40	10	16
5.	26*	0	28369	"BIGDB	31	76	2	0	81	42	8	14
6.	20*	6086222	28311	"BIGDB	40	78	3	0	73	52	5	13
7.	15*	0	6938	"BIGDB	35	74	3	0	66	60	3	13

yah 7/29/94

9513354.2952



Unknown #2
Area = 808026.0 Tentative Concentration is 70.0

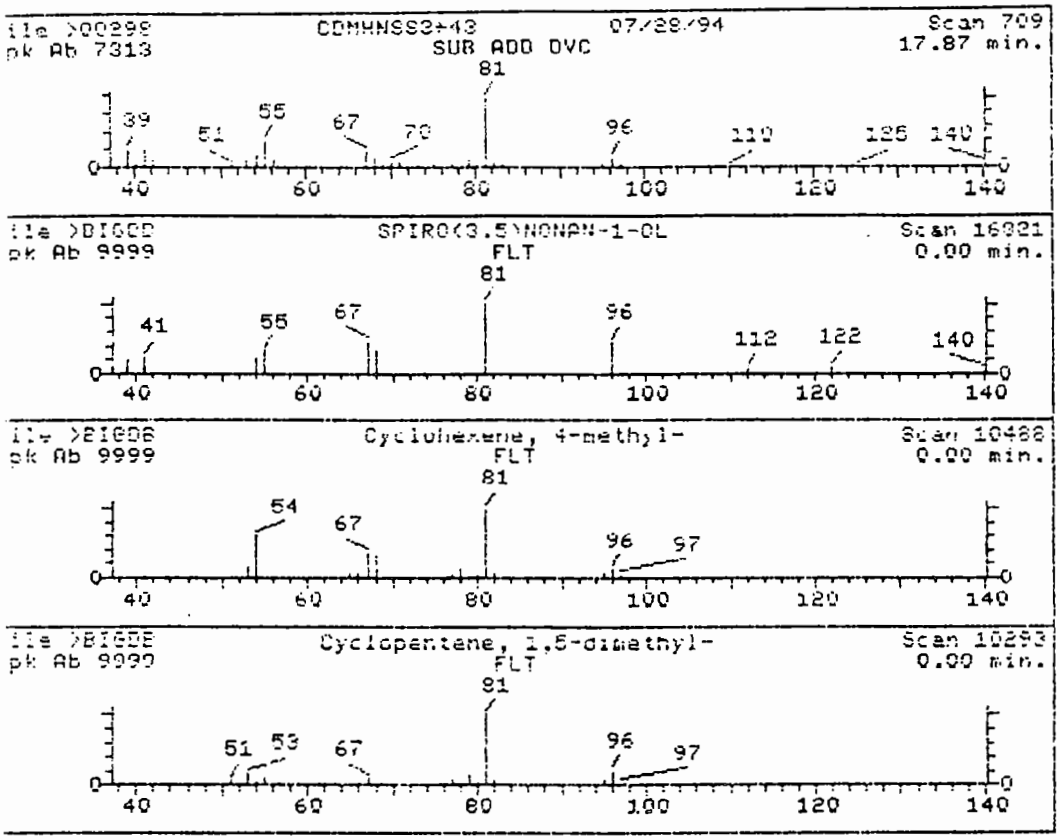
1.	CYCLOBUTANE, ISOPROPYLIDEN-	96	C7H12
2.	2,4-Hexadienal	96	C6H8O
3.	Cyclohexene, 1-methyl-	96	C7H12
4.	Cyclohexene, 4-methyl-	96	C7H12
5.	2,4-Hexadienal	96	C6H8O
6.	Bicyclo[4.1.0]heptane	96	C7H12
7.	2,4-Hexadienal, (E,E)-	96	C6H8O

Sample file: >00298 Spectrum #: 705
Search speed: 1 Tilting option: N No. of ion ranges searched: 41

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_TO
1.	59*	0	10304	"BIGDB	48	44	0	0	67	37	21	57
2.	48*	142836	10485	"BIGDB	51	42	2	0	75	32	20	32
3.	45*	591491	17083	"BIGDB	48	45	2	0	79	34	16	28
4.	42*	591479	10489	"BIGDB	41	54	2	0	68	27	14	19
5.	36*	142836	10484	"BIGDB	32	72	3	0	100	27	14	13
6.	36*	286088	10493	"BIGDB	32	79	3	0	117	27	14	13
7.	35*	4488486	10290	"BIGDB	30	61	0	0	66	37	14	22

unknown
ysH 7/29/94

000407



Unknown #.3
Area = 274846.0 Tentative Concentration is 94.08

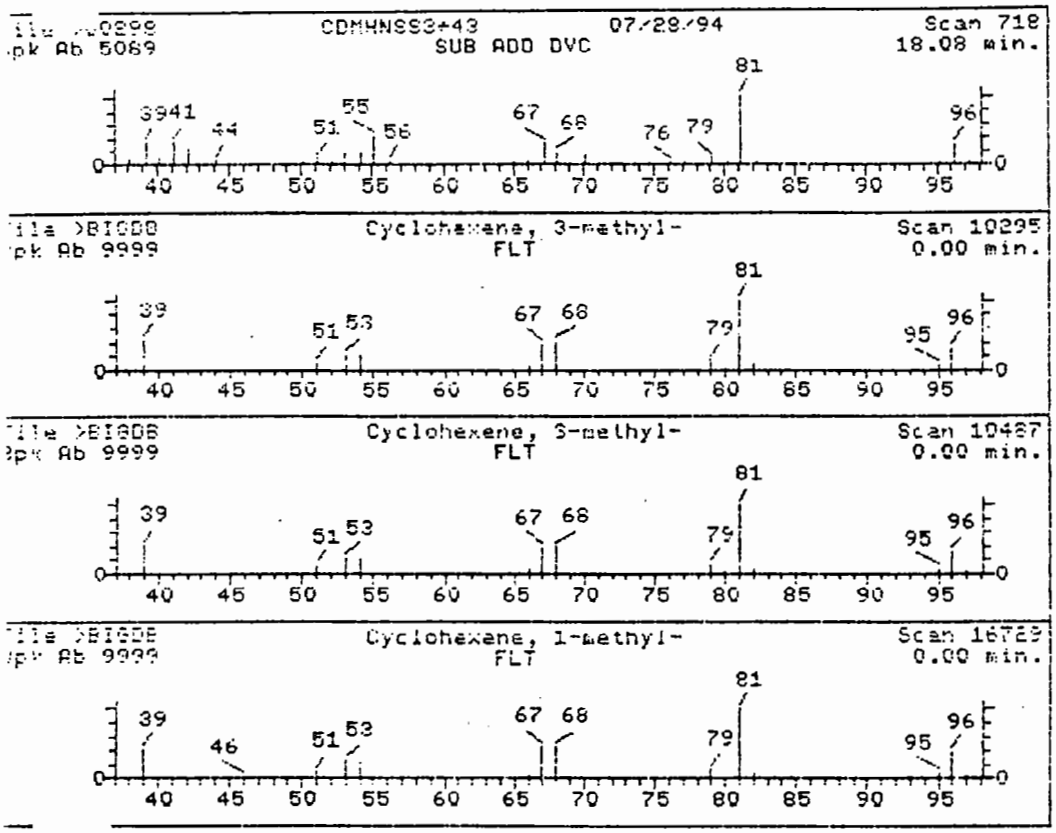
1.	SPIRO(3.5)NONAN-1-OL	140	C9H16O
2.	Cyclohexene, 4-methyl-	96	C7H12
3.	Cyclopentene, 1,5-dimethyl-	96	C7H12
4.	1-Octyne	110	C8H14
5.	Cyclopentane, 1-methyl-2-methylene-	96	C7H12
6.	1,4-Pentadiene, 3,3-dimethyl-	96	C7H12
7.	2-CYCLOPENTENCARBONIC ACID, 1-METHYL-	126	C7H10O2

Sample file: >00298 Spectrum #: 709
Search speed: 1 Tilting option: N No. of ion ranges searched: 41

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_J	R_TO
1.	52*	0	16821	"BIGDB	23	62	3	0	100	19	20	12
2.	42*	581479	10488	"BIGDB	36	62	3	0	100	24	17	13
3.	41*	16491159	10293	"BIGDB	45	44	2	0	69	31	16	24
4.	30*	6298050	10496	"BIGDB	43	55	2	0	38	42	8	18
5.	30*	41158412	10303	"BIGDB	38	59	1	0	61	46	10	21
6.	30*	1112352	10300	"BIGDB	25	63	3	0	100	33	12	3
7.	28	0	10341	"BIGDB	40	39	2	0	67	40	10	14

Unknown

yst 7/29/94



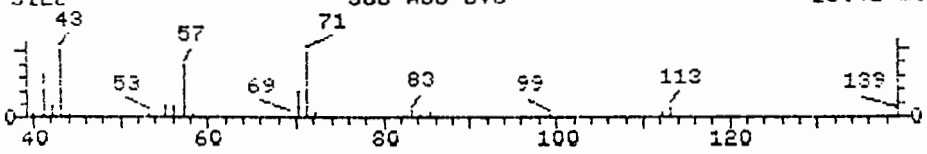
Unknown #,4
Area = 157385.0 Tentative Concentration is 14.00

1.	Cyclohexene, 3-methyl-	96 C7H12
2.	Cyclohexene, 3-methyl-	96 C7H12
3.	Cyclohexene, 1-methyl-	96 C7H12
4.	Cyclohexene, 4-methyl-	96 C7H12
5.	Cyclopentane, 1-methyl-2-methylene-	96 C7H12
6.	Cyclohexene, 1-methyl-	96 C7H12
7.	2,4-Hexadiene, 2-methyl-	96 C7H12

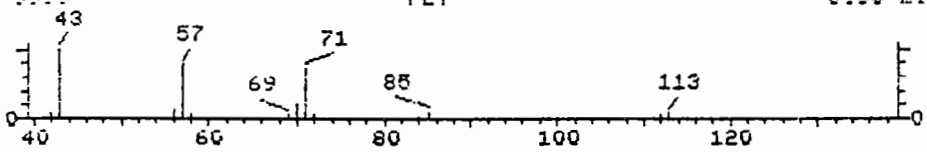
Sample file: >00298 Spectrum #: 718
Search speed: 1 Tilting option: N No. of ion ranges searched: 41

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	86*	591480	10295	"BIGDB	83	23	1	0	70	20	50	80
2.	86*	591480	10487	"BIGDB	83	23	1	0	70	20	50	80
3.	64*	591491	16729	"BIGDB	67	42	2	0	68	21	28	46
4.	55*	591479	10490	"BIGDB	47	27	2	0	68	24	22	27
5.	54*	41158412	10303	"BIGDB	44	53	1	0	78	21	22	26
6.	54*	591491	17083	"BIGDB	52	41	2	0	78	28	24	34
7.	51*	28823418	17082	"BIGDB	54	51	2	0	66	28	24	31

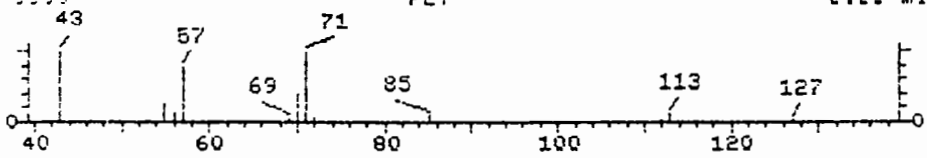
File >00299 CDMHNSS3#43 07/28/94 Scan 733
pk Ab 5122 SUB ADD DVC 18.42 min.



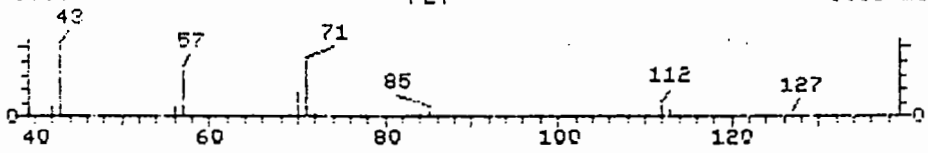
File >BIGDB Nonane, 2,6-dimethyl- Scan 7414
pk Ab 9999 FLT 0.00 min.



File >BIGDB Octane, 3,3-dimethyl- Scan 7364
pk Ab 9999 FLT 0.00 min.



File >BIGDB Decane, 4-methyl- Scan 7409
pk Ab 9999 FLT 0.00 min.



Unknown # 5
Area = 144100.0 Tentative Concentration is 13 ug

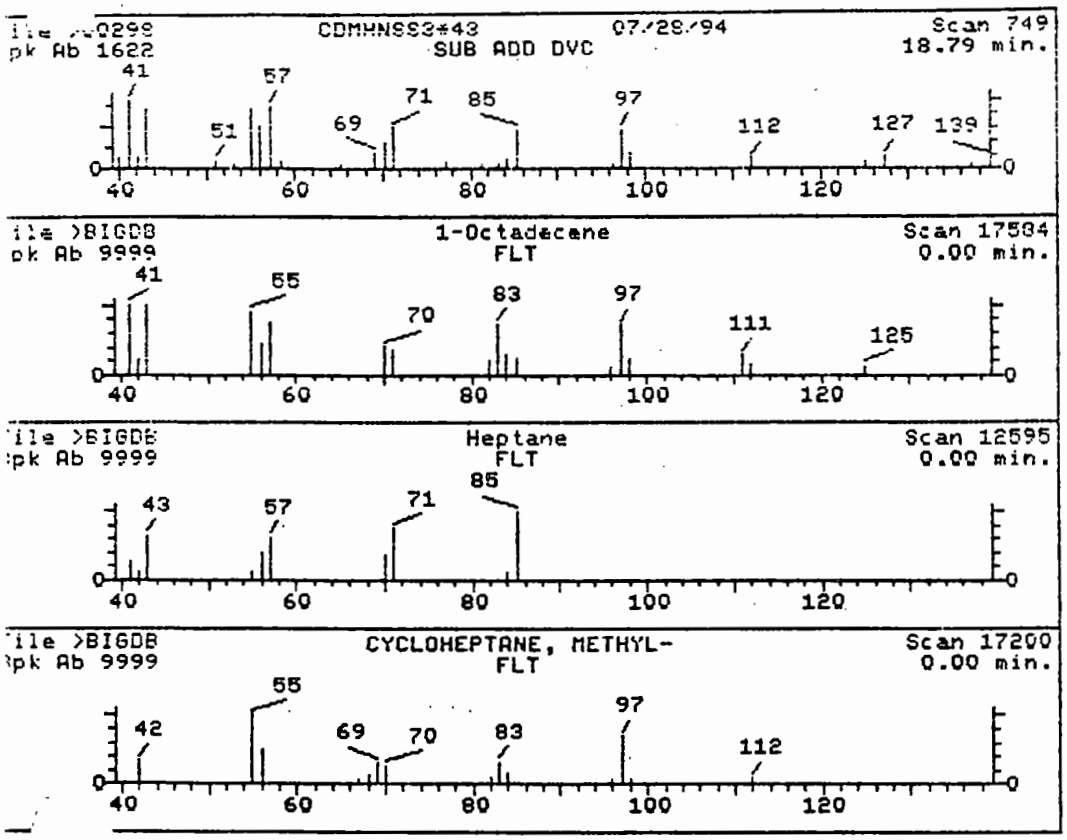
1.	Nonane, 2,6-dimethyl-	156	C11H24
2.	Octane, 3,3-dimethyl-	142	C10H22
3.	Decane, 4-methyl-	156	C11H24
4.	Decane, 4-methyl-	156	C11H24
5.	Heptane, 3,3,5-trimethyl-	142	C10H22
6.	Heptane, 3,3,5-trimethyl-	142	C10H22
7.	Heptane, 3,3,5-trimethyl-	142	C10H22

Sample file: >00299 Spectrum #: 733
Search speed: 1 Tilting option: N No. of ion ranges searched: 43

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_T	R_TO
1.	76	17302282	7414	"BIGDB	68	23	2	0	97	7	45	24
2.	76	4110445	7364	"BIGDB	68	30	2	0	97	7	45	24
3.	76	2847725	7409	"BIGDB	69	32	2	0	97	7	45	24
4.	76	2847725	7703	"BIGDB	66	29	2	0	100	8	45	23
5.	70	7154805	7676	"BIGDB	42	48	2	0	97	7	42	12
6.	70	7154805	7359	"BIGDB	49	35	2	0	97	7	42	12
7.	70	7154805	7675	"BIGDB	52	40	2	0	97	7	42	17

yah 7/29/94

9513554.2954



Unknown #,6
Area = 121718.0 Tentative Concentration is 11.00

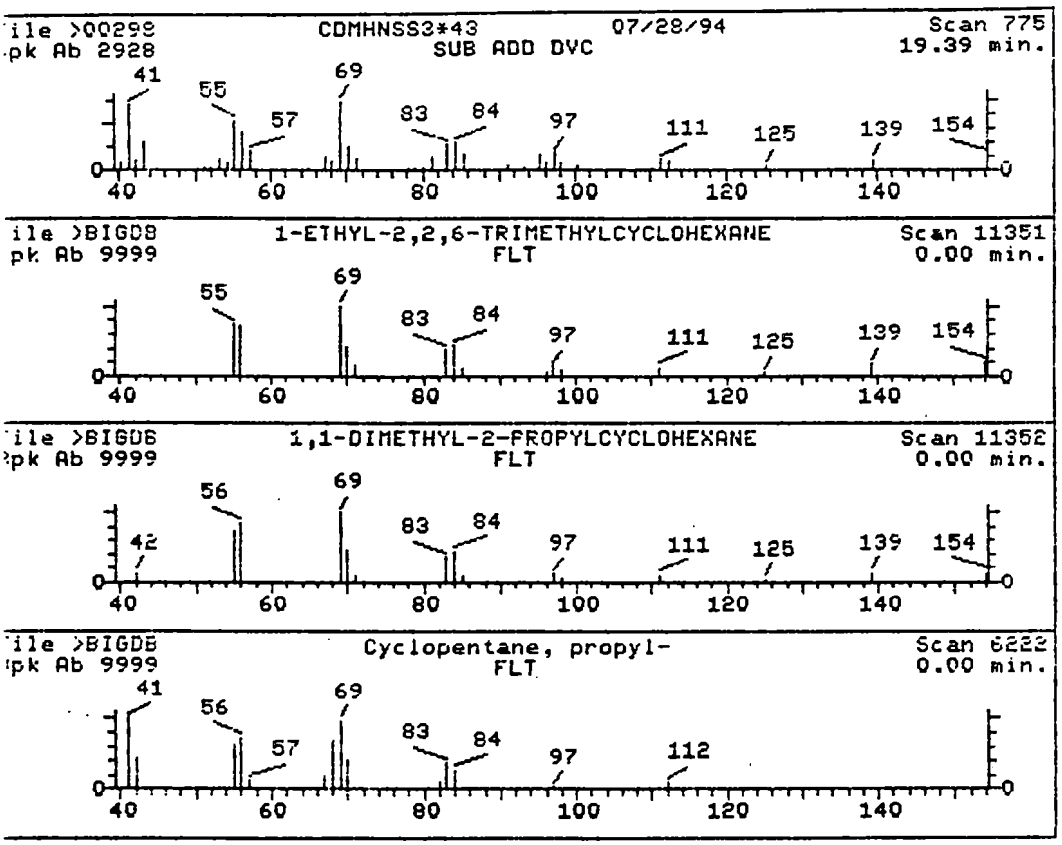
1. 1-Octadecene	252	C18H36
2. Heptane	100	C7H16
3. CYCLOHEPTANE, METHYL-	112	C8H16
4. 1-Octene	112	C8H16
5. 1-Hexene, 5,5-dimethyl-	112	C8H16
6. 1-Hexene, 5,5-dimethyl-	112	C8H16

Sample file: >00298 Spectrum #: 749
Search speed: 1 Tilting option: N No. of ion ranges searched: 43

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	25	112889	17584	"BIGDB	70	92	3	0	79	46	7	12
2.	20	142825	12595	"BIGDB	25	69	0	0	57	52	5	12
3.	15*	0	17200	"BIGDB	29	77	3	0	80	57	3	13
4.	11*	111660	17773	"BIGDB	38	49	2	0	129	63	2	19
5.	11*	7116861	17199	"BIGDB	28	58	3	0	235	64	2	13
6.	11*	7116861	17774	"BIGDB	33	20	3	0	161	65	2	14

Unknowns

yah 7/29/94



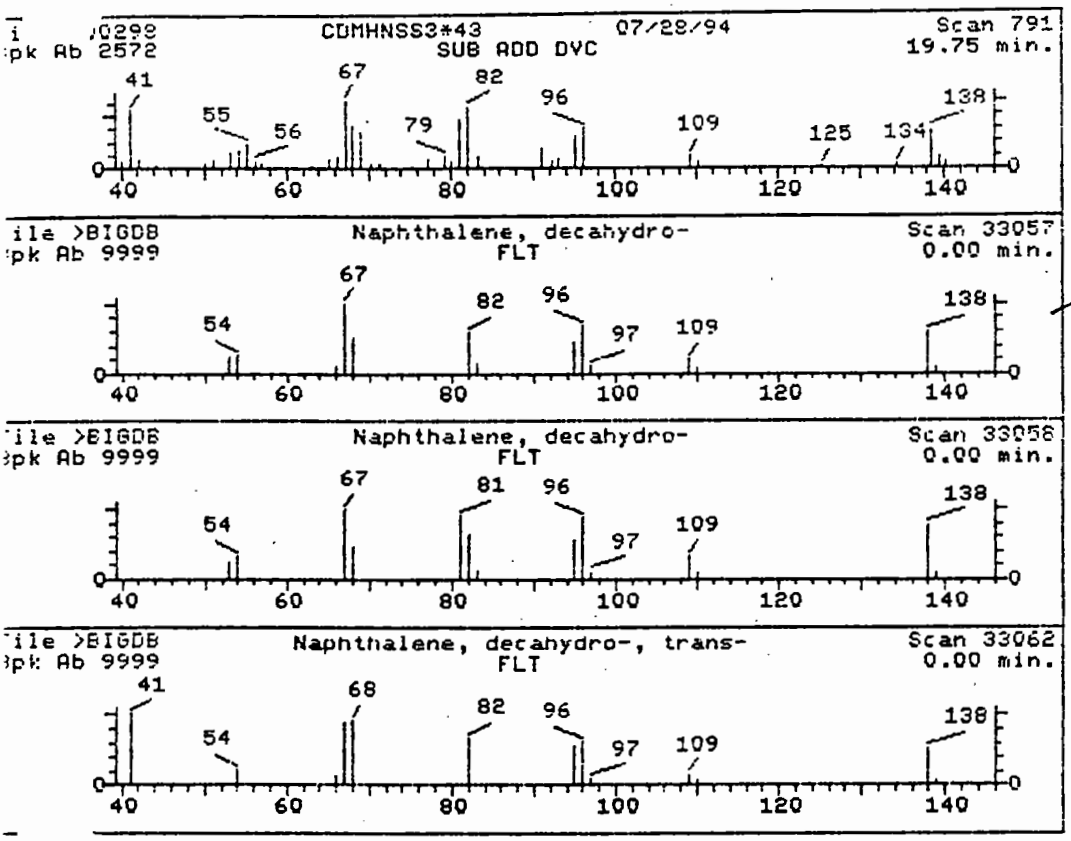
Unknown #.7
Area = 250235.0 Tentative Concentration is 22.00

1.	1-ETHYL-2,2,6-TRIMETHYLCYCLOHEXANE	154	C11H22
2.	1,1-DIMETHYL-2-PROPYLCYCLOHEXANE	154	C11H22
3.	Cyclopentane, propyl-	112	C8H16
4.	Decane, 4-methylene-	154	C11H22
5.	2-Decene, 4-methyl-, (Z)-	154	C11H22
6.	2-Pentene, 2-methyl-	84	C6H12
7.	Cyclohexane, 2-butyl-1,1,3-trimethyl-	182	C13H26

Sample file: >00298 Spectrum #: 775
Search speed: 1 Tilting option: N No. of ion ranges searched: 47

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	93*	0	11351	"BIGDB	76	43	0	0	76	14	64	93
2.	77*	0	11352	"BIGDB	82	36	1	0	77	33	32	78
3.	45*	2040962	6222	"BIGDB	61	54	3	0	78	34	16	28
4.	42*	24949415	2311	"BIGDB	45	43	3	0	239	27	14	19
5.	41*	74630301	6349	"BIGDB	31	68	0	0	100	33	16	24
6.	35*	625274	6628	"BIGDB	35	50	0	0	94	50	11	36
7.	35	54676390	6730	"BIGDB	71	60	3	0	73	28	14	12

7/29/94

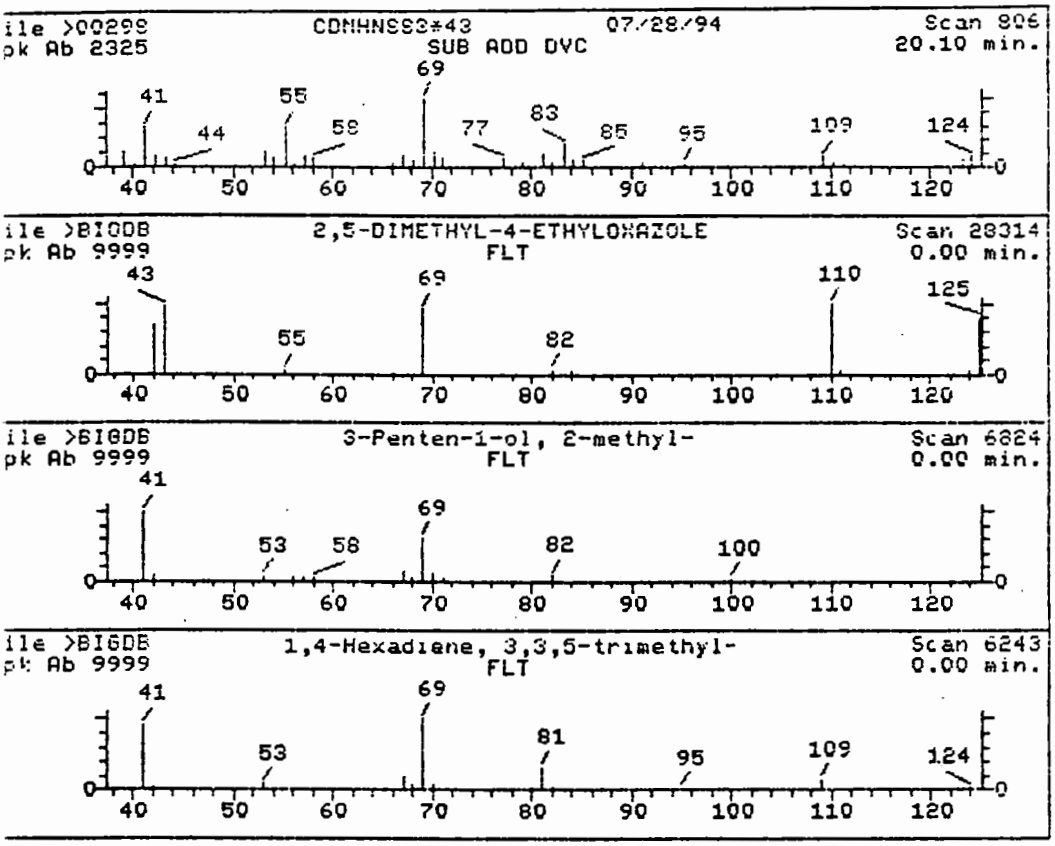


Unknown # 8
Area = 254481.0 Tentative Concentration is 22.00

1.	Naphthalene, decahydro-	138	C10H18
2.	Naphthalene, decahydro-	138	C10H18
3.	Naphthalene, decahydro-, trans-	138	C10H18
4.	1,1'-Bicyclopentyl	138	C10H18
5.	Naphthalene, decahydro-, cis-	138	C10H18
6.	Naphthalene, decahydro-, cis-	138	C10H18
7.	Cyclododecene, (Z)-	166	C12H22

Sample file: >00298 Spectrum #: 791
Search speed: 1 Tilting option: N No. of ion ranges searched: 43

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_I
1.	92*	91178	33057	"BIGDB	92	32	1	0	85	14	64	9[illegible]
2.	68*	91178	33058	"BIGDB	77	50	2	0	66	22	30	5[illegible]
3.	64*	493027	33062	"BIGDB	66	56	2	0	86	25	28	45
4.	59*	1636391	17106	"BIGDB	70	46	2	0	106	39	21	50
5.	57*	493016	33060	"BIGDB	55	63	1	0	86	31	22	42
6.	54*	493016	32836	"BIGDB	61	68	2	0	65	33	20	38
7.	52	1129891	16879	"BIGDB	71	58	3	0	90	16	20	12



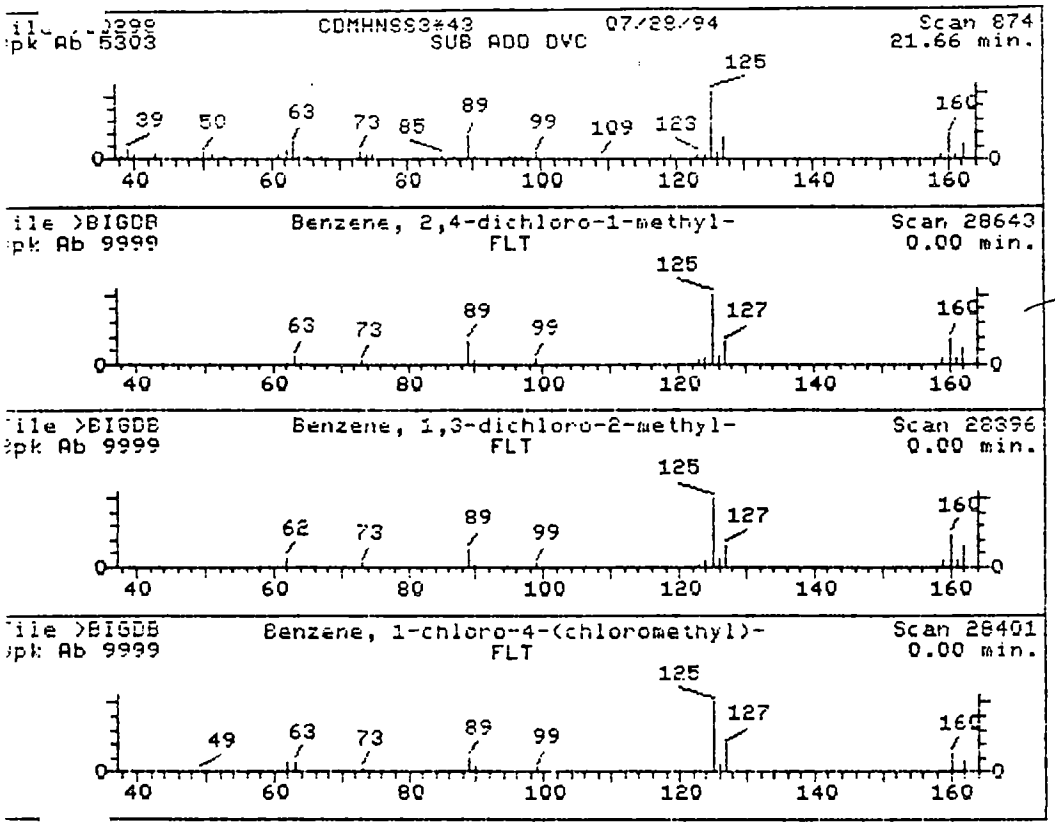
Unknown #.9
Area = 144524.0 Tentative Concentration is 13.00

1. 2,5-DIMETHYL-4-ETHYLOXAZOLE	125	C7H11NO
2. 3-Penten-1-ol, 2-methyl-	100	C6H12O
3. 1,4-Hexadiene, 3,3,5-trimethyl-	124	C9H16
4. 1H-1,2,4-Triazole, 1-butyl-	125	C6H11N3
5. 2,6-Octadiene, 4-methyl-	124	C9H16
6. Methanone, dicyclopropyl-	110	C7H10O

Sample file: >00298 Spectrum #: 806
Search speed: 1 Tilting option: N No. of ion ranges searched: 41

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	26*	0	28314	"BIGDB	23	77	3	0	78	39	10	12
2.	25	62238373	6824	"BIGDB	41	43	2	0	148	47	7	14
3.	25*	74753007	6243	"BIGDB	32	56	3	0	100	50	7	13
4.	25*	6086222	28311	"BIGDB	34	84	3	0	96	44	8	13
5.	20*	74498945	6242	"BIGDB	26	52	1	0	75	53	5	14
6.	20*	1121375	6676	"BIGDB	24	57	1	0	85	55	5	14

unknown [illegible] 7/29/94



Unknown #,10
Area = 128705.0 Tentative Concentration is 11.00

1.	Benzene, 2,4-dichloro-1-methyl-	160	C7H6Cl2
2.	Benzene, 1,3-dichloro-2-methyl-	160	C7H6Cl2
3.	Benzene, 1-chloro-4-(chloromethyl)-	160	C7H6Cl2
4.	2,3-DICHLOROTOLUENE	160	C7H6Cl2
5.	Benzene, 1-chloro-4-(chloromethyl)-	160	C7H6Cl2
6.	Benzene, 1-chloro-3-(chloromethyl)-	160	C7H6Cl2
7.	Benzene, (dichloromethyl)-	160	C7H6Cl2

Sample file: >00298 Spectrum #: 874
Search speed: 1 Tilting option: N No. of ion ranges searched: 41

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IO
1.	95*	95738	28643	"BIGDB	88	20	0	0	76	13	64	96
2.	92*	118694	28396	"BIGDB	73	38	0	0	74	15	64	92
3.	79*	104836	28401	"BIGDB	52	57	0	0	81	15	43	63
4.	79*	0	28405	"BIGDB	35	28	2	0	71	11	43	66
5.	64*	104836	28644	"BIGDB	40	57	0	0	93	22	28	41
6.	64*	620202	28399	"BIGDB	40	57	0	0	95	25	28	41
7.	63*	98873	28394	"BIGDB	35	62	0	0	97	20	30	32

Chain–of–Custody Forms

F6260

CHAIN OF CUSTODY RECORD

CDM Federal Programs Corporation

PROJECT NAME Hanford North Slope

PROJECT NUMBER

Field Log Book Reference No.

SAMPLE NUMBER			DATE	TIME	SAMPLE LOCATION	SAMPLE TYPE	ANALYSES 8260 / 8270 / 8080 / 6010/7000	NUMBER OF CONTAINERS	LOG. BOOK PG. NO.	REMARKS
94PSN90	VR-01-	003	7/12/94	~~1400~~ 1445 MTM	PSN90 BOX 388	SOIL	2 1 2	5	8	2-120ml (VOCs) 3-250ml (metals, SVOCs/Pest/PCBs) *1
94PSN90	VR-02-	001	7/12/94	~~1445~~ 1500 MTM	PSN90 BOX 389	SOIL	2 1 2	5	8	2-120ml (VOCs) 2-250ml (SVOCs/Pest/PCBs) 1-250ml metals *2
										CDMHNS53*1
										CDMHNS53*2

ESE SAMPLE RECEIVING

LDD: 7/16/94

Field Group/#: CDMHNS53

Storet List: CDMHNS53.1 (4)

Custody Seal(s) Intact?: (Y) N N.A.

Cooler Temp. (°C): 4

Preservation Audited? Y N (N.A.)

MTM 7/13/94

SAMPLED BY (SIGN) Randall Roberts, CDM cooler T = 4°C

RELINQUISHED BY (SIGN)	RELINQUISHED BY (SIGN)	RELINQUISHED BY (SIGN)	RELINQUISHED BY (SIGN)	RELINQUISHED BY (SIGN)
① Randall Roberts DATE/TIME (7/12/94 1645)	② Michael F. McGowan DATE/TIME (7/13/94 1103)	③ DATE/TIME (/)	④ DATE/TIME (/)	⑤ DATE/TIME (/)
RECEIVED BY (SIGN)	**RECEIVED BY (SIGN)**	**RECEIVED BY (SIGN)**	**RECEIVED BY (SIGN)**	**RECEIVED BY (SIGN)**
① Michael F. McGowan DATE/TIME (7/12/94 1647)	② To Airbill DATE/TIME (7/13/94 1103)	③ DATE/TIME (7/14/94 1100)	④ DATE/TIME (/)	⑤ DATE/TIME (/)

METHOD OF SHIPMENT	SHIPPED BY (SIGN)	RECEIVED FOR LABORATORY BY (SIGN)	DATE/TIME
FedEx 015848427 0	Michael F. McGowan	ED MANSFIELD	(7/14/94 1100)

Copies: Ship with Samples

LEGEND: Original: Return to Sample Traffic Control Center

000417

F6260

CHAIN OF CUSTODY RECORD

CDM Federal Programs Corporation

PROJECT NAME HANFORD NORTH SLOPE (PSN90) (1GL00) PROJECT NUMBER 6110-008

Field Log Book Reference No. BSN90 book & Sample logbook

SAMPLE NUMBER			DATE	TIME	SAMPLE LOCATION	SAMPLE TYPE	ANALYSES: GC/MS 8240	GC/MS 8270	GC/MS 8010/8020		NUMBER OF CONTAINERS	LOG. BOOK PG. NO.	REMARKS ESE#
3 94PSN90	BKG-01-	002	7/13/94	0815	PSN90 BOC3C2	SOIL			X		2X125	12	CDMHNSS3
94PSN90	BKG-01-	002	7/13/94	0815	PSN90 BOC3C2	SOIL		X			1X250	12	*3
94PSN90	BKG-01-	002	7/13/94	0815	PSN90 ↓	SOIL				X	2X250	12	
94PSN90	VR-01	EB1	7/13/94	1505	PSN90 BOC3C1	H_2O			X		amber 3X40ml	11,12	HCl & ice CDMHNSW3
↓	↓	↓	↓	↓	↓	↓				X	amber 4, 1 Ltr	11,12	Ice only *3
										X	poly 1, 1 Ltr	11,12	HNO_3 & ice
4 94IGL	BKG-01-	002	7/14/94	0930	1GL00 BOC3C3	SOIL			X		2X125		CDMHNSS3
94IGL	BKG-01-	002	7/14/94	0930	1GL00 BOC3C3	SOIL				X	1X250		*4
94IGL	BKG-01-	002	7/14/94	0930	1GL00 BOC3C3	SOIL				X	2X250		

USE SAMPLE RECEIVING

LDD: 7/19/94

Field Group/#: CDMHNSS3 *3/4 / CDMHNSW3 *3

Storet List: CDMHNSS3.1 / CDMHNSW3.1

Custody Seal(s) Intact?: (Y) N N.A.

Cooler Temp. (C): 2

Preservation Audited? (Y) N N.A.

SAMPLED BY (SIGN) [signature], EB1 also sampled w/ MT

RELINQUISHED BY (SIGN)	RELINQUISHED BY (SIGN)	RELINQUISHED BY (SIGN)	RELINQUISHED BY (SIGN)	RELINQUISHED BY (SIGN)
① [signature]	② Michael F. McGowan	③	④	⑤
DATE/TIME (7/13/94 1400)	DATE/TIME (7/14/94 1200)	DATE/TIME (/)	DATE/TIME (/)	DATE/TIME (/)
RECEIVED BY (SIGN)	**RECEIVED BY (SIGN)**	**RECEIVED BY (SIGN)**	**RECEIVED BY (SIGN)**	**RECEIVED BY (SIGN)**
① Michael F. McGowan	② TO AIRBILL	③	④	⑤
DATE/TIME 7/13/94 1400	DATE/TIME 7/14/94 1200	DATE/TIME (/)	DATE/TIME (/)	DATE/TIME (/

METHOD OF SHIPMENT	SHIPPED BY (SIGN)	RECEIVED FOR LABORATORY BY (SIGN)	DATE/TIME
FedEx 0158484233	Michael F. McGowan	[signature]	7/15/94 1200 (Noon)

Copies: Ship with Samples

LEGEND: Original: Return to Sample Traffic Control Center

00418

F621

CHAIN OF CUSTODY RECORD

CDM Federal Programs Corporation

PROJECT NAME HANFORD NORTH SLOPE (H83C) PROJECT NUMBER 6110-007

Field Log Book Reference No. _____

	SAMPLE NUMBER			DATE	TIME	SAMPLE LOCATION	SAMPLE TYPE	ANALYSES 9260	8270/8080	6010/7000	NUMBER OF CONTAINERS	LOG. BOOK PG. NO.	REMARKS ESG#
	94H83C	BKG-01-	002	7/15/94	0800	H83C BOC3C4	SOIL	X			2x125	22	CDMHN553*5
5	94H83C	BKG-01-	002		↓	BOC3C4	↓		X		1x250	↓	↓
	94H83C	BKG-02-	002		↓	BOC3C4				X	1x250		↓
6	94H83C	BKG-02-	002		1030	BOC3C5		X			2x125		CDMHN553*6
	94H83C	BKG-02-	002		↓	BOC3C5			X		1x250		↓
	94H83C	BKG-02-	002		↓	BOC3C5	↓			X	1x250	↓	↓
7	94H83C	SP-01-	001		1045	H-83C BOC3C8	↓			X	2x250	↓	CDMHN553*7
8	94PSN01	SP-01-	001	↓	1130	PSN01 BOC3C9	↓			X	2x250	↓	CDMHN553*8

SAMPLED BY (SIGN) Randall Robertson

RELINQUISHED BY (SIGN)	RELINQUISHED BY (SIGN)	RELINQUISHED BY (SIGN)	RELINQUISHED BY (SIGN)	RELINQUISHED BY (SIGN)
① Randall Robertson	② Michael F. McGowan	③	④	⑤
DATE/TIME 7/15/94 0945	DATE/TIME 7/15/94 1300	DATE/TIME (/)	DATE/TIME (/)	DATE/TIME (/)
RECEIVED BY (SIGN)	**RECEIVED BY (SIGN)**	**RECEIVED BY (SIGN)**	**RECEIVED BY (SIGN)**	**RECEIVED BY (SIGN)**
① Michael F. McGowan	② To Airbill	③	④	⑤
DATE/TIME 7/15/94 0945	DATE/TIME 7/15/94 1300	DATE/TIME (/)	DATE/TIME (/)	DATE/TIME (/)

METHOD OF SHIPMENT	SHIPPED BY (SIGN)	RECEIVED FOR LABORATORY BY (SIGN)	DATE/TIME
Fed Ex 0158484211	Michael F. McGowan	[illegible]	(7/16/94 1200)

LEGEND: Original: Return to Sample Traffic Control Center Copies: Ship with Samples

00419

9416094.2958

ESE

F6260

CHAIN OF CUSTODY RECORD

CDM Federal Programs Corporation

PROJECT NAME USACE Hanford North Slope

PROJECT NUMBER 6110-007

Field Log Book Reference No. 1

SAMPLE NUMBER			DATE	TIME	SAMPLE LOCATION	SAMPLE TYPE	ANALYSES 8260	8240/8270	6010/7000	NUMBER OF CONTAINERS	LOG. BOOK PG. NO.	REMARKS
94BOV2	BG1-01	002	07/12/94	1420	BOV2 BOC3C0	Soil		X		2x125	8	CDMHN553*41
94BOV2	BG1-01	002	07/12/94	1420	BOV2 BOC3C0	Soil			X	1x250	8	↓
94BOV2	BG1-01	002	07/12/94	1420	BOV2 BOC3C0	Soil			X	1x250	8	↓

ESE SAMPLE RECEIVING

LDD: 7/16/94

Field Group/#: CDMHN553

Stonet List: CDMHN553.1

Custody Seal(s) Intact?: (Y) N N.A.

Cooler Temp. (°C): 4

Preservation Audited? Y N (N.A.)

7/13/94

SAMPLED BY (SIGN) Charles L. Montelaro, CDM COOLER. T = 4°C

RELINQUISHED BY (SIGN)	RELINQUISHED BY (SIGN)	RELINQUISHED BY (SIGN)	RELINQUISHED BY (SIGN)	RELINQUISHED BY (SIGN)
① Charles L. Montelaro	② Michael F. McGowan	③	④	⑤
DATE/TIME (1535 7/12/94)	DATE/TIME (7/13/94 1103)	DATE/TIME (/)	DATE/TIME (/)	DATE/TIME (/)
RECEIVED BY (SIGN)	RECEIVED BY (SIGN)	RECEIVED BY (SIGN)	RECEIVED BY (SIGN)	RECEIVED BY (SIGN)
① Michael F. McGowan	② A To Arb 11	③	④	⑤
DATE/TIME (1556 7/12/94)	DATE/TIME (7/13/94 1103)	DATE/TIME (/)	DATE/TIME (/)	DATE/TIME (/)

METHOD OF SHIPMENT	SHIPPED BY (SIGN)	RECEIVED FOR LABORATORY BY (SIGN)	DATE/TIME
FedEx 0158484270	Michael F. McGowan	Michael Jones ED MANSFIELD	(7/14/94 1100)

Copies: Ship with Samples

LEGEND: Original: Return to Sample Traffic Control Center

0004220

F6260

CHAIN OF CUSTODY RECORD

CDM Federal Programs Corporation

PROJECT NAME HANFORD N. SLOPE

PROJECT NUMBER 6110-009

Field Log Book Reference No. 1

SAMPLE NUMBER			DATE	TIME	SAMPLE LOCATION	SAMPLE TYPE	ANALYSES 6260 / 8270/8080 / 6010/7000	NUMBER OF CONTAINERS	LOG. BOOK PG. NO.	REMARKS
941214	BG1-01	002	7/15/94	0730	PSN 1214 BOC3C6	SOIL	X	2x125mL	33	CDMHN553*42
42 941214	BG1-01	002	7/15/94	0730	PSN-1214 BOC3C6	SOIL	X	1x250mL	33	↓
941214	BG1-01	002	7/15/94	0730	PSN 1214 BOC3C6	SOIL	X	1x250mL	33	
941214	WC1-01	000	7/15/94	0900	PSN 1214 BOC3C7	SOIL	X	2x125mL	33	CDMHN553*43
43 941214	WC1-01	000	7/15/94	0900	PSN 1214 BOC3C7	SOIL	X	1x250mL	33	
941214	WC1-01	000	7/15/94	0900	PSN 1214 BOC3C7	SOIL	X	2x250mL	33	EXTRA VOLUME

ESE SAMPLE RECEIVING

LOD: 7/20/94

Field Group #: CDMHN553 *

Sterat List: CDMHN553.1

Custody Seal(s) Intact?: Y N N.A.

Cooler Temp. (°C): 4°

Preservation Audited? Y N N.A.

SAMPLED BY (SIGN)

RELINQUISHED BY (SIGN)	RELINQUISHED BY (SIGN)	RELINQUISHED BY (SIGN)	RELINQUISHED BY (SIGN)	RELINQUISHED BY (SIGN)
① BEADLEY R ZOLLA	② Michael F. McGowan	③	④	⑤
DATE/TIME (7/15/94 1010)	DATE/TIME (7/15/94 1300)	DATE/TIME (/)	DATE/TIME (/)	DATE/TIME (/)
RECEIVED BY (SIGN)	**RECEIVED BY (SIGN)**	**RECEIVED BY (SIGN)**	**RECEIVED BY (SIGN)**	**RECEIVED BY (SIGN)**
① Michael F. McGowan	② Pa Airhill	③	④	⑤
DATE/TIME (7/15/94 1020)	DATE/TIME (7/15/94 1300)	DATE/TIME (/)	DATE/TIME (/)	DATE/TIME (/)

METHOD OF SHIPMENT	SHIPPED BY (SIGN)	RECEIVED FOR LABORATORY BY (SIGN)	DATE/TIME
Fed Ex 158484211	Michael F. McGowan		(7/16/94 1200)

Pa 7-17-94

LEGEND: Original: Return to Sample Traffic Control Center

Copies: Ship with Samples

12000

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